

# World Braille Usage

Third Edition

Perkins

International Council on English Braille

National Library Service for the  
Blind and Physically Handicapped  
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## ***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 uppercase 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**

Three collaborating organizations, Perkins, the National Library Service for the Blind and Physically Handicapped, Library of Congress (NLS) and the International Council on English Braille (ICEB), dedicate this newest edition of *World Braille Usage* to the millions of braille users, teachers, producers, and organizations, past and present, who tirelessly advance equal and global access to literacy and greater independence for persons who are blind, through the use of braille.

*World Braille Usage, Third Edition*, is built upon the firm foundation of those who have labored on behalf of braille literacy and the success they have achieved in prior editions. UNESCO has been instrumental in recognizing that literacy is a fundamental human right. Without UNESCO's vision and support in publishing the first two editions of *World Braille Usage*, this third edition would not have been possible. In addition, the International Phonetic Association developed the phonetic chart, which was the cornerstone of the first edition, and continues to be the seminal tool through which new languages can be translated into braille.

Many other braille-related organizations deserve thanks for their contributions to this project, including the World Blind Union, the International Council for Education of People with Visual Impairment, the Latin American Braille Council of ULAC (Comisión Braille Latinoamericana), Duxbury Systems, and the Japan Braille Library, authors of the report *Braille in Asia*.

In addition, this publication is the product of a worldwide effort by hundreds of individuals who provided crucial information about the use of braille in their respective countries. Although too numerous to mention individually, they deserve our sincere gratitude.

Several individuals closely associated with the publication of this edition of *World Braille Usage* also deserve special acknowledgement: William Schawbel, of the Schawbel Corporation, for his generous donation that enabled Perkins to take the lead on this project; Steven Rothstein, President of Perkins, for spearheading this project and ensuring that there were adequate resources to support it; Karen Keninger, Director of NLS, for her commitment to the publication of this book; Mr. Jawahar Lal Kaul, Secretary General of the All India Confederation of the Blind, a champion of braille and of this project; Dr. Judith Dixon, Consumer Relations Officer of NLS for her contribution to both the 1990 and 2013 editions; Dr. Robert Englebretson for his generous support and the contribution of his article on the *International Phonetic Alphabet*; Kim Charlson, Director of the Braille and Talking Book Library (BTBL) at Perkins and a member of the project team who helped to guide the development of a third edition; Susan Christensen, the editor, for her consultative advice and detailed work preparing the language and braille characters in this book; and Ellen Hall, Braille Literacy Manager of Perkins, for her work developing content and coordinating efforts to publish this *Third Edition of World Braille Usage*.

Dr. Aubrey Webson  
Director of Perkins International  
Perkins

# ***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

⠠⠠	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

⠠⠠	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](http://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](http://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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# Armenia

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

**Source:**

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

**Alphabet: Eastern Armenian**

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

**Alphabet: Western Armenian**

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

## Punctuation: Armenian Languages

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` 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)	⠠⠨

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# 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](http://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) ∴
ঐ 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 ṅa (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 ṅa (3456) ∴	ঢ় ṛha (12356) ∴
ত ta (2345) ∴	য় ya (26) ∴
থ tha (1456) ∴	ঙ khanda ta (5, 2345) ∴ ∴
দ da (145) ∴	ক্ষ kṣa (12345) ∴
ধ dha (2346) ∴	জ্ঞ jña (156) ∴

## Special Characters

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◌̣	Anusvara	(56)	⠠⠨
◌̇	Visarga	(6)	⠠⠠
◌̣̣̣	Candrabindu	(3)	⠠⠠⠠

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## Numbers

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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)	⠠⠠⠠⠠

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## Punctuation

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,	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)	⠠⠠

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# 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)	⠠
<i>italics</i>	(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 imprimés* (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) ⠠	ཁ (2345) ⠠	ཅ (34) ⠠	ཎ (1235) ⠠
ཁ (126) ⠠	ག (5, 1456) ⠠	ཆ (12456) ⠠	ཏ (123) ⠠
ག (1245) ⠠	ཅ (2346) ⠠	ཇ (1356) ⠠	ག (146) ⠠
ང (346) ⠠	ཉ (1345) ⠠	མ (2456) ⠠	ཎ (234) ⠠
ཅ (14) ⠠	ཏ (1234) ⠠	ཉ (12345) ⠠	ཉ (125) ⠠
ཆ (16) ⠠	ཎ (124) ⠠	ཏ (1346) ⠠	ཏ (1) ⠠
ཇ (245) ⠠	ཏ (12) ⠠	ཎ (156) ⠠	
ཉ (1236) ⠠	ཏ (134) ⠠	ཏ (13456) ⠠	

## Consonants for Foreign Words

འ (5, 2345) ⠠	འ (5, 1345) ⠠
ཡ (5, 1456) ⠠	ཡ (5, 146) ⠠
འ (5, 2346) ⠠	འ (13, 45, 5, 146) ⠠

## Vowels

འ (24) ⠠	འ (136) ⠠	འ (15) ⠠	འ (135) ⠠
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## Special Characters

འ (456, 246) ⠠	འ (2) ⠠	འ (23, 23) ⠠
འ (56, 1256) ⠠	འ (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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# Bosnia and Herzegovina

**Language:** Bosnian (uncontracted)

## Source:

*World Braille Usage*, 1990 (Yugoslavia)

## Alphabet: Bosnian

a	a	(1)	⠁	g	г	(1245)	⠒	o	o	(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	ћ	(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	ђ	(1456)	⠠	m	м	(134)	⠏	v	в	(1236)	⠕
e	e	(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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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 Química 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](http://www.krousar-thmey.org)

## Braille Code:

*Braille Khmer, 2012*

## Alphabet: Khmer

ក (1245)	⠠	ឃ (36, 23456)	⠠⠠	ព (12346)	⠠
ខ (13)	⠠	ង (6, 145)	⠠⠠	ភ (6, 1234)	⠠⠠
គ (6, 1245)	⠠⠠	ឆ (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 ʃ and ʒ**

ɔ̃	(1236, 1245)	⠠⠠⠠⠠	ɔ̃	(1236, 2345)	⠠⠠⠠⠠
ʊ̃	(1236, 13)	⠠⠠⠠	ʊ̃	(1236, 23456)	⠠⠠⠠⠠
ɔ̃	(1236, 6, 1245)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 6, 2345)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 6, 13)	⠠⠠⠠⠠	ɔ̃	(1236, 6, 23456)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 12456)	⠠⠠⠠⠠	ɔ̃	(1236, 6, 1345)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 245)	⠠⠠⠠⠠	ɔ̃	(1236, 12)	⠠⠠⠠⠠
ɔ̃	(1236, 346)	⠠⠠⠠⠠	ɔ̃	(1236, 1234)	⠠⠠⠠⠠
ɔ̃	(1236, 6, 245)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 12346)	⠠⠠⠠⠠
ɔ̃	(1236, 6, 346)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 6, 1234)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 6, 1456)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 134)	⠠⠠⠠⠠
ɔ̃	(1236, 145)	⠠⠠⠠⠠	ɔ̃	(1236, 6, 13456)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 36, 23456)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 1235)	⠠⠠⠠⠠
ɔ̃	(1236, 6, 145)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 6, 123)	⠠⠠⠠⠠⠠
ɔ̃	(1236, 356, 23456)	⠠⠠⠠⠠⠠	ɔ̃	(1236, 2456)	⠠⠠⠠⠠
ɔ̃	(1236, 1345)	⠠⠠⠠⠠	ɔ̃	(1236, 234)	⠠⠠⠠⠠

**No Legs**

ɔ̃	(1236, 125)	⠠⠠⠠⠠
ɔ̃	(1236, 135)	⠠⠠⠠⠠

**Vowels**

ɔ̃	(16)	⠠⠠	ɔ̃	(14)	⠠⠠	ɔ̃	(12356)	⠠⠠	ɔ̃	(456)	⠠⠠
ɔ̃	(34)	⠠⠠	ɔ̃	(25)	⠠⠠	ɔ̃	(124)	⠠⠠	ɔ̃	(1246)	⠠⠠
ɔ̃	(15)	⠠⠠	ɔ̃	(23)	⠠⠠	ɔ̃	(126)	⠠⠠	ɔ̃	(13456)	⠠⠠
ɔ̃	(246)	⠠⠠	ɔ̃	(146)	⠠⠠	ɔ̃	(24)	⠠⠠	ɔ̃	(1356)	⠠⠠
ɔ̃	(26)	⠠⠠	ɔ̃	(12345)	⠠⠠	ɔ̃	(156)	⠠⠠	ɔ̃	(1)	⠠⠠

## Additional Vowels

ꠘꠐꠃ (1346) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (2346) ⠠⠠⠠⠠	ꠐꠃꠐꠃ (246, 1) ⠠⠠⠠⠠
ꠘꠐꠃꠐꠃ (136) ⠠⠠⠠⠠	ꠐꠃꠐꠃ (34, 1) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (126, 1) ⠠⠠⠠⠠

