

ISO/IEC JTC1/SC2/WG2
Coded Character Set
Secretariat: Japan (JISC)

Doc. Type: Input to ISO/IEC 10646:2003

Title: Japanese TV Symbols

Source: Michel Suignard – Microsoft, expert contribution

Project: JTC1 02.10646

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Distribution: WG2

Reference: WG2 N3341, replaces N3397

Medium:

The following document is a proposal to add a set of 186 symbols to Unicode and ISO/IEC 10646 that are used in the context of Japanese TV broadcast (ARIB: Association of Radio Industries and Businesses), reference: http://www.arib.or.jp/english/html/overview/doc/6-STD-B24v5_1-1P3-E1.pdf and not yet encoded. Their lack of encoding in these standards has led to the creation of Private Use characters in fonts used in the ARIB context. It would be desirable to encode many of these symbols to avoid confusion with end user created private characters. Many are extensions to set already encoded such as circled numbers, symbol units, etc...

Most of these symbols have a usage that goes beyond the Japanese TV broadcast environment, and the addition of these new characters should be seen as the start of a new initiative to add more symbols in the standard.

Status

This document is based on preliminary work done in WG2 N 3341. Some updates were made on mapping to existing characters and a few characters were also dis-unified. Some ARIB characters were deliberately not encoded:

- Close caption symbols which are sequences of Latin text sometimes requiring a pair of characters (such 'ce' and 'mb'), in all ARIB 9256-9285.
- Smaller sized characters (ARIB 9226-9231)
- Duplicate within the ARIB set (such as 9058 and 9330), in that case only one instance is proposed
- Date and currency symbols (ARIB 9207-9210)

The document has been reviewed by the Symbol Subcommittee within the Unicode Technical Committee and is submitted to WG2 for further consideration per resolution WG2 M51.33.

Type of characters

The proposed characters fall in three categories:

1. Regular new symbols such as ㊦, ㊧, etc...
2. Enclosed alphanumeric characters such as ㊨, 9,, (R),
3. Enclosed ideographic character such as ㊩, ㊪, etc...

Their types drive their overall property values and behaviour in various algorithms specified by Unicode and ISO/IEC 10646, such as normalization, bidirectional algorithm, line breaking, etc...

Code point assignments

The proposed locations use the principle of filling existing blocks in the BMP but not creating new blocks in that plane. While in modern use, it is felt that the few remaining spaces in the BMP should be reserved to scripts, not new symbols. New blocks are therefore allocated in the supplementary plane 1 to accommodate characters that do not fit in existing BMP blocks. Of these 186 characters, 81 are proposed for encoding in the BMP, the remaining 105 are proposed for encoding in the SMP.

Character names

As much as possible, names are descriptive of the character glyph, in order to make re-usable outside of the TV context. When different, the Japanese original name (translated in English) has been provided as an alias.

Table format

The tables provide a tentative code point assignment, glyph, description (including name, alias and other references), and the original ARIB code.

Source separation

The ARIB supplementary set is suited to be used in conjunction with JIS X213:2004. The source separation rule is applied within that context, but not to the whole Shift-JIS repertoire as commonly used in Japan. This has resulted in some unification among characters shared between these two environments. For example the character ARIB-9383 ㊫ for SNOW is unified with U+2603 ❄ SNOWMAN.

Other sources

Clearly the ARIB symbol set is derived from other well known sources such as the Geographical Survey Institute of Japan for the map symbols, but no attempt has been made to consolidate characters defined in these original sources. This could be done in the future.

Character sequences

Some proposed characters can be represented as sequences of already encoded characters, especially among the enclosed characters. The adopted principle has been to encode sequences that were similar to already encode sequences, such as sequences using parenthesis. Sequences that required multiple characters in the ARIB context (such as some close caption characters mentioned above) were not encoded. Similarly to current practice, proposed sequences get a compatibility decomposition used by the normalization form NFKC.

Unification with geometric shapes

Many ARIB symbols look like geometric shapes but are associated with road or map signs. When glyphs were similar to existing characters located in blocks containing geometric shapes, the corresponding ARIB symbols have been unified and relevant information will be added in the name list. However new geometric shaped characters which are primarily used in road or map context are located in blocks containing other road and map symbols.

BMP characters (0000-FFFF)



Number forms (2150-218F)

Fractions



UCS	glyph	Name, description	ARIB
2150	$\frac{1}{7}$	VULGAR FRACTION ONE SEVENTH ≈ <fraction> 0031 1 2044/0037 7	9360
2151	$\frac{1}{9}$	VULGAR FRACTION ONE NINTH ≈ <fraction> 0031 1 2044/0039 9	9362
2152	$\frac{1}{10}$	VULGAR FRACTION ONE TENTH ≈ <fraction> 0031 1 2044/0031 1 0030 0	9363
2189	$\frac{0}{3}$	VULGAR FRACTION ZERO THIRDS * used in baseball scoring ≈ <fraction> 0030 0 2044/0033 3	9349

Miscellaneous symbols (2600-26FF)






Miscellaneous symbols

UCS	glyph	Name, description	ARIB
269E		THREE LINES CONVERGING RIGHT = someone speaking (close caption)	9388
269F		THREE LINES CONVERGING LEFT = background speaking (close caption)	9389

Miscellaneous symbols





UCS	glyph	Name, description	ARIB
26BD		BASEBALL	9316
26BE		SQUARED KEY = parental lock	9071

Weather symbols

UCS	glyph	Name, description	ARIB
26C4		SNOWMAN WITHOUT SNOW = light snow	9367
26C5		SUN BEHIND CLOUD = partly cloudy	9380
26C6		RAIN = rainy weather	9382
26C7		BLACK SNOWMAN = heavy snow	9384
26C8		THUNDER CLOUD AND RAIN = thunderstorm	9386

In addition, the symbol for 26A1 HIGH VOLTAGE SIGN gets an alias for 'thunder'. This covers the ARIB symbol 9385 ⚡.

Japanese Game symbols

UCS	glyph	Name, description	ARIB
26C9		TURNUED WHITE SHOGI PIECE	9370
26CA		TURNUED BLACK SHOGI PIECE	9371
26CB		WHITE DIAMOND IN SQUARE → 233A  apl functional symbol quad diamond	9376

Traffic signs

UCS	glyph	Name, description	ARIB
26CC		CROSSING LANES = accident → 292C × falling diagonal crossing raising diagonal	9001
26CD		DISABLED CAR	9002
26CE		TRAFFIC WARNING = obstacles on the road → 2762 heavy exclamation point ornament	9003
26CF		PICK = under construction	9004
26D0		CAR SLIDING = icy road	9005
26D1		HELMET WITH WHITE CROSS = maintenance	9006
26D2		CIRCLED CROSSING LANES = road closed	9008
26D3		CHAINS = tire chains required	9010
26D4		NO ENTRY	9011
26D5		ALTERNATE ONE-WAY TRAFFIC * left way traffic	9009
26D6		BLACK TWO WAY TRAFFIC * left way traffic	9020
26D7		WHITE TWO WAY TRAFFIC * left way traffic	9021
26D8		BLACK LANE MERGE * left way traffic	9022
26D9		WHITE LANE MERGE * left way traffic	9023
26DA		DRIVE SLOW	9024
26DB		HEAVY WHITE DOWN-POINTING TRIANGLE = drive slow → 25BD ▽ white down-pointing triangle	9025
26DC		CLOSED ENTRY	9026
26DD		SQUARED SALTIRE = closed entry → 22A0 ◻ squared times	9027
26DE		FALLING DIAGONAL IN WHITE CIRCLE IN BLACK SQUARE = closed to large vehicles	9028
26DF		BLACK TRUCK = closed to large vehicles, alternate	9029
26E0		RESTRICTED ENTRY 1	9030
26E1		RESTRICTED ENTRY 2	9031
26E2		HEAVY LARGE CIRCLE = basic symbol for speed limit → 25EF ○ large circle	9032

Dictionary and map symbols


UCS	glyph	Name, description	ARIB
26E3		HEAVY CIRCLE WITH STROKE AND TWO DOTS ABOVE = public office	9101
26E4		HEAVY OVAL WITH OVAL INSIDE = prefectural office	9102
26E5		HEAVY CIRCLE WITH CIRCLE INSIDE = municipal office → 25CE ◎ bullseye	9103

