World Braille Usage

Third Edition

Contents

Foreword to the Third Edition

Sixty years ago UNESCO led the charge in publishing the first edition of *World Braille Usage*. The initial effort was focused on the establishment of a universal, worldwide code. While there is still interest in universal agreement on characters that are used throughout the world, the emphasis now is on unification within languages, as driven by braille authorities and other organizations. Many new countries have adopted official codes, and countries with shared languages have formed coalitions to assess current usage and craft recommendations for the future. The International Council on English Braille (ICEB), for example, brought together Australia, Canada, New Zealand, Nigeria, South Africa, the United Kingdom, and the United States to develop a Unified English Braille Code (UEB) for both technical and literary purposes, which the final member nation recently adopted. Meanwhile, the Braille Music Code has been internationally standardized since the 1990s.

Braille, as the world's pre-eminent system of touch reading and writing used by people who are blind, continues to be a vital tool of literacy. Allowing immediate and direct access to written communication, braille has broadened from a method for reading embossed books to a multimodal tool encompassing a myriad of uses, from braille signage and product labeling to refreshable braille displays. As a tool for writing, it also allows a person who is blind to easily record accurate information and access that information quickly for later use.

All this is made possible by the establishment of braille codes: standardized, agreed-upon ways of representing characters and arranging text for maximum comprehension. As braille authorities—entities organized to formulate and promulgate braille codes—have become prevalent throughout the world, the foundation of braille has become strengthened. Although braille authorities take many forms, from government agencies to consortiums of interested organizations, their influence is wide-ranging. The codes they develop permit consistent education for people who are blind, and the advanced study of subjects such as mathematics, science, and other languages. Many authorities also take on the task of promoting braille literacy, as well as instruction, production, and distribution.

Despite dire predictions of its demise, braille continues to develop as a vibrant means of communication that enables people who are blind to participate in society, pursue educational opportunities, attain commensurate employment, and enjoy the many activities of everyday life. Standardization has given braille a firmer foundation than it has had before now—and technology has transformed the ways in which it is both produced and accessed. Braille translation software, while it does not completely replace the human transcriber, allows text to be encoded quickly for embossing, or displayed on a refreshable braille device. DAISY and other standards have streamlined the alternative text production process through the use of mark-up languages, an area rife with possibilities for future development in incorporating braille. Embossing technology has continued to improve, producing machines that can print hundreds of cells per second.

In developed countries, more and more braille readers are shifting much of their reading to refreshable braille displays, which make lengthy braille works practical and portable, and allow braille readers to interface with computers, smart phones, and the other accoutrements of the

twenty-first century. Refreshable braille displays have made the use of 8-dot codes more prevalent now than when they were used for only a few specialized purposes. With 256 possible combinations, 8-dot codes allow a much wider variety of characters to be represented by a unique cell, making interaction with computers more straightforward. There is as yet no international standard for 8-dot braille, but many systems use the seventh dot to mark upper-case characters or use one of the extra dots to display where the cursor is on the screen. Several organizations are currently working to develop specialized 8-dot codes that directly address the needs of math and science users, and it is possible we will see standardization in those areas in the future.

8-dot code is not the only aspect of braille that is still evolving and shifting. While international standardization and unification are on the rise, there are also many new braille codes being developed as a result of geopolitical changes and improved recognition of linguistic diversity. Some countries have resisted standardization, while other language codes remain basically uncontracted braille with few, if any, rules, due to lack of development or organizational authority. With the support of the Latin American Union of the Blind (ULAC) and other organizations, there has been some effort to create codes for indigenous languages, but few such codes have been officially adopted. Meanwhile, refreshable braille displays and other modern technologies remain out of reach for many braille readers around the world due to their expense. Until production costs are reduced, the slate and stylus will remain the primary tool of braille literacy for these people, allowing them to inexpensively write and read what has been written.

In short, the world of braille remains in flux. Developed with support from Perkins, the International Council on English Braille, and the National Library Service for the Blind and Physically Handicapped, this third edition of *World Braille Usage* attempts to document the current state of braille around the world. But many changes and innovations—both technological and political—remain on the horizon. We hope that the trend toward codifying additional languages, standardizing current codes, and developing new tools for access will continue, making braille literacy accessible in every native tongue to people who are blind.

Judith M. Dixon, Ph.D.
Washington, DC
March 2013

Acknowledgements

The International Phonetic Alphabet

The International Phonetic Alphabet (IPA) is a system for representing precise details of pronunciation in written form. It is widely used in linguistics, clinical speech sciences, language teaching, vocal music pedagogy, accent training for actors, pronunciation guides found in many dictionaries and language textbooks, and in any endeavor where it is necessary to capture accurately the nuances of speech. The IPA itself is not a language, and it is not localized to any particular country or language group. It is developed and maintained by the International Phonetic Association, and its goal is to represent unambiguously all of the sounds in the approximately 6,000 languages spoken on earth today, including languages that have no writing system. The IPA consists of nearly 200 unique symbols: consonants, vowels, suprasegmentals, tones and word accents, diacritics, and miscellaneous symbols.

The complete, current, print IPA charts can be downloaded from the International Phonetic Association's web page at http://www.langsci.ucl.ac.uk/ipa/ipachart.html. These charts are freely distributable under a Creative Commons Attribution-Sharealike 3.0 Unported License, Copyright © 2005 International Phonetic Association. Complete IPA charts are also found in most introductory-level phonetics or general linguistics textbooks. The most recent, comprehensive reference work in print is *The Handbook of the International Phonetic Association: A Guide to the Use of the International Phonetic Alphabet*, published in 1999 by Cambridge University Press.

The most recent, up-to-date, braille notation of the IPA (Englebretson 2008) was produced under the auspices of the International Council on English Braille. It has been adopted by the Braille Authority of North America, and has been approved by ICEB for use alongside Unified English Braille for the transcription of phonetic and phonemic materials. It is available online in both PDF and BRF formats from http://www.iceb.org/icebipa.htm. The first braille volume contains a general introduction and overview, all of the IPA charts presented in tabular format, basic rules for the use of IPA Braille, and several sample passages. This volume also contains an index designed for braille transcribers, which lists the print IPA glyphs in pseudo-alphabetical order along with the corresponding braille symbols. The second braille volume consists of swell-paper tactile illustrations of each print IPA symbol along with its braille equivalent.

IPA Braille is summarized in a journal article targeting professional phoneticians and linguists (Englebretson 2009). This article presents a detailed history of other braille notations of the IPA, gives a thorough overview of the steps and rationale which led to the development of the current IPA Braille system, and presents all of the IPA Braille symbols in chart form for the benefit of sighted phoneticians and teachers who wish to learn IPA Braille or who are currently working with braille-reading students.

References

Englebretson, Robert (ed.). 2008. *IPA Braille: An Updated Tactile Representation of the International Phonetic Alphabet*, 2 vols. Toronto: CNIB. http://www.iceb.org/icebipa.htm
Englebretson, Robert. 2009. "An overview of IPA Braille: an updated tactile representation of the International Phonetic Alphabet." *Journal of the International Phonetic Association*, 39: 67-86.

IPA Braille Charts (IPA Revised to 2005)

The following charts originally appeared as the appendix to Englebretson, Robert. 2009. "An overview of IPA Braille: an updated tactile representation of the International Phonetic Alphabet." *Journal of the International Phonetic Association*, 39: 67-86. They are reprinted here by permission of the secretary of the International Phonetic Association.

Consonants (Pulmonic)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	⠏ ⠃			⠞ ⠙		⠞⠻ ⠙⠻	⠞� ⠙⠯	⠅ ⠛	⠟ �		⠦
Nasal	⠍	⠍⠿		⠝		⠝⠻	⠨	⠛	⠝⠳		
Trill	⠘⠗			⠗					�		
Tap or Flap		⠲⠗		�⠗		⠗⠻					
Fricative	⠖⠋ ⠖⠧	⠋ ⠧	⠮ ⠹	⠎ ⠵	⠱ �	⠩⠻ �⠻	� ⠁	⠭ ⠛	⠯ �	⠅ ⠗	⠓ ⠦⠓
Lateral fricative				⠦⠇ �⠇							
Approximant		⠲⠧		�		�⠻	⠚	�⠺			
Lateral approximant				⠇		⠇⠻	⠨⠇	�⠇			

Consonants (Non-Pulmonic)

Clicks		Voiced implosives		Ejectives	
⠦	Bilabial	⠃�	Bilabial	⠄	Examples:
�	Dental	⠙�	Dental/alveolar	⠏⠄	Bilabial
�	(Post) alveolar	⠚�	Palatal	⠞⠄	Dental/alveolar
�	Palatoalveolar	⠛�	Velar	⠅⠄	Velar
�	Alveolar lateral	��	Uvular	⠎⠄	Alveolar fricative

Other Symbols

Symbol	Description
⠺⠀⠺	Voiceless labial-velar fricative
⠺	Voiced labial-velar approximant
⠱⠀⠨	Voiced labial-palatal approximant
⠨⠀⠓	Voiceless epiglottal fricative
�⠀⠓	Voiced epiglottal fricative
⠦⠀⠴	Epiglottal plosive
�⠀⠀⠀�	Alveolo-palatal fricatives
⠇⠀⠗	Voiced alveolar lateral flap
⠊⠀⠭	Simultaneous ʃ and x
⠦⠀⠴⠀⠀⠦⠀⠴	Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.

Vowels

	Front	Central	Back
Close	⠊ ⠽	� ⠀⠮	⠥⠀⠡
	⠔ ⠡		⠱
Close-mid	⠑ ⠕	⠣ ⠪	⠕ ⠳
		⠢	
Open-mid	⠿ ⠿	⠿ ⠿	⠿ ⠿
	⠿	⠿	
Open	⠿ ⠿		⠿ ⠿

Diacritics

⠿	Voiceless	⠿	Breathy voiced	⠿	Dental
⠿	Voiced	⠿	Creaky voiced	⠿	Apical
⠿	Aspirated	⠿	Linguolabial	⠿	Laminal
⠿	More rounded	⠿	Labialized	⠿	Nasalized
⠿	Less rounded	⠿	Palatalized	⠿	Nasal release
⠿	Advanced	⠿	Velarized	⠿	Lateral release
⠿	Retracted	⠿	Pharyngealized	⠿	No audible release
⠿	Centralized	⠿	Velarized or pharyngealized		
⠿	Mid-centralized	⠿	Raised ⠿ (⠿ = voiced alveolar fricative)		
⠿	Syllabic	⠿	Lowered ⠿ (⠿ = voiced bilabial approximant)		
⠿	Non-syllabic	⠿	Advanced Tongue Root ⠿		
⠿	Rhoticity	⠿	Retracted Tongue Root ⠿		

Suprasegmentals

Braille	Description
⠔⠔	Primary stress
⠢⠢	Secondary stress ⠔⠢ ⠔⠢ ⠢⠢ ⠢⠢ ⠢⠢ ⠢⠢ ⠢⠢ ⠢⠢ ⠢⠢
⠒⠒	Long ⠱⠒⠒
�	Half-long ⠱�
⠶⠶	Extra-short ⠱⠶⠶
⠦⠶	Minor (foot) group
⠦⠶	Major (intonation) group
�	Syllable break ⠦����
⠤⠤	Linking (absence of a break)

Tones And Word Accents

LEVEL		CONTOUR	
⠒⠂⠒ or ⠔⠒⠒	Extra high	⠂⠶ or ⠔⠂	Rising
⠒⠂ ⠔⠒	High	⠒⠒ ⠔⠒	Falling
⠒⠒ ⠔⠒	Mid	⠒⠂ ⠔⠒	High rising
⠒⠄ ⠔⠄	Low	⠒⠦ ⠔⠦	Low rising
⠒⠄⠄ ⠔⠄⠄	Extra low	⠒⠶ ⠔⠶	Rising-falling
⠦⠦	Downstep	⠔⠒	Global rise
⠦⠒	Upstep	⠔⠶	Global fall

Introduction to Country Listings

Welcome to *World Braille Usage.* This third edition of *World Braille Usage* has been made possible by hundreds of people who use and produce braille throughout the world. As a result, it captures a new perspective on the global use of braille. Unlike previous editions, this one includes links to electronic media, and a digital copy can be found online on the Perkins website: www.perkins.org/worldbraille.

How this book is organized:

- The 142 countries represented in this book are listed in alphabetical order.
- This book includes 133 languages that have been transcribed into 137 different braille alphabet and punctuation codes. [Nepali, Tamil, and Urdu are transcribed in two countries, but each has different braille codes, and there are two codes for Greek]
- In countries where multiple languages have been transcribed into braille, the languages are listed in order of predominance of use.
- The braille alphabet and punctuation codes for languages that are used in a single country appear only once, on the page for that country.
- The braille alphabets for languages that are used in two or more countries are cross-referenced on country pages, e.g. **Spanish Alphabet:** see *Spanish,* page 201. These alphabets and punctuation codes are contained in the section titled, *Braille Alphabets Used in Multiple Countries,* which follows the country pages.
- The braille and alphabet and punctuation code for Esperanto, a language that is not associated with a country can be found in *Braille Alphabets Used in Multiple Countries.*
- The *Index by Language Name* contains the names all of the languages represented in this book.

The majority of the data collected to create the contents of this book came from two primary sources: a questionnaire sent to representatives of braille-related organizations in 197 countries between April 2012 and April 2013; and the 1990 edition of *World Braille Usage.* Additionally, some of the data for this book was sourced with the support provided by Duxbury Systems.

Data sourced from the questionnaire: The information provided by the various participating countries may vary. Although every effort was made to ensure that the information presented in this book was verified as correct, the content of this book is based upon the information provided by the returned questionnaires and follow-up communications prior to publication. Not all countries were able to verify their respective information prior to publication.

Data sourced from *World Braille Usage,* 1990: A number of countries that appeared in the 1990 edition did not respond to the questionnaire during the information data gathering phase. The source of information given for these countries, and the languages they use, is cited as: *World Braille Usage*, 1990. A number of countries that didn't respond were formally part of the Soviet Union or Yugoslavia, or changed names, and this information is also indicated by sourcing *World Braille Usage,* 1990.

Braille Usage by Country

Albania

Language: Albanian (uncontracted)

Braille Standards Set by:

L'Institut des Enfants Aveugles
Braille alphabet was adopted by Ministria of Education of the Republic with the Council of
   Ministers in 1963
www.mash.gov.al

Braille Code:
Albanian Braille Code

Albanian Alphabet: See *Albanian,* page 165

Algeria

Language: Arabic (uncontracted)

Source:
Word Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166

Andorra

Language: Catalan (uncontracted)

Catalan Alphabet: See *Catalan,* page 172

Antigua and Barbuda

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Argentina

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Armenia

Languages: Eastern Armenian (uncontracted), Western Armenian (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Eastern Armenian

Letter	Code	Letter	Code	Letter	Code	Letter	Code
ա	(1)	ի	(24)	յ	(13456)	տ	(2345)
բ	(12)	լ	(123)	ն	(1345)	ր	(1235)
գ	(1245)	խ	(1456)	շ	(156)	ց	(1356)
դ	(145)	ծ	(14)	ո	(1236)	ւ	(136)
ե	(245)	կ	(13)	չ	(12345)	փ	(12346)
զ	(2346)	հ	(125)	պ	(1234)	ք	(346)
է	(15)	ձ	(126)	ջ	(1346)	o	(135)
ը	(34)	ղ	(12456)	ռ	(1235)	ֆ	(124)
թ	(345)	ճ	(146)	ս	(234)		
ժ	(23456)	մ	(134)	վ	(2456)		

Alphabet: Western Armenian

Letter	Code	Letter	Code	Letter	Code	Letter	Code
ա	(1)	ի	(24)	յ	(156)	տ	(145)
բ	(1234)	լ	(123)	ն	(1345)	ր	(1235)
գ	(12345)	խ	(1346)	շ	(146)	ց	(2346)
դ	(1456)	ծ	(34)	ո	(246)	ւ	(2456)
ե	(13456)	կ	(1245)	չ	(16)	փ	(1246)
զ	(1356)	հ	(125)	պ	(12)	ք	(13)
է	(15)	ձ	(346)	ջ	(14)	o	(135)
ը	(136)	ղ	(126)	ռ	(12456)	ֆ	(124)
թ	(2345)	ճ	(245)	ս	(234)		
ժ	(345)	մ	(134)	վ	(1236)		

` comma (Eastern)	(25)	⠂
` comma (Western)	(6)	⠠
. semicolon	(23)	⠆
: colon	(25)	⠒
: full stop	(256)	⠲
՞ question mark (Eastern)	(26)	⠢
՞ question mark (Western)	(236)	⠦
՛ exclamation	(235)	⠖
՚ apostrophe	(3)	⠄
«...» quote	(236…356)	⠦ … ⠴
‐ hyphen	(36)	⠤
capital	(46)	⠨
number sign	(3456)	⠼

Australia

Language: English: Unified English Braille (contracted)

Braille Standards Set by:

Australian Braille Authority
c/o Round Table on Information Access for People with Print Disabilities Inc.
http://www.printdisability.org/aba

International Council on English Braille (ICEB)
http://www.iceb.org/

Literary Notation:

The Rules of Unified English Braille, 2010
The Unified English Braille Primer – Australian Edition, 2008

Mathematics and Science Notation:

The Rules of Unified English Braille, 2010
Unified English Braille Guidelines for Technical Materials, 2008

Music Notation:

The New International Manual of Braille Music Notation, 1996
Introduction to Braille Music Transcription, Second Edition 2005

IPA Braille:

An Updated Tactile Representation of the International Phonetic Alphabet, 2008

English Alphabet: See *English,* page 175

Austria

Language: German (contracted)

Braille Standards Set by:

Braille Authority of German Speaking Countries

Literary Notation:

Das System der deutschen Blindenschrift, 2005

Mathematics and Science Notation:

Anleitung zur Umsetzung mathematischer Formeln, Nov. 2001
Neufassung und Vervollständigung des Systems der internationalen Mathematikschrift für Blinde, 1986 (*Marburger Systematiken der blindenschrift*, Vol. 6)

Chemistry Notation:

Das System der Chemieschrift in der deutschen Blindenschrift, 2005, Vol. 23

Computer Notation:

Marburger Systematiken der blindenschrift: Phonetic transcription „Weltlautschrift für Blinde," 1938, 2010
Eurobraille (8-dot Braille): Code tables 437 and 850 of ISO TR 11548, Part 2

Chess Notation:

Schachschrift für Blinde, 2004, Vol. 15

Stenography

System der deutschen 6-Punkt-Stenografie für Blinde, 2002, Vol. 21

German Alphabet: See *German,* page 182

Azerbaijan

Language: Azerbaijani (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Azerbaijani

a	(1)		g	(1245)		q	(12345)		s	(234)	
b	(12)		ğ	(126)		l	(123)		ş	(146)	
c	(14)		h	(125)		m	(134)		t	(2345)	
ç	(16)		x	(1346)		n	(1345)		u	(136)	
d	(145)		ı	(35)		o	(135)		ü	(1256)	
e	(15)		i	(24)		ö	(246)		v	(1236)	
ə *	(4, 1)		j	(245)		p	(1234)		y	(13456)	
f	(124)		k	(13)		r	(1235)		z	(1356)	

* ä replaced ə in 1991

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
«…», "…" quote	(236…356)	
capital	(6)	
number sign	(3456)	

Bahamas

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Bahrain, Kingdom of

Languages: Arabic (uncontracted), English (uncontracted)

Braille Standards Set by:

The Saudi-Bahraini Institute for the Blind
www.blindinstitute.org

Literary Notation:

English: *British Braille: A Restatement of Standard English Braille 4,* 2004

Mathematics and Science Notation:

English: *Braille Mathematics Notation,* 2005

Computer Notation:

English: *Braille Computer Notation,* 2006

Music Notation:

New International Manual of Braille Music Notation, 1996 (modified for Arab music icons)

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Bangladesh

Language: Bangla (uncontracted)

Alphabet: Bangla, Independent Vowels

অ	a	(1)		উ	u	(136)		ঐ	ai	(34)	
আ	ā	(345)		ঊ	ū	(1256)		ও	ō	(135)	
ই	i	(24)		ঋ	ṛ	(5, 1235)		ঔ	au	(246)	
ঈ	ī	(35)		এ	ē	(15)					

Consonants

ক	ka	(13)		ন	na	(1345)	
খ	kha	(1346)		প	pa	(1234)	
গ	ga	(1245)		ফ	pha	(124)	
ঘ	gha	(126)		ব	ba	(12)	
ঙ	ṅa	(346)		ভ	bha	(1236)	
চ	ca	(14)		ম	ma	(134)	
ছ	cha	(16)		য	ya	(13456)	
জ	ja	(245)		র	ra	(1235)	
ঝ	jha	(1356)		ল	la	(123)	
ঞ	ña	(25)		শ	śa	(146)	
ট	ṭa	(23456)		ষ	ṣa	(12346)	
ঠ	ṭha	(2456)		স	sa	(234)	
ড	ḍa	(1246)		হ	ha	(125)	
ঢ	ḍha	(123456)		ড়	ṛa	(12456)	
ণ	ṇa	(3456)		ঢ়	ṛha	(12356)	
ত	ta	(2345)		য়	ya	(26)	
থ	tha	(1456)		ৎ	khanda ta	(5, 2345)	
দ	da	(145)		ক্ষ	kṣa	(12345)	
ধ	dha	(2346)		জ্ঞ	jña	(156)	

Special Characters

ం	Anusvara	(56)	⠰
ః	Visarga	(6)	⠠
ఁ	Candrabindu	(3)	⠄

Numbers

౧	1	(3456, 1)	⠸⠁		౬	6	(3456, 124)	⠸⠋
౨	2	(3456, 12)	⠸⠃		౭	7	(3456, 1245)	⠸⠛
౩	3	(3456, 14)	⠸⠉		౮	8	(3456, 125)	⠸⠓
౪	4	(3456, 145)	⠸⠙		౯	9	(3456, 24)	⠸⠚
౫	5	(3456, 15)	⠸⠑		౦	0	(3456, 245)	⠸⠊

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
। period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠦…⠴
'…' single quote	(6, 236…356, 3)	⠠ ⠦…⠴ ⠄
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(6, 2356…2356, 3)	⠠ ⠶…⠶ ⠄
- hyphen	(36)	⠤
— dash	(36, 36)	⠤ ⠤
/ slash	(456, 34)	⠸⠌
* asterisk	(35, 35)	⠒ ⠒
number sign	(3456)	⠸

Barbados

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Belarus

Language: Belarusian (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Belarusian

а	(1)	з	(1356)	п	(1234)	ц	(14)
б	(12)	і	(13456)	р	(1235)	ч	(12345)
в	(2456)	й	(12346)	с	(234)	ш	(156)
г	(1245)	к	(13)	т	(2345)	ы	(2346)
д	(145)	л	(123)	у	(136)	ь	(23456)
е	(15)	м	(134)	ў	(346)	э	(246)
ё	(16)	н	(1345)	ф	(124)	ю	(1256)
ж	(245)	о	(135)	х	(125)	я	(1246)

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
«…» quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Belgium

Languages: Dutch (uncontracted), French (uncontracted), German (contracted)

Braille Standards Set by:

De Federatie Slechtzienden en Blindenbelang
Belgische Confederatie voor Blinden en Slechtzienden
http://www.phk.be/

Literary Notation:

Dutch: *Braillestandaard voor algemeen gebruik in het Nederlandse taalgebied,* 2005
French: *Code braille français uniformise pour la transcription des textes imprimes* (CBFU),
2008
German: *Das System der deutschen Blindenschrift,* 2005

Mathematics and Science Notation:

French: *Notation Mathématique Braille*, 1st edition, January 2007; *Notation Braille dans le
Domaine de la Chimie*, 1st edition, June 2008
German: *Mathematikschrift für Blinde* (2000, internal Handbook of the Swiss Library for Blind,
Visually-Impaired and Print-Disabled); *Neufassung und Vervollständigung des Systems der
internationalen Mathematikschrift für Blinde*, 1986 (braille) and 1992 (print)

Chemistry Notation:

German: *Das System der Chemieschrift in der deutschen Blindenschrift,* 2005

Computer Notation:

French: *Table Braille Informatique Française* (TBFR2007), 1st edition, October 2007
German: Eurobraille, DIN 32982 ("8-Punkt-Brailleschrift für die
Informationsverarbeitung"/"Information processing 8-dot-Braille graphic characters") (1994)
and in ISO Technical Report 11548-2 (2001)

Music Notation:

French: *Nouveau Manuel International de Notation Musicale Braille*, 1996
German: *New International Manual of Braille Music Notation*, 1996

Dutch Alphabet: See *Dutch,* page 174
French Alphabet: See *French,* page 180
German Alphabet: See *German,* page 182

Bhutan

Languages: English (BANA, contracted), Dzongkha (uncontracted)

Literary Notation:

English Braille, American Edition, 1994; Revised 2002
Dzongkha Braille Code

Mathematics and Science Notation:

Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Alphabet: Dzongkha, Consonants

ཀ (13)		ཅ (2345)		ཚ (34)		ར (1235)	
ཁ (126)		ཆ (5, 1456)		ཛ (12456)		ལ (123)	
ག (1245)		ཇ (2346)		ཝ (1356)		ཤ (146)	
ང (346)		ཉ (1345)		ཞ (2456)		ས (234)	
ཙ (14)		ཏ (1234)		ཟ (12345)		ཧ (125)	
ཆ (16)		ཐ (124)		འ (1346)		ཨ (1)	
ཇ (245)		ད (12)		ཡ (156)			
ཉ (1236)		ན (134)		ར (13456)			

Consonants for Foreign Words

ཊ (5, 2345)		ཌ (5, 1345)	
ཋ (5, 1456)		ཎ (5, 146)	
ཌ (5, 2346)		ཀྵ (13, 45, 5, 146)	

Vowels

ི (24)		ུ (136)		ེ (15)		ོ (135)	

Special Characters

ཿ (456, 246)		˙ (2)		ྐ (23, 23)	
ཾ (56, 1256)		། (456)			

Numbers

꒤	1	(3456, 1)	⠿⠁	꒤	6	(3456, 124)	⠿⠋
꒤	2	(3456, 12)	⠿⠃	꒤	7	(3456, 1245)	⠿⠛
꒤	3	(3456, 14)	⠿⠉	꒤	8	(3456, 125)	⠿⠓
꒤	4	(3456, 145)	⠿⠙	꒤	9	(3456, 24)	⠿⠊
꒤	5	(3456, 15)	⠿⠑	꒤	0	(3456, 245)	⠿⠚

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(5, 35, 234)	⠄ ⠲ ⠦
? question mark	(6, 236)	⠠ ⠶
! exclamation	(6, 235)	⠠ ⠖
„…„ quote	(236…356)	⠶ … ⠴
(…) parentheses	(12356…23456)	⠷ … ⠾
[…] brackets	(4, 12356…4, 23456)	⠈ ⠷ … ⠈ ⠾
{…} braces	(46, 12356…46, 23456)	⠨ ⠷ … ⠨ ⠾
… ellipsis	(3, 3, 3)	⠄ ⠄ ⠄
- hyphen	(36)	⠤
/ slash	(456, 34)	⠸ ⠌
asterisk	(46, 35)	⠨ ⠲
number sign	(3456)	⠿

Bolivia

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Bosnia and Herzegovina

Language: Bosnian (uncontracted)

Source:

World Braille Usage, 1990 (Yugoslavia)

Alphabet: Bosnian

a	а	(1)		g	г	(1245)		o	о	(135)	
b	б	(12)		h	х	(125)		p	п	(1234)	
c	ц	(14)		i	и	(24)		r	р	(1235)	
č	ч	(16)		j	ј	(245)		s	с	(234)	
ć	ħ	(146)		k	к	(13)		š	ш	(156)	
d	д	(145)		l	л	(123)		t	т	(2345)	
dž	џ	(12456)		lj	љ	(126)		u	у	(136)	
đ	ħ	(1456)		m	м	(134)		v	в	(1236)	
e	е	(15)		n	н	(1345)		z	з	(1356)	
f	ф	(124)		nj	њ	(1246)		ž	ж	(2346)	

Brazil

Language: Portuguese (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

Grafia Braille para Lingua Portuguesa, 2003 (Braille Writing for the Portuguese Language)
Estenografia Braille Para Língua Portuguesa (Grade 2)
Normas Técnicas para a Produção de Textos em Braille, 2003 (Standards for the Production of Braille texts)

Mathematics Notation:

Código Matemático Unificado, 1997

Chemistry Notation:

Grafia Quimica Braille, 2010

Computer Notation:

Grafia Braille para Informática, 2006 (Braille Writing for Computing)

Music Notation:

International Manual of Braille Music Notation (Portuguese translation, 2007)

Portuguese Alphabet: See *Portuguese,* page 197

Bulgaria

Language: Bulgarian (uncontracted)

Literary Notation:

Bulgarian Braille, 2004

Mathematics Notation:

Russian math system

Science Notation:

Latin letters for physics and chemistry (formulas)

Computer Notation:

Partially Russian computer braille and some Bulgarian letters

Music Notation:

Marburg

Alphabet: Bulgarian

а	(1)	и	(24)	р	(1235)	ш	(156)
б	(12)	й	(13456)	с	(234)	щ	(1346)
в	(2456)	к	(13)	т	(2345)	ъ	(12356)
г	(1245)	л	(123)	у	(136)	ь	(23456)
д	(145)	м	(134)	ф	(124)	ю	(1256)
е	(15)	н	(1345)	х	(125)	я	(1246)
ж	(245)	о	(135)	ц	(14)		
з	(1356)	п	(1234)	ч	(12345)		

Punctuation

, comma	(2)	! exclamation	(235)	
; semicolon	(23)	„…" quote	(236…356)	
: colon	(25)	(…) parentheses	(2356…2356)	
. period, full stop	(256)	capital	(46)	
? question mark	(26)	number sign	(3456)	

Cambodia

Language: Khmer (uncontracted)

Braille Standards Set by:

Krousar Thmey Cambodia
www.krousar-thmey.org

Braille Code:

