



2013 RULES

AMERICAN LE MANS SERIES

Incorporating:

- § The IMSA CODE
- § The Series Standing Supplementary Regulations
- § The ACO Technical Regulations



Sanctioned by the
International
Motor Sports
Association



Certain Parts of this document
are Copyright of the
Automobile Club de L'Ouest and
are used here by permission.

Revision Date: 28 February 2013

FOREWORD

2013 RULES of the American Le Mans Series

We are pleased to provide you with the 2013 edition of the Rules of the American Le Mans Series.

MEMBERS AND PARTICIPANTS ARE REQUIRED TO REVIEW THESE RULES CAREFULLY. Please review the section in the Foreword of the IMSA CODE that indicates "How to Read the Rules."

|| Except for matters of grammar, non-regulatory sections or annual changes, changes to the IMSA text are indicated by a double line on the left hand side.

|| Changes incorporated from the DRAFT version to the FINAL version are indicated by a unique double line as indicated on the left hand side.

Both IMSA and the ACO use electronic means as the primary method of distributing information and rules updates. Therefore participants are urged to regularly check the websites.

ACO = www.lemans.org

IMSA = www.imsaracing.net

For all participants, these Rules, all together, establish the foundation for the organization and conduct of all IMSA sanctioned American Le Mans Series Events and take effect immediately upon publication.

IMSA wishes all of you the best for a safe and successful season in 2013.

Scot E. Elkins
Chief Operating Officer

TABLE OF CONTENTS

Rules of the American Le Mans Series 2013

FOREWORD.....	2
NOTICES	11
THE IMSA CODE	12
FOREWORD	13
PREFACE	14
ARTICLE 1 -- CONTROL OF COMPETITION	15
1.1 INTERNATIONAL CONTROL.....	15
1.2 NATIONAL CONTROL	15
1.3 IMSA CONTROL.....	15
1.4 ACKNOWLEDGEMENT OF RULES	15
ARTICLE 2 -- DEFINITIONS AND TERMS	16
2.1 IMSA.....	16
2.2 IMSA CODE	16
2.3 COMPETITION	16
2.4 EVENT	16
2.5 SANCTION (ORGANIZING PERMIT)	16
2.6 DRIVER.....	16
2.7 ENTRANT	16
2.8 PROMOTER/ORGANIZER.....	16
2.9 PARTICIPANT	16
2.10 WEIGHTS AND MEASURES	16
ARTICLE 3 -- MEMBERSHIP, CREDENTIALS, LICENSES AND ENTRIES	16
3.1 MEMBERSHIP	16
3.2 CREDENTIALS.....	16
3.3 IMSA DRIVER'S LICENSE	17
3.4 IMSA ENTRANT'S LICENSE.....	17
3.5 FIA LICENSE	17
3.6 APPLICATION FORMS	17
3.7 ENTRIES.....	17
3.8 ENTRY ACCEPTANCE AND REFUSAL.....	18
3.9 FALSIFICATION	18
3.10 WITHDRAWAL.....	18
ARTICLE 4 -- EVENTS	18
4.1 ORGANIZATION.....	18
4.2 APPROVAL.....	18
4.3 SANCTIONS	18
4.4 SUPPLEMENTARY REGULATIONS (SR).....	18

- 4.5 SERIES STANDING SUPPLEMENTARY REGULATIONS (SSR) 18
- 4.6 REQUIRED INSURANCE COVERAGES 18
- 4.7 CLASSIFICATION 18
- 4.8 COURSE 19
- 4.9 AWARDS 19
- 4.10 ADVERTISING, PROMOTION, CONTINGENT AWARDS 19
- 4.11 PAYMENT 19
- ARTICLE 5 -- GENERAL RULES & CONDUCT 19**
- 5.1 CONDUCT 19
- 5.2 RESPONSIBILITY 20
- 5.3 DRUGS AND ALCOHOL 20
- 5.4 MEDICAL RESPONSIBILITY OF PARTICIPANTS 20
- 5.5 SOUND ENFORCEMENT 21
- 5.6 RADIOS 21
- 5.7 DRIVER SAFETY EQUIPMENT 21
- 5.8 BROADCAST EQUIPMENT AND BROADCASTERS 21
- ARTICLE 6 -- RACING RULES 22**
- 6.1 FLAG SIGNALS 22
- 6.2 SAFETY CAR 23
- 6.3 MEDICAL CAR 23
- 6.4 RULES WHEN AWAY FROM THE PITS 23
- 6.5 PIT ENTRY/EXIT & SPEED LIMIT 23
- 6.6 RULES OF THE GRIDS AND PITS 24
- 6.7 QUALIFICATIONS AND STARTING POSITIONS 25
- 6.8 GRIDDING OF AUTOMOBILES 25
- 6.9 STARTS 25
- 6.10 STARTING LINE 25
- 6.11 STANDARD ROLLING START 25
- 6.12 NO START 25
- 6.13 FALSE START 26
- 6.14 STARTERS 26
- 6.15 TIMING AND SCORING 26
- 6.16 CONTROL LINE 26
- 6.17 PASSING 26
- 6.18 RACE STOPPAGE AND RESTARTS 27
- 6.19 MINIMUM DURATION 27
- 6.20 INADVERTENT OR DELAYED CHECKERED FLAG 27
- 6.21 WINNER 27
- 6.22 TIES 28
- 6.23 OFFICIAL RESULTS 28
- 6.24 OVAL TRACK PROCEDURES 28

ARTICLE 7 -- OFFICIALS 28

7.1 SUPERVISION..... 28

7.2 APPOINTMENT OF OFFICIALS 28

7.3 CONDUCT 28

7.4 SEPARATION AND PLURALITY OF DUTIES 28

7.5 RACE DIRECTOR 28

7.6 CLERK OF THE COURSE 29

7.7 STEWARDS..... 29

7.8 STARTER..... 29

7.9 TIMEKEEPER 29

7.10 TECHNICAL DIRECTOR (SCRUTINEER)..... 29

7.11 FLAG MARSHAL 30

7.12 COMMUNICATIONS MARSHAL..... 30

7.13 COURSE MARSHAL 30

7.14 CHIEF MEDICAL OFFICER 30

7.15 PIT LANE OFFICIALS 30

7.16 OTHER OFFICIALS..... 30

ARTICLE 8 -- PENALTIES 30

8.1 VIOLATIONS & PENALTIES 30

8.2 PUBLICATION 30

8.3 RANGE OF PENALTIES 30

8.4 SERVING BLACK FLAG PENALTIES..... 30

ARTICLE 9 -- PROTESTS 30

9.1 RIGHT TO PROTEST..... 30

9.2 INFORMAL INQUIRY..... 31

9.3 SUBMISSION OF PROTESTS..... 31

9.4 HEARING OF PROTESTS 31

9.5 PROTESTS AGAINST CARS..... 32

9.6 RIGHT OF REVIEW..... 32

ARTICLE 10 -- APPEALS 32

10.1 RIGHT TO APPEAL..... 32

10.2 APPEAL PROCEDURE..... 32

10.3 HEARING OF APPEALS 32

10.4 APPEAL JUDGMENT..... 33

10.5 PUBLICATION; DECISIONS, PENALTIES, PROTESTS & APPEALS 33

ARTICLE 11 -- AUTOMOBILES 33

11.1 AUTOMOBILE..... 33

11.2 TIRES..... 33

11.3 FUEL..... 33

11.4 TECHNICAL INSPECTION/MANDATORY SAFETY REQUIREMENTS..... 33

11.5 INSPECTION 33

11.6 OTHER EQUIPMENT..... 35

11.7 PRIVATE IN-CAR CAMERAS	35
STANDING SUPPLEMENTARY REGULATIONS	35
APPENDIXES	36
APPENDIX 1 -- EQUIVALENCE FORMULAE	36
APPENDIX 2 -- IMSA/SERIES DRIVER AND TEAM FIRESUIT PATCHES.....	36
APPENDIX 3 -- IMSA RADIO FREQUENCIES.....	36
STANDING SUPPLEMENTARY REGULATIONS OF THE AMERICAN LE MANS SERIES	37
PREFACE	38
SECTION 1A	39
1A.1 THE AMERICAN LE MANS SERIES CHAMPIONSHIP	39
1A.2. DRIVER CHAMPIONS.....	39
1A.3. MANUFACTURER CHAMPIONS.....	40
1A.4. TEAM CHAMPIONS	40
1A.5. IMSA PRIVATEER CUP CHAMPIONS	40
1A.6. FOUNDER'S CUP.....	40
1A.7. PIT STOP COMPETITION.....	41
1A.8. PRIZE MONEY & CUPS.....	41
SECTION 2A	42
CHAPTER I : GENERAL CONDITIONS	42
2A.1 DEFINITION OF THE EVENT.....	42
2A.2 ORGANIZATION	42
2A.3 INFORMATION ABOUT THE EVENT	42
2A.4 MAIN OFFICIALS.....	43
2A.5 ORGANIZING PERMIT	43
CHAPTER II : SPORTING RULES.....	44
ART. 1 CARS ELIGIBLE – AMERICAN LE MANS SERIES.....	44
ART. 2 FUEL.....	44
ART. 3 ENTRIES	44
ART. 4 GENERAL CONDITIONS.....	44
ART. 5 GENERAL DISCIPLINE & SAFETY.....	44
ART. 6 SPORTS CHECKS.....	46
ART. 7 SCRUTINEERING	46
ART. 8 WEIGHING	47
ART. 9 OFFICIAL PRACTICE SESSIONS.....	47

ART. 10 THE WARM UP 49

ART. 11 CARS AND DRIVER'S PARADE 49

ART. 12 STARTING GRID..... 49

ART. 13 STARTING PROCEDURE 49

ART. 14 MODIFIED STARTING PROCEDURE..... 50

ART. 15 INFORMATION & SIGNALING 50

ART. 16 PIT STOPS..... 50

ART. 17 REFUELING 51

ART. 18 REPAIRS & MAINTENANCE 52

ART. 19 PERSONNEL IN THE PIT LANE 53

ART. 20 PIT / PADDOCK FITTING-OUT 54

ART. 21 DRIVER CHANGES 54

ART. 22 INTERRUPTION OF PRACTICVE SESSIONS – SUSPENDING THE RACE..... 54

ART. 23 NEUTRALISATION OF THE RACE: "SAFETY CAR" 54

ART. 24 FINISH 55

ART. 25 CLASSIFICATIONS..... 55

ART. 26 PRESS CONFERENCE 55

ART. 27 INSTRUCTIONS & COMMUNICATIONS TO COMPETITORS..... 55

ART. 28 SANCTIONS & PROTESTS..... 56

ART. 29 ACO TRADEMARKS & RIGHTS..... 56

ATTACHMENTS 57

ATTACHMENT 1 -- STANDARD PENALTIES 58

ATTACHMENT 2 -- ADJUSTMENT OF PERFORMANCE 60

ATTACHMENT 3 -- TIRE REGULATIONS..... 61

ATTACHMENT 4 -- FUEL REGULATIONS..... 64

ATTACHMENT 5 -- TESTING REGULATIONS 65

ATTACHMENT 6 – ADVERTISING, DECALS, NUMBER PLACEMENT, DRIVER ID/LEADER LIGHTS..... 67

ATTACHMENT 7 -- FOUNDER'S CUP 74

ATTACHMENT 8 -- INSURANCE SUMMARY 75

ATTACHMENT 9 -- PIT AND PADDOCK EQUIPMENT REGULATIONS..... 76

ATTACHMENT 10 -- IN-CAR-CAMERAS 77

ATTACHMENT 11 – DRIVER QUALIFICATIONS..... 78

ATTACHMENT 12 – MICHELIN GREENX CHALLENGE REGULATIONS..... 79

ATTACHMENT 13 – IMSA DATA LOGGER..... 80

TECHNICAL SPECIFICATIONS FOR THE AMERICAN LE MANS SERIES..... 81

"LE MANS"PROTOTYPE ("LM" P1 - "LM" P2)..... 82

ART. 1 DEFINITIONS..... 82

ART. 2 REGULATIONS..... 89

ART. 3 BODYWORK & DIMENSIONS.....	90
ART. 4 WEIGHT.....	99
ART. 5 ENGINE.....	100
ART. 6 PIPING AND FUEL TANKS.....	103
ART. 7 OIL SYSTEM.....	104
ART. 8 ELECTRICAL EQUIPMENT.....	105
ART. 9 TRANSMISSION.....	107
ART. 10 SUSPENSION.....	108
ART. 11 STEERING.....	109
ART. 12 BRAKE SYSTEM.....	109
ART. 13 WHEELS & TYRES.....	110
ART. 14 COCKPIT.....	111
ART. 15 SAFETY EQUIPMENT.....	114
ART. 16 SAFETY STRUCTURES.....	119
ART. 17 FUEL.....	122
ART. 18 FINAL TEXT - DISPUTES.....	122
ART. 19 ADJUSTMENT OF THE PERFORMANCE.....	122
APPENDIX 1.....	125
A - "LM" P1 RESTRICTOR TABLES:.....	125
A.1. RESTRICTORS FOR GASOLINE NORMALLY ASPIRATED ENGINES.....	125
A.2. RESTRICTORS AND ABSOLUTE SUPERCHARGING PRESSURE FOR GASOLINE SUPERCHARGED ENGINES.....	125
A.3. RESTRICTORS AND ABSOLUTE SUPERCHARGING PRESSURE FOR DIESEL SUPERCHARGED ENGINES.....	126
B. - "LM" P2 RESTRICTOR TABLES:.....	127
B.1. RESTRICTORS FOR GASOLINE NORMALLY ASPIRATED ENGINES COST CAPPED.....	127
B.2. RESTRICTORS AND ABSOLUTE SUPERCHARGING PRESSURE FOR GASOLINE SUPERCHARGED ENGINES COST CAPPED.....	127
C. - "LM" P2 2010 (not cost capped).....	129
C.1. RESTRICTORS FOR GASOLINE NORMALLY ASPIRATED ENGINES COST CAPPED.....	129
C.2. RESTRICTORS AND ABSOLUTE SUPERCHARGING PRESSURE FOR GASOLINE SUPERCHARGED ENGINES COST CAPPED.....	129
PC TECHNICAL REGULATIONS.....	140
ART. 1 PRELIMINARY NOTICE.....	140
ART. 2 CARS.....	140
ART. 3 MODIFICATIONS.....	140
ART. 4 WEIGHT.....	140
ART. 5 MONOCOQUE.....	140
ART. 6 BODYWORK.....	140
ART. 7 ENGINE.....	140
ART. 8 FUEL SYSTEM.....	141
ART. 9 COOLING AND LUBRICATION SYSTEMS.....	141
ART. 10 TRANSMISSION.....	141
ART. 11 BRAKING SYSTEM.....	141

ART. 12 SUSPENSION	141
ART. 13 RIDE HEIGHT	142
ART. 14 STEERING SYSTEM	142
ART. 15 WHEELS AND TYRES	142
ART. 16 COCKPIT	142
ART. 17 SAFETY FEATURES	142
ART. 18 ELECTRICS - ELECTRONICS.....	142
ART. 19 DATA ACQUISITION.....	143
ART. 20 ADDITIONAL EQUIPMENT.....	143
ART. 21 TECHNICAL CHECKS	143
ART. 22 REFUSAL OF CHECKS.....	143
ART. 23 SEALING AND MARKING.....	143
ART. 24 POST RACE CHECKS.....	144
ART. 25 NON CONFORMITY.....	144
ART. 26 SHAKER RIG AND WIND TUNNEL TESTING.....	144

"LE MANS" GRAND TOURISME ("LM" GT)	145
ART. 1 DEFINITION	145
ART. 2 GRAND TOURING CAR "LM" GT.....	145
ART. 3 BODYWORK	150
ART. 4 WEIGHT.....	155
ART. 5 ENGINE	155
ART. 6 PIPING & FUEL TANK(S)	158
ART. 7 OIL SYSTEM.....	160
ART. 8 ELECTRICAL EQUIPMENT	161
ART. 9 TRANSMISSION	162
ART. 10 SUSPENSION	163
ART. 11 STEERING	164
ART. 12 BRAKES	164
ART. 13 WHEELS & TYRES.....	165
ART. 14 COCKPIT	166
ART. 15 SAFETY EQUIPMENT	167
ART. 16 SAFETY STRUCTURES	168
ART. 17 FUEL.....	168
ART. 18 FINAL TEXT	169
ART. 19 BALANCE OF PERFORMANCE.....	169

APPENDIX 1 – "LM"GT2 AIR RESTRICTORS DIAMETER.....	170
1 NORMALLY ASPIRATED ENGINES	170
2 TURBOCHARGED ENGINES	170

GTC TECHNICAL REGULATIONS.....172

ART. 1 PRELIMINARY NOTICE.....172

ART. 2 CARS.....172

ART. 3 MODIFICATIONS.....172

ART. 4 WEIGHT.....173

ART. 5 TUB.....173

ART. 6 BODYWORK.....173

ART. 7 ENGINE.....174

ART. 8 FUEL SYSTEM.....175

ART. 9 COOLING AND LUBRICATION SYSTEMS.....175

ART. 10 TRANSMISSION.....175

ART. 11 BRAKING SYSTEM.....175

ART. 12 SUSPENSION.....175

ART. 13 RIDE HEIGHT.....176

ART. 14 STEERING SYSTEM.....176

ART. 15 WHEELS AND TYRES.....176

ART. 16 COCKPIT.....176

ART. 17 SAFETY FEATURES.....177

ART. 18 ELECTRICS - ELECTRONICS.....177

ART. 19 DATA ACQUISITION.....177

ART. 20 ADDITIONAL EQUIPMENT.....177

ART. 21 TECHNICAL CHECKS.....177

ART. 22 REFUSAL OF CHECKS.....178

ART. 23 SEALING AND MARKING.....178

ART. 24 POST-RACE CHECKS.....178

ART. 25 NON CONFORMITY.....178

NOTICES

BROADCAST RIGHTS:

Every Driver, Entrant, Official, promoter or other participant involved with or attending an IMSA sanctioned event and every person who is issued an IMSA credential, agree, in consideration of the right to participate in and or attend an IMSA sanctioned event, and for other good and valuable consideration, that IMSA and/or the Series, as the entities conducting the competition, exclusively and in perpetuity, own all broadcast rights (as hereinafter defined) with respect to the competition Events, except as may otherwise be specifically agreed by IMSA and /or the Series in writing with third parties. Broadcast Rights means any and all rights, whatsoever, now and in the future, to engage in a live broadcast and or any related broadcast activity such as, but not limited to, taped delayed broadcasts, single re-broadcasts and any support programming, together with any and all rights to film, tape, photograph, capture, overhear, collect or record, and to simultaneously or thereafter reproduce, broadcast, transmit or distribute, by any means, process, medium or device, whether or not currently in existence, now and in the future, all images, sounds and electronic data generated during and in connection with an IMSA sanctioned event, including, without limitation, any and all copyrights, intellectual property and/ or proprietary rights, worldwide, in and to such images, sounds and electronic data, any recording, broadcast or transmission thereof, and any work derived therefrom, provided however, that Broadcast Rights does not include third party marks or intellectual property created independently of the Broadcast Rights. Any use of third party marks or intellectual property outside of IMSA and/or the serie's rights set forth above shall be used only with the permission of the rights holder.

INTELLECTUAL PROPERTY RIGHTS GENERALLY:

IMSA Intellectual Property includes all trademarks, service marks, trade names, patents, copyrights, domain names, trade dress and the like owned by IMSA.

TRADEMARKS:

IMSA and the IMSA Arrow mark are registered trademarks of the International Motor Sports Association. All rights are reserved. The various Series trademarks are the property of the various Series owners or license holders.

COPYRIGHT:

Except where noted for sections pertaining to certain Series, this Rule Book is a 2013 copyright of the International Motorsports Association (IMSA). All rights are reserved.

All Broadcasts are a copyright of IMSA and/or the Series and their third party commercial partners. All rights are reserved.

Except for sections of this book noted to be copyright of the Automobile Club de L'Ouest, this Rule Book is copyright, 2013, of the International Motorsports Association (IMSA).

All rights Reserved.



THE IMSA CODE 2013

Revision Date: 24 February 2013

THE COMPETITION RULES

of the

INTERNATIONAL MOTOR SPORTS ASSOCIATION

1394 BROADWAY AVENUE
BRASELTON, GA 30517
(O) +1 (706) 658-2120
(F) +1 (706) 658-2130
www.imsaracing.net

FOREWORD

For all participants, the CODE of the International Motor Sports Association (IMSA) establishes the foundation for the organization and conduct of all IMSA sanctioned Events. The IMSA CODE takes effect immediately upon publication.

MEMBERS AND PARTICIPANTS ARE REQUIRED TO REVIEW THESE RULES CAREFULLY.

The IMSA CODE consists of three main sections. The opening Articles concern participant and event procedures, the second group sets guidelines for the safe and uniform operation of the sport. These Articles closely parallel international regulations and are evolved from time to time to incorporate advances in safety and from hands-on experience. The IMSA CODE closes with the Standing Supplementary Regulations, which provide information about each IMSA racing Series.

HOW TO READ THE RULES

- 1) Consistent with the International Sporting CODE of the FIA, the basic IMSA CODE is the national CODE under which Series sanctioned by IMSA are organized. Where no other regulation speaks to an issue, the rules of the IMSA CODE are the basis for the operations of IMSA. This is the basic document that should be read first.
- 2) The Standing Supplementary Regulations (SSR) of each Series, along with the Attachments, provide the basis for the running of that Series. Where the SSR are in conflict with the IMSA CODE, the wording of the SSR shall prevail.
- 3) Where the SSR shows a "SR" next to a regulation, this indicates that the information is provided in the Event Supplementary Regulations (SR). In some circumstances the SR can also amplify or modify regulations in the other documents, based on local needs, and the wording in those SR shall take precedence.
- 4) Finally, IMSA communicates to competitors either through Bulletins and through the directions of the Race Director or the Officials. This information may amplify, amend or modify the regulations, and take force when published, or when issued by the Officials.

All together, these publications and regulations form the Rules of the various Series sanctioned by IMSA.

Scot E. Elkins
Chief Operating Officer

PREFACE

To enhance the safety of participants and spectators at IMSA sanctioned automobile races and to provide for the orderly conduct of Events, IMSA requires adherence to these rules, the IMSA CODE, hereinafter set forth. All IMSA license holders and members agree to comply with these IMSA Rules, as they may be amended from time to time, which rules, as interpreted by IMSA, govern the conduct and organization of all IMSA sanctioned Events. The 2013 IMSA CODE supersedes all previous editions of the IMSA CODE as well as all amendments thereto, and shall remain in force and effect except as provided herein, until superseded by publication of the next edition of the IMSA CODE.

It is ultimately the obligation of each participant to ensure that their conduct and equipment comply with all applicable IMSA Rules and Regulations, as they may be amended from time to time. No expressed or implied warranty of safety shall result from the publication of, or compliance with, these Rules. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators or others.

IMSA CODE 2013**REGULATIONS****ARTICLE 1 CONTROL OF COMPETITION****1.1 INTERNATIONAL CONTROL**

The Federation Internationale de l'Automobile (FIA) is the authority that establishes and governs certain international rules for automobiles, standards for the organization of automobile competitions and specific regulations for World Championship Series of competitions. The FIA has published the International Sporting CODE for these purposes.

1.2 NATIONAL CONTROL

1.2.1 The Automobile Competition Committee for the United States, FIA (ACCUS) is recognized by the FIA as the National Sporting Authority (ASN) for the United States.

ACCUS, FIA
7800 South Elati Street
Suite 303
Littleton, CO 80120
Telephone: 303-730-8100

1.2.2 ACCUS is therefore the sole authority that oversees international automobile competitions in the USA, its territories and protectorates.

1.2.3 ACCUS is in turn composed of representatives of its seven member clubs and a number of individuals. The member clubs of ACCUS are:

Grand American Road Racing Association (GRAND-AM)
IndyCar
International Motor Sports Association (IMSA)
National Association for Stock Car Auto Racing, Inc. (NASCAR)
National Hot Rod Association, Inc. (NHRA)
Sports Car Club of America, Inc. (SCCA)
United States Auto Club, Inc. (USAC)

1.2.4 As has been recognized by the FIA, ACCUS delegates to its member clubs most of the normal duties of an ASN, including the authority to organize, sanction and conduct FIA-listed events, and events counting toward International and World Championships.

1.3 IMSA CONTROL

1.3.1 International Motor Sports Association (IMSA) has established these rules (the IMSA CODE), that govern the organization and conduct of IMSA Sanctioned Events, the standards for eligibility and conduct of competitors and Officials, the regulations for eligibility and preparation of automobiles, and the rules for any annual IMSA series of Events.

The IMSA CODE is in principle consistent with the International Sporting CODE of the FIA; accordingly, it shall take precedence as the governing body of rules for all Events Sanctioned by IMSA, whether or not they may be listed on the FIA Calendar.

1.3.3 All IMSA members and all IMSA credential holders are bound by the IMSA CODE and must abide by its provisions.

1.3.4 IMSA reserves the right to amend the IMSA CODE and any supplementary Event regulations at its own discretion at anytime to promote safety, enhance competition or for other purposes to ensure the quality and integrity of its programs and operations. Such amendment shall become effective upon publication by IMSA in the manner of its choice.

1.3.5 Except as provided for in these regulations, other verbal and/or written communication from IMSA shall not constitute an amendment to the IMSA CODE. IMSA may issue an addendum to the IMSA CODE in the same fashion as an amendment providing additional information and/or correcting previous errors and it shall become effective immediately upon publication.

1.4 ACKNOWLEDGEMENT OF RULES

Every Driver, Entrant, Official, Promoter or other Participant involved with or attending an IMSA Sanctioned Event and every person who is issued an IMSA credential, agree, without reservation or qualification, to conduct themselves in accordance with the IMSA CODE. If there is a disagreement or dispute regarding the meaning or application of the IMSA CODE, the interpretation and application thereof shall be determined by IMSA Officials, whose rulings shall, in all instances, govern and control. Determinations by IMSA Officials applying or interpreting the IMSA CODE are final and non-protatable and non-appealable, except as provided in Articles 9 and 10.

IN ORDER TO FAIRLY AND EFFECTIVELY PROMOTE THE SPORT OF AUTO RACING AND TO ACHIEVE PROMPT FINALITY IN COMPETITION RESULTS AND IN CONSIDERATION OF RECEIVING NUMEROUS BENEFITS AVAILABLE TO THEM, THE RECEIPT AND SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED, ALL IMSA MEMBERS, CREDENTIAL HOLDERS, DRIVERS, ENTRANTS, OFFICIALS, PROMOTERS OR OTHER PARTICIPANTS, EXPRESSLY AGREE THAT DETERMINATIONS BY IMSA OFFICIALS AS TO THE APPLICABILITY AND INTERPRETATION OF THIS CODE ARE NON-LITIGABLE, AND SPECIFICALLY COVENANT THAT THEY WILL NOT INITIATE, DIRECTLY OR INDIRECTLY OR MAINTAIN LITIGATION OF ANY KIND AGAINST IMSA OR ANYONE ACTING ON BEHALF OF IMSA, TO REVERSE, OR MODIFY SUCH DETERMINATION OR TO SEEK TO RECOVER DAMAGES OR OTHER RELIEF ALLEGEDLY INCURRED OR REQUIRED AS A RESULT OF SUCH DETERMINATION. IF A MEMBER, CREDENTIAL HOLDER, DRIVER, ENTRANT, OFFICIAL, PROMOTER OR OTHER PARTICIPANT, INITIATES OR MAINTAINS LITIGATION IN VIOLATION OF THIS COVENANT, THAT MEMBER, CREDENTIAL HOLDER, DRIVER, ENTRANT, OFFICIAL, PROMOTER OR OTHER PARTICIPANT AGREES TO REIMBURSE IMSA FOR THE COST OF SUCH LITIGATION, INCLUDING ATTORNEY'S FEES. IMSA MEMBERS, CREDENTIAL HOLDERS, DRIVERS, ENTRANTS, OFFICIALS, PROMOTERS OR OTHER

PARTICIPANTS UNDERSTAND AND AGREE TO THE FOREGOING COVENANT AND ACKNOWLEDGE THE AGREEMENTS HEREIN CONTAINED ARE A FAIR AND REASONABLE EXERCISE OF DECISION MAKING AUTHORITY BY IMSA FOR WHICH THEY AGREE TO BE BOUND TO THE FULLEST EXTENT PERMISSIBLE BY APPLICABLE LAW. THE FOREGOING COVENANT AND RESTRICTION DOES NOT APPLY TO THE USE OF THIRD PARTY MARKS AND INTELLECTUAL PROPERTY, WHICH SHALL BE GOVERNED BY SEPARATE AGREEMENT AND AT LAW.

ARTICLE 2 **DEFINITIONS AND TERMS**

Standard nomenclature is used wherever possible in IMSA activities.

- 2.1 **IMSA**
International Motor Sports Association, 1394 Broadway Avenue, Braselton, Georgia 30517, a national Sanctioning Organization formed to promote motor sports; to Organize, Sanction, supervise and conduct motor sports Events; to promote uniform rules and safety standards; to collect and disseminate information relating to motor sports; to supervise and grant affiliation to other Organizations with similar purposes, and to cooperate with such Organizations; and to undertake any other activities to advance motor sports.
- 2.2 **IMSA CODE**
The rules and regulations governing the Sanctioning and conduct of IMSA Sanctioned Events. These may include the Standing Supplementary Regulations for a Series (SSR) and the Event Supplementary Regulations (SR).
- 2.3 **COMPETITION**
A contest of competitive nature in which a car takes part and results of which Competition are published.
- 2.4 **EVENT**
An entire program of IMSA Sanctioned Competitions.
- 2.5 **SANCTION (ORGANIZING PERMIT)**
The documentary authority granted by IMSA to Organize and hold a Competition.
- 2.6 **DRIVER**
A person named as the Driver of a car in a Competition.
- 2.7 **ENTRANT**
An entity who has entered a car that has been accepted for Competition.
- 2.8 **PROMOTER/ORGANIZER**
A person or body controlling a facility where Events are Organized, promoted and staged.
- 2.9 **PARTICIPANT**
For insurance purposes, the definition of a Participant is a person that has been assigned credentials that are duly and officially issued by IMSA who is performing a clearly defined duty in a restricted area of the Event.
- 2.10 **WEIGHTS AND MEASURES**
Standards for Weights and Measures are as specified in Appendix 1.

ARTICLE 3 **MEMBERSHIP, CREDENTIALS, LICENSES AND ENTRIES**

- 3.1 **MEMBERSHIP**
- 3.1.1 Every person or entity who desires to participate in an IMSA Sanctioned Event as a competitor, Official, Promoter, sponsor, permanent media or sales representative must apply for, receive and possess a valid, current IMSA membership.
- 3.1.2 IMSA members are independent contractors who assume and take full responsibility for reporting and paying to the appropriate authorities all charges, premiums and taxes, if any, due or payable on any funds IMSA members may receive as a result of their participation in IMSA Sanctioned Events, including but not limited to Social Security taxes, unemployment insurance taxes, workman's compensation insurance, income taxes and withholding taxes.
- 3.1.3 Membership commences upon acceptance by IMSA and continues until: revocation in writing either by IMSA or the member or; one calendar year after the last Event attended by the member or; one calendar year after the last membership application was accepted by IMSA if the member does not attend any Events, whichever shall be sooner. By applying for IMSA Membership, applicants agree to be bound by the rules of IMSA while members.
- 3.1.4 **CONDUCT OF MEMBERS**
IMSA is dedicated to the highest standards of safety and conduct and all members must conduct themselves accordingly. Unsafe or inappropriate conduct may result in the imposition of penalties. Acts or omissions that constitute a violation of the IMSA CODE or are detrimental to auto racing, IMSA, its Promoters, sponsors, Participants or fans, may result in the imposition of penalties.
- 3.2 **CREDENTIALS**
- 3.2.1 Every IMSA member who desires to participate in an IMSA Sanctioned Event as a Driver, Entrant, crew member, IMSA Official, sponsor, permanent media or industry representative must apply for, receive and possess a current IMSA credential to gain access. Employees of IMSA shall also hold IMSA credentials and be afforded all rights and benefits.

2013 IMSA CODE

- 3.2.2 Credentials are in effect as of the date of issue and are on a calendar year basis beginning January 1 and expiring December 31 of that year unless otherwise noted. IMSA issues several types of Competition credentials.
- 3.2.3 IMSA annual credentials are available for Entrants, Drivers, Corporate, Promoters, Teams, Media, Officials and VIPs as prescribed for each Series upon execution and acceptance by IMSA of a full season credential application.
- 3.2.4 IMSA single Event credentials are available for Entrants, Drivers, Corporate, Promoters, Teams, Media, Officials and VIPs.
- 3.2.5 Either a single Event or annual credential is required for pit access during an IMSA Sanctioned Event.
- 3.2.6 Credentials must be displayed at all times. It is a violation of the CODE to refuse to show credentials to authorized representatives of IMSA or the Promoter.
- 3.2.7 The possession of a credential by anyone other than the rightful owner shall result in the immediate revocation of that credential and penalties and/or fines to the abuser and to the rightful owner.
- 3.3 IMSA DRIVER'S LICENSE**
- 3.3.1 Every person who drives a car in an IMSA Sanctioned Event must possess a current IMSA Driver License. The standard IMSA Driver License holder minimum age is 18 years old except for certain IMSA Development Series, where the minimum age is specified in the Series SSR. The minimum age may be waived, at the sole discretion of IMSA, to one year younger, where the Driver has significant driving experience in sanctioned Competitions. However, a Driver must not be younger than 15 years of age in any circumstance.
- 3.3.2 IMSA Drivers holding a current IMSA Driver License must have a current (issued within 6 months of the date of the application for the IMSA Driver License) completed IMSA medical examination form.
- 3.3.3 IMSA Driver Licenses may be issued to Drivers holding valid FIA Grade C licenses issued by IMSA or their home ASN. Holders of foreign FIA licenses must secure and provide written documentation of permission from their home ASN.
- 3.3.4 Prototype Category Driver Licenses, or IMSA Driver Licenses for other categories of cars, may be issued to Drivers with suitable experience. A FIA Grade B or higher license is required for the P1 class.
- 3.3.5 IMSA, at its sole discretion, may review the qualifications of a licensee at any time after issuance of a License and may require the licensee to submit to such additional physical examinations, to submit a résumé to include Driver information and record of competition, or to pass such additional Driver ability tests, and may take such other action or require the licensee to take such other action as IMSA may deem appropriate, to determine whether the licensee continues to qualify for an IMSA Driver License under these rules.
- 3.3.6 IMSA Drivers may be issued a Provisional License should their qualifications require further evaluation. As a condition of entry, these Drivers recognize that their license is subject to revocation at any time and such decision by the officials is not subject to protest or appeal.
- 3.3.7 IMSA Drivers must undergo ImPact testing as scheduled by IMSA.
- 3.4 IMSA ENTRANT'S LICENSE**
- 3.4.1 Except where specified in the Series SSR, an IMSA Entrant's License is required for Entrants. An Entrant must be specified for all entries and is required in order to take certain actions under the IMSA CODE (see Art. 9 and 10).
- 3.4.2 **ENTRANT'S REPRESENTATIVE**
When the Entrant of a car cannot be present at an Event or is otherwise unavailable, they shall designate a member of the Team to be the Entrant's Representative in regards to all actions that IMSA may take under Articles 8, 9 and 10 of the IMSA CODE. The Entrant's Representative shall make themselves known to the IMSA Officials and shall have no implied or expressed authority under the IMSA CODE except the authority to give notice of the Entrant's intention to appeal under Article 10 or as otherwise specified in these regulations.
- 3.5 FIA LICENSE**
Every person who drives a car in a FIA-listed race shall possess a current FIA Driver License regardless of other licensing. Every car entered in a FIA-listed race must be entered by someone who possesses a current FIA Entrant License regardless of other licensing.
- 3.6 APPLICATION FORMS**
Application forms for an IMSA membership, license or credential may be obtained from IMSA headquarters or downloaded from www.imsaracing.net. IMSA is solely responsible for issuing such memberships, licenses and credentials. Membership, license and credential application forms must be fully executed, signed by the applicant and accompanied by the requisite funds. The mere acceptance of an IMSA membership, license or credential application form and fee by an IMSA Official does not constitute the issuance of or approval by IMSA of such application. Applicants are advised in writing by IMSA headquarters whether their application for IMSA membership, license or credential has been approved.
- 3.7 ENTRIES**
- 3.7.1 An entry submitted and accepted by IMSA for an IMSA Sanctioned Event constitutes a contract binding the Entrant to take part in the Event, either with the Driver(s) designated or with IMSA-approved substitute Driver(s), unless the Entrant is excused from competing by IMSA. Except as provided in Art. 3.8 and 3.10 below, the entry fee is non-refundable.
- 3.7.2 A car must be entered by the holder of a current IMSA Entrant credential.
- 3.7.3 After the close of registration, Driver substitution(s) are subject to the approval of the Race Director or Steward's Committee.

2013 IMSA CODE

3.7.4 At Events where the physical limitations of the facilities limit the maximum number of participants, IMSA may establish specific criteria for the number of cars permitted to participate.

3.8 ENTRY ACCEPTANCE AND REFUSAL

IMSA is the sole judge of whether an entry is accepted and, if an entry is not accepted, such refusal is final and not subject to protest or appeal. IMSA is not obligated to give any reason for such a refusal. An Entrant whose entry is refused by IMSA shall be promptly informed of that fact by IMSA and the entry fee returned.

3.9 FALSIFICATION

Any entry that contains false information or incorrect statements may be considered null and void and the entry fee forfeited.

3.10 WITHDRAWAL

An Entrant may, with the permission of IMSA, withdraw an entry by advising IMSA of such withdrawal. If such notice is received prior to the entry deadline date, the entry fee is returned.

ARTICLE 4 EVENTS

4.1 ORGANIZATION

IMSA Events may be Organized by:

- 4.1.1 IMSA.
- 4.1.2 An affiliated Organization of IMSA.
- 4.1.3 Other Organizations or Promoters approved by IMSA.

4.2 APPROVAL

The name, service mark or emblem of IMSA may be associated only with activities and Events that have been Sanctioned or approved by IMSA.

4.3 SANCTIONS

Every speed Event with which the IMSA name, service mark or emblem is associated must be formally Sanctioned by IMSA.

4.4 SERIES STANDING SUPPLEMENTARY REGULATIONS (SSR)

SSR, under which all Events in an IMSA Sanctioned Series are held, are comprised of various rules that may modify or supplement the regulations contained herein (the IMSA CODE) and are attached and incorporated as supplements hereto.

4.5 EVENT SUPPLEMENTARY REGULATIONS (SR)

Define for all Participants the specific conditions for an Event. Since SR accommodates local conditions, they may occasionally appear to contradict a provision of the IMSA CODE and/or the SSR. In such a case, the SR takes precedence over the IMSA CODE and/or the SSR.

Normally, the SR contains this information:

- 4.5.1 Name, location, dates, nature and type of Event.
- 4.5.2 IMSA Sanction and announcement, "Held under the IMSA CODE".
- 4.5.3 Name and address of the Promoter/Organizer.
- 4.5.4 Schedule and location of all activities and Competitions, classes of cars eligible, etc.
- 4.5.5 Entry deadline, fees and if prior restrictions apply, the number of entries to be accepted and started in each Competition. Entry deadlines may be automatically extended when fewer than the maximum numbers of entries have been received prior to the expiration of the original deadline but in no case beyond the close of scrutineering at each Event.
- 4.5.6 Schedule of awards and prizes.
- 4.5.7 Other necessary information. Although no changes are ordinarily made in the SR after the entry deadline, IMSA reserves the right to make changes at any time. Changes may take the form of a competitor bulletin, amendment or addendum to the SR, announcement at a Driver briefing, and so on.

4.6 REQUIRED INSURANCE COVERAGES

4.6.1 LIABILITY COVERAGE:

IMSA requires that the Promoter/Organizer of an IMSA Sanctioned Event provide acceptable general liability and insurance in the amount of not less than US\$10,000,000 combined single limit (or other limit that may be deemed acceptable by IMSA) and which covers participating Drivers, crew members, car owners and sponsors as well as the Sanctioning body and Promoters. Specific policy requirements may be obtained from the IMSA risk manager.

4.6.2 PARTICIPANT ACCIDENT COVERAGE:

IMSA provides a Participant accident insurance policy that provides up to \$500,000 in excess medical expense reimbursement and other benefits to properly credentialed IMSA Event Participants. Additional policy details may be obtained from IMSA.

4.6.3 RELEASES:

Every competitor, Official, worker, mechanic and other individual who is assigned a pit pass or other such credential permitting access to the racing circuit must first sign a Release and Indemnity Agreement as provided at IMSA Registration. It is considered a serious breach of these rules to enter such restricted areas of the racing circuit without first signing such a Release and Indemnity Agreement, to secure a pit pass or other credential under false pretenses, or to transfer such a credential to any other person.

4.7 CLASSIFICATION

4.7.1 IMSA classifies (defines) Events according to the Drivers and types of cars that take part. IMSA creates and maintains championship series of Events for specific purposes and cars. "Classification" also refers to the listing and arrangement of the results of a Competition including but not limited to the finishing position, type of car, "running" or "not running".

4.7.1.1 It is not required to take the checkered flag on the race track to be eligible for a finishing position, points and/or awards.

4.7.2 To be listed as "running" in the results, the car must cross the Finish line on the race track when the checkered flag is displayed except in case of "force majeure" at Steward's discretion.

4.7.3 Cars are ordered in the results according to the number of whole laps completed during the race. For competitors completing the same number of laps, the time when the cars cross the finish line determines the order.

4.8 COURSE

4.8.1 Competition must not take place other than on a course approved by IMSA.

4.8.2 IMSA may:

- a. Limit a course to certain types of Events (see IMSA CODE 4.7)
- b. Restrict the classes of cars to be raced at a course.
- c. Restrict the number of cars to be started in a race.
- d. Restrict the course to certain ratings or grades of Drivers.
- e. Penalize a competitor who attempts to complete a lap on other than the prescribed course (such as by taking a shortcut or by racing through pit lane to gain an advantage).

4.8.3 COURSE MEASUREMENT

Timing and Scoring shall provide the official measurement of the course.

4.9 AWARDS

As one of the conditions of granting Sanction, IMSA may require a Promoter to post the announced prize money prior to the start of the Event, and that IMSA control the payment of these awards.

4.10 ADVERTISING, PROMOTION, CONTINGENT AWARDS

4.10.1 Entrants and Drivers of cars must execute the standard advertising release provided on each credential application granting permission for the use of their names, photos and photos of their racing cars in advertising and promotional material, excluding product endorsement.

4.10.2 To be eligible for contingent awards, competitors must meet the criteria of the contingent award program and execute the standard advertising release provided.

4.10.3 Competitors must comply with advertising requirements specified for a sponsored Event.

4.10.4 IMSA reserves the right, in the public image of the sport, to assign, to approve or disapprove any advertising, sponsorship or similar agreement in connection with any Event. All members agree to accept the decision of IMSA in this regard which is not subject to protest or appeal.

4.11 PAYMENT

4.11.1 All awards earned by a car in a Competition are paid to the registered Entrant of the car or as directed by the Entrant on the official entry form. IMSA requires that Entrants (or their assignees) provide a W9 and/or other required governmental documentation prior to payment.

4.11.2 Failure to pay all sums due to IMSA or its contractors, agents and affiliated companies, or to the various Series or Promoters may result in revocation of Competition privileges or membership, withholding of any prizes that may be due to an Entrant or other team members, fines and other penalties.

4.11.3 IMSA may charge interest of 1% per month, or 12% per annum, or the highest amount permitted by law if lower, on any sums outstanding. IMSA may charge a service fee up to the maximum amount permitted by law for any returned or canceled check, insufficient funds, or refused credit card payment.

ARTICLE 5 GENERAL RULES & CONDUCT5.1 CONDUCT

5.1.1 Every Entrant or other member of IMSA is expected to conduct themselves in a professional and sportsmanlike manner. Persons whose appearance, associations or affiliations at or away from an Event are deemed inappropriate or who exhibit conduct that is offensive, abrasive, in bad taste, or otherwise inappropriate or who have been convicted of criminal activity may be denied membership or may have their existing membership and/or license suspended or revoked by IMSA. Such conduct may also be or be considered a violation of this CODE and may result in the imposition of other penalties.

5.1.2 IMSA members may be required to take part in certain fan and media activities as directed by the Officials. Such activities include, but are not limited to: Autograph sessions, television interviews, fan forums, tech talks, pit lane or paddock "open houses" etc. Failure or refusal to participate as directed, once scheduled and notified either in person or through the Event schedule, SR or otherwise, may result in the imposition of penalties. Arriving late, missing the activity or departing early, without permission from the Officials is a breach of this regulation. Except during periods of extreme inclement weather, or when permission of the Officials is obtained, competitors must not enclose their paddock setups such as to obscure the view of fans of the majority of the activities including, at least, the preparation of one car. Teams are encouraged to be fan friendly.

- 5.1.3 Failure to obey the direction of an IMSA Official or IMSA designated Series/Promoter representative, as such pertain to the procedures and rules that govern the organization and administration of any IMSA Event is considered a breach of the CODE.
- 5.1.4 Any Entrant or member that publicly criticizes IMSA or its Officials may be considered to be acting in an unsportsmanlike manner prejudicial or detrimental to IMSA and the best interests of the sport.
- 5.1.5 Actions or in-action not otherwise specifically prohibited by this CODE, of an Entrant, Driver and/or member while participating in any IMSA Event that is deemed by IMSA to be or to cause a situation, unnecessarily dangerous, negligent or otherwise inappropriate, shall be considered a breach of the CODE.
- 5.1.6 Actions or in-action on the part of a competitor that, in the opinion of the Race Director and/or the Stewards, results in an unfair advantage to the competitor shall constitute unsportsmanlike conduct, and is a breach of the CODE.
- 5.1.7 During each Event, there may be several mandatory meetings scheduled, including Driver meetings and Entrant, team manager and/or crew chief meetings. Failure to attend or late arrival is a breach of this CODE.

5.2 RESPONSIBILITY

Entrants are responsible for the conduct of their Drivers and crews during an Event. An offense by a Team member is charged to the Entrant.

5.3 DRUGS AND ALCOHOL

- 5.3.1 For the purposes of this CODE, "Illegal Substances" include any substance not legally prescribed, either by Federal or State statute, which when taken or ingested may or may not have a performance enhancing or mood or state of mind altering effect. For the purposes of this CODE, "Controlled Substances" include any substance that may be legally prescribed, either by Federal or State Statute, which when ingested or taken may have a performance enhancing or mood or state of mind altering effect.
- 5.3.2 It is prohibited for any Participant or IMSA Member to illegally use, possess, acquire or distribute any Controlled or Illegal Substance, at any time. Conviction or a finding of guilt in any criminal proceeding involving the illegal use of Illegal Substances or Controlled Substances may subject the Participant/IMSA Member to penalties under this CODE.
- 5.3.3 Nothing contained herein shall be construed as to discourage the proper use of medically necessary prescribed or over the counter medications. However, Participants must adhere to section 5.4 of the CODE.
- 5.3.4 It is prohibited for any Participant or IMSA member to illegally possess, acquire or distribute any prescription or over-the-counter medication. Further, it is prohibited to misuse any prescription or over-the-counter medication in a manner not consistent with the prescription or instructions provided by the manufacturer and/or prescriber or pharmacist.
- 5.3.5 It is prohibited for any Participant to consume any alcoholic beverage in a manner that may affect their behavior during practice, qualifying or the racing portions of an IMSA Event. The IMSA standard for being "under the influence" is that any person who is deemed to be acting abnormally or is impaired, at the sole discretion of IMSA, and/or who subsequently is shown to have alcohol in their system, as tested by any recognized test method at the sole discretion of IMSA, shall be deemed in violation of this CODE. Further, while it is not a violation of this CODE for any Participant or IMSA Member to consume alcoholic beverages, in accordance with law and regulations, at an Event site, it is a violation for any member to act in an unsafe manner anywhere at an IMSA Event as a result of any impairment. It is a violation of this CODE to supply alcoholic beverages at an Event site in violation of law or regulations, or in a manner to cause a violation of this CODE.
- 5.3.6 IMSA may require Participants/IMSA Members to participate in systematic testing for drugs and/or alcohol. IMSA may require any Participant or IMSA Member, to undergo testing for Illegal Substances, or use of Controlled Substances, prescription or over-the-counter medication or alcohol, in violation of this CODE. Such testing may be done for suspicion of violation of this CODE, either through reports from a reasonable source, or by observation of signs, symptoms or behaviors or may be done randomly. Further testing may be done after any incident on or off track. Testing may be required either at an Event or away from an Event.
- 5.3.7 Refusal to promptly authorize and submit to such testing is a violation of this CODE. Refusal to permit release of the results of any tests by any testing facility or person conducting such test, to IMSA, is a violation of this CODE. Any testing done "for cause" or "reasonable suspicion" shall be done at the Participant or IMSA Member's expense.
- 5.3.8 Testing shall be done at a facility chosen by IMSA. The results of such testing are not subject to protest or appeal. IMSA may publish the results of such testing at its discretion. A person or entity referred to in such notice shall have no right to act against IMSA or the person publishing the notice.
- 5.3.9 Where testing is not available, but where IMSA suspects impairment, for any reason, IMSA may remove the Participant or IMSA Member from the facility, or take such other action as may be deemed appropriate.
- 5.3.10 Any Participant or IMSA member who is found in violation of any part of this section may be required to undergo testing or re-testing prior to any further participation in any IMSA Sanctioned Event or re-instatement of any IMSA membership or privileges.
- 5.3.11 IMSA does not provide rehabilitation services. Nor does this CODE provide for periods of rehabilitation, with respect to this section of the CODE. However, nothing contained herein is intended to dissuade anyone from seeking treatment or help for drug or alcohol problems, and IMSA strongly encourages Participants or members in need to seek such treatment or help.

5.4 MEDICAL RESPONSIBILITY OF PARTICIPANTS

- 5.4.1 It shall be the personal responsibility of all Participants, including Drivers; to refrain from taking part in any IMSA Sanctioned Event if they have been injured, are under the influence of any controlled substance or beverage, or are in any way other than medically fit. It shall be the responsibility of a participating Driver to report to the Chief Medical Officer before taking part in an Event, any unusual medical condition, allergy or anticipated special treatment they may require.

- 5.4.2 Nothing in this CODE shall be construed as to discourage the proper use of medically necessary prescribed or over-the-counter medications. However, certain medications contain ingredients that may cause drowsiness, alter mood, perception or other cognitive abilities, or have other affects that may adversely impact a Driver's ability to participate in motor sports. It shall be the responsibility of a participating Driver to disclose to the Chief Medical Officer all prescription and over-the-counter medication that the Driver is using or has used in the past, as well as any side effects that have been experienced as a result. If IMSA determines, based on the circumstances of the particular case, that the medication being used would adversely affect safety, the Driver shall be prohibited from participation in that IMSA Event.
- 5.4.3 IMSA or the Race Director may require an injured Driver to be approved by a physician appointed by IMSA prior to issuance of an IMSA credential or before competing. The appointed physician may discuss the results of this examination with IMSA Officials.
- 5.4.4 A doctor, paramedic or emergency worker may require any Driver involved in an incident to report for medical observation or examination prior to being permitted to resume Competition. IMSA medical personnel may require follow up observation or examination after an incident. Drivers are required to comply with these instructions. The medical personnel may discuss the results with IMSA Officials.

5.5 SOUND ENFORCEMENT

- 5.5.1 It is the responsibility of the Entrant to ensure that their car meets IMSA sound regulations as published in the SSR and/or the SR. IMSA, at its discretion, monitors sound levels or has others monitor sound levels, and employs enforcement as needed.
- 5.5.2 Local sound regulations beyond IMSA control may require additional procedures or penalties for noncompliance. IMSA reserves the right to modify this procedure at any time.

5.6 RADIOS

In order to reduce radio frequency interference, particularly on critical radio frequencies, and to enhance the fan experience, the following requirements apply to all IMSA members. Failure to comply with these requirements may result in penalties:

- 5.6.1 Every originator of transmitted radio signals, including all voice and data transmissions, must register each radio frequency, PL codes, transmission scheme (if not a standard scheme) and intended use (for example "pit to Driver", or "Car Telemetry"), prior to use with the IMSA designated representatives. This requirement extends to all persons or organizations licensed by IMSA, including teams, manufacturers, suppliers, corporate members and individuals. This registration must be resubmitted if modified.
- 5.6.2 Declaration forms are available on the IMSA web site (www.imsaracing.net), at IMSA technical inspection and from Racing Radios.
- 5.6.3 Teams must declare their team-to-Driver radio frequency used in any qualifying session and the race. Teams must submit their registrations and declarations prior to the closing of technical inspection of their first race and at each race if changed. Any changes during an Event must be declared no less than one hour prior to qualifying or the race.
- 5.6.4 Teams must not use any radio transmission scheme between the team and Driver that would not be understandable using a standard scanner at any time during any qualifying session or race.
- 5.6.5 IMSA reserves the right to monitor and record all frequencies used by IMSA members and to use such recordings for any purpose whatsoever. All IMSA members, by their continued membership, consent to such recording and use. IMSA reserves the right to deny use by IMSA members of a particular frequency at an Event.

The IMSA designated representative is Racing Radios. Declarations may be faxed in advance of the Event. Attention to: IMSA Radio Declaration, [404.675.8991](tel:404.675.8991)

At the track, declarations may be delivered to Racing Radios at the IMSA Operations Trailer, to IMSA Technical Inspection or to IMSA Registration. For Series other than the ALMS, declarations may be forwarded to their respective Series administrator.

5.7 DRIVER SAFETY EQUIPMENT

Drivers must wear the following safety equipment while taking part in IMSA Competition:

- 5.7.1 Drivers must wear full coverage helmets of recognized high quality and which include a face shield. All Drivers in all ALMS classes are required to use helmets that satisfy FIA standard 8860-2004 – Advanced Helmet Test specification effective March 1, 2011. Drivers in all other IMSA classes and Series must, at minimum, wear helmets that bear the seal of approval of the Snell Foundation SAK2005 or SFI Foundation 31.2 (no Motorcycle [MA] helmets).
- 5.7.2 All Drivers are required to have the Eject Helmet Removal kit installed in their helmets. Information at: ejectsafety.com
- 5.7.3 All Drivers must wear overalls as well as gloves, underwear, a balaclava, socks and shoes homologated to the FIA 8856-2000 standard.
- 5.7.4 All Drivers must wear the HANS device during all phases of the Event. The HANS device is the only Head and Neck restraint approved for IMSA Competition and must be used with an approved helmet. Drivers are strongly encouraged to use helmets with tether-anchorage fitted by the manufacturer as original equipment. These helmets are identified by a glossy silver holographic FIA label. It is also strongly recommended to use homologated tethers, identified by a FIA 8858-2002 label.
- 5.7.5 It is highly recommended that all Drivers use the HANS device during all testing and other on track activities, even when not Sanctioned by IMSA.
- 5.7.6 Evaporative-loss Freon cool suits are prohibited.

5.8 BROADCAST EQUIPMENT AND BROADCASTERS

- 5.8.1 Competitors may be required to carry in-car-cameras (ICC) and cooperate with the official broadcaster in the installation of such, including the provision of power for such equipment, which may require battery packs for longer Events. Cars equipped with ICC must display the car number in the ICC's field of vision. All images generated by the official broadcasters are copyright of IMSA and/or its designees, or the broadcast copyright holder. No right of interest accrues to the competitor from carrying such equipment. Non-compliance may result in penalties.
- 5.8.2 ICC not provided by the official broadcaster are prohibited in all phases of all IMSA Sanctioned Events, except as approved by IMSA, or as may be permitted in the SSR. In any case, broadcast, display or any non-private use of such images requires permission from IMSA or its designee.
- 5.8.3 Competitors may be required to carry on-board telemetry devices for television broadcast use and cooperate with the official broadcaster in the installation of such, including the provision of power where necessary. Where telemetry devices are prohibited, the installation of this equipment shall not violate those provisions. Competitors shall have no right to the data acquired.
- 5.8.4 Where a Series has a minimum weight, the equipment listed in 5.8.1 and 5.8.3 is included in that minimum weight. Altering the structure or configuration of the cars in contravention of the regulations is prohibited.
- 5.8.5 IMSA members must cooperate with the official broadcasters and public address announcers to the fullest extent reasonable. This includes cooperating with interviews, features, graphics, audio sound bites and other elements of the show and providing space, time and unfettered access to working areas.

ARTICLE 6 RACING RULES

6.1 FLAG SIGNALS

The following signals are used both to advise Drivers of various conditions and to direct Drivers to obey various specific instructions. Cloth flags are normally used but may be replaced with similarly coded rigid signaling boards or with lights. Steady light is equivalent to a motionless flag; flashing light to a waved flag.

- 6.1.1 **GREEN FLAG**
Start or restart of race or other session, or cancellation of a danger previously signaled. Track is clear. (The national flag of the host country may be used as a substitute at the beginning of a race.) Overtaking may commence on a start or restart at the time the green flag is displayed by the starter.
- 6.1.2 **BLUE FLAG** (at certain circuits the blue flag may incorporate a yellow diagonal stripe)
- Motionless: Another competitor is following you and may be trying to pass you.
 - Waved: Be aware that another competitor may be rapidly overtaking you. Blue flags are normally used where the Driver being overtaken may be unaware of the following car or is clearly obstructing another car.
- 6.1.3 **YELLOW FLAG**
- Motionless: Danger, no passing, slow down. Motionless yellow flag is generally used to advise of an obvious danger or to forewarn of a more serious danger.
 - Waved: Extreme danger, no passing, slow down, be prepared to stop. Waved yellow flag may mean imminent and serious danger such as a partial track blockage, fire on or near the track, or a crowd control hazard.
 - A green flag may be waved at the first flag station past the point of the incident signifying that the track is clear and overtaking may resume.
 - Double motionless yellow flag: Safety Car. "SC" boards may also be displayed at the start line and other stations to indicate a Safety Car period depending on the SR of a Series or Event(s).
 - The prohibition on overtaking starts at the point on the track perpendicular to the point of the first displayed yellow flag and overtaking may resume at the point on the track perpendicular to the first displayed green flag. However, any time a yellow flag is displayed at any point on the circuit it is the responsibility of the competitor to use additional caution. Failure to use such caution may be penalized regardless of position relative to the flag.
 - In races where the IMSA Yellow Condition System is in use, for a "full course yellow" or "Safety Car period", the track condition is considered yellow at all points on the track simultaneously at the moment when either: the radio call is made from Race Control, or the Yellow Condition System lights are illuminated, or the yellow flags are displayed around the track, whichever may be first.
 - The time of the yellow indicated in the official IMSA timing logs is the official time of the yellow (not necessarily simultaneous to other indications). At the completion of the "full course yellow" or "Safety Car period", the procedure for re-starts is initiated and the lights are extinguished at the same time as those of the Safety Car.
- 6.1.4 **WHITE FLAG**
- IMSA displays a white flag to indicate the last lap. However, depending on the Series, the starter may indicate the last lap by displaying one finger and/or the last lap may be announced over the radio.
 - A stationary white flag displayed anywhere on the circuit denotes an ambulance, fire truck, wrecker or other service vehicle is on the circuit, or a slow-moving racecar is ahead.
- 6.1.5 **YELLOW FLAG WITH VERTICAL RED STRIPES**
Slippery surface and/or debris on course.
- 6.1.6 **BLACK FLAG**
- Waved: Stop in the pits for a consultation next lap. This flag is usually displayed along with the number of the car concerned for an infraction.

- b. If a competitor fails to obey the black flag within four laps of its display, the Race Director may instruct the Timekeeper to stop timing and scoring the car.

6.1.7 **BLACK FLAG WITH ORANGE DISK**
Indicates a car with a mechanical fault. Stop at your pit next lap.

6.1.8 **RED FLAG** (see also IMSA CODE Art. 6.18)

- a. This flag is used exclusively at the discretion of the Race Director to stop practice, qualifying or the race and is displayed by the Starter and all corner stations.

- b. When the red flag is shown, Drivers must decelerate to a slow speed and be prepared to stop at any time. Drivers should use caution and be aware that rescue vehicles may be using the track; the track may be blocked; or weather conditions may have made the circuit un-drivable at racing speeds. No passing. Unless otherwise directed by the Race Director or marshals, cars must proceed in a line, slowly and carefully around the circuit to the pit entrance where they will be directed further. The pit exit is closed.

6.1.9 **BLACK AND WHITE CHECKERED FLAG**

End of a session or end of a race. Return to the pits at reduced speed and stop at the pits or proceed to Parc Fermé as designated by the Race Director. The pit exit is closed

6.1.10 **BLACK AND WHITE FLAG DIVIDED DIAGONALLY**

This flag is shown as a warning to the Driver concerned for unsportsmanlike behavior. This signal is the same as a furled black flag.

6.2 SAFETY CAR

6.2.1 The Safety Car may be brought into operation to neutralize the race at the discretion of the Race Director.

6.2.2 The Safety Car is identified as such and fitted with an augmented flashing light system.

6.2.3 The Race Director may dispatch the Safety Car at any time during an Event in order to correct a hazardous situation. Drivers are warned that a Safety Car will be used when all corner stations display two motionless yellow flags and/or one motionless flag and a SC board and when the IMSA Yellow Condition System is in use, Drivers may also be warned by yellow flashing or motionless lights. Overtaking is prohibited anywhere on the circuit. When possible, the Safety Car enters the course ahead of the overall leader, who must slow to safety car speed to facilitate this or may be subject to a minimum one (1) lap penalty. All competitors must then follow the Safety Car in single file.

6.2.4 The primary purpose of the Safety Car is to create a traffic interval on the circuit so that the IMSA Safety Team and/or track marshals may handle emergencies more safely and quickly; therefore, it is essential that all cars catch up with the field as quickly as possible consistent with safety. A Driver must not pass the Safety Car unless specifically instructed to do so.

6.2.5 Competitors may enter the pits while the Safety Car is on course, but must not re-enter the racing circuit until directed by an Official. They must fall into line at the rear of the field after it has passed the pit area. A red light (or flag) indicates the pit exit is closed.

6.2.6 When the Race Director has determined that the course is clear and acceptable for the continuation of Competition, the Race Director will instruct the Safety Car to extinguish its flashing lights, the yellow flags are withdrawn and where in use, the IMSA Yellow Condition Lights are also extinguished, signifying that this is the final lap of this Safety Car intervention. The Safety Car exits the course at the location specified by the Race Director.

6.2.7 The car then immediately behind the Safety Car prior to the restart must maintain the speed of the Safety Car until the green flag is displayed, at which time acceleration and racing may begin. Any manipulation of this pace is considered an infraction of these Regulations.

6.2.8 On the restart, the green flag is displayed at the Start line, and racing may resume.

6.2.9 The Race Director may modify this procedure if, at his sole discretion, he believes conditions exist that warrant such modification, including not picking up the overall race leader at the beginning of the intervention if immediate dispatching is deemed critical.

6.2.10 Special Safety Car procedures for an Event may be discussed at a Driver meeting or communicated to competitors by Race Control.

6.2.11 The Safety Car may be used to lead formation (pace) lap(s) prior to the start of a race.

6.3 MEDICAL CAR

While the Medical Car is in motion on the race circuit, it is prohibited for a Driver to pass it unless specifically waved by.

6.4 RULES WHEN AWAY FROM THE PITS

Only a Driver is permitted to perform work on a car within the first line of protection on the circuit. It is prohibited for the crew or any other person to render physical assistance in performing such work. Marshals or other Officials may push or tow a disabled car to a safe location without penalty. It is prohibited for a Driver to push their car except in the pits.

6.5 PIT ENTRY/EXIT & SPEED LIMIT

6.5.1 Throughout the periods of practice, qualifying and racing, access to the pits must be made through the designated pit entrance.

6.5.2 The deceleration zone before pit entrance and acceleration zone at pit exit are not considered part of the pits, and working on cars in these areas is prohibited.

6.5.3 IMSA or the Race Director may impose penalties for driving in the pits deemed dangerous, erratic or of inappropriately excessive speed for the circumstances.

- 6.5.4 Unless otherwise posted in the SR, the speed limit in the pit lane is 60 kilometers/hour. The start and end of the pit lane speed limit is indicated with double cones and/or a speed limit board(s), unless otherwise designated in the SR, or by the Race Director.

6.6 RULES OF THE GRIDS AND PITS

6.6.1 UNIFORMS

Crew members shall wear clean uniforms or other appropriate and safe attire at all times during practice, qualifying and the race in order to present the best possible appearance to the public. Tank tops, shorts, open-toed shoes and similar attire are prohibited. Industry support people must be clearly identified as non-Team members.

- a. Identification: When required by the Series, team managers must wear an armband with their car number identifying them to Officials as the principal spokesperson for the Entry on officiating matters.

6.6.2 FUELING

There is no refueling or fuel transfer permitted in the pit lane. All refueling or fuel transfers must be done in the competitor's paddock space and attended by a dedicated individual manning a fire extinguisher.

Refer to the SSR for the individual Series for specific refueling regulations.

6.6.3 OTHER EQUIPMENT

- a. General: Compressed air tanks, air lines, hoses, fuel barrels, refueling equipment, tools, spare parts, spare body panels and any other equipment or materials stored in the pits must be situated behind the pit wall and must not block or infringe upon fire lanes or other designated safety zones.
- b. Bikes/Scooters/Carts: Bikes, scooters and motorized carts and similar 3- or 4-wheeled vehicles must not be driven into pit lane. Use of such vehicles in the paddock/garage areas must be for legitimate purposes only. Excessive speeds in these areas is not tolerated. Participants are required to abide by state regulations regarding the licensing and use of these vehicles. Such vehicles may be prohibited at certain Events or in certain areas of each facility by local ordinance or Promoter regulations.
- c. Air Tanks: Air tanks must be securely fastened or anchored once their protective caps are removed. A protective cage or guard around the regulators and fittings must be in place at all times.
- d. Sparks: For Series where re-fueling during the race is usual, no electric-driven tools or other equipment that may generate sparks are permitted in the pits. For other Series, only electric tools using batteries integrated as part of the tool. Adding fuel to cars while using such tools is prohibited.
- e. Face Masks: It is recommended that crew members changing tires wear protective face masks to reduce inhalation of materials.
- f. All structures or fixtures, including hoses and wires, extending over pit lane must be at least 2 meters above the road surface.

6.6.4 PIT LANE REGULATIONS

- a. A maximum of two (2) people per car are permitted at the wall that separates pit lane from the track (Signaling Area) depending on the layout and track regulations. IMSA may further limit this number. Crossing pit lane must be done under an Official's supervision during a race and should be kept to a minimum at all other times. Just before the start of the race, until all cars have passed the pits on the first green flag lap, only authorized Officials and fire marshals are permitted at the wall or in the Signaling Area.
- b. Whenever a Team member is working under a car in pit lane, stands or safety supports must be in place under the car.
- c. Before leaving its assigned pit box, the car must be completely free of all hoses, tools, etc.
A car must not be driven over its own air or fuel lines, tools, parts or crew members.
A car must not be driven over air or fuel lines, tools, parts or crew members of other competitors that are properly within their own pit box.
Lines, tools, parts, wheels, etc. must not be permitted to encroach upon, roll into, or otherwise be propelled into crew members, the fast pit lane or adjacent pits.
It is considered unsportsmanlike conduct to place objects which, in the sole opinion of the IMSA Officials, unfairly hinder the entry or exit of other competitors into their pit boxes, whether deliberately placed or not.
At the conclusion of the pit stop, all equipment must be promptly carried back behind the pit wall. This regulation may be modified in certain pit configurations.
- d. During all on-track sessions, Team members and their equipment and spares are prohibited in the pit lane working area (either delimited by the working wall, or a line specified by the Officials) unless their car is entering the pits or in the pit working area. As the pit lane is a congested and dangerous area, care should be taken to limit the number of persons and equipment in the working area to those reasonably necessary. Officials may limit the number of persons from a team in the working area should they deem it necessary. Standing on pit wall is prohibited during any on track activity.
- e. People less than 16 years old are prohibited in the pit lane area except IMSA Licensed Drivers participating in IMSA Series.

6.6.5 PIT TRAFFIC

- a. It is strictly prohibited to drive a car in reverse or against traffic under its own power in pit lane. A Driver who overshoots their assigned pit must either complete another lap or they may be pushed backwards by the crew, Officials and/or the Driver to the assigned pit.
- b. Once in the pit lane (as defined by the blend line), Drivers must remain within the designated lanes and must not overtake using the inside lane. Drivers entering pit boxes must not directly cross from the outside lane. When leaving pit boxes, Drivers must yield to traffic and stay in the inside lane while accelerating. Drivers exiting their pit box must not enter the outside lane until their speed is at or near the pit lane speed limit. Drivers of disabled cars unable to maintain the pit lane speed limit must move to the inside lane and permit overtaking in the outside lane.

6.6.6 REMOVAL FROM PITS

Cars must be removed from the pits during qualifying or a race only with the approval of the Race Director. The Race Director may assign an Official to observe any work.

6.7 QUALIFICATIONS AND STARTING POSITIONS

- 6.7.1 Cars are placed in the starting lineup in order of their speed potential with the fastest to the front of the field.
- 6.7.2 IMSA may require that cars achieve a minimum qualifying time in order to be eligible to start the race. IMSA may restrict the number of starters if a race is oversubscribed.
- 6.7.3 A car must be qualified by a Driver officially entered to drive that car.
- 6.7.4 For Events where starting positions for the feature races are determined by heat races, pole position goes to the winner of the fastest heat. In case weather or other unforeseen Events create inequitable conditions in separate qualifying sessions for the same type of car for a race, the Race Director may elect to place all cars in the first session in one row and all cars in the second session in the other row, with the fastest session on the pole row.
- 6.7.5 In case weather or other unforeseen circumstances in separate qualifying sessions for different classes of cars competing in a combined-class race lead to a condition where normally more powerful classes of cars have had substantially less favorable conditions under which to qualify, the Race Director may adjust starting positions to compensate for such abnormal circumstances.
- 6.7.6 Otherwise, pole position goes to the fastest qualifier. The pole is defined as the front row, inside position with respect to the first turn past the starting line. Exceptionally, the Race Director may choose the outside position as pole.
- 6.7.7 If two cars achieve the same qualifying time, the car that sets the time earliest in their qualifying session is gridded first.
- 6.7.8 In the interest of safety or at the discretion of the Race Director, a competitor unable to qualify in their session but who can meet qualifying requirements may be placed on the grid behind other cars of their division or at the rear of the grid.
- 6.7.9 If qualifying does not occur, or is interrupted at an early stage and not resumed, the Race Director shall establish the starting grid by other means. In such case, championship points for the pole, awards and official qualifying records are not awarded, nor shall they factor into awards based on pole position. Pole bonuses and/or awards may be paid at the discretion of IMSA.
- 6.7.10 Any Driver involved in an incident or a concurrent incident that initiates a red flag stoppage of a qualifying session may be penalized by deletion of their fastest timed lap of that session. Any Driver involved in a second red flag incident during the same session may be penalized additionally and be prohibited from further participation in that session.
- 6.7.11 Qualifying results are posted as "Provisional" until all audits and checks are concluded. "Final" starting grids are posted no later than one (1) hour prior to the race.

6.8 GRIDGING OF CARS

All cars must be gridded at a time designated in the SR. Any car arriving after the published time may, at the discretion of the Race Director, be placed on the back of the grid; it must not attempt to regain its original starting position. Running of engines during pre-race ceremonies is prohibited. Competitors required to go to the "Back of the Grid" are placed chronologically in the order that they were required to go to the back of the grid unless otherwise determined by the Race Director.

6.9 STARTS

There are two types of starts:

- 6.9.1 The rolling start, where the cars are moving at the moment the starting signal is given, in which case a Safety Car (pace car) may be used to lead the field to the starting line. The rolling start is used unless otherwise stated in the SSR for a Series or the SR for the Event.
- 6.9.2 The standing start, where cars are stationary at the moment the starting signal is given. As per the SSR for a Series or the SR for an Event.

6.10 STARTING LINE

The starting line is the point on the course where timing and/or scoring begins, unless otherwise stated in the SR.

6.11 STANDARD ROLLING START

- 6.11.1 The Safety Car (Pace Car) departs the starting grid and makes at least one (1) formation (pace) lap of the circuit at moderate speed. Unless otherwise directed in the SR or by the Race Director, cars take their assigned grid order positions in a single file line behind the Safety Car.
- 6.11.2 Cars unable to make the formation lap(s) or presenting themselves too late to safely join the starting field must be started from pit lane with the permission of the Race Director, and only under the direction of the Officials after the field has passed the pit exit on the first scored lap.
- 6.11.3 On the final formation lap, at a point designated in the SR or by the Race Director, the cars must pair up into two columns in their assigned grid positions to form the starting field. In exceptional conditions, the Race Director may require a single-file start.
- 6.11.4 After the Safety Car has left the circuit, Drivers must maintain their pace and positions as on the formation lap and must remain in formation until the display of the green flag by the Starter. Once the green flag has been displayed, racing begins and overtaking may occur. It is imperative that the field is packed up and in the proper order approaching the Starter's stand. Any car that pulls out of line in the formation or manipulates the pace prior to the display of the green flag pace may be penalized.
- 6.11.5 The race officially begins when the first car crosses the starting line after completion of the scheduled formation lap(s) regardless whether or not the Starter has displayed the green flag.

2013 IMSA CODE

6.12 NO START

If the Starter waves off the scheduled start of a race, NO flag is displayed. Normally, the Starter shall also shake their head indicating "no" and all flag stations display a motionless yellow flag. Cars should continue at a reduced pace, reform into the side by side, two-column formation per their original grid positions as soon as possible and anticipate a start on the next crossing of the starting line.

6.13 FALSE START

A false start occurs when a Driver deviates from the position assigned to them before the starting signal (or a restart signal following a caution period) is given. The Race Director may assess a penalty for a false start.

6.14 STARTERS

A Driver is considered to be a starter in a Competition and thus eligible for awards and championship points if they cross the start line per Art. 6.11.5 or start from the pit lane after Art. 6.11.5 in accordance with these Regulations.

6.15 TIMING AND SCORING

6.15.1 Each car must be fitted with an approved timing and scoring transponder or other electronic scoring device in an approved location and manner. It is subject to inspection at all times and must be surrendered or replaced upon request. The transponder must not be tampered with nor transferred to another car unless specifically approved by IMSA. Cost to replace a damaged or lost transponder is \$2500.00 invoiced to the Entrant. Failure to obtain and install the transponder shall result in the car not being scored.

6.15.2 Loss or damage to the transponder while in the possession of the Entrant results in an automatic fine to the Entrant in an amount determined by IMSA. In the case of loss or damage to an Entrant-owned transponder, the Entrant must fit a functioning transponder in order to continue participation in the Event/Series.

6.15.3 For the standing start, the timing and scoring commences at the moment the starting signal is given; or, if automatic apparatus is used, at the instant it is operated.

6.15.4 For a rolling start, the timing and scoring commences when the leading car crosses the starting line after completion of the scheduled pace lap(s).

6.15.5 First and subsequent laps are timed and scored when each car crosses the control line at the timing and scoring station unless a different procedure is prescribed by the SR.

6.15.6 The following timing policy is used at all IMSA Events:

- a. An "officially timed lap" is defined as: A lap recorded by IMSA Timing that uses the approved AMB transponder installed in the car to record a overtaking at the Control Line at the beginning and end of that lap. When a Driver ID system is installed, the overtaking must include the correct Driver ID.
- b. When a Driver ID system is installed, Drivers are responsible for engaging the correct identification plug prior to overtaking the last working pit.
- c. IMSA shall use its best efforts to notify a competitor not registering officially timed laps or correct Driver ID. However, it is the competitor's responsibility to ensure that their transponder is operating correctly, including Driver ID systems when a part of a Series' timing system, during all phases of Competition. Failure of the correct Driver ID registering shall result in incorrect Driver time credit, which is the competitor's responsibility, and may result in penalties or exclusion.
- d. During practice sessions, qualifying sessions and warm up sessions, only officially timed laps are counted towards Driver or car qualifications.
- e. During qualifying sessions, only officially timed laps are used to determine starting position.
- f. Only officially timed laps are counted towards "fast lap" awards or recognition of the speed of a competitor during the Competition, and only officially timed laps are recognized as track records.
- g. During all phases of the Event, when a competitor is not registering officially timed laps, IMSA shall continue to score the competitor (i.e. their position relative to other competitors during a race shall continue to be recorded) and may display unofficial times.

6.16 CONTROL LINE

A car crosses a control line at the instant the leading edge of its bodywork passes over that line, or at the instant the automatic timing apparatus is operated.

6.17 ON TRACK PROTOCOL

6.17.1 PASSING

It is the responsibility of both the overtaking Driver and the Driver being overtaken to assure safe overtaking at racing speeds. A car traveling alone may use the full width of the track. Overtaking may be either right or left depending on the conditions of the moment.

6.17.2 BLOCKING

Any Driver who, in the sole opinion of the Race Director and/or Stewards, alters their racing line based on the actions of pursuing competitors, or uses an abnormal racing line to inhibit or prevent overtaking, may be considered to be "blocking" and may be warned or penalized pursuant to Art. 8 of the IMSA CODE. In accordance with Art. 9.1.3 (1), any action or decision (or any alleged inaction or non-decision) taken by or imposed by the Race Director, Stewards or IMSA Officials in this regard is not subject to protest or appeal.

6.17.3 AVOIDABLE CONTACT

Any Driver who, in the sole opinion of the Race Director and/or Stewards, initiates avoidable contact with another competitor, whether or not such contact interrupts the other competitor's lap times, track position or damages other competitor's cars, and whether or not such actions result in actual contact, may be warned or penalized pursuant to Art. 8 of the IMSA CODE. In accordance with Art. 9.1.3 (1), any action or decision (or any alleged inaction or non-decision) taken by or imposed by the Race Director, Stewards or IMSA Officials in this regard is not subject to protest or appeal.

6.17.4 UNJUSTIFIABLE RISK

Any Participant who, in the sole opinion of the Race Director and/or Stewards, engages in any behavior deemed to represent an unjustifiable risk or reckless endangerment may be warned or penalized pursuant to Art. 8 of the IMSA CODE. In accordance with Art. 9.1.3 (1), any action or decision (or any alleged inaction or non-decision) taken by or imposed by the Race Director, Stewards or IMSA Officials in this regard is not subject to protest or appeal.

6.18 RACE STOPPAGE AND RESTARTS

- 6.18.1 Upon display of the red flag during the race, scoring stops and the competitors should follow the procedure in 6.1.8
- 6.18.2 During the race, unless it is specifically authorized by the Race Director or the SR and announced to all competitors, service or replenishment of any kind must not be performed, or assistance given on any cars from the time the red flag is displayed until scoring resumes. This includes cars already be in the pits or paddock. (During practice or qualifying, service may be performed unless prohibited by the Race Director or SR.)
- 6.18.3 The pit lane entrance and exit are closed upon the display of the red flag. Race Control may order cars to enter the pit lane under red flag conditions. If so directed by Race Control, cars that have already entered the pits at the time of the red flag may proceed to their pit box and stop until further advised by Race Control. Cars that were in their pit box at the time of the stoppage must stay in their pit box until released by Race Control. Cars in the pits at the time of the stoppage may have their lap count adjusted so as to not unfairly advantage or disadvantage them based on their position relative to the control line.
- 6.18.4 If so defined in the Event SR, IMSA may elect to resume a stopped Competition on an alternate day.
- 6.18.5 Once the Race Director has determined that it is safe for cars to proceed from the pits, the Race Director orders the pit exit opened and cars that were in the pits shall join the field at the back of the pack in the order they left the pits.
- 6.18.6 The Race Director restarts the Competition with competitors:
- 6.18.6.1 In their original starting positions, unless the entire running field has completed one lap, or the overall leader has completed two laps;
 - 6.18.6.2 Otherwise, the Race Director lines up the competitors with the normally running cars in single file, in the order according to Timing and Scoring, of their last crossing of the control line at start/finish at the time the red flag was displayed, starting with the car with the oldest crossing time.
 - 6.18.6.3 In order to establish a uniform lap count, once the cars are circulating prior to the re-start, the Race Director shall order a wave-by, until the overall leader, or leading car circulating, is immediately behind the Safety Car. Once the wave-by is initiated, if that leading car enters the pits or stops, the next car circulating behind the Safety Car is selected.
- 6.18.7 The Stewards and the Race Director may review and change the lap count of cars to ensure that they did not gain an unfair advantage as a result of the stoppage. The Stewards and the Race Director may require cars that were not normally running, impaired at the time of the stoppage or caused the stoppage, to enter the pits to be reviewed by the Officials. Once cleared, they may then join for the restart at the back of the field in the order they exited the pits.
- 6.18.8 Overall race time, but not race laps, continue to be counted during the stoppage unless otherwise announced by the Race Director or SR.
- 6.18.9 Scoring recommences upon the order of the Race Director to restart the cars, and pace laps on the restart are scored.

6.19 MINIMUM DURATION

A Competition stopped with less than 50% of its scheduled time or distance elapsed and not restarted is considered incomplete and Organizers are not obligated to distribute awards. IMSA may determine, at its sole discretion, to award some amount of points for races less than 50% complete and not restarted on evaluation of circumstances surrounding such stoppage. If 50% or more has elapsed, IMSA may call the Competition complete and direct the distribution of awards.

6.20 CHECKERED FLAG

- 6.20.1 Once the duration of the race expires or when the distance to cover is achieved, the pit exit is closed and the checkered flag is displayed to the car running first in the General Classification (overall scoring order) as it crosses the finish line on the race track. If the car shown first in the General Classification has not crossed the finish line on the race track once the duration of the race expires or when the distance to cover has been achieved, the checkered flag is displayed when the next highest placed car crosses the finish line on the race track.
- 6.20.1.1 In Competitions of a given distance, the checkered flag is given first to the leading car, then to the other finishers as they cross the finish line.
 - 6.20.1.2 In Competitions of a timed length, the checkered flag is given first to the leading car as it crosses the finish line at or after the expiration of the specified duration, then to the other finishers as they cross the finish line.
 - a. If the leading car is not running at the expiration of the time limit, the checkered flag is displayed to the next highest running car (not necessarily the winner) in the same manner.
- 6.20.2 Should the checkered flag be inadvertently or otherwise displayed before the leading car completes the scheduled number of laps or before the prescribed time has been completed, the race is nevertheless be deemed to end when the flag is displayed.
- 6.20.3 Should the checkered flag be inadvertently delayed, the results are based on the positions at the moment provided for in the SR. If the checkered flag is inadvertently or otherwise displayed to a car other than the leader at the conclusion of the race, it is considered a delayed finish as though the flag had been given to the leader.
- 6.20.4 The checkered flag is displayed for a maximum of five (5) minutes.

2013 IMSA CODE

6.21 WINNER

- 6.21.1 The winner is the car that has covered the greatest distance in the shortest period of time once the duration of the race expires or when the distance to cover is achieved. The position of the cars on the starting grid is not taken into account.
- 6.21.2 For races run in two or more parts (red flag), the distances covered in each part are combined. In such case, the winning car is the one that has covered the overall greatest distance in the shortest official period of time.

6.22 TIES

In case of a tie in the final point standings, the tie shall be resolved according to the Driver's record of first place finishes, and then if necessary, the number of second place finishes, and so on down to tenth place. If a tie still remains, the tie shall be broken by the first to achieve the highest finishing position in that season and so on down to the last points award position for the Series.

- 6.22.1 The decision of IMSA regarding any dispute or question about point awards is final.

6.23 OFFICIAL RESULTS

- 6.23.1 All starting cars may be credited with a finishing position whether or not they are running when the checkered flag is given.
- 6.23.2 Following a Competition, results are "Unofficial" until all audits of timing and scoring and Driver logs are completed and scrutineering is concluded. "Provisional" results are posted at the track. "Official Results" are those issued from the IMSA office (or Series office if designated by IMSA) after final review and any outstanding protests or appeals are concluded. "Official" results are only amended to correct typographical errors or as otherwise provided in these Regulations. IMSA shall authorize payment of awards only after the results of a Competition are audited and published in final "Official" form.
- 6.23.3 Any car found to be out of compliance with the Regulations may be removed from consideration for prize money and championship points.

6.24 OVAL TRACK PROCEDURES

These procedures shall be clarified if and when IMSA defines a race as an oval race on the SR.

ARTICLE 7 OFFICIALS

The Officials responsible for conducting an IMSA Event are organized as follows:

RACE DIRECTOR
CLERK OF THE COURSE
STEWARDS
STARTER
TIMEKEEPER
TECHNICAL DIRECTOR
CHIEF FLAG MARSHAL
COMMUNICATION MARSHAL
COURSE MARSHAL
CHIEF MEDICAL OFFICER
PIT LANE OFFICIALS
OTHER OFFICIALS

Except for the Stewards, the above Officials may delegate part of their duties to assistants. Individual Series may appoint Stewards whose decisions are subject to ratification by the IMSA Stewards of the Event.

7.1 SUPERVISION

In addition to these Officials, IMSA reserves the right to appoint a person to evaluate and report on the Event.

7.2 APPOINTMENT OF OFFICIALS

The Race Director and Stewards are appointed by IMSA. Other Officials are appointed subject to approval of IMSA.

7.3 CONDUCT

Officials are expected to conduct themselves in a manner reflecting credit on the sport of automobile racing and IMSA. IMSA may remove any Official's appointment or penalize them if they fail to conduct themselves appropriately.

7.4 SEPARATION AND PLURALITY OF DUTIES

An Official must have no responsibility or authority beyond that attached to their appointment. However, except for the Race Director and Stewards, a person may hold more than one Official position.

7.5 RACE DIRECTOR

- 7.5.1 The Race Director is the chief executive at an Event and is responsible directly to IMSA for the conduct of the Event. Accordingly, the Race Director has the duty and authority to:
- 7.5.2 Keep order in cooperation with civil authorities responsible for public safety.
- 7.5.3 Execute the program of Competitions and other activities punctually by directing the Drivers and their cars, Officials and their assistants and other Participants.

- 7.5.4 Prevent ineligible cars and Drivers from taking part in an Event.
- 7.5.5 Order inspection of any car in order to verify its eligibility.
- 7.5.6 Refer protests and disputes to the Stewards.
- 7.5.7 Determine, in consultation with the Stewards, whether conditions are safe to continue the Event, or else postpone a Competition, modify the SR or alter the schedule for reasons of safety or forces beyond their control.
- 7.5.8 Assess penalties in accordance with the IMSA CODE.
- 7.5.9 Replace any Official not able to perform their duties.
- 7.5.10 Supervise the distribution of awards to eligible competitors.
- 7.5.11 Compile a report on all aspects of the Event as requested by IMSA.
- 7.5.12 Assign certain responsibilities and/or authorities to the Stewards or other IMSA Officials.
- 7.5.13 Also serve as Clerk of the Course in certain cases.

7.6 CLERK OF THE COURSE

- 7.6.1 The Clerk of the Course is responsible for conducting the Event in accordance with the official program.

7.7 STEWARDS

- 7.7.1 The Stewards shall sign and send to IMSA as soon as practicable after the close of the Event, a report describing the particulars of any protests lodged and/or exclusions they may have made, with their recommendations as to any decisions that may have to be taken for a suspension, disqualification or any other action(s). At an Event comprising several Series, there may be different Stewards for each Series.
- 7.7.2 The Stewards of the meeting shall have supreme authority for the enforcement of the International Sporting CODE as applicable, the IMSA CODE, the Sporting and Technical Regulations of the Series (SSR) and the SR. At all Events, at least one Steward is present to represent the Stewards and in this case the others may be contacted telephonically.
 - a They shall decide what penalty to enforce in the Event of a breach of the regulations. They may delegate this authority to the Race Director, but in all cases shall retain the power to overrule the decisions of the Race Director in this regard.
 - b In exceptional circumstances, they may amend the SR.
 - c They may authorize a change of Driver(s).
 - d They may accept or refuse any correction proposed by a judge of fact.
 - e They may assess penalties or fines.
 - f They may pronounce exclusions.
 - g They may amend the results.
 - h They may prohibit from competing, any Driver or any car that they consider being dangerous or that is reported to them by the Race Director as being dangerous.
 - i They may exclude from any session, or for the duration of the Event, any Entrant or Driver they consider as, or who is reported to them by the Race Director or by the Organizing Committee, as being ineligible to take part, or whom they consider as being guilty of improper conduct or unfair practice.
 - j They may order the removal from the course and its precincts, any Entrant or Driver who refuses to obey the order of a responsible Official.
 - k They may postpone a Competition in the Event of force majeure or for significant safety reasons.
 - l They may modify the Event program as to the position of the starting and finishing lines, or in any other manner, if requested to do so by the Race Director or the Organizer in the interests of competitor and public safety.
 - m In the absence of one or several of the Stewards of the meeting, they may appoint one, or if necessary, several substitutes, especially when the presence of three Stewards is deemed indispensable.
 - n They may take the decision to stop a race.
 - o They may assist the Race Director in the investigation of possible rules violations and other disputes. They may call and hear witnesses, and consider other evidence and then make recommendations to the Race Director for solving such disputes, including recommendations for penalties.
 - p They may advise the Race Director on any matter that they feel may improve the conduct or safety of the Event.

