International Standard

ISO 6937/2

Information processing — Coded character sets for text communication — Part 2: Latin alphabetic and non-alphabetic graphic characters

Traitement de l'information — Jeux de caractères codés pour la transmission de texte — Partie 2: Caractères graphiques alphabétiques latins et caractères graphiques non alphabétiques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6937/2 was developed by Technical Committee ISO/TC 97, *Information processing systems*, and was circulated to the member bodies in February 1982.

It has been approved by the member bodies of the following countries:

Belgium	Hungary	Romania
Canada	Ireland	South Africa, Rep. of
China	Italy	Spain
Czechoslovakia	Japan	Sweden
Egypt, Arab Rep. of	Netherlands	Switzerland
Finland	New Zealand	United Kingdom
France	Norway	USA
Germany, F.R.	Poland	

No member body expressed disapproval of the document.

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Information processing — Coded character sets for text communication — Part 2: Latin alphabetic and non-alphabetic graphic characters

0 Introduction

This International Standard specifies repertoires of graphic characters and control functions, and their coded representations, for use in text communication. It applies to the communication of text in the form of binary-coded representations of graphic characters and control functions, using

a) public communication networks;

b) private communication networks;

c) interchange media such as magnetic tapes and discs.

It is applicable to the exchange of text at the coding interface.

Although, in general, text consists of characters and pictures, this International Standard applies only to text made up of characters.

This International Standard consists, at present, of three parts, as follows:

ISO 6937/1, General introduction.

ISO 6937/2, Latin alphabetic and non-alphabetic graphic characters.

ISO 6937/3, Control functions for page-image format (in preparation).

Other parts may be added later.

This part of ISO 6937 and ISO 6937/3 may be used either in combination with one another or individually, but they should always be used in combination with ISO 6937/1.

The specifications are based on the 7-bit coded character set specified in ISO 646, the 7-bit and 8-bit code extension techniques specified in ISO 2022, and the definitions of additional control functions given in ISO 6429.

ISO 6937/1, ISO 6937/2 and ISO 6937/3 have been developed in parallel with CCITT Recommendations S.61, *Character*

repertoire and coded character sets for the international Teletex service (Geneva, 1980), and S.100, *International information exchange for interactive Videotex* (Geneva, 1980). The graphic character repertoire defined in this part of ISO 6937 is a superset of the graphic character repertoires defined in CCITT Recommendations S.61 and S.100, and the control function repertoire to be defined in ISO 6937/3 is a superset of the control function repertoire defined in CCITT Recommendation S.61. However, the primary and supplementary sets of graphic characters specified in this International Standard are not identical to those defined in CCITT Recommendations S.61 and S.100 (see annex F). To ensure compatible interworking between the public text communication services defined by the CCITT and terminal equipment communicating text conforming to the requirements of this International Standard, special attention should be given to the differences between this International Standard and CCITT Recommendations S.61 and S.100.

1 Scope and field of application

This part of ISO 6937

a) defines a repertoire of Latin alphabetic and non-alphabetic characters for the communication of text in European languages;

b) specifies coded representations for the graphic characters;

c) specifies rules for the definition and use of graphic character subrepertoires, i.e. subsets of the defined character repertoire.

It also gives, in annexes,

a) definitions of three standard subrepertoires (annex A);

b) a summary of the use of non-spacing diacritical marks in combination with the letters of the basic Latin alphabet (annex B);

c) a description of the use of the non-spacing underline character (annex C);

d) a summary of the use of latin alphabetic characters (annex D);

e) recommendations for fall-back presentations (annex E);

f) a summary of the differences from CCITT Recommendations S.61 and S.100 (annex F).

NOTE — This part of ISO 6937 does not specify graphic symbols; symbols are shown for the purpose of illustration only.

This part of ISO 6937 applies to text as communicated at the *coding interface of terminal equipment.* It does not necessarily apply to the coded character sets used internally between the coding interface and the input-output devices of the terminal equipment.

2 References

ISO 646, *Information processing — 7-bit coded character set for information interchange.*

ISO 2022, *Information processing — ISO 7-bit and 8-bit coded character sets — Code extension techniques.*

ISO 6429, *Information processing — ISO 7-bit and 8-bit coded character sets — Additional control functions for character-imaging devices.*

3 Definitions

For the purpose of this part of ISO 6937, the definitions given in ISO 6937/1 apply.

4 Character repertoire and coded representations

4.1 Composition of the character repertoire

The repertoire of graphic characters defined in this part of ISO 6937 consists of

a) Latin alphabetic characters comprising

1) the 52 small and capital letters of the basic Latin alphabet,

2) accented letters and umlauts, the graphic representations of which consist of combinations of basic Latin letters and diacritical marks,

3) special alphabetic characters which are neither basic Latin letters nor combinations of basic Latin letters and diacritical marks;

b) non-alphabetic characters comprising decimal digits, punctuation marks, arithmetic signs and various other characters that have individual special meanings.

The repertoire is specified by the first three columns of tables 4 to 12. In each table entry, the first column contains the identifier of the character concerned, the second column shows the typical graphic representation, and the third column specifies the name or description of the character. The remaining columns specify coded representations (see 4.4). The identifiers have been assigned in accordance with the method of identification described in ISO 6937/1, annex A.

NOTES

1 All graphic characters of the repertoire cause an implicit forward movement of the active position (a definition of active position will be included in ISO 6937/3).

2 A survey of the use of Latin characters in various languages is included in annex D.

4.2 Character sets

The coded representations of the graphic characters of the repertoire defined in this part of ISO 6937 make use of two character sets, that is a "primary set" and a "supplementary set".

The primary set consists of the graphic characters of the International Reference Version of the 7-bit coded character set specified in ISO 646. The differences between the primary set and the set of graphic characters of the International Reference Version are

a) unique names have been assigned to the characters "low line" and "tilde", where ISO 646 specifies dual names;

b) the characters of the primary set are not used in combination with each other to generate graphic characters of the repertoire defined in this part of ISO 6937.

The primary set contains the letters of the basic Latin alphabet, some spacing diacritical marks and a number of non-alphabetic characters.

The supplementary set contains spacing and non-spacing graphic characters. The non-spacing graphic characters consist of a number of non-spacing diacritical marks and the non-spacing underline character. The spacing graphic characters consist of a number of special alphabetic and non-alphabetic characters which are used in addition to those in the primary set.

A non-spacing diacritical mark shall be used only in combination with either SPACE or certain basic Latin letters. The allowed combinations of diacritical marks and letters are the ones needed to represent the accented letters and umlauts included in table 4. This set of combinations is summarized in annex B.

The non-spacing underline character can be used in combination with any graphic character of the repertoire, including an *accented letter or an umlaut,* or SPACE. The use of this character is specified in annex C.

Code tables for the primary set and the supplementary set of graphic characters are given in tables 1, 2, and 3. Shaded positions denote bit combinations which are not part of the sets concerned.

The escape sequences used to designate the primary and the supplementary set are:

    ESC 2/8 F [1]: to designate the primary set as the G0 set;

    ESC 2/9 F [1]: to designate the supplementary set as the G1 set;

    ESC 2/10 F [1]: to designate the supplementary set as the G2 set;

    ESC 2/11 F [1]: to designate the supplementary set as the G3 set.

Table 1 — Primary set of graphic characters for text communication [coding when represented by bit combinations 2/1 to 7/14 of a 7-bit or 8-bit code (in an 8-bit code, the additional bit b_8 = 0)]

b_7 b_6 b_5	0	1	2	3	4	5	6	7
0				0	@	P	`	p
1			!	1	A	Q	a	q
2			"	2	B	R	b	r
3			#	3	C	S	c	s
4			¤	4	D	T	d	t
5			%	5	E	U	e	u
6			&	6	F	V	f	v
7			'	7	G	W	g	w
8			(	8	H	X	h	x
9			)	9	I	Y	i	y
10			*	:	J	Z	j	z
11			+	;	K	[	k	{
12			,	<	L	\	l	|
13			–	=	M	]	m	}
14			.	>	N	^	n	~
15			/	?	O	_	o	

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1) Final bit combinations will be assigned when the sets are registered.