Braille Khmer, 2012

Alphabet: Khmer

ក	(1245)		ប៉	(36, 23456)		ព	(12346)	
ខ	(13)		ឌ	(6, 145)		ភ	(6, 1234)	
គ	(6, 1245)		ឍ	(356, 23456)		ម	(134)	
ឃ	(6, 13)		ណ	(1345)		យ	(6, 13456)	
ង	(12456)		ត	(2345)		រ	(1235)	
ច	(245)		ថ	(23456)		ល	(6, 123)	
ឆ	(346)		ទ	(6, 2345)		វ	(2456)	
ជ	(6, 245)		ធ	(6, 23456)		ស	(234)	
ឈ	(6, 346)		ន	(6, 1345)		ហ	(125)	
ញ	(6, 1456)		ប	(12)		ឡ	(123)	
ដ	(145)		ផ	(1234)		អ	(135)	

Consonant Legs: Each consonant has its leg, except ຫ and ຣ

Consonant	Dots		Consonant	Dots
ກ	(1236, 1245)		ຂ	(1236, 2345)
ຄ	(1236, 13)		ຄ	(1236, 23456)
ຆ	(1236, 6, 1245)		ຉ	(1236, 6, 2345)
ຌ	(1236, 6, 13)		ຌ	(1236, 6, 23456)
ຎ	(1236, 12456)		ຏ	(1236, 6, 1345)
ຐ	(1236, 245)		ຑ	(1236, 12)
ຒ	(1236, 346)		ຓ	(1236, 1234)
ດ	(1236, 6, 245)		ຕ	(1236, 12346)
ຖ	(1236, 6, 346)		ຖ	(1236, 6, 1234)
ຘ	(1236, 6, 1456)		ທ	(1236, 134)
ຠ	(1236, 145)		ຟ	(1236, 6, 13456)
ຢ	(1236, 36, 23456)		ຉ	(1236, 1235)
ຣ	(1236, 6, 145)		ຯ	(1236, 6, 123)
ຩ	(1236, 356, 23456)		ຬ	(1236, 2456)
ຨ	(1236, 1345)		ຩ	(1236, 234)

No Legs

Consonant	Dots
ຫ	(1236, 125)
ຣ	(1236, 135)

Vowels

	Dots			Dots			Dots			Dots
◌າ	(16)		◌ິ	(14)		ເ◌ຍ	(12356)		ເ◌ົາ	(456)
◌ໍ	(34)		◌ຸ	(25)		ເ◌	(124)		◌ຸໍ	(1246)
◌ຳ	(15)		◌ູ	(23)		ແ◌	(126)		◌ໍ	(13456)
◌ໍ	(246)		ເ◌	(146)		ໂ◌	(24)		າ◌ໍ	(1356)
◌ໍ	(26)		ເ◌ຍ	(12345)		ເ◌າ	(156)		◌ະ	(1)

Additional Vowels

ុះ	(1346)	⠨	ោះ	(2346)	⠮	◌ះ◌ូ	(246, 1)	⠪⠂
ើះ	(136)	⠦	◌ះ◌ើ	(34, 1)	�⠂	ឿះ	(126, 1)	⠣⠂

Full Vowels

ឥ	(6, 34)	⠠⠹	ឩ	(6, 1346)	⠠⠨	ឯ	(5)	⠐
ឫ	(15, 1)	⠑⠂	ឪ	(1346, 1)	⠨⠂	ឰ	(124, 1)	⠋⠂
ឦ	(14, 1)	⠙⠂	ឭ	(1456)	⠹	ឱ	(156, 1)	⠱⠂
ឧ	(1256)	⠳	ឮ	(1456, 1)	⠹⠂	ឱ្	(456, 14)	⠸⠙

Numbers

១	1	(3456, 1)	⠼⠂	៦	6	(3456, 124)	⠼⠋
២	2	(3456, 12)	⠼⠃	៧	7	(3456, 1245)	⠼⠛
៣	3	(3456, 14)	⠼⠙	៨	8	(3456, 125)	⠼⠓
៤	4	(3456, 145)	⠼⠝	៩	9	(3456, 24)	⠼⠊
៥	5	(3456, 15)	⠼⠑	០	0	(3456, 245)	⠼⠚

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(45)	⠰
. period, point	(256)	⠲
។ period, full stop	(123456)	⠿
? question mark	(23)	⠆
! exclamation	(235)	⠖
"…" quote	(236…356)	⠶…⠴
(…) parentheses	(2356…2356)	⠶…⠶
capital	(6)	⠠
number sign	(3456)	⠼

Cameroon

Languages: French (uncontracted), English (contracted)

Source:
World Braille Usage, 1990

French Alphabet: See *French,* page 180
English Alphabet: See *English,* page 175

Canada

Languages: English (contracted), French (uncontracted and contracted)
Unified English Braille has been adopted, but is not implemented at this time

Braille Standards Set by:
Braille Literacy Canada/l Littératie braille Canada
http://www.canadianbrailleauthority.ca
www.brailleliteracycanada.ca

The Braille Authority of North America
http://www.brailleauthority.org

Literary Notation:
English Braille, American Edition, 1994; Revised 2002
Code braille français uniformisé, 2008

Braille Formats:
Braille Formats: Principles of Print-to-Braille Transcription, 2011

IPA Braille:
An Updated Tactile Representation of the International Phonetic Alphabet, 2008

Computer Notation:
Computer Braille Code, 2000 Revision

Mathematics and Science Notation:
Nemeth Code for Mathematics & Science Notation, 1972 Revision

Chemistry Notation:
Braille Code for Chemical Notation, 1997

Music Notation:
Music Braille Code, 1997

Tactile Graphics:
Guidelines and Standard for Tactile Graphics, 2010

Refreshable Braille:

Provisional Guidelines for Linear Braille Format, 1987

English Alphabet: See *English,* page 175
French Alphabet: See *French,* page 180

Chile

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

China

Languages: Mandarin (contracted), Cantonese (uncontracted and no space between words)

Braille Standards Set by:
China Association for the Blind

Literary Notation:
Chinese Braille, Teng, Li, Yang, Gao; ISBN7-5080-0346-2/G.424, Huaxia Press, 1996;
Chinese Braille, GB/T15720—2008;
Braille. author: Zhong Jinghua; Tianjin: Tianjin Education Press, 2007

Mathematics and Science Notation:
Mathematical, Physical and Chemical Symbols of Chinese Braille, 2000

Music Notation:
China Braille Musical Signs, 2009

Mandarin Alphabet: See *Mandarin,* page 195
Cantonese Alphabet: See *Cantonese,* page 169

Colombia

Language: Spanish (usually uncontracted)

Braille Standards Set by:
Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:
El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:
*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:
International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Congo, Democratic Republic of the

Languages: French (contracted), English (contracted)

Source:
World Braille Usage, 1990 (Zaire)

French Alphabet: See *French,* page 180
English Alphabet: See *English,* page 175

Costa Rica

Language: Spanish (usually uncontracted)

Braille Standards Set by:
Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:
El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:
*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:
International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Croatia

Language: Croatian (uncontracted)

Braille Standards Set by:

Croatian Association of the Blind, Braille Committee (Hrvatski odbor za brajicu)
www.savez-slijepih.hr

Websites:

For books and magazines: Hrvatska knjižnica za slijepe (Croatian Library for the Blind)
    http://www.hkzasl.hr/
Textbooks for blind children adapt: Hrvatska knjižnica za slijepe (Croatian Library for the Blind)
    http://www.hkzasl.hr/
Hrvatski savez slijepih/Croatian Association of the Blind http://www.savez-slijepih.hr/
Centar za odgoj i obrazovanje „Vinko Bek" (School for the Blind)
    http://www.centar-vinko-bek-zg.skole.hr/
Udruženje za unapređivanje obrazovanja slijepih i slabovidnih osoba (Association for the
    Advancement of Education of Blind and Visually Impaired Persons) http://www.uuosso.hr

Literary Notation:

Elementary Braille Code, 1994

Music Notation:

Braille Music Notation, 2005

Alphabet: Croatian

a	(1)		f	(124)		n	(1345)		u	(136)
b	(12)		g	(1245)		nj	(1246)		v	(1236)
c	(14)		h	(125)		o	(135)		w	(2456)
č	(16)		i	(24)		p	(1234)		x	(1346)
ć	(146)		j	(245)		q	(12345)		y	(13456)
d	(145)		k	(13)		r	(1235)		z	(1356)
dž	(12456)		l	(123)		s	(234)		ž	(2346)
đ	(1456)		lj	(126)		š	(156)			
e	(15)		m	(134)		t	(2345)			

Accents

` short rising accent	(4)		´ long rising accent	(45)
" short downward accent	(5)		⌢ long downward accent	(56)

26

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(3)	⠄
? question mark	(26)	⠢
! exclamation	(235)	⠖
' apostrophe ('Izostavnik)	(256)	⠴
"…", „…", "…", «…» quote	(2356…2356)	⠶…⠶
'…' single quote	(3…3)	⠄…⠄
(…) parentheses	(236…356)	⠦…⠴
[…] brackets	(12356…23456)	⠷…⠾
/…./ parentheses	(1256…1256)	⠳…⠳
- hyphen	(36)	⠤
* asterisk	(35)	⠔
& ampersand	(12346)	⠯
§ or ¶ paragraph	(346)	⠬
superscript	(34)	⠌
# release	(6)	⠠
capital	(46)	⠨
number sign	(3456)	⠼
italics	(456)	⠸

Cuba

Language: Spanish (uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

Notación Matemática. Fundación Braille de Uruguay. Unificación del código matemático

Science Notation:

Guías Comisión Braille española

Music Notation:

Notación musical en sistema braille. Frank Emilio Flynn, Ediciones Braille Iris, La Habana, 1997

Stenography:

Conferencia estenografía Hispanoamericana, Grado 2 Aprobado en Montevideo, 1964, Buenos Aires Organización nacional del ciegos y Nacional braille de Buenos Aires, 1966

Spanish Alphabet: See *Spanish,* page 201

Cyprus

Languages: Greek (uncontracted), Turkish (uncontracted)

Source:
World Braille Usage, 1990

Greek Alphabet: See *Greek,* page 183
Turkish Alphabet: See *Turkish,* page 204

Czech Republic

Language: Czech (uncontracted)

Braille Standards Set by:

Czech Blind United (SONS)
www.sons.cz

Literary Notation:

GONZÚROVÁ, Wanda, *Příručka pro přepis textů do bodového písma* (*Braille Transcription Manual*)

Mathematics and Science Notation:

GONZÚROVÁ, Wanda, *Příručka pro přepis textů do bodového písma* (*Braille Transcription Manual*)

Computer Notation:

8-dot: used to represent braille on braille displays (braille translation tables implanted in screenreaders and braille embossing software)

Music Notation:

JELÍNEK, Jiří: *Notopis pro nevidomé* (*Braille Music Notation for the Blind*)

Alphabet: Czech

a	(1)		g	(1245)		ó	(246)		ů	(23456)	
á	(16)		h	(125)		p	(1234)		v	(1236)	
b	(12)		i	(24)		q	(12345)		w	(12356)	
c	(14)		í	(34)		r	(1235)		x	(1346)	
č	(146)		j	(245)		ř	(2456)		y	(13456)	
d	(145)		k	(13)		s	(234)		ý	(12346)	
ď	(1456)		l	(123)		š	(156)		z	(1356)	
e	(15)		m	(134)		t	(2345)		ž	(2346)	
é	(345)		n	(1345)		ť	(1256)				
ě	(126)		ň	(1246)		u	(136)				
f	(124)		o	(135)		ú	(346)				

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(3)	⠄
? question mark	(26)	⠢
! exclamation	(235)	⠖
' apostrophe	(4)	⠐
„…" quote	(2356…2356)	⠶…⠶
(…) parentheses	(236…356)	⠦…⠴
- hyphen	(36)	⠤
/ slash	(12456)	⠻
* asterisk	(35)	⠔
capital	(6)	⠠
series capital	(56)	⠰
number sign	(3456)	⠼

Denmark

Languages: Danish (contracted), Faroese (uncontracted), Greenlandic (uncontracted)

Braille Standards Set by:
Braille Authority Denmark
Det Danske Punktskriftnævn

Literary Notation:
Den Danske Punktskrift, 1993

Mathematics and Science Notation:
LaTex nomenclature based on the authorized 8-dot code (Latin 1252)

Music Notation:
International Notation for Music, Marburg

Danish Alphabet: See *Danish,* page 173

Alphabet: Faroese

a	(1)		h	(125)		o	(135)	
á	(34)		i	(24)		ó	(23456)	
b	(12)		í	(126)		p	(1234)	
d	(145)		j	(245)		r	(1235)	
ð	(1456)		k	(13)		s	(234)	
e	(15)		l	(123)		t	(2345)	
f	(124)		m	(134)		u	(136)	
g	(1245)		n	(1345)		ú	(12356)	

v	(1236)	
y	(13456)	
ý	(123456)	
æ	(345)	
ø	(246)	

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe and abbreviation	(3)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
— dash	(36, 36)	
capital	(6)	
number sign	(3456)	
italics	(56)	

Alphabet: Greenlandic

a	(1)	m	(134)	u	(136)	y	(13456)
e	(15)	n	(1345)	v	(1236)	z	(1356)
f	(124)	o	(135)	b	(12)	æ	(345)
g	(1245)	p	(1234)	c	(14)	ø	(246)
i	(24)	q	(12345)	d	(145)	å	(16)
j	(245)	r	(1235)	h	(125)		
k	(13)	s	(234)	w	(2456)		
l	(123)	t	(2345)	x	(1346)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(4)	
»…«, "…" quote	(2356…2356)	
(…) parentheses	(236…356)	
[…] brackets	(5, 236…5, 356)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
– dash	(36, 36)	
/ slash	(34)	
* asterisk	(35)	
capital	(46)	
uppercase letters	(456)	
number sign	(3456)	
italics	(56)	

Dominica

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Dominican Republic

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Ecuador

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Egypt

Language: Arabic (uncontracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166

El Salvador

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Estonia

Language: Estonian (uncontracted)

Braille Standards Set by:

Tartu Emajõe School
kool@tek.tartu.ee

Literary and Mathematics Notation:

Handbook of Estonian Braille, 2012. Tartu School, Estonian State School for the Blind and Visually Impaired

Alphabet: Estonian

a	(1)	i	(24)	q	(12345)	v	(1236)
b	(12)	j	(245)	r	(1235)	w	(2456)
c	(14)	k	(13)	s	(234)	õ	(126)
d	(145)	l	(123)	š	(156)	ä	(345)
e	(15)	m	(134)	z	(1356)	ö	(246)
f	(124)	n	(1345)	ž	(2346)	ü	(1256)
g	(1245)	o	(135)	t	(2345)	x	(1346)
h	(125)	p	(1234)	u	(136)	y	(13456)

Punctuation

, comma	(2)	[…] brackets	(12356…23456)	
; semicolon	(23)	- hyphen, dash	(36)	
: colon	(25)	/ slash	(34)	
. period, full stop	(3)	* asterisk	(35)	
? question mark	(26)	capital	(6)	
! exclamation	(235)	number sign	(3456)	
' apostrophe	(5)	*italics*	(46)	
„…" quote	(56…56)	**bold**	(456)	
(…) parentheses	(236…356)			

Ethiopia

Language: Amharic (uncontracted)

Braille Standards Set by:

Ethiopian Standards Agency
enfo@ethiostandrs.org

Alphabet: Amharic

ሀ	(125, 26)		መ	(134, 26)		ሰ	(1456, 26)	
ሁ	(125, 136)		ሙ	(134, 136)		ሱ	(1456, 136)	
ሂ	(125, 24)		ሚ	(134, 24)		ሲ	(1456, 24)	
ሃ	(125, 1)		ማ	(134, 1)		ሳ	(1456, 1)	
ሄ	(125, 15)		ሜ	(134, 15)		ሴ	(1456, 15)	
ህ	(125)		ም	(134)		ስ	(1456)	
ሆ	(125, 135)		ሞ	(134, 135)		ሶ	(1456, 135)	
ለ	(123, 26)		ሠ	(234, 26)		ሸ	(146, 26)	
ሉ	(123, 136)		ሡ	(234, 136)		ሹ	(146, 136)	
ሊ	(123, 24)		ሢ	(234, 24)		ሺ	(146, 24)	
ላ	(123, 1)		ሣ	(234, 1)		ሻ	(146, 1)	
ሌ	(123, 15)		ሤ	(234, 15)		ሼ	(146, 15)	
ል	(123)		ሥ	(234)		ሽ	(146)	
ሎ	(123, 135)		ሦ	(234, 135)		ሾ	(146, 135)	
ሐ	(126, 26)		ረ	(1235, 26)		ቀ	(12345, 26)	
ሑ	(126, 136)		ሩ	(1235, 136)		ቁ	(12345, 136)	
ሒ	(126, 24)		ሪ	(1235, 24)		ቂ	(12345, 24)	
ሓ	(126, 1)		ራ	(1235, 1)		ቃ	(12345, 1)	
ሔ	(126, 15)		ሬ	(1235, 15)		ቄ	(12345, 15)	
ሕ	(126)		ር	(1235)		ቅ	(12345)	
ሖ	(126, 135)		ሮ	(1235, 135)		ቆ	(12345, 135)	

በ	(12, 26)		ከ	(1345, 26)		ኸ	(236, 26)
ቡ	(12, 136)		ኩ	(1345, 136)		ኹ	(236, 136)
ቢ	(12, 24)		ኪ	(1345, 24)		ኺ	(236, 24)
ባ	(12, 1)		ካ	(1345, 1)		ኻ	(236, 1)
ቤ	(12, 15)		ኬ	(1345, 15)		ኼ	(236, 15)
ብ	(12)		ክ	(1345)		ኽ	(236)
ቦ	(12, 135)		ኮ	(1345, 135)		ኾ	(236, 135)
ተ	(2345, 26)		ኘ	(346, 26)		ወ	(2456, 26)
ቱ	(2345, 136)		ኙ	(346, 136)		ዉ	(2456, 136)
ቲ	(2345, 24)		ኚ	(346, 24)		ዊ	(2456, 24)
ታ	(2345, 1)		ኛ	(346, 1)		ዋ	(2456, 1)
ቴ	(2345, 15)		ኜ	(346, 15)		ዌ	(2456, 15)
ት	(2345)		ኝ	(346)		ው	(2456)
ቶ	(2345, 135)		ኞ	(346, 135)		ዎ	(2456, 135)
ቸ	(16, 26)		አ	(12356, 26)		ዐ	(1256, 26)
ቹ	(16, 136)		ኡ	(12356, 136)		ዑ	(1256, 136)
ቺ	(16, 24)		ኢ	(12356, 24)		ዒ	(1256, 24)
ቻ	(16, 1)		ኣ	(12356, 1)		ዓ	(1256, 1)
ቼ	(16, 15)		ኤ	(12356, 15)		ዔ	(1256, 15)
ች	(16)		እ	(12356)		ዕ	(1256)
ቾ	(16, 135)		ኦ	(12356, 135)		ዖ	(1256, 135)
ኀ	(156, 26)		ከ	(13, 26)		ዘ	(1356, 26)
ኁ	(156, 136)		ኩ	(13, 136)		ዙ	(1356, 136)
ኂ	(156, 24)		ኪ	(13, 24)		ዚ	(1356, 24)
ኃ	(156, 1)		ካ	(13, 1)		ዛ	(1356, 1)
ኄ	(156, 15)		ኬ	(13, 15)		ዜ	(1356, 15)
ኅ	(156)		ክ	(13)		ዝ	(1356)
ኆ	(156, 135)		ኮ	(13, 135)		ዞ	(1356, 135)

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Char	Code		Char	Code		Char	Code
ሸ	(356, 26)		ገ	(1245, 26)		ጸ	(2346, 26)
ሹ	(356, 136)		ጉ	(1245, 136)		ጹ	(2346, 136)
ሺ	(356, 24)		ጊ	(1245, 24)		ጺ	(2346, 24)
ሻ	(356, 1)		ጋ	(1245, 1)		ጻ	(2346, 1)
ሼ	(356, 15)		ጌ	(1245, 15)		ጼ	(2346, 15)
ሽ	(356)		ግ	(1245)		ጽ	(2346)
ሾ	(356, 135)		ጎ	(1245, 135)		ጾ	(2346, 135)
የ	(13456, 26)		ጠ	(23456, 26)		ፀ	(12346, 26)
ዩ	(13456, 136)		ጡ	(23456, 136)		ፁ	(12346, 136)
ዪ	(13456, 24)		ጢ	(23456, 24)		ፂ	(12346, 24)
ያ	(13456, 1)		ጣ	(23456, 1)		ፃ	(12346, 1)
ዮ	(13456, 15)		ጤ	(23456, 15)		ፄ	(12346, 15)
ይ	(13456)		ጥ	(23456)		ፅ	(12346)
ዮ	(13456, 135)		ጦ	(23456, 135)		ፆ	(12346, 135)
ዸ	(145, 26)		ፈ	(14, 26)		ፈ	(124, 26)
ዹ	(145, 136)		ፉ	(14, 136)		ፉ	(124, 136)
ዺ	(145, 24)		ፊ	(14, 24)		ፊ	(124, 24)
ዻ	(145, 1)		ፋ	(14, 1)		ፋ	(124, 1)
ዼ	(145, 15)		ፌ	(14, 15)		ፌ	(124, 15)
ዽ	(145)		ፍ	(14)		ፍ	(124)
ዾ	(145, 135)		ፎ	(14, 135)		ፎ	(124, 135)
ጀ	(245, 26)		አ	(235, 26)		ፐ	(1234, 26)
ጁ	(245, 136)		ኡ	(235, 136)		ፑ	(1234, 136)
ጂ	(245, 24)		ኢ	(235, 24)		ፒ	(1234, 24)
ጃ	(245, 1)		ኣ	(235, 1)		ፓ	(1234, 1)
ጄ	(245, 15)		ኤ	(235, 15)		ፔ	(1234, 15)
ጅ	(245)		እ	(235)		ፕ	(1234)
ጆ	(245, 135)		ኦ	(235, 135)		ፖ	(1234, 135)

ሽ	(1236, 26)				
ሹ	(1236, 136)				
ሺ	(1236, 24)				
ሻ	(1236, 1)				
ሼ	(1236, 15)				
ሽ	(1236)				
ሾ	(1236, 135)				

ከ	(13, 2456, 26)	ጐ	(156, 2456, 26)	
ኩ	(13, 2456, 136)	ጉ	(156, 2456, 136)	
ኪ	(13, 2456, 24)	ጒ	(156, 2456, 24)	
ካ	(13, 1346)	ጓ	(156, 1346)	
ኬ	(13, 2456, 15)	ጔ	(156, 2456, 15)	
ቄ	(12345, 2456, 26)	ጐ	(1245, 2456, 26)	
ቁ	(12345, 2456, 136)	ጉ	(1245, 2456, 136)	
ቂ	(12345, 2456, 24)	ጒ	(1245, 2456, 24)	
ቃ	(12345, 1346)	ን	(1245, 1346)	
ቄ	(12345, 2456, 15)	ጔ	(1245, 2456, 15)	

ላ	(123, 1346)	ጃ	(346, 1346)	
ማ	(134, 1346)	ዛ	(1356, 1346)	
ራ	(1235, 1346)	ዠ	(356, 1346)	
ሳ	(1456, 1346)	ያ	(145, 1346)	
ባ	(12, 1346)	ጇ	(245, 1346)	
ታ	(2345, 1346)	ን	(1245, 1346)	
ኻ	(16, 1346)	ጧ	(23456, 1346)	
ካ	(13, 1346)	ዧ	(14, 1346)	
ጓ	(156, 1346)	ጻ	(2346, 1346)	
ኗ	(1345, 1346)	ፋ	(124, 1346)	

Geez Numerical Codes

δ̄	1	(1, 1, 23)		Ặ	20	(1, 13, 14, 23)	
ē̱	2	(1, 14, 23)		̄ፃ	30	(1, 13, 25, 23)	
Ĺ	3	(1, 25, 23)		̄ጛ	40	(1, 13, 36, 23)	
θ̱	4	(1, 36, 23)		Ÿ	50	(1, 13, 15, 23)	
Ƶ̱	5	(1, 15, 23)		Ặ	60	(1, 13, 26, 23)	
Ʒ̱	6	(1, 26, 23)		ē̱	70	(1, 13, 24, 23)	
Ẕ	7	(1, 24, 23)		̄π̄	80	(1, 13, 35, 23)	
Ặ	8	(1, 35, 23)		̄ʒ̄	90	(1, 13, 12, 23)	
θ̄	9	(1, 12, 23)		ǵ	100	(1, 124, 1, 13)	
Ī	10	(1, 13, 23)					

Punctuation

ˌ tonal mark	(5)	
፡ wordspace	(6, 3)	
፣ comma	(2)	
፤ semicolon	(23)	
፦ preface colon	(25)	
። period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
«...» quote	(236…356)	
‹…› single quote	(6, 236…356, 3)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…2356, 3)	
… ellipsis	(3, 3, 3)	
– hyphen	(25, 25)	
— dash	(36, 36)	
/ slash	(5, 2)	
* asterisk	(35, 35)	
number sign	(3456)	

Finland

Languages: Finnish (uncontracted), Swedish (uncontracted)

Note: Finnish punctuation is used with Swedish text

Braille Standards Set by:

Braille-neuvottelukunta (Finnish Braille Authority)
braille@celia.fi
www.pistekirjoitus.fi

Literary Notation:

Hietaketo-Vieno, Kartovaara, Mäntylä, Pyötsiä, Salo, *Pistekirjoituksen perusteet,* Braille-
 neuvottelukunta & Näkövammaisten kirjasto, Helsinki 2000

Mathematics and Science Notation:

Anneli Salo, *Matematiikan, fysiikan ja kemian pistemerkinnät,* Braille-neuvottelukunta & Celia –
 Näkövammaisten kirjasto, Helsinki 2004

Music Notation:

Bettye Krolick (toim.), *Uusi kansainvälisen pistenuottikirjoituksen käsikirja,* Braille-
 neuvottelukunta & Celia – Näkövammaisten kirjasto, Helsinki 2006

Swedish Alphabet: See *Swedish,* page 203

Alphabet: Finnish

a	(1)		i	(24)		q	(12345)		z	(1356)	
b	(12)		j	(245)		r	(1235)		å	(16)	
c	(14)		k	(13)		s	(234)		ä	(345)	
d	(145)		l	(123)		t	(2345)		ö	(246)	
e	(15)		m	(134)		u	(136)		w	(2456)	
f	(124)		n	(1345)		v	(1236)				
g	(1245)		o	(135)		x	(1346)				
h	(125)		p	(1234)		y	(13456)				

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(256)	

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' apostrophe	(5)	⠄
"…" quote	(56…56)	⠦ … ⠴
(…) parentheses	(236…356)	⠶ … ⠶
[…] brackets	(12356…23456)	⠷ … ⠾
- hyphen	(36)	⠤
/ slash	(34)	⠌
* asterisk	(35)	⠔
capital	(6)	⠠
number sign	(3456)	⠼

France

Language: French (uncontracted)

Braille Standards Set by:
Ministère chargé des personnes handicapées
http://www.avh.asso.fr

Literary Notation:
Code Braille Français Uniformisé (CBFU) 2nd edition, September 2008
http://www.avh.asso.fr/rubriques/infos_braille/nouveau_code_braille.php

Mathematics Notation:
Notation mathématique braille, 1st edition, January 2007

Science Notation:
Notation braille dans le domaine de la chimie, 1st edition, June 2008

Computer Notation:
Table braille informatique française (TBFR2007), 1st edition, October 2007

Music Notation:
Nouveau manuel international de notation musicale braille, 1996 edition

French Alphabet: See *French,* page 180

Gambia

Language: English (United Kingdom, contracted)

Braille Standards Set by:
Royal National Institute of the Blind (now UKAFF)

Literary Notation:
British Braille Revised Edition, 2005

English Alphabet: See *English,* page 175

Georgia

Language: Georgian (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Georgian

ა	(1)	კ	(13)	ღ	(2345)	ძ	(13456)
ბ	(12)	ლ	(123)	ყ	(136)	წ	(1456)
გ	(1245)	მ	(134)	ც	(1236)	ჭ	(1346)
დ	(145)	ნ	(1345)	ჭ	(12456)	ხ	(125)
ე	(15)	ო	(135)	ძ	(1246)	ჯ	(246)
ვ	(2456)	პ	(1234)	ყ	(2346)	ჰ	(12346)
ზ	(1356)	ჟ	(245)	შ	(156)		
თ	(124)	რ	(1235)	ჩ	(12345)		
ი	(24)	ს	(234)	ც	(14)		

Note: There is no distinction between upper- and lowercase letters in the Georgian alphabet.

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
„…" quote	(236…356)	
(…) parentheses	(5, 126…5, 345)	
number sign	(3456)	
⠒ paragraph separator	(34, 34)	

Germany

Language: German (three contraction grades)

Basisschrift: no contractions; very rarely used.

Vollschrift: eight simple contractions for common vowel and consonant groups (publications for younger school children and signage)

Kurzschrift: contracted (publications for adults and older schoolchildren)

Braille Standards Set by:

Authority of the German-Speaking Countries (Brailleschriftkomitee der deutschsprachige, BSKDL)

Literary Notation:

Das System der deutschen Blindenschrift, 2005

Mathematics and Science Notation: (under revision)

Mathematikschrift für Blinde, 2000

Neufassung und Vervollständigung des Systems der internationalen Mathematikschrift für Blinde, 1986 (braille) and 1992 (print)

For use with computers and 8-dot hardcopy braille: various derivatives and adaptations of LaTeX

Computer Notation:

Eurobraille, DIN 32982 ("8-Punkt-Brailleschrift für die Informationsverarbeitung"/"Information processing 8-dot-Braille graphic characters") (1994) and in ISO Technical Report 11548-2 (2001)

Chemistry Notation:

Das System der Chemieschrift in der deutschen Blindenschrift, 2005

Music Notation:

New International Manual of Braille Music Notation (German translation)

Chess Notation:

Schachschrift für Blinde, 2004

Shorthand Notation:

System der deutschen 6-Punkt-Stenografie für Blinde, 2002

IPA Braille:

Weltlautschrift für Blinde, 1938, reprinted 2010

Considering adoption of the code used in Unified English Braille with minimal adaptions for the German braille code

Ancient and New Testament Greek:

Internationale griechische Blindenschrift, 1939

All Other Languages:

Uncontracted codes of the languages are used. English is occasionally contracted.