7.8 STARTER

2013 IMSA CODE

The Starter operates directly under the Race Director and communicates the flag signals to the competing Drivers from the time the cars take their starting positions until the Competition is ended and all cars have left the racing circuit.

7.9 TIMEKEEPER

The Timekeeper and their staff are responsible for the accurate timing and scoring of the Event. They prepare the official results, maintain official qualifying times for competing cars and furnish timing and scoring information requested by the Race Director.

7.10 TECHNICAL DIRECTOR (SCRUTINEER)

The Technical Director is responsible for checking all competing cars for safety and eligibility. The Technical Director and their assistants conduct inspections at the Race Director's request, and report any cars found unsafe or ineligible.

7.11 CHIEF FLAG MARSHAL

The Chief Flag Marshal is responsible for recruiting, training and assignment of Course Marshals at corner stations.

7.12 COMMUNICATIONS MARSHAL

The Communications Marshal is responsible for the operation of the system used for transmitting and receiving information between Race Control and the corner stations.

7.13 COURSE MARSHAL

The Course Marshals are responsible for final preparation and maintenance of the racing circuit, flagging and other related duties assigned by the Race Director.

7.14 CHIEF MEDICAL OFFICER

The Chief Medical Officer is responsible for staffing and operating the Event medical establishment with qualified physicians, nurses and first aid personnel. Their primary responsibility and purpose is the treatment and disposition of any injuries incurred by the Participants in the Event.

7.15 PIT LANE OFFICIALS

The Pit Lane Officials are the liaison between Competitors and Race Control.

7.16 OTHER OFFICIALS

IMSA may establish such other Officials as it deems appropriate.

ARTICLE 8

PENALTIES

8.1 VIOLATIONS & PENALTIES

Any Driver, Entrant, Official, IMSA member or other Participant who, a.) Violates the CODE or the SR of an Event, b.) Attempts to bribe anyone connected with an IMSA Event or activity, or c.) is party to a fraud or other act prejudicial to IMSA or to the interests of any competitor or to the interests of motor sports generally may be penalized according to the nature of the offense by IMSA, the Stewards or the Race Director of an Event. Drivers and/or their cars may be penalized for technical and other violations committed by their crew, including any manufacturer or technical consultants and/or their Entrant.

8.2 PUBLICATION

IMSA shall have the right to publish notice that it has imposed a penalty and the reasons therefore, and a person or body referred to in such notice shall have no right to act against IMSA or the person publishing the notice.

8.3 RANGE OF PENALTIES

Penalties that may be imposed, in order of their severity, include:

8.3.1 **REPRIMAND** (blame): The Race Director, Stewards or IMSA may assign blame/fault and issue a reprimand.

8.3.2 **PROBATION**: The Race Director/Stewards or IMSA may impose a definite or indefinite period of probation.

8.3.3 **FINE**: A fine may be imposed in proportion to the offense. A member's Competition privileges are automatically under suspension until the fine is paid. Remit fines to: International Motor Sports Association, 1394 Broadway Avenue, Braselton, Georgia 30517.

8.3.4 **TIME and/or LAP**: A lap penalty during or after a Competition, or time penalty during a Competition by calling a car into the pits and/or by holding a car already in the pits may be imposed. A time penalty may be imposed by adding time to a car's finishing time after the race.

8.3.5 **LOSS OF RACE POINTS**: Loss of championship Driver, Team and/or Manufacturer points may be imposed.

8.3.6 **EXCLUSION**: A Driver, an Entrant and/or car may be excluded from Competition, in which case their rights to any award in the Competition are forfeited and the official results shall advance the next competitors accordingly.

8.3.7 **SUSPENSION and/or REVOCATION of CREDENTIALS**: A member's privilege to take part in Competition may be suspended for a definite or indefinite period. Credentials and parking privileges may be revoked for a definite or indefinite period of time.

8.3.8 **DISQUALIFICATION/LOSS of ACCRUED POINTS**: Loss of accrued points earned by a competitor may be imposed.

8.3.9 **EXPULSION**: IMSA or a court appointed by IMSA may expel a member for serious offenses.

8.3.10 **AUTHORITY**: This article shall in no way be construed to limit the authority or discretion of IMSA or the Race Director/Stewards to assess additional, different, or no penalties for these or other violations of the IMSA CODE, SSR or SR.

8.3.11 More than one penalty may be imposed for the same offense.

8.4 SERVING BLACK FLAG PENALTIES

A competitor must serve any on-track or pit lane penalty only under Green Flag conditions and must cross the Start/Finish line under Green Flag conditions prior to entering the pit lane under Green Flag conditions to serve any such penalty.

ARTICLE 9 PROTESTS

9.1 RIGHT TO PROTEST

- 9.1.1 Except as provided in Section 9.1.2 below or elsewhere in the CODE or SSR or SR, any IMSA Entrant participating in an IMSA Sanctioned Event may protest: a) certain Competition-related actions or decisions taken by or penalties imposed by IMSA or an IMSA Official or, (b) conduct of another IMSA member and/or Entrant in conjunction with such Event that is believed to be a violation of the CODE or SSR or SR. Non-Entrant IMSA members must only protest in cases specifically involving actions, decision, or penalties arising out of their own actions or conduct. Matters involving a decision or action taken against an Entrant must only be protested by that Entrant.
- 9.1.2 Matters stated as being non-protestable in this CODE are not subject to protest and all actions, decisions, rulings or penalties made or taken with respect to such matters shall not be subject to protest or appeal. A decision that a matter is not subject to protest is final and not subject to appeal. If a CODE infraction is determined to have occurred, the decision to assess or not to assess a penalty or the nature of an assessed penalty is protestable and appealable only by the party against whom the penalty or ruling is assessed.
- 9.1.3 "Non-protestable" matters shall include: 1). Any action or decision (or any alleged inaction or non-decision) taken by or imposed by the Race Director, Stewards or IMSA Officials arising out of an Event except those directly related to a competing car's or equipment's technical compliance; 2). Whether a Driver improved their position prior to the display of the starting signal at the initial race start or any restart; and, 3) Event "procedural matters" such as a). calling or not calling for a yellow flag or red flag, b). restarting vs. calling a race complete, or c). adjusting the duration and/or scheduling of the race or any practice or qualifying session, or d). any decision to revoke credentials or parking privileges, or e). any decision regarding pit or paddock allocations, or f). Declaration or not of a "Wet" session or race start.
- 9.1.4 Failure to submit any action, decision, conduct or penalty described in Art. 9.1.1 above for adjudication in accordance with the protest procedure set forth in this Article 9 shall constitute a waiver of any right of protest or appeal as to such action, decision, conduct or penalty.

9.2 INFORMAL INQUIRY

- 9.2.1 Prior to filing a protest, all Entrants and/or IMSA members are encouraged to resolve any dispute informally. Immediately upon acquiring knowledge of any facts that could potentially be the subject of a protest, but in no case after the expiration of the time limit for any formal protest as established in Art. 9.3, affected parties may verbally request an informal inquiry, which shall then be conducted in any manner deemed appropriate by the Race Director. There is no fee payable for such informal inquiry.
- 9.2.2 If the informal inquiry does not resolve the dispute, the time limitation for filing a formal protest shall commence as soon as the informal inquiry is terminated, or as otherwise provided in Art. 9.3.

9.3 SUBMISSION OF PROTESTS

- 9.3.1 Protests of matters deemed to be protestable pursuant to Section 9.1 and the following matters shall be submitted in writing and signed by an authorized representative of the Entrant or member and must be delivered to the Race Director within the following time limits:
- a. Against the validity of an entry, qualification of an Entrant, Driver or car: Prior to scheduled closing time for Technical Inspection.
 - b. Against a car or equipment: Prior to the start of the race.
 - c. Against handicap or starting position: Immediately upon the posting of the starting grid.
 - d. Against the finishing order of a Competition: Thirty (30) minutes after posting of the unofficial race results.
 - e. Against the results of a Competition: Thirty (30) minutes after posting of the provisional race results.
- 9.3.2 Each protest must be accompanied by a protest fee of two thousand dollars (\$2,000). If the protest is withdrawn after being submitted, the fee may be retained or returned in whole or in part at the discretion of the Stewards. However, if a properly submitted and permitted protest is heard and not upheld by the Stewards, the entire fee shall be retained. If a properly submitted and permitted protest is heard and upheld by the Stewards, the entire fee shall be returned.
- 9.3.3 IMSA may penalize the originator of a protest judged to be malicious, spiteful or who otherwise acts in bad faith.
- 9.3.4 The protest shall identify the specific action, conduct or ruling being protested in sufficient detail to enable the Stewards to determine whether the matter is protestable and to identify the parties involved and facilitate timely procurement of all documents and other evidence that may be relevant to the protest.

9.4 HEARING OF PROTESTS

- 9.4.1 Protests are heard by the Stewards, generally at a protest hearing. The time and place for the hearing is set by the Stewards and shall commence as soon as reasonably possible after the written protest is properly filed. The protest may alternatively be heard through the submission of written evidence and documentation at the Steward's discretion.
- 9.4.2 The Stewards shall regulate the conduct of the protest hearing. The parties (as determined by the Stewards) involved in the protest may only appear in person or through their authorized Entrant representatives. They must not be represented by legal counsel. Other interested parties may be heard at the Steward's discretion. There is no right of cross examination at the hearing, nor shall the proceedings be recorded. The hearing shall not be subject to any formal rules of evidence or procedure contained in any state, province, or federal arbitration act. Failure of the protesting party to appear at the hearing (unless otherwise excused by the Stewards) shall result in dismissal of the protest and forfeiture of the protest fee.

9.4.3 In deciding the protest, the Stewards shall act by way of a majority consensus and may take whatever action they deem appropriate to further the interests of fairness and finality in Competition results. Under no circumstances must the Stewards order an Event or any portion thereof to be rerun.

9.4.4 At the conclusion of the hearing, the Stewards shall deliberate and try to reach a decision as soon as reasonably possible, but in any case, no later than the end of the next Event or business day. The decision shall be written and communicated to the protesting party, IMSA and the Race Director. Subject only to the right of appeal provided in Article 9, the decision of the Stewards shall be final, binding and not subject to litigation in any civil court.

9.5 PROTESTS AGAINST CARS

9.5.1 When a protest is made against a car's technical compliance, the protestor must post with the Race Director, in addition to the forms and fees specified in Article 9.3, a cash bond adequate to cover the costs of any disassembly, inspection and assembly required. The amount of this bond is determined by the Race Director and Technical Director.

9.5.2 If the car is found to conform to the rules and the protest is disallowed, this bond is forfeited and used to cover the costs involved.

9.5.3 If the car is found to be in violation of the rules and the protest is allowed, this bond is returned to the protestor and the protested party stands all expenses involved in the inspection, and additionally, is subject to penalties assessed by the Race Director.

9.5.4 If an Entrant or Driver of a protested car does not permit inspection under these terms, they shall be disqualified by the Race Director.

9.5.5 All other provisions of Art. 9.2 - 9.3 above shall apply to protests against cars.

9.6 RIGHT OF REVIEW

The Stewards may re-open and review a judgment that they rendered if previously unknown facts or evidence are discovered.

ARTICLE 10 APPEALS

10.1 RIGHT TO APPEAL

10.1.1 Provided that all Protest or other procedures specified by the IMSA CODE have been properly completed, an IMSA member shall have the right to appeal any decision or penalty issued under authority of the CODE against that member, except as otherwise prohibited.

10.1.2 Issues that are not subject to protest and all rulings, decisions, and any action taken by an IMSA Official with respect to such issues are not subject to appeal. Appeals of protest decisions are limited to the subject matter of the protest. The decision to dismiss a protest must be appealed only by the party originally submitting the protest.

10.1.3 Except where determined by IMSA Officials for good cause, there shall be no stay of any decision or penalty pending disposition of the appeal. Payment of prizes and/or point awards may be withheld pending final disposition of the appeal.

10.2 APPEAL PROCEDURE

10.2.1 The appellant must give written notice of their intent to appeal a decision or penalty to the Chief Operating Officer of IMSA, or if applicable, the Race Director or Stewards, within one (1) hour of the announcement of such decision or penalty.

10.2.2 Contingent upon compliance with Art. 10.2.1 above, an appeal must be filed in writing and received by IMSA at its headquarters no later than 5:00 PM of the second business day after the announcement of the decision or penalty being appealed. The appeal may be transmitted by fax or any other electronic means of communication with confirmation of receipt, must be signed by the appellant personally, and must specifically identify and address the decision or penalty being appealed.

10.2.3 The appeal must be accompanied by the appeal fee of \$5,000. The fee is not returnable should the appellant not follow through on their declared intent to appeal or for the grounds set forth in Art. 10.3.5 below.

10.2.4 If the appeal involves a decision or penalty imposed by the Race Director and/or Stewards, the Race Director and/or Stewards shall submit a written statement to the Appeal Review Board (with a copy to the appellant) that shall include a summary of the background of the proceedings and actions taken by the Stewards, the background of any formal investigative inquiry and/or the protest procedures, and any other information that they wish for the Appeal Review Board to consider.

10.3 HEARING OF APPEALS

10.3.1 Appeals are heard by the IMSA Appeal Review Board ("Board"). The IMSA Chief Operating Officer shall appoint a Board Chairman and two additional members for the specific appeal to be heard. In the event that a Board member is factually involved in the appeal, the Board member shall recuse themselves from participating on the Board and the IMSA Chief Operating Officer shall select a replacement. If the Chief Operating Officer of IMSA is factually involved in the matter, the choice of Board Members shall be reviewed and ratified by another member of the ACCUS board.

10.3.2 The Board establishes the most appropriate procedure for hearing a particular appeal and shall notify the parties of such procedure. In conducting a hearing and deciding an appeal, the Board is not bound by technical or formal rules or procedures, but shall conduct its proceedings in the manner best suited to ascertaining the relevant facts and the merits of the parties' respective positions. The Board must conduct its hearing and announce its decision no later than 30 calendar days after receipt of the appeal by IMSA (unless otherwise mutually agreed by the Board, IMSA and appellant).

10.3.3 The Board may summon either orally or in writing and at its sole discretion, any IMSA member to testify at a hearing or otherwise submit relevant evidence. Any member who is summoned and refuses to so testify or submit evidence may be subject to disciplinary action as deemed appropriate by IMSA.

10.3.4 The appellant and any members must testify in person or submit evidence personally. Attorneys or other representatives of appellant and any such members are not permitted at oral hearings.

10.3.5 Any appeal that fails to comply with the procedures set forth in this Article 10 may be dismissed at the Board Chairman's sole discretion. Similarly, if the Chairman determines that the appellant has failed to identify any issues properly subject to appeal or if the appeal has been brought without reasonable grounds, the appeal shall be dismissed and the subject matter of the appeal shall for all purposes be deemed null and void and not subject to a right of further appeal. Failure of the appellant to appear at the time and place set for oral hearing or to otherwise fail to respond to any investigatory request of the Chairman or Board may also result in the dismissal of the appeal with prejudice. In all such instances, the entire appeal fee is forfeit and additional penalties may be imposed by the Board without further right of appeal.

10.4 APPEAL JUDGMENT

The Board may affirm, modify or reverse a decision or penalty imposed by the Race Director or the Stewards including but not limited to reducing or increasing a previously imposed penalty and/or assessing a new or different penalty and also determine the disposition of the appeal fees unless otherwise addressed elsewhere in this Article 10. However, the Board must not order a Competition or any portion thereof to be rerun.

10.5 PUBLICATION; DECISIONS, PENALTIES, PROTESTS & APPEALS

IMSA shall have the right, without recourse brought against it, its agents or its publisher, to publish any decision, penalty or judgment imposed by IMSA, the Race Director, Stewards or the Board, including publication of the names of the involved parties.

ARTICLE 11 AUTOMOBILES (CARS)

IMSA publishes rules and specifications for various classes of cars eligible to compete in each Series.

11.1 CAR

The car is defined throughout the IMSA CODE as consisting of the body shell/chassis unit and the IMSA-approved engine block or crankcase, either of which must not be replaced during a race. In the case of rotary engines, the cylinder block shall consist of the front, intermediate and rear housings. A car must have at least four wheels not in a line, two of which must effect the steering and two that effect the propulsion.

11.2 TIRES

11.2.1 IMSA regulates the eligibility of tires in Competitions in order to promote equality.

11.2.2 It is prohibited to use a traction compound or any substance that might alter the physical properties of a tire as supplied by its manufacturer.

11.2.3 Tire warmers and any other means of artificially warming tires are prohibited.

11.3 FUEL

11.3.1 IMSA reserves the right to have all cars use the same brand and designated grades of fuel in a given Event. When this right is exercised, it is stated in the Series SSR, the SR or in other IMSA bulletins for that Event. Fuel used for practice, qualifying and the race is supplied by the "Official Fuel" supplier and must be used exactly as supplied by the "Official Fuel" supplier. An approved lubricant may be added to the fuel for some engine types with the prior written approval of IMSA.

11.3.2 In the case of any Event where an "Official Fuel" is named, IMSA may sample the actual fuel(s) provided by the fuel supplier and those samples become the benchmark from which all competitor's samples are judged. IMSA reserves the right to check any fuel at any time during a Competition.

11.3.3 Competitors are responsible for the proper handling, transportation and security of their fuel from the time it is dispensed to them and for the proper disposal of unused fuel and/or fuel drums afterwards.

11.3.4 Competitors are specifically required not to leave any fuel at the circuit after the Event, unless prior arrangements have been made.

11.4 TECHNICAL INSPECTION/MANDATORY SAFETY REQUIREMENTS

Each entered car must be inspected and approved by the Technical Director or their delegated assistant(s) before it is permitted to participate in any official session. No expressed or implied warranty of safety shall result from this inspection or approval. It is at all times solely the responsibility of the Entrant to have their car free from mechanical defects and in safe racing condition. Cars damaged or altered after they have been approved at inspection are subject to re-inspection and approval. IMSA makes the final decision on the safety and eligibility of an accident-damaged car. Major body components must be maintained in normal position throughout the Competition. Questionable cars are subject to approval by the Technical Director. Cars shall present a neat, clean and professional appearance.

11.5 INSPECTION

11.5.1 IMSA, at its sole discretion, reserves the right to impound and inspect cars competing in an Event. Failure to comply may result in Exclusion.

11.5.2 The timing, location, method and type of car inspection and the number of cars to be inspected at any Event is determined by the Technical Director.

11.5.3 When instructed by the Officials to go to "Parc Fermé" or the inspection area, cars must proceed directly and without delay, or may be Excluded.

11.5.4 It is the responsibility of the Driver or Entrant to prepare a car for inspection when requested to do so by the Technical Director or their assistant(s). Any expense incurred, except in the case of a protest, is the liability of the Entrant. Preparation of a car for inspection must be performed in a timely manner as determined by the Technical Director. Any part that does not comply with the IMSA CODE may be retained by IMSA.

11.5.5 Admittance to any area where inspections are being made is controlled by the Technical Director.

11.5.6 Each car entered must submit to Technical Inspection during scheduled hours and display an official Tech sticker.

11.5.7 Measurements under IMSA rules:

- a. Both metric and English dimensions may be given in the IMSA CODE. In such cases, when the two systems do not equate exactly, measurements for compliance during inspection normally use the system most advantageous to the Entrant.
 - b. The IMSA Technical Director may establish tolerances for measurements taken during inspection; may require components on the car to fit IMSA templates; may require IMSA monitoring devices to be fitted to a car; and/or may require IMSA limiting devices to be fitted to a car.
- 11.5.8 Appearance: Clean and neat, no old damage.
- 11.5.9 Identification numbers must be placed on both sides and front, and must be legible to the satisfaction of the Chief Timekeeper. Specific requirements may be provided in SR.
- 11.5.10 Racing Tires: Mandatory, unless SSR or SR provide otherwise.
- 11.5.11 Leakage: Prohibited.
- 11.5.12 Driver Safety Equipment: Per IMSA CODE Art. 5.7
- 11.5.13 Compliance with Series sponsor advertising requirements is mandatory.
- 11.5.14 Mandatory safety requirements for all cars except as specified in the SSR and/or SR for a specific Series.
- 11.5.14.1 A six point Driver restraint system of approved design must be installed. The effectiveness and longevity of a seat harness is directly related to the way in which they are installed and maintained. The belts must be replaced after a severe collision and whenever the webbing is cut, frayed or weakened due to the action of chemicals or sunlight. They must also be replaced if any buckles are bent, deformed or rusted. Any harness that does not function correctly must be replaced.
 - 11.5.14.2 All cars must be equipped with two master electrical circuit breakers, one accessible from inside (accessible by the Driver when normally seated and fitted with the mandatory safety harness), and the second outside the car, that control all electrical power (except electrically actuated fire systems). The preferred outside location is the passenger side cowl area. The circuit breakers must be clearly marked by a spark in a blue triangle.
 - 11.5.14.3 All cars must have at least two (2) operating red brake lights and two (2) taillights. Amber brake lights are prohibited. (During a Competition, the Race Director may accept one (1) functioning headlight, one (1) functioning taillight and one (1) functioning brake light due to damage or equipment failure or as otherwise specified.)
 - 11.5.14.4 If so equipped, headlights must be protected against breakage. Headlights may be taped.
 - 11.5.14.5 Two external rear-view mirrors must be installed. Minimum dimension of each external mirror: 100 cm².
 - 11.5.14.6 Safety fuel cell of an approved type meeting FIA Spec FT-3 is required, must be mounted outside the Driver's compartment, separated by firewalls, flame and leakproof, and protected as far as practicable by the roll cage. Steel or steel braided fuel lines with appropriate fittings, fuel cell check valve, and vent line check valve are mandatory. The fuel cell vent system on the car must be designed so that all fuel vapors released during refueling are returned to the overhead tank via the 2" ID refueling vent hose. SPILLAGE IS NOT TOLERATED! Refueling equipment protruding into the Driver's compartment must be shielded so as to prevent hazard to the Driver in case of rupture. The bodywork may be modified to install fillers and vents so they do not protrude beyond the plane of the outside mounting surface. All fuel cells less than 20 cm from the lateral flanks must be protected by an adequate crushable structure.
 - 11.5.14.7 Hoods, deck lids and movable body sections must be secured with supplemental pins or fasteners. Latches may be deactivated. On cars where a key is required to open the trunk lid, the lock must be deactivated or removed.
 - 11.5.14.8 Supplemental pins used to secure movable body sections (such as hoods, doors, fenders, lids and removable tops) must have attaching cables to prevent accidental loss of pin.
 - 11.5.14.9 No concealed pressure type containers, feed lines or actuating mechanisms are permitted, even if inoperable.
 - 11.5.14.10 Full roll cages of approved design are mandatory. Material and construction specifications and recommended designs are contained in FIA Sporting CODE, Appendix J, Article 253, Section 8 and in these rules. Competitor must be prepared to drill inspection hole(s) in the roll structure for verification.
 - 11.5.14.11 A fire extinguisher is required for the respective categories and must be carried and in certified working order at all times. The on-board fire extinguisher system must be of a size and an approved extinguishing material that is in accordance with the FIA Sporting CODE, Appendix J, Article 258A.15.1, or equivalent. Trigger must be marked with a red circle with the letter "E" and be operable by the Driver and also from outside the car. Outlets must be directed into the Driver, engine and fuel compartments.
 - 11.5.14.12 All cars must be fitted with one front and one rear towing eye, painted red, accessible without the use of tools and be clearly marked with a red arrow on a white background. They must be securely fitted to the chassis of the car by means of a metallic rigid element (cable loops are prohibited). They must be strong enough to permit recovery of a car lying on its flat bottom in a gravel bed. Should the towing eye break, the track marshals shall pull the car to a safe position using any element of the chassis or of the bodywork whatsoever that they consider strong enough, and the car may be excluded from the race. If a car is damaged as a result of these actions, IMSA accepts no responsibility for any damage caused, however caused.
 - 11.5.14.13 In all cases, the Driver must be able to easily exit the car through both the Driver side and the passenger side in an emergency.
 - 11.5.14.14 An on-board starter and energy source must remain functional at all times, except when deactivated in an emergency by the master electrical circuit breaker (Art. 11.5.14.2 above)

2013 IMSA CODE

- 11.5.14.15 During periods of darkness, up to three (3) identification lights are permitted on the top or on the side, provided they do not face rearwards, flash or blink. They should not be yellow, blue or excessively bright red, and all identification lights are subject to approval by IMSA.
- 11.5.14.16 An "arrow" decal denoting tow hook location, window net release and door release must be affixed in each of these locations.
- 11.5.15 If the Technical Director determines prior to the race that a car does not meet the applicable specifications, the car shall not be permitted to compete unless, at the discretion of the Technical Director, the deficiency:
- Does not affect safety;
 - Cannot be corrected in time for qualifying or the race (if no qualifying);
 - Does not provide the competitor a significant competitive advantage over other competitors;
 - Is so insubstantial as not to warrant a determination that the car is ineligible to race.
- If the Race Director permits the car to compete under these circumstances, the Technical Director shall apprise the competitor in writing of the deficiency and the car is prohibited from competing in any future Events until such deficiency is corrected.
- 11.6 **OTHER EQUIPMENT**
On an individual basis, IMSA may approve equipment to be fitted to cars and/or Drivers or waive certain procedural requirements for the sole purpose of enhancing the television coverage of the Event.
- 11.7 **PRIVATE IN-CAR CAMERAS**
Private In-Car-Cameras may be permitted only after the express approval of IMSA and any footage gathered from such camera(s) shall only be used for non-commercial use by Team and Driver. Each Driver and/or Entrant must execute and maintain current, a media rights and usage license with the ALMS Productions prior to participation in their first Event. Any in-car camera installation for any session must be approved by the Technical Director and/or the Race Director. Installations are limited to inside the cockpit on closed cars and within a certain proximity of the cockpit on open cars unless otherwise approved. Footage shall not be transferred, sold, given to any party not having executed the media rights and usage license with ALMS Productions. Real time or live posting of any recorded material is prohibited. Any use of the in-car footage by sponsors or any other third party shall require the execution of a separate commercial use license with ALMS Productions.

IMSA CODE 2013

STANDING SUPPLEMENTARY REGULATIONS

IMSA has established uniform Standing Supplementary Regulations (SSR) under which Events for various Series are held and its championships are determined.

IMSA is the sole authority for the awarding of all IMSA Series championship points, the naming of IMSA Series Driver, Team and Manufacturer Champions and the distribution of any IMSA Series point funds in the manner set forth in the SSR.

Notwithstanding that a particular IMSA Series Competition may be listed on the FIA Calendar, IMSA reserves sole authority to settle any dispute that might arise during an IMSA Series Competition, insofar as the dispute would affect any of the above mentioned determinations, by naming a final court of appeal in accordance with Article 10 of the IMSA CODE or as otherwise provided for in these Regulations.

The Standing Supplementary Regulations of each Series are published separately, but are incorporated as a part of these Regulations by reference herein.

- ARTICLE 12 -- THE AMERICAN LE MANS SERIES PRESENTED BY TEQUILA PATRON
- ARTICLE 13 -- IMSA GT3 CUP CHALLENGE BY YOKOHAMA
- ARTICLE 14 -- COOPER TIRES PROTOTYPE LITES CHAMPIONSHIP POWERED BY MAZDA
- ARTICLE 15 -- PORSCHE GT3 CUP CHALLENGE CANADA BY MICHELIN
- ARTICLE 16 -- UNLIMITED RACING CHAMPIONSHIP

The Article numbers within each SSR may match or be different than that listed above.

APPENDIXES

APPENDIX 1 -- EQUIVALENCE FORMULAE

1 inch = 2.54 centimeters = 25.4 millimeters
 1 millimeter = 0.1 centimeters = 0.03937 inches
 1 foot = 12 inches = 0.3048 meters
 1 meter = 3.28 feet = 1.0936 yards
 1 mile = 1760 yards = 5280 feet = 1.60934 kilometers
 1 kilometer = 1000 meters = 1093.6 yards = 0.62137 miles
 1 square inch = 6.45 square centimeters
 1 cubic inch = 16.387 cubic centimeters
 1 cubic centimeter = 0.061 cubic inches
 1 U.S. gallon = 4 U.S. quarts = 231.18 cubic inches = 3.785 liters
 1 liter = 1000 cubic centimeters = 61.0255 cubic inches = 0.264 U.S. gallons
 1 pound = 16 ounces = 453.592 grams
 1 kilogram = 1000 grams = 2.2046 pounds
 1 mile per hour = 1.467 feet per second = 1.60934 kilometers per hour
 1 kilometer per hour = 0.62137 miles per hour
 Cylinder volume (displacement) = $3.1416 \times \text{bore}^2 \times \text{stroke} \times 4$
 Engine displacement = Cylinder volume x number of cylinders
 Weight of gasoline = 7.2 pounds per gallon at 60° F
 Atmospheric pressure = 29.92" HG = 14.7 P.S.I. = 1.01 Bar 1 Bar = 14.5 P.S.I.
 Average speed formula = $\frac{3600 \times \text{length of track} \times \text{number of laps}}{\text{Total time in seconds}}$

APPENDIX 2 -- IMSA/SERIES DRIVER AND TEAM FIRESUIT PATCHES

Please refer to the respective SSR for each Series for locations and requirements.

APPENDIX 3 -- IMSA RADIO FREQUENCIES

CHANNEL			RX-FREQ	TX-FREQ	PL CODE
Race Control (Primary)	Simplex	1	451.1750	451.1750	TPL 192.8
Race Control (Backup)	Simplex		461.6250	461.6250	DPL 464.0

American Le Mans Series Radio is broadcast on Scanner Frequency 454.000

Competitors must not use these IMSA operational frequencies.



Standing Supplementary Regulations

2013

AMERICAN LE MANS SERIES

PREFACE

THESE STANDING SUPPLEMENTARY REGULATIONS OF THE AMERICAN LE MANS SERIES ARE AN INTEGRAL PART OF THE IMSA CODE FOR THIS SERIES AND ARE INCORPORATED BY REFERENCE HEREIN.

This edition of the American Le Mans Series Standing Supplementary Regulations is extensively revised. This is an important document. All Participants should read these Regulations before completing the relevant entry form. Please contact IMSA if you have any questions in relation to these Regulations. It is the responsibility of the Participant to read, understand and comply with the Regulations. Failure to do so provides no relief from the Regulations.

SECTION 1A

"THE AMERICAN LE MANS SERIES CHAMPIONSHIP"

1A.1. The American Le Mans Series Championship

The American Le Mans Series (ALMS) is an annual calendar of races which determines Driver, Manufacturer and Team Champions as well as IMSA Privateer Cup and Founder's Cup awards. Every Event is organized according to the provisions of the FIA International Sporting Code, IMSA CODE, the SPECIFICATIONS "2013" of the Automobile Club de l'Ouest (ACO), these Standing Supplementary Regulations (SSR) and the Supplementary Regulations (SR) of each Event and amendments thereto as provided for in the IMSA CODE (the Regulations).

The calendar of Events for 2013 is as follows:

Sebring International Raceway, FL
 Grand Prix of Long Beach, CA
 Mazda Raceway Laguna Seca, CA
 Lime Rock Park, CT
 Mosport International Raceway, ON (Canada)
 Elkhart Lake's Road America, WI
 Baltimore Grand Prix, MD
 Circuit of the Americas, Austin, TX
 Virginia International Raceway, VA
 Petit Le Mans, Road Atlanta, GA

ALMS races may vary in duration. For races of a given distance, an additional time limitation may be imposed by the Race Director prior to the start of the race. The scheduled duration (time or distance) is specified in the SR.

1A.2. DRIVER CHAMPIONS

IMSA recognizes a Driver champion in the P1 class, the P2 class, the PC class, the GT class and the GTC class based on the number of points earned in the ALMS races in North America, provided the entrant is a Full Season Entrant.

1A.2.1 **Championship points:** are awarded in each Series race to the top ten (10) finishers that have met the eligibility requirements as follows:

1 st	20 points	5 th	8 points	8 th	3 points
2 nd	16 points	6 th	6 points	9 th	2 points
3 rd	13 points	7 th	4 points	10 th	1 point
4 th	10 points				

1A.2.1.1 **Intermediate Races:** For intermediate length races scheduled for at least 4 hours but less than 8 hours duration, two (2) additional points are awarded for class positions 1 through 10 as above

1A.2.1.2 **Long Distance Races:** For long distance races scheduled for 8 hours or more, four (4) additional points are awarded for class positions 1 through 10 as above.

1A.2.2 Eligibility for point awards:

1A.2.2.1 In all Events at least two (2) Drivers are required to drive each car. The maximum number of Drivers permitted to drive a car in any ALMS Event is three (3).
Penalty: Exclusion of car(s), Driver and Entrant at the discretion of the Stewards.

1A.2.2.2 In all Events, the car must complete at least 70% of the distance of the class-winning car to be eligible for Driver Championship points or Event prize money.

1A.2.2.3 A minimum lap count or drive-time required for a Driver to be eligible for points is specified per SSR Art. 21.3.

1A.2.2.3.1 For P2, PC and GTC, a Silver or Bronze Driver must complete the minimum lap count or drive-time established in the SR for any Driver in that car to be eligible for Driver points or Event prize money.

1A.2.2.3.2 For P2, PC and GTC, if a Silver or Bronze Driver does not complete the minimum lap count or drive-time as established in the SR, the car's otherwise finishing position is not considered in the order of the results for the purposes of awarding any points or Event prize money relative to all other cars in the P2, PC and GTC classes where a Silver or Bronze Driver has completed the minimum lap count or drive-time.

1A.2.2.3.3 For P2, PC and GTC cars finishing in the top three positions in class, if a Silver or Bronze Driver does not complete the minimum lap count or drive-time as established in the SR, the Entrant may be penalized at the determination of the Race Director and the Stewards.

1A.2.2.4 Maximum driving time is specified in SSR Art. 21.2.

1A.2.2.5 Drivers are awarded points only in the car(s) they drive during the race. Drivers in more than one car in a single class are awarded points only in the car so nominated.

1A.2.2.6 A Driver properly nominated by an Entrant is only eligible to compete in the car listed on that Entry. If a Driver, without proper nomination, competes in a car, they may forfeit awards earned in that Event, the car may be excluded and other penalties may apply.

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

1A.2.2.7 **DRIVE TIME:** At the beginning of the race the drive-time for all Drivers starting on the race track shall commence when Timing and Scoring starts the timing system at the green flag, or at the completion of the scheduled pace lap(s) just prior to the leading car crossing the designated control line after the completion of the scheduled pace lap(s), which is the commencement of the official time of the race.

1A.2.2.7.1 When a car enters the pit lane during the race, the drive-time stops for the Driver when the car crosses the designated pit-in scoring loop. Drive-time starts (or re-starts) for the Driver exiting pit lane when the car crosses the designated pit-out scoring loop. The Driver in the car when it enters the pits is credited for completing that lap when the car stops in its assigned pit box regardless of where that pit box is located on pit lane.

1A.2.2.7.2 Drive-time (but not necessarily the race) ends when the published time for the race expires, or if a distance is specified, at the moment when the leading car crosses the control line (either in the pits or on the track) first after completing the distance. Should a distance and a time be specified, the drive-time ends at the moment when the first of these is completed as herein.

■ 1A.2.2.7.3 In the event of a red flag during a race, minimum drive-time requirements may be adjusted as determined by the Stewards.

1A.2.2.8 Distance is normally measured in whole laps completed by the car.

1A.2.3 ELECTRONIC LOGS: Entrants must electronically submit a Status Log via the IMSA Pit Lane network within thirty (30) minutes of the conclusion of qualifying, the conclusion of the race, or the retirement of the car during the race. Failure to submit such log(s) may result in a minimum penalty of \$1000 up to **Exclusion**.

■ 1A.2.4 **TIES:** [SEE IMSA CODE Art. 6.22]

1A.3. MANUFACTURER CHAMPIONS

1A.3.1 IMSA recognizes a car manufacturer champion in the GT class.

1A.3.2 IMSA recognizes a chassis manufacturer champion and an engine manufacturer champion in the P1 and P2 class.

1A.3.3 IMSA recognizes a tire manufacturer champion in the P1, P2 and GT classes.

1A.3.4 All manufacturers are eligible, providing the respective teams are Full Season Entrants and the respective Manufacturer is a member of the IMSA Corporate Member Program.

1A.3.5 Championship points are awarded on the same basis as Art. 1A.2.1 above, including additional points for Intermediate and Long Distance races.

■ 1A.3.6 Each manufacturer receives points for its highest finishing position in each class in each ALMS race in North America, provided that the car completes at least 70% of the distance of the class- winning car. The positions of subsequent finishing cars from the same manufacturer are not taken into consideration.

1A.3.7 A car found out of compliance with the Regulations may be removed from consideration for manufacturer points for its finishing position. Final manufacturer points are adjusted accordingly.

1A.3.8 In case of a tie in the final point standings, the tie shall be resolved as per Art. 1A.2.4 above.

1A.4. TEAM CHAMPIONS

■ 1A.4.1 IMSA recognizes a Team champion (Entrant) in the P1, P2, PC, GT and GTC classes. The championship is based on the total points earned by the highest finishing car of those entered by a single Full Season Entrant in each class in each ALMS race in North America. The maximum number of entries entered by an Entrant per Event in any class is two (2).

1A.4.2 Championship points are awarded on the same basis as Art. 1A.2.1 above including additional points for Intermediate and Long Distance races.

■ 1A.4.3 Each Team receives points for its highest finishing position in each class in each race in the ALMS in North America, provided that the car is enrolled in the IMSA Full Season Entry program, completes at least 70% of the distance of the class winning car. Subsequent finishing cars from the same team are not awarded points toward the Team Championship.

1A.4.4 A car found out of compliance with the Regulations may be removed from consideration for Team points for its finishing position. Final Team points are adjusted accordingly.

1A.4.5 In case of a tie in the final point standings, the tie is resolved as outlined in Art. 1A.2.4 above.

1A.5. IMSA PRIVATEER BONUS FUND

1A.5.1 IMSA shall establish a Privateer Bonus Fund for P1, P2, GT, PC and GTC classes. These awards are intended to recognize the achievement of private teams and therefore factory teams are not eligible to receive awards. Privateer Bonus Funds are available only to Series Full Season Entrants.

1A.6. FOUNDER'S CUP

1A.6.1 The Founder's Cup, named in honor of the founder of the American Le Mans Series, Don Panoz, is an annual IMSA Championship to recognize the accomplishments of the "Gentlemen Drivers" who are the foundation of the ALMS and whose participation embodies the "Learn by Doing" spirit of the Founder. The details of the Founder's Cup program are included in Attachment 7 of the SSR.

1A.7. PIT STOP COMPETITION

1A.7.1 The ALMS season may include a Pit Stop Competition open to a maximum of 24 IMSA Full Season Entrants on a "first come, first served" basis. Further details of any Pit Stop Competition shall be announced at a later date.

1A.8. PRIZE MONEY & CUPS

1A.8.1 To be eligible to receive Race Prize Money, the car must complete 70% of the distance completed by their respective class winner. In addition, to be eligible to receive Championship Points, an Entrant must be enrolled in the IMSA Full Season Entrant Program.

1A.8.2 Drivers and crewmembers must wear Series required patches as designated in the Regulations. Drivers and crewmembers appearing at award ceremonies without required patches or with patches from competing series or sanctioning bodies may result in the Entrant forfeiting all prize money and/or other penalties.

1A.8.3 Championship Bonus Fund (Privateer Bonus) is only available to Full Season Entrants.

1A.8.4 Privateer Bonus money earned per race accumulates for each individual car of a Full Season Entrant and is paid after season's end to those eligible cars that have entered and received invitations to all 2013 ALMS Events.

1A.8.5 Manufacturer entered cars are not eligible for Race Purse or Privateer Bonus Funds.

1A.8.6 Further information about prize funds and bonuses is available by application to IMSA.

1A.8.7 **CONTINGENT AWARDS:** A complete list of contingent awards is available from IMSA Registration. Decals and patches are available at the IMSA Technical Trailer.

SECTION 2A

CHAPTER I: GENERAL CONDITIONS

THE GENERAL CONDITIONS REFER TO THOSE ITEMS LISTED IN THE SR FOR EACH EVENT.

ARTICLES BEARING THE LETTERS "SR" (SUPPLEMENTARY REGULATIONS) SHALL BE COMPLETED TO ACCOMMODATE THE SR OF ALL EVENTS ORGANIZED UNDER THE NAME OF "LE MANS".

ART. 2A.1 - DEFINITION OF THE EVENT: SR

ART. 2A.2 - ORGANIZATION

2A.2.1 Every Event is organized according to (the Regulations):

- a) The applicable provisions of the FIA International Sporting Code ;
- b) The applicable provisions of "Sporting" and "Technical" Regulations of the Automobile Club de L'Ouest.
- c) The IMSA CODE, including these Standing Supplementary Regulations (SSR) and IMSA Technical Regulations.
- d) The Event Supplementary Regulations (SR)
- e) Applicable bulletins.

2A.2.2 Abiding by the Regulations:

By the very fact of their entry and their participation in the Event, Participants, Competitors and Drivers undertake to abide by the Regulations at all times.

2A.2.3 Organizing Committee:

Scott ATHERTON, President and CEO, ALMS
Scot ELKINS, Chief Operating Officer, IMSA-ALMS

ART. 2A.3 - INFORMATION ABOUT THE EVENT

2A.3.1 Name of the Event: SR

2A.3.2 National Sporting Authority:

International Motor Sports Association (IMSA) has been recognized by the FIA and the powers of the ASN have been delegated to the member clubs of the ACCUS for their various Events. In the case of the American Le Mans Series, that power has been delegated to IMSA.

The ASN in the United States of America is:

Automobile Competition Committee for the United States, FIA, Inc. (ACCUS-FIA)

Address: 7800 South Elati Street, Suite 303
Littleton, CO 80120

Telephone: +1 (303) 730-8100

2A.3.3 Organizer:

International Motor Sports Association

Address: 1394 Broadway Ave
Braselton, GA 30517 USA

Telephone: +1 (706) 658-2120

Fax: +1 (706) 658-2130

Internet: www.imsaracing.net

2A.3.4 Selection Committee:

Scot ELKINS, Chief Operating Officer, IMSA-ALMS
Charlie COOK, Technical Director, IMSA
Paul WALTER, Race Director, Clerk of the Course, IMSA

2A.3.5 Venue of the Event: SR

2A.3.6 Test day: SR (optional)

2A.3.7 Date of the Event: SR

2A.3.8 Entries:

- Opening: SR
- Closing: SR

2A.3.9 Length of the Race Track: SR

2A.3.10 Direction of the race: SR

2A.3.11	Duration of the race:	SR
2A.3.12	Number of cars admitted:	
	- Test day:	SR (optional)
	- Practice sessions:	SR
	- Qualifying sessions:	SR
	- Race:	SR
2A.3.13	Start (rolling):	SR
2A.3.14	Sporting Checks & Scrutineering:	
	Venue:	SR
	Schedule:	SR
2A.3.15	Parc Fermé:	SR
2A.3.16	Fuel:	
	All fuel must be obtained from the "Official Fuel Supplier" as designated by IMSA at each ALMS Event	
	<u>Place of Delivery:</u>	Race Fuel compound located in the ALMS paddock
	<u>Distribution:</u>	By Drum at Race Fuel compound
	<u>Storage:</u>	Approved 54 gallon drums
	<u>Schedule:</u>	SR
2A.3.17	Team Manager Briefing:	
	<u>Date:</u>	SR
	<u>Venue:</u>	SR
	<u>Attendance:</u>	Attendance at the team manager/crew chief meeting is mandatory.
	<u>Documentation:</u>	Each Team Manager and/or Crew Chief must personally sign attendance documentation
	<u>Penalty:</u>	Minimum fine of US\$500.00 per person late or not attending
2A.3.18	Driver, Team Manager and/or Crew Chief Briefing:	
	<u>Date:</u>	SR
	<u>Venue:</u>	SR
	<u>Attendance:</u>	Attendance at the Drivers and the team manager/crew chief is mandatory
	<u>Documentation:</u>	Each Driver and Team Manager/Crew Chief must personally sign attendance documentation
	<u>Penalty:</u>	Minimum fine of \$500.00 US - per person late or not attending and/or loss of starting position
2A.3.19	Autograph Session:	
	<u>Date:</u>	SR
	<u>Venue:</u>	SR
	<u>Attendance:</u>	Attendance of the Drivers is mandatory
	<u>Penalty:</u>	Minimum fine of \$500.00 US - per person late or not attending and/or loss of starting position
2A.3.20	Driver Parade:	
	<u>Date:</u>	SR
	<u>Venue:</u>	SR
	<u>Attendance:</u>	Attendance of the Drivers is mandatory
	<u>Documentation:</u>	Each Driver must personally sign attendance documentation
	<u>Penalty:</u>	Minimum fine of \$500.00 US - per person late or not attending and/or loss of starting position
2A.3.21	n/a	
2A.3.22	Winner's Press Conference:	
	<u>Venue:</u>	Media Center
2A.3.23	Organization Press Officer:	SR
2A.3.24	Timing:	IMSA Timekeepers
	See also IMSA CODE, Art. 6.15.	
	a. An IMSA-provided Driver Identification System must be installed in each car, see Attachment 6 of the SSR.	
2A.3.25	Official notice posting board:	IMSA Technical Trailer and the IMSA Pit Lane Network
2A.3.26	Prizes & Cups:	SR
ART. 2A.4 – MAIN OFFICIALS:		SR
ART. 2A.5 – ORGANIZING PERMIT:		SR

CHAPTER II: SPORTING RULES**ART. 1 - CARS ELIGIBLE - AMERICAN LE MANS SERIES**

- 1.1 Prototype Categories:
a/P1
b/P2
c/PC
- 1.2 Grand Touring Categories:
a/GT
b/GTC
- 1.3 Cars permitted to run in the ALMS, which are not built and homologated to current ACO Specifications are NOT eligible to run in any other ACO branded competition or the 24 Hours of Le Mans and no results in the ALMS shall confer eligibility for such competitions. The eligibility of cars for these competitions remains the sole responsibility of the ACO.
- 1.4 The eligibility of any car to compete under these Regulations and the type and technical specifications of the Regulations under which they compete is at the absolute discretion of IMSA. IMSA reserves the right to make modifications to the specifications of the cars in the best interest of the competition and the sport.
- 1.5 **Reserve cars** are not permitted. A team must only use one single car during an event. A change of the tub or the monocoque as permitted in the SSR is not considered a change of the car if the other main components: engine, gearbox/suspension assembly remain the same. Should a tub or monocoque need replacement, the work must be completed under the supervision of the Scrutineers.
- 1.6 It is not permitted, after the completion of Sporting Checks, to use a chassis identified by the chassis number (serial number) of an Entered Car to replace that of any other Entered Car.
- 1.7 The decision of IMSA and the ACO about the authentication (or not) of the homologation form, is a technical decision taken as a last resort, and consequently, not subject to appeal, by any party whatsoever, in front of any jurisdiction whatsoever.

ART. 2 - FUEL

See SSR, Section 2A, Chapter 1, Art. 2A.3.16.

ART. 3 - ENTRIES -- SR & PER IMSA CODE, Art. 3**ART. 4 - GENERAL CONDITIONS**

- 4.1 Entrants must ensure that all persons related to their Entry abide by the IMSA CODE, these SSR, the "Sporting" and ACO "Technical" Regulations and the SR of the Event (collectively, The Regulations). [SEE ALSO IMSA CODE Art. 5]
- 4.2 **Responsibility:**
Throughout the Event, it is the individual and collective responsibility of any Participant to ensure that the Regulations are respected. [SEE ALSO IMSA CODE Art. 5]
- 4.3 **Conformity:**
Throughout the Event, it is the Entrant's responsibility to ensure that their car complies with the safety requirements and technical specifications. [SEE ALSO IMSA CODE Art. 5 and 11]
- 4.4 **Passes & Credentials:** [IMSA CODE Art. 3] and the following:
- 4.4.1 Any person related to, for any reason, an entered car, and/or present in any other capacity whatsoever in the paddocks, pits or on the pit lane must wear their pass in a visible location.
- 4.4.2 An IMSA annual credential also serves as a valid credential for each Event. Single Event Restricted access credentials are sold by IMSA Registration upon authorization of the Entrant. **Cost posted in the SR.**
- 4.4.3 Each car entered in an ALMS Event receives serialized seasonal team vehicle parking passes that remain the property of IMSA. IMSA reserves the right to remove cars without a valid parking pass at the owner's expense. Lost or stolen passes can be replaced one time only at a cost of \$500.00.
- 4.5 **Paddock and Pits:**

NOTE: [Throughout, where the ACO rules state "inside the pit" or "in the pits" this indicates behind the wall or in the paddock. Where the ACO rules state "in front of the pits" this indicates in the pit box.]

- 4.5.1 Allocation for Paddock and Pit space is under the exclusive responsibility of IMSA.

ART. 5 - GENERAL DISCIPLINE & SAFETY

- 5.1 Drivers must only use the race track. They must abide by the provisions of the IMSA CODE.

- 5.2 It is prohibited to drive a car in the **opposite direction of the race** (**Exclusion**) except and only to remove it from a dangerous position under the instructions of the Marshalls.
- 5.3 During the practice sessions, qualifying and the race, should a car come to a standstill, at the discretion of the Officials, it may be removed from the track by the Marshalls or responders, as authorized by Race Control, so that its presence does not constitute a danger or hinder the running of the practice and qualifying sessions or the race:
- If a Driver is unable to drive the car out of a dangerous position, the Marshalls may give assistance at the direction of Race Control.
 - During the race, the Driver cannot take advantage of such assistance to restart the engine:
Penalty: possible Exclusion of the Competitor.
 - During the race, should the Driver move more than 10 meters away from the car (in the sole judgment of the Officials), the car may be considered **Retired** from the race, at the discretion of the Race Director.
 - During the race, no one, with the exception of the Marshalls and responders as authorized by Race Control, are permitted to come within 10 meters of the car and/or the Driver (in the sole judgment of the Officials).
Penalty: possible Exclusion of the Competitor.
- 5.4 Under no circumstance is a Driver permitted to push their car, including in the pit lane.
Penalty: Exclusion of the Competitor.
- 5.5 Supplying with fuel, water, oil, etc., is prohibited on and along the track.
Penalty: Exclusion of the Competitor.
- 5.6 Save as specifically authorized by these Regulations, no one (except the Driver) is permitted to touch a car which has stopped unless it is in front of its pit, inside its pit, behind the wall, wherever it may be permitted or on the starting grid.
Penalty: Exclusion of the Competitor
- 5.7 As soon as the grid is cleared (SSR Art. 13.4) and until all cars have proceeded to the "Parc Fermé" after the finish of the race (SSR Art. 25.3), no one is permitted on the track with the exception of the marshalls, Officials on duty and the Drivers in the race or being instructed by the marshalls.
- 5.8 **During the race, when a car is stopped, the engine must be restarted by means of the starter by the Driver alone:**
The use of an external starting device is permitted only during a pit stop and within the limits determined by SSR Art. 18.11.
Penalty: possible Exclusion of the Competitor.
- 5.9 During the practice sessions, qualifying and the race, Drivers shall always wear clothes and helmets complying with the safety prescriptions issued by the FIA for international circuit events, as well as an FIA approved head restraint, within the requirements of the appendix L of the International Sporting Code. All Drivers in all ALMS classes are required to use helmets that satisfy FIA Standard 8860-2004 – Advanced Helmet Specification from March 1, 2011.
- 5.10 **Delimitation of the pit lane area:** The pit lane is delimited by markings as announced by the Race Director.
- 5.11 **Location of the "Penalty Box" area:** The penalty box is ordinarily located past the last working pit towards pit exit and is identified by a sign. Should Race Control stop a car with the **black flag** for a time penalty ("Stop and Go") see also IMSA CODE 8.4:
- The Driver has 4 (four) laps maximum to drive their car to the "Penalty Box" area **without stopping at their pit:**
After the penalty is served, the Driver shall rejoin the race **without stopping at their pit.**
Additional Stop and Go penalty for any breach:
 - No one except an Official is permitted to approach the car for any check whatsoever or to talk to the Driver.
Additional Stop and Go penalty for any breach.
- 5.12 The Race Director or the Chief Medical Officer may require a Driver or an Official to undergo a medical examination at any time during the Event.
- 5.13 Animals are prohibited in the pit lane, on the track, inside and behind the pits and in any public area. Only animals permitted by the Organizer for controls and security services are authorized.
- 5.14 People **less than 16 years old** are prohibited in the pit lane area.
- 5.15 **Identification equipment:** The designated team representative must wear identification provided by the Organizer.
- 5.16 **Headlights/Taillights:**
The two main headlights and two main taillights must be switched on **continuously** when the car is running on the track or in the pit lane. A non-functioning light must be repaired or replaced immediately during the next pit stop after the damage has been discovered. A repair/replacement not consistent with original equipment is not acceptable. If the car leaves the pits without making the necessary repairs, it may be stopped by Race Control. (During a competition not run partly by night, the Race Director may accept one functioning headlight and one functioning taillight due to damage or equipment failure.)
Penalty: Steward's discretion.
- 5.17 Competitors must, at all times, maintain the fixation and good condition of the louvers above the wheels and behind the rear wheels. Any louver with at least one strip missing must be replaced immediately during the pit stop after the damage has been discovered. A repair by means of adhesive tape is not acceptable. If the car leaves the pit without making the necessary repairs, it may be stopped by Race Control.

- 5.18 At the beginning of each practice or qualifying session, cars must remain in their pit box until the green flag is displayed. During any session stoppage, cars must proceed to and remain in their pit box until the green flag is again displayed.

ART. 6 - SPORTING CHECKS

- 6.1 It concerns:

6.1.1 Presentation of the compulsory **valid documents**:

- § Entrant Licenses (both FIA and IMSA)
- § Driver Licenses (both FIA and IMSA) - FIA Grade B minimum for P1 and P2 categories; Grade C for GT, GTC and PC categories.
- § For Entrants and Drivers from countries outside the United States: permission to race in the US granted by their National Sporting Authority (ASN)

- 6.1.2 While Sporting Checks are in progress, Competitors must nominate their **official representative(s)** and assistant(s) **in writing**:

6.1.3 Nomination of the official Driver teams: **2 Drivers minimum and 3 Drivers maximum** per car:

- a. A single Driver can be nominated for a maximum of two (2) cars;
- b. Reserve Drivers are not permitted.
- c. For P2, in any nominated two (2) or three (3) Driver team combination, a minimum of one (1) Silver or Bronze Driver is mandatory.
- d. For PC and GTC, in any nominated two (2) or three (3) Driver team combination, a maximum of one (1) Platinum or Gold Driver is permitted.
- e. See also ATTACHMENT 11.

6.2 **Driver and Car Combinations:**

- 6.2.1 Drivers are permitted to be nominated in a maximum of two cars, provided each car is entered in a different class than the other.

6.2.1.1 A Driver so entered is required to drive the minimum laps/time in each car individually to be eligible for points awards, etc. in that car.

6.2.1.2 A Driver so entered must not cumulatively exceed the maximum overall drive-time or segment limitations under penalty of **Exclusion of both cars**.

6.2.1.3 A Driver so entered must demonstrate compliance with the requirements for all nominated Drivers per the Regulations in each car individually.

- 6.2.2 Drivers may be nominated in a maximum of two cars entered in the same class but are only eligible to score points in one car.

6.2.2.1 A Driver so entered must declare, prior to the conclusion of Sporting Checks or no later than one (1) hour prior to the start of the first official practice session, whichever comes first, in which car they are eligible to score points, etc.

6.2.2.2 A Driver so entered must drive the minimum laps/time in the nominated car to be eligible for point awards.

6.2.2.3 A Driver so entered must not cumulatively exceed the maximum overall drive-time or segment limitations under penalty of **Exclusion of both cars**.

6.2.2.4 A Driver so entered must demonstrate compliance with the requirements for all nominated Drivers per the Regulations in each car individually.

6.2.2.5 Drivers entered in cars in which they are not nominated to receive points are recognized in any podium and/or posted finishing orders/results in the cars in which they participated, reflecting their performance regardless of eligibility for points.

- 6.2.3 Cars entered for competition, the points scoring status of their Drivers notwithstanding, are bound by the Regulations and are listed in their respective finishing positions for which they are eligible in any classification (listing of results).

6.3 **Change-over of a Driver's team:**

Change regarding a nominated Driver's team is not permitted after the Sporting Checks are concluded, save in case of "force majeure".

6.4 **Unregistered Driver:**

It is prohibited for a Driver to take part in any on-track session who has not satisfactorily completed Sporting Checks.

Penalty: Minimum, \$10,000 Fine.

ART. 7 - SCRUTINEERING

- 7.1 Besides compliance and safety equipment of the cars, scrutineering also concerns controls regarding homologation of Driver's racing suits and helmets. (See SSR Art. 5.9)

- 7.2 Not Applicable.

- 7.3 Presentation of the cars for Scrutineering:

7.3.1 Cars must be presented to Scrutineering with the required decals per Attachment 6.

7.3.2 Cars without required Series decals during the Event are not eligible for awards. Cars with decals of other series and sanctioning bodies are prohibited in the paddock, pits or on track until such decals are removed.

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

- 7.3.3 Cars must be presented in conformity with the Specifications and with the IMSA CODE. It is the Entrant's responsibility to present their cars in conformity with the Regulations at all times. Passing scrutineering does not constitute a waiver for existing, ongoing, latent, future, or unobserved infractions of the Regulations.
- 7.3.4 Cars must be presented with a working timing and scoring transponder, including the Driver ID System. [See IMSA CODE Art. 6.15, SSR, Section 2A, Chapter 1, Art. 2A.3.24, and SSR Attachment 6.] Further, cars must also be presented with a working "Leader Light" system SSR Attachment 6. Failure of the "Leader Light" system during a race does not constitute a technical infraction, so long as they were functioning at the start of the race.
- 7.4 The Scrutineers check:
- 7.4.1 The diameter of air restrictors which must be **engraved** in mm. They shall be sealed:
- 7.4.2 The refueling equipment, ready for inspection.
Time: **SR**
- 7.5 **Conformity Stickers:**
- 7.6.1 To be affixed at the end of scrutineering once the Scrutineers have approved the car(s).
- 7.6.2 A car cannot take part in the Event without these conformity stickers. They must never be removed (**Penalty: Exclusion**) and they must remain visible in all circumstances.
- 7.6 **[SEE ALSO IMSA CODE Art. 11]** The Scrutineers may:
- 7.7.1 Check the eligibility of a car or of a competitor at any time during the Event;
- 7.7.2 Require a car to be dismantled by the competitor during scrutineering to make sure that the conditions of eligibility are fulfilled;
- 7.7.3 Require a competitor:
- To pay all expenses which the exercising of the above-mentioned powers may entail;
 - To provide such samples of parts deemed necessary.
- 7.7 **[SEE ALSO IMSA CODE Art. 11]** Once approved by the Scrutineers, any car which is dismantled or modified in a way which might affect its safety or call into question its eligibility, or which has been involved in an accident with similar results, must be rechecked for the Scrutineer's acceptance.
- 7.8 **[SEE ALSO IMSA CODE Art. 11]** Cars selected at random are checked at the end of each qualifying session and at the finish of the race.
- 7.9 **Parc Fermé: See SSR Art. 25.3**
- 7.10 **Technical checks:**
Technical checks are carried out by Scrutineers duly appointed by the Technical Director. They are responsible for the operations in the Parc Fermé, and the only people authorized to give instructions to the competitors and/or the Drivers.
- 7.11 Anything which is not explicitly permitted in the Regulations is prohibited. Inquiries related to clarification any of the Regulations should be directed to rules@imsaracing.net

ART. 8 - WEIGHING

- 8.1 Cars may be weighed during and at the end of the practice and qualifying sessions and after the finish of the race.
- 8.1.1 When weighing is in process, no solid, liquid, gas or other substance or material of any nature whatsoever may be added to or removed from a car.
- 8.1.2 Only Officials must enter the weighing area. No intervention whatsoever is permitted there save under the control of Officials. A maximum of four (4) Team members are permitted in the inspection area after the weighing procedure is complete.
- 8.2 **End of practice sessions and of the race:**
Cars parked in the Parc Fermé and selected for technical checks are weighed with no Driver on board and fuel tank(s) drained:
Weight under the limit: Penalty: PER IMSA CODE

ART. 9 - OFFICIAL PRACTICE AND QUALIFYING SESSIONS

- 9.1 **Cars and Drivers eligible:**
Only cars and Drivers having cleared Sporting Checks and Scrutineering are permitted to take part in the official sessions.
- 9.2 **Schedule:** **SR**
- 9.3 All nominated Drivers must, in each car in which they are nominated:
- 9.3.1 Take part in a minimum of one official practice session under pain of **Exclusion**:

9.3.2 Achieve the minimum qualifying time (Art. 9.6);

9.3.3 Complete a minimum of **three (3) laps during the scheduled night practice session** when the race is run partly by night. Laps may start and/or finish in the pits but must include, at minimum, two passings of the Start line on the track that are not required to be consecutive. Drivers not completing this requirement must not compete during periods of darkness, except by reason of force majeure with permission of the Race Director and Stewards.

9.4 Not Applicable

9.5 **Interruption of practice sessions:**

9.5.1 The Clerk of the Course may interrupt a practice session if safety so requires.

9.5.2 The Officials are not obliged to extend a practice session after an interruption.

9.5.3 In case of an interruption of the practice sessions, no protest is accepted concerning any possible effects on the qualification of the Drivers and the cars.

9.6 **Minimum qualifying time:**

Drivers shall achieve a lap time at least equal to

- a. **115%** of the best time achieved by the fastest car in the competitor's respective category.
A Driver is not permitted to qualify during the warm-up.

9.7 **Exceptional cases:**

9.7.1 Without exceeding the number of cars admitted to start the race, the Race Director may accept cars which have not qualified for reasons of force majeure provided that:

- a. They are judged capable of achieving the minimum qualifying time;
- b. The Drivers are properly licensed and their equipment passes all safety checks;
- c. They start the race **from the back of the grid**;
- d. The fastest Driver in the team shall start the race.

9.7.2 **The Race Director may also admit to the start Drivers who took part in the qualifying sessions but did not achieve the minimum qualifying time because of "force majeure".** If this occurs, the Driver nominated in the team who has achieved the minimum qualifying time shall start the race.

9.8 Should one (or more) Driver(s) in a team be granted any of the above waivers for achieving the qualifying time or the night laps, their car(s) are placed at the back of the starting grid.

9.9 **Qualifying:**

9.9.1 Qualifying in the ALMS is "Guaranteed Minimum Green Flag Time." In most circumstances, this means that every effort is made to provide a minimum cumulative green flag running time (SR) for each qualifying segment.

9.9.2 Should any group segment be interrupted, the green flag clock is also stopped. The green flag clock restarts at the time that the group segment is restarted and shall continue so until the scheduled time for the segment has elapsed, the "Guaranteed Minimum Green Flag Time" has elapsed or until prevailing circumstances prevent the continuation of the qualifying session in the sole judgment of the Race Director.

9.9.3 In any circumstance, should less than the guaranteed minimum cumulative green flag running time have been available during any qualifying segment, the starting grid shall be ordered by class and qualifying for that segment abandoned. The grid order within any abandoned segment is established by other means [IMSA CODE Art. 6.7.9 and ALMS SSR Art. 9.9.4.1 - 9.9.4.6]. The grid order within any segment that achieved the guaranteed minimum cumulative green flag running time is set in the order of the best times achieved during the segment.

9.9.3.1 Where schedules permit, the time window for each qualifying segment as established on the Official Event schedule includes a time gap between each qualifying segment. The Race Director may use part of that time gap to attempt to complete the guaranteed minimum cumulative green flag running time but in any case, at least one (1) minute shall separate each segment from the next. The decision to use or not use the time gap is not subject to protest or appeal.

9.9.3.2 For the ALMS, should other means be required to set the grid, each class shall be gridded together in the order P1, P2, PC, GT, GTC. Within each class, the cars shall be ordered by the following priority:

9.9.3.3 The Driver in each car with the most Driver Championship points in that same class for the current season shall be gridded first, with other cars following in Descending order. Tiebreaker per ALMS SSR 1A.2.4, then by Art. 9.9.4.2.

9.9.3.4 Should none of the Drivers in a car have Driver Championship points in that same class for the current season, the car shall be gridded by the Driver in the car with the most Driver Championship points in that same class from the previous season. Already tiebroken, then Art. 9.9.4.3.

9.9.3.5 Should none of the Drivers in a car have Driver Championship points in that same class for the current or previous season, the car shall be gridded in the order of Driver Championship points earned in any class from the previous season. Tiebreaker by class order per Art. 9.9.4, then 9.9.4.4.

9.9.3.6 Should none of the Drivers in a car have Driver Championship points for the current or previous season, the car shall be gridded by its performance in any preceding official session(s) (combined) at the Event but behind cars with Drivers having Championship points per Art. 9.9.4.1 through 9.9.4.3. Tiebreaker per IMSA Code, Art. 6.7.7.

9.9.3.7 Should any one or all of these individual circumstances not be applicable to a particular car(s), the Race Director may place the car(s) on the grid at his discretion.

- 9.9.3.8 For PC and GTC cars only: Working on the car, with the exception of fueling, data download and/or changing/checking tire pressure/temperature, is prohibited during the respective qualifying segments.

ART. 10 - THE WARM UP

When scheduled, takes place at the time listed on the IMSA detailed schedule.

ART. 11 - CAR AND DRIVER PARADE: [SEE SSR, SECTION 2A, CHAPTER 1, ART. 2A.3.20]

ART. 12 - STARTING GRID

- 12.1
- a. Drivers nominated to start the race: Entrant must nominate the Driver to start the race no later than 30 minutes after the end of the final qualifying session (Art 1A.2.3). Requests to change starting Driver must be submitted in writing to the Race Director and if approved, the car must start the race from the pit lane.
 - b. Posting time of the starting grid: No later than one hour prior to the start of the reconnaissance lap(s).
- 12.2 Any Competitor whose car is potentially unable to start the race shall inform the Race Director **immediately**.
- 12.3 The **starting grid** is drawn up in a staggered two-column formation and in the order of the best times achieved during the qualifying sessions by the fastest Drivers of the teams nominated for each car. [SEE ALSO IMSA CODE Art. 6.7]
- 12.3.1 "Pole position" (place on the track): **SR**
- 12.3.2 Should two or more Drivers achieve the same time; priority is given to the one who set it first.
- 12.3.3 Should any car(s) be withdrawn prior to the 5-minute warning, the grid closes up accordingly.
- 12.3.4 Cars placed "at the rear of the starting grid" are ordered at the discretion of the Race Director but ordinarily on a 'first-come, first-served' basis.

ART. 13 - STARTING PROCEDURE

- 13.1 The start is a rolling start. PER IMSA CODE Art. 6.11
- 13.2 See IMSA CODE Art. 6.6.4.a.
- 13.3 **Reconnaissance lap(s):** May be permitted at the time listed on the IMSA detailed schedule.
When Scheduled:
- 13.3.1 All cars must complete at least a single reconnaissance lap, or are required to start the race from the pit lane. This includes when the cars are both staged and gridded in the pit lane. When the grid is on pit lane, cars must start their reconnaissance laps from the designated positions, usually the pit box.
- 13.3.2 If a car re-enters the pit lane, as long as the pit exit is open:
- b. The competitor may elect to drive through the pit lane, with caution, and undertake another reconnaissance lap;
 - c. The competitor may take their grid position if the grid is in the pit lane;
 - d. The competitor may return to their pit box. However, in this case, the car must undertake at least one more reconnaissance lap, or must start the race from the pit lane.
- 13.4 **Start (countdown):**
5 Minute Warning: Clear Grid of all personnel except Officials and required team personnel.
1 Minute Warning: Clear Grid of all personnel except Officials.
- 13.5 **Late start:**
- 13.5.1 Any car unable to achieve the starting grid or still in its pit after the pit exit is closed must start from the pit lane at the pit marshal's instructions. **Penalty: Stop and Go**, after crossing the Start line on track, must be served under green flag.
 - 13.5.2 The Driver and the car must proceed to the pit exit under the car's own power. **Penalty: Steward's Discretion**
 - 13.5.3 A car starting the race in this way must join the race only after all able cars (subject to the judgement of the Race Director) have passed the pit exit during the first racing lap. **Penalty: Steward's Discretion**
 - 13.5.4 A car first driven to the pit exit more than one hour after the start of the race must request permission to join: **Penalty: Steward's Discretion**.
- 13.6 **Push start:**
- 13.6.1 A Driver unable to start the formation (pace) lap must raise their arm or open a door. When all other cars have gone, the track marshals may push the car to start the engine, which is an exception to SSR Art. 18.12.

13.6.2 The Driver may then complete the formation lap but is not permitted to overtake a moving car except if the latter is disabled:
Penalty: Steward's discretion.

13.6.3 Should the car not start after being pushed, the marshals shall push it to the pit where its mechanics are permitted to intervene.

13.7 During the formation lap(s), the cars are preceded by a "Pace Car" (Safety Car) and followed by an "Intervention Vehicle".

13.8 A car unable to stay in front of the "Intervention Vehicle" during the formation lap(s) must be driven back to the pits **at a reduced speed** without overtaking or obstructing any other car. It is then permitted to start from the pit exit according to SSR Art. 13.5.

13.9 If conditions so require, the Race Director may order the "Safety (Pace) Car" to carry out one (or more) additional formation lap(s).
Should this occur, the start of the race is deemed given at the end of the scheduled formation lap(s).

13.10 PER IMSA CODE Art. 6

ART. 14 - MODIFIED STARTING PROCEDURE

Not Applicable

ART. 15 - INFORMATION & SIGNALING

All signaling during practice, qualifying and the race must be done from the team signaling area on the pit straight. See also IMSA CODE Art. 6.6.4.a.

ART. 16 - PIT STOPS

16.1 Pit Lane Minimum safety

SEE ALSO IMSA CODE ART. 6.5 & 6.6

The pit lane is a potentially dangerous area, not only because of the cars using it but also in view of accidents that may occur owing to cars being on the track adjacent to it. During practice sessions, qualifying and the race, access to the pit lane is exclusively reserved for those persons having specific responsibilities there. Team members and their equipment are only permitted in the pit lane immediately before working on a car only once it is at a standstill (SSR Art. 18.1.2), and must leave the pit lane with their equipment as **soon as the work is completed. In the pit lane, a maximum of four (4) people are permitted to push a car belonging to their team.** Any car going to the end of the pit lane, waiting for the signal to proceed, must do so without any outside assistance.

Penalty: Steward's discretion.

16.1.1 Each Entrant is responsible for anyone in their pit, whether members of the team or not.

16.1.2 UNIFORMS

16.1.2.1 At all times that cars are refueled in pit lane: the refueler, vent operator and fire bottle operator must wear double layer fire resistant clothing that meets FIA 8856-2000 or SFI 3.2A specifications in addition to fire resistant long underwear, socks, shoes, gloves, and balaclava. Also required is a full coverage helmet that meets Snell SA/2005 specifications with a face shield that is positioned down during the actual refueling. All participants must wear shoes having upper construction of leather or an approved fire resistant material. Treated fabrics are not permitted.

16.1.2.2 During the race, crew members, industry support people and anyone working on cars over the pit wall must wear double layer fire resistant clothing, socks, shoes, gloves and balaclava that meets the requirements of SSR Art. 16.1.2.1. All participants must wear shoes having upper construction of leather or an approved fire resistant material. Treated fabrics are not permitted. Additionally, those "over the pit wall" must wear a helmet that has been approved by IMSA prior to its use. Also required are goggles or visors that must be on/down during actual refueling.

16.1.2.3 Persons at the signaling wall (IMSA CODE Art. 6.6.4.a) are not required to wear helmets.

16.1.2.4 During the race, anyone who has access to pit lane (specifically the team areas behind the pit wall) must wear fire resistant clothing that must be worn and fastened completely as designed.

16.1.3 OTHER EQUIPMENT

a. See IMSA CODE Art. 6.6.3.a

b. See IMSA CODE Art. 6.6.3.b.

16.1.4 PIT LANE OPERATIONS

a. See IMSA CODE Art. 6.6.4.b.

b. See IMSA CODE Art. 6.6.4.c.

c. During official practice and qualifying sessions, these same requirements are in effect, except that the Team is not restricted to the limit of four (4) Team members performing service on the car. (SSR Art. 18.2)

16.1.5 DRIVING THROUGH THE PITS

16.1.5.1 During the race, it is prohibited to pass through the pit lane without stopping at the team's assigned pit unless:

1. You have entered a closed pit during a Safety Car period; it is permitted to only drive through without penalty so long as no work is performed on the car.

2. You have received permission to "go behind the wall" to your paddock space; you may proceed directly without stopping at the assigned pit.
 3. In case of penalty, you are obliged to proceed directly to the penalty box.
- 16.1.5.2 Whatever the reason for the pit stop, the engine must be switched off and turned on again by the Driver.
Penalty: "Stop and Restart" (engine switched off and started again by the Driver).

16.2 If the circuit permits it, the pit lane is divided into three areas:

16.2.1 **"Fast lane"**: the closest to the wall of the Signaling area. A car is permitted to enter the "fast lane" only under its own power.

16.2.2 **"Acceleration and Slowing down lane"**: the middle lane;

16.2.3 **"Working area" (inner lane)**: the closest to the pits where work is permitted to be carried out on the cars. This area may be defined on one side by a wall, or even by a line painted outside the pit curtain, and on the other side by a separating line with the middle lane. Any equipment and tools must be placed in the pit exclusively.
For every breach: **Penalty: Steward's discretion.**

16.3 **Speed limit:**

60 kph on the pit lane;

Penalty: Stop and Go. Repeat infractions may result in greater or cumulative penalties at the discretion of the Race Director.

16.4 **Discipline:**

16.4.1 A Driver coming for a pit stop may, **only once the car has come to a complete stop in front of the pit:**

- Unfasten the safety harness,
- Switch off the lights,
- Switch off the engine,
- Open the door.

Penalty: Steward's discretion.

16.4.2 A car entering the pits or already in its "working area" in the pits with the intention of "going behind the wall", must first request permission from the Officials to do so. On receiving permission, a car entering the pits may proceed directly there [see SSR Art. 16.1.5.1.b]; in either case, it may be pushed, with the engine off, by a maximum of four (4) team members. With the permission of the Officials, the car may be assisted in the pit lane with a jack or dolly.

When a competitor is given permission to work "Behind the Wall" they must only do so in a location approved by the Race Director. The maximum four (4) persons permitted to carry out work on a car does not apply when the car is **inside the pit** or "behind the wall".

When the car is ready to rejoin the race, it must be pushed or driven **in front of the pit** and placed parallel to the pit lane in the "working area". Then, the engine must be (re)started **by the Driver alone.**

Penalty: Steward's discretion.

16.4.3 Before leaving the pit:

- The Driver safety harness must be fastened.
- The Driver must switch on the lights.

Penalty: Steward's discretion.

16.5 **Overshooting the pit:**

Should a Driver overshoot their pit, the car must only be **moved back** to its pit by the mechanics from the team (4 maximum). The use of the reverse gear is strictly prohibited.

Penalty: Exclusion.

The same rule applies when the car leaving its pit has broken down before the limit of the pit lane. In this case, the car must be pushed back to its pit, by the maximum of four (4) team members, prior to any intervention.

Penalty: Steward's Discretion After this limit, refer to SSR Art. 18.1.1.

ART 17 – REFUELING

17.1 All fueling in the pit lane during a race must only be done using IMSA approved fueling rigs. Refer to SSR Attachment 9.

17.2 Refueling is permitted **at the beginning or at the end** of a pit stop and exclusively on the pit lane "Working area". The car must be in front of its pit, parallel to the pit lane.

17.3 During the practice sessions and the race, refueling is only permitted:

- a. By means of the assigned pit **autonomous tank** with the car number affixed;
- b. With the fuel supplied by the Organizer.
- c. Additionally, during practice or qualifying sessions, by means of an approved un-pressurized container not exceeding 25 liters capacity, vented to atmosphere and with a leak-proof coupling connecting it to the car.

17.4 The autonomous fuel rig shall remain at atmospheric pressure and ambient temperature.

17.5 It is prohibited to top up the autonomous fuel rig at anytime the car is in the pit box.

- 17.6 Autonomous fuel rig support: Free-standing tank must conform to the specifications listed in SSR Attachment 9.
- 17.7 Throughout refueling:
- 17.7.1 The car must not be raised;
- 17.7.2 The Driver may remain in the car but the engine must be **switched off**;
- 17.7.3 The Competitor must ensure that:
- One (1) assistant **holding a fire extinguisher** ready for use, stands beside the car;
 - A maximum two (2) fuel attendants, especially appointed for refueling, are properly attired per SSR Art. 16.1.2.1;
 - The "cut off valve" is functional and the attendant is ready to intervene.
 - The car is connected electrically to earth before the connection of the fuel tank filler and vent and remains so throughout refueling.
- 17.7.4 An electronic data recorder may be plugged in to a port on the **outside of the car** prior to, during or after refueling.
- 17.8 Fuel Consumption; Competitors must be prepared to report their fuel consumption to the organizers and be prepared to install measuring equipment to the organizer's specifications and report the results.
- 17.8.1 The refueling of the autonomous tank must be carried out in compliance with SSR Art. 17.5.
The fuel contained in the overflow pipe must be:
- Reintroduced into the fuel tank of the car during the next refueling or,
- Poured into an empty container provided by the competitor, holding at least 5 liters and fitted with a coupling. The fuel inside this container may then be poured into the autonomous tank, but is considered as used by the car.
- 17.9 **Penalty: Steward's discretion** for any breach of SSR Art. 17.

ART. 18 - REPAIRS & MAINTENANCE

- 18.1 **Repair:**
- 18.1.1 During the race, apart from the areas in front of or in the pits, behind the wall or on the starting grid, repairs must be carried out **by the Driver alone** with the tools and parts carried on board the car.
Penalty: Exclusion.
- 18.1.2 Prior to a car stopping in front of the pit, **one (1) person only** is permitted to step over the **unbroken painted line on the ground or the wall** fixing the limits of the working area on the pit side in order to supervise and give instructions:
During the pit stop, this person is not permitted to carry out any task other than supervise, even if they cross back over the wall (or painted line) during the stop.
For cars fitted with separate refueling and overflow devices, the person in charge of the overflow system is permitted to step over the painted line or the wall at the same time as the person supervising, but cannot carry out any other task except manning the overflow device during the pit stop.
Penalty: Stop, plus 20 second hold per breach
- 18.2 During the race, four (4) people maximum are permitted to intervene:
- 18.2.1 Before or after refueling:
- To clean the windscreen, two main headlights and rear lights, mirrors and or cameras;
 - To connect the downloading cable;
 - To change the memory card of the IMSA data logger;
 - To connect and disconnect electrically the car from the earth;
 - To make all materials (tires, tools, etc.) ready for use in the "working area" **after** the car is at a standstill in front of the pit;
 - To carry out maintenance operations, topping-up liquids (other than fuel), repairs or any other operation whatsoever.
- 18.2.2 During the refueling only
- To clean the windscreen, two main headlights and rear lights, mirrors and/or cameras;
 - To connect the downloading cable;
 - To change the memory card of the IMSA data logger;
 - To make all materials (tires, tools, etc.) ready for use in the "working area".
- These 4 people:
- Must leave the working area as soon as the above operations are completed.
- Must not help in any way the fuel attendants (see SSR Art. 17.7.3).
Laptops or other electronic devices are prohibited in the working area during refueling and wheel changes.
- 18.3 **Industry Support technicians:**
At anytime during a pit stop, **only one (1) industry technician from each discipline**, i.e. tire, brake, gearbox etc. **whether they are a firm's technician or members of the team, are permitted to make checks exclusively, with the exception of the LMPC class, whereby the gearbox technician is permitted to make repairs.**
- 18.4 It is mandatory and the responsibility of the Competitor that an Official shall attend the work being carried out during a repair, even if inside the pit.
- 18.5 **Wheel/Tire changes:**
Are only permitted:
- 18.5.1 On the starting grid until the "**5 minutes**" board is shown.

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

18.5.2 In front of the pits: by the **four (4) people** maximum for a given car who shall use only **two (2) pneumatic devices (wheel guns)** or **two (2) torque wrenches**.

Penalty: Stop, plus 20 second hold per breach of SSR Art. 18.5.1 or 18.5.2.

18.5.3 Inside the pits.

18.5.4 For the GTC class only, a single pit stop where all four (4) tires are exchanged for new (sticker) is mandatory during the race. All four (4) tires must be changed during the stop to be considered having met this requirement.

18.6 **Is prohibited:** Any special equipment designed to:

18.6.1 Make the wheel change faster.

18.6.2 Heat and/or maintain the temperature of the tires in front of the pit, in the pits and/or on the starting grid.

18.7 **Assistance to the Driver:**

During a pit stop, one (1) extra person (or the Driver leaving the car) is permitted only to help the Driver to fasten the safety harness, exchange the data card from the IMSA Logger, to give the Driver assistance and to close the door(s).

Penalty: Stop, plus 20 second hold per person in excess.

18.8 See SSR Art. 16.4.2

18.9 During the race, under pain of **Exclusion** of the car, it is prohibited to change the engine block (crankshaft case and cylinders), the main gearbox and differential casings, the chassis or the monocoque structure.

18.10 For any check or tuning, an external source of energy may be used to start the engine.

In all cases when all the operations are finished and the car is to rejoin the race, the engine must be started by the Driver alone, sitting behind the steering wheel, with no outside assistance, the car resting on its wheels.

Penalty: "Stop and Restart" (engine switched off and started again by the Driver).

18.11 **Outside assistance** ("push starting", etc.) is prohibited when a car leaves the pit to rejoin the race:

Penalty: "Stop and Restart" (engine switched off and started again by the Driver).

18.12 Team members are permitted to carry out work on any car(s) entered by **the same Entrant**, provided they abide by the four (4) people maximum.

18.13 During the practice sessions, qualifying and the race and according to the track installation:

18.13.1 Officials shall have free access into the pit.

Penalty: Steward's discretion.

18.14 Except when work is carried out on a car, all personnel must stay **inside the pit** (SSR Art. 16.1 and IMSA CODE Art. 6.6.4).

18.15 **End of intervention:**

Tools, equipment or material must not be left on the "working area" when a pit stop is concluded (IMSA CODE Art. 6.6.4).

ART. 19 - PERSONNEL IN THE PIT LANE

19.1 **Personnel permitted:**

19.1.1 In the working area for maintenance and repairs:

- 1 Team manager (supervise)
- 4 mechanics
- 1 "fire bottle" attendant
- 1 Driver assistant (safety harness and possible assistance)
- 1 "tire" technician (only checks)
- 1 "brake" technician (only checks)

19.1.2 In the working area when refueling is in process:

- 1 Team manager (supervise)
- 4 mechanics (only to set up the equipment)
- 1 or 2 fuel attendant(s)
- 1 "fire bottle" attendant
- 1 Driver assistant (safety harness and possible assistance)
- 1 "tire" technician (only checks)
- 1 "brake" technician (only checks)

Any person from a team, staying on the working area is considered to be working on the car. A Driver working on a car is considered to be a mechanic.

19.1.3 In the signaling area: **SR**

19.2 **Minimum safety clothing (practice sessions, qualifying and race)**

All personnel shall abide by SSR Art. 16.1.2

Penalty: Steward's Discretion

- 19.3 **Mandatory helmets and overvests:** Photographers credentialed for pit access during practice, qualifying and the race must wear their issued overvests and any required identification at all times when in the hot pit, as well as approved helmets during the race.

ART. 20 - PIT/PADDOCK FITTING-OUT [SEE ATTACHMENT 9]

ART. 21 - DRIVER CHANGES

- 21.1 **Driver changes** within a nominated Driver team for a car are permitted only:

- a. When the car has stopped at its pit;
- b. Under the supervision of the pit Marshal, who must be informed of it in advance.

- 21.2 **Maximum Driving Time:** SR

DRIVERS MUST NOT EXCEED THE DRIVING TIME OF FOUR HOURS IN ANY SIX HOURS AND/OR ANY OTHER LIMIT LISTED IN THE SR.

Drivers nominated in more than one car shall have their drive-time calculated cumulatively. Exceeding drive-time incurs the penalty for all cars in which the Driver is nominated, irrespective of the car nominated for points/awards.

Penalty: Exclusion of car(s), Drivers and Entrant.

Note: Computation of the time requirement is at the sole discretion of IMSA and not subject to protest or appeal.

- 21.3 **Minimum Driving Time:** SR

DRIVERS MUST ACHIEVE THE MINIMUM LAPS or DRIVING TIME LISTED IN THE SR.

Penalty: No points are awarded to any Driver that does not achieve the minimum laps or drive-time requirement in each car for which they are nominated to be eligible for point awards.

Note: Computation of the lap count or time requirement is at the sole discretion of IMSA and not subject to protest or appeal.

ART. 22 - INTERRUPTION OF PRACTICE SESSIONS - SUSPENDING THE RACE

SEE IMSA CODE Art. 6.18

ART. 23 - NEUTRALIZATION OF THE RACE: "SAFETY CAR"

- 23.1 **Responsibility:** See IMSA CODE Art.6.2.1

- 23.2 **Identification:** See IMSA CODE Art. 6.2.2

- 23.3 **Procedure:** See IMSA CODE Art. 6.2.3

- 23.3.1 Failure of the overall leader to slow down and take up position behind the Safety Car may result in a **One (1) lap or other Penalty.**

- 23.4 **Pass-Around and Pit Stops:**

- 23.4.1 The pit entrance is closed from the beginning of the Safety Car intervention until the Safety Car has picked up the overall leader and main field and any Pass-Around is complete.

- 23.4.2 If deemed appropriate, the Race Director shall authorize the Pass-Around for any car that has their class leader behind them in the order circulating behind the Safety Car. It is the competitor's responsibility to determine if their car is eligible for the Pass-Around.

Penalty for Pass-Around when ineligible: Stop and Hold for time equal to two (2) race laps.

- 23.4.3 Pass-Around cars must, throughout the procedure, remain in line relative to each other and in the order initially established behind the Safety Car.

- 23.4.4 Pass-Around cars must, only when directed, overtake the Safety Car safely, in the proper order and circulate as quickly and safely as possible to catch up with the field and take up position at the rear of the car(s) remaining behind the Safety Car.

- 23.4.5 The Race Director instructs Officials to re-open the pits.

a. Only P1, P2 and PC cars are permitted to pit on the first lap after the pits are declared open. Only GT and GTC cars are permitted to pit only on the subsequent lap. Any car is permitted to pit on laps after the first two class-specific opportunities to pit are concluded.

b. A car disabled as the result of an incident, running out of fuel, flat tire or similar mechanical handicap, in the sole opinion of the Race Director, may after requesting and receiving permission, enter a closed pit (or not open for that class) and receive assistance only to remedy the immediate concern. Such "Emergency Service" car(s) must then make another pit stop on the lap after the pits are open for GT/GTC cars per SSR Art. 23.4.5.a (or the lap after the pits are open for all cars per SSR Art. 23.4.6).

c. Any car not disabled, which enters while the pits are closed and receives assistance, may receive a penalty.

Penalty: Stop, plus 60 second hold, for any breach of SSR Art. 23.4.5

- 23.4.6 The class-specific separation for pit stops is not in effect for any Safety Car period declared within fifteen (15) minutes of any preceding green flag (including the race start) or during the last thirty (30) minutes of the race.

23.5 Wave-By and End of Operation:

- 23.5.1 If the Race Director deems it appropriate, he shall instruct the Wave-By of any cars that are between the Safety Car and the first class leader.
 - 23.5.2 If during the process, that class leader enters the pits, the Safety Car picks up the car which remains on the track that was the most immediately/directly behind that class leader at the time the Wave-By was requested.
 - 23.5.3 When the Race Director has determined that the course is clear and acceptable for the continuation of competition, he instructs the Safety Car to extinguish its flashing lights and where in use, the IMSA Yellow Condition System lights are also extinguished, indicating that this is the final lap of this Safety Car intervention. The Safety Car exits the course at the location specified by the Race Director.
 - 23.5.4 The car immediately behind the Safety Car prior to the restart must maintain the previous slow speed of the Safety Car until the green flag is displayed, at which time acceleration may begin and racing resume. Any manipulation of this pace is considered an infraction.
- 23.6** The Pass-Around and Wave-By procedure(s) may not be implemented, at the Race Director's discretion, for any caution that occurs during the final 15 minutes of a timed race or the final 15 laps of a lap race.
- 23.7** The Race Director may modify this procedure; if at his sole discretion, he believes conditions exist that warrant such modification, including not picking up the overall race leader at the beginning of the intervention if immediate dispatching is deemed critical.

