

INTERNATIONAL STANDARD

**ISO
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Information processing — Text and office systems — Keyboards for multiple Latin- alphabet languages — Layout and operation

*Traitement de l'information — Systèmes bureautiques — Claviers pour des langues
à l'alphabet latin multiples — Disposition et opération*



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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 preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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. They are approved in accordance with ISO procedures requiring at least 75% approval by the member bodies voting.

International Standard ISO 8884 was prepared by Technical Committee ISO/TC97 Information processing systems.

Annex A is normative.

Annexes B to D are for information only.

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Information processing — Text and office systems — Keyboards for multiple Latin-alphabet languages — Layout and operation

1 Scope

1.1 A keyboard layout for the character repertoire of ISO 6937-2

This International Standard defines the layout on a keyboard of a defined set of graphic characters which, when used in combination with an existing national version keyboard layout, allows the input of the full graphic character repertoire defined in ISO 6937-2 and its addendum 1, or the 8-bit single-byte coded graphic character sets defined in ISO 8859, parts 1 to 4.

NOTE - The full repertoire of ISO 6937-2 and its addendum 1 consists of 333 characters including Space and permits the representation of 40 recognised European languages (plus Afrikaans) using a Latin-based alphabet.

A Latin supranational keyboard layout which may be used in a multilingual environment is defined in an annex.

This International Standard does not define such factors as the shape, size or colour of the keys, nor does it define the style in which the symbols are represented.

1.2 Intended applications

This International Standard is primarily intended for word-processing and text-processing applications.

The Latin supranational keyboard layout is especially intended for use by international organizations.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication,

the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 646: 1983, *Information processing - ISO 7-bit coded character set for information interchange*.

ISO 1091: 1977, *Typewriters - Layout of printing and function keys*.

ISO 3243: 1975, *Keyboards for countries whose languages have alphabetic extenders - Guidelines for harmonization*

ISO 6937-2: 1983, *Information processing - Coded character sets for text communication - Part 2: Latin alphabetic and non-alphabetic graphic characters*.

ISO 6937-2/Add.1: 1989, *Information processing - Coded character sets for text communication - Part 2: Latin Alphabetic and non-alphabetic graphic characters-ADDENDUM 1*.

ISO 8859-1:1987, *Information processing - 8-bit single-byte coded graphic character sets - Part 1: Latin alphabet No. 1*.

ISO 8859-2:1987, *Information processing - 8-bit single-byte coded graphic character sets - Part 2: Latin alphabet No. 2*.

ISO 8859-3:1988, *Information processing - 8-bit single-byte coded graphic character sets - Part 3: Latin alphabet No. 3*.

ISO 8859-4:1988, *Information processing - 8-bit single-byte coded graphic character sets - Part 4: Latin alphabet No. 4.*

3 Definitions

For the purpose of this International Standard the following definitions apply:

3.1 Primary (Group 1) Character set: A set of graphic characters (including Space), which is defined by the International Reference Version of ISO 646, or by another Version of ISO 646, or by a national keyboard layout standard, or is established by common usage in a particular country.

3.2 Primary (Group 1) Keyboard Layout: The allocation of the graphic characters of a Primary (Group 1) Character Set to the keys of a particular keyboard, whether defined by a national standard or established by common usage in a particular country or group of countries.

3.3 National Version Keyboard Layout: The layout on the keyboard of the graphic characters of the Primary Set of a particular country, whether defined by a National Standard or by common usage.

3.4 Common Secondary (Group 2) Character Set: The set of graphic characters (listed in this International Standard) which are required by ISO 6937-2 but which do not appear in every national version keyboard layout.

3.5 Common Secondary (Group 2) Keyboard Layout: The allocation of the graphic characters of the Common Secondary (Group 2) Character Set to the keys of a keyboard, as specified by Figure 1 of this International Standard.

3.6 Level 1 Characters: Those graphic characters (including small letters) of a Character Group which can be input from a keyboard without the use of any Shift Key within the group.

3.7 Level 2 Characters: Those graphic characters (including capital letters) of a Character Group which can be input from a keyboard by using a normal Shift Key within the group.

3.8 Level 3 Characters: Those graphic characters of a character group which can be input from a keyboard by using a Level 3 Shift Key without either of the normal Shift Keys.

NOTE — Level 3 is used in several countries where the national usage renders necessary more graphic characters in the primary Group 1 Character Set than there are in ISO 646.

3.9 Qualifier key: A key whose operation has no immediate effect, but which, for as long as it is held down, modifies the effect of other keys. A Qualifier Key made be, for example, a Shift Key or a Control Key.