## Full Vowels

ꠘꠐꠃ (6, 34) ⠠⠠⠠⠠	ꠘꠐꠃ (6, 1346) ⠠⠠⠠⠠	ꠘꠐꠃ (5) ⠠⠠⠠⠠
ꠘꠐꠃꠐꠃ (15, 1) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (1346, 1) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (124, 1) ⠠⠠⠠⠠
ꠘꠐꠃꠐꠃ (14, 1) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (1456) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (156, 1) ⠠⠠⠠⠠
ꠘꠐꠃꠐꠃ (1256) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (1456, 1) ⠠⠠⠠⠠	ꠘꠐꠃꠐꠃ (456, 14) ⠠⠠⠠⠠

## Numbers

ꠘꠐꠃ 1 (3456, 1) ⠠⠠⠠⠠	ꠘꠐꠃ 6 (3456, 124) ⠠⠠⠠⠠
ꠘꠐꠃ 2 (3456, 12) ⠠⠠⠠⠠	ꠘꠐꠃ 7 (3456, 1245) ⠠⠠⠠⠠
ꠘꠐꠃ 3 (3456, 14) ⠠⠠⠠⠠	ꠘꠐꠃ 8 (3456, 125) ⠠⠠⠠⠠
ꠘꠐꠃ 4 (3456, 145) ⠠⠠⠠⠠	ꠘꠐꠃ 9 (3456, 24) ⠠⠠⠠⠠
ꠘꠐꠃ 5 (3456, 15) ⠠⠠⠠⠠	ꠘꠐꠃ 0 (3456, 245) ⠠⠠⠠⠠

## Punctuation

, comma (2) ⠠⠠	ꠘꠐꠃ
; semicolon (23) ⠠⠠	ꠘꠐꠃ
: colon (45) ⠠⠠	ꠘꠐꠃ
. period, point (256) ⠠⠠	ꠘꠐꠃ
ꠘꠐꠃ period, full stop (123456) ⠠⠠	ꠘꠐꠃ
? question mark (23) ⠠⠠	ꠘꠐꠃ
! exclamation (235) ⠠⠠	ꠘꠐꠃ
"..." quote (236...356) ⠠⠠⠠⠠	ꠘꠐꠃꠘꠐꠃꠘꠐꠃ
(...) parentheses (2356...2356) ⠠⠠⠠⠠	ꠘꠐꠃꠘꠐꠃꠘꠐꠃ
capital (6) ⠠⠠	ꠘꠐꠃ
number sign (3456) ⠠⠠	ꠘꠐꠃ

## 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](http://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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# Croatia

**Language:** Croatian (uncontracted)

## Braille Standards Set by:

Croatian Association of the Blind, Braille Committee (Hrvatski odbor za brajicu)

[www.savez-slijepih.hr](http://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.uosso.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) ⠡˘



# 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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](http://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)	⠭
d' (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

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, 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)	⠠

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## 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)	⠠⠢	v (1236)	⠠⠨⠢⠠
á (34)	⠠⠠	i (24)	⠠⠨	ó (23456)	⠠⠢⠠⠨⠢	y (13456)	⠠⠨⠢⠠⠨⠢
b (12)	⠠⠠	í (126)	⠠⠨⠠	p (1234)	⠠⠢⠠⠨⠢	ý (123456)	⠠⠨⠢⠠⠨⠢⠠
d (145)	⠠⠠⠨	j (245)	⠠⠨⠠	r (1235)	⠠⠢⠠⠨⠢	æ (345)	⠠⠨⠢⠠
ð (1456)	⠠⠠⠨⠢	k (13)	⠠⠨⠢	s (234)	⠠⠢⠠⠨⠢	ø (246)	⠠⠨⠢⠠
e (15)	⠠⠠	l (123)	⠠⠨⠢	t (2345)	⠠⠢⠠⠨⠢		
f (124)	⠠⠠⠨	m (134)	⠠⠨⠢	u (136)	⠠⠢⠠⠨⠢		
g (1245)	⠠⠠⠨⠢	n (1345)	⠠⠨⠢⠠	ú (12356)	⠠⠢⠠⠨⠢⠠		

## 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)	⠠⠠⠠⠠
<i>italics</i>	(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)	⠠
<i>italics</i>	(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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# Estonia

Language: Estonian (uncontracted)

## Braille Standards Set by:

Tartu Emajõe School

[kool@tek.tartu.ee](mailto: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)	⠗	<i>italics</i>	(46)	⠨
„...“ quote	(56...56)	⠠...⠠	<b>bold</b>	(456)	⠨
(...) parentheses	(236...356)	⠠...⠠			

# Ethiopia

Language: Amharic (uncontracted)

## Braille Standards Set by:

Ethiopian Standards Agency

[enfo@ethiostandrs.org](mailto: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)	⠠	ሞ	(134)	⠠	ስ	(1456)	⠠
ሆ	(125, 135)	⠠⠠	ሞ	(134, 135)	⠠⠠	ሶ	(1456, 135)	⠠⠠
ለ	(123, 26)	⠠⠠	ሠ	(234, 26)	⠠⠠	ሸ	(146, 26)	⠠⠠
ሉ	(123, 136)	⠠⠠	ሠ	(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)	⠠⠠	ሣ	(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)	⠠⠠	ሪ	(1235, 1)	⠠⠠	ቃ	(12345, 1)	⠠⠠
ሔ	(126, 15)	⠠⠠	ሪ	(1235, 15)	⠠⠠	ቄ	(12345, 15)	⠠⠠
ሕ	(126)	⠠	ራ	(1235)	⠠	ቅ	(12345)	⠠
ሖ	(126, 135)	⠠⠠	ራ	(1235, 135)	⠠⠠	ቆ	(12345, 135)	⠠⠠

በ (12, 26) ⠠⠠  
 ቡ (12, 136) ⠠⠠⠠  
 ቢ (12, 24) ⠠⠠  
 ባ (12, 1) ⠠⠠  
 ቤ (12, 15) ⠠⠠  
 ብ (12) ⠠  
 ቦ (12, 135) ⠠⠠  
 ተ (2345, 26) ⠠⠠⠠  
 ቱ (2345, 136) ⠠⠠⠠  
 ቲ (2345, 24) ⠠⠠  
 ታ (2345, 1) ⠠⠠  
 ት (2345, 15) ⠠⠠  
 ቶ (2345) ⠠  
 ቦ (2345, 135) ⠠⠠  
 ተ (16, 26) ⠠⠠  
 ቱ (16, 136) ⠠⠠  
 ቲ (16, 24) ⠠⠠  
 ታ (16, 1) ⠠⠠  
 ት (16, 15) ⠠⠠  
 ቶ (16) ⠠  
 ቦ (16, 135) ⠠⠠  
 ገ (156, 26) ⠠⠠  
 ገ (156, 136) ⠠⠠  
 ገ (156, 24) ⠠⠠  
 ገ (156, 1) ⠠⠠  
 ገ (156, 15) ⠠⠠  
 ገ (156) ⠠  
 ገ (156, 135) ⠠⠠

ነ (1345, 26) ⠠⠠  
 ኑ (1345, 136) ⠠⠠  
 ኒ (1345, 24) ⠠⠠  
 ና (1345, 1) ⠠⠠  
 ኔ (1345, 15) ⠠⠠  
 ን (1345) ⠠  
 ኖ (1345, 135) ⠠⠠  
 ኘ (346, 26) ⠠⠠  
 ኙ (346, 136) ⠠⠠  
 ኘ (346, 24) ⠠⠠  
 ኙ (346, 1) ⠠⠠  
 ኘ (346, 15) ⠠⠠  
 ኙ (346) ⠠  
 ኖ (346, 135) ⠠⠠  
 አ (12356, 26) ⠠⠠  
 አ (12356, 136) ⠠⠠  
 አ (12356, 24) ⠠⠠  
 አ (12356, 1) ⠠⠠  
 አ (12356, 15) ⠠⠠  
 አ (12356) ⠠  
 አ (12356, 135) ⠠⠠  
 ከ (13, 26) ⠠⠠  
 ከ (13, 136) ⠠⠠  
 ከ (13, 24) ⠠⠠  
 ከ (13, 1) ⠠⠠  
 ከ (13, 15) ⠠⠠  
 ከ (13) ⠠  
 ከ (13, 135) ⠠⠠

ኸ (236, 26) ⠠⠠  
 ኸ (236, 136) ⠠⠠  
 ኸ (236, 24) ⠠⠠  
 ኸ (236, 1) ⠠⠠  
 ኸ (236, 15) ⠠⠠  
 ኸ (236) ⠠  
 ኸ (236, 135) ⠠⠠  
 ወ (2456, 26) ⠠⠠  
 ወ (2456, 136) ⠠⠠  
 ወ (2456, 24) ⠠⠠  
 ወ (2456, 1) ⠠⠠  
 ወ (2456, 15) ⠠⠠  
 ወ (2456) ⠠  
 ወ (2456, 135) ⠠⠠  
 ዐ (1256, 26) ⠠⠠  
 ዐ (1256, 136) ⠠⠠  
 ዐ (1256, 24) ⠠⠠  
 ዐ (1256, 1) ⠠⠠  
 ዐ (1256, 15) ⠠⠠  
 ዐ (1256) ⠠  
 ዐ (1256, 135) ⠠⠠  
 ዘ (1356, 26) ⠠⠠  
 ዘ (1356, 136) ⠠⠠  
 ዘ (1356, 24) ⠠⠠  
 ዘ (1356, 1) ⠠⠠  
 ዘ (1356, 15) ⠠⠠  
 ዘ (1356) ⠠  
 ዘ (1356, 135) ⠠⠠