ART. 24 - FINISH

- 24.1** *Checkered flag:* [See IMSA CODE Art. 6.20]

ART. 25 - CLASSIFICATIONS

- 25.1** The following classifications (results listings) are established:
 - A. General Classification** (Categories joined together)
 - B. Prototype Categories:**
 - a. P1 Group
 - b. P2 Group
 - c. PC Group
 - C. Grand Touring Categories:**
 - a. GT Group
 - b. GTC Group

- 25.2** *Classification requirements:* [See IMSA CODE Art. 4.7]

25.3 Parc Fermé:

- 25.3.1 As soon as the Checkered Flag is waved, all competing cars must proceed to the "Parc Fermé" together with a team representative and under the supervision of the Officials.
- 25.3.2 After the finish of the race, cars must proceed to the Parc Fermé under the direction and control of the Officials. A car not driven directly and immediately to the Parc Fermé may be Excluded.
- 25.3.3 A representative per team must be present at the entrance of the Parc Fermé so as to be informed of any decisions taken regarding possible technical checks.

25.4 Results/Official classifications:

Only those results/classifications published and posted by the Organizer on the official notice board are deemed the **official** ones. IMSA may publish and distribute the **official** results electronically or by other means at a time after the conclusion of the Event.

25.5 Pre/Post Race Procedures:

Failure to follow instructions for pre-race procedures, post-race procedures, parc fermé and/or podium logistics may be punishable by a \$1,000 fine for the first offense. Subsequent offenses may be subject to increased penalty.

ART. 26 - PRESS CONFERENCE

After the qualifying sessions: Approximately five (5) minutes after the end of the last qualifying session, the Driver who has achieved the "Pole position" in category and class must attend a Press Conference in the designated Media Interview Area.

At the Finish: First place overall and category class winners shall attend the Winner's Press Conference as soon as the prize giving ceremony on the podium is completed and as instructed by the Officials.

ART. 27 - INSTRUCTIONS & COMMUNICATIONS TO COMPETITORS

- 27.1** Instructions, decisions, notifications or information issued by the Officials are disseminated to Competitors via official communications by Race Control.
 - 28.1.1 Competitors shall acknowledge receipt of them: through the acknowledgement to the Officials by the Competitor or their nominated representative.
 - 28.1.2 Should the Competitor or their representative refuse to acknowledge and comply:

Possible Exclusion of the Competitor and their car(s).

27.2 Notifications and decisions made by the Officials, and the results (practice sessions and the race) are posted on the official notice board.

ART. 28 - SANCTIONS & PROTESTS

28.1 The Officials may inflict the penalties specifically set out in these Sporting Regulations in addition to/instead of any other penalties available to them under the IMSA CODE.

28.2 Protests and Appeals shall be lodged in accordance with the IMSA CODE.

ART. 29 - ACO TRADEMARKS & RIGHTS

The following Trademarks (which list is not exhaustive) have been filed by the Automobile Club de l'Ouest:

« 24 HEURES DU MANS »®
« LE MANS-24 HOURS »®
« 24 HEURES DU MANS – RACING »®
« LE MANS-24 HOURS – RACING »®
« LE MANS »®
« LE MANS – VINTAGE »®
« LE MANS RACING »®
« LE MANS LEGEND »®
« LE MANS SERIES »®
« LE MANS CLASSIC »®
« LE MANS SERIES »®
« LE MANS ENDURANCE »®
« L.M »®
« 24 » graphisme®
« 24 HEURES MOTO »®
« MASTER OF ENDURANCE »
« 24 HEURES CAMIONS »®
« 24 HEURES »®
« 24 HEURES DU MANS HISTORIQUES »®
« RADIO LE MANS »®
« RADIO 24 HEURES »®
« PETIT LE MANS »®
« ACO »®
« LE MANS FUJI – 1000 KM »
« AMERICAN LE MANS SERIES »
« ASIAN LE MANS SERIES »
« EUROPEAN LE MANS SERIES »
« WORLD LE MANS SERIES »

Any promotional and/or commercial use of one or several of these marks owned by the ACO is subject to previous agreement with the Automobile Club de L'Ouest. It is notably prohibited for the competitor to register one of these trademarks or a trademark which could be a derivative, nor can they exploit them either directly or indirectly in a domain name for a website.

AMERICAN LE MANS SERIES CHAMPIONSHIP
STANDING SUPPLEMENTARY REGULATIONS

ATTACHMENTS:

1. STANDARD PENALTIES
2. ADJUSTMENT OF PERFORMANCE
3. TIRE REGULATIONS
4. FUEL REGULATIONS
5. TESTING REGULATIONS
6. ADVERTISING, DECALS, NUMBER PLACEMENT, DRIVER ID & LEADER LIGHTS
7. FOUNDER'S CUP
8. INSURANCE SUMMARY
9. PIT AND PADDOCK EQUIPMENT REGULATIONS
10. IN-CAR-CAMERAS
11. DRIVER QUALIFICATIONS
12. GREEN CHALLENGE
13. IMSA DATA LOGGER

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

ATTACHMENT 1 -- STANDARD PENALTIES

Except when the Race Director/Stewards determine there to be extenuating circumstances, these standard penalties are assessed for these rules violations: S&G=Stop & Go Black Flag Penalty

#	VIOLATION	SOURCE	PENALTY
PITS			
P1	Speeding in pit lane (60 KPH+) (Higher speeds incur greater penalties)	SSR 16.3	Stop & Go (S/G)
P2	Belts undone/door opened prior to stop	SSR 16.4.1	S/G
P3	More than 1 person over pit wall before car stops	SSR 18.1.2	Stop + 20 Sec EA Xtr
P4	Equipment over wall before car stops	SSR 18.2.1.e	Stop + 20 Seconds
P5	Person over pit wall not properly attired	SSR 16.1.2.1/2	\$1K fine/S&G repeat
P6	Engine not shut off while in the pits	SSR 16.1.5	Stop + Restart
P7	Too many working/over wall on car; TM/Supervisor Working	SSR 18.2 & 18.7	Stop + 20 Sec EA Xtr
P8	More than permitted number over wall, considered working on car	SSR 19.1	Stop + 20 Sec EA Xtr
P9	Using more than 2 wheel guns	SSR 18.5.2	Stop + 20 Sec EA Xtr
P10	Working under car without approved stands	IC 6.6.4.b	Stop + 20 Seconds
P11	Run over hose, tool, part, person in own or other box	IC 6.6.4.c	S/G
P12	Exit pits with hose or tool attached or propelling parts	IC 6.6.4.c	S/G
P13	Started car in air only, not on ground	SSR 18.10	Stop + Restart
P14	Push start in pits	SSR 18.11	Stop + Restart
P15	Using reverse gear in pit lane	SSR 16.5	Exclusion
P16	Working in Closed Pit	SSR 23.4.5	Stop + 60 Seconds
P17	Rejoin w/o starting under own power after behind wall	SSR 18.10	Stop + Restart
P18			
REFUELING			
R1	Cutoff valve NOT properly manned	SSR 17.7.3.c	S/G
R2	Fire extinguisher NOT properly manned	SSR 17.7.3.a	S/G
R3	Goggles not in place, visor up during fueling, not properly attired	SSR 16.1.2.1/2	\$1K fine/S&G repeat
R4	Engine not shut off during re-fueling	SSR 17.7.2	Stop + Restart
R5	Car jacked up while fueling	SSR 17.7.1	S/G
R6	Working on car during refueling	SSR 18.2	Stop + 20 Seconds
R7	Excessive fuel spill during fueling	IC 11.3.3	\$1K fine/S&G repeat
R8	Top off autonomous tank while ANY car in pit box	SSR 17.5	S/G
R9	Not earthing car prior to refueling	SSR 17.7.3.d	\$1K fine/S&G repeat
R10			
#	VIOLATION	SOURCE	PENALTY
ON TRACK			
T1	Headlights/Taillights not working	SSR 5.16 / IC 11.5.14.4	Repair/Discretion
T2	Tow eye broken during towing	Category Specs	Exclusion
T3	Driver pushing car	SSR 5.4	Exclusion
T4	Anyone working on car besides Driver except at pit	SSR 5.6 & 18.1.1	Exclusion
T5	Replenishments on track	SSR 5.5	Exclusion
T6	Driving counter race direction	SSR 5.1	Exclusion
T7	Push start by marshals	SSR 5.3.b & 5.8	Stop + Restart, Poss. Exclusion
T8	Exceeding drive-time	SSR 21.2	Exclusion
T9	Driver more than 10 meters away from car	SSR 5.3.c	Retired
T10			
DURING A PENALTY			

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

D1	Must not call at pit during "Stop and Go" penalty	SSR 5.11.a	Repeat S/G
D2	No one must contact Driver during "Stop and Go"	SSR 5.11.b	Repeat S/G
D3			
MISCELLANEOUS			
M1	Failure to abide by instructions or red flag/light at pit exit	IC 6.2.5	Stop + 60 Seconds
M2	Drive through Pit Lane without stopping (except if pits closed)	SSR 16.1.5	Stop + Restart
M3			

(Descriptions above are abbreviated; refer to text)

The Race Director assesses these standard penalties. Repeat infractions may result in greater or cumulative penalties at the discretion of the Race Director/Stewards.

This article shall in no way be construed to limit the authority of IMSA or the Race Director/Stewards to assess additional or different penalties for these or other violations of the IMSA CODE, SSR or SR.

ATTACHMENT 2 - ADJUSTMENT OF PERFORMANCE

The ACO Technical Regulations are the basis for the technical regulations of all "Le Mans" branded championships. However, in order to maintain sporting balance between cars in each class, IMSA reserves the right (at its discretion) to utilize an adjustment method during each season. Where there is any conflict, Attachment 2 supersedes all ACO Articles.

- 1) IMSA may make an initial change within 30 days from the completion of the first Event and then two additional adjustments, which may occur at any time during the season. These changes are class specific. Individual car types that enter late in the season, or that have not competed regularly in the Series, may receive an additional adjustment at any time, which shall not count as a change within the class.
- 2) All adjustments take effect (7) seven days after the notice.
- 3) The following changes may apply:
 - a. Minimum weight of the car.
 - b. Engine restrictor/boost pressure change.
 - c. Other parameters changed by IMSA as may be required.
- 4) Additional criteria for changes:
 - a. Organizer may exclude from consideration performances not reflective of the demonstrated performance of the car.
 - b. Other criteria including but not limited to top speeds and qualifying lap times may also be considered for the purpose of adjustments.
- 5) Changes to cars not of current specifications may be limited. IMSA is not responsible for ensuring cars not exhibiting performance representative of their class become competitive.
- 6) IMSA shall have the right that teams must provide any car data that they develop at any Event(s). Further, IMSA shall have the right to require the Entrant to run additional data gathering device(s), and provide inputs for such device(s), at Entrant's expense. Providing false or intentionally misleading information is a breach of the Regulations.
- 7) These changes are deemed part of the Regulations. Decisions of IMSA regarding adjustment of performance are not subject to protest or appeal.
- 8) IMSA reserves the right to make modification(s) to the balance of performance between classes in order to maintain the desired relative performance and competition.

ATTACHMENT 3 - TIRE REGULATIONS

These Regulations are incorporated in the SSR of the American Le Mans Series. This does not modify or replace Article 13 of the ACO Technical Regulations.

1. General

- 1.1. Tires are a critical component of all cars racing in the ALMS. As such, IMSA reserves the right to regulate tires and the eligibility of certain tires and Tire Manufacturers in the interest of competition, and may do so at any point in the competition, and may modify or waive any part of this Regulation at its sole discretion. Decisions of IMSA pursuant to this regulation are not subject to protest or appeal.
- 1.2. All tires used in the ALMS must be specifically designed for automobile racing and must be approved by their Manufacturer for such use.
- 1.3. Any attempt to modify tires in any manner not authorized by the Manufacturer, is prohibited. The use of a traction compound or any substance which might alter the physical properties of a competition tire as supplied by its Manufacturer is prohibited. "Grooving" Dry Type tires to create intermediate style wet tires is prohibited. Adding or enlarging grooves on Wet Type Tires by the Manufacturer is permitted with written permission from the IMSA Technical Director provided the Wet Type Tires were demonstrated to meet the requirements in Paragraph 3 prior to the alteration.
- 1.4. Tire warmers or any other means of artificially warming tires are prohibited.
- 1.5. Each Entrant must declare their Tire manufacturer as part of their entry form for each car and all tires on the car must be supplied by that Tire Manufacturer. The Entrant may, with permission from IMSA, change Tire Manufacturers during the course of an Event, however, all times previously recorded for that car may be forfeited. Entrants must not change Tire Manufacturers during the course of a race.
- 1.6. Tire Manufacturers must provide to IMSA, prior to any tires being distributed, an inventory of all tires that they have brought to an Event. IMSA reserves the right to inspect and inventory any Manufacturer's tire supply to ensure compliance with these Regulations. Except with written permission from IMSA, a Tire Manufacturer must not bring tires to an Event not intended for use at that Event. For such waiver, tires not intended for use at that Event must be securely stored, with access controlled by IMSA. It is the Manufacturer's responsibility to ensure that all tires are stored in secured containers with access limited only to the Manufacturer's representatives and Officials of IMSA.

2. Tire Manufacturers

- 2.1. The participation of any Tire Manufacturer in the ALMS must be pre-approved by IMSA.
- 2.2. For a Tire Manufacturer to be approved for competition with a particular brand of tire:
 - a) That brand must be sold for automotive use in the United States of America.
 - b) Such other minimum requirements as required by IMSA.
- 2.3. Any Tire Manufacturer that intends to compete in the ALMS must declare their intent in writing to IMSA no less than ninety (90) days prior to first competing. Such Manufacturer must commit to participate continuously, without interruption, until 180 days following written notification to IMSA of their intent to withdraw from competition. Should a Manufacturer have no teams requesting the use of their tires, this requirement does not apply.

3. Tire Specifications

- 3.1. Tires must conform to the specifications of the specified Class Technical Regulations.
- 3.2. Recapped tires are prohibited.
- 3.3. Tires must be declared by their Manufacturer to be either Wet Tires or Dry Tires. A car must run either all Wet Tires or all Dry Tires at any given time.
- 3.4. Tires designed specifically for the purpose of qualifying are prohibited.
- 3.5. All tires must be clearly identified and marked with the following information:
 - a) The Tire Manufacturer's brand, which must be visible and on the side of the tire intended to face the outside of the car.
 - b) Identification unique to each tire type with regards to construction, tread, rubber compound and tire size. The Tire Manufacturer is not required to disclose the meaning of this identification regarding construction, tread, rubber compound or tire size.
 - c) These identification marks (b.) must be manufactured in a manner that they remain visible at all stages of the tire's life in normal racing use. These do not need to be visible while the tire is in use and may be on the bead or on the inside of the tire.
- 3.6. Wet Tires must conform to the following minimum standards:
 - a) Tread depth, as manufactured and supplied to the teams, must be a minimum of 2.5mm in any void area of the tire.
 - b) All Wet Tires must, when new, have a maximum contact area of 70% of the total area. For the purpose of measuring the voids, any void not conforming to (a) above is not considered.

Contact areas are measured symmetrical to the tire centerline and covering a square:

Measured Maximum Tire Width, As Mounted	Measurement Square
9 inches	180 x 180 mm
10 inches	200 x 200 mm
11 inches	230 x 230 mm
12 inches	250 x 250 mm
13 inches	280 x 280 mm
14 inches	300 x 300 mm
15 inches	320 x 320 mm

16 inches

345 x 345 mm

Tires with a measured maximum tire width, as mounted, between these sizes, are measured using the next smaller square (e.g. a tire with a nominal tire width of 11.7" is measured with the 11" template).

4. Wet Tire Allocation

- 4.1. Prior to providing any Wet Tires intended to be used in competition to teams, Tire Manufacturers must provide a list detailing what tire types are intended to comprise a Wet Tire Set for each category of car supplied by the Manufacturer; the type being defined by the tire's compounding, construction, tread pattern, depth and size. Tire Manufacturers must register the tread pattern with IMSA by providing a full scale diagram of the tread showing at least three repeats of the tread, on a transparency or transparent paper. They must also specify the nominal tread depth, as manufactured, and the nominal ratio of contact areas as a percentage of total area, which must conform to Paragraph 3.6 above.
- 4.2. Tire Manufacturers must only bring one type of Wet Tire Set for each class of car they supply. That type must be available to all cars they supply.

5. Entrant Tire Allocations

- 5.1. For the purpose of Tire Allocations for all classes, an Event includes the qualifying day and two days prior to the qualifying day, including any testing done on those days, whether a promoter test day or not. Tires run on days of running outside these days are not regulated. Wet Type tires are not counted in a car's Tire Allocation.
- 5.2. The Dry Type tires are limited for each Event as follows:
 - 5.2.1. For each Event according to Paragraph 5.1, no more than fourteen (14) Dry Type tires per car must be used with the exception of the Laguna Event where sixteen (16) Dry Type tires maximum may be used and the Sebring and Petit Le Mans Events where twenty (20) Dry Type tires maximum may be used. The set of tires presented and marked for the qualifying session (see Paragraph 7) are NOT counted against this tire allocation.
 - 5.2.2. The number of tires used during the race and warm-up is free and, except as per Paragraph 7.3 herein, tires used during the race or warm-up do not require IMSA marking.
 - 5.2.3. IMSA may increase or decrease the allocation of tires in the SR of each Event in case of differing lengths of on track sessions, or may do so at any time in case of extraordinary circumstance. In any case, the allocation of tires shall be equal for all competitors.
- 5.3. Entrants must not transfer tires marked for use by one car to another car, even if the other car has been entered by the same Entrant, except that during the race phase of the competition, the tires may be used on any car.
- 5.4. Any tire stamped by IMSA and delivered to the Entrant is charged against the car allotment. Any tire returned and that is new and determined to be unused by the Officials is credited to the car's tire allotment. Permission to exchange tires is at the IMSA Official's discretion. Tire marking shall occur at the respective tire manufacturer's mounting area only.
- 5.5. Used tires damaged in the course of the Event are not replaced except that, at the sole discretion of the Officials, they may permit up to one (1) tire per Event per car to be replaced in case of adverse circumstances. Accident or contact with another competitor, unintentional or otherwise, whether caused by the competitor or not, does not necessarily warrant replacement of tires. Only tires identified by the Officials as having been damaged are replaceable. Any replacement tire must be an exact replacement (i.e. position, and type).

6. Tire Selection and Mounting

- 6.1. For Wet Type Tires, IMSA Officials may select tires at random from each Tire Manufacturer's supply of a particular type to fill competitor's orders. The method of selection is at the Official's discretion, and tires are selected from the Tire Manufacturer's entire Event inventory. Manufacturers must not provide tires not approved by the Officials.
- 6.2. For Dry Tires of a competitor's allotment, for phases of the competition outside of the race, IMSA Officials shall mark tires with the car number and the Event identification.
- 6.3. Tires where the Official's markings have been worn or damaged must be immediately returned to the Officials for re-marking.
 - 6.3.1. It is prohibited to change, deface or forge the Official's tire markings or the Tire Manufacturer's markings. Any such attempt shall result in withdrawal of the tires by IMSA from the competition and imposition of any other penalty under the IMSA CODE that the Stewards deem appropriate.
- 6.4. Mounting and marking of tires to be used at Event days (as defined above) that are part of a competitor's allocation, and any Wet Tires to be mounted with tires registered for that Event, shall commence at 8am on the day prior to the Event days and end at 4:30pm on that day. On all Event days, mounting and marking may commence two (2) hours prior to the first ALMS on-track session and end no later than two hours after the last ALMS on-track session, or 5pm, whichever is later. The Officials may change these times and notify the competitors either in the Event SR or by posting at the Event. Additional accommodations may be made, by exception.
- 6.5. Unused tires marked by IMSA may be returned to their Manufacturer for use at a subsequent Event. However, those tires must be then re-marked by IMSA at that Event.

7. Tire Usage

- 7.1. Only one (1) set of Dry-Type tires and/or one (1) set of Wet-Type tires must be used per car in the official qualifying session. All qualifying laps must be completed on these tires regardless of Driver. These tires must be presented at the specified location to be marked by IMSA as qualifying tires per the official Event schedule.
- 7.2. During official qualifying, each car must stop at pit exit or designated checkpoint to confirm that the tires have been marked by IMSA and correspond to the car.
- 7.3. Unless declared otherwise, competitors must use only the marked Dry-Type tires. If the Race Director declares that track surface conditions require the use of Wet-Type tires, all competitors must use only the marked Wet-Type tires.

2013 ALMS STANDING SUPPLEMENTARY REGULATIONS

- 7.4. If the Race Director declares that track surface conditions warrant flexibility in tire type selection, competitors may select Dry-Type or Wet-Type tires as conditions dictate. Upon such declaration, the Starting Grid shall be ordered by Class in the order P1, P2, PC, GT, GTC. Cars with faster qualifying times are gridded ahead of slower cars in their own class, regardless of tire type used.
- 7.5. Each car must be presented on the Starting Grid and start the race on no less than three (3) of the marked Dry-Type qualifying tires per Paragraph 7.1 or its assigned grid position is forfeit and the car moved to the back of the grid.
- 7.6. Under variable track surface conditions (such as rain) prior to the start of the race, the Race Director may declare the provisions of Paragraph 7.5 void. Upon such declaration, competitors may start the race on any tires meeting the requirements for race use per ATTACHMENT 3 – TIRE REGULATIONS. Such declaration, or not, by the Race Director is not subject to protest or appeal.
- 7.7. Under adverse track surface conditions, the Race Director may require all competitors to start the race on Wet-Type tires. If so required, all cars must take the starting flag on Wet-Type tires. Once a car has taken the starting flag, that car is free to change tires. If a car starts from the pits, they must cross the start line once on Wet-Type tires, unless the leader has already completed two laps of the race. Such requirement of Wet-Type tires, or not, by the Race Director is not subject to protest or appeal.

8. P2, PC and GTC additional provisions:

- 8.1 Cars must be fitted with proper branded tires complying with class specifications.

P2: Open
PC: Continental Tire
GTC: Yokohama

8.2 PC only:

- Teams must carry a minimum of one (1) set of Wet Tires to each Event.
- Teams are urged to have a minimum inventory of six (6) sets of wheels to assist in mounting.
- Tires used for qualifying and the race must be purchased at the Event with the exception of the required Wet Tires. All tires require the IMSA barcode.

ATTACHMENT 4 – FUEL REGULATIONS

The following "Official Fuels" are authorized for use in the American Le Mans Series. All cars competing in any on-track session that is listed as part of the "Official Schedule" for an ALMS Event, including any "Promoter Test Day" must use the appropriate "Official Fuel" for the engine type as listed by the Entrant on the Event Entry Form and confirmed on the "Official Invitation" issued by IMSA.

These "Official Fuels" are authorized by IMSA for use in ALMS Events:

- Diesel: IMSA Diesel LM24
- Gasoline: IMSA E10
- Ethanol: IMSA E85C
- IsoButanol : IMSA iBE20

All Competitors must use these fuels as dispensed from the IMSA "Official Fuel Compound" at each Event. Generally, these fuels are dispensed from the fuel compound in sealed, 54 gallon lined steel drums.

FUEL ENERGY BALANCE

IMSA has taken the position that the energy carried on-board the various cars in the Series should be (approximately) equal.

Therefore:

Prior to the start of the season, IMSA, in conjunction with the ACO, shall establish the relative energy values of the fuels used in the ALMS compared to the reference fuels used by the ACO. The total energy value of the total quantity of each type of fuel carried on board each car shall be approximately the same.

The Diesel, E10 and iBE20 capacities are established in the Technical Regulations. Capacities for E85 are:

GT: 110L

To ensure that re-fueling times for a given quantity of energy are approximately equal between fuel types, IMSA may adjust the refueling rig restrictor diameter and refueling rig height such that the time taken for a quantity of fuel to pass for a given quantity of energy shall be approximately the same for each type of fuel.

E-10 fueled GT cars are permitted to utilize a restrictor sized 2% larger than specified in the Technical Specification. E10 fueled GT cars must also add 10kg of ballast for all IMSA Events.

ATTACHMENT 5 - TESTING REGULATIONS**1. General**

- 1.1 This regulation applies to all IMSA licensed members participating in the ALMS, including Entrants, Drivers and Manufacturers. Members must not, by any means or subterfuge, participate in or become the knowing beneficiary of any activity intended to circumvent this Regulation. Appropriate penalties, including possible loss of test days, the loss of some or all Series points for that season, or any other penalty permitted under the IMSA CODE may be imposed upon any determination of any testing intended to circumvent this Regulation. IMSA may waive provisions of this Regulation in extraordinary circumstances when in the best interest of the sport. Any decision by IMSA as to whether any testing provision has been violated and the assessment of penalties is not subject to protest or appeal.
- 1.2 Season: For the purposes of this regulation, a "season" is defined as the period between the last Event day of the previous season and the last Event day of the current season. Thus, the 2013 testing season starts on 21 October, 2012 and ends on 21 October, 2013.
- 1.3 Testing within the ALMS, either by a team, Manufacturer or other Participant, must only be undertaken by a team possessing a current IMSA Entrant's license.
- 1.4 This Regulation applies to any team starting at the first ALMS Event that they participate in. No testing limits apply to teams prior to their first ALMS Event. These Regulations apply until 12 calendar months after a team has entered their last race.
- 1.5 For the purposes of this Regulation, a team may comprise one or more Entries, whether of the same or different names, of cars of one or more makes that exhibit one or more of the following characteristics: common ownership; common control; common Drivers; common engineering staff; common facilities; or other such characteristics as IMSA may determine. New entries are not recognized as new teams so long as they exhibit one or more of the above characteristics from a prior team, providing an ongoing benefit to the present team. Teams should verify with IMSA prior to testing to determine what their testing limits are.
- 1.6 A "Rookie" Driver is: Any Driver who has not competed in more than two Events (ALMS, ELMS, or the 24 Hours of Le Mans) in any one season, or more than five in their career. A rookie is a rookie for their entire first season of competition, no matter how many races they have competed in that year.
- 1.7 For the purpose of documenting the consumption of the test day allocation, if the maximum duration of the track testing does not exceed two (2) hours in a twenty four hour period, no testing is charged. If the time exceeds two (2) hours, one test day is charged.

2. Registration of testing

- 2.1 All testing must be registered with IMSA in advance of any on-track activity. Failure to properly register any test with IMSA in advance, or running tests in excess of a team's allotment may subject the team to penalties, including loss of test days, team and Driver points and/or may make the car or team ineligible for competition, and other penalties permitted under the IMSA CODE. It is the responsibility of the teams to track the number of days they are permitted.
- 2.2 Should any facility knowingly permit a test in contravention of this Regulation, they shall be subject to penalties including potential limitations on IMSA Members testing at that facility and other penalties permitted under the IMSA CODE.

3. Blackout Periods (ALL CLASSES)

- 3.1 Testing is prohibited by any ALMS Member during the following periods:
 - a. Four (4) days prior to and one (1) day following any ALMS Event date (the day of the race). This applies only to testing not at the Event site.
 - b. Seven (7) days prior to and two (2) days following the ALMS Event date at Sebring and Petit Le Mans (the day of each race). This applies only to testing not at the Event site.
 - c. Days between ALMS Events held on consecutive weekends. This applies only to testing not at either of the two Event sites.
 - d. Fourteen (14) days following the last Event date (the day of the race) of the season (i.e. the first 14 days of the current testing season).
 - e. Except for Series sanctioned tests or "Promoter Test Days" held in connection with Events; the two (2) days preceding and two (2) days following these listed holidays are blackout dates:
 - Easter
 - Memorial Day
 - July 4th
 - Labor Day
 - Thanksgiving
 - f. Two (2) days preceding Christmas until two (2) days following New Year's Day.
- 3.2 A team may request permission to test on the first day of a blackout period should that day be consecutive to a scheduled test day aborted for good cause.

4. Team Test Days

- 4.1 A Team must not test more than the following maximum number of test days in one season:
 - a. P1 and GT: Ten (10) days.
 - b. P2, PC and GTC: Six (6) days.

- 4.2 Not Applicable

- 4.3 Test days are not assignable or transferable.
- 4.4 These limits apply to any ALMS Full Season Entrant or any team registered to compete in the ALMS at three or more Events during the season. IMSA may impose limits on the participation of any team exceeding these testing limits at its sole discretion, including but not limited to, limiting eligibility for championship points.

5. **Special Tests**

- 5.1 Evaluation days: IMSA may permit a team one (1) additional evaluation day to test a Driver replacing an injured Driver or other such extraordinary basis. A Driver must not undertake more than three (3) evaluation days in a season.
- 5.2 Special Component Testing: Manufacturers and suppliers of components for IMSA sanctioned competitions may request permission to organize special tests beyond the scope of these Regulations. Prior approval must be obtained from IMSA, which is only granted in extraordinary circumstances on the basis of well-documented, clear and present safety concerns; not on performance grounds.
- 5.3 With prior registration of such intent and with written approval from IMSA, cars may be run for commercial, sponsor, public relations events and pit stop practice without test days assessed. IMSA reserves the right to require an IMSA designated observer at the team's expense.
- 5.4 IMSA may organize Series-wide "open tests" at its discretion and such test days shall NOT count toward a team's allotment.
- 5.5 Scheduled test days ("Promoter Test") as part of an Event are not counted against a team's allotment. For clarity, scheduled test days are limited to two (2) days prior to the first official practice except at COTA, Sebring and Petit Le Mans, where it is three (3) days prior to the first official practice. Any earlier days are not considered part of the IMSA schedule for the Event and are counted towards a team's allotment. GTC cars and Drivers duly registered, licensed and paid may participate in GT3 Cup sessions on "Promoter Test" day(s).
- 5.6 Any other testing request is at the sole discretion of the Chief Operating Officer, who may require the presence of an IMSA Official at the team's expense.

6. **Assessment Policy**

- 6.1 Test days are charged as follows:
 - a. Testing with one (1) Driver with any number of cars is charged one (1) day.
 - b. Testing with one (1) car with more than one (1) Driver is charged one (1) day.
 - c. Testing with more than one (1) car with more than one (1) Driver is charged one (1) day per car tested, however, Drivers entered in the Founder's Cup do not count as a second or subsequent Driver.
- 6.2 Should a team, for good cause, not test on a day that they have previously registered with IMSA, they may notify IMSA and upon verification, the team is credited that day.

ATTACHMENT 6 - ADVERTISING/DECAL/NUMBER/PLACEMENT/DRIVER ID/LEADER LIGHTS

All logos and advertising are subject to IMSA approval. Please reference the ALMS brand and logo guidelines posted on the IMSA website.

All competing cars must carry the following Mandatory Decals as well as other decals that may be mandated by IMSA:

Allocation: The allocation of racing numbers is controlled by IMSA. Such numbers must comply with IMSA requirements. They must be white in color with a thin black border. The background of the numbers must be colored in:

P1	: Color pantone Red 485
P2	: Color pantone Blue 653
GT	: Color pantone Green 355
PC	: Color pantone Purple 520c
GTC	: Color pantone Orange 021C

Assigned car number panels: Three total, one on each side and one clearly visible from the front; side number panels must be affixed on a flat and vertical surface, must be situated between the front and the rear wheels (as depicted in Fig. 1 below) and must remain visible in all circumstances. For races taking place partly by night, P1, P2, and GT cars must be equipped with white light-emitting number panels. The colored background must be cut-out in the number shapes so that they are illuminated during the night. If it is not possible to read the numbers (in day time or at night), the car may be stopped by Race Control.

Competitors must leave **three (3) empty spaces** measuring 45 cm (height) x 45 cm (width) for the car number panels and an additional empty area at Organizer's disposal. The upper windscreen banner area is reserved for the exclusive use of IMSA upon request.

Three Series decals: One on each side and one clearly visible from the front (as depicted in Fig. 1 below);

Three IMSA decals: one on each side and one clearly visible from the front (as depicted in Fig. 1 below);

Three Class decals: one on each side and one clearly visible from rear (as depicted in Fig. 1 below);

Two Official Fuel decals: one on each side (as depicted in Fig. 1 below).

■ Two Official Fuel decals: one (3" x 4") clearly visible on each side of the team fueler's helmet.

■ One Official Fuel decal: (8" x 10") on the car's pit fuel tank clearly visible and on the side facing the racing surface.

Competitors may also be required to display Event-specific sponsor decals in an approved location on each side of the car;

The Driver(s) National Flag(s) and Name(s): On each side of car above the door opening, the national flag(s) of the Driver(s) as well as their name(s) must be displayed. Minimum height of both flag(s) and name(s) must be 3 cm.

A limited quantity of decals and "Leader Lights" are supplied by IMSA, additional components are available for purchase. Number plates and class decals are color coordinated with the "Leader Lights" for each class. Should a competitor choose to produce their own decals or numbers they must conform to IMSA standards in all respects and are subject to IMSA approval.

Examples of mandatory decal placement are shown below in Fig. 1. IMSA reserves the right to approve final placement at its sole discretion. Decals must be installed before final scrutineering. Where car's paint schemes and markings are similar, especially for cars of the same team, additional identifying markings clearly differentiating the cars may be required by IMSA.

GTC Class Only: Cars must display the supplied Yokohama decals. Locations are specified in the IMSA GT3 Cup Challenge Regulations available online at imsaracing.net.

Transporters: All transporters must carry the required Series decals in the designated locations as depicted in Fig. 3 below;

Team Uniforms/Firesuits: All team and Driver uniforms and firesuits must display the following logos in the locations as depicted in Fig. 2 below:

American Le Mans Series presented by Tequila Patron - must be the top logo on either the left or right hand side of the chest. Minimum size 3.5" x 2.5"

IMSA Logo - may be any location on the front of the firesuit above the belt-line or on either sleeve above the elbow. Minimum size 2.5"x2.5"

Official fuel supplier patch - must be located on the left sleeve above the elbow. Minimum size 4"x3"

All firesuits and personal protective equipment must be inspected by IMSA at technical inspection prior to use.

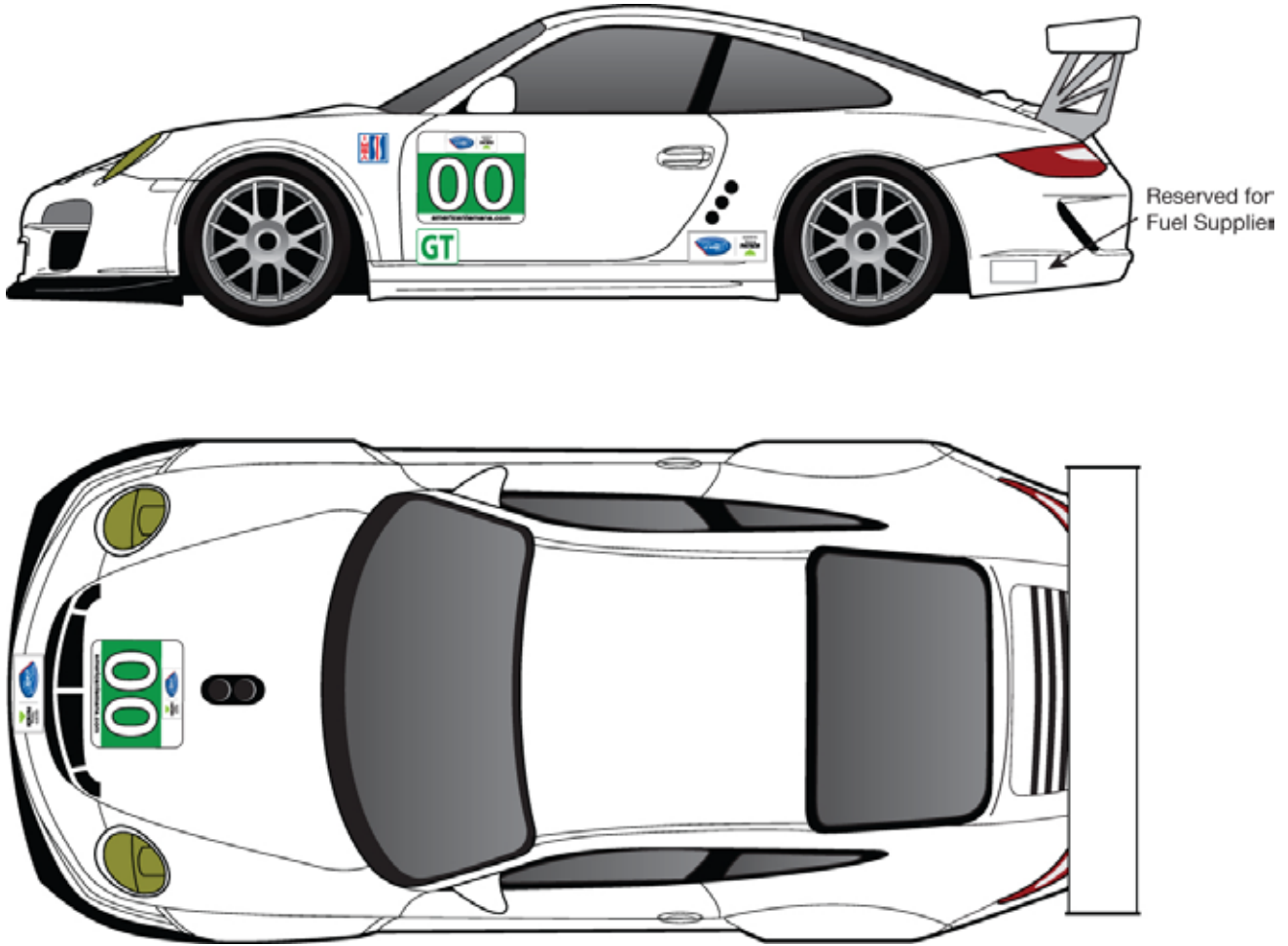
All logos must be in their full and correct colors and are available online at imsaracing.net.

Blank areas where background shirt/firesuit colors are visible when embroidering logos are prohibited.

Failure to display the logos as required may result in penalties or ineligibility for awards and prizes.

Uniforms must be of tasteful design and neat and clean in appearance.

Figure 1 -- REQUIRED DECAL AND LEADER LIGHT PLACEMENT



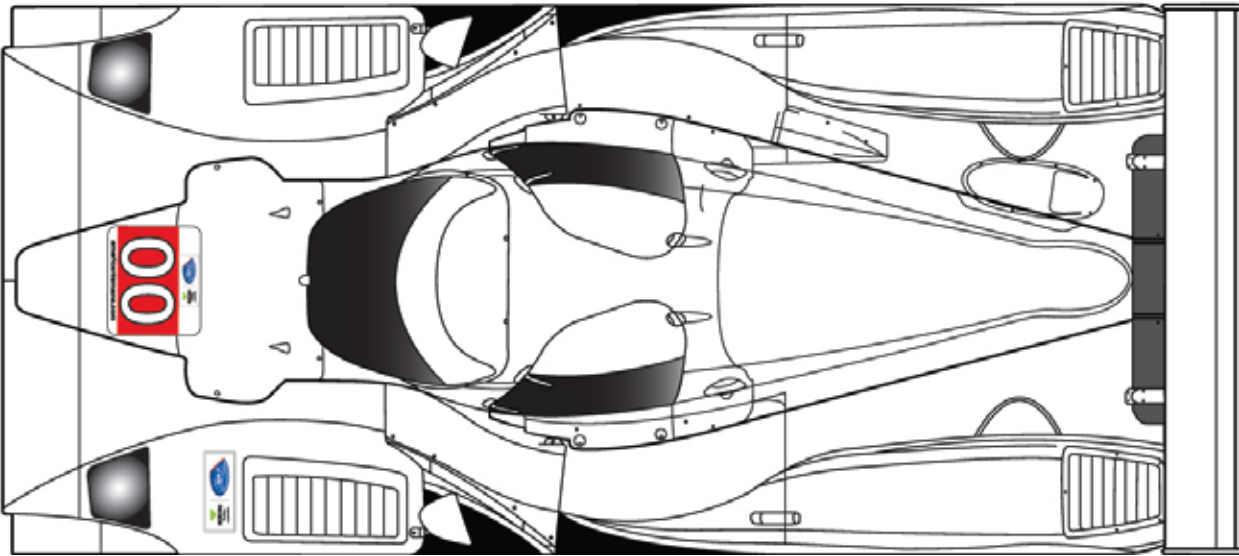
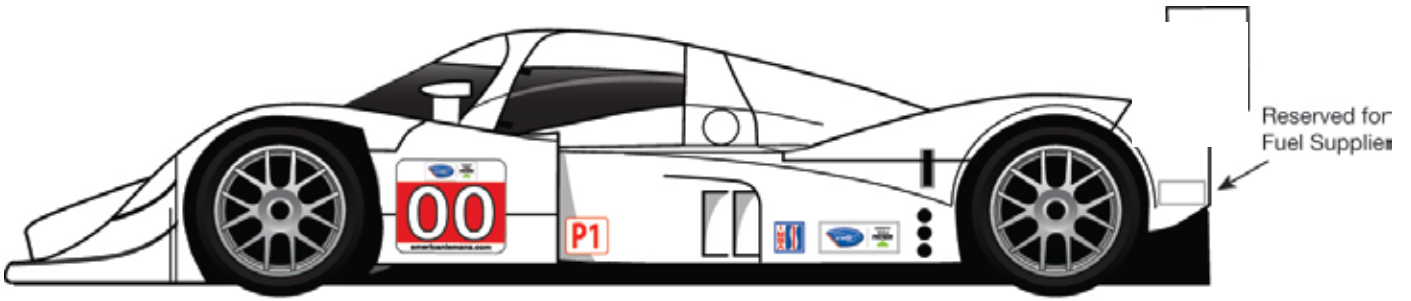
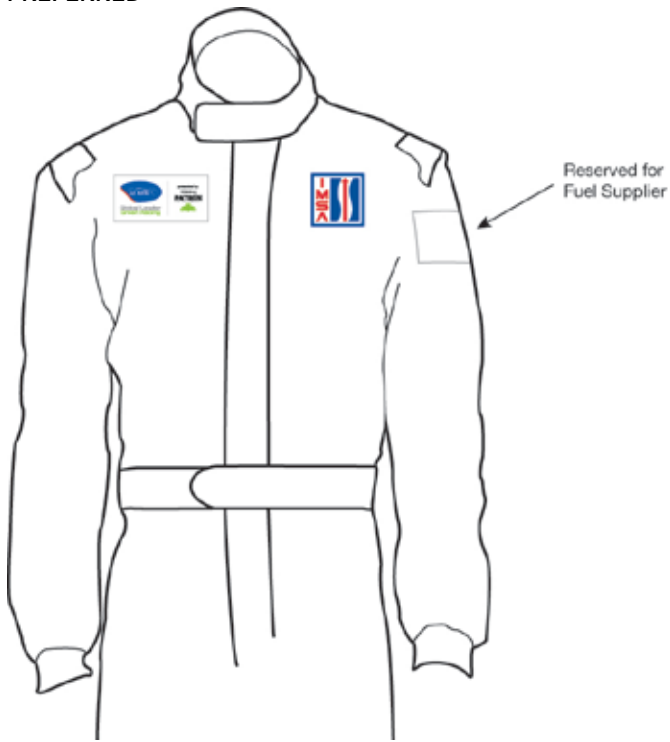


Fig 2 -- REQUIRED UNIFORM PATCH PLACEMENT

PREFERRED



OPTIONAL

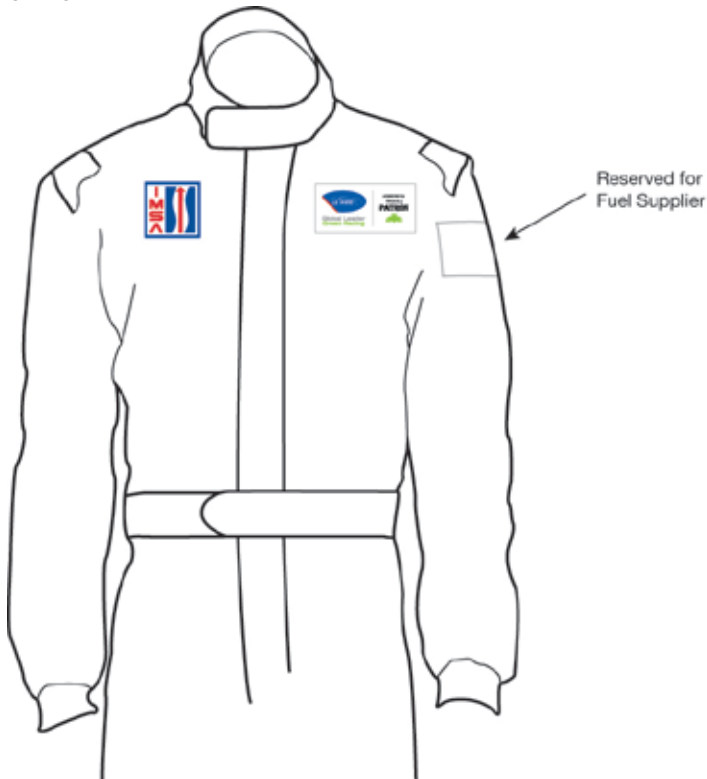


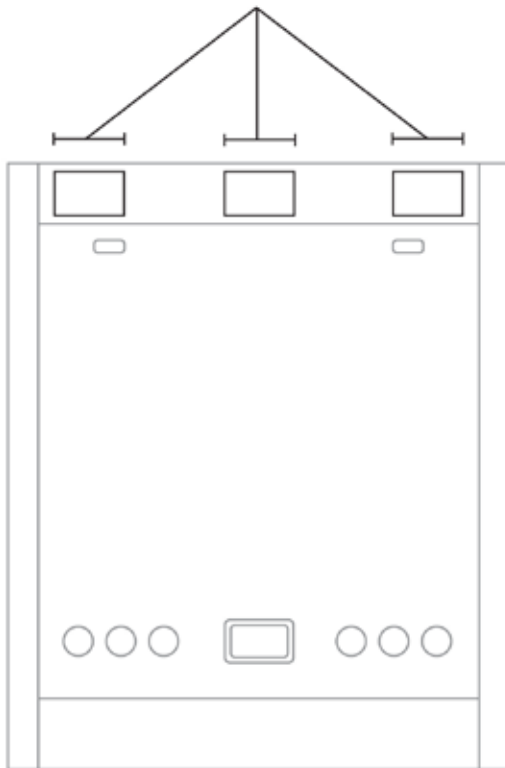
Fig 3 TRANSPORTER DECAL LOCATIONS

Option 1 –
Series logo 36" wide

Option 2 –
Series logo 36" wide



Options A, B, C –
Series logo at
minimum 18" wide



ALMS LEADER LIGHT SYSTEM

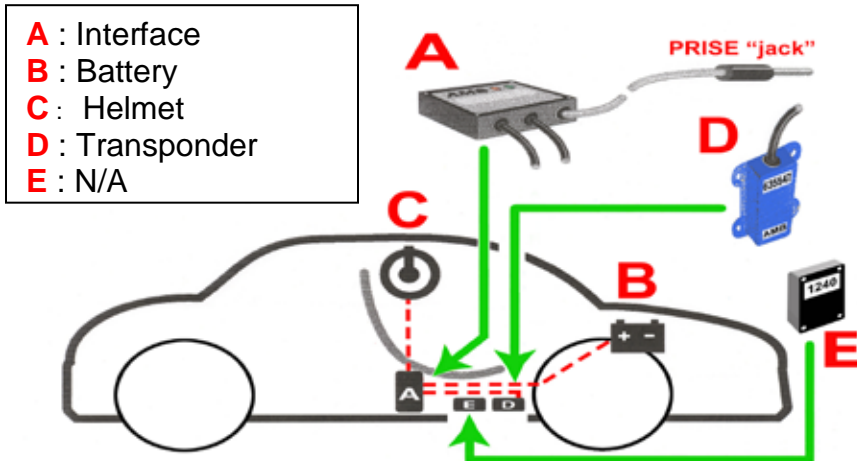
1. An IMSA supplied Position Indication System (Leader Lights) must be permanently fitted in each car for spectators to identify the car's class and the top three positions in each class.
2. Identification is by a series of three light assemblies mounted on each side of each car.
3. Class identification is by the following light color scheme:

P1	Red
P2	Blue
GT	Green
4. A simplified system diagram is available from IMSA.
5. Each team is supplied with a complete system including the following components:
 - a. Receiver/Controller
 - b. Six (6) Light Assemblies
 - c. Antenna
 - d. Electrical Connectors
6. Each team must construct a wiring harness in accordance with the wiring diagram herein, and mount the light assemblies according to the below listed specifications:
 - a. The light array must be installed in a region between six (6) inches and two (2) feet forward of each rear wheel well opening.
 - b. Lights are mounted in a vertical pattern, oriented as shown in the Figure 1 drawing above, with the centers six to seven inches apart.
 - c. Each light assembly is designed to mount behind the bodywork, with the lens protruding through a single hole.
 - d. The lenses must mount flush with the bodywork.
7. The Receiver/Controller may be mounted in any convenient location within the passenger compartment, but must be mounted securely and in such a way as to be reasonably accessible for inspection by IMSA Officials.
8. The mounting location for the Receiver/Controller must be selected to ensure that the ambient operating temperature does not exceed 50°C (120°F). The maximum operating temperature for the light assemblies is 105°C (220°F).
9. Although the system is moisture resistant, the Receiver/Controller should be mounted so as not to receive direct exposure to water under normal operating conditions.
10. The antenna must be mounted so as not to impair RF signal reception.
11. It is recommended that the harness be constructed using 22-24 gauge wire and Deutsch AutoSport or comparable series connectors.
12. Power must be wired to the master electrical switch such that the system is powered up at all times while the car is running.
13. Total current draw does not exceed 4 amperes @ 12VDC.
14. Properly installed, the lights should blink in sequence each time power is applied to the system.
15. A Green light, provided by IMSA, must be mounted in an approved location at the rear of PC and GTC cars and must be illuminated at all times on track.

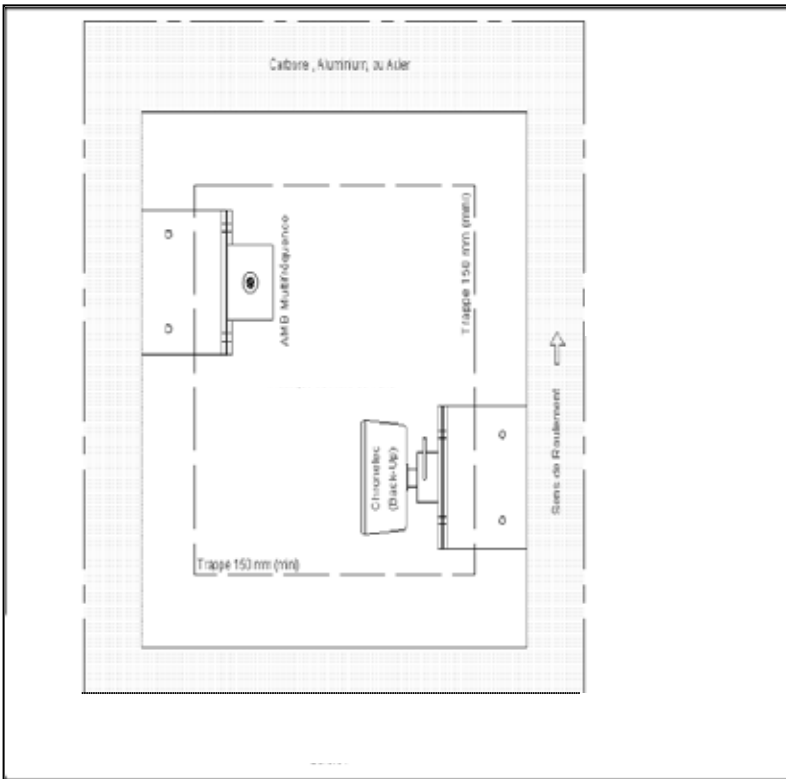
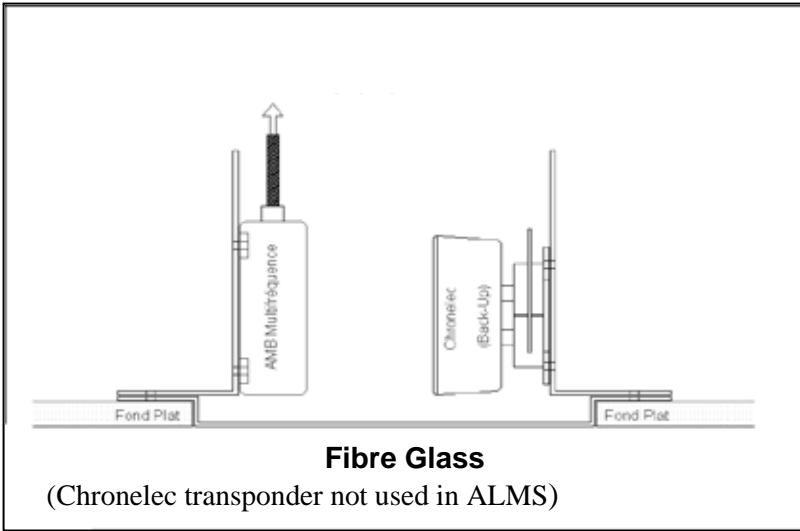
DRIVER ID TRANSPONDER SYSTEM

1/ A Driver ID Transponder, supplied by IMSA, must be permanently fitted to identify the Driver in the car. The Driver ID system consists of a direct-powered transponder with attached wiring and male plug. The Driver ID plugs (female) for Driver #1, Driver #2, and/or Driver #3 may be attached inside the car cockpit or to Driver's individual helmets. Competitors may request additional plugs for spare helmets. Other types of installations subject to approval. The transponder and plugs must be tested and operate to the satisfaction of the Timekeeper. Cost to replace a lost or damage Driver ID transponder is \$1500.00.

2/ System Diagram



- 4/ The installed transponder (D) must be above a 15cm x 15cm opening in the floor plate. This opening may be covered by fibreglass to a maximum thickness of 1mm in accordance with drawing below. For GT and the GTC, this opening may be installed in the cockpit on the passenger side. The opening must permit the transponder an unobstructed view of the track.
- 5/ The transponder (D) should be mounted vertically.
- 6/ If the transponder (D) is mounted in a position where the temperature may exceed 50°C, it is the responsibility of the team to protect the transponder with appropriate materials.
- 7/ If, as part of the installation of the transponder (D), the cable between (D) and (A) must be cut, the team must fit an appropriate connector to ensure connectivity at all times.
- 8/ The interface (A) must be fitted in the cockpit of the car such that the LED is visible at all times.
- 9/ Connection cables must be protected against temperatures in excess of 150°C for the black cables and 70°C for the blue cables.
- 10/ The jack socket, connected to interface (A), must be permanently attached in the cockpit to a rigid part of the car.
- 11/ The female end of the jack, which identifies the Driver, must be attached inside the car cockpit or to the Driver's helmet.
- 12/ The interface (A) must be connected to a fused 12-volt DC power supply. Power consumed is less than 40mA (10-30VDC). Specifications of the power supply must be within the ISO 7637 norm.
- 13/ Outside interference must not exceed the levels as described in 95/54/EEG. These two standards are commonly used in the automotive industry.



ATTACHMENT 7 - FOUNDER'S CUP

- 1) The Founder's Cup, named in honor of the founder of the American Le Mans Series (ALMS), Don Panoz, is an annual IMSA championship to recognize the accomplishments of the gender non-specific "Gentlemen Drivers" who are a foundation of the Series, and whose participation embodies the "Learn by Doing" spirit of the Founder.
- 2) Points are scored at each Event by the individual Driver as described below (not based on the results of the car). Positions are based on a combination of all classes of the ALMS. The points for the season are totaled and the top Driver receives the Founders Cup award at the end of the season.
- 3) Eligible Drivers: To be eligible for the Founder's Cup, Drivers MUST apply to IMSA prior to the first Event at which the Driver wishes to accumulate points and IMSA shall make the sole determination of eligibility based in part on:
 - a. The Driver does not now and has not recently made their primary living through motor sports.
 - b. The Driver has not in the last two years: won an ALMS Driver's class championship; a LMS class championship; a 24hrs of Le Mans class; a FIA GT class championship.
 - c. The Driver has not won another professional series championship in the last two years.
 - d. The Driver provides a significant portion of the funding for the entry.
 - e. Other criteria as IMSA may, at its sole discretion, determine.
- 4) Points are awarded on the same scale as ALMS Driver's championship points, with the same bonus points awarded for intermediate and Long-distance races. In addition, a bonus point is awarded for the Driver who has the longest permitted drive-time in each race at each Event.
- 5) Drivers are eligible for points:
 - a. If they complete their required minimum drive-time and/or number of laps as may be specified in the Regulations;
 - b. If the car is not disqualified or excluded for any reason during their driving stints;
 - c. Regardless of whether the car finishes the race;
 - d. Regardless of whether there are multiple "Gentlemen Drivers" in the car (each may score points).
- 6) Points for each Event are totaled and the Driver with the highest total is awarded the Founder's Cup. In case of a tie, the Driver with the greatest total permitted drive-time is placed ahead.

ATTACHMENT 8 - INSURANCE SUMMARY

International Motor Sports Association ("IMSA") provides Participant Accident Coverage for all IMSA-sanctioned racing activities, including practice and qualifying, that is extended to IMSA Participants such as Drivers, mechanics, Officials, crew members, Entrants, car owners, and pit workers, as well as other individuals holding appropriate credentials and having clearly defined duties allotted to them.

The policies extend to accidental bodily injury sustained in a restricted area while such area is under the control of IMSA and occurring independently of any other causes.

The maximum coverage provided under the Participant Accident Coverage is as follows:

Accidental Death	\$ 25,000
Accidental Dismemberment	\$ 25,000 dependent upon type of injury
Primary Accident Medical Benefit	\$ 5,000
Excess Accident Medical Benefit	\$495,000
Accident Total Disability	\$ 100 (payable weekly up to 104 weeks)

Please note that after the \$5,000 Primary Medical limit, medical coverage is provided on an excess basis. This means that Excess Coverage is over and above any other medical insurance available to the individual, including but not limited to, Workers Compensation or any individual or group health plans.

Examples of Policy Exclusions for which coverage is not provided include but are not limited to, self-inflicted injuries, pre-existing conditions, assault and battery. Coverage is at all times, limited to the terms, conditions and exclusions of the master policy.

This is only a summary of coverage. Details may be obtained from IMSA:

Claims should be reported to IMSA at:
International Motor Sports Association
Attn: Scot Elkins
1394 Broadway Avenue
Braselton, GA 30517
Phone (706) 658-2120
Fax (706) 658-2130
selkins@imsaracing.net

ATTACHMENT 9 - PIT AND PADDOCK EQUIPMENT REGULATIONS

The following limitations apply to all American Le Mans Series team equipment:

1 ELECTRONIC PIT SIGNALING BOARDS:

- 1.1 Must not be larger than 102cm x 77cm. (Either width or height may be the larger dimension.)
- 1.2 Must not be higher than 110cm above the height of the pit/track signaling wall.
- 1.3 Must not extend beyond the front plane of the pit/track signaling wall, or over the signaling area/pit lane barrier.
- 1.4 Must not display in red (also applies to any signal used to stop the car in its pit box).
- 1.5 Must only display text and numbers. Motion, flashing, blinking, or logos (also applies to any signal used to stop the car in its pit box) prohibited.
- 1.6 Defacing the facility by drilling into walls, surfaces, paving, concrete or otherwise is prohibited.
- 1.7 Must be located opposite the competitor's pits, or at the IMSA Official's direction.
- 1.8 Must be installed prior to the posted time for inspecting fuel rigs. No installation thereafter. IMSA Officials may refuse any installation for reasons of safety. The decisions of IMSA Officials are final.

2 PIT LANE EQUIPMENT:

- 2.1 Must not be placed in the pit lane prior to the date and time listed in the SR. Specific variations may be required by the Director of Logistics.
- 2.2 Must fit entirely within a competitor's allotted space, which is a minimum 22' (L) X 10' (D) and may vary dependent on the circuit.
- 2.3 Any equipment, including any roof or tented structure, must not be higher than 4 meters except radio antenna masts.
- 2.4 All cloth materials used for canopies, including but not limited to all tenting and pit stand covers, must be fire retardant and so tagged and/or certified.
- 2.5 Areas designed to accommodate people must not be fully enclosed without the ability to see out of the exit (a window).
- 2.6 Any fitting-out requiring drilling, welding or modifications of the pits or paddock is only permitted after the Organizer's written agreement.
- 2.7 Any decoration, on the installations and on the ground is prohibited. The laying of flooring or any other decoration is permitted if it is made from fireproof materials, and only after the Organizer's written agreement.
- 2.8 In the pit, any equipment is prohibited to:
 - a. Exceed the external limit of the "working area" (SSR Art. 16.2.3);
 - b. Be less than 2 meters above ground level.
- 2.9 Equipment compliance and the period of validity of the air tanks may be checked at any time. See also IMSA CODE Art. 6.6.3.c.
- 2.10 Lighting equipment in the pit lane area (for races run partly at night) must be aimed in such a way to avoid blinding the Drivers.

3 REFUELING EQUIPMENT:

- 3.1 Throughout the Event, it is prohibited to refuel the car by means other than gravity, with a refuelling equipment maximum height of 2.00 meters for E10 and 2.6 meters for E85 from the top surface of the vessel, not including the vent, cover plate or fasteners above the track surface where the refuelling takes place.
- 3.2 During practices and the race, only one autonomous supply tank complying with the drawing below must be used per car. This tank must have a simple cylindrical internal shape and must not have any additional internal parts which could improve the flow. The tolerance on the bottom flatness must be greater than 1mm inside the tank. The flow restrictor top face (A) must be at the level of the internal surface of the bottom of the supply tank.

For safety reasons, this tank must be fixed, through a tower, onto a trolley with the following characteristics:

- All tower components must be mechanically assembled without any degree of freedom in relation to the trolley;
- The base of the trolley must have a surface area of at least 2 m² and must be made with a case fitted on 4 self-braking casters, ballasted with a weight greater than that of the tank filled with fuel.
- No pipes (fuel or air guns for example) are allowed to protrude from the face of the trolley facing the pit lane at a height below 1.3m
- The fuel tank assembly must not extend beyond the working side of the pit wall except during refueling

A system for weighing the fuel may be applied through placing a weighing plate underneath the tank, provided that the characteristics set out above are respected.

A sensor provided by the Organizer for measuring the amount of fuel must be fitted to the tank. The competitor must ensure that it is working properly during the entire Event.

A member for supporting the refuelling lines and air hoses may be attached to the trolley, but:

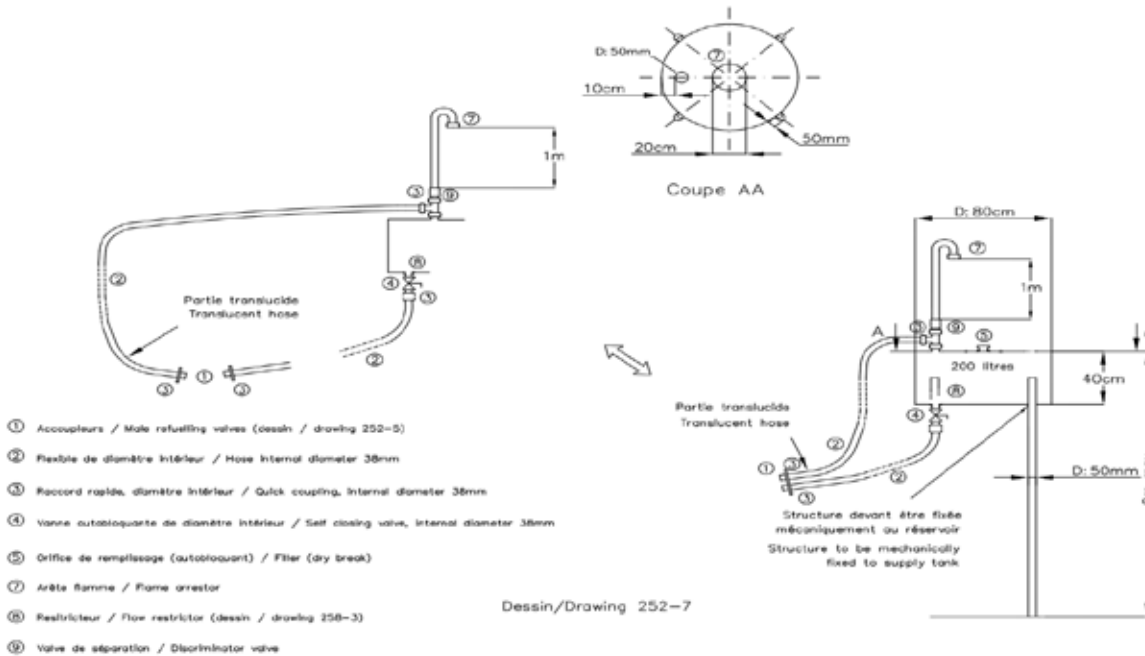
- Must be independent of the tank and of the tower;
- Is recommended that this member be permitted a degree of freedom in relation to the trolley (rotation following a vertical axis);
- Must not exceed 4 m in length and must permit free passage of a height of 2 m over its entire length, including any hoses, lines and/or accessories;
- An identification plate bearing the competition number of the car must be fixed to its outboard end.

- 3.3 Above the tank there must be an air vent system complying with FIA regulations (see appendix J drawing n° 252-7).

- 3.4 The refuelling pipe (minimum length, connectors included: 3,00 m*), must be fitted:

- At one end with a self-sealing connector to fit the autonomous supply tank outlet. This connector must incorporate an automatic self-closing ball valve described below. This system is mandatory at all IMSA events. It must be approved by IMSA and unmodified.
- At the other end with a leak-proof coupling to fit the filler mounted on the car. During refuelling, the outlet of the air vent must be connected by means of an appropriate coupling to the autonomous supply tank.

- 3.7 Before refuelling commences, the car must be connected electrically to earth and remain so throughout refuelling. All metal parts of the refuelling installation, from the coupling to the main supply tank and its rack, must always also be connected to earth.
- 3.8 A fuel attendant must always be present during refuelling to operate an automatic self-closing ball valve (dead man principle) on the outlet of the supply tank and permitting the fuel flow control.
- 3.9 All hoses and fittings used shall have a maximum inside diameter of 1.5" apart from the self-sealing connector to fit the autonomous supply tank outlet that must be approved by IMSA.
- 3.10 Using overflow bottles or any other container whatsoever is prohibited in the pits or around the pits. Apart from the autonomous supply tank, fuel must not be stored in the pits. A tank with a maximum capacity of 95 liters is permitted into the pit only to transfer temporarily the fuel contained in the tank of the car. It must be completely sealed and must have a breather pipe fitted with a non return valve and designed to avoid any liquid leakage. The lines connecting the temporary fuel tank and the tank of the car must meet the requirements of the fuel lines fitted to the car.
- 3.11 If a meter is used, it must be of a FIA homologated type. If a sight glass is fitted to the outside of the supply tank, it must be fitted with isolating valves mounted as close as possible to the tank.
- 3.12 An IMSA supplied flow restrictor must be fixed to the outlet on the bottom of the supply tank. The cost of the restrictor shall be the responsibility of the competitor.
 - a. Maximum inside diameter of the restrictor shall be specified by IMSA Competition Bulletin.



4 PADDOCK EQUIPMENT:

- 4.1 Each entered car is assigned one (1) paddock space which is no larger than required for their equipment, and which is a MAXIMUM of 90ft long and 40ft wide. This includes all trucks, equipment, awnings, any walkways, door openings, belly-box swings, slide-outs etc. No allocation is made for car parking. This dimension is smaller and teams are limited to one transporter per entered car, and limited accommodations for awnings for Long Beach and other Events, as may be described in the SR for the Events.
- 4.2 Teams that compete in IMSA sanctioned development Series may receive additional consideration, where possible. However, this must be pre-arranged with the IMSA logistics department.
- 4.3 Teams are responsible for filling out the Paddock Equipment form posted online at imsaracing.net, and keeping it current.
- 4.4 The arrangement of team's equipment, awnings, hard-panels etc, must not block the view of their car(s) from the public at any time during Event hours. During the posted time of autograph sessions, teams must have their car at the front of their awning closest to the public to facilitate photographs.
- 4.5 Awnings must not extend past the rear of the trailer (i.e. not extending into the area of the lift gate) and must not extend past the nose of the tractor in its normal road-going configuration. IMSA reserves the right to require removal of the tractor and then the awning is limited to the front of the trailer.

ATTACHMENT 10 - IN-CAR-CAMERAS

In-Car-Cameras are placed based on commercial considerations by the American Le Mans Series and its broadcast partners. Broadcast Sports, Inc. is the exclusive provider of in-car cameras for the Series. For technical questions regarding cameras, including technical drawings, electronic or power requirements, please contact the Series' technical liaisons:

Bob Frantz: rfrantz@bstv.com Or Michael Delph: mdelph@bstv.com

Broadcast Sports, Inc. at: (410) 672-3900

For commercial questions, contact Ben Brown, VP Broadcasting and Digital Media, American Le Mans Series.

ALL CARS MUST PROMPTLY PROVIDE A SUITABLE MOUNTING LOCATION AND POWER SUPPLY OR BATTERY LOCATION FOR THE CAMERA(S) AND ANY ASSOCIATED EQUIPMENT UPON THE DIRECTION OF AN IMSA OFFICIAL. REFUSAL OF THIS REQUIREMENT SHALL RESULT IN PENALTIES OR FINES.

ATTACHMENT 11 – DRIVER QUALIFICATIONS

Art. 1.0 – DRIVER RATING AND LICENSING

P2, PC and GTC Driver Ratings:

Drivers are assigned a Platinum, Gold, Silver or Bronze rating. As such, any and all Drivers intending to compete in P2, PC and/or GTC must submit a driving resume including but not limited to (for a representation of the specific details required, please reference the Driver rating criteria):

- Racing History for the past Five (5) years and personal data including:
 - series and/or class raced in;
 - classification/finishing results;
 - driver championship rankings results;
 - car type or make description;
 - Driver's age;
 - date first racing license issued;
 - previous racing license(s) held;
 - previous FIA License held (i.e. A, B or C grade).

Upon review, IMSA assigns a Driver rating applicable to IMSA Events for the 2013 race season. All Driver ratings are published via bulletin and posted online at imsaracing.net.

Until a rating is formally issued by IMSA, a Driver must not participate in any Event.

Driver ratings are determined at the sole discretion of IMSA and are not subject to protest or appeal.

Platinum-

Is a Professional Driver generally recognized as well known in International series and satisfying at least one of the following criteria:

- is under the age of 55;
- has held a Super License (Formula One);
- has won the Le Mans 24 Hours in the overall position;
- has been a Works Driver paid by a car manufacturer;
- has finished in the top 5 in the Championship in F3000, ChampCar/CART, IndyCar, GP2, Grand-Am Rolex series (DP only), European Le Mans Series (LMP1 or GT only), American Le Mans Series (P1 or GT only);
- has finished in the Top 5 in the Championship of an F3 international series (British/Euro F3) or a major international single-seater championship (Example: World Series by Renault);
- is a Driver whose performances and achievements, despite not meeting one of the definitions above, may be considered as Platinum by IMSA.

Gold-

Is a Professional or Semi-professional Driver in International series or who has distinguished themselves in National Championships and satisfying at least one of the following criteria:

- is under the age of 55 and not satisfying the criteria of the Platinum category;
- satisfies the criteria of the Platinum category but aged 55 to 59;
- has raced competitively in an International Professional Karting Championship or single-seater series and is under 35 years of age;
- has finished in the top 5 in the Championship of a secondary international single-seater series (A1 GP, Renault V6, FR2000 international, Firestone Indy Lights, Atlantic Championship, etc.);
- has finished in the top 5 in the Championship of a national single-seater series (F3, Euro FR2000, Star Mazda Championship, etc.);
- has finished in the top 3 in the Championship of an entry level single-seater series (F-Ford, F-BMW, F-ZIP, Autosport Academy, USF2000 National Championship, etc.);
- has finished in the top 10 in the Championship of the Porsche Supercup;
- has finished in the top 3 in the Championship of a National or International series organized by a manufacturer (Porsche, Seat, Peugeot, Renault, etc.);
- is a Driver whose performances and achievements, despite not meeting one of the definitions above, may be considered as Gold by IMSA.

Silver-

An Amateur Driver satisfying at least one of the following criteria:

- is under the age of 60;
- is aged under 30 and not satisfying the criteria of the Platinum or Gold categories;
- satisfies the criteria of the Platinum category but aged 60 or over;
- satisfies the criteria of the Gold category but aged 55 or over;
- has finishes in 1st place in Races of a National Championship or International series in association with a professional Driver;
- has won a non-professional driver's series (Ferrari Challenge, Maserati Trofeo, Lamborghini Supertrophy, Porsche GT3 Cup Challenge ...);
- is a Driver whose performances and achievements, despite not meeting one of the definitions above, may be considered as Silver by IMSA.

Bronze-

An Amateur Driver of the following criteria:

- was over 30 years old when their first racing license was issued, and/or who has little or no single-seater experience;
- satisfies the criteria of the Silver category but aged 60 or over;
- is aged under 30 without significant race experience;
- is a Driver whose performances and achievements, despite not meeting one of the definitions above, may be considered as Bronze by IMSA.

1.1 PC and GTC: Drivers must hold at least a current FIA Grade "C" license and upon application, are considered for such license on a case by case basis.

1.2 The IMSA GT3 Cup Challenge by Yokohama and IMSA GT3 Cup Challenge Canada by Michelin regulations are such that participation in the GTC class does not automatically disqualify a Driver from participation in the IMSA GT3 Cup Challenge by Yokohama and IMSA GT3 Cup Challenge Canada by Michelin Series. However, regulations prohibiting professional Drivers in the IMSA GT3 Cup Challenge by Yokohama and IMSA GT3 Cup Challenge Canada by Michelin Series remain in effect.

ATTACHMENT 12 – GREEN CHALLENGE

The goal of the Green Challenge is to demonstrate how motor racing can be entertaining, environmentally friendly, and sustainable through responsibility. The entertainment aspect of motor racing has long been recognized due to the spectacle and performance of the cars and Drivers. The Michelin Green X Challenge (MGXC) for Entrants and the Department of Energy (DOE), Environmental Protection Agency (EPA), and Society of Automotive Engineers (SAE) sponsored Green Challenge Championship (GCC) for Manufacturers adds another element proving that motor racing can maintain its entertainment value and be responsible by minimizing the use of resources.

Both the MGXC and the GCC are based on technical and sporting elements. The MGXC determines Entrant winners at each ALMS Event and the season-long GCC uses the same scoring system to accumulate points over the entire ALMS season. There are three technical elements utilized to create the Green Challenge Score (GCS), on which both the MGXC and the GCC are based:

CLEAN: This term describes each car’s environmental friendliness. It is the sum of the oil consumption and the greenhouse gases generated resulting from the consumption of the type of fuel used by each car over the course of the race. Since it is understood that the amount of fuel that cars require to complete the race is higher the faster and farther they go, this term is based on the amount of fuel consumed as if each car finished the race at the speed and distance of the category winner. This incremental addition to the measured fuel used ensures a level playing field assessment of the environmental impact of each car’s race performance. To more accurately reflect the total environmental impact of the fuel consumed: the oil used and greenhouse gases emitted in the production of the fuel (commonly called Well-To-Wheels impact) are also included in this term. The **Clean** term is defined as the sum of the Mega-Joules of oil used and Grams of GHGs emitted per Mega-Joules of fuel consumed.

FAST: This term describes how quickly the car completes the race. It is calculated from each car’s average race speed while on the track (pit stops and repairs not counted) divided into 1000. This way, a higher speed yields a smaller score, matching the lower-is-better scoring philosophy. The **Speed** factor is expressed in Kilometers per Hour.

EFFICIENT: This term is comprised of the amount of energy required to complete the race at the speed and distance of the category winner divided by the car’s mass. This method allows direct and evenhanded comparisons between the efficiency of all race cars and all fuels. In the same way energy consumed was determined for the **CLEAN** factor, the car’s observed energy consumption to complete its own race distance is determined. Then, using the performance profile of the winner, an energy requirement is determined for each car based on the car’s energy consumption adjusted to the category leader’s average speed and distance completed. This step is needed because going farther and faster requires more energy and we reward the car that uses its energy most efficiently on an equitable basis. The final calculation for this term is dividing the Energy Requirement by the car’s mass in metric tons. This step acknowledges that a car with higher mass requires more fuel to operate at the same speed. The **Efficient** term is defined as Mega-Joules per Kilometer per Metric Ton.

In equation form, the (GCS) is expressed as follows:

$$GCS = \text{Energy Requirement} \times ((1000/\text{Mass}) + \text{CLEAN}_{\text{factor}}) + (1000/\text{Speed})$$

To review the terms that form the GCS:

Energy Requirement – the amount of energy each car consumed to complete the race at the performance level of the category winner. This term for the equation is expressed in mega-joules per kilometer (MJ/km).

Efficiency – measures the amount of energy required to move a car of a given weight a given distance. For the GCS, the Efficiency is the Energy Requirement divided by Mass in metric tons of the car. The Mass used is the minimum for each car as specified in the Technical Regulations.

Clean Factor – combines the oil used and greenhouse gases generated by the production and consumption of the fuel used. Both oil used and greenhouse gases generated are defined by the type of fuel used and the energy requirement. This factor is also derived from laboratory analysis of the fuel and lifecycle impact of the fuel, based on the DOE-developed GREET model.

2013 Clean Factors

Fuel Type	Clean Factor
E10	0.4305
BTL	0.4079
IBU	0.4170
E85	0.1788

Speed – is based on the time on track each car required to complete the race once the car’s performance is corrected to match the category winner. “Speed” is then the distance in kilometers divided by corrected time.

GREEN CHALLENGE REGULATIONS

ARTICLE 1 CARS ELIGIBLE

- 1.1 Prototype Categories
 - a/P1
 - b/P2

- 1.2 Grand Touring Categories
 - a/GT

ARTICLE 2 ELIGIBILITY FOR PODIUM AWARDS

- 2.1 Each ALMS Event awards a MGXC Prototype (P1 and P2) and a GT category winner based on the smallest GCS respective to the category. Drivers and Entrant are recognized during the podium celebration, and are required to wear the award-specific podium hats. The calculation of the GCS is not subject to protest or appeal.
- 2.2 In all Events, the car must complete at least 90% of the distance of the category winning car to be eligible for podium awards.
- 2.3 In all Events, the car must take the checkered flag on the track to be eligible for podium awards.
- 2.4 Entrants must use the IMSA pit tank measuring system and follow the direction of IMSA Officials in regards to all aspects of this system.

ARTICLE 3 ELIGIBILITY FOR POINT AWARDS

- 3.1 In all Events, the car must complete at least 70% of the distance of the category winning car.
- 3.2 MGXC and GCC points are awarded on the same basis as SSR Art. 1A.2.1 including additional points for Intermediate and Long Distance races.
- 3.3 Entrant must be a Full Season Entrant.

ARTICLE 4 MANUFACTURER CHAMPIONS

- 4.1 IMSA recognizes the car Manufacturer GCC in the GT category.
- 4.2 IMSA recognizes the engine Manufacturer GCC in the Prototype category.
- 4.3 All Manufacturers are eligible, providing the respective teams are Full Season Entrants and the respective Manufacturer is a member of the IMSA Corporate Member Program.

ATTACHMENT 13 – IMSA DATA LOGGER

P1/2 AND GT ONLY

Cars must be equipped with the data recorder homologated by IMSA. It must be installed and successfully tested before the car reports for scrutineering. For each car, the Entrant must provide a document certifying that the system, installed in accordance with the diagram in the homologation form, has been successfully tested in the car.

Each competitor must ensure:

- That the system works correctly throughout the Event.
- A computer dedicated to transfer the data to IMSA is permanently connected to the IMSA pit lane network throughout the Event. The connection to the IMSA pitlane network is the competitor's responsibility.
- To recover the data and transfer it immediately to IMSA via the IMSA pit lane network.
- During practice, at the start of each session during the first pit stop, then during the session at least once an hour and at the end of each session.
- During the race, on each refuelling stop, except within the last sixty (60) minutes.
- To immediately correct any anomaly noted regarding the recovered data.

For each mandatory download indicated above, the data must be transmitted to IMSA no later than ten (10) minutes after the car enters pit lane.

It is not required to change the data card and download the data for any emergency service performed in a closed pit.

Penalty in case of infringement:

In practice: \$1500 fine.

In a race: Stop and Go.

TECHNICAL SPECIFICATIONS



AUTOMOBILE CLUB DE L'OUEST "2013" SPECIFICATIONS

Used for the American Le Mans Series
under license and re-printed here by permission of the ACO.
Note: Certain regulations may be amended or replaced by IMSA SSR or Bulletins.

© 2013 -- Automobile Club de L'Ouest -- ACO All rights reserved.

**"LE MANS" PROTOTYPE ("LM" P1 - "LM" P2)
Technical Regulations for Prototype**

ART. 1	DEFINITIONS	DEFINITIONS
1.1	<p>"LE MANS" PROTOTYPE ("LM" P) est une voiture de compétition sans minimum de production exigé.</p>	<p>"LE MANS" PROTOTYPE ("LM" P) is a racing car with no production minimum required.</p>
1.1.1	<p>La catégorie "LE MANS" PROTOTYPE comprend :</p> <p>a/ "LE MANS" PROTOTYPE 1 ("LM" P1) : voiture ouverte ou fermée (*), réservée plus particulièrement aux Constructeurs.</p> <p>b/ "LE MANS" PROTOTYPE 2 ("LM" P2) : voiture ouverte ou fermée (*) réservée uniquement aux équipes indépendantes des constructeurs et/ou des fournisseurs de moteurs.</p> <p>Les voitures de type "usine", dont les caractéristiques techniques et le niveau de développement sont manifestement en contradiction avec les objectifs de la réglementation LMP2 pourront être refusées par le Comité Endurance.</p> <p>Le prix de vente de la voiture neuve, complète, sans le moteur tel que décrit à l'Article 5.6.1. ci-dessous, mais avec toutes les options disponibles ne doit pas dépasser 362 100€.</p> <p>Tous les projets de construction de nouvelle voiture, ou évolution d'un modèle existant, doivent être soumis pour approbation au Comité Endurance avant la procédure d'homologation.</p> <p>Les éléments suivants doivent être inclus dans le prix ci-dessus :</p> <ul style="list-style-type: none"> • Enregistreur de données avec possibilité de brancher un système de télémétrie en option, • Faisceaux avec les connecteurs pour brancher l'enregistreur de données de l'ACO obligatoire, • Faisceaux avec les connecteurs permettant de brancher le système de télémétrie et le système TPMS optionnels. <p>Les seules options autorisées en dehors du prix ci-dessus sont donc :</p> <ul style="list-style-type: none"> • L'enregistreur de données ACO obligatoire, • Le système de télémétrie optionnel, • Le système TPMS optionnel. • Certains équipements procurant du confort au pilote. <p>Exclusivement pour ces derniers, cette possibilité doit être approuvée par le Comité Endurance et le poids de la voiture devra être augmenté en accord avec le poids de l'équipement ajouté.</p> <p>Le Constructeur doit fournir à la FIA la liste de prix des pièces de rechanges. Le total de cette liste ne doit pas dépasser 150% du prix de vente de la voiture neuve complète.</p> <p>Une majoration des prix des pièces détachées de 10% est autorisée si un Constructeur assure la vente de ces pièces sur les épreuves.</p> <p>L'éligibilité et l'homologation de toute nouvelle voiture ainsi que toute évolution ne peuvent se faire que sur accord du Comité Endurance.</p> <p>Le Constructeur doit être en mesure de commercialiser dans des délais raisonnables et sous réserve de commandes fermes au minimum 5 voitures par an.</p> <p>Chaque modèle de voiture doit au moins être vendu à un exemplaire par le Constructeur à une équipe privée engagée en Championnat du Monde d'Endurance, ou toute autre série internationale reconnue par la FIA.</p> <p>Le taux de change applicable est le taux de change officiel publié par la Banque Centrale Européenne au 1er septembre 2012 (voir tableau ci-dessous)*.</p> <p>Un taux de compensation est accordé, selon le tableau ci-après, aux devises ayant été pénalisées.</p> <p>Le taux sera aligné sur le taux officiel du 1er jour de chaque mois, qui sera publié dans un bulletin officiel par le Comité Endurance.</p> <p>Le taux applicable est le taux établi à la date de la commande de la voiture et/ou du moteur, la date figurant sur le bon de commande émis par le client au fournisseur faisant foi.</p>	<p>"LE MANS" PROTOTYPE category includes:</p> <p>"LE MANS" PROTOTYPE ("LM" P1): open or closed (*) car, destined more especially to Manufacturers.</p> <p>"LE MANS" PROTOTYPE 2 ("LM" P2): open or closed (*) car, destined only to teams independent of manufacturers and/or engine suppliers.</p> <p>The cars that may be considered as "factory cars", whose technical characteristics and level of development are clearly not complying with the objectives of the LMP2 regulations may be refused by the Endurance Committee.</p> <p>The selling price of the complete new car without the engine as described in Article 5.6.1. below, but with all available options must not exceed 362 100€.</p> <p>All projects for the construction of a new car, or evolution of an existing model, must be submitted to the Endurance Committee for approval prior the homologation procedure.</p> <p>The following elements must be included in the price above:</p> <ul style="list-style-type: none"> • Data logger with possibility to connect an optional telemetry system, • Looms with connectors to plug the mandatory ACO data logger, • Looms with connectors to plus the optional telemetry and TPMS systems. <p>Therefore, the only options allowed outside the price above are:</p> <ul style="list-style-type: none"> • The mandatory ACO data logger, • The optional telemetry system, • The optional TPMS system. • Some equipments providing confort to the driver. <p>Exclusively for these last ones, the allowance needs to be agreed by Endurance Committee and the weight of the car will be requested to be increased in accordance with the weight of the added equipment.</p> <p>The Manufacturer must provide the FIA the price list of spare parts. The total of this price list must not be more than 150% of the selling price of the complete new car.</p> <p>A 10% increase of the spare parts price is allowed if a Manufacturer is providing a sale services of these parts on the race meetings.</p> <p>The eligibility and homologation of any new car or any evolution of a car can be done only with the agreement of the Endurance Committee.</p> <p>The Manufacturer must be able to sell within a reasonable time, and subject to firm orders, at least 5 cars every year.</p> <p>Each model of car must be sold by the Manufacturer to a private team (at least one car) entered in the World Endurance Championship or any other International Series sanctioned by the FIA.</p> <p>The exchange rate applicable is the official exchange rate published by the European Central Bank on 1 September 2012 (see table below)*.</p> <p>A compensation rate is granted, according to the table below, to the currencies that have been penalised.</p> <p>The rate will be aligned on the official rate of the 1st day of each month, published in an official bulletin by the Endurance Committee.</p> <p>The applicable rate is the rate established on the date on which the car and/or engine is ordered, the date appearing on the order form sent by the client to the supplier standing as proof.</p>

	Taux au Rate on	Compensation allouée / Compensation allowed			
	1er septembre 2012 1 September 2012	01/09/2012	01/11/2012	01/01/2013	01/03/2013
USD (US Dollar)	1,26	6%	4%	2%	0%
JPY (Japanese Yen)	99	6%	4%	2%	0%
GBP (Great Britain Pound Sterling)	0,80	4%	3%	2%	0%
ZAR (South African Rand)	10,62	0%	0%	0%	0%

En cas de refus de vente ou si les prix définis ne sont pas respectés, des sanctions seront prises par la FIA.

Chaque modèle de voiture doit pouvoir recevoir plusieurs modèles de moteurs issus de Constructeurs différents (au moins deux, désignés par le Constructeur dans la Fiche d'Homologation).

Chaque moteur doit pouvoir être assemblé sur plusieurs modèles de voitures issus de Constructeurs différents (au moins deux).

(*) Les voitures fermées doivent avoir un pare-brise, un toit et une porte de chaque côté.

1.1.2 Techniques non conventionnelles (LMP1 seulement)

Les voitures dont les caractéristiques techniques sont considérées comme non habituelles en compétition peuvent être admises :

- a/ sur la base de règlements spécifiques afin de respecter l'équilibre des performances entre les voitures ainsi que les exigences de sécurité;
- b/ à condition de respecter les règles établies par l'administration et par l'ASN du pays dans lequel l'épreuve est organisée.

1.2 Fiche d'Homologation

1.2.1

Les prototypes "LM" P doivent correspondre à la Fiche d'Homologation remplie par le Constructeur et validée après inspection contradictoire effectuée par le "Groupe Homologation".

Le Constructeur doit s'acquitter des droits d'homologation.

En cas de refus d'homologation, celui-ci sera notifié par écrit en référence au présent règlement.

Pour les voitures hybrides, la Fiche d'Homologation doit contenir un schéma électrique de tous les circuits électriques de puissance équipant la voiture.

Ce schéma électrique doit montrer le générateur(s), les accumulateurs, les fusibles, les coupe circuits, les interrupteurs de puissance, les condensateurs, le contrôle commande moteur, les onduleurs, les moteur(s) de propulsion et câbles de liaison.

Dans ce schéma électrique, tous les composants doivent être repérés avec leurs caractéristiques détaillées.

Les informations "Tension" et "intensité" doivent être rendues accessibles à l'enregistreur de données ACO.

La mesure des informations doit être faite aux bornes du SRSE et les capteurs nécessaires indiqués sur ce schéma électrique.

