

The Ysabeau font*package

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Abstract

The Ysabeau font package provides \LaTeX support for traditional \TeX engines ($\text{\texttt{PDF}\TeX}$, $\text{\texttt{dvips}}$, an so on).¹ For $\text{\texttt{X}\TeX}$ and $\text{\texttt{Lua}\TeX}$ users, OpenType and TrueType fonts are *only* provided to use with `fontspec` package. This package does not provide configuration files for those \TeX engines.

1 Introduction

On github, we can read:

Ysabeau is a free type family developed by Christian Thalmann (Catharsis Fonts). It combines the time-honored and supremely readable letterforms of the Garamond legacy with the clean crispness of a low-contrast sans serif, rendering it well suited for body copy as well as display.

Ysabeau font was drawn from scratch by Christian Thalmann, using the comercial font editor Glyphs, but was distributed under SIL open font license. Previously known as “Eua de Garamond”, the typeface was later renamed after Ysabeau, the second wife of Claude Garamond (1499–1561). In the end, it’s just another Garamond typeface in sans serif form living out there.

2 Document license

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*version font: 2.006

¹For shapes and weights, see § 7, page 3.

3 Interference with other packages

The Ysabeau font package load automatically the following packages: `fontenc`, `textcomp`, `xstring`, `ifthen`, `scalefnt`, `etoolbox`, `xkeyval`, `mweights` and `fontaxes`. If you want to pass some options a these packages, just do it *before* to use the Ysabeau font package. Example:

```
\usepackage[T2A,LGR,TS1,T1]{fontenc} % load before Ysabeau
\usepackage[full]{textcomp} % load before Ysabeau
\usepackage[osf,scsf]{ysabeau}
```

4 Usage

Just add `\usepackage{ysabeau}` at the preamble of your document. That's it!

5 Package options

Table 1: Package options

Option	Example or description	Render as
<code>scale o scaled</code>	<code>\usepackage[scale=0.9]{ysabeau}</code>	
<code>lining, lf or LF</code>	it will use lining figures	12345
<code>oldstyle, osf or OSF*</code>	it will use oldstyle figures	12345
<code>tabular, t or T</code>	it will use tabular figures	12345
<code>proportional, p or P*</code>	it will use proportional figures	
<code>mainfont</code>	it will use Ysabeau font (<code>\rmfamily</code>) by default	
<code>scsf</code>	it will use oldstyle figures in small caps block	12345
<code>black</code>	it will use black font (<code>\bfseries</code>)	black
<code>extrabold</code>	it will use extrabold font (<code>\bfseries</code>)	extrabold
<code>bold*</code>	it will use bold font (<code>\bfseries</code>)	bold
<code>semibold</code>	it will use semibold font (<code>\bfseries</code>)	semibold
<code>medium¹</code>	it will use medium font (<code>\mdseries</code>)	
<code>regular*</code>	it will use regular font (<code>\mdseries</code>)	regular
<code>light</code>	it will use light font (<code>\mdseries</code>)	light
<code>extralight</code>	it will use extralight font (<code>\mdseries</code>)	extralight
<code>thin</code>	it will use thin font (<code>\mdseries</code>)	thin
<code>hairline</code>	it will use hairline font (<code>\mdseries</code>)	hairline

* default. ¹ a bit heavier than regular.

6 Font encodings

Table 2: Font encodings

Language	Encodings
Vietnamese	T5
Afrikaans	T4
IPA	TS3, T3
Latin	QX, CS, L7X, LY1, OT1, TS1, T1
Cyrillic	T2C, T2B, T2A
Greek	LGR

7 Shapes and weights

Table 3: Shapes

Shape	Render as
n	Romans
it	<i>Italics</i>
sw	<i>ct, fi, fl, rt, sp, &, Q</i>
sc	SMALL CAPS

Table 4: Weights

Weight	Render as
Hairline	Hairline
Thin	Thin
Extralight	Extralight
Light	Light
Regular	Regular
Medium ¹	
Semibold	Semibold
Bold	Bold
Extrabold	Extrabold
Black	Black

¹ a bit heavier than regular.

The following commands and declarations (Table 5) are provided *just* for local use (weights), regardless of the options chosen in the package.