Table 2 — Supplementary set of graphic characters for text communication [coding when represented by bit combinations 2/1 to 7/14 of a 7-bit or 8-bit code (in an 8-bit code, the additional bit $b_8 = 0$)]

b_7							0	0	0	0	1	1	1	1
b_6							0	0	1	1	0	0	1	1
b_5							0	1	0	1	0	1	0	1
b_4	b_3	b_2	b_1				0	1	2	3	4[1]	5	6	7
0	0	0	0	0						o	See 4.3.4	—	Ω	ĸ
0	0	0	1	1					¡	±	`	¹	Æ	æ
0	0	1	0	2					¢	²	´	®	Đ	đ
0	0	1	1	3					£	³	^	©	ª	ð
0	1	0	0	4					$	×	~	™	Ħ	ħ
0	1	0	1	5					¥	µ	¯	♪	See 4.3.4	ı
0	1	1	0	6					See 4.3.2	¶	˘	See 4.3.4	IJ	ij
0	1	1	1	7					§	·	˙	See 4.3.4	Ŀ	ŀ
1	0	0	0	8					See 4.3.2	÷	¨	See 4.3.4	Ł	ł
1	0	0	1	9					'	'	See 4.3.4	See 4.3.4	Ø	ø
1	0	1	0	10					"	"	°	See 4.3.4	Œ	œ
1	0	1	1	11					«	»	¸	See 4.3.4	º	ß
1	1	0	0	12					←	¼	＿	⅛	Þ	þ
1	1	0	1	13					↑	½	˝	⅜	Ŧ	ŧ
1	1	1	0	14					→	¾	˛	⅝	Ŋ	ŋ
1	1	1	1	15					↓	¿	ˇ	⅞	'n	

1) See 4.3.1.

Table 3 — Primary and supplementary sets of graphic characters for text communication (coding when represented by bit combinations 2/1 to 7/14 and 10/1 to 15/14 of an 8-bit code)

b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4 b3 b2 b1	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12** [1)]	**13**	**14**	**15**
0 0 0 0 — 00				0	@	P	`	p				°	See 4.3.4	—	Ω	ĸ
0 0 0 1 — 01			!	1	A	Q	a	q			¡	±	`	¹	Æ	æ
0 0 1 0 — 02			"	2	B	R	b	r			¢	²	´	®	Đ	đ
0 0 1 1 — 03			#	3	C	S	c	s			£	³	^	©	ª	ð
0 1 0 0 — 04			¤	4	D	T	d	t			$	×	~	™	Ħ	ħ
0 1 0 1 — 05			%	5	E	U	e	u			¥	µ	¯	♪	See 4.3.4	ı
0 1 1 0 — 06			&	6	F	V	f	v			See 4.3.3	¶	˘	See 4.3.4	IJ	ij
0 1 1 1 — 07			'	7	G	W	g	w			§	·	˙	See 4.3.4	Ŀ	ŀ
1 0 0 0 — 08			(	8	H	X	h	x			See 4.3.3	÷	¨	See 4.3.4	Ł	ł
1 0 0 1 — 09			)	9	I	Y	i	y			'	'	See 4.3.4	See 4.3.4	Ø	ø
1 0 1 0 — 10			*	:	J	Z	j	z			"	"	°	See 4.3.4	Œ	œ
1 0 1 1 — 11			+	;	K	[	k	{			«	»	¸	See 4.3.4	º	ß
1 1 0 0 — 12			,	<	L	\	l	|			←	¼	_	⅛	Þ	þ
1 1 0 1 — 13			-	=	M	]	m	}			↑	½	˝	⅜	Ŧ	ŧ
1 1 1 0 — 14			.	>	N	^	n	~			→	¾	˛	⅝	Ŋ	ŋ
1 1 1 1 — 15			/	?	O	_	o				↓	¿	ˇ	⅞	ʼn	

1) See 4.3.1

4.3 Explanations concerning the code tables

4.3.1 The non-spacing diacritical marks represented by bit combinations 4/1 to 4/8, 4/10, 4/11 and 4/13 to 4/15 of the supplementary set (12/1 to 12/8, 12/10, 12/11 and 12/13 to 12/15 in table 3) are used only in combination with either SPACE or certain basic Latin letters (see annex B). The non-spacing underline character represented by bit combination 4/12 of the supplementary set (12/12 in table 3) can be used in combination with any graphic character of the repertoire, including an accented letter or an umlaut, or SPACE (see annex C).

4.3.2 In CCITT Recommendation S.100 (Geneva, 1980), the characters # (number sign) and ¤ (general currency sign) have been allocated to bit combinations 2/6 and 2/8 of the supplementary set, and not to 2/3 and 2/4 of the primary set. In order to facilitate interworking with Videotex, bit combinations 2/6 and 2/8 of the supplementary set shall also be considered as valid coded representations of the characters # and ¤, but their use is deprecated.

4.3.3 In CCITT Recommendation S.61 (Geneva, 1980), the characters # (number sign) and ¤ (general currency sign) have been allocated to bit combinations 10/6 and 10/8, and not 2/3 and 2/4. In order to facilitate interworking with Teletex, bit combinations 10/6 and 10/8 shall also be considered as valid coded representations of the characters # and ¤, but their use is deprecated.

4.3.4 Bit combinations 4/0, 4/9, 5/6 to 5/11, and 6/5 of the supplementary set (12/0, 12/9, 13/6 to 13/11, and 14/5 in table 3) are reserved for future standardization, i.e. possible allocation of additional graphic characters. Bit combinations 4/0 and 4/9 (12/0 and 12/9 in table 3) are reserved for possible allocation of additional non-spacing characters.

NOTES

1 In certain interactive Videotex systems, the character represented by bit combination 5/15 of the primary set is used as a delimiter, the graphic representation of which may be different from "low line".

2 In certain systems supporting the International Reference Version of ISO 646, the character represented by bit combination 7/14 of the primary set may have the graphic representation of an "overline".

4.4 Coded representations

The coded representations of the graphic characters of the repertoire defined in this part of ISO 6937 are specified in tables 4 to 12. The formats of the coded representations are as follows.

a) Accented letters and umlauts:

Each accented letter or umlaut is represented by a sequence of bit combinations consisting of the coded representation of the relevant non-spacing diacritical mark (an element of the supplementary set), followed by the coded representation of the relevant basic Latin letter (an element of the primary set).

b) Diacritical marks as separate graphic characters.

Diacritical marks as separate graphic characters that are elements of the primary set (grave accent, circumflex accent and elements of the primary set (grave accent, circumflex accent and tilde) are represented by the corresponding single bit combination in the range 2/1 to 7/14.

Each diacritical mark as a separate graphic character that is not an element of the primary set is represented by a sequence of bit combinations consisting of the coded representation of the relevant non-spacing diacritical mark (an element of the supplementary set), followed by the coded representation of the character SPACE, i.e. the bit combination 2/0.

The latter method of representation may also be used for the grave accent, circumflex accent and tilde, but that use is deprecated.

c) All other graphic characters of the repertoire.

Any graphic character of the repertoire, other than an accented letter, an umlaut or a diacritical mark as a separate graphic character that is not an element of the primary set, is an element of either the primary set or the supplementary set and is represented by the corresponding single bit combination in the range 2/1 to 7/14 or 10/1 to 15/14.

Depending on the code extension techniques used, a bit combination, representing an element of the primary or the supplementary set may have to be preceded by a code extension fuction invoking the character set concerned.

In tables 4 to 12, the coded representation column "A" specifies the coded representation of each character when the elements of the supplementary set are represented by bit combinations in the range 2/1 to 7/14 of a 7-bit or 8-bit code. Coded representation column "B" applies when the elements of the supplementary set are represented by bit combinations in the range 10/1 to 15/14 of an 8-bit code. It is assumed that, in either case, the elements of the primary set are represented by bit combinations in the range 2/1 to 7/14. The symbol "S" is used in column "A" to identify a bit combination representing an element of the supplementary set.