Un second plan schématique de la voiture (vu du dessus) doit montrer l'emplacement de ces composants dans la voiture.

La Fiche d'Homologation doit présenter un plan de reprise (plan de secours, plan d'urgence) pour tout incident impliquant le SRSE de la voiture, tel qu'une surchauffe ou un incendie d'accumulateur ou de condensateur. Le plan doit traiter de la chimie particulière du SRSE.

Pour les LMP2, le Constructeur doit fournir tous les éléments permettant d'établir le prix de la voiture ou du moteur.

Le Comité Endurance peut annuler immédiatement l'homologation de la voiture si les prix définis ne sont pas respectés.

Un constructeur qui dispose d'un modèle de LMP2 homologué n'est pas autorisé à en présenter un deuxième à l'Homologation durant une période de 3 ans. Exception accordée pour la conversion d'une voiture ouverte en voiture fermée ou pour l'introduction d'un nouveau châssis conforme au règlement LMP1 2014 (cf. article 14.1.5.b.6).

1.2.2 Modifications

Les caractéristiques mentionnées dans la Fiche d'Homologation et tous les éléments aérodynamiques de la voiture peuvent être changés par le

In case of sell refusal or if the prices defined are not respected, sanctions will be taken by the FIA.

Each model of car must be able to fit several engine models from different Manufacturers (at least two designated by the Manufacturer in the Homologation Form).

Each model of engine must be able to be assembled on several car models from different Manufacturers (at least two).

(*) Closed car must have a windscreen, a roof and one door on each side.

Non conventional specifications (LMP1 only)

Cars the specifications of which are considered today as unusual in motor racing may be eligible :

on the basis of special regulations so as to maintain the balance of performance between the cars as well as the safety requirements;

provided the rules established by the administration and by the ASN of the country where the event is organised are respected.

Homologation Form

Prototypes "LM" P cars shall comply with the Homologation Form filled by the Manufacturer and agreed after the contradictory inspection carried out by the "Homologation Group".

The Manufacturer must pay the homologation fee.

In case the homologation is denied, it will be notified in writing in reference to the current regulations.

For hybrid cars, the Homologation Form must contain one electrical drawing of all the essential power circuits of the electrical equipment of the car.

This circuit drawing must show the generator(s), batteries, fuses, circuit breakers, power switchers, capacitors, motor-controller or chopper, traction motor(s), and junction cables.

All components in the circuit drawing must be labeled with their detailed electrical specifications.

"Tension" and "intensity" information must be made accessible for the ACO data logger.

The measurement of this information must be made at the SRSE terminals and the necessary sensors must be pointed out in the drawing.

A second drawing of the vehicle in plan view (from above) must show the location of these components within the vehicle.

The Homologation Form must contain a contingency plan (rescue plan, disaster plan) for any incident involving the vehicle's SRSE, such as battery or capacitor overheating or fire. The plan must dwell on the specific cell chemistry of the SRSE.

For LMP2, the Manufacturer must provide with all the elements so as to be able to establish the price of the car or the engine.

The Endurance Committee may cancel the homologation of the car if the prices defined are not respected.

A manufacturer who has one homologated model of LMP2 car is not allowed to present a second one for Homologation within a period of 3 years. Exception allowed if conversion from open to closed car or for the introduction of a chassis in compliance with the 2014 LMP1 regulation (see article 14.1.5.b.6).

Modifications

The specifications listed in the Homologation Form and all the aerodynamic elements of the car can be changed only by the car

- Constructeur de la voiture seulement et avec l'accord du "Comité Endurance".
Elles seront ensuite homologuées par le "Groupe Homologation".
LMP2 : Sauf pour des raisons de sécurité ou de fiabilité, une seule évolution est autorisée par an avant la première épreuve de la saison à laquelle le modèle homologué participe.
- Cette évolution annuelle est autorisée uniquement pour des raisons de sécurité, de fiabilité, de réduction de coût ou d'accessibilité pour les interventions.
La voiture ainsi modifiée ne doit pas dépasser le prix maximum fixé à l'Article 1.1.1.b. ci-dessus.
Ces évolutions seront également admises sur les modèles des années précédentes à condition d'être appliquées définitivement et intégralement.
- Uniquement pour les "24 Heures du Mans", un kit "low drag" peut être homologué. Il ne doit pas dépasser 10 000€.
Le prix total de toutes ces évolutions, y compris le kit Le Mans, ne doit pas dépasser 35 000€.
Aucune variante de carrosserie n'est autorisée. Les seuls éléments aérodynamiques pouvant être ajoutés ou retirés sont les 2 flaps à l'avant de la voiture décrits à l'Article 3.6.2. ci-dessous. Ils doivent être inclus dans le prix de la voiture.
- 1.2.3 Une fois la Fiche d'Homologation validée par la FIA, le Constructeur devra en donner une copie au propriétaire de chaque voiture vendue après avoir complété la première page (numéro de châssis, nom et coordonnées du propriétaire).
- 1.2.4 Une voiture ne peut être présentée aux vérifications techniques avant une épreuve si elle n'a pas été homologuée par l'ACO (homologation antérieure au 01.01.2012) ou par la FIA (homologation à partir du 01.01.2012).
Un minimum de 30 jours est exigé entre l'homologation d'une voiture nouvelle et sa présentation aux vérifications techniques avant une épreuve, sauf cas de force majeure à l'appréciation du Comité Endurance.
- Un minimum de 30 jours est exigé entre la présentation du premier projet de fiche d'Homologation d'une nouvelle voiture et la date limite pour son approbation par le Groupe Homologation.
- Un minimum de 15 jours est exigé entre l'homologation des modifications (*) apportées à une voiture déjà homologuée et sa présentation aux vérifications techniques avant une épreuve, sauf cas de force majeure à l'appréciation du Comité Endurance.
(* Cf. Article 1.2.2 ci-dessus).
- Un minimum de 15 jours est exigé entre la présentation du premier projet de fiche d'Homologation d'une voiture déjà homologuée et la date limite pour son approbation par le Groupe Homologation.
- En cas de "condition exceptionnelle" impliquant des questions de sécurité ou de fiabilité, ces délais peuvent être réduits en LMP1.
- 1.2.5 La Fiche d'Homologation de la voiture doit être présentée par le concurrent lors des vérifications techniques.
- 1.3 **Eléments mécaniques**
Tous les éléments nécessaires à la propulsion, à la suspension, à la direction et au freinage, ainsi que tous les accessoires, mobiles ou non, qui sont nécessaires à leur fonctionnement normal.
- 1.4 **Structure principale / Châssis**
Partie entièrement suspendue de la structure du véhicule, à laquelle les charges de suspension et/ou des ressorts sont transmises, s'étendant longitudinalement de la fixation de suspension sur le châssis la plus en avant à la fixation de suspension sur le châssis la plus en arrière.
Les composants mécaniques ne font pas partie de la structure principale même s'ils sont complètement ou partiellement porteurs.
- 1.5 **Carrosserie**
- 1.5.1 La carrosserie concerne les parties suspendues de la voiture léchées par l'air extérieur à l'exception des parties liées au fonctionnement mécanique du moteur, de la transmission et des trains roulants.
- Manufacturer and with the Endurance Committee agreement.
They will be then homologated by the Homologation Group.
- LMP2: Except for safety or reliability reasons, only one evolution per year is permitted before the first event of the season in which the homologated model is entered.
- This annual evolution is allowed only for safety, reliability, servicing or cost reduction reasons.
- The car thus modified must not exceed the maximum price fixed in Article 1.1.1.b. above.
These evolutions will be also allowed on the models of the previous years if they are fully and integrally applied.
- For the "24 Heures du Mans" only, a low drag kit may be homologated. It must not exceed 10 000 €.
The total price of all these evolutions, including the Le Mans kit, must not exceed 35 000€.
No bodywork variation is permitted. The only bodywork elements that may be added or removed are the 2 flaps in front of the car described in Article 3.6.2. below. They must be included in the price of the car.
- Once the Homologation Form has been agreed validated by FIA, the Manufacturer shall give a copy of it to the owner of every car sold after filling the first page (chassis number, name and address of the owner).
- A car is not permitted to undergo scrutineering before taking part in an event if it has not been homologated by the ACO (homologation before 01.01.2012) or by the FIA (homologation as from 01.01.2012).
- A minimum of 30 days is required between the homologation of a new car and its presentation for scrutineering before taking part in an event, except in cases of force majeure at the discretion of the Endurance Committee.
- A minimum of 30 days is required between the presentation of the first draft of the Homologation form of a new car and the limit date for its approval by Homologation Group.
- A minimum of 15 days is required between the homologation of modifications (*) made on a car already homologated and its presentation for scrutineering before taking part in an event, except in cases of force majeure at the discretion of the Endurance Committee.
(* See Article 1.2.2 above).
- A minimum of 15 days is required between the presentation of the first draft of the Homologation form of a car already homologated and the limit date for its approval by Homologation Group.
- In case of "exceptional condition" involving safety or reliability, these timing requirements could be reduced for LMP1.
- The Homologation Form must be presented by the competitor during scrutineering.
- Mechanical components**
All those necessary for the propulsion, suspension, steering and braking, as well as all accessories, whether moving or not, which are necessary for their normal working.
- Main structure / Chassis**
Entirely sprung part of the structure of the vehicle, to which all the suspension and/or spring loads are transmitted, extending longitudinally from the foremost suspension mounting point on the chassis to the rearmost suspension mounting point on the chassis.
Mechanical components are not part of the main structure even if they are fully or partially load-bearing.
- Bodywork**
The bodywork concerns all entirely sprung parts of the car in contact with the external air stream apart from parts in relation to the mechanical functioning of the engine, of the drive train and of the running gears.

1.5.2	Vue de dessus (vue en plan), de côté (élévation), de l'avant (face) et de l'arrière, la carrosserie ne doit pas permettre de voir les éléments mécaniques, sauf autorisation explicite par le présent règlement.	As viewed from above (plan view), in side elevation, from the front and from the rear, the bodywork must not allow mechanical components to be seen, unless explicitly authorised by the present regulations.
1.5.3	Les éléments mobiles lorsque la voiture est en mouvement sont interdits.	Movable bodywork parts/elements are forbidden when the car is in motion.
1.5.4	Tout système actionné automatiquement et/ou contrôlé par le pilote pour modifier les flux d'air sur l'aile arrière lorsque la voiture se déplace est interdit.	Any system operated automatically and/or controlled by the driver to modify the airflow on the rear wing when the car is in motion is forbidden.
1.6	Prises d'air	Air intakes
1.6.1	Les prises d'air font partie de la carrosserie.	Air intakes are part of the bodywork.
1.6.2	Si les prises d'air ou les sorties d'air permettent de voir les parties mécaniques, elles doivent être munies de persiennes ou d'un grillage avec mailles de 10 mm environ (à l'appréciation des Commissaires Techniques).	If air intakes or air extractors make mechanical parts visible, they must be fitted with louvres or mesh about 10 mm (to Scrutineers' appreciation).
1.7	Poids	Weight
1.7.1	A l'exception de la pesée effectuée pendant les séances d'essais, c'est le poids de la voiture sans pilote et sans carburant à bord.	Except for the weighing procedure used during the practice sessions, it is the weight of the car with no driver and no fuel on board.
1.7.2	La voiture doit respecter le poids minimum à tout moment de l'épreuve. La vérification du poids des pièces qui auraient pu être remplacées durant l'épreuve est à la discrétion des Commissaires Techniques.	The car must comply with the minimum weight at all times throughout the event. The checking of the weight of any part that may have been replaced during the event is at the discretion of the Scrutineers.
1.8	Habitacle	Cockpit
	Volume intérieur de la voiture réservé au pilote et au passager.	Internal volume of the car to accommodate the driver and the passenger.
1.8.1	Voiture fermée	Closed car
	L'habitacle est le volume intérieur de la structure principale délimité par le pavillon, le plancher, les portes, les parties latérales, les parties vitrées et les cloisons avant et arrière.	The cockpit is the internal volume inside the main structure which is defined by the top of the car, the floor, the doors, the side panels, the glass areas and the front and rear bulkheads.
1.9	Marque Automobile	Automobile Make
1.9.1	Une marque automobile correspond à une voiture complète.	An automobile make corresponds to a complete car.
1.9.2	Le nom du Constructeur du châssis et/ou de la carrosserie doit toujours précéder le nom du Constructeur du moteur s'il est différent. Le nom du Constructeur de la carrosserie peut figurer seulement avec l'accord du Constructeur du châssis.	The name of the chassis and/or bodywork Manufacturer shall always precede the name of the engine Manufacturer if different. The name of the bodywork Manufacturer may appear only with the agreement of the chassis Manufacturer.
1.10	Systèmes électroniques	Electronic systems
1.10.1	Sont interdits les fonctions et systèmes de contrôle automatiques ou électroniques concernant : châssis, transmissions automatiques ou semi-automatiques, embrayages, différentiels, réglage d'amortisseurs, de suspension, de niveau du véhicule ou d'assiette, direction sur les quatre roues, etc.	Any automatic or electronic control system or function is forbidden : chassis control, automatic or semi-automatic transmissions, clutches, final drive differential system, shock absorbers, suspension or ride height adjustment, four wheel steering, etc.
1.10.2	Un contacteur électrique simple à boucle ouverte, non automatique, actionné par le pilote et agissant sur un ou plusieurs système(s) n'est pas considéré comme un contrôle électronique.	A simple open-loop non automatic electrical switch activated by the driver acting on one or more system(s) is not considered to be an electronic control.
1.10.3	Un système de contrôle électronique à boucle fermée est un système dans lequel :	A closed-loop electronic control system is a system in which:
a/	une valeur réelle (variable contrôlée) est surveillée de façon continue ;	an actual value (controlled variable) is continuously monitored;
b/	le signal retourné ("feed back") est alors comparé à une valeur attendue (variable de référence) ;	the "feed back" signal is compared with a desired value (reference variable);
c/	le système est ensuite ajusté automatiquement en fonction du résultat de cette comparaison.	the system is then automatically adjusted according to the result of that comparison.
1.10.4	Sauf si spécifié dans le présent règlement et à l'exception des systèmes assurant la gestion du moteur tout système de ce type est interdit. Un système de contrôle de motricité agissant exclusivement sur le moteur, et agissant sur le SRSE s'il est connecté aux roues arrière, est autorisé.	Unless specified in these regulations and apart from engine monitoring systems, no such system is permitted. A traction control system operating exclusively on the engine, and operating on the STSY if it is connected to the rear wheels, is authorised.
1.11	Télémetrie	Telemetry
	Sont autorisés, à l'exception de tout autre procédé :	Apart from any other process, are permitted :
1)	Les messages lisibles sur le panneau de signalisation.	Legible messages on a signalling pit board.

<p>2) Les signaux gestuels faits par le pilote.</p> <p>3) Les transmissions de données de la voiture vers le stand (une seule direction).</p> <p>4) Les signaux de déclenchement de début ou de fin de tour ("lap trigger") :</p> <p>a. les transmetteurs (lap triggers) doivent être autonomes et non reliés au stand (fil, câble, fibre optique, etc.) ;</p> <p>b. ces transmetteurs ne doivent servir qu'à marquer les tours.</p> <p>5) Les communications verbales bidirectionnelles entre le stand et le pilote. L'utilisation de tout autre système de communication n'est possible qu'avec l'autorisation et sous le contrôle de l'Organisateur.</p>	<p>The driver's body movements.</p> <p>Telemetry signals from the car to the pits (one direction).</p> <p>"Lap trigger" signals for the start or the end of a lap :</p> <p>a. lap marker transmitters (lap triggers) must be autonomous and not connected to any pit equipment (wires, cable, optical fibers, etc.);</p> <p>b. the only function of these transmitters is to mark the laps.</p> <p>Two way verbal communications between the driver and his pit. The use of any other communication device is only permitted after the agreement and under the control of the Organiser.</p>
<p>1.12 Carters principaux de boîte de vitesses et de différentiel</p> <p>Carters qui reçoivent ou transmettent des efforts du/au châssis ou de/à tout élément mécanique autre que ceux appartenant à la boîte de vitesses ou au différentiel.</p>	<p>Main casings of gearbox and differential</p> <p>Casings that receive or transmit loads from/to the chassis or from/to mechanical elements other than those which are part of the gearbox or the differential.</p>
<p>1.13 Système de récupération de l'énergie (LMP1 seulement)</p> <p>Les systèmes de récupération d'énergie sont libres à condition de respecter les règles suivantes :</p> <p>w Récupération et restitution de l'énergie de freinage, soit des 2 roues de l'essieu avant, soit des 2 roues de l'essieu arrière.</p> <p>w En ce qui concerne la récupération de l'énergie de freinage, seuls les systèmes électriques et les systèmes à volant d'inertie mécaniques et électromécaniques sont autorisés.</p> <p>w Récupération de l'énergie des gaz d'échappement.</p> <p>w Tout autre système récupérant une énergie qui serait perdue sans son utilisation, à la condition que la mesure de l'énergie restituée soit possible et démontrée.</p> <p>w Le poids minimum de la voiture est identique à celui des autres LMP1 qui utilisent des groupes motopropulseurs conventionnels : 900 kg.</p> <p>w La quantité maximum de carburant autorisé à bord est de :</p> <p>* Essence : 73 L.</p> <p>* Diesel : 58 L.</p> <p>w Les moteurs doivent être commandés par le pilote par l'intermédiaire de la pédale d'accélérateur (bouton "push to pass" interdit).</p> <p>w La quantité d'énergie restituée et mesurée à la sortie du SRSE entre 2 freinages ne doit pas être supérieure à 0.5 MJ. Un freinage est une décélération de la voiture supérieure à 1g.</p> <p>Les freinages inférieurs à une seconde ne seront pas pris en compte. Pour chaque circuit, des zones de freinages seront définies par le Comité Endurance avant chaque épreuve. L'allocation et la mesure de l'énergie restituée sera considérée pour chaque tour entre chacune des entrées de zones définies.</p> <p>Si le SRSE est connecté aux roues avant la restitution de l'énergie est permise seulement au-dessus de 120 km/h.</p> <p>w Les voitures doivent être équipées des capteurs homologués qui fournissent tous les signaux nécessaires directement à l'enregistreur de données FIA afin de vérifier que les limitations indiquées ci-dessus sont correctement respectées.</p> <p>w L'intensité, la tension ainsi que le temps de charge et de décharge seront mesurés en permanence entre le système de stockage d'énergie électrique et le(s) convertisseur(s) de courant.</p> <p>w Pour les systèmes inertiels, des capteurs équivalents devront être définis.</p> <p>w Des capteurs pour contrôler l'utilisation des freins et la vitesse des roues devront équiper la voiture.</p>	<p>Energy Recovery System (LMP1 only)</p> <p>Energy recovery systems are free, provided they respect the following rules:</p> <p>Recovery and release of braking energy from the brakes, either on the 2 wheels of the front axle, or on the 2 wheels of the rear axle.</p> <p>Regarding braking energy recovery, only electric systems and mechanical or electromechanical flywheel system are allowed.</p> <p>Recovery from the energy of the exhaust gases.</p> <p>Any other system recovering energy that would be lost without using it, on condition that the measurement of the released energy is possible and proved.</p> <p>The car's minimum weight is identical to that of the other LMP1s using conventional power trains: 900 kg.</p> <p>The maximum amount of fuel allowed on board is:</p> <p>* Petrol: 73 L.</p> <p>* Diesel: 58 L.</p> <p>Engines must be controlled by the driver using the accelerator pedal (push to pass buttons forbidden).</p> <p>The amount of energy used between 2 braking must not exceed 0.5 MJ.</p> <p>Braking is a deceleration of the car greater than 1g.</p> <p>Braking lasting under 1 second will not be taken into account. For each circuit, some braking zona will be defined by Endurance Committee before every event. The allowance and measurement of released energy will be considered for every lap between each of the defined entries of zonas.</p> <p>If the STSY is connected to the front wheels, the release of energy is permitted only above 120 km/h.</p> <p>Cars must be fitted with homologated sensors which provide all necessary signals directly to the FIA data logger in order to verify the limitations mentioned above are properly fulfilled.</p> <p>The current, voltage and the time of charge and discharge will be measured continuously between the energy storage system and the inverter(s).</p> <p>Equivalent sensors will be defined for the inertial systems.</p> <p>Sensors for monitoring the use of the brakes and the wheel speed will equip the car.</p>

- w Les règles de sécurité qui seront imposées par l'Article 15.7.

Le Comité Endurance peut ajuster les performances d'une voiture utilisant un tel système si ce dernier permet d'améliorer sensiblement son temps au tour.

Les concurrents qui veulent développer et utiliser un système de récupération d'énergie doivent au préalable en avertir le Groupe Homologation et lui donner toutes les informations utiles concernant son fonctionnement, son mode d'utilisation, les performances escomptées, les sécurités mises en place, etc.

Le Groupe Homologation doit être tenu informé pendant tout le développement du système et de la voiture. Il peut exiger d'avoir toutes les informations et effectuer tous les contrôles qu'il jugera nécessaires. Pour être considérée comme hybride, une LMP1 doit pouvoir se déplacer sur toute la longueur de la voie des stands (minimum 400 m) à 60 km/h en utilisant uniquement le moteur électrique ou le système à volant d'inertie.

Le test doit être fait pour l'homologation de la voiture sur la voie des stands du circuit des "24 Heures du Mans". Pendant le test, l'énergie utilisée sera mesurée et après le test, le poids de chaque élément du système de récupération d'énergie sera contrôlé et indiqué sur la Fiche d'Homologation de la voiture. Ces éléments doivent équiper la voiture en permanence et être au poids indiqué sur la Fiche d'Homologation. Un nouveau test doit être effectué pour toute modification du poids de ces éléments.

1.14 Système rechargeable de stockage d'énergie (SRSE)

Un système rechargeable de stockage d'énergie (SRSE), tel que volants d'inertie, super condensateurs, ultra condensateurs, batteries, etc., est un système conçu pour récupérer l'énergie cinétique de l'auto pendant la décélération ou le freinage, stocker cette énergie et la réutiliser pour propulser la voiture.

Pendant les essais ou la course, le SRSE ne peut pas être rechargé à partir d'un groupe électrogène ou, pour les hybrides connectables, directement sur le secteur. Lorsque la voiture se trouve sur la grille de départ, le SRSE doit être en position "Sûr" avec extinction de toutes les lumières rouges correspondant à l'état "Actif".

1.14.1 Système à volant d'inertie

Un système à volant d'inertie est un système mécanique ou électromécanique capable de stocker et restituer l'énergie au moyen d'une masse en rotation telle que le rotor d'un moteur électrique réversible.

1.14.2 Condensateurs

Un condensateur (condensateur électrolytique, condensateur à double couche diélectrique (EDLC) dit "Super Condensateur" ou "Ultra Condensateur") est un système de stockage de l'énergie électrique dans un champ électrique ou, dans le cas du EDLC, un système dans lequel une charge électrique est stockée, permettant l'adsorption et le rejet d'ions d'un électrolyte vers ses électrodes.

1.14.3 Batterie de propulsion

La batterie de propulsion est un SRSE qui fournit l'énergie électrique au Circuit de Puissance et donc au(x) moteur(s) de propulsion. Tout équipement utilisé pour le stockage intermédiaire de l'énergie électrique obtenue par récupération de l'énergie cinétique est dit batterie de propulsion.

Toute batterie embarquée électriquement reliée au Circuit de Puissance est considérée comme faisant partie intégrante de la batterie de propulsion de la voiture.

1.14.3.1 Bloc batterie

Un bloc batterie est un assemblage mécanique, pouvant être enfermé dans un compartiment batterie, comprenant des modules de batterie, des cadres ou plateaux supports, des fusibles et des contacteurs ainsi qu'une électronique de surveillance de la batterie.

Safety rules that will be imposed by the Article 15.7.

The Endurance Committee may adjust the performance of any car using such a system, should it enable the vehicle to improve its lap times in a significant manner.

Competitors who want to develop and use such a system must inform the Homologation Group beforehand and provide all relevant information as to how it works, its use, the performance expected, the safety systems installed etc.

The Homologation Group must be kept informed throughout the development of the system and the car. It may demand additional information and carry out any checks it deems necessary. To be considered as hybrid, an LMP1 car must be able to move along the whole length of the pit lane (minimum 400 m) at 60 kph using only the electric motor or the flywheel system.

The test must be carried out for the homologation of the car in the pit lane of the "24 Heures du Mans" circuit. During the test, the energy used will be measured and after the test, the weight of each element of the energy recovery system will be checked and indicated on the Homologation Form of the car. These elements must equip the car permanently and must be at the weight indicated on the Homologation Form. A new test must be carried out for any weight modification of these elements.

Rechargeable Energy Storage System (STSY)

A Rechargeable Energy Storage System (STSY), such as a flywheel system, super-capacitors, ultra-capacitor, batteries, etc., is a system that is designed to recover kinetic energy from the car during deceleration or braking, store that energy and make it available to propel the car.

During the practices or the race, the SRSE cannot be recharged from any fuel-based energy converter or, for plug-in hybrids, directly from the grid. When the car is on the starting grid the SRSE must be switched off in "Safe" status with all the red lights - signaling "Live" status - out.

Flywheel system

A flywheel system is a mechanical or electromechanical system capable of storing and releasing energy by means of a rotating mass system, such as the rotor of an electric motor/generator.

Capacitors

A capacitor (electrolytic capacitor, Electric Double Layer Capacitor (EDLC) named "Super Capacitor" or "Ultra Capacitor") is a device to store electric energy in the electric field or, in the case of the EDLC, a system in which an electric charge is stored, permitting adsorption and desorption of the ions in an electrolyte to electrodes.

Traction battery

The traction battery is a SRSE which supplies electric energy to the power circuit and thus to the traction motor(s). The traction battery is defined as any equipment used for the intermediate storage of electrical energy supplied by the conversion of kinetic energy.

Any on-board battery electrically connected to the power circuit is considered as an integral part of the vehicle's traction battery.

Battery pack

A battery pack is a single mechanical assembly optionally housed by a battery compartment, comprising battery modules, retaining frames or trays, fuses and contactors as well as battery supervising electronics.

1.14.3.2 Module batterie

Un module de batterie est un équipement unitaire comprenant une cellule ou un ensemble de cellules électriquement connectées et mécaniquement assemblées.

1.14.3.3 Cellule batterie

Une cellule est un dispositif de stockage de l'énergie sous forme électrochimique dont la tension nominale est la tension nominale du couple électrochimique, constitué des électrodes (une positive et une négative) et un électrolyte.

1.14.3.4 Électronique de contrôle de la batterie

L'électronique de contrôle de la batterie fait partie du bloc batterie et constitue un important système de sécurité. Il comprend un circuit de surveillance et d'équilibrage de charge pour maintenir toutes les cellules dans le domaine de tension spécifié par le fabricant de la batterie à tout moment et dans toute condition de charge ou décharge.

1.15 Circuit de Puissance

Le Circuit de Puissance (électronique de puissance, redresseur de puissance) comprend toute partie de l'équipement électrique utilisée pour propulser la voiture.
Par extension dans le cas d'un SRSE inertiel, le présent règlement désigne aussi par Circuit de Puissance l'ensemble des éléments homologues des éléments désignés ci-dessus (SRSE, courroies ou arbre transportant l'énergie du SRSE,...).

1.16 Faisceau de puissance

Le faisceau de puissance est le circuit électrique utilisé pour la distribution de l'énergie entre le générateur, le SRSE (la batterie de propulsion) et le système de propulsion constitué de l'électronique de puissance et du ou des moteur(s).

1.17 Disjoncteur (fusibles)

Un disjoncteur est un dispositif qui coupe automatiquement le courant électrique du circuit où il est inséré si le niveau de ce courant dépasse une valeur maximale définie pendant une durée définie.

1.18 Interrupteur d'Arrêt d'Urgence (coupe circuit général)

L'Interrupteur d'Arrêt d'Urgence est un contacteur, c'est-à-dire un interrupteur avec des contacts physiques et **NON un dispositif semi-conducteur** destiné à :

- couper toute transmission de l'énergie électrique du Circuit de Puissance (du SRSE vers les consommateurs tels que l'électronique de puissance et le moteur électrique),
- couper toute connexion de la tension d'alimentation du circuit auxiliaire (de la batterie auxiliaire et éventuellement de l'alternateur vers les consommateurs tels que l'éclairage, le chauffage, l'allumage, les contrôles électriques, etc.) et
- arrêter le moteur. Pour les moteurs diesel n'ayant pas d'injecteur contrôlé électroniquement, l'Interrupteur d'Arrêt d'Urgence doit être couplé avec un dispositif coupant l'entrée d'air dans le moteur.

L'Interrupteur d'Arrêt d'Urgence est déclenché par au moins un des interrupteurs situés à l'intérieur et à l'extérieur de la voiture.

L'Interrupteur d'Arrêt d'Urgence ne doit pas servir d'Interrupteur Général du Pilote.

1.19 Masse du Circuit de Puissance

La masse du Circuit de Puissance est le potentiel électrique de référence du Circuit de Puissance. Il est interdit de relier à la masse châssis la masse du Circuit de Puissance ni aucun autre potentiel électrique du Circuit de Puissance.

1.20 Masse châssis, masse voiture et potentiel terre

Le potentiel électrique de référence (potentiel masse) de toute partie conductrice de la carrosserie y compris le châssis et la structure de

Battery module

A battery module is a single unit containing one cell or a set of cells electrically connected and mechanically assembled.

Battery cell

A cell is an electrochemical energy storage device of which the nominal voltage is the electrochemical couple nominal voltage, made of positive and negative electrodes, and an electrolyte.

Battery supervising electronics

The battery supervising electronics is part of the battery pack and an important safety system. It comprises a monitoring and charge-balancing circuit to keep all cells, at any time and under any charge or discharge conditions, within the specified voltage range given by the battery Manufacturer.

Power circuit

The Power Circuit (power electronics, power converter) consists of all those parts of the electrical equipment which are used to power the vehicle.

By extension for inertial SRSE, in the present regulation, the expression "Power Circuit" addresses all the mechanical elements homologues of the here above components (SRSE, belt or transmission shaft carrying SRSE energy,...).

Power bus

The power bus is the electric circuit used for energy distribution between the generator, the STSY (e.g. traction battery) and the propulsion system which consists of the power electronics and the drive motor(s).

Over current trip (fuses)

An over current trip is a device which automatically interrupts the electrical current in the circuit in which it is installed if the level of this current exceeds a defined limit value for a specific period of time.

General Circuit Breaker ("Emergency stop switch")

The General Circuit Breaker is a contactor, i.e. a switch with physical contacts and **NOT a semi-conductor** device:

- to cut off all electrical energy transmission of the power circuit (STSY to the loads such as the power electronics and the electric motor),
- to cut off all electrical transmission of the auxiliary circuit (auxiliary battery and possibly the alternator to the loads such as lights, hooters, ignition, electrical controls, etc.) and
- to stop the engine. For Diesel engines having no electronically controlled injectors, the General Circuit Breaker must be coupled with a device cutting off the air intake into the engine.

The General Circuit Breaker is activated by at least one trigger switch from inside or outside the vehicle.

The General Circuit Breaker must not be used as the Driver Master Switch.

Power Circuit Ground

Power Circuit Ground is the ground potential of the electrical Power Circuit. It is forbidden to connect, to chassis ground, the Power Circuit Ground nor any Power Circuit potential.

Chassis Ground, Vehicle Ground and Earth Potential

Chassis (Vehicle and Bodywork) Ground, hereinafter named "Chassis Ground", is the electrical reference potential (earth potential) of all

	sécurité est ci-après désigné "la masse châssis". La masse auxiliaire doit être connectée à la masse châssis. Les carter conducteurs du SRSE et des éléments du Circuit de Puissance tels que moteur(s) et contacteurs doivent être solidement connectés à la masse châssis.	conductive parts of the bodywork including the chassis and the safety structure. Auxiliary ground must be connected to chassis ground. The conductive cases of the STSY and of Power Circuit units such as motor(s) and contactors should have robust connections to Chassis Ground.
1.21	Batterie auxiliaire La batterie auxiliaire fournit l'énergie au circuit (ou réseau) auxiliaire.	Auxiliary battery The auxiliary battery supplies energy to the Auxiliary Circuit (network).
1.22	Circuit auxiliaire Le circuit (ou réseau) auxiliaire est constitué de toute partie de l'équipement électrique utilisé pour faire fonctionner le moteur thermique, les indicateurs, l'éclairage ou les communications.	Auxiliary Circuit The Auxiliary Circuit (network) consists of all those parts of the electrical equipment used to operate the i.c. engine, for signaling, lighting or communication.
1.23	Masse auxiliaire La masse auxiliaire est le potentiel de référence du circuit auxiliaire. La masse auxiliaire doit être solidement connectée à la masse châssis.	Auxiliary Ground Auxiliary Ground is the ground potential of the Auxiliary Circuit. Auxiliary Ground should have a robust connection to Chassis Ground.
1.24	Interrupteur Général du Pilote L'Interrupteur Général du Pilote (IGP) est un dispositif permettant de mettre sous tension ou hors tension le Circuit de Puissance dans les conditions normales de fonctionnement w à l'exception de tout équipement électrique nécessaire pour faire fonctionner le moteur thermique et w à l'exception des systèmes nécessaires - à la surveillance de la résistance d'isolement entre la masse châssis et le Circuit de Puissance et - à la surveillance de la tension maximale aussi bien continue qu'alternative entre la masse châssis et la tension d'alimentation du circuit auxiliaire.	Driver Master Switch The Driver Master Switch (DMS) is a device to energise or deenergise the Power Circuit under normal operating conditions with the exception of all electrical equipment needed to run the i.c. engine and with the exception of the systems needed - to monitor the isolation resistance between Chassis Ground and Power Circuit and - to monitor the maximum DC as well as AC voltage between Chassis Ground and Auxiliary Circuit supply voltage.
1.25	Signalisation Actif/Sûr Un témoin Actif/Sûr est un dispositif de sécurité qui doit clairement indiquer l'état "Actif" ou "Sûr" du Circuit de Puissance. "Actif" signifie que le Circuit de Puissance est sous tension ou que le relais de puissance est fermé. "Sûr" signifie que le Circuit de Puissance est coupé et sans défaut.	Safe / Live Signage The Safe / Live Signage is a safety device to clearly show the "Live" or "Safe" condition of the Power Circuit. "Live" means that the Power Circuit is energised or that the power breaker is closed. "Safe" means that the Power Circuit is off and without default.
1.26	Détonateur Un détonateur est un dispositif pyrotechnique mis à feu par un courant électrique et utilisé pour couper des connexions de puissance.	Detonator A detonator is a pyrotechnical device fired by an electric current and used to cut power connections.
ART. 2	REGLEMENT	REGULATIONS
2.1	Ce qui n'est pas expressément autorisé par le présent règlement est interdit.	What is not expressly permitted by the present regulations is prohibited.
2.2	Les modifications dictées par la sécurité peuvent être applicables sans préavis et sans délai.	Changes made on grounds of safety may be enforced without notice and immediately.
2.3	Conformité au règlement Il est du devoir de chaque Concurrent de prouver aux Commissaires Techniques et aux Commissaires Sportifs que sa voiture est en conformité avec ce règlement dans son intégralité à tout moment de l'épreuve. Si un Concurrent souhaite introduire une nouvelle conception ou un nouveau système ou trouve qu'un aspect quelconque de ce règlement manque de clarté, il peut demander une clarification auprès du Comité Endurance. Si la clarification concerne une nouvelle conception ou un nouveau système, toute correspondance à ce sujet doit comprendre : - une description complète de cette conception ou de ce système ; - des dessins ou des schémas, selon le cas ; - l'opinion du Concurrent concernant les implications immédiates de toute nouvelle conception proposée pour d'autres parties de la voiture ; - l'opinion du Concurrent concernant toutes éventuelles conséquences à long terme ou tout nouveau développement éventuel susceptibles d'être entraînés par l'utilisation de cette nouvelle conception ou de ce	Compliance with the regulations It is the duty of each Competitor to satisfy the Scrutineers and the Stewards of the Meeting that his car complies with these regulations in their entirety at all times during an event. Should a Competitor want to introduce a new design or system or feel that any aspect of these regulations is unclear, clarification may be sought from the Endurance Committee. If clarification relates to any new design or system, correspondence must include : - a full description of the design or system ; - drawings or schematics where appropriate ; - the Competitor's opinion concerning the immediate implications on other parts of the car of any proposed new design ; - the Competitor's opinion concerning any possible long term consequences or new developments which may come from using any such new designs or systems ;

	nouveau système ; - la ou les manières précises dont selon le Concurrent la nouvelle conception ou le nouveau système améliorera la performance de la voiture.	- the precise way or ways in which the Competitor feels the new design or system will enhance the performance of the car.
2.4	Mesures Toutes les mesures doivent être effectuées lorsque la voiture est immobilisée sur une surface plane horizontale.	Measurements All measurements must be made while the car is stationary on a flat horizontal surface.
2.5	Matériau L'utilisation de matériau métallique dont le module d'élasticité spécifique est supérieur à 40 GPa/g/cm ³ est interdite. L'emploi de tôle en alliage de magnésium d'une épaisseur inférieure à 3 mm est interdit. Les pièces en titane sont autorisées mais elles ne doivent pas comporter de soudure si elles font partie de la suspension, de la direction ou du système de freinage.	Material The use of a metallic material which has a specific yield modulus greater than 40 GPa/g/cm ³ is forbidden. The use of magnesium sheet less than 3 mm thick is forbidden. The use of parts made from titanium is authorised, but welding is forbidden for parts of the suspension, steering or braking systems.
ART. 3	CARROSSERIE & DIMENSIONS	BODYWORK & DIMENSIONS
3.1	Dimensions A l'exception de ce qui est permis à l'Article 3.6 ci-après, les dimensions intérieures et extérieures (longueur, largeur, empattement, pare-brise, fenêtres, etc.) et la forme générale des éléments de carrosserie doivent correspondre à la Fiche d'Homologation.	Dimensions Except what is permitted by Article 3.6 below, inside and outside measurements (length, width, overhangs, wheelbase, windscreen, windows, etc.) and the general shape of the bodywork elements must be maintained as in the Homologation Form.
3.1.1	Dimensions a/ Empattement : Libre mais il doit être identique à celui indiqué sur la Fiche d'Homologation. b/ Longueur hors tout : 4650 mm maximum (aileron compris). c/ Largeur hors tout : 2000 mm maximum. d/ Hauteur : Aucune partie de la carrosserie ne doit se trouver à plus de 1030 mm (*) au-dessus de la surface de référence (cf. Article 3.5.1), à l'exception du carénage de la structure anti-tonneau arrière qui peut être à un maximum de 10 mm au dessus de la structure anti-tonneau arrière. (*) 1050 mm pour les LMP2 équipée d'un châssis conforme au règlement LMP1 2014.	Dimensions Wheelbase: Free but it must be identical to that registered in the Homologation Form. Overall length: 4650 mm maximum (rear wing included). Overall width : 2000 mm maximum. Height : No part of the bodywork is permitted to be more than 1030 mm (*) above the reference surface (See Article 3.5.1), except the rear rollover structure fairing that may be 10 mm maximum above the rear rollover structure. (*) 1050 mm for LMP2 equipped with a chassis in compliance with the 2014 LMP1 regulations.
3.1.2	Porte-à-faux a/ Le porte-à-faux avant est limité à 1000 mm. b/ Le porte-à-faux arrière est limité à 750 mm (aileron arrière compris).	Overhangs The front overhang is limited to 1000 mm. The rear overhang is limited to 750 mm (including the rear wing).
3.2	Portes	Doors
3.2.1	Voiture fermée a/ Les portes doivent permettre un accès normal dans l'habitacle par l'ouverture prévue à l'Article 14.1.5.b.4 ; b/ Les systèmes d'ouverture (charnières) et de verrouillage (serrures) doivent être conçus pour retirer rapidement la porte complète en cas d'urgence aussi bien de l'intérieur que de l'extérieur de l'habitacle. Ils doivent être homologués.	Closed car Doors must provide a normal access to the cockpit through the opening specified in Article 14.1.5.b.4; Opening (hinges) or locking (locks) devices must be designed to allow a quick release of the entire door in case of emergency from the interior as from the exterior of the cockpit. They must be homologated.
3.3	Pare-brise & Vitrages	Windscreen & Glass areas
3.3.1	Voiture ouverte Pare-brise facultatif.	Open car Windscreen optional.
3.3.2	Voiture fermée a/ Pare-brise Obligatoire, d'une seule pièce en verre feuilleté ou en polycarbonate (épaisseur minimale 3.5 mm), ou en matériau équivalent agréé par le Groupe Homologation : Le bord supérieur du pare-brise doit être : - plus bas que le point le plus haut du toit (prise d'air non comprise) ; - à 920 mm de hauteur minimum par rapport à la surface de référence (cf. Article 3.5.1) sur une largeur minimum de 300 mm.	Closed car a/ Windscreen Mandatory, made of one piece of laminated glass or polycarbonate (minimum thickness of 3.5 mm), or equivalent material approved by the Homologation Group: The upper edge of the windscreen must be : - lower than the highest point of the roof (excluding the air inlet) ; - at a minimum of 920 mm in height from the reference surface (cf. Article 3.5.1) over a minimum width of 300 mm.

- b/** Vitrages
- b.1** Les vitres latérales en polycarbonate sont autorisées ;
- b.2** En vue de côté :
Le périmètre de la partie transparente des vitres latérales doit permettre d'inclure un rectangle de 300 mm (perpendiculairement à la surface de référence) x 500 mm (parallèlement à la surface de référence). Les angles supérieurs du rectangle peuvent être arrondis par un rayon maximum de 100 mm.
La base de ce rectangle doit être à une hauteur minimale de 500 mm par rapport à la surface de référence.
- b.3** Des fixations de sécurité supplémentaires sont recommandées ;
- 3.4** Carrosserie
- 3.4.1**
- a/** En vue de côté :
- La carrosserie doit recouvrir toute la circonférence des roues complètes (roues et pneumatiques) au-dessus des axes d'essieux, sans vide ou découpe de la carrosserie ;
Les passages de roues doivent être ouverts exclusivement du côté extérieur ;
Toute la zone située :
- entre un plan vertical et transversal situé à 415 mm en arrière de l'axe d'essieu avant et un plan vertical et transversal situé à 415 mm en avant de l'axe d'essieu arrière,
 - jusqu'à une hauteur de 400 mm par rapport à la surface de référence, doit être entièrement couverte par un ou plusieurs éléments de carrosserie.
- Toute partie visible de ce ou ces éléments ne doit pas être en retrait de plus de 150 mm par rapport à la largeur hors tout de la carrosserie (mesure horizontale).
- b/** En vue de l'arrière :
- Les parties mécaniques ne doivent pas être visibles au-dessus d'un plan horizontal passant par l'axe d'essieu arrière. Si c'est le cas, un grillage à mailles d'environ 10 mm ou des persiennes sont obligatoires.
Les roues arrière complètes ne doivent pas être visibles au-dessus d'un plan horizontal passant par l'axe d'essieu arrière. Elles doivent être masquées au moyen d'éléments de carrosserie rigides (grillages interdits).
Ces éléments doivent :
- avoir une épaisseur constante,
 - être conçus de façon à ce que l'air passant à travers ces éléments soit, à la sortie, dirigé vers le sol,
 - être fixés rigidement pendant toute la durée de l'épreuve à la carrosserie. En cas de perte d'une partie ou de l'intégralité de ces éléments, la voiture sera arrêtée dans son stand.
- La partie arrière de la carrosserie doit comporter deux plaques transversales perpendiculaires à la surface de référence. Elles doivent :
- être conformes au Dessin n°5 ;
 - être situées à l'extrémité arrière de la carrosserie ;
 - avoir une épaisseur constante minimale de 10 mm et leurs bords peuvent comporter un arrondi de rayon minimum constant de 5 mm ;
 - être fixées rigidement pendant toute la durée de l'épreuve à la carrosserie. En cas de perte d'une de ces plaques, la voiture sera arrêtée dans son stand.
- c/** En vue de dessus :
- w** Toute la zone située :
- entre un plan vertical et transversal situé à 415 mm en arrière de l'axe d'essieu avant et l'extrémité avant de l'ouverture de l'habitacle définie à l'Article 14.1.5,
 - sur une largeur minimale égale à la largeur hors tout de la carrosserie moins 300 mm, répartie symétriquement par rapport à l'axe longitudinal de la voiture, doit être entièrement couverte par un ou plusieurs éléments de carrosserie.
- Toute partie visible de ce ou ces éléments doit être à une hauteur minimale de 200 mm par rapport à la surface de référence, (cf. Article 3.5.1).

Glazing

Side windows made of polycarbonate are permitted;

Viewed from the side:

The perimeter of the transparent area of the side windows must allow the fitting of a 300 mm (perpendicular to the reference surface) x 500 mm (parallel to the reference surface) rectangle.

The upper angles of the rectangle may be curved with a maximum radius of 100 mm.

The base of this rectangle must be at a minimum height of 500 mm from the reference surface.

Additional safety fasteners are recommended ;

Bodywork

As viewed from the side :

It must cover the whole circumference of the complete wheels (wheels and tyres) above the axle centrelines level with no empty space or cut-out in the bodywork :

Wheel arches must be open exclusively as viewed from outside.

The complete area situated :

- between a vertical and transverse plane 415 mm rearward of the front axle centreline and a vertical and transverse plane 415 mm forward of the rear axle centreline,
- up to a height of 400 mm from the reference surface, must be completely covered by one or several bodywork elements.

All visible part of this or these elements must not be set back more than 150 mm from the overall width of the bodywork (horizontal measurement).

As viewed from the rear :

Mechanical components must not be visible above the horizontal plane passing through the axle centreline. If this is the case, a wire mesh about 10 mm or louvers are mandatory.

The complete rear wheels must not be visible above the horizontal plane passing through the axle centreline. They must be hidden by means of rigid bodywork elements (wire mesh forbidden).

These elements must:

- have a constant thickness,
- be designed in such a way that air passing through them is directed toward the ground at the exit.
- be strongly attached to the bodywork throughout the event. Should one part or the whole elements are missing; the car will be stopped in the pit.

The rear part of the bodywork must be fitted with two transverse plates perpendicular to the reference surface. They must :

- comply with Drawing n°5;
- be situated at the rear end of the bodywork;
- have a minimum constant thickness of 10 mm and their edges may be rounded with a minimum constant radius of 5 mm;
- be strongly attached to the bodywork throughout the event. Should one of these plates is missing; the car will be stopped in the pit.

As viewed from above :

The complete area situated :

- between a vertical and transverse plane 415 mm rearward of the front axle centreline and the front end of the cockpit opening defined in Article 14.1.5,
- over a minimum width equal to the overall width of the bodywork minus 300 mm, distributed symmetrically about the longitudinal centreline of the car, must be completely covered by one or several bodywork elements.

All visible parts of this or these elements must be at a minimum height of 200 mm from the reference surface (cf. Article 3.5.1).

<p>w Toute la zone située :</p> <ul style="list-style-type: none"> - entre l'extrémité avant de l'ouverture de l'habitacle et un plan vertical et transversal situé à 415 mm en avant de l'axe d'essieu arrière, - sur une largeur minimale égale à la largeur hors tout de la carrosserie moins 300 mm, répartie symétriquement par rapport à l'axe longitudinal de la voiture, doit être entièrement couverte par un ou plusieurs éléments de carrosserie. <p>A l'exception de l'ouverture du cockpit (voitures ouvertes seulement), toute partie visible de ce ou ces éléments doit être à une hauteur minimale de 400 mm par rapport à la surface de référence, (cf. Article 3.5.1).</p> <p>w Sur toute la zone située :</p> <ul style="list-style-type: none"> - entre un plan vertical et transversal situé à 1200 mm en arrière de l'axe d'essieu avant et le bord arrière de la voiture, - sur une largeur minimale égale à la largeur hors tout de la carrosserie moins 300 mm, répartie symétriquement par rapport à l'axe longitudinal de la voiture, <p>A l'exception de l'ouverture du cockpit (voitures ouvertes seulement), toutes les parties visibles de la carrosserie doivent former une surface continue et sans découpes ou cassures.</p> <p>Les seules ouvertures permises sont :</p> <ul style="list-style-type: none"> - les prises d'air moteur (cf. Article 3.4.5.c.), - les prises d'air pour les freins, - les sorties des échappements. <p>Si d'autres ouvertures sont nécessaires, elles ne doivent pas dépasser de la surface de la carrosserie. Seules des prises d'air "naca" ou des sorties d'air recouvertes de persiennes ou d'un grillage sont permises.</p> <p>w Toute la carrosserie située en arrière de l'axe d'essieu arrière et à plus de 200 mm au dessus de la surface de référence doit former une surface lisse, continue sans découpe ou cassure et doit être visible de dessus la voiture lorsque l'aileron arrière est démonté. Les surfaces verticales sont autorisées si l'intégralité de leur bord supérieur est visible de dessus.</p> <p>Derrière les roues arrière toute la carrosserie visible à la fois de dessus et de côté doit descendre jusqu'au moins 200 mm au dessus du plan de référence et doit recouvrir toute la circonférence des roues complètes (roues et pneumatiques);</p> <p>A l'arrière de la voiture, toute la carrosserie visible seulement de l'arrière doit être conforme à l'Article 3.4.1.b ci-dessus.</p> <p>3.4.2 Les capots moteur peuvent être démontés au moyen d'outils. Ils doivent avoir au moins deux fixations de sécurité, clairement signalées (flèches rouges ou toute autre couleur contrastée).</p> <p>3.4.3 Les raccords de carrosserie au voisinage des systèmes de remplissage de carburant doivent empêcher toute fuite dans le compartiment moteur ou dans l'habitacle.</p> <p>3.4.4 Prises d'air</p> <p>a/ Elles doivent respecter l'Article 3.4.1 ci-dessus ;</p> <p>b/ Elles ne doivent pas dépasser le contour de la carrosserie vue de dessus;</p> <p>c/ Elles ne doivent pas faire saillie de plus de 150 mm (200 mm pour les prises d'air moteur) sur la surface de la carrosserie :</p> <ul style="list-style-type: none"> - Mesure verticale entre le point le plus élevé de l'ouverture de la prise d'air et un élément de carrosserie horizontal mesurant au moins 100 mm de large transversalement. <p>d/ Voiture fermée :</p> <p>Si placée(s) sur le toit, délimité par la ligne supérieure du pare-brise, des vitres latérales et le plan vertical et transversal tangent au point le plus en arrière de l'ouverture des portes, la (les) prise(s) d'air doit (doivent) se trouver en arrière du point le plus élevé du pare-brise.</p> <p>3.4.5 Sorties d'air</p> <p>a/ Elles doivent respecter l'Article 3.4.1 ci-dessus ;</p> <p>b/ Des découpes au- dessus des ailes avant et arrière sont obligatoires. Elles doivent en vue de dessus, au- dessus de chaque roue, pour les roues avant :</p>	<p>The complete area situated :</p> <ul style="list-style-type: none"> - between the front end of the cockpit opening and a vertical and transverse plane 415 mm forward of the rear axle centreline, - over a minimum width equal to the overall width of the bodywork minus 300 mm, distributed symmetrically about the longitudinal centreline of the car, must be completely covered by one or several bodywork elements. <p>With exception of the cockpit opening (open cars only), all visible parts of this or these elements, must be at a minimum height of 400 mm from the reference surface (cf. Article 3.5.1).</p> <p>On the complete area situated :</p> <ul style="list-style-type: none"> - between a vertical and transversal plane 1200 mm rearward of the front axle centreline and the rear trailing edge of the car, - over a minimum width equal to the overall width of the bodywork minus 300 mm, distributed symmetrically about the longitudinal centreline of the car, <p>With exception of the cockpit opening (open cars only), all visible parts of the bodywork must be a continuous unbroken surface without cut-outs.</p> <p>The only openings permitted are:</p> <ul style="list-style-type: none"> - air intakes for the engine (cf. Article 3.4.5.c.), - air intakes for the brakes, - exhaust pipe outlets. <p>If other openings are necessary, they must not protrude over the surface of the bodywork. Only "naca" air ducts or outlets covered with louvers or wire meshes are permitted.</p> <p>All bodywork behind the rear wheel centerline and more than 200mm above the reference plane must form a smooth, continuous, unbroken surface without cuts, and be visible from above the car with the rear wing removed. Vertical surfaces are allowed so long as their entire top edge is visible from above.</p> <p>Behind the rear wheels, all bodywork visible both from above and from the side must come down at least up to 200 mm above the reference surface and must cover the whole circumference of the complete wheels (wheels and tyres);</p> <p>At the rear of the car, all bodywork visible only from the rear must be in compliance with the Article 3.4.1.b. above.</p> <p>Engine covers can be removed with the use of tools. They must be fitted with two safety fasteners as a minimum, both clearly indicated (red arrows or any other contrasting colour).</p> <p>Bodywork joints in the vicinity of the refuelling coupling systems must be designed so as to prevent any leakage into the engine compartment or into the cockpit.</p> <p>Air intakes</p> <p>They must comply with Article 3.4.1 above;</p> <p>They must not protrude beyond the perimeter of the bodywork as viewed from above;</p> <p>They must not protrude more than 150 mm (200 mm for the engine air intakes) over the surface of the bodywork:</p> <ul style="list-style-type: none"> - Measurement made vertically from the highest point of the air intake opening down to a horizontal bodywork element at least 100 mm wide across. <p>Closed car:</p> <p>If located on the top of the car, area defined by the upper line of the windscreen, the side windows and the vertical and transverse plane tangent to the rearmost point of the door openings, air intake(s) must be located aft the highest point of the windscreen.</p> <p>Air extractors</p> <p>They must comply with Article 3.4.1 above.</p> <p>Cut-outs above the front and rear wings are obligatory.</p> <p>Viewed from above they must, above each wheel, for front wheels :</p>
--	---

- avoir une surface minimum de 750 cm² par roue
 - avoir une surface maximum de 950 cm² par roue
 - ne laisser visible que le pneu seul
- Elles doivent en vue de dessus, au-dessus de chaque roue, pour les roues arrière :
- avoir une surface minimum de 1000 cm² par roue
 - avoir une surface maximum de 1200 cm² par roue
 - ne laisser visible que le pneu seul

Ces ouvertures doivent permettre d'inscrire un gabarit rectangulaire de 20 cm x 25 cm, positionné horizontalement et symétriquement par rapport à l'axe d'essieu.

Pour l'avant et l'arrière :

- * Pour les vues de dessus : entre le bord extérieur de l'ouverture et le bord extérieur de l'aile, une distance minimum de 30mm est obligatoire.
- * Pour les vues de l'avant et de l'arrière : la partie supérieure du pneumatique peut être visible.
- * Pour les vues de côté, aucune partie de carrosserie autour des roues avant ne doit être plus de 725 mm au dessus de la surface de référence.
- * Pour les vues de côté
LMP1 : aucune partie de carrosserie autour des découpes au dessus des roues arrière ne doit être à plus de 725 mm au dessus de la surface de référence en avant de l'axe des roues arrière.
LMP2 : aucune partie de carrosserie autour des découpes au dessus des roues arrière ne doit être plus de 725 mm au dessus de la surface de référence.

3.5 Dessous de la voiture

En arrière de l'axe d'essieu avant et à l'exception du patin (cf. Article 3.5.6), aucune partie entièrement suspendue de la voiture ne doit dépasser en dessous de la surface de référence, du diffuseur arrière et des parties latérales (y compris les bords arrondis), définis ci-dessous. Seules sont autorisées les découpes minimales correspondant aux mouvements des roues et des éléments de suspension (débattement et braquage), au passage des crics pneumatiques, aux capteurs pour la mesure de la garde au sol (LMP1 seulement), aux trappes de visite fermées (opérations d'entretien) et au tube d'évacuation du trop plein de carburant.

3.5.1 Surface de référence

Une surface de référence, plane, continue, rigide et conforme au Dessin n°1, est obligatoire en dessous de la voiture.

- a/ Elle doit faire partie intégrante de la structure principale / cellule de survie (monocoque) au minimum sur une surface rectangulaire mesurant 800 mm (sens longitudinal) x 900 mm (sens transversal)
- b/ La face inférieure de cette surface sert de référence pour mesurer les cotes verticales.
- c/ Les arrêtes communes au diffuseur arrière et à ses panneaux verticaux (cf. Article 3.5.2) ainsi qu'aux parties latérales (cf. Article 3.5.3), peuvent être arrondies par un rayon maximum de 10 mm. Le bord à l'avant peut être arrondi par un rayon de 10 mm maximum.
- d/ La surface de référence ne doit pas être visible vue de dessus. Les éléments de carrosserie épousant le dessus de la surface de référence seront considérés comme faisant partie de la surface de référence.
- e/ Afin de maintenir les parties latérales en avant et en arrière des roues arrière dans un même plan, les arrêtes communes aux panneaux verticaux du diffuseur et aux parties latérales peuvent être légèrement au dessus de la surface de référence (7.5 mm maximum si la largeur du diffuseur arrière est égale à 1100 mm).

3.5.2 Diffuseur arrière

Une surface inclinée (diffuseur arrière), plane, continue et rigide est obligatoire en dessous et à l'arrière de la voiture.

- a/ Elle doit être inclinée par rapport à la surface de référence et doit être conforme au volume (dimensions et formes géométriques) maximum défini par le Dessin n°1 ;

- have a minimum surface area of 750 cm² per wheel
 - have a maximum surface area of 950 cm² per wheel
 - leave only the tyre visible
- Viewed from above they must, above each wheel, for rear wheels :

- have a minimum surface area of 1000 cm² per wheel
- have a maximum surface area of 1200 cm² per wheel
- leave only the tyre visible

These openings must enable the introduction of a rectangular template measuring 20 cm x 25 cm, positioned horizontally and symmetrically in relation to the axis of the axle.

For front and rear :

- * Seen from above : between the outer edge of the opening and the outer edge of the wing, a minimum distance of 30mm is compulsory.
- * Seen from the front and from the rear: the upper part of the tyre may be visible.
- * Seen from the side, no part of the bodywork around the front wheel hole may be higher than 725 mm from reference surface.
- * Seen from the side
LMP1 : no part of the bodywork around the rear wheel hole may be higher than 725 mm from reference surface forward of the rear wheel centreline.
LMP2 : no part of the bodywork around the rear wheel hole may be higher than 725 mm from reference surface.

Underside of the car

Rearward of the front axle centreline and except for the skid block (cf. Article 3.5.6), no entirely sprung part must protrude beyond the reference surface, the rear diffuser and the lateral parts (included the rounded sides), as defined below.

The only openings permitted are the minimum gaps necessary for wheel and suspension part movements (suspension travel and steering), air jack holes, sensors for measuring the ground clearance (LMP1 only), closed hatches (maintenance operations) and the overflow fuel pipe.

Reference surface

A reference surface, flat, continuous, rigid and complying with Drawing n°1 is mandatory underneath the car.

It must be an integral part of the main structure/survival cell (tub) as a minimum over a rectangular area the measurements of which are 800 mm (longitudinally) x 900 mm (across).

The underneath of the reference surface will serve as a reference for checking all vertical height measurements.

The edges common to the rear diffuser and its vertical panels (cf. Article 3.5.2) as well as to the lateral parts (cf. Article 3.5.3), may be curved with a maximum radius of 10 mm. The edge in the front may be curved with a maximum radius of 10 mm.

The reference surface must not be visible as viewed from above. The bodywork elements following the upper side of the reference surface will be considered as part of the reference surface.

In order to maintain the lateral parts in the front and at the rear of the rear wheels in a same plane, the edges common to the vertical panels of the diffuser and the lateral parts may be slightly above the reference surface (7.5 mm maximum if the width of the diffuser is equal to 1100 mm).

Rear diffuser

One inclined surface (rear diffuser), flat, continuous and rigid is mandatory underneath the car and at the rear.

It must be inclined relative to the reference surface and it must comply with the maximum volume (dimensions and geometrical shapes) defined by Drawing n°1 ;

- b/ Aucune partie du diffuseur ne doit être à plus de 200 mm au dessus de la surface de référence et son extrémité arrière doit être à l'aplomb du contour de la carrosserie (aileron démonté) ;
- c/ Les panneaux joignant le diffuseur arrière à la surface de référence doivent être verticaux. De plus, entre l'axe d'essieu arrière et l'extrémité arrière du diffuseur, les panneaux extérieurs joignant le diffuseur arrière à la surface de référence doivent rester parallèles à l'axe longitudinal de la voiture ;
- d/ Un rayon maximum de 10 mm est autorisé pour raccorder le diffuseur arrière aux panneaux verticaux ;
- e/ Un maximum de deux dérives verticales peut être ajouté au diffuseur arrière, mais leurs surfaces doivent :
- e.1 former des angles droits avec le diffuseur ;
- e.2 être planes, parallèles entre elles et à l'axe longitudinal de la voiture ;
- e.3 être positionnées symétriquement par rapport à l'axe longitudinal de la voiture.
- e.4 être fixées au diffuseur sur au moins 75% de leur longueur (pour les modèles de voiture homologues à partir de 2013).**
- f/ Le bord arrière du diffuseur et les deux plaques transversales décrites à l'Article 3.4.1.b. ci-dessus doivent être dans un même plan transversal.

3.5.3 Parties latérales

Ce sont les parties situées de part et d'autre de la surface de référence (cf. Article 3.5.1) et du diffuseur arrière (cf. Article 3.5.2).

En arrière de l'axe d'essieu avant, elles doivent former un plan incliné par rapport à la surface de référence, conformément au Dessin n°1.

Afin de se raccorder à la carrosserie, les parties latérales :

- peuvent être arrondies vers le haut par un rayon maximum de 50 mm en arrière des roues avant et en avant des roues arrière (voir zone 1 du Dessin n°1).
- doivent être arrondies vers le haut par un rayon minimum de 50 mm entre les roues avant et arrière pour pouvoir se raccorder à une surface verticale (voir zone 2 du Dessin n°1).

Les arrêtes communes au diffuseur arrière et à ses panneaux verticaux (cf. Article 3.5.2) peuvent être arrondies par un rayon maximum de 10 mm. Les bords à l'avant peuvent être arrondis par un rayon de 10 mm maximum.

3.5.4 Partie avant

Dans la zone située :

- en avant de l'axe d'essieu avant,
 - sur une largeur minimum de 1000 mm,
- toute partie suspendue de la voiture doit se trouver à plus de 50 mm au dessus de la surface de référence.

Dans la zone située :

- en arrière du contour avant de la voiture,
- en avant de l'axe d'essieu avant,
- sur toute la largeur de la voiture,
- à moins de 300 mm de la surface de référence,

Tous les éléments de carrosserie visibles de dessous doivent former une surface continue, sans ouvertures, fentes ou découpe.

S

eules sont autorisées les découpes minimales correspondant aux capteurs pour la mesure de la garde au sol (LMP1 seulement).

Afin de permettre le mouvement des roues et des éléments de suspension (débattement et braquage) ainsi que le passage des écopes de frein, le volume autour des roues avant est libre. Sa position et ses dimensions maximum sont les suivantes :

- 800 mm de long répartis symétriquement de part et d'autre de l'axe d'essieu avant ;
- 300 mm de haut mesurés à partir de la surface de référence,
- 550 mm de large, la face intérieure du volume étant au moins à 450 mm de l'axe longitudinal de la voiture.

Les bords arrière des éléments qui constituent cette surface (bords de fuite) y compris ceux en avant des roues avant doivent :

No part of the diffuser must be more than 200 mm above the reference surface and its rear end must be plumb with the perimeter of the bodywork (rear wing removed) ;

The panels joining the rear diffuser to the reference surface must be vertical. In addition, from the rear axle centreline to the rearmost edge of the diffuser, the outer panels joining the rear diffuser to the reference surface must remain parallel to the longitudinal centreline of the car ;

A maximum radius of 10 mm is authorised to connect the rear diffuser to the vertical panels ;

A maximum of two vertical fins may be added to the rear diffuser, but their surfaces must :

be at right angles to the diffuser ;

be flat and parallel to one another and to the longitudinal centreline of the car ;

be positioned symmetrically about the longitudinal centreline of the car.

be fitted to the diffuser on a minimum of 75% of their length (for model of cars homologated from 2013)

The rear edge of the diffuser and the two transverse plates described in the Article 3.4.1.b. above must be in the same transverse plane.

Lateral parts

These are the parts situated on both sides of the reference surface (cf. Article 3.5.1 and of the rear diffuser (cf. Article 3.5.2).

Rearward of the front axle centreline, they must form an inclined plane relative to the reference surface, according to Drawing n°1.

To join up with the bodywork, the lateral parts :

- may be curved upwards with a maximum radius of 50 mm rearward of the front wheels and forward of the rear wheels (see area 1 of Drawing n°1).
- must be curved upwards with a minimum radius of 50 mm between front and rear wheels in order to join up to a vertical plane (see area 2 of Drawing n°1).

The edges common to the rear diffuser and its vertical panels (cf. Article 3.5.2) may be curved with a maximum radius of 10 mm. The edges in the front may be curved with a maximum radius of 10 mm.

Front part

In the area situated :

- forward of the front axle centreline,
 - over a minimum width of 1000 mm,
- any sprung part of the car must be situated more than 50 mm above the reference surface.

In the area situated :

- backward of the front contour of the car,
- forward of the front axle centreline,
- over the overall width of the car,
- at 300 mm maximum from the reference surface,

All visible parts of bodywork from the underside must form a continuous surface, without openings, slots or cut-outs.

The only openings permitted are the minimum gaps necessary for the sensors measuring the ground clearance (LMP1 only).

In order to permit wheel and suspension part movements (suspension travel and steering) and the passage of brake scoops, the volume around the front wheels is free. Its position and its maximum dimensions are as follows:

- 800 mm length, distributed symmetrically about the front axle centerline,
- 300 mm high, measured from the reference surface,
- 550 mm wide, the inner surface of the volume being at least at 450 mm from the longitudinal centreline of the car.

The rear edges of the elements that form this surface (trailing edges) included those in front of the front wheels must:

- être en avant de l'axe d'essieu avant,
- avoir une épaisseur minimum égale à 3% de la longueur maximum de cette surface (projection verticale), sans pouvoir être inférieure à 10mm.
- n'avoir aucun autre élément à moins de 25 mm.

A l'exception du bord avant de ces éléments (bord d'attaque), la distance entre la surface inférieure léchée par les filets d'air et la surface supérieure léchée par les filets d'air, doit être à tout endroit supérieure à l'épaisseur des bords de fuite.

Les règles ci-dessus ne s'appliquent pas aux éléments du châssis et du crash box qui:

- ont passé tous les tests FIA,
- forment une surface lisse, continue sans découpe ou cassure,
- sont entièrement visibles de dessous jusqu'à 300 mm au dessus du plan de référence. Les surfaces verticales sont autorisées si l'intégralité de leur bord inférieur est visible de dessous.

3.5.5 Garde au sol

- a/* Tout système, autre que la suspension, destiné à modifier la garde au sol est interdit (cf. Article 10.2 ci-après) ;
- b/* Aucune partie suspendue de la voiture ne doit se trouver en dessous du plan engendré par la surface de référence, sauf le patin décrit ci-après ;
- c/* Les patins de frottement sont interdits

3.5.6 Patin

Un patin rectangulaire doit être monté au-dessous de la surface de référence.

Il peut être au maximum en 4 parties.

- a/* Il doit :
- a.1* s'étendre longitudinalement entre l'axe d'essieu avant et l'axe d'essieu arrière ;
- a.2* être conforme au Dessin N° 2 ;
Le patin sera contrôlé avant le départ de la course.
- a.3* L'usure maximale admise est de 5 mm.
Elle est contrôlée sur les zones définies sur le Dessin N° 2, à la fin des essais et de la course.
- a.4* ne pas présenter d'autres trous ou ouvertures que :
- ceux nécessaires au montage des fixations autorisées à l'Article 3.5.6c;
- ceux éventuellement nécessaires au passage de crics pneumatiques ;
- a.5* Chaque partie doit être faite d'un matériau homogène d'une densité comprise entre 1.3 et 1.45 ;
- a.6* être fixé symétriquement par rapport à l'axe de la voiture, de manière à ce qu'aucun flux d'air ne passe entre lui et la surface de référence.
- b/* Les bords d'attaque et de fuite de ce patin peuvent être biseautés sur une longueur maximum de 200 mm et jusqu'à une profondeur de 21 mm.
- c/* En vue de dessous, les fixations utilisées pour fixer le patin sur la surface de référence doivent :
- c.1* avoir une surface totale maximale de 400 cm²;
- c.2* avoir chacune une surface maximale de 20 cm²;
- c.3* être montées de façon à ce que la totalité de leur surface inférieure soit visible et affleurante à la surface inférieure du patin à l'état neuf.

3.6 Dispositifs aérodynamiques

- 3.6.1** A l'exception de l'aile arrière défini à l'Article 3.6.3, aucun élément de carrosserie ou du soubassement ne doit avoir un profil d'aile (*) :
(*) Profil d'aile : section engendrée par deux arcs de courbure et/ou de centre différents réunis à l'avant par un bord d'attaque et, à l'arrière, par un bord de fuite, et destinée à obtenir une portance aérodynamique positive ou négative.
Ne sont pas considérés comme des profils d'aile, les éléments de carrosserie qui:
- ont une épaisseur constante,
 - ont un profil parfaitement symétrique. Ces profils ne doivent pas avoir

- be forward of the front axle centreline,
- have a minimum thickness equal to 3% of the maximum length of this surface (vertical projection), and no less than 10 mm.

- not have any other elements at less than 25 mm.

With the exception of the front edge of these elements (leading edge), the distance between the lower surface in contact with the air streams and the upper surface in contact with the air streams must be greater than the thickness of the trailing edges over the entire area of the element.

The rules above do not apply to the chassis and crash box elements that:

- have passed all the FIA tests,
- forming a smooth, continuous, unbroken surface without cuts,
- are entirely visible from below up to 300 mm above the reference surface. Vertical surfaces are allowed so long as their entire lower edge is visible from below.

Ground clearance

Any system, other than the suspension, which is designed so as to modify the ground clearance is not permitted (cf. Article 10.2 below) ;

No sprung part of the car is allowed lower than the plane generated by the reference surface, except the mandatory block described below ;

Friction blocks are not permitted.

Skid block

One rectangular block (skid block) must be affixed underneath the reference surface.

It may be at a maximum in 4 parts.

It must:

extend longitudinally from the front axle centreline to the rear axle centreline;

comply with the Drawing N° 2 ;

The skid block will be checked before the start of the race.

The maximum wear permitted is 5 mm.

It is measured on the area specified on Drawing N° 2, at the end of the practice sessions and the race.

have no holes or cut outs other than :

- those necessary to fit the fasteners permitted by Article 3.5.6c ;
- those possibly necessary for the air jacks ;

Each part must be made from an homogeneous material with a specific gravity between 1.3 and 1.45 ;

be fixed symmetrically about the centreline of the car in such a way that no air may pass between it and the reference surface.

The leading and trailing edges of the skid block may be chamfered to a depth of 21 mm over a maximum longitudinal distance of 200 mm.

As viewed from below, fasteners used to attach the skid block to the reference surface must :

have a total area no greater than 400 cm²;

have an individual area no greater than 20 cm²;

be fitted in order that their entire lower surfaces are visible from beneath the car and are flush with the lower surface of the skid block when new.

Aerodynamic devices

With the exception of the rear wing defined in Article 3.6.3, no bodywork or underbody element having a wing profile (*) is permitted :

(*) "Wing profile" : section generated by two arcs with different curves and/or centres joining a leading edge at the front to a trailing edge at the rear, the purpose being to exert an aerodynamic effect, lift or down force.

Are not considered as a wing profiles, the bodywork elements that:

- have a constant thickness,
- have an absolutely symmetrical profile. These profiles must not have a

d'extension au-delà du bord de fuite (aucun élément de carrosserie n'est permis à moins de 25 mm du bord de fuite) et le bord de fuite doit :

- avoir une épaisseur minimum égale à 3 % de la longueur maximum du profil, mais pas moins de 10 mm,
- être perpendiculaire à l'axe du profil,
- ont un bord de fuite d'au minimum 30 mm. A l'exception du bord d'attaque, l'épaisseur du profile doit être supérieur sur toute la surface de l'élément à l'épaisseur du bord de fuite.
- sont verticaux (vue de face).

3.6.2 Eléments aérodynamiques ajoutés sur la carrosserie

Aucun élément aérodynamique ne peut être ajouté sur la carrosserie, qu'il fasse partie intégrante ou non de celle-ci, à l'exception de :

- w Deux éléments aérodynamiques maximum (flaps) à l'avant et dans la projection frontale des ailes avant à condition de :
 - Ne pas gêner la visibilité du pilote ;
 - Ne pas masquer les projecteurs ;
 - Ne pas être à plus de 600 mm au dessus de la surface de référence ;
 - Etre approuvés par le Constructeur et figurer sur la Fiche d'Homologation de la voiture.
- w Les dérives verticales qui peuvent être ajoutées en dessous de la carrosserie en avant de l'axe d'essieu avant et qui doivent être positionnées symétriquement par rapport à l'axe longitudinal de la voiture.
- w Un "Gurney" à l'arrière de la carrosserie.
- w L'aileron arrière décrit ci-après.

Sont considérés comme des éléments aérodynamiques ajoutés sur la carrosserie:

- Les équerres non autorisées par le règlement, qui font partie intégrante ou non de la carrosserie.
- Les cheminées d'extraction d'air. L'élément de carrosserie obligatoire pour couvrir l'échappement lorsqu'il est visible de dessus n'est pas considéré comme une cheminée d'extraction d'air.
- Les éléments de carrosserie qui ont plus d'une position possible.
- Tout autre appendice aérodynamique dont la seule fonction est de générer de l'appui et qui n'est pas autorisé par le règlement.

3.6.3 Aileron arrière

Il est constitué des éléments suivants : Aile, supports verticaux et plaques latérales, et doit respecter les points suivants :

- a/ Aile

L'élément principal exerçant un appui (déportance) est un dispositif aérodynamique réglable, placé à l'arrière de la voiture ayant au maximum deux profils (aileron principal et volet). Elle doit :

 - a.1 tenir dans un volume mesurant 250 mm horizontalement x 150 mm verticalement x 1600 mm transversalement ;
 - a.2 être montée de façon à n'avoir aucune partie à plus de 965 mm au-dessus du plan de référence ;
 - a.3 être non réglable de l'intérieur de la voiture ;
 - a.4 La section de l'aile arrière doit être symétrique par rapport à l'axe longitudinal de la voiture.
 - a.5 Le bord de fuite de l'aile principale ne peut pas fléchir de plus de 3 mm verticalement lorsque 2 charges de 200 N sont appliquées verticalement et symétriquement. Les charges seront appliquées à l'aplomb du bord de fuite de l'élément à n'importe quels points symétriques sur sa largeur. Ces charges seront appliquées en utilisant un adaptateur approprié, fourni par le concurrent, qui :
 - ne fait pas plus de 50 mm de large,
 - n'est pas à plus de 10 mm en avant du bord de fuite,

L'élément sera fixé sur un bâti rigide fourni par le concurrent.

profile extension beyond the trailing edge (no bodywork element is permitted within 25 mm from the trailing edge) and the trailing edge must:

- have a minimum thickness equal to 3% of the maximum length of the profile but no less than 10 mm.
- be perpendicular to the profile center line
- have a trailing edge of 30 mm minimum. With the exception of the leading edge, the thickness of the profile must be greater than the thickness of the trailing edge over the entire area of the element.
- are vertical (seen from the front).

Aerodynamic element added on the bodywork

No aerodynamic element can be added on the bodywork, being an integral part or not of it, apart from :

- Two aerodynamic elements maximum at the front and within the frontal plan of the front fenders provided that :
 - They do not obstruct the driver's view
 - They do not mask the headlights ;
 - They are not situated more than 600 mm above the reference surface ;
 - They are approved by the Manufacturer and that they feature on the Homologation Form of the car.

Vertical fins that may be added underneath the bodywork in front of the front wheel axle and must be positioned symmetrically about the longitudinal centreline of the car

One "Gurney" at the rear of the bodywork.

The rear wing described below.

Are considered as aerodynamic elements added on the bodywork:

- Angle brackets not permitted by the regulation being an integral part or not of the bodywork.
- Air outlet chimney. The bodywork element mandatory to cover the exhaust pipe when it is visible from above is not considered as an air outlet chimney.
- Bodywork elements that have more than one possible position.
- Any aerodynamic element the function of which is only to generate down force and is not permitted by the regulations.

Rear wing

It is made up of the following elements : Wing, vertical supports and end plates and must comply with the following criteria :

Wing

The primary device inducing down force (negative lift) shall be a single aerodynamic device, adjustable, mounted at the rear of the car, with two wing profiles as a maximum (main wing and flap). It must :

be framed by a volume measuring 250 mm horizontally x 150 mm vertically x 1600 mm transversally;

be mounted so that no part of the wing is situated more than 965 mm above the reference plane,

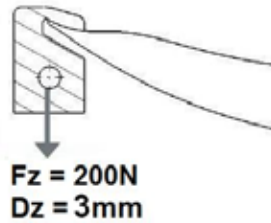
not be adjustable from within the cockpit ;

The section of the rear wing must be symmetrical in relation to the longitudinal centreline of the car.

The trailing edge of the main wing may deflect no more than 3 mm vertically when 2 loads of 200 N are applied vertically and symmetrically. The loads will be applied in line with the trailing edge of the element at any symmetrical points across its width. The loads will be applied using a suitable adapter, supplied by the competitor which:

- may be no more than 50 mm wide,
- which extends no more than 10 mm forward of the trailing edge

The element will be fixed on a rigid support supplied by the competitor.



<p>b/ Supports verticaux</p> <p>b.1 Longueur : 400 mm maximum horizontalement ;</p> <p>b.2 Les supports doivent être distants l'un de l'autre de 1250 mm au maximum. S'ils sont assemblés de façon à ne former qu'un seul support, ils doivent respecter tous les points de l'Article 3.6.3.;</p> <p>b.3 Les surfaces doivent être planes et parallèles à l'axe longitudinal de la voiture ;</p> <p>b.4 Le bord d'attaque peut être arrondi (rayon constant) et le bord de fuite (arrête arrière) peut être biseauté sur 20 mm maximum ;</p> <p>b.5 L'aileron arrière doit être fixé rigidement à la structure principale de la voiture et pas seulement à la carrosserie.</p> <p>b.6 Le capot arrière doit pouvoir être démonté sans interférer sur le montage de l'aileron.</p> <p>b.7 Les fixations des plaques latérales à la carrosserie étant déconnectées, les supports verticaux doivent pouvoir supporter un effort vertical de 10 kN, appliqué uniformément sur la surface de l'aileron arrière.</p> <p>b.8 Les fixations des plaques latérales à la carrosserie étant déconnectées, le point le plus en arrière du bord de fuite de l'aile principale ne peut pas fléchir de plus de 10 mm verticalement quand une charge verticale de 2400 N est appliquée sur la surface de l'aile principale. La charge sera appliquée uniformément et simultanément au point situé à 50% de la longueur de la corde de l'aile principale et aux points qui sont à 164 mm, 452 mm et 740 mm de chaque côté de l'axe longitudinal. Pour l'essai, tout élément aérodynamique secondaire (flap) doit être supprimé.</p> <p>b.9 Les fixations des plaques latérales à la carrosserie étant déconnectées, les plaques latérales ne peuvent pas fléchir de plus de 5 mm horizontalement quand une charge horizontale de 200 N est appliquée sur chaque bord d'attaque des deux plaques latérales. La charge sera appliquée à la hauteur du bord d'attaque de l'aile principale. Pour l'essai, tout élément aérodynamique secondaire (flap) doit être supprimé.</p> <p>b.10 Seule la partie des supports d'aileron située à 500 mm au dessus de la surface de référence peut dépasser à l'arrière de la carrosserie.</p> <p>c/ Plaques latérales</p> <p>c.1 Elles peuvent être en deux parties (une sur l'aileron arrière et l'autre sur la carrosserie). La partie solidaire de l'aileron arrière doit pouvoir s'inscrire dans un rectangle de 765 mm x 300 mm, doit avoir une surface minimum de 1000 cm², et doit avoir une dimension minimum de 150 mm x 300 mm ;</p> <p>c.2 Elles peuvent être fixées à la carrosserie à condition de respecter l'Article 3.6.3.b.7 ci-dessus ;</p> <p>c.3 Elles doivent avoir une épaisseur constante minimum de 10 mm ;</p> <p>c.4 Leurs bords doivent comporter un arrondi de rayon minimum constant de 5 mm.</p> <p>c.5 Les surfaces doivent être planes et parallèles au plan vertical passant par l'axe longitudinal de la voiture.</p>	<p>Vertical supports</p> <p>Length : 400 mm maximum horizontally ;</p> <p>The supports must be 1250 mm apart as a maximum.</p> <p>If they are assembling in order to make only one support, they must be in compliance with all the points of Article 3.6.3. ;</p> <p>Surfaces must be flat and parallel to the longitudinal centreline of the car ;</p> <p>The leading edge may be made round (constant radius) and the rear edge (trailing edge) may be bevelled no more than 20 mm ;</p> <p>The rear wing must be rigidly attached to the main structure of the car and not just to the bodywork.</p> <p>The rear bonnet must be able to be removed without disturbing the wing mounting.</p> <p>With the attachments of the end plates to the bodywork disconnected, the vertical supports must be able to withstand a vertical load of 10 kN, equally applied on the surface of rear wing.</p> <p>With the attachments of the end plates to the bodywork disconnected, the rearmost point of the trailing edge of the main plane may deflect no more than 10 mm vertically when a vertical load of 2400 N is applied on the surface of the main plane. The load will be applied uniformly and simultaneously at point in x representing 50% of the chord length of the main plane and at points which are 164 mm, 452 and 740 mm about the centerline. For the purpose of the test, any secondary aerofoil element (flap) must be removed.</p> <p>With the attachments of the end plates to the bodywork disconnected, the endplates may deflect no more than 5 mm horizontally when a horizontal load of 200 N is applied on each leading edge of both endplates.</p> <p>The load will be applied at the high of the leading edge of the rear main plane. For the purpose of the test, any secondary aerofoil element (flap) must be removed.</p> <p>Only the part of the wing supports situated 500 mm above the reference surface can protrude at the rear of the bodywork.</p> <p>End plates</p> <p>They may be in two parts (one on the rear wing and the other on the bodywork). The part fitted on the rear wing must fit into a rectangle of 765 mm x 300 mm, must have a minimum area of 1000 cm², and must have a minimum dimension of 150 mm x 300 mm ;</p> <p>They may be fixed to the bodywork on condition that they comply with Article 3.6.3.b.7 above ;</p> <p>They must have a minimum constant thickness of 10 mm ;</p> <p>They must have edges rounded with a minimum constant radius of 5 mm.</p> <p>The surfaces shall be flat and parallel to the vertical plane passing through the longitudinal centre line of the car.</p>
---	--

c.6 A l'exception des fixations permises par l'Article 3.6.3.c.2. ci-dessus aucun élément de carrosserie ne doit être attaché aux plaques latérales.

d/ Profil d'aile le plus en arrière (volet)

Le profil d'aile le plus en arrière ne doit pas fléchir de plus de 5 mm longitudinalement et 10 mm verticalement quand une charge de 200 N est appliquée sur la surface.

La charge doit être appliquée à un point situé à 50% de la longueur du profil d'aile le plus en arrière et dans un axe normal au plan défini par le dessus du flap.

La charge doit également être appliquée au point d'intersection avec l'axe longitudinal de la voiture et aux points situés à 270 et 540 mm de chaque côté de cet axe.

Ces charges seront appliquées en utilisant un adaptateur approprié de 15 mm de large qui doit être fournis par le concurrent.

Apart from the fixations permitted by Article 3.6.3.c.2. above, no bodywork elements must be attached onto the end plates.

Rear-most aerofoil element (flap)

The rear-most wing element may deflect no more than 5 mm horizontally and 10 mm vertically when a load of 200 N is applied to the surface.

The load must be applied at a point representing 50% of the chord length of the rear-most element and along a line normal to the plane defined by the top of the flap.

The load must also be applied at a point which lies on the car centre line and 270 and 540 mm either side of it.

The loads will be applied using a suitable 15 mm wide adapter which must be supplied by the relevant team.



e/ Général

Afin de s'assurer que ces exigences soient respectées, la FIA se réserve le droit d'introduire d'autres tests de charge/déflexion sur toute partie de la carrosserie qui semble être (ou est soupçonnée d'être) mobile lorsque la voiture se déplace.

Nota : Tous les tests de charge/déflexion décrits ci-dessus doivent être faits avec l'aile fixé sur la voiture.

General.

In order to ensure that these requirements are respected, the FIA reserves the right to introduce further load/deflection tests on any part of the bodywork which appears to be (or is suspected of), moving whilst the car is in motion.

Note: All the load/deflection tests described above must be carried out with the wing fitted on the car.

3.6.4

Dérive

a/ Général

Une dérive verticale rigide est obligatoire.

Cette dérive doit être:

- longitudinale et parallèle à l'axe longitudinal de la voiture.
- parfaitement située sur l'axe longitudinal de la voiture avec une épaisseur égale de chaque côté de celui-ci.

La dérive doit avoir une épaisseur constante (entre 10mm minimum et 20mm maximum).

La voiture étant sur ses roues, la surface de la partie visible (en vue latérale) de la dérive doit être supérieure à 3000cm² de chaque côté de la voiture.

La dérive doit être continue sans trous ou ouvertures.

Pour les voitures fermées, la prise d'air d'admission du moteur peut être intégrée à la dérive, à condition que toutes les prescriptions de l'Article 3.6.4 soient respectées (sauf épaisseur qui peut ne pas être constante sur une longueur maximum de 1400 mm).

Aucun autre appendice ne doit être attaché à la dérive.

La dérive peut être entièrement fixée au capot moteur et/ou fixée rigidement au châssis, aileron arrière et structure arrière (formant un "pont").

Des outils peuvent être nécessaires pour enlever le capot moteur et/ou la dérive.

Fin

General

A vertical rigid fin is compulsory.

This fin must be:

- longitudinal and parallel to the car centreline.
- perfectly located on the longitudinal axis of the car with equal thickness either side of the centreline.

The fin must have a constant thickness (between 10mm minimum and 20mm maximum).

With the car on its wheels, the visible area (in lateral view) of the fin must be greater than 3000cm² from both sides.

The fin must be continuous without any holes or openings.

For closed cars, the inlet for engine air intake may be integrated in the fin, on condition that all prescriptions of Article 3.6.4 are complied with (except thickness that may not be constant over a maximum length of 1400 mm).

No other device can be attached to this fin.

The fin can be integrally fixed to the engine cover and/or fixed rigidly to the chassis, rear wing and rear structure (on a "bridge").

Tools may be required to remove the engine cover and/or the fin.

b/ Position

La partie supérieure doit être rectiligne et située entre 1020 mm et 1030 mm (1) au dessus du plan de référence.

La projection latérale du bord d'attaque doit être rectiligne et située :

Position

The top edge must be straight and situated between 1020 mm and 1030 mm (1) above the reference plane.

The side projection of the leading edge must be straight and situated:

(*) 1040 mm et 1050 mm pour les LMP2 équipée d'un châssis conforme au règlement LMP1 2014.

* Voiture fermée :

à un maximum de 10 mm en arrière du bord supérieur du pare-brise (cf. Article 3.3).

Le bord supérieur peut ne pas être rectiligne dans une zone comprise entre le bord d'attaque et 100 mm en arrière du bord supérieur du pare-brise à condition de ne pas être situé à moins de 1000 mm de la surface de référence.

Le bord supérieur du pare-brise est défini comme la position en X, correspondant au point le plus reculé du pare-brise, en Y=0.

* Voiture ouverte :

à un maximum de 300 mm derrière l'ouverture de l'habitacle.

Le bord de fuite doit être rectiligne et situé entre 350mm et 450mm derrière l'axe des roues arrière (à l'exception de la cote de 350 mm, ces contraintes ne s'appliquent pas au support d'aile arrière s'il prolonge la dérive).

La partie inférieure doit être à moins de 25mm au dessus de la surface de carrosserie.

c/ Géométrie

Le bord d'attaque, la partie supérieure et la partie inférieure peuvent être arrondis avec un rayon constant (le rayon doit être égal à la moitié de l'épaisseur de la dérive).

Le bord de fuite peut être biseauté ou avoir une forme elliptique sur 20mm maximum.

Un rayon de 50mm maximum est autorisé entre la partie supérieure/bord d'attaque, la partie supérieure/bord de fuite, la partie inférieure/bord d'attaque et la partie inférieure/bord de fuite.

Si la dérive est attachée au capot moteur, un rayon de 50mm maximum est autorisé pour le raccordement des deux pièces.

d/ Déflexion :

Un test de charge statique utilisant un "U" de 400mm de longueur, 60 mm de hauteur et positionné sur la partie supérieure de la dérive sera effectué.

Le milieu du "U" peut être positionné à n'importe quel endroit sur la partie supérieure de la dérive (la position la plus en arrière étant l'axe d'essieu arrière) de façon à ce qu'il ne dépasse pas de chaque côté (les rayons seront ignorés).

