



AUSTRALIAN BRAILLE AUTHORITY

A subcommittee of the Round Table on
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Japanese braille and UEB

Introduction

Japanese is widely studied in Australian schools and this document has been written to assist those who are asked to transcribe Japanese into braille in that context. The Japanese braille code has many rules and these have been simplified for the education sector.

Japanese braille has a separate code to that of languages based on the Roman alphabet and code switching may be required to distinguish between Japanese and UEB or text in a Roman script.

Transcription for higher education or for a native speaker requires a greater knowledge of the rules surrounding the Japanese braille code than that given in this document. Ideally access to both a fluent Japanese reader and someone who understands all the rules for Japanese braille is required. The website for the Braille Authority of Japan is: <http://www.braille.jp/en/>.

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Kathy Riessen, Editor May 2019

Japanese print

Japanese print uses three types of writing.

1. Kana. There are two sets of Kana. Hiragana and Katana, each character representing a syllable or vowel. Generally Hiragana are used for Japanese words and Katakana for words borrowed from other languages.
2. Kanji. Chinese characters—non-phonetic
3. Rōmaji. The Roman alphabet

Japanese braille does not distinguish between Hiragana, Katakana or Kanji. Japanese braille is based on Kana. It is phonetic and represents the sounds.

Rōmaji

Rōmaji is where Japanese is written using the Roman alphabet. Where Rōmaji is used in print, it is brailled using uncontracted UEB. Accented letters are brailled using UEB accents.

Preparing Japanese text for transcription

The following steps have been written to give basic instructions to a Japanese reading person assisting in the preparation of the Japanese text before transcription. In an educational setting where a transcriber does not have sufficient Japanese knowledge, an appropriate person could be the student's Japanese teacher.

Convert Kanji to Kana equivalent

All Kanji characters need to be converted to their Kana (usually Hiragana) equivalent.

Kanji numerals which indicate order or amounts should be converted to Arabic numerals and not their hiragana equivalent. Refer to the later section on numerals for further information.

If the transcriber does not recognise Hiragana and Katakana characters the Japanese can be written out in Rōmaji. It is still important that the following steps are followed. In Rōmaji, long vowels are shown as a macron above the vowel. However, when writing out Rōmaji for a transcriber the use of a colon rather than the macron to indicate the long vowel is recommended.

Ask a Japanese reading person to write the Hiragana or Rōmaji equivalent for any Kanji and indicate numerals which are written in Kanji.

Add spaces

Spaces are added for clarity when reading Japanese braille. Printed Japanese does not have spaces and the combined use of Kanji, Hiragana and Katakana assists the sighted reader with context.

Spaces are used in braille to separate words. Japanese braille is generally spaced as you would Rōmaji, though without separating particles from their nouns. Spaces are also added between family and personal names.

Where a suspension point is added to Katakana to separate names, use a space instead.

There are a number of rules relating to the addition of spaces, which are not all covered here. The basic principle is to write a space between independent words as well as before verbs, auxiliary verbs etc. The following list of guidelines is not complete and there are a number of exceptions. At the education level ensure that readability and consistency is maintained.

- Add a space following particles and auxiliary verbs.

No space is added between two auxiliary verbs or between a particle and an auxiliary verb.

- Add a space between a noun and related adverbs.
- Do not add a space in a compound verb made up of an auxiliary verb and a verb.

Ask a Japanese reading person to indicate where a space should be inserted. This can be easily done using a pencil to show a stroke on the printed page.

Particles “ha” and “he”

Where “ha” and “he” are used as particles they are brailled as they sound: that is “wa” and “e” respectively. Not all instances of these characters are particles so the particles need to be clearly marked.

Ask a Japanese reading person to indicate the instances of “ha” and “he” which are to be brailled as “wa” and “e” respectively.

Particle “wo”

This particle is pronounced “o” but is still brailled as “wo”. If Japanese text is being converted to Rōmaji for transcription, ask that these particles are written out as “wo” rather than “o”.

If a Japanese reading person is converting Japanese text to Rōmaji, ask that wherever “wo” is a particle, it is written as “wo” rather than “o”.