Table 4 — Latin alphabetic characters

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LA01	a	small a	6/1	6/1
LA02	A	capital A	4/1	4/1
LA11	á	small a with acute accent	S 4/2 6/1	12/2 6/1
LA12	Á	capital A with acute accent	S 4/2 4/1	12/2 4/1
LA13	à	small a with grave accent	S 4/1 6/1	12/1 6/1
LA14	À	capital A with grave accent	S 4/1 4/1	12/1 4/1
LA15	â	small a with circumflex accent	S 4/3 6/1	12/3 6/1
LA16	Â	capital A with circumflex accent	S 4/3 4/1	12/3 4/1
LA17	ä	small a with diaeresis or umlaut mark	S 4/8 6/1	12/8 6/1
LA18	Ä	capital A with diaeresis or umlaut mark	S 4/8 4/1	12/8 4/1
LA19	ã	small a with tilde	S 4/4 6/1	12/4 6/1
LA20	Ã	capital A with tilde	S 4/4 4/1	12/4 4/1
LA23	ă	small a with breve	S 4/6 6/1	12/6 6/1
LA24	Ă	capital A with breve	S 4/6 4/1	12/6 4/1
LA27	å	small a with ring	S 4/10 6/1	12/10 6/1
LA28	Å	capital A with ring	S 4/10 4/1	12/10 4/1
LA31	ā	small a with macron	S 4/5 6/1	12/5 6/1
LA32	Ā	capital A with macron	S 4/5 4/1	12/5 4/1
LA43	ą	small a with ogonek	S 4/14 6/1	12/14 6/1
LA44	Ą	capital A with ogonek	S 4/14 4/1	12/14 4/1
LA51	æ	small æ diphthong	S 7/1	15/1
LA52	Æ	capital Æ diphthong	S 6/1	14/1
LB01	b	small b	6/2	6/2
LB02	B	capital B	4/2	4/2
LC01	c	small c	6/3	6/3
LC02	C	capital C	4/3	4/3
LC11	ć	small c with acute accent	S 4/2 6/3	12/2 6/3
LC12	Ć	capital C with acute accent	S 4/2 4/3	12/2 4/3
LC15	ĉ	small c with circumflex accent	S 4/3 6/3	12/3 6/3
LC16	Ĉ	capital C with circumflex accent	S 4/3 4/3	12/3 4/3
LC21	č	small c with caron	S 4/15 6/3	12/15 6/3
LC22	Č	capital C with caron	S 4/15 4/3	12/15 4/3
LC29	ċ	small c with dot above	S 4/7 6/3	12/7 6/3
LC30	Ċ	capital C with dot above	S 4/7 4/3	12/7 4/3
LC41	ç	small c with cedilla	S 4/11 6/3	12/11 6/3
LC42	Ç	capital C with cedilla	S 4/11 4/3	12/11 4/3
LD01	d	small d	6/4	6/4
LD02	D	capital D	4/4	4/4
LD21	ď or ď	small d with caron	S 4/15 6/4	12/15 6/4
LD22	Ď	capital D with caron	S 4/15 4/4	12/15 4/4
LD61	đ	small d with stroke	S 7/2	15/2
LD62	Đ	capital D with stroke, Icelandic eth	S 6/2	14/2
LD63	ð	small eth, Icelandic	S 7/3	15/3

Table 4 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LE01	e	small e	6/5	6/5
LE02	E	capital E	4/5	4/5
LE11	é	small e with acute accent	S 4/2 6/5	12/2 6/5
LE12	É	capital E with acute accent	S 4/2 4/5	12/2 4/5
LE13	è	small e with grave accent	S 4/1 6/5	12/1 6/5
LE14	È	capital E with grave accent	S 4/1 4/5	12/1 4/5
LE15	ê	small e with circumflex accent	S 4/3 6/5	12/3 6/5
LE16	Ê	capital E with circumflex accent	S 4/3 4/5	12/3 4/5
LE17	ë	small e with diaeresis or umlaut mark	S 4/8 6/5	12/8 6/5
LE18	Ë	capital E with diaeresis or umlaut mark	S 4/8 4/5	12/8 4/5
LE21	ě	small e with caron	S 4/15 6/5	12/15 6/5
LE22	Ě	capital E with caron	S 4/15 4/5	12/15 4/5
LE29	ė	small e with dot above	S 4/7 6/5	12/7 6/5
LE30	Ė	capital E with dot above	S 4/7 4/5	12/7 4/5
LE31	ē	small e with macron	S 4/5 6/5	12/5 6/5
LE32	Ē	capital E with macron	S 4/5 4/5	12/5 4/5
LE43	ę	small e with ogonek	S 4/14 6/5	12/14 6/5
LE44	Ę	capital E with ogonek	S 4/14 4/5	12/14 4/5
LF01	f	small f	6/6	6/6
LF02	F	capital F	4/6	4/6
LG01	g	small g	6/7	6/7
LG02	G	capital G	4/7	4/7
LG11	ǵ	small g with acute accent	S 4/2 6/7	12/2 6/7
LG15	ĝ	small g with circumflex accent	S 4/3 6/7	12/3 6/7
LG16	Ĝ	capital G with circumflex accent	S 4/3 4/7	12/3 4/7
LG23	ğ	small g with breve	S 4/6 6/7	12/6 6/7
LG24	Ğ	capital G with breve	S 4/6 4/7	12/6 4/7
LG29	ġ	small g with dot above	S 4/7 6/7	12/7 6/7
LG30	Ġ	capital G with dot above	S 4/7 4/7	12/7 4/7
LG42	Ģ	capital G with cedilla	S 4/11 4/7	12/11 4/7
LH01	h	small h	6/8	6/8
LH02	H	capital H	4/8	4/8
LH15	ĥ	small h with circumflex accent	S 4/3 6/8	12/3 6/8
LH16	Ĥ	capital H with circumflex accent	S 4/3 4/8	12/3 4/8
LH61	ħ	small h with stroke	S 7/4	15/4
LH62	Ħ	capital H with stroke	S 6/4	14/4
LI01	i	small i	6/9	6/9
LI02	I	capital I	4/9	4/9
LI11	í	small i with acute accent	S 4/2 6/9	12/2 6/9
LI12	Í	capital I with acute accent	S 4/2 4/9	12/2 4/9
LI13	ì	small i with grave accent	S 4/1 6/9	12/1 6/9
LI14	Ì	capital I with grave accent	S 4/1 4/9	12/1 4/9

Table 4 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LI15	î	small i with circumflex accent	S 4/3 6/9	12/3 6/9
LI16	Î	capital I with circumflex accent	S 4/3 4/9	12/3 4/9
LI17	ï	small i with diaeresis	S 4/8 6/9	12/8 6/9
LI18	Ï	capital I with diaeresis	S 4/8 4/9	12/8 4/9
LI19	ĩ	small i with tilde	S 4/4 6/9	12/4 6/9
LI20	Ĩ	capital I with tilde	S 4/4 4/9	12/4 4/9
LI30	İ	capital I with dot above	S 4/7 4/9	12/7 4/9
LI31	ī	small i with macron	S 4/5 6/9	12/5 6/9
LI32	Ī	capital I with macron	S 4/5 4/9	12/5 4/9
LI43	į	small i with ogonek	S 4/14 6/9	12/14 6/9
LI44	Į	capital I with ogonek	S 4/14 4/9	12/14 4/9
LI51	ij	small ij ligature	S 7/6	15/6
LI52	IJ	capital IJ ligature	S 6/6	14/6
LI61	ı	small i without dot	S 7/5	15/5
LJ01	j	small j	6/10	6/10
LJ02	J	capital J	4/10	4/10
LJ15	ĵ	small j with circumflex accent	S 4/3 6/10	12/3 6/10
LJ16	Ĵ	capital J with circumflex accent	S 4/3 4/10	12/3 4/10
LK01	k	small k	6/11	6/11
LK02	K	capital K	4/11	4/11
LK41	ķ	small k with cedilla	S 4/11 6/11	12/11 6/11
LK42	Ķ	capital K with cedilla	S 4/11 4/11	12/11 4/11
LK61	ĸ	small k, Greenlandic	S 7/0	15/0
LL01	l	small l	6/12	6/12
LL02	L	capital L	4/12	4/12
LL11	ĺ	small l with acute accent	S 4/2 6/12	12/2 6/12
LL12	Ĺ	capital L with acute accent	S 4/2 4/12	12/2 4/12
LL21	ľ or ľ	small l with caron	S 4/15 6/12	12/15 6/12
LL22	Ľ or Ľ	capital L with caron	S 4/15 4/12	12/15 4/12
LL41	ļ	small l with cedilla	S 4/11 6/12	12/11 6/12
LL42	Ļ	capital L with cedilla	S 4/11 4/12	12/11 4/12
LL61	ł	small l with stroke	S 7/8	15/8
LL62	Ł	capital L with stroke	S 6/8	14/8
LL63	ŀ	small l with middle dot	S 7/7	15/7
LL64	Ŀ	capital L with middle dot	S 6/7	14/7
LM01	m	small m	6/13	6/13
LM02	M	capital M	4/13	4/13
LN01	n	small n	6/14	6/14
LN02	N	capital N	4/14	4/14
LN11	ń	small n with acute accent	S 4/2 6/14	12/2 6/14
LN12	Ń	capital N with acute accent	S 4/2 4/14	12/2 4/14
LN19	ñ	small n with tilde	S 4/4 6/14	12/4 6/14
LN20	Ñ	capital N with tilde	S 4/4 4/14	12/4 4/14