La charge est appliquée au centre des 400mm de la pièce en "U".

Ce test sera effectué 2 fois sur la dérive en place de façon à tester aussi les fixations sur le châssis et la carrosserie.

Pour chaque test la déflexion de la dérive ne doit pas être supérieure à 100 mm (à n'importe quel endroit) pour une charge de 100 daN et toute déformation permanente doit être inférieure à 3 mm une fois la charge retirée depuis 1 minute.

ART. 4 POIDS

4.1 Poids minimum

"LM" P1 Essence	"LM" P1 Diesel	"LM" P2
900 kg	900 kg	900 kg

Le poids minimum inclus le patin défini à l'Article 3.5.6.

4.2 Lest

Le lest doit être fixé de telle façon que des outils soient nécessaires pour le retirer, et qu'il puisse être plombé par les commissaires techniques. Tout système de lest mobile est interdit.

4.3 Liquides

Le poids peut être contrôlé à n'importe quel moment de l'épreuve avec la quantité de liquides restant dans les réservoirs, mais à la fin des essais ou de la course la voiture sera pesée réservoir(s) de carburant vidangé(s).

(*) 1040 mm and 1050 mm for LMP2 equipped with a chassis in compliance with the 2014 LMP1 regulations.

* Closed car:

at a maximum of 10 mm rearward of the windscreen upper edge (cf. Article 3.3).

The top edge may be not straight in a zone comprised between the leading edge and 100 mm rearward of the windscreen upper edge provided it is situated no less than 1000 mm above the reference surface.

The windscreen upper edge is defined as the X position of the most rearward point of the windscreen at Y=0.

* Open car:

at a maximum of 300 mm behind the cockpit opening.

The trailing edge must be straight and situated between 350mm and 450mm behind the rear axle centre line (except the dimension of 350 mm, these constraints do not apply to the rear wing support if it extends the fin).

The bottom edge may be no more than 25mm above bodywork surface.

Geometry

The leading edge, top edge and bottom edge may be made round with a constant radius (the radius must be equal to half of the fin thickness).

The trailing edge may be bevelled or have an elliptical form on no more than 20mm.

A maximum radius of 50 mm is permitted between top/leading edge, top/trailing edge, bottom/leading edge and bottom/trailing edge.

If the fin is attached to the engine cover, a maximum radius of 50 mm is permitted between both parts.

Deflection

A static load test using a 400 mm long channel tool, 60 mm high, positioned over the top edge of the fin, will be applied.

The middle of the channel can be positioned anywhere along the top edge of the fin (with the rearmost position being the rear axle of the car) so that it will not overhang either end (side view blend radius will be ignored).

The load will be applied at the centre of the 400mm channel.

This test will be carried out twice on the fin in situ so that mountings to the chassis / bodywork are also tested.

For each test the deflection of the fin can be no more than 100 mm (at any points) for a load of 100 daN and any permanent deformation must be less than 3 mm after the load has been released for 1 minute.

WEIGHT

Minimum weight

"LM" P1 Petrol	"LM" P1 Diesel	"LM" P2
900 kg	900 kg	900 kg

The minimum weight includes the skid block defined in Article 3.5.6.

Ballast

Ballast must be secured so that tools are required for its removal and so as to allow the fixing of seals by the scrutineers. Any movable ballast system is forbidden.

Liquids

The weight may be checked at any time during the event with the quantity of liquids remaining in the tanks, but at the end of the practice sessions or the race the car will have all fuel drained before being weighed.

ART. 5 MOTEUR

5.1 Spécifications

	LMP1	LMP2
5.1.1 Moteur	Libre	Homologué
5.1.2 Cylindrée maximum		
a/ Essence atmosphérique	3400 cm ³	5000 cm ³ 8 cyl. maximum
b/ Essence turbo/suralimenté	2000 cm ³	3200 cm ³ 6 cyl. maximum
c/ Diesel suralimenté	3700 cm ³	2500 cm ³ Peut être autorisé sur décision du Comité Endurance avec set de brides spécifique

5.1.3 Les systèmes d'admission doivent être équipés de brides en métal ou alliage de métal dont le diamètre doit être maintenu sur au moins 3 mm de longueur (Annexe 1 ci-après).

5.2 Moteurs suralimentés

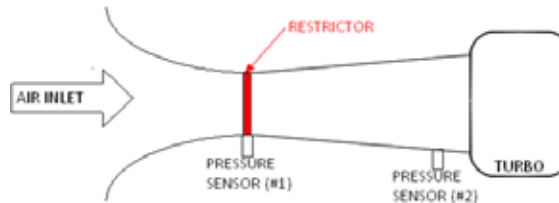
5.2.1 Position des brides : un cône droit, d'une pièce et étanche, doit être placé entre la (les) bride(s) et le diamètre d'entrée du dispositif de suralimentation :

- a/ Le cône doit obligatoirement avoir un angle d'ouverture de 7° minimum ;
- b/ A chaque extrémité du cône, sur une longueur maximum de 10 mm, un profil arrondi est autorisé dans la limite du diamètre de la (des) bride(s) et de l'entrée du dispositif de suralimentation.

5.2.2 Les dispositifs de suralimentation comprenant des composants en céramique à l'exception des roulements, des admissions à diamètre variable et des aubages internes à incidence variable sont interdits. Des pales intérieures ajustables fixées sur le carter de turbine sont autorisées en LMP1.

5.2.3 Pression de suralimentation : cf. Annexe 1.

5.2.4 Pour les moteurs suralimentés, le capteur de pression de la boîte à air fourni avec le système d'enregistrement de données ACO doit être placé après la bride et avant le turbo (cf. capteur de pression #2 sur le dessin ci-dessous).
Pour les voitures équipées de 2 turbos, ce capteur est obligatoire sur un turbo seulement.
Afin d'aider les concurrents pour la cartographie des moteurs, il est permis d'ajouter un capteur de pression au niveau de la bride (capteur de pression #1).
Dans les 2 cas (capteur de pression #1 et #2) le diamètre maximum du trou est de 1mm (trou pour mettre l'air en contact avec le capteur).



5.3 Température de la charge

5.3.1 Les échangeurs exceptés, tout système destiné à abaisser de quelque façon que ce soit la température de l'air d'admission et/ou de la charge (air et/ou carburant) est interdit.

Les canalisations reliant le dispositif de suralimentation, l'échangeur et la tubulure d'admission sont libres, mais leur seule fonction doit être de canaliser de l'air.

5.3.2 La pulvérisation ou l'injection interne et/ou externe d'eau ou de quelque substance que ce soit est interdite à l'exception du carburant pour permettre la combustion dans le moteur.

ENGINE

Specifications

	LMP1	LMP2
Engine	Free	Homologated
Maximum cylinder capacity		
a/ Normally aspirated petrol	3400 cm ³	5000 cm ³ 8 cyl. maximum
b/ Turbo/supercharged petrol	2000 cm ³	3200 cm ³ 6 cyl. maximum
c/ Supercharged Diesel	3700 cm ³	2500 cm ³ Could be allowed under decision of Endurance Committee with a dedicated set of restrictions

Inlet manifolds must be fitted with air restrictors made of metal or metal alloy the diameter of which must be minimum 3 mm in length (Appendix 1 below).

Turbocharged engines

Air restrictors location : a one piece and airtight right cone must be fitted between the restrictor(s) and the inlet diameter of the charging device:

The cone must have a mandatory opening of 7° minimum ;

To each base of the cone, over 10 mm maximum in length, a round shape is permitted within the diameter of both the restrictor(s) and the charging device inlet.

Charging devices incorporating ceramic components apart from the bearings, variable diameter inlets and adjustable internal vanes are forbidden. Adjustable internal vanes fixed on the turbine housing and are permitted for LMP1.

Boost pressure : see Appendix 1.

For turbo-charged engine the air box pressure sensor delivered with the ACO data logger kit must be fitted after the restrictor and before the turbo (See pressure sensor #2 on the drawing below).

For cars with two turbo, that sensor will only be mandatory on one turbo.

In order to help the competitors for the engine mapping, it is permitted to add a pressure sensor in the restrictor area (pressure sensor #1).

In both cases (pressure sensor #1 and #2), the maximum hole diameter is 1mm (hole to put the air in contact with the sensor).

Temperature of the charge

Apart from intercoolers, any device, system, procedure, construction or design the purpose and/or effect of which is any decrease whatsoever of the temperature of the intake air and/or of the charge (air and/or fuel) of the engine is forbidden:

The pipes between the supercharging device, the intercooler and the manifold are free, but their only function must be to channel air.

Internal and/or exterior spraying or injection of water or any substance whatsoever is forbidden other than fuel for the normal purpose of combustion in the engine.

- 5.4 **Système d'admission**
Libre
- 5.4.1 Sont interdits :
- a/ Conduits d'admission de longueur variable (sauf moteurs rotatifs) ;
- b/ Distribution variable :
Tout dispositif permettant de modifier la loi d'ouverture des soupapes et/ou leur levée est considéré comme distribution variable.
- 5.4.2 Accélérateur
LMP1 : Libre
LMP2 : Seule une liaison mécanique directe (tringlerie, câble) est autorisée entre la pédale et le système de commande de l'alimentation (air et/ou carburant) du moteur.
- 5.4.3 **Boîte à air**
- a/ Tout l'air d'admission doit passer par la (les) bride(s) ;
- b/ L'étanchéité doit être parfaite en toutes circonstances : aucune canalisation contenant de l'air ne doit pénétrer dans ou sortir de la (les) boîte(s) à air ;
- c/ La fermeture de l'arrivée d'air au niveau des brides doit entraîner l'arrêt immédiat du moteur. La dépression mesurée dans la boîte à air au moment de l'arrêt du moteur (régime moteur = 0) doit être au moins :
- égale à la pression atmosphérique de l'endroit où le test est effectué - 150 millibar pendant la première demi-seconde ;
- égale à la pression atmosphérique de l'endroit où le test est effectué - 100 millibar pendant la deuxième demi-seconde ;
- égale à la pression atmosphérique de l'endroit où le test est effectué - 50 millibar pendant la troisième demi-seconde ;
- d/ Une connexion standard "Dash 3 male" sur la boîte à air des moteurs atmosphériques est obligatoire pour le branchement éventuel d'un moyen de mesure.
Le diamètre de la sortie d'air doit être de 2,4 mm (3/32") minimum. Cette connexion doit être :
- accessible facilement ;
- en dehors des flux d'air au dessus des trompettes d'admission ;
- de préférence à l'opposé de(s) entrée(s) d'air ;
- obturée lorsque le moyen de mesure est déconnecté ;
- e/ Si la boîte à air est constituée de plusieurs éléments, ceux-ci doivent être assemblés d'une manière efficace pour réaliser une étanchéité parfaite ;
- f/ Les boîtes à air seront plombées par les Commissaires Techniques ;
- g/ Tout défaut de fonctionnement est de la responsabilité du Concurrent.
- 5.5 **Echappement**
- 5.5.1 Niveau sonore : Le bruit émis par chaque voiture ne doit pas dépasser 110 dbA pendant les essais qualificatifs et la course. La mesure sera effectuée à 15 mètres du bord de la piste.
- 5.5.2 **Sorties d'échappement**
Elles doivent se trouver :
- a/ en arrière du milieu de l'empattement ;
- b/ dans le contour de la carrosserie vue de dessus.
- 5.5.3 **Fumée**
Le moteur ne doit pas produire d'émissions d'échappement visibles en conditions de course.
- 5.6 **Moteur homologué LMP2**
- 5.6.1 **Type**
- a/ Le moteur doit être produit au minimum à 1000 exemplaires en 12 mois consécutifs et provenir :
- Soit d'une voiture de grand tourisme,
- Soit d'une voiture de grande production.
Il est fiabilisé pour une utilisation en compétition et développé pour

- Intake system**
Free
Are not permitted:
Variable length manifolds (except for rotary engines);
Variable valve timing:
Any device that allows the modification of the valve opening timing and/or lift is considered as variable valve timing.
- Throttle
LMP1 : Free
LMP2 : Only a direct mechanical linkage (rod, cable) is permitted between the throttle pedal and the supply control system (fuel and/or air) of the engine.
- Air box(es)**
All the air feeding the engine must pass through the restrictor(s);
Air tightness must be total in all circumstances : no pipe containing air is allowed to intrude into or to exit from the air box(es);
Closing the intake system at restrictor(s) level must stall the engine immediately. The depression measured in the air box when the engine stop (engine rev= 0) must be :
- equal to the atmospheric pressure at the place where the test is carried out - 150 millibar during the first half second;
- equal to the atmospheric pressure at the place where the test is carried out - 100 millibar during the second half second;
- equal to the atmospheric pressure at the place where the test is carried out - 50 millibar during the third half second;
A standard connection "Dash 3 male" is mandatory on the air box of the normally aspirated engine for the possible connection of a measuring equipment.
The diameter of the air outlet must be 2.4 mm (3/32") minimum. This connection must be :
- easily accessible ;
- outside the air flows above the induction trumpets ;
- preferably facing the air intake(s) ;
- sealed when the measuring equipment is disconnected ;
If the air box(es) is(are) made of several parts, they must be put together in an efficient way so as to ensure a total air tightness ;
Air box(es) will be sealed by the Scrutineers ;
Any faulty functioning is the Competitor's responsibility.
- Exhaust system**
Noise level : The sound emitted from each car must not exceed 110 dbA during the qualifying practices and the race. The measurement will be made at 15 meters from the edge of the track.
- Exhaust pipe outlets**
They must exit:
aft the middle of the wheelbase
within the contour of the bodywork as viewed from above.
- Smoke**
The engine must not produce visible exhaust emissions under race conditions.
- LMP2 homologated engine**
Type
The engine must be made in a minimum of 1000 units in 12 consecutive months and come :
- Either from a grand touring car,
- Or from a large production car.
It is made reliable for competition use and developed to reach the output

atteindre l'objectif de puissance de 450cv sans dépasser les prix ci-dessous :

Cas d'un moteur vendu :

- Prix d'achat : 78 750 € maximum
- Prix d'une révision : 36 750 € maximum

Cas d'un moteur loué :

Le coût d'utilisation horaire doit être de: 1 299 €

Si l'assistance d'un ingénieur est nécessaire pour la gestion du moteur, celle-ci doit être comprise dans le prix de vente ou le prix de location du moteur.

Le Comité Endurance peut annuler immédiatement l'homologation du moteur si les prix définis ne sont pas respectés.

Le moteur comprend : Le bloc cylindre, les culasses, vilebrequin, bielles, pistons, arbres à cames, soupapes, système de commande des soupapes, courroies et chaînes/poulies et roues dentées avec les couvercles, carter sec, couvre culasses, volant moteur, pompe à eau, pompes à huile, collecteur d'admission système d'admission, système d'injection, turbos, boîtier ECU, faisceau moteur et capteurs nécessaires seulement au fonctionnement du moteur.

Une Fiche d'Homologation doit être remplie par le Constructeur ou le préparateur (*) et validée après inspection contradictoire effectuée par le Groupe Homologation.

Le Constructeur devra régler tous les frais occasionnés par l'homologation de ce moteur.

Des dérogations pourront être accordées par le Comité Endurance principalement pour améliorer la fiabilité et à condition de respecter l'objectifs de prix ci-dessus. Ces dérogations concerneront plus particulièrement les moteurs construits à un très grand nombre d'exemplaires et/ou qui ne délivrent pas d'origine la puissance demandée en LMP2.

Il est possible d'utiliser des culasses ou un bloc moteur provenant de moteurs différents. Toutefois, ces moteurs doivent être de la même marque et remplir les critères d'éligibilité définis à l'Article 5.6.1. ci-dessus.

(*) Le Comité Endurance pourra accepter les préparateurs présentant les meilleurs antécédents.

Ces préparateurs devront toutefois obtenir du Constructeur un avis favorable pour la réalisation d'un tel projet et le moteur ne devra pas avoir le nom du Constructeur

5.6.2 Modifications autorisées

5.6.2.1 Bloc-cylindres, culasse(s), angle des soupapes, nombre et emplacement des arbres à cames : d'origine, tel que monté sur le véhicule de série.

L'ordre d'allumage est libre.

5.6.2.2 L'apport de matière sur le bloc-cylindres ou la(les) culasse(s) est interdit. Les tubulures d'admission et d'échappement sont libres mais elles doivent prendre appui sur le plan de joint d'origine de la culasse.

5.6.2.3 Les culasses peuvent être modifiées par usinage à condition que la pièce d'origine reste identifiable. Les guides des poussoirs de soupapes peuvent être chemisés s'ils ne le sont pas d'origine. Le bloc-cylindres peut être modifié par usinage :

- Pour modifier l'alésage ou pour le chemisage si le bloc d'origine n'est pas équipé de chemises.
- En dessous du plan horizontal passant par l'axe des paliers du vilebrequin pour le montage d'un carter sec.

Le carter d'huile est libre et peut intégrer les chapeaux de paliers du vilebrequin

5.6.2.4 Les orifices de lubrification, les trous d'injecteurs peuvent être modifiés ou obstrués : L'utilisation d'hélicoils est autorisée.

5.6.2.5 Les éléments fixés sur le bloc-cylindres et les culasses (vilebrequin, bielles, pistons, arbres à cames, collecteur d'admission, etc.) sont libres à condition de respecter les Articles 5.2.1. à 5.2.4. ci-dessus. Le poids du vilebrequin ne doit pas être inférieur de plus de 10 % à celui d'origine (titane interdit).

5.6.2.6 Sont interdits sauf si d'origine sur la voiture de route disponible à la vente:

- Distribution variable (*)
- Systèmes d'admission à longueur/diamètre variable (*)

target of 450 hp without exceeding the price below:

If the engine is sold:

- Purchase price: € 78 750 maximum
- Rebuilt price: € 36 750 maximum

If the engine is leased:

The hourly operating cost must be: € 1299

If the assistance of an engineer is necessary for the engine management, it must be included in the selling price or the rental price of the engine.

The Endurance Committee may cancel the homologation of the engine if the prices defined are not respected.

The engine includes: the cylinder block, the cylinder heads, crankshaft, connecting rods, pistons, camshafts, valves, valve train system, belts and chains / pulleys and toothed wheels with covers, dry sump, cylinder head covers, flywheel, water pump, oil pumps, intake manifold, intake system, injection system, turbos, ECU box, engine wiring loom and sensors only necessary for the running of the engine.

A Homologation Form must be filled by the Manufacturer or the tuner (*) and validated after the contradictory inspection carried out by the Homologation Group.

The Manufacturer will have to pay all the expenses for the homologation of the engine.

Waivers could be granted by Endurance Committee mainly to improve the reliability and on the condition of meeting the cost target mentioned above. These waivers will concern more particularly engines built in a very high number of units and/or that don't deliver in original the power output required in LMP2.

It is possible to use an engine block or cylinder heads from different engines. However these engines must be of the same make and fulfill the eligibility criteria defined in Article 5.6.1. above.

(*) The Endurance Committee should accept tuners presenting the best records.

These tuners should however get a favourable opinion from the Manufacturer to carry out such a project and the engine should not have the name of the Manufacturer.

Modifications authorised

Cylinder block, cylinder head(s), valve angles, number and location of camshafts: they must remain original, as they are fitted on the series vehicle.

The firing order is free.

The adding of material to the cylinder block or cylinder head(s) is not permitted. Intake and exhaust manifolds are free but they must be supported on the original cylinder head gasket face.

Cylinder heads may be modified by machining, provided that the original part remains identifiable. The valve tappet guides may be fitted with sleeves if not originally. The cylinder block may be modified by machining:

- for the modification of the bore or for sleeving if the original block is not fitted with sleeves.
- Below the horizontal plane passing through the axle of the crankshaft bearings for the mounting of the dry sump.

The oil sump is free and may include the crankshaft bearing caps.

Lubrication holes, injectors holes may be modified or closed.

The use of hélicoils is permitted.

The elements fixed on the cylinder block and cylinder head(s) (crankshaft, connecting rods, pistons, camshafts, intake manifold, etc.) are free but they must be in compliance with the Articles 5.2.1. to 5.2.4. above. The weight of the crankshaft must not be less than more than 10% from the original (titanium forbidden).

Are forbidden save on the road car available for sale:

- Variable valve timing (*)
- Variable length/diameter inlet systems (*)

<ul style="list-style-type: none"> • Aubages à incidence variable (turbos/compresseurs) (*) • Titane, sauf pour les bielles, soupapes et leur retenue, boucliers thermiques • Magnésium, sauf les pièces mécaniques produites en série et décrites dans la Fiche d'Homologation • Composants en céramique • Carbone ou matériaux composites, sauf embrayages et caches, couvercles ou canalisations non sollicités. <p>(*) Ces systèmes ne peuvent être modifiés, mais ils peuvent être neutralisés ou retirés.</p> <p>5.6.2.7 Il est permis d'ajouter un système de suralimentation sur un moteur atmosphérique à condition de respecter toutes les règles édictés pour les moteurs turbo en LMP2.</p>	<ul style="list-style-type: none"> • Variable geometry turbo/superchargers (*) • Titanium apart from connecting rods, valves and valve retainers, heat shields • Magnesium apart from standard production mechanical parts which are described in the Homologation Form • Ceramic components • Carbon or composite materials, except used in clutches and non stressed covers, lids or ducts. <p>(*) These devices cannot be modified, but they can be neutralised or removed.</p> <p>It is permitted to add a supercharging system on a normally aspirated engine if it complies with all the rules prescribed for the turbocharged engine in LMP2.</p>
<p>ART. 6 CANALISATIONS & RESERVOIR(S) DE CARBURANT</p>	<p>PIPING AND FUEL TANKS</p>
<p>Le système d'alimentation en carburant est libre à condition que les Articles 6.1, 6.2 et 6.3 soient respectés.</p>	<p>The fuel system is free provided the provisions in Articles 6.1, 6.2 and 6.3 are complied with.</p>
<p>6.1 Réservoir(s) de carburant</p>	<p>Fuel tank(s)</p>
<p>6.1.1 Aucune partie du (des) réservoir(s) de carburant ne doit se trouver :</p> <p>a/ à plus de 675 mm de l'axe longitudinal de la voiture ;</p> <p>b/ en avant de l'axe d'essieu avant et derrière l'axe d'essieu arrière.</p>	<p>No part of the fuel tank(s) is allowed to be:</p> <p>more than 675 mm from the longitudinal centreline of the car;</p> <p>outside the area between the front and rear axle centrelines.</p>
<p>6.1.2 Le(s) réservoir(s) doit (doivent) être entouré(s) par une structure déformable d'au moins 10 mm d'épaisseur.</p>	<p>The fuel tank(s) must be surrounded by a crushable structure at least 10 mm thick.</p>
<p>6.1.3 Une cloison pare-feu doit isoler le(s) réservoir(s) de carburant de l'habitacle et/ou du compartiment moteur.</p>	<p>A firewall must separate the fuel cell(s) from the cockpit and/or the engine compartment.</p>
<p>6.1.4 Tous les réservoirs de carburant doivent être des outres en caoutchouc conformes ou supérieures aux spécifications FIA/FT3 1999, et doivent respecter les prescriptions de l'Annexe J - Article 253-14.</p>	<p>All fuel tanks must be rubber bladders conforming to or exceeding the specifications of FIA/FT3 1999, and must comply with the prescriptions of the Appendix J - Article 253-14</p>
<p>6.2 Installation et canalisations</p>	<p>Fittings and piping</p>
<p>6.2.1 Tout accessoire constitutif des parois du réservoir (reniflards, entrées, sorties, orifices de remplissage, interconnexions et trappes d'accès) doit être métallique ou en composite et vulcanisé dans le réservoir.</p>	<p>Any equipment included in the tank walls (air vents, inlets, outlets, tank fillers, inter tank connectors and access openings) must be metal or composite made fittings and bonded inside the fuel tank.</p>
<p>6.2.2 Les canalisations de carburant reliant le réservoir au moteur doivent être munies d'une soupape auto-obturante dont les parties doivent se séparer sous une charge inférieure à la moitié de celle requise pour briser le raccord de canalisation ou pour l'arracher du réservoir.</p>	<p>Fuel lines between the fuel tank and the engine must include a self sealing breakaway valve the parts of which must separate under a pressure less than half the load required to break the fuel line fitting or to pull it out of the fuel tank.</p>
<p>6.2.3 Aucune canalisation contenant du carburant, de l'eau de refroidissement ou de l'huile de lubrification ne doit traverser l'habitacle</p>	<p>No line containing fuel, cooling water or lubricating oil may pass through the cockpit.</p>
<p>6.2.4 Les canalisations doivent être montées de façon qu'aucune fuite ne puisse provoquer une accumulation de liquide dans l'habitacle.</p>	<p>The lines must be fitted in such a way that any leakage cannot result in accumulation of fluid in the cockpit.</p>
<p>6.2.5 Les canalisations souples doivent comporter des raccords vissés et une tresse externe résistant à l'abrasion et au feu.</p>	<p>Flexible lines must have threaded connectors and an outer braid resistant to abrasion and flame.</p>
<p>6.2.6 Les canalisations de carburant et d'huile de lubrification doivent résister à une pression d'éclatement minimale de 41 bars à une température maximale opératoire de 135°C.</p>	<p>Fuel and lubrication oil lines must have a minimum burst pressure of 41 bars at a maximum operating temperature of 135°C.</p>
<p>6.2.7 Toutes les canalisations de fluide hydraulique qui ne sont pas soumises à des changements brutaux de pression, à l'exception des canalisations sous charge gravitaire seule, doivent avoir une pression d'éclatement minimale de 41 bars à la température opératoire maximale de 204°C en cas d'utilisation avec des raccords en acier et de 135°C avec des raccords en aluminium.</p>	<p>All hydraulic fluid lines which are not subjected to abrupt changes in pressure, with the exception of lines under gravity head, must have a minimum burst pressure of 41 bars at the maximum operating temperature of 204°C when used with steel connectors and 135°C when used with aluminium connectors.</p>
<p>6.2.8 Toutes les canalisations de fluide hydraulique soumises à des changements brutaux de pression doivent avoir une pression d'éclatement minimale de 70 bars à la température opératoire maximale de 204°C.</p>	<p>All hydraulic fluid lines subjected to abrupt changes in pressure must have a minimum burst pressure of 70 bars at the maximum operating temperature of 204°C.</p>
<p>6.2.9 Sont seules autorisées dans l'habitacle les canalisations hydrauliques avec raccords vissés et arrêtés au moyen d'un fil métallique.</p>	<p>Only hydraulic fluid lines with screwed connectors and secured by means of a metallic wire are permitted inside the cockpit.</p>
<p>6.2.10 Les pompes à carburant ne doivent débiter que lors de la mise en route ou lorsque le moteur fonctionne.</p>	<p>Fuel pumps must be in operation only when the engine is running or being started.</p>

<p>6.3 Orifices de remplissage</p> <p>6.3.1 Les voitures doivent être équipées d'orifices de remplissage de carburant et d'évents qui peuvent être soit combinés, soit séparés de chaque côté de la voiture.</p> <p>6.3.2 Les orifices de remplissage et les événements doivent être équipés d'accoupleurs étanches répondant au principe de l'homme mort et, donc, sans dispositif de retenue en position ouverte : Dimensions des accoupleurs : Annexe J - Dessin 252.5.A avec diamètre intérieur $D \leq 2"$ ou Dessin 252.5.B.</p> <p>6.3.3 Orifices de remplissage, événements et bouchons</p> <p><i>a/</i> Ils doivent être placés dans des endroits non vulnérables en cas d'accident ;</p> <p><i>b/</i> ne doivent pas faire saillie sur la carrosserie ;</p> <p><i>c/</i> Un tube de trop plein descendant à travers la surface de référence est autorisé.</p> <p>6.3.4 Toute mise à l'air libre du réservoir doit :</p> <p><i>a/</i> déboucher à l'extérieur de la carrosserie ;</p> <p><i>b/</i> être équipée d'un clapet anti-retour ;</p> <p><i>c/</i> être conçue pour éviter toute fuite quand la voiture roule ou si elle se retourne.</p> <p>6.3.5 Les voitures doivent être équipées d'un raccord auto-obturant pouvant servir aux Commissaires Techniques à prélever de l'essence du réservoir. Ce raccord doit être :</p> <p><i>a/</i> d'un type agréé ;</p> <p><i>b/</i> monté juste avant les injecteurs (moteur essence) ;</p> <p><i>c/</i> monté juste avant les pompes haute pression (moteur diesel) ;</p> <p>6.4 Ravitaillement pendant la course</p> <p>6.4.1 Se reporter à l'Annexe A ci-après : Ravitaillement.</p> <p>6.4.2 L'installation de ravitaillement en carburant (portant le numéro de la voiture) et le réservoir de la voiture doivent toujours rester à la température et à la pression atmosphérique ambiantes.</p> <p>6.4.3 Tout carburant stocké à bord de la voiture et destiné à un usage immédiat ne pourra être à une température inférieure de plus de 10°C à la température ambiante. Aux fins d'évaluer la conformité, la température ambiante sera celle relevée par le service météorologique désigné par la FIA une heure avant toute séance d'essais ou deux heures avant la course. Pendant la course, elle sera mise à jour toutes les deux heures. Cette information sera également affichée sur les moniteurs de chronométrage officiels.</p> <p>6.5 Quantité de carburant</p> <p>6.5.1 Quelles que soient la température et la pression atmosphérique ambiantes :</p> <p>LMP1</p> <ul style="list-style-type: none"> • Essence : 75 litres maximum à bord ; • Gazole : 60 litres maximum à bord ; <p>LMP2 :</p> <ul style="list-style-type: none"> • 75 litres maximum à bord ; <p>6.5.2 Tout dispositif ou système ayant pour but et/ou effet d'augmenter la quantité de carburant à bord de la voiture est interdit.</p>	<p>Fuel Tank Fillers</p> <p>Cars must be fitted with fuel tank fillers and vents which may be either combined or separate units on each side of the car.</p> <p>Both fillers and air vents must be equipped with leak proof dry break couplings complying with the dead man principle and therefore without any retaining device when in open position : Couplings dimensions: Appendix J - Drawing 252.5 .A with internal diameter : $D \leq 2"$ or Drawing 252.5.B.</p> <p>Tank fillers, vents and caps</p> <p>They must be placed where they would not be vulnerable in the event of an accident ;</p> <p>must not protrude beyond the surface of the bodywork ;</p> <p>An overflow pipe is permitted to exit through the reference surface.</p> <p>Any breather pipe connecting the tank to atmosphere must: exit on the outside of the bodywork ; be fitted with a non return valve ; be designed such as to avoid any liquid leakage when the car is running or if upside down.</p> <p>Scrutineers must be fitted with a self sealing connector which can be used by the Scrutineers as to take a sample of fuel from the tank. This connector must be :</p> <p>approved type ; fitted immediately before the injector nozzles ; fitted immediately before the high pressure pumps (diesel engine) ;</p> <p>Refuelling during the Race</p> <p>Refer to Appendix A below : Refuelling.</p> <p>The refuelling equipment (with the car number affixed) and the tank of the car shall always remain at the outside ambient temperature and atmospheric pressure.</p> <p>No fuel intended for immediate use in the car may be more than 10°C below ambient temperature.</p> <p>When assessing compliance, the ambient temperature will be that recorded by the FIA appointed weather service provider one hour before any practice session or two hours before the race. During the race, it will be updated every 2 hours. This information will also be displayed on the official timing monitors.</p> <p>Fuel Capacity</p> <p>Whatever the outside ambient temperature and atmospheric pressure:</p> <p>LMP1</p> <ul style="list-style-type: none"> • Petrol : 75 litres maximum on board ; • Diesel : 60 litres maximum on board ; <p>LMP2 :</p> <ul style="list-style-type: none"> • 75 litres maximum on board ; <p>Any device or system the purpose and/or effect of which is to increase the fuel storage capacity on board is prohibited.</p>
<p>ART. 7 SYSTEME DE LUBRIFICATION</p> <p>Les prescriptions suivantes doivent être respectées :</p> <p>7.1 Réservoirs d'huile</p> <p>7.1.1 Si le réservoir d'huile est placé en avant de l'axe d'essieu avant ou en arrière de l'axe d'essieu arrière, il doit être entouré par une structure déformable de 10 mm minimum d'épaisseur.</p>	<p>OIL SYSTEM</p> <p>The following prescriptions must be complied with:</p> <p>Oil tanks</p> <p>If the oil tank is located forward the front axle centreline or aft the rear axle centreline, it must be surrounded by a 10 mm minimum thick crushable structure.</p>

- 7.1.2 La paroi extérieure d'un réservoir d'huile ne peut être à plus de 650 mm de l'axe longitudinal de la voiture.
- 7.1.3 Aucune capacité ou canalisation contenant de l'huile de lubrification ne doit se trouver :
- a/ dans l'habitacle ;
 - b/ en arrière de la boîte de vitesses ;
 - c/ à une distance transversale de plus de 900 mm par rapport à l'axe longitudinal de la voiture.

7.2 Récupérateur d'huile

La ou les mise(s) à l'air libre (s'il y en a) doit(vent) déboucher dans un récupérateur d'une capacité minimale de 3 litres.

Afin de limiter les risques de pulvérisation d'huile sur la piste, un réservoir sécuritaire supplémentaire d'une capacité minimale de 1 litre doit être inséré entre le récupérateur d'huile et la mise à l'air libre conformément au dessin ci-dessous.

Ce réservoir sécuritaire à pour fonction principale de s'assurer que la mise à l'air libre du catch tank ne contient pas d'huile ou de vapeur d'huile. Si les vapeurs d'huiles sont traitées correctement en amont ce réservoir sécuritaire doit rester vide en permanence.

Il doit :

- être séparé du récupérateur d'huile,
- avoir une hauteur de 100 mm (mesure intérieure),
- avoir une section constante sur toute sa hauteur,
- être équipé du capteur homologué par l'ACO. Ce capteur doit être mis en place comme indiqué sur le dessin ci-dessous de façon à détecter le trop plein d'huile.

Si le niveau maximum est atteint, le concurrent doit rentrer immédiatement dans son stand pour vidanger le catch tank.

The external wall of an oil tank cannot be more than 650 mm from the longitudinal centreline of the car.

No tank or pipe containing lubricating oil is permitted :

in the cockpit ;

aft the gearbox ;

more than a transverse distance of 900 mm from the car centreline.

Catch tank

The open type sump breather(s) (if any) must vent into a 3 litre minimum capacity catch tank.

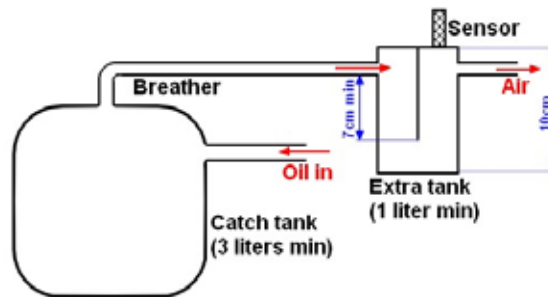
In order to avoid the risk of oil being sprayed on the track, an additional secure tank of 1 litre minimum must be inserted between the catch tank and the air vent according to the drawing below.

The main function of this secure tank is to ensure that the breather of the catch tank contain no oil or oil vapor. If the oil vapors are treated properly upstream this secure tank, it must remain empty permanently.

It must:

- be separated from the catch tank,
- have 100 mm height (measured internally),
- have a constant section all along the height,
- be equipped with the sensor homologated by the ACO. This sensor must be implemented as shown on the drawing below in order to detect the oil overflow.

If the maximum level is reached, the competitor must enter immediately into his garage to drain the catch tank.



ART. 8 EQUIPEMENTS ELECTRIQUES

Les prescriptions suivantes doivent être respectées :

8.1 Batterie(s)

Les batteries doivent être situées dans l'habitacle à la place du passager et être solidement fixées et protégées dans un coffrage en matériau isolant.

La tension de la batterie est libre. Toutefois le concurrent doit fournir la tension requise (16 volts maximum) pour le fonctionnement des équipements obligatoires.

8.2 Système de démarrage

- 8.2.1 Le pilote doit pouvoir démarrer le moteur à tout moment en étant assis normalement au volant, et sans aucune aide extérieure.

8.3 Eclairages

- 8.3.1 Les équipements lumineux doivent toujours être en état de fonctionnement.

- 8.3.2 Les voitures doivent être équipées de

a/ A l'avant :

- a.1 Deux projecteurs principaux au moins, homologués, symétriques par rapport à l'axe longitudinal de la voiture et distants d'au moins 1350 mm, la mesure étant effectuée à partir du centre des projecteurs;

ELECTRICAL EQUIPMENT

The following provisions must be complied with:

Battery(ies)

Batteries must be located in the cockpit in the place of the passenger and must be strongly secured and protected inside a box made of insulating material.

The voltage of the battery is free. However the competitor must provide the power necessary (16 volts maximum) for the operation of the compulsory devices.

Starting system

It must be possible for the driver to start the engine at any time when seated normally at the wheel, and without any external assistance.

Lighting equipment

Lighting equipment must always be in working order.

Cars must be fitted with

At the front:

Two main headlights as a minimum, homologated, symmetrical to the longitudinal centreline of the car and separated by a minimum of 1350 mm, the measurement being taken to the centre of the headlights ;

- a.2 Les projecteurs doivent émettre un faisceau blanc.
- b/ A l'arrière :
- b.1 Deux feux rouges et deux feux "Stop" symétriques par rapport à l'axe longitudinal de la voiture et distants d'au moins 1600 mm, la mesure étant effectuée à partir du centre des feux.
- b.2 Deux feux rouges "Pluie" ou "Brouillard" (minimum 21 watts) ou tout système équivalent approuvé par l'ACO jusqu'au 31.12.2011, placés à l'arrière et le plus haut possible symétriquement par rapport à l'axe longitudinal de la voiture;
Les feux conformes à la norme routière ECE R38 (ou norme d'un autre pays au moins équivalente) ou approuvés par la FIA (Liste Technique n°19) sont également autorisés.
- c/ De chaque côté : indicateurs de direction avant et arrière.

8.4 Equipement électrique des voitures hybrides

8.4.1 Conception et implantation du SRSE

Les voitures doivent se conformer aux exigences de cet article :
Le SRSE doit être vérifié et scellé lors des vérifications techniques.
La Fiche d'Homologation doit spécifier le poids et la capacité énergétique totale du SRSE.

Le remplacement de tout ou partie du SRSE pendant l'épreuve (telle qu'une cellule ou un module de batterie de propulsion) doit être effectué sous le contrôle d'un officiel et après décision des commissaires sportifs.
Le SRSE peut être installé à l'intérieur de la cellule de survie de la voiture. Dans ce cas il doit être fixé dans le châssis lors du crash test et en état de pleine charge (ou de rotation maximale). S'il est fixé à l'extérieur de la cellule de survie, le Constructeur de la voiture doit prouver, par tous moyens, que le SRSE installé dans la voiture a été conçu de telle sorte que, même en cas d'accident son dispositif de fixation et ses points d'ancrage ne puissent se briser.

Dans tous les cas le Constructeur de la voiture doit prouver que la sécurité du SRSE tant mécanique qu'électrique est assurée en toute circonstance.

L'enceinte du SRSE doit être conçue de façon à empêcher tout court-circuit entre les pôles du SRSE ou avec tout élément conducteur, et à exclure tout risque de fuite d'un fluide ou émanation de gaz du SRSE vers l'habitacle.

Cette enceinte doit complètement envelopper le SRSE et elle doit être faite d'un matériau imperméable au(x) fluide(s) du SRSE, résistant au feu, robuste et isolant. Une solide cloison de séparation doit isoler le SRSE de l'habitacle.

Tout carter de SRSE situé dans l'habitacle doit avoir une mise à l'air libre débouchant à l'extérieur de la voiture. Les dimensions de ce conduit d'aération et la puissance du ventilateur doivent être suffisantes pour empêcher toute concentration gaz/air inflammable, conducteur ou toxique dans le SRSE ou dans l'environnement immédiat de la voiture.

Un système de refroidissement du SRSE est autorisé pour garantir la sécurité des batteries. Ce système :

- doit être embarqué dans l'auto,
- peut comprendre un ventilateur spécifique,
- peut continuer à fonctionner durant un arrêt au stand,
- doit être indépendant des autres circuits de refroidissement.

En cas de choc grave, l'intégrité de l'enceinte de confinement du SRSE (ou de chaque partie du SRSE s'il est en 2 ou plusieurs parties) doit être garantie ainsi que son isolation électrique et mécanique. Toutefois, pour les SRSE électrochimiques ou diélectriques, une perte d'isolation électrique du SRSE peut être tolérée à condition qu'elle détermine la scission automatique de son contenu en éléments de tension inférieure à 50 V, auquel cas la tension maximale entre 2 câbles du Circuit de Puissance reste inférieure à 50 V et peut donc être considérée sûre.

On doit pouvoir isoler manuellement le SRSE du Circuit de Puissance soit au moyen d'un connecteur principal facile à débrancher ou soit par une clef isolée ou une prise particulière.

Le carter du SRSE doit contenir plusieurs éléments indépendants de coupure du circuit de puissance tels que :

- un ou plusieurs fusibles aux bornes de sortie (connexion du câble de puissance),
- un interrupteur commandé électriquement (Interrupteur d'Arrêt d'Urgence) pour déconnecter le SRSE du Circuit de Puissance,

Headlights must produce a white beam.

At the rear:

Two red lights and two "Stop" lights fitted symmetrically about the longitudinal centreline of the car and separated by a minimum of 1600 mm, the measurement being taken to the centre of the rear lights.

Two red "Rain" or "Fog" lights (minimum 21 watts) or any equivalent device approved by the ACO until 31.12.2011 and located at the rear and the highest possible on each side symmetrically to the longitudinal centreline of the car.

Lights in compliance with the ECE R38 road standard (or an equivalent or stricter standard from another country) or approved by the FIA (Technical List n°19) are also permitted.

On each side : front and rear direction indicators.

Electrical equipment of hybrid cars

SRSE design and installation

The cars must comply with the provisions established in this article:
The SRSE must be checked and sealed at scrutineering.

The Homologation Form must specify the weight and the total energy capacity of the SRSE.

The change of part of the SRSE (like a cell or a battery module of a traction battery) or the complete SRSE during the event must be made under the control of a race official and by decision of the stewards.

The SRSE should be housed within the survival cell of the car. In that case it must be fixed inside the chassis during the crash test in full charge status (or maximum revs). If it is fixed outside the survival cell, the car Manufacturer must prove, by whatever means that the SRSE installed in the vehicle has been designed in such a way that, even when subjected to a crash, the fastening device and its anchorage points can come loose.

In every case the car Manufacturer must prove that the mechanical as well as electrical safety of the SRSE is secured in all circumstance.

The SRSE compartment must be designed in such a manner as to prevent short circuits of the SRSE poles and of the conductive parts, and any possibility of SRSE fluid penetrating into the cockpit must be excluded.

This compartment must completely surround the SRSE and it must be made from an insulating, fire resistant, robust and SRSE fluid-tight material. A solid partitioning bulkhead must separate the location of the SRSE from the cockpit.

Each SRSE compartment located inside the cockpit must include a vent with its exit outside of the vehicle. The dimensions of the air duct and the power of the ventilation fan must be sufficient to prevent an ignitable, conductive or toxic gas/air concentration inside the SRSE or in the nearest environment of the vehicle.

The SRSE may be fitted with cooling system in order to ensure the battery safety. This cooling system:

- must make part of the car,
- may include a specific fan,
- may continue to operate during a pit stop,
- must be independent of any other cooling circuits.

In case of a severe shock, the integrity of the containment bulkhead of the SRSE must be guaranteed and its electric insulation too. However, for electrochemical or dielectric SRSE, loss of electric insulation may be acceptable on the condition it determines an automatic splitting of its content in elements of a voltage less than 50 volts. Consequently, the maximum voltage between two cables of the power circuit remains a voltage of less than 50 V and can thus be considered safe.

The SRSE should be capable of being manually isolated from the Power Circuit either by provision of an easily removable main connector or alternatively by use of a separate insulated key or plug.

The SRSE compartment must include inside it more than one independent circuit breaker like:

- one fuse or more at the output terminals (connection of the power cable),
- an electrically-activated contactor (General Circuit Breaker) to disconnect the SRSE from the Power Circuit,

- des détonateurs pour déconnecter mécaniquement le SRSE en cas de choc sévère.

Une analyse des modes de défaillance présentée à l'homologation doit valider les dispositions ainsi mises en œuvre.

Double isolation : entre tout élément conducteur du circuit de puissance (SRSE, câblage,..) et son environnement immédiat (masse châssis, éléments mécaniques, intervenants,..) doivent exister au moins deux barrières, chacune présentant une isolation conforme au domaine de tension des conducteurs considérés.

Tout compartiment du SRSE doit être muni visiblement du symbole d'avertissement "Haute tension" - ou "Danger Mécanique" pour les dispositifs inertiels.



Panneau "Haute Tension" / "High Voltage" Signal

Précautions particulières pour systèmes à volant d'inertie :

Il incombe au concurrent de prouver par tous moyens que le carter du système à volant d'inertie est suffisamment résistant pour ne pas se briser en cas de défaillance telle qu'une casse rotor à pleine vitesse. Il ne doit avoir aucun dommage lorsque le volant d'inertie lancé à pleine vitesse subit une décélération au moins égale à la décélération maximum enregistrée lors du crash test effectué sur le châssis de la voiture.

8.4.2 Batterie auxiliaire

La batterie auxiliaire ne doit jamais être utilisée pour recharger la batterie de propulsion. La batterie qui alimente le circuit auxiliaire doit avoir une tension inférieure à 50 volts pendant toute la durée de l'épreuve.

8.4.3 Faisceau de puissance

La tension aux bornes des condensateurs et véhiculée par le Faisceau de puissance doit tomber en dessous de 50 volts dans les 2 secondes suivant toute déconnexion **d'au moins une** des sources d'énergie (générateur, SRSE et chargeur) du Faisceau de puissance par l'un quelconque des moyens suivants :

- l'Interrupteur d'Arrêt d'Urgence,
- l'Interrupteur Général du Pilote,
- l'activation des disjoncteurs du SRSE.

8.4.4 Câbles, fils et équipement électrique

Les canalisations de frein, les câbles électriques et les équipements électriques doivent être protégés contre tout dommage (projection de pierres, corrosion, panne mécanique, etc.) s'ils sont fixés sur une partie externe de la voiture et contre tout risque d'incendie ou de choc électrique s'ils sont placés à l'intérieur.

ART. 9 TRANSMISSION

9.1 Electronique

Le recours à l'électronique dans le fonctionnement de la transmission est interdit sauf dans les conditions fixées à l'Article 1.10 ci-dessus.

9.2 Boîte de vitesses

9.2.1 Maximum 6 rapports avant.

9.2.2 Les systèmes de gestion et de sélection électroniques ou électriques, les transmissions semi-automatiques ou automatiques sont interdits. Tout système qui permet le crabotage simultané de plus d'une paire d'engrenage à la chaîne de transmission est interdit.

Changement de rapport : les changements de rapports doivent être des actions séquentielles distinctes, c'est-à-dire que le désengagement du rapport utilisé est subséquent suivi par l'engagement du rapport choisi.

9.2.3 Un même interrupteur peut commander plusieurs systèmes (cf. Article 1.10) y compris le contrôle d'une valeur, mais si, pour quelque raison que

- detonators to disconnect the SRSE in case of a severe crash.

Those arrangements must be validated by failure mode analysis submitted by the homologation.

Double insulation: two insulating barriers must be put between any conducting element of the Power Circuit (SRSE, wires,..) and its nearest environment (chassis ground, mechanical parts, operators,..), each barrier having the capability of the required insulation for the voltage domain of these elements.

On each SRSE compartment the symbols warning of "High Voltage" - or "High Revs." for inertial devices - must be displayed.



Panneau "Danger Mécanique" / "High Revs" Signal

Specific provisions for Flywheel Systems

It is up to the competitor to prove by whatever means that the Flywheel System compartment is strong enough not to break up in case of a system failure, e.g. a rotor crash at full speed. It shall have any damage when the flywheel at full speed is subject to a deceleration at least equal to the maximum deceleration recorded during the crash test carried out on the chassis of the car.

Auxiliary battery

The auxiliary battery should never be used to recharge the traction battery. Throughout the duration of the event, the battery supplying the auxiliary electrical circuit must have a voltage below 50 volts.

Power Bus

Voltage across capacitors belonging to the Power Bus should fall below 50 volts within 2 seconds after disconnection of **at least one energy source** (generator, SRSE and charging unit) from the Power Bus by any following means:

- the General Circuit Breaker,
- the Driver Master Switch,
- activation of the overcurrent trips of the SRSE.

Cables, lines and electric equipment

Brake lines, electrical cables and electrical equipment must be protected against any risk of damage (stones, corrosion, mechanical failure, etc.) when fitted outside the vehicle, and against any risk of fire and electrical shock when fitted inside the bodywork.

TRANSMISSION

Electronics

Any resort to electronics incorporated in the operation of any part of the transmission is forbidden except if in compliance with the prescriptions of Article 1.10 above.

Gearbox

Maximum 6 forward speeds.

Electronic or electric management and selection devices, and semi-automatic or automatic transmissions are not permitted.

Any system that permits more than one gear pair to be engaged to the drivetrain at any one time is prohibited.

Gear change: gearshifts have to be distinct sequential actions where the extraction of the actual gear engagement is subsequently followed by an insertion of the target gear engagement.

A single switch may operate several systems (cf. Article 1.10) including the control of a value but if, for any reason whatsoever, these systems do

	ce soit, ces systèmes ne répondent pas à la sollicitation du pilote ou si la valeur contrôlée n'est pas la bonne, le pilote devra de nouveau actionner l'interrupteur.	not respond to the driver's order or if the value checked is not the good one, the driver will have to actuate the switch again.
9.2.4	Seuls sont autorisés les capteurs :	Sensors are only permitted when their purpose is :
a/	servant à informer le pilote	to give information to the driver
b/	contrôlant une valeur à la demande du pilote exclusivement (cf. Article 9.2.3 ci-dessus).	to control a value at the driver's request exclusively (cf. Article 9.2.3. above).
9.2.5	Marche arrière Obligatoire. La marche arrière doit pouvoir être enclenchée, moteur en marche, par le pilote assis normalement au volant. LMP2 : La boîte de vitesses doit être homologuée par l'ACO. Un maximum de 3 séries de rapports (constante + rapports de marche avant + rapport de marche arrière) peut être homologué par modèle de voiture et de moteur.	Reverse gear Mandatory. It must be possible for the driver seated in a normal position to select the reverse gear while the engine is running. LMP2: The gearbox must be homologated by the ACO. A maximum of 3 gear sets (constant + forward gears + reverse gear) may be homologated per car and engine model.
9.3	Différentiel(s)	Differential(s)
9.3.1	Sont seuls autorisés : Différentiels à glissement limité mécaniques fonctionnant sans l'aide d'un système hydraulique ou électrique. Un visco-coupleur n'est pas considéré comme un dispositif hydraulique de contrôle du glissement à condition qu'il ne puisse pas être commandé lorsque la voiture roule. LMP2 : Le différentiel doit être homologué par l'ACO. 1 seul rapport de couple final peut être homologué par modèle de voiture et de moteur. Un couple final supplémentaire peut être homologué à condition que les 3 séries de rapports maximum soient respectées. Un couple final ou un jeu de rapport ou un "drop gear" supplémentaire peut être homologué pour les "24 Heures du Mans".	Are only permitted : Mechanical limited slip differentials working without the help of a hydraulic or electric system. A visco-coupling system is not considered as a hydraulic slip control device provided that no control is possible when the car is running. LMP2: The differential must be homologated by the ACO. Only one final drive ratio may be homologated per car and engine model. An extra final drive may be homologated provided the maximum of 3 gear sets is respected. An extra final drive or a set of ratios or a drop gear can be homologated for the "24 Heures du Mans".
9.4	Transmission à quatre roues motrices Interdit sauf si la voiture est équipée d'un système hybride (cf. Article 1.13 ci-dessus).	Four wheel drive Not permitted unless the car is equipped with a hybrid system (cf. Article 1.13 above).
9.5	Embrayage Un seul embrayage est autorisé pour le moteur thermique. La seule énergie qui peut actionner l'embrayage est celle fournie par le pilote. Celui-ci doit exercer avec son pied toute la pression nécessaire pour actionner et contrôler le mécanisme d'embrayage.	Clutch Only one clutch is authorised for the combustion engine. The only energy which can operate the clutch is the one provided by the driver. This one must exert with its foot all the pressure necessary to operate and control the mechanism of the clutch.
9.6	Désengagement de la transmission	Disconnecting the transmission
9.6.1	La transmission doit être conçue de telle sorte que lorsque la voiture est immobilisée et le moteur arrêté il soit possible de la pousser ou de la tracter.	The transmission must be designed such that, should the car be stopped and the engine stalled, it is still possible to push or to tow it.
9.6.2	Une assistance pneumatique est autorisée au moyen d'une bouteille d'air comprimé placée en dehors de l'habitacle (poids maximum : 0,5 kg) pour sélectionner le point mort ou pour permettre de déplacer la voiture.	A pneumatic assistance device is permitted thanks to a compressed air bottle fitted outside the cockpit (0,5 kg maximum) as to select neutral and to allow the car to be moved.
ART. 10	SUSPENSION	SUSPENSION
	Libre.	Free.
10.1	La modification du réglage des ressorts, des amortisseurs et des barres antiroulis à partir de l'habitacle est interdite.	Changing the adjustment of the springs, the shock absorbers and the anti-roll bars from inside the cockpit is forbidden.
10.2	Tout système autre que les éléments de suspension, quel qu'en soit le principe de fonctionnement, actionné ou non par le pilote et destiné à modifier la garde au sol est interdit.	Any system other than the suspension parts, whatever the functioning principle, activated or not by the driver the purpose of which is to modify the ground clearance is forbidden.
10.3	Une barre anti-intrusion est obligatoire à la base des triangles de suspension avant si ceux-ci présentent un danger potentiel pour les jambes du pilote.	A anti-intrusion bar must mandatorily be fitted at the base of the front suspension wishbones if these are potentially dangerous for the driver's legs.
10.4	Les bras de suspension :	The suspension arms :
a/	ne doivent pas être chromés	must not be chromium plated
b/	doivent être en métal homogène	must be made from an homogeneous metal
c/	le rapport hauteur/largeur du profil ne doit pas être supérieur à 3.0	The height /width ratio of the profile does not exceed 3.0

<p>d/ une protection pour les canalisations de frein ou les fils électriques peut être fixée sur les bras de suspension à condition :</p> <ul style="list-style-type: none"> • qu'elle n'ait pas de profil d'aile, • que le rapport hauteur/largeur du profil ne soit pas supérieur à 2.5, • que l'épaisseur maximum du profil soit égale au maximum à la hauteur du profil du bras de suspension sur lequel la protection est fixée + 3 mm. 	<p>a protection for brake lines or electrical wire can be fixed to the suspension arms provided that:</p> <ul style="list-style-type: none"> • it has no wing profile, • the height /width ratio of the profile does not exceed 2.5, • the maximum thickness of the profile is equal to the maximum height of the profile of the suspension arm on which the protection is fixed + 3 mm.
<p>ART. 11 DIRECTION</p>	<p>STEERING</p>
<p>Libre.</p> <p>11.1 Seule une liaison mécanique continue entre le pilote et les roues est autorisée. La colonne de direction doit être approuvée par la FIA conformément à la procédure d'approbation des structures de sécurité pour voitures de sport (disponible sur demande, pour les Constructeurs uniquement, auprès du Département Technique de la FIA). Le délai minimum de notification est de 6 semaines par rapport aux dates d'essai envisagées. Le concurrent doit fournir une copie du certificat d'approbation établi par la FIA. Cette copie doit être délivrée par le Constructeur de la voiture.</p>	<p>Free.</p> <p>Only a continuous mechanical link between the driver and the wheels is permitted. The steering column must be approved by the FIA in accordance with the approval procedure of safety structures for sports cars (available from the FIA Technical Department on request, for Manufacturers only).</p> <p>The minimum notice is 6 weeks from the foreseen test dates.</p> <p>The competitor must supply a copy of the FIA approval certificate.</p> <p>This copy must be delivered by the car Manufacturer.</p>
<p>11.2 4 roues directrices</p>	<p>Four wheel steering</p>
<p>Interdit.</p>	<p>Not permitted.</p>
<p>11.3 Direction assistée</p>	<p>Power steering</p>
<p>Autorisée mais un tel système ne peut avoir une fonction autre que celle de réduire l'effort physique requis pour diriger la voiture et doit permettre à la direction de continuer de fonctionner lorsque les sources d'énergie hydraulique et/ou électrique sont coupées.</p>	<p>Permitted but such system may not carry out any function other than reduce the physical effort required to steer the car and must allow the steering to continue to function when all hydraulic and/or electric power is shut down.</p>
<p>11.4 Déverrouillage rapide du volant</p>	<p>Quick release system</p>
<p>Obligatoire. Le mécanisme de déverrouillage rapide doit consister en un flasque concentrique à l'axe du volant, de couleur jaune obtenue par anodisation ou tout autre revêtement durable, et installé sur la colonne de direction derrière le volant. Le déverrouillage doit s'opérer en tirant sur le flasque suivant l'axe du volant.</p>	<p>Mandatory. The quick release mechanism must consist of a flange concentric to the steering wheel axis, coloured yellow through anodisation or any other durable yellow coating, and installed on the steering column behind the steering wheel. The release must be operated by pulling the flange along the steering wheel axis.</p>
<p>ART. 12 SYSTEME DE FREINAGE</p>	<p>BRAKE SYSTEM</p>
<p>Libre.</p>	<p>Free.</p>
<p>12.1 Circuits indépendants</p>	<p>Separate circuits</p>
<p>12.1.1 Au moins deux circuits indépendants commandés par la même pédale sont obligatoires. La seule connexion autorisée entre les deux circuits est un système mécanique de réglage de la répartition de la force de freinage entre les essieux avant et arrière.</p>	<p>At least two separate circuits operated by the same pedal are compulsory. The only connection allowed between the two circuits is a mechanical system for adjusting the brake force balance between the front and rear axles.</p>
<p>12.1.2 Aucun dispositif ou système ne doit être monté entre les maîtres-cylindres et les étriers : Les capteurs de prise de données, les contacteurs de feux rouges arrière ou les limiteurs mécaniques de freinage réglables au moyen d'outils ne sont pas considérés comme des "systèmes" et ils doivent être placés le plus près possible de la sortie des maîtres-cylindres.</p>	<p>No device or system is permitted between the master-cylinders and the callipers. Sensors to collect information, stop lights switches or mechanical brake pressure controls adjustable by means of tools are not considered as "systems" and they must be fitted at the very exit of the master-cylinders.</p>
<p>12.2 Etriers</p>	<p>Brake callipers</p>
<p>12.2.1 Un seul étrier avec 6 pistons maximum est autorisé par roue.</p>	<p>Only one calliper with 6 pistons maximum is permitted per wheel.</p>
<p>12.2.2 La section de chaque piston d'étrier doit être circulaire.</p>	<p>The section of each calliper piston must be circular.</p>
<p>12.2.3 Le corps des étriers doit être constitué d'alliage d'aluminium de module d'élasticité non supérieur à 80 Gpa.</p>	<p>The body of the callipers must be made from aluminium alloy with a modulus of elasticity no greater than 80 Gpa.</p>
<p>12.3 Disques & plaquettes</p>	<p>Disc brakes and brake pads</p>
<p>12.3.1 Matériau</p>	<p>Material</p>
<p>Libre.</p>	<p>Free</p>
<p>12.3.2 Disques</p>	<p>Discs</p>

	Un disque par roue maximum.		One per wheel maximum.
12.3.3	Equipements de freinage en carbone (disques et plaquettes)		Carbon brake equipment (discs and brake pads)
a/	Diamètre maximum des disques : 380 mm (15")		Maximum diameter of the discs: 15" (380 mm)
b/	Les disques en carbone dont les 2e témoins d'usure ne sont pas visibles avant utilisation sont interdits.		Carbon discs the 2nd wear warnings of which are not visible before use are not permitted.
12.4	Dispositifs antiblocage		Anti-lock braking systems
	Toute fonction d'anti-blocage de freins ainsi que toute fonction d'assistance de freinage sont interdits.		Any anti-lock braking function and any power braking function are prohibited.
	LMP2 :		LMP2:
	Un seul modèle de disque de frein, de plaquette et d'étrier seront homologués par l'ACO pour chaque modèle de voiture.		Only one model of brake disk, pad and calliper will be homologated by the ACO for each model of car.
12.5	Véhicules équipés du SRSE		Vehicles with an STSY
	Pour les véhicules équipés du SRSE, un système spécifique de freinage est autorisé à condition que les Articles 12.2 à 12.4 soient respectés. Sa fonction est d'assurer un freinage du véhicule strictement conforme à la commande du pilote. Sa fonction ne peut être en aucun cas d'assurer une aide supplémentaire au pilote.		For vehicles with an STSY, a specific braking system is allowed provided Articles 12.2 to 12.4 are complied with. Its function is to ensure the braking of the car strictly in conformity with the order given by the driver. Its function cannot, in any circumstances, be to provide the driver with any additional support.
	En particulier, ce système doit :		In particular, this system must:
	- Garantir un freinage équilibré et stable quelle que soit la quantité d'énergie récupérée. Il doit garantir une répartition d'efforts de freinage (somme des efforts électriques et hydrauliques) avant/arrière constante, qui ne peut être ajustée que manuellement par le pilote.		- Ensure balanced and stable braking, whatever the amount of energy recovered. It must ensure a constant front / rear braking load distribution (sum of the electrical and hydraulic efforts) which can be adjusted only manually by the driver.
	- Garantir, par essieu, des efforts de freinage identique droite et gauche, en garantissant de surcroît l'égalité des pressions hydrauliques droite et gauche et pour les véhicules dont le couple électrique ne transite pas par un différentiel arrière, l'égalité des couples électriques droite / gauche.		- Ensure, for each axle, equal braking power left and right and guarantee, in addition, identical hydraulic pressures and, for vehicles for which the electric torque does not pass through a rear differential, identical electric torques left and right.
	- Garantir un niveau d'effort de freinage global directement lié à l'effort pédale		- Ensure a level of braking effort directly linked to the brake pedal effort.
	- Garantir un dimensionnement du système de freinage capable d'assurer le freinage de la voiture uniquement par le système hydraulique, sans apport de freinage électrique, ceci afin de garantir la sécurité en cas de défaillance du système électrique		- Ensure a design of the braking system that can brake the car only via the hydraulic system, without any electric braking power, in order to ensure safety should there be a failure of the electrical system.
	- Ne comporter aucun asservissement sur le glissement des roues		- Have no servo-control on the wheel slip.
	La FIA contrôlera les pressions alimentant chaque étrier, ainsi que les couples électriques transmis à chaque roue.		The FIA will monitor the pressure supplied to each calliper and the electric torque transmitted to each wheel.
	Avant homologation du véhicule, la FIA demandera un dossier détaillé complet de description du système et simulations nécessaires pour vérifier la conformité du système au règlement, qu'un dossier sûreté de fonctionnement a été réalisé par le Constructeur, et pour définir les paramètres supplémentaires que la FIA voudrait contrôler, en fonction du système spécifique présenté par le Constructeur.		Before the homologation of the vehicle, the FIA will request a complete and detailed dossier describing the system and any necessary simulations to verify that the system is in compliance with the regulations, and that a dossier on the reliability of the system has been compiled by the Manufacturer, and may define additional parameters that the FIA might wish to check, depending on the specific system presented by the Manufacturer.
ART. 13	ROUES & PNEUMATIQUES		WHEELS & TYRES
13.1	Nombre et position des roues		Number and position of the wheels
13.1.1	Nombre : quatre (4).		Number : four (4).
13.1.2	Au-dessus du plan passant par l'axe d'essieu, il doit être possible de loger les roues complètes à l'intérieur des arches de roues.		Above the plane passing through the axle centreline, it must be possible to house the complete wheels inside the wheel arches.
13.1.3	La voiture vue de dessus, les roues avant étant alignées pour aller en ligne droite, les roues complètes et leur fixation ne doivent pas être visibles au-dessus du plan horizontal passant par les axes des essieux.		As viewed from above, the wheels aligned for the car to proceed straight ahead, the complete wheels and their attachment must not be visible above the horizontal plane passing through the axle centreline.
13.2	Dimensions		Dimensions
w	Roue complète mesurée horizontalement au niveau du moyeu.		Complete wheel measured horizontally at wheel hub level.
13.2.1	Largeur (maximum)		Width (maximum)
	LMP1 16"	LMP2 14"	LMP1 16" LMP2 14"
13.2.2	Diamètre (maximum)		Diameter (maximum)
	LMP1 28.5"	LMP2 28"	LMP1 28.5" LMP2 28"

13.3	Poids de la roue pneu démonté (kg)			Weight of the wheel, tyre removed (kg)
13.3.1	Avant (minimum)	LMP1 8.0	LMP2 10.5	Front (minimum)
				LMP1 8.0
				LMP2 10.5
13.3.2	Arrière (minimum)	LMP1 9.0	LMP2 11.0	Rear (minimum)
				LMP1 9.0
				LMP2 11.0
13.4	Matériau			Material
13.4.1	Métallique. LMP2 : Magnésium ou aluminium coulé uniquement.			Metallic. LMP2 : Magnesium or aluminium casted only.
13.4.2	Roues monobloc : obligatoire.			One piece wheels : mandatory.
13.5	Jantes			Rims
13.5.1	Diamètre avant et arrière 18" maximum.			Front and rear diameter 18" maximum
13.5.2	Les bords de jantes doivent :			Rim edges must
a/	être symétriques et les diamètres mesurés au niveau des bords de jante intérieur et extérieur d'une roue doivent être identiques avec une tolérance de +/- 1.5 mm ;			be symmetrical and the diameters measured at the level of the inner and outer rim edges of a wheel must be identical, with a tolerance of +/- 1.5 mm ;
b/	avoir une hauteur maximum de 19.2 mm.			not be more than 19.2 mm maximum in height.
13.5.3	Les enjoliveurs de roues amovibles sont interdits.			Removable wheel/hub caps are not permitted.
13.5.4	La surface du voile de jante qui s'inscrit dans un cercle de 400 mm de diamètre ne doit pas être plate, lisse et continue. Elle doit avoir des reliefs en étoile d'au moins 10 mm d'épaisseur et 10 mm de large (branches des roues)			The surface of the flange that fit into a circle with a diameter of 400 mm must not be flat, smooth and continuous. It must have bumps at least 10 mm thick and 10 mm wide in star configuration (spokes).
13.6	Fixation des roues Libre.			Wheel attachment Free.
13.6.1	Si la fixation est assurée par un écrou central, un ressort de sécurité (peint en rouge ou orange "dayglo") doit être placé sur cet écrou central quand la voiture roule et remis en place après tout changement de roue.			If the wheel is attached by means of a single nut, a safety spring (painted red or "dayglo" orange) must be on the nut whenever the car is running, and it must be put back after every wheel change.
13.6.2	Un autre système de maintien des roues peut être utilisé mais il doit être approuvé par la FIA.			Another method of retaining the wheels attachment system may be used, provided it has been approved by the FIA.
13.7	Soupapes de surpression Interdites.			Pressure control valves Not permitted.
13.8	Crics pneumatiques Autorisés. Il est interdit de transporter à bord de la voiture des bouteilles d'air comprimé pour leur fonctionnement.			Pneumatic jacks Permitted. It is forbidden to carry on board compressed air bottles for their operation.
13.9	Capteurs Des capteurs pour la pression et la température des pneumatiques lorsque la voiture se déplace sont fortement recommandés. Si ces capteurs sont utilisés, il doit y avoir au moins un témoin d'alerte pour avertir le pilote d'une probable défaillance.			Sensors Sensors for the pressure and the temperature of the tyres when the car is in motion are strongly recommended. If these sensors are used, there must be at least one warning light to notify the driver of a possible failure.
ART. 14	HABITACLE			COCKPIT
14.1	L'habitacle doit garantir la meilleure protection du pilote.			The cockpit must provide the best protection for the driver.
14.1.1	Il doit être possible d'installer symétriquement par rapport au plan vertical passant par l'axe longitudinal de la voiture deux sièges de forme et de dimensions identiques, non compris les supports d'épaules et/ou les protections mentionnées aux Articles 15.4, 16.1.1 et 16.3.			It must be possible to fit symmetrically about the vertical plane passing through the longitudinal centreline of the car two seats of equal shape and size excluding the shoulder supports and/or the mandatory protections mentioned in Articles 15.4, 16.1.1 and 16.3.
14.1.2	Les pieds du pilote doivent se trouver en arrière du plan vertical passant par l'axe d'essieu avant.			The driver's feet must be located aft of the vertical plane passing through the front axle centreline.

14.1.3 Volumes libres

Deux volumes identiques, formés par six surfaces planes et rectangulaires et symétriques par rapport à l'axe longitudinal de la voiture, doivent être prévus pour les jambes des occupants.

a/ Dimensions

a.1 Longueur : du plan vertical des pédales à la verticale du moyeu du volant;

a.2 Largeur minimum : 330 mm,

a.3 Hauteur minimum : 300 mm,

Sur demande des Commissaires Techniques, le Concurrent doit présenter les deux volumes lors des vérifications techniques.

b/ Les seuls éléments autorisés à faire saillie dans ces volumes, à l'exclusion de tout autre y compris les couples transversaux, sont :

b.1 La colonne de direction et ses cardans ;

b.2 Les points d'ancrage des bras de suspension s'ils ne sont pas dangereux pour le pilote ;

b.3 Le repose-pied et les rembourrages de protection pour le pilote à condition qu'ils soient démontables pour permettre le contrôle des volumes libres.

b.4 Les équipements de l'organisateur et les accessoires pour la climatisation dans le volume prévu pour le passager.

b.5 Les équipements pour les systèmes hybrides dans le volume prévu pour le passager. Dans ce cas une protection doit être conçue de façon :

- à empêcher tout court-circuit avec tout élément conducteur,
- à exclure tout risque de fuite d'un fluide ou émanation de gaz vers l'habitacle.

Cette protection doit être faite d'un matériau imperméable aux fluides, résistant au feu, robuste et isolant.

b.6 Les instruments et appareils nécessaires à la conduite fixés sur un panneau qui doit être démontable.

14.1.4 Les surfaces entourant le pilote doivent avoir un rembourrage de protection.

14.1.5 Ouverture et volume de l'habitacle**a/ Voiture ouverte**

a.1 L'habitacle doit permettre l'insertion du gabarit 1, dont les dimensions et la position sont définies par le Dessin n°3. Pour cette vérification, les équipements mentionnés à l'Article 14.1.6.a peuvent être enlevés.

a.2 Tous les points de la structure du châssis qui délimitent l'ouverture de l'habitacle sur les cotés, à l'avant et à l'arrière, doivent être au moins à 500 mm de la surface de référence.

a.3 Seuls sont autorisés au-dessus de l'ouverture de l'habitacle les dispositifs de sécurité obligatoires définis à l'Article 15.

a.4 L'extrémité avant de l'ouverture de l'habitacle et le tableau de bord doivent se trouver à au moins 50 mm en avant du volant quelle que soit sa position d'utilisation.

b/ Voiture fermée

b.1 L'habitacle doit permettre l'insertion du gabarit 1, dont les dimensions et la position sont définies par le Dessin n°3. Pour cette vérification, les équipements mentionnés à l'Article 14.1.6.a peuvent être enlevés.

b.2 A l'exception des ouvertures des portes pour les voitures construites avant le 31/12/2009, tous les points de la structure du châssis qui délimitent l'ouverture de l'habitacle sur les cotés, à l'avant et à l'arrière, doivent être au moins à 500 mm de la surface de référence.

b.3 L'extrémité avant de l'ouverture de l'habitacle doit se trouver à au moins 50 mm en avant du volant quelle que soit sa position d'utilisation.

b.4 Afin de garantir que les ouvertures de portes donnant accès à l'habitacle sont d'une taille adéquate, elles doivent :

Empty volumes

Two volumes of equal dimensions defined by six flat surfaces with 90° angles and symmetrical to the longitudinal centreline of the car must be provided for the legs of both occupants.

Dimensions

Length : from the pedals vertical plane to the vertical projection of the steering wheel centreline ;

Minimum width : 330 mm,

Minimum height : 300 mm,

At Scrutineers' request, the competitor must show the two volumes during scrutineering.

The only components allowed to intrude into these volumes, any other being excluded including the bulkheads across, are :

The steering column and its universal joints ;

The suspension arms pick-up points if not a danger for the driver ;

The foot-rest and the protection stuffing for the driver if removable in order to allow the empty volumes to be controlled.

The organiser' equipments and the air conditioning accessories into the volume for the passenger.

The equipments for hybrid systems into the volume for the passenger. In that case a protection must be designed in such a manner as:

- to prevent short circuits of the conductive parts,
- to exclude any risk of fluid or gas leakage into the cockpit.

This protection must be made from an insulating, fire resistant, robust and fluid-tight material.

Implements and equipment needed for driving fitted on a panel that must be removable.

The areas adjacent to the driver must include a protection padding.

Cockpit opening and volume**Open car**

The cockpit must allow the insertion of template 1, the dimensions and position of which are defined by Drawing n°3. For this check, equipment mentioned in Article 14.1.6.a may be removed.

All the points of the chassis structure that delimit the cockpit opening on the sides, at the front and at the rear must be at least 500 mm above the reference surface.

Are only permitted on top of the cockpit opening mandatory safety devices defined in Article 15.

The forward extremity of the cockpit opening and the dashboard must be at least 50 mm in front of the steering wheel, whatever its operational position.

Closed car

The cockpit must allow the insertion of template 1, the dimensions and position of which are defined by Drawing n°3. For this check, equipment mentioned in Article 14.1.6.a may be removed.

Except the door openings for cars built before 31/12/2009, all the points of the chassis structure that delimit the cockpit opening at the sides, front and rear must be at least 500 mm above the reference surface.

The forward extremity of the cockpit opening must be at least 50 mm in front of the steering wheel, whatever its operational position.

In order to ensure that the door openings giving access to the cockpit are of adequate size, they must:

- Voitures construites avant le 31/12/2009 : permettre l'insertion des gabarits 5 et 6, dont les dimensions et les positions sont définies par le Dessin n°8.
- Voitures construites après le 31/12/2009 : permettre l'insertion des gabarits 5E et 6E, dont les dimensions et les positions sont définies par le Dessin n°8E.
Pour ce test, les faces inférieures des gabarits seront maintenues parallèles à la surface de référence, et leurs bords arrière alignés transversalement.
Les gabarits seront déplacés transversalement jusqu'à ce que leurs faces intérieures se trouvent à 150 mm de l'axe longitudinal de la voiture.
- Voitures construites après le 31/12/2009 : vue de côté, seule la porte doit masquer cette ouverture.

Le siège et tout rembourrage (fixations comprises) pourront être enlevés.

- b.5** Volume intérieur de l'habitacle : l'habitacle des voitures fermées doit permettre l'insertion du gabarit 2 défini par le Dessin n°4, positionné parallèlement à la surface de référence entre le pare-brise et la cloison arrière.
En vue de face et à l'exception du volant, des conduits d'air pour la ventilation de l'habitacle, de l'essuie vitre et de son mécanisme, la partie avant de ce gabarit doit à tout moment être entièrement visible à travers le pare-brise.

L'éventuel écran de vision arrière peut se situer dans ce volume à la condition de ne pas gêner la vision frontale du pilote.

- b.6** Pour les voitures LMP2, il sera autorisé pour un nouveau modèle de voiture d'avoir son habitacle conçu conformément au règlement LMP1 2014.

14.1.6 Equipements dans l'habitacle

- a/** Sont autorisés, mais seulement à l'extérieur des deux volumes libres (cf. Article 14.1.3 ci-dessus) :
- équipements et structures de sécurité,
 - outillage,
 - siège(s),
 - commandes utiles à la conduite,
 - équipements électroniques,
 - système de réfrigération du pilote,
 - lest,
 - crics pneumatiques,
 - batterie(s),
 - conduits de ventilation ;
- b/** Ces équipements doivent être recouverts par une protection rigide efficace en cas de choc s'ils présentent un danger pour le pilote ;
- c/** Rien ne doit entraver l'évacuation de l'habitacle (cf. Article 14.1.7 ci-après) ;
- d/** La disposition des équipements autorisés dans l'habitacle est à l'appréciation des Commissaires Techniques.

14.1.7 Temps d'évacuation de l'habitacle

L'habitacle doit être conçu de telle sorte que le pilote en tenue de conduite complète, assis en position normale, ceintures de sécurité attachées et volant en place puisse sortir :

- a/** Voiture ouverte : en 7 sec maximum ;
- b/** Voiture fermée : en 7 sec maximum pour sortir par la portière côté pilote.

14.1.8 Essai concernant le retrait du casque

Le pilote est assis en position de conduite normale à bord de la voiture avec laquelle il est engagé ; il porte un collet cervical à sa taille et son harnais est serré. Un membre du service médical doit alors démontrer que le casque que le pilote portera pendant la course peut être enlevé sans que ce dernier n'ait à plier le cou ou la colonne vertébrale.

14.1.9 Température à l'intérieure de l'habitacle (voitures fermées)

Un système efficace de ventilation et/ou de climatisation doit :

- Cars built before 31/12/2009: allow the insertion of templates 5 and 6, the dimensions and position of which are defined by Drawing n°8.
- Cars built after 31/12/2009: allow the insertion of templates 5E and 6E, the dimensions and position of which are defined by Drawing n°8E.

For this test, the lower surfaces of the templates will be held parallel to the reference surface and their rear edges aligned transversally.

The templates will be moved transversally until their inner surfaces are 150 mm from the longitudinal centreline of the car.

- Cars built after 31/12/2009: seen from the side, only the door must hide this opening.

The seat and all padding, including fixings, may be removed.

Interior volume of the cockpit : the cockpit of closed cars must allow the insertion of template 2 defined by Drawing n°4, positioned parallel to the reference surface from the windscreen to the rear bulkhead.

Viewed from the front and with the exception of the steering wheel, the air ducts for the cockpit ventilation, the windscreen wiper and its mechanism, the front part of this template must be completely visible through the windscreen at any time.

The optional screen for rear vision may be located in this volume if it does not make obstacle to the front vision of the driver

For LMP2 cars, it will be allowed for a new model of car to have its cockpit designed in accordance with the 2014 LMP1 regulations.

Equipment in the cockpit

Are permitted but only outside the two empty volumes (cf. Article 14.1.3 above) :

- Safety equipment and structures,
- tool kit,
- seat(s),
- driving controls,
- electronic equipment,
- driver cooling system,
- ballast,
- pneumatic jacks,
- battery(ies),
- ventilation ducts ;

These components must be covered by a rigid and efficient protective material in the event of a crash if a danger for the driver ;

Nothing may hinder the cockpit exit (cf. Article 14.1.7 below) ;

The way the equipment permitted is fitted in the cockpit is subject to Scrutineers' assessment.

Cockpit exit time

The cockpit must be design so as to allow the driver wearing his complete driving equipment, being seated in a normal position with the seat belts fastened and the steering wheel in place to get out :

Open car: in 7 sec. maximum ;

Closed car: in 7 sec. maximum (driver's side).

Test for helmet removal

With the driver seated in his normal driving position in the car which he is entered to race, wearing a cervical collar appropriate to his size and with the seat harness tightened, a member of the medical service must demonstrate that the helmet which the driver will wear in the race can be removed from his head without bending the neck or spinal column.

Temperature inside the cockpit (closed cars)

An effective ventilation and/or air conditioning system must:

- w Maintenir la température autour du pilote lorsque la voiture se déplace :
- 1) à 32°C maximum si la température extérieure (*) est inférieure ou égale à 25°C.
 - 2) à une température inférieure ou égale à la température extérieure + 7°C (*) si celle-ci est supérieure à 25°C.
- w Redescendre la température à la valeur définie ci-dessus (cas 1 ou 2) en 8 minutes maximum après un arrêt de la voiture.
- w Être décrit dans la Fiche d'Homologation
- Un capteur de température peut être imposé dans l'habitacle à la hauteur du casque du pilote au centre de la voiture.
Il doit être protégé des flux d'air directs (à l'appréciation des commissaires techniques).
(*) La température extérieure sera mesurée à l'ombre et à l'abri du vent et affichée près de la ligne des stands.

- Maintain the temperature around the driver when the car is in motion:
- 1) at 32°C maximum when the external temperature (*) is less than or equal to 25°C,
 - 2) at a temperature less than or equal to external temperature + 7°C (*) if it is above 25°C;
- Get the temperature back down to the value defined above (case 1 or 2) in 8 minutes maximum after a car stop.
- Be described on the Homologation Form ;
- A temperature sensor can be fitted imposed inside the cockpit by the organiser at level of driver's helmet to the centreline of the car.
The sensor must be shielded from direct draught (to the Scrutineers' assessment).
(*) The external temperature will be measured in the shade and out of the wind. This temperature will be displayed near the pit lane.

ART 15 EQUIPEMENTS DE SECURITE**15.1 Extincteurs**

L'utilisation des produits suivants est interdite : BCF, NAF
Chaque voiture doit être équipée d'un système d'extinction homologué par la FIA conformément à l'Article 253-7.2, sauf pour ce qui concerne le dispositif de déclenchement extérieur.
Le dispositif de déclenchement extérieur doit être combiné avec l'interrupteur de coupe-circuit et être commandé par une seule manette.
Il doit être marqué de la lettre "E" en rouge à l'intérieur d'un cercle blanc à bordure rouge, d'un diamètre minimal de 100 mm.
Voitures hybrides :
Seuls les extincteurs de type ABC utilisables pour l'extinction de carburant, compatibles avec la chimie du SRSE installé, et spécifiés pour le niveau de tension du faisceau de puissance sont autorisés.

15.2 Ceintures de sécurité

- 15.2.1 Deux sangles d'épaules, une sangle abdominale et deux sangles d'entrejambe sont obligatoires.
Ces sangles doivent être conformes à la norme FIA 8853-98.
- 15.2.2 Les ceintures à 2 boucles sont interdites.
- 15.2.3 Les fixations des ceintures de sécurité doivent résister à une décélération de 25 g.
- 15.3 **Rétroviseurs**
- 15.3.1 Deux rétroviseurs (un de chaque côté) doivent assurer une vision efficace vers l'arrière.
- 15.3.2 Les Commissaires Techniques doivent être assurés par une démonstration pratique que le pilote, assis normalement, aperçoit clairement les véhicules qui le suivent.
A cet effet, le pilote sera prié d'identifier des lettres ou chiffres, de 15 cm de haut et de 10 cm de large, disposés au hasard sur des panneaux placés derrière la voiture selon les instructions suivantes :
- Hauteur : Entre 40 cm et 100 cm du sol.
 - Largeur : 2 m d'un côté ou de l'autre de l'axe de la voiture.
 - Position : 10 mètres derrière l'axe de l'essieu arrière de la voiture.

15.3.3 Surface minimum : 100 cm² pour chaque miroir.

- 15.3.4 Les voitures LMP2 doivent être équipées de 2 rétroviseurs extérieurs de surface minimum de 150 cm² par rétroviseur. Ils doivent :
- avoir un dispositif jour/nuit, dont l'efficacité doit être démontrée par le concurrent lors de l'homologation ou des vérifications techniques (un film peut être ajouté sur le miroir la nuit).
 - être réglable par le pilote assis au volant, sanglé et volant en place.
- Pour les voitures LMP1 et LMP2, il est permis d'ajouter une caméra à l'arrière de la voiture et un écran dans l'habitacle pour la vision arrière.
La caméra doit avoir un mode jour/nuit.

15.4 Repose-tête et protection de la tête

- 15.4.1 Toutes les voitures doivent être équipées de trois zones de rembourrage destinées à protéger la tête du pilote qui :

SAFETY EQUIPMENT**Fire extinguishers**

The use of the following products is prohibited: BCF, NAF
All cars must be equipped with an extinguishing system homologated by the FIA in accordance with Article 253-7.2, with the exception of the means of triggering from the outside.
The means of triggering from the outside must be combined with the circuit breaker switch and be operated by a single lever.
It must be marked with a letter "E" in red inside a white circle at least 100 mm in diameter and with a red edge.
Hybrid cars:
Only ABC extinguisher types usable for fuel extinction, compatible with the chemistry of the installed STSY, and specified for the voltage level at the power bus are allowed.

Safety belts

Two shoulder straps, one abdominal strap and two straps between the legs are compulsory :
These straps must comply with FIA standard 8853-98.

Safety belts with two buckles are prohibited.

Safety belt mounting points must be capable of resisting a 25 g deceleration.

Rear view mirrors

Two rear view mirrors (one each side) must provide an efficient vision to the rear.

The Scrutineers must be assured through a practical demonstration that the driver, seated normally, can clearly see the vehicles following him.

To this end, the driver will be asked to identify letters or figures, 15 cm high and 10 cm wide, displayed at random on boards placed behind the car according to the following instructions :

- Height : Between 40 cm and 100 cm from the ground.
- Width : 2 m one side or the other of the centreline of the car.
- Position : 10 m behind the centreline of the rear axle of the car.

Minimum area : 100 cm² for each mirror

The LMP2 cars must be equipped with 2 external rear view mirrors with a minimum surface of 150 cm² per rear view mirror. They must :

- have a day/night device, the effectiveness of which must be demonstrated by the competitor during the homologation or the scrutineering (a film can be added on the mirror at night).
- be capable of being adjusted by the driver, when seated normally at the wheel, safety belts fastened.

For LMP1 and LMP2 cars, it is permitted to add a camera at the rear of the car and a screen in the cockpit for rear vision.
The camera must have a day/night mode.