Table 5: Commands and declarations for weights

Weight	Command	Declaration	Render as
Hairline	<code>\hairline{}</code>	<code>\hairlinefont</code>	Hairline
Thin	<code>\thin{}</code>	<code>\thinfont</code>	Thin
Extralight	<code>\extralight{}</code>	<code>\extralightfont</code>	Extralight
Light	<code>\light{}</code>	<code>\lightfont</code>	Light
Semibold	<code>\semibold{}</code>	<code>\semiboldfont</code>	Semibold
Bold	<code>\bold{}</code>	<code>\boldfont</code>	Bold
Extrabold	<code>\extrabold{}</code>	<code>\extraboldfont</code>	Extrabold
Black	<code>\black{}</code>	<code>\blackfont</code>	Black

8 Figures

See also package options (§ 5, page 2) for figures. The following commands and declarations (Table 6) are provided *just* for local use, regardless of the options chosen in the package.

Table 6: Figures

Command	Declaration	Render as
<code>\textlf{}</code>	<code>\lfstyle</code>	1234567890
<code>\liningnums{}</code>	<code>\lfstyle</code>	1234567890
<code>\texttlf{}</code>	<code>\tlfstyle</code>	1234567890
<code>\tabularliningnums{}</code>	<code>\tlfstyle</code>	1234567890
<code>\textosf{}</code>	<code>\osfstyle</code>	1234567890
<code>\oldstylenums{}</code>	<code>\osfstyle</code>	1234567890
<code>\texttosf{}</code>	<code>\tosfstyle</code>	1234567890
<code>\tabularoldstylenums{}</code>	<code>\tosfstyle</code>	1234567890

8.1 Superiors

Table 7: Superiors

Command	Declarations	Render as
<code>\textsu{}</code>	<code>\supfigures</code> or <code>\supstyle</code>	1234567890
<code>\textsup{}</code>	<code>\supfigures</code> or <code>\supstyle</code>	1234567890
<code>\textsuperior{}</code>	<code>\supfigures</code> or <code>\supstyle</code>	1234567890
<code>\supscript{}</code>	<code>\supfigures</code> or <code>\supstyle</code>	1234567890
<code>\textsuperscript{}</code>		1234567890
<code>\textsuperscript*{}</code>		1234567890

8.2 Numerators

Table 8: Numerators

Command	Declarations	Render as
<code>\textnum{}</code>	<code>\numfigures</code> or <code>\numstyle</code>	1234567890
<code>\textnumerators{}</code>	<code>\numfigures</code> or <code>\numstyle</code>	1234567890

NOTE: superiors and numerators are different: a¹¹b.

8.3 Denominators

Table 9: Denominators

Command	Declarations	Render as
<code>\textde{}</code>	<code>\denfigures</code> or <code>\denstyle</code>	1234567890
<code>\textden{}</code>	<code>\denfigures</code> or <code>\denstyle</code>	1234567890
<code>\textdenominators{}</code>	<code>\denfigures</code> or <code>\denstyle</code>	1234567890

8.4 Inferiors

Table 10: Inferiors

Command	Declarations	Render as
<code>\textinf{}</code>	<code>\inffigures</code> or <code>\infstyle</code>	1234567890
<code>\textinferior{}</code>	<code>\inffigures</code> or <code>\infstyle</code>	1234567890
<code>\subscript{}</code>	<code>\inffigures</code> or <code>\infstyle</code>	1234567890
<code>\textsubscript{}</code>		1234567890
<code>\textsubscript*{}</code>		1234567890

NOTE: denominators and inferiors are different: a_1b .

9 ^{Text}/fractions

Table 11: ^{Text}/fractions

Command or declaration	Render as
<code>\textfrac[1]{1}{2}</code>	1½
<code>\textfrac{1}{2}</code>	½
<code>\onequarter</code>	¼
<code>\onehalf</code>	½
<code>\threequarters</code>	¾

10 Concluding remarks

To use Ysabeau fonts, just add the line

```
\usepackage{ysabeau}
```

at the preamble of your document. That's it.

The Ysabeau fonts were created to Adobe PostScript (type1) using `cfftot1`; \LaTeX files support were created with `autoinst`, wrapper of `LCDF TypeTools` suite. This package would not exist without the help of \TeX hackers: Marc Penninga (`autoinst`) and Eddie Kohler (`LCDF TypeTools`). Thank you so much guys.