ዠ	(356, 26)	⠠⠠⠠	ᐁ	(1245, 26)	⠠⠠⠠	ᐃ	(2346, 26)	⠠⠠⠠
ዡ	(356, 136)	⠠⠠⠠	ᐂ	(1245, 136)	⠠⠠⠠	ᐄ	(2346, 136)	⠠⠠⠠
ዢ	(356, 24)	⠠⠠⠠	ᐃ	(1245, 24)	⠠⠠⠠	ᐅ	(2346, 24)	⠠⠠⠠
ዣ	(356, 1)	⠠⠠⠠	ᐄ	(1245, 1)	⠠⠠⠠	ᐆ	(2346, 1)	⠠⠠⠠
ዤ	(356, 15)	⠠⠠⠠	ᐅ	(1245, 15)	⠠⠠⠠	ᐇ	(2346, 15)	⠠⠠⠠
ዥ	(356)	⠠⠠	ᐆ	(1245)	⠠⠠	ᐈ	(2346)	⠠⠠
ዦ	(356, 135)	⠠⠠⠠	ᐇ	(1245, 135)	⠠⠠⠠	ᐉ	(2346, 135)	⠠⠠⠠
የ	(13456, 26)	⠠⠠⠠	ᐈ	(23456, 26)	⠠⠠⠠	ᐊ	(12346, 26)	⠠⠠⠠
ዮ	(13456, 136)	⠠⠠⠠	ᐉ	(23456, 136)	⠠⠠⠠	ᐋ	(12346, 136)	⠠⠠⠠
ዿ	(13456, 24)	⠠⠠⠠	ᐊ	(23456, 24)	⠠⠠⠠	ᐌ	(12346, 24)	⠠⠠⠠
ዾ	(13456, 1)	⠠⠠⠠	ᐋ	(23456, 1)	⠠⠠⠠	ᐍ	(12346, 1)	⠠⠠⠠
ዿ	(13456, 15)	⠠⠠⠠	ᐌ	(23456, 15)	⠠⠠⠠	ᐎ	(12346, 15)	⠠⠠⠠
ዺ	(13456)	⠠⠠	ᐍ	(23456)	⠠⠠	ᐏ	(12346)	⠠⠠
ዻ	(13456, 135)	⠠⠠⠠	ᐎ	(23456, 135)	⠠⠠⠠	ᐐ	(12346, 135)	⠠⠠⠠
᐀	(145, 26)	⠠⠠⠠	ᐏ	(14, 26)	⠠⠠⠠	ᐑ	(124, 26)	⠠⠠⠠
ᐁ	(145, 136)	⠠⠠⠠	ᐐ	(14, 136)	⠠⠠⠠	ᐒ	(124, 136)	⠠⠠⠠
ᐂ	(145, 24)	⠠⠠⠠	ᐑ	(14, 24)	⠠⠠⠠	ᐓ	(124, 24)	⠠⠠⠠
ᐃ	(145, 1)	⠠⠠⠠	ᐒ	(14, 1)	⠠⠠⠠	ᐔ	(124, 1)	⠠⠠⠠
ᐄ	(145, 15)	⠠⠠⠠	ᐓ	(14, 15)	⠠⠠⠠	ᐕ	(124, 15)	⠠⠠⠠
ᐅ	(145)	⠠⠠	ᐔ	(14)	⠠⠠	ᐖ	(124)	⠠⠠
ᐆ	(145, 135)	⠠⠠⠠	ᐕ	(14, 135)	⠠⠠⠠	ᐗ	(124, 135)	⠠⠠⠠
ᐇ	(245, 26)	⠠⠠⠠	ᐖ	(235, 26)	⠠⠠⠠	ᐘ	(1234, 26)	⠠⠠⠠
ᐈ	(245, 136)	⠠⠠⠠	ᐗ	(235, 136)	⠠⠠⠠	ᐙ	(1234, 136)	⠠⠠⠠
ᐉ	(245, 24)	⠠⠠⠠	ᐘ	(235, 24)	⠠⠠⠠	ᐚ	(1234, 24)	⠠⠠⠠
ᐊ	(245, 1)	⠠⠠⠠	ᐙ	(235, 1)	⠠⠠⠠	ᐛ	(1234, 1)	⠠⠠⠠
ᐋ	(245, 15)	⠠⠠⠠	ᐚ	(235, 15)	⠠⠠⠠	ᐜ	(1234, 15)	⠠⠠⠠
ᐌ	(245)	⠠⠠	ᐛ	(235)	⠠⠠	ᐝ	(1234)	⠠⠠
ᐍ	(245, 135)	⠠⠠⠠	ᐜ	(235, 135)	⠠⠠⠠	ᐞ	(1234, 135)	⠠⠠⠠

ḡ	(1236, 26)	⠠⠠⠠⠠
ḡ̄	(1236, 136)	⠠⠠⠠⠠
ḡ̇	(1236, 24)	⠠⠠⠠⠠
ḡ̈	(1236, 1)	⠠⠠⠠⠠
ḡ̉	(1236, 15)	⠠⠠⠠⠠
ḡ̊	(1236)	⠠⠠
ḡ̋	(1236, 135)	⠠⠠⠠⠠

ḡᵐ	(13, 2456, 26)	⠠⠠⠠⠠⠠	ḡᵐ	(156, 2456, 26)	⠠⠠⠠⠠⠠
ḡᵐ̄	(13, 2456, 136)	⠠⠠⠠⠠⠠	ḡᵐ̄	(156, 2456, 136)	⠠⠠⠠⠠⠠
ḡᵐ̇	(13, 2456, 24)	⠠⠠⠠⠠⠠	ḡᵐ̇	(156, 2456, 24)	⠠⠠⠠⠠⠠
ḡᵐ̈	(13, 1346)	⠠⠠⠠	ḡᵐ̈	(156, 1346)	⠠⠠⠠
ḡᵐ̉	(13, 2456, 15)	⠠⠠⠠⠠⠠	ḡᵐ̉	(156, 2456, 15)	⠠⠠⠠⠠⠠
ḡᵐ̊	(12345, 2456, 26)	⠠⠠⠠⠠⠠	ḡᵐ̊	(1245, 2456, 26)	⠠⠠⠠⠠⠠
ḡᵐ̋	(12345, 2456, 136)	⠠⠠⠠⠠⠠	ḡᵐ̋	(1245, 2456, 136)	⠠⠠⠠⠠⠠
ḡᵐ̌	(12345, 2456, 24)	⠠⠠⠠⠠⠠	ḡᵐ̌	(1245, 2456, 24)	⠠⠠⠠⠠⠠
ḡᵐ̍	(12345, 1346)	⠠⠠⠠	ḡᵐ̍	(1245, 1346)	⠠⠠⠠
ḡᵐ̎	(12345, 2456, 15)	⠠⠠⠠⠠⠠	ḡᵐ̎	(1245, 2456, 15)	⠠⠠⠠⠠⠠

ḡᵐ̏	(123, 1346)	⠠⠠⠠	ḡᵐ̏	(346, 1346)	⠠⠠⠠
ḡᵐ̐	(134, 1346)	⠠⠠⠠	ḡᵐ̐	(1356, 1346)	⠠⠠⠠
ḡᵐ̑	(1235, 1346)	⠠⠠⠠	ḡᵐ̑	(356, 1346)	⠠⠠⠠
ḡᵐ̒	(1456, 1346)	⠠⠠⠠	ḡᵐ̒	(145, 1346)	⠠⠠⠠
ḡᵐ̓	(12, 1346)	⠠⠠⠠	ḡᵐ̓	(245, 1346)	⠠⠠⠠
ḡᵐ̔	(2345, 1346)	⠠⠠⠠	ḡᵐ̔	(1245, 1346)	⠠⠠⠠
ḡᵐ̕	(16, 1346)	⠠⠠⠠	ḡᵐ̕	(23456, 1346)	⠠⠠⠠
ḡᵐ̖	(13, 1346)	⠠⠠⠠	ḡᵐ̖	(14, 1346)	⠠⠠⠠
ḡᵐ̗	(156, 1346)	⠠⠠⠠	ḡᵐ̗	(2346, 1346)	⠠⠠⠠
ḡᵐ̘	(1345, 1346)	⠠⠠⠠	ḡᵐ̘	(124, 1346)	⠠⠠⠠