Table 4 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LN21	ň	small n with caron	S 4/15 6/14	12/15 6/14
LN22	Ň	capital N with caron	S 4/15 4/14	12/15 4/14
LN41	ņ	small n with cedilla	S 4/11 6/14	12/11 6/14
LN42	Ņ	capital N with cedilla	S 4/11 4/14	12/11 4/14
LN61	ŋ	small eng, Lapp	S 7/14	15/14
LN62	Ŋ	capital ENG, Lapp	S 6/14	14/14
LN63	'n	small n with apostrophe	S 6/15	14/15
LO01	o	small o	6/15	6/15
LO02	O	capital O	4/15	4/15
LO11	ó	small o with acute accent	S 4/2 6/15	12/2 6/15
LO12	Ó	capital O with acute accent	S 4/2 4/15	12/2 4/15
LO13	ò	small o with grave accent	S 4/1 6/15	12/1 6/15
LO14	Ò	capital O with grave accent	S 4/1 4/15	12/1 4/15
LO15	ô	small o with circumflex accent	S 4/3 6/15	13/3 6/15
LO16	Ô	capital O with circumflex accent	S 4/3 4/15	12/3 4/15
LO17	ö	small o with diaeresis or umlaut mark	S 4/8 6/15	12/8 6/15
LO18	Ö	capital O with diaeresis or umlaut mark	S 4/8 4/15	12/8 4/15
LO19	õ	small o with tilde	S 4/4 6/15	12/4 6/15
LO20	Õ	capital O with tilde	S 4/4 4/15	12/4 4/15
LO25	ő	small o with double acute accent	S 4/13 6/15	12/13 6/15
LO26	Ő	capital O with double acute accent	S 4/13 4/15	12/13 4/15
LO31	ō	small o with macron	S 4/5 6/15	12/5 6/15
LO32	Ō	capital O with macron	S 4/5 4/15	12/5 4/15
LO51	œ	small œ ligature	S 7/10	15/10
LO52	Œ	capital Œ ligature	S 6/10	14/10
LO61	ø	small o with slash	S 7/9	15/9
LO62	Ø	capital O with slash	S 6/9	14/9
LP01	p	small p	7/0	7/0
LP02	P	capital P	5/0	5/0
LQ01	q	small q	7/1	7/1
LQ02	Q	capital Q	5/1	5/1
LR01	r	small r	7/2	7/2
LR02	R	capital R	5/2	5/2
LR11	ŕ	small r with acute accent	S 4/2 7/2	12/2 7/2
LR12	Ŕ	capital R with acute accent	S 4/2 5/2	12/2 5/2
LR21	ř	small r with caron	S 4/15 7/2	12/15 7/2
LR22	Ř	capital R with caron	S 4/15 5/2	12/15 5/2
LR41	ŗ	small r with cedilla	S 4/11 7/2	12/11 7/2
LR42	Ŗ	capital R with cedilla	S 4/11 5/2	12/11 5/2
LS01	s	small s	7/3	7/3
LS02	S	capital S	5/3	5/3
LS11	ś	small s with acute accent	S 4/2 7/3	12/2 7/3
LS12	Ś	capital S with acute accent	S 4/2 5/3	12/2 5/3

Table 4 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LS15	ŝ	small s with circumflex accent	S 4/3 7/3	12/3 7/3
LS16	Ŝ	capital S with circumflex accent	S 4/3 5/3	12/3 5/3
LS21	š	small s with caron	S 4/15 7/3	12/15 7/3
LS22	Š	capital S with caron	S 4/15 5/3	12/15 5/3
LS41	ş	small s with cedilla	S 4/11 7/3	12/11 7/3
LS42	Ş	capital S with cedilla	S 4/11 5/3	12/11 5/3
LS61	ß	small sharp s, German	S 7/11	15/11
LT01	t	small t	7/4	7/4
LT02	T	capital T	5/4	5/4
LT21	ť or t'	small t with caron	S 4/15 7/4	12/15 7/4
LT22	Ť	capital T with caron	S 4/15 5/4	12/15 5/4
LT41	ţ	small t with cedilla	S 4/11 7/4	12/11 7/4
LT42	Ţ	capital T with cedilla	S 4/11 5/4	12/11 5/4
LT61	ŧ	small t with stroke	S 7/13	15/13
LT62	Ŧ	capital T with stroke	S 6/13	14/13
LT63	þ	small thorn, Icelandic	S 7/12	15/12
LT64	Þ	capital thorn, Icelandic	S 6/12	14/12
LU01	u	small u	7/5	7/5
LU02	U	capital U	5/5	5/5
LU11	ú	small u with acute accent	S 4/2 7/5	12/2 7/5
LU12	Ú	capital u with acute accent	S 4/2 5/5	12/2 5/5
LU13	ù	small u with grave accent	S 4/1 7/5	12/1 7/5
LU14	Ù	capital U with grave accent	S 4/1 5/5	12/1 5/5
LU15	û	small u with circumflex accent	S 4/3 7/5	12/3 7/5
LU16	Û	capital U with circumflex accent	S 4/3 5/5	12/3 5/5
LU17	ü	small u with diaeresis or umlaut mark	S 4/8 7/5	12/8 7/5
LU18	Ü	capital U with diaeresis or umlaut mark	S 4/8 5/5	12/8 5/5
LU19	ũ	small u with tilde	S 4/4 7/5	12/4 7/5
LU20	Ũ	capital U with tilde	S 4/4 5/5	12/4 5/5
LU23	ŭ	small u with breve	S 4/6 7/5	12/6 7/5
LU24	Ŭ	capital U with breve	S 4/6 5/5	12/6 5/5
LU25	ű	small u with double acute accent	S 4/13 7/5	12/13 7/5
LU26	Ű	capital U with double acute accent	S 4/13 5/5	12/13 5/5
LU27	ů	small u with ring	S 4/10 7/5	12/10 7/5
LU28	Ů	capital U with ring	S 4/10 5/5	12/10 5/5
LU31	ū	small u with macron	S 4/5 7/5	12/5 7/5
LU32	Ū	capital U with macron	S 4/5 5/5	12/5 5/5
LU43	ų	small u with ogonek	S 4/14 7/5	12/14 7/5
LU44	Ų	capital U with ogonek	S 4/14 5/5	12/14 5/5
LV01	v	small v	7/6	7/6
LV02	V	capital V	5/6	5/6
LW01	w	small w	7/7	7/7
LW02	W	capital W	5/7	5/7

Table 4 — Latin alphabetic characters (*concluded*)

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
LW15	ŵ	small w with circumflex accent	S 4/3 7/7	12/3 7/7
LW16	Ŵ	capital w with circumflex accent	S 4/3 5/7	12/3 5/7
LX01	x	small x	7/8	7/8
LX02	X	capital X	5/8	5/8
LY01	y	small y	7/9	7/9
LY02	Y	capital Y	5/9	5/9
LY11	ý	small y with acute accent	S 4/2 7/9	12/2 7/9
LY12	Ý	capital Y with acute accent	S 4/2 5/9	12/2 5/9
LY15	ŷ	small y with circumflex accent	S 4/3 7/9	12/3 7/9
LY16	Ŷ	capital Y with circumflex accent	S 4/3 5/9	12/3 5/9
LY17	ÿ	small y with diaeresis or umlaut mark	S 4/8 7/9	12/8 7/9
LY18	Ÿ	capital Y with diaeresis or umlaut mark	S 4/8 5/9	12/8 5/9
LZ01	z	small z	7/10	7/10
LZ02	Z	capital Z	5/10	5/10
LZ11	ź	small z with acute accent	S 4/2 7/10	12/2 7/10
LZ12	Ź	capital Z with acute accent	S 4/2 5/10	12/2 5/10
LZ21	ž	small z with caron	S 4/15 7/10	12/15 7/10
LZ22	Ž	capital Z with caron	S 4/15 5/10	12/15 5/10
LZ29	ż	small z with dot above	S 4/7 7/10	12/7 7/10
LZ30	Ż	capital Z with dot above	S 4/7 5/10	12/7 5/10

Table 5 — Decimal digits

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
ND01	1	digit one	3/1	3/1
ND02	2	digit two	3/2	3/2
ND03	3	digit three	3/3	3/3
ND04	4	digit four	3/4	3/4
ND05	5	digit five	3/5	3/5
ND06	6	digit six	3/6	3/6
ND07	7	digit seven	3/7	3/7
ND08	8	digit eight	3/8	3/8
ND09	9	digit nine	3/9	3/9
ND10	0	digit zero	3/0	3/0

Table 6 — Currency signs

ID	Graphic symbol	Name or description	Coded representation A	Coded representation B
SC01	¤	general currency sign *	2/4	2/4
SC02	£	pound sign	S 2/3	10/3
SC03	$	dollar sign	S 2/4	10/4
SC04	¢	cent sign	S 2/2	10/2
SC05	¥	yen sign	S 2/5	10/5

* To facilitate interworking with Teletex and Videotex, S 2/8 or 10/8 shall also be considered as a valid coded representation of ''general currency sign'', but the use of this coded representation is deprecated.