4 Physical requirements and operation

4.1 Alphanumeric and shift keys

The keyboard layout specified in this International Standard is based on the 48-key version of the alphanumeric layout and shift keys as specified in ISO 1091.

The keyboard shall be provided with a Group Shift facility. The use of this shall cause the keyboard to produce a character from either Group 1 or Group 2.

If there is an allocation of characters to Level 3 of Group 1 a suitable means of shifting into this level must be provided. This could be a Level 3 Shift Key.

The provisions of ISO 1091 regarding the position of shift keys shall apply to this keyboard until a new ISO standard for the placement and operation of function keys on alphanumeric keyboards is produced. Provisions for the placement and function of the shift keys are given, for the time being, in annex D.

4.2 Group 1 and Group 2

The keyboard layout is divided into two parts. These are the layout for the Primary (Group 1) Character Set and the layout for the Common Secondary (Group 2) Character Set.

The characters of Group 1 and the layout of these on the keyboard are defined by the relevant national keyboard layout standard or established by common usage in the particular country or are defined by ISO 3243 with additions according to annex A. In this International Standard Group 1 may use up to three levels.

The characters of Group 2 and the layout of these on the keyboard are defined in this International Standard and are always the same, see clause 5. In this International Standard Group 2 uses two levels.

4.3 Key Labelling

It is not mandatory that all the characters of the Common Secondary (Group 2) Character Set that are available on the keyboard should be shown on the keys.

NOTE - When the characters are shown it is recommended that they should appear as shown in annex C.

4.4 Operation of Keys with Diacritical Marks

The diacritical marks in the ISO 6937-2 character set are the accents, cedilla and ogonek as listed in table 1 (Clause 6). The accents appear above certain letters, and cedilla and ogonek below certain letters, and all these are non-spacing characters. Typing of a diacritical mark character followed by a letter shall indicate that the two are intended to be combined. Typing of a diacritical mark followed by a Space shall indicate that the diacritical mark is intended to appear free-standing.

It is recommended that the method used for deletion of a character should also cancel a partially-constructed character, such as a diacritical mark without a following letter or Space.

4.5 Characters in Addendum 1 of ISO 6937-2

The characters Not Sign and Broken Bar are input by using keys as shown in figure 1 and tabulated in table 1.

No-break Space shall be input by using the Space Bar and a qualifier key.

Soft Hyphen shall be input by using the key with the normal Hyphen and a qualifier key.

4.6 Allocation of Currency Symbols

In level 2 or level 3 of the Primary Character Set (Group 1) the character £ or # shall be allocated to key E03, and the character \$ or ₭ shall be allocated to key E04.

5 Common secondary (Group 2) keyboard layout

The layout of the characters of the Common Secondary (Group 2) Character Set shall be as shown in figure 1 and tabulated in table 1.

6 Conformance

The layout of a keyboard conforms to this International Standard if

- a) the allocation of the graphic characters of the primary (Group 1) set conforms to one of the following layouts:
 - an existing national keyboard standard;
 - an existing national keyboard layout established by common usage in a particular country;
 - the Latin supranational primary keyboard layout defined in Annex A;
- b) it satisfies all the requirements of clauses 4 and 5 of this International Standard.

Any statement of conformance to this International Standard shall be taken to imply that the complete Common Secondary (Group 2) Character Set has been implemented, unless a subset is explicitly declared.