26E6	○	HEAVY CIRCLE = town or village office → 25CB ○ white circle	9104
26E7	⊗	HEAVY CIRCLED SALTIRE = police station → 2A02 ⊗ n-ary circled dot operator	9105
26E8	⊕	BLACK CROSS ON SHIELD = hospital	9109
26E9	⚓	SHINTO SHRINE	9112
26EA	⚎	CHURCH	9114
26EB	⚔	CASTLE	9115
26EC	⋯	HISTORIC SITE	9116
26ED	⚙	FACTORY → 2699 ⚙ gear	9118
26EE	⚙	GEAR WITH HANDLES = power plant or power substation	9119
26EF	⚓	LIGHTHOUSE	9120
26F0	▲	MOUNTAIN	9123
26F1	☂	UMBRELLA ON GROUND = bathing beach	9124
26F2	⚓	FOUNTAIN = park	9125
26F3	⚓	FLAG IN HOLE = golf course	9126
26F4	⚓	BLACK BOAT = ferry boat terminal	9127
26F5	⚓	WHITE SAILBOAT = marina or yacht harbour	9128
26F6	⌛	SQUARE FOUR CORNERS = intersection	9132
26F7	⚓	SKIER = ski resort	9138
26F8	⚓	ICE SKATE = ice skating rink	9139
26F9	⚓	PERSON WITH BALL = track and field or gymnasium	9140
26FA	⚓	TENT = camping site	9141
26FB	⚓	JAPANESE BANK SYMBOL	9144
26FC	⚓	GRAVEYARD = memorial park or cemetery	9145
26FD	⚓	FUEL PUMP = gas station, petrol station	9146
26FE	⚓	CUP ON BLACK SQUARE = drive-in restaurant	9147
26FF	⚓	WHITE FLAG WITH AN HORIZONTAL MIDDLE BLACK STRIPE = Japanese self-defense forces site	9149









Enclosed CJK Letters and months (3200-32FF)

Circled Ideographs


UCS	glyph	Name, description	ARIB
3244	⊕	CIRCLED IDEOGRAPH QUESTION ≈ <circle> 554F 問	9247
3245	⊖	CIRCLED IDEOGRAPH KINDERGARTEN ≈ <circle> 5E7C 幼	9111
3246	⊗	CIRCLED IDEOGRAPH SCHOOL ≈ <circle> 624B 文	9110

3247		CIRCLED IDEOGRAPH KOTO = Japanese harp ≈ <circle> 7B8F 箏	9288
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Circled numbers on black square

UCS	glyph	Name, description	ARIB
3248		CIRCLED NUMBER TEN ON BLACK SQUARE = speed limit 10kmh	9033
3249		CIRCLED NUMBER TWENTY ON BLACK SQUARE = speed limit 20kmh	9034
324A		CIRCLED NUMBER THIRTY ON BLACK SQUARE = speed limit 30kmh	9035
324B		CIRCLED NUMBER FORTY ON BLACK SQUARE = speed limit 40kmh	9036
324C		CIRCLED NUMBER FIFTY ON BLACK SQUARE = speed limit 50kmh	9037
324D		CIRCLED NUMBER SIXTY ON BLACK SQUARE = speed limit 60kmh	9038
324E		CIRCLED NUMBER SEVENTY ON BLACK SQUARE = speed limit 70kmh	9039
324F		CIRCLED NUMBER EIGHTY ON BLACK SQUARE = speed limit 80kmh	9040

Squared Katakana

UCS	glyph	Name, description	ARIB
32FF		SQUARED KATAKANA DE = data broadcasting service linked with a main program ≈ <square> 30C7 ㏇	9056

SMP characters (10000-1FFFF)

The following characters are allocated in two proposed blocks in the supplementary plane:


1. Enclosed Alphanumerics supplement (1F100-1F1FF),
2. Enclosed Ideographics supplement (1F200-1F2FF)

This is only tentative and could change depending on a better reading of the Unicode roadmap at <http://unicode.org/roadmaps/smp/>.

Enclosed Alphanumeric supplement (1F100-1F1FF)




Number period

This is an extension of the set already encoded at 2498-249B (from 1. to 20.).

UCS	glyph	Name, description	ARIB
1F100		DIGIT ZERO FULL STOP ≈ 0030 0 002E .	9216

Number comma

No 'number comma' sequences are already encoded, but this is no different in principle than the 'number period' sequences.

UCS	glyph	Name, description	ARIB
1F101		DIGIT ZERO COMMA ≈ 0030 0 002C ,	9232
1F102		DIGIT ZERO COMMA ≈ 0031 1 002C ,	9233
1F103		DIGIT ZERO COMMA ≈ 0032 2 002C ,	9234

1F104	3,	DIGIT ZERO COMMA ≈ 0033 3 002C ,	9235
1F105	4,	DIGIT ZERO COMMA ≈ 0034 4 002C ,	9236
1F106	5,	DIGIT ZERO COMMA ≈ 0035 5 002C ,	9237
1F107	6,	DIGIT ZERO COMMA ≈ 0036 6 002C ,	9238
1F108	7,	DIGIT ZERO COMMA ≈ 0037 7 002C ,	9239
1F109	8,	DIGIT ZERO COMMA ≈ 0038 8 002C ,	9240
1F10A	9,	DIGIT ZERO COMMA ≈ 0039 9 002C ,	9241

Parenthesized Latin letters

These characters are similar to the already encoded parenthesized Latin small letters in 249C-24B5.

UCS	glyph	Name, description	ARIB
1F110	(A)	PARENTHESIZED LATIN CAPITAL LETTER A ≈ 0028 (0041 A 0029)	9433
1F111	(B)	PARENTHESIZED LATIN CAPITAL LETTER B ≈ 0028 (0042 B 0029)	9434
1F112	(C)	PARENTHESIZED LATIN CAPITAL LETTER C ≈ 0028 (0043 C 0029)	9435
1F113	(D)	PARENTHESIZED LATIN CAPITAL LETTER D ≈ 0028 (0044 D 0029)	9436
1F114	(E)	PARENTHESIZED LATIN CAPITAL LETTER E ≈ 0028 (0045 E 0029)	9437
1F115	(F)	PARENTHESIZED LATIN CAPITAL LETTER F ≈ 0028 (0046 F 0029)	9438
1F116	(G)	PARENTHESIZED LATIN CAPITAL LETTER G ≈ 0028 (0047 G 0029)	9439
1F117	(H)	PARENTHESIZED LATIN CAPITAL LETTER H ≈ 0028 (0048 H 0029)	9440
1F118	(I)	PARENTHESIZED LATIN CAPITAL LETTER I ≈ 0028 (0049 I 0029)	9441
1F119	(J)	PARENTHESIZED LATIN CAPITAL LETTER J ≈ 0028 (004A J 0029)	9442
1F11A	(K)	PARENTHESIZED LATIN CAPITAL LETTER K ≈ 0028 (004B K 0029)	9443
1F11B	(L)	PARENTHESIZED LATIN CAPITAL LETTER L ≈ 0028 (004C L 0029)	9444
1F11C	(M)	PARENTHESIZED LATIN CAPITAL LETTER M ≈ 0028 (004D M 0029)	9445
1F11D	(N)	PARENTHESIZED LATIN CAPITAL LETTER N ≈ 0028 (004E N 0029)	9446
1F11E	(O)	PARENTHESIZED LATIN CAPITAL LETTER O ≈ 0028 (004F O 0029)	9447
1F11F	(P)	PARENTHESIZED LATIN CAPITAL LETTER P ≈ 0028 (0050 P 0029)	9448
1F120	(Q)	PARENTHESIZED LATIN CAPITAL LETTER Q ≈ 0028 (0051 Q 0029)	9449
1F121	(R)	PARENTHESIZED LATIN CAPITAL LETTER R ≈ 0028 (0052 R 0029)	9450
1F122	(S)	PARENTHESIZED LATIN CAPITAL LETTER S ≈ 0028 (0053 S 0029)	9451
1F123	(T)	PARENTHESIZED LATIN CAPITAL LETTER T ≈ 0028 (0054 T 0029)	9452
1F124	(U)	PARENTHESIZED LATIN CAPITAL LETTER U ≈ 0028 (0055 U 0029)	9453
1F125	(V)	PARENTHESIZED LATIN CAPITAL LETTER V ≈ 0028 (0056 V 0029)	9454
1F126	(W)	PARENTHESIZED LATIN CAPITAL LETTER W ≈ 0028 (0057 W 0029)	9455
1F127	(X)	PARENTHESIZED LATIN CAPITAL LETTER X ≈ 0028 (0058 X 0029)	9456
1F128	(Y)	PARENTHESIZED LATIN CAPITAL LETTER Y ≈ 0028 (0059 Y 0029)	9457

1F129	(Z)	PARENTHEZIZED LATIN CAPITAL LETTER Z ≈ 0028 (005A Z 0029)	9458
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Tortoise shell bracketed Latin letter

UCS	glyph	Name, description	ARIB
1F12A	[S]	TORTOISE SHELL BRACKETED LATIN CAPITAL LETTER S = baseball scoring ≈ 3014 [0053 S 3015]	9326

Circled italic Latin letter

UCS	glyph	Name, description	ARIB
1F12B	©	CIRCLED ITALIC LATIN CAPITAL LETTER C = compact disc or single disc record ≈ <circle> 0043 C	9287
1F12C	®	CIRCLED ITALIC LATIN CAPITAL LETTER R = disc record ≈ <circle> 0052 R	9286

Circled multiple Latin letters



UCS	glyph	Name, description	ARIB
1F12D	©D	CIRCLED LATIN CAPITAL LETTERS C D ≈ <circle> 0043 C 0044 D → 33C5 cd square cd	9255