German Alphabet: See *German,* page 182

Ghana

Languages: English (contracted), Twi (uncontracted), Ewé (uncontracted), Ga (uncontracted), Dagaare (uncontracted)

Braille Standards Set by:
Braille Council of Ghana
Ghana Blind Union
braillecouncilofghana@gmail.com

Literary Notation:
British Braille A Restatement of Standard English Braille, 2004

Mathematics and Science Notation:
Braille Mathematics Notation, 2005

Science Notation:
Braille Science Notation, 2008

Computer Notation:
Braille Computer Notation, 2006

Music Notation:
Music Braille Code, 1997

English Alphabet: See *English,* page 175
Ewé Alphabet: See *Ewé,* page 179

Alphabet: Twi

a	(1)	g	(1245)	n	(1345)	t	(2345)
b	(12)	h	(125)	o	(135)	u	(136)
d	(145)	i	(24)	ɔ	(246)	w	(2456)
e	(15)	k	(13)	p	(1234)	y	(13456)
ɛ	(12456)	l	(123)	r	(1235)		
f	(124)	m	(134)	s	(234)		

Alphabet: Ga

a	(1)		h	(125)		ŋ	(346)		u	(136)	
b	(12)		i	(24)		o	(135)		v	(1236)	
d	(145)		j	(245)		ɔ	(246)		w	(2456)	
e	(15)		k	(13)		p	(1234)		y	(13456)	
ɛ	(12456)		l	(123)		r	(1235)				
f	(124)		m	(134)		s	(234)				
g	(1245)		n	(1345)		t	(2345)				

Alphabet: Dagaare

a	(1)		g	(1245)		n	(1345)		t	(2345)	
b	(12)		h	(125)		ŋ	(346)		u	(136)	
d	(145)		i	(24)		o	(135)		w	(2456)	
e	(15)		k	(13)		ɔ	(246)		y	(13456)	
ɛ	(12456)		l	(123)		p	(1234)		z	(1356)	
f	(124)		m	(134)		s	(234)				

Punctuation: Ghanaian Languages

Same as English

Greece

Language: Greek (uncontracted)

Source:
World Braille Usage, 1990

Greek Alphabet: See *Greek,* page 183

Grenada

Language: English (contracted)

Braille Standards Set by:
Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:
British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:
Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Guatemala

Language: Spanish (usually uncontracted)

Braille Standards Set by:
Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:
El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:
*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:
International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Haiti

Language: French (uncontracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

Code Braille Français Uniformisé (CBFU) 2nd edition, September 2008
http://www.avh.asso.fr/rubriques/infos_braille/nouveau_code_braille.php

Mathematics Notation:

Notation mathématique braille, 1st edition, January 2007
Nemeth Code for Mathematics & Science Notation, 1972 Revision

Science Notation:

Notation braille dans le domaine de la chimie, 1st edition, June 2008

Computer Notation:

Table braille informatique française (TBFR2007), 1st edition, October 2007

Music Notation:

Nouveau manuel international de notation musicale braille, 1996 edition

French Alphabet: See *French,* page 180

Honduras

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Hong Kong

Languages: English (contracted), Cantonese (uncontracted and no space between words)

Will adopt Unified English Braille at a later date

Braille Standards Set by:

The Hong Kong Society for the Blind
http://www.hksb.org.hk

Literary Notation:

English: Braille Authority of North America: *English Braille American Edition*
English: Braille Authority of North America: *Braille Formats: Principles of Print-to-Braille-Transcription*
Cantonese: The Canossa School for the Visually Disabled: *Chinese (Cantonese) Braille Code* 1982
Cantonese: The Hong Kong Society for the Blind: *Cantonese Braille Punctuation,* 1998

Mathematics Notation:

Braille Authority of the United Kingdom: *Braille Mathematics Notation*

Science Notation:

Braille Authority of the United Kingdom: *Braille Science Notation*

Music Notation:

Braille Authority of North America: *Music Braille Code,* 1997

English Alphabet: See *English,* page 175
Cantonese Alphabet: See *Cantonese,* page 169

Hungary

Language: Hungarian (uncontracted)

Braille Standards Set by:

Braille Authority of MVGYOSZ

Literary Notation:

Hungarian Dot Writing – Grade 1 (A magyar pontírás – teljesírás), by Miklós Görgényi, Budapest, 1998

Mathematics and Chemistry Notation:

Miklós Bánó dr. & Géza Ambrózy, *Braille Codes in Mathematics and Chemistry,* 1952

Hungarian Alphabet: See *Hungarian,* page 188

Iceland

Languages: Icelandic (uncontracted)

English (uncontracted) and Danish (uncontracted) for foreign language requirement
German (uncontracted), Spanish (uncontracted), or French (uncontracted) for option third
language
All foreign textbooks scanned and embossed in Grade 0 (uncontracted code), sometimes with
improvisation (discussions in Iceland to change this and start teaching contracted braille
codes for a given language)
Will likely adopt Unified English Braille at a later date

Braille Standards Set by:

Icelandic Braille Authority (IBA)
Iceland National Institute for the Visually Impaired
http://www.midstod.is/english/the-icelandic-braille-committee/

Literary Notation:

IceBraille, 2010 (Icelandic Braille Standard)

Mathematics and Science Notation:

Evaluating codes at this time, will most likely go with Nemeth and, possibly, raw LaTeX source
code, depending on student preferences

Computer Notation:

8-dot IceBraille

Music Notation:

New International Manual of Braille Music Notation, WBU, 1996

English Alphabet: See *English,* page 175
Danish Alphabet: See *Danish,* page 173
German Alphabet: See *German,* page 182
Spanish Alphabet: See *Spanish,* page 201
French Alphabet: See *French,* page 180

Alphabet: Icelandic

a	(1)		g	(1245)		o	(135)	
á	(16)		h	(125)		ó	(1456)	
b	(12)		i	(24)		p	(1234)	
c	(14)		í	(126)		q	(12345)	
d	(145)		j	(245)		r	(1235)	
ð	(156)		k	(13)		s	(234)	
e	(15)		l	(123)		t	(2345)	
é	(2346)		m	(134)		u	(136)	
f	(124)		n	(1345)		ú	(12456)	

v	(1236)	
w	(2456)	
x	(1346)	
y	(13456)	
ý	(12346)	
z	(1356)	
þ	(1246)	
æ	(345)	
ö	(246)	

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(5)	
„…" quote	(2356…2356)	
‚…' single quote	(5…5)	
(…) parentheses	(236…356)	
[…] brackets	(12356…23456)	
… ellipsis	(6)	
- hyphen	(36)	
— dash	(36, 36)	
/ slash	(34)	
* asterisk	(35)	
capital	(6)	
number sign	(3456)	

India

Languages: Hindi (Official Language of India), English (contracted), Tamil, Marathi, Gujarati, Bengali, Kannada, Punjabi, Assamese, Malayalam, Nepali, Oriya, Telugu, Urdu

Bharati Braille Code is the collective name given to the all the languages of India.

Contractions have been prepared for Hindi, Oriya, Bengali, Gujarati, Marathi, Telugu, Tamil, and Malayalam but they are not widely used.

Braille Standards Set by:

National Institute for the Visually Handicapped (NIVH), Rajpur Road, Dehradun, Uttrakhand State is responsible for standardization of braille codes through its Braille Development Unit. In the year 2008 the Government of India constituted the "Braille Council of India." NIVH is serving as its Secretariat.

Literary Notation:

Bharati Braille, April, 1951, (Name of the language concerned is preceded by the phrase "Bharati Braille"), viz. Bharati Braille (Hindi), Bharati Braille (Assamese), etc.

Mathematics Notation:

Braille Mathematics and Science Code for India, 1989

Music Notation:

The Braille Code for Hindustani Sangeet, 1982
Braille notation for Carnatik Music, 2008

English Alphabet: See *English,* page 175

Alphabet: Hindi

अ	a	(1)	घ	gh	(126)	ब	b	(12)	
आ	ā	(345)	ङ	ṅ	(346)	भ	bh	(45)	
इ	i	(24)	च	c	(14)	म	m	(134)	
ई	ī	(35)	छ	ch	(16)	य	y	(13456)	
उ	u	(136)	ज	j	(245)	र	r	(1235)	
ऊ	ū	(1256)	झ	jh	(356)	ल	l	(123)	
ऒ	e	(26)	ञ	ñ	(25)	ळ	ḷ	(456)	
ए	ē	(15)	ट	ṭ	(23456)	व	v	(1236)	
ऐ	ai	(34)	ठ	ṭh	(2456)	श	ś	(146)	
ऒ	o	(1346)	ड	ḍ	(1246)	ष	ṣ	(12346)	
ओ	ō	(135)	ढ	ḍh	(123456)	स	s	(234)	
औ	au	(246)	ण	ṇ	(3456)	ह	h	(125)	
ऋ	ṛ	(5, 1235)	त	t	(2345)	क्ष	kṣ	(12345)	
ॠ	ṝ	(6, 1235)	थ	th	(1456)	ज्ञ	jñ	(156)	
ऌ	ḷ	(5, 123)	द	d	(145)	ड़	ṛ / r̠	(12456)	
ॡ	ḹ	(6, 123)	ध	dh	(2346)	ढ़	ṛh	(5, 12456)	
क	k	(13)	न	n	(1345)	फ़	f	(124)	
ख	kh	(46)	प	p	(1234)	ज़	z	(1356)	
ग	g	(1245)	फ	ph	(235)				

Diacritics

◌	Virama	(4)	◌ः	Visarga	(6)	ऽ	Avagraha	(2)
◌ं	Anusvara	(56)	◌ँ	Candrabindu	(3)			

Numbers

१	1	(3456, 1)	६	6	(3456, 124)	
२	2	(3456, 12)	७	7	(3456, 1245)	
३	3	(3456, 14)	८	8	(3456, 125)	
४	4	(3456, 145)	९	9	(3456, 24)	
५	5	(3456, 15)	०	0	(3456, 245)	

56

Alphabet: Tamil

அ	a	(1)		க	k	(13)		ர	r	(1235)	
ஆ	ā	(345)		ங	ṅ	(346)		ல	l	(123)	
இ	i	(24)		ச	c	(14)		ள	ḷ	(456)	
ஈ	ī	(35)		ஜ	j	(245)		வ	v	(1236)	
உ	u	(136)		ஞ	ñ	(25)		ஶ	ś	(146)	
ஊ	ū	(1256)		ட	ṭ	(23456)		ஷ	ṣ	(12346)	
எ	e	(26)		ண	ṇ	(3456)		ஸ	s	(234)	
ஏ	ē	(15)		த	t	(2345)		ஹ	h	(125)	
ஐ	ai	(34)		ந	n	(1345)		ஷ	kṣ	(12345)	
ஒ	o	(1346)		ப	p	(1234)		ற	r̲ / r̲	(12456)	
ஓ	ō	(135)		ம	m	(134)		ழ	ḻ	(12356)	
ஔ	au	(246)		ய	y	(13456)		ன	n̲	(56)	

Diacritics

்	Virama	(4)	
ஃ	Visarga	(6)	

Numbers

க	1	(3456, 1)		கௌ	6	(3456, 124)	
உ	2	(3456, 12)		எ	7	(3456, 1245)	
ங	3	(3456, 14)		அ	8	(3456, 125)	
ச	4	(3456, 145)		கூ	9	(3456, 24)	
ரு	5	(3456, 15)		௦	0	(3456, 245)	

Alphabet: Marathi

अ	a	(1)		घ	gh	(126)		ब	b	(12)
आ	ā	(345)		ङ	ṅ	(346)		भ	bh	(45)
इ	i	(24)		च	c	(14)		म	m	(134)
ई	ī	(35)		छ	ch	(16)		य	y	(13456)
उ	u	(136)		ज	j	(245)		र	r	(1235)
ऊ	ū	(1256)		झ	jh	(356)		ल	l	(123)
ऎ	e	(26)		ञ	ñ	(25)		ळ	ḷ	(456)
ए	ē	(15)		ट	ṭ	(23456)		व	v	(1236)
ऐ	ai	(34)		ठ	ṭh	(2456)		श	ś	(146)
ऒ	o	(1346)		ड	ḍ	(1246)		ष	ṣ	(12346)
ओ	ō	(135)		ढ	ḍh	(123456)		स	s	(234)
औ	au	(246)		ण	ṇ	(3456)		ह	h	(125)
ऋ	ṛ	(5, 1235)		त	t	(2345)		क्ष	kṣ	(12345)
ॠ	ṝ	(6, 1235)		थ	th	(1456)		ज्ञ	jñ	(156)
ऌ	ḷ	(5, 123)		द	d	(145)		ड़	ṛ / ṟ	(12456)
ॡ	ḹ	(6, 123)		ध	dh	(2346)		ढ़	ṛh	(5, 12456)
क	k	(13)		न	n	(1345)		फ़	f	(124)
ख	kh	(46)		प	p	(1234)		ज़	z	(1356)
ग	g	(1245)		फ	ph	(235)				

Diacritics

्ं	Virama	(4)		ः	Visarga	(6)		ऽ	Avagraha	(2)
ं	Anusvara	(56)		ँ	Candrabindu	(3)				

Numbers

१	1	(3456, 1)		६	6	(3456, 124)	
२	2	(3456, 12)		७	7	(3456, 1245)	
३	3	(3456, 14)		८	8	(3456, 125)	
४	4	(3456, 145)		९	9	(3456, 24)	
५	5	(3456, 15)		०	0	(3456, 245)	

Alphabet: Gujarati

અ	a	(1)		ક	ṅ	(346)		પ	p	(1234)
આ	ā	(345)		ચ	c	(14)		ફ	ph	(235)
ઇ	i	(24)		છ	ch	(16)		બ	b	(12)
ઈ	ī	(35)		જ	j	(245)		ભ	bh	(45)
ઉ	u	(136)		ઝ	jh	(356)		મ	m	(134)
ઊ	ū	(1256)		ઞ	ñ	(25)		ય	y	(13456)
એ	ē	(15)		ટ	ṭ	(23456)		ર	r	(1235)
ઐ	ai	(34)		ઠ	ṭh	(2456)		લ	l	(123)
ઓ	ō	(135)		ડ	ḍ	(1246)		ળ	ḷ	(456)
ઔ	au	(246)		ઢ	ḍh	(123456)		વ	v	(1236)
ઋ	ṛ	(5, 1235)		ણ	ṇ	(3456)		શ	ś	(146)
ૠ	ṝ	(6, 1235)		ત	t	(2345)		ષ	ṣ	(12346)
ક	k	(13)		થ	th	(1456)		સ	s	(234)
ખ	kh	(46)		દ	d	(145)		હ	h	(125)
ગ	g	(1245)		ધ	dh	(2346)		ક્ષ	kṣ	(12345)
ઘ	gh	(126)		ન	n	(1345)		જ્ઞ	jñ	(156)

Diacritics

્	Virama	(4)		ઃ	Visarga	(6)		ઽ	Avagraha	(2)
ં	Anusvara	(56)		ઁ	Candrabindu	(3)				

Numbers

૧	1	(3456, 1)		૬	6	(3456, 124)
૨	2	(3456, 12)		૭	7	(3456, 1245)
૩	3	(3456, 14)		૮	8	(3456, 125)
૪	4	(3456, 145)		૯	9	(3456, 24)
૫	5	(3456, 15)		૦	0	(3456, 245)

Alphabet: Bengali

অ	a	(1)		ঙ	ṅ	(346)		ফ	ph	(235)	
আ	ā	(345)		চ	c	(14)		ব	b	(12)	
ই	i	(24)		ছ	ch	(16)		ভ	bh	(45)	
ঈ	ī	(35)		জ	j	(245)		ম	m	(134)	
উ	u	(136)		ঝ	jh	(356)		য	y	(13456)	
ঊ	ū	(1256)		ঞ	ñ	(25)		র	r	(1235)	
য়	e	(26)		ট	ṭ	(23456)		ল	l	(123)	
এ	ē	(15)		ঠ	ṭh	(2456)		ৱ	v	(1236)	
ঐ	ai	(34)		ড	ḍ	(1246)		শ	ś	(146)	
ও	ō	(135)		ঢ	ḍh	(123456)		ষ	ṣ	(12346)	
ঔ	au	(246)		ণ	ṇ	(3456)		স	s	(234)	
ঋ	ṛ	(5, 1235)		ত	t	(2345)		হ	h	(125)	
ঌ	ḷ	(5, 123)		থ	th	(1456)		ক্ষ	kṣ	(12345)	
ক	k	(13)		দ	d	(145)		জ্ঞ	jñ	(156)	
খ	kh	(46)		ধ	dh	(2346)		ড়	ṛ / r̤	(12456)	
গ	g	(1245)		ন	n	(1345)		ঢ়	ṛh	(5, 12456)	
ঘ	gh	(126)		প	p	(1234)					

Diacritics

্	Virama	(4)		ঃ	Visarga	(6)		ঽ	Avagraha	(2)	
ং	Anusvara	(56)		ঁ	Candrabindu	(3)					

Numbers

১	1	(3456, 1)		৬	6	(3456, 124)	
২	2	(3456, 12)		৭	7	(3456, 1245)	
৩	3	(3456, 14)		৮	8	(3456, 125)	
৪	4	(3456, 145)		৯	9	(3456, 24)	
৫	5	(3456, 15)		০	0	(3456, 245)	

Alphabet: Kannada

ಅ	a	(1)		ಘ	gh	(126)		ಪ	p	(1234)	
ಆ	ā	(345)		ಙ	ṅ	(346)		ಫ	ph	(235)	
ಇ	i	(24)		ಚ	c	(14)		ಬ	b	(12)	
ಈ	ī	(35)		ಛ	ch	(16)		ಭ	bh	(45)	
ಉ	u	(136)		ಜ	j	(245)		ಮ	m	(134)	
ಊ	ū	(1256)		ಝ	jh	(356)		ಯ	y	(13456)	
ಎ	e	(26)		ಞ	ñ	(25)		ರ	r	(1235)	
ಏ	ē	(15)		ಟ	ṭ	(23456)		ಲ	l	(123)	
ಐ	ai	(34)		ಠ	ṭh	(2456)		ಳ	ḷ	(456)	
ಒ	o	(1346)		ಡ	ḍ	(1246)		ವ	v	(1236)	
ಓ	ō	(135)		ಢ	ḍh	(123456)		ಶ	ś	(146)	
ಔ	au	(246)		ಣ	ṇ	(3456)		ಷ	ṣ	(12346)	
ಋ	r̥	(5, 1235)		ತ	t	(2345)		ಸ	s	(234)	
ೠ	r̥̄	(6, 1235)		ಥ	th	(1456)		ಹ	h	(125)	
ಕ	k	(13)		ದ	d	(145)		ಕ್ಷ	kṣ	(12345)	
ಖ	kh	(46)		ಧ	dh	(2346)		ಱ	ṟ / r	(12456)	
ಗ	g	(1245)		ನ	n	(1345)					

Diacritics

ೆ	Virama	(4)		೦	Anusvara	(56)		೦	Visarga	(6)	

Numbers

೧	1	(3456, 1)		೬	6	(3456, 124)	
೨	2	(3456, 12)		೭	7	(3456, 1245)	
೩	3	(3456, 14)		೮	8	(3456, 125)	
೪	4	(3456, 145)		೯	9	(3456, 24)	
೫	5	(3456, 15)		೦	0	(3456, 245)	

Alphabet: Punjabi (Gurmukhi script)

ਅ	a	(1)		ਚ	c	(14)		ਫ	ph	(235)	
ਆ	ā	(345)		ਛ	ch	(16)		ਬ	b	(12)	
ਇ	i	(24)		ਜ	j	(245)		ਭ	bh	(45)	
ਈ	ī	(35)		ਝ	jh	(356)		ਮ	m	(134)	
ਉ	u	(136)		ਞ	ñ	(25)		ਯ	y	(13456)	
ਊ	ū	(1256)		ਟ	ṭ	(23456)		ਰ	r	(1235)	
ਏ	ē	(15)		ਠ	ṭh	(2456)		ਲ	l	(123)	
ਐ	ai	(34)		ਡ	ḍ	(1246)		ਲ਼	ḷ	(456)	
ਹ	o	(1346)		ਢ	ḍh	(123456)		ਵ	v	(1236)	
ਓ	ō	(135)		ਣ	ṇ	(3456)		ਸ਼	ś	(146)	
ਔ	au	(246)		ਤ	t	(2345)		ਸ	s	(234)	
ਕ	k	(13)		ਥ	th	(1456)		ਹ	h	(125)	
ਖ	kh	(46)		ਦ	d	(145)		ੜ	ṛ / ṟ	(12456)	
ਗ	g	(1245)		ਧ	dh	(2346)		ੜ੍ਹ	ṛh	(5, 12456)	
ਘ	gh	(126)		ਨ	n	(1345)		ਫ਼	f	(124)	
ਙ	ṅ	(346)		ਪ	p	(1234)		ਜ਼	z	(1356)	

Diacritics

੍	Virama	(4)		ਃ	Visarga	(6)	
ਂ	Anusvara	(56)		ਁ	Candrabindu	(3)	

Numbers

੧	1	(3456, 1)		੬	6	(3456, 124)	
੨	2	(3456, 12)		੭	7	(3456, 1245)	
੩	3	(3456, 14)		੮	8	(3456, 125)	
੪	4	(3456, 145)		੯	9	(3456, 24)	
੫	5	(3456, 15)		੦	0	(3456, 245)	

Alphabet: Assamese

অ	a	(1)		ঙ	ṅ	(346)		ফ	ph	(235)	
আ	ā	(345)		চ	c	(14)		ব	b	(12)	
ই	i	(24)		ছ	ch	(16)		ভ	bh	(45)	
ঈ	ī	(35)		জ	j	(245)		ম	m	(134)	
উ	u	(136)		ঝ	jh	(356)		য	y	(13456)	
ঊ	ū	(1256)		ঞ	ñ	(25)		ৰ	r	(1235)	
য়	e	(26)		ট	ṭ	(23456)		ল	l	(123)	
এ	ē	(15)		ঠ	ṭh	(2456)		ৱ	v	(1236)	
ঐ	ai	(34)		ড	ḍ	(1246)		শ	ś	(146)	
ও	ō	(135)		ঢ	ḍh	(123456)		ষ	ṣ	(12346)	
ঔ	au	(246)		ণ	ṇ	(3456)		স	s	(234)	
ঋ	ṛ	(5, 1235)		ত	t	(2345)		হ	h	(125)	
ঌ	ḷ	(5, 123)		থ	th	(1456)		ক্ষ	kṣ	(12345)	
ক	k	(13)		দ	d	(145)		জ্ঞ	jñ	(156)	
খ	kh	(46)		ধ	dh	(2346)		ড়	ṛ / ṛ	(12456)	
গ	g	(1245)		ন	n	(1345)		ঢ়	ṛh	(5, 12456)	
ঘ	gh	(126)		প	p	(1234)					

Diacritics

্	Virama	(4)		ঃ	Visarga	(6)		ঽ	Avagraha	(2)	
ং	Anusvara	(56)		ঁ	Candrabindu	(3)					

Numbers

১	1	(3456, 1)		৬	6	(3456, 124)	
২	2	(3456, 12)		৭	7	(3456, 1245)	
৩	3	(3456, 14)		৮	8	(3456, 125)	
৪	4	(3456, 145)		৯	9	(3456, 24)	
৫	5	(3456, 15)		০	0	(3456, 245)	

Alphabet: Malayalam

അ	a	(1)		ഗ	g	(1245)		പ	p	(1234)
ആ	ā	(345)		ഘ	gh	(126)		ഫ	ph	(235)
ഇ	i	(24)		ങ	ṅ	(346)		ബ	b	(12)
ഈ	ī	(35)		ച	c	(14)		ഭ	bh	(45)
ഉ	u	(136)		ഛ	ch	(16)		മ	m	(134)
ഊ	ū	(1256)		ജ	j	(245)		യ	y	(13456)
എ	e	(26)		ഝ	jh	(356)		ര	r	(1235)
ഏ	ē	(15)		ഞ	ñ	(25)		ല	l	(123)
ഐ	ai	(34)		ട	ṭ	(23456)		ള	ḷ	(456)
ഒ	o	(1346)		ഠ	ṭh	(2456)		വ	v	(1236)
ഓ	ō	(135)		ഡ	ḍ	(1246)		ശ	ś	(146)
ഔ	au	(246)		ഢ	ḍh	(123456)		ഷ	ṣ	(12346)
ഋ	ṛ	(5, 1235)		ണ	ṇ	(3456)		സ	s	(234)
ൠ	ṝ	(6, 1235)		ത	t	(2345)		ഹ	h	(125)
ഌ	ḷ	(5, 123)		ഥ	th	(1456)		ക്ഷ	kṣ	(12345)
ൡ	ḹ	(6, 123)		ദ	d	(145)		റ	ṟ / r̠	(12456)
ക	k	(13)		ധ	dh	(2346)		ഴ	ḻ	(12356)
ഖ	kh	(46)		ന	n	(1345)				

Diacritics

◌്	Virama	(4)		◌ം	Anusvara	(56)		◌ഃ	Visarga	(6)	

Numbers

൧	1	(3456, 1)		൬	6	(3456, 124)	
൨	2	(3456, 12)		൭	7	(3456, 1245)	
൩	3	(3456, 14)		൮	8	(3456, 125)	
൪	4	(3456, 145)		൯	9	(3456, 24)	
൫	5	(3456, 15)		൦	0	(3456, 245)	

Alphabet: Nepali

अ	a	(1)		घ	gh	(126)		ब	b	(12)
आ	ā	(345)		ङ	ṅ	(346)		भ	bh	(45)
इ	i	(24)		च	c	(14)		म	m	(134)
ई	ī	(35)		छ	ch	(16)		य	y	(13456)
उ	u	(136)		ज	j	(245)		र	r	(1235)
ऊ	ū	(1256)		झ	jh	(356)		ल	l	(123)
ऍ	e	(26)		ञ	ñ	(25)		ळ	ḷ	(456)
ए	ē	(15)		ट	ṭ	(23456)		व	v	(1236)
ऐ	ai	(34)		ठ	ṭh	(2456)		श	ś	(146)
ऑ	o	(1346)		ड	ḍ	(1246)		ष	ṣ	(12346)
ओ	ō	(135)		ढ	ḍh	(123456)		स	s	(234)
औ	au	(246)		ण	ṇ	(3456)		ह	h	(125)
ऋ	ṛ	(5, 1235)		त	t	(2345)		क्ष	kṣ	(12345)
ॠ	ṝ	(6, 1235)		थ	th	(1456)		ज्ञ	jñ	(156)
ऌ	ḷ	(5, 123)		द	d	(145)		ड़	ṛ / ṟ	(12456)
ॡ	ḹ	(6, 123)		ध	dh	(2346)		ढ़	ṛh	(5, 12456)
क	k	(13)		न	n	(1345)		फ़	f	(124)
ख	kh	(46)		प	p	(1234)		ज़	z	(1356)
ग	g	(1245)		फ	ph	(235)				

Diacritics

्	Virama	(4)		ः	Visarga	(6)		ऽ	Avagraha	(2)	
ं	Anusvara	(56)		ँ	Candrabindu	(3)					

Numbers

१	1	(3456, 1)		६	6	(3456, 124)	
२	2	(3456, 12)		७	7	(3456, 1245)	
३	3	(3456, 14)		८	8	(3456, 125)	
४	4	(3456, 145)		९	9	(3456, 24)	
५	5	(3456, 15)		०	0	(3456, 245)	

Alphabet: Oriya

Char	Translit	Dots		Char	Translit	Dots		Char	Translit	Dots
ଅ	a	(1)		ଘ	gh	(126)		ଫ	ph	(235)
ଆ	ā	(345)		ଙ	ṅ	(346)		ବ	b	(12)
ଇ	i	(24)		ଚ	c	(14)		ଭ	bh	(45)
ଈ	ī	(35)		ଛ	ch	(16)		ମ	m	(134)
ଉ	u	(136)		ଜ	j	(245)		ଯ	y	(13456)
ଊ	ū	(1256)		ଝ	jh	(356)		ର	r	(1235)
ଋ	e	(26)		ଞ	ñ	(25)		ଲ	l	(123)
ଏ	ē	(15)		ଟ	ṭ	(23456)		ଳ	ḷ	(456)
ଐ	ai	(34)		ଠ	ṭh	(2456)		ଵ / ଓ	v	(1236)
ଓ	ō	(135)		ଡ	ḍ	(1246)		ଶ	ś	(146)
ଔ	au	(246)		ଢ	ḍh	(123456)		ଷ	ṣ	(12346)
ଋ	r̥	(5, 1235)		ଣ	ṇ	(3456)		ସ	s	(234)
ୠ	r̥̄	(6, 1235)		ତ	t	(2345)		ହ	h	(125)
ଌ	l̥	(5, 123)		ଥ	th	(1456)		କ୍ଷ	kṣ	(12345)
ୡ	l̥̄	(6, 123)		ଦ	d	(145)		ଜ୍ଞ	jñ	(156)
କ	k	(13)		ଧ	dh	(2346)		ଡ଼	r̥ / r̥	(12456)
ଖ	kh	(46)		ନ	n	(1345)		ଢ଼	ṛh	(5, 12456)
ଗ	g	(1245)		ପ	p	(1234)				

Diacritics

Char	Name	Dots		Char	Name	Dots		Char	Name	Dots
ଠ	Virama	(4)		ଃ	Visarga	(6)		ଽ	Avagraha	(2)
ଂ	Anusvara	(56)		ଁ	Candrabindu	(3)				

Numbers

Char	Num	Dots		Char	Num	Dots
୧	1	(3456, 1)		୬	6	(3456, 124)
୨	2	(3456, 12)		୭	7	(3456, 1245)
୩	3	(3456, 14)		୮	8	(3456, 125)
୪	4	(3456, 145)		୯	9	(3456, 24)
୫	5	(3456, 15)		୦	0	(3456, 245)