Table 7 — Punctuation marks

ID	Graphic symbol	Name or description	Coded representation	
			A	B
SP02	!	exclamation mark	2/1	2/1
SP03	¡	inverted exclamation mark	S 2/1	10/1
SP04	''	quotation mark [1]	2/2	2/2
SP05	'	apostrophe [1]	2/7	2/7
SP06	(	left parenthesis	2/8	2/8
SP07	)	right parenthesis	2/9	2/9
SP08	,	comma [1]	2/12	2/12
SP09	___	low line [1][2]	5/15	5/15
SP10	–	hyphen or minus sign	2/13	2/13
SP11	.	full stop, period	2/14	2/14
SP12	/	solidus	2/15	2/15
SP13	:	colon	3/10	3/10
SP14	;	semicolon	3/11	3/11
SP15	?	question mark	3/15	3/15
SP16	¿	inverted question mark	S 3/15	11/15
SP17	«	angle quotation mark left	S 2/11	10/11
SP18	»	angle quotation mark right	S 3/11	11/11
SP19	'	single quotation mark left	S 2/9	10/9
SP20	'	single quotation mark right	S 3/9	11/9
SP21	''	double quotation mark left	S 2/10	10/10
SP22	''	double quotation mark right	S 3/10	11/10

1) For the purpose of this International Standard, "quotation mark", "apostrophe", "comma" and "low line" are independent characters which cannot have the meaning of diacritical marks; "low line" cannot be used for underlining.

2) The typical graphic representation of "low line" is a horizontal line at about the bottom of a capital letter.

Table 8 — Arithmetic signs

ID	Graphic symbol	Name or description	Coded representation	
			A	B
SA01	+	plus sign	2/11	2/11
SA02	±	plus or minus sign	S 3/1	11/1
SA03	<	less-than sign	3/12	3/12
SA04	=	equals sign	3/13	3/13
SA05	>	greater-than sign	3/14	3/14
SA06	÷	divide sign	S 3/8	11/8
SA07	×	multiply sign	S 3/4	11/4

Table 9 — Superscripts

ID	Graphic symbol	Name or description	Coded representation	
			A	B
NS01	1	superscript one	S 5/1	13/1
NS02	2	superscript two	S 3/2	11/2
NS03	3	superscript three	S 3/3	11/3

Table 10 — Fractions

ID	Graphic symbol	Name or description	Coded representation	
			A	B
NF01	½	fraction one-half	S 3/13	11/13
NF04	¼	fraction one-quarter	S 3/12	11/12
NF05	¾	fraction three-quarters	S 3/14	11/14
NF18	⅛	fraction one-eighth	S 5/12	13/12
NF19	⅜	fraction three-eighths	S 5/13	13/13
NF20	⅝	fraction five-eighths	S 5/14	13/14
NF21	⅞	fraction seven-eighths	S 5/15	13/15

Table 11 — Miscellaneous symbols

ID	Graphic symbols	Name or description	Coded representation	
			A	B
SM01	#	number sign*	2/3	2/3
SM02	%	percent sign	2/5	2/5
SM03	&	ampersand	2/6	2/6
SM04	*	asterisk	2/10	2/10
SM05	@	commercial at	4/0	4/0
SM06	[	left square bracket	5/11	5/11
SM07	\	reverse solidus	5/12	5/12
SM08	]	right square bracket	5/13	5/13
SM11	{	left curly bracket	7/11	7/11
SM12	—	horizontal bar†	S 5/0	13/0
SM13	|	vertical line	7/12	7/12
SM14	}	right curly bracket	7/13	7/13
SM17	µ	micro sign	S 3/5	11/5
SM18	Ω	ohm sign	S 6/0	14/0
SM19	°	degree sign**	S 3/0	11/0
SM20	º	ordinal indicator, masculine	S 6/11	14/11
SM21	ª	ordinal indicator, feminine	S 6/3	14/3
SM24	§	section sign	S 2/7	10/7
SM25	¶	pilcrow	S 3/6	11/6
SM26	•	middle dot	S 3/7	11/7
SM30	←	leftward arrow	S 2/12	10/12
SM31	→	rightward arrow	S 2/14	10/14
SM32	↑	upward arrow	S 2/13	10/13
SM33	↓	downward arrow	S 2/15	10/15
SM52	©	copyright sign	S 5/3	13/3
SM53	®	registered sign	S 5/2	13/2
SM54	™	trade mark sign	S 5/4	13/4
SM93	♪	music note	S 5/5	13/5

*   To facilitate interworking with Teletex and Videotex, S 2/6 or 10/6 shall also be considered as a valid representation of "number sign", but the use of this coded representation is deprecated.

†   The typical graphic representation of "horizontal bar" is a horizontal line at about the middle of a capital letter.

**   For the purpose of this International Standard, "degree sign" is an independant character which cannot have the meaning of a diacritical mark.

Table 12 — Diacritical marks as separate graphic characters

ID	Graphic symbol	Name or description	Coded representation	
			A	B
SD11	´	acute accent	S 4/2 2/0	12/2 2/0
SD13	`	grave accent*	6/0	6/0
SD15	^	circumflex accent*	5/14	5/14
SD17	¨	diaeresis or umlaut mark	S 4/8 2/0	12/8 2/0
SD19	~	tilde*	7/14	7/14
SD21	ˇ	caron	S 4/15 2/0	12/15 2/0
SD23	˘	breve	S 4/6 2/0	12/6 2/0
SD25	˝	double acute accent	S 4/13 2/0	12/13 2/0
SD27	°	ring	S 4/10 2/0	12/10 2/0
SD29	·	dot above	S 4/7 2/0	12/7 2/0
SD31	―	macron	S 4/5 2/0	12/5 2/0
SD41	¸	cedilla	S 4/11 2/0	12/11 2/0
SD43	˛	ogonek	S 4/14 2/0	12/14 2/0

* To facilitate interworking with Teletex, the sequence S 4/1 2/0 or 12/1 2/0 shall also be considered as a valid coded representation of "grave accent", and S 4/3 2/0 or 12/3 2/0 as a valid coded representation of "circumflex accent", and S 4/4 2/0 or 12/4 2/0 as a valid coded representation of "tilde", but the use of these coded representations is deprecated.

5 Graphic character subrepertoires

The purpose of defining graphic character subrepertoires is to facilitate communication with equipment capable of presenting text using a limited set of graphic characters at one time. An example of equipment that might make use of subrepertoires is a text communication terminal containing an output device that has a changeable printing element. However, in order to comply with the requirements of this International Standard, such a text communication terminal has to be capable of receiving and presenting all graphic characters of the repertoire in some manner, possibly using one or more alternative printing elements.

Subrepertoires are defined according to the following rules:

a) A subrepertoire shall include the 26 unaccented small letters (LA01 ... LZ01) and the 26 capital letters (LA02 ... LZ02).

b) A subrepertoire shall include the 10 decimal digits (ND01 ... ND10).

c) A subrepertoire shall include the following characters.

ID	Graphic symbol	Name or description
SP05	'	apostrophe
SP06	(	left parenthesis
SP07	)	right parenthesis
SP08	,	comma
SP10	–	hyphen or minus sign
SP11	.	full stop, period
SP12	/	solidus
SP13	:	colon
SP15	?	question mark
SA01	+	plus sign
SA04	=	equals sign

d) A subrepertoire may include any other graphic characters of the repertoire defined in this part of ISO 6937.

e) A subrepertoire shall not include any characters not defined in ISO 6937.

f) Two or more graphic characters of the repertoire shall not be included as a single character in a subrepertoire.

g) Two names assigned to a single graphic character of the repertoire (for example hyphen, minus sign) shall not be used for two separate characters of a subrepertoire.

The procedure for registration of subrepertoires will be specified in ISO 7350.

The identifier assigned to a registered subrepertoire is intended to be used as a parameter of the control function IDENTIFY GRAPHIC SUBREPERTOIRE (IGS) which will be defined in ISO 6937/3.

Three standard subrepertoires are defined in annex A.

The identifier for the full repertoire is ... [1].

NOTES

1 Each character in a subrepertoire retains the coded representation assigned in ISO 6937.

2 A subrepertoire is typically (but not exclusively) associated with the name of a country and a natural language, for example:

Country	Language
France	French
Canada	Bilingual (English and French)
Switzerland	French
Canada	English

3 The number of graphic characters in a subrepertoire is limited only by the size of the repertoire defined in this part of ISO 6937. However, the composition of a subrepertoire may be related to the number of graphic symbols on a changeable printing element. Several different symbols may be used in combination to present a single graphic character of the repertoire on an output device.

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1) To be assigned when the repertoire is registered.

Annex A

Standard subrepertoires

(This annex forms part of the standard.)

Three standard subrepertoires are specified as follows:

a)   a *minimum subrepertoire* consisting only of the graphic characters that are required in every subrepertoire;

b)   a subrepertoire corresponding to the Teletex basic graphic character repertoire defined in CCITT Recommendation S.61 (Geneva, 1980);

c)   a subrepertoire corresponding to the Videotex basic graphic character repertoire defined in CCITT Recommendation S.100 (Geneva, 1980).