Squared Latin letters



UCS	glyph	Name, description	ARIB
1F131	ⓑ	SQUARED LATIN CAPITAL LETTER B = b-mode stereo compression broadcasting service ≈ <square> 0042 B	9062
1F13D	Ⓝ	SQUARED LATIN CAPITAL LETTER N = news ≈ <square> 004E N	9063
1F13F	Ⓟ	SQUARED LATIN CAPITAL LETTER P = progressive broadcasting ≈ <square> 0050 P	9050
1F142	Ⓠ	SQUARED LATIN CAPITAL LETTER S = stereo broadcasting service ≈ <square> 0053 S	9057
1F146	Ⓡ	SQUARED LATIN CAPITAL LETTER W = wide-format 16-9 broadcasting service ≈ <square> 0057 W	9051

Squared multiple Latin letters





UCS	glyph	Name, description	ARIB
1F14A	ⓂⓋ	SQUARED LATIN CAPITAL LETTERS H V = hdtv ≈ <square> 0048 H 0056 V	9048
1F14B	ⓂⓋ	SQUARED LATIN CAPITAL LETTERS M V = multi-view television ≈ <square> 004D M 0056 V	9052
1F14C	ⓈⓉ	SQUARED LATIN CAPITAL LETTERS S D = sdtv ≈ <square> 0053 S 0044 D	9049
1F14D	ⓈⓈ	SQUARED LATIN CAPITAL LETTERS S S = surround stereo broadcasting service ≈ <square> 0053 S 0053 S	9061

1F14E		SQUARED LATIN CAPITAL LETTERS P P V = pay-per-view ≈ <square> 0050 P 0050 P 0056 V	9082
1F14F		SQUARE DJ = disc jockey ≈ <square> 0044 D 004A J	9289


White on black circled Latin letters
(No compatibility mapping, similar to circled numbers in 24EB-24F4)

UCS	glyph	Name, description	ARIB
1F157		WHITE ON BLACK CIRCLED LATIN CAPITAL LETTER H = hotel	9129
1F15F		WHITE ON BLACK CIRCLED LATIN CAPITAL LETTER P = parking space	9133




White on black squared Latin letters
(Note that the square may be slightly rounded)

UCS	glyph	Name, description	ARIB
1F179		WHITE ON BLACK SQUARED LATIN CAPITAL LETTER J = junction	9137
1F17B		WHITE ON BLACK SQUARED LATIN CAPITAL LETTER L = leisure center	9142
1F17C		WHITE ON BLACK SQUARED LATIN CAPITAL LETTER M = museum or cultural center	9148
1F17F		NEGATIVE SQUARED LATIN CAPITAL LETTER P = parking space empty-full	9016

White on black cross squared Latin letter

UCS	glyph	Name, description	ARIB
1F18A		CROSSED WHITE ON BLACK SQUARED LATIN CAPITAL LETTER P = parking space closed	9017

White on black multiple squared Latin letters

UCS	glyph	Name, description	ARIB
1F18B		WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS I C = interchange or ramp	9134
1F18C		WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS P A = parking area	9136
1F18D		WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS S A = service area	9135

Enclosed Ideographic supplement (1F200-1F2FF)

Square Hiragana

UCS	glyph	Name, description	ARIB
1F200		SQUARE HIRAGANA HOKA = and others ≈ <square> 307B ほ 304B か	9084

Squared CJK Unified Ideograph

UCS	glyph	Name, description	ARIB
1F210	一	SQUARED CJK UNIFIED IDEOGRAPH-4E00 = first base ≈ <square> 4E00 一	9329
1F211	三	SQUARED CJK UNIFIED IDEOGRAPH-4E09 = third base ≈ <square> 4E09 三	9331
1F212	中	SQUARED CJK UNIFIED IDEOGRAPH-4E2D = center field ≈ <square> 4E2D 中	9334
1F213	二	SQUARED CJK UNIFIED IDEOGRAPH-4E8C = second base = bilingual broadcasting service ≈ <square> 4E8C 二	9058
1F214	交	SQUARED CJK UNIFIED IDEOGRAPH-4EA4 = traffic information ≈ <square> 4EA4 交	9067
1F215	再	SQUARED CJK UNIFIED IDEOGRAPH-518D = rebroadcast ≈ <square> 518D 再	9074
1F216	初	SQUARED CJK UNIFIED IDEOGRAPH-521D = first released program ≈ <square> 521D 初	9076
1F217	前	SQUARED CJK UNIFIED IDEOGRAPH-524D = the first part ≈ <square> 524D 前	9072
1F218	双	SQUARED CJK UNIFIED IDEOGRAPH-53CC = two-way broadcasting service ≈ <square> 53CC 双	9055
1F219	右	SQUARED CJK UNIFIED IDEOGRAPH-53F3 = right field ≈ <square> 53F3 右	9335
1F21A	吹	SQUARED CJK UNIFIED IDEOGRAPH-5439 = dubbed version ≈ <square> 5439 吹	9081
1F21B	声	SQUARED CJK UNIFIED IDEOGRAPH-58F0 = voice actors ≈ <square> 58F0 声	9080
1F21C	多	SQUARED CJK UNIFIED IDEOGRAPH-591A = sound-multiplex broadcasting service ≈ <square> 591A 多	9059
1F21D	天	SQUARED CJK UNIFIED IDEOGRAPH-5929 = weather forecast ≈ <square> 5929 天	9066
1F21E	字	SQUARED CJK UNIFIED IDEOGRAPH-5B57 = closed-captioned broadcasting ≈ <square> 5B57 字	9054
1F21F	左	SQUARED CJK UNIFIED IDEOGRAPH-5DE6 = left field ≈ <square> 5DE6 左	9333
1F220	後	SQUARED CJK UNIFIED IDEOGRAPH-5F8C = the latter part ≈ <square> 5F8C 後	9073
1F221	手	SQUARED CJK UNIFIED IDEOGRAPH-624B = broadcasting service along with sign language interpretation ≈ <square> 624B 手	9053
1F222	打	SQUARED CJK UNIFIED IDEOGRAPH-6253 = batter ≈ <square> 6253 打	9338
1F223	投	SQUARED CJK UNIFIED IDEOGRAPH-6295 = pitcher ≈ <square> 6295 投	9327
1F224	指	SQUARED CJK UNIFIED IDEOGRAPH-6307 = designated hitter ≈ <square> 6307 指	9336
1F225	捕	SQUARED CJK UNIFIED IDEOGRAPH-6355 = catcher ≈ <square> 6355 捕	9328

1F226	料	SQUARED CJK UNIFIED IDEOGRAPH-6599 = pay broadcasting ≈ <square> 6599 料	9070
1F227	新	SQUARED CJK UNIFIED IDEOGRAPH-65B0 = new series of program ≈ <square> 65B0 新	9075
1F228	映	SQUARED CJK UNIFIED IDEOGRAPH-6620 = drama film ≈ <square> 6620 映	9068
1F229	演	SQUARED CJK UNIFIED IDEOGRAPH-6F14 = performed by ≈ <square> 6F14 演	9290
1F22A	無	SQUARED CJK UNIFIED IDEOGRAPH-7121 = free broadcasting service ≈ <square> 7121 無	9069
1F22B	生	SQUARED CJK UNIFIED IDEOGRAPH-751F = live broadcast ≈ <square> 751F 生	9078
1F22C	終	SQUARED CJK UNIFIED IDEOGRAPH-7D42 = the last episode ≈ <square> 7D42 終	9077
1F22D	解	SQUARED CJK UNIFIED IDEOGRAPH-89E3 = commentary broadcasting ≈ <square> 89E3 解	9060
1F22E	販	SQUARED CJK UNIFIED IDEOGRAPH-8CA9 = mail-order ≈ <square> 8CA9 販	9079
1F22F	走	SQUARED CJK UNIFIED IDEOGRAPH-8D70 = runner ≈ <square> 8D70 走	9337
1F230	遊	SQUARED CJK UNIFIED IDEOGRAPH-904A = short stop ≈ <square> 904A 遊	9332

Tortoise shell bracketed CJK Unified Ideographs

UCS	glyph	Name, description	ARIB
1F240	𠄎	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-4E09 = triple ≈ 3014 [4E09 𠄎 3015]	9318
1F241	𠄏	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-4E8C = double ≈ 3014 [4E8C 𠄏 3015]	9319
1F242	勝	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-52DD = win ≈ 3014 [52DD 勝 3015]	9324
1F243	安	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-5B89 = safe or single? ≈ 3014 [5B89 安 3015]	9320
1F244	打	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-6253 = hit ≈ 3014 [6253 打 3015]	9322
1F245	敗	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-6557 = loss ≈ 3014 [6557 敗 3015]	9325
1F246	本	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-672C = homerun ≈ 3014 [672C 本 3015]	9317

1F247	点	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-70B9 = run ≈ 3014 [70B9 点 3015]	9321
1F248	盗	TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-76D7 = walk or error? ≈ 3014 [76D7 盗 3015]	9323

Line breaking property

All these characters should be either AI, AL, or ID:

- AI: All parenthesized/circled/squared alphanumeric symbols,
- ID: All parenthesized/circled/squared ideographics,
- AL: Others.