Headrest and head protection

All cars must be equipped with three areas of padding for the driver's head protection which:

<p>a/ sont disposées de manière à pouvoir être retirées de la voiture d'un seul bloc ;</p> <p>b/ sont fixées par deux chevilles horizontales derrière la tête du pilote et par deux fixations aux coins avant qui soient clairement indiquées et facilement amovibles sans outils (voitures ouvertes seulement) ;</p> <p>c/ sont faites d'un matériau conforme aux spécifications : "Confor" CF45 (Blue) (Liste Technique de la FIA n°17) ;</p> <p>d/ sont recouvertes, à tous les endroits que la tête du pilote est susceptible de toucher, de deux couches de matériau composite préimprégné de fibre aramide/résine époxy en tissu à armure toile de 60 g/m² d'une teneur en résine polymérisée de 50 % (+/-5 %) en poids ; Aucun traitement de surface sur la protection en aramide n'est autorisé, peinture excepté. Une zone sans peinture doit être prévue afin de pouvoir contrôler directement la couleur du matériau.</p> <p>e/ sont positionnées de manière à être le premier point de contact pour le casque du pilote en cas de choc projetant sa tête vers elles lors d'un accident.</p>	<p>are so arranged that they can be removed from the car as one part ;</p> <p>are located by two horizontal pegs behind the driver' head and two fixings at the front corners which are clearly indicated and easily removable without tools (open cars only) ;</p> <p>are made from a material which is responding to specifications : "Confor" CF45 (Blue) (FIA Technical List n°17) ;</p> <p>are covered, in all areas where the driver's head is likely to make contact, with two plies of Aramid fibre/epoxy resin composite pre-preg material in plain weave 60gsm fabric with a cured resin content of 50% (+/-5%) by weight ; Not any surface treatment on aramid cover is permitted except paint.</p> <p>A window without paint to be managed to permit direct check of color of material.</p> <p>are positioned so as to be the first point of contact for the driver's helmet in the event of an impact projecting his head towards them during an accident.</p>
<p>15.4.2 La première zone de rembourrage destinée à protéger la tête du pilote doit être positionnée derrière le pilote et doit avoir une épaisseur comprise entre 75 mm et 90 mm sur une surface minimale 40000 mm². Afin de permettre une meilleure répartition des forces, la surface de la cellule de survie supportant la mousse peut être augmentée en ajoutant du matériau. Ce matériau doit être collé et ne doit pas être à plus de 105 mm du point le plus en avant de la structure secondaire.</p>	<p>The first area of padding for the driver's head must be positioned behind him and be between 75 mm and 90 mm thick over an area of at least 40000 mm². In order to provide a better force distribution, the area of the survival cell supporting the foam may be increased by adding material. This material must be glued and within a maximum of 105 mm backwards from the foremost point of the secondary structure.</p>
<p>15.4.3 Les deux autres zones de rembourrage destinées à protéger la tête du pilote doivent être positionnées directement de chaque côté de son casque. Sur toute leur longueur, la surface supérieure de ces zones de rembourrage doit être au minimum aussi haute que la structure de protection du pilote (cf. Article 16.3). Chaque zone de rembourrage doit avoir une épaisseur comprise entre 75 mm et 90 mm sur une surface minimale de 25000 mm² et peut avoir un rayon de 10 mm le long de sa bordure intérieure supérieure. Pour calculer leur surface, toute partie de plus de 75 mm d'épaisseur et située entre la partie avant de la zone de rembourrage arrière et la partie la plus avancée du casque du pilote, lorsqu'il est assis normalement, sera prise en compte. L'épaisseur sera mesurée perpendiculairement à l'axe de la voiture.</p>	<p>The two further areas of padding for the driver's head must be positioned directly alongside each side of his helmet.</p> <p>The upper surfaces of these areas of padding must be at least as high as the protective structure for the driver (cf. Article 16.3) over their entire length. Each area of padding must be between 75 mm and 90 mm thick over an area of at least 25000 mm² and may have a radius of 10 mm along its upper inboard edge. When calculating their area, any part which is greater than 75 mm thick and which lies between the front face of the rear area of padding and the furthest forward part of the driver's helmet whilst he is seated normally, will be taken into account. The thickness will be measured perpendicular to the car centreline.</p>
<p>15.4.4 Voiture ouverte En avant des zones de rembourrage latérales, un capitonnage supplémentaire doit être prévu sur chaque côté de la structure de protection du pilote (cf. Article 16.3). Le but de ce capitonnage supplémentaire est de protéger la tête du pilote en cas de choc frontal oblique. Il doit donc être fait du même matériau que les trois autres zones de rembourrage. Ces extensions doivent : - être positionnées de façon symétrique par rapport à l'axe de la structure de protection du pilote et constituer un prolongement des zones de rembourrage latérales ; - être positionnées de façon à ce que, sur toute leur longueur, leur surface supérieure soit au moins aussi haute que la structure de protection du pilote ; - avoir un rayon de 10 mm maximum sur leur bordure intérieure supérieure ; - être positionnées de telle manière que la distance entre les deux ne soit pas inférieure à 360 mm ; - être aussi hautes que possible dans les limites des contraintes de confort du pilote.</p>	<p>Open car Forward of the side areas of padding, further cockpit padding must be provided on each side of the protective structure for the driver (cf. Article 16.3). The purpose of the additional padding is to afford protection to the driver's head in the event of an oblique frontal impact and it must therefore be made from the same material as the other three areas of padding. These extensions must : - be positioned symmetrically about the centreline of the protective structure for the driver and form a continuation of the side areas of padding; - be positioned with their upper surfaces at least as high as the protective structure for the driver over their entire length; - have a radius on their upper inboard edge of no more than 10mm; - be positioned such that the distance between the two is no less than 360mm; - be as high as practicable within the constraints of driver comfort.</p>
<p>15.4.5 Tout le rembourrage ci-dessus décrit doit être installé de telle façon que, s'il arrivait que la tête du pilote, par mouvement, selon une trajectoire donnée lors d'un accident, devait comprimer totalement la mousse en un point quelconque de la surface, son casque n'entrerait pas en contact avec une partie structurelle quelconque de la voiture. De plus, dans l'intérêt des équipes de secours, la méthode de démontage du rembourrage ci-dessus décrit doit être clairement indiquée.</p>	<p>All of the padding described above must be so installed that, if movement of the driver's head, in any expected trajectory during an accident, were to compress the foam fully at any point, his helmet would not make contact with any structural part of the car.</p> <p>Furthermore, for the benefit of rescue crews, the method for the removal of the padding described above must be clearly indicated.</p>

15.4.6	Aucune partie des rembourrages ci-dessus décrits ne doit cacher la vue d'une partie du casque du pilote lorsqu'il est assis normalement et vu directement du dessus de la voiture.	No part of the padding described above may obscure sight of any part of the driver's helmet when he is seated normally and viewed from directly above the car.
15.5	Coupe-circuit	Master switch
15.5.1	Assis au volant et sanglé, le pilote doit pouvoir couper tous les circuits électriques et arrêter le moteur au moyen d'un coupe-circuit antidéflagrant.	When seated normally behind the wheel with the safety belt fastened, the driver must be able to cut off all electrical circuits and turn the engine off by means of a spark proof circuit breaker switch.
15.5.2	L'interrupteur du coupe-circuit doit être placé en un endroit aisément accessible par le pilote ou de l'extérieur ; Il doit être clairement signalé par un symbole montrant un éclair rouge dans un triangle bleu bordé d'un liseré blanc.	The switch of the circuit breaker must be located in a place which can be reached easily by the driver or from outside ; It must be clearly marked by a symbol showing a red spark in a white edged blue triangle.
15.5.3	Un interrupteur extérieur doit aussi être prévu avec une poignée ou un anneau susceptible d'être actionné à distance au moyen d'un crochet. Cet interrupteur doit être placé :	There must be also an exterior switch, with a handle or a ring capable of being operated from a distance by a hook This switch must be positioned :
a/	sur la partie supérieure gauche de la carrosserie ;	on the left of the upper part of the bodywork ;
b/	si possible au voisinage du pied de l'arceau principal.	if possible next to the lower part of the main roll bar.
15.6	Anneaux de prise en remorque	Towing eyes
15.6.1	Les anneaux de prise en remorque avant et arrière doivent :	Front and rear towing eyes must
a/	être rigides, en acier, sans possibilité de rupture, mesurer entre 80 et 100 mm de diamètre intérieur et 5 mm minimum d'épaisseur (section arrondie pour ne pas sectionner ou endommager les sangles utilisées par les commissaires);	be rigid, made from steel, with no chance of breaking, have an inner diameter between 80 and 100 mm and be 5 mm minimum thick (round section for not cutting or damaging the straps used by the marshals);
b/	être solidement fixés au châssis/structure au moyen d'une pièce rigide en métal (câbles interdits);	be securely fitted to the chassis/structure by means of a metallic rigid piece (cable hoops are not permitted);
c/	rester dans le contour de la carrosserie vue de dessus ;	be within the perimeter of the bodywork as viewed from above ;
d/	être facilement identifiables et peints en jaune, rouge ou orange ;	be easily identified and painted in yellow, red or orange ;
e/	permettre de tirer une voiture immobilisée dans un bac à graviers.	allow the towing of a car stuck in a gravel bed.
15.6.2	Mouvement non intentionnel de la voiture	Unintentional movement of the vehicle
	Un dispositif, tel que l'Interrupteur d'Arrêt d'Urgence, doit empêcher le mouvement de la voiture tant que le pilote n'est pas complètement assis sur son siège.	A device, e.g. the General Circuit Breaker, must prevent movement of the vehicle whenever the driver is not fully seated in the driver's seat.
15.7	Sécurité électrique générale	General electrical safety
15.7.1	On doit bien s'assurer qu'aucune panne unique du système hybride ne puisse causer de choc électrique mettant en danger la vie des personnes et que les composants utilisés ne puisse causer de blessure en aucun cas ou condition (pluie, etc.), aussi bien en fonctionnement normal que suite à toute situation de panne prévisible. On doit bien s'assurer que les composants utilisés pour protéger les personnes et les biens peuvent remplir leur fonction pendant une durée appropriée. Le système ne doit pas contenir d'élément conducteur ou métallique à nu. Au cas où la tension du Circuit de Puissance dépasse 50 volts, des panneaux d'alerte de "Haute tension" doivent être affichés sur ou près des protections de tout équipement électrique susceptible d'être sous haute tension; le panneau doit comprendre une étincelle noire à l'intérieur d'un triangle jaune avec une bordure noire. Les côtés du triangle doivent mesurer au moins 12 cm. Toute voiture hybride doit respecter la réglementation des autorités nationales concernant le contrôle et la normalisation des installations électriques basse tension ainsi que la réglementation de l'IEC (International Electrotechnical Commission) (soit IEC 529, 718, 783, 784, 785, et 786), ou de son représentant ou membre national (dit VDE/SEV). Aucun élément de l'équipement électrique ne peut être porté à une tension excédant la classe B (2.9).	It must be ensured that a single point of failure of the hybrid system must not cause an electric shock hazardous to the life of any person and that the components used cannot cause injury under any circumstances and conditions (rain, etc), whether during normal operation or in foreseeable cases of malfunction. It must be ensured that the components used for protecting persons or objects can reliably fulfill their purpose for an appropriate length of time. There should be no exposed live metal or conductive parts in the system. In cases where the voltage of the Power Circuit exceeds 50 volts, symbols warning of "High Voltage" must be displayed on or near the protective covers of all electrical equipment that can run at high voltage; the symbols must comprise a black spark inside a yellow triangle with a black border. The sides of the triangle must measure at least 12 cm. All hybrid vehicles must comply with the regulations of the national authorities with regard to the standardisation and control of low voltage electrical installations. Likewise, the regulations of the IEC (International Electrotechnical Commission) (e.g. IEC 529, 718, 783, 784, 785, and 786), or of the national representative or member of the IEC (e.g. VDE/SEV), must be observed. In no part of the electrical equipment may there be voltage exceeding voltage class B (2.9) limits.
15.7.2	Protection contre l'eau et la poussière	Protection against dust and water
	Toute partie de l'équipement électrique doit être protégée au moins au niveau IP 44 (contre l'eau et la poussière). Des protections de type IP55 (contre la poussière et les éclaboussures) doivent être utilisés dans l'habitacle.	All parts of the electrical equipment must be protected using at least IP 44 type protection (dust-proof and splash-proof). IP 55 type protection (fully dust-proof and proof against streaming water) must be used inside the cockpit.

15.7.3 Référence de la masse du circuit de puissance

Tous les principaux éléments conducteurs de la coque doivent être reliés (avec des câbles d'un calibre approprié) pour obtenir un réseau équipotentiel.

Aucune partie du châssis ni de la coque ne doit être utilisée comme chemin de retour de courant.

La répartition des courants forts dans un circuit doit être établie en étoile et non en boucle de façon à éviter tout glissement des potentiels lié à des courants traversants. Le point de masse centrale ainsi défini est ci-après nommé masse du circuit de puissance.

15.7.4 Résistance d'isolement entre châssis et Circuit de Puissance

Un système de surveillance électronique doit mesurer la résistance d'isolement RISO entre les parties conductrices du châssis (de la coque) et le Circuit de Puissance. La résistance d'isolement minimale RISO doit être supérieure à 10.000 ohms (5 mA sous 50 V). Si le système de surveillance électronique détecte un défaut d'isolement, toutes les sources d'énergie (SRSE, générateur, alternateur) doivent immédiatement être déconnectées du Circuit de Puissance par l'Interrupteur d'Arrêt d'Urgence.

Suite aux déformations de la carrosserie ou de la coque en cas d'accident, le Circuit de Puissance est susceptible d'être électriquement connecté à la masse du châssis. En un tel cas, le système de surveillance électronique doit automatiquement couper toutes les sources d'énergie par l'Interrupteur d'Arrêt d'Urgence. Ainsi, en complément, le système de surveillance sert de déclencheur redondant au détecteur de choc.

15.7.5 Câbles électriques

Tout câble électrique doit être calibré et isolé en fonction de l'intensité qui le traverse et de la tension du circuit correspondant.

Tout circuit électrique doit être protégé par un disjoncteur de calibre approprié à la taille des conducteurs et aux tensions et courants qu'ils véhiculent.

Toute partie de l'équipement électrique y compris câbles et fils doit avoir une résistance d'isolement entre tout composant actif et la coque d'au moins :

- 250 k Ω pour tout équipement de potentiel inférieur à 300 volts par rapport à la coque,
- 500 k Ω pour tout équipement de potentiel supérieur à 300 volts par rapport à la coque.

La résistance d'isolement doit être mesurée avec une tension continue d'au moins 100 volts.

On doit réaliser des essais pour quantifier et valider la résistance d'isolement de la voiture en conditions humides.

15.7.6 Isolation

Tout élément actif électriquement doit être protégé contre tout contact accidentel. Les matériaux isolants n'ayant pas une résistance mécanique suffisante, (couches de peinture, email, oxydes, couches de fibre (imprégnées ou non) ou adhésifs isolants ne sont pas autorisés.

Tout châssis électriquement conducteur ainsi que carrosserie et armature de sécurité doit être connecté à la masse châssis et isolé de la Masse du Circuit de Puissance.

15.7.7 Circuit de Puissance

Le Circuit de Puissance doit être électriquement séparé du châssis et du Circuit Auxiliaire par des isolateurs adéquats partout où sa tension dépasse 50 volts.

15.7.8 Câblage du Circuit de Puissance

Le Circuit de Puissance comprend le SRSE, le convertisseur (onduleurs) pour la propulsion, le(s) contacteur(s) de l'Interrupteur d'Arrêt d'Urgence, des fusibles, le(s) générateur(s) et le(s) moteur(s) de propulsion.

Tout câble, borne et composant électrique de puissance (moteur, générateur, onduleurs et SRSE) pouvant transmettre plus de 30 mA doit être protégé de façon à détecter :

Reference of power Circuit Ground

All major conductive parts of the body must be connected e.g. with wires of appropriate dimension to obtain equipotential bonding.

No part of the chassis or bodywork should be used as a current return path.

The distribution of high currents in a network must be made in a star-point configuration and not in a loop, in order to avoid potential shifts resulting from current flows. The star-point of the electrical reference potential is henceforth named "Power Circuit Ground".

Insulation resistance between chassis and power circuit

An electronic monitoring system must measure the insulation resistance Riso between the conductive parts of the chassis (body) and the power circuit. The minimum insulation resistance

Riso must be more than 10,000 Ohm (50 V @ 5 mA). If the electronic monitoring system detects an insulation fault, all energy sources (STSY and generator, alternator) must immediately be disconnected from the power circuit by the General Circuit Breaker.

Due to the deformation of the car body in a crash, the power circuit will most likely be electrically connected to the chassis potential. In such a case, the electronic monitoring system will automatically switch off all energy sources by the General Circuit Breaker. Thus, the monitoring system additionally serves as a redundant trigger device to the crash impact detector.

Electrical cables

Each electrical cable must be suitable for a quantity of electric current which shall be charged in the relevant circuit, and be insulated adequately.

All electrical circuit must be protected by means of overcurrent trips rated according to the caliber of the individual conductors and to voltage and current they transport.

Every part of the electrical equipment including wires and cables must have a minimum insulation resistance between all live components and the bodywork.

- For equipment with up to 300 volts to bodywork, the insulation resistance must reach the following value: 250 k Ω .
- For equipment with more than 300 volts to bodywork, the insulation resistance must reach the following value: 500 k Ω .

The measurement of the insulation resistance must be carried out using a DC voltage of at least 100 volts.

Tests should be carried out to validate and quantify the insulation resistance of the vehicle in wet conditions.

Insulation resistance

All electrically live parts must be protected against accidental contact. Insulating material not having sufficient mechanical resistance, i.e. paint coating, enamel, oxides, fiber coatings (impregnated or not) or insulating tapes are not allowed.

An electrically conducting chassis frame as well as the bodywork and safety structure must be connected to the Chassis Ground and insulated from Power Circuit Ground.

Power Circuit

In cases where the voltage of the Power Circuit exceeds 50 volts, this Power circuit must be electrically separated from the chassis (body) and from the Auxiliary Circuit by adequate insulators.

Power circuit wiring

The power circuit comprises the SRSE, the converter (chopper) for the drive motor(s), the contactor(s) of the General Circuit Breaker, fuses, the generator(s) and the drive motor(s).

All cables and wires connecting electrical power components (e.g. motor, generator, chopper and SRSE) with an ampacity of more than 30 mA must be protected in order to detect:

- la rupture ou la déconnexion d'un câble de puissance,
 - l'ouverture d'un capot de protection.
- L'utilisation d'un fil capteur est recommandée.
En cas de défaut d'isolement ou d'une rupture de câble de puissance, un système de surveillance électronique doit couper toute source d'énergie (SRSE et générateur) du Circuit de Puissance, c'est à dire par le contacteur de l'Interrupteur d'Arrêt d'Urgence.

Tout câble du Circuit de Puissance doit être de couleur orange.

Les câbles du Circuit de Puissance exposés à des contraintes (mécanique, thermique, vibration, etc.) doivent être sécurisés par des guides câble adéquats, des enceintes et conduites isolantes.

Dans le Circuit de Puissance, tout connecteur ouvert doit être capoté. Un système automatique doit détecter si un connecteur du Circuit de Puissance est décapoté ou si un connecteur du Circuit de Puissance est déconnecté en service (la déconnexion de contacts actifs peut être détectée par exemple par des contacts d'alarme dans chaque connecteur [du circuit] de puissance). En un tel cas, le SRSE doit être coupé immédiatement (en moins de 50 ms) ou déconnecté du Circuit de Puissance.

15.7.9 Interrupteur d'Arrêt d'Urgence (coupe circuit général)

Toute voiture doit être équipée d'un Interrupteur d'Arrêt d'Urgence d'une capacité suffisante pour être facilement déclenché par un poussoir accessible au pilote assis normalement dans son siège avec son harnais de sécurité attaché et le volant en place, et de l'extérieur, pour couper tout dispositif de transmission électrique (tout circuit électrique y compris la puissance auxiliaire nécessaire au fonctionnement du moteur thermique). Cependant, on doit bien prendre garde à ce que l'implantation du coupe circuit n'amène pas le circuit électrique principal trop près du pilote ou de l'Interrupteur externe.

Pour les voitures fermées, le bouton externe de l'Interrupteur d'Arrêt d'Urgence doit être placé sous le pare-brise, du côté gauche de l'auto quand on regarde dans le sens du mouvement.

Pour voitures ouvertes, le bouton externe de l'Interrupteur d'Arrêt d'Urgence doit être placé du côté gauche de l'auto vers la base de l'arceau principal quand on regarde dans le sens du mouvement.

Le bouton doit être repéré par une étincelle rouge dans un triangle bleu bordé de blanc avec une base d'au moins 12 cm.

Le contacteur doit être d'un modèle antidéflagrant. Pour empêcher toute fusion d'un de ses contacts, son I^2t (caractéristique joule, représentant l'énergie calorifique dissipée pendant l'ouverture des contacts) doit être suffisant pour assurer le bon fonctionnement de l'Interrupteur d'Arrêt d'Urgence, y compris en cas de courts-circuits, en particulier ceux qui peuvent survenir lors de la connexion du SRSE au faisceau de puissance.

En cas d'accident mineur, le moteur thermique et toutes les sources d'énergie du Circuit de Puissance doivent être coupés automatiquement par interrupteurs électriques ou contacteurs.

En cas d'accident grave, le moteur thermique doit être automatiquement coupé et les câbles d'alimentation doivent être déconnectés automatiquement de l'intérieur du compartiment du SRSE. L'analyse de défaillance présentée à l'homologation doit valider les dispositions ainsi mises en œuvre.

15.7.10 Disjoncteur (fusibles)

Les fusibles et les coupe circuits (mais jamais le coupe circuit moteur) sont considérés comme disjoncteurs. Les fusibles rapides et les fusibles électroniques ultra rapides conviennent.

Des disjoncteurs doivent être placés aussi près que possible du SRSE à chaque borne à l'intérieur du compartiment SRSE ainsi qu'aux emplacements adéquats de chaque circuit électrique de puissance.

Un disjoncteur ne doit remplacer l'Interrupteur d'Arrêt d'Urgence en aucune circonstance.

- Breaking or disconnection of a power cable,
 - Opening of a protective casing.
- It's recommended to make use of a sense wire.
In case of an insulation failure or a broken power wire, an electronic monitoring system must disconnect all energy sources (SRSE and generator) from the power circuit, e.g. by the contactor of the General Circuit Breaker.

The colour of all power circuit wires must be orange.

Power Circuit wires exposed to stress (e.g. mechanic, thermal, vibration, etc.) must be secured within proper cable guides, enclosures and insulating conduits.

All open connectors of the Power Circuit must be capped. An automatic system must detect if a connector of the Power Circuit is uncapped or if a Power Circuit connector is disconnected in live condition (disconnection of Live contacts can be detected by e.g. shorter alarm contacts within the power connector). In such a case, the STSY must be switched off immediately (within less than 50 ms) or disconnected from the Power Circuit.

General Circuit Breaker ("Emergency stop switch")

All vehicles must be equipped with a General Circuit Breaker, of a sufficient capacity, that can be operated easily by a trigger button from the driver's seat when the driver is seated in a normal and upright position, with the safety belts fastened and the steering wheel in place, and from the outside, to cut off all electric transmission devices (all electrical circuits including the auxiliary power to the i.c. engine). Care must be taken, however, that the installation of the circuit breaker does not result in the main electrical circuit being located close to the driver or the external switch.

For closed cars, the external button of the General Circuit Breaker must be located below the windscreen on the driver's side, i.e. on the left-hand side of the vehicle when facing in the direction of travel.

For open cars, the external button of the circuit breaker must be located on the left-hand side at the base of the main rollbar structure when facing in the direction of travel.

The button must be marked by a red spark in a white-edged blue triangle with a base of at least 12 cm.

The contactor must be a spark-proof model. In order to prevent contact melting of the contactor its I^2t (ampere squared seconds characteristics, representing heat energy dissipated on the breaker contacts during switching) must be sufficient to guarantee proper operation of the General Circuit Breaker, even under surge current conditions, in particular those occurring during the connection of the STSY to the power bus.

In a minor crash, the i.c. engine and all energy sources of the Power Circuit must be switched off automatically by electric switches or contactors.

In a severe crash, the i.c. engine must be switched off automatically and the energy supply cables must be disconnected automatically inside the SRSE. Those arrangements must be validated by the failure mode analysis submitted by the homologation.

Overcurrent trip (fuses)

Fuses and circuit breakers (but never the motor circuit breaker) count as overcurrent trips. Extra fast electronic circuit fuses and fast fuses are appropriate.

Overcurrent trips must be fitted as close as possible to the STSY at both polarities inside the STSY compartment and also in an adequate location in each electric power circuit.

Overcurrent trips must under no circumstances replace the General Circuit Breaker (emergency stop switch).

15.7.11 Double sécurité du SRSE

Le SRSE doit être protégé par une Électronique de Contrôle de la Batterie (ECB). Ce système de contrôle doit prévenir toute mauvaise utilisation ou sollicitation du SRSE.

De plus, tout SRSE basé sur une technologie présentant des risques techniques internes (surcharge, survitesse, hypotension, emballement thermique, etc.) doit être muni de son propre système de sécurité tel que fourni par le fabricant des éléments de stockage d'énergie. Dans le système de stockage, cette unité de sécurité, séparée et indépendante du système de contrôle, doit surveiller les paramètres caractéristiques du système pour l'éteindre sur disfonctionnement d'un seul élément de façon à empêcher tout emballement thermique, explosion ou implosion en cas de défaillance ou de trop forte sollicitation.

Notamment, les accumulateurs Li-Ion du marché sont de types variés avec des caractéristiques et des exigences de sécurité différentes. Pour ce genre d'accumulateurs, seules les batteries équipées de leur propre système de contrôle de tension et de protection pour empêcher surcharge et hypotension de chaque cellule seront approuvées.

Un boîtier de contrôle séparé et indépendant doit superviser la tension et la température des cellules afin de disjoncter le système dès qu'une cellule disfonctionne.

L'assemblage des cellules en un bloc batterie doit être réalisé par un fabricant avec la technologie appropriée.

Les spécifications du bloc batterie, modules et cellules, ainsi qu'un document de leur fabricant attestant la sécurité du produit batterie, doit être vérifié et approuvé par le Groupe Homologation par avance.

15.7.12 Interrupteur Général du Pilote (IGP)

Toute voiture doit être équipée d'un Interrupteur Général du Pilote. L'IGP doit être mécaniquement protégé contre tout enclenchement accidentel.

L'IGP doit être placé sur le tableau de bord.

L'IGP ne doit jamais se substituer à l'Interrupteur d'Arrêt d'Urgence.

15.7.13 Signalisation Actif/Sûr

Le Signal Actif/Sûr doit être activé conjointement par l'Interrupteur Général du Pilote (IGP) et l'Interrupteur d'Arrêt d'Urgence (IAU).

Afin de signaler clairement le danger qu'il y aurait à travailler sur le Circuit de Puissance, la voiture doit être équipée des indicateurs lumineux suivants :

- Sur le tableau de bord, 1 indicateur Vert (composé de 2 voyants redondants) et 1 indicateur Rouge (composé de 2 voyants redondants)
- A proximité du coupe circuit extérieur, 1 indicateur Vert (composé de 2 voyants redondants) et 1 indicateur Rouge (composé de 2 voyants redondants)
- Du côté opposé au coupe-circuit, en position symétrique par rapport à l'axe longitudinal de la voiture, 1 indicateur Vert (composé de 2 voyants redondants) et et 1 indicateur Rouge (composé de 2 voyants redondants)

Les voyants doivent fonctionner selon les modes suivants en fonction de l'état du système :

	Eteint	Clignotant	Allumé
Vert	Repos	Sûr	Sûr et Actif
Rouge	Pas de Défaut		Défaut Système

Double safety of the SRSE

The SRSE must be protected by a Battery Supervising Electronics (BSE). This control system must prevent any misuse or overload of the SRSE.

Any SRSE which technology presents some internal technical risk (overload failure, over speed, low voltage failure, thermal runaway, etc.) must have its own safety system as provided by the Manufacturer of the energy storage elements. Inside the storage compartment, this safety system, separated and independent of the control system, must survey the typical parameters of the system and stop it to prevent thermal runaway, explosion or implosion in case of failure or too hard appliance.

In particular, Li-ion cells on the market are of different sorts, having various characteristics and different safety requirements. For those Li-ion batteries, only batteries equipped with their own voltage monitoring and safety system to prevent overcharging and under-voltage of each battery cell shall be approved.

Separate and independent of the control system, a surveillance unit should monitor the cell voltage and temperatures to shut the system down at a single cell malfunction.

The assembly of the battery cells in a battery pack must be carried out by a Manufacturer with the appropriate technology.

The specification of the battery pack, modules and cells, as well as a document from the said Manufacturer attesting to the safety of the produced battery pack, must be verified and approved by the Homologation Group in advance.

Driver Master Switch (DMS)

All vehicles must be equipped with a Driver Master Switch.

The DMS must be mechanically protected against any accidental engaging.

The DMS should be located on the dashboard.

The DMS may never substitute for the General Circuit Breaker.

Safe / Live Signage

The Safe / Live Signage must be activated jointly by both the Driver Master Switch (DMS) and the General Circuit Breaker (GCB).

In order to clearly show that it could be life-threatening to work on the Power Circuit, the car must be fitted with the following light indicators :

- On the dashboard, 1 Green indicator (made of 2 redundant lights) and 1 Red indicator (made of 2 redundant lights)
- Close to the external general circuit breaker, 1 Green indicator (made of 2 redundant lights) and 1 Red indicator (made of 2 redundant lights)
- On the opposite side of circuit breaker, in symmetrical position regarding longitudinal axis of car, 1 Green indicator (made of 2 redundant lights) and 1 Red indicator (made of 2 redundant lights)

The lights must operate as per the following modes in accordance with the system situation:

	Off	Flashing	On
Green	Dead	Safe	Safe and Live
Red	No Default		System Default

ART. 16 STRUCTURES DE SECURITE

16.1 Structures anti-tonneau

16.1.1 Structures anti-tonneau principales:

- a/ Deux structures anti-tonneau (avant et arrière) sont obligatoires. Elles doivent être :

SAFETY STRUCTURES

Rollover structures

Main rollover structures

Two safety rollover structures (front and rear) are mandatory. They must be :

<p>a.1 au moins à 660 mm (920 mm pour les voitures fermées) à l'avant et 1020 mm (voitures ouvertes seulement) à l'arrière au-dessus de la surface de référence ;</p> <p>a.2 distantes d'au moins 860 mm dans le sens longitudinal (600 mm pour les voitures fermées);</p> <p>a.3 garnies de mousse ininflammable (approbation FIA) pour les tubes au voisinage du pilote.</p> <p>a.4 être symétriques par rapport à l'axe longitudinal de la voiture;</p> <p>b/ Le pilote assis au volant, le casque doit être à une distance minimum de 80 mm par rapport à une ligne reliant le sommet des structures avant et arrière (cf. Dessin n°9).</p> <p>c/ Vue de face, le volant, quelque soit sa position angulaire, ne doit pas dépasser la structure avant (voitures ouvertes seulement).</p> <p>d/ Si un carénage ou un profilage recouvre les structures anti-tonneau avant et/ou arrière, sa partie supérieure doit avoir une longueur maximum de 200 mm (mesure longitudinale) et il doit permettre l'inspection des zones d'ancrage sur la structure principale par les Commissaires Techniques.</p> <p>e/ La structure arrière doit également :</p> <p>e.1 avoir une longueur hors tout minimum de 300 mm mesurée au niveau des ancrages sur la cellule de survie.</p> <p>e.2 avoir une hauteur minimum de 165 mm (voitures ouvertes seulement) par rapport à la structure anti-tonneau secondaire de la cellule de survie, décrite à l'Article 16.1.2 (cf. Dessin n°9).</p> <p>e.3 en projection frontale, les faces extérieures doivent former entre-elles un angle minimum de 30° (cf. Dessin n°10).</p> <p>e.4 Pour tous les châssis homologués après le 1er Juillet 2007, les structures anti-tonneau principales et les structures anti-tonneau secondaires ne doivent pas cacher la vue d'une partie du moteur (le bloc moteur et les culasses), vu directement du dessus de la voiture.</p> <p>e.5 Une plaque plane et horizontale peut relier les structures anti-tonneau principales. Toutefois, elle doit être partie intégrante de la structure anti-tonneau arrière, ne doit pas être démontable, et doit permettre de lever la voiture au moyen d'une sangle.</p>	<p>at least 660 mm (920 mm for closed cars) at the front and 1020 mm (open cars only) at the rear above the reference surface ;</p> <p>separated a minimum of 860 mm longitudinally (600 mm for closed cars);</p> <p>covered with fireproof foam (FIA approved) as far as tubes close to the driver are concerned.</p> <p>be symmetrical to the longitudinal centreline of the car.</p> <p>The driver at the wheel, the helmet must be at a minimum distance of 80 mm from the line connecting the top of front and rear rollover structures. (see Drawing n°9).</p> <p>As viewed from the front, the steering wheel, whatever its position, must not protrude from the front rollover structure (open cars only) ;</p> <p>Should streamlining or fairing cover the front and/or rear rollover structures its upper part must have a maximum length of 200 mm (longitudinal measurement) and it must allow inspection of the mounting areas on the main structure, by the Scrutineers.</p> <p>The rear structure must also :</p> <p>have a minimum overall length of 300 mm measured at the level of the mountings on the survival cell.</p> <p>have a minimum height of 165 mm (open cars only) relative to the secondary rollover structure of the survival cell, described in Article 16.1.2 (cf. Drawing n°9).</p> <p>on a frontal projection, the external sides must form an angle of 30° minimum to one another (see Drawing n°10).</p> <p>For all the chassis homologated after July 1st, 2007, the main rollover structures and the secondary rollover structures must not obscure sight of any part of the engine (engine block and head cylinders), viewed from directly above the car.</p> <p>A flat and horizontal plate may link the main rollover structures. However, it must be an integral part of the rear rollover structure, must not be removable and must permit to lift the car with a strap.</p>
<p>16.1.2 Structure anti-tonneau secondaire</p> <p>La partie de la cellule de survie située derrière le pilote doit constituer une structure anti-tonneau secondaire, destinée à protéger les occupants en cas de défaillance de la structure anti-tonneau principale arrière décrite à l'Article 16.1.1 ci-dessus.</p> <p>En vue de face, cette structure secondaire doit être symétrique par rapport à l'axe longitudinal de la voiture et toujours dépasser le contour du casque du pilote.</p> <p>Ses faces extérieures doivent former entre-elles un angle minimum de 40° et sa partie supérieure doit comporter un diamètre minimum de 280 mm (cf. Dessin n°10).</p> <p>La structure secondaire doit avoir une hauteur minimale de 855 mm par rapport à la surface de référence.</p> <p>La section frontale minimum définie ci-dessus doit être à 105 mm maximum en arrière du point le plus en avant de la structure anti-tonneau secondaire.</p> <p>La face avant doit être fermée.</p> <p>Seules les prises d'air d'admission pour le moteur sont autorisées pour les voitures ouvertes.</p>	<p>Secondary rollover structure</p> <p>The part of the survival cell situated rearward of the driver must form a secondary rollover structure, the purpose of which is to protect the occupants in the case of a failure of the main rear rollover structure described in Article 16.1.1 above.</p> <p>Viewed from the front, this structure must be symmetric about the longitudinal centreline of the car and must always extend beyond the outline of the driver's helmet.</p> <p>Its external sides must form an angle of 40° minimum to one another and its upper part must have a minimum diameter of 280 mm (cf. Drawing n°10).</p> <p>The secondary rollover structure must have a minimum height of 855 mm relative to the reference surface.</p> <p>The minimum frontal section as defined above must be at 105 mm maximum backward the foremost point of the secondary structure.</p> <p>The front face must be closed.</p> <p>Air intakes for the engine are only permitted for closed cars.</p>
<p>16.1.3 Approbation des arceaux</p> <p>a/ Chaque structure anti-tonneau doit être approuvée par la FIA conformément à la procédure d'approbation des structures de sécurité pour voitures de sport (disponible sur demande, pour les Constructeurs uniquement, auprès du Département Technique de la FIA). Le délai minimum de notification est de 6 semaines par rapport aux dates d'essai envisagées.</p> <p>b/ Le concurrent doit fournir une copie du certificat d'approbation établi par la FIA. Cette copie doit être délivrée par le Constructeur de la voiture.</p>	<p>Rollover structures approval</p> <p>Each rollover structure must be approved by the FIA in accordance with the approval procedure of safety structures for sports cars (available from the FIA Technical Department on request, for Manufacturers only).</p> <p>The minimum notice is 6 weeks from the foreseen test dates.</p> <p>The competitor must supply a copy of the FIA approval certificate. This copy must be delivered by the car Manufacturer.</p>

16.2 Cellule de survie et protection frontale**16.2.1 Prescriptions générales**

- a/ La structure du châssis doit comprendre une cellule de survie incluant le réservoir de carburant et s'étendant du plan vertical situé au moins 150 mm en avant des pieds du pilote jusqu'à l'arrière du réservoir de carburant, les pieds du pilote reposant sur les pédales non enfoncées ;
- b/ La cellule de survie doit intégrer des protections latérales ayant 500 mm de hauteur minimum sur toute la longueur de l'ouverture de l'habitacle (à l'exception des ouvertures des portes pour les voitures fermées construite avant le 31/12/2009).
Les parois extérieures verticales doivent être distantes l'une de l'autre d'au moins 900 mm sur au minimum 80% de la longueur de l'ouverture de l'habitacle ;
- Nota : pour les voitures fermées construites avant le 31/12/2009, il est possible d'intégrer au châssis des protections latérales ayant 500 mm de hauteur minimum, à condition :
- de satisfaire au test d'extraction du pilote avec les nouvelles protections latérales en place,
 - de procéder aux tests sur le châssis que la FIA jugera nécessaire.
- c/ Une structure spéciale absorbant les chocs doit être fixée à l'avant de la cellule de survie. Il n'est pas nécessaire que cette structure fasse partie intégrante de la cellule de survie, mais elle doit y être solidement fixée.

16.2.2 Approbation de la cellule de survie et de la structure absorbante frontale

- a/ La cellule de survie et la structure absorbante frontale doivent être approuvées par la FIA conformément à la procédure d'approbation des structures de sécurité pour voitures de sport (disponible sur demande, pour les Constructeurs uniquement, auprès du Département Technique de la FIA).
Le délai minimum de notification est de 6 semaines par rapport aux dates d'essai envisagées.
- b/ Le concurrent doit fournir une copie du certificat d'approbation établi par la FIA. Cette copie doit être délivrée par le Constructeur de la voiture.

16.3 Structure de protection du pilote (voiture ouverte seulement)

- a/ La cellule de survie doit comporter une structure de protection entourant le pilote, au dessus de l'ouverture de l'habitacle définie à l'Article 14.1.5 ;
- b/ Elle doit être fixée ou intégrée à la cellule de survie et positionnée entre les structures anti-tonneau avant et arrière ;
- c/ Elle doit conserver une épaisseur minimale de 30 mm sur tout son pourtour et doit respecter les dimensions définies par le Dessin n°6 ;
- d/ Afin de garantir que l'ouverture donnant accès à l'habitacle est d'une taille adéquate, la structure doit permettre l'insertion des gabarits 3 et 4 définis par le Dessin n°7.
Pour ce test, les gabarits, dont les bords arrière seront alignés transversalement, seront maintenus au-dessus de la voiture parallèles à la surface de référence, puis descendus perpendiculairement à la surface de référence jusqu'à ce que leurs bords inférieurs se trouvent à 500 mm au-dessus de la surface de référence;
Le volant, la colonne de direction, le panneau d'interrupteurs (côté passager seulement), le siège et tout rembourrage (fixations comprises) pourront être enlevés.
Si existant, la surface maximum du panneau d'interrupteurs ne doit pas dépasser 550 cm² en vue de dessus.
- e/ L'extrémité avant de la structure de protection doit se trouver à au moins 50 mm en avant du volant quelle que soit sa position d'utilisation.

16.4 Modifications

Toute modification d'une structure de sécurité approuvée par la FIA doit être soumise par le Constructeur de la voiture au Département Technique de la FIA. Celui-ci se réserve le droit d'exiger que de nouveaux essais soient effectués afin de procéder à l'approbation de la modification.

Survival cell and frontal protection**General prescriptions**

The chassis structure must include a survival cell including the fuel tank, extending from the vertical plane at least 150 mm in front of the driver's feet to behind the fuel tank, the driver's feet resting on the undepressed pedals ;

The survival cell must provide lateral protections 500 mm high as a minimum along the total length of the cockpit opening (with the exception of the door openings for closed cars built before 31/12/2009).

The vertical outside walls of the lateral protections must be separate from one another for a minimum of 900 mm across, and this for 80 % minimum of the length of the cockpit opening ;

Note: for closed cars built before 31/12/2009, it is possible to integrate lateral protections 500 mm high as a minimum into the chassis, provided:

- the extraction test for the driver with the new side protections in place meets the requirement,
- the tests on the chassis the FIA deems necessary have been carried out.

Special impact absorbing structure must be fitted in front of the survival cell. This structure need not be an integral part of the survival cell but it must be securely attached to it.

Approval of the survival cell and the frontal absorbing structure

The survival cell and the frontal absorbing structure must be approved by the FIA in accordance with the approval procedure of safety structures for sports cars (available from the FIA Technical Department on request, for Manufacturers only).

The minimum notice is 6 weeks from the foreseen test dates.

The competitor must supply a copy of the FIA approval certificate. This copy must be delivered by the car Manufacturer.

Protective structure for the driver (open cars only)

The survival cell must be fitted with a protective structure surrounding the driver, on top of the cockpit opening defined in Article 14.1.5 ;

It must be attached to or integrated into the survival cell and must be positioned between the front and rear rollover structures.

It must maintain a minimum thickness of 30 mm all round and must comply with the dimensions defined in Drawing n°6.

In order to ensure that the opening giving access to the cockpit is of adequate size, it must allow the insertion of templates 3 and 4 defined by Drawing n°7.

For this test, the templates, with their rearmost edges aligned transversally, must be held parallel to the reference surface and lowered perpendicularly to the reference surface from above the car until their lower edges are 500 mm above the reference surface.

The steering wheel, steering column, switch board (on the passenger side only), seat and all padding including fixings may be removed.

If present, the maximum area of switch board seen from top must not exceed 550 cm².

The forward extremity of the protective structure must be at least 50 mm in front of the steering wheel, whatever its operational position.

Modifications

Any modification of a safety structure approved by the FIA must be submitted by the car Manufacturer to the FIA Technical Department. The latter reserves the right to require that new tests be carried out to proceed with the approval of the modification.

<p>16.5 Magnésium Autorisé, sauf les feuilles de moins de 3 mm d'épaisseur.</p>	<p>Magnesium Permitted, apart from sheets less than 3 mm thick.</p>
<p>16.6 Cloisons pare-feu</p>	<p>Firewalls</p>
<p>16.6.1 Une cloison pare-feu métallique interdisant le passage des flammes du compartiment moteur dans l'habitacle est obligatoire. Une cloison réalisée en matériau sandwich ininflammable et recouverte d'une feuille métallique adhésive est acceptée.</p>	<p>A perfectly sealed metallic firewall preventing the passage of flames from the engine compartment into the cockpit is mandatory : A bulkhead made from a fireproof sandwich material and covered with an metallic adhesive sheet is acceptable.</p>
<p>16.6.2 Toute ouverture pratiquée dans cette cloison doit se limiter au passage des commandes et des câbles, tout en assurant l'étanchéité.</p>	<p>Any holes in the firewall must be of the minimum size for the passage of controls and cables, and must be completely sealed.</p>
<p>ART. 17 CARBURANT</p>	<p>FUEL</p>
<p>17.1 Carburant L'Organisateur ne délivrera qu'un seul type de carburant pour les moteurs essence et un seul type de carburant pour les moteurs diesel. Ils doivent être disponibles à la vente.</p>	<p>Fuel The Organiser will supply only one type of fuel for the gasoline engines and one type of fuel for the diesel engines. They must be available for sale.</p>
<p>17.2 Caractéristiques</p>	<p>Specifications</p>
<p>17.2.1 Essence Cf. Code Sportif International – Annexe J – Article 252-9.1. Sauf en ce qui concerne : - L'éthanol : 9% mini, 10% maxi - L'oxygène : 3.3% mini, 3.9% maxi</p>	<p>Petrol See International Sporting Code - Appendix J Article – 252-9.1. With the exception of: - Ethanol : 9% mini, 10% maxi, - Oxygen: 3.3% mini, 3.9% maxi</p>
<p>17.2.2 Diesel Pour les moteurs Diesel, le carburant doit être du gazole correspondant aux spécifications suivantes : - Teneur en soufre : 10 mg/kg maximum (NF EN ISO 20846 – NF EN ISO 20884) ; - Indice de cétane mesuré : 51 minimum - 70 maximum (NF EN ISO 5165) ; - Pouvoir lubrifiant : 350µm maxi (NF EN ISO 12156-1) ; Toutes les autres propriétés du gazole doivent être conformes à la norme NF EN 590</p>	<p>Diesel For Diesel engines, the fuel must be gas oil corresponding to the following specifications : - Sulphur content : 10 mg/kg maximum (NF EN ISO 20846 - NF EN ISO 20884) ; - Measured Cetane number : 51 minimum - 70 maximum (NF EN ISO 5165) ; - Lubricity : 350µm maximum (NF EN ISO 12156-1) ; All the other properties of the gas oil must comply with NF EN 590 specifications.</p>
<p>17.3 L'utilisation de tout autre carburant doit faire l'objet d'une demande spéciale soumise à l'agrément du Comité Endurance, et de l'ASN si nécessaire.</p>	<p>The use of any other fuel is subject to a special request submitted to the agreement of the Endurance Committee, and of the ASN if necessary.</p>
<p>ART. 18 TEXTE FINAL – LITIGES</p>	<p>FINAL TEXT – DISPUTES</p>
<p>Seule la version française fera foi pour l'application et l'interprétation des règlements.</p>	<p>The French version is the only one valid regarding the implementation and interpretation of the regulations.</p>
<p>ART. 19 AJUSTEMENT DES PERFORMANCES</p>	<p>ADJUSTMENT OF PERFORMANCES</p>
<p>LMP1 : Le Comité Endurance se réserve le droit d'adapter les éléments suivants pour chaque type de moteur et/ou chaque type de carburant: • Poids minimum de la voiture ; • Dimensions des brides d'air ; • Capacité du réservoir de carburant ; • Toute autre modification technique que le Comité Endurance jugerait nécessaire.</p> <p>LMP2 2012 : Le Comité Endurance se réserve le droit d'adapter les éléments suivants pour chaque modèle de voiture : • Poids minimum de la voiture ; • Dimensions des brides d'air ; • Capacité du réservoir de carburant ; • Autre restriction technique que le Comité Endurance jugerait nécessaire ;</p> <p>Il n'est pas question toutefois d'effectuer des ajustements après ou en fonction de chaque course. Si des adaptations sont nécessaires, elles seront imposées par le Comité Endurance de préférence à la fin de la saison de course. Cependant si un modèle de voiture est trop performant des dispositions immédiates seront prises par le Comité Endurance afin de réduire ses performances pour les courses suivantes. Le Comité Endurance privilégiera la réduction de performance des</p>	<p>LMP1: The Endurance Committee reserves the right to adjust the following elements for each type of engine and/or each type of fuel: • Minimum weight of the car ; • Air restrictor sizes ; • Fuel tank capacity ; • Any other technical modification that the Endurance Committee may deem necessary.</p> <p>LMP2 2012: The Endurance Committee reserves the right to adjust the following elements for each model of car: • Minimum weight of the car ; • Air restrictor sizes ; • Fuel tank capacity ; • Any other technical restriction that the Endurance Committee may deem necessary ;</p> <p>However, it is out of the question to make adjustments after or in accordance with each race. If adaptations are necessary, they will be imposed by the Endurance Committee preferably at the end of the race season. However should a model of car show too high a performance, immediate measures will be taken by the Endurance Committee in order to reduce its performances for the following races. The Endurance Committee will prioritize the reduction of performance of</p>

modèles les plus rapides plutôt que l'augmentation de performance des modèles les moins rapides.

Les ajustements de performance sont de la seule responsabilité du Comité Endurance.

LMP2 2010 :

Les modèles de voiture homologués en LMP2 avant le 31/03/2010 qui ne remplissent pas les critères de prix fixés ci-dessus peuvent courir en 2012 et 2013 aux conditions suivantes :

- Une nouvelle Fiche d'Homologation identique à celle des LMP2 2012 doit être établie. Les caractéristiques mentionnées dans cette Fiche d'Homologation ne peuvent pas être changées sauf pour des raisons de sécurité ou de fiabilité.
- Aucune variante de carrosserie n'est autorisée. Les seuls éléments aérodynamiques pouvant être ajoutés ou retirés sont les 2 flaps à l'avant de la voiture décrits à l'Article 3.6.2. ci-dessus.
- Uniquement pour les "24 Heures du Mans", un kit "low drag" peut être homologué. Il ne doit pas dépasser 5 000€.
- Le poids de la voiture doit être de 920 kg minimum.
- Le diamètre des brides doit être celui indiqué à l'Annexe 1-D,
- Les seules modifications autorisées sont celles imposées par le remplacement du moteur de course par un moteur de production. Toutefois, afin d'encourager les constructeurs à développer des LMP2 « Low Cost », le Comité Endurance les autorise à faire évoluer les voitures 2010 en utilisant des pièces homologuées sur une voiture « Low cost » de la même marque.

Ces modifications ne doivent pas pénaliser les concurrents utilisant les voitures 2010.

Ils doivent pouvoir s'il le désire utiliser les anciennes pièces ou en acquérir si nécessaire au prix actuel.

Bien entendu, ces voitures resteront soumises aux règles de performance des voitures 2010 tant qu'elles ne seront pas conformes à 100 % au règlement 2012 des voitures capées.

Afin de tenir compte des changements imposés à partir du 01.01.2012 pour raison de sécurité, il sera permis de faire en plus des modifications obligatoires, les modifications devenues éventuellement nécessaires pour assurer le bon fonctionnement des voitures.

Ces modifications pourront concerner les éléments de suspension, l'aile arrière et les supports, les éléments aérodynamiques à l'avant de la voiture.

Ces modifications devront être homologuées et devront être utilisées jusqu'à la fin de la saison.

- D'autres exemplaires de ces modèles peuvent être construits à condition de respecter les conditions ci-dessus.

Des ajustements de performance seront effectués, si nécessaire, après la première et/ou la deuxième course et pendant toute la saison par le Comité Endurance de façon à ce que la performance de la meilleure LMP2 2010 ne soit pas supérieure à la performance de la meilleure LMP2 2012. Ces ajustements seront appliqués de façon identique à toutes les LMP2 2010 afin de maintenir leur hiérarchie.

Les éléments suivants pourront être modifiés :

- Poids minimum de la voiture (lest handicap)
- Dimension des brides d'air,
- Capacité du réservoir de carburant,
- Autre restriction technique que le Comité Endurance jugerait nécessaire.

the faster models rather than the increase of performance of the slower models.

Performance adjustments are exclusively the responsibility of the Endurance Committee.

LMP2 2010 :

The models of LMP2 cars homologated before 31/03/2010 which do not meet the above-mentioned price criteria may run in 2012 and 2013 with the following conditions:

- A new Homologation Form identical to the 2012 LMP2 one must be completed. The specifications listed in this Homologation Form cannot be changed except for safety or reliability reasons.
- No bodywork variation is permitted. The only aerodynamic elements that may be added or removed are the 2 flaps in front of the car described in Article 3.6.2. above.
- Only for the "24 Heures du Mans", a low drag kit may be homologated. It must not exceed €5 000
- The weight of the car must be 920 kg minimum.
- The restrictor diameter must be the one specified in Appendix 1-D.
- The only changes allowed are those required to replace the race engine by a production engine.

However, in order to encourage manufacturers to develop "Low Cost" LMP2 cars, the Endurance Committee allowed them to update the 2010 cars by using parts homologated on a "low cost" car of the same make.

These modifications should not penalize the competitors using 2010 cars.

They should be able to use the old parts or to buy them at the current price if necessary.

Of course, these cars will be subject to the performance rules for the 2010 cars as long as they are not 100% in compliance with the 2012 capped car regulations.

In order to take into account the changes imposed as from 01.01.2012 for safety, it will be permitted to make, in addition to the mandatory modifications, the possible modifications become necessary to ensure the safe running of the cars.

These modifications affect suspension elements, the rear wing and the supports, aerodynamic elements on the front of the car.

These modifications must be homologated and must be used until the end of the season.

- Other units of these models can be built provided they meet the above conditions.

Adjustments of performance will be made, if necessary, after the first and / or the second race and during all the season by the Endurance Committee so that the performance of the best 2010 LMP2 does not exceed the performance of the best 2012 LMP2. These adjustments will be applied identically to all 2010 LMP2 to maintain their hierarchy.

The following elements can be modified:

- Minimum weight of the car (handicap ballast)
- Air restrictor size
- Fuel tank Capacity
- Any other technical restriction that the Endurance Committee may deem necessary

MODIFICATIONS APPLICABLES AU 01.01.2014

.....

	LMP1	LMP2
Moteur	Libre	Homologué
Cylindrée maximum		
a/ Essence atmosphérique	3400 cm ³	5000 cm ³ 8 cyl. maximum
b/ Essence turbo/suralimenté	2000 cm ³	3200 cm ³ 6 cyl. maximum
c/ Diesel suralimenté	3700 cm ³	2500 4000 cm ³ Peut être autorisé sur décision du Comité Endurance avec set de brides spécifique

.....

13.4.1 Métallique.
LMP2 :
Magnésium ou aluminium coulé uniquement ou forgé.
Il sera possible d'avoir 2 types de roues pour une voiture homologuée. Le prix devra être le même.

.....

MODIFICATIONS APPLICABLES ON 01.01.2014

.....

	LMP1	LMP2
Engine	Free	Homologated
Maximum cylinder capacity		
a/ Normally aspirated petrol	3400 cm ³	5000 cm ³ 8 cyl. maximum
b/ Turbo/supercharged petrol	2000 cm ³	3200 cm ³ 6 cyl. maximum
c/ Supercharged Diesel	3700 cm ³	2500 4000 cm ³ Could be allowed under decision of Endurance Committee with a dedicated set of restrictions

.....

Metallic.
LMP2 :
Magnesium or aluminium casted only or forged.
It would be possible to have 2 types of wheel for an homologated car. The price will need to be the same.

.....

"LE MANS" PROTOTYPE ("LM"P) Annexe 1 / Appendix 1

Les tableaux ci-après (diamètre des brides et limite de pression de suralimentation) sont établis pour réaliser l'équilibre entre les LMP1 d'une part et les LMP2 d'autre part.

En cas de force majeure, le Comité Endurance se réserve le droit d'apporter toute modification qu'il jugera nécessaire pour maintenir l'équité des épreuves.

The tables below (air restrictor diameter and boost pressure limit) are made out in order to balance the performance of the LMP1 on the one hand and of the LMP2 on the other hand.

In case of force majeure, the Endurance Committee reserves the right to make any change which they will consider necessary as to maintain a fair balance during the Events.

A - "LM"P1:

A.1. - Brides pour moteurs Essence Atmosphériques (Diamètre en mm) / Restrictors for Petrol Normally Aspirated engines (Diameter in mm)

Nombre de brides	Number of restrictors	1	2
jusqu'à 2400 cm ³	Up to 2400 cm ³	45.5	32.2
plus de 2400 cm ³ et jusqu'à 2600 cm ³	Over 2400 cm ³ and up to 2600 cm ³	45.0	31.8
plus de 2600 cm ³ et jusqu'à 2800 cm ³	Over 2600 cm ³ and up to 2800 cm ³	44.4	31.4
plus de 2800 cm ³ et jusqu'à 3000 cm ³	Over 2800 cm ³ and up to 3000 cm ³	44.0	31.1
plus de 3000 cm ³ et jusqu'à 3200 cm ³	Over 3000 cm ³ and up to 3200 cm ³	43.6	30.8
plus de 3200 cm ³ et jusqu'à 3400 cm ³	Over 3200 cm ³ and up to 3400 cm ³	43.3	30.6

A.2. - Brides (Diamètre en mm) et Pression absolue de Suralimentation (mbar) pour moteurs Essence Suralimentés / Restrictors (Diameter in mm) and absolute Supercharging Pressure (mbar) for Petrol Supercharged Engines

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors		Pression maxi / Max. pressure (mbar)
Plus de / Over	À / Up to	1	2	
	1400	42.9	30.3	3600
1400	1600	42.9	30.3	3100
1600	1800	42.9	30.3	2800
1800	2000	42.9	30.3	2500

A.3. - Brides (Diamètre en mm) et Pression absolue de Suralimentation (mbar) pour moteurs Diesel Suralimentés / Restrictors
(Diameter in mm) and absolute Supercharging Pressure (mbar) for Diesel Supercharged Engines

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors		Pression maxi / Max. pressure (mbar)
Plus de / Over	À / Up to	1	2	
	3700	45.8	32.4	2800

B. - "LM"P2 2012 (cost capped):**B.1. - Brides pour moteurs Essence Atmosphériques (Diamètre en mm) / Restrictors for Petrol Normally Aspirated Engines (Diameter in mm)**

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors	
Plus de / Over	À / Up to	1	2
3500	3600	41.9	29.6
3600	3700	41.6	29.4
3700	3800	41.3	29.2
3800	3900	41.2	29.1
3900	4000	41.0	29.0
4000	4100	40.7	28.8
4100	4200	40.6	28.7
4200	4300	40.4	28.6
4300	4400	40.1	28.4
4400	4500	40.0	28.3
4500	4600	40.0	28.3
4600	4700	39.9	28.2
4700	4800	39.7	28.1
4800	4900	39.7	28.1
4900	5000	39.6	28.0

B.2. - Brides (Diamètre en mm) et Pression absolue de Suralimentation (mbar) pour moteurs Essence Suralimentés / Restrictors (Diameter in mm) and absolute Supercharging Pressure (mbar) for Petrol Supercharged Engines

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors		Pression maxi / Max. pressure (mbar)
Plus de / Over	À / Up to	1	2	
	2000	40.0	28.3	2700
2000	2200	40.0	28.3	2450
2200	2400	40.0	28.3	2250
2400	2600	40.0	28.3	2100
2600	2800	40.0	28.3	1950

2800	3000	40.0	28.3	1825
3000	3200	40.0	28.3	1700

C. - "LM"P2 2010 (not cost capped):

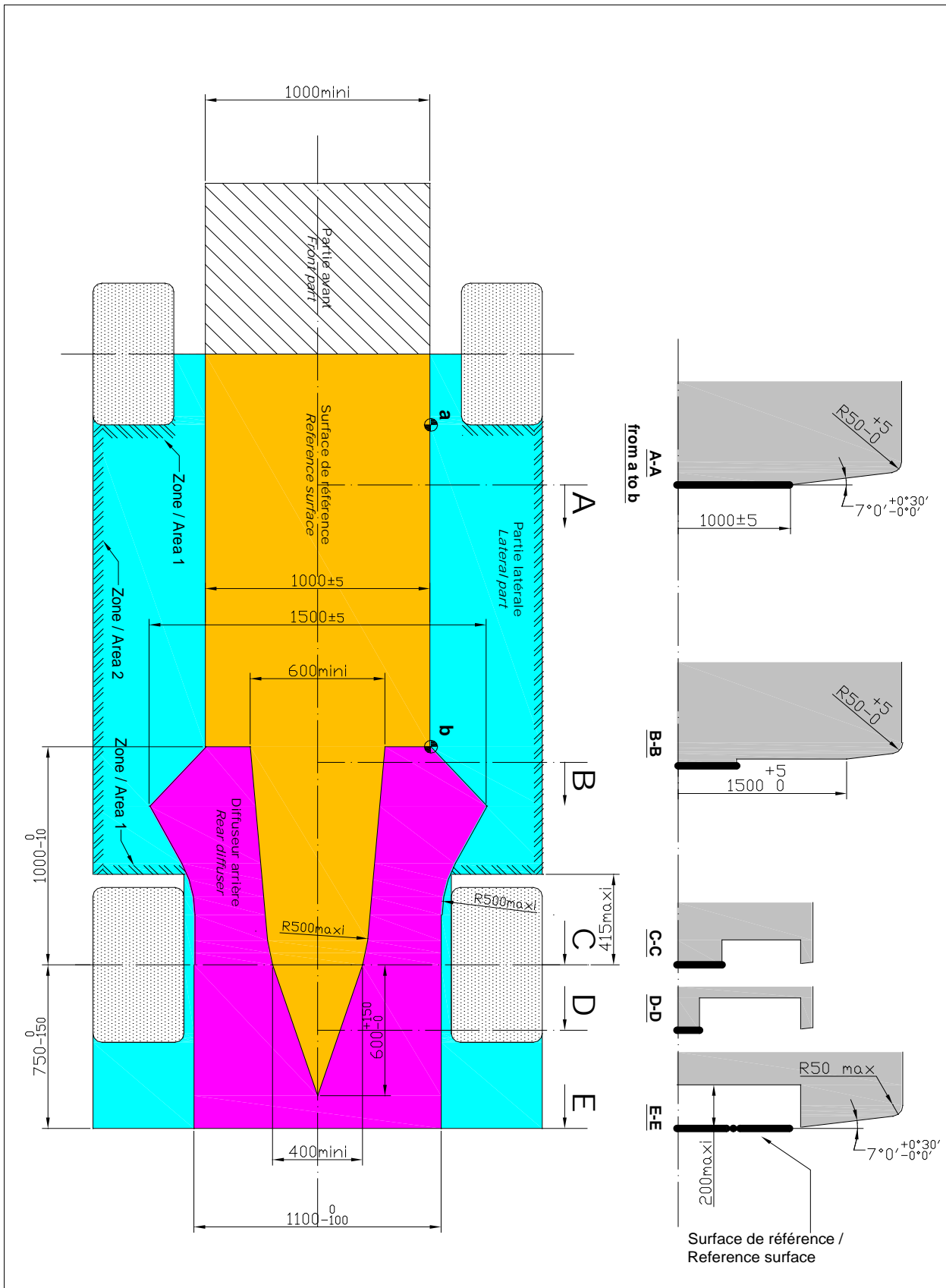
C.1. - Brides pour moteurs Essence Atmosphériques (Diamètre en mm) / Restrictors for Petrol Normally Aspirated Engines (Diameter in mm)

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors	
Plus de / Over	À / Up to	1	2
3500	3600	40.9	28.9
3600	3700	40.6	28.7
3700	3800	40.3	28.5
3800	3900	40.2	28.4
3900	4000	40.0	28.3
4000	4100	39.7	28.1
4100	4200	39.6	28.0
4200	4300	39.5	27.9
4300	4400	39.2	27.7
4400	4500	39.0	27.6
4500	4600	39.0	27.6
4600	4700	38.9	27.5
4700	4800	38.7	27.4
4800	4900	38.7	27.4
4900	5000	38.6	27.3

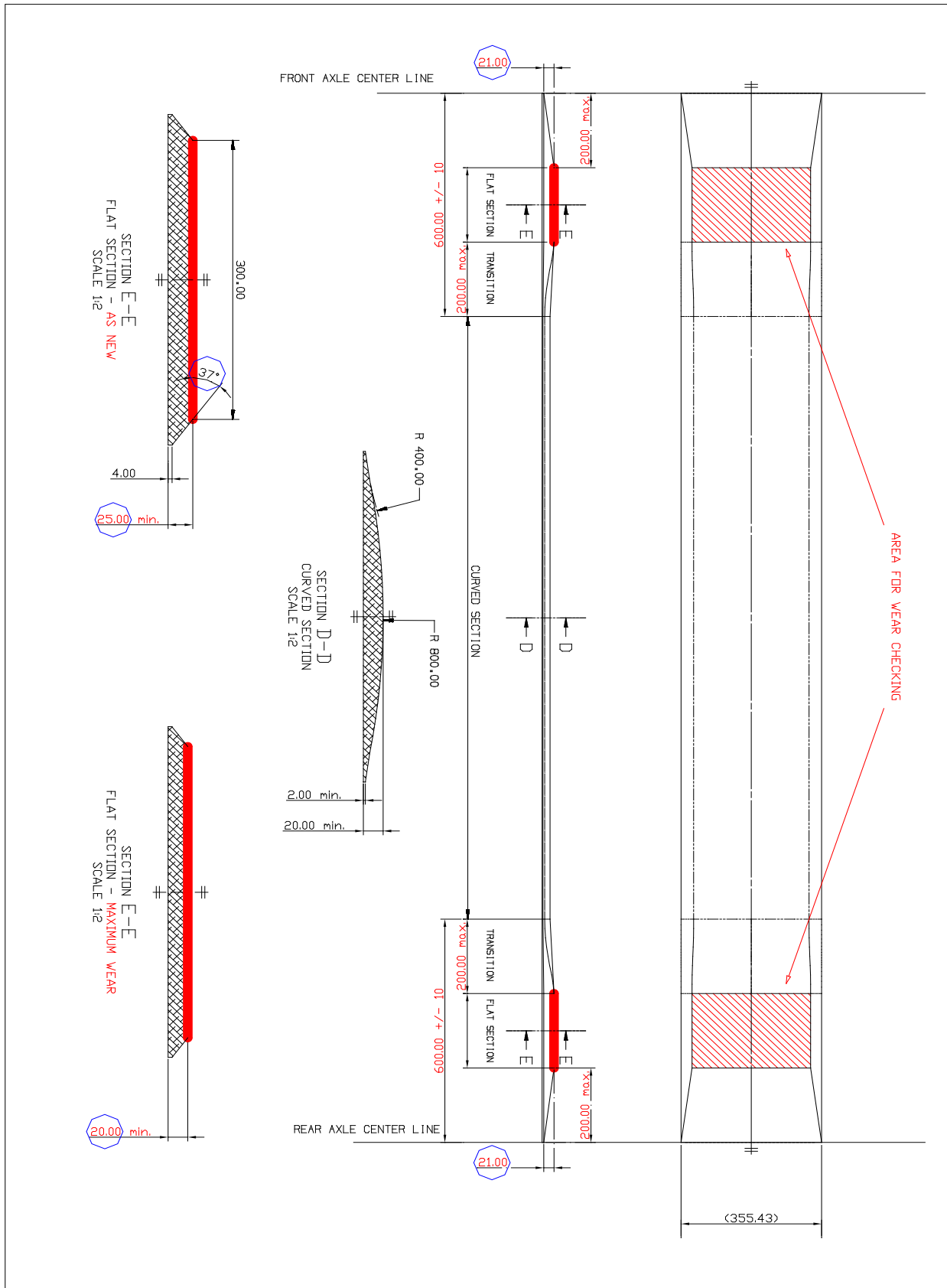
C.2. - Brides (Diamètre en mm) et Pression absolue de Suralimentation (mbar) pour moteurs Essence Suralimentés / Restrictors (Diameter in mm) and absolute Supercharging Pressure (mbar) for Petrol Supercharged Engines

Cylindrée / Cylinder Capacity (cm ³)		Nombre de brides Number of restrictors		Pression maxi / Max. pressure (mbar)
Plus de / Over	À / Up to	1	2	
	2000	39.0	27.6	2700
2000	2200	39.0	27.6	2450
2200	2400	39.0	27.6	2250
2400	2600	39.0	27.6	2100
2600	2800	39.0	27.6	1950

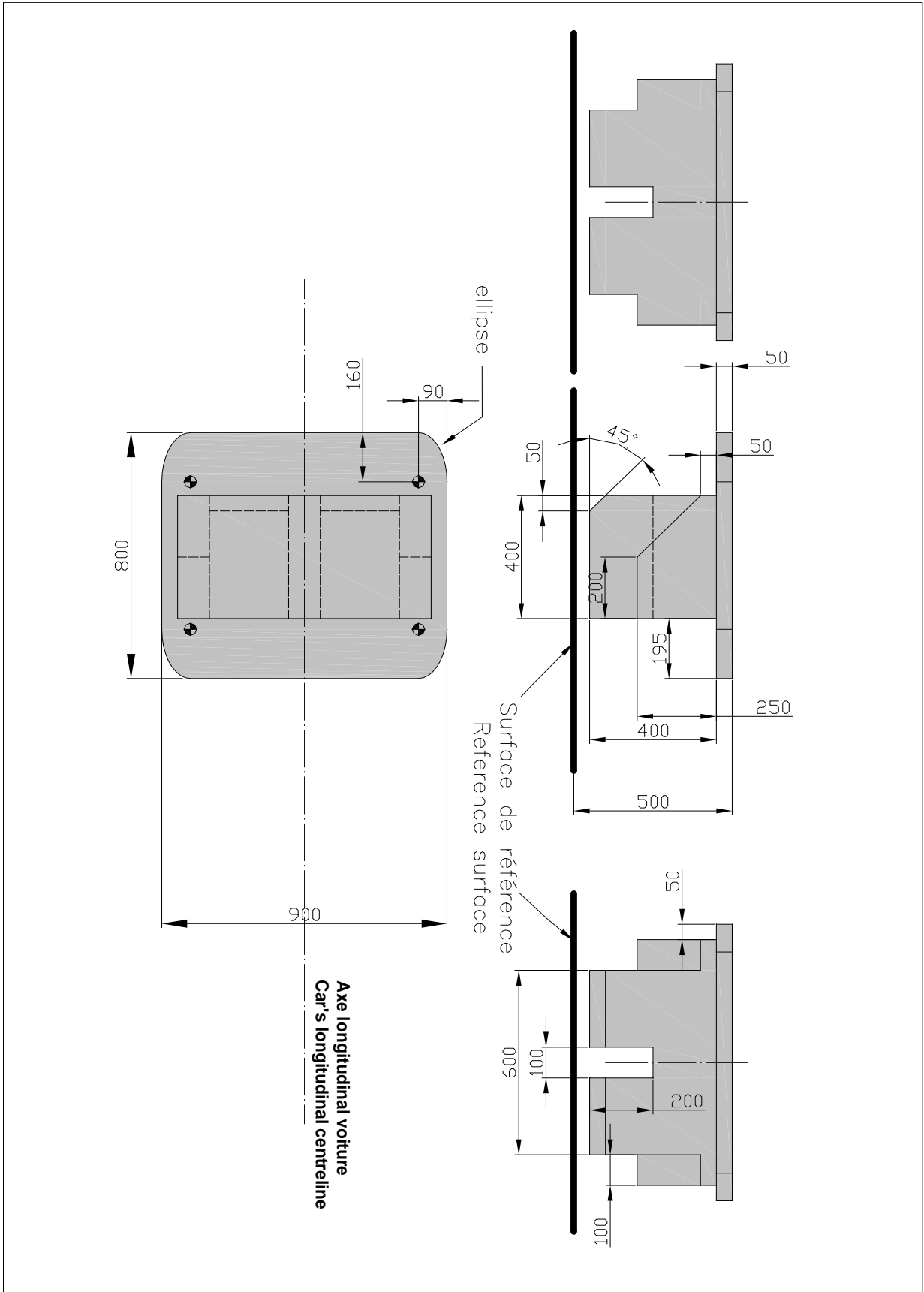
2800	3000	39.0	27.6	1825
3000	3200	39.0	27.6	1700



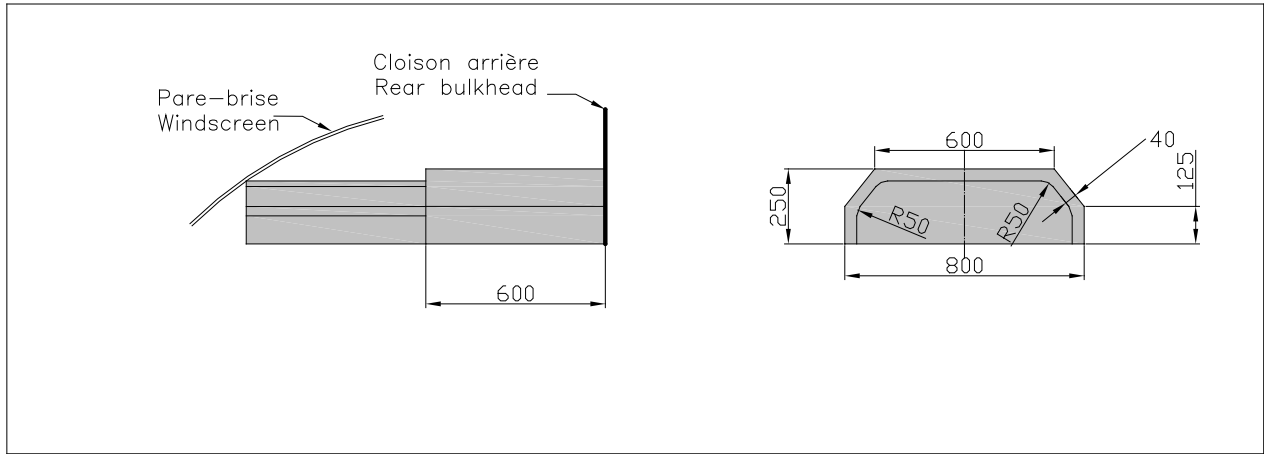
Dessin / Drawing 1



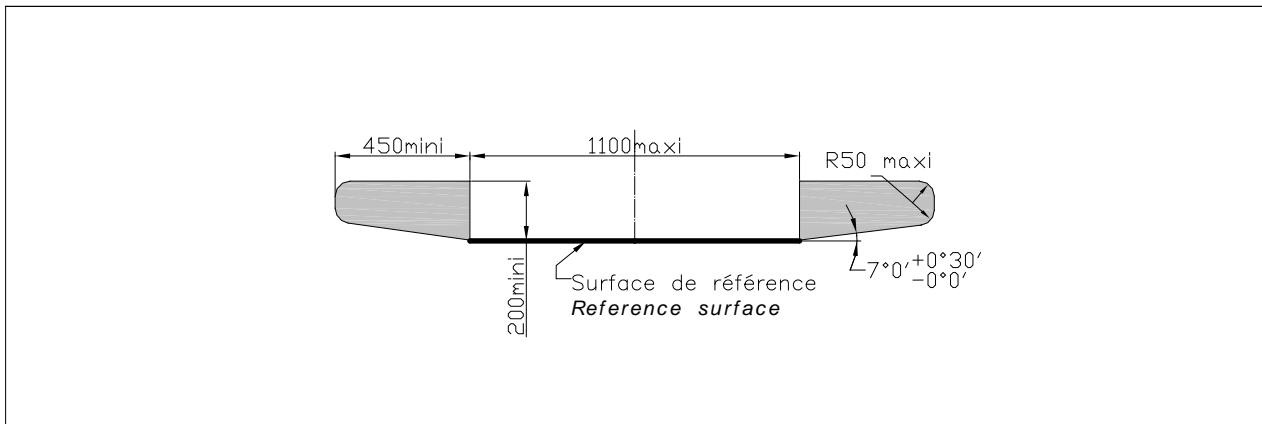
Dessin / Drawing 2



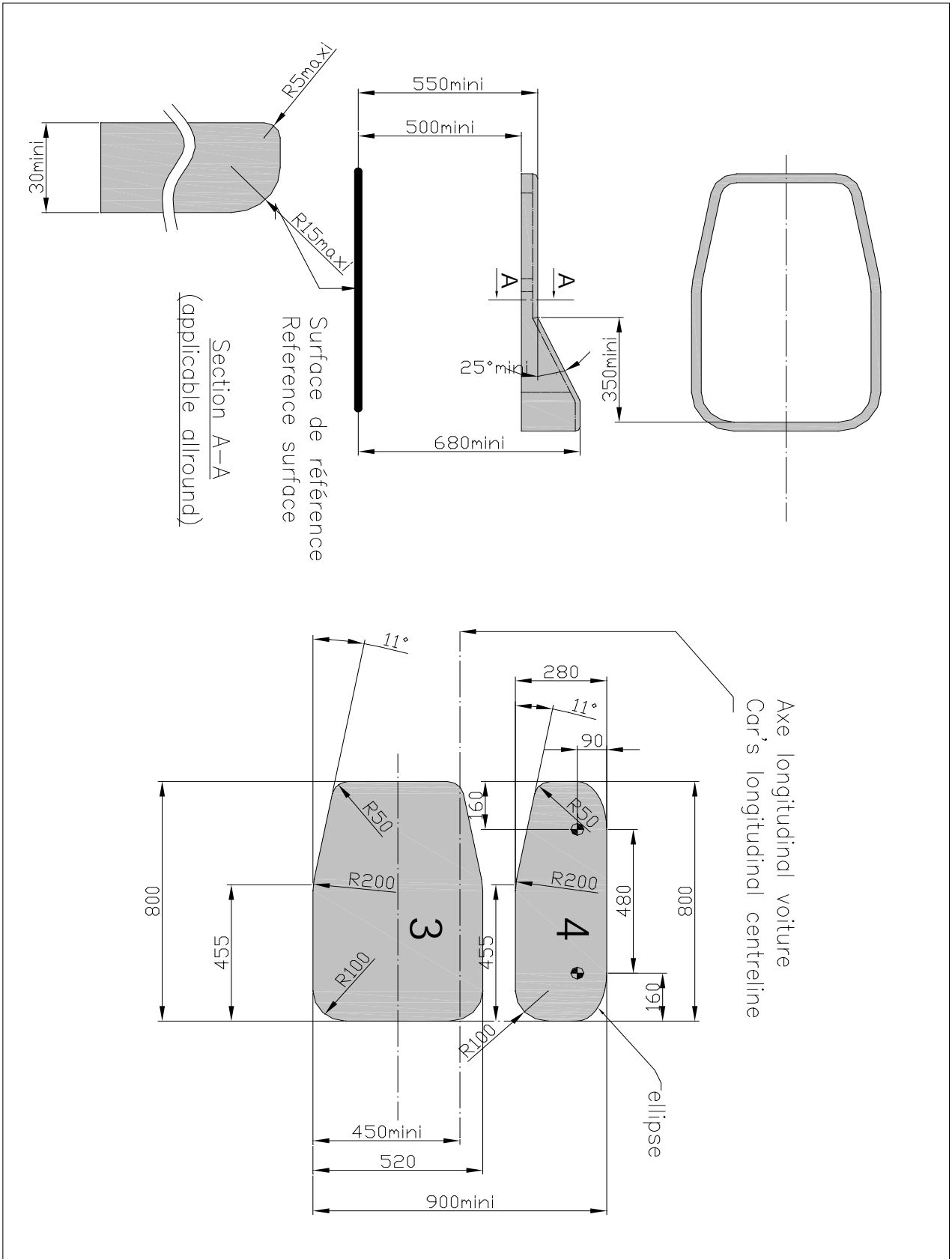
Dessin / Drawing 3



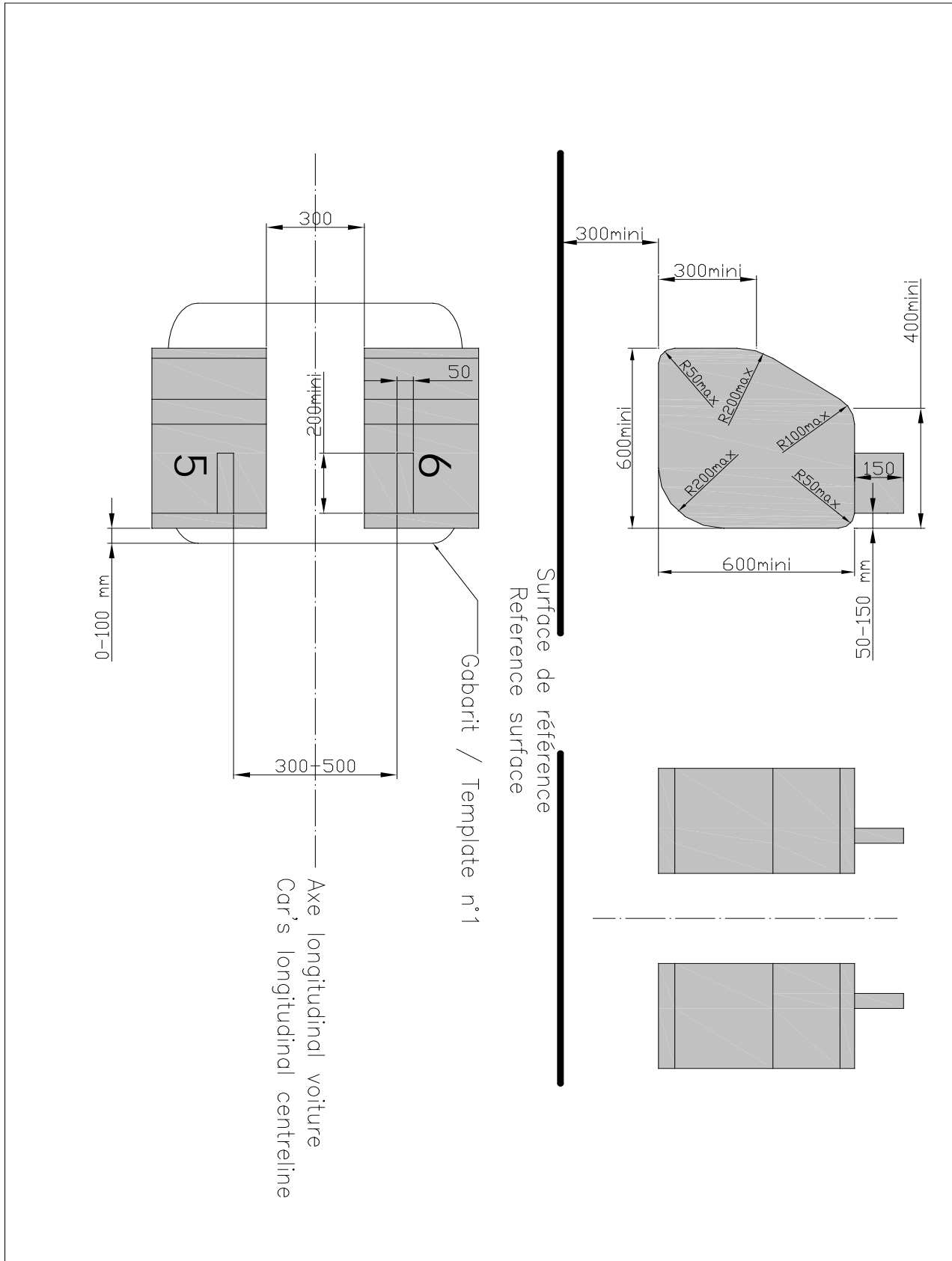
Dessin / Drawing 4



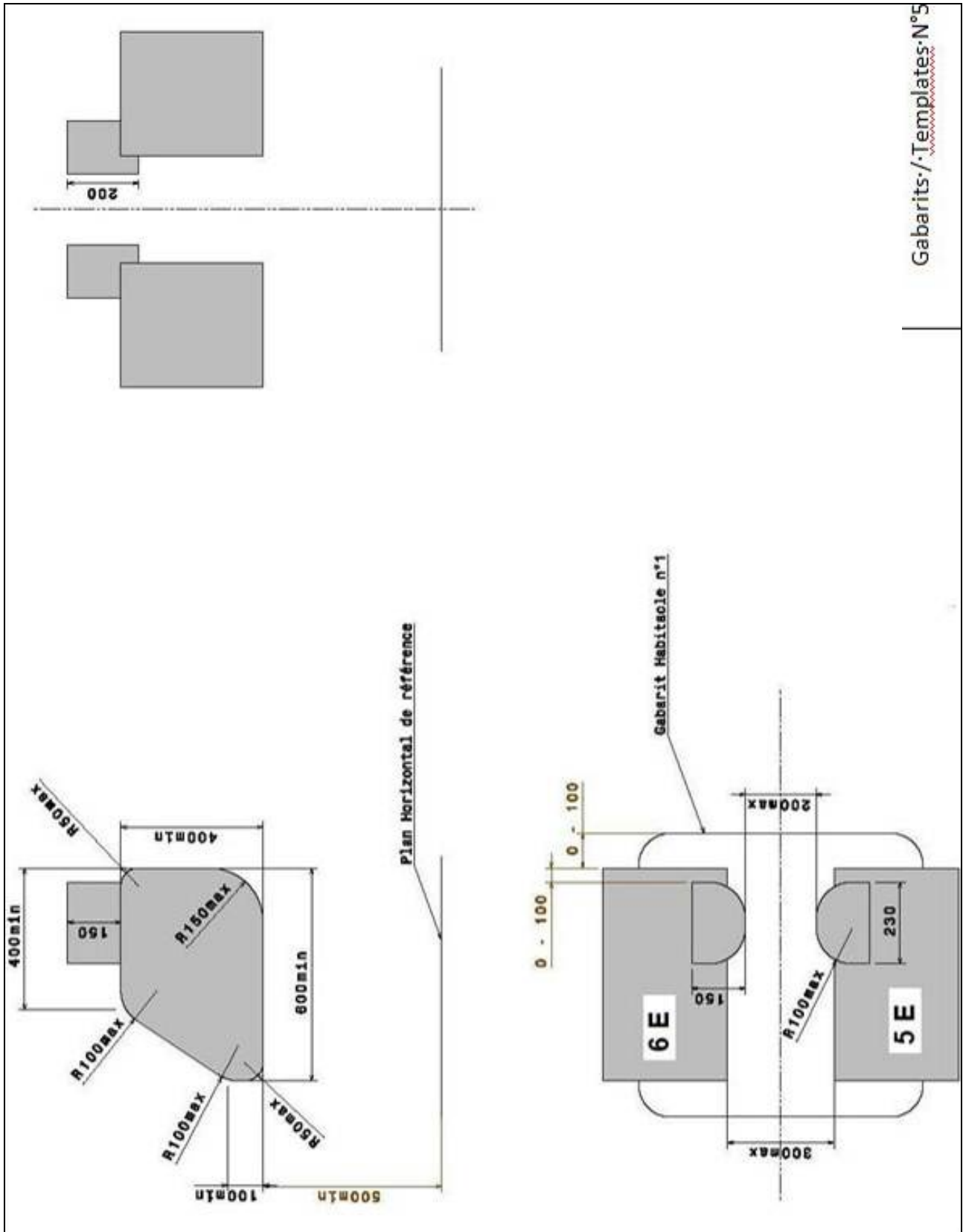
Dessin / Drawing 5



Dessins / Drawings 6 & 7

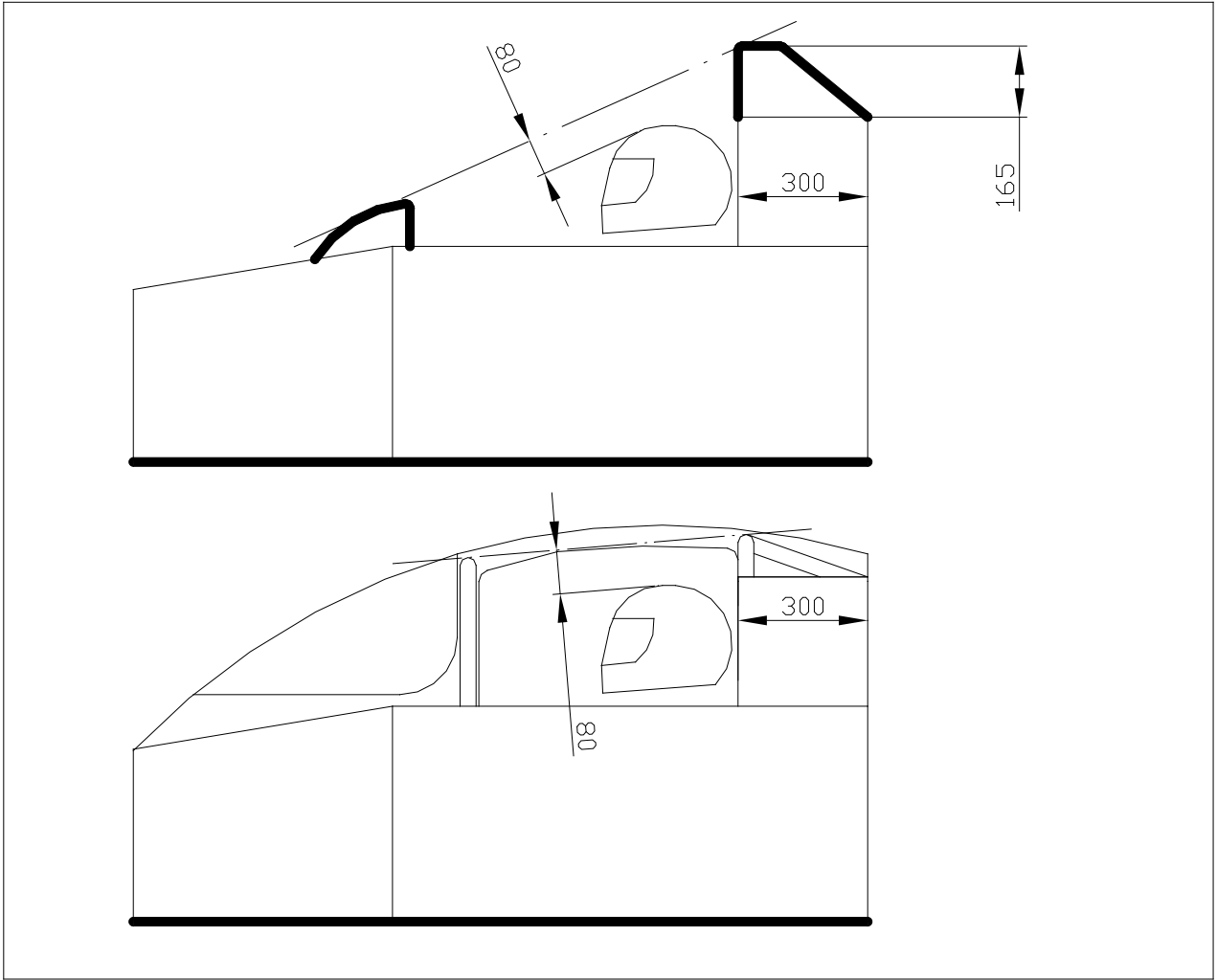


Dessin / Drawing 8

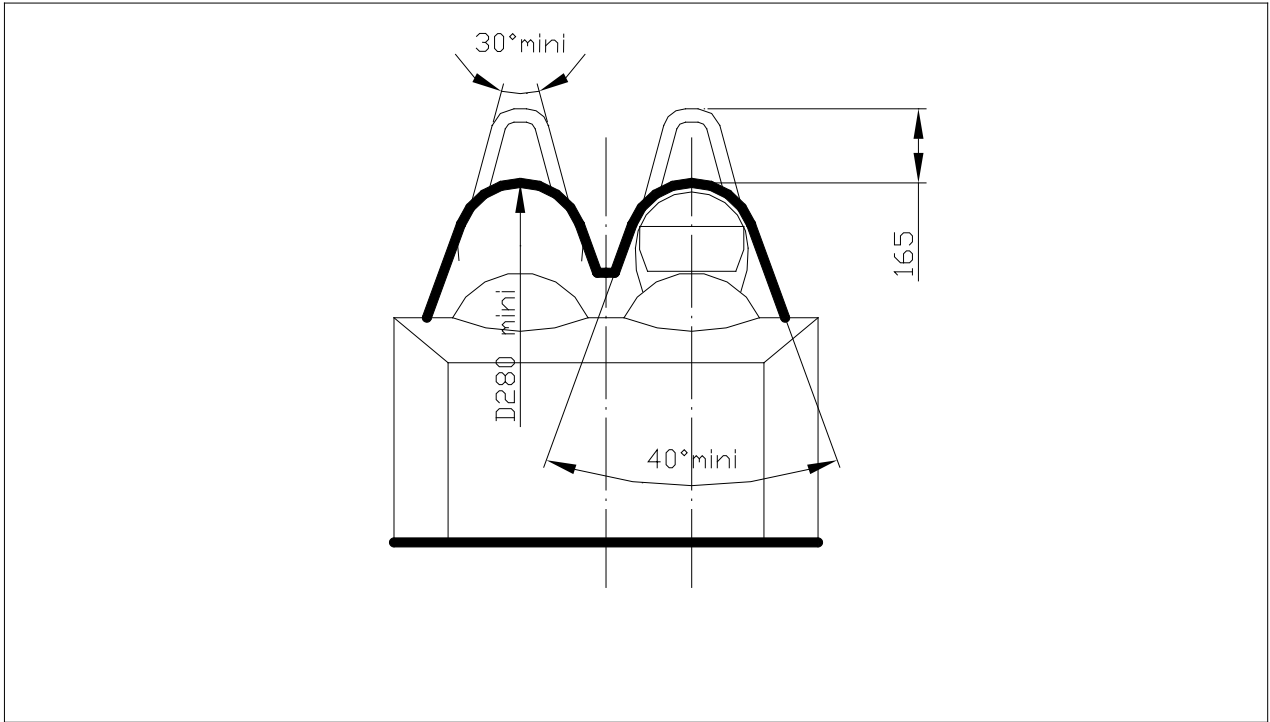


Gabarits / Templates N°5

Dessin / Drawing 8 E



Dessin / Drawing 9



Dessin / Drawing 10

PC
Technical Regulations

ARTICLE 1 - PRELIMINARY NOTICE

- 1.1 Any item which is not explicitly authorized by these regulations is forbidden.
- 1.2 The measuring and checking tools used by IMSA will be the reference for all measurements and data checks. No protest will be accepted in this respect. The competitors will have access to these tools in order to check the accuracy of their own equipment.
- 1.3 The technical data which constitutes the reference are those stipulated in the technical manual of the Oreca FLM 09.
- 1.4 In case of any technical evolution, IMSA will inform the competitors by a technical bulletin

ARTICLE 2 - CARS

- 2.1 Only the prototype race car ORECA FLM 09, in the original version, in full compliance with the regulations, is allowed to take part in the Events.