The standard subrepertoires are specified in tables 13 to 21. In each table entry, the first column contains the identifier of the character concerned, the second column shows the typical graphic representation, and the third column specifies the name or description of the character, as in tables 4 to 12. The *remaining columns of the tables specify the composition of the* minimum subrepertoire (MIN), the subrepertoire corresponding to the Teletex basic graphic character repertoire (TTX) and the subrepertoire corresponding to the Videotex basic graphic character repertoire (VTX).

The identifiers for the standard subrepertoires are ...[1] (MIN), ...[1] (TTX) and ...[1] (VTX).

NOTE — The graphic characters constituting the minimum subrepertoire are used in interworking with Telex, together with SPACE, CARRIAGE RETURN and LINE FEED (see CCITT Recommendation S.60).

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1)   To be assigned when the subrepertoires are registered.

Table 13 — Latin alphabetic characters

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
LA01	a	small a	X	X	X
LA02	A	capital A	X	X	X
LA11	á	small a with acute accent		X	X
LA12	Á	capital A with acute accent		X	X
LA13	à	small a with grave accent		X	X
LA14	À	capital A with grave accent		X	X
LA15	â	small a with circumflex accent		X	X
LA16	Â	capital A with circumflex accent		X	X
LA17	ä	small with diaeresis or umlaut mark		X	X
LA18	Ä	capital A with diaeresis or umlaut mark		X	X
LA19	ã	small a with tilde		X	X
LA20	Ã	capital A with tilde		X	X
LA23	ă	small a with breve		X	X
LA24	Ă	capital A with breve		X	X
LA27	å	small a with ring		X	X
LA28	Å	capital A with ring		X	X
LA31	ā	small a with macron		X	X
LA32	Ā	capital A with macron		X	X
LA43	ą	small a with ogonek		X	X
LA44	Ą	capital A with ogonek		X	X
LA51	æ	small æ diphtong		X	X
LA52	Æ	capital Æ diphtong		X	X
LB01	b	small b	X	X	X
LB02	B	capital B	X	X	X
LC01	c	small c	X	X	X
LC02	C	capital C	X	X	X
LC11	ć	small c with acute accent		X	X
LC12	Ć	capital C with acute accent		X	X
LC15	ĉ	small c with circumflex accent		X	X
LC16	Ĉ	capital C with circumflex accent		X	X
LC21	č	small c with caron		X	X
LC22	Č	capital C with caron		X	X
LC29	ċ	small c with dot above		X	X
LC30	Ċ	capital C with dot above		X	X
LC41	ç	small c with cedilla		X	X
LC42	Ç	capital C with cedilla		X	X
LD01	d	small d	X	X	X
LD02	D	capital D	X	X	X
LD21	ď or ɗ	small d with caron		X	X
LD22	Ď	capital D with caron		X	X
LD61	đ	small d with stroke		X	X
LD62	Đ	capital D with stroke, Icelandic eth		X	X
LD63	ð	small eth, Icelandic		X	X

Table 13 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
LE01	e	small e	X	X	X
LE02	E	capital E	X	X	X
LE11	é	small e with acute accent		X	X
LE12	É	capital E with acute accent		X	X
LE13	è	small e with grave accent		X	X
LE14	È	capital E with grave accent		X	X
LE15	ê	small e with circumflex accent		X	X
LE16	Ê	capital E with circumflex accent		X	X
LE17	ë	small e with diaeresis or umlaut mark		X	X
LE18	Ë	capital E with diaeresis or umlaut mark		X	X
LE21	ě	small e with caron		X	X
LE22	Ě	capital E with caron		X	X
LE29	ė	small e with dot above		X	X
LE30	Ė	capital E with dot above		X	X
LE31	ē	small e with macron		X	X
LE32	Ē	capital E with macron		X	X
LE43	ę	small e with ogonek		X	X
LE44	Ę	capital E with ogonek		X	X
LF01	f	small f	X	X	X
LF02	F	capital F	X	X	X
LG01	g	small g	X	X	X
LG02	G	capital G	X	X	X
LG11	ǵ	small g with acute accent		X	X
LG15	ĝ	small g with circumflex accent		X	X
LG16	Ĝ	capital G with circumflex accent		X	X
LG23	ğ	small g with breve		X	X
LG24	Ğ	capital G with breve		X	X
LG29	ġ	small g with dot above		X	X
LG30	Ġ	capital G with dot above		X	X
LG42	Ģ	capital G with cedilla		X	X
LH01	h	small h	X	X	X
LH02	H	capital H	X	X	X
LH15	ĥ	small h with circumflex accent		X	X
LH16	Ĥ	capital H with circumflex accent		X	X
LH61	ħ	small h with stroke		X	X
LH62	Ħ	capital H with stroke		X	X
LI01	i	small i	X	X	X
LI02	I	capital I	X	X	X
LI11	í	small i with acute accent		X	X
LI12	Í	capital I with acute accent		X	X
LI13	ì	small i with grave accent		X	X
LI14	Ì	capital I with grave accent		X	X

Table 13 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
LI15	î	small i with circumflex accent		X	X
LI16	Î	capital I with circumflex accent		X	X
LI17	ï	small i with diaeresis		X	X
LI18	Ï	capital I with diaeresis		X	X
LI19	ĩ	small i with tilde		X	X
LI20	Ĩ	capital I with tilde		X	X
LI30	İ	capital I with dot above		X	X
LI31	ī	small i with macron		X	X
LI32	Ī	capital I with macron		X	X
LI43	į	small i with ogonek		X	X
LI44	Į	capital I with ogonek		X	X
LI51	ij	small ij ligature		X	X
LI52	IJ	capital IJ ligature		X	X
LI61	ı	small i without dot		X	X
LJ01	j	small j	X	X	X
LJ02	J	capital J	X	X	X
LJ15	ĵ	small j with circumflex accent		X	X
LJ16	Ĵ	capital J with circumflex accent		X	X
LK01	k	small k	X	X	X
LK02	K	capital K	X	X	X
LK41	ķ	small k with cedilla		X	X
LK42	Ķ	capital K with cedilla		X	X
LK61	ĸ	small k, Greenlandic		X	X
LL01	l	small l	X	X	X
LL02	L	capital L	X	X	X
LL11	ĺ	small l with acute accent		X	X
LL12	Ĺ	capital L with acute accent		X	X
LL21	ľ or l'	small l with caron		X	X
LL22	Ľ or L'	capital L with caron		X	X
LL41	ļ	small l with cedilla		X	X
LL42	Ļ	capital L with cedilla		X	X
LL61	ł	small l with stroke		X	X
LL62	Ł	capital L with stroke		X	X
LL63	ŀ	small l with middle dot		X	X
LL64	Ŀ	capital L with middle dot		X	X
LM01	m	small m	X	X	X
LM02	M	capital M	X	X	X
LN01	n	small n	X	X	X
LN02	N	capital n	X	X	X
LN11	ń	small n with acute accent		X	X
LN12	Ń	capital N with acute accent		X	X
LN19	ñ	small n with tilde		X	X
LN20	Ñ	capital N with tilde		X	X

Table 13 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	MIN	TTX	VTX
LN21	ň	small n with caron		X	X
LN22	Ň	capital N with caron		X	X
LN41	ŋ	small n with cedilla		X	X
LN42	Ņ	capital N with cedilla		X	X
LN61	ŋ	small eng, Lapp		X	X
LN62	Ŋ	capital ENG, Lapp		X	X
LN63	'n	small n with apostrophe		X	X
LO01	o	small o	X	X	X
LO02	O	capital O	X	X	X
LO11	ó	small o with acute accent		X	X
LO12	Ó	capital O with acute accent		X	X
LO13	ò	small o with grave accent		X	X
LO14	Ò	capital O with grave accent		X	X
LO15	ô	small o with circumflex accent		X	X
LO16	Ô	capital O with circumflex accent		X	X
LO17	ö	small o with diaeresis or umlaut mark		X	X
LO18	Ö	capital O with diaeresis or umlaut mark		X	X
LO19	õ	small o with tilde		X	X
LO20	Õ	capital O with tilde		X	X
LO25	ő	small o with double acute accent		X	X
LO26	Ő	capital O with double acute accent		X	X
LO31	ō	small o with macron		X	X
LO32	Ō	capital O with macron		X	X
LO51	œ	small œ ligature		X	X
LO52	Œ	capital Œ ligature		X	X
LO61	ø	small o with slash		X	X
LO62	Ø	capital O with slash		X	X
LP01	p	small p	X	X	X
LP02	P	capital P	X	X	X
LQ01	q	small q	X	X	X
LQ02	Q	capital Q	X	X	X
LR01	r	small r	X	X	X
LR02	R	capital R	X	X	X
LR11	ŕ	small r with acute accent		X	X
LR12	Ŕ	capital R with acute accent		X	X
LR21	ř	small r with caron		X	X
LR22	Ř	capital R with caron		X	X
LR41	ŗ	small r with cedilla		X	X
LR42	Ŗ	capital R with cedilla		X	X
LS01	s	small s	X	X	X
LS02	S	capital S	X	X	X
LS11	ś	small s with acute accent		X	X
LS12	Ś	capital S with acute accent		X	X