Sorting

The new characters fall in three categories as mentioned in the introduction and should sort according to these types and their normalized equivalent if any.

Unicode Character properties

```

2150;VULGAR FRACTION ONE SEVENTH;No;0;ON;<fraction> 0031 2044 0037;;;1/7;N;;;;;
2151;VULGAR FRACTION ONE NINTH;No;0;ON;<fraction> 0031 2044 0039;;;1/9;N;;;;;
2152;VULGAR FRACTION ONE TENTH;No;0;ON;<fraction> 0031 2044 0031 0030;;;1/10;N;;;;;
2189;VULGAR FRACTION ZERO THIRDS;No;0;ON;<fraction> 0030 2044 0033;;;0/3;N;;;;;
269E;THREE LINES CONVERGING RIGHT;So;0;ON;;;;;N;;;;;
269F;THREE LINES CONVERGING LEFT;So;0;ON;;;;;N;;;;;
26BD;BASEBALL;So;0;ON;;;;;N;;;;;
26BE;SQUARED KEY;So;0;ON;;;;;N;;;;;
26C4;SNOWMAN WITHOUT SNOW;So;0;ON;;;;;N;;;;;
26C5;SUN BEHIND CLOUD;So;0;ON;;;;;N;;;;;
26C6;RAIN;So;0;ON;;;;;N;;;;;
26C7;BLACK SNOWMAN;So;0;ON;;;;;N;;;;;
26C8;THUNDER CLOUD AND RAIN;So;0;ON;;;;;N;;;;;
26C9;TURNED WHITE SHOGI PIECE;So;0;ON;;;;;N;;;;;
26CA;TURNED BLACK SHOGI PIECE;So;0;ON;;;;;N;;;;;
26CB;WHITE DIAMOND IN SQUARE;So;0;ON;;;;;N;;;;;
26CC;CROSSING LANES;So;0;ON;;;;;N;;;;;
26CD;DISABLED CAR;So;0;ON;;;;;N;;;;;
26CE;TRAFFIC WARNING;So;0;ON;;;;;N;;;;;
26CF;PICK;So;0;ON;;;;;N;;;;;
26D0;CAR SLIDING;So;0;ON;;;;;N;;;;;
26D1;HELMET WITH WHITE CROSS;So;0;ON;;;;;N;;;;;
26D2;CIRCLED CROSSING LANES;So;0;ON;;;;;N;;;;;
26D3;CHAINS;So;0;ON;;;;;N;;;;;
26D4;NO ENTRY;So;0;ON;;;;;N;;;;;
26D5;ALTERNATE ONE-WAY TRAFFIC;So;0;ON;;;;;N;;;;;
26D6;BLACK TWO WAY TRAFFIC;So;0;ON;;;;;N;;;;;
26D7;WHITE TWO WAY TRAFFIC;So;0;ON;;;;;N;;;;;
26D8;BLACK LANE MERGE;So;0;ON;;;;;N;;;;;
26D9;WHITE LANE MERGE;So;0;ON;;;;;N;;;;;
26DA;DRIVE SLOW;So;0;ON;;;;;N;;;;;
26DB;HEAVY WHITE DOWN-POINTING TRIANGLE;So;0;ON;;;;;N;;;;;
26DC;CLOSED ENTRY;So;0;ON;;;;;N;;;;;
26DD;SQUARED SALTIRE;So;0;ON;;;;;N;;;;;
26DE;FALLING DIAGONAL IN WHITE CERCLE IN BLACK SQUARE;So;0;ON;;;;;N;;;;;
26DF;BLACK TRUCK;So;0;ON;;;;;N;;;;;
26E0;RESTRICTED ENTRY 1;So;0;ON;;;;;N;;;;;
26E1;RESTRICTED ENTRY 2;So;0;ON;;;;;N;;;;;
26E2;HEAVY LARGE CIRCLE;So;0;ON;;;;;N;;;;;
26E3;HEAVY CIRCLE WITH STROKE AND TWO DOTS ABOVE;So;0;ON;;;;;N;;;;;
26E4;HEAVY OVAL WITH OVAL INSIDE;So;0;ON;;;;;N;;;;;
26E5;HEAVY CIRCLE WITH CIRCLE INSIDE;So;0;ON;;;;;N;;;;;
26E6;HEAVY CIRCLE;So;0;ON;;;;;N;;;;;
26E7;HEAVY CIRCLED SALTIRE;So;0;ON;;;;;N;;;;;
26E8;BLACK CROSS ON SHIELD;So;0;ON;;;;;N;;;;;
26E9;SHINTO SHRINE;So;0;ON;;;;;N;;;;;
26EA;CHURCH;So;0;ON;;;;;N;;;;;
26EB;CASTLE;So;0;ON;;;;;N;;;;;

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26EC;HISTORIC SITE;So;0;ON;;;N;;;;
26ED;FACTORY;So;0;ON;;;N;;;;
26EE;GEAR WITH HANDLES;So;0;ON;;;N;;;;
26EF;LIGHTHOUSE;So;0;ON;;;N;;;;
26F0;MOUNTAIN;So;0;ON;;;N;;;;
26F1;UMBRELLA ON GROUND;So;0;ON;;;N;;;;
26F2;FOUNTAIN;So;0;ON;;;N;;;;
26F3;FLAG IN POLE;So;0;ON;;;N;;;;
26F4;BLACK BOAT;So;0;ON;;;N;;;;
26F5;WHITE SAILBOAT;So;0;ON;;;N;;;;
26F6;SQUARE FOUR CORNERS;So;0;ON;;;N;;;;
26F7;SKIER;So;0;ON;;;N;;;;
26F8;ICE SKATE;So;0;ON;;;N;;;;
26F9;PERSON WITH BALL;So;0;ON;;;N;;;;
26FA;TENT;So;0;ON;;;N;;;;
26FB;JAPANESE BANK SYMBOL;So;0;ON;;;N;;;;
26FC;GRAVEYARD;So;0;ON;;;N;;;;
26FD;FUEL PUMP;So;0;ON;;;N;;;;
26FE;CUP ON BLACK SQUARE;So;0;ON;;;N;;;;
26FF;WHITE FLAG WITH HORIZONTAL MIDDLE BLACK STRIPE;So;0;ON;;;N;;;;
3244;CIRCLED IDEOGRAPH QUESTION;So;0;L;<circle> 554F;;;N;;;;
3245;CIRCLED IDEOGRAPH KINDERGARTEN;So;0;L;<circle> 5E7C;;;N;;;;
3246;CIRCLED IDEOGRAPH SCHOOL;So;0;L;<circle> 624B;;;N;;;;
3247;CIRCLED IDEOGRAPH KOTO;So;0;L;<circle> 7B8F;;;N;;;;
3248;CIRCLED NUMBER TEN ON BLACK SQUARE;No;0;ON;;;10;N;;;;
3249;CIRCLED NUMBER TWENTY ON BLACK SQUARE;No;0;ON;;;20;N;;;;
324A;CIRCLED NUMBER THIRTY ON BLACK SQUARE;No;0;ON;;;30;N;;;;
324B;CIRCLED NUMBER FORTY ON BLACK SQUARE;No;0;ON;;;40;N;;;;
324C;CIRCLED NUMBER FIFTY ON BLACK SQUARE;No;0;ON;;;50;N;;;;
324D;CIRCLED NUMBER SIXTY ON BLACK SQUARE;No;0;ON;;;60;N;;;;
324E;CIRCLED NUMBER SEVENTY ON BLACK SQUARE;No;0;ON;;;70;N;;;;
324F;CIRCLED NUMBER EIGHTY ON BLACK SQUARE;No;0;ON;;;80;N;;;;
32FF;SQUARED KATAKANA DE;So;0;L;<square> 30C7;;;N;;;;
1F100;DIGIT ZERO FULL STOP;No;0;EN;<compat> 0030 002E;;0;0;N;;;;
1F101;DIGIT ZERO COMMA;No;0;EN;<compat> 0030 002C;;0;0;N;;;;
1F102;DIGIT ONE COMMA;No;0;EN;<compat> 0031 002C;;1;1;N;;;;
1F103;DIGIT TWO COMMA;No;0;EN;<compat> 0032 002C;;2;2;N;;;;
1F104;DIGIT THREE COMMA;No;0;EN;<compat> 0033 002C;;3;3;N;;;;
1F105;DIGIT FOUR COMMA;No;0;EN;<compat> 0034 002C;;4;4;N;;;;
1F106;DIGIT FIVE COMMA;No;0;EN;<compat> 0035 002C;;5;5;N;;;;
1F107;DIGIT SIX COMMA;No;0;EN;<compat> 0036 002C;;6;6;N;;;;
1F108;DIGIT SEVEN COMMA;No;0;EN;<compat> 0037 002C;;7;7;N;;;;
1F109;DIGIT EIGHT COMMA;No;0;EN;<compat> 0038 002C;;8;8;N;;;;
1F10A;DIGIT NINE COMMA;No;0;EN;<compat> 0039 002C;;9;9;N;;;;
1F110;PARENTHESED LATIN CAPITAL LETTER A;So;0;L;<compat> 0028 0041 0029;;;N;;;;
1F111;PARENTHESED LATIN CAPITAL LETTER B;So;0;L;<compat> 0028 0042 0029;;;N;;;;
1F112;PARENTHESED LATIN CAPITAL LETTER C;So;0;L;<compat> 0028 0043 0029;;;N;;;;
1F113;PARENTHESED LATIN CAPITAL LETTER D;So;0;L;<compat> 0028 0044 0029;;;N;;;;
1F114;PARENTHESED LATIN CAPITAL LETTER E;So;0;L;<compat> 0028 0045 0029;;;N;;;;
1F115;PARENTHESED LATIN CAPITAL LETTER F;So;0;L;<compat> 0028 0046 0029;;;N;;;;
1F116;PARENTHESED LATIN CAPITAL LETTER G;So;0;L;<compat> 0028 0047 0029;;;N;;;;
1F117;PARENTHESED LATIN CAPITAL LETTER H;So;0;L;<compat> 0028 0048 0029;;;N;;;;
1F118;PARENTHESED LATIN CAPITAL LETTER I;So;0;L;<compat> 0028 0049 0029;;;N;;;;
1F119;PARENTHESED LATIN CAPITAL LETTER J;So;0;L;<compat> 0028 004A 0029;;;N;;;;
1F11A;PARENTHESED LATIN CAPITAL LETTER K;So;0;L;<compat> 0028 004B 0029;;;N;;;;
1F11B;PARENTHESED LATIN CAPITAL LETTER L;So;0;L;<compat> 0028 004C 0029;;;N;;;;