## Geez Numerical Codes

፩	1	(1, 1, 23)	⠠⠨⠢	፪	20	(1, 13, 14, 23)	⠠⠨⠢⠠⠨⠢
፫	2	(1, 14, 23)	⠠⠨⠢⠠⠨⠢	፬	30	(1, 13, 25, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢
፭	3	(1, 25, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢	፭	40	(1, 13, 36, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፮	4	(1, 36, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢	፮	50	(1, 13, 15, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፯	5	(1, 15, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢	፯	60	(1, 13, 26, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፰	6	(1, 26, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢	፰	70	(1, 13, 24, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፱	7	(1, 24, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢	፱	80	(1, 13, 35, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፳	8	(1, 35, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢	፳	90	(1, 13, 12, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፴	9	(1, 12, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢	፴	100	(1, 124, 1, 13)	⠠⠨⠢⠠⠨⠢⠠⠨⠢⠠⠨⠢
፵	10	(1, 13, 23)	⠠⠨⠢⠠⠨⠢⠠⠨⠢				

## Punctuation

• tonal mark	(5)	⠠⠨⠢
⋈ wordspace	(6, 3)	⠠⠨⠢⠠⠨⠢
፫ comma	(2)	⠠⠨⠢
፮ 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](mailto:braille@celia.fi)

[www.pistekirjoitus.fi](http://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)	⠒

' apostrophe	(5)	⠠
"..." quote	(56...56)	⠠⠠⠠⠠
(...) parentheses	(236...356)	⠠⠠⠠⠠
[...] brackets	(12356...23456)	⠠⠠⠠⠠
- hyphen	(36)	⠠
/ slash	(34)	⠠
* asterisk	(35)	⠠
capital	(6)	⠠
number sign	(3456)	⠠

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## 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](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) ⠠	ბ (13) ⠠	გ (2345) ⠠	დ (13456) ⠠
ბ (12) ⠠	გ (123) ⠠	დ (136) ⠠	ე (1456) ⠠
გ (1245) ⠠	დ (134) ⠠	ე (1236) ⠠	ვ (1346) ⠠
დ (145) ⠠	ე (1345) ⠠	ვ (12456) ⠠	ზ (125) ⠠
ე (15) ⠠	ვ (135) ⠠	ზ (1246) ⠠	ყ (246) ⠠
ვ (2456) ⠠	კ (1234) ⠠	ყ (2346) ⠠	ჩ (12346) ⠠
კ (1356) ⠠	ქ (245) ⠠	ც (156) ⠠	
ქ (124) ⠠	ც (1235) ⠠	ც (12345) ⠠	
ო (24) ⠠	ც (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 adaptations 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](mailto: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)	⠞
ε (12456)	⠡	l (123)	⠗	r (1235)	⠞		
f (124)	⠑	m (134)	⠓	s (234)	⠞		

## Alphabet: Ga

a (1)	⠠	h (125)	⠠⠵	η (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)	⠠⠺⠺⠺⠶
ε (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)	⠠⠺⠵	η (346)	⠠⠺⠶	u (136)	⠠⠺⠺
d (145)	⠠⠺⠵	i (24)	⠠⠺⠺	o (135)	⠠⠺⠺	w (2456)	⠠⠺⠺⠶
e (15)	⠠⠺	k (13)	⠠⠺	ɔ (246)	⠠⠺⠶	y (13456)	⠠⠺⠺⠺⠶
ε (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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# 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](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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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 MGYOSZ

### **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)	⠠	v (1236)	⠠⠠
á (16)	⠠	h (125)	⠠	ó (1456)	⠠	w (2456)	⠠⠠
b (12)	⠠	i (24)	⠠	p (1234)	⠠	x (1346)	⠠⠠
c (14)	⠠	í (126)	⠠	q (12345)	⠠	y (13456)	⠠⠠
d (145)	⠠	j (245)	⠠	r (1235)	⠠	ý (12346)	⠠⠠
ð (156)	⠠	k (13)	⠠	s (234)	⠠	z (1356)	⠠⠠
e (15)	⠠	l (123)	⠠	t (2345)	⠠	þ (1246)	⠠⠠
é (2346)	⠠	m (134)	⠠	u (136)	⠠	æ (345)	⠠⠠
f (124)	⠠	n (1345)	⠠	ú (12456)	⠠	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, Uttarakhand 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)
ऐ e (26)	ञ ñ (25)	ळ ʌ (456)
ए ē (15)	ट ṭ (23456)	व v (1236)
ऐ ai (34)	ठ ṭh (2456)	श ś (146)
ओ 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 ʌ (5, 123)	द d (145)	ड़ ṝ / ṝ (12456)
ॡ ʌ̄ (6, 123)	ध dh (2346)	ढ़ ṝh (5, 12456)
क k (13)	न n (1345)	फ f (124)
ख kh (46)	प p (1234)	ज़ z (1356)
ग g (1245)	फ ph (235)	

## Diacritics

् Virama (4)	ः Visarga (6)	ः 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: 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)	⋮	ஐ	j	(245)	⋮	வ	v	(1236)	⋮
உ	u	(136)	⋮	ஔ	ñ	(25)	⋮	ஸ	ṣ	(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)	⋮	க்ஷ	kṣ	(12345)	⋮
ஓ	o	(1346)	⋮	ப	p	(1234)	⋮	ற	r / ṛ	(12456)	⋮
ஔ	ō	(135)	⋮	ம	m	(134)	⋮	ழ	ḷ	(12356)	⋮
ஔள	au	(246)	⋮	ய	y	(13456)	⋮	ன	ṇ	(56)	⋮

## Diacritics

◌̣	Virama	(4)	⋮
◌̣:	Visarga	(6)	⋮

## Numbers

க	1	(3456, 1)	⋮	கூ	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)	⋮
ஔ	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)
ऐ 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)
ओ 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)	ड्र / र्र (12456)
ॡ ḹ (6, 123)	ध dh (2346)	ढ्र ḍh (5, 12456)
क k (13)	न n (1345)	फ f (124)
ख kh (46)	प p (1234)	ज़ z (1356)
ग g (1245)	फ ph (235)	

## Diacritics

् Virama (4)	ः Visarga (6)	स 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) ⠠	સ ñ (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) ⠠
ઑ ō (135) ⠠	ડ ḍ (1246) ⠠	ળ ḷ (456) ⠠
ઔ au (246) ⠠	ઢ ḍh (123456) ⠠	વ v (1236) ⠠
ઋ ṛ (5, 1235) ⠠	ણ ṅ (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) ⠠	◌ 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)	ঔ ñ (346)	ফ ph (235)
আ ā (345)	চ c (14)	ব b (12)
ই i (24)	ছ ch (16)	ভ bh (45)
ঐ ī (35)	জ j (245)	ম m (134)
উ u (136)	ঝ jh (356)	য y (13456)
ঊ ū (1256)	ঞ ñ̃ (25)	র r (1235)
এ e (26)	ট t̃ (23456)	ল l (123)
ঐ ē (15)	ঠ th̃ (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 ṅ (3456)	স s (234)
ঋ ṛ (5, 1235)	ত t (2345)	হ h (125)
ঌ ṝ (5, 123)	থ th (1456)	ক্ষ kṣ (12345)
ক k (13)	দ d (145)	জ্ঞ jñ (156)
খ kh (46)	ধ dh (2346)	ড় ṝ / ṝ̃ (12456)
গ g (1245)	ন n (1345)	ঢ় ṝh (5, 12456)
ঘ gh (126)	প p (1234)	

## Diacritics

◌̣ Virama (4)	◌̣ Visarga (6)	◌̣ 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	l	(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	ṛ	(5, 1235)	∴ ∴	ತ	t	(2345)	∴	ಸ	s	(234)	∴
ೠ	ṝ	(6, 1235)	∴ ∴	ಥ	th	(1456)	∴	ಹ	h	(125)	∴
ಕ	k	(13)	∴	ದ	d	(145)	∴	ಕ್ಷ	kṣ	(12345)	∴
ಖ	kh	(46)	∴	ಧ	dh	(2346)	∴	ಱ	ṛ / ṝ	(12456)	∴
ಗ	g	(1245)	∴	ನ	n	(1345)	∴				

## Diacritics

◌̣	Virama	(4)	∴	◌̣◌	Anusvara	(56)	∴	◌̣ಃ	Visarga	(6)	∴
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## Numbers

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



## Alphabet: Assamese

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

## Diacritics

◌̣	Virama	(4)	⠠	◌̣̣	Visarga	(6)	⠠	◌̣̣̣	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)	⠠	ചര	ch	(16)	⠠	മ	m	(134)	⠠
ഊ	ū	(1256)	⠠	ജ	j	(245)	⠠	യ	y	(13456)	⠠
എ	e	(26)	⠠	ര്യ	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)	⠠
ൡ	ṝ̄	(5, 123)	⠠	ഥ	th	(1456)	⠠	ക്ഷ	kṣ	(12345)	⠠
ൢ	ṝ̄̄	(6, 123)	⠠	ദ	d	(145)	⠠	റ	ṛ / ṝ	(12456)	⠠
ക	k	(13)	⠠	ധ	dh	(2346)	⠠	ഴ	ḻ	(12356)	⠠
ഖ	kh	(46)	⠠	ന	n	(1345)	⠠				

