PROBLEM SYMPTOMS TABLE

If no DTCs are displayed during the DTC check but the problem still occurs, check the circuits for each problem symptom in the order given in the table below and proceed to the relevant troubleshooting page.

NOTICE:

When replacing the brake actuator or sensor, turn the ignition switch to OFF.

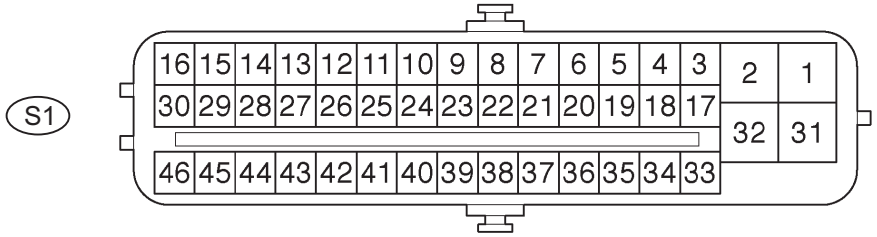
ANTI-LOCK BRAKE SYSTEM

Symptom	Suspected Areas	See Page
ABS does not operate	1. Check DTC reconfirming that normal code output.	BC-16
	2. IG power source circuit	BC-43
	3. Speed sensor circuit	BC-24
	4. Check brake actuator with intelligent tester. If abnormal, check hydraulic circuit for leakage.	BC-299
	5. If symptoms still occur even after above circuits in suspected areas inspected and proved to be normal, replace brake actuator.	BC-300
ABS does not operate efficiently	1. Check DTC reconfirming that normal code output.	BC-16
	2. Speed sensor circuit	BC-24
	3. Stop light switch circuit	BC-55
	4. Check brake actuator with intelligent tester. If abnormal, check hydraulic circuit for leakage.	BC-299
	5. If symptoms still occur even after above circuits in suspected areas inspected and proved to be normal, replace brake actuator.	BC-300
ABS warning light abnormal	1. ABS warning light circuit	BC-64
	2. Skid control ECU (brake actuator)	BC-300
DTC check cannot be performed	1. ABS warning light circuit	BC-64
	2. TC and CG terminal circuit	BC-75
	3. If symptoms still occur even after above circuits in suspected areas inspected and proved to be normal, replace brake actuator.	BC-300
Speed sensor signal check cannot be performed	1. Skid control ECU (brake actuator)	BC-300

TERMINALS OF ECU

1. Terminals of ECU

Skid control ECU:



Symbols (Terminals No.)	Terminal Description
GND1 (1)	Skid control ECU ground
+BS (2)	Solenoid valve power supply
GL1 (4) (*1) (*3)	Deceleration sensor signal input
P (6) (*2)	Shift position indicator P signal input
EXI2 (7) (*3)	Rear differential lock detection switch input
GGND (8) (*1) (*3)	Deceleration sensor ground
FL- (9)	Front LH wheel speed signal input
FL+ (10)	Front LH wheel speed sensor power supply
D/G (13)	Diagnosis tester communication line
STP (14)	Stop light switch input
RL+ (15)	Rear LH wheel speed sensor power supply
RL- (16)	Rear LH wheel speed signal input
WA (17)	ABS warning light output
SP1 (18) (*2)	Speed signal output for meter
TS (20)	Sensor diagnosis check input
TC (21)	Diagnosis tester communication line
PKB (23)	Parking brake switch input
EXI (24) (*3)	ADD change over actuator switch input
+BM (31)	Motor relay power supply
GND2 (32)	Skid control ECU ground
N (36) (*2)	Shift position indicator N signal input
VGS (37) (*1) (*3)	Deceleration sensor power supply
EXI4 (38) (*3)	Detection (L4) switch input
FR- (39)	Front RH wheel speed signal input
FR+ (40)	Front RH wheel speed sensor power supply
BRL (43)	Brake warning light input
RR+ (44)	Rear RH wheel speed sensor power supply
RR- (45)	Rear RH wheel speed signal input
IG1 (46)	ECU power supply

BC

HINT:

(*1): Pre-runner

(*2): A/T

(*3): 4WD

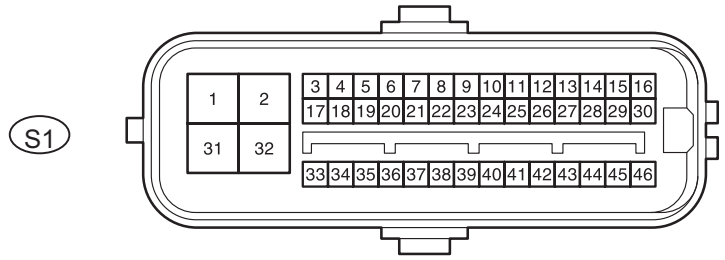
2. Terminal Inspection

Disconnect the connector and measure the voltage on the wire harness side.

HINT:

Voltage cannot be measured with the connector connected to the skid control ECU as the connector is water resistant.

Skid Control ECU (harness side connector)



N

C124738E01

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	STD Voltage (V)
+BS (2) - GND1 (1)	Y - W-B	Solenoid valve power supply	Always	10 to 14 V
STP (14) - GND1 (1)	L - W-B	Stop light switch input	Stop light switch ON	10 to 14 V
WA (17) - GND1 (1)	O - W-B	ABS warning light output	IG switch ON, ABS warning light ON	4 V or higher
PKB (23) - GND1 (1)	G-Y - W-B	Parking brake switch input	IG switch ON, parking brake switch ON	Below 2.0 V
PKB (23) - GND1 (1)	G-Y - W-B	Parking brake switch input	IG switch ON, parking brake switch OFF	8 to 14 V
+BM (31) - GND2 (32)	R - W-B	Motor relay power supply	Always	10 to 14 V
BRL (43) - GND1 (1)	B-W - W-B	Brake warning light output	IG switch ON, brake warning light ON	4 V or higher
IG (46) - GND1 (1)	LG - W-B	ECU power supply	IG switch ON	10 to 14 V

BC

ABS Warning Light:

USA: ABS

Canada: (ABS)

BRAKE Warning Light:

(BRAKE)

F052120E02

DIAGNOSIS SYSTEM

1. DIAGNOSIS

(a) If the skid control ECU detects a malfunction, the ABS and/or BRAKE warning lights come on in accordance with the trouble area to warn the driver. The table below indicates which lights come on when there is a malfunction in a particular function.

Item/Trouble Area	ABS System	EBD System	Skid Control ECU
ABS Warning light	O	O	O
BRAKE Warning light	-	O	O