1F11C;PARENTHESED LATIN CAPITAL LETTER M;So;0;L;<compat> 0028 004D 0029;;;N;;;;
1F11D;PARENTHESED LATIN CAPITAL LETTER N;So;0;L;<compat> 0028 004E 0029;;;N;;;;
1F11E;PARENTHESED LATIN CAPITAL LETTER O;So;0;L;<compat> 0028 004F 0029;;;N;;;;
1F11F;PARENTHESED LATIN CAPITAL LETTER P;So;0;L;<compat> 0028 0050 0029;;;N;;;;
1F120;PARENTHESED LATIN CAPITAL LETTER Q;So;0;L;<compat> 0028 0051 0029;;;N;;;;
1F121;PARENTHESED LATIN CAPITAL LETTER R;So;0;L;<compat> 0028 0052 0029;;;N;;;;
1F122;PARENTHESED LATIN CAPITAL LETTER S;So;0;L;<compat> 0028 0053 0029;;;N;;;;
1F123;PARENTHESED LATIN CAPITAL LETTER T;So;0;L;<compat> 0028 0054 0029;;;N;;;;
1F124;PARENTHESED LATIN CAPITAL LETTER U;So;0;L;<compat> 0028 0055 0029;;;N;;;;
1F125;PARENTHESED LATIN CAPITAL LETTER V;So;0;L;<compat> 0028 0056 0029;;;N;;;;
1F126;PARENTHESED LATIN CAPITAL LETTER W;So;0;L;<compat> 0028 0057 0029;;;N;;;;
1F127;PARENTHESED LATIN CAPITAL LETTER X;So;0;L;<compat> 0028 0058 0029;;;N;;;;
1F128;PARENTHESED LATIN CAPITAL LETTER Y;So;0;L;<compat> 0028 0059 0029;;;N;;;;
1F129;PARENTHESED LATIN CAPITAL LETTER Z;So;0;L;<compat> 0028 005A 0029;;;N;;;;
1F12A;TORTOISE SHELL BRACKETED LATIN CAPITAL LETTER S;So;0;L;<compat> 3014 0053 3015;;;N;;;;
1F12B;CIRCLED ITALIC LATIN CAPITAL LETTER C;So;0;L;<circle> 0043;;;N;;;;
1F12C;CIRCLED ITALIC LATIN CAPITAL LETTER R;So;0;L;<circle> 0052;;;N;;;;
1F12D;CIRCLED LATIN CAPITAL LETTERS C D;So;0;L;<circle> 0043 0044;;;N;;;

1F131;SQUARED LATIN CAPITAL LETTER B;So;0;L;<square> 0042;;;N;;;;;
1F13D;SQUARED LATIN CAPITAL LETTER N;So;0;L;<square> 004E;;;N;;;;;
1F13F;SQUARED LATIN CAPITAL LETTER P;So;0;L;<square> 0050;;;N;;;;;
1F142;SQUARED LATIN CAPITAL LETTER S;So;0;L;<square> 0053;;;N;;;;;
1F146;SQUARED LATIN CAPITAL LETTER W;So;0;L;<square> 0057;;;N;;;;;
1F14A;SQUARED LATIN CAPITAL LETTERS H V;So;0;L;<square> 0048 0056;;;N;;;;;
1F14B;SQUARED LATIN CAPITAL LETTERS M V;So;0;L;<square> 004D 0056;;;N;;;;;
1F14C;SQUARED LATIN CAPITAL LETTERS S D;So;0;L;<square> 0053 0044;;;N;;;;;
1F14D;SQUARED LATIN CAPITAL LETTERS S S;So;0;L;<square> 0053 0053;;;N;;;;;
1F14E;SQUARED LATIN CAPITAL LETTERS P P V;So;0;L;<square> 0050 0050 0056;;;N;;;;;
1F14F;SQUARE DJ;So;0;L;<square> 0044 004A;;;N;;;;;
1F157;WHITE ON BLACK CIRCLED LATIN CAPITAL LETTER H;So;0;L;;;;;N;;;;;
1F15F;WHITE ON BLACK CIRCLED LATIN CAPITAL LETTER P;So;0;L;;;;;N;;;;;
1F179;WHITE ON BLACK SQUARED LATIN CAPITAL LETTER J;So;0;L;;;;;N;;;;;
1F17B;WHITE ON BLACK SQUARED LATIN CAPITAL LETTER L;So;0;L;;;;;N;;;;;
1F17C;WHITE ON BLACK SQUARED LATIN CAPITAL LETTER M;So;0;L;;;;;N;;;;;
1F17F;WHITE ON BLACK SQUARED LATIN CAPITAL LETTER P;So;0;L;;;;;N;;;;;
1F18A;CROSSED WHITE ON BLACK SQUARED LATIN CAPITAL LETTER P;So;0;L;;;;;N;;;;;
1F18B;WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS I C;So;0;L;;;;;N;;;;;
1F18C;WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS P A;So;0;L;;;;;N;;;;;
1F18D;WHITE ON BLACK SQUARED LATIN CAPITAL LETTERS S A;So;0;L;;;;;N;;;;;
1F200;SQUARE HIRAGANA HOKA;So;0;L;<square> 307B 304B;;;N;;;;;
1F210;SQUARED CJK UNIFIED IDEOGRAPH-4E00;So;0;L;<square> 4E00;;;N;;;;;
1F211;SQUARED CJK UNIFIED IDEOGRAPH-4E09;So;0;L;<square> 4E09;;;N;;;;;
1F212;SQUARED CJK UNIFIED IDEOGRAPH-4E2D;So;0;L;<square> 4E2D;;;N;;;;;
1F213;SQUARED CJK UNIFIED IDEOGRAPH-4E8C;So;0;L;<square> 4E8C;;;N;;;;;
1F214;SQUARED CJK UNIFIED IDEOGRAPH-4EA4;So;0;L;<square> 4EA4;;;N;;;;;
1F215;SQUARED CJK UNIFIED IDEOGRAPH-518D;So;0;L;<square> 518D;;;N;;;;;
1F216;SQUARED CJK UNIFIED IDEOGRAPH-521D;So;0;L;<square> 521D;;;N;;;;;
1F217;SQUARED CJK UNIFIED IDEOGRAPH-524D;So;0;L;<square> 524D;;;N;;;;;
1F218;SQUARED CJK UNIFIED IDEOGRAPH-53CC;So;0;L;<square> 53CC;;;N;;;;;
1F219;SQUARED CJK UNIFIED IDEOGRAPH-53F3;So;0;L;<square> 53F3;;;N;;;;;
1F21A;SQUARED CJK UNIFIED IDEOGRAPH-5439;So;0;L;<square> 5439;;;N;;;;;
1F21B;SQUARED CJK UNIFIED IDEOGRAPH-58F0;So;0;L;<square> 58F0;;;N;;;;;
1F21C;SQUARED CJK UNIFIED IDEOGRAPH-591A;So;0;L;<square> 591A;;;N;;;;;
1F21D;SQUARED CJK UNIFIED IDEOGRAPH-5929;So;0;L;<square> 5929;;;N;;;;;
1F21E;SQUARED CJK UNIFIED IDEOGRAPH-5B57;So;0;L;<square> 5B57;;;N;;;;;
1F21F;SQUARED CJK UNIFIED IDEOGRAPH-5DE6;So;0;L;<square> 5DE6;;;N;;;;;
1F220;SQUARED CJK UNIFIED IDEOGRAPH-5F8C;So;0;L;<square> 5F8C;;;N;;;;;
1F221;SQUARED CJK UNIFIED IDEOGRAPH-624B;So;0;L;<square> 624B;;;N;;;;;
1F222;SQUARED CJK UNIFIED IDEOGRAPH-6253;So;0;L;<square> 6253;;;N;;;;;
1F223;SQUARED CJK UNIFIED IDEOGRAPH-6295;So;0;L;<square> 6295;;;N;;;;;
1F224;SQUARED CJK UNIFIED IDEOGRAPH-6307;So;0;L;<square> 6307;;;N;;;;;
1F225;SQUARED CJK UNIFIED IDEOGRAPH-6355;So;0;L;<square> 6355;;;N;;;;;
1F226;SQUARED CJK UNIFIED IDEOGRAPH-6599;So;0;L;<square> 6599;;;N;;;;;
1F227;SQUARED CJK UNIFIED IDEOGRAPH-65B0;So;0;L;<square> 65B0;;;N;;;;;
1F228;SQUARED CJK UNIFIED IDEOGRAPH-6620;So;0;L;<square> 6620;;;N;;;;;
1F229;SQUARED CJK UNIFIED IDEOGRAPH-6F14;So;0;L;<square> 6F14;;;N;;;;;
1F22A;SQUARED CJK UNIFIED IDEOGRAPH-7121;So;0;L;<square> 7121;;;N;;;;;
1F22B;SQUARED CJK UNIFIED IDEOGRAPH-751F;So;0;L;<square> 751F;;;N;;;;;
1F22C;SQUARED CJK UNIFIED IDEOGRAPH-7D42;So;0;L;<square> 7D42;;;N;;;;;
1F22D;SQUARED CJK UNIFIED IDEOGRAPH-89E3;So;0;L;<square> 89E3;;;N;;;;;
1F22E;SQUARED CJK UNIFIED IDEOGRAPH-8CA9;So;0;L;<square> 8CA9;;;N;;;;;
1F22F;SQUARED CJK UNIFIED IDEOGRAPH-8D70;So;0;L;<square> 8D70;;;N;;;;;
1F230;SQUARED CJK UNIFIED IDEOGRAPH-904A;So;0;L;<square> 904A;;;N;;;;;
1F240;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-4E09;So;0;L;<compat> 3014 4E09 3015;;;N;;;;;
1F241;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-4E8C;So;0;L;<compat> 3014 4E8C 3015;;;N;;;;;