Table 13 — Latin alphabetic characters (*continued*)

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
LS15	ŝ	small s with circumflex accemt		X	X
LS16	Ŝ	capital S with circumflex accent		X	X
LS21	š	small s with caron		X	X
LS22	Š	capital S with caron		X	X
LS41	ş	small s with cedilla		X	X
LS42	Ş	capital S with cedilla		X	X
LS61	ß	small sharp s, German		X	X
LT01	t	small t	X	X	X
LT02	T	capital T	X	X	X
LT21	ť or ť	small t with caron		X	X
LT22	Ť	capital T with caron		X	X
LT41	ţ	small t with cedilla		X	X
LT42	Ţ	capital T with cedilla		X	X
LT61	ŧ	small t with stroke		X	X
LT62	Ŧ	capital T with stroke		X	X
LT63	þ	small thorn, Icelandic		X	X
LT64	Þ	capital thorn, Icelandic		X	X
LU01	u	small u	X	X	X
LU02	U	capital U	X	X	X
LU11	ú	small u with acute accent		X	X
LU12	Ú	capital U with acute accent		X	X
LU13	ù	small u with grave acent		X	X
LU14	Ù	capital U with grave accent		X	X
LU15	û	small u with circumflex accent		X	X
LU16	Û	capital U with circumflex accent		X	X
LU17	ü	small u with diaeresis or umlaut mark		X	X
LU18	Ü	capital U with diaeresis or umlaut mark		X	X
LU19	ũ	small u with tilde		X	X
LU20	Ũ	capital U with tilde		X	X
LU23	ŭ	small u with breve		X	X
LU24	Ŭ	capital U with breve		X	X
LU25	ű	small u with double acute accent		X	X
LU26	Ű	capital U with double acute accent		X	X
LU27	ů	small u with ring		X	X
LU28	Ů	capital U with ring		X	X
LU31	ū	small u with macron		X	X
LU32	Ū	capital U with macron		X	X
LU43	ų	small u with ogonek		X	X
LU44	Ų	capital U with ogonek		X	X
LV01	v	small v	X	X	X
LV02	V	capital V	X	X	X
LW01	w	small w	X	X	X
LW02	W	capital W	X	X	X

Table 13 — Latin alphabetic characters (*concluded*)

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
LW15	ŵ	small w with circumflex accent		X	X
LW16	Ŵ	capital W with circumflex accent		X	X
LX01	x	small x	X	X	X
LX02	X	capital X	X	X	X
LY01	y	small y	X	X	X
LY02	Y	capital Y	X	X	X
LY11	ý	small y with acute accent		X	X
LY12	Ý	capital Y with acute accent		X	X
LY15	ŷ	small y with circumflex accent		X	X
LY16	Ŷ	capital Y with circumflex accent		X	X
LY17	ÿ	small y with diaeresis or umlaut mark		X	X
LY18	Ÿ	capital Y with diaeresis or umlaut mark		X	X
LZ01	z	small z	X	X	X
LZ02	Z	capital Z	X	X	X
LZ11	ź	small z with acute accent		X	X
LZ12	Ź	capital Z with acute accent		X	X
LZ21	ž	small z with caron		X	X
LZ22	Ž	capital Z with caron		X	X
LZ29	ż	small z with dot above		X	X
LZ30	Ż	capital Z with dot above		X	X

Table 14 — Decimal digits

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
ND01	1	digit one	X	X	X
ND02	2	digit two	X	X	X
ND03	3	digit three	X	X	X
ND04	4	digit four	X	X	X
ND05	5	digit five	X	X	X
ND06	6	digit six	X	X	X
ND07	7	digit seven	X	X	X
ND08	8	digit eight	X	X	X
ND09	9	digit nine	X	X	X
ND10	0	digit zero	X	X	X

Table 15 — Currency signs

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
SC01	¤	general currency sign		X	X
SC02	£	pound sign		X	X
SC03	$	dollar sign		X	X
SC04	¢	cent sign		X	X
SC05	¥	yen sign		X	X

Table 16 — Punctuation marks

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
SP02	!	exclamation mark		X	X
SP03	¡	inverted exclamation mark		X	X
SP04	"	quotation mark		X	X
SP05	'	apostrophe	X	X	X
SP06	(	left parenthesis	X	X	X
SP07	)	right parenthesis	X	X	X
SP08	,	comma	X	X	X
SP09	__	low line		X	
SP10	–	hyphen or minus sign	X	X	X
SP11	.	full stop, period	X	X	X
SP12	/	solidus	X	X	X
SP13	:	colon	X	X	X
SP14	;	semicolon		X	X
SP15	?	question mark	X	X	X
SP16	¿	inverted question mark		X	X
SP17	«	angle quotation mark left		X	X
SP18	»	angle quotation mark right		X	X
SP19	'	single quotation mark left			X
SP20	'	single quotation mark right			X
SP21	"	double quotation mark left			X
SP22	"	double quotation mark right			X

Table 17 — Arithmetic signs

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
SA01	+	plus sign	X	X	X
SA02	±	plus or minus sign		X	X
SA03	<	less-than sign		X	X
SA04	=	equals sign	X	X	X
SA05	>	greater-than sign		X	X
SA06	÷	divide sign		X	X
SA07	×	multiply sign		X	X

Table 18 — Superscripts

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
NS01	^{1}	superscript one			
NS02	^{2}	superscript two		X	X
NS03	^{3}	superscript three		X	X

Table 19 — Fractions

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
NF01	$\frac{1}{2}$	fraction one-half		X	X
NF04	$\frac{1}{4}$	fraction one-quarter		X	X
NF05	$\frac{3}{4}$	fraction three-quarters		X	X
NF18	$\frac{1}{8}$	fraction one-eighth			
NF19	$\frac{3}{8}$	fraction three-eighths			
NF20	$\frac{5}{8}$	fraction five-eighths			
NF21	$\frac{7}{8}$	fraction seven-eighths			

Table 20 — Miscellaneous symbols

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
SM01	#	number sign		X	X
SM02	%	percent sign		X	X
SM03	&	ampersand		X	X
SM04	*	asterisk		X	X
SM05	@	commercial at		X	X
SM06	[	left square bracket		X	
SM07	\	reverse solidus			
SM08	]	right square bracket		X	
SM11	{	left curly bracket			
SM12	—	horizontal bar			X
SM13	|	vertical bar		X	X
SM14	}	right curly bracket			
SM17	μ	micro sign		X	X
SM18	Ω	ohm sign		X	X
SM19	°	degree sign		X	X
SM20	º	ordinal indicator, masculine		X	X
SM21	ª	ordinal indicator, feminine		X	X
SM24	§	section sign		X	X
SM25	¶	pilcrow		X	X
SM26	•	middle dot		X	X
SM30	←	leftward arrow			X
SM31	→	rightward arrow			X
SM32	↑	upward arrow			X
SM33	↓	downward arrow			X
SM52	©	copyright sign			
SM53	®	registered sign			
SM54	TM	trade mark sign			
SM93	♪	music note			

Table 21 — Diacritical marks as separate graphic characters

ID	Graphic symbol	Name or description	Subrepertoires		
			MIN	TTX	VTX
SD11	´	acute accent		X	
SD13	`	grave accent		X	
SD15	^	circumflex accent		X	
SD17	¨	diaeresis or umlaut mark		X	
SD19	~	tilde		X	
SD21	ˇ	caron		X	
SD23	˘	breve		X	
SD25	ʺ	double acute accent		X	
SD27	°	ring		X	
SD29	·	dot above		X	
SD31	—	macron		X	
SD41	ˏ	cedilla		X	
SD43	˛	ogonek		X	

Annex B

Use of non-spacing diacritical marks

(This annex forms part of the standard.)

The supplementary set (see tables 2 and 3) contains 13 non-spacing diacritical marks which are used in combination with the letters of the basic Latin alphabet in the primary set, and with SPACE, to represent accented letters, umlauts and diacritical marks as separate graphic characters. The elementary diacritical marks, and their coded representations, are summarized in table 22 below.

The combinations of non-spacing diacritical marks and basic letters which are defined in this part of ISO 6937 are given in table 23.