Table 1 – Common Secondary (Group 2) Character Set: Tabulation of Characters

Key position	Level 1 ISO 6937 Graphic Character Identifier	Level 2 ISO 6937 Graphic Character Identifier	Level 1 Name	Level 2 Name
E00	SM66	reserved	not sign	reserved
E01	NS01	SP03	superscript one	inverted exclamation mark
E02	NS02	NF18	superscript two	fraction one eighth
E03	NS03	SC02/SM01	superscript three	pound sign or number sign ¹
E04	NF04	SC03/SC01	fraction one quarter	dollar sign or gen. currency sign ²
E05	NF01	NF19	fraction one half	fraction three eighths
E06	NF05	NF20	fraction three quarters	fraction five eighths
E07	SM11	NF21	left curly bracket	fraction seven eighths
E08	SM06	SM54	left square bracket	trade mark sign
E09	SM08	SA02	right square bracket	plus/minus sign
E10	SM14	SM19	right curly bracket	degree sign
E11	SM07	SP16	reverse solidus	inverted question mark
E12	SD41	SD43	cedilla ³	ogonek ³
D01	SM05	SM18	commercial at	ohm sign
D02	LL61	LL62	small l with stroke	capital L with stroke
D03	LO51	LO52	small oe ligature	capital OE ligature
D04	SM25	SM53	paragraph sign, pilcrow	registered sign
D05	LT61	LT62	small t with stroke	capital T with stroke
D06	SM30	SC05	leftward arrow	yen sign
D07	SM33	SM32	downward arrow	upward arrow
D08	SM31	LI61	rightward arrow	small i without dot
D09	LO61	LO62	small o with slash	capital O with slash
D10	LT63	LT64	small thorn, Icelandic	capital thorn, Icelandic
D11	SD17	SD27	diaeresis or umlaut mark ³	ring ³
D12	SD19	SD31	tilde ³	macron ³
C01	LA51	LA52	small ae diphthong	capital AE diphthong
C02	LS61	SM24	small sharp s, German	section sign
C03	LD63	LD62	small eth, Icelandic	capital D with stroke capital Eth, Icelandic
C04	LD61	SM21	small d with stroke	ordinal indicator, feminine
C05	LN61	LN62	small eng, Lapp	capital eng, Lapp
C06	LH61	LH62	small h with stroke	capital H with stroke
C07	LI51	LI52	small ij ligature	capital IJ ligature
C08	LK61	SM03	small k, Greenlandic	ampersand
C09	LL63	LL64	small l with middle dot	capital L with middle dot
C10	SD11	SD25	acute accent ³	double acute accent ³
C11	SD15	SD21	circumflex accent ³	caron ³
C12	SD13	SD23	grave accent ³	breve ³
B00	SM13	SM65	vertical line	broken bar
B01	SP17	SA03	angle quotation mark left	less-than sign
B02	SP18	SA05	angle quotation mark right	greater-than sign
B03	SC04	SM52	cent sign	copyright sign
B04	SP21	SP19	double quotation mark left	single quotation mark left
B05	SP22	SP20	double quotation mark right	single quotation mark right
B06	LN63	SM93	small n with apostrophe	music note
B07	SM17	SM20	micro sign	ordinal indicator, masculine
B08	SM12	SA07	horizontal bar	multiply sign
B09	SM26	SA06	middle dot	divide sign
B10	—	SD29	(reserved for dot below) ³	dot above ³
Space Bar ⁵	reserved	reserved	reserved	reserved

Notes

¹ E03 level 2 of the secondary (Group 2) keyboard layout is allocated the character which is not on E03 level 2 or 3 of the primary (Group 1) keyboard layout.

² E04 level 2 of the secondary (Group 2) keyboard layout is allocated the character which is not on E04 level 2 or 3 of the primary (Group 1) keyboard layout.

³ Non-spacing character.

⁴ Character identifiers are those used in ISO 6937.

⁵ No-break Space shall be input by using the Space Bar and a qualifier key.

⁶ Soft Hyphen shall be input by using the key with the normal Hyphen and a qualifier key.