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11 Glyphs

11.1 QX

	´	ˆ	˜	˘	˙	˚	¸	˛	
´0x	α _o	Δ ₁	β ₂	δ ₃	π ₄	Π ₅	Σ ₆	μ ₇	"0x
´1x	... ₈	fk ₉	Ω ₁₀	ff ₁₁	fi ₁₂	fl ₁₃	ffl ₁₄	fb ₁₅	
´2x	l ₁₆	j ₁₇	` ₁₈	´ ₁₉	˘ ₂₀	˙ ₂₁	¸ ₂₂	˛ ₂₃	"1x
´3x	¸ ₂₄	ß ₂₅	æ ₂₆	œ ₂₇	ø ₂₈	Æ ₂₉	Œ ₃₀	Ø ₃₁	
´4x	₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	"2x
´5x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	· ₄₆	/ ₄₇	
´6x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
´7x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	i ₆₀	= ₆₁	¿ ₆₂	? ₆₃	
´10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
´13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	" ₉₂	]₉₃	^ ₉₄	· ₉₅	
´14x	' ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	— ₁₂₃	— ₁₂₄	" ₁₂₅	~ ₁₂₆	.. ₁₂₇	
´20x	€ ₁₂₈	À ₁₂₉	Ć ₁₃₀	> ₁₃₁	≥ ₁₃₂	≈ ₁₃₃	£ ₁₃₄	l ₁₃₅	"8x
´21x	< ₁₃₆	≤ ₁₃₇	Ł ₁₃₈	Ń ₁₃₉	~ ₁₄₀	^ ₁₄₁	fh ₁₄₂	† ₁₄₃	
´22x	‡ ₁₄₄	Š ₁₄₅	Š ₁₄₆	Ş ₁₄₇	° ₁₄₈	Ţ ₁₄₉	¸ ₁₅₀	Ů ₁₅₁	"9x
´23x	ÿ ₁₅₂	Ž ₁₅₃	Ž ₁₅₄	Ž ₁₅₅	U ₁₅₆	{ ₁₅₇	} ₁₅₈	§ ₁₅₉	
´24x	ff ₁₆₀	ą ₁₆₁	ć ₁₆₂	® ₁₆₃	© ₁₆₄	÷ ₁₆₅	ę ₁₆₆	ı ₁₆₇	"Ax
´25x	— ₁₆₈	× ₁₆₉	ł ₁₇₀	ń ₁₇₁	± ₁₇₂	∞ ₁₇₃	« ₁₇₄	» ₁₇₅	
´26x	ŕ ₁₇₆	ś ₁₇₇	š ₁₇₈	ş ₁₇₉	• ₁₈₀	ţ ₁₈₁	— ₁₈₂	ı ₁₈₃	"Bx
´27x	ÿ ₁₈₄	ž ₁₈₅	ž ₁₈₆	ž ₁₈₇	ij ₁₈₈	· ₁₈₉	" ₁₉₀	' ₁₉₁	
´30x	À ₁₉₂	Á ₁₉₃	Â ₁₉₄	Ã ₁₉₅	Ä ₁₉₆	Å ₁₉₇	\ ₁₉₈	Ç ₁₉₉	"Cx
´31x	È ₂₀₀	É ₂₀₁	Ê ₂₀₂	Ë ₂₀₃	Ì ₂₀₄	Í ₂₀₅	Î ₂₀₆	Ï ₂₀₇	
´32x	Ð ₂₀₈	Ñ ₂₀₉	Ò ₂₁₀	Ó ₂₁₁	Ô ₂₁₂	Õ ₂₁₃	Ö ₂₁₄	Ŕ ₂₁₅	"Dx
´33x	% ₂₁₆	Ù ₂₁₇	Ú ₂₁₈	Û ₂₁₉	Ü ₂₂₀	Ý ₂₂₁	Þ ₂₂₂	|₂₂₃	
´34x	à ₂₂₄	á ₂₂₅	â ₂₂₆	ã ₂₂₇	ä ₂₂₈	å ₂₂₉	— ₂₃₀	ç ₂₃₁	"Ex
´35x	è ₂₃₂	é ₂₃₃	ê ₂₃₄	ë ₂₃₅	ì ₂₃₆	í ₂₃₇	î ₂₃₈	ï ₂₃₉	

36x	đ ²⁴⁰	ñ ²⁴¹	ò ²⁴²	ó ²⁴³	ô ²⁴⁴	õ ²⁴⁵	ö ²⁴⁶	ƒ ²⁴⁷	"Fx
37x	ƒk ²⁴⁸	ù ²⁴⁹	ú ²⁵⁰	û ²⁵¹	ü ²⁵²	ý ²⁵³	þ ²⁵⁴	„ ²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.2 L7X