## Diacritics

̣	Virama	(4)	⠠	◌̣	Anusvara	(56)	⠠	◌̣	Visarga	(6)	⠠
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## 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)
ऐ e (26)	ञ ñ (25)	ळ ʅ (456)
ए ē (15)	ट ṭ (23456)	व v (1236)
ऐ ai (34)	ठ ṭh (2456)	श ś (146)
ओ 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 ʅ (5, 123)	द d (145)	ड्र / र् (12456)
ॡ ʅ̄ (6, 123)	ध dh (2346)	ढ्र ṛh (5, 12456)
क k (13)	न n (1345)	फ f (124)
ख kh (46)	प p (1234)	ज़ z (1356)
ग g (1245)	फ ph (235)	

## Diacritics

् Virama (4)	ः Visarga (6)	s 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

ଅ	a	(1)	⋮	ଘ	gh	(126)	⋮	ଫ	ph	(235)	⋮
ଆ	ā	(345)	⋮	ଙ	ñ	(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)	⋮
ୠ	ē	(15)	⋮	ଟ	ṭ	(23456)	⋮	ଳ	ḷ	(456)	⋮
ଐ	ai	(34)	⋮	ଠ	ṭh	(2456)	⋮	ୱ / ବ୍	v	(1236)	⋮
ଓ	ō	(135)	⋮	ଡ	ḍ	(1246)	⋮	ଶ	ś	(146)	⋮
ଔ	au	(246)	⋮	ଢ	ḍh	(123456)	⋮	ଷ	ṣ	(12346)	⋮
ୠ	ṛ	(5, 1235)	⋮	ଣ	ṇ	(3456)	⋮	ସ	s	(234)	⋮
ୡ	ṝ	(6, 1235)	⋮	ତ	t	(2345)	⋮	ହ	h	(125)	⋮
ୢ	ḷ	(5, 123)	⋮	ଥ	th	(1456)	⋮	କ୍ଷ	kṣ	(12345)	⋮
ୣ	ḹ	(6, 123)	⋮	ଦ	d	(145)	⋮	ଞ୍	jñ	(156)	⋮
କ	k	(13)	⋮	ଧ	dh	(2346)	⋮	ଡ୍	ṛ / ṝ	(12456)	⋮
ଖ	kh	(46)	⋮	ନ	n	(1345)	⋮	ଢ୍	ṛh	(5, 12456)	⋮
ଗ	g	(1245)	⋮	ପ	p	(1234)	⋮				

## Diacritics

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

## Numbers

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)	⋮	జ	ñ	(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)	⋮
అ	ḷ	(5, 123)	⋮	థ	th	(1456)	⋮	క్ష	kṣ	(12345)	⋮
అ	ḹ	(6, 123)	⋮	ద	d	(145)	⋮	ఱ	ṛ / ṝ	(12456)	⋮
క	k	(13)	⋮	ధ	dh	(2346)	⋮				
ఖ	kh	(46)	⋮	న	n	(1345)	⋮				

## Diacritics

̣	Virama	(4)	⋮	◌ః	Visarga	(6)	⋮	◌ః	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)	⋮

## Alphabet: Urdu

آ	ā	(345)	⠠⠠⠠	جھ	jh	(356)	⠠⠠⠠	ی	y	(13456)	⠠⠠⠠
ی	ī	(35)	⠠⠠	ٹ	t	(23456)	⠠⠠⠠	ر	r	(1235)	⠠⠠
و	ū	(1256)	⠠⠠⠠	ٹھ	th	(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)	⠠⠠⠠	ٹ	t	(2345)	⠠⠠⠠	ص	ṣ	(12346)	⠠⠠⠠
و	ō	(135)	⠠⠠	ٹھ	th	(1456)	⠠⠠⠠	س	s	(234)	⠠⠠
و	au	(246)	⠠⠠⠠	د	d	(145)	⠠⠠⠠	ہ	h	(125)	⠠⠠
ک	k	(13)	⠠⠠	دھ	dh	(2346)	⠠⠠⠠	ق	kṣ	(12345)	⠠⠠⠠
کھ	kh	(46)	⠠⠠⠠	ن	n	(1345)	⠠⠠⠠	ح	jñ	(156)	⠠⠠
گ	g	(1245)	⠠⠠⠠	پ	p	(1234)	⠠⠠⠠	ڑ	r / ṛ	(12456)	⠠⠠⠠
گھ	gh	(126)	⠠⠠⠠	پھ	ph	(235)	⠠⠠⠠	ڑھ	ṛh	(5, 12456)	⠠⠠⠠⠠
چ	c	(14)	⠠⠠	ب	b	(12)	⠠⠠	ع	l	(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

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, comma	(2)	⠠
; semicolon	(23)	⠠
: colon	(25)	⠠
I danda, . period, full stop	(256)	⠠
II 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)	⠠
<i>italics</i>	(46)	⠠

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\* 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)	⠂...⠂	<i>italics</i>	(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

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

⠠	number sign	(3456)	⠠⠠⠠	⠠	6	(3456, 124)	⠠⠠⠠⠠
⠠	1	(3456, 1)	⠠⠠⠠⠠	⠠	7	(3456, 1245)	⠠⠠⠠⠠⠠
⠠	2	(3456, 12)	⠠⠠⠠⠠	⠠	8	(3456, 125)	⠠⠠⠠⠠
⠠	3	(3456, 14)	⠠⠠⠠⠠	⠠	9	(3456, 24)	⠠⠠⠠⠠
⠠	4	(3456, 145)	⠠⠠⠠⠠	⠠	0	(3456, 245)	⠠⠠⠠⠠
⠠	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](mailto:info@inbaf.ie)

<http://www.inbaf.ie>

UKAAF

[www.ukaaf.org](http://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**

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	sameh	(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	het	(1346)	⠠⠠⠠⠠	ש	shin	(146)	⠠⠠⠠⠠
ט	tet	(2345)	⠠⠠⠠⠠	שׁ	sin	(156)	⠠⠠⠠⠠
י	yod	(245)	⠠⠠⠠	ת	tav	(1256)	⠠⠠⠠⠠
כ	kaf	(13)	⠠⠠	ת	tav	(1456)	⠠⠠⠠⠠

## Vowels and Pronunciation Aids

Ɱ	pataḥ	(14)	⠠⠠	ḥ	ḥolam male	(135)	⠠⠠⠠
Ɱ	ḥataf pataḥ	(25)	⠠⠠	Ɱ	ḥolam ḥaser	(246)	⠠⠠⠠
Ɱ	tsere	(34)	⠠⠠	Ɱ	qamats	(126)	⠠⠠⠠
Ɱ	segol	(15)	⠠⠠	Ɱ	ḥataf qamats	(345)	⠠⠠⠠
Ɱ	ḥataf segol	(26)	⠠⠠	Ɱ	qubuts	(136)	⠠⠠⠠
Ɱ	ḥiriq ḥaser	(24)	⠠⠠	ḥ	shuruq	(346)	⠠⠠⠠
Ɱ	ḥiriq male	(35)	⠠⠠	Ɱ	sh'va	(6)	⠠⠠

## 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)	⠠⠠⠠
/	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](http://www.bibciechi.it)

[bic@bibciechi.it](mailto: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)	⠑	һ (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)	⠃	<i>italics</i>	(456)	⠠
! exclamation	(235)	⠃			

# Kenya

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

**Braille Standards Set by:**

Kenya Bureau of Standards

[www.kebs.org](http://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](mailto: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) ⠏	ү (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) ⠒	<i>italics</i> (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)	⠠⠈	ຢ	y	(6, 13456)	⠠⠉
ງ	ŋ	(12456)	⠠⠉	ນ	n	(1345)	⠠⠎	ຮ	r	(1235)	⠠⠗
ຈ	j	(245)	⠠⠇	ບ	b	(1236)	⠠⠃	ລ	l	(123)	⠠⠇
ສ	s	(234)	⠠⠆	ປ	p	(12346)	⠠⠏	ວ	w	(2456)	⠠⠕
ຊ	s	(2346)	⠠⠋	ຜ	ph	(1234)	⠠⠎	ຫ	h	(125)	⠠⠈
ຢ	ŋ	(13456)	⠠⠉	ຜ	f	(1346)	⠠⠋	ອ	o	(135)	⠠⠝
ດ	d	(145)	⠠⠞	ຜ	p	(1456)	⠠⠏	ຮ	h	(123456)	⠠⠗

## Compound Consonants

ໜ	nhau	(125, 1345)	⠠⠎⠠⠏	ຫຼ	lhau	(125, 123)	⠠⠈⠠⠏
ໝ	mhau	(125, 134)	⠠⠍⠠⠏	ຫວ	whau	(125, 2456)	⠠⠈⠠⠕
ໜຍ	nyhau	(125, 13456)	⠠⠎⠠⠉	ຫງ	nghau	(125, 12456)	⠠⠎⠠⠈