1F242;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-52DD;So;0;L;<compat> 3014 52DD 3015;;;N;;;;;
1F243;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-5B89;So;0;L;<compat> 3014 5B89 3015;;;N;;;;;
1F244;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-6253;So;0;L;<compat> 3014 6253 3015;;;N;;;;;
1F245;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-6557;So;0;L;<compat> 3014 6557 3015;;;N;;;;;
1F246;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-672C;So;0;L;<compat> 3014 672C 3015;;;N;;;;;
1F247;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-70B9;So;0;L;<compat> 3014 70B9 3015;;;N;;;;;
1F248;TORTOISE SHELL BRACKETED CJK UNIFIED IDEOGRAPH-76D7;So;0;L;<compat> 3014 76D7 3015;;;N;;;;;

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title:	<i>Proposal for encoding Japanese TV symbols (ARIB)</i>		
2. Requester's name:	<i>Michel Suignard Microsoft</i>		
3. Requester type (Member body/Liaison/Individual contribution):	<i>Individual contribution</i>		
4. Submission date:	<i>1/18/2008</i>		
5. Requester's reference (if applicable):			
6. Choose one of the following:			
This is a complete proposal:		<input type="checkbox"/>	<i>Yes</i>
(or) More information will be provided later:		<input type="checkbox"/>	<i>No</i>

B. Technical – General

1. Choose one of the following:			
a. This proposal is for a new script (set of characters):		<input type="checkbox"/>	<i>No</i>
Proposed name of script:			
b. The proposal is for addition of character(s) to an existing block:		<input type="checkbox"/>	<i>Yes</i>
Name of the existing block:	<i>Many, see proposal</i>		
2. Number of characters in proposal:		<input type="checkbox"/>	<i>186</i>
3. Proposed category (select one from below - see section 2.2 of P&P document):			
A-Contemporary	<input type="checkbox"/>	B.1-Specialized (small collection)	<input type="checkbox"/>
C-Major extinct	<input type="checkbox"/>	D-Attested extinct	<input type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic	<input type="checkbox"/>	G-Obscure or questionable usage symbols	<input type="checkbox"/>
B.2-Specialized (large collection)	<input checked="" type="checkbox"/>	E-Minor extinct	<input type="checkbox"/>
4. Is a repertoire including character names provided?		<input type="checkbox"/>	<i>Yes</i>
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?		<input type="checkbox"/>	<i>Yes</i>
b. Are the character shapes attached in a legible form suitable for review?		<input type="checkbox"/>	<i>Yes</i>
5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?	<i>Author</i>		
If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:			
6. References:			
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?		<input type="checkbox"/>	<i>Yes</i>
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?		<input type="checkbox"/>	<i>No, but URL reference to standard provided</i>
7. Special encoding issues:			
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?		<input type="checkbox"/>	<i>Yes</i>

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

¹ Form number: N3102-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? If YES explain	<i>No</i>
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? If YES, with whom? If YES, available relevant documents:	<i>Yes</i> <i>Implementers of Japanese TV standards</i> <i>ARIB STD-B24 Version 5.1-E1</i>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? Reference:	<i>Japan</i>
4. The context of use for the proposed characters (type of use; common or rare) Reference:	<i>common</i> <i>In the context of Japanese TV broadcast</i>
5. Are the proposed characters in current use by the user community? If YES, where? Reference:	<i>Yes</i> <i>Japanese TV broadcast</i>
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? If YES, reference:	<i>No</i>
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	<i>No</i>
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>No</i>
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>Yes</i> <i>Yes</i> <i>This document</i>
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>No</i>
11. Does the proposal include use of combining characters and/or use of composite sequences? If YES, is a rationale for such use provided? If YES, reference: Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? If YES, reference:	<i>No</i>
12. Does the proposal contain characters with any special properties such as control function or similar semantics? If YES, describe in detail (include attachment if necessary)	<i>No</i>
13. Does the proposal contain any Ideographic compatibility character(s)? If YES, is the equivalent corresponding unified ideographic character(s) identified? If YES, reference:	<i>No</i>

Following are the characters from the ARIB standard that are already encoded or are not proposed for encoding. These characters are shown by order of appearance in the ARIB standard. Following these lists, the charts for the new characters are shown as they would appear in the standard name list.

Symbols

Numbers followed by period, first set (10-12)

ARIB	glyph	Description	UCS	glyph	Name
9045	10.	TIME OF DAY 10	2491	10.	NUMBER TEN FULL STOP
9046	11.	TIME OF DAY 11	2492	11.	NUMBER ELEVEN FULL STOP
9047	12.	TIME OF DAY 12	2493	12.	NUMBER TWELVE FULL STOP

Broadcast symbols

ARIB	glyph	Description	UCS	glyph	Name
9064	■	BACKGROUND RECTANGLE	2B1B	■	BLACK LARGE SQUARE (Amd4)
9065	●	BACKGROUND CIRCLE	2B24	●	BLACK LARGE CIRCLE (Amd4)
9083	Ⓜ	CONFIDENTIAL	3299	Ⓜ	CIRCLED IDEOGRAPH SECRET

Map/Guide symbols

ARIB	glyph	Description	UCS	glyph	Name