Long Vowels

Where there is a long vowel, the second vowel is brailled as dots 25.

In Katakana a long vowel is shown as a character similar to a horizontal line.

Use the long vowel where in Hiragana:

- The “u” is used to lengthen the vowel.
- Where proper nouns have a double vowel.
- Where the long vowel is indicated in Japanese text which has been translated to Rōmaji for transcription.

Ask a Japanese reading person to indicate any long vowels.

Code Switching

Unified English Braille has the following symbols to indicate a code switch between English and another language, in this case, Japanese.

Code switching is usually required where Japanese and English script occurs in the same line or paragraph of text and no other distinction is made.

Where the context makes it clear to the reader which is Japanese and which is UEB code switching is not required.

⠠⠠ non-UEB word. The following string of characters until the next space are Japanese braille. No space is required between this symbol and the Japanese following.

⠠⠠ begin a non-UEB passage.

⠠⠠⠠ end a non-UEB passage. This is positioned immediately after the last Japanese character. A space follows before UEB is resumed.

English within a Japanese passage

The Japanese braille code also has provision for code switching which should be used for text in the roman alphabet within a Japanese passage.

The grade 1 indicator is used to indicate a Roman letter or acronym.

- Where the Roman letter precedes Japanese within a word, they are separated by a hyphen.
- Where the Roman letter follows the Japanese within a word, no hyphen is required as the grade 1 symbol shows the switch.

- Where an Arabic numeral separates the Roman letter and Japanese no hyphen is required unless the numeral is followed by a Japanese vowel, or syllable beginning with “r”.
- Where a particle follows the expression in Roman letters, place a space before the particle.

The Japanese code switches shown below are used to indicate a word or phrase written in a Roman alphabet. The text is uncontracted and UEB conventions are used for capital letters.

⠆⠆ switch to roman alphabet (text is brailled as uncontracted UEB)

⠆⠆ switch back to Japanese braille

- Where the expression is followed by a particle or auxiliary verb leave a space before the particle or verb.
- Where the expression is followed by a Japanese word a hyphen is placed between the closing indicator and the Japanese braille.

DBT and Japanese Braille

This information is current for DBT 12.4 using the **English (UEB) – Australian Formatting** template. Earlier versions may also be compatible.

Japanese Hiragana and Katakana cannot be written or pasted directly into DBT, however DBT will import these characters from a Word document.

DBT translates Hiragana and Katakana characters exactly as they appear in the Word document. This means the particles “ha” and “he” need to be changed to “wa” and “e” respectively and any required spaces should be added to the word document before importing. Use forced spaces to create the extra space following punctuation which are followed by two spaces.

Use the following codes to switch between Japanese and UEB.

[Inb~jpn] initiates Japanese translation mode.

[Inb] switches back to UEB mode.

There are no specific DBT codes for UEB code switching indicators, use the following:

- [q~^()] before a single Japanese word.
- [q~"()] before a Japanese passage (3 or more words).
- [q~,")] at the end of a Japanese passage.

When in Japanese mode, DBT will prefix any English words or letters with the grade 1 indicator. To use the Japanese code switches for Roman alphabet words and phrases, use switch back to UEB, mark the text as uncontracted and add quotation marks.

The **English (UEB) - Australian Formatting** template does not currently have a style specific for Japanese. Use the individual codes or create a style.

Known problems

Some of the newer Katakana only symbols do not translate correctly, and these need to be double checked.

Manual intervention is required for parentheses and the swung dash (tilde). DBT uses UEB symbols which conflict with some of the Japanese symbols. Manual intervention is required.

Double check the spacing with punctuation after translation and adjust if necessary.

Punctuation

Use Japanese punctuation when in Japanese mode.