ARTICLE 3 - MODIFICATIONS

- 3.1 It is strictly forbidden to make any modification of any kind, with the exception of those permitted by these regulations or by a technical note published by IMSA. In the case of a second-hand car being used, it is the competitor's responsibility to make sure that the car complies with the regulations.
- 3.2 All the parts which cannot be used due to wear, failure or accident must be replaced solely by genuine original Oreca FLM 09 parts.
- 3.3 Any mechanical operation on the engine or on any other sealed component must be completed by a company approved by IMSA.
- 3.4 Previous accepted changes are listed in IMSA MEMO 10-08; any additional changes will be issued via bulletin. If in question always ask or be subject to penalties. Any clarification or request must be submitted via rules@imsaracing.net

ARTICLE 4 - WEIGHT

- 4.1 The weight may be checked at any time during an event.
- 4.2 The minimum weight of the Oreca FLM 09 is 900kg (car ready to run with all its equipment without fuel and driver).

ARTICLE 5 - MONOCOQUE

- 5.1 No modification of any kind are permitted, including the drilling, reinforcement, cutting or fitting of neither brackets nor any other parts.
- 5.2 If a monocoque is damaged in an accident, it must be inspected by IMSA and the repair procedure must be approved. If the damage is determined to be major by IMSA the repair must be conducted by Elan Composites who is the sole authorized company to make repairs. If the damages are too severe, the monocoque may be declared unusable for safety reasons. In this case, the monocoque must be replaced.

ARTICLE 6 - BODYWORK

- 6.1 Bodywork slightly damaged may be repaired, but only after a request has been made to the Technical Director who will validate or not the quality of the work and the compliance of the repaired part(s) with the regulations.
- 6.2 Any damaged or poorly repaired component may be declared illegal by the technical scrutineers at their sole appreciation
- 6.3 The front crash-box may be repaired only by Oreca/Elan, when this is possible.
- 6.4 Adhesive tape may only be used for the purpose of protection. In no case it may join separated parts or have an aerodynamic influence.

ARTICLE 7 - ENGINE

- 7.1 Engines must remain sealed and keep all the markings affixed by Katech.
- 7.2 The competitor is responsible for the state of the seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance.
- 7.3 Any intervention on the engine is forbidden. Repairs and maintenance operations must be done by Katech. Only the following components may be dismantled by the competitors, on the condition that they will be replaced by similar components provided solely by Katech for the FLM 09 car:
 - The spark plugs, air filter, oil filter, belts.
 - The alternator and the power steering pump may be replaced by similar components provided by Katech for the FLM 09 car, but they cannot be disassembled. In case of failure of these components, they must be repaired by Katech only.
- 7.4 The maintenance, repair and rebuild of the engine must be made in accordance with the specifications in the technical manual.

- 7.5 Katech will have the right to exchange (replace) an engine without having to give reason.
- 7.6 The engine's rev speed will be restricted outside the Events. At the beginning of an event, during the technical checks, a scrutineer will unlock the rev limiter. At the end of an event, before leaving the circuit, the competitor must present his car to the scrutineers in order to have the rev limiter reactivated.
- 7.7 At any time during an event, the technical delegates may check the recorded data.
- 7.8 The control units of the engine and of the gearbox are sealed.
- 7.9 No change of engine is permitted without first making the request to the technical scrutineers and without receiving their agreement.
- 7.10 At the end of an event, an engine may be removed in order to check its compliance.
- 7.11 The exhaust system cannot be modified. On some circuits, the use of silencers may be compulsory if requested by the organizer.
- 7.12 An Engine air restrictor sized at 70mm must be utilized.

ARTICLE 8 – FUEL SYSTEM

- 8.1 The fuel tank is FIA homologated and cannot be used for more than 5 years unless re-certified by the supplier for another 2 years of life time. In case of its replacement, only the fuel tank specified for the Oreca FLM 09 car is permitted.
- 8.2 It is forbidden to cool the fuel.
- 8.3 It is forbidden to add anything to the fuel.
- 8.4 The fuel capacity for the FLM09 is 85 litres.

ARTICLE 9 – COOLING AND LUBRICATION SYSTEMS

- 9.1 The water and oil systems (tank, lines, etc) cannot be modified.

ARTICLE 10 - TRANSMISSION

- 10.1 All the gearbox parts must remain original parts. No modifications of the dimensions or aspect are permitted. The gearbox and differential must be sealed and all work to the gearbox must be completed only by Xtrac or their authorized agent.
- 10.2 LMPC teams will have the option of choosing either the standard Short ratio gear set (as run in 2011) OR the Short ratio gear set 1st-5th with alternate Long 6th gear (19:20). Please contact Xtrac for further details.
- 10.3 At any time during an event, it must be possible for the driver, sitting in his normal driving position, to select the reverse gear.
- 10.4 The gear selection unit and the electronic control system are sealed. The competitor is responsible for the state of the seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance.
- 10.5 Dismantling the flywheel (to change clutch stud) is forbidden, if this is needed please refer to a Katech technician.
- 10.6 The clutch assembly and its operating system must remain to their original specifications
- 10.7 The diff case is sealed. The angle of the ramps cannot be changed or inverted. If the seal must be removed it must be done by an Xtrac technician and the seals must be replaced by the IMSA technical delegate before every event.

ARTICLE 11 – BRAKING SYSTEM

- 11.1 The whole braking assembly cannot be modified, including the callipers, discs, pads, cooling, etc.
- 11.2 It is permitted to mask the cooling duct's entrance in order to regulate the brake's temperatures.
- 11.3 The choice of diameters for the master cylinders will be restricted, as indicated in the technical manual.

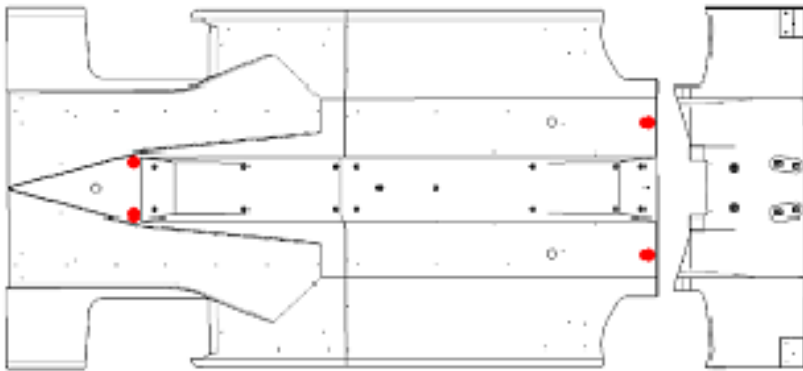
ARTICLE 12 – SUSPENSION

- 12.1 The shock absorbers are sealed. The competitor is responsible for the state of the seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance. The only settings permitted are those operated by the standard knobs. The rebuild and changing of the damper internals can only be performed by the IMSA specified agent.
- 12.2 Only the anti-roll bars provided by Oreca and listed in the technical manual are permitted.
- 12.3 Suspension packers and bump rubbers are free provided they are non-metallic and commercially available.
- 12.4 Left and Right Damper cooling is permitted provided the only method used is as illustrated in the document dated 9-22-11.

ARTICLE 13 – RIDE HEIGHT

- 13.1 Minimum static ride height must conform to the following:
50 mm under front axle axis reference area as depicted in Figure 1
70 mm under rear axle axis reference area as depicted in Figure 1
- 13.2 The underbody plank must have an initial thickness of 20 mm. A maximum wear of 5 mm will be permitted on the skid block at the end of the practices and at the beginning of the race. The skid block will not be checked at the end of the race. The only skid permitted is the FLM skid block provided by Oreca.
- 13.3 Maximum cold pressures on Dry-Type tires for measurements is 30.45 PSI
- 13.4 A reference flat area will be available to the competitors in order to check the ride height of the cars. This reference surface and the measuring equipment of the technical scrutineers of IMSA will be the sole used to give a decision regarding the validity and the conformity of this measurement.

Figure 1

**ARTICLE 14 – STEERING SYSTEM**

- 14.1 It is compulsory to use the original parts of the complete steering system and of its power assistance.
- 14.2 The rack and pinion steering and servo pump must not be repaired and/or dismantled.
- 14.3 The rack and pinion steering are sealed; missing or deteriorated seals will be considered as an infringement of the technical regulations.

ARTICLE 15 - WHEELS AND TYRES

- 15.1 It is compulsory to use the specified BBS or OZ rims as stated in the Technical Manual.
- 15.3 Over-pressure valves are forbidden.
- 15.4 The only tyres permitted are the specific tyres made for LMPC and supplied by XXXXXXXX.

Dimensions:	Front	30 / 65 - 18
	Rear	31 / 71 - 18

ARTICLE 16 - COCKPIT

- 16.1 The batteries, and the cockpit components and equipment must remain in their standard state.
- 16.2 The driver seating area may be filled with expanded foam, to suit the driver's morphology. Use of the seat insert is not mandatory.

ARTICLE 17 – SAFETY FEATURES

- 17.1 Fire extinguisher, master switch, towing rings, etc, must remain in their standard state.
- 17.2 The headrest may be covered providing that a fire-resistant material is used.
- 17.3 The use of the HANS[®] system is compulsory.
- 17.4 It is recommended to mount additional rear lighting between the rear wing uprights in case damage occurs to the original light. This light shall be red in color and an additional harness may be added. Installation of this light must be approved by IMSA in writing prior to use.
- 17.5 Hella HID lights are permitted as a replacement for the factory supplied lights

ARTICLE 18 - ELECTRICS – ELECTRONICS

- 18.1 The electrical harnesses, lights, ECU, control unit of the gearbox, etc must remain in their standard state and position. Any changes must be submitted in writing to IMSA prior to use.

ARTICLE 19 – DATA ACQUISITION

- 19.1 The only data acquisition permitted is the standard Magnetti Marelli system and those from the optional kit. It is forbidden to use any other measuring system or data acquisition system. Any request to change the system will require written IMSA approval. Telemetry systems are not permitted. Any sensor is permitted provided it is not one of the following types:
- Ride Height Sensors of any type including laser or ultrasonic.
 - Multiple axis gyros or accelerometers
 - Strain gauged pushrods
 - Tire pressure or temperature sensors

ARTICLE 20 – ADDITIONAL EQUIPMENT

- 20.1 Transponders: an IMSA issued driver ID transponder must be used.
- 20.2 Radios: A radio system "driver/pit" may be installed on the condition that the equipment is homologated by and declared to the relevant authorities.
- 20.3 The radio equipment must be safely attached on the left side of the cockpit.
- 20.4 On-board cameras: it will be permitted, once the officials have been informed, to fit an on-board camera, providing that the device is of small dimensions and safely attached. The mounting position must be approved by the officials.

ARTICLE 21 – TECHNICAL CHECKS

- 21.1 The technical checks are carried out by the technical scrutineers of IMSA.
- 21.2 Technical checks may take place at any time, before, during or after the practice sessions and the races.
- 21.3 Each car must pass technical scrutineering before the qualifying sessions in order to be allowed to anticipate in these sessions.
- 21.4 The presentation of a car to technical scrutineering will be deemed to constitute an implicit declaration of eligibility by the competitor.
- 21.5 Only the entrant or his representative duly designated must attend the technical checks. The entrant's mechanics will have the duty to dismantle and to re-fit the components to be checked according to the request and under the control of the officials.
- 21.6 The cars must be presented to the technical checks as described hereunder:
- Car ready to take part to the practice sessions or to the race.
 - All the safety elements (fire-extinguisher, towing rings, etc.) in place and in working conditions.
 - Decorations and race numbers affixed and in good condition.
 - Car in full compliance with the regulations.
- Any car failing to comply with these requirements will be refused.
- 21.7 A car arriving on the starting grid with damaged seals will be subject to:
- a fine of \$750
 - a quick check from the officials who will affix new seals if necessary.
- This quick check of the car will not be an assumption of its compliance. A car with seals missing will not be allowed to start the race.

ARTICLE 22 – REFUSAL OF CHECKS

- 22.1 Any refusal of a control and/or a check will be deemed as a failure of the car's compliance and will lead to the car being excluded of the event at the first offence and to the permanent exclusion of IMSA with the loss of the entry fees at the second offence.

ARTICLE 23 – SEALING AND MARKING

- 23.1 The seals and markings on the mechanical components will be checked by IMSA and any removal, modification or deliberate damages of these seals and markings will lead to an immediate exclusion. The state of the seal(s) is the responsibility of the competitor.
- 23.2 The setting of any electronic box or casing is considered as a sealing; in no case it can be modified or damaged. The opening of such box or casing will lead to an immediate exclusion.
- 23.3 The imitation and/or modification of any seal or marking will lead to the driver and the entrant being excluded and banned from any further participation in the next event.
- 23.4 The following components must be sealed: Engine, shock absorbers, engine electronic control unit (ECU), gearbox, AGS system, and ballast weight, if used.
- 23.5 IMSA may decide to seal other components, after informing the competitors by bulletin.
- 23.6 The fact that seals are installed only presumes conformity and does not preclude in any case that the component concerned may be removed and/or checked at any time.
- 23.7 If a competitor needs to work on a sealed component, he must receive prior permission from the IMSA Technical Director.

- 23.8 Any parts removed and declared illegal will be retained, without replacement or reimbursement, by IMSA.

ARTICLE 24 – POST-RACE CHECKS

- 24.1 From the moment the chequered flag is waved, the cars will be deemed to be under Parc fermé regulations.
- 24.2 Unless being instructed or authorized otherwise by the Stewards or by the Technical Delegate, it is forbidden to intervene on a car in any way until the expiry of the latest protest time limit set.
- 24.3 Spontaneously or following a protest, the Stewards may select during the time limits here above defined one or more cars that must undergo technical checks.
- 24.4 The Stewards or the Technical Delegate will have the right to keep one or more cars for as long as they judge it necessary without the entrant being entitled to any compensation.
- 24.5 If a car is not available during the time limits here above defined or if a car does not have the seals in place, it will be declared ineligible.
- 24.6 If the car checked is found not eligible, the transport costs that may be involved, as well as the costs of dismantling and rebuilt that may be involved will be supported by the entrant on a tariff base of \$100/ hour (tax excl.)
- 24.7 During the checks, one or more parts may be removed and kept for further checks. If these parts cannot be returned within sufficient time for the following race, then the similar standard part(s) would be provided.

ARTICLE 25 - NON CONFORMITY

- 25.1 A declaration of non conformity due to missing seal(s) or marking(s), failure to attend the post-race checks, etc, have the same effects regarding the regulations as a technical non conformity.
- 25.2 Any non conformity will be treated as such within the meaning of the regulations of, whatever the origin of this non conformity (displacement, stop, tests, race, etc.) or the moment when it occurred or its cause (for example: vibrations, shocks, overheating, accidental introduction of a debris, etc).
- 25.3 Any car declared illegal will be disqualified from the event and could be excluded permanently.

ARTICLE 26 – SHAKER RIG AND WIND TUNNEL TESTING

- 26.1 Shaker rig and wind tunnel testing are strictly prohibited. Any infraction will result in the loss of 50 championship points and up to a \$50,000.00 fine. Additional penalties may be imposed at the discretion of IMSA Officials.

**LE MANS" GRAND TOURISME ("LM" GT)
Technical Regulations for Grand Touring Cars**

ART. 1	DEFINITIONS
<p>1.1 La voiture "Le Mans" Grand Tourisme Endurance ("LM" GTE) est une voiture à vocation sportive 2 portes, 2 ou 2+2 places, ouverte ou fermée, utilisable sur la route en toute légalité et disponible à la vente grâce à l'organisation commerciale d'un Constructeur reconnu par le Comité Endurance. Cette catégorie comprend 2 groupes :</p> <ul style="list-style-type: none"> • Un groupe réservé plus particulièrement aux professionnels (LMGTE-PRO), • Un groupe réservé uniquement aux amateurs (LMGTE-AM). <p>Dans ce groupe seules les voitures ayant 'au moins 1 an ou intégralement conformes aux spécifications de la voiture de l'année précédente - sauf si spécifié dans le présent règlement - seront admises. Exception possible en cas de nouveau constructeur (sans aucun modèle déjà homologué). Dans ce cas, un handicap spécial sera appliqué par le Comité Endurance.</p> <p>1.2 Le Constructeur est une société commerciale qui :</p> <p><i>a/</i> Est enregistrée auprès d'un organisme national officiel ;</p> <p><i>b/</i> Se consacre à la construction et la commercialisation régulière d'automobiles destinées à un usage quotidien normal.</p> <p><i>w</i> Un Constructeur produisant et vendant moins de 2000 voitures par an est considéré comme un "Petit Constructeur".</p>	<p>The "Le Mans" Grand Touring Endurance car ("LM" GTE) is a car having an aptitude for sport with 2 doors, 2 or 2+2 seats, opened or closed, which can be used perfectly legally on the open road and available for sale thanks to the dealer network of a manufacturer recognised by the Endurance Committee. This category includes two groups:</p> <ul style="list-style-type: none"> • A group destined more especially to professionals (LMGTE-PRO) • A group destined only to amateurs (LMGTE-AM). <p>In this group only cars having 1 year old or fully in compliance with the specifications of the previous year car - unless specified in these regulations - will be admitted. Exception possible in case of newcomer manufacturer (without any model already homologated). In such case a special handicap will be applied by Endurance Committee.</p> <p>The Manufacturer is a business firm which :</p> <p><i>Is</i> incorporated to an official national organisation;</p> <p><i>Devotes</i> itself to the construction and the regular marketing of cars meant for a daily use.</p> <p><i>A</i> Manufacturer producing and selling less than 2000 cars a year is considered as a "Small Manufacturer".</p>
ART. 2	GRAND TOURING CAR "LM" GTE
<p>2.1 Eligibilité</p> <p>2.1.1 Le Comité d'Endurance est la seule autorité pour juger de l'éligibilité d'une voiture "LM" GTE.</p> <p>2.1.2 Les critères d'éligibilité d'une voiture Grand Tourisme "LM" GTE sont établis par le Comité d'endurance.</p> <p>2.1.3 La voiture Grand Tourisme "LM" GTE doit répondre au minimum aux critères suivants :</p> <p><i>a/</i> Etre construite et vendue régulièrement par un Constructeur reconnu par l'ACO ;</p> <p><i>w</i> Une production régulière suppose la mise en œuvre de façon permanente des moyens nécessaires à la fabrication d'au minimum 1 voiture par semaine pour les grands Constructeurs et d'une voiture par mois pour les "Petits Constructeurs". Si la production n'est pas respectée, l'ACO suspendra l'homologation de la voiture l'année suivante. La suspension de l'homologation cessera lorsque le retard de production aura été rattrapé. La voiture sera admise à courir dès qu'un minimum de 100 voitures de route pour les "Grands Constructeurs" et 25 voitures de route pour les "Petits Constructeurs" sera produit.</p> <p><i>b/</i> Bénéficier d'une promotion lors de sa sortie : Exposition dans des salons automobiles, essais avec des journalistes, dépliants avec les caractéristiques techniques de la voiture, etc.</p> <p><i>c/</i> Disposer d'un réseau commercial qui assure le service après-vente. Un exemplaire du catalogue de pièces détachées et du manuel de réparation devront être remis lors de l'homologation de la voiture.</p> <p><i>d/</i> Etre équipée d'un moteur utilisé dans un modèle de série et fabriqué au moins à 300 unités.</p> <p><i>e/</i> Bénéficier de l'approbation complète de la CEE ou équivalent au Japon ou au Etats-Unis. Pour les petits Constructeurs une homologation officielle par type "Low Volume" sera acceptée. Les véhicules disposant d'une approbation de type "Low Volume" n'ayant pas satisfait à un essai de choc frontal devront satisfaire l'essai de choc frontal décrit à l'Article 258A-15, avec un poids égal à celui du véhicule de série diminué de 5 %, ou celui exigé pour l'approbation complète (CEE ou Etats-Unis ou Japon).</p>	<p>Eligibility</p> <p>The Endurance Committee is the only authority to judge the eligibility of a "LM" GTE car.</p> <p>Eligibility criteria of a "LM" GTE Grand Touring car are made out by the Endurance Committee.</p> <p>The "LM" GTE Grand Touring car must meet a minimum of the following criteria:</p> <p><i>To be</i> regularly produced by a Manufacturer approved by ACO:</p> <p><i>A</i> regular production implies a permanent implementation of the means required to produce a minimum of 1 car per week for the "Big Manufacturers" and one car per month to the "Small Manufacturers". If the production is not respected, the ACO will suspend the homologation of the car the year after. The suspension of the homologation will cease once the production delay has been made up. It will be permitted to compete with the car as soon as a minimum of 100 road cars for the "Big Manufacturers" and 25 road cars for the "Small Manufacturers" will be produced.</p> <p><i>To have</i> a launch campaign: exhibitions in motor show, tests with journalists, leaflets with the technical specifications of the car...</p> <p><i>To have</i> a commercial network at its disposal which provide an after-sales service. An exemplary of the spare parts' catalogue and the maintenance manual must be delivered during the homologation of the car.</p> <p><i>To be</i> equipped with an engine used in a production car and made in a quantity of at least 300 units.</p> <p><i>To have</i> a "Full type CEE" homologation or equivalent for United States or Japan. For the small Manufacturers an official "Low Volume" homologation for the model of car will be accepted. Vehicles with a "Low-Volume" type approval which have not undergone frontal crash-testing must comply with the F.I.A. frontal crash-test defined in Article 258A-15, with the weight of the series vehicle reduced by 5%, or that required for the full type approval (EU or the USA or Japan).</p>

<p>f/ Etre équipée d'un réservoir de carburant contenant au moins 50 litres.</p>	<p>The fuel tank of the homologated road car cannot contain less than 50 litres.</p>
<p>2.1.4 L'utilisation des techniques suivantes interdit l'éligibilité d'une voiture :</p>	<p>The use of the following technical specifications makes the eligibility of a car impossible:</p>
<p>a/ Eléments de suspension fixés sur des éléments mécaniques : moteur, boîte de vitesses, etc. ;</p>	<p>Parts of the suspension fixed on mechanical components : engine, gearbox, etc ;</p>
<p>b/ Carbone (sauf pour les dispositifs aérodynamiques), titane, magnésium (sauf roues et pièces mécaniques produites en série décrites dans la Fiche d'Homologation), etc., ou si spécifié dans le présent règlement. Une voiture avec un châssis carbone peut être acceptée si :</p> <ul style="list-style-type: none"> • elle est construite au minimum à 300 exemplaires, • seul l'habitacle est composé d'éléments en carbone, • aucun élément de suspension n'est fixé sur cette structure en carbone. 	<p>Carbon fibre (except for aerodynamic devices), titanium, magnesium (apart from wheels and standard production mechanical parts as listed in the Homologation Form), etc., or unless specified in these regulations. A car with a carbon chassis can be accepted if:</p> <ul style="list-style-type: none"> • It is made in a quantity of at least 300 units. • Only the cockpit is made with carbon elements, • No suspension element is fixed on this carbon structure.
<p>c/ Conduits canalisant de l'air intégrés dans les portes ou les seuils de porte, sauf pour la ventilation de l'habitacle et le refroidissement de l'échappement.</p>	<p>Air ducts integrated into the doors or/and into the doorsills excepted for the cockpit ventilation and for the exhaust system cooling.</p>
<p>2.1.5 Dimensions maximum :</p>	<p>Maximum dimensions:</p>
<p>w Longueur hors tout : 480 cm</p>	<p>Overall length: 480 cm</p>
<p>w Porte à faux avant : 125 cm</p>	<p>Front overhang: 125 cm</p>
<p>w Porte à faux arrière : 110 cm</p>	<p>Rear overhang: 110 cm</p>
<p>2.2 Homologation</p>	<p>Homologation</p>
<p>2.2.1 Fiche d'Homologation</p>	<p>Homologation Form</p>
<p>a/ Une Fiche d'Homologation décrivant la voiture de route et la voiture de course doit être remplie par le Constructeur ou le Préparateur (*) et validée après inspection contradictoire effectuée par le Groupe Homologation. Toute modification faite sur la voiture de course doit être indiquée sur la Fiche d'Homologation.</p>	<p>An Homologation Form describing the road car and the race car must be filled by the Manufacturer or the Tuner (*) and agreed after the contradictory inspection carried out by the Homologation Group.</p>
<p>b/ Le Constructeur ou le Préparateur (*) doit s'acquitter des droits d'homologation.</p>	<p>Any modification made on the race car must be indicated on the Homologation Form.</p> <p>The Manufacturer or the Tuner (*) must pay the homologation fee.</p>
<p>c/ Une fois la Fiche d'Homologation agréée, le Constructeur ou le Préparateur (*) doit en donner une copie au propriétaire de chaque voiture de course vendue après l'avoir complétée (numéro de châssis, nom et coordonnées de l'acheteur). (* Si un Constructeur ne souhaite pas homologuer, développer, produire et vendre les versions course de leurs modèles, soit directement, soit par l'intermédiaire d'une société d'engineering indépendante, le Comité Endurance pourra accepter les Préparateurs présentant les meilleurs antécédents. Ces Préparateurs devront toutefois obtenir du Constructeur un avis favorable pour la réalisation d'un tel projet.</p>	<p>Once the Homologation Form has been agreed, the Manufacturer or the Tuner (*) shall give a copy of it to the owner of every race car sold after filling the first page (chassis number, name and address of the owner).</p> <p>(* If a Manufacturer doesn't wish to homologate, develop, produce and sell the race version of cars, either directly or through an independent engineering company, the Endurance Committee should accept Tuners presenting the best records. These Tuners should however get a favourable opinion from the Manufacturer to carry out such a project</p>
<p>d/ Une voiture ne peut être présentée aux Vérifications Techniques avant une épreuve si elle n'a pas été homologuée. Un minimum de 30 jours sera exigé entre l'homologation d'une voiture nouvelle et sa présentation aux vérifications techniques avant une épreuve sauf cas de force majeure à l'appréciation du Comité Endurance. Un minimum de 30 jours est exigé entre la présentation du premier projet de fiche d'Homologation d'une nouvelle voiture et la date limite pour son approbation par le Groupe Homologation. Un minimum de 15 jours sera exigé entre l'homologation des modifications (*) apportées à une voiture déjà homologuée et sa présentation aux vérifications techniques avant une épreuve sauf cas de force majeure à l'appréciation du Comité Endurance. (* Cf. Art. 2.2.2 ci-dessous Un minimum de 15 jours est exigé entre la présentation du premier projet de fiche d'Homologation d'une voiture déjà homologuée et la date limite pour son approbation par le Groupe Homologation.</p>	<p>A car is not permitted to undergo scrutineering before taking part in an event if it has not been homologated. A minimum of 30 days is required between the homologation of a new car and its presentation for scrutineering before taking part in an event except in cases of force majeure at the discretion of the Endurance Committee. A minimum of 30 days is required between the presentation of the first draft of the Homologation form of a new car and the limit date for its approval by Homologation Group. A minimum of 15 days is required between the homologation of modifications (*) made on a car already homologated and its presentation for scrutineering before taking part in an event except in cases of force majeure at the discretion of the Endurance Committee. (* See Art. 2.2.2 below A minimum of 15 days is required between the presentation of the first draft of the Homologation form of a car already homologated and the limit date for its approval by Homologation Group.</p>
<p>e/ La Fiche d'Homologation de la voiture doit être présentée par le Concurrent lors des vérifications techniques.</p>	<p>The Homologation Form must be presented by the Competitor during scrutineering.</p>
<p>2.2.2 Modifications</p>	<p>Modifications</p>
<p>2.2.2.1 Elles sont autorisées pour un usage en compétition :</p>	<p>They are allowed for racing purposes:</p>

<p>a/ A partir de la version de base du modèle de route et non d'une version spéciale bénéficiant d'une homologation limitée ;</p>	<p>From a basis version of the production car and not from a special version based on a restricted homologation;</p>
<p>b/ En respectant le présent règlement technique;</p>	<p>Complying with these technical regulations;</p>
<p>2.2.2.2 Les caractéristiques mentionnées dans la Fiche d'Homologation peuvent être changés par le Constructeur ou le Préparateur de la voiture seulement et avec l'accord du Groupe Homologation.</p>	<p>The specifications listed in the Homologation Form can be changed only by the Manufacturer or the Tuner and with the agreement of the Homologation Group.</p>
<p>2.2.2.3 Sauf pour des raisons de sécurité ou de fiabilité, une seule évolution est autorisée par période de 2 ans avant la première épreuve de la saison à laquelle le modèle homologué participe. Cette évolution aura le millésime de l'année en cours et ne sera pas autorisée sur les voitures des périodes précédentes si le concurrent veut courir en LMGTE-AM. La période de restriction commencera pour les modèles 2013 pour les voitures LMGTE-PRO, elle sera la même pour toutes les voitures. La période pour les voitures LMGTE-AM sera décalée d'une année. Une voiture homologuée les années précédentes peut utiliser cette évolution aux conditions suivantes :</p> <ul style="list-style-type: none"> • Les modifications sont effectuées sur la voiture par le Constructeur ou le Préparateur qui a homologué cette voiture, • La voiture ainsi modifiée est identique à la dernière version de la voiture homologuée, • Le Constructeur ou le Préparateur fourni au propriétaire de la voiture une copie de la nouvelle Fiche d'Homologation décrivant l'évolution, • L'ancienne Fiche d'Homologation n'est plus valide, • Il ne sera pas permis de courir en LMGTE-AM avec cette voiture ainsi modifiée, <p>Lorsque des éléments de la voiture ont subi des évolutions successives (l'aile arrière par exemple), une seule version peut-être utilisée par année modèle. Pour les voitures nouvelles homologuées, 1 évolution au cours de la saison sera autorisée la première année. Pour Le Mans uniquement, des petites modifications aérodynamiques à l'avant de la voiture (flaps, blocage des diffuseurs, etc.) pourront être homologuées au plus tard 15 jours avant les vérifications techniques. Dérogations possibles : Le Constructeur ou la société d'engineering indépendante désignée (ou le Préparateur indépendant) peut demander à l'ACO, toutes dérogations qu'il jugera utiles. Ces demandes :</p> <ul style="list-style-type: none"> • doivent être documentées avec précision, • doivent être envoyés au Comité Endurance, • sont transmises aux représentants désignés des Constructeurs ayant au moins une voiture LMGTE homologuée. Des commentaires sur ces demandes de dérogations peuvent être faits par les représentants désignés, mais la décision finale appartient au Comité Endurance. <p>Des règles pour des dérogations régulièrement demandées pourront être établies (exemple poids du vilebrequin) de façon à ce qu'elles soient appliquées de façon identique sur toutes les voitures mais pas d'une façon systématique. Des dérogations concernant le poids minimum du véhicule, les brides d'air, la pression de suralimentation, la capacité du réservoir de carburant et la hauteur du Gurney pourront être accordées. Toutefois, elles ne seront accordées que pour une nouvelle homologation ou avant la première épreuve de la saison à laquelle le modèle homologué participe et suivant la procédure décrite ci-dessus. Si d'autres ajustements sont nécessaires, le Comité Endurance appliquera la procédure décrite à l'Article 19 (Equilibre des performances).</p>	<p>Except for safety or reliability reasons, only one evolution per period of 2 years is permitted before the first event of the season in which the homologated model is entered. This evolution will have the current year of the manufacture and will not be allowed on the cars from previous periods if a competitor wants to run in LMGTE-AM. The period of restriction will begin for 2013 models for LMGTE-PRO cars, it will be the same for every car. The period for LMGTE-AM cars will be delayed by one year. A car homologated in previous years can use this evolution under the following conditions:</p> <ul style="list-style-type: none"> • Changes are made on the car by the Manufacturer or Tuner who homologated this car, • The car thus modified is identical to the latest version of the homologated car, • The Manufacturer or Tuner provides to the car owner a copy of the new Homologation Form describing the evolution, • The previous Homologation Form is no more valid. • It will not be permitted to run in LMGTE-AM with this car thus modified, <p>When elements of the car have undergone successive modification (eg rear wing), only one version can be used per year model. For the new cars homologated, 1 evolution during the season will be allowed the first year. For Le Mans only, small aerodynamic modifications in front of the car (winglets, blockage of diffusers, etc.) may be homologated 15 days before the scrutineering at the latest. Possible waivers: The Manufacturer or the nominated independent engineering company (or the independent Tuner) may apply to the ACO for any waivers he considers necessary. These requests:</p> <ul style="list-style-type: none"> • must be documented with precision, • must be sent to the Endurance Committee, • are transmitted to the designed representatives of Manufacturers having at least a car homologated in LMGTE. Comments about the waiver requests can be made by the designed representatives, but it is to the Endurance Committee, to take the final decision. <p>Rules for waivers regularly requested may be established (minimum weight of the crankshaft for example) so that they are applied in the same way on all cars but not in a systematic way. Waivers regarding the minimum weight of the vehicle, air restrictors, boost pressure, fuel tank capacity, and the height of the Gurney may be granted. However they will be granted only for a new homologation or before the first event of the season in which the homologated model is entered and according to the procedure described above. If other adjustments are necessary, the Endurance Committee will apply the procedure described on Article 19 (balance of performance).</p>
<p>2.2.3 Homologation Caduque L'homologation deviendra caduque :</p>	<p>Lapsed Homologation The homologation will become lapsed:</p>
<p>a/ L'année suivant l'arrêt de la fabrication si un minimum de 200 (50 pour un "Petit Constructeur") voitures de route n'a pas été produit ;</p>	<p>The year following the stop of the production if a minimum of 200 road cars has not been produced (50 for a "Small Manufacturer")</p>
<p>b/ 8 ans après l'arrêt de la fabrication si un minimum 200 (50 pour un "Petit Constructeur") voitures de route a été produit.</p>	<p>8 years after the stop of the production if at least a minimum of 200 road cars has been produced (50 for a "Small Manufacturer")</p>
<p>2.2.4 Maximum de voitures de course admises Pour chaque voiture de course engagée à une épreuve, un minimum de 9 voitures de route identiques au modèle homologué par l'ACO doit être produit. Il appartiendra au Constructeur de tenir l'ACO informé de l'évolution de la production.</p>	<p>Maximum of race cars admitted For each car entered in a race, a minimum of 9 road cars identical to the model homologated by the ACO must be produced. It is for the Manufacturer to inform the ACO about the development of the production.</p>

- 2.2.5 Evolutions du type**
Les modifications apportées à titre définitif sur le modèle de route homologué seront permises à condition que ce modèle ainsi modifié respecte intégralement les critères d'éligibilité définis ci-dessus à l'exception du minimum de production ;
Les évolutions devront être décrites sur la Fiche d'Homologation et approuvées par l'ACO. Elles seront également admises sur les anciens modèles à condition d'être appliquées intégralement.
- 2.3 D'origine**
- 2.3.1** Tout ce qui est décrit dans la Fiche d'Homologation de la voiture.
- 2.3.2** La comparaison avec une voiture de série de référence doit être possible en toutes circonstances.
- 2.3.3** Les équipements en "option" ou les "kits de performance" permettant des améliorations aérodynamiques ou des performances ne sont pas autorisés.
- 2.4 Carrosserie**
- 2.4.1** La carrosserie concerne les parties suspendues de la voiture léchées par l'air extérieur à l'exception des parties liées au fonctionnement mécanique du moteur, de la transmission et des trains roulants.
- 2.4.2** Vue de dessus (vue en plan), de côté (élévation), de l'avant (face) et de l'arrière, la carrosserie ne doit pas permettre de voir les parties mécaniques.
- 2.4.3** Les éléments mobiles lorsque la voiture est en mouvement sont interdits.
- 2.5 Structure principale / Châssis**
Partie entièrement suspendue de la structure du véhicule, à laquelle les charges de suspension et / ou des ressorts sont transmises, s'étendant longitudinalement des fixations du pare-choc avant jusqu'aux fixations du pare-choc arrière.
- 2.6 Prises d'air / Sorties d'air**
- 2.6.1** Les prises d'air / sorties d'air font partie de la carrosserie.
- 2.6.2** Si les prises d'air ou les sorties d'air permettent de voir les parties mécaniques, elles doivent être munies d'un grillage avec mailles de 10 mm environ (à l'appréciation des Commissaires Techniques).
- 2.7 Habitacle**
- 2.7.1 Voiture fermée**
Volume à l'intérieur de la structure principale réservé aux occupants et délimité par le pavillon, le plancher, les portes, les parois latérales, les parties vitrées et les cloisons avant et arrière.
- 2.7.2 Voiture ouverte**
Vue en plan, l'ouverture de l'habitacle doit être symétrique et rien ne doit la recouvrir sauf une capote ou un hard-top amovible.
- 2.7.3** Le Groupe Homologation est seul juge pour apprécier les cotes minimales du volume intérieur (habitabilité), l'accessibilité, la visibilité, le pare-brise, la lunette arrière, les portes, etc.
- 2.8 Systèmes électroniques**
- 2.8.1** Sont interdits les fonctions et systèmes de contrôle automatiques ou électroniques concernant : châssis, transmissions automatiques ou semi-automatiques, embrayages, différentiels, réglage d'amortisseurs, de suspension, de niveau du véhicule ou d'assiette, antiblocage de frein, direction sur les 4 roues, etc.
- 2.8.2** Un contacteur électrique simple à boucle ouverte, non automatique, actionné par le pilote et agissant sur un ou plusieurs système(s) n'est pas considéré comme un contrôle électronique.
- 2.8.3** Un système de contrôle électronique à boucle fermée est un système dans lequel :

Evolution of the type

Modifications introduced for good on the road model homologated will be permitted provided this model thus modified fully respect the eligibility criteria as defined above including the minimum of production;

The evolutions should be described on the Homologation Form and approved by the ACO. They will be also allowed on the old models if they are fully applied.

Original

Everything which is specified in the Homologation Form of the car.

Comparison with a reference production car shall be made possible in all circumstances.

"Optional" equipment or "performance kits" the purpose of which is to obtain aerodynamic or performance improvement are not permitted.

Bodywork

The bodywork concerns all entirely sprung parts of the car in contact with the external air stream apart from parts in relation to the mechanical functioning of the engine, of the drive train and of the running gears.

As viewed from above (plan view), from the sides (elevation), from the front and from the rear, the bodywork shall not allow mechanical parts to be seen.

Movable bodywork parts / elements are forbidden when the car is in motion.

Main structure / Chassis

Entirely sprung part of the structure of the vehicle, to which all the suspension and/or spring loads are transmitted, extending longitudinally from the fixing of the front bumper to the fixing of the rear bumper.

Air intakes / air extractors

Air intakes / air extractors are part of the bodywork.

If air intakes or air extractors make mechanical parts visible, they shall be fitted with mesh about 10 mm (to Scrutineers' appreciation).

Cockpit**Closed car**

Volume inside the main structure to accommodate the occupants which is defined by the top of the car, floor, doors, side panels, glass areas and frontal and rear bulkheads.

Open car

As viewed from above, the cockpit opening must be symmetrical and nothing is permitted on top of it apart from a hood or a removable hard-top.

The Homologation Group will be the only valid authority to assess the minimum measurements regarding inside volume (roominess), vision, windscreen, rear window, doors, etc.

Electronic systems

Any automatic or electronic control system or function is forbidden : chassis control, automatic or semi-automatic transmissions, clutches, final drive differential system, shock absorbers, suspension or ride height adjustment, anti-lock braking, four wheel steering, etc.

A simple open-loop non automatic electrical switch activated by the driver acting on one or more system(s) is not considered to be an electronic control.

A closed-loop electronic control system is a system in which:

<p>a/ Une valeur réelle (variable contrôlée) est surveillée de façon continue ;</p> <p>b/ Le signal retourné ("feed back") est alors comparé à une valeur attendue (variable de référence) ;</p> <p>c/ Le système est ensuite ajusté automatiquement en fonction du résultat de cette comparaison.</p>	<p>An actual value (controlled variable) is continuously monitored;</p> <p>The "feed back" signal is compared with a desired value (reference variable);</p> <p>The system is then automatically adjusted according to the result of that comparison.</p>
<p>2.8.4 Sauf si spécifié dans le présent règlement et à l'exception des systèmes assurant la gestion du moteur tout système de ce type est interdit. Un système de contrôle de motricité agissant exclusivement sur le moteur est autorisé.</p>	<p>Unless specified in these regulations and apart from engine monitoring systems, no such system is permitted. A traction control system operating exclusively on the engine is authorised.</p>
<p>2.9 Télémetrie</p> <p>Sont autorisés, à l'exception de tout autre procédé :</p> <ol style="list-style-type: none"> 1) Les messages lisibles sur le panneau de signalisation du stand ; 2) Les signaux gestuels faits par le conducteur ; 3) Les transmissions de données de la voiture vers le stand (une seule direction) ; 4) Les transmetteurs de signaux de déclenchement de début ou de fin de tour ("lap trigger") qui : <ul style="list-style-type: none"> a/ Doivent être autonomes et non reliés au stand par fil, câble, fibre optique, etc. b/ Ne doivent servir qu'à compter les tours. 5) Les communications verbales bidirectionnelles (radio) entre le stand et le conducteur ; 	<p>Telemetry</p> <p>Apart from any other process, are permitted:</p> <p>Legible messages on a signaling pit board;</p> <p>The driver's body movements;</p> <p>Telemetry signals from the car to the pits (one direction);</p> <p>"Lap trigger" signals for the start or the end of a lap:</p> <p>Shall be autonomous and not connected to any pit equipment by means of wires, optical fibers, etc.</p> <p>The only function of these transmitters is to mark the laps.</p> <p>Two way verbal communications between the driver and his pit.</p>
<p>Note L'utilisation de tout autre système de communication n'est possible qu'avec l'autorisation et sous le contrôle de l'organisateur.</p>	<p>The use of any other communication system is only possible after permission granted and under the control of the organiser.</p>
<p>2.10 Emplacement</p> <p>Définition relative de l'endroit où se trouve un élément par rapport aux autres éléments d'origine de la voiture qui l'entourent.</p>	<p>Location</p> <p>Relative definition of the place where is an element in relation to the other original elements of the car that surround it.</p>
<p>2.11 Position</p> <p>Définition dimensionnelle suivant les 3 axes de l'endroit où se trouve un élément d'origine de la voiture.</p>	<p>Position</p> <p>Dimensional definition of the place along the 3 axes where is an original element of the car.</p>
<p>2.12 Orientation</p> <p>Définition de la position angulaire d'un élément d'origine de la voiture. Une rotation de 180° est considérée comme un changement d'orientation.</p>	<p>Orientation</p> <p>Angular position of an original element of the car. If the element is turned 180°, this will be regarded as a change in orientation.</p>
<p>2.13 Règlement</p>	<p>Regulations</p>
<p>2.13.1 Ce qui n'est pas autorisé par le règlement est interdit.</p>	<p>What the regulations do not permit is forbidden.</p>
<p>2.13.2 L'éligibilité d'une voiture est de la responsabilité exclusive du Comité Endurance.</p>	<p>Eligibility of a car is the Endurance Committee exclusive responsibility.</p>
<p>2.13.3 Les modifications dictées par la sécurité sont applicables immédiatement et sans préavis.</p>	<p>Modifications made on grounds of safety will be enforced immediately and without notice.</p>
<p>2.14 Enregistrement de données</p> <p>Toutes les voitures doivent être équipées de l'enregistreur de données homologué par l'ACO. Il doit être monté et testé avec succès avant que la voiture soit présentée aux vérifications techniques. La Fiche d'Homologation devra contenir un schéma indiquant l'implantation du boîtier avec tous ses périphériques, faisceaux et connexions. Pour chaque voiture, le fournisseur du boîtier d'acquisition de données devra fournir un document attestant que le système monté conformément au schéma de la Fiche d'Homologation a été testé avec succès dans la voiture.</p> <p>Chaque concurrent devra s'assurer :</p> <ul style="list-style-type: none"> • qu'un ordinateur spécialement dédié au transfert des données à l'organisateur est connecté en permanence au réseau pendant toute la durée de l'épreuve. La connexion au réseau sera sous la responsabilité du concurrent. • de récupérer les données et de les transférer immédiatement depuis son stand à l'organisateur par l'intermédiaire du réseau internet : 	<p>Data Logging</p> <p>All cars must be equipped with the data recorder homologated by the ACO. It must be fitted and tested satisfactorily before the car undergoes scrutineering. The Homologation Form must contain a drawing showing the location of the box with all its devices, looms and connections. For each car the supplier of the data logger shall provide a document attesting that the system fitted in accordance to the drawing of the Homologation Form has been successfully tested on the car.</p> <p>Each competitor shall ensure:</p> <ul style="list-style-type: none"> • a computer especially dedicated to transfer the data to the organizer is connected permanently to the network during the entire event. The network connection will be under the responsibility of the competitor. • to recover the data and to transfer them immediately from its pit to the organizer through the Internet network:

- pendant les essais, au début de chaque session lors du premier arrêt au stand, puis pendant la session au minimum 1 fois par heure et à la fin de chaque session.
- pendant la course lors de chaque ravitaillement, excepté la dernière heure,

Pour chaque déchargement obligatoire indiqué ci-dessus, les données doivent être transmises à l'organisateur au plus tard 10 minutes après l'entrée de la voiture dans la pit-lane.

Un cahier des charges concernant le fonctionnement du système d'acquisition de données et son utilisation est disponible sur le site de l'ACO réservé aux Constructeurs et aux teams.

Il doit être intégralement respecté. Le non respect des règles ci-dessus entraînera l'annulation des temps pendant les essais et l'arrêt de la voiture pendant la course ou toute autre sanction à la discrétion du collège des Commissaires Sportifs.

- during the practices, at the beginning of each session at the first pit stop, then during each session minimum once per hour and at the end of each session.
- during the race, at each pit stops excepted the last hour.

For each mandatory downloading indicated above, the data must be transferred to the organizer 10 minutes at the latest after the car is entered in the pit lane.

Specifications concerning the operation of the data logger system and its use are available on the ACO private corner for Manufacturers and teams.

They must be fully respected. The lack of respect of the rules above will result in the cancellation of the times achieved during the practices and stop of the car during the race or any other penalty at the steward discretion.

ART. 3	CARROSSERIE	BODYWORK
3.1	Conformité	Conformity
	Les dimensions (longueur, largeur, porte-à-faux, empattement, habitacle, vitres, etc.) et l'aspect général de la carrosserie doivent rester identiques à ceux de la voiture commercialisée telle que décrite dans la Fiche d'Homologation, sauf modifications autorisées par le règlement.	Dimensions (length, width, overhangs, wheelbase, cockpit, glass areas, etc.) and the general look of the bodywork shall be maintained identical to those of the car available on the market as described in the Homologation Form, save modifications permitted by the regulations.
3.2	Fond plat	Flat bottom
	<i>a/</i> Entre les axes des roues avant et arrière au minimum et sur toute la largeur de la voiture, le dessous /soubassement de la voiture doit être équipé d'un fond plat d'une épaisseur maximum de 10 mm, rigide, continu, faisant partie intégrante de l'ensemble châssis / carrosserie ;	Between at least the front and rear wheel centre lines and all across the width of the car, the bottom/underbody of the car shall be fitted with a flat bottom of 10 mm thick maximum , rigid, continuous being an integral part of the chassis / body unit;
	<i>b/</i> Le bord arrière excepté, le fond plat peut se raccorder à la carrosserie par des arrondis de 25 mm de rayon maximum ;	Except for the rear edge, the flat bottom may be curved with 25 mm maximum radii in order to join up to the bodywork;
	<i>c/</i> Le fond plat ne doit pas dépasser ;	The flat bottom must not protrude:
	<i>c1</i> Sur les cotés : il doit être en retrait de 25 mm au maximum du contour des bas de caisse / seuils de portes vue de dessus et se raccorder le mieux possible à ceux-ci ;	On the sides: it must set back from the rocker panels / doorsills seen from above by 25 mm maximum and join up to them the best as possible;
	<i>c2</i> A l'intérieur du passage des roues.	Inside of the wheel arches.
	<i>d/</i> Le fond plat ne doit pas avoir d'effet aérodynamique :	The flat bottom shall not have any aerodynamic effect :
	<i>d1</i> Aucun flux d'air ayant un effet aérodynamique n'est autorisé entre la carrosserie et le fond plat ;	No air flow with an aerodynamic effect is permitted between the bodywork and the flat bottom;
	<i>d2</i> Les flux d'air canalisés vers les entrées d'air ou évacués par les sorties d'air et circulant au-dessus d'une partie quelconque du fond plat ne doivent pas permettre d'obtenir une portance positive ou négative.	Air streams channelled into the air intakes or out through the air extractors and moving above any part of the flat bottom whatsoever shall not allow to get any lift or down force.
	<i>e/</i> Les seules ouvertures autorisées dans le fond plat sont :	The only openings permitted in the flat bottom are:
	<i>e1</i> Les découpes correspondant aux mouvements des roues ;	Cut-outs related to wheel travel;
	<i>e2</i> Les trappes de visite pour les opérations d'entretien ;	Hatches for maintenance operations;
	<i>e3</i> Le passage des crics pneumatiques ;	Passing of air jacks;
	<i>e4</i> L'évacuation de la chaleur des tubulures d'échappement (si moteur avant) ; Ces ouvertures ou perforations :	Heat extraction from the exhaust pipes (if front engine);
	1. ne sont autorisées que pour le refroidissement de l'échappement et sur une largeur maximum n'excédant pas le diamètre des tubes d'échappement ;	These openings or holes :
	2. doivent suivre la forme du (des) tube(s) d'échappement sur leur longueur ;	1. are permitted only for cooling the exhaust system and limited to a maximum width not exceeding the exhaust pipes diameter;
	<i>e5</i> La sortie du trop-plein de remplissage du réservoir de carburant.	2. must follow the shape of the exhaust pipe(s) all along;
	<i>e6</i> 4 prises d'air maximum pour le refroidissement dont la surface totale sur le plan horizontal ne doit pas être supérieure à 360 cm ² .	Exit of the overflow pipe from the fuel tank filler.
	<i>f/</i> Le fond plat et les bas de caisse peuvent être réunis pour former une seule pièce.	4 air ducts maximum for cooling, the total area of which must not exceed 360 cm ² measured horizontally.
	<i>g/</i> Aucune partie suspendue de la voiture ne peut se trouver en dessous du plan engendré par le fond plat.	The flat bottom and the doorsills can be put together in order to have only one piece.
	<i>h/</i> Les patins de frottement sont interdits.	No sprung part of the car is permitted below the plane generated by the flat bottom.
		The rub blocks are not permitted.

3.3 Modifications autorisées

La carrosserie peut être modifiée dans les limites suivantes :

3.3.1 Allègement

Seuls les éléments de carrosserie démontables (capots avant et arrière, ailes, portes, pare-chocs et leurs supports, etc.) décrits dans la Fiche d'Homologation ACO et fixés au moyen de vis ou boulons (*) sur la structure principale (**) peuvent être remplacés par des éléments en matériau plus léger (titane et magnésium exceptés) à condition de conserver intégralement la forme d'origine sauf cas prévu à l'Article 3.3.7 (largeur hors tout). Les éléments de carrosserie réunis pour former une seule pièce (exemple : aile et pare-chocs) ne sont pas considérés comme démontables.

(*) Le système de fixation doit être au moins aussi solide et efficace que le système d'origine.

(**) "Caisse en blanc" ("Body in white").

3.3.2 Vitrages

- a/* Pare-brise, réalisé d'une pièce, peut être en verre feuilleté ou en polycarbonate (6 mm minimum d'épaisseur). Il peut être monté sur un cadre supplémentaire dont les bords ne doivent pas avoir une largeur supérieure à 50 mm. 2 barres anti-intrusion minimum doivent être ajoutées sur la face intérieure des pare-brise en polycarbonate. Elles doivent être fixées solidement et ne pas gêner la visibilité du pilote. Les vitrages peuvent être remplacés par un matériau assurant la même transparence et avec une épaisseur minimale de 3 mm. Le pare-brise et les vitres latérales ne doivent pas être teintés.
- b/* Il est permis d'ajouter un maximum de 4 films translucides sur la face extérieure du pare-brise afin de le protéger.
- c/* La vitre latérale côté pilote peut être remplacée par un filet.
- d/* Des fixations de sécurité ou un entourage de fenêtre supplémentaire peuvent être ajoutés s'ils n'ont pas d'effet aérodynamique.
- e/* La lunette arrière est obligatoire, en matériau transparent.

3.3.3 Ouvertures

- a/* Des ouvertures peuvent être ménagées uniquement pour la ventilation de l'habitacle et le fonctionnement du compteur de tours :
- dans les vitres latérales ;
 - dans la partie inférieure de la lunette arrière (5 trous maximum de 50 mm de diamètre maximum) ;
- b/* Les prises d'air sont autorisées sur les vitres latérales à condition :
- de ne pas faire saillie de plus de 15 cm ;
 - de ne pas dépasser le contour de la voiture vue de dessus.
- w** Ces ouvertures ne doivent pas gêner la visibilité du pilote.
- c/* Les ouvertures effectuées par le Constructeur pour assurer la ventilation efficace de l'habitacle (cf. Art. 14.6. ci-dessous), décrite sur la Fiche d'Homologation et approuvées par le Comité Endurance, ne doivent pas être modifiées.

3.3.4 Capots de coffre et de compartiment moteur

- a/* Leurs charnières sont libres ;
- b/* Il doit être possible de les enlever ou de les ouvrir sans outillage ;
- c/* Ils doivent avoir au minimum 2 fixations de sécurité (identification par flèches rouges ou toute autre couleur contrastée).

3.3.5 Portes

Les charnières de portes peuvent être remplacées afin de permettre une évacuation plus rapide du pilote en cas d'accident.

3.3.6 Renforts

Les renforts sont autorisés à condition qu'ils épousent parfaitement les formes de la pièce d'origine et que le contact soit maintenu sur toute leur surface.

Des barres de renfort peuvent être ajoutées entre les points d'ancrage des suspensions et la structure au niveau d'un même train roulant et

Modifications permitted

The bodywork may be modified within the following limitations:

Lightening

Only the movable bodywork parts (bonnet, boot lid, fenders, doors, bumpers and their supports, etc.) described in the Homologation Form which are screwed or bolted (*) on the main structure (**) may be replaced by elements made from lighter material (apart from titanium or magnesium) provided that the original shape is entirely retained, save case in Article 3.3.7 below (overall width). Bodywork elements put together in order to have only one piece (For example : bumper and fender) are not considered as movable parts.

(*) The mounting system must be at least as strong and efficient as the original one ;

(**) "Body in white" ("Caisse en blanc").

Glazing

The one piece windscreen can be made from laminated glass or polycarbonate (thickness: 6 mm minimum). It may be fitted on an additional frame, the edges of which must have a width no greater than 50 mm. 2 anti-intrusion bars minimum must be added on the internal face of the polycarbonate windscreens. They must be solidly fixed and they must not obstruct the driver's vision. The Glazed areas may be replaced with any other material ensuring the same transparency and with a minimum thickness of 3 mm.

The windscreen and the side windows must not be tinted.

In order to protect the windscreen, the addition of a maximum of 4 translucent films on its external face is permitted.

The window on driver's side may be changed for a net.

Safety fasteners or additional window frames may be added provided they have no aerodynamic effect.

The rear window is mandatory, made from transparent material.

Openings

Openings may be made exclusively for the cockpit ventilation and the operation of the lap trigger:

- through the side windows;
- through the lower part of the rear window (5 holes maximum of 50 mm of diameter maximum);

Air intakes are permitted in the side windows provided:

- they do not protrude more than 15 cm;
- they do not extend beyond the perimeter of the car;

These openings must not hinder the driver's vision.

The openings made by the Manufacturer for the ventilation of the cockpit (see Art. 14.6 below), described on the Homologation Form and approved by the Endurance Committee, must not be modified.

Trunk and engine covers

Their hinges are free:

It must be possible to remove or open them without using tools;

They must be secured by at least two safety fasteners (identification by means of red arrows or any other contrasting colour).

Doors

The door hinges may be replaced for the sole purpose of allowing faster evacuation of the driver in the event of an accident.

Reinforcements

Reinforcements are permitted provided that the material being used follows perfectly the form of the original part and the contact is kept direct on all the surface.

Reinforcement bars may be added between the suspension pick up points and the main structure at the level of the same wheel centre line and

- symétriquement par rapport à l'axe longitudinal de la voiture.
- 3.3.7 Passage de roues / Arches de roues**
- a/* La découpe extérieure et l'intérieur des arches de roues peuvent être modifiés pour permettre le montage de roues plus volumineuses ;
- b/* Par rapport à la voiture homologuée, aucun panneau ou élément d'origine ne peut être enlevé au-dessus du niveau de l'axe des roues ;
- c/* Les coffrages de roues doivent toujours être fermés par des panneaux descendant au moins jusqu'au niveau de l'axe des roues. Conformément à l'Article 3.4.1 ci-dessous, la partie inférieure des pare-chocs avant et arrière peut être modifiée en conséquence (sans diffuseur à l'arrière). Dessins nécessaires pour agrément du Comité Endurance.
- 3.3.8 Largeur maximum**
- Au niveau des arches de roues avant et arrière, la largeur de la carrosserie (cf. Fiche d'Homologation) peut être augmentée de 15 cm :
- a/* La modification doit conserver le plus possible l'aspect des ailes d'origine.
- b/* La largeur hors tout (rétroviseurs exclus) ne peut être supérieure à 205 cm.
- c/* Les bas de caisse / seuils de portes et les cotés des pare-chocs avant et arrière peuvent être modifiés dans le seul but de les raccorder avec les ailes élargies.
- d/* Les modifications ci-dessus doivent être réalisées une seule fois et doivent être approuvées par le Comité Endurance (Fiche d'Homologation).
- 3.3.9 Plaques d'immatriculation**
- La suppression des supports et des éclairateurs de plaques d'immatriculation est autorisée, mais elle ne doit pas engendrer de modification de la carrosserie excepté celles permises par le règlement. Les supports et les éclairateurs de plaques d'immatriculation même conservés ne peuvent servir à déterminer les porte-à-faux de la voiture.
- 3.4 Dispositifs aérodynamiques**
- 3.4.1 Avant et arrière**
- A condition de ne pas avoir de **profil d'aile (*)**, des diffuseurs à l'avant qui canalisent l'air au dessus du fond plat et que la structure principale ne soit pas modifiée, les éléments de carrosserie avant et arrière peuvent être remplacés par des éléments aérodynamiques dans la limite :
- a/* Des porte-à-faux avant et arrière (Fiche d'Homologation ACO) ;
- b/* Du contour de la carrosserie d'origine ;
- c/* En avant du plan vertical tangent devant les arches de roues avant et en arrière du plan tangent derrière les arches de roues arrière ;
- d/* Sous le plan horizontal passant par l'axe des roues avant (à l'avant) et sous le plan horizontal passant par l'axe des roues arrière (à l'arrière) ;
- e/* Au-dessus du fond plat, toute protubérance étant interdite ;
- f/* Un plan incliné, rigoureusement plat, sans dérives verticales ni équerre transversale sur le dessus et respectant l'Article 3.4.1 ci-dessus est admis. Si la voiture de série est équipée d'un diffuseur arrière non conforme à ces spécifications, il doit être supprimé.
- Nota** Les modifications ci-dessus (aérodynamiques, ouvertures, etc.) doivent être décrites sur la Fiche d'Homologation et approuvés par l'ACO.
(*) Profil d'aile : section engendrée par deux arcs de courbure et/ou de centre différents réunis à l'avant par un bord d'attaque et, à l'arrière, par un bord de fuite, et destinée à obtenir une portance aérodynamique positive ou négative.
 Ne sont pas considérés comme des profils d'aile, les éléments de carrosserie qui :
- ont une épaisseur constante,
 - ont un profil parfaitement symétrique,
 - sont verticaux.

symmetrically in relation to the longitudinal centre line of the car.

Wheel housing / Wheel arches

- The external cut out and inside housing of the wheel arches may be modified to accommodate larger wheels;
- In relation to the homologated car, no panel or element may be removed above the wheel centre line level;
- The wheel housings shall always be closed by means of panels at least down to the wheel centre line level. According to Article 3.4.1 below, the lower part of the front and rear bumpers may be modified with no diffuser at the rear. Diagrams needed for Endurance Committee approval.

Maximum width

- Across the front and rear wheel arches, the width of the bodywork (cf. Homologation Form) may be increased by 15 cm :
- The modification shall retain the original appearance of the fenders as much as possible.
- Overall width (rear view mirrors excluded) cannot exceeds 205 cm.
- The rocker panels / doorsills and the sides of the front and rear bumpers may be modified with the only purpose to join them up to the wider fenders.
- The modifications above must be made once only and must be approved by the Endurance Committee (Homologation Form).

Registration plates

- Mountings and lights of the registration plates may be removed but this must not lead to the modification of the bodywork except for those permitted by the regulation.
 Even if they are maintained, they cannot be used to determine the overhangs of the car.

Aerodynamic Devices

Front and rear

- Provided they do not include a **wing profile (*)**, front diffusers which channel the air above the flat bottom and the main structure is not modified, front and rear bodywork elements may be changed for aerodynamic elements within the limit of:
- The front and rear overhangs (ACO Homologation Form);
- The perimeter of the original bodywork;
- Forward the vertical plane tangent forward the front wheel arches and aft the vertical plane tangent behind the rear wheel arches;
- Below the horizontal plane passing through the front wheel centre line (at the front) and below the horizontal plane passing through the rear wheel centre line (at the rear);
- Above the flat bottom, any protruding element being prohibited;
- One inclined panel, perfectly flat, without vertical fins or transversal angle bracket on top, and in compliance with the Article 3.4.1 above is allowed. If the series car is fitted with a rear diffuser not complying with these specifications, it must be removed.

- The modifications above (aerodynamics, openings, etc.) must be described on the Homologation Form and approved by the ACO.
(*) Wing profile: section generated by two arcs with different curves and/or centres joining a leading edge at the front to a trailing edge at the rear, the purpose being to exert an aerodynamic effect, lift or down force.

Are not considered as a wing profiles, the bodywork elements that:

- have a constant thickness,
- have an absolutely symmetrical profile,
- are vertical.

3.4.2 Sur les côtés

Les bas de caisse/seuils de portes entre la découpe des arches de roues avant et arrière doivent rester d'origine, sauf :

- cas prévu à l'Article 3.3.8.c ci-dessus,
- pour permettre le montage de silencieux (voitures avec moteur avant). Ces modifications doivent être approuvées par l'ACO.

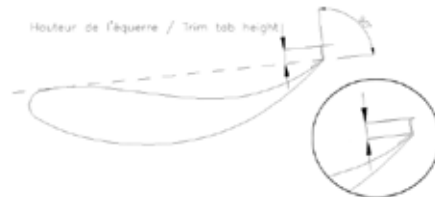
3.4.3 En dessous

Le soubassement de la voiture doit rester d'origine sauf en ce qui concerne l'installation :

- a/ De dispositifs de levage ;
- b/ Des échappements (cf Art. 5.6.3) ;
- c/ De la boîte de vitesses (cf Art. 9.2.3.c) ;
- d/ L'orifice de sortie du trop plein du système de remplissage de carburant.

3.4.4 Aileron arrière

- a/ Un aileron composé d'un seul élément est autorisé au-dessus de la carrosserie à condition que :
 - a1 Il remplace l'aileron d'origine si la voiture en est équipée ;
 - a2 Il tient, plaques de garde et équerre comprises, dans un volume de 45 cm (horizontale) x 15 cm (verticale) x 91% de la largeur hors tout de la voiture de route homologuée (Fiche d'Homologation ACO) ;
 - a3 La corde de la section d'aile ne dépasse pas 30 cm ;
 - a4 Il soit 5 cm en avant du point le plus reculé de la voiture. Toute modification ou extension de carrosserie dont l'objet est de déplacer l'aileron vers l'arrière est interdite ;
 - a5 Il soit placé 10 cm plus bas que le sommet du toit.
 - a6 Le point le plus en arrière du bord de fuite de l'aile principale ne peut pas fléchir de plus de 10 mm verticalement (en prenant comme référence une partie structurelle du châssis) quand une charge verticale de 2400 N est appliquée sur la surface de l'aile principale. La charge sera appliquée uniformément et simultanément au point situé à 50% de la longueur de la corde de l'aile principale et aux points qui sont à 164 mm, 452 mm et 740 mm de chaque côté de l'axe longitudinal. La déflexion angulaire sera également prise en compte et des contrôles supplémentaires pourront être effectués si jugés nécessaires.
- b/ Une équerre de bord de fuite (gurney) rigide est obligatoire. Elle doit :
 - b1 Avoir une hauteur de 25 mm minimum au-dessus du point le plus haut de la moitié arrière de la section de l'aileron. La partie de l'équerre au dessus de 15 mm ne sera pas prise en compte pour définir le volume de l'aileron (Art. 3.4.4.a.2.) et sa hauteur par rapport au sommet du toit (3.4.4.a.5) ;
 - b2 Être perpendiculaire au plan défini par la longueur la plus importante reliant le rayon d'attaque au bord de fuite de l'aileron ;



- b3 Être fixée solidement au moyen d'outils sur toute la longueur de l'aileron arrière si elle n'est pas partie intégrante de l'aile. Un système de blocage à chaque extrémité n'est pas suffisant.
- b4 Ne pas fléchir de plus de X mm (*) lorsqu'une charge de 100 N lui est appliquée à 90 degrés à n'importe quel point sur sa largeur. La charge sera appliquée en haut du bord de fuite en utilisant un adaptateur approprié de 25 mm maximum de large.

On both sides

The rocker panels/doorsills between the front and rear wheel arches cut out shall remain original, save:

- permission given in Article 3.3.8.c above,
- to allow the fitting of mufflers (Front engine cars). These modifications must be approved by the ACO.

Underneath

The underbody of the car shall remain original apart from what is concerned by the fitting of:

- Jacking systems;
- Exhaust systems (see Art. 5.6.3);
- Gearbox (see Art. 9.2.3.c);
- The exit of the overflow pipe in case of possible excess of fuel from the tank filler.

Rear wing

A wing made from one element only is permitted on top of the bodywork provided that:

- It replaces the original rear wing if one is fitted on the car;
- It fits, including end plates and angle bracket, into a volume the dimensions of which are 45 cm (horizontal) x 15 cm (vertical) x 91% of the maximum width of the road car homologated (ACO Homologation Form);
- The chord of the wing section not to exceed 30 cm;
- It is set forward by 5 cm in relation to the rearmost point of the bodywork. Any bodywork modification or extension the purpose of which is to move the wing backward is prohibited;
- It is set 10 cm lower than the highest point of the roof.

The rearmost point of the trailing edge of the main plane may deflect no more than 10 mm vertically (taking as reference a structural part of the chassis) when a vertical load of 2400 N is applied on the surface of the main plane. The load will be applied uniformly and simultaneously at point in x representing 50% of the chord length of the main plane and at points which are 164 mm, 452 and 740 mm about the centerline.

The angular deflection will also be considered and some additional controls could be conducted if judged necessary.

A rigid trim tab/gurney is mandatory. It must :

Be 25 mm high as a minimum above the highest point on the rear half of the wing section. The part of the bracket above 15 mm will not be taken into account to define the volume of the wing (Art. 3.4.4.a.2.) and his height in comparison with the top of the roof (Art. 3.4.4.a.5) ;

Be at a right angle to the plane define by the longest length connecting leading radius to trailing edge of the wing;

Be solidly fixed all along the wing by means of tools if the gurney is not an integral part of the wing. A locking system at each end is not enough.

Deflect no more than X mm (*) when a 100 N load is applied at 90 degrees to it at any point along the trailing edge. The load will be applied at the top of the trailing edge using a suitable 25 mm (maximum) wide adapter.

(*) La déflexion maximum sera proportionnelle à la hauteur du Gurney :

Hauteur (mm)	Déflexion (mm)
25	4
20	3
15	2
10	1

(*) The maximum deflection will be proportional to the height of the Gurney:

Height (mm)	Deflection (mm)
25	4
20	3
15	2
10	1



- b5* Aucun flux d'air ne doit passer entre la surface de l'aileron et l'équerre de bord de fuite ;
- c/* Supports d'aileron verticaux
- c1* Longueur : 52 cm maximum ;
- c2* Les surfaces doivent être planes et parallèles au plan vertical passant par l'axe longitudinal de la voiture ;
- c3* Les bords d'attaque peuvent être arrondis (rayon constant) et les bords de fuite (partie arrière) peuvent être biseautés sur 20 mm maximum.
- c4* Ils doivent être :
- distants d'au moins 100 mm des plaques de garde ;
 - métalliques ainsi que leurs fixations ;
- d/* Plaques de garde
- d1* Les surfaces doivent être planes et parallèles au plan vertical passant par l'axe longitudinal de la voiture ;
- d2* L'épaisseur est de 10 mm minimum ;
- d3* Les bords des plaques latérales doivent comporter un arrondi de 5 mm (rayon constant).
- Si l'aileron d'origine est monté, il doit respecter les points ci-dessus.

3.5 Prises d'air & sorties d'air

- 3.5.1* Les prises d'air et les sorties d'air doivent servir uniquement au refroidissement des parties mécaniques (radiateurs freins, etc.), à l'alimentation du moteur et à la ventilation (pilote, compartiment moteur, etc.).
- 3.5.2* Elles ne doivent pas faire saillie sur la surface de la carrosserie, sauf :
- a/* Cas prévu à l'Article 3.3.3.b ci-dessus ;
- b/* Si d'origine sur la voiture de route disponible à la vente (Fiche d'Homologation ACO). Ces prises d'air :
- ne peuvent pas être modifiées,
 - ne doivent pas être de "type Snorkel",
 - doivent être approuvées par l'ACO,
 - ne peuvent servir pour contrôler la hauteur maximale de l'aileron arrière (prise d'air sur le toit).
- 3.5.3* Elles ne doivent pas permettre de voir les parties mécaniques ou autres. Un grillage avec mailles de 10 mm environ est recommandé.
- 3.5.4* Elles ne doivent pas avoir d'effet aérodynamique.
- 3.6 Pare-brise*
- 3.6.1* A sa base, le pare-brise doit mesurer au moins 70 % de la largeur hors tout de la voiture. Cette règle ne s'applique pas pour les voitures ayant obtenues l'approbation complète de la CEE ou équivalent au Japon ou aux Etats-Unis et fabriquées au minimum à 200 exemplaires par an.

No air stream may pass between the wing surface and the gurney (trim tab);

Vertical wing supports

Length : 52 cm maximum;

Their surfaces shall be flat and parallel to the vertical plane passing through the longitudinal centre line of the car;

The leading edges may be round (constant radius) and the trailing edges may be bevelled 20 mm maximum;

They must be :

- separated of at least 100 mm of the end plates;
- metallic as well as their fixings;

End plates

The surfaces must be flat and parallel to the vertical plane passing through the longitudinal centre line of the car;

The thickness is 10 mm minimum;

The edges of the end plates must be rounded with a constant radius of 5 mm minimum.

If the original rear wing is fitted, it must comply with the above point.

Air Intakes & air extractors

Air intakes and air extractors shall be used exclusively for channelling cooling air to mechanical parts (brakes, radiators, etc.), for feeding the engine with air and for ventilation (driver, engine compartment, etc.).

They shall not protrude over the surface of the bodywork, save:

Case in Article 3.3.3.b above;

If original on the road car available for sale (ACO Homologation Form).

These air intakes :

- cannot be modified,
- must not be a "Snorkel type",
- must be approved by ACO,
- cannot be used to check the maximum height of the rear wing (air intake on the roof).

They do not allow mechanical parts or other to be seen.

A 10 mm about wire mesh is recommended.

They shall not induce an aerodynamic effect.

Windscreen

At its bottom, the windscreen must be at least 70% of the overall width of the car. This rule doesn't apply for the cars "Full type CEE" homologated or the equivalent for United States or Japan and produced at least 200 examples per year.

3.6.2	Vu de face, le pare-brise doit être délimité par quatre angles arrondis, la ligne supérieure devant être presque horizontale (forme en trapèze).	As viewed from the front, the windscreen must be framed with four rounded angles, the upper line being almost horizontal (trapezoid shape).
3.6.3	L'arc au sommet du pare-brise ne doit pas dépasser quelques centimètres au-dessus d'une corde horizontale (A l'appréciation du Comité Endurance).	The curvature at the top of the windscreen shall not exceed some centimetres above a horizontal line (To the assessment of Endurance Committee).
3.7	Coffre(s) à bagages	Luggage compartment(s)
3.7.1	Le volume est de 150 dm³ minimum.	The volume is 150 dm³ minimum.
a/	Deux emplacements seulement ;	Two spaces only ;
b/	La conception et le volume du(des) coffre(s) sont à l'appréciation du Comité Endurance.	The design and the volume of the luggage compartment(s) are to the assessment of Endurance Committee.
3.7.2	Emplacement	Location
a/	L'espace derrière les sièges avant en position la plus reculée et sous la base de la lunette arrière est admis comme coffre à bagages. Dans ce cas, les cotes d'habitabilité aux places avant et de visibilité de la voiture homologuée ne doivent pas être modifiées ;	The space behind the front seats in their rearmost position and lower than the bottom of the rear window is admitted as luggage compartment : In that case, measurements of roominess at front seat level and field of vision of the homologated car shall be retained unchanged.
b/	L'emplacement pour les bagages doit rester celui de la voiture inspectée (Fiche d'Homologation).	The location for the luggage shall be retained as on the car inspected (Homologation Form).
3.7.3	Forme	Shape
	Le coffre, étanche, délimité par des parois rigides, doit permettre d'y placer de l'extérieur un volume (*) mesurant au moins 45 cm x 35 cm x 20 cm correspondant à une "valise pilote" ; (*) Volume formé par des surfaces planes et des angles droits.	The luggage compartment, airtight, delimited by rigid surfaces, shall permit to accommodate from outside a volume (*) measuring at least 45 cm x 35 cm x 20 cm corresponding to a "pilot case" ; (*) Volume made with flat surfaces and right angles.
3.7.4	A condition d'être efficacement protégés (chocs, fuites), sont autorisés dans le(s) coffre(s) :	Provided they have an efficient protection (shocks, leaks), are permitted in the luggage compartment(s):
a/	Réservoir d'essence, capacités et canalisations en respectant l'Article 6 ci-après ;	Fuel tank, capacities and pipes if they comply with Article 6 below ;
b/	Réservoir et récupérateur d'huile et canalisations ;	Oil tank, oil catch tank and pipes;
c/	Cric(s) pneumatique(s) et canalisation(s) d'air ;	Pneumatic jack(s) and air pipe(s);
d/	Batterie ;	Battery;
e/	Accessoires pour la climatisation.	Accessories for the air conditioning.
ART. 4	POIDS	WEIGHT
4.1	Lest	Ballast
	Le poids du lest et de ses fixations ne doit pas être supérieur à 50 kg. Il doit être fixé dans l'habitacle à l'emplacement du passager avant et conformément aux prescriptions de l'Article 253.16 (Annexe J) pour ce qui concerne les dimensions et les caractéristiques des fixations. Le système de fixation doit permettre le plombage du lest par les commissaires techniques et doit être conçu de telle façon que des outils soient nécessaires pour le démonter. Tout système de lest mobile quand la voiture se déplace est interdit.	The weight of ballast and its fixations must not be greater than 50 kg. It must be secured in the cockpit in the front passenger's location and according to the specifications of the Article 253.16 (Appendix J) concerning dimensions and characteristics of the fixations. The securing system must allow the fixing of seals by the scrutineers and must be designed such that tools are required for its removal. Any movable ballast system when the car is in motion is forbidden.
4.2	Poids	Weight
4.2.1	Le poids minimum est de 1245 kg. A l'exception de la pesée effectuée pendant les séances d'essais, c'est le poids de la voiture sans conducteur et sans carburant à bord. La voiture doit respecter le poids minimum à tout moment de l'épreuve. La vérification du poids des pièces qui auraient pu être remplacés durant l'épreuve est à la discrétion des commissaires techniques.	The minimum weight is 1245 kg. Except for the weighing procedure used during the practice sessions, it is the weight of the car with no driver and no fuel on board. The car must comply with the minimum weight at all times throughout the event. The checking of the weight of any part that may have been replaced during the event is at the discretion of the scrutineers.
4.2.2	Le poids peut être abaissé :	The weight may be lowered:
a/	Conformément à l'Article 3.3.1 ci-dessus (allègement) ;	According to Article 3.3.1 above (lightening);
b/	En enlevant tous les équipements et accessoires ;	By removing all equipment and accessories;
c/	En maintenant l'intégrité absolue de la structure principale.	While maintaining the absolute integrity of the main structure.
4.2.3	Rien ne peut être ajouté à une voiture pendant la pesée.	Nothing is permitted to be added to a car when weighing is in the process.
ART. 5	MOTEUR	ENGINE
5.1	Type et position	Type and location

5.1.1	<p>Le moteur d'origine doit conserver son emplacement, son orientation et sa position d'origine. Il peut toutefois :</p> <ul style="list-style-type: none"> être abaissé à condition de respecter l'Article 5.1.2 ci-dessous. être reculé (*) à condition de ne pas modifier le châssis et les dimensions de l'habitacle. <p>(*) Cette modification est permise seulement pour les voitures fabriquées au minimum à 2500 exemplaires (avec des lignes générales externes de carrosserie identiques) pendant 12 mois consécutifs. Elle doit être homologuée.</p>	<p>The original engine shall maintain its original location, orientation and position. However it can be:</p> <ul style="list-style-type: none"> lowered in compliance with the Article 5.1.2. below; moved backward (*) provided the chassis and the dimensions of the cockpit are not modified ; <p>(*) This modification is permitted only for cars produced in more than 2500 units (with identical external general lines of the bodywork) in twelve consecutive months. It must be homologated.</p>
5.1.2	<p>Il est permis de changer les supports moteur, mais sans modifier :</p> <ul style="list-style-type: none"> la structure principale qui peut être renforcée au niveau des supports ; leur position sauf lorsqu'il est admis de reculer le moteur (cf. Art. 5.1.1. ci-dessus). 	<p>It is permitted to change the engine mountings but without modifying :</p> <ul style="list-style-type: none"> the main structure which may be reinforced in the mountings area. their position excepted when the engine can be moved backward (see Art. 5.1.1. above);
5.1.3	<p>Uniquement pour les voitures à système de transmission "transaxle", le tube de reprise de couple peut être supprimé et remplacé par des supports moteur et/ou de transmission additionnels. Les nouveaux supports doivent être homologués ainsi que les modifications locales du châssis / coque nécessaires à leur montage.</p>	<p>Only for cars with a "transaxle" transmission system, the torque tube may be removed and replaced with additional engine and/or transmission supports. The new supports must be homologated as well as the local modifications to the chassis / bodyshell necessary for their fitting.</p>
5.1.4	<p>Si un moyen de propulsion autre qu'un moteur à combustion interne est envisagé, il doit être utilisé directement de la voiture de série sans aucune modification.</p>	<p>If a mean of propulsion different than an internal combustion engine is considered, it needs to be used directly from serial car without any modification.</p>
5.2	<p>Modifications</p>	<p>Modifications</p>
5.2.1	<p>Bloc-cylindres, culasse(s), angle des soupapes, nombre et emplacement des arbres à cames : d'origine, tel que monté sur le véhicule de série. L'ordre d'allumage est libre.</p>	<p>Cylinder block, cylinder head(s), valve angles, number and location of camshafts : they must remain original, as they are fitted on the series vehicle. The firing order is free.</p>
5.2.2	<p>L'apport de matière sur le bloc-cylindres ou la(les) culasse(s) est interdit. Les tubulures d'admission et d'échappement sont libres mais elles doivent prendre appui sur le plan de joint d'origine de la culasse.</p>	<p>The adding of material to the cylinder block or cylinder head(s) is not permitted. Intake and exhaust manifolds are free but they must be supported on the original cylinder head gasket face.</p>
5.2.3	<p>Les culasses peuvent être modifiées par usinage à condition que la pièce d'origine reste identifiable. Les guides des poussoirs de soupapes peuvent être chemisés s'ils ne le sont pas d'origine. Le bloc-cylindre peut être modifié par usinage :</p> <ul style="list-style-type: none"> pour modifier l'alésage ou pour le chemisage si le bloc d'origine n'est pas équipé de chemises. en dessous du plan horizontal passant par l'axe des paliers du vilebrequin pour le montage d'un carter sec. <p>Le matériau des chemises est libre. Le carter d'huile est libre et peut intégrer les chapeaux de paliers du vilebrequin</p>	<p>Cylinder heads may be modified by machining, provided that the original part remains identifiable. The valve tappet guides may be fitted with sleeves if not originally. The cylinder block may be modified by machining:</p> <ul style="list-style-type: none"> for the modification of the bore or for sleeving if the original block is not fitted with sleeves. below the horizontal plane passing through the axle of the crankshaft bearings for the mounting of the dry sump. <p>The material of the engine sleeves is free. The oil sump is free and may include the crankshaft bearing caps.</p>
5.2.4	<p>Les orifices de lubrification, les trous d'injecteurs peuvent être modifiés ou obstrués. L'utilisation d'hélicoils est autorisée.</p>	<p>Lubrication holes, injectors holes may be modified or closed. The use of hélicoils is permitted.</p>
5.2.5	<p>Les éléments fixés sur le bloc-cylindres et les culasses (vilebrequin, bielles, pistons, arbres à cames, collecteur d'admission, etc.) sont libres à condition de respecter les Articles 5.2.1. à 5.2.4. ci-dessus. Le poids du vilebrequin ne doit pas être inférieur de plus de 10 % à celui d'origine (titane interdit).</p>	<p>The elements fixed on the cylinder block and cylinder head(s) (crankshaft, connecting rods, pistons, camshafts, intake manifold, etc.) are free but they must be in compliance with the Articles 5.2.1. to 5.2.4. above. The weight of the crankshaft must not be less than more than 10% from the original (titanium forbidden).</p>
5.2.6	<p>Sont interdits sauf si d'origine sur la voiture de route disponible à la vente:</p> <ul style="list-style-type: none"> Distribution variable (*) Systèmes d'admission à longueur/diamètre variable (*) Injection directe (*) Aubages à incidence variable (turbos/compresseurs) (*) Titane, sauf pour les bielles, soupapes et leur retenue, boucliers thermiques Magnésium, sauf les pièces mécaniques produites en série et décrites dans la Fiche d'Homologation ACO Composants en céramique Carbone ou matériaux composites, sauf embrayages et caches, couvercles ou canalisations non sollicités. <p>(*) Ces systèmes ne peuvent être modifiés, mais ils peuvent être neutralisés ou retirés.</p>	<p>Are forbidden save on the road car available for sale:</p> <ul style="list-style-type: none"> Variable valve timing (*) Variable length/diameter inlet systems (*) Direct injection (*) Variable geometry turbo/superchargers (*) Titanium apart from connecting rods, valves and valve retainers, heat shields Magnesium apart from standard production mechanical parts which are described in the ACO Homologation Form Ceramic components Carbon or composite materials, except used in clutches and non stressed covers, lids or ducts. <p>(*) These devices cannot be modified, but they can be neutralised or removed.</p>
5.3	<p>Accélérateur</p> <p>Un système mécanique n'est pas obligatoire entre la pédale d'accélérateur et le système de commande de l'alimentation (air et/ou</p>	<p>Throttle</p> <p>A mechanical system is not mandatory between the throttle pedal and the fuel supply control system (air and/or fuel) of the engine.</p>

carburant) du moteur.

Si la voiture d'origine est équipée d'un système sans lien mécanique, le principe de ce système peut être conservé.

Si la voiture d'origine est équipée d'une commande mécanique, l'utilisation d'équipement pneumatique ou hydraulique n'est pas autorisée.

5.4 Moteurs atmosphériques

5.4.1 La cylindrée est de 5500 cm³ maximum.

5.4.2 Système d'admission

Il doit être muni d'une ou plusieurs brides à air en métal ou alliage de métal dont le diamètre est respecté au moins sur 3 mm de long (Règlements Techniques : Annexe 1). Les brides doivent être :

- à 600 mm maximum en avant de l'axe du premier cylindre.
- distantes entre elles (centre des brides) de 1000 mm maximum sur les voitures avec le moteur à l'avant.
- montées de façon à permettre une vérification éventuelle facile.

5.4.3 Boîte(s) à air

- a/ Tout l'air d'admission doit passer par la(les) bride(s).
- b/ L'étanchéité doit être parfaite en toutes circonstances. Si la boîte à air est constituée de plusieurs éléments, ceux-ci doivent être assemblés d'une manière efficace et le système doit être homologué.
- c/ Aucune canalisation contenant de l'air ne doit pénétrer dans ou sortir de la (des) boîte(s) à air.
- d/ Son volume interne total, mesuré entre le diamètre de contrôle de la (des) bride(s) et les orifices d'admission sur la (les) culasse(s), ne doit pas être supérieur à 50 dm³.
- e/ L'obstruction de la (des) bride(s) doit entraîner l'arrêt immédiat du moteur. La dépression mesurée dans la boîte à air au moment de l'arrêt du moteur (régime moteur = 0) doit être au moins :
- égale à la pression atmosphérique de l'endroit où le test est effectué - 150 millibar pendant la première demi-seconde;
 - égale à la pression atmosphérique de l'endroit où le test est effectué - 100 millibar pendant la deuxième demi-seconde;
 - égale à la pression atmosphérique de l'endroit où le test est effectué - 50 millibar pendant la troisième demi-seconde;
- f/ Une connexion standard "Dash 3 male" sur la boîte à air est obligatoire pour le branchement du système d'acquisition de données de l'organisateur (cf. annexe 1). Le diamètre de la sortie d'air doit être de 2,4 mm (3/32") minimum. Cette connexion doit être :
- accessible facilement ;
 - en dehors des flux d'air au dessus des trompettes d'admission ;
 - de préférence à l'opposé de(s) entrée(s) d'air ;
 - obturée lorsque le système d'acquisition de données de l'organisateur est déconnecté ;
- g/ Un système de plombage doit être prévu pour les Commissaires Techniques.
- h/ Tout défaut de fonctionnement est de la responsabilité du Concurrent.

5.5 Moteurs suralimentés

5.5.1 La cylindrée est de 4000 cm³ maximum.
Un compresseur et/ou turbo ne peuvent être utilisés que si ces systèmes sont montés sur la voiture routière homologuée.
A l'exception des échangeurs et des conduites entre le dispositif de suralimentation, l'échangeur et le collecteur, tout le système de suralimentation d'origine doit être conservé et non modifié.
Il est autorisé de supprimer le système de suralimentation.

5.5.2 Système d'admission

- a/ Il doit être muni d'une ou plusieurs brides à air en métal ou alliage de métal dont le diamètre est respecté sur au moins 3 mm de long. Tout l'air alimentant le moteur doit passer par ces brides.
- b/ Emplacement des brides : un cône droit, étanche, d'une pièce, doit être placé entre la (les) bride(s) et le diamètre d'entrée du dispositif de

If the original car is fitted with a system without a mechanical linkage, the principle of this system may be retained.

If the original car is fitted with a mechanical linkage, the use of pneumatic or hydraulic equipment is not allowed.

Normally aspirated engines

The displacement is 5500 cc maximum.

Intake system

It must be fitted with one or more air restrictors made from metal or metal alloy the diameter of which is kept at least 3 mm in length (Technical Regulations : Appendix 1). Restrictors must be

- 600 mm maximum forward the centreline of the first cylinder.
- 1000 mm maximum apart (centre of the restrictors) on the cars with the engine in the front.
- fitted so that they can be easily removed for possible checks.

Air box(es)

All the air feeding the engine must pass through the restrictor(s);

Air tightness must be total in all circumstances. If the air box includes several parts, they must be put together in an efficient way and the design shall be homologated.

No pipe containing air is permitted to come into or to exit from the air box(es).