	ó	í	ú	ý	ä	å	ö	÷	
00x	° ⁰	¹ ¹	² ²	³ ³	⁴ ⁴	⁵ ⁵	⁶ ⁶	⁷ ⁷	"0x
01x	⁸ ⁸	⁹ ⁹	¹⁰ ¹⁰	¹¹ ¹¹	¹² ¹²	¹³ ¹³	¹⁴ ¹⁴	¹⁵ ¹⁵	
02x	“ ¹⁶	” ¹⁷	„ ¹⁸	« ¹⁹	» ²⁰	— ²¹	— ²²	²³ ²³	"1x
03x	º ²⁴	¡ ²⁵	ª ²⁶	²⁷ ²⁷	ƒ ²⁸	fl ²⁹	³⁰ ³⁰	³¹ ³¹	
04x	³² ³²	! ³³	" ³⁴	# ³⁵	\$ ³⁶	% ³⁷	& ³⁸	' ³⁹	"2x
05x	(⁴⁰	)⁴¹	* ⁴²	+ ⁴³	, ⁴⁴	- ⁴⁵	· ⁴⁶	/ ⁴⁷	
06x	0 ⁴⁸	1 ⁴⁹	2 ⁵⁰	3 ⁵¹	4 ⁵²	5 ⁵³	6 ⁵⁴	7 ⁵⁵	"3x
07x	8 ⁵⁶	9 ⁵⁷	: ⁵⁸	; ⁵⁹	< ⁶⁰	= ⁶¹	> ⁶²	? ⁶³	
10x	@ ⁶⁴	A ⁶⁵	B ⁶⁶	C ⁶⁷	D ⁶⁸	E ⁶⁹	F ⁷⁰	G ⁷¹	"4x
11x	H ⁷²	I ⁷³	J ⁷⁴	K ⁷⁵	L ⁷⁶	M ⁷⁷	N ⁷⁸	O ⁷⁹	
12x	P ⁸⁰	Q ⁸¹	R ⁸²	S ⁸³	T ⁸⁴	U ⁸⁵	V ⁸⁶	W ⁸⁷	"5x
13x	X ⁸⁸	Y ⁸⁹	Z ⁹⁰	[⁹¹	\ ⁹²	]⁹³	^ ⁹⁴	_ ⁹⁵	
14x	' ⁹⁶	a ⁹⁷	b ⁹⁸	c ⁹⁹	d ¹⁰⁰	e ¹⁰¹	f ¹⁰²	g ¹⁰³	"6x
15x	h ¹⁰⁴	i ¹⁰⁵	j ¹⁰⁶	k ¹⁰⁷	l ¹⁰⁸	m ¹⁰⁹	n ¹¹⁰	o ¹¹¹	
16x	p ¹¹²	q ¹¹³	r ¹¹⁴	s ¹¹⁵	t ¹¹⁶	u ¹¹⁷	v ¹¹⁸	w ¹¹⁹	"7x
17x	x ¹²⁰	y ¹²¹	z ¹²²	{ ¹²³	|¹²⁴	} ¹²⁵	~ ¹²⁶	ff ¹²⁷	
20x	€ ¹²⁸	ff ¹²⁹	ffl ¹³⁰	f ¹³¹	fb ¹³²	... ¹³³	† ¹³⁴	‡ ¹³⁵	"8x
21x	fh ¹³⁶	% ¹³⁷	fj ¹³⁸	fk ¹³⁹	CE ¹⁴⁰	ft ¹⁴¹	ffb ¹⁴²	ffh ¹⁴³	
22x	ffj ¹⁴⁴	ffk ¹⁴⁵	fft ¹⁴⁶	¹⁴⁷ ¹⁴⁷	¹⁴⁸ ¹⁴⁸	• ¹⁴⁹	¹⁵⁰ ¹⁵⁰	¹⁵¹ ¹⁵¹	"9x
23x	¹⁵² ¹⁵²	™ ¹⁵³	¹⁵⁴ ¹⁵⁴	¹⁵⁵ ¹⁵⁵	œ ¹⁵⁶	¹⁵⁷ ¹⁵⁷	¹⁵⁸ ¹⁵⁸	¹⁵⁹ ¹⁵⁹	
24x	¹⁶⁰ ¹⁶⁰	¹⁶¹ ¹⁶¹	¢ ¹⁶²	£ ¹⁶³	₣ ¹⁶⁴	¹⁶⁵ ¹⁶⁵	¦ ¹⁶⁶	§ ¹⁶⁷	"Ax
25x	Ø ¹⁶⁸	© ¹⁶⁹	℞ ¹⁷⁰	¹⁷¹ ¹⁷¹	¬ ¹⁷²	¹⁷³ ¹⁷³	® ¹⁷⁴	Æ ¹⁷⁵	
26x	° ¹⁷⁶	± ¹⁷⁷	² ¹⁷⁸	³ ¹⁷⁹	¹⁸⁰ ¹⁸⁰	μ ¹⁸¹	¶ ¹⁸²	· ¹⁸³	"Bx
27x	ø ¹⁸⁴	¹ ¹⁸⁵	ṙ ¹⁸⁶	¹⁸⁷ ¹⁸⁷	¼ ¹⁸⁸	½ ¹⁸⁹	¾ ¹⁹⁰	æ ¹⁹¹	
30x	Ȧ ¹⁹²	Ĳ ¹⁹³	Ā ¹⁹⁴	Ć ¹⁹⁵	Ä ¹⁹⁶	Å ¹⁹⁷	Ė ¹⁹⁸	Ē ¹⁹⁹	"Cx
31x	Č ²⁰⁰	É ²⁰¹	Ž ²⁰²	È ²⁰³	Ġ ²⁰⁴	Ķ ²⁰⁵	Ī ²⁰⁶	Ĺ ²⁰⁷	
32x	Š ²⁰⁸	Ň ²⁰⁹	Ŋ ²¹⁰	Ó ²¹¹	Ō ²¹²	Õ ²¹³	Ö ²¹⁴	× ²¹⁵	"Dx
33x	Ů ²¹⁶	Ł ²¹⁷	Ś ²¹⁸	Ū ²¹⁹	Ü ²²⁰	Ž ²²¹	Ž ²²²	ß ²²³	