Symbol	Description	Braille
followed by two spaces		
。	full stop (open circle)	⠆
？	question mark	⠆
！	exclamation mark	⠆
followed by one space		
、	comma	⠆
・	interpunct or suspension point	⠆
—	dash	⠆⠆
…	ellipsis	⠆⠆⠆

no space either side		
～	swung dash	⠠⠠⠠⠠
-	hyphen	⠠⠠
other punctuation		
()	parentheses	⠠⠠ ⠠⠠
「 」	quotes	⠠⠠ ⠠⠠

Emphasis

The following signs may be used to show emphasis such as underline.

1st level emphasis: ⠠⠠***⠠⠠

2nd level emphasis: ⠠⠠⠠***⠠⠠⠠

3rd level emphasis: ⠠⠠⠠⠠***⠠⠠⠠⠠

Numerals

Kanji numerals which indicate order or amounts should be converted to Arabic numerals and not their hiragana equivalent.

Braille the hiragana equivalent for the following:

- Where numerals are pronounced in their alternative form. ie. 1—hito, 2—futa, 3—mi etc. e.g. 2 人 futari, 2 people or 1 日 tsuitachi, 1st day of the month
- Where Japanese Kanji numeral forms part of a proper noun such a place or person's name. e.g. 四国 Shikoku (island of Japan).

Where an Arabic numeral is used as part of a proper noun, braille the numeral using the numeric indicator. e.g. エリザベス 2 せい Erizabesu 2sei (Queen Elizabeth II)

Arabic numerals in Japanese braille are the same as for UEB. For educational purposes use UEB for all mathematical symbols.

There are specific rules in Japanese braille for writing large numbers written as Arabic numerals, which are based on how they are spoken. However, for educational purposes transcribe these as a facsimile of the print.

Where Japanese character beginning with a vowel or an "r" sound immediately follows a numeral a hyphen is inserted as a separator.

Transcribing from Rōmaji

If Rōmaji is used in the original print text, then this should be transcribed as uncontracted UEB.

Where a Japanese reading person converts Japanese text to Rōmaji for a transcriber to convert to Japanese braille, the following guidelines should be considered.

- A macron over a vowel is normally used to indicate a long vowel in Rōmaji. The long vowel is brailled following the syllable. Example: Rōmaji is brailled as ro-long vowel-ma-ji. When writing out Rōmaji for a transcriber, rather than using macrons a colon may be used. Example: Ro:maji. This makes it clear for the transcriber where the long vowel occurs and is easier to write using word processing.
- Any "o" sound which is a particle should be written as "wo" as that is how it is brailled.
- Where there is a double consonant, braille the small tsu for the first consonant. Example: yatta (hooray) is brailled as ya-small tsu-ta. As "n" is a character in its own right, the small tsu is not used for double "n".

Japanese Braille Code Charts

The following charts give the braille equivalent of each of the hiragana and katakana characters. Note how the five vowels form a basis for each row of the syllabary.

The small tsu is brailled as a dot 2, this has the effect of "doubling" the consonant that follows.

The long vowel in Japanese is brailled as dots 25. In print katakana this is a character similar to a horizontal line. Long vowels in hiragana script should have been indicated by a Japanese reading person when preparing text for transcription.

<p>っ small tsu</p> <p>っ ⠠</p>	<p>— long vowel</p> <p>— ⠠⠠</p>
-------------------------------------	---------------------------------------

	あ a	い i	う u	え e	お o
	ア ::	イ ::	ウ ::	エ ::	オ ::
k	か ka	き ki	く ku	け ke	こ ko
	カ ::	キ ::	ク ::	ケ ::	コ ::
s	さ sa	し shi	す su	せ se	そ so
	サ ::	シ ::	ス ::	セ ::	ソ ::
t	た ta	ち chi	つ tsu	て te	と to
	タ ::	チ ::	ツ ::	テ ::	ト ::
n	な na	に ni	ぬ nu	ね ne	の no
	ナ ::	ニ ::	ヌ ::	ネ ::	ノ ::
h	は ha	ひ hi	ふ fu	へ he	ほ ho
	ハ ::	ヒ ::	フ ::	ヘ ::	ホ ::
m	ま ma	み mi	む mu	め me	も mo
	マ ::	ミ ::	ム ::	メ ::	モ ::
y	や ya		ゆ yu		よ yo
	ヤ ::		ユ ::		ヨ ::