## Vowels

Xະ	a	(1)	⋮	ໂXະ	o	(24, 1)	⋮⋮
Xາ	aa	(16)	⋮	ໂX	oo	(24)	⋮
ໂ	i	(12)	⋮	cXາະ	໌	(135, 1)	⋮⋮
ໂ	ii	(23)	⋮	໌	໌	(135)	⋮
ໂ	u	(246)	⋮	໌	ə	(146, 1)	⋮⋮
ໂ	uu	(26)	⋮	໌	əə	(146)	⋮
໌	u	(36)	⋮	໌	ia?	(12356, 1)	⋮⋮
໌	uu	(25)	⋮	cX	ia	(12356)	⋮
cX	e	(124, 1)	⋮⋮	໌	ua?	(15, 1)	⋮⋮
cX	ee	(124)	⋮	໌	ua	(15)	⋮
ccX	ε	(126, 1)	⋮⋮	໌	wa?	(12345, 1)	⋮⋮
ccX	εε	(126)	⋮	໌	wa	(12345)	⋮

## Special Vowel Symbols

ໂX	ai	(156)	⋮
ໂX	ai	(156, 2)	⋮⋮
c໌	aw	(235)	⋮
໌	am	(1356)	⋮
໌	(k)ong	(14)	⋮
໌	(k)an	(345)	⋮
X໌	oi	(456)	⋮
໌	(symbol for word repetition)	(2)	⋮

## Intonation Symbols

໌ (35)	⋮	໌ (256)	⋮	໌ (2356)	⋮	໌ (236)	⋮
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## Numbers

᠒	1	(3456, 1)	⠠⠨	᠓	6	(3456, 124)	⠠⠨⠠⠒⠠⠨
᠒	2	(3456, 12)	⠠⠨⠠⠒	᠓	7	(3456, 1245)	⠠⠨⠠⠒⠠⠒⠠⠨
᠓	3	(3456, 14)	⠠⠨⠠⠒⠠⠨	᠓	8	(3456, 125)	⠠⠨⠠⠒⠠⠒⠠⠒
᠒	4	(3456, 145)	⠠⠨⠠⠒⠠⠒⠠⠨	᠓	9	(3456, 24)	⠠⠨⠠⠒⠠⠒
᠒	5	(3456, 15)	⠠⠨⠠⠒⠠⠒⠠⠒	᠓	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](mailto:lnbcv@e-apollo.lv)

<http://www.lnbc.lv/english.htm>

The Latvian Library for the Blind

[info@neredzigobiblioteka.lv](mailto:info@neredzigobiblioteka.lv)

<http://www.neredzigobiblioteka.lv/>

### Braille Code:

*Latvian Braille Code*

## Alphabet: Latvian

a (1)	⠠	g (1245)	⠠⠠	ļ (1236)	⠠⠠	t (2345)	⠠⠠
ā (16)	⠠	ģ (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) ⠠	j (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)	⠠

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## 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](mailto: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 Brailnotenchrift, 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 Vervollständigung des Systems der Internationalen Mathematikschrift für Blinde*. Revised ed. Marburg and Zürich: Deutsche Blindenstudienanstalt, 1986

*Mathematik und Chemieschrift für Blinde*. Marburg, 1930

## Alphabet: Macedonian

a a (1) ⠠	j j (245) ⠠	т t (2345) ⠠
б b (12) ⠠	к k (13) ⠠	ќ kj (34) ⠠
в v (1236) ⠠	л l (123) ⠠	y u (136) ⠠
г g (1245) ⠠	љ lj (126) ⠠	ф f (124) ⠠
д d (145) ⠠	м m (134) ⠠	x 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) ⠠
s 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](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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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)	⋮	င	Ttha	(12456)	⋮	ဗ	Ba	(146)	⋮
ခ	Kha	(46)	⋮	ဉ	Dda	(23456)	⋮	ဘ	Bha	(12)	⋮
ဂ	Ga	(1245)	⋮	ဗ	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)	⋮
ည	Nya	(12356)	⋮	ပ	Pa	(1234)	⋮	ဋ	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 va (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

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, comma	(2)	⠠
; semicolon	(23)	⠠⠨
: colon	(25)	⠠⠨⠨
! , 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)	⠠⠨⠨⠨

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## Netherlands

**Language:** Dutch (uncontracted)

### Braille Standards Set by:

Oogvereniging  
[info@oogvereniging.nl](mailto:info@oogvereniging.nl)  
[www.Viziris.nl](http://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](http://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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# 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

a (1)	⠁	f (124)	⠋	l (123)	⠇	sh (146)	⠠
b (12)	⠃	g (1245)	⠉	m (134)	⠍	ts (34)	⠤
ḅ (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)	⠗	ÿ (12346)	⠦
e (15)	⠑	ƙ (46)	⠅	s (234)	⠎	z (1356)	⠦

### Alphabet: Igbo

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

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)	⠍	ş (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](http://www.punktskriftutvalget.no)

[oup@punktskriftutvalget.no](mailto: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)	⠠⠃⠠⠠	ŧ (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)	⠠⠃⠠⠠⠠
<i>italics</i>	(6, 3...6, 3)	⠠⠃⠠⠠⠠⠠⠠
<b>bold</b>	(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

## Alphabet: Urdu

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)	⋮

زبر	zaber	(2)	⋮	ٹھ	tah	(135)	⋮
زیر	zair	(15)	⋮	جھ	jhay	(356)	⋮
پیش	paish	(136)	⋮	چھ	chay	(16)	⋮
تاشدہ	tashdeed	(6)	⋮	و ن گ	wao-noon-guaf	(2356)	⋮
کو	ko	(12456)	⋮	نا	na	(26)	⋮
عس	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)	⋮	ء	alif-humza	(4)	⋮

## Punctuation

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‘ comma	(2)	⠠⠨
‘ semicolon	(23)	⠠⠨⠠⠆
: colon	(25)	⠠⠠
- period, full stop	(256)	⠠⠠⠠
‘ question mark	(236)	⠠⠨⠠⠆⠠⠗
! exclamation	(235)	⠠⠨⠠⠆
number sign	(3456)	⠠⠠⠠⠠

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## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# 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)	⋮	u (136)	⋮
b (12)	⋮	h (125)	⋮	o (135)	⋮	v (1236)	⋮
d (145)	⋮	i (24)	⋮	p (1234)	⋮	w (2456)	⋮
e (15)	⋮	k (13)	⋮	r (1235)	⋮		
f (124)	⋮	l (123)	⋮	s (234)	⋮		
g (1245)	⋮	m (134)	⋮	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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

## 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](mailto: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)	⠠⠠⠠⠠
<i>italics</i>	(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](mailto: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

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, 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)	⠠⠨⠠⠨⠠⠨
<i>italics</i>	(456)	⠠⠨⠠⠨⠠⠨

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# Portugal

**Language:** Portuguese (uncontracted)

**Braille Standards Set by:**

Nucleo de Braille e Outros Meios Complementares de Leitura, INR

<http://www.inr.pt/>

[inr@inr.msss.pt](mailto:inr@inr.msss.pt)

**Literary Notation:**

*Grafia Braille Para a Língua Portuguesa 3ª Edição*, 2002

*Grafia Fonética 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](http://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

a	a	(1)	⠠	л	l	(123)	⠠	ф	f	(124)	⠠
б	b	(12)	⠠	љ	lj	(126)	⠠	х	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)	⠠
ˆ	long up	(45)	⠠
˘	long down	(56)	⠠
ˆ	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)	⠠...⠠



# 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](http://www.unss.sk) with close cooperation with the Slovak Library for the Blind [www.skn.sk](http://www.skn.sk)  
[unss@unss.sk](mailto: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)	⠡	ř (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)	⠁	ř (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)	⠥	í (46)	⠁		

## Punctuation

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, 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)	⠠⠨

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# 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](mailto:zdsss@zveza-slepih.si)

Zavod za slepo in slabovidno mladino Ljubljana (Institute for Blind and Partially Sighted Children Ljubljana)

[www.zssm.si](http://www.zssm.si)

[zavod@zssm.si](mailto:zavod@zssm.si)