Table 22 — Summary of non-spacing diacritical marks

Graphic symbol	Name	Coded representation	
		A	B
´	non-spacing acute accent	S 4/2	12/2
`	non-spacing grave accent	S 4/1	12/1
^	non-spacing circumflex accent	S 4/3	12/3
¨	non-spacing diaeresis or umlaut mark	S 4/8	12/8
~	non-spacing tilde	S 4/4	12/4
ˇ	non spacing caron	S 4/15	12/15
˘	non-spacing breve	S 4/6	12/6
˝	non-spacing double acute accent	S 4/13	12/13
°	non-spacing ring	S 4/10	12/10
·	non-spacing dot above	S 4/7	12/7
—	non-spacing macron	S 4/5	12/5
¸	non-spacing cedilla	S 4/11	12/11
˛	non-spacing ogonek	S 4/14	12/14

Table 23 — Combinations of diacritical marks and basic letters

Basic letter	Acute accent	Grave accent	Circumflex accent	Diaeresis or umlaut mark	Tilde	Caron	Breve	Double acute accent	Ring	Dot above	Macron	Cedilla	Ogonek
a A	á Á	à À	â Â	ä Ä	ã Ã		ă Ă		å Å		ā Ā		ą Ą
b B													
c C	ć Ć		ĉ Ĉ			č Č				ċ Ċ		ç Ç	
d D						ď Ď							
e E	é É	è È	ê Ê	ë Ë		ě Ě				ė Ė	ē Ē		ę Ę
f F													
g G	ǵ		ĝ Ĝ				ğ Ğ			ġ Ġ		Ģ	
h H			ĥ Ĥ										
i I	í Í	ì Ì	î Î	ï Ï	ĩ Ĩ					İ	ī Ī		į Į
j J			ĵ Ĵ										
k K												ķ Ķ	
l L	ĺ Ĺ											ļ Ļ	
m M													
n N	ń Ń				ñ Ñ	ň Ň						ņ Ņ	
o O	ó Ó	ò Ò	ô Ô	ö Ö	õ Õ			ő Ő			ō Ō		
p P													
q Q													
r R	ŕ Ŕ					ř Ř						ŗ Ŗ	
s S	ś Ś		ŝ Ŝ			š Š						ş Ş	
t T						ť Ť						ţ Ţ	
u U	ú Ú	ù Ù	û Û	ü Ü	ũ Ũ		ŭ Ŭ	ű Ű	ů Ů		ū Ū		ų Ų
v V													
w W			ŵ Ŵ										
x X													
y Y	ý Ý		ŷ Ŷ	ÿ Ÿ									
z Z	ź Ź					ž Ž				ż Ż			

Annex C

Use of the non-spacing underline character

(This annex forms part of the standard.)

The non-spacing underline character is represented by bit combination 4/12 or 12/12 of the supplementary set. It is not regarded as a member of the character repertoire.

The character is never used individually but always in combination with some other graphic character to represent the graphic rendition "underlined" for the associated character. The non-spacing underline character can be used in combination with any graphic character of the repertoire, including an accented letter or an umlaut, or SPACE.

The coded representation of the non-spacing underline character precedes that of the character to which it applies. Between the non-spacing underline character and the character to which it applies, one or more control functions may occur, for example PARTIAL LINE DOWN (PLD), PARTIAL LINE UP (PLU) or a code extension control function.

When the non-spacing underline character is used within the scope of subscript or superscript image effected by PARTIAL LINE DOWN or PARTIAL LINE UP, any horizontal lines used to implement the graphic rendition "underlined" are lowered or raised in order that the graphic rendition applies to the subscript or superscript characters.

The vertical position of a horizontal line used to implement underlining is not affected by any occurrence of PARTIAL LINE DOWN or PARTIAL LINE UP between the non-spacing underline character and the character to which it applies.

NOTE — The control functions PARTIAL LINE DOWN and PARTIAL LINE UP, and code extension control functions, will be defined in ISO 6937/3 which will also define an alternative way to represent underlining using the control function SELECT GRAPHIC RENDITION (SGR).

Annex D

Use of Latin alphabetic characters

(This annex does not form part of the standard.)

Table 24 summarizes the use of the Latin alphabetic characters defined in this part of ISO 6937 in 41 different languages (39 European languages, Afrikaans and Esperanto).

The 26 basic letters of the Latin alphabet have not been included in the table because they are considered indispensable in all languages, even though several languages do not require letters such as q or w for their own orthographies.

Table 24 is intended to provide justification for the composition of the alphabetic part of the graphic character repertoire. It does not attempt to define which characters should, and which ones should not, be used in any language.

NOTE — Usage within any country or area is to some extent dependent on the text, its intended use, and its form of presentation. Furthermore, it is common in many languages to include "loan words" taken from other languages. The requirements for these *specialités* have not been shown in the table except where such loan words have such long-standing or widespread use that they are now considered to be "naturalized" rather than "foreign" words in a particular language.

Table 24 — Use of Latin alphabetic characters

Character	Afrikaans	Albanian	Basque	Breton	Catalan	Croat	Czech	Danish	Dutch	English	Esperanto	Estonian	Faroese	Finnish	French	Frisian	Galician	German	Greenlandic	Hungarian	Icelandic	Irish	Italian	Lapp	Latvian	Lithuanian	Maltese	Norwegian	Occitan	Polish	Portuguese	Rhaeto-Romanic	Romanian	Scots Gaelic	Slovak	Slovene	Sorbian	Spanish	Swedish	Turkish	Welsh
LA11-12 á Á	X	·	·	·	·	·	X	·	·	·	·	·	X	·	·	·	X	·	X	X	X	X	·	X	·	·	·	·	X	·	X	·	·	X	X	·	·	X	·	·	X
LA13-14 à À	·	·	·	·	X	·	·	·	·	·	·	·	·	·	X	·	·	·	X	·	·	·	X	·	·	·	X	·	X	·	X	X	·	X	·	·	·	·	·	·	X
LA15-16 â Â	X	·	·	·	·	·	·	·	·	·	·	·	·	·	X	X	·	·	X	·	·	·	·	X	·	·	·	·	X	·	X	X	X	·	X	·	·	·	·	X	X
LA17-18 ä Ä	·	·	·	·	·	·	·	·	X	·	·	X	·	X	·	X	·	X	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	X	·	·	·	X	·	·
LA19-20 ã Ã	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	X	·	X	·	·	X	·	·	·	X	·	·	X	·	·	·	·	·	·	·	·	·	·
LA23-24 ă Ă	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LA27-28 å Å	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	X	·	·	X	·	·	·	X	·	·	·	·	·	·	X	·	·
LA31-32 ā Ā	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LA43-44 ą Ą	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LA51-52 æ Æ	·	·	·	·	·	·	·	X	·	·	·	·	X	·	·	·	·	·	X	·	X	·	·	X	·	·	·	X	·	·	X	·	·	·	·	·	·	·	·	·	·
LC11-12 ć Ć	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	X	·	·	·	·
LC15-16 ĉ Ĉ	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LC21-22 č Č	·	·	·	·	·	X	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	X	X	·	·	·	·	·	·	·	X	X	X	·	·	·	·
LC29-30 ċ Ċ	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LC41-42 ç Ç	·	·	·	·	·	·	X	·	·	·	·	·	·	·	X	·	·	·	X	·	·	·	·	X	·	·	·	X	·	·	X	·	·	X	·	·	·	·	·	X	·
LD21-22 ď Ď	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·
LD61-62 đ Đ	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LD63-62 ð Ð	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	X	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·
LE11-12 é É	X	·	·	·	X	·	X	·	X	X	·	·	·	·	X	·	·	X	·	X	X	X	X	X	X	·	·	·	X	·	X	X	·	X	X	·	·	·	X	·	X
LE13-14 è È	X	·	·	·	X	·	·	·	·	X	·	·	·	·	X	·	·	·	·	·	X	·	X	·	·	·	·	·	·	·	·	X	·	X	·	·	·	·	·	·	X
LE15-16 ê Ê	X	·	·	X	·	·	·	·	·	X	·	·	·	·	X	X	·	·	·	·	·	·	·	X	·	·	·	·	X	·	X	X	·	·	·	·	·	·	·	·	X
LE17-18 ë Ë	X	X	·	·	·	·	·	·	X	X	·	·	·	·	X	X	·	·	·	·	·	·	·	·	·	·	·	·	X	X	·	X	·	·	·	·	X	·	·	·	X
LE21-22 ě Ě	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LE29-30 ė Ė	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	X	X	X	·	·	·	·	·	·	·	·	·	·	·	·	X	·
LE31-32 ē Ē	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LE43-44 ę Ę	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·
LG41-42 ĝ Ĝ	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LG15-16 ğ Ğ	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·
LG23-24 ğ Ğ	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LG29-30 ġ Ġ	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LH15-16 ĥ Ĥ	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LH61-62 ħ Ħ	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	·	·	·	·	·	·	·	·	·
LI11-12 í Í	X	·	·	·	X	·	X	·	·	·	·	·	X	·	·	·	X	·	·	X	X	X	X	·	·	·	·	·	X	·	X	·	·	X	X	·	·	X	·	·	X