r	ら ra	り ri	る ru	れ re	ろ ro
	ラ ⠠	リ ⠠	ル ⠠	レ ⠠	ロ ⠠
w	わ wa		を wo		ん n
	ワ ⠠		ヲ ⠠		ン ⠠

g	が ga	ぎ gi	ぐ gu	げ ge	ご go
	ガ ⠠	ギ ⠠	グ ⠠	ゲ ⠠	ゴ ⠠
z	ざ za	じ ji	ず zu	ぜ ze	ぞ zo
	ザ ⠠	ジ ⠠	ズ ⠠	ゼ ⠠	ゾ ⠠
d	だ da	ぢ di	づ du	で de	ど do
	ダ ⠠	ヂ ⠠	ヅ ⠠	デ ⠠	ド ⠠
b	ば ba	び bi	ぶ bu	べ be	ぼ bo
	バ ⠠	ビ ⠠	ブ ⠠	ベ ⠠	ボ ⠠
p	ぱ pa	ぴ pi	ぷ pu	ぺ pe	ぽ po
	パ ⠠	ピ ⠠	プ ⠠	ペ ⠠	ポ ⠠

きや	kya	きゆ	kyu	きよ	kyo
キヤ	⠠⠎⠽	キユ	⠠⠎⠽	キヨ	⠠⠎⠽
しや	sha	しゆ	shu	しよ	sho
シヤ	⠠⠎⠻	シユ	⠠⠎⠽	シヨ	⠠⠎⠽
ちや	cha	ちゆ	chu	ちよ	cho
チャ	⠠⠎⠻	チュ	⠠⠎⠽	チヨ	⠠⠎⠽
にや	nya	にゆ	nyu	によ	nyo
ニヤ	⠠⠎⠻	ニユ	⠠⠎⠽	ニヨ	⠠⠎⠽
ひや	hya	ひゆ	hyu	ひよ	hyo
ヒヤ	⠠⠎⠻	ヒユ	⠠⠎⠽	ヒヨ	⠠⠎⠽
みや	mya	みゆ	myu	みよ	myo
ミヤ	⠠⠎⠻	ミュ	⠠⠎⠽	ミヨ	⠠⠎⠽
りや	rya	りゆ	ryu	りよ	ryo
リヤ	⠠⠎⠻	リュ	⠠⠎⠽	リヨ	⠠⠎⠽

ぎゃ gya	ぎゅ gyu	ぎょ gyo
ギャ ⠠⠠⠠	ギュ ⠠⠠⠠	ギョ ⠠⠠⠠
じゃ ja	じゅ ju	じょ jo
ジャ ⠠⠠⠠	ジュ ⠠⠠⠠	ジョ ⠠⠠⠠
ぢゃ ja*	ぢゅ ju*	ぢょ jo*
ヂャ ⠠⠠⠠	ヂュ ⠠⠠⠠	ヂョ ⠠⠠⠠
* Above row rarely used in Modern Japanese		
びゃ bya	びゅ byu	びょ byo
ビャ ⠠⠠⠠	ビュ ⠠⠠⠠	ビョ ⠠⠠⠠
ぴゃ pya	ぴゅ pyu	ぴょ pyo
ピャ ⠠⠠⠠	ピュ ⠠⠠⠠	ピョ ⠠⠠⠠

Special sounds—Katakana (Used in foreign words)