Alphabet: Telugu

అ	a	(1)		గ	g	(1245)		ప	p	(1234)	
ఆ	ā	(345)		ఘ	gh	(126)		ఫ	ph	(235)	
ఇ	i	(24)		ఙ	ṅ	(346)		బ	b	(12)	
ఈ	ī	(35)		చ	c	(14)		భ	bh	(45)	
ఉ	u	(136)		ఛ	ch	(16)		మ	m	(134)	
ఊ	ū	(1256)		జ	j	(245)		య	y	(13456)	
ఎ	e	(26)		ఝ	jh	(356)		ర	r	(1235)	
ఏ	ē	(15)		ఞ	ñ	(25)		ల	l	(123)	
ఐ	ai	(34)		ట	ṭ	(23456)		ళ	ḷ	(456)	
ఒ	o	(1346)		ఠ	ṭh	(2456)		వ	v	(1236)	
ఓ	ō	(135)		డ	ḍ	(1246)		శ	ś	(146)	
ఔ	au	(246)		ఢ	ḍh	(123456)		ష	ṣ	(12346)	
ఋ	ṛ	(5, 1235)		ణ	ṇ	(3456)		స	s	(234)	
ౠ	ṝ	(6, 1235)		త	t	(2345)		హ	h	(125)	
ఌ	ḷ	(5, 123)		థ	th	(1456)		క్ష	kṣ	(12345)	
ౡ	ḹ	(6, 123)		ద	d	(145)		ఱ	ṟ / ṟ	(12456)	
క	k	(13)		ధ	dh	(2346)					
ఖ	kh	(46)		న	n	(1345)					

Diacritics

్	Virama	(4)		ః	Visarga	(6)		ఽ	Avagraha	(2)	
ం	Anusvara	(56)		ఁ	Candrabindu	(3)					

Numbers

౧	1	(3456, 1)		౬	6	(3456, 124)	
౨	2	(3456, 12)		౭	7	(3456, 1245)	
౩	3	(3456, 14)		౮	8	(3456, 125)	
౪	4	(3456, 145)		౯	9	(3456, 24)	
౫	5	(3456, 15)		౦	0	(3456, 245)	

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Alphabet: Urdu

آ	ā	(345)		جھ	jh	(356)	ى	y	(13456)
ى	ī	(35)		ٹ	ṭ	(23456)	ر	r	(1235)
و	ū	(1256)		ٹھ	ṭh	(2456)	ل	l	(123)
ﮮ	ē	(15)		ڈ	ḍ	(1246)	و	v	(1236)
ﮮ	ai	(34)		ڈھ	ḍh	(123456)	ش	ś	(146)
خ	o	(1346)		ت	t	(2345)	ص	ṣ	(12346)
و	ō	(135)		تھ	th	(1456)	س	s	(234)
و	au	(246)		د	d	(145)	ہ	h	(125)
ک	k	(13)		دھ	dh	(2346)	ق	kṣ	(12345)
که	kh	(46)		ن	n	(1345)	ح	jñ	(156)
گ	g	(1245)		پ	p	(1234)	ڑ	r / r̤	(12456)
گه	gh	(126)		پھ	ph	(235)	ڑھ	r̤h	(5, 12456)
چ	c	(14)		ب	b	(12)	ع	ḷ	(12356)
چھ	ch	(16)		بھ	bh	(45)	ف	f	(124)
ج	j	(245)		م	m	(134)	ز	z	(1356)

Numbers

۱	1	(3456, 1)		۶	6	(3456, 124)
۲	2	(3456, 12)		۷	7	(3456, 1245)
۳	3	(3456, 14)		۸	8	(3456, 125)
۴	4	(3456, 145)		۹	9	(3456, 24)
۵	5	(3456, 15)		۰	0	(3456, 245)

Punctuation: Indian Languages

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
⏐ danda, . period, full stop	(256)	⠲
⏐⏐ double danda	(256, 256)	⠲ ⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
' apostrophe	(2)	⠂
"…" quote	(236…356)	⠦ … ⠴
[…] brackets	(2356…2356)	⠶ … ⠶
- hyphen	(36)	⠤
— dash	(36, 36)	⠤ ⠤
* asterisk	(35, 35)	⠔ ⠔
capital *	(6)	⠠
number sign	(3456)	⠼
italics	(46)	⠨

* Capital used only when transcribing English

Indonesia

Languages: Bahasa Indonesia (usually uncontracted), English (contracted)

Literary Arabic is used for reading the Holy Koran

Braille Standards Set by:

Directorat of Special Education, Directorat General of Primary Education, Ministry of Education and Culture, Republic of Indonesia

Literary Notation:

Bahasa Indonesia: *Indonesian Braille,* 2000
English: *English Braille, American Edition,* 1994; Revised 2002

Mathematics and Science Notation:

Bahasa Indonesia: *Indonesian Braille,* 2000
English: *Nemeth Code for Mathematics & Science Notation,* 1972 Revision

Music Notation:

New International Manual of Braille Music Notation, WBU, 1996

English Alphabet: See *English,* page 175
Arabic Alphabet: See *Arabic,* page 166

Alphabet: Bahasa Indonesia

a	(1)	h	(125)	o	(135)	v	(1236)
b	(12)	i	(24)	p	(1234)	w	(2456)
c	(14)	j	(245)	q	(12345)	x	(1346)
d	(145)	k	(13)	r	(1235)	y	(13456)
e	(15)	l	(123)	s	(234)	z	(1356)
f	(124)	m	(134)	t	(2345)		
g	(1245)	n	(1345)	u	(136)		

Punctuation

, comma	(2)	(…) parentheses	(2356…2356)	
; semicolon	(23)	… ellipsis	(3, 3, 3)	
: colon	(25)	- hyphen	(36)	
. period, full stop	(256)	/ slash	(34)	
? question mark	(236)	* asterisk	(35, 35)	
! exclamation	(235)	capital	(6)	
' apostrophe	(3)	number sign	(3456)	
"…" quote	(236…356)	*italics*	(46)	

Iran

Languages: Farsi (uncontracted), English (contracted), Arabic for embossing the Koran (uncontracted)

Braille Standards Set by:

Special Education Organization, a sub-division of Ministry of Education of Iran
http://seo.medu.ir

Literary Notation:

Farsi Braille, Grade 1

Mathematics Notation:

Braille Mathematics Notation, 2005

Computer Notation:

Braille Computer Notation, 2006 (UK)
Computer Braille Code, 2000 Revision (US)

Music Notation:

Music Braille Code, 1997

English Alphabet: See *English,* page 175
Arabic Alphabet: See *Arabic,* page 166

Alphabet: Farsi

Letter	Translit.	Dots		Letter	Translit.	Dots		Letter	Translit.	Dots
آ	aa	(345)		ر	r	(1235)		ق	gh	(12345)
ا	a/e/o	(1)		ز	z	(1356)		ک	k	(13)
ب	b	(12)		ژ	zh	(346)		گ	g	(1245)
پ	p	(1234)		س	s	(234)		ل	l	(123)
ت	t	(2345)		ش	sh	(146)		م	m	(134)
ث	s	(1456)		ص	s	(12346)		ن	n	(1345)
ج	j	(245)		ض	z	(1246)		ه	h	(125)
چ	ch	(14)		ط	t	(23456)		و	v	(2456)
ح	h	(156)		ظ	z	(123456)		ی*	i/y	(24)
خ	kh	(1346)		ع	a/'	(12356)		ی*	aa	(135)
د	d	(145)		غ	gh	(126)				
ذ	z	(2346)		ف	f	(124)				

* In modern Persian, it is sometimes not written with the dots "135" and due to its shape/usage that is like Persian "ی," it may be written as the same letter and as a result may be written with the dots "24" as in the letter "ی."

Numbers

ٮ	number sign	(3456)	⠼	٦	6	(3456, 124)	⠼⠋
١	1	(3456, 1)	⠼⠁	٧	7	(3456, 1245)	⠼⠛
٢	2	(3456, 12)	⠼⠃	٨	8	(3456, 125)	⠼⠓
٣	3	(3456, 14)	⠼⠉	٩	9	(3456, 24)	⠼⠊
٤	4	(3456, 145)	⠼⠙	٠	0	(3456, 245)	⠼⠚
٥	5	(3456, 15)	⠼⠑				

Punctuation

, comma	(2)	⠂	
; semicolon	(23)	⠆	
: colon	(25)	⠒	
. period, full stop	(256)	⠲	
! exclamation	(235)	⠖	
? question mark	(236)	⠦	
(…) parentheses	(2356…2356)	⠶ … ⠶	
"…" quote	(236…356)	⠦ … ⠴	
- hyphen	(36)	⠤	
— dash	(36, 36)	⠤ ⠤	

Ireland

Languages: English (contracted), Irish Gaelic (contracted)

Braille Standards Set by:

Irish National Braille and Alternative Format Association (INBAF)
info@inbaf.ie
http://www.inbaf.ie

UKAAF
www.ukaaf.org

Literary Notation:

Braille Primer, 2008

Languages and Linguistics:

Braille Gaelic Code: as per usage and agreements, currently under INBAF review
Braille Notation Guides: Using the Braille French Code (RNIB 2007)
Using the Braille German Code (RNIB 2007)
Using the Braille Spanish Code (RNIB 2007)
Welsh Braille Code, 2006
An Updated Tactile Representation of the International Phonetic Alphabet, 2008

Computer Notation:

Braille Computer Notation, BAUK, RNIB Peterborough 1996/2006

Mathematics Notation:

RNIB Braille Mathematics Notation, 2005 edition*, RNIB Using the Braille Mathematics Code,* 2007

Science Notation:

Braille Science Notation, 2008 and *RNIB Using the Braille Science Code,* 2008

Music Notation:

Focus on Braille Music, 2004

Chess Code:

Braille Chess Code and Layout, 2001

English Alphabet: See *English,* page 175
Irish Gaelic Alphabet: See *Irish Gaelic,* page 189

Israel

Languages: Hebrew (uncontracted), Arabic (uncontracted), English (uncontracted)

Braille Standards Set by:
The Central Library for the Blind

Literary Notation:
Braille Book: Writing and Editing, 1988

Mathematics and Science Notation:
Nemeth Code for Mathematics & Science Notation, 1972 Revision [additional symbols have been added]

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Alphabet: Hebrew, Consonants

Letter	Name	Dots	Letter	Name	Dots
א	alef	(1)	ך, כ	khaf	(16)
ב	bet	(12)	ל	lamed	(123)
ב	vet	(1236)	ם, מ	mem	(134)
ג	gimel	(45, 1245)	ן, נ	nun	(1345)
ג	gimel	(1245)	ס	sameḥ	(234)
ד	dalet	(45, 145)	ע	ayin	(1246)
ד	dalet	(145)	פ	pe	(1234)
ה	he	(45, 125)	ף, פ	fe	(124)
ה	he	(125)	ץ, צ	tsadi	(2346)
ו	vav	(2456)	ק	qof	(12345)
ז	zayin	(1356)	ר	resh	(1235)
ח	ḥet	(1346)	ש	shin	(146)
ט	tet	(2345)	שׂ	sin	(156)
י	yod	(245)	ת	tav	(1256)
כ	kaf	(13)	ת	tav	(1456)

Vowels and Pronunciation Aids

אַ	pataḥ	(14)	⠃	וֹ	ḥolam male	(135)	�

Symbol	Name	Dots
אַ	pataḥ	(14)
אֲ	ḥataf pataḥ	(25)
אֵ	tsere	(34)
אֶ	segol	(15)
אֱ	ḥataf segol	(26)
אִ	ḥiriq ḥaser	(24)
אִי	ḥiriq male	(35)
וֹ	ḥolam male	(135)
אֹ	ḥolam ḥaser	(246)
אָ	qamats	(126)
אֳ	ḥataf qamats	(345)
אֻ	qubuts	(136)
וּ	shuruq	(346)
אְ	sh'va	(6)

Punctuation

Symbol	Name	Dots
, comma		(2)
; semicolon		(23)
: colon		(25)
. period, full stop		(256)
? question mark		(236)
! exclamation		(235)
' apostrophe		(3)
"…" quote		(236…356)
(…) parentheses		(2356…2356)
[…] brackets		(6, 2356…2356, 3)
- hyphen		(36)
— dash		(36, 36)
/ slash		(34)
* asterisk		(35, 35)
capital		(6)
number sign		(3456)

Italy

Language: Italian (uncontracted)

Braille Standards Set by:

Biblioteca Italiana per i ciechi «Regina Margherita» (Italian Library for the Blind "Regina Margherita" – NPO)
www.bibciechi.it
bic@bibciechi.it

Music Notation:

New International Manual of Braille Music Notation, WBU, 1996

Italian Alphabet: See *Italian,* page 190

Jamaica

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Japan

Language: Japanese (uncontracted)

Braille Standards Set by:
The Braille Authority of Japan
http://www.braille.jp

Literary Notation:
Japanese Braille Notation, 1990

Mathematics Notation:
Braille Mathematics Notation, 1981

Science Notation:
Braille Science Notation, 1983

Computer Notation:
Japanese Braille Code for Computer, 1981

Music Notation:
Japanese Braille Code for Music, 1965

Japanese Alphabet: See *Japanese,* page 191

Jordan

Language: Arabic (uncontracted), English (contracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Kazakhstan

Languages: Kazakh (uncontracted), Russian (uncontracted)

Braille Standards Set by:

The Kazakhstan Society for the Blind

Literary Notation:

Kazakh: *The Kazakh Braille Code*
Russian: *Contractions for the Blind,* 1978

Mathematics and Science Notation:

System of Symbols for Math
Physics, Chemistry, and Astronomy: A Learning Aid, 1982

Russian Alphabet: See *Russian,* page 200

Alphabet: Kazakh

а	(1)	и	(24)	п	(1234)	ш	(156)
ә	(345)	й	(12346)	р	(1235)	щ	(1346)
б	(12)	к	(13)	с	(234)	ъ	(12356)
в	(2456)	қ	(1456)	т	(2345)	і	(13456)
г	(1245)	л	(123)	у	(136)	ы	(2346)
ғ	(12456)	м	(134)	ү	(34)	ь	(23456)
д	(145)	н	(1345)	ұ	(346)	э	(246)
е	(15)	ң	(146)	ф	(124)	ю	(1256)
ё	(16)	h	(1236)	х	(125)	я	(1246)
ж	(245)	о	(135)	ц	(14)		
з	(1356)	ө	(126)	ч	(12345)		

Punctuation

, comma	(2)	"…" quote	(236…356)	
; semicolon	(23)	(…) parentheses	(126…345)	
: colon	(25)	capital	(46)	
. period, full stop	(256)	number sign	(3456)	
? question mark	(26)	*italics*	(456)	
! exclamation	(235)			

Kenya

Languages: English (contracted), Kiswahili (contracted), French (uncontracted)

Braille Standards Set by:
Kenya Bureau of Standards
www.kebs.org

Literary Notation:
English: *Braille Primer with Exercises based on British Braille*, Revised Edition 1992, Reprinted with Corrections, 2001
Kiswahili: *Swahili Braille Primer,* 1993

Mathematics Notation:
Braille Mathematics Notations, 1987

Science Notation:
Braille Science Notations, 1989

Music Notation:
A Guide to Braille Music Notation, 1974

English Alphabet: See *English,* page 175
Kiswahili Alphabet: See *Kiswahili,* page 193
French Alphabet: See *French,* page 180

Kuwait

Languages: Arabic (uncontracted), English (contracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Kyrgyzstan

Languages: Russian (uncontracted), Kyrgyz (uncontracted)

Braille Standards Set by:

Kyrgyz Association of Blind and Deaf People
erc@elcat.kg

Russian Alphabet: See *Russian,* page 200

Alphabet: Kyrgyz

а	(1)	и	(25)	п	(1234)	ч	(12345)
б	(12)	й	(12346)	р	(1235)	ш	(156)
в	(2456)	к	(13)	с	(234)	щ	(1346)
г	(1245)	л	(123)	т	(2345)	ъ	(12356)
д	(145)	м	(134)	у	(136)	ы	(2346)
е	(15)	н	(1345)	γ	(1236)	ь	(23456)
ё	(16)	ң	(13456)	ф	(124)	э	(246)
ж	(245)	о	(135)	х	(125)	ю	(1256)
з	(1356)	ө	(34)	ц	(14)	я	(1246)

Punctuation

, comma	(2)	«…» quote	(236…356)	
; semicolon	(23)	(…) parentheses	(2356…2356)	
: colon	(25)	- hyphen	(36)	
. period, full stop	(256)	capital	(46)	
? question mark	(236)	number sign	(3456)	
! exclamation	(235)	*italics*	(456)	

Laos (Lao People's Democratic Republic)

Language: Lao (uncontracted)

Braille Standards Set by:

Lao Association of the Blind

Braille Code:

Lao Braille Code

Alphabet: Lao, Consonants

ກ	k	(1245)		ຕ	t	(1256)		ຟ	f	(1246)	
ຂ	kh	(13)		ຖ	th	(2345)		ມ	m	(134)	
ຄ	kh	(136)		ທ	th	(23456)		ຍ	y	(6, 13456)	
ງ	ŋ	(12456)		ນ	n	(1345)		ຣ	r	(1235)	
ຈ	j	(245)		ບ	b	(1236)		ລ	l	(123)	
ຊ	s	(234)		ປ	p	(12346)		ວ	w	(2456)	
ຊ	s	(2346)		ຜ	ph	(1234)		ຫ	h	(125)	
ຍ	ɲ	(13456)		ຝ	f	(1346)		ອ	o	(135)	
ດ	d	(145)		ພ	p	(1456)		ຮ	h	(123456)	

Compound Consonants

ຫນ	nhau	(125, 1345)		ຫຼ	lhau	(125, 123)	
ຫມ	mhau	(125, 134)		ຫວ	whau	(125, 2456)	
ຫຍ	nyhau	(125, 13456)		ຫງ	nghau	(125, 12456)	

Vowels

Xꭞ	a	(1)	⠒	ꭧXꭞ	o	(24, 1)	⠊⠒
Xꞌ	aa	(16)	⠪	ꭧX	oo	(24)	⠊
◌	i	(12)	⠃	cXꞌꭞ	ɔ	(135, 1)	⠍⠒
◌	ii	(23)	⠆	◌	ɔɔ	(135)	⠍
◌	ɯ	(246)	⠺	c◌	ə	(146, 1)	⠹⠒
◌	ɯɯ	(26)	⠂	c◌	əə	(146)	⠹
◌	u	(36)	⠌	c◌ꭟ	ia?	(12356, 1)	⠳⠒
◌	uu	(25)	⠔	cXꭟ	ia	(12356)	⠳
cXꭞ	e	(124, 1)	⠋⠒	◌ꭞ	ua?	(15, 1)	⠑⠒
cX	ee	(124)	⠋	◌ꭟ	ua	(15)	⠑
ccXꭞ	ɛ	(126, 1)	⠣⠒	c◌ꭟ	ɯa?	(12345, 1)	⠟⠒
ccX	ɛɛ	(126)	⠣	c◌ꭟ	ɯa	(12345)	⠟

Special Vowel Symbols

ꭧX	ai	(156)	⠱
ꭧX	ai	(156, 2)	⠱⠂
c◌ꞌ	aw	(235)	⠦
◌ꞌ	am	(1356)	⠽
◌	(k)ong	(14)	⠉
◌	(k)an	(345)	⠬
Xꭧ	oi	(456)	⠸
ꞌ	(symbol for word repetition)	(2)	⠂

Intonation Symbols

◌	(35)	⠤	◌	(256)	⠲	◌	(2356)	⠶	◌	(236)	⠦

Numbers

෧	1	(3456, 1)	⠼⠁
෨	2	(3456, 12)	⠼⠃
෩	3	(3456, 14)	⠼⠉
෪	4	(3456, 145)	⠼⠙
෫	5	(3456, 15)	⠼⠑

෬	6	(3456, 124)	⠼⠋
෭	7	(3456, 1245)	⠼⠛
෮	8	(3456, 125)	⠼⠓
෯	9	(3456, 24)	⠼⠊
๐	0	(3456, 245)	⠼⠚

Punctuation

, comma	(456, 2)	⠠⠂
; semicolon	(456, 23)	⠠⠆
: colon	(456, 25)	⠠⠒
. period, full stop	(456, 256)	⠠⠲
? question mark	(456, 236)	⠠⠦
! exclamation	(456, 235)	⠠⠖
"…" quote	(236…356)	⠦ … ⠴
(…) parentheses	(2356…2356)	⠶ … ⠶
number sign	(3456)	⠼

Latvia

Language: Latvian (uncontracted)

Braille Standards Set by:
Latvian Society of the Blind (LSB)
lnbcv@e-apollo.lv
http://www.lnbrc.lv/english.htm

The Latvian Library for the Blind
info@neredzigobiblioteka.lv
http://www.neredzigobiblioteka.lv/

Braille Code:
Latvian Braille Code

Alphabet: Latvian

a	(1)		g	(1245)		ļ	(1236)		t	(2345)
ā	(16)		ġ	(12456)		m	(134)		u	(34)
b	(12)		h	(125)		n	(1345)		ū	(346)
c	(14)		i	(24)		ņ	(13456)		v	(2456)
č	(146)		ī	(246)		o	(135)		z	(345)
d	(145)		j	(245)		p	(1234)		ž	(3456)
e	(15)		k	(13)		r	(1235)			
ē	(156)		ķ	(136)		s	(234)			
f	(124)		l	(123)		š	(2346)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
«…» quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
— dash	(25)	
/ slash (in text)	(456, 123)	
/ slash (on box)	(34)	
number sign	(3456)	
uppercase	(46)	
lowercase	(6)	

Lebanon

Language: Arabic (uncontracted), English (contracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Liberia

Language: English (BANA contracted)

Literary Notation:
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Libya

Language: Arabic (uncontracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166

Lithuania

Language: Lithuanian (uncontracted)

Braille Standards Set by:

Minister of Education and Science of the Republic of Lithuania

Literary Notation:

Reformed Lithuanian Braille Alphabet, 2000

Computer Notation:

Lithuanian Single Eight-dot Braille Writing System, 2011

Alphabet: Lithuanian

a	(1)	f	(124)	n	(1345)	ū	(1256)
ą	(16)	g	(1245)	o	(135)	ų	(346)
b	(12)	h	(125)	p	(1234)	v	(1236)
c	(14)	i	(24)	q	(12345)	w	(2456)
č	(146)	į	(246)	r	(1235)	x	(1346)
d	(145)	j	(245)	s	(234)	y	(13456)
e	(15)	k	(13)	š	(2346)	z	(1356)
ę	(156)	l	(123)	t	(2345)	ž	(126)
ė	(345)	m	(134)	u	(136)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop, dot	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
„…" quote	(236…356)	
(…) parentheses	(2356…2356)	
… ellipsis	(256, 256, 256)	
- hyphen, minus	(36)	
/ slash, oblique stroke	(34)	

* asterisk	(35)	⠔
capital	(46)	⠨
number sign	(3456)	⠼

Luxembourg

Languages: Luxembourgish (uncontracted), French (uncontracted), German (uncontracted), English (uncontracted)

6-dot braille is used for beginners (4-6 years old), and students are transitioned to 8-dot braille when they start reading numbers in primary school

Braille Standards Set by:

L'Institut pour Deficients Visuels
idv@ediff.lu
http://www.idv.lu

Literary Notation:

Luxembourgish Literary Braille Code
French Literary Braille Code
German Literary Braille Code
English Literary Braille Code

Computer Notation:

Eurobraille (ISO/IEC 8859-1)

Music Notation:

Neues internationales Handbuch der Braillenotenschrift, 1998

French Alphabet: See *French,* page 180
German Alphabet: See *German,* page 182
English Alphabet: See *English,* page 175

Alphabet: Luxembourgish

a	(1)	i	(24)	q	(12345)	y	(13456)
b	(12)	j	(245)	r	(1235)	z	(1356)
c	(14)	k	(13)	s	(234)	ä	(3458)
d	(145)	l	(123)	t	(2345)	ë	(12468)
e	(15)	m	(134)	u	(136)	é	(1234568)
f	(124)	n	(1345)	v	(1236)		
g	(1245)	o	(135)	w	(2456)		
h	(125)	p	(1234)	x	(1346)		

Numbers

1	(16)	4	(1456)	7	(12456)	0	(346)
2	(126)	5	(156)	8	(1256)		
3	(146)	6	(1246)	9	(246)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(5)	
' apostrophe	(6)	
"…" quote	(4…4)	
(…) parentheses	(236…356)	
[…] brackets	(123567…234567)	
{…} braces	(12356…23456)	
capital	(7)	

Macedonia

Language: Macedonian (uncontracted)

Mathematics and Science Notation:

Deutsche Blindenstudienanstalt. *Neufassung und Vervollstandigung des Systems der Internationalen Mathematikschrift fur Blinde.* Revised ed. Marburg and Zurich: Deutsche Blindenstudienanstalt, 1986
Mathematik und Chemieschrift fur Blinde. Marburg, 1930

Alphabet: Macedonian

а	a	(1)		ј	j	(245)		т	t	(2345)	
б	b	(12)		к	k	(13)		ќ	kj	(34)	
в	v	(1236)		л	l	(123)		у	u	(136)	
г	g	(1245)		љ	lj	(126)		ф	f	(124)	
д	d	(145)		м	m	(134)		х	h	(125)	
ѓ	gj	(345)		н	n	(1345)		ц	c	(14)	
е	e	(15)		њ	nj	(1246)		ч	č	(16)	
ж	ž	(2346)		о	o	(135)		џ	dž	(12456)	
з	z	(1356)		п	p	(1234)		ш	š	(156)	
ѕ	dz	(1256)		р	r	(1235)					
и	i	(24)		с	s	(234)					

Punctuation

, comma	(2)		! exclamation	(235)	
; semicolon	(23)		(…) parentheses	(2356…2356)	
: colon	(25)		„…" quote	(236…356)	
. period, full stop	(256)		capital	(46)	
? question mark	(26)		number sign	(3456)	

Madagascar

Languages: Malagasy (contracted), French (contracted)

Source:

World Braille Usage, 1990

French Alphabet: See *French,* page 180

Alphabet: Malagasy

a	(1)		h	(125)		n	(1345)		v	(1236)
b	(12)		i	(24)		o	(135)		y	(13456)
d	(145)		j	(245)		p	(1234)		z	(1356)
e	(15)		k	(13)		r	(1235)			
f	(124)		l	(123)		s	(234)			
g	(1245)		m	(134)		t	(2345)			

Malaysia

Languages: Malay (contracted after Year 4), English (UK), Arabic (for transcription of Quran), Mandarin (for leisure)

Braille Standards Set by:

National Council for the Blind Malaysia
http://www.ncbm.org.my/

Literary Notation:

Malay: *Malay Braille Code Revision,* 2004
English: *British Braille A Restatement of Standard English Braille,* 2004
Chinese: *Xian Sing Mang Wen,* 1953

Mathematics Notation:

Malay: *Malay Braille Code Revision,* 2004
English: *Braille Mathematics Notation,* 1987
Arabic: not in use
Chinese: not in use

Science Notation:

English: Adapt from United Kingdom as necessary

Computer Notation:

English: *Computer Braille Code,* 2000 Revision (BANA)

Music Notation:

English: *New International Manual of Braille Music Notation,* 1996

Other Codebooks:

Arabic: Arabic Braille for the transcription of Quran.
Chinese: Chinese Braille for leisure (Xian Sing Mang Wen, 1953)

Malay Alphabet: See *Malay,* page 194
English Alphabet: See *English,* page 175
Arabic Alphabet: See *Arabic,* page 166
Mandarin Alphabet: See *Mandarin,* page 195

Malta

Language: Maltese (uncontracted)

Alphabet: Maltese

a	(1)		għ	(126)		m	(134)		u	(136)
b	(12)		h	(125)		n	(1345)		v	(1236)
ċ	(16)		ħ	(156)		o	(135)		w	(2456)
d	(145)		i	(24)		p	(1234)		x	(146)
e	(15)		ie	(24, 15)		q	(12345)		ż	(1356)
f	(124)		j	(13456)		r	(1235)		z	(12356)
ġ	(245)		k	(13)		s	(234)			
g	(1245)		l	(123)		t	(2345)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	

Mauritania

Languages: Arabic (uncontracted); French (uncontracted)

Literary Notation:
French: *Code Braille Français Uniformisé* (CBFU) 2nd edition, September 2008
http://www.avh.asso.fr/rubriques/infos_braille/nouveau_code_braille.php

Arabic Alphabet: See *Arabic,* page 166
French Alphabet: See *French,* page 180

Mauritius

Languages: English (contracted), French (contracted)

Source:
World Braille Usage, 1990

English Alphabet: See *English,* page 175
French Alphabet: See *French,* page 180

Mexico

Language: Spanish (usually uncontracted)

Braille Standards Set by:
Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:
El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:
Código Matemático Unificado, 1988 (Unified Mathematics Code)

Music Notation:
International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Moldova

Languages: Romanian (contracted), Russian (uncontracted)

Braille Standards Set by:

Moldova Blind Union

Romanian Alphabet: See *Romanian,* page 199
Russian Alphabet: See *Russian,* page 200

Mongolia

Language: Mongolian (uncontracted)

Braille Standards Set by:

Mongolian National Federation of the Blind

Alphabet: Mongolian

а	(1)		и	(24)		р	(1235)	ш	(156)
б	(12)		й	(12346)		с	(234)	щ	(1346)
в	(2456)		к	(13)		т	(2345)	ъ	(12356)
г	(1245)		л	(123)		у	(136)	ы	(2346)
д	(145)		м	(134)		ү	(1456)	ь	(23456)
е	(15)		н	(1345)		ф	(124)	э	(246)
ё	(16)		о	(135)		х	(125)	ю	(1256)
ж	(245)		ө	(1236)		ц	(14)	я	(1246)
з	(1356)		п	(1234)		ч	(12345)		

Punctuation

, comma	(2)
. period, full stop	(256)
? question mark	(26)
! exclamation	(235)

Morocco

Language: Arabic

Arabic Alphabet: See *Arabic,* page 166

Myanmar, Republic of the Union of (also called Burma)

Language: Burmese (uncontracted)

Alphabet: Burmese

က	Ka	(13)		ဌ	Ttha	(12456)		ဗ	Ba	(146)	
ခ	Kha	(46)		ဍ	Dda	(23456)		ဘ	Bha	(12)	
ဂ	Ga	(1245)		ဎ	Ddha	(123456)		မ	Ma	(134)	
ဃ	Gha	(12345)		ဏ	Nna	(1246)		ယ	Ya	(13456)	
င	Nga	(34)		တ	Ta	(2345)		ရ	Ra	(1235)	
စ	Ca	(234)		ထ	Tha	(245)		လ	La	(123)	
ဆ	Cha	(235)		ဒ	Da	(145)		ဝ	Wa	(2456)	
ဇ	Ja	(1356)		ဓ	Dha	(124)		သ	Sa	(1456)	
ဈ	Jha	(2346)		န	Na	(1345)		ဟ	Ha	(125)	
ဉ	Nya	(12356)		ပ	Pa	(1234)		ဠ	Lla	(456)	
ဋ	Tta	(1256)		ဖ	Pha	(45)		အ	A	(126)	