## Literary Notation:

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

## Mathematics and Science Notation:

*Mathematical Notation on the Computer for the Blind (Matematični 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)	⠠	ɭ (46, 123)	⠠	ɥ (46, 2345)	⠠
d (145)	⠠	m (134)	⠠	u (136)	⠠
ɖ (46, 145)	⠠	n (1345)	⠠	v (1236)	⠠
e (15)	⠠	ɲ (46, 1345)	⠠	w (2456)	⠠
f (124)	⠠	ɳ (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](http://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)	⠠⠠⠠⠠	ㅋ	kk	(6, 4)	⠠⠠⠠⠠
ㄷ	d	(24)	⠠⠠⠠⠠	ㅊ	ch	(56)	⠠⠠⠠⠠	ㅌ	tt	(6, 24)	⠠⠠⠠⠠
ㄹ	r	(5)	⠠⠠⠠⠠	ㅋ	k	(124)	⠠⠠⠠⠠	ㅍ	pp	(6, 45)	⠠⠠⠠⠠
ㅁ	m	(15)	⠠⠠⠠⠠	ㅌ	t	(125)	⠠⠠⠠⠠	ㅍ	ss	(6, 6)	⠠⠠⠠⠠
ㅂ	b	(45)	⠠⠠⠠⠠	ㅍ	p	(145)	⠠⠠⠠⠠	ㅈ	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)	⠠⠁	ㅙ	yae	(345, 1235)	⠠⠽⠠⠏⠠⠽⠠⠽
ㅑ	ya	(345)	⠠⠽⠠⠁	ㅛ	e	(1345)	⠠⠽⠠⠽⠠⠽
ㅓ	eo	(234)	⠠⠽⠠⠽⠠⠽	ㅜ	ye	(34)	⠠⠽⠠⠽⠠⠽
ㅕ	yeo	(156)	⠠⠽⠠⠽⠠⠽⠠⠽	ㅗ	wa	(1236)	⠠⠽⠠⠽⠠⠽
ㅛ	o	(136)	⠠⠽⠠⠽⠠⠽	ㅜ	wae	(1236, 1235)	⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽
ㅝ	yo	(346)	⠠⠽⠠⠽⠠⠽⠠⠽	ㅠ	oe	(13456)	⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽
ㅟ	u	(134)	⠠⠽⠠⠽⠠⠽	ㅢ	wo	(1234)	⠠⠽⠠⠽⠠⠽⠠⠽
ㅠ	yu	(146)	⠠⠽⠠⠽⠠⠽⠠⠽	ㅤ	we	(1234, 1235)	⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽
ㅡ	eu	(246)	⠠⠽⠠⠽⠠⠽⠠⠽	ㅦ	wi	(134, 1235)	⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽
ㅣ	i	(135)	⠠⠽⠠⠽⠠⠽	ㅨ	ui	(2456)	⠠⠽⠠⠽⠠⠽⠠⠽⠠⠽
ㅚ	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](http://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)	⠠	උ (136)	⠠	ඹ (34)	⠠
ආ (345)	⠠	ඌ (1256)	⠠	ඹ (1346)	⠠
ඇ (12356)	⠠	ඹ෦ (5, 1235)	⠠	ඹ (135)	⠠
ඈ (12456)	⠠	ඹ෦෦ (6, 1235)	⠠	ඹ (246)	⠠
ඉ (24)	⠠	ඹ (15)	⠠		
ඊ (35)	⠠	ඹ (26)	⠠		

## Consonants

ක (13)	⠠	ඛ (1246)	⠠	ම (134)	⠠
ඛ (46)	⠠	ඝ (123456)	⠠	ඹ (23, 12)	⠠
ග (1245)	⠠	ඞ (1356)	⠠	ය (13456)	⠠
ඝ (126)	⠠	ඹ (23, 1246)	⠠	ර (1235)	⠠
ඛ (346)	⠠	න (2345)	⠠	ල (123)	⠠
ග (23, 1245)	⠠	ඹ (1456)	⠠	ච (1236)	⠠
ච (14)	⠠	ද (145)	⠠	ශ (12346)	⠠
ඡ (16)	⠠	ධ (2346)	⠠	ෂ (146)	⠠
ජ (245)	⠠	න (1345)	⠠	ස (234)	⠠
ඤ (356)	⠠	ද (23, 145)	⠠	හ (125)	⠠
ඤ (25)	⠠	ප (1234)	⠠	ල (456)	⠠
ඤ (12345)	⠠	ඹ (156)	⠠	ඟ (124)	⠠
ඟ (23456)	⠠	බ (12)	⠠		
ඹ (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)	ஓ (1346)
ஆ (345)	உ (136)	ஏ (15)	ஔ (135)
இ (24)	ஊ (1256)	ஐ (34)	ஔள (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)	
ழ (23456)	ம (134)	ழ (12356)	

## Numbers

௦ 0 (3456, 245)	௬ 6 (3456, 124)
௧ 1 (3456, 1)	௭ 7 (3456, 1245)
௨ 2 (3456, 12)	௮ 8 (3456, 125)
௩ 3 (3456, 14)	௯ 9 (3456, 24)
௪ 4 (3456, 145)	௧௦ 10 (3456, 1, 245)
௫ 5 (3456, 15)	

# Sweden

**Language:** Swedish (uncontracted)

**Braille Standards Set by:**

The Swedish Braille Authority

[www.punktskriftsnamnden.se](http://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](http://www.bibciechi.it)

## Literary Notation:

German: *Das System der deutschen Blindenschrift*, 2005

French: *Code braille français uniformise pour la transcription des textes imprimés* (CBFU), 2008

Italian: *Tabella Braille* 1998, Commissione Braille italiana, UIC

## Computer Notation:

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

## Mathematics and Science Notation:

German: *Mathematiksschrift für Blinde* (2000, internal Handbook of the Swiss Library for Blind, Visually-Impaired and Print-Disabled); *Neufassung und Vervollständigung des Systems der internationalen Mathematiksschrift 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](mailto: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)	⠉	й (12346)	⠇⠶	р (1235)	⠏⠑⠶	ҷ (1236)	⠏⠴⠶
г (1245)	⠎	й̇ (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)	⠂⠶⠶⠶⠶
<i>italics</i>	(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

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)	⠠⠠⠠	ฝ	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

-๕	a	(1)	⠠	เ-๕	oe	(146, 1)	⠠⠠
๗-	a	(16)	⠠	๗-	oe	(146)	⠠
๑	i	(12)	⠠	เี-๕	ia	(12356, 1)	⠠⠠
๑	i	(23)	⠠	เี-๕	ia	(12356)	⠠
๑	u	(246)	⠠	เี-๕	ue	(12345, 1)	⠠⠠
๑	u	(26)	⠠	เี-๕	ue	(12345)	⠠
๑	u	(14)	⠠	๕-๕	ua	(15, 1)	⠠⠠
๕-	u	(25)	⠠	๕-	ua	(15)	⠠
เ-๕	e	(124, 1)	⠠⠠	๑	am	(1356)	⠠
เ-	e	(124)	⠠	๑	ai	(156)	⠠
๗-๕	ae	(126, 1)	⠠⠠	๑	ai	(156, 2)	⠠⠠
๗-	ae	(126)	⠠	เ-๗	aw	(235)	⠠
๑-๕	o	(24, 1)	⠠⠠	๑	-	(1235, 2)	⠠⠠
๑-	o	(24)	⠠	๑๗	-	(1235, 2, 16)	⠠⠠⠠
เ-๗๕	o	(135, 24)	⠠⠠	๑	-	(123, 2)	⠠⠠
-๑	o	(135)	⠠	๑๗	-	(123, 2, 16)	⠠⠠⠠

## Tones and Other Signs

ˊ	(35)	⠠	ˊ	(2356)	⠠	ˊ	(345)	⠠	๑	(2)	⠠
ˋ	(256)	⠠	+	(236)	⠠	ˋ	(356)	⠠	๑	(6)	⠠

## Numbers (Dot 6 is only used with Thai numbers)

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

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, 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)	⠠⠨⠨⠨
<i>italics</i>	(46)	⠠⠨

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## Tibet (China)

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

### Braille Standards Set by:

Braille Without Borders

[www.braillewithoutborders.org](http://www.braillewithoutborders.org)

[BrailleWB@gmx.net](mailto: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)	⠠⠠	ཇ	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	tsha	(1346)	⠠⠠	ཤ	sha	(156)	⠠⠠
ཉ	nya	(345)	⠠⠠	ཙ	tsha	(1356)	⠠⠠	ས	sa	(2346)	⠠⠠
ཏ	ta	(2345)	⠠⠠	ཎ	dza	(123456)	⠠⠠	ཧ	ha	(125)	⠠⠠
ཐ	tha	(23456)	⠠⠠	ཏ	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) ⠋	o (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) ⠎	u (136) ⠥
d (145) ⠇	i (24) ⠊	o (135) ⠌	v (1236) ⠦
ɖ (1246) ⠑	ɛ (35) ⠉	o (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) ⠑	o (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)	⠠⠠	l (35)	⠠⠠	o (135)	⠠⠠	v (1236)	⠠⠠
e (15)	⠠⠠	j (245)	⠠⠠	ɔ (246)	⠠⠠	w (2456)	⠠⠠
ε (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)	⠠⠠	u (136)	⠠⠠
c (14)	⠠⠠	i (24)	⠠⠠	o (135)	⠠⠠	v (1236)	⠠⠠
d (145)	⠠⠠	l (35)	⠠⠠	ɔ (246)	⠠⠠	w (2456)	⠠⠠
q (1246)	⠠⠠	j (245)	⠠⠠	p (1234)	⠠⠠	y (13456)	⠠⠠
e (15)	⠠⠠	k (13)	⠠⠠	r (1235)	⠠⠠	z (1356)	⠠⠠
ε (12456)	⠠⠠	l (123)	⠠⠠	s (234)	⠠⠠		
f (124)	⠠⠠	m (134)	⠠⠠	t (2345)	⠠⠠		

### Tones: Togoan Languages

~ Nasalization	(16)	⠠⠠
ˊ High Tone	(456)	⠠⠠
ˉ Mid Tone	(45)	⠠⠠
ˋ 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) ⠠⠨⠨⠨
<i>italics</i> (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**

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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)	⠵

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## Punctuation

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, 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)	⠠

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# 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)	⠠
<i>italics</i>	(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

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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)	⠠		

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## Accents

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^ circumflex (4)	⠠
¨ diaeresis (45)	⠠
` grave (23)	⠠
´ acute (25)	⠠