イェ ie ⠠⠠			ウイ wi ⠠⠠⠠	ウエ we ⠠⠠⠠	ウオ wo ⠠⠠⠠	スイ swi ⠠⠠⠠	ズイ zui ⠠⠠⠠
キェ kye ⠠⠠		クア kwa ⠠⠠⠠	クイ qwi ⠠⠠⠠	クエ qwe ⠠⠠⠠	クオ qwo ⠠⠠⠠	テイ thi ⠠⠠⠠	デイ dhi ⠠⠠⠠
シェ she ⠠⠠	ジェ je ⠠⠠⠠	グア gwa ⠠⠠⠠	グイ gwi ⠠⠠⠠	グエ gwe ⠠⠠⠠	グオ gwo ⠠⠠⠠	トウ too ⠠⠠⠠	ドウ dou ⠠⠠⠠
チェ che ⠠⠠		ツア tsa ⠠⠠⠠	ツイ tsi ⠠⠠⠠	ツエ tse ⠠⠠⠠	ツオ tso ⠠⠠⠠	テュ thu ⠠⠠⠠	デュ dhu ⠠⠠⠠
ニェ nye ⠠⠠		ファ fwa ⠠⠠⠠	ファイ fwi ⠠⠠⠠	フェ fwe ⠠⠠⠠	フォ fwo ⠠⠠⠠	フュ fwu ⠠⠠⠠	ヴュ vyu ⠠⠠⠠
ヒェ hye ⠠⠠		ヴァ va ⠠⠠⠠	ヴァイ vi ⠠⠠⠠	ヴェ ve ⠠⠠⠠	ヴォ vo ⠠⠠⠠	フョ fyo ⠠⠠⠠	ヴョ vyo ⠠⠠⠠
							ヴ vu ⠠⠠

Examples

Some examples show embedded DBT codes in the Word document. Codes written using the double square bracket, asterisk syntax within Word will convert to DBT codes when imported into DBT.

Each example has been structured to demonstrate the various process required when preparing Japanese script for transcription.

Transcribing a passage where hiragana equivalent are shown for the Kanji.

- Original print.

でも、^{むすこ}息子はこの^{しがつ}四月から^{ほいくえん}保育園に^{はい}入ることができ、^{わたし}私はまた^{はたら}働き^{はじめ}始めた。
^{わたし}私は^{かいしゃ}会社へ^{ある}歩いて^い行く。

- The Kanji characters are replaced with Hiragana. Spaces are indicated with slashes. Particles “ha” and “he” are highlighted.

でも、 / むすこ**は** / この / しがつから / ほいくえんに / はい入 / ことが / でき、 /
 わたし**は** / また / はたらきはじめた。 // わたし**は** / かいしゃ**へ** / あるいて / いく。

- Slashes are removed and replaced with spaces. A forced space is required for the second space after the full stop. The particles “ha” and “he” changed to their equivalent sounds. The Japanese is now ready for transcription either using DBT translation or direct braille.

でも、 むすこわ この しがつから ほいくえんに はい入 ことが でき、
 わたしわ また はたらきはじめた。 わたしわ かいしゃえ あるいて いく。

- Braille transcription.

2000 2000 2000 2000 2000
 2000 2000 2000 2000 2000
 2000 2000 2000 2000 2000
 2000

Mixture of Japanese and English in an English passage. The non-UEB word indicator is used. The Rōmaji is transcribed uncontracted.

- Original print. Note the long vowel in the word sentō.

おんせん (onsen, hot spring) and せんとう (sentō, public bath) have been around for many years in Japan and are very popular even today.

- The “u” is changed to a long vowel in the Hiragana of the word sentō. The relevant DBT codes are embedded. The words in Rōmaji are coded to be transcribed uncontracted. The passage is now ready for transcription using DBT.

[[*q~^(*]][*Inb~jpn*]]おんせん [[*Inb*]][*g1*]](onsen, [[*g2*]]hot spring) and [[*q~^(*]][*Inb~jpn*]]せんとう [[*Inb*]][*g1*]]sentō, [[*g2*]]public bath) have been around for many years in Japan and are very popular even today.

- Braille transcription

おんせん (onsen, hot spring) and せんとう (sentō, public bath) have been around for many years in Japan and are very popular even today.

Japanese passage within an English sentence. Non-UEB passage indicators are required.

- Original text

Work requirements—imaginative writing: 日本に行くことができたなら (if you can visit Japan).