Numbers

၁	1	(3456, 1)		၆	6	(3456, 124)	
၂	2	(3456, 12)		၇	7	(3456, 1245)	
၃	3	(3456, 14)		၈	8	(3456, 125)	
၄	4	(3456, 145)		၉	9	(3456, 24)	
၅	5	(3456, 15)		၀	0	(3456, 245)	

Nepal

Languages: Nepali (contracted), English (contracted)

Braille Code:

Nepali Braille Code, 2006

English Alphabet: See *English,* page 175

Alphabet: Nepali, Vowels

अ	a	(1)		उ	u	(136)		ओ	o	(135)	
आ	ā	(345)		ऊ	ū	(1256)		औ	au	(246)	
इ	i	(24)		ए	e	(15)		अं	aṃ	(56)	
ई	ī	(35)		ऐ	ai	(34)		अः	aḥ	(6)	

Consonants

क	ka	(13)		ड	ḍa	(1246)		म	ma	(134)	
ख	kha	(46)		ढ	ḍha	(123456)		य	ya	(13456)	
ग	ga	(1245)		ण	ṇa	(3456)		र	ra	(1235)	
घ	gha	(126)		त	ta	(2345)		ल	la	(123)	
ङ	ṅa	(346)		थ	tha	(1456)		व	wa	(1236)	
च	ca	(14)		द	da	(145)		श	śa	(146)	
छ	cha	(16)		ध	dha	(2346)		ष	ṣa	(12346)	
ज	ja	(245)		न	na	(1345)		स	sa	(234)	
झ	jha	(356)		प	pa	(1234)		ह	ha	(125)	
ञ	ña	(25)		फ	pha	(235)		क्ष	kṣa	(12345)	
ट	ṭa	(23456)		ब	ba	(12)		त्र	tra	(5, 12456)	
ठ	ṭha	(2456)		भ	bha	(45)		ज्ञ	jña	(156)	

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
I. , danda, period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠦…⠴
'…' single quote	(3…3)	⠄…⠄
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(46, 126…46, 345)	⠨⠷…⠨⠾
{…} braces	(456, 126…456, 345)	⠸⠷…⠸⠾
- hyphen	(36)	⠤
* asterisk	(5, 35)	⠐⠔
capital	(6)	⠠
number sign	(3456)	⠼

Netherlands

Language: Dutch (uncontracted)

Braille Standards Set by:
Oogvereniging
info@oogvereniging.nl
www.Viziris.nl

Literary Notation:
Braillestandaard voor algemeen gebruik in het Nederlandse taalgebied, 2005

Computer Notation:
Braille tables derived from literary tables implemented in screenreaders, sold in Netherlands:
    Jaws, Supernova, and NVDA

Pharma Braille:
www.pharmabraille.com

Dutch Alphabet: See *Dutch,* page 174

New Zealand

Languages: English: Unified English Braille (contracted), Māori (uncontracted)

Braille Standards Set by:

The Braille Authority of New Zealand Aotearoa Trust (BANZAT)
http://banzat.org.nz/

International Council on English Braille (ICEB)
http://www.iceb.org/

Literary Notation:

The Rules of Unified English Braille, 2010
Unified English Braille Manual, New Zealand Edition, 2011

Mathematics, Science, and Computer Notation:

The Rules of Unified English Braille, 2010
Unified English Braille Guidelines for Technical Materials, 2008
Nemeth Code for Mathematics & Science Notation, 1972 Revision (until transition to Unified English Braille is complete)

Music Notation:

Music Braille Code, 1997
Introduction to Braille Music Transcription, Second Edition, Mary Turner De Garmo, 2005

IPA Braille:

An Updated Tactile Representation of the International Phonetic Alphabet, 2008

English Alphabet: See *English,* page 175

Alphabet: Māori

a	(1)		ng	(1345, 1245)		wh	(156)	
e	(15)		o	(135)		ā	(456, 1)	
h	(125)		p	(1234)		ē	(456, 15)	
i	(24)		r	(1235)		ī	(456, 24)	
k	(13)		t	(2345)		ō	(456, 135)	
m	(134)		u	(136)		ū	(456, 136)	
n	(1345)		w	(2456)				

Punctuation

Same as English

Nicaragua

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Nigeria

Language: English: Unified English Braille (contracted); Hausa (limited contractions), Igbo (limited contractions), Yoruba (limited contractions)

Braille Standards Set by:

Braille Advancement Association of Nigeria (BRAAN)

International Council on English Braille (ICEB)
http://www.iceb.org/

Literary Notation:

The Rules of Unified English Braille, 2010

Mathematics and Science Notation:

The Rules of Unified English Braille, 2010
Unified English Braille Guidelines for Technical Materials, 2008

English Alphabet: See *English,* page 175

Alphabet: Hausa

Letter	Dots	Letter	Dots	Letter	Dots	Letter	Dots
a	(1)	f	(124)	l	(123)	sh	(146)
b	(12)	g	(1245)	m	(134)	ts	(34)
ɓ	(23)	h	(125)	n	(1345)	u	(136)
c	(14)	i	(24)	o	(135)	w	(2456)
d	(145)	j	(245)	kw	(12345)	y	(13456)
ɗ	(1246)	k	(13)	r	(1235)	ŷ	(12346)
e	(15)	ƙ	(46)	s	(234)	z	(1356)

Alphabet: Igbo

Letter	Dots	Letter	Dots	Letter	Dots	Letter	Dots
a	(1)	gh	(126)	n	(1345)	sh	(146)
b	(12)	h	(125)	ŋ	(346)	u	(136)
gb	(23)	i	(24)	o	(135)	ụ	(1256)
ch	(16)	ị	(35)	ọ	(246)	v	(1236)
d	(145)	j	(245)	p	(1234)	w	(2456)
ẹ	(26)	k	(13)	kw	(12345)	y	(13456)
f	(124)	l	(123)	r	(1235)	z	(1356)
g	(1245)	m	(134)	s	(234)		

Alphabet: Yoruba

Letter	Dots	Letter	Dots	Letter	Dots	Letter	Dots
a	(1)	g	(1245)	n	(1345)	u	(136)
b	(12)	h	(125)	o	(135)	v	(1236)
gb	(23)	i	(24)	ọ	(246)	w	(2456)
d	(145)	j	(245)	p	(1234)	y	(13456)
e	(15)	k	(13)	r	(1235)		
ẹ	(26)	l	(123)	s	(234)		
f	(124)	m	(134)	ṣ	(146)		

Punctuation: Nigerian Languages

Same as English

Norway

Languages: Norwegian "Bokmål" (national, uncontracted), Norwegian "Nynorsk" (national, uncontracted), North Sámi (indigenous, uncontracted)

Braille Standards Set by:

Offentlig utvalg for punktskrift
www.punktskriftutvalget.no
oup@punktskriftutvalget.no

Literary Notation:

Håndbok i litterær punktskrift, 2012

Mathematics Notation:

Norsk standard for matematikknotasjon i 6-punkts blindeskrift, 2003

Science Notation:

Norsk standard for kjemi-, fysikk- og biologinotasjon i 6-punkts blindeskrift, 2006

Computer Notation:

8-dot braille table based on Windows Codepage 1252, continuously enhanced with braille
   representations of Unicode characters according to the emerging needs

Music Notation:

New International Manual of Braille Music Notation, 1996

Other Codebooks:

Contractions: *Kortskrift i norsk punktskrift, KS04,* printed in braille 2009
Shorthand: Jan Bruteig: *Stenografi på punkt,* printed in braille 1987
Chess: *Norsk standard for sjakknotasjon i 6-punkts blindeskrift,* 2003, slightly modified in: Knut
   J. Helmers: *Praktisk bruk av sjakknotasjon i 6-punkts blindeskrift,* 2005
Phonetics: In principle, the OUP has decided to adopt Prof. Robert Englebretson's updatings
   of "A Braille Notation of the International Phonetic Alphabet"

Alphabet: Norwegian "Bokmål" and Norwegian "Nynorsk"

a	(1)	k	(13)	u	(136)	à	(12356)
b	(12)	l	(123)	v	(1236)	ä	(345)
c	(14)	m	(134)	w	(2456)	ç	(12346)
d	(145)	n	(1345)	x	(1346)	é	(123456)
e	(15)	o	(135)	y	(13456)	è	(2346)
f	(124)	p	(1234)	z	(1356)	ê	(126)
g	(1245)	q	(12345)	æ	(345)	ò	(346)
h	(125)	r	(1235)	ø	(246)	ö	(246)
i	(24)	s	(234)	å	(16)	ü	(1256)
j	(245)	t	(2345)				

Alphabet: North Sámi

a	(1)		f	(124)		n	(1345)		ł	(1256)	
á	(12356)		g	(1245)		ŋ	(1246)		u	(136)	
b	(12)		h	(125)		o	(135)		v	(1236)	
c	(14)		i	(24)		p	(1234)		z	(1356)	
č	(146)		j	(245)		r	(1235)		ž	(2346)	
d	(145)		k	(13)		s	(234)				
đ	(1456)		l	(123)		š	(156)				
e	(15)		m	(134)		t	(2345)				

Punctuation: Norwegian Languages

, comma	(2)
; semicolon	(23)
: colon	(25)
. period, full stop, dot	(3)
? question mark	(26)
! exclamation	(235)
' apostrophe	(5)
«…», "…" quote	(256…256)
(…) parentheses	(236…356)
[…] brackets	(12356…23456)
{…} braces	(6, 12356…6, 23456)
… ellipsis	(3, 3, 3)
- hyphen	(36)
— dash	(36, 36)
/ slash	(34)
* asterisk	(35)
capital	(6)
number sign	(3456)
italics	(6, 3…6, 3)
bold	(23…56)

Oman

Language: Arabic

Arabic Alphabet: See *Arabic,* page 166

Pakistan

Languages: English (contracted), Urdu (contracted), Arabic (contracted)

Braille Standards Set by:

Ministry of Health Social Welfare and Special Education Islamabad with collaboration of Pakistan Association of the Blind

Braille Code:

Urdu Braille, 1986

English Alphabet: See *English,* page 175
Arabic Alphabet: See *Arabic,* page 166

ا	alif	(1)		ص	swad	(12346)
آ	alif-mud	(345)		ض	zwaad	(1246)
ب	bay	(12)		ط	tway	(23456)
پ	pay	(1234)		ظ	zway	(123456)
ت	tey	(2345)		ع	ain	(12356)
ٹ	tay	(246)		غ	ghain	(126)
ث	say	(1456)		ف	fay	(124)
ج	jeem	(245)		ق	quaf	(12345)
چ	chay	(14)		ک	kauf	(13)
ح	hay	(156)		گ	guaf	(1245)
خ	khay	(1346)		ل	laum	(123)
د	dal	(145)		م	meem	(134)
ڈ	daal	(346)		ن	noon	(1345)
ذ	zal	(2346)		ں	noon ghunna	(56)
ر	ray	(1235)		و	wao	(2456)
ڑ	ray	(12456)		ہ	hay	(125)
ز	zhay	(1356)		ھ	dou chashmi hay	(236)
ژ	zhay	(5, 1356)		ء	humza	(3)
س	seen	(234)		ی	chhoti yai	(24)
ش	sheen	(146)		ے	barri yai	(34)

◌َ	zaber	(2)		ٹھ	tah	(135)
◌ِ	zair	(15)		جھ	jhay	(356)
◌ُ	paish	(136)		چھ	chay	(16)
◌ّ	tashdeed	(6)		و ن گ	wao-noon-guaf	(2356)
کو	ko	(12456)		نا	na	(26)
سا	es	(15)		ﻨﮯ	nay	(3456)
نا	in	(35)		یا	yah	(13456)
بھ	bah	(23)		لا	la	(1236)
پھ	pah	(235)		بے	bay	(36)
تھ	tah	(1256)		ءا	alif-humza	(4)

Punctuation

، comma	(2)	⠂
؛ semicolon	(23)	⠆
: colon	(25)	⠒
۔ period, full stop	(256)	⠲
؟ question mark	(236)	⠦
! exclamation	(235)	⠖
number sign	(3456)	⠼

Panama

Language: Spanish (usually uncontracted)

Braille Standards Set by:
Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:
El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:
*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:
International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Papua New Guinea

Languages: English (contracted), Dobuan, Huli, Kuanua, Motu, Pidgin

A limited number of contractions are used in Dobuan, Huli, Kuanua, and Pidgin; these vary according to language.

Source:

World Braille Usage, 1990

English Alphabet: See *English,* page 175

Alphabet: Dobuan

a	(1)	i	(24)	o	(135)	u	(136)
b	(12)	k	(13)	p	(1234)	w	(2456)
d	(145)	l	(123)	r	(1235)	y	(13456)
e	(15)	m	(134)	s	(234)		
g	(1245)	n	(1345)	t	(2345)		

Alphabet: Huli

a	(1)	h	(125)	n	(1345)	t	(2345)
b	(12)	i	(24)	o	(135)	u	(136)
d	(145)	k	(13)	p	(1234)	w	(2456)
e	(15)	l	(123)	r	(1235)	y	(13456)
g	(1245)	m	(134)	s	(234)		

Alphabet: Kuanua

a	(1)	i	(24)	o	(135)	u	(136)
b	(12)	k	(13)	p	(1234)	v	(1236)
d	(145)	l	(123)	r	(1235)		
e	(15)	m	(134)	s	(234)		
g	(1245)	n	(1345)	t	(2345)		

Alphabet: Motu

a	(1)	⠁	ḡ	(123456)	⠿	n	(1345)
b	(12)	⠃	h	(125)	⠓	o	(135)
d	(145)	⠙	i	(24)	⠊	p	(1234)
e	(15)	⠑	k	(13)	⠅	r	(1235)
f	(124)	⠋	l	(123)	⠇	s	(234)
g	(1245)	⠛	m	(134)	⠍	t	(2345)

n	(1345)	⠝	u	(136)	⠥
o	(135)	⠕	v	(1236)	⠧
p	(1234)	⠏	w	(2456)	⠺
r	(1235)	⠗			
s	(234)	⠎			
t	(2345)	⠞			

Alphabet: Pidgin

a	(1)	⠁	h	(125)	⠓	n	(1345)	⠝	u	(136)	⠥
b	(12)	⠃	i	(24)	⠊	o	(135)	⠕	v	(1236)	⠧
d	(145)	⠙	j	(245)	⠚	p	(1234)	⠏	w	(2456)	⠺
e	(15)	⠑	k	(13)	⠅	r	(1235)	⠗	y	(13456)	⠽
f	(124)	⠋	l	(123)	⠇	s	(234)	⠎			
g	(1245)	⠛	m	(134)	⠍	t	(2345)	⠞			

Punctuation: Papua New Guinean Languages

Same as English

Paraguay

Languages: Spanish (usually uncontracted); Guaraní (uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Alphabet: Guaraní

a	(1)		ng	(1345, 1245)	
ã	(156, 1)		nt	(1345, 2345)	
ch	(14, 125)		ñ	(12456)	
e	(15)		o	(135)	
ẽ	(156, 15)		õ	(156, 135)	
g	(1245)		p	(1234)	
g̃	(156, 1245)		r	(1235)	
h	(125)		rr	(1235, 1235)	
i	(24)		s	(234)	
ĩ	(156, 24)		t	(2345)	
j	(245)		u	(136)	
k	(13)		ũ	(156, 136)	
l	(123)		v	(1236)	
m	(134)		y	(13456)	
mb	(134, 12)		ỹ	(156, 13456)	
n	(1345)		' (puso)	(25)	
nd	(1345, 145)				

Peru

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Philippines

Languages: English (contracted), Tagalog (contracted), Ilocano (uncontracted), Cebuano (uncontracted), Hiligaynon (uncontracted), Bicol (uncontracted)

The dialects include five borrowed English contractions: ar, er, en, in, ing

Braille Standards Set by:

Philippine Printing House for the Blind, Department of Education
osiealforte@yahoo.com

Literary Notation:

English American Code (BANA), 1994
Filipino Braille Code, Revised Edition 2005

Mathematics and Science Notation:

The Nemeth Braille Code for Mathematics and Science Notation, 1972 Revision

Computer Notation:

Computer Braille Code, 2000 Revision

Music Notation:

New International Manual of Braille Music Notation, 1960

English Alphabet: See *English,* page 175

Alphabet: Tagalog

a	(1)		k	(13)		s	(234)	
b	(12)		l	(123)		t	(2345)	
c	(14)		m	(134)		u	(136)	
d	(145)		n	(1345)		v	(1236)	
e	(15)		ñ	(4, 1345)		w	(2456)	
f	(124)		ng	(1345, 1245)		x	(1346)	
g	(1245)		o	(135)		y	(13456)	
h	(125)		p	(1234)		z	(1356)	
i	(24)		q	(12345)				
j	(245)		r	(1235)				

Alphabet: Ilocano

a	(1)		k	(13)		s	(234)	
b	(12)		l	(123)		t	(2345)	
c	(14)		m	(134)		u	(136)	
d	(145)		n	(1345)		v	(1236)	
e	(15)		ñ	(4, 1345)		w	(2456)	
f	(124)		ng	(1345, 1245)		x	(1346)	
g	(1245)		o	(135)		y	(13456)	
h	(125)		p	(1234)		z	(1356)	
i	(24)		q	(12345)				
j	(245)		r	(1235)				

Alphabet: Cebuano

a	(1)		k	(13)		s	(234)
b	(12)		l	(123)		t	(2345)
c	(14)		m	(134)		u	(136)
d	(145)		n	(1345)		v	(1236)
e	(15)		ñ	(4, 1345)		w	(2456)
f	(124)		ng	(1345, 1245)		x	(1346)
g	(1245)		o	(135)		y	(13456)
h	(125)		p	(1234)		z	(1356)
i	(24)		q	(12345)			
j	(245)		r	(1235)			

Alphabet: Hiligaynon

a	(1)		k	(13)		s	(234)
b	(12)		l	(123)		t	(2345)
c	(14)		m	(134)		u	(136)
d	(145)		n	(1345)		v	(1236)
e	(15)		ñ	(4, 1345)		w	(2456)
f	(124)		ng	(1345, 1245)		x	(1346)
g	(1245)		o	(135)		y	(13456)
h	(125)		p	(1234)		z	(1356)
i	(24)		q	(12345)			
j	(245)		r	(1235)			

Alphabet: Bicol

a	(1)		k	(13)		s	(234)	
b	(12)		l	(123)		t	(2345)	
c	(14)		m	(134)		u	(136)	
d	(145)		n	(1345)		v	(1236)	
e	(15)		ñ	(4, 1345)		w	(2456)	
f	(124)		ng	(1345, 1245)		x	(1346)	
g	(1245)		o	(135)		y	(13456)	
h	(125)		p	(1234)		z	(1356)	
i	(24)		q	(12345)				
j	(245)		r	(1235)				

Punctuation: Filipino Languages

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
' apostrophe	(3)	
"…" quote	(236…356)	
'…'single quote	(6, 236…356, 3)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…2356, 3)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
— dash	(36, 36)	
/ slash	(456, 34)	
* asterisk	(35, 35)	
capital	(6)	
number sign	(3456)	
italics	(46)	

Poland

Language: Polish (uncontracted; contracted for individual use)

Braille Standards Set by:

Polish Association of the Blind
http://www.pzn.org.pl
pzn@pzn.org.pl

Literary Notation:

A Tutorial for Braille Copyrighters, 1994
Principles of Using the Modified Braille Code in Humanist Publications, 2003

Mathematics and Science Notation:

Braille Code used in Mathematic, Physics and Chemistry, 2011

Music Notation:

International Unified Braille Music Notation, 2002

Contracted Braille:

Polish Ortographic Contractions, printed transcription, The Society for the Care of the Blind, 1934
Tutorial of Polish Braille Contractions, 1984–1985
Polish Ortographic Braille Contractions, Level 1, 1985
A List of Polish Braille Contractions Published in the Alphabetical Order of Braille Symbols, 1985
A List of Abbreviated Words in the Alphabetic Order of Braille Symbols, Level 1, 1985
Braille Contractions, Level 2, 1988
The System of Polish Braille Contractions, Analysis and History (1991), this publication is not printed in braille

Alphabet: Polish

a	(1)		g	(1245)		ń	(1456)		u	(136)
ą	(16)		h	(125)		o	(135)		v	(1236)
b	(12)		i	(24)		ó	(346)		w	(2456)
c	(14)		j	(245)		p	(1234)		x	(1346)
ć	(146)		k	(13)		q	(12345)		y	(13456)
d	(145)		l	(123)		r	(1235)		z	(1356)
e	(15)		ł	(126)		s	(234)		ż	(12346)
ę	(156)		m	(134)		ś	(246)		ź	(2346)
f	(124)		n	(1345)		t	(2345)		

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop; ' apostrophe; × multiplication	(3)	⠄
? question mark	(26)	⠢
! exclamation mark; + plus sign	(235)	⠖
„…" quote	(236…356)	⠶…⠦
'…' inside quote	(6…6)	⠠…⠠
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(12356…23456)	⠷…⠾
… ellipsis	(3, 3, 3)	⠄ ⠄ ⠄
- hyphen; – dash; — long dash; - minus	(36)	⠤
/ slash; ÷ division sign	(256)	⠲
* asterisk	(35)	⠔
= equals	(2356)	⠶
capital	(46)	⠨
number sign	(3456)	⠼
italics	(456)	⠸

Portugal

Language: Portuguese (uncontracted)

Braille Standards Set by:
Nucleo de Braiile e Outros Meios Complementares de Leitura, INR
http://www.inr.pt/
inr@inr.msss.pt

Literary Notation:
Grafia Braille Para a Língua Portuguesa 3ª Edição, 2002
Grafia Fonetica Braille, 1994

Mathematics Notation:
Grafia Matemática Braille, 1994

Science Notation:
Grafia Química Braille, 1993

Computer Notation:
Grafia Braille Para a Informática, 2003

Music Notation:
Guia Musicográfico Braille, 2004

Portuguese Alphabet: See *Portuguese,* page 197

Qatar

Language: Arabic (uncontracted)

Braille Standards Set by:
Conference of Developing and Unifying Arabic Braille Characters

Literary Notation:
Advanced Arabic Braille System, 2002

Mathematics and Science Notation:
Advanced Arabic Braille System, 2002

Arabic Alphabet: See *Arabic,* page 166

Romania

Language: Romanian (contracted)

Source:
World Braille Usage, 1990

Romanian Alphabet: See *Romanian,* page 199

Russia (Russian Federation)

Language: Russian (uncontracted)

Source:
World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Russian Alphabet: See *Russian,* page 200

Saint Kitts and Nevis

Language: English (contracted)

Braille Standards Set by:
Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:
British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:
Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Saint Lucia

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Saint Vincent and the Grenadines

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Samoa

Languages: English (contracted), Samoan (contracted)

Source:

World Braille Usage, 1990

English Alphabet: See *English,* page 175

Alphabet: Samoan

a	(1)	l	(123)	s	(234)	k	(13)
e	(15)	m	(134)	t	(2345)	r	(1235)
f	(124)	n	(1345)	u	(136)		
g	(1245)	o	(135)	v	(1236)		
i	(24)	p	(1234)	h	(125)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
' apostrophe	(4)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
— dash	(36, 36)	
capital	(6)	
number sign	(3456)	
line over letter	(56)	
repeat sign	(145)	

Saudi Arabia

Languages: Arabic (uncontracted), English (contracted)

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

Serbia

Languages: Serbian (uncontracted), English (contracted), Russian (uncontracted), Albanian (uncontracted), Hungarian (uncontracted)

Braille Standards Set by:

The Union of the Blind of Serbia
The Braille Committee
www.savezslepih.org

Literary Notation:

Serbian: *Serbian Braille Code in General Use,* 2011

Mathematics and Science Notation:

Russian: Bykov, A.G., M.I. Egorov, G.B. Morozova, and I.V. Proskuryakov, comps. *System of Symbols for Math, Physics, Chemistry, and Astronomy: A Learning Aid.* Edited by I.V. Proskuryakov and A.G. Bykov. Developed by the Committee for Exact Sciences of the All Russia Association for the Blind. 2d ed., rev. and enl. Moscow: The All Russia Association for the Blind, 1982.

Music Notation:

New International Manual of Braille Music Notation, 1996

English Alphabet: See *English,* page 175
Russian Alphabet: See *Russian,* page 200
Albanian Alphabet: See *Albanian,* page 165
Hungarian Alphabet: See *Hungarian,* page 188

Alphabet: Serbian

а	a	(1)		л	l	(123)		ф	f	(124)	
б	b	(12)		љ	lj	(126)		x	h	(125)	
в	v	(1236)		м	m	(134)		ц	c	(14)	
г	g	(1245)		н	n	(1345)		ч	č	(16)	
д	d	(145)		њ	nj	(1246)		џ	dž	(12456)	
ђ	đ	(1456)		о	o	(135)		ш	š	(156)	
е	e	(15)		п	p	(1234)			q	(12345)	
ж	ž	(2346)		р	r	(1235)			w	(2456)	
з	z	(1356)		с	s	(234)			x	(1346)	
и	i	(24)		т	t	(2345)			y	(13456)	
ј	j	(245)		ћ	ć	(146)					
к	k	(13)		у	u	(136)					

Accents

`	short up	(4)	
˵	short down	(5)	
´	long up	(45)	
ˆ	long down	(56)	
^	long vocal	(25)	

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
„…" quote	(236…356)	
'…' single quote	(236, 3…6, 356)	
(…) parentheses	(2356…2356)	
[…] brackets	(2356, 3…6, 2356)	

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{…} braces	(2356, 23…56, 2356)	⠳ ⠆ … ⠰ ⠦
… ellipsis	(256, 256, 256)	⠒ ⠒ ⠒
- hyphen, - minus	(36)	⠤
__ underscore	(6, 36)	⠠ ⠤
/ slash	(34)	⠌
* asterisk	(35)	⠔
capital	(46)	⠨
group capital	(45)	⠩
number sign	(3456)	⠼
italics	(456)	⠨

Seychelles

Language: English (contracted)

Braille Standards Set by:
Seychelles Union of the Blind

English Alphabet: See *English,* page 175

Sierra Leone

Language: English (contracted)

Source:
World Braille Usage, 1990

English Alphabet: See *English,* page 175

Singapore

Language: English (contracted), Malay (contracted)

Source:

World Braille Usage, 1990

English Alphabet: See *English,* page 175
Malay Alphabet: See *Malay,* page 194

Slovak Republic

Language: Slovak (uncontracted)

Braille Standards Set by:

Slovak Blind and Partially Sighted Union www.unss.sk with close cooperation with the Slovak
    Library for the Blind www.skn.sk
unss@unss.sk

Literary Notation:

Slovak ver. 1 of 1996

Music Notation:

JELÍNEK, Jiří: *Notopis pro nevidomé* (*Braille Music Notation for the Blind*)

Alphabet: Slovak

a	(1)	l	(123)	w	(2456)	ľ	(456)
b	(12)	m	(134)	x	(1346)	ň	(1246)
c	(14)	n	(1345)	y	(13456)	ó	(246)
d	(145)	o	(135)	z	(1356)	ô	(23456)
e	(15)	p	(1234)	á	(16)	ŕ	(12356)
f	(124)	q	(12345)	ä	(4)	š	(156)
g	(1245)	r	(1235)	č	(146)	ť	(1256)
h	(125)	s	(234)	ď	(1456)	ú	(346)
i	(24)	t	(2345)	é	(345)	ý	(12346)
j	(245)	u	(136)	í	(34)	ž	(2346)
k	(13)	v	(1236)	ĺ	(46)		

Punctuation

, comma, decimal point	(2)	⠂
: colon	(25)	⠒
; semicolon	(23)	⠆
. period, full stop, dot	(256)	⠲
? question mark	(26)	⠢
! exclamation	(235)	⠖
' apostrophe	(3)	⠄
„…" quote	(2356…2356)	⠶…⠶
(…) parentheses	(236…356)	⠦…⠴
- dash, minus	(36)	⠤
/ slash	(12456)	⠳
* asterisk	(35)	⠔
capital	(6)	⠠
series capital	(6, 6)	⠠ ⠠
number sign	(3456)	⠼

Slovenia

Language: Slovene (contractions rarely used)

Braille Standards Set by:

Zveza društev slepih in slabovidnih Slovenije (Union of the Blind and Partially Sighted of Slovenia)
http://www.zveza-slepih.si/
zdsss@zveza-slepih.si

Zavod za slepo in slabovidno mladino Ljubljana (Institute for Blind and Partially Sighted Children Ljubljana)
www.zssm.si
zavod@zssm.si

Literary Notation:

The Slovenian Braille Code (*Slovenska brajica*), 1974

Mathematics and Science Notation:

Mathematical Notation on the Computer for the Blind (*Matematicni zapis na racunalniku za slepe*), 2007

Computer Notation:

Slovenian 8-dot Braille (Computer)

Alphabet: Slovene

a	(1)		h	(125)		p	(1234)		w	(2456)	
b	(12)		i	(24)		q	(12345)		x	(1346)	
c	(14)		j	(245)		r	(1235)		y	(13456)	
č	(16)		k	(13)		s	(234)		z	(1356)	
d	(145)		l	(123)		š	(156)		ž	(2346)	
e	(15)		m	(134)		t	(2345)				
f	(124)		n	(1345)		u	(136)				
g	(1245)		o	(135)		v	(1236)				

Punctuation

, comma	(2)	⠂	„…" quote	(236…356)	⠦ … ⠴
; semicolon	(23)	⠆	(…) parentheses	(2356…2356)	⠶ … ⠶
: colon	(25)	⠒	- hyphen	(36)	⠤
. period, full stop	(256)	⠲	* asterisk	(35)	⠔
? question mark	(26)	⠦	number sign	(3456)	⠼
! exclamation	(235)	⠖	capital	(46)	⠨
' apostrophe	(3)	⠄	abbreviation sign	(456)	⠸

South Africa

Languages: English: Unified English Braille (contracted), Afrikaans (contracted), Isizulu (contracted), IsiXhosa, Sotho (contracted), Tswana (contracted), Venda, Swati, Ndebele