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## Punctuation

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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)	⠠	l (12356)	⠠⠃⠠	q (12345)	⠠⠃⠠
ch (14, 125)	⠠⠠⠠	ł (1456)	⠠⠃⠠	r (1235)	⠠⠃⠠
g (1245)	⠠⠠	ł (12346)	⠠⠃⠠	s (234)	⠠⠃⠠
ǵ (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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# 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)	⠒
<i>italics</i>	(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](http://www.ulacdigital.org)

[Braille@ulacdigital.org](mailto:Braille@ulacdigital.org)

Consejo Iberoamericano del Braille (CIB)

[ADTA@once.es](mailto: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

# 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)	⠨
ˆ rising (combining hook above)	(26)	⠠
ˊ high rising (combining acute)	(35)	⠡
˜ broken rising (combining tilde)	(36)	⠢
˙ low constricted (combining dot below)	(6)	⠠

## Punctuation

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, 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)	⠠⠨⠠⠠⠠⠠

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## 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

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

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

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)	⠠

## Punctuation: **Zambian Languages**

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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**

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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**

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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**

◌َ Fatha (2) ⠠⠨	◌ِ Fathatan (23) ⠠⠨⠠⠨	◌ُ Shadda (6) ⠠⠨⠠⠨
◌ِ Kasra (15) ⠠⠨⠠⠨	◌ِ Kasratan (35) ⠠⠨⠠⠨⠠⠨	◌ِ Sukun (25) ⠠⠨⠠⠨
◌ُ Damma (136) ⠠⠨⠠⠨	◌ُ 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) ⠠⠨	⠠⠨
<u>underlining</u> (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)	⠠	◌ِ (15)	⠠	◌ُ (136)	⠠	◌̣ (23)	⠠	◌̤ (35)	⠠	◌̥ (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 <sup>#</sup>	(45)	⋮
分號 <sup>1</sup>	; semicolon	(26)	⋮
冒號 <sup>1</sup>	: colon	(25)	⋮
句號 <sup>1</sup>	。 full stop	(123456)	⋮
問號 <sup>1</sup>	? question mark	(236)	⋮
感嘆號 <sup>1</sup>	! exclamation	(2346)	⋮
引號(雙,開) <sup>2</sup>	“ open quote	(236)	⋮
引號(雙,關) <sup>1</sup>	” close quote	(356)	⋮
引號(單,開) <sup>2</sup>	‘ open single quote	(6, 236)	⋮ ⋮
引號(單,關) <sup>1</sup>	’ close single quote	(356, 3)	⋮ ⋮
括號(開) <sup>2</sup>	( open parenthesis	(2356)	⋮
括號(關) <sup>1</sup>	) close parenthesis	(2356)	⋮
方括號(開) <sup>2</sup>	[ open bracket	(6, 2356)	⋮ ⋮
方括號(關) <sup>1</sup>	] close bracket	(2356, 3)	⋮ ⋮
省略號 <sup>3</sup>	…… ellipsis	(3, 3, 3)	⋮ ⋮ ⋮
連接號	- hyphen	(36, 3)	⋮ ⋮
破折號	— dash	(36, 36)	⋮ ⋮
間隔號	· separation mark <sup>#</sup>	(56, 23)	⋮ ⋮
書名號(雙,開) <sup>2</sup>	《 open publication <sup>#</sup>	(126)	⋮
書名號(雙,關) <sup>1</sup>	》 close publication <sup>#</sup>	(345)	⋮
書名號(單,開) <sup>2</sup>	open single publication <sup>#</sup>	(6, 126)	⋮ ⋮
書名號(單,關) <sup>1</sup>	close single publication <sup>#</sup>	(345, 3)	⋮ ⋮
著重號(開) <sup>2</sup>	open emphasis <sup>#</sup>	(12356)	⋮
著重號(關) <sup>1</sup>	close emphasis <sup>#</sup>	(12456)	⋮
專名號(開) <sup>2</sup>	___ open proper noun <sup>#</sup>	(456)	⋮
專名號(關) <sup>1</sup>	___ close proper noun <sup>#</sup>	(1356)	⋮

<sup>#</sup> specific to Chinese punctuation

<sup>1</sup> with subsequent space

<sup>2</sup> with preceding space

<sup>3</sup> 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)	⠠
<i>italics</i>	(56)	⠠

# 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)	⠠...⠠	<i>italics</i>	(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)	⠨...⠨



# 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, ¯ 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)	⠠⠨⠨⠨⠨

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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 placed 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)   ⋮	u (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) ⋮	
<i>f</i> (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

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, 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)	⠠⠨⠨⠨⠨

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## Antoine Numerical Notation: Figures

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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)	⠠⠨⠨⠨⠨

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# 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)	⠠

* asterisk	(6, 35)	⋮⋮
capital	(46)	⋮
number sign	(3456)	⋮
<i>italics</i>	(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)	⠠⠨

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## 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)

Ϟ	digamma	(1236)	⋮
Ϛ	koppa	(12345)	⋮
ϛ	sampi	(2346)	⋮

**Acute (´) Vowels (Oxia)**

---

Ᾱ	alpha	(345)	⋮	<i>or</i>	(4, 1)	⋮ ⋮
Ἐ	epsilon	(1246)	⋮	<i>or</i>	(4, 15)	⋮ ⋮
Ἠ	eta	(123456)	⋮	<i>or</i>	(4, 156)	⋮ ⋮
Ἰ	iota	(12456)	⋮	<i>or</i>	(4, 24)	⋮ ⋮
Ὀ	omicron	(246)	⋮	<i>or</i>	(4, 135)	⋮ ⋮
ὐ	upsilon	(1256)	⋮	<i>or</i>	(4, 136)	⋮ ⋮
ὦ	omega	(245)	⋮	<i>or</i>	(4, 2456)	⋮ ⋮

---

**Greek Circumflex (ˆ or ˜) Vowels (Perispomeni)**

---

ᾶ / ᾷ	alpha	(16)	⋮	<i>or</i>	(5, 1)	⋮ ⋮
ῆ / ῆ̃	eta	(126)	⋮	<i>or</i>	(5, 156)	⋮ ⋮
ῖ / ῖ̃	iota	(146)	⋮	<i>or</i>	(5, 24)	⋮ ⋮
ῠ / ῡ̃	upsilon	(1236)	⋮	<i>or</i>	(5, 136)	⋮ ⋮
ῶ / ῷ̃	omega	(3456)	⋮	<i>or</i>	(5, 2456)	⋮ ⋮

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**Grave (̀) Vowels (Varia)**

---

ᾶ̀	alpha	(12356)	⋮	<i>or</i>	(6, 1)	⋮ ⋮
Ἒ	epsilon	(14)	⋮	<i>or</i>	(6, 15)	⋮ ⋮
Ἢ	eta	(2346)	⋮	<i>or</i>	(6, 156)	⋮ ⋮
Ἲ	iota	(34)	⋮	<i>or</i>	(6, 24)	⋮ ⋮
Ὂ	omicron	(346)	⋮	<i>or</i>	(6, 135)	⋮ ⋮
ὒ	upsilon	(23456)	⋮	<i>or</i>	(6, 136)	⋮ ⋮
ὦ̀	omega	(12345)	⋮	<i>or</i>	(6, 2456)	⋮ ⋮

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## Other Special Signs

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’	elision	(3)	⠠
ˆ	iota subscriptum	(35)	⠠
;	Greek question mark	(23)	⠠
—	long vowel (macron)	(456)	⠠
˘	short vowel (breve)	(45)	⠠
ˆ	spiritus asper (rough breathing)*	(125)	⠠
’	spiritus lenis (smooth breathing)	(356)	⠠
ˈ	chief stress sign	(34)	⠠
ˈ	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)	⠠	<i>italics</i>	(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)    ⋮⋮

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## 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)	⠠⠢⠠⠶
<i>italics</i>	(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)	⠠	ˊ (2)	⠠	ˇ (3)	⠠	ˋ (23)	⠠
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## Contractions

zhi (34)	⠠⠵	ri (245)	⠠⠷	si (234)	⠠⠰
chi (12345)	⠠⠴	zi (1356)	⠠⠵	di (145)	⠠⠫
shi (156)	⠠⠱	ci (14)	⠠⠴		

## Punctuation

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, 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)	⠠

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## Example

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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

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, 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)	⠠⠠
<i>italics</i> , <b>bold</b> , <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)	⠠⠠
<i>italics</i>	(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)	⠠⠨⠠⠨⠠⠨⠠⠨
<i>italics</i>	(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)	⠠
<i>italics</i> open and close	(35...35)	⠠⠠

## Spain

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'...', <...> internal quote	(6, 236...6, 236)	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
[...] brackets	(12356...23456)	⠠⠠⠠⠠⠠⠠⠠⠠
{...} braces	(5, 123...456, 2)	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

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## Latin American Blind Union Countries

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"..." internal quote	(5, 236...5, 236)	⠠⠠⠠⠠⠠⠠⠠⠠
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# 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)	⠠⠨
<i>italics</i>	(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)	⠠⠢⠠⠢⠠
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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)	⠠⠢⠠
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