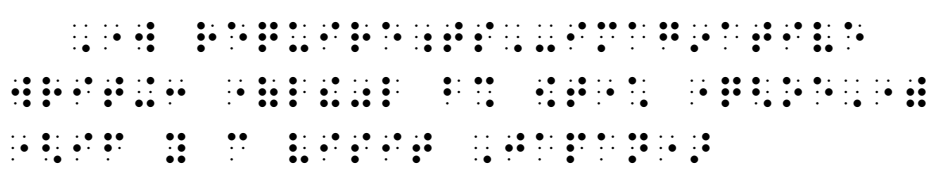
- Kanji are converted to Hiragana equivalents. Spaces are indicated with slashes. There are no particles which need changing.

Work requirements—imaginative writing: にほんに / いく / ことが / できたなら (if you can visit Japan).

- The slashes are replaced with spaces. Relevant DBT codes are embedded to switch between Japanese and English. Codes to insert the Non-UEB passage and terminator indicator are used. Ready for transcription with DBT.

Work requirements—imaginative writing: `[[*q~"(*]]``[[*lnb~jpn*]]` にほんに
いく ことが できたら `[[*q~,")*]]``[[*lnb*]]` (if you can visit Japan).

- Braille transcription



**Mixture of Japanese and Roman script within a Japanese passage.
Japanese code switching indicators used.**

- Original text

- Jiangu くんはやすみに Hawaii にいきました。
- はなこさんはひまなとき supootsu をします。

- The spaces are marked using slashes. The particles “ha” and “he” are highlighted.

- Jiangu / くん**は** / やすみに / Hawaii / に / いきました。
- はなこ / さん**は** / ひまな / とき / supootsu / を / します。

- The slashes are replaced with spaces. The particles “ha” and “he” are changed.

- Jiangu くんわ やすみに Hawaii に いきました。
- はなこ さんわ ひまな とき supootsu を します。

- Kanji are converted to Hiragana and spaces are indicated with slashes. Note the numeral relating to the first day of the month and numeral relating to the two brothers are converted to hiragana equivalents as per the section on numerals. Katakana is retained. The particles "ha" and "he" are highlighted. The long vowels are highlighted. The suspension point between the names "Karen" and "Grey" is replaced with a space.

カレンの / てがみ // 2 がつ / ついたち

はじめまして。 // わたしは / カレン / グレイと / います。 // 16 さいです。 // こくさい / ペンフレンド / クラブから / すずき / くの / なまえと / じゅうしよを / もらいました。 // すずき / くの / ペンフレンドに / なりたいです。

かぞくは / 5 にんです。 // ははと / ぎりの / ちちと / ぎりの / おととが / ふたり / います。 // ははは / ブティックを / けいえい / して / います。

- The following shows the Rōmaji equivalent ready for a transcriber who does not read Hiragana and Katakana. Where the "o" sound is a particle this is still shown as "wo". Long vowels are indicated using a colon rather than the macron symbol. The particles "ha" and "he" have been converted to "wa" and "e" respectively.

Karenno / tegami // 2gatsu / tsuitachi

Hajimemashite. // Watashiwa / karen / gureito / iimasu. // 16sai desu. // Kokusai / penfurendo / kurabukara / suzuki / kunno / namaeto / ju:showo / moraimashita. // Suzuki / kunno / penfurendoni / naritaidesu. // Kazokuwa / 5nindesu. // Hahato / girino / chichito / girino / oto:toga / futari / imasu. // Hahawa / buthikkuwo / keiei / shite / imasu.

- The slashes are replaced with spaces. Note a forced space is required for the second space after the full stop. The particles "ha" and "he" are changed to their equivalent sounds. Long vowels are replaced with the Japanese long vowel symbol. The Japanese is now ready for transcription either using DBT translation or direct braille.

カレンの てがみ 2 がつ ついたち

はじめまして。 わたしわ カレン グレイと います。 16 さいです。
こくさい ペンフレンド クラブから すずき くの なまえと じゅうしよを
もらいました。 すずき くの ペンフレンドに なりたいです。

かぞくわ 5 にんです。 ははと ぎりの ちちと ぎりの おととが ふたり
います。 ははわ ブティックを けいえい して います。

- Braille transcription.

Braille transcription of the text above, consisting of 11 lines of Braille characters.