Braille Standards Set by:

SA Braille Authority

International Council on English Braille (ICEB)
http://www.iceb.org/

Literary Notation:

The Rules of Unified English Braille, 2010
The Unified English Braille Primer – Australian Edition, 2008
A Guide for the Use of Zulu Braille
A Guide for the Use of Xhosa Braille
A Guide for the Use of Northern Sotho Braille
A Guide for the Use of Southern Sotho Braille
A Guide for the Use of Tswana Braille
A Guide for the Use of Venda Braille
A Guide for the Use of Swati Braille
A Guide for the Use of Ndebele Braille

Mathematics and Science Notation:

The Rules of Unified English Braille, 2010
Unified English Braille Guidelines for Technical Materials, 2008

Music Notation:

The New International Manual of Braille Music Notation, 1996

English Alphabet: See *English,* page 175
Ndebele Alphabet: See *Ndebele,* page 197

Alphabet: Afrikaans

a	(1)		i	(24)		r	(1235)
á	(4, 1)		í	(4, 24)		s	(234)
à	(45, 16, 1)		ï	(56, 24)		t	(2345)
b	(12)		j	(245)		u	(136)
c	(14)		k	(13)		ú	(4, 136)
d	(145)		l	(123)		û	(45, 136)
e	(15)		m	(134)		ü	(56, 136)
é	(4, 15)		n	(1345)		v	(1236)
è	(45, 16, 15)		o	(135)		w	(2456)
ê	(45, 15)		ó	(4, 135)		x	(1346)
ë	(56, 15)		ô	(45, 135)		y	(13456)
f	(124)		ö	(56, 135)		ý	(4, 13456)
g	(1245)		p	(1234)		z	(1356)
h	(125)		q	(12345)			

Alphabet: Isizulu

a	(1)	h	(125)	o	(135)	v	(1236)
b	(12)	i	(24)	p	(1234)	w	(2456)
c	(14)	j	(245)	q	(12345)	x	(1346)
d	(145)	k	(13)	r	(1235)	y	(13456)
e	(15)	l	(123)	s	(234)	z	(1356)
f	(124)	m	(134)	t	(2345)		
g	(1245)	n	(1345)	u	(136)		

Alphabet: IsiXhosa

a	(1)	h	(125)	o	(135)	v	(1236)
b	(12)	i	(24)	p	(1234)	w	(2456)
c	(14)	j	(245)	q	(12345)	x	(1346)
d	(145)	k	(13)	r	(1235)	y	(13456)
e	(15)	l	(123)	s	(234)	z	(1356)
f	(124)	m	(134)	t	(2345)		
g	(1245)	n	(1345)	u	(136)		

Alphabet: Sotho

a	(1)		j	(245)	s	(234)
b	(12)		k	(13)	š	(4, 234)
c	(14)		l	(123)	t	(2345)
d	(145)		m	(134)	u	(136)
e	(15)		n	(1345)	v	(1236)
ê	(45, 15)		o	(135)	w	(2456)
f	(124)		ò	(45, 135)	x	(1346)
g	(1245)		p	(1234)	y	(13456)
h	(125)		q	(12345)	z	(1356)
i	(24)		r	(1235)		

Alphabet: Tswana

a	(1)		j	(245)	s	(234)
b	(12)		k	(13)	š	(4, 234)
c	(14)		l	(123)	t	(2345)
d	(145)		m	(134)	u	(136)
e	(15)		n	(1345)	v	(1236)
ê	(45, 15)		o	(135)	w	(2456)
f	(124)		ô	(45, 135)	x	(1346)
g	(1245)		p	(1234)	y	(13456)
h	(125)		q	(12345)	z	(1356)
i	(24)		r	(1235)		

Alphabet: Venda

a	(1)		k	(13)		s	(234)	
b	(12)		l	(123)		t	(2345)	
c	(14)		ḽ	(46, 123)		ṱ	(46, 2345)	
d	(145)		m	(134)		u	(136)	
ḓ	(46, 145)		n	(1345)		v	(1236)	
e	(15)		ṋ	(46, 1345)		w	(2456)	
f	(124)		ṅ	(4, 1345)		x	(1346)	
g	(1245)		o	(135)		y	(13456)	
h	(125)		p	(1234)		z	(1356)	
i	(24)		q	(12345)				
j	(245)		r	(1235)				

Alphabet: Swati

a	(1)		h	(125)		o	(135)		v	(1236)	
b	(12)		i	(24)		p	(1234)		w	(2456)	
c	(14)		j	(245)		q	(12345)		x	(1346)	
d	(145)		k	(13)		r	(1235)		y	(13456)	
e	(15)		l	(123)		s	(234)		z	(1356)	
f	(124)		m	(134)		t	(2345)				
g	(1245)		n	(1345)		u	(136)				

Punctuation: South African Languages

Same as English

South Korea (Republic of Korea)

Language: Korean (Hangeul) (uncontracted)

Braille Standards Set by:

Ministry of Culture, Sports, and Tourism
www.mcst.go.kr

Literary Notation:

Korean (Hangeul) Braille Code

Mathematics Notation:

Math Code for Korea

Consonants

ㄱ	g	(4)		ㅅ	s	(6)		ㅎ	h	(245)
ㄴ	n	(14)		ㅈ	j	(46)		ㄲ	kk	(6, 4)
ㄷ	d	(24)		ㅊ	ch	(56)		ㄸ	tt	(6, 24)
ㄹ	r	(5)		ㅋ	k	(124)		ㅃ	pp	(6, 45)
ㅁ	m	(15)		ㅌ	t	(125)		ㅆ	ss	(6, 6)
ㅂ	b	(45)		ㅍ	p	(145)		ㅉ	jj	(6, 46)

Consonants (Finals)

ㄱ	g	(1)		ㅂ	b	(12)		ㅋ	k	(235)
ㄴ	n	(25)		ㅅ	s	(3)		ㅌ	t	(236)
ㄷ	d	(35)		ㅇ	ng	(2356)		ㅍ	p	(256)
ㄹ	r	(2)		ㅈ	j	(13)		ㅎ	h	(356)
ㅁ	m	(26)		ㅊ	ch	(23)				

Vowels

ㅏ	a	(126)	⠏		ㅒ	yae	(345, 1235)	⠜⠗
ㅑ	ya	(345)	⠜		ㅔ	e	(1345)	⠝
ㅓ	eo	(234)	⠦		ㅖ	ye	(34)	⠒
ㅕ	yeo	(156)	⠬		ㅘ	wa	(1236)	⠯
ㅗ	o	(136)	⠭		ㅙ	wae	(1236, 1235)	⠯⠗
ㅛ	yo	(346)	⠶		ㅚ	oe	(13456)	⠽
ㅜ	u	(134)	⠍		ㅝ	wo	(1234)	⠏
ㅠ	yu	(146)	⠝		ㅞ	we	(1234, 1235)	⠏⠗
ㅡ	eu	(246)	⠺		ㅟ	wi	(134, 1235)	⠍⠗
ㅣ	i	(135)	⠝		ㅢ	ui	(2456)	⠺
ㅐ	ae	(1235)	⠗					

Punctuation

, comma	(5)	⠂
; semicolon	(56, 23)	⠱⠒
: colon	(5, 2)	⠂ ⠂
. period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠦…⠴
(…) parentheses	(36…36)	⠔…⠔

Spain

Languages: Spanish (uncontracted), Catalan (uncontracted), Galician (uncontracted), Basque (uncontracted)

Braille Standards Set by:

Organización Nacional de Ciegos Españoles (ONCE) [The National Organization of the Blind]
www.once.es

Literary Notation:

Guías de la Comisión Braille Española: Signografía básica, Primera edición, Madrid 2005

Mathematics Notation:

Guías de la Comisión Braille Española: Signografía matemática, Primera edición, Madrid 2007

Science Notation:

Guías de la Comisión Braille Española: Química lineal, Primera edición, Madrid 2006
Signografía para la representación en braille de expresiones bidimensionales de química,
     2012
*Guías de la Comisión Braille Española: Signografía general para la representación braille de
     símbolos electrónicos, circuitos y electricidad*, Primera edición, Madrid 2008

Music Notation:

Nuevo Manual Internacional de Musicografía Braille, 1998

Linguistics Notation:

Guías de la Comisión Braille Española: Lingüística, Primera edición, Madrid 2007

Chess Notation:

Guías de la Comisión Braille Española: Ajedrez, Primera edición, Madrid 2006

Graphics:

*Requisitos técnicos para la confección de planos accesibles a personas con discapacidad
     visual,* 2012

Spanish Alphabet: See *Spanish,* page 201
Catalan Alphabet: See *Catalan,* page 172

Alphabet: Galician

a	(1)		j	(245)		r	(1235)	á	(12356)
b	(12)		k	(13)		s	(234)	é	(2346)
c	(14)		l	(123)		t	(2345)	í	(34)
d	(145)		m	(134)		u	(136)	ó	(346)
e	(15)		n	(1345)		v	(1236)	ú	(23456)
f	(124)		ñ	(12456)		w	(2456)	ü	(1256)
g	(1245)		o	(135)		x	(1346)		
h	(125)		p	(1234)		y	(13456)		
i	(24)		q	(12345)		z	(1356)		

Alphabet: Basque

a	(1)		h	(125)		n	(1345)	s	(234)
b	(12)		i	(24)		ñ	(12456)	t	(2345)
d	(145)		j	(245)		o	(135)	u	(136)
e	(15)		k	(13)		p	(1234)	x	(1346)
f	(124)		l	(123)		q	(12345)	z	(1356)
g	(1245)		m	(134)		r	(1235)		

Punctuation: Galician and Basque

Same as Spanish

Sri Lanka

Languages: Sinhala (contracted), English (contracted), Tamil (contracted)

Literary Notation:
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:
Nemeth Code for Mathematics & Science Notation, 1972 Revision

Computer Notation:
Computer Braille Code, 2000 Revision

English Alphabet: See *English,* page 175

Alphabet: Sinhala, Vowels

අ	(1)		ඏ	(136)		ඒ	(34)	
ආ	(345)		ඌ	(1256)		ඔ	(1346)	
ඇ	(12356)		සa	(5, 1235)		ඕ	(135)	
ඈ	(12456)		සaa	(6, 1235)		ඖ	(246)	
ඉ	(24)		එ	(15)				
ඊ	(35)		ඒ	(26)				

Consonants

ක	(13)		ඩ	(1246)		ම	(134)	
බ	(46)		ඪ	(123456)		ඹ	(23, 12)	
ග	(1245)		ණ	(1356)		ය	(13456)	
ඝ	(126)		ඬ	(23, 1246)		ර	(1235)	
ඞ	(346)		ත	(2345)		ල	(123)	
ඟ	(23, 1245)		ථ	(1456)		ව	(1236)	
ච	(14)		ද	(145)		ශ	(12346)	
ඡ	(16)		ධ	(2346)		ෂ	(146)	
ජ	(245)		න	(1345)		ස	(234)	
ඣ	(356)		ඳ	(23, 145)		හ	(125)	
ඤ	(25)		ප	(1234)		ළ	(456)	
ඦ	(12345)		ඵ	(156)		ෆ	(124)	
ට	(23456)		බ	(12)				
ඨ	(2456)		භ	(45)				

Signs

ෙ◌ං	(3)	
◌ඃ	(3, 3)	
◌	(4)	

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠦…⠴
(…) parentheses	(2356…2356)	⠶…⠶
number sign	(3456)	⠼

Alphabet: Tamil, Vowels

அ	(1)	⠁	ஈ	(35)	⠔	எ	(26)	⠢	ஒ	(1346)	⠭
ஆ	(345)	⠜	உ	(136)	⠥	ஏ	(15)	⠑	ஓ	(135)	⠕
இ	(24)	⠊	ஊ	(1256)	⠳	ஐ	(34)	⠌	ஔ	(246)	⠪

Consonants

க	(13)	⠅	ண	(3456)	⠼	ய	(13456)	⠽	வ	(1236)	⠧
ங	(346)	⠬	த	(2345)	⠞	ர	(1235)	⠗	ஷ	(146)	⠩
ச	(14)	⠉	ந	(1345)	⠝	ற	(12456)	⠻	ஸ	(234)	⠎
ஜ	(245)	⠚	ன	(56)	⠰	ல	(123)	⠇	ஹ	(125)	⠓
ஞ	(25)	⠒	ப	(1234)	⠏	ள	(456)	⠸			
ட	(23456)	⠾	ம	(134)	⠍	ழ	(12356)	⠷			

Numbers

௦	0	(3456, 245)	⠼⠚	௬	6	(3456, 124)	⠼⠋
க	1	(3456, 1)	⠼⠁	எ	7	(3456, 1245)	⠼⠛
உ	2	(3456, 12)	⠼⠃	அ	8	(3456, 125)	⠼⠓
௩	3	(3456, 14)	⠼⠉	கூ	9	(3456, 24)	⠼⠊
சு	4	(3456, 145)	⠼⠙	௰	10	(3456, 1, 245)	⠼⠁⠚
ரு	5	(3456, 15)	⠼⠑				

Sweden

Language: Swedish (uncontracted)

Braille Standards Set by:
The Swedish Braille Authority
www.punktskriftsnamnden.se
Swedish Agency for Accessible Media (Myndigheten för tillgängliga medie), MTM

Literary Notation:
Svenska skrivregler för punktskrift, 2010

Mathematics and Science Notation:
Punktskriftens skrivregler för matematik och naturvetenskap, 2nd Edition, 2012

Computer Notation:
Teckentabell som norm för svensk åttapunktsskrift, 1997

Music Notation:
New International Manual of Braille Music Notation, WBU, 1996

Phonetic Notation:
Fonetik och punktskrift, 2005

Contracted Braille:
Kortskrift. Nivå 1 och 2, 1997
Kortskrift. Nivå 3 och 4, för anteckningar, 1997

Chess Notation:
In development

Swedish Alphabet: See *Swedish,* page 203

Switzerland

Languages: German (uncontracted/Kurzschrift; largely uncontracted/Vollschrift; contracted/Kurzschrift), French (contracted), Italian (uncontracted)

Braille Standards Set by:

German: Authority of the German-Speaking Countries

French: Commission Romande du Braille (CRB)
Italian: Biblioteca Italiana per i ciechi «Regina Margherita» (Italian Library for the Blind "Regina Margherita" – NPO) www.bibciechi.it

Literary Notation:

German: *Das System der deutschen Blindenschrift,* 2005
French: *Code braille français uniformise pour la transcription des textes imprimes* (CBFU), 2008
Italian: *Tabella Braille* 1998, Commissione Braille italiana, UIC

Computer Notation:

German: *8-Punkt-Brailleschrift für die Informationsverarbeitung*

Mathematics and Science Notation:

German: *Mathematikschrift für Blinde* (2000, internal Handbook of the Swiss Library for Blind, Visually-Impaired and Print-Disabled); *Neufassung und Vervollständigung des Systems der internationalen Mathematikschrift für Blinde*, 1986 (braille) and 1992 (print)

Chemistry Notation:

German: *Das System der Chemieschrift in der deutschen Blindenschrift,* 2005

Music Notation:

German: *New International Manual of Braille Music Notation,* WBU, 1996
Italian: *New International Manual of Braille Music Notation,* WBU, 1996

Additional Codebooks in Use:

German:
> Chess: *Schachschrift für Blinde*

> Shorthand: *System der deutschen 6-Punkt-Stenografie für Blinde,* 2002

> IPA: *Weltlautschrift für Blinde,* 1938, reprinted 2010

> Ancient and New Testament Greek: *Internationale griechische Blindenschrift,* 1939

German Alphabet: See *German,* page 182
French Alphabet: See *French,* page 180
Italian Alphabet: See *Italian,* page 190

Syria

Language: Arabic (uncontracted)

Source:
World Braille Usage, 1990

Arabic Alphabet: See *Arabic,* page 166

Taiwan

Languages: Mandarin (uncontracted), English (contracted), Japanese (uncontracted)

Braille Standards Set by:
Center for Education and Rehabilitation for Visually Impaired, NUTN
vhc-1@pubmail.nutn.edu.tw

Literary Notation:
Chinese Braille Learning Manual

Mathematics and Science Notation:
Nie Meizi Compilation of Mathematics and Science Braille Signs

Mandarin Alphabet: See *Mandarin,* page 195
English Alphabet: See *English,* page 175
Japanese Alphabet: See *Japanese,* page 191

Tajikistan

Language: Tajik (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Tajik

а	(1)	з	(1356)	о	(135)	ҳ	(1456)
б	(12)	и	(24)	п	(1234)	ч	(12345)
в	(2456)	ӣ	(12346)	р	(1235)	ҷ	(1236)
г	(1245)	й	(34)	с	(234)	ш	(156)
ғ	(12456)	к	(13)	т	(2345)	ъ	(12356)
д	(145)	қ	(13456)	у	(136)	э	(246)
е	(15)	л	(123)	ӯ	(346)	ю	(1256)
ё	(16)	м	(134)	ф	(124)	я	(1246)
ж	(245)	н	(1345)	х	(125)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
«…» quote	(236…356)	
(…) parentheses	(2356…2356)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Thailand

Languages: Thai (contracted), English (contracted)

Sources:

World Braille Usage, 1990
Braille in Asia, 2008

Literary Notation:

Thai Braille Code

Mathematics Notation:

Nemeth Code for Mathematics & Science Notation, 1972 Revision

Science Notation:

Codebooks from Europe and North America are used

Computer Notation:

Codebooks from Europe and North America are used

Music Notation:

Codebooks from Europe and North America are used

English Alphabet: See *English,* page 175

Alphabet: Thai, Consonants

Thai	Latin	Dots		Thai	Latin	Dots
ก	g, k	(1245)		ท	th, t	(23456)
ข	k, kh	(13)		ธ	th, t	(356, 23456)
ฃ	kh	(356, 13)		น	n	(1345)
ค	kh	(136)		บ	b	(1236)
ฅ	kh	(36, 136)		ป	p	(12346)
ฆ	kh	(6, 136)		ผ	ph	(1234)
ง	ng	(12456)		ฝ	f, fh	(1346)
จ	j, c	(245)		พ	ph	(1456)
ฉ	ch	(34)		ฟ	f, fh	(1246)
ช	ch	(346)		ภ	ph	(6, 1456)
ซ	s	(2346)		ม	m	(134)
ฌ	ch	(6, 346)		ย	y, j	(13456)
ญ	y, j	(6, 13456)		ร	r	(1235)
ฎ	d	(6, 145)		ล	l	(123)
ฏ	t	(6, 1256)		ว	w	(2456)
ฐ	th, t	(6, 2345)		ศ	s	(6, 234)
ฑ	th, t	(6, 23456)		ษ	s	(36, 234)
ฒ	th, t	(36, 23456)		ส	s	(234)
ณ	n	(6, 1345)		ห	h	(125)
ด	d	(145)		ฬ	l	(6, 123)
ต	t	(1256)		อ	o	(135)
ถ	th, t	(2345)		ฮ	h	(123456)

Vowels

Thai	Roman	Dots	Braille		Thai	Roman	Dots	Braille
-ะ	a	(1)	⠁		เ-อะ	oe	(146, 1)	⠩⠁
า-	a	(16)	⠡		เอ-	oe	(146)	⠩
◌ิ	i	(12)	⠃		เ-ียะ	ia	(12356, 1)	⠷⠁
◌ี	i	(23)	⠆		เ-ีย	ia	(12356)	⠷
◌ุ	u	(246)	⠪		เ-ือะ	ue	(12345, 1)	⠟⠁
◌ู	u	(26)	⠢		เ-ือ	ue	(12345)	⠟
◌	u	(14)	⠉		-ัวะ	ua	(15, 1)	⠑⠁
◌	u	(25)	⠒		-ัว	ua	(15)	⠑
เ-ะ	e	(124, 1)	⠋⠁		-ำ	am	(1356)	⠵
เ-	e	(124)	⠋		ไ-	ai	(156)	⠱
แ-ะ	ae	(126, 1)	⠣⠁		ใ-	ai	(156, 2)	⠱⠂
แ-	ae	(126)	⠣		เ-า	aw	(235)	⠖
โ-ะ	o	(24, 1)	⠊⠁		ฤ	-	(1235, 2)	⠗⠂
โ-	o	(24)	⠊		ฤา	-	(1235, 2, 16)	⠗⠂⠡
เ-าะ	o	(135, 24)	⠕⠊		ฦ	-	(123, 2)	⠇⠂
-อ	o	(135)	⠕		ฦา	-	(123, 2, 16)	⠇⠂⠡

Tones and Other Signs

Thai	Dots	Braille		Thai	Dots	Braille		Thai	Dots	Braille		Thai	Dots	Braille
◌่	(35)	⠔		◌๊	(2356)	⠶		◌๋	(345)	⠜		ๆ	(2)	⠂
◌้	(256)	⠲		+	(236)	⠦		◌์	(356)	⠴		ฯ	(6)	⠠

Numbers (Dot 6 is only used with Thai numbers)

Thai	Num	Dots	Braille		Thai	Num	Dots	Braille
๑	1	(6, 3456, 1)	⠠⠼⠁		๖	6	(6, 3456, 124)	⠠⠼⠋
๒	2	(6, 3456, 12)	⠠⠼⠃		๗	7	(6, 3456, 1245)	⠠⠼⠛
๓	3	(6, 3456, 14)	⠠⠼⠉		๘	8	(6, 3456, 125)	⠠⠼⠓
๔	4	(6, 3456, 145)	⠠⠼⠙		๙	9	(6, 3456, 24)	⠠⠼⠊
๕	5	(6, 3456, 15)	⠠⠼⠑		๐	0	(6, 3456, 245)	⠠⠼⠚

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, point	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠦ … ⠴
(…) parentheses	(2356…2356)	⠶ … ⠶
[…] brackets	(6, 2356…2356, 3)	⠠ ⠶ … ⠶ ⠄
- hyphen	(36)	⠤
/ slash	(456, 34)	⠸ ⠌
number sign	(3456)	⠼
italics	(46)	⠨

Tibet (China)

Languages: Tibetan (uncontracted), Mandarin (contracted), English (contracted)

Braille Standards Set by:

Braille Without Borders
www.braillewithoutborders.org
BrailleWB@gmx.net

Braille Code:

The Tibetan Braille Script

Mandarin Alphabet: See *Mandarin,* page 195
English Alphabet: See *English,* page 175

Alphabet: Tibetan, Consonants

ཀ	ka	(13)		ད	da	(145)		ཞ	zha	(146)
ཁ	kha	(14)		ན	na	(1345)		ཟ	za	(234)
ག	ga	(1245)		པ	pa	(1234)		འ	'a	(1246)
ང	nga	(2356)		ཕ	pha	(12346)		ཡ	ya	(245)
ཅ	ca	(1456)		བ	ba	(12)		ར	ra	(1235)
ཆ	cha	(13456)		མ	ma	(134)		ལ	la	(123)
ཇ	ja	(12345)		ཙ	tsa	(1346)		ཤ	sha	(156)
ཉ	nya	(345)		ཚ	tsha	(1356)		ས	sa	(2346)
ཏ	ta	(2345)		ཛ	dza	(123456)		ཧ	ha	(125)
ཐ	tha	(23456)		ཝ	wa	(2456)		ཨ	a	(1)

Vowels

ི	i	(24)
ུ	u	(136)
ེ	e	(15)
ོ	o	(135)

Numbers

༡	1	(3456, 1)		༦	6	(3456, 124)
༢	2	(3456, 12)		༧	7	(3456, 1245)
༣	3	(3456, 14)		༨	8	(3456, 125)
༤	4	(3456, 145)		༩	9	(3456, 24)
༥	5	(3456, 15)		༠	0	(3456, 245)

Punctuation

, comma	(2)	
; semicolon	(23)	
. period, full stop	(23, 23)	
number sign	(3456)	

Togo

Languages: Bassar, Ewé, Kabiyé, Konkomba, Moba, Tem
French became Togo's official language in 1992

Source:
World Braille Usage, 1990

Ewé Alphabet: See *Ewé,* page 179

Alphabet: Bassar

a	(1)	i	(24)	ŋ	(346)	u	(1256)
b	(12)	j	(245)	ɔ	(246)	w	(2456)
c	(14)	k	(13)	p	(1234)	y	(13456)
d	(145)	l	(123)	r	(1235)		
f	(124)	m	(134)	s	(234)		
g	(1245)	n	(1345)	t	(2345)		

Alphabet: Kabiyé

a	(1)	g	(1245)	m	(134)	t	(2345)
b	(12)	ɣ	(126)	n	(1345)	u	(1256)
c	(14)	h	(125)	ŋ	(346)	ʊ	(136)
d	(145)	i	(24)	o	(135)	v	(1236)
ɖ	(1246)	ɩ	(35)	ɔ	(246)	w	(2456)
e	(15)	j	(245)	p	(1234)	y	(13456)
ɛ	(12456)	k	(13)	r	(1235)	z	(1356)
f	(124)	l	(123)	s	(234)		

Alphabet: Konkomba

a	(1)	i	(24)	ŋ	(346)	t	(2345)
b	(12)	j	(245)	o	(135)	u	(1256)
d	(145)	k	(13)	ɔ	(246)	w	(2456)
e	(15)	l	(123)	p	(1234)	y	(13456)
f	(124)	m	(134)	r	(1235)		
g	(1245)	n	(1345)	s	(234)		

Alphabet: Moba

a	(1)	g	(1245)	m	(134)	s	(234)
b	(12)	h	(125)	n	(1345)	t	(2345)
c	(14)	i	(24)	ŋ	(346)	u	(1256)
d	(145)	ι	(35)	o	(135)	v	(1236)
e	(15)	j	(245)	ɔ	(246)	w	(2456)
ɛ	(12456)	k	(13)	p	(1234)	y	(13456)
f	(124)	l	(123)	r	(1235)		

Alphabet: Tem

a	(1)	g	(1245)	n	(1345)	u	(1256)
b	(12)	h	(125)	ŋ	(346)	ʋ	(136)
c	(14)	i	(24)	o	(135)	v	(1236)
d	(145)	ι	(35)	ɔ	(246)	w	(2456)
ɖ	(1246)	j	(245)	p	(1234)	y	(13456)
e	(15)	k	(13)	r	(1235)	z	(1356)
ɛ	(12456)	l	(123)	s	(234)		
f	(124)	m	(134)	t	(2345)		

Tones: Togoan Languages

~	Nasalization	(16)	
´	High Tone	(456)	
¯	Mid Tone	(45)	
`	Low Tone	(56)	

Punctuation: Togoan Languages

, comma	(2)		' apostrophe	(3)	
; semicolon	(23)		"…" quote	(236…356)	
: colon	(25)		(…) parentheses	(2356…2356)	
. period, full stop	(256)		- hyphen	(36)	
? question mark	(236)		capital	(6)	
! exclamation	(235)		number sign	(3456)	

Trinidad and Tobago

Language: English (contracted)

Braille Standards Set by:

Under the care of: Caribbean Council for the Blind
http://www.eyecarecaribbean.com

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
English Braille, American Edition, 1994; Revised 2002

Mathematics and Science Notation:

Braille Mathematics Notation, 2005
Nemeth Code for Mathematics & Science Notation, 1972 Revision

English Alphabet: See *English,* page 175

Tunisia

Language: Arabic

Arabic Alphabet: See *Arabic,* page 166

Turkey

Language: Turkish (uncontracted)

Source:
World Braille Usage, 1990

Turkish Alphabet: See *Turkish,* page 204

Turkmenistan

Language: Turkmen (uncontracted)

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Turkmen

a	(1)		h	(125)		ň	(345)		u	(136)
b	(12)		i	(24)		o	(135)		ü	(13456)
ç	(12345)		j	(1456)		ö	(1236)		w	(2456)
d	(145)		ž	(245)		p	(1234)		y	(2346)
e	(15)		k	(13)		r	(1235)		ý	(12346)
ä	(126)		l	(123)		s	(234)		z	(1356)
f	(124)		m	(134)		ş	(156)			
g	(1245)		n	(1345)		t	(2345)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Uganda

Languages: English (contracted), Luganda (contracted), Kiswahili (contracted)

Braille Standards Set by:

Uganda Braille Authority

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004
Braille Writing Course, 2000

Mathematics Notation:

Mathematics Braille Notation for Uganda

Science Notation:

Braille Science Notation, 2008

English Alphabet: See *English,* page 175
Kiswahili Alphabet: See *Kiswahili,* page 193

Alphabet: Luganda

a	(1)	⠁	j	(245)	⠚	r	(1235)	⠗
b	(12)	⠃	k	(13)	⠅	s	(234)	⠎
c	(14)	⠉	l	(123)	⠇	t	(2345)	⠞
d	(145)	⠙	m	(134)	⠍	u	(136)	⠥
e	(15)	⠑	n	(1345)	⠝	v	(1236)	⠧
f	(124)	⠋	ŋ	(1345, 1245, 1)	⠝⠛⠁	w	(2456)	⠺
g	(1245)	⠛	o	(135)	⠕	y	(13456)	⠽
i	(24)	⠊	p	(1234)	⠏	z	(1356)	⠵

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
' apostrophe	(3)	⠄
"…" quote	(236…356)	⠦…⠴
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(6, 2356…2356, 3)	⠠ ⠶…⠶ ⠄
- hyphen	(36)	⠤
— dash	(36, 36)	⠤ ⠤
capital	(6)	⠠
number sign	(3456)	⠼

Ukraine

Language: Ukrainian

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Ukrainian

а	(1)	з	(1356)	о	(135)	ч	(12345)
б	(12)	и	(24)	п	(1234)	ш	(156)
в	(2456)	і	(13456)	р	(1235)	щ	(1346)
г	(1245)	ї	(1456)	с	(234)	ь	(23456)
ґ	(12456)	й	(12346)	т	(2345)	ю	(1256)
д	(145)	к	(13)	у	(136)	я	(1246)
е	(15)	л	(123)	ф	(124)		
є	(345)	м	(134)	х	(125)		
ж	(245)	н	(1345)	ц	(14)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
«…» quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	
italics	(456)	

United Arab Emirates

Languages: Arabic (contracted), English (contracted)

Braille Standards Set by:
Tamkeen

Literary Notation:
Developed Arabic Braille System, 2002

Mathematics Notation:
Developed Arabic Braille System, 2002

Science Notation:
Developed Arabic Braille System, 2002

Computer Notation:
Developed Arabic Braille System, 2002

Arabic Alphabet: See *Arabic,* page 166
English Alphabet: See *English,* page 175

United Kingdom (England, Northern Ireland, Scotland, Wales)

Languages: English (contracted), Irish Gaelic (contracted), Welsh Gaelic (contracted)

There is no formal code for Scottish Gaelic. The suggested format is to use Grade 1 (uncontracted) Unified English Braille, using the appropriate accented letters.