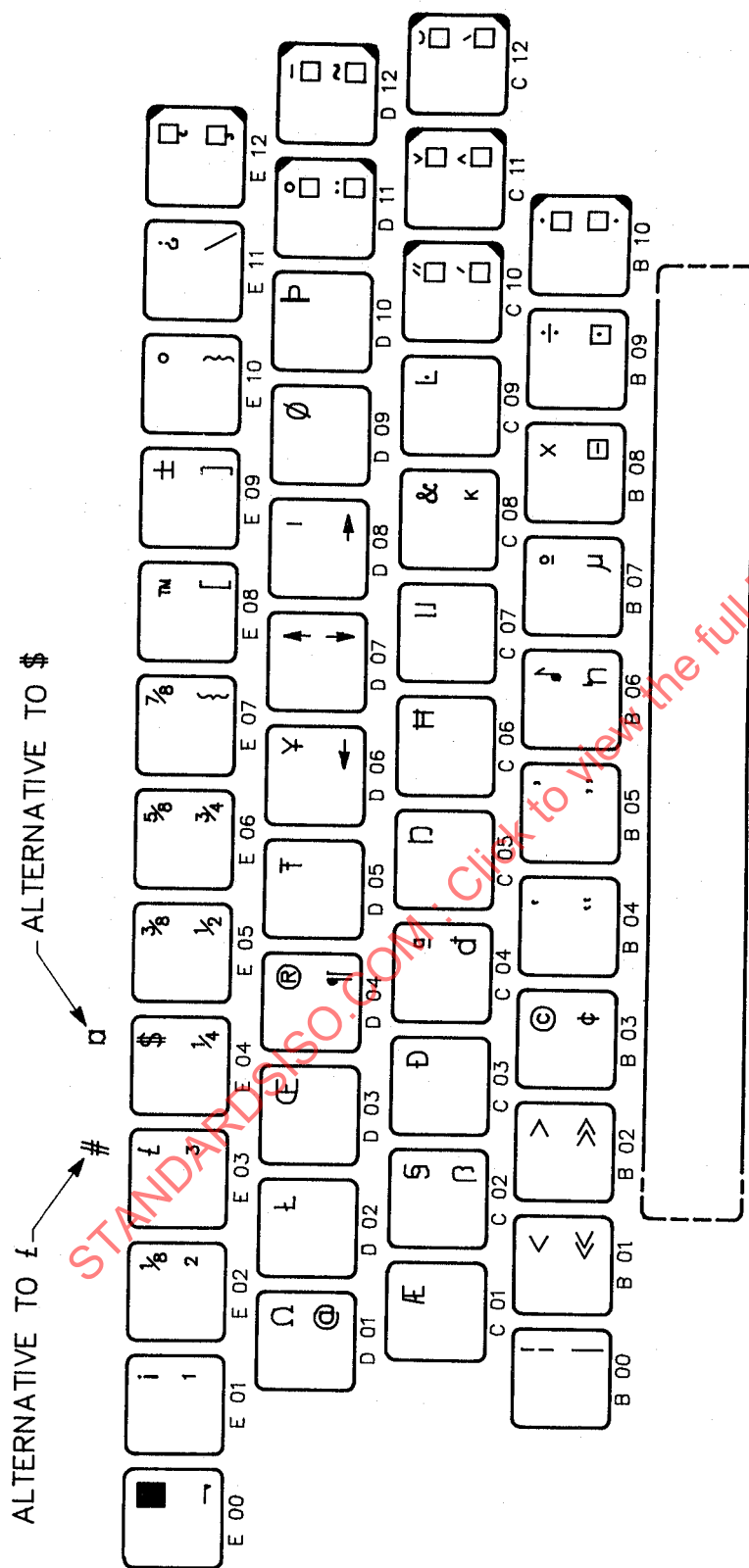


Figure 1 - Common Secondary (Group 2) Keyboard Layout for Multiple Latin-Alphabet Languages

Shaded corners indicate non-spacing characters.

■ indicates location reserved for future standardization.

It is not mandatory to show all characters on keytops. Duplicates of primary (Group 1) characters should not be shown. The "Help" squares are not intended to appear on the keytops. Where small and capital forms of a letter exist, only the capital form is shown in this figure.

Annex A
(normative)

THE LATIN SUPRANATIONAL KEYBOARD LAYOUT
FOR INTERNATIONAL ORGANIZATIONS

A.1 Scope of the annex

This annex defines the layout on the keyboard of a set of primary graphic characters which includes the invariant characters specified in ISO 646. The resulting Latin Supranational Primary (Group 1) Keyboard Layout is intended to be used in multilingual environments. It is especially suited for use by international organizations.

A.2 Group 1 layout

The Primary (Group 1) Character Set shall consist of the characters allocated in ISO 3243, which is the ISO Standard for keyboard layouts for countries whose languages have alphabetic extenders, and in addition:

Key	E00	level 1	is allocated	+	(Plus Sign)
"	E00	"	2	"	• (Asterisk)
"	E03	"	2	"	£ (Pound Sign)
"	E04	"	2	"	\$ (Dollar Sign)
"	E07	"	2	"	' (Apostrophe)
"	E11	"	1	"	/ (Solidus)
"	B00	"	1	"	< (Less-than Sign)
"	B00	"	2	"	> (Greater-than Sign)

The characters allocated to levels 1 and 2 of Group 1 on keys E12, D11, D12, C10, C11 and C12 shall be the same as for levels 1 and 2 of Group 2 on the same keys as defined in clause 5.

A.3 Group 2 layout

The layout of the characters of the Common Secondary (Group 2) Character Set of the Latin Supranational Keyboard shall be that specified in clause 5.

A.4 Combined Group 1 and Group 2 layout

Figure 2 shows the combined keyboard layout of the Latin Supranational Primary (Group 1) Character Set with the Common Secondary (Group 2) Character Set defined in this International Standard.

NOTE - The diacritical marks (except for Dot Above) are provided in both the primary (Group 1) and the secondary (Group 2) set so that they can be input without the need to use the Group Shift facility thereby reducing the number of keystrokes needed to produce an accented character.