9106	×	POLICE SATELLITE OFFICE	2613	×	SALTIRE
9107	Ⓕ	FIRE STATION	328B	Ⓕ	CIRCLED IDEOGRAPH FIRE
9108	〒	POST OFFICE	3012	〒	POSTAL MARK
9113	卍	TEMPLE	0FD6	卍	TIBETAN SYMBOL GYUNG DRUNG PHYI-KOR (Amd5)
9117	♨	HOT SPRING	2668	♨	HOT SPRINGS
9121	⚓	HARBOR	2693	⚓	ANCHOR
9122	✈	AIRPORT	2708	✈	AIRPLANE
9130	Ⓓ	DEPARTMENT STORE	24B9	Ⓓ	CIRCLED LATIN CAPITAL LETTER D
9131	Ⓔ	STATION	24C8	Ⓔ	CIRCLED LATIN CAPITAL LETTER S
9143	☎	TELEPHONE COMPANY	260E	☎	TELEPHONE

Arrows and ellipses

ARIB	glyph	Description	UCS	glyph	comment
9201	➡		27A1	➡	BLACK RIGHTWARDS ARROW
9202	⬅		2B05	⬅	BLACK LEFTWARDS ARROW
9203	⬆		2B06	⬆	BLACK UPWARDS ARROW
9204	⬇		2B07	⬇	BLACK DOWNWARDS ARROW
9205	○		2B2F	○	WHITE VERTICAL ELLIPSE
9206	●		2B2E	●	BLACK VERTICAL ELLIPSE

Japanese date and currency symbols

Their mapping to regular CJK Unified Ideographs is shown below, although it may be argued that usage as a symbol would require a separate encoding to be typeface independent.

ARIB	glyph	Description	UCS	glyph	comment
9207	年		5E74	年	Year
9208	月		6708	月	Month
9209	日		65E5	日	Day
9210	円		5186	円	Yen

Squared Latin abbreviations

ARIB	Glyph	Description	UCS	glyph	comment
9211	m ²		33A1	m ²	SQUARE M SQUARED
9212	m ³		33A5	m ³	SQUARE M CUBED
9213	cm	CENTIMETER	339D	cm	SQUARE CM
9214	cm ²	SQUARE CENTIMETER	33A0	cm ²	SQUARE CM SQUARED
9215	cm ³	CUBIC CENTIMETER	33A4	cm ³	SQUARE CM CUBED

Numbers period, second set (0-9)

ARIB	glyph	Description	UCS	glyph	comment
9217	1.		2488	1.	DIGIT ONE FULL STOP
9218	2.		2489	2.	DIGIT TWO FULL STOP
9219	3.		248A	3.	DIGIT THREE FULL STOP
9220	4.		248B	4.	DIGIT FOUR FULL STOP
9221	5.		248C	5.	DIGIT FIVE FULL STOP
9222	6.		248D	6.	DIGIT SIX FULL STOP
9223	7.		248E	7.	DIGIT SEVEN FULL STOP
9224	8.		248F	8.	DIGIT EIGHT FULL STOP
9225	9.		2490	9.	DIGIT NINE FULL STOP

Registry office symbols (?)

ARIB	glyph	Description	UCS	glyph	comment
9226	氏		6C0F		(related to 氏 family) 70% size
9227	副		526F		(related to 副 supplement) 70% size
9228	元		5143		(related to 元 first) 70% size
9229	故		6545		(related to 故 late, old) 70% size
9230	前		524D		(related to 前 preceding) 70% size
9231	新		65B0		(related to 新 new) 70% size

Parenthesized and Circled Ideographs

ARIB	glyph	Description	UCS	glyph	comment
9242	(社)	ZAIDANHOUZIN	3233	(社)	PARENTHESIZED IDEOGRAPH SOCIETY
9243	(財)	SYADANHOUZIN	3236	(財)	PARENTHESIZED IDEOGRAPH FINANCIAL
9244	(有)	YU-UGENKAISYA	3232	(有)	PARENTHESIZED IDEOGRAPH HAVE
9245	(株)	KABUSHIKIKAISYA	3231	(株)	PARENTHESIZED IDEOGRAPH STOCK
9246	(代)	REPRESENTATION	3239	(代)	PARENTHESIZED IDEOGRAPH REPRESENT

Geometric shapes (could also be music related, see ARIB 9064-9065)

ARIB	glyph	Description	UCS	glyph	comment
9248	▶		25B6	▶	BLACK RIGHT-POINTING TRIANGLE
9249	◀		25C0	◀	BLACK LEFT-POINTING TRIANGLE

CJK brackets

ARIB	glyph	Description	UCS	glyph	comment
9250	【		3016	【	LEFT WHITE LENTICULAR BRACKET
9251	】		3017	】	RIGHT WHITE LENTICULAR BRACKET

Miscellaneous Technical

ARIB	glyph	Description	UCS	glyph	comment
9252	◊		27D0	◊	WHITE DIAMOND WITH CENTER DOT

Superscripts

ARIB	glyph	Description	UCS	glyph	comment
9253	²		00B2	²	SUPERSCRIPIT TWO (different advance width)
9254	³		00B3	³	SUPERSCRIPIT THREE

Close Caption (?) symbols

ARIB	glyph	Description	UCS	glyph	comment
9256	<i>(vn)</i>	VIOLIN			
9257	<i>(ob)</i>	OBOE			
9258	<i>(cb)</i>	CONTRABASS			
9259	<i>(ce)</i>	CEMBALO 1			First part
9260	<i>(mb)</i>	CEMBALO 2			Second part
9261	<i>(hp)</i>	HARP			
9262	<i>(br)</i>	BARITONE			
9263	<i>(p)</i>	PIANO			
9264	<i>(s)</i>	SOPRANO			
9265	<i>(ms)</i>	MEZZO-SOPRANO			

9266	<i>(t)</i>	TENOR			
9267	<i>(bs)</i>	BASSO			
9268	<i>(b)</i>	BASS			
9269	<i>(tb)</i>	TROMBONE			
9270	<i>(tp)</i>	TRUMPET			
9271	<i>(ds)</i>	DRUMS			
9272	<i>(ag)</i>	ACOUSTIC GUITAR			
9273	<i>(eg)</i>	ELECTRIC GUITAR			
9274	<i>(vo)</i>	VOCAL			
9275	<i>(fl)</i>	FLUTE			
9276	<i>(ke)</i>	KEYBOARD 1			First part
9277	<i>y)</i>	KEYBOARD 2			Second part
9278	<i>(sa)</i>	SAXOPHONE 1			First part
9279	<i>x)</i>	SAXOPHONE 2			Second part
9280	<i>(sy)</i>	SYNTHESIZER 1			First part
9281	<i>n)</i>	SYNTHESIZER 2			Second part
9282	<i>(or)</i>	ORGAN 1			First part
9283	<i>g)</i>	ORGAN 2			Second part
9284	<i>(pe)</i>	PERCUSSION 1			First part
9285	<i>r)</i>	PERCUSSION 2			Second part

Letterlike symbols

ARIB	glyph	Description	UCS	glyph	comment
9291	Fax	FACSIMILE	213B	FAX	FACSIMILE SIGN

Parenthesized ideographs

ARIB	glyph	Description	UCS	glyph	comment
9301	(月)		322A	(月)	PARENTHESIZED IDEOGRAPH MOON
9302	(火)		322B	(火)	PARENTHESIZED IDEOGRAPH FIRE
9303	(水)		322C	(水)	PARENTHESIZED IDEOGRAPH WATER
9304	(木)		322D	(木)	PARENTHESIZED IDEOGRAPH WOOD
9305	(金)		322E	(金)	PARENTHESIZED IDEOGRAPH METAL
9306	(土)		322F	(土)	PARENTHESIZED IDEOGRAPH EARTH
9307	(日)		3230	(日)	PARENTHESIZED IDEOGRAPH SUN
9308	(祝)		3237	(祝)	PARENTHESIZED IDEOGRAPH CONGRATULATION

Japanese Era names

ARIB	glyph	Description	UCS	glyph	comment
9309	明治	THE MEIJI ERA	337E	明治	SQUARE ERA NAME MEIZI
9310	大正	THE TAISHO ERA	337D	大正	SQUARE ERA NAME TAISYOU
9311	昭和	THE SHOWA ERA	337C	昭和	SQUARE ERA NAME SYOUWA
9312	平成	THE HEISEI ERA	337B	平成	SQUARE ERA NAME HEISEI

Letterlike symbols

ARIB	glyph	Description	UCS	glyph	comment
9313	No.		2116	No.	NUMERO SIGN
9314	Tel		2121	TEL	TELEPHONE SIGN

Miscellaneous symbols

ARIB	glyph	Description	UCS	glyph	comment
9315	㊤		3036	㊤	CIRCLED POST MARK

Miscellaneous symbols

ARIB	glyph	Description	UCS*	glyph	comment
9330	㊥		1F213	㊥	SQUARED CJK UNIFIED IDEOGRAPH-4E8C

* proposed by this document

Letterlike symbol

ARIB	glyph	Description	UCS	glyph	comment
9339	ℓ	LITER	2113	ℓ	SCRIPT SMALL L

Squared Latin abbreviations







ARIB	glyph	Description	UCS	glyph	comment