Unified English Braille (UEB) has been adopted, but is not implemented at this time. (Most school children should be using UEB for literary braille by school year end 2015/2016, all state exams in SEB and UEB. For general readers the transition to UEB will be complete by December 2015.)

Braille Standards Set by:

UK Association for Accessible Formats (UKAAF)
http://www.ukaaf.org/

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004

Languages and Linguistics:

Braille French Code
Braille German Code
Braille Spanish Code
Welsh Braille Code, 2006
An Updated Tactile Representation of the International Phonetic Alphabet, 2008

Computer Notation:

Braille Computer Notation, 2006

Mathematics Notation:

Braille Mathematics Notation, 2005

Science Notation:

Braille Science Notation, 2008

Music Notation:

Music Braille Code, 1997

Chess Code:

Braille Chess Code and Layout, 2001

English Alphabet: See *English,* page 175
Irish Gaelic Alphabet: See *Irish Gaelic,* page 189

Alphabet: Welsh Gaelic

a	(1)	⠁	i	(24)	⠊	th	(2345, 125)	⠞⠓
b	(12)	⠃	l	(123)	⠇	u	(136)	⠥
c	(14)	⠉	ll	(123, 123)	⠇⠇	w	(2456)	⠺
ch	(16)	⠡	m	(134)	⠍	y	(13456)	⠽
d	(145)	⠙	n	(1345)	⠝	j	(245)	⠚
dd	(145, 145)	⠙⠙	o	(135)	⠕	k	(13)	⠅
e	(15)	⠑	p	(1234)	⠏	q	(12345)	⠟
f	(124)	⠋	ph	(1234, 125)	⠏⠓	v	(1236)	⠧
ff	(124, 124)	⠋⠋	r	(1235)	⠗	x	(1346)	⠭
g	(1245)	⠛	rh	(1235, 125)	⠗⠓	z	(1356)	⠵
ng	(1345, 1245)	⠝⠛	s	(234)	⠎			
h	(125)	⠓	t	(2345)	⠞			

Accents

^ circumflex	(4)	⠈	
¨ diaeresis	(45)	⠘	
` grave	(23)	⠒	
´ acute	(25)	⠔	

Punctuation

Same as English

United States of America

Languages: English (contracted), Hawaiian (uncontracted), Iñupiaq (uncontracted)

Unified English Braille has been adopted, but is not implemented at this time

Hawaiian braille is handled by the Hawaiian Department of Education
Iñupiaq braille is handled by the Alaskan Department of Education

Braille Standards Set by:

Braille Authority of North American (BANA)
http://brailleauthority.org/

Literary Notation:

English Braille, American Edition, 1994; Revised 2002

Braille Formats:

Braille Formats: Principles of Print-to-Braille Transcription, 2011

IPA Braille:

An Updated Tactile Representation of the International Phonetic Alphabet, 2008

Computer Notation:

Computer Braille Code, 2000 Revision
Computer Braille Code: Flowchart Design for Applicable Braille Codes Supplement, 1992

Mathematics and Science Notation:

Nemeth Code for Mathematics & Science Notation, 1972 Revision

Chemistry Notation:

Braille Code for Chemical Notation, 1997

Music Notation:

Music Braille Code, 1997

Tactile Graphics:

Guidelines and Standard for Tactile Graphics, 2010

Refreshable Braille:

Provisional Guidelines for Linear Braille Format, 1987

English Alphabet: See *English,* page 175

Alphabet: Hawaiian

a	(1)		m	(134)		'	(3)
e	(15)		n	(1345)		ā	(456, 1)
h	(125)		o	(135)		ē	(456, 15)
i	(24)		p	(1234)		ī	(456, 24)
k	(13)		u	(136)		ō	(456, 135)
l	(123)		w	(2456)		ū	(456, 136)

The okina ' is a Polynesian glottal stop. It is treated as a composition sign. It has the same rules as the apostrophe.

'āina

'Āina

Punctuation

Same as English

Alphabet: Iñupiaq

a	(1)		ḷ	(12356)		q	(12345)
ch	(14, 125)		ł	(1456)		r	(1235)
g	(1245)		ḷ	(12346)		s	(234)
ġ	(23456)		m	(134)		sr	(234, 1235)
h	(125)		n	(1345)		t	(2345)
i	(24)		ñ	(12456)		u	(136)
k	(13)		ŋ	(1246)		v	(1236)
l	(123)		p	(1234)		y	(13456)

Letters for Older Texts

ṭ	(1256)	
ḵ	(346)	

Punctuation

Same as English

Uruguay

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Uzbekistan

Language: Uzbek

Source:

World Braille Usage, 1990 (Union of Soviet Socialist Republics)

Alphabet: Uzbek

a	(1)	i	(24)	p	(1234)	x	(1456)
b	(12)	j	(245)	q	(12345)	y	(12346)
d	(145)	k	(13)	r	(1235)	z	(1356)
e	(15)	l	(123)	s	(234)	o'	(1236)
f	(124)	m	(134)	t	(2345)	g'	(12456)
g	(1245)	n	(1345)	u	(136)	sh	(156)
h	(125)	o	(135)	v	(2456)	ch	(12345)

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
"…" quote	(356…356)	
(…) parentheses	(2356…2356)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Venezuela

Language: Spanish (usually uncontracted)

Braille Standards Set by:

Latin American Braille Council [Comisión Braille Latinoamericana] (CBL)
Latin American Blind Union [Unión Latinoamericana de ciegos] (ULAC)
www.ulacdigital.org
Braille@ulacdigital.org

Consejo Iberoamericano del Braille (CIB)
ADTA@once.es

Literary Notation:

El Braille integral y la estenografía, 1987 (Literary Braille and Grade 2 Braille)

Mathematics Notation:

*Código Matemático Unificad*o, 1988 (Unified Mathematics Code)

Music Notation:

International Manual of Braille Music Notation, 1997

Spanish Alphabet: See *Spanish,* page 201

Vietnam

Language: Vietnamese (contracted)

Braille Standards Set by:

Vietnamese Sighted

Braille Code:

Vietnamese Braille and Braille Code, 2004

Music Notation:

New International Manual of Braille Music Notation, 1996

Alphabet: Vietnamese

a	(1)		i	(24)		s	(234)	
ă	(345)		k	(13)		t	(2345)	
â	(16)		l	(123)		u	(136)	
b	(12)		m	(134)		ư	(1256)	
c	(14)		n	(1345)		v	(1236)	
d	(1356)		o	(135)		x	(1346)	
đ	(145)		ô	(1456)		y	(13456)	
e	(15)		ơ	(246)		f	(124)	
ê	(126)		p	(1234)		j	(245)	
g	(1245)		q	(12345)		w	(2456)	
h	(125)		r	(1235)		z	(6, 1356)	

Tones

` falling (combining grave)	(56)	
ˀ rising (combining hook above)	(26)	
´ high rising (combining acute)	(35)	
˜ broken rising (combining tilde)	(36)	
. low constricted (combining dot below)	(6)	

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(256)	⠲
? question mark	(26)	⠦
! exclamation	(235)	⠖
"…" quote	(236…356)	⠶…⠴
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(46, 126…46, 345)	⠠⠦…⠠⠴
{…} braces	(456, 126…456, 345)	⠰⠦…⠰⠴
… ellipsis	(3, 3, 3)	⠄⠄⠄
- hyphen, dash	(36)	⠤
/ slash	(34)	⠌
* asterisk	(236)	⠶
capital	(46)	⠠
number sign	(3456)	⠼

Yemen

Language: Arabic

Arabic Alphabet: See *Arabic,* page 166

Zambia

Languages: English (contracted), Silozi (uncontracted), Chibemba (uncontracted), Chinyanja (uncontracted), Kikaonde (uncontracted), Lunda (uncontracted), Luvale (uncontracted), Chitonga (uncontracted)

Braille Standards Set by:

Zambia Association of the Blind, Curriculum Development Center

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004

Mathematics Notation:

Braille Mathematics Notation, 2005

Science Notation:

Braille Science Notation, 2008

Computer Notation:

Braille Computer Notation, 2006

Music Notation:

Music Braille Code, 1997

English Alphabet: See *English,* page 175

Alphabet: Silozi

a	(1)		i	(24)		s	(234)	
b	(12)		j	(245)		sh	(234, 125)	
c	(14)		k	(13)		t	(2345)	
ch	(14, 125)		l	(123)		u	(136)	
d	(145)		m	(134)		w	(2456)	
e	(15)		n	(1345)		y	(13456)	
f	(124)		ñ	(1345, 1245, 3)		z	(1356)	
g	(1245)		o	(135)				
h	(125)		p	(1234)				

Alphabet: Chibemba

a	(1)	h	(125)	o	(135)
b	(12)	i	(24)	p	(1234)
c	(14)	j	(245)	s	(234)
d	(145)	k	(13)	t	(2345)
e	(15)	l	(123)	u	(136)
f	(124)	m	(134)	w	(2456)
g	(1245)	n	(1345)	y	(13456)

Alphabet: Chinyanja

a	(1)	i	(24)	r	(1235)
b	(12)	j	(245)	s	(234)
ch	(14, 125)	k	(13)	t	(2345)
d	(145)	l	(123)	u	(136)
e	(15)	m	(134)	v	(1236)
f	(124)	n	(1345)	w	(2456)
g	(1245)	o	(135)	y	(13456)
h	(125)	p	(1234)	z	(1356)

Alphabet: Kikaonde

a	(1)	i	(24)	p	(1234)
b	(12)	j	(245)	s	(234)
ch	(14, 125)	k	(13)	sh	(234, 125)
d	(145)	l	(123)	t	(2345)
e	(15)	m	(134)	u	(136)
f	(124)	n	(1345)	w	(2456)
g	(1245)	ñ	(1345, 1245, 3)	y	(13456)
h	(125)	o	(135)	z	(1356)

Alphabet: Lunda

Letter	Dots	Braille	Letter	Dots	Braille	Letter	Dots	Braille
a	(1)	⠁	j	(245)	⠚	sh	(234, 125)	⠎⠓
b	(12)	⠃	k	(13)	⠅	t	(2345)	⠞
ch	(14, 125)	⠉⠓	l	(123)	⠇	u	(136)	⠥
d	(145)	⠙	m	(134)	⠍	v	(1236)	⠧
e	(15)	⠑	n	(1345)	⠝	w	(2456)	⠺
f	(124)	⠋	ñ	(1345, 1245, 3)	⠝⠛⠄	y	(13456)	⠽
g	(1245)	⠛	o	(135)	⠕	z	(1356)	⠵
h	(125)	⠓	p	(1234)	⠏			
i	(24)	⠊	s	(234)	⠎			

Alphabet: Luvale

Letter	Dots	Braille	Letter	Dots	Braille	Letter	Dots	Braille
a	(1)	⠁	j	(245)	⠚	s	(234)	⠎
b	(12)	⠃	k	(13)	⠅	sh	(234, 125)	⠎⠓
ch	(14, 125)	⠉⠓	kh	(13, 125)	⠅⠓	t	(2345)	⠞
d	(145)	⠙	l	(123)	⠇	th	(2345, 125)	⠞⠓
e	(15)	⠑	m	(134)	⠍	u	(136)	⠥
f	(124)	⠋	n	(1345)	⠝	v	(1236)	⠧
g	(1245)	⠛	o	(135)	⠕	w	(2456)	⠺
h	(125)	⠓	p	(1234)	⠏	y	(13456)	⠽
i	(24)	⠊	ph	(1234, 125)	⠏⠓	z	(1356)	⠵

Alphabet: Chitonga

Letter	Dots	Braille	Letter	Dots	Braille	Letter	Dots	Braille
a	(1)	⠁	h	(125)	⠓	o	(135)	⠕
b	(12)	⠃	hh	(125, 125)	⠓⠓	p	(1234)	⠏
bb	(12, 12)	⠃⠃	i	(24)	⠊	s	(234)	⠎
c	(14)	⠉	j	(245)	⠚	sh	(234, 125)	⠎⠓
ch	(14, 125)	⠉⠓	k	(13)	⠅	t	(2345)	⠞
cc	(14, 14)	⠉⠉	kk	(13, 13)	⠅⠅	u	(136)	⠥
d	(145)	⠙	l	(123)	⠇	v	(1236)	⠧
e	(15)	⠑	m	(134)	⠍	w	(2456)	⠺
f	(124)	⠋	n	(1345)	⠝	y	(13456)	⠽
g	(1245)	⠛	ŋ	(1345, 1245, 3)	⠝⠛⠄	z	(1356)	⠵

Same as English

Zimbabwe

Languages: English (contracted), Shona (uncontracted), Ndebele (uncontracted)

In the process of transitioning to Unified English Braille

Braille Standards Set by:

Royal National Institute for the Blind (RNIB) [Zimbabwe is in the process of forming an official braille authority]

Literary Notation:

British Braille A Restatement of Standard English Braille, 2004

English Alphabet: See *English,* page 175
Ndebele Alphabet: See *Ndebele,* page 197

Alphabet: Shona

a	(1)	g	(1245)	n	(1345)	u	(136)
b	(12)	h	(125)	o	(135)	v	(1236)
c	(14)	i	(24)	p	(1234)	w	(2456)
d	(145)	j	(245)	r	(1235)	y	(13456)
e	(15)	k	(13)	s	(234)	z	(1356)
f	(124)	m	(134)	t	(2345)		

Punctuation

Same as English

Braille Alphabets Used in Multiple Countries

Albanian

Primary language transcribed: Albania
Secondary language transcribed: Serbia

Alphabet: Albanian

a	(1)	g	(1245)	n	(1345)	t	(2345)
b	(12)	gj	(12456)	nj	(1246)	th	(23456)
c	(14)	h	(125)	o	(135)	u	(136)
ç	(146)	i	(24)	p	(1234)	v	(1236)
d	(145)	j	(245)	q	(12346)	x	(1346)
dh	(1456)	k	(13)	r	(1235)	xh	(2346)
e	(15)	l	(123)	rr	(12345)	y	(13456)
ë	(16)	ll	(12356)	s	(234)	z	(1356)
f	(124)	m	(134)	sh	(156)	zh	(1256)

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
„…" quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
capital	(46)	
number sign	(3456)	

Arabic

Notes: The Conference of Developing and Unifying Arabic Braille Characters met in Saudi Arabia in October 2002. There has been confirmation from several countries that they are using this unified code, and other countries are not.

Primary language transcribed: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen

Secondary language transcribed: Indonesia, Iran, Israel, Malaysia, Pakistan

Alphabet: Unified Arabic (Qatar, United Arab Emirates)

ا	alef	a	(1)			ض	dad	ḍ	(1246)	
ب	beh	b	(12)			ط	tah	ṭ	(23456)	
ت	teh	t	(2345)			ظ	zah	ẓ	(123456)	
ث	theh	th	(1456)			ع	ain	'	(12356)	
ج	jeem	j	(245)			غ	ghain	gh	(126)	
ح	hah	ḥ	(156)			ف	feh	f	(124)	
خ	khah	kh	(1346)			ق	qaf	q	(12345)	
د	dal	d	(145)			ك	kaf	k	(13)	
ذ	thal	dh	(2346)			ل	lam	l	(123)	
ر	reh	r	(1235)			م	meem	m	(134)	
ز	zain	z	(1356)			ن	noon	n	(1345)	
س	seen	s	(234)			ه	heh	h	(125)	
ش	sheen	sh	(146)			و	waw	w	(2456)	
ص	sad	ṣ	(12346)			ي	yeh	y	(24)	

Ligatures

لا	La	(1236)			إ	E	(46)			ؤ	Waw	(1256)	
ى	–	(135)			آ	Aa	(345)			ئ	ya	(13456)	
أ	A	(34)			ء	a	(3)			ة	–	(16)	

Diacritical Marks: Written after the letter, except the Shadda which is before the letter

Ó	Fatha	(2)	⠂	Ó	Fathatan	(23)	⠦	Ó	Shadda	(6)	⠠
Ó	Kasra	(15)	⠔	Ó	Kasratan	(35)	⠒	Ó	Sukun	(25)	⠪
Ó	Damma	(136)	⠥	Ó	Dammatan	(26)	⠢				

Numbers

⸝	number sign	(3456)	⠼	٦	6	(3456, 124)	⠼⠋
١	1	(3456, 1)	⠼⠁	٧	7	(3456, 1245)	⠼⠛
٢	2	(3456, 12)	⠼⠃	٨	8	(3456, 125)	⠼⠓
٣	3	(3456, 14)	⠼⠉	٩	9	(3456, 24)	⠼⠊
٤	4	(3456, 145)	⠼⠙	٠	0	(3456, 245)	⠼⠚
٥	5	(3456, 15)	⠼⠑				

Punctuation

، comma	(5)	⠠	
؛ semicolon	(56)	⠰	
: colon	(5, 2)	⠠ ⠂	
. period, full stop	(256)	⠲	
؟ question mark	(236)	⠦	
! exclamation	(235)	⠖	
"…", «…» quote	(2356…2356)	⠶…⠶	
(…) parentheses	(236…356)	⠦…⠴	
[…] brackets	(6, 236…356, 3)	⠠ ⠦…⠴ ⠄	
{…} braces	(5, 236…356, 2)	⠠ ⠦…⠴ ⠂	
- dash	(36)	⠤	
number sign	(3456)	⠼	
underlining	(6, 36)	⠠ ⠤	

Alphabet: Arabic, Not Using Unified Arabic (Bahrain, Indonesia, Iran, Malaysia)

ا	a	(1)		ص	ṣ	(12346)		ه	h	(125)
ب	b	(12)		ض	ḍ	(1246)		ي	y/i	(24)
ت	t	(2345)		ط	ṭ	(23456)		ى	–	(135)
ث	th	(1456)		ظ	ẓ	(123456)		ة	–	(16)
ج	j	(245)		ع	'	(12356)		لا	La	(1236)
ح	ḥ	(156)		غ	gh	(126)		أ	A	(34)
خ	kh	(1346)		ف	f	(124)		إ	E	(46)
د	d	(145)		ق	q	(12345)		آ	Aa	(345)
ذ	dh	(2346)		ك	k	(13)		ء	a	(3)
ر	r	(1235)		ل	l	(123)		ؤ	Waw	(1256)
ز	z	(1356)		م	m	(134)		ئ	ya	(13456)
س	s	(234)		ن	n	(1345)				
ش	sh	(146)		و	w	(2456)				

Diacritical Marks

◌َ	(2)		◌ً	(23)	
◌ِ	(15)		◌ٍ	(35)	
◌ُ	(136)		◌ّ	(6)	
◌ٌ	(26)				

Numbers

ـ	number sign	(3456)		٦	6	(3456, 124)	
١	1	(3456, 1)		٧	7	(3456, 1245)	
٢	2	(3456, 12)		٨	8	(3456, 125)	
٣	3	(3456, 14)		٩	9	(3456, 24)	
٤	4	(3456, 145)		٠	0	(3456, 245)	
٥	5	(3456, 15)					

Punctuation

، comma	(5)	
؛ semicolon	(56)	
: colon	(5, 2)	
. period, full stop	(256)	
؟ question mark	(236)	
! exclamation	(235)	
"…", «…» quote	(236…356)	
(…) parentheses	(2356…2356)	
- hyphen	(36)	
* asterisk	(35, 35)	
accent	(4)	
<u>underlining</u>	(46)	

Cantonese

Primary language transcribed: none
Secondary language transcribed: China, Hong Kong

Alphabet: Cantonese, Initials (* Can be used as finals)

花	F	(124)		爸	B	(1234)		渣	DZ	(14)	
蝦	H	(125)		爬	P	(12346)		叉	TS	(1346)	
家	G	(13)		沙	S	(234)		瓜	GW	(12345)	
卡	K	(1235)		打	D	(2345)		跨	KW	(12456)	
啦	L	(123)		他	T	(23456)		五	NG *	(1245)	
媽	M *	(134)		娃	W	(2456)					
哪	N	(1345)		也	J	(245)					

Finals

鴉	A	(12)		英	ING	(356)		得	EK	(46)
耶	E	(15)		釘	EING	(2356)		客	AK	(13)
奧	OU	(1236)		康	ONG	(56)		益	IK	(1235)
柯	O	(135)		工	UNG	(236)		隻	EIK	(2456)
矮	AE	(146)		央	OENG	(25)		惡	OK	(12456)
唉	AI	(346)		靴	OE	(156)		屋	UK	(12345)
歐	AU	(16)		庵	EM	(456)		約	OEK	(246)
拗	AO	(34)		監	AM	(345)		不	ET	(35)
卑	EI	(125)		衣	JI	(24)		壓	AT	(2345)
哀	OI	(126)		腰	JIU	(13456)		渴	OT	(124)
居	OEY	(245)		於	JY	(1456)		出	OET	(1346)
因	EN	(1246)		言	JIN	(256)		洽	EP	(26)
晏	AN	(45)		淵	JYN	(23)		鴨	AP	(1234)
安	ON	(1345)		淹	JIM	(235)		熱	JIT	(23456)
噸	OEN	(234)		烏	WU	(136)		月	JYT	(12356)
鶯	ENG	(1245)		偎	WUI	(1256)		葉	JIP	(12346)
罌	ANG	(14)		玩	WUN	(2346)		活	WUT	(1356)

Tones (^ turn into "space" for words with no initials)

(第二聲)	上上	(1)		(第六聲)	下去	(2)	
(第三聲)	上去	(4)		(第八聲)	中入	(5)	
(第四聲)	下平	(3)		(第九聲)	下入	(3)	
(第五聲)	下上	(6)					

Punctuation

逗號	, comma	(36)	⠤
頓號	、 pause[#]	(45)	⠘
分號[1]	; semicolon	(26)	⠢
冒號[1]	: colon	(25)	⠒
句號[1]	。 full stop	(123456)	⠿
問號[1]	? question mark	(236)	⠦
感嘆號[1]	! exclamation	(2346)	⠮
引號(雙,開)[2]	" open quote	(236)	⠦
引號(雙,關)[1]	" close quote	(356)	⠴
引號(單,開)[2]	' open single quote	(6, 236)	⠠⠦
引號(單,關)[1]	' close single quote	(356, 3)	⠴⠄
括號(開)[2]	(open parenthesis	(2356)	⠶
括號(關)[1]	) close parenthesis	(2356)	⠶
方括號(開)[2]	[open bracket	(6, 2356)	⠠⠶
方括號(關)[1]	] close bracket	(2356, 3)	⠶⠄
省略號[3]	…… ellipsis	(3, 3, 3)	⠄⠄⠄
連接號	- hyphen	(36, 3)	⠤⠄
破折號	— dash	(36, 36)	⠤⠤
間隔號	· separation mark[#]	(56, 23)	⠰⠆
書名號(雙,開)[2]	《 open publication[#]	(126)	⠣
書名號(雙,關)[1]	》 close publication[#]	(345)	⠜
書名號(單,開)[2]	open single publication[#]	(6, 126)	⠠⠣
書名號(單,關)[1]	close single publication[#]	(345, 3)	⠜⠄
著重號(開)[2]	open emphasis[#]	(12356)	⠷
著重號(關)[1]	close emphasis[#]	(12456)	⠻
專名號(開)[2]	___ open proper noun[#]	(456)	⠸
專名號(關)[1]	___ close proper noun[#]	(1356)	⠵

[#] specific to Chinese punctuation
[1] with subsequent space
[2] with preceding space
[3] with preceding and subsequent space

Catalan

Primary language transcribed: Andorra
Secondary language transcribed: Spain

Alphabet: Catalan

a	(1)		n	(1345)		à	(12356)	
b	(12)		o	(135)		é	(123456)	
c	(14)		p	(1234)		è	(2346)	
d	(145)		q	(12345)		í	(34)	
e	(15)		r	(1235)		ï	(12456)	
f	(124)		s	(234)		ó	(246)	
g	(1245)		t	(2345)		ò	(346)	
h	(125)		u	(136)		ú	(23456)	
i	(24)		v	(1236)		ü	(1256)	
j	(245)		w	(2456)		ç	(12346)	
k	(13)		x	(1346)		ll	(123, 5, 123)	
l	(123)		y	(13456)				
m	(134)		z	(1356)				

Danish

Primary language transcribed: Denmark
Secondary language transcribed: Iceland

Alphabet: Danish

a	(1)		i	(24)		q	(12345)	y	(13456)
b	(12)		j	(245)		r	(1235)	z	(1356)
c	(14)		k	(13)		s	(234)	æ	(345)
d	(145)		l	(123)		t	(2345)	ø	(246)
e	(15)		m	(134)		u	(136)	å	(16)
f	(124)		n	(1345)		v	(1236)		
g	(1245)		o	(135)		w	(2456)		
h	(125)		p	(1234)		x	(1346)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(4)	
»…«, „…" quote	(2356, 2356)	
(…) parentheses	(236…356)	
[…] brackets	(5, 236…5, 356)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
– dash	(36, 36)	
/ slash	(34)	
* asterisk	(35)	
capital	(46)	
uppercase letters	(456)	
number sign	(3456)	
italics	(56)	

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Dutch

Primary language transcribed: Belgium, Netherlands
Secondary language transcribed: none

Alphabet: Dutch

a	(1)	k	(13)	u	(136)	â	(16)
b	(12)	l	(123)	v	(1236)	ê	(126)
c	(14)	m	(134)	x	(1346)	î	(146)
d	(145)	n	(1345)	y	(13456)	ô	(1456)
e	(15)	o	(135)	z	(1356)	û	(156)
f	(124)	p	(1234)	ç	(12346)	ë	(1246)
g	(1245)	q	(12345)	é	(123456)	ï	(12456)
h	(125)	r	(1235)	à	(12356)	ü	(1256)
i	(24)	s	(234)	è	(2346)	ö	(246)
j	(245)	t	(2345)	ù	(23456)	w	(2456)

Punctuation

, comma	(2)	[…] brackets	(12356…23456)	
; semicolon	(23)	… ellipsis	(256, 256, 256)	
: colon	(25)	- hyphen	(36)	
. period, full stop	(256)	/ slash	(34)	
? question mark	(26)	* asterisk	(35)	
! exclamation	(235)	capital	(46)	
' apostrophe	(3)	series capital	(45)	
„…" quote	(2356…2356)	number sign	(3456)	
(…) parentheses	(236…356)	*italics*	(456)	

English

Notes: English codes are based in the United Kingdom (UKAFF, previously Braille Authority of the United Kingdom, BAUK); the United States (Braille Authority of North America, BANA); and International Council on English Braille (ICEB) with Unified English Braille (UEB). The alphabet is the same in all English codes. The primary punctuation marks are the same for UKAFF and BANA codes, with differences in punctuation names. Contractions and usage vary between UKAFF, BANA, and UEB. UEB includes a number of distinctive differences.

Verified UEB countries (current or transitioning): Australia, Canada, Hong Kong, Iceland, New Zealand, Nigeria, South Africa, United Kingdom, United States, Zimbabwe

Primary language transcribed: Antigua and Barbuda, Australia, Bahamas, Barbados, Bhutan, Canada, Dominica, Gambia, Ghana, Grenada, Hong Kong, Ireland, Jamaica, Kenya, Liberia, Mauritius, New Zealand, Nigeria, Pakistan, Papua New Guinea, Philippines, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Seychelles, Sierra Leone, Singapore, South Africa, Trinidad and Tobago, Uganda, United Kingdom, United States, Zambia, Zimbabwe

Secondary language transcribed: Bahrain, Cameroon, Congo, Iceland, India, Indonesia, Iran, Israel, Jordan, Kuwait, Lebanon, Luxembourg, Malaysia, Nepal, Saudi Arabia, Serbia, Sri Lanka, Taiwan, Thailand, Tibet, United Arab Emirates

Alphabet: English

a	(1)		h	(125)		o	(135)		v	(1236)
b	(12)		i	(24)		p	(1234)		w	(2456)
c	(14)		j	(245)		q	(12345)		x	(1346)
d	(145)		k	(13)		r	(1235)		y	(13456)
e	(15)		l	(123)		s	(234)		z	(1356)
f	(124)		m	(134)		t	(2345)			
g	(1245)		n	(1345)		u	(136)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop, abbreviation point	(256)	
? question mark	(236)	
! exclamation	(235)	
' apostrophe	(3)	
"…" quote	(236…356)	
'…' single quote	(6, 236…356, 3)	
(…) parentheses	(2356…2356)	

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[…] brackets	(6, 2356…2356, 3)	⠠⠶…⠶⠄
… ellipsis	(3, 3, 3)	⠄⠄⠄
- hyphen	(36)	⠤
– short dash	(36, 36)	⠤⠤
— long dash	(36, 36, 36, 36)	⠤⠤⠤⠤
/ slash	(456, 34)	⠸⠌
* asterisk	(35, 35)	⠔⠔
capital	(6)	⠠
number sign	(3456)	⠼
italics	(46)	⠨

Punctuation: Unified English Braille (UEB)

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(256)	⠲
? question mark	(236)	⠦
! exclamation	(235)	⠖
' apostrophe	(3)	⠄
"…" quote	(236…356)	⠦…⠴
'…' single quote	(6, 236…6, 356)	⠠⠦…⠠⠴
(…) parentheses	(5, 126…5, 345)	⠐⠶…⠐⠶
[…] brackets	(46, 126…46, 345)	⠨⠶…⠨⠶
… ellipsis	(256, 256, 256)	⠲⠲⠲
- hyphen	(36)	⠤
— dash	(6, 36)	⠠⠤
_ underscore	(46, 36)	⠨⠤
/ slash	(456, 34)	⠸⠌
* asterisk	(5, 35)	⠐⠔
capital	(6)	⠠
number sign	(3456)	⠼
italics	(46, 23)	⠨⠆
bold	(45, 23)	⠘⠆

Esperanto

Esperanto is an international auxiliary language. It is not the official language of any country. It is spoken in more than one hundred countries.
http://libe.narzan.com/

Esperanta stenografio, Nizhny Novgorod 2003, is a reference for contracted braille, which has limited use.