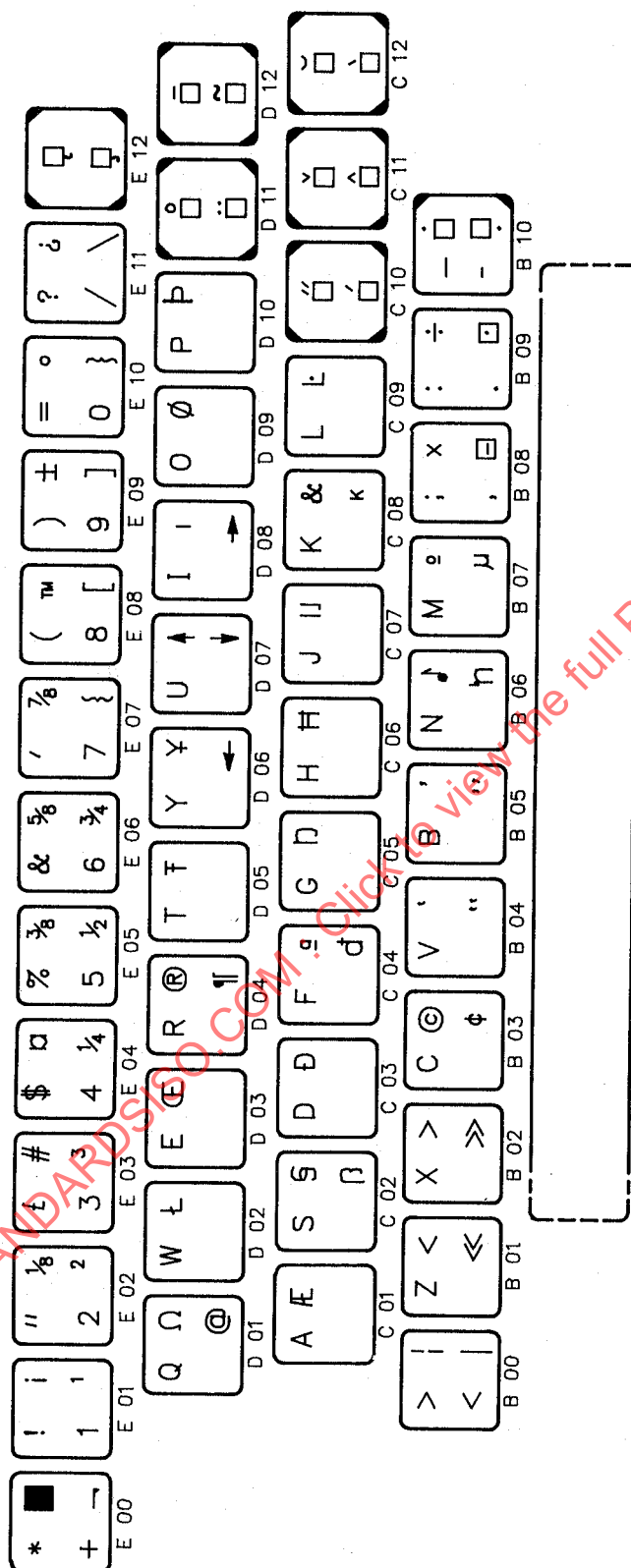


Figure A.1 - Combined Layout of the Supranational Primary (Group 1) Character Set with the Common Secondary (Group 2) Character Set

Shaded corners indicate non-spacing characters.

■ indicates location reserved for future standardization.

It is not mandatory to show all characters on keytops. Duplicates of primary (Group 1) characters should not be shown.

The "Help" squares are not intended to appear on the keytops. Where small and capital forms of a letter exist, only the capital form is shown in this figure.

Annex B
(informative)

LIST OF ALPHABETIC CHARACTERS

The alphabetic character pairs of the Common Secondary (Group 2) Character Set are shown below:

Æ	æ
Ø	ø
Ł	ł
Ł	ł
Œ	œ
ƒ	ƒ
þ	þ
Đ	đ OR đ
Ħ	ħ
İ	ı
Đ	đ

In the case of accented letters the same pairings apply, e.g., Å with å.

NOTE - The small letters đ (Croatian) and ð (Icelandic) have the same capital form Đ.

In Turkish, letters are paired thus - İ i

Separate alphabetic small characters: ſ (German)
k (Greenlandic)
ŋ (Afrikaans)

The capital form is produced when the shifted state is in effect.