Its internal total volume, measured from the control diameter of the restrictor(s) to the intake ports on the cylinder head(s), must not be greater than 50 dm³.

Blockage of the restrictor(s) must lead to stall the engine immediately. The depression measured in the air box when the engine stop (engine rev= 0) must be:

- equal to the atmospheric pressure at the place where the test is carried out - 150 millibar during the first half second;
- equal to the atmospheric pressure at the place where the test is carried out - 100 millibar during the second half second;
- equal to the atmospheric pressure at the place where the test is carried out - 50 millibar during the third half second;

A standard connection "Dash 3 male" is mandatory on the air box for the junction of the data recording system of the organizer (see appendix 1).

The diameter of the air outlet must be 2.4 mm (3/32") minimum. This connection must be:

- easily accessible;
- outside the air flows above the induction trumpets;
- preferably facing the air intake(s);
- Sealed when the data recording system of the organizer is disconnected;

A sealing device shall be ready made for the Scrutineers.

Any faulty functioning is the Competitor's responsibility.

Turbocharged / Supercharged engines

The displacement is 4000 cc maximum.

A compressor and/or turbocharger may only be used if such systems are fitted to the road car homologated.

With the exception of exchangers and pipes between the supercharging device, the intercooler and the manifold, the whole original supercharging system must be retained and not modified.

It is authorised to remove the supercharging system.

Inlet system

The inlet system must be fitted with one (or more) air restrictor(s) made from metal or metal alloy the diameter of which shall be kept at least 3 mm minimum in length. All the air feeding the engine must pass through these restrictors.

Air restrictor(s) position : a one piece and airtight right cone must be fitted between the restrictor(s) and the inlet diameter of the charging device:

	suralimentation :		
	<i>b1</i> Ce cône doit obligatoirement avoir un angle d'ouverture de 7° minimum ;		That cone shall have a mandatory opening angle of 7° minimum ;
	<i>b2</i> A chaque extrémité du cône, sur une longueur de 10 mm maximum, une forme arrondie est autorisée dans la limite du diamètre de la (des) bride(s) et de l'entrée du dispositif de suralimentation.		To each end of the cone, over a 10 mm maximum length, a round shape is permitted to join up to the diameter of both the restrictor(s) and the charging device inlet.
5.5.3	Système de suralimentation		Charging device
	<i>a/</i> Les voitures à moteur suralimenté ne doivent être équipées d'aucun dispositif permettant au pilote de régler ou de modifier en roulant la pression de suralimentation ou le système de gestion électronique contrôlant la pression de suralimentation.		Supercharged cars must not be equipped with any device which allows the boost pressure, or the electronic management system controlling the boost pressure, to be adjusted while the car is in motion.
	<i>b/</i> Les entrées à diamètre variable et les pales intérieures ajustables sont interdites sur les turbocompresseurs. Si la voiture d'origine est équipée d'un tel système, il doit être neutralisé ou démonté.		Variable diameter inlets and adjustable internal vanes on turbochargers are forbidden. If the original car is fitted with such a system, this system must be neutralised or dismantled.
5.5.4	Température de la charge		Temperature of the charge
	<i>a/</i> Les échangeurs peuvent être remplacés mais leur nombre, leurs types, leurs emplacements et leurs positions doivent rester d'origine. Cependant, aucune modification effectuée pour accueillir un échangeur différent ne doit altérer l'intégrité structurale de la voiture et de la carrosserie. A part les échangeurs, tout dispositif, système, procédure, construction ou conception dont le but et/ou l'effet est une réduction quelconque de la température de l'air d'admission et/ou de la charge (air et/ou carburant) du moteur est interdit. Les conduites entre le dispositif de suralimentation, l'échangeur et le collecteur sont libres, mais leur seule fonction doit être de canaliser l'air d'admission. Les conduites pour amener l'air aux échangeurs sont libres mais elles doivent être réalisées en matériau composite à base de fibre de verre résistant au feu.		Intercoolers may be replaced but their number, their types, their locations and their positions must remain original. However, any modifications carried out to accommodate a different intercooler must not alter the structural integrity of the car and the bodywork. Apart from intercoolers, any device, system, procedure, construction or design the purpose and/or effect of which is any decrease whatsoever of the temperature of the intake air and/or of the charge (air and/or fuel) of the engine is forbidden. The pipes between the supercharging device, the intercooler and the manifold are free, but their only function must be to channel the intake air.
	<i>b/</i> La pulvérisation ou l'injection interne et/ou externe d'eau ou de quelque substance que ce soit est interdite (sauf celle du carburant dans le but normal de combustion dans le moteur).		The pipes for channelling air to the exchangers are free, but they must be made from fire-resistant, fibreglass based composite material.
5.6	Refroidissement		Cooling
	La méthode de refroidissement, le nombre et l'emplacement du (des) radiateur(s) doivent être conservés.		The method of cooling, the number and the location of the water radiator(s) must be retained.
5.7	Echappement		Exhaust
5.7.1	Le système d'échappement ne doit pas dépasser le contour de la voiture vue de dessus.		The exhaust system is not permitted to protrude beyond the perimeter of the car as viewed from above.
5.7.2	Le système d'échappement doit être convenablement isolé de l'habitacle.		The exhaust system must be correctly insulated from the cockpit.
5.7.3	Installation		Installation
	Dans la mesure où cela ne concerne pas les parties essentielles de la structure principale, le soubassement et les cloisons avant et/ou arrière peuvent être modifiés pour permettre l'installation du système d'échappement et son isolation de l'habitacle. Ces modifications (limitées) doivent être homologuées.		As long as the main parts of the main structure are not concerned, the underbody and the front and rear bulkheads may be modified to allow the installation of the exhaust system and its insulation from the cockpit :
			These modifications (limited) need to be homologated.
5.7.4	Sorties d'échappement		Exhaust pipes
	Elles doivent se trouver :		They must exit:
	<i>a/</i> En arrière du milieu de l'empattement ;		Aft the middle of the wheelbase;
	<i>b/</i> entre 10 et 45 cm au-dessus du sol.		between 10 and 45 cm above the ground level.
5.7.5	Niveau sonore		Noise level
	Le bruit émis par chaque voiture ne devra pas dépasser 110 dbA pendant les essais qualitatifs et la course. La mesure sera effectuée à 15 mètres du bord de la piste.		The sound emitted from each car will must not exceed 110 dbA during the qualifying practices and the race. The measurement will be made at 15 meters from the edge of the track.
ART. 6	CANALISATIONS & RESERVOIR(S) DE CARBURANT		PIPING & FUEL TANK(S)
6.1	Réservoir(s) de carburant		Fuel Tank(s)
6.1.1	Les réservoirs de carburant doivent être placés à leur emplacement d'origine (cf. Fiche d'Homologation) ou dans le compartiment à bagages (hors de l'habitacle).		Fuel tanks must be placed in their original location (see Homologation Form) or in the luggage compartment (outside the cockpit) :

	Ils doivent être isolés de l'habitacle et du compartiment moteur par une cloison pare-feu.	They must be separated from the cockpit and the engine compartment by a firewall.
6.1.2	Pour des raisons de sécurité, il est recommandé :	On grounds of safety, it is recommended:
a/	D'installer le réservoir de carburant entre les deux plans verticaux touchant l'avant des roues avant et l'arrière des roues arrière ;	To install the fuel tank(s) between the two vertical planes touching the front of the front wheels and the rear of the rear wheels;
b/	Que les parois extérieures du (des) réservoir(s) ne soient pas à plus de 675 mm de l'axe longitudinal de la voiture.	The outside panels of the fuel tank(s) shall not be more than 675 mm from the longitudinal centre line of the car.
6.1.3	Seules les modifications du châssis nécessaires à l'installation du réservoir dans la zone définie ci-dessus sont autorisées.	Only those chassis modifications which are necessary to install the tank in the area defined above are permitted.
6.1.4	Une structure absorbant l'énergie de 10 mm d'épaisseur minimum doit envelopper le réservoir.	A energy absorbing structure at least 10 mm thick shall wrap the tank.
6.1.5	Tous les réservoirs de carburant doivent être des outres en caoutchouc conformes ou supérieures aux spécifications FIA/FT3 1999, et doivent respecter les prescriptions de l'Annexe J - Art. 253-14.	All fuel tanks must be rubber bladders conforming to or exceeding the specifications of FIA/FT3 1999, and must comply with the prescriptions of the Appendix J - Art. 253-14.
6.2	Installation & canalisations	Fittings & Piping
6.2.1	Tout accessoire intégré au réservoir (reniflards, entrées, sorties, orifices de remplissage, interconnexions et trappes d'accès) doit être métallique ou en composite et vulcanisé dans le réservoir.	Any fuel fitting which is part of the tank walls (air vents, inlets, outlets, tank fillers, inter tank connectors and access openings) must be made of metal or composite and bonded into the fuel tank.
6.2.2	Les canalisations de carburant reliant le réservoir au moteur doivent être munies d'une soupape auto-obturante. Les parties de cette connexion doivent se séparer sous une charge inférieure à la moitié de celle requise pour briser le raccord de canalisation ou pour arracher celui-ci du réservoir. Si un radiateur de carburant est utilisé, il doit être situé à l'intérieur de la structure principale de la voiture.	Fuel lines connecting the fuel tank to the engine must have a self sealing breakaway valve. This valve must separate at less than half the load required to break the fuel line fitting or to pull it out of the fuel tank. If a fuel radiator is used, it must be situated inside the main structure of the car.
6.2.3	Aucune canalisation contenant de l'eau de refroidissement ne doit traverser l'habitacle. Les canalisations de carburant et d'huile de lubrification peuvent traverser l'habitacle à condition de ne comporter aucun raccord, si ce n'est sur les cloisons, et d'être recouvertes d'une protection étanche. Les goulottes de remplissage et d'évent pourront transiter par l'habitacle au plus près des parois, leurs conduites devront être métalliques et les raccords en matériau identique aux parois du réservoir. Une protection étanche devra les isoler de l'habitacle.	No line containing cooling water may pass inside the cockpit. Fuel and oil lines may pass through the cockpit provided that they have no connections other than to the bulkheads and that they are covered by a leakproof protection. The vent and filler spouts may pass through the cockpit as close to the walls as possible. Their pipes must be made from metal and their connectors from material identical to that used for the walls of the tank. They must be isolated from the cockpit by means of a leakproof protection.
6.2.4	Les canalisations doivent être conçues de manière qu'une fuite ne puisse provoquer une accumulation de liquide dans l'habitacle.	Lines must be fitted in such a way that any leakage cannot result in accumulation of fluid in the cockpit.
6.2.5	Les canalisations souples doivent comporter des raccords vissés et une tresse externe résistant à l'abrasion et à la flamme.	Flexible lines must have threaded connectors and an outer braid which is resistant to abrasion and flame.
6.2.6	Les canalisations de carburant et d'huile de lubrification doivent résister à une pression d'éclatement minimale de 41 bars à une température maximale opératoire de 135°C.	Fuel and lubricating oil lines must resist a minimum burst pressure of 41 bar at the maximum operating temperature of 135°C.
6.2.7	Toutes les canalisations de fluide hydraulique qui ne sont pas soumises à des changements brutaux de pression, à l'exception des canalisations sous charge gravitaire seule, doivent avoir une pression d'éclatement minimale de 41 bar à la température opératoire maximale de 204°C en cas d'utilisation avec des raccords en acier et de 135°C avec des raccords en aluminium.	All hydraulic fluid lines which are not subjected to abrupt changes in pressure, with the exception of lines under gravity head, must have a minimum burst pressure of 41 bar at the maximum operating temperature of 204°C when used with steel connectors and 135°C when used with aluminium connectors.
6.2.8	Toutes les canalisations de fluide hydraulique soumises à des changements brutaux de pression doivent avoir une pression d'éclatement minimale de 70 bar à la température opératoire maximale de 204°C.	All hydraulic fluid lines subjected to abrupt changes in pressure must have a minimum burst pressure of 70 bar at the maximum operating temperature of 204°C.
6.2.9	Sont seules autorisées dans l'habitacle les canalisations hydrauliques avec raccords vissés et arrêtés au moyen d'un fil métallique.	Only hydraulic fluid lines with screwed connectors and secured by means of a metallic wire are permitted inside the cockpit.
6.2.10	Les pompes à carburant ne doivent débiter que lors de la mise en route ou lorsque le moteur fonctionne.	Fuel pumps must be in operation only when the engine is running or being started.
6.3	Orifices de remplissage	Fuel tank fillers
6.3.1	Les voitures doivent être équipées d'orifices de remplissage de carburant et d'évents qui peuvent être soit combinés, soit séparés de chaque côté de la voiture.	Cars must be equipped with fuel tank fillers and vents which may be either combined or single units fitted on both sides of the car.

<p>6.3.2 Les orifices de remplissage et les événements doivent être équipés d'accoupleurs étanches répondant au principe de l'homme mort, donc sans dispositif de retenue en position ouverte. Dimensions des accoupleurs : Annexe J - Dessins 252.5.A avec diamètre intérieur $D \leq 2"$ ou Dessins 252.5.B.</p>	<p>Both fillers and air vents must be equipped with leak proof dry break couplings complying with the dead man principle, therefore not incorporating any retaining device when in an open position : Couplings dimensions : Appendix J - Diagrams 252.5 .A with internal diameter : $D \leq 2"$ or Diagrams 252.5.B.</p>
<p>6.3.3 Les orifices de remplissage, les événements et les bouchons :</p> <p>a/ Ne doivent pas faire saillie sur la carrosserie ;</p> <p>b/ Doivent être placés dans des endroits non vulnérables en cas d'accident (autorisé pour les voitures déjà homologuées) ;</p> <p>c/ Doivent être placés au dessus des roues complètes, à l'intérieur de la voie de l'essieu le plus proche (obligatoire pour toutes les voitures homologuées après le 1er janvier 2007 et recommandé pour les voitures déjà homologuées).</p> <p>Afin de tenir compte de la différence entre les débits, une bride de (à définir) mm de diamètre doit être fixée à la sortie du réservoir d'approvisionnement en carburant lorsque la voiture n'est pas en conformité avec l'Article 6.3.3.c ci-dessus (cf. Annexe A – Art. 10). Afin d'éviter tout excès de carburant à la fin du ravitaillement au niveau des systèmes de remplissage, un tuyau d'évacuation peut déboucher à travers le fond plat.</p>	<p>Fuel tank fillers, vents and caps must:</p> <p>Not protrude over the bodywork surface;</p> <p>Be placed where they would not be vulnerable in the event of an accident (permitted for the cars already homologated);</p> <p>Be placed above the complete wheels, within the track of the nearest axle (mandatory for all the cars homologated after January 1st, 2007 and recommended for the cars already homologated).</p> <p>As to take into account the difference between the fuel flows, a restrictor with a diameter of (to be defined) mm must be fixed to the outlet of the supply tank when the car is not in compliance with the Article 6.3.3.c above (see Appendix A – Art. 10).</p> <p>As to prevent any excess of fuel on top of the fuel tank fillers when refuelling is complete, an overflow pipe is permitted to exit down through the flat bottom.</p>
<p>6.3.4 Le système de mise à l'air libre du réservoir doit comporter les éléments suivants :</p> <ul style="list-style-type: none"> - une soupape anti-tonneau activée par gravité - une soupape de mise à l'air libre à flotteur - une soupape de surpression tarée à une pression maximale de 200 mbar, fonctionnant quand la soupape à flotteur est fermée. 	<p>The fuel cell ventilation system must include the following elements :</p> <ul style="list-style-type: none"> - a gravity activated roll-over valve - a float chamber ventilation valve - a blow-off valve with a maximum over pressure of 200 mbar, working when the float chamber ventilation valve is closed.
<p>6.3.5 Les voitures doivent être équipées d'un raccord auto-obturant permettant aux Commissaires Techniques de prélever de l'essence dans le réservoir. Ce raccord doit être:</p> <p>a/ D'un type agréé ;</p> <p>b/ Monté juste avant les injecteurs.</p>	<p>Cars must be fitted with a self sealing connector which can be used by the Scrutineers to take fuel from the tank. This connector must be :</p> <p>Type approved;</p> <p>Fitted immediately before the injectors nozzles.</p>
<p>6.3.6 Les systèmes de remplissage peuvent être fixés sur les vitres latérales arrière à condition d'être isolés de l'habitacle et du compartiment moteur par une cloison pare-feu.</p>	<p>Fillers may be installed in the side rear windows provided they are separated from the cockpit and the engine compartment by a firewall.</p>
<p>6.3.7 Des systèmes auto obturants permettant de faire les compléments d'huile et d'eau depuis l'extérieur de la voiture sont autorisés :</p> <ul style="list-style-type: none"> • s'ils ne font pas saillie sur la carrosserie ; • s'ils ne sont pas placés dans des endroits non vulnérables en cas d'accident. 	<p>Self-sealing systems the purpose of which is to permit to add oil and/or water from the outside of the car are allowed:</p> <ul style="list-style-type: none"> • if they are not protrude beyond the surface of the bodywork ; • if they are placed where they would not be vulnerable in the event of an accident.
<p>6.4 Ravitaillement pendant la course</p>	<p>Refuelling during the race</p>
<p>6.4.1 Cf. Annexe A : Ravitaillement.</p>	<p>Ref. Appendix A : Refuelling.</p>
<p>6.4.2 L'installation de ravitaillement en carburant (portant le numéro de la voiture) et le réservoir de la voiture doivent toujours rester à la température et à la pression atmosphérique ambiante.</p> <p>Tout carburant stocké à bord de la voiture et destiné à un usage immédiat ne pourra être à une température inférieure de plus de 10°C à la température ambiante.</p> <p>Aux fins d'évaluer la conformité, la température ambiante sera celle relevée par le service météorologique désigné par la FIA une heure avant toute séance d'essais ou deux heures avant la course. Pendant la course, elle sera mise à jour toutes les deux heures.</p> <p>Cette information sera également affichée sur les moniteurs de chronométrage officiels.</p>	<p>In all circumstances, the refuelling installation (with the car number affixed) and the tank of the car shall remain at the ambient outside temperature and atmospheric pressure.</p> <p>No fuel intended for immediate use in the car may be more than 10°C below ambient temperature.</p> <p>When assessing compliance, the ambient temperature will be that recorded by the FIA appointed weather service provider one hour before any practice session or two hours before the race. During the race, it will be updated every 2 hours.</p> <p>This information will also be displayed on the official timing monitors.</p>
<p>6.5 Quantité de carburant</p>	<p>Amount of fuel</p>
<p>6.5.1 90 litres maximum à bord quelles que soient la température et la pression atmosphérique ambiantes.</p>	<p>90 litres maximum on board whatever the ambient temperature and atmospheric pressure.</p>
<p>6.5.2 Tout système ou dispositif ayant pour but et/ou effet d'augmenter la quantité de carburant à bord de la voiture est interdit.</p>	<p>Any system or device whatsoever the purpose and/or effect of which is to increase the total fuel capacity on board of the car is forbidden.</p>
<p>ART. 7 SYSTEME DE LUBRIFICATION</p>	<p>OIL SYSTEM</p>
<p>Libre, à condition que les prescriptions suivantes soient respectées :</p>	<p>Free, provided the following prescriptions are fulfilled:</p>

- 7.1 **Réservoir(s) d'huile**
- 7.1.1 Si le (les) réservoir(s) d'huile ne se trouve (trouvent) pas à son (leur) emplacement d'origine (Fiche d'Homologation), il(s) doit (doivent) être protégé(s) par une structure déformable ayant des parois d'au moins 10 mm d'épaisseur.
- 7.1.2 Un réservoir d'huile ne peut être placé dans l'habitacle, ni dans une zone vulnérable en cas d'accident.
- 7.2 **Récupérateur d'huile**
- La (les) mise(s) à l'air libre (s'il y en a) doit (doivent) déboucher dans un récupérateur d'une capacité minimale de 3 litres.
- Afin de limiter les risques de pulvérisation d'huile sur la piste, un réservoir sécuritaire supplémentaire d'une capacité minimale de 1 litre devra être inséré entre le récupérateur d'huile et la mise à l'air libre conformément au dessin ci-dessous.
- Ce réservoir sécuritaire a pour fonction principale de s'assurer que la mise à l'air libre du catch tank ne contient pas d'huile ou de vapeur d'huile. Si les vapeurs d'huiles sont traitées correctement en amont ce réservoir sécuritaire doit rester vide en permanence. Il doit :
- être séparé du récupérateur d'huile,
 - avoir une hauteur de 100 mm (mesure intérieure),
 - avoir une section constante sur toute sa hauteur,
 - être équipé du capteur homologué par l'ACO. Ce capteur devra être mis en place comme indiqué sur le dessin ci-dessous de façon à détecter la présence d'huile.
- Lorsque la présence d'huile est détectée, le concurrent doit rentrer immédiatement dans son stand pour vidanger le catch tank.

Oil tank(s)

If oil tank(s) is (are) not fitted in its (their) original location (Homologation Form), it (they) must be protected by a crushable structure with minimum 10 mm thick walls.

An oil tank cannot be located in the cockpit or in a place where it might be vulnerable in the event of an accident.

Catch tank

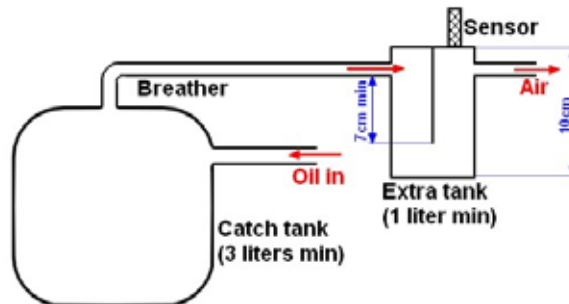
The open type sump breather(s) (if any) must vent into a 3 litre minimum capacity catch tank.

In order to avoid the risk of oil being sprayed on the track, an additional secure tank of 1 litre minimum should be inserted between the catch tank and the breather according to the drawing below.

The main function of this secure tank is to ensure that the breather of the catch tank contain no oil or oil vapor. If the oil vapors are treated properly upstream this secure tank, it must remain empty permanently. It must:

- be separated from the catch tank,
- have 100 mm height (measured internally),
- have a constant section all along the height,
- be equipped with the sensor homologated by the ACO. This sensor will be implemented as shown on the drawing below in order to detect the presence of oil.

When the presence of oil is detected, the competitor must enter immediately into his garage to drain the catch tank.



ART. 8	EQUIPEMENTS ELECTRIQUES	ELECTRICAL EQUIPMENT
8.1	Batterie(s)	Battery(ies)
8.1.1	La (les) batterie(s) doit (doivent) être solidement fixée(s) et protégée(s) par un coffrage en matériau isolant.	Battery(ies) shall be securely fixed and protected by a box made of insulating material.
8.1.2	Si dans l'habitacle, la (les) batterie(s) doit (doivent) être placée(s) côté passager.	If in the cockpit, the battery(ies) must be fitted in the place of the passenger.
8.1.3	Batteries sèches exceptées, le coffrage de protection doit avoir un conduit de ventilation débouchant à l'extérieur de l'habitacle.	Except for dry batteries, the protection box must include a vent pipe the exit of which is outside the cockpit.
8.2	Essuie-glace	Windscreen wiper
	Un essuie-glace en état de marche est obligatoire.	A windscreen wiper in working order is compulsory.
8.3	Démarrage	Starter
8.3.1	Un démarreur en état de marche est obligatoire.	A starter in working order is compulsory.
8.3.2	Le pilote doit pouvoir actionner le démarreur en étant assis normalement au volant.	The driver must be able to operate the starter when normally seated at the wheel.
8.4	Eclairages	Lighting equipment
8.4.1	Les équipements d'éclairage doivent toujours être en état de marche.	Lighting equipment must be in working order under all circumstances.
8.4.2	Les systèmes d'éclairage doivent conserver leur position d'origine. Ils doivent assurer au minimum les fonctions suivantes : feux de route, indicateurs de direction, feux stop, feu de pluie et feux de position arrière. La voiture doit être équipée de commandes des indicateurs de direction sur le volant qui soient facilement utilisables par le pilote et qui lui permette de les utiliser sans avoir à chercher l'endroit où ils se trouvent et de	The original position of the lighting equipment shall be maintained. The exterior lighting equipment must at least ensure the following functions: headlights, direction indicators, stop lights, rain light and rear side lights. The car must be fitted with turn light control on the steering wheel that is easily usable by the driver and which allows him to use these buttons without having to look for the place and keep the eyes on the track,

garder les yeux sur la piste.

Les indicateurs de direction doivent être activés uniquement lorsque le pilote appuie sur les boutons.

Un voyant sur le tableau de bord doit indiquer au conducteur si le clignotant est activé ou désactivé.

- 8.4.3 La protection des phares est autorisée au moyen d'un cache transparent de couleur jaune, sans modification du capot et des ailes dont la forme doit demeurer conforme à la Fiche d'Homologation.
- 8.4.4 Faisceaux : les projecteurs doivent émettre un faisceau jaune.
- 8.4.5 Feux de pluie : Toutes les voitures doivent être équipées d'un feu rouge d'au moins 21 watts ou équivalent, en état de fonctionnement pendant toute l'épreuve, et qui :
- soit conforme à la norme routière ECE R38 (ou norme d'un autre pays au moins équivalente) ou approuvé par la FIA (Liste Technique n°19);
 - soit clairement visible de l'arrière ;
 - ne soit pas monté à plus de 10 cm de l'axe longitudinal de la voiture ;
 - se trouve au moins à 35 cm au-dessus du plan de référence ;
 - puisse être allumé par le pilote assis normalement dans la voiture.
- Les deux mesures étant effectuées à partir du milieu de la surface de la lentille.

The turn light must be activated only when the driver push on the buttons.

light on the dash board must indicate to the driver if the turn light is on or off.

The headlights protection is permitted by means of a yellow transparent cover, with no modification of the bonnet and the fenders the shape of which shall be the same as in the Homologation Form.

Beam: headlights must produce a yellow beam.

Light for rain : All cars must have a red light of at least 21 watts or equivalent, in working order throughout the event, which:

- is in compliance with the ECE R38 road standard (or an equivalent or stricter standard from another country) or approved by the FIA (Technical List n°19);
 - is clearly visible from the rear ;
 - is mounted not more than 10cm from the car centre line;
 - is at least 35 cm above the reference plane ;
 - can be switched on by the driver when seated normally in the car.
- The two measurements being taken to the centre of area of the lens.

ART. 9 TRANSMISSION

9.1 Electronique

Tout recours à l'électronique est interdit dans le fonctionnement de la transmission.

9.2 Transmission aux roues

Sont interdits :

- a/ Transmission à 4 roues motrices ;
- b/ Boîtes automatiques ou semi-automatiques, différentiels à contrôle électronique, pneumatique ou hydraulique, etc. ;

Sont seuls autorisés :

- a/ Différentiels à glissement limité mécaniques fonctionnant sans l'aide d'un système hydraulique ou électrique.
Un visco-coupleur n'est pas considéré comme un dispositif hydraulique de contrôle du glissement à condition qu'il ne puisse pas être commandé lorsque la voiture roule ;
- b/ Contrôle de traction opérant uniquement sur le contrôle moteur (ECU). Des capteurs de vitesses sont autorisés sur les roues ;
- c/ Une liaison mécanique directe (tringlerie, câble) entre le levier de changement de vitesses actionné par le pilote et la boîte de vitesses.

Si la voiture est équipée d'un système sans lien mécanique, il doit être conforme à l'Article 9.2.6. ci-dessous ;

- d/ Un contacteur électrique simple à boucle ouverte actionné directement par le levier de changement de vitesses et agissant sur le système d'allumage du moteur.

9.2.3 Boîte de vitesses

- a/ Rapports avant : 6 maximum ;
- b/ A condition de respecter l'emplacement et l'orientation d'origine (Fiche d'Homologation), la boîte de vitesses est libre ;
- c/ Les modifications éventuelles du soubassement pour l'installation de la boîte de vitesses et du différentiel sont autorisées mais seulement avec l'accord du Groupe Homologation et si elles ne modifient pas exagérément :
 - c1 L'intégrité de la structure principale ;
 - c2 Les dimensions à l'intérieur de l'habitacle.

9.2.4 Arbre de transmission

Si la voiture est équipée d'un tube de liaison entre le moteur et la boîte de vitesses, il peut être modifié ou retiré à condition de respecter l'Article

TRANSMISSION

Electronic devices

Any resort to electronics or any system for whatever reason in relation to the functioning of the drive train is forbidden.

Drive train

Are prohibited:

Four wheel drive;

Automatic or semi-automatic gearboxes and differentials with electronic, pneumatic or hydraulic control, etc;

Are only permitted:

Mechanical limited slip differentials working without the help of a hydraulic or electric system.

A visco-coupling system is not considered as a hydraulic slip control device provided that no control is possible when the car is running.

Traction control that operates solely through the engine control unit (ECU). Wheel speed sensors are permitted;

A direct mechanical linkage (rod, cable) between the gear shift lever operated by the driver and the gear-box.

If the car is fitted with a system without mechanical link, it must be in compliance with Article 9.2.6. below:

A simple open-loop electrical switch activated directly by the gear shift lever and acting on the ignition system of the engine.

Gearbox

Forward ratios : 6 maximum;

Provided original location and orientation are retained (Homologation Form), the gearbox is free;

Possible modifications of the underbody are permitted to fit the gearbox and the differential but only with the Homologation Group agreement and under the express condition that they do not modify too much:

The integrity of the main structure ;

The cockpit inside measurements.

Propeller shaft

If the car is fitted with a torque tube between the engine and the gear box, it may be modified or removed provided the above Article 5.1.3. is

	5.1.3 du présent règlement.		respected.
9.2.5	Marche arrière Obligatoire, elle doit pouvoir être utilisée, moteur en marche, par le pilote assis au volant.		Reverse gear Mandatory, it must be possible for the driver seated at the wheel to select it when the engine is running.
9.2.6	Paddle shift Un système de sélection des vitesses par palette est autorisé aux conditions suivantes :		Paddle shift A paddle shift system is permitted under the following condition:
	<i>a/</i> Un même interrupteur peut commander plusieurs systèmes (Art. 2.8) y compris le contrôle d'une valeur, mais si, pour quelque raison que ce soit, ces systèmes ne répondent pas à la sollicitation du pilote ou si la valeur contrôlée n'est pas la bonne, le pilote devra de nouveau actionner l'interrupteur.		A single switch may operate several systems (Art. 2.8) including the control of a value but if, for any reason whatsoever, these systems do not respond to the driver's order or if the value checked is not the good one, the driver will have to actuate the switch again.
	<i>b/</i> Seuls sont autorisés les capteurs : • servant à informer le pilote ; • contrôlant une valeur à la demande du pilote exclusivement (cf. Art. 9.2.6.a. ci-dessus). Ce système est autorisé également sur les LMGTE-AM.		Sensors are only permitted when their purpose is: • to give information to the driver • to control a value at the driver's request exclusively (see Art. 9.2.6.a. above). This system is allowed also on the LMGTE-AMs.
9.3	Embrayage Système mécanique conventionnel seulement, matériau libre. La seule énergie qui peut actionner l'embrayage est celle fournie par le pilote. Celui-ci doit exercer avec son pied toute la pression nécessaire pour actionner et contrôler le mécanisme d'embrayage. Si le véhicule d'origine est équipé d'un embrayage sous contrôle électronique ou pneumatique, le mécanisme peut être remplacé mais l'ensemble du système de pilotage d'origine doit être conservé (cf. Art. 2.8.1.).		Clutch Conventional mechanical design only, material free. The only energy which can operate the clutch is the one provided by the driver. This one must exert with its foot all the pressure necessary to operate and control the mechanism of the clutch. If the original vehicle is fitted with a power-driven clutch with electronic or pneumatic control, the mechanism may be replaced but the whole original control system must be retained (see Art. 2.8.1.)
ART. 10	SUSPENSION		SUSPENSION
10.1	Suspension		Suspension
10.1.1	Garde au sol		Ground clearance
	<i>a/</i> Aucune partie suspendue de la voiture (châssis/structure, carrosserie, parties mécaniques, etc.) n'est autorisée en dessous du fond plat.		No sprung part of the car (chassis/monocoque, bodywork, mechanical parts, etc.) is permitted lower than the flat bottom.
	<i>b/</i> A tout moment, il doit être possible de glisser sous la voiture un bloc mesurant 500 mm (largeur) x 100 mm (longueur) x 55 mm (hauteur). Pour ce contrôle, la pression des pneumatiques ne peut être inférieure à 1.5 bars.		At any time, it must be possible to place under the car a block measuring 500 mm (width) x 100 mm (length) x 55 mm (height). For this check, the pressure of the tyres must not be less than 30 psi.
	<i>c/</i> Aucune partie de la carrosserie ou du fond plat ne doit toucher le sol lorsque la voiture est en mouvement : • Pénalité : arrêt de la voiture par la Direction de course.		No part of the bodywork or the flat bottom is permitted to touch the ground when the car is running : • Penalty : stopping of the car by the Race Control.
	<i>d/</i> Les patins de frottement sont interdits.		Rub blocks are not permitted.
10.1.2	Type et principe de fonctionnement		Type and method of operation
	<i>a/</i> Ils doivent être conformes à la Fiche d'Homologation.		They must conform to the Homologation Form.
	<i>b/</i> Il est permis de déplacer les points d'ancrage des éléments de suspension dans la limite de 20 mm autour du centre de chaque point de fixation d'origine. Les ressorts, amortisseurs, barres stabilisatrices sont libres ainsi que la position des centres de leurs articulations.		It is permitted to modify the position of the suspension mounting points within the limit of 20 mm around the centre of each original pick-up point. Springs, shock absorbers, anti-roll bars are free as well as the position of the centres of their joints.
	<i>c/</i> Les ressorts à lames peuvent être remplacés par des ressorts hélicoïdaux.		Leaf spring blades can be substituted by helicoidal springs.
	<i>d/</i> Les porte-moyeux peuvent être remplacés à condition de conserver le même nombre de points d'articulations.		The hub carriers can be changed but the number of link joints must be kept.
10.1.3	Le réglage des ressorts, des amortisseurs et des barres stabilisatrices à partir de l'habitacle est interdit.		Adjustment of the springs, shock absorbers and roll bars from inside the cockpit is not permitted.
10.1.4	Si la voiture est équipée d'une suspension "inboard", les axes d'articulation d'origine des basculeurs et des amortisseurs sur le châssis doivent être conservés.		If the car is fitted with a suspension "inboard", the original rocker and shock absorber axle joints on the chassis must be maintained.
10.1.5	Aucune connexion électrique, hydraulique ou pneumatique n'est permise		No electrical, hydraulic or pneumatic connexion is permitted between the

	entre les amortisseurs.	shock absorbers.
10.2	Suspension active Tout système, quel qu'en soit le principe de fonctionnement, actionné ou non par le pilote et destiné à modifier la garde au sol lorsque la voiture est à l'arrêt ou se déplace est interdit.	Active suspension Any system, whatever the method of operation, controlled or not by the driver and designed as to modify the ground clearance when the car is stopped or in motion is forbidden.
10.3	Bras de suspension	Suspension arms
10.3.1	Les bras de suspension doivent être réalisés dans un métal homogène.	Suspension arms must be made from homogeneous metal.
10.3.2	Il est interdit de chromer les bras de suspension en acier.	Chromium plating of steel suspension wishbones is forbidden.
10.4	Berceaux et traverses Ils peuvent être remplacés par des composants nouveaux dont la conception est libre à condition : - de se monter en lieu et place du composant d'origine (pas de modification des fixations) - de respecter l'Article 10 ci-dessus	Subframes and cross members They may be replaced with new components the design of which is free, on condition that: - they may be fitted in place of the original component (no modification of the mountings) - Article 10 above is complied with
ART. 11	DIRECTION	STEERING
11.1	Principe La liaison entre le conducteur et les roues doit être mécanique et continue.	Operation The link between the driver and the wheels must be mechanical and continuous.
11.2	Modifications	Modifications
11.2.1	Les biellettes de direction et le rapport exceptés, les pièces doivent être celles de la voiture homologuée.	Apart from the steering ratio and the steering rods, parts shall be those from the car homologated.
11.2.2	Les pièces de direction peuvent être renforcées à condition de rester identifiables.	Steering parts may be strengthened provided they can still be identified.
11.3	4 roues directrices Interdit.	Four wheel steering Not permitted.
11.4	Direction assistée L'assistance de direction peut être hydraulique, électro-hydraulique ou électrique à condition qu'il s'agisse d'un système simple, dépourvu de contrôle programmable. La direction doit être à tout moment sous le contrôle du pilote, et tout système qui supprime ce contrôle, même momentanément, est interdit. Elle doit être homologuée.	Power steering Power steering may be hydraulic, electro-hydraulic or electric on condition that it is a simple system, without programmable control. The steering must be under the control of the driver at all times and any system which takes away control from the driver, even momentarily, is not permitted. It must be homologated.
11.5	Volant	Steering wheel
11.5.1	Le volant doit être fermé sur tout son pourtour.	The steering wheel rim must be continuously closed.
11.5.2	Un système de démontage rapide est obligatoire. Pour le montage d'un tel système, une modification locale de la colonne de direction est autorisée.	A quick release system is mandatory. For the fitting of such a system, a local modification of the steering column is allowed.
11.5.3	Un système d'affichage, des boutons poussoir et des interrupteurs sont autorisés sur le volant. Ils doivent être homologués et leur fonction devra être indiquée sur la Fiche d'Homologation.	A display, push buttons and switches are allowed on the steering wheel. They must be homologated and their function must be indicated on the Homologation Form.
11.6	Antivol Il doit être enlevé.	Anti-theft device It must be removed.
ART. 12	FREINS	BRAKES
12.1	Double circuit A part les restrictions du paragraphe 2), ci-dessous, tout le système de freinage est libre à condition d'incorporer au moins deux circuits séparés et commandés par la même pédale. Ce système doit être conçu de manière qu'en cas de fuite ou de défaillance dans un circuit, l'action de la pédale de frein continue à s'exercer sur au moins deux roues. Les réservoirs de liquide de frein peuvent être fixés dans l'habitacle, à condition qu'ils soient solidement fixés et recouverts d'une protection. La répartition des efforts de freinage entre les trains avant et arrière peut être réglée seulement par le pilote, par : • intervention directe et manuelle sur un système mécanique permettant de modifier la position du centre de l'articulation sur le levier de	Separate circuits With the exception of paragraph 2) below, the complete braking system is free provided it incorporates at least two separate circuits operated by the same pedal. This system must be designed so that if leakage or failure occurs in one circuit, the pedal shall still operate the brakes on at least two wheels. The brake fluid tanks may be fixed inside the cockpit, on condition that they are securely fastened and protected. The balance of the braking forces between the front and rear axles may only be adjusted by the driver, through : • direct and manual intervention on a mechanical system allowing the modification of the position of the centre of the joint, on the linkage

commande des pompes hydrauliques des circuits avant et arrière.
 • l'intervention directe et manuelle sur un régulateur dans lequel la pression d'alimentation du circuit arrière est réglée par l'action sur un seul ressort avec pré charge, variable en fonction de la position du système de commande manuel (voir dessin de principe 263-9).
 Un seul de ces deux systèmes de réglage est admis.

12.2 Etriers de freins

12.2.1 Les étriers de freins doivent être en matériaux d'aluminium (module d'élasticité : < 80 Gpa). Les éléments internes des étriers de freins ainsi que les vis de purge peuvent être en titane.

12.2.2 Un seul étrier (6 pistons maximum) est autorisé par roue.

12.2.3 La section de chaque piston d'étrier doit être circulaire.

12.3 Disques de freins

12.3.1 Un disque de frein maximum par roue.

12.3.2 Matériau ferreux uniquement.

12.3.3 Deux plaquettes de frein par roue maximum.

12.4 Dispositifs antiblocage

Interdits.

ART. 13 ROUES ET PNEUMATIQUES

13.1 Dimensions

13.1.1 Roues complètes (mesures prises horizontalement à hauteur du moyeu) :

- | | | |
|----|---|--------|
| a/ | Largeur maximum : | 14" |
| b/ | Diamètre maximum : | 28" |
| c/ | Poids minimum d'une roue pneu démonté : | |
| | • Avant : | 7.5 kg |
| | • Arrière : | 8.5 kg |

13.1.2 Jantes

- | | | |
|----|--|-----|
| a/ | Diamètre maximum : | 18" |
| b/ | Les bords des jantes doivent : | |
| b1 | Être symétriques ; | |
| b2 | Ne pas dépasser 19.2 mm en hauteur ; | |
| c/ | Les jantes monobloc sont recommandées. | |

13.1.3 Les enjoliveurs amovibles sont interdits.

13.1.4 La surface du voile de jante qui s'inscrit dans un cercle de 400 mm de diamètre ne doit pas être plate, lisse et continue. Elle doit avoir des reliefs en étoile d'au moins 10 mm d'épaisseur et 10 mm de large (branches des roues).

13.2 Emplacement

13.2.1 Il doit être possible de loger une roue complète dans l'arche de roue au moins jusqu'au niveau de l'axe des roues.

13.2.2 La voiture vue de dessus, les roues avant étant alignées pour aller en ligne droite, les roues complètes et leur fixation ne doivent pas être visibles au-dessus du plan horizontal passant par les axes des essieux.

13.3 Matériau des roues

Le matériau métallique est obligatoire.

13.4 Nombre de roues

4 roues maximum.

13.5 La fixation des roues est libre.

13.5.1 Si la roue est fixée par un écrou central, un ressort de sécurité (peint en rouge ou orange "dayglo") doit être placé sur l'écrou central quand la

lever of the hydraulic pumps of the front and rear circuits.

- direct and manual intervention on a proportional valve, in which the intake pressure of the rear circuit is adjusted through a pre-loaded spring, variable according to the position of the manual linkage system (see the drawing of the principle 263-9).

Only one of these two systems is permitted.

Brake callipers

12.2.1 - Brake callipers shall be made from aluminium materials (elasticity modulus < 80 Gpa). The internal parts of the brake callipers and the bleed screw may be in titanium.

Only one calliper (maximum 6 pistons) per wheel is permitted.

Pistons (brake plungers) must have a round section.

Brakes discs

One brake disc maximum per wheel.

Ferrous material exclusively.

Two brake pads per wheel maximum.

Anti-lock braking systems

Not permitted.

WHEELS AND TYRES

Dimensions

Complete wheels (measurements to be made horizontally at wheel centre line level:

- | | |
|-------------------------------|--------|
| Maximum width: | 14" |
| Maximum diameter: | 28" |
| Minimum weight, tyre removed: | |
| • Front: | 7.5 kg |
| • Rear: | 8.5 kg |

Rims

Maximum diameter: 18"

The rim flanges shall be:

Symmetrical

Not higher than 19.2 mm ;

One piece construction wheels are recommended.

The wheel / hub caps removable are not permitted.

The surface of the flange that fit into a circle with a diameter of 400 mm must not be flat, smooth and continuous. It must have bumps at least 10 mm thick and 10 mm wide in star configuration (spokes).

Location

It must be possible to house a complete wheel in the wheel arches cut out at least down to the wheel centreline level.

As viewed from above, the wheels aligned for the car to proceed straight ahead, the complete wheels and their attachment must not be visible above the horizontal plane passing through the axle centreline.

Wheel material

The metallic material is mandatory.

Number of wheels

Maximum 4 wheels.

The wheel attachment is free.

If the wheel is attached by means of a single nut, a safety spring (painted red or "dayglo" orange) must be on the nut whenever the car is running,

	voiture roule, et remis en place après tout changement de roue.		and it must be put back after every wheel change.
13.5.2	Une autre méthode de maintien du système de fixation des roues pourra éventuellement être utilisée, sous réserve d'avoir été approuvée par la FIA.		Another method of retaining the wheels attachment system may be used, provided it has been approved by the FIA.
13.6	Crics pneumatiques		Pneumatic jacks
13.6.1	Les crics pneumatiques sont autorisés.		The pneumatic jacks are permitted.
13.6.2	Le transport à bord de bouteilles d'air comprimé pour leur fonctionnement est interdit.		Compressed air bottles carried on board for their operation are not permitted.
13.6.3	Des ouvertures peuvent être pratiquées dans le soubassement et dans le(s) coffre(s) pour leur installation.		Openings are permitted in the underbody and in the luggage compartment(s) for their fitting.
13.7	Les soupapes de surpression sont interdites.		The pressure control valves are not permitted.
13.8	Capteurs		Sensors
	Des capteurs pour la pression et la température des pneumatiques lorsque la voiture se déplace sont recommandés.		Sensors for the pressure and the temperature of the tyres when the car is in motion are recommended.
ART. 14	HABITACLE		COCKPIT
14.1	Sièges		Seats
14.1.1	Le(s) siège(s) passager(s), les garnitures intérieures, les systèmes de lève-vitres, de chauffage, etc. peuvent être enlevés.		The passenger seat(s), all internal padding and lining, window winding mechanisms, heating system, etc. may be removed.
14.1.2	Un système de dégivrage efficace du pare-brise est obligatoire.		An efficient windscreen demisting system is compulsory.
14.2	A l'intérieur de l'habitacle		Inside the cockpit
	A condition que ni l'accès ni la sortie (Art. 14.4 ci-après) ne soient entravés, seuls sont autorisés dans l'habitacle les équipements suivants nécessaires à :		Provided neither the access nor the exit are hindered (Art. 14.4 below), only the following equipment are permitted which are necessary for:
a/	La conduite, y compris le système de radiocommunication ;		Driving, including the radio-communication system ;
b/	La sécurité : harnais, extincteurs ;		Safety : harness, fire-extinguishers ;
c/	Le confort : réfrigération et ventilation du conducteur ;		Comfort : driver's cooling and ventilation system ;
d/	Le dépannage : outillage (solidement fixé sur le plancher) ;		Repairing : tools (securely attached to the floor) ;
e/	Equipements électroniques : ils doivent être dans des boîtiers dont le couvercle est fixé au moyen de vis ou d'écrous nécessitant de l'outillage pour l'enlever.		Electronic equipment : they must be inside boxes the cover of which is screwed or bolted and needs tools to be removed.
14.3	Tableau de bord		Dashboard
14.3.1	Le matériau est libre, mais la forme, les dimensions et l'aspect doivent rester conformes à la voiture d'origine (Fiche d'Homologation).		The material is free, but the shape, the look must conform with the original car (Homologation Form).
14.3.2	A l'exception du système radio, les instruments et appareils nécessaires à la conduite (d'origine ou non) doivent être fixés sur le tableau de bord et/ou sur un panneau rectangulaire de 400 cm ² maximum.		Apart from the radio system, all necessary driving controls and equipment (original or not) shall be fitted on the dashboard and/or on a rectangular panel the area of which is 400 cm ² maximum.
14.4	Pédalier		Pedal support
	L'axe d'articulation des pédales d'embrayage, de frein et d'accélérateur peut être déplacé.		The swivel axle for the clutch, brake and throttle pedals may be moved.
14.5	Temps d'évacuation de l'habitacle		Cockpit exit time
	Le pilote assis normalement au volant, en tenue de conduite complète et ceintures de sécurité attachées doit pouvoir sortir de l'habitacle en 7 secondes maximum par la porte de son côté et en 9 secondes par la porte opposée.		The driver seated in a normal position at the wheel, wearing his complete racing equipment and safety belts fastened shall be able to exit the cockpit in 7 seconds through the door on his side and 9 seconds through the opposite door.
14.6	Température à l'intérieure de l'habitacle (voitures fermées)		Temperature inside the cockpit (Closed cars)
	Un système efficace de ventilation et/ou de climatisation doit :		An effective ventilation and/or air conditioning system must:
	• Maintenir la température autour du pilote lorsque la voiture se déplace :		• Maintain the temperature around the driver when the car is in motion :
	1. à 32°C maximum si la température extérieure (*) est inférieure ou égale à 32°C.		1. at 32°C maximum when the external temperature (*) is less than or equal to 32°C,
	2. à une température inférieure ou égale à la température extérieure (*) si celle-ci est supérieure à 32°C.		2. at a temperature less than or equal to external temperature (*) if it is above 32°C;
	• Redescendre la température à la valeur définie ci-dessus (cas 1 ou 2) en 8 minutes maximum après un arrêt de la voiture.		• Get the temperature back down to the value defined above (case 1 or 2) in 8 minutes maximum after a car stop.
	• Être décrit dans la Fiche d'Homologation.		• Be described on the Homologation Form;
	Un capteur de température peut être imposé dans l'habitacle à la hauteur		A temperature sensor can be imposed inside the cockpit at level of

du casque du pilote au centre de la voiture. Il doit être protégé des flux d'air directs (à l'appréciation des commissaires techniques).
 (*) La température extérieure sera mesurée à l'ombre et à l'abri du vent et affichée près de la ligne des stands.

driver's helmet to the centreline of the car. The sensor must be shielded from direct draught (to the Scrutineers' assessment).
 (*) The external temperature will be measured in the shade and out of the wind. This temperature will be displayed near the pit lane.

ART 15 EQUIPEMENTS DE SECURITE**SAFETY EQUIPMENT****15.1 Extincteurs**

L'utilisation des produits suivants est interdite : BCF, NAF.
 Chaque voiture doit être équipée d'un système d'extinction homologué par la FIA conformément à l'Article 253-7.2, sauf pour ce qui concerne le dispositif de déclenchement extérieur.

Fire Extinguishers

The use of the following products is prohibited: BCF, NAF.
 All cars must be equipped with an extinguishing system homologated by the FIA in accordance with Article 253-7.2, with the exception of the means of triggering.

Le dispositif de déclenchement extérieur doit être combiné avec l'interrupteur de coupe-circuit et être commandé par une seule manette. Il doit être marqué de la lettre "E" en rouge à l'intérieur d'un cercle blanc à bordure rouge, d'un diamètre minimal de 100 mm.

A means of triggering from the outside must be combined with the circuit breaker switch and be operated by a single lever.
 It must be marked with a letter "E" in red inside a white circle of at least 100 mm diameter with a red edge.

15.2 Ceintures de sécurité**Safety belts**

15.2.1 Deux sangles d'épaules, une sangle abdominale et deux sangles d'entrejambe conformes à la norme FIA 8853-98 sont obligatoires.

Two shoulder straps, one abdominal strap and two straps between the legs complying with FIA standard 8853-98 are mandatory.

15.2.2 Les ceintures à 2 boucles sont interdites.

Two buckles safety belts are not permitted.

15.2.3 Les fixations des ceintures de sécurité doivent résister à une décélération de 25 g.

The safety belt mounting points shall be capable of resisting a 25 g deceleration.

15.2.4 Il est interdit de fixer les ceintures de sécurité aux sièges ou à leurs supports.

It is prohibited for the seat belts to be anchored to the seats or their supports.

15.3 Rétroviseurs**Rear-view mirrors**

Leur position est libre.
 Les voitures doivent être équipées de 2 rétroviseurs extérieurs de surface minimum de 150 cm² par rétroviseur ou des rétroviseurs d'origine. Ils doivent :

Their position is free.

The cars must be equipped with 2 external rear view mirrors with a minimum surface of 150 cm² per rear view mirror or the original rear view mirrors. They must:

- Avoir une position jour/nuit, dont l'efficacité devra être démontrée par le concurrent lors de l'homologation ou des vérifications techniques (un film peut être ajouté sur le miroir la nuit).
- Être réglables par le pilote assis au volant, sanglé et volant en place.

- Have a day/night position, the effectiveness of which must be demonstrated by the competitor during the homologation or the scrutineering (a film can be added on the mirror at night).
- Be capable of being adjusted by the driver, when seated normally at the wheel, safety belts fastened.

Les commissaires techniques doivent être assurés par une démonstration pratique que le pilote, assis normalement, aperçoit clairement les véhicules qui le suivent.

The scrutineers must be assured through a practical demonstration that the driver, seated normally, can clearly see the vehicles following him.

A cet effet, le pilote sera prié d'identifier des lettres ou chiffres, de 15 cm de haut et de 10 cm de large, disposés au hasard sur des panneaux placés derrière la voiture selon les instructions suivantes :

To this end, the driver will be asked to identify letters or figures, 15 cm high and 10 cm wide, displayed at random on boards placed behind the car according to the following instructions:

- Hauteur : Entre 40 cm et 100 cm du sol.
- Largeur : 2 m d'un côté ou de l'autre de l'axe de la voiture.
- Position : 10 mètres derrière l'axe de l'essieu arrière de la voiture.

- Height : Between 40 cm and 100 cm from the ground.
- Width : 2 m one side or the other of the centre line of the car.
- Position : 10 metres behind the centre line of the rear axle of the car.

Une caméra à l'arrière de la voiture et un écran dans l'habitacle pour la vision arrière sont obligatoires. La caméra doit avoir un mode jour/nuit. L'objectif de la caméra doit rester propre en permanence.

A camera at the rear of the car and a screen in the cockpit for rear vision are mandatory. The camera must have a day/night mode. The camera lens must remain clean all the time.

15.4 Sièges et Appui-tête**Seats and Headrest****15.4.1 Siège****Seat**

Le siège du pilote doit être homologué par la FIA et non modifié.
 Du matériau absorbant l'énergie et ininflammable doit être situé autour de la tête du pilote.

The driver's seat must be homologated by the FIA and not modified.
 Energy-absorbing and non-flammable material must be situated around the driver's head.

En cas d'utilisation d'un coussin entre le siège homologué et l'occupant, ce coussin doit être d'une épaisseur maximale de 50 mm.
 Si les fixations ou les supports d'origine sont changés, ceux ci doivent se conformer aux prescriptions de l'Article 253.16.

If there is a cushion between the homologated seat and the occupant, the maximum thickness of this cushion is 50 mm.
 If the original attachments or supports are changed, they must comply with the provisions of Article 253.16.

15.4.2 Appui-tête**Headrest**

a/ Il ne doit pas s'enfoncer de plus de 5 cm si on applique une force de 85 daN vers l'arrière ;

It must not deflect more than 5 cm when a rearward force of 85 daN is applied;

b/ Il doit être placé de façon à constituer le premier point de contact du casque du pilote assis normalement en cas de choc projetant sa tête en arrière ;

It must be positioned so that it is the first point of contact for the driver's helmet in the event of an impact projecting his head backwards when he is seated normally;

c/ Sa surface est de 400 cm² minimum, continue et sans parties saillantes ;

Its surface is 400 cm² minimum, continuous and with no protruding parts ;

	d/ Tout dispositif assurant le maximum de protection pour la tête du pilote est fortement recommandé.	Any device designed such as to provide the maximum driver's head protection is strongly recommended.
	w L'accord du Groupe Homologation est indispensable.	Homologation Group approval is essential.
15.5	Coupe-circuit	Master switch
15.5.1	Le pilote, assis au volant, sanglé et volant en place, doit pouvoir couper tous les circuits électriques et arrêter le moteur avec un coupe-circuit antidéflagrant.	The driver, when seated normally at the wheel, safety belts fastened must be able to cut off all the electrical circuits and switch off the engine by means of a spark proof breaker switch.
15.5.2	L'interrupteur doit être :	The switch must be:
	a/ Placé sur le tableau de bord ou en tout autre endroit aisément accessible par le pilote ou de l'extérieur ;	Positioned on the dashboard or in any other place easily accessible by the driver or from outside ;
	b/ Clairement signalé par un symbole montrant un éclair rouge dans un triangle bleu bordé d'un liseré blanc.	Clearly identified by a symbol showing a red spark in a white edged blue triangle.
15.5.3	Un interrupteur extérieur doit aussi être prévu avec une poignée susceptible d'être actionnée à distance au moyen d'un crochet. Cet interrupteur doit être placé au pied du pare-brise sur le côté gauche.	There must be also an exterior switch, with a handle making possible to operate it at a distance with a hook. This switch must be put at the lower part of the windscreen pillar on the left hand side.
15.6	Anneaux de prise en remorque	Towing eyes
15.6.1	Les anneaux de prise en remorque avant et arrière doivent :	Front and rear towing eyes shall:
	a/ Etre rigides, en acier, sans possibilité de rupture, mesurer entre 80 et 100 mm de diamètre intérieur et 5 mm d'épaisseur (section arrondie de façon qu'ils ne coupent pas ou ne détériorent pas les sangles utilisées par les commissaires) ;	Be rigid, made from steel, with no chance of breaking, have an inner diameter between 80 and 100 mm and be 5 mm thick (round section for not cutting or damaging the straps used by the marshals) ;
	b/ Etre solidement fixés au châssis/structure au moyen d'une pièce rigide en métal (câbles formant boucle interdits) ;	Be securely fitted to the structures of the chassis by means of a rigid piece made from metal (cable hoops are not permitted);
	c/ Se trouver dans le contour de la carrosserie vue de dessus ;	Be within the perimeter of the bodywork as viewed from above;
	d/ Etre facilement identifiables et peints en jaune, rouge ou orange ;	Be easily identified and painted in yellow, red or orange;
	e/ Permettre de tirer une voiture enlisée dans un bac à graviers.	Allow to tow a car stuck in a gravel bed.
ART. 16	STRUCTURES DE SECURITE	SAFETY STRUCTURES
16.1	Structure anti-tonneau	Rollover structure
16.1.1	Une armature de sécurité conforme aux spécifications du Code Sportif International (Annexe J - Art. 253.8) est obligatoire.	A safety cage meeting the requirements of the International Sporting Code (Appendix J - Art. 253.8) is compulsory.
16.1.2	Des entretoises longitudinales ou tout dispositif équivalent agréé par le Groupe Homologation doivent assurer la protection latérale. Il est possible d'ajouter trois barres de protection latérale sur une armature homologuée par la FIA conformément au Dessin 258-4.	Longitudinal struts or any equivalent device Homologation Group approved shall provide lateral protection. It is possible to add three lateral protection bars onto a cage homologated by the FIA in accordance with Drawing 258-4.
16.1.3	Les tubes à proximité du pilote doivent être garnis de mousse ininflammable approuvée par la FIA.	Tubes in the driver's vicinity shall be wrapped in fireproof foam FIA approved.
16.2	Cloisons pare-feu	Firewalls
16.2.1	Une cloison pare-feu métallique et parfaitement étanche est obligatoire pour empêcher le passage des flammes du compartiment moteur dans l'habitacle.	A compulsory metallic and completely sealed firewall is mandatory to stop flames in the engine compartment from getting into the cockpit.
16.2.2	Toute ouverture pratiquée dans cette cloison doit être réduite au minimum compatible avec le passage des commandes et des câbles et maintenir l'étanchéité.	Any hole in the firewall must be of the minimum size necessary for the passage of controls and wires and must be kept sealed.
16.2.3	Une cloison réalisée en matériau sandwich ininflammable et recouverte d'une feuille métallique adhésive est acceptée.	A bulkhead made from a fireproof sandwich material and covered with an metallic adhesive sheet is acceptable.
16.3	Modifications	Modifications
16.3.1	Le châssis ou la structure monocoque doivent conserver les caractéristiques et les matériaux d'origine du Constructeur.	The chassis or the monocoque / unibody construction must retain the Manufacturer's specifications and original materials.
16.3.2	Aucune modification, autre que celles spécifiquement autorisées par le présent règlement ne peut être apportée à une structure qui a été agréée par le Groupe Homologation.	No modification, other than those specifically permitted by these regulations, may be introduced into a structure which has been approved by the Homologation Group.
ART. 17	CARBURANT	FUEL
17.1	Type de carburant	Type of fuel

<p>L'Organisateur ne délivrera qu'un seul type de carburant. Il doit être disponible à la vente.</p> <p>17.2 Spécifications</p> <p>Cf. : Code Sportif International (Annexe J – Art. 252.9.1.). Sauf en ce qui concerne :</p> <ul style="list-style-type: none"> - L'éthanol : 9% mini, 10% maxi - L'oxygène : 3.3% mini, 3.9% maxi <p>17.3 L'utilisation de tout autre carburant doit faire l'objet d'une demande spéciale soumise à l'agrément du Comité Endurance et, si nécessaire, de l'ASN.</p>	<p>The Organiser will supply one type of fuel only. It must be available for sale.</p> <p>Specifications</p> <p>Ref.: International Sporting Code (Appendix J – Art. 252.9.1.). With the exception of:</p> <ul style="list-style-type: none"> - Ethanol : 9% mini, 10% maxi, - Oxygen: 3.3% mini, 3.9% maxi <p>The use of any other fuel is subject to a special request submitted to the agreement of the Endurance Committee and the ASN if necessary.</p>
<p>ART. 18 TEXTE FINAL – LITIGES</p> <p>Seule la version française fera foi pour l'application et l'interprétation des règlements.</p>	<p>FINAL TEXT – DISPUTES</p> <p>The French version is the only one valid regarding the implementation and interpretation of the regulations.</p>
<p>ART. 19 EQUILIBRE DES PERFORMANCES</p> <p>Le Comité d'Endurance se réserve la possibilité d'ajuster les performances des LMGTE dans les conditions suivantes :</p> <ul style="list-style-type: none"> • La référence sera le calcul de la moyenne des meilleurs temps au tour de la voiture la plus rapide de chaque modèle et pour chaque année d'homologation (modèle homologué en 2011, évolution du modèle en 2012, etc.). Un même modèle de voiture avec les mêmes spécifications (même année d'homologation) devra appliquer les mêmes ajustements. • La moyenne des meilleurs temps au tour sera calculée sur un nombre de tours correspondant à 20% de la distance de la course. • Les changements suivants pourront être appliqués : <ul style="list-style-type: none"> - Poids minimum du véhicule, - Bride d'air et pression de suralimentation. - Capacité du réservoir de carburant. - Hauteur du Gurney - Hauteur aileron arrière • Toute autre modification technique que le comité d'endurance jugerait nécessaire • Les ajustements du diamètre des brides du moteur et de la pression de suralimentation prendront effet 14 jours après la notification. Les autres modifications prendront effet 7 jours après leur notification. • Tous les renseignements requis par le Comité d'Endurance en vue de réaliser ces ajustements doivent être fournis par les concurrents. Tout concurrent qui a délibérément donné de fausses informations, ou tenté d'influencer un processus d'ajustement pourra recevoir une sanction par la FIA. • Ces changements sont insusceptibles de recours et sont à la discrétion absolue du Comité d'endurance. 	<p>The Endurance Committee will keep the possibility to adjust the performance of the LMGTE as follows:</p> <ul style="list-style-type: none"> • The reference will be the calculation of the fastest average lap time of the fastest car for each model and for each year of the homologation (model homologated in 2011, evolution of the model in 2012, etc.). The same model of car with the same specification (same model of the year) must use the same adjustment of performance. • The fastest average lap time will be calculated using the number of laps which corresponds to 20% of the race distance. • The following changes could be applied: <ul style="list-style-type: none"> - Minimum weight of the vehicle, - Engine restrictor and boost pressure change, - Fuel tank capacity, - Height of the Gurney - Height of the rear wing, • Any other technical modification that the ACO may deem necessary. • Adjustments of engine restrictor diameter and boost pressure take effect 14 days after the notice. All other adjustments take effect 7 days after the notice. • Any information required by the Endurance Committee in order to achieve these adjustments must be supplied by the competitors. Any competitor who deliberately gives false information, or attempts to influence the adjustment process may be given a sanction by the FIA. • These changes are not subject to protest or appeal and are at the absolute discretion of the Endurance Committee.

MODIFICATIONS APPLICABLES AU 01.01.2014

MODIFICATIONS APPLICABLE ON 01.01.2014

"LE MANS" GRAND TOURISME ("LM"GTE)**ANNEXE 1 / APPENDIX 1****DIAMETRE DES BRIDES / AIR RESTRICTORS DIAMETER**

Les tableaux ci-après (diamètre des brides et limite de pression de suralimentation) sont établis pour réaliser l'équilibre entre les voitures.

En cas de force majeure, le Comité Endurance se réserve le droit d'apporter toute modification qu'il jugera nécessaire pour maintenir l'équité des épreuves.

The tables below (air restrictor diameter and boost pressure limit) are made out in order to balance the performance of the cars.

In case of force majeure, the Endurance Committee reserves the right to make any change which they will consider necessary as to maintain a fair balance during the Events.

1 – MOTEURS ATMOSPHERIQUES / NORMALLY ASPIRATED ENGINES

2 Brides / 2 Restrictors (mm)		
Poids minimum Minimum weight	Cylindrée maximum Maximum Cylinder Capacity	
1245 kg	3200 cm³	29.4
	3400 cm³	29.1
	3600 cm³	28.9
	3800 cm³	28.8
	4000 cm³	28.6
	4500 cm³	28.3
	5000 cm³	28.1
	5500 cm³	27.9

Nota : (diamètre pour 1 bride) = (diamètre pour 2 brides) x 1.414213562 (arrondi au 0.1 mm le plus proche)

Note: (1 restrictor diameter) = (2 restrictor diameter) x 1.414213562 (rounded to nearest 0.1 mm)

2 – MOTEURS SURALIMENTES / TURBOCHARGED ENGINES

Diamètres de brides / Air restrictors diameters		
Poids minimum Minimum weight	1 Bride / 1 Restrictor (mm)	2 Brides / 2 Restrictors (mm)

1245 kg	39.2	27.7
----------------	-------------	-------------

Pression absolue de suralimentation / Absolute boost pressure											
Cylindrée Maximum Maximum Cylinder Capacity	200 0	220 0	240 0	260 0	280 0	300 0	320 0	340 0	360 0	380 0	400 0
Pression Maximum Maximum Pressure (millibars)	336 0	308 0	280 0	260 0	240 0	225 0	210 0	198 5	187 0	177 5	168 0

GTC Technical Regulations for the GT Challenge Class

ARTICLE 1 - PRELIMINARY NOTICE

The GTC Class is intended to keep competition fair and cost low by minimizing the possible changes to the cars. Therefore, any technical action by competitors in contravention with these principals is subject to penalties.

- 1.1 Any item which is not explicitly authorized by these regulations is forbidden. It is the responsibility of the participants to read, understand and comply with the Regulations. Failure to do so will not provide any relief from the Regulations.
- 1.2 The measuring and checking tools used by IMSA will be the reference for all measurements and data checks. No protest will be accepted in this respect. The competitors will have access to these tools in order to check the accuracy of their own equipment.
- 1.3 The technical data which constitutes the reference are those stipulated in the respective technical manuals.
- 1.4 In case of any technical evolution, IMSA will inform the competitors by a technical bulletin.

ARTICLE 2 - CARS

- 1.1 Only the following race cars in their original versions, in full compliance with the specific variants regulations, are allowed to take part in the Events.
 - 2010-2013 Porsche 911 GT3 Cup

ARTICLE 3 - MODIFICATIONS

- 3.1 It is strictly forbidden to make any modification of any kind, with the exception of those permitted by these regulations or by a technical note published by IMSA. In the case of a second-hand car being used, it is the competitor's responsibility to make sure that the car complies with the regulations.
- 3.2 All the parts which cannot be used due to wear, failure or accident must be replaced solely by genuine original Porsche parts.
- 3.3 Any mechanical operation on the engine or on any other sealed component must be done by Porsche Motorsport North America (PMNA) or a company approved by PMNA.
- 3.4 All cars must be original Porsche Cup cars as delivered by PMNA and the VIN number must reflect this. No aftermarket conversions to Cup cars are permitted.
- 3.5 Except where specified, all parts must be stock. This means that they must be the Porsche designated parts that were as the car was delivered and be on the Porsche parts catalog for that car for that model year. Transposition of parts from one model year to another is not permitted except as specified herein or in the specific variants regulations. Modification of any supplied part, or modifying their mounting or mounting position is prohibited.
- 3.6 Except where specifically permitted herein, there are no permitted changes to the cars from their original specifications as delivered. There may be no welding, cutting, machining, drilling, acid dipping or other chemical treatment of the car to change its mechanical properties. Any change to the cars that is not specifically permitted in the Regulations is hereby prohibited.
- 3.7 If, in the sole discretion of the Technical Director, the cars do not meet the spirit or intent of these rules, he may order them to be changed to comply prior with any further participation in the Events. Any waiver of any technical requirement by the Technical Director shall specify the length of time the waiver shall be permitted and shall not constitute an ongoing waiver, or a waiver for other cars for the same issue.
- 3.8 It is permissible to carry out work on a vehicle which is part of the regular maintenance of the vehicle or which serves for the replacement of parts that have become defective as a result of wear or an accident.

Reference photo #1

Datenblatt
Technical Data Sheet

Gültig ab
Valid from **NOVEMBER 1, 2009**

1. ALLGEMEIN / GENERAL

Fahrzeugkennzeichen Typical vehicle number	WPO 222 99 ZAS 79****	
		

Fahrzeug von links
Car seen from left

Fahrzeug von rechts
Car seen from right

ARTICLE 4 - WEIGHT

4.1 The weight may be checked at any time during an event.

The minimum weight of the variants (car ready to run with all its equipment without fuel)

- 2010-2013 Porsche 911 GT3 Cup: 1205 kg

4.2 Any ballast must be carried in a ballast box constructed of steel with a minimum thickness of .095 and utilize the passenger seat mounts for anchoring. The box must fully enclose the ballast which must also be secured inside the ballast box. This is the only authorized location for ballast. Driver comfort systems (ice chest) must be placed in proximity to the ballast area. It is permitted for ballast weighing less than 5kg to be attached to the stock seat mounting holes. No weight may be removed from the stock structure of the car and placed in the ballast box.

4.3 Drivers Weight

4.3.1 Drivers must be present at scrutineering at the beginning of the first event with all required acing equipment to be weighed. This Official Weight will be rounded up to the next whole kg, for example if a Driver and required equipment weighs 92.3 kg, the recorded weight will be 93 kg. In the case of multiple drivers the average weight of all the drivers will be used.

4.3.2 Once IMSA has recorded a Driver's Weight, this weight will then become the Official Weight. This Official Weight will be used in Scrutineering for this and all subsequent Events. The Official Weight will not be changed at any time after the start of an event. However, a Driver may request to be reweighed at the beginning of an event and a new Official Weight will be recorded for the next event. IMSA may require a driver to be reweighed at any time. Cars will be temporarily ballasted (supplied by IMSA in the technical area) to the Driver's Official Weight for all technical inspections during an event and Drivers will not be required to be present for any technical inspections.

4.3.3 All GTC cars will be checked without fuel onboard for pre-Event technical inspection. This standard practice shall also apply to any cars selected for post-qualifying or post-race scrutineering.

ARTICLE 5 - TUB

5.1 No modifications of any kind are permitted, including the drilling, reinforcement, cutting or fitting of neither brackets nor any other parts *with the exclusion of front and rear "Nerf" bars which are permitted provided the installation is approved by IMSA prior to their use. The installation of window net mounting bars are permitted provided advance permission has been requested to IMSA.*

5.2 If a TUB is damaged in an accident, it must be inspected by IMSA and the repair procedure must be approved. If the damage is determined to be major by IMSA the repair must be conducted by a PMNA authorized company to make repairs. If the damages are too severe, the TUB may be declared unusable for safety reasons. In this case, the TUB must be replaced.

ARTICLE 6 - BODYWORK

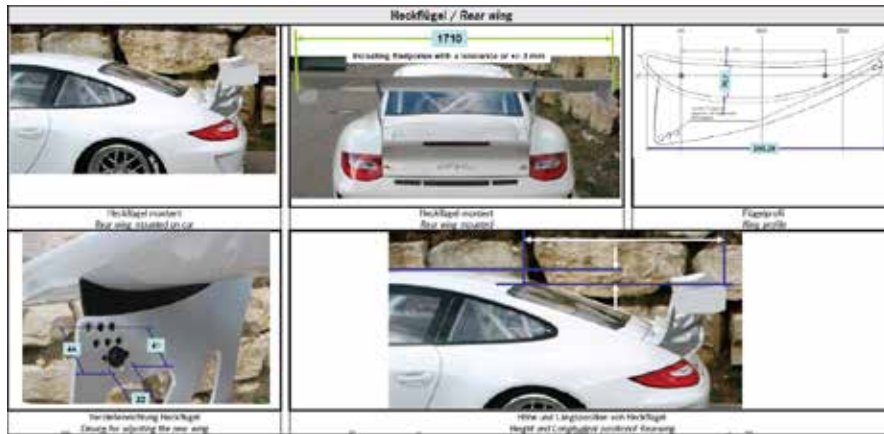
6.1 All bodywork must remain stock and no alternate parts (except as provided for herein) are permitted. Modifications which are required to run an alternative seires tire including increased fender width and inner fender liner modifications are permitted provided permission is granted from IMSA via email. No unauthorized modifications are permitted to the bodywork. Wings: Stock wing and wing mounts must be used. Neither may be altered in any way from their stock configuration. Nothing may be done to alter the position of the wing and wing mount in relation to the body of the car, from the stock position. Additional lighting is permitted provided the installation location is approved by IMSA prior to use.

6.2 Any damaged or poorly repaired component may be declared illegal by the technical scrutineers at their sole appreciation

6.3 The gurney lip (as specified by IMSA and PMNA) may be attached to the rear wing. No alteration may be done to the gurney lip and it must be mounted on the top rear edge of the rear wing. The use of the gurney lip is optional for all variants.

- 1.1. Notwithstanding the above, the position of the wing element may be changed within the given adjustment range. No additional adjustments or mounting holes may be made.
- 1.2. Alternate external mirrors are permitted provided they are the same minimum dimensions of the factory delivered items; mirrors with adjustment systems are included in this specification. Internal mirrors may be replaced with "wink" style mirrors.
- 1.3. Heated windscreens are permitted. Replacement windscreens manufactured from Lexan material are also permitted. Support strips for both the front and rear windows are permitted.
- 1.4. Additional NACA ducts are permitted in the side windows for the purposes of driver cooling.

Reference photo #2



ARTICLE 7 – ENGINE

- 7.1 Engines must remain sealed and keep all the markings affixed by PMNA.
 - 7.2 The competitor is responsible for the state of the seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance.
 - 7.3 Any intervention on the engine is forbidden. All repairs and maintenance operations must be performed by PMNA.
 - 7.4 PMNA will have the right to exchange (replace) an engine without having to give reason.
 - 7.5 The engine will be restricted during the Events. The following restrictors and rev limits will be mandatory for competition and may be changed at any time for balance of performance during the race season.
 - 2010-2013 Porsche 911 GT3 Cup: 62mm & 8500 rpm
- All restrictors will be manufactured and supplied by PMNA.**
- 7.6 At any time during an event, the technical delegates may check the recorded data.
 - 7.7 The control unit of the engine is sealed.
 - 7.8 No change of engine is permitted without first making the request to the technical scrutineers and without receiving their agreement.
 - 7.9 At the end of an event, an engine may be removed in order to check its compliance.
 - 7.10 The exhaust system cannot be modified, including tailpipes.
 - 7.11 The catalytic converter must be replaced and in new condition prior to the first race event of the year.
 - 7.12 The alternator may be replaced with an increased capacity unit provided that it is approved prior to use by PMNA.

Reference photo #3



ARTICLE 8 – FUEL SYSTEM

- 8.1 The fuel tank is FIA homologated (FT3 minimum specification) and cannot be used for more than 5 years unless re-certified by the supplier for another 2 years of life time.
- 8.2 It is forbidden to cool the fuel.
- 8.3 It is forbidden to add anything to the fuel.
- 8.4 The fuel capacity for all GTC cars is 90 litres. Use of the PMNA supplied ballast plate is permitted.

ARTICLE 9 – COOLING AND LUBRICATION SYSTEMS

- 9.1 The water and oil systems (tank, lines, etc) cannot be modified.
- 9.2 The following modification to the Cooling and Lubrication systems are permitted for all car variants:
- o The installation of a "quick fill" and "oil level" kit for the oil system is permitted.
 - o The installation of a "quick fill" kit for the water cooling system is permitted.
 - o The front cooling grill may be replaced with a stronger metallic screen, additionally it may require bracing for strength.
 - o Exit screens may be installed for the front side radiators.
- 9.3 Gold "foil" style shielding may be installed in the engine bay area only for the purposes of cooling the engine area

ARTICLE 10 - TRANSMISSION

- 10.1 All the gearbox parts must remain original parts *with the exception of the half shafts, for all car variants half shaft specification is free*. No modifications of the dimensions or aspect are permitted. The diff case and transmission cover is sealed. If the seal must be removed it must be done by a PMNA authorized technician and the seals must be replaced before every event. All work to the gearbox must be completed only by PMNA or their authorized agent.
- 10.2 At any time during an event, it must be possible for the driver, sitting in his normal driving position, to select the reverse gear.
- 10.3 The competitor is responsible for the state of the seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance.
- 10.4 The clutch assembly and its operating system must remain to their original specifications
- 10.5 The following gearing arrangements are the only ones permitted:

2010-2013 911 Cup	Option
12-38	
15-32	
18-31	18-30
20-28	23-31
23-26	26-29
29-27	

It is not permitted to combine these gear ratios. They must be used as a set.

The RSR Mainshaft with 13:36 1st gear is permitted as an optional 1st gear for all car variants.

ARTICLE 11 – BRAKING SYSTEM

- 11.1 For all car variants the master cylinder size (master cylinder must remain in stock location) is free. The calipers may be modified according to PMNA bulletin 11-01. Rotors must be of ferrous material and have the following maximum dimensions:

	Outside Diameter	Thickness
Front:	381mm	32mm
Rear:	356mm	32mm

- 11.2 It is permitted to mask the cooling duct's entrance in order to regulate the brake's temperatures.
- 11.3 For all car variants the PMNA "Brake Cooling Kit" is permitted.
- 11.4 Brake Quick Disconnects (QD) are permitted. Factory Porsche Brake lines may be replaced with steel braided lines to facilitate the install of the QD.

ARTICLE 12 – SUSPENSION

May be adjusted within existing tolerances except where these rules specifically prohibit. All original parts must be retained in their original mounting positions.

- 12.1 The shock absorbers are free provided it fits in the stock position, remote reservoirs are permitted. No modifications of the mounting points or mounts permitted. IMSA may require removal of shocks for testing.
- 12.2 The springs are free provided they fit in the stock position.
- 12.3 Only the anti-roll bars provided by Porsche and listed in the technical manual are permitted. These may be disconnected but no parts may be removed. They may be adjusted using only the given range of adjustment holes.
- 12.4 *For all car variants* Wheelbase will be measured from the center of the rear hub to the center of the front hub. This measurement is 2360 mm +/- 10 mm.
- 12.5 For all car variants the Suspension block location is permitted to use all 3 factory located holes.
- 12.6 Must abide by the Camber/Pressure Guidelines as listed in 11.8.3 of the IMSA GT3 Cup Challenge by Yokohama regulations.

ARTICLE 13 – RIDE HEIGHT

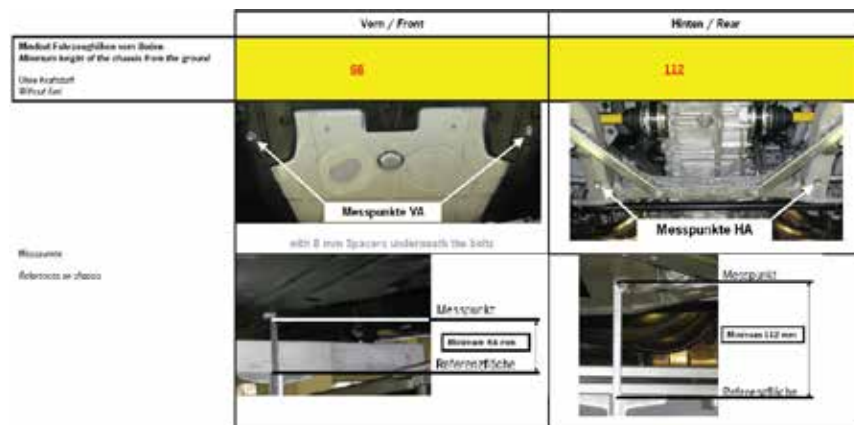
- 13.1 *For all car variants* the ride height of the car in relation to the ground surface cannot be less than the following values (these values are valid regardless of the values depicted in reference photo #4):

Front Axle: 70mm
Rear Axle: 90mm

This measurement is for the front axle at the mounting bolt of the central arm/corner plate. 2010-2013 cars must remove the spacer under the bolts and replace bolt for measuring. For the rear axle it is measured at the machined surface at the lateral part of the rear axle.

- 13.2 A reference flat area will be available to the competitors in order to check the ride height of the cars. This reference surface and the measuring equipment of the technical scrutineers of IMSA will be the sole used to give a decision regarding the validity and the conformity of this measurement.
- 13.3 Ride height may be measured at anytime during the competition. Ride height is measured with the specified slick tires with a tire pressure of 21.8 psi \pm 1.5 psi or 1.5bar \pm 0.1 bar.

Reference photo #4



ARTICLE 14 - STEERING SYSTEM

- 14.1 It is compulsory to use the original parts of the complete steering system and of its power assistance.
- 14.2 The rack and pinion steering and servo pump must not be repaired and/or dismantled.

ARTICLE 15 - WHEELS AND TYRES

- 15.1 For all car variants it is compulsory to use three - piece BBS wheels only. A minimum of three sets of wheels is recommended. The following wheel sizes are mandated:
- Front: 9.5 x 18 with 36.5 mm of offset.
Rear: 12.0 x 18 with 30 mm of offset.
- 15.2 Over-pressure valves are forbidden.
- 15.3 Tire pressure sensors are forbidden.
- 15.4 The only tires permitted are the Yokohama ADVAN ENV-R02. Tires may only be obtained from the authorized distributor.

ARTICLE 16 - COCKPIT

- 16.1 The steering wheel may be stock or changed so long as it is continuous and round, quick disconnect & hub extensions are permitted.
- 16.2 Rear view mirrors, dashboard, and all the cockpit components and equipment must remain in their standard state.
- 16.3 The stock Porsche seats are recommended. However alternatives are permitted, provided that the following requirements are met: Only currently permitted FIA or SFI seats and mountings are permitted (FIA Sporting CODE Appendix J, Art. 253.16) and such seats must bear the label of certification. The floor of the car must not be modified in any way and the original mounting holes must be used in all cases. Any alternative seat must be approved by IMSA prior to use.
- 16.4 Competitors are responsible for ensuring that any seat, belt and mounting are compatible, properly installed, appropriate and safe for competition. IMSA may reject, at its sole discretion, any system that either does not meet the requirements, or appears to be defective or inappropriate in some way. No expressed or implied warranty of safety shall result from inspection or approval of any system by IMSA. The driver seat may be filled with expanded foam, to suit the driver's morphology.

ARTICLE 17 - SAFETY FEATURES

- 17.1 Fire extinguisher, master switch, safety belts, headrest, towing rings, etc, must remain in their standard state. The extinguisher may be Porsche stock or an IMSA approved equivalent.
- 17.2 The headrest may be covered providing that a fire-resistant material is used.
- 17.3 The use of the HANS[®] system is compulsory.

ARTICLE 18 - ELECTRICS – ELECTRONICS

- 18.1 The electrical harnesses, ECU, etc must remain in their standard state and position.
- 18.2 The competitor is responsible for the state of all installed seals and their presence at all times. Missing or deteriorated seals will be considered as an infringement to the technical compliance. If there is any issue with the installed seals (missing and/or damaged) the IMSA technical staff must be notified before the start of the event and have the seals repaired/replaced
- 18.3 Only the stock Engine Control Unit (ECU) with the stock programming is permitted. Tampering or re-programming of the ECU is strictly prohibited. Except as provided for herein, no additional electronics may be installed between the ECU and the engine.
- 18.4 ECU'S will be sealed to the connectors at the beginning of the season. Only IMSA officials or authorized PMNA technicians may break the seals which must then must be replaced by IMSA.
- 18.5 ECU'S are subject to random seizure and replacement at any time. Authorized PMNA and IMSA officials may access and inspect the ECU programming at any time.

ARTICLE 19 – DATA ACQUISITION

- 19.1 Stock dash as supplied with vehicle must be utilized. No others or supplements are allowed. Data collection is permitted.
- 19.2 Sensors limited to those listed in Porsche service manual: one wheel speed sensor per wheel; one steering position sensor; one gear position sensor, on gear shift lever only; one rpm sensor; one lateral and one longitudinal accelerometer; lap trigger, brake bias pressure.
- 19.3 All other sensors may be permitted provided written approval from IMSA is obtained prior to use. .
- 19.4 Wireless (radio or IR or any other method) transmission of data to or from the car is prohibited.
- 19.5 IMSA may collect any data from the cars; may require the teams to provide data from on-board data collection systems; and IMSA may plug into and collect data from any data collection system. IMSA will not be responsible for any data lost in this process.

ARTICLE 20 – ADDITIONAL EQUIPMENT

- 20.1 Timing Transponders: an IMSA issued driver ID transponder must be used.
- 20.2 Radios: A radio system "driver-to-pit" may be installed on the condition that the equipment is homologated by and declared to the relevant authorities.
- 20.3 The radio equipment must be safely attached in the cockpit.
- 20.4 On-board cameras: will be permitted, once the officials have been informed and the position is approved. The unit must be of small dimensions and safely attached. The Camera equipment weight is not included in the minimum weight requirement
- 20.5 IMSA has the right to impound any and all video footage from competitors
- 20.6 The Air Jack wand and port hardware may be exchanged for another manufacture, relocating the car side port is not permitted

ARTICLE 21 – TECHNICAL CHECKS

- 21.1 The technical checks are carried out by the technical scrutineers of IMSA.
- 21.2 Technical checks may take place at any time, before, during or after the practice sessions and the races.
- 21.3 Each car must pass technical scrutineering before the on-track sessions in order to be allowed to participate.

- 21.4 The presentation of a car to technical scrutineering will be deemed to constitute an implicit declaration of eligibility by the competitor.
- 21.5 Only the entrant or his representative duly designated must attend the technical checks. The entrant's mechanics will have the duty to dismantle and to re-fit the components to be checked according to the request and under the control of the officials.
- 21.6 The cars must be presented to the technical checks as described hereunder:
- Car ready to take part to the practice sessions or to the race.
 - All the safety elements (fire-extinguisher, towing rings, etc.) in place and in working conditions.
 - Decorations and race numbers affixed and in good condition.
 - Car in full compliance with the regulations.
- Any car failing to comply with these requirements will be refused.
- 21.7 A car arriving on the starting grid with damaged seals will be subject to:
- A fine of \$750
 - A quick check from the officials who will affix new seals if necessary.
- This quick check of the car will not be an assumption of its compliance. A car with seals missing will not be allowed to start the race.
- 21.8 IMSA has the right to impound the car for scrutineering at any point in the Event, and in case of doubt, may retain the car after the Event until such matters have been clarified. Such scrutineering may include the disassembly of various parts of the car, including the engine. Competitors accept that in order to complete such inspection the mandatory seals may be broken and it is the sole responsibility of the competitor to have those seals replaced prior to further competition.

ARTICLE 22 – REFUSAL OF CHECKS

- 22.1 Any refusal of a control and/or a check will be deemed as a failure of the car's compliance and will lead to the car being excluded of the event at the first offence and to the permanent exclusion of IMSA with the loss of the entry fees at the second offence.

ARTICLE 23 – SEALING AND MARKING

- 23.1 The seals and markings on the mechanical components will be checked by IMSA and any removal, modification or deliberate damages of these seals and markings will lead to an immediate exclusion.
- 23.2 The setting of any electronic box or casing is considered as a sealing; in no case it can be modified or damaged. The opening of such box or casing will lead to an immediate exclusion.
- 23.3 The imitation and/or modification of any seal or marking will lead to the driver and the entrant being excluded and banned from any further participation in the next event.

ARTICLE 24 – POST-RACE CHECKS

- 24.1 From the moment the checkered flag is waved, the cars will be deemed to be under Parc fermé regulations.
- 24.2 Unless instructed or authorized otherwise by the Stewards or by the Technical Delegate, it is forbidden to intervene on a car in any way until the expiry of the latest protest time limit set.
- 24.3 Spontaneously or following a protest, the Stewards may select during the time limits here above defined one or more cars that must undergo technical checks.
- 24.4 The Stewards or the Technical Delegate will have the right to keep one or more cars for as long as they judge it necessary without the entrant being entitled to any compensation.
- 24.5 If a car is not available during the time limits here above defined or if a car does not have the seals in place, it will be declared ineligible.
- 24.6 If the car checked is found not eligible, the transport costs that may be involved, as well as the costs of dismantling and rebuilt that may be involved will be supported by the entrant on a tariff base of \$100/ hour (tax excl.)
- 24.7 During the checks, one or more parts may be removed and kept for further checks. If these parts cannot be returned within sufficient time for the following race, then the similar standard part(s) would be provided.

ARTICLE 25 - NON CONFORMITY

- 25.1 A declaration of non conformity due to missing seal(s) or marking(s), failure to attend the post-race checks, etc, have the same effects regarding the regulations as a technical non conformity.
- 25.2 Any non conformity will be treated as such within the meaning of the regulations of, whatever the origin of this non conformity (displacement, stop, tests, race, etc.) or the moment when it occurred or its cause (for example: vibrations, shocks, overheating, accidental introduction of a debris, etc).
- 25.3 Any car declared illegal will be disqualified from the event and could be excluded permanently.



International Motor Sports Association
1394 Broadway Avenue
Braselton, GA 30517 USA

Phone : +1 (706) 658-2120
Fax : +1 (706) 658-2130

www.imsaracing.net