Alphabet: Esperanto

a	(1)		ĵ	(2456)		v	(1236)	
b	(12)		k	(13)		z	(1356)	
c	(14)		l	(123)		q	(12345)	
ĉ	(146)		m	(134)		w	(23456)	
d	(145)		n	(1345)		x	(1346)	
e	(15)		o	(135)		y	(13456)	
f	(124)		p	(1234)		ä	(345)	
g	(1245)		r	(1235)		ö	(246)	
ĝ	(12456)		s	(234)		ü	(12356)	
h	(125)		ŝ	(2346)		ő	(4, 246)	
ĥ	(1256)		t	(2345)		ű	(4, 12356)	
i	(24)		u	(136)				
j	(245)		ŭ	(346)				

Diacritics Belonging to Other Languages (symbol placed before letter)

´ acute	(4)	
` grave, ˉ macron	(45)	
˜ tilde	(256)	
^ circumflex, ˇ hachek (caron)	(5)	
¨ umlaut (trema, diaeresis), ˙ (dot above)	(25)	
˚ ring, ˘ breve	(56)	
¸ cedilla, ˛ ogonek, | vertical stroke	(6)	
diacritics crossing letter, such as ⁄ oblique stroke	(35)	

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
. abbreviation dot	(3)	
. separator in numbers	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(3)	
"…" quote	(236…356)	
'…' single quote	(6, 236…356, 3)	
(…) parentheses	(2356…2356)	
[…] brackets	(2356, 2356…2356, 2353)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
— dash	(6, 36)	
/ slash	(34)	
* asterisk	(35)	
capital (grade 1)	(46)	
capital (grade 2)	(6)	
number sign	(3456)	
emphasis (1-3 words)	(456)	
emphasis (4 or more words)*	(25, 456…456)	
emphasis (alternate)	(6, 3…6, 3)	
different braille notation	(5, 2…5, 2)	

Notes: Capitals are marked only in proper names, not at beginning of sentences; words preceded by dot 6 are not contracted.

* The closing emphasis indicator is place before the last word.

Ewé

Primary language transcribed: Ghana, Togo
Secondary language transcribed: none

Alphabet: Ewé

a	(1)	g	(1245)	ŋ	(346)	v	(1236)
b	(12)	ɣ	(126)	o	(135)	ʋ	(2346)
d	(145)	h	(125)	ɔ	(246)	w	(2456)
ɖ	(1246)	i	(24)	p	(1234)	y	(13456)
e	(15)	k	(13)	r	(1235)	z	(1356)
ɛ	(12456)	l	(123)	s	(234)		
f	(124)	m	(134)	t	(2345)		
ƒ	(1456)	n	(1345)	u	(136)		

French

Notes: An international expert group worked from 2002 to 2008 on the *Code Braille Français Uniformisé* (CBFU). It was created according to an international agreement signed at Casablanca, Morocco on 7th June 2001 by representatives from French-speaking Africa, Belgium, France, Switzerland, and Quebec. The Quebecker edition of the CBFU is quite similar according to the tables and rules, but there are differences in the examples to take the local differences into account. The CBFU was adopted by the international expert group in 2006. This Code was completed with new symbols and a 2nd edition was issued in September, 2008. It is a standard project signed and applied by all French-speaking countries.

Primary language transcribed: Cameroon, Canada (Quebec), Democratic Republic of the Congo, France, Haiti

Secondary language transcribed: Belgium, Iceland, Kenya, Luxembourg, Madagascar, Mauritania, Mauritius, Switzerland

Alphabet: French

a	(1)	k	(13)	u	(136)	â	(16)
b	(12)	l	(123)	v	(1236)	ê	(126)
c	(14)	m	(134)	x	(1346)	î	(146)
d	(145)	n	(1345)	y	(13456)	ô	(1456)
e	(15)	o	(135)	z	(1356)	û	(156)
f	(124)	p	(1234)	ç	(12346)	ë	(1246)
g	(1245)	q	(12345)	é	(123456)	ï	(12456)
h	(125)	r	(1235)	à	(12356)	ü	(1256)
i	(24)	s	(234)	è	(2346)	œ	(246)
j	(245)	t	(2345)	ù	(23456)	w	(2456)

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(256)	⠲
? question mark	(26)	⠢
! exclamation	(235)	⠖
' apostrophe, guide dot	(3)	⠄
"…", «…», "…", '…' quote	(2356…2356)	⠶…⠶
(…) parentheses	(236…356)	⠦…⠴
[…] brackets	(45, 236…356, 12)	⠘⠦…⠴⠃
- dash, guide dash	(36)	⠤
* asterisk	(5, 35)	⠐⠔
/ slash	(34)	⠌
capital	(46)	⠨
number sign before "Louis Braille" figures	(3456)	⠼
general emphasis indicator	(456)	⠸
2nd level emphasis indicator inside word	(26…35)	⠢…⠔

Antoine Numerical Notation: Figures

1	(6, 16)	⠠ ⠡
2	(6, 126)	⠠ ⠣
3	(6, 146)	⠠ ⠩
4	(6, 1456)	⠠ ⠹
5	(6, 156)	⠠ ⠱
6	(6, 1246)	⠠ ⠫
7	(6, 12456)	⠠ ⠻
8	(6, 1256)	⠠ ⠳
9	(6, 246)	⠠ ⠪
0	(6, 3456)	⠠ ⠼

German

Primary language transcribed: Austria, Germany, Switzerland
Secondary language transcribed: Belgium, Iceland, Luxembourg

Alphabet: German

a	(1)	i	(24)	q	(12345)	y	(13456)
b	(12)	j	(245)	r	(1235)	z	(1356)
c	(14)	k	(13)	s	(234)	ä	(345)
d	(145)	l	(123)	t	(2345)	ö	(246)
e	(15)	m	(134)	u	(136)	ü	(1256)
f	(124)	n	(1345)	v	(1236)	ß	(2346)
g	(1245)	o	(135)	w	(2456)		
h	(125)	p	(1234)	x	(1346)		

Vollschrift Contractions

au	(16)	ei	(146)	sch	(156)	äu	(34)
eu	(126)	ch	(1456)	st	(23456)	ie	(346)

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(6)	
„…" quote	(236…356)	
'…' single quote	(6, 236…6, 356)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…6, 2356)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
— dash	(6, 36)	
/ slash	(5, 2)	

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* asterisk	(6, 35)	⠠ ⠔	
capital	(46)	⠨	
number sign	(3456)	⠼	
italics	(456)	⠨	

Greek

Primary language transcribed: Cyprus, Greece
Secondary language transcribed: See International Greek on page 185

Alphabet: German

α	alpha	(1)	⠁	ρ	rho	(1235)	⠗
β	beta	(12)	⠃	σ	sigma	(234)	⠎
γ	gamma	(1245)	⠛	τ	tau	(2345)	⠞
δ	delta	(145)	⠙	υ	upsilon	(13456)	⠽
ε	epsilon	(15)	⠑	φ	phi	(124)	⠋
ζ	zeta	(1356)	⠵	χ	chi	(125)	⠅
η	eta	(345)	⠬	ψ	psi	(12346)	⠯
ϑ	theta	(1456)	⠸	ω	omega	(245)	⠺
ι	iota	(24)	⠊	αι	alpha iota	(126)	⠣
κ	kappa	(13)	⠅	αυ	alpha upsilon	(16)	⠡
λ	lambda	(123)	⠇	ει	epsilon iota	(146)	⠩
μ	mu	(134)	⠍	ευ	epsilon upsilon	(156)	⠱
ν	nu	(1345)	⠝	ηυ	eta upsilon	(1256)	⠳
ξ	xi	(1346)	⠭	οι	omicron iota	(246)	⠪
ο	omicron	(135)	⠕	ου	omicron upsilon	(136)	⠥
π	pi	(1234)	⠏	υι	upsilon iota	(12456)	⠹

Punctuation

, comma	(2)	⠂
· Greek semicolon	(23)	⠒
: colon	(25)	⠢
. period, full stop	(256)	⠲
; Greek question mark	(26)	⠆
? English question mark	(236)	⠦
! exclamation	(235)	⠖
' apostrophe	(3)	⠄
«…» quote	(236…356)	⠦…⠴
(…) parentheses	(2356…2356)	⠶…⠶
[…] brackets	(12346…13456)	⠷…⠾
{…} braces	(12356…23456)	⠻…⠽
… ellipsis	(3, 3, 3)	⠄⠄⠄
- hyphen	(36)	⠤
— dash	(36, 36, 36)	⠤⠤⠤
* asterisk	(35, 35)	⠔⠔
´ accent	(5)	⠐
Greek capital	(46)	⠨
English capital	(6)	⠠
number sign	(3456)	⠼
emphasis	(46)	⠨

Greek (International)

International Greek is used in most countries outside of Greece and Cyprus. The international alphabetic characters are universal, but some other signs are not. The single accented letters may be used in some countries, while others use 2-cell characters. Both options are represented in the charts. International Greek is uncontracted.

Alphabet: Greek (International)

α	alpha	(1)	⠁		ξ	xi	(1346)	⠭
β	beta	(12)	⠃		ο	omicron	(135)	⠕
γ	gamma	(1245)	⠛		π	pi	(1234)	⠏
δ	delta	(145)	⠙		ρ	rho	(1235)	⠗
ε	epsilon	(15)	⠑		σ	sigma (initial & medial)	(234)	⠎
ζ	zeta	(1356)	⠵		ς	sigma (terminal)	(234)	⠎
η	eta	(156)	⠱		τ	tau	(2345)	⠞
ϑ	theta	(1456)	⠹		υ	upsilon	(136)	⠥
ι	iota	(24)	⠊		φ	phi	(124)	⠋
κ	kappa	(13)	⠅		χ	chi	(12346)	⠯
λ	lambda	(123)	⠇		ψ	psi	(13456)	⠽
μ	mu	(134)	⠍		ω	omega	(2456)	⠺
ν	nu	(1345)	⠝					

Archaic Letters (normally confined to representation of Greek numerals)

ϝ	digamma	(1236)	⠧
ϟ	koppa	(12345)	⠟
ϡ	sampi	(2346)	⠶

Acute (´) Vowels (Oxia)

ά	alpha	(345)	⠦	*or*	(4, 1)	⠈⠁
έ	epsilon	(1246)	⠫	*or*	(4, 15)	⠈⠑
ή	eta	(123456)	⠿	*or*	(4, 156)	⠈⠱
ί	iota	(12456)	⠻	*or*	(4, 24)	⠈⠊
ό	omicron	(246)	⠪	*or*	(4, 135)	⠈⠕
ύ	upsilon	(1256)	⠳	*or*	(4, 136)	⠈⠥
ώ	omega	(245)	⠬	*or*	(4, 2456)	⠈⠺

Greek Circumflex (̂ or ̃) Vowels (Perispomeni)

ᾶ / ᾶ	alpha	(16)	⠡	*or*	(5, 1)	⠐⠁
ῆ / ῆ	eta	(126)	⠣	*or*	(5, 156)	⠐⠱
ῖ / ῖ	iota	(146)	⠩	*or*	(5, 24)	⠐⠊
ῦ / ῦ	upsilon	(1236)	⠧	*or*	(5, 136)	⠐⠥
ῶ / ῶ	omega	(3456)	⠼	*or*	(5, 2456)	⠐⠺

Grave (`) Vowels (Varia)

ὰ	alpha	(12356)	⠷	*or*	(6, 1)	⠠⠁
ὲ	epsilon	(14)	⠉	*or*	(6, 15)	⠠⠑
ὴ	eta	(2346)	⠮	*or*	(6, 156)	⠠⠱
ὶ	iota	(34)	⠒	*or*	(6, 24)	⠠⠊
ὸ	omicron	(346)	⠬	*or*	(6, 135)	⠠⠕
ὺ	upsilon	(23456)	⠾	*or*	(6, 136)	⠠⠥
ὼ	omega	(12345)	⠟	*or*	(6, 2456)	⠠⠺

Other Special Signs

'	elision	(3)	⠄
ˌ	iota subscriptum	(35)	⠢
;	Greek question mark	(23)	⠆
‾	long vowel (macron)	(456)	⠸
˘	short vowel (breve)	(45)	�
ʽ	spiritus asper (rough breathing)*	(125)	⠇
'	spiritus lenis (smooth breathing)	(356)	⠦
′	chief stress sign	(34)	⠌
′	secondary stress sign	(16)	⠰

* The rough breathing sign precedes vowels, but follows the letter rho in braille; it precedes the accent signs where these are shown.

Hungarian

Primary language transcribed: Hungary
Secondary language transcribed: Serbia

Alphabet: Hungarian

a	(1)		h	(125)		ó	(246)		ú	(346)
á	(4)		i	(24)		ö	(12345)		ü	(12356)
b	(12)		í	(34)		ő	(12456)		ű	(23456)
c	(14)		j	(245)		p	(1234)		v	(1236)
cs	(146)		k	(13)		q	(12346)		w	(2456)
d	(145)		l	(123)		r	(1235)		x	(1346)
e	(15)		ly	(456)		s	(234)		y	(13456)
é	(16)		m	(134)		sz	(156)		z	(126)
f	(124)		n	(1345)		t	(2345)		zs	(345)
g	(1245)		ny	(1246)		ty	(1256)			
gy	(1456)		o	(135)		u	(136)			

Punctuation

, comma	(2)		' apostrophe	(6, 3)	
; semicolon	(23)		„…" quote	(236…356)	
: colon	(25)		(…) parentheses	(2346…1356)	
. period, full stop	(3)		- hyphen	(36)	
? question mark	(26)		capital	(46)	
! exclamation	(235)		number sign	(3456)	

Irish Gaelic

Primary language transcribed: none
Secondary language transcribed: Ireland, United Kingdom (Northern Ireland)

Alphabet: Irish Gaelic

a	(1)		i	(24)		q	(12345)		y	(13456)
b	(12)		j	(245)		r	(1235)		z	(1356)
c	(14)		k	(13)		s	(234)		á	(12346)
d	(145)		l	(123)		t	(2345)		é	(123456)
e	(15)		m	(134)		u	(136)		í	(12356)
f	(124)		n	(1345)		v	(1236)		ó	(2346)
g	(1245)		o	(135)		w	(2456)		ú	(23456)
h	(125)		p	(1234)		x	(1346)			

Punctuation

Same as English

Italian

Primary language transcribed: Italy
Secondary language transcribed: Switzerland

Alphabet: Italian

a	(1)	l	(123)	x	(1346)	ô	(1456)
b	(12)	m	(134)	y	(13456)	û	(156)
c	(14)	n	(1345)	z	(1356)	ë	(1246)
d	(145)	o	(135)	ç	(12346)	ï	(12456)
e	(15)	p	(1234)	é	(123456)	ö	(246)
f	(124)	q	(12345)	à	(12356)	ü	(1256)
g	(1245)	r	(1235)	è	(2346)	ò	(346)
h	(125)	s	(234)	ù	(23456)	ì	(34)
i	(24)	t	(2345)	â	(16)	w	(2456)
j	(245)	u	(136)	ê	(126)		
k	(13)	v	(1236)	î	(146)		

Punctuation

, comma	(2)	(…) parentheses	(26, 35)		
; semicolon	(23)	[…] brackets	(2356…2356)		
: colon	(25)	- hyphen	(36)		
. period, full stop	(3)	* asterisk	(35)		
? question mark	(26)	capital	(46)		
! exclamation	(235)	number sign	(3456)		
' apostrophe	(3)	*italics*	(456)		
«…» quote	(236…356)				

Japanese

Primary language transcribed: Japan
Secondary language transcribed: Taiwan

Alphabet: Japanese

あ a (1)	い I (12)	う u (14)	え e (124)	お o (24)
か ka (16)	き ki (126)	く ku (146)	け ke (1246)	こ ko (246)
さ sa (156)	し shi (1256)	す su (1456)	せ se (12456)	そ so (2456)
た ta (135)	ち chi (1235)	つ tsu (1345)	て te (12345)	と to (2345)
な na (13)	に ni (123)	ぬ nu (134)	ね ne (1234)	の no (234)
は ha (136)	ひ hi (1236)	ふ hu (1346)	へ he (12346)	ほ ho (2346)
ま ma (1356)	み mi (12356)	む mu (13456)	め me (123456)	も mo (23456)
や ya (34)		ゆ yu (346)		よ yo (345)
ら ra (15)	り ri (125)	る ru (145)	れ re (1245)	ろ ro (245)
わ wa (3)	ゐ wi (23)		ゑ we (235)	を wo (35)
ん n (356)	っ small tsu (soku-on) (2)		ー vowel lengthening (cho-on) (25)	
が ga (5,16)	ぎ gi (5,126)	ぐ gu (5,146)	げ ge (5,1246)	ご go (5,246)
ざ za (5,156)	じ ji (5,1256)	ず zu (5,1456)	ぜ ze (5,12456)	ぞ zo (5,2456)
だ da (5,135)	ぢ ji (5,1235)	づ zu (5,1345)	で de (5,12345)	ど do (5,2345)
ば ba (5,136)	び bi (5,1236)	ぶ bu (5,1346)	べ be (5,12346)	ぼ bo (5,2346)
ぱ pa (6,136)	ぴ pi (6,1236)	ぷ pu (6,1346)	ぺ pe (6,12346)	ぽ po (6,2346)

Alphabet

きゃ	kya	(4,16)	⠑	きゅ	kyu	(4,146)	⠭	きょ	kyo	(4,246)
しゃ	sha	(4,156)		しゅ	shu	(4,1456)		しょ	sho	(4,2456)
ちゃ	cha	(4,135)		ちゅ	chu	(4,1345)		ちょ	cho	(4,2345)
にゃ	nya	(4,13)		にゅ	nyu	(4,134)		にょ	nyo	(4,234)
ひゃ	hya	(4,136)		ひゅ	hyu	(4,1346)		ひょ	hyo	(4,2346)
みゃ	mya	(4,1356)		みゅ	my	(4,13456)		みょ	myo	(4,23456)
りゃ	rya	(4,15)		りゅ	ryu	(4,145)		りょ	ryo	(4,245)
ぎゃ	gya	(45,16)		ぎゅ	gyu	(45,146)		ぎょ	gyo	(45,246)
じゃ	ja	(45,156)		じゅ	ju	(45,1456)		じょ	jo	(45,2456)
ぢゃ	ja	(45,135)		ぢゅ	ju	(45,1345)		ぢょ	jo	(45,2345)
びゃ	bya	(45,136)		びゅ	byu	(45,1346)		びょ	byo	(45,2346)
ぴゃ	pya	(46,136)		ぴゅ	pyu	(46,1346)		ぴょ	pyo	(46,2346)

Punctuation

、 comma	(56)	
。 full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
(…) parentheses	(2356…2356)	
「…」 quote	(36…36)	
— bar line	(25, 25)	
〜 wave dash	(36, 36)	
… ellipsis	(2, 2, 2)	
number sign	(3456)	

Kiswahili

Primary language transcribed: none
Secondary language transcribed: Kenya, Uganda

Alphabet: Kiswahili

a	(1)		g	(1245)		m	(134)		t	(2345)
b	(12)		h	(125)		n	(1345)		u	(136)
c	(14)		i	(24)		o	(135)		v	(1236)
d	(145)		j	(245)		p	(1234)		w	(2456)
e	(15)		k	(13)		r	(1235)		y	(13456)
f	(124)		l	(123)		s	(234)		z	(1356)

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
' apostrophe	(3)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…2356, 3)	
- hyphen	(36)	
— dash	(36, 36)	
capital	(6)	
number sign	(3456)	

Malay

Primary language transcribed: Malaysia
Secondary language transcribed: Singapore

Alphabet: Malay

a	(1)	h	(125)	o	(135)	v	(1236)
b	(12)	i	(24)	p	(1234)	w	(2456)
c	(14)	j	(245)	q	(12345)	x	(1346)
d	(145)	k	(13)	r	(1235)	y	(13456)
e	(15)	l	(123)	s	(234)	z	(1356)
f	(124)	m	(134)	t	(2345)		
g	(1245)	n	(1345)	u	(136)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
"…" quote	(236…356)	
(…) parentheses	(2356…2356)	
/ slash	(2356)	
capital	(6)	
number sign	(3456)	
italics	(46)	

Mandarin

Primary language transcribed: China, Taiwan
Secondary language transcribed: Malaysia, Tibet

Alphabet: Mandarin, Initials/Consonants

b	(12)		n	(1345)		ch	(12345)	
p	(1234)		l	(123)		sh	(156)	
m	(134)		g, j	(1245)		r	(245)	
f	(124)		k, q	(13)		z	(1356)	
d	(145)		h, x	(125)		c	(14)	
t	(2345)		zh	(34)		s	(234)	

Finals/Vowels

a	(35)		ie	(15)		iang	(1346)	
o, e	(26)		iu	(1256)		in	(126)	
i	(24)		ua	(123456)		ing	(16)	
u	(136)		uai	(13456)		uan	(12456)	
ü	(346)		ui	(2456)		uang	(2356)	
er	(1235)		uo	(135)		un	(25)	
ai	(246)		üe	(23456)		ong	(256)	
ao	(235)		an	(1236)		üan	(12346)	
ei	(2346)		ang	(236)		ün	(456)	
ou	(12356)		en	(356)		iong	(1456)	
ia	(1246)		eng	(3456)				
iao	(345)		ian	(146)				

Tones

ˉ	(1)		´	(2)		ˇ	(3)

`	(23)

Contractions

zhi	(34)		ri	(245)		si	(234)	
chi	(12345)		zi	(1356)		di	(145)	
shi	(156)		ci	(14)				

Punctuation

, comma	(5)	⠄
、 pause	(4)	⠂
; semicolon	(56)	⠰
: colon	(36)	⠒
。 period, full stop	(5, 23)	⠄⠒
? question mark	(5, 3)	⠄⠔
! exclamation	(56, 2)	⠰�
"…" quote	(45…45)	⠘…⠘
'…' single quote	(45, 45…45, 45)	⠘⠘…⠘⠘
(…) parentheses	(56, 3…6, 23)	⠰⠔…⠠⠒
[…] brackets	(56, 23…56, 23)	⠰⠒…⠰⠒
…… ellipsis	(5, 5, 5)	⠄⠄⠄
- hyphen	(36)	⠒
— dash	(6, 36)	⠠⠒
capital	(6)	⠠
《…》title	(5, 36…36, 2)	⠄⠒…⠒⠂
number sign	(3456)	⠼

Example

cǎodì	shang	de	huā	shi	feng	chuikai	de。
草地	上	的	花	是	风	吹开	的。

Ndebele

Primary language transcribed: none
Secondary language transcribed: South Africa, Zimbabwe

Alphabet: Ndebele

a	(1)		h	(125)		o	(135)		w	(2456)
b	(12)		i	(24)		p	(1234)		x	(1346)
c	(14)		j	(245)		q	(12345)		y	(13456)
d	(145)		k	(13)		s	(234)		z	(1356)
e	(15)		l	(123)		t	(2345)			
f	(124)		m	(134)		u	(136)			
g	(1245)		n	(1345)		v	(1236)			

Punctuation

Same as English

Portuguese

Primary language transcribed: Brazil, Portugal
Secondary language transcribed: none

Alphabet: Portuguese

a	(1)		j	(245)		t	(2345)		ó	(346)
b	(12)		k	(13)		u	(136)		ú	(23456)
c	(14)		l	(123)		v	(1236)		à	(1246)
ç	(12346)		m	(134)		w	(2456)		â	(16)
d	(145)		n	(1345)		x	(1346)		ê	(126)
e	(15)		o	(135)		y	(13456)		ô	(1456)
f	(124)		p	(1234)		z	(1356)		ã	(345)
g	(1245)		q	(12345)		á	(12356)		õ	(246)
h	(125)		r	(1235)		é	(123456)		ü	(1256)
i	(24)		s	(234)		í	(34)			

Punctuation

, comma	(2)	⠂
; semicolon	(23)	⠆
: colon	(25)	⠒
. period, full stop	(3)	⠄
? question mark	(26)	⠦
! exclamation	(235)	⠖
' apostrophe	(3)	⠄
"…" quote	(236…236)	⠦…⠴
«…» quote	(6, 236…6, 236)	⠠ ⠦…⠠ ⠴
'…' single quote	(56, 236…56, 236)	⠰ ⠦…⠰ ⠴
(…) parentheses	(126…345)	⠣…⠜
(…) parentheses	(126, 3…6, 345)	⠣ ⠄…⠠ ⠜
[…] brackets	(12356…23456)	⠷…⠾
[…] brackets	(12356, 3…6, 23456)	⠷ ⠄…⠠ ⠾
… ellipsis	(3, 3, 3)	⠄ ⠄ ⠄
- hyphen	(36)	⠤
— dash	(36, 36)	⠤ ⠤
* asterisk	(35)	⠔
/ slash	(6, 2)	⠠ ⠂
capital	(46)	⠨
number sign	(3456)	⠼
italics, **bold**, <u>underline,</u> open and close	(35…35)	⠔…⠔

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Romanian

Primary language transcribed: Moldova, Romania
Secondary language transcribed: none

Alphabet: Romanian

a	(1)	g	(1245)	n	(1345)	ț	(246)
ă	(16)	h	(125)	o	(135)	u	(136)
â	(126)	i	(24)	p	(1234)	v	(1236)
b	(12)	î	(146)	q	(12345)	w	(2456)
c	(14)	j	(245)	r	(1235)	x	(1346)
d	(145)	k	(13)	s	(234)	y	(13456)
e	(15)	l	(123)	ș	(156)	z	(1356)
f	(124)	m	(134)	t	(2345)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
„…" quote	(236…356)	
'…' inside quote	(6…6)	
(…) parentheses	(2356…2356)	
… ellipsis	(36, 3)	
- hyphen	(36)	
— dash	(36, 3)	
* asterisk	(35)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Russian

Primary language transcribed: Kyrgyzstan, Russia
Secondary language transcribed: Kazakhstan, Moldova, Serbia

Alphabet: Russian

а	(1)	и	(24)	с	(234)	ъ	(12356)
б	(12)	й	(12346)	т	(2345)	ы	(2346)
в	(2456)	к	(13)	у	(136)	ь	(23456)
г	(1245)	л	(123)	ф	(124)	э	(246)
д	(145)	м	(134)	х	(125)	ю	(1256)
е	(15)	н	(1345)	ц	(14)	я	(1246)
ё	(16)	о	(135)	ч	(12345)		
ж	(245)	п	(1234)	ш	(156)		
з	(1356)	р	(1235)	щ	(1346)		

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(26)	
! exclamation	(235)	
«…» quote	(236…356)	
„…" inside quote	(6, 236…356, 3)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…2356, 3)	
… ellipsis	(256, 256, 256)	
- hyphen	(36)	
— dash	(36, 36)	
capital	(46)	
number sign	(3456)	
italics	(456)	

Spanish

Primary language transcribed: Argentina, Bolivia, Chile, Columbia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Spain, Uruguay, Venezuela

Secondary language transcribed: Iceland

Alphabet: Spanish

a	(1)		j	(245)		r	(1235)		á	(12356)
b	(12)		k	(13)		s	(234)		é	(2346)
c	(14)		l	(123)		t	(2345)		í	(34)
d	(145)		m	(134)		u	(136)		ó	(346)
e	(15)		n	(1345)		v	(1236)		ú	(23456)
f	(124)		ñ	(12456)		w	(2456)		ü	(1256)
g	(1245)		o	(135)		x	(1346)			
h	(125)		p	(1234)		y	(13456)			
i	(24)		q	(12345)		z	(1356)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
¿…? question mark	(26…26)	
¡…! exclamation mark	(235…235)	
' apostrophe	(3)	
"…", «…» quote	(236…236)	
(…) parentheses	(126…345)	
* asterisk	(35)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
— dash	(36, 36)	
/ slash	(6, 2)	
capital indicator	(46)	
number indicator	(3456)	
italics open and close	(35…35)	

Spain

'…', ‹…› internal quote	(6, 236…6, 236)	⠠⠦…⠴⠄
[…] brackets	(12356…23456)	⠷…⠾
{…} braces	(5, 123…456, 2)	⠨⠇…⠸⠂

Latin American Blind Union Countries

"…" internal quote	(5, 236…5, 236)	⠨⠦…⠘⠴

Swedish

Primary language transcribed: Sweden
Secondary language transcribed: Finland

Alphabet: Swedish

a	(1)		j	(245)		s	(234)		ä	(345)	
b	(12)		k	(13)		t	(2345)		ö	(246)	
c	(14)		l	(123)		u	(136)		à	(12356)	
d	(145)		m	(134)		v	(1236)		é	(123456)	
e	(15)		n	(1345)		x	(1346)		è	(2346)	
f	(124)		o	(135)		y	(13456)		ü	(1256)	
g	(1245)		p	(1234)		z	(1356)				
h	(125)		q	(12345)		w	(2456)				
i	(24)		r	(1235)		å	(16)				

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(3)	
? question mark	(26)	
! exclamation	(235)	
' apostrophe	(5)	
"…" quote	(56…56)	
'…' single quote	(5…5)	
(…) parentheses	(236…356)	
[…] brackets	(12356…23456)	
… ellipsis	(3, 3, 3)	
- hyphen	(36)	
/ slash	(34)	
* asterisk	(35)	
capital	(6)	
number sign	(3456)	
italics	(6, 3)	

Turkish

Primary language transcribed: Turkey
Secondary language transcribed: Cyprus

Alphabet: Turkish

a	(1)		ğ	(126)		n	(1345)		u	(136)
b	(12)		h	(125)		o	(135)		ü	(1256)
c	(14)		ı	(35)		ö	(246)		v	(1236)
ç	(16)		i	(24)		p	(1234)		y	(13456)
d	(145)		j	(245)		r	(1235)		z	(1356)
e	(15)		k	(13)		s	(234)			
f	(124)		l	(123)		ş	(146)			
g	(1245)		m	(134)		t	(2345)			

Punctuation

, comma	(2)	
; semicolon	(23)	
: colon	(25)	
. period, full stop	(256)	
? question mark	(236)	
! exclamation	(235)	
"…" quote	(236…356)	
'…' single quote	(3…3)	
(…) parentheses	(2356…2356)	
[…] brackets	(6, 2356…2356, 3)	
… ellipsis	(256, 256, 256)	
- hyphen	(36)	
* asterisk	(35, 35)	
capital	(6)	
number sign	(3456)	
italics	(46)	

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Index by Language Name