9340	kg	KILOGRAM	338F	kg	SQUARE KG
9341	Hz	HERTZ	3390	Hz	SQUARE HZ
9342	ha	HECTARE	33CA	ha	SQUARE HA
9343	km	KILOMETER	339E	km	SQUARE KM
9344	km ²	SQUARE KILOMETER	33A2	km ²	SQUARE KM SQUARED
9345	hPa	HECTOPASCAL	3371	hPa	SQUARE HPA

Number forms



















ARIB	glyph	Description	UCS	glyph	comment
9348	½	A HALF	00BD	½	VULGAR FRACTION ONE HALF
9350	⅓	ONE THIRD	2153	⅓	VULGAR FRACTION ONE THIRD
9351	⅔	TWO THIRDS	2154	⅔	VULGAR FRACTION TWO THIRDS
9352	¼	A QUARTER	00BC	¼	VULGAR FRACTION ONE QUARTER

9353	$\frac{3}{4}$	THREE QUARTERS	00BE	$\frac{3}{4}$	VULGAR FRACTION THREE QUARTERS
9354	$\frac{1}{5}$	ONE FIFTH	2155	$\frac{1}{5}$	VULGAR FRACTION ONE FIFTH
9355	$\frac{2}{5}$	TWO FIFTHS	2156	$\frac{2}{5}$	VULGAR FRACTION TWO FIFTHS
9356	$\frac{3}{5}$	THREE FIFTHS	2157	$\frac{3}{5}$	VULGAR FRACTION THREE FIFTHS
9357	$\frac{4}{5}$	FOUR FIFTHS	2158	$\frac{4}{5}$	VULGAR FRACTION FOUR FIFTHS
9358	$\frac{1}{6}$	ONE SIXTH	2159	$\frac{1}{6}$	VULGAR FRACTION ONE SIXTH
9359	$\frac{5}{6}$	FIVE SIXTHS	215A	$\frac{5}{6}$	VULGAR FRACTION FIVE SIXTHS
9361	$\frac{1}{8}$	ONE EIGHTH	215B	$\frac{1}{8}$	VULGAR FRACTION ONE EIGHTH







Weather symbols, first part

ARIB	glyph	Description	UCS	glyph	Comment
9364			2600		BLACK SUN WITH RAYS
9365			2601		CLOUD
9366			2602		UMBRELLA





Miscellaneous symbols

ARIB	glyph	Description	UCS	glyph	comment
9368			2616		WHITE SHOGI PIECE
9369			2617		BLACK SHOGI PIECE
9372			2666		BLACK DIAMOND SUIT (SMALLER)
9373			2665		BLACK HEART SUIT (SMALLER)
9374			2663		BLACK CLUB SUIT (SMALLER)
9375			2660		BLACK SPADE SUIT (SMALLER)
9377			2A00		N-ARY CIRCLED DOT OPERATOR
9378			203C		DOUBLE EXCLAMATION MARK
9379			2049		EXCLAMATION QUESTION MARK

Weather symbols, second part

ARIB	glyph	Description	UCS	glyph	comment
9381		SHOWER	2614		UMBRELLA WITH RAIN DROPS
9383		SNOW	2603		SNOWMAN
9385		THUNDER	26A1		HIGH VOLTAGE SIGN (different meaning but similar glyph)

Close Caption symbols

ARIB	glyph	Description	UCS	glyph	comment
9390			266C		BEAMED SIXTEENTH NOTES (Background music CC)
9391			260E		BLACK TELEPHONE (Phone ringing CC)

Number and Letter forms

ARIB	glyph	Description	UCS	glyph	comment
9401	I		2160	I	ROMAN NUMERAL ONE
9402	II		2161	II	ROMAN NUMERAL TWO
9403	III		2162	III	ROMAN NUMERAL THREE
9404	IV		2163	IV	ROMAN NUMERAL FOUR
9405	V		2164	V	ROMAN NUMERAL FIVE
9406	VI		2165	VI	ROMAN NUMERAL SIX
9407	VII		2166	VII	ROMAN NUMERAL SEVEN
9408	VIII		2167	VIII	ROMAN NUMERAL EIGHT
9409	IX		2168	IX	ROMAN NUMERAL NINE
9410	X		2169	X	ROMAN NUMERAL TEN
9411	XI		216A	XI	ROMAN NUMERAL ELEVEN
9412	XII		216B	XII	ROMAN NUMERAL TWELVE
9413	⑰	CIRCLED NUMBER SEVENTEEN	2470	⑰	CIRCLED NUMBER SEVENTEEN
9414	⑱	CIRCLED NUMBER EIGHTEEN	2471	⑱	CIRCLED NUMBER EIGHTEEN
9415	⑲	CIRCLED NUMBER NINETEEN	2472	⑲	CIRCLED NUMBER NINETEEN
9416	⑳	CIRCLED NUMBER TWENTY	2473	⑳	CIRCLED NUMBER TWENTY
9417	(1)		2474	(1)	PARENTHESESIZED DIGIT ONE
9418	(2)		2475	(2)	PARENTHESESIZED DIGIT TWO
9419	(3)		2476	(3)	PARENTHESESIZED DIGIT THREE
9420	(4)		2477	(4)	PARENTHESESIZED DIGIT FOUR
9421	(5)		2478	(5)	PARENTHESESIZED DIGIT FIVE
9422	(6)		2479	(6)	PARENTHESESIZED DIGIT SIX
9423	(7)		247A	(7)	PARENTHESESIZED DIGIT SEVEN
9424	(8)		247B	(8)	PARENTHESESIZED DIGIT EIGHT
9425	(9)		247C	(9)	PARENTHESESIZED DIGIT NINE
9426	(10)		247D	(10)	PARENTHESESIZED DIGIT TEN
9427	(11)		247E	(11)	PARENTHESESIZED DIGIT ELEVEN
9428	(12)		247F	(12)	PARENTHESESIZED DIGIT TWELVE
9429	㉑	CIRCLED NUMBER TWENTY ONE	3251	㉑	CIRCLED NUMBER TWENTY ONE
9430	㉒	CIRCLED NUMBER TWENTY TWO	3252	㉒	CIRCLED NUMBER TWENTY TWO
9431	㉓	CIRCLED NUMBER TWENTY THREE	3253	㉓	CIRCLED NUMBER TWENTY THREE
9432	㉔	CIRCLED NUMBER TWENTY FOUR	3254	㉔	CIRCLED NUMBER TWENTY FOUR
9459	㉕	CIRCLED NUMBER TWENTY-FIVE	3255	㉕	CIRCLED NUMBER TWENTY FIVE
9460	㉖	CIRCLED NUMBER TWENTY-SIX	3256	㉖	CIRCLED NUMBER TWENTY SIX

9461	⑲	CIRCLED NUMBER TWENTY-SEVEN	3257	⑲	CIRCLED NUMBER TWENTY SEVEN
9462	⑳	CIRCLED NUMBER TWENTY-EIGHT	3258	⑳	CIRCLED NUMBER TWENTY EIGHT
9463	㉑	CIRCLED NUMBER TWENTY-NINE	3259	㉑	CIRCLED NUMBER TWENTY NINE
9464	㉒	CIRCLED NUMBER THIRTY	325a	㉒	CIRCLED NUMBER THIRTY
9465	①	CIRCLE DIGIT ONE	2460	①	CIRCLE DIGIT ONE
9466	②	CIRCLE DIGIT TWO	2461	②	CIRCLE DIGIT TWO
9467	③	CIRCLE DIGIT THREE	2462	③	CIRCLE DIGIT THREE
9468	④	CIRCLE DIGIT FOUR	2463	④	CIRCLE DIGIT FOUR
9469	⑤	CIRCLE DIGIT FIVE	2464	⑤	CIRCLE DIGIT FIVE
9470	⑥	CIRCLE DIGIT SIX	2465	⑥	CIRCLE DIGIT SIX
9471	⑦	CIRCLE DIGIT SEVEN	2466	⑦	CIRCLE DIGIT SEVEN
9472	⑧	CIRCLE DIGIT EIGHT	2467	⑧	CIRCLE DIGIT EIGHT
9473	⑨	CIRCLE DIGIT NINE	2468	⑨	CIRCLE DIGIT NINE
9474	⑩	CIRCLE DIGIT TEN	2469	⑩	CIRCLE DIGIT TEN
9475	⑪	CIRCLE DIGIT ELEVEN	246a	⑪	CIRCLE DIGIT ELEVEN
9476	⑫	CIRCLE DIGIT TWELVE	246b	⑫	CIRCLE DIGIT TWELVE
9477	⑬	CIRCLE DIGIT THIRTEEN	246c	⑬	CIRCLE DIGIT THIRTEEN
9478	⑭	CIRCLE DIGIT FOURTEEN	246d	⑭	CIRCLE DIGIT FOURTEEN
9479	⑮	CIRCLE DIGIT FIFTEEN	246e	⑮	CIRCLE DIGIT FIFTEEN
9480	⑯	CIRCLE DIGIT SIXTEEN	246f	⑯	CIRCLE DIGIT SIXTEEN
9481	❶		2776	❶	DINGBAT NEGATIVE CIRCLED DIGIT ONE
9482	❷		2777	❷	DINGBAT NEGATIVE CIRCLED DIGIT TWO
9483	❸		2778	❸	DINGBAT NEGATIVE CIRCLED DIGIT THREE
9484	❹		2779	❹	DINGBAT NEGATIVE CIRCLED DIGIT FOUR
9485	❺		277a	❺	DINGBAT NEGATIVE CIRCLED DIGIT FIVE
9486	❻		277b	❻	DINGBAT NEGATIVE CIRCLED DIGIT SIX
9487	❼		277c	❼	DINGBAT NEGATIVE CIRCLED DIGIT SEVEN
9488	❽		277d	❽	DINGBAT NEGATIVE CIRCLED DIGIT EIGHT
9489	❾		277e	❾	DINGBAT NEGATIVE CIRCLED DIGIT NINE
9490	❿		277f	❿	DINGBAT NEGATIVE CIRCLED DIGIT TEN
9491	⓫		24eb	⓫	DINGBAT NEGATIVE CIRCLED DIGIT ELEVEN
9492	⓬		24ec	⓬	DINGBAT NEGATIVE CIRCLED DIGIT TWELVE
9493	㉓	CIRCLED NUMBER THIRTY-ONE	325b	㉓	CIRCLED NUMBER THIRTY ONE