34x	ǻ ²²⁴	ǿ ²²⁵	ā ²²⁶	ć ²²⁷	ä ²²⁸	å ²²⁹	ę ²³⁰	ē ²³¹	"Ex
35x	č ²³²	é ²³³	ž ²³⁴	è ²³⁵	ġ ²³⁶	ķ ²³⁷	ī ²³⁸	ı ²³⁹	
36x	š ²⁴⁰	ń ²⁴¹	ŋ ²⁴²	ó ²⁴³	ō ²⁴⁴	ö ²⁴⁵	ö ²⁴⁶	÷ ²⁴⁷	"Fx
37x	ȳ ²⁴⁸	ł ²⁴⁹	ś ²⁵⁰	ū ²⁵¹	ü ²⁵²	ž ²⁵³	ž ²⁵⁴	²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.3 CS

	ó	í	ú	3	4	5	6	7	
00x	Γ _o	Δ ₁	Θ ₂	Λ ₃	Ξ ₄	Π ₅	Σ ₆	Υ ₇	"0x
01x	Φ ₈	Ψ ₉	Ω ₁₀	κ ₁₁	ñ ₁₂	fl ₁₃	Π ₁₄	Π ₁₅	
02x	ı ₁₆	ı ₁₇	` ₁₈	' ₁₉	˘ ₂₀	˘ ₂₁	- ₂₂	° ₂₃	"1x
03x	ı ₂₄	ß ₂₅	æ ₂₆	æ ₂₇	ø ₂₈	Æ ₂₉	Œ ₃₀	Ø ₃₁	
04x	₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	"2x
05x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	. ₄₆	/ ₄₇	
06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	i ₆₀	= ₆₁	¿ ₆₂	? ₆₃	
10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	· ₉₅	
14x	' ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	— ₁₂₃	— ₁₂₄	" ₁₂₅	~ ₁₂₆	¨ ₁₂₇	
20x	... ₁₂₈	† ₁₂₉	‡ ₁₃₀	• ₁₃₁	£ ₁₃₂	¶ ₁₃₃	€ ₁₃₄	ff ₁₃₅	"8x
21x	™ ₁₃₆	© ₁₃₇	® ₁₃₈	ffi ₁₃₉	ffl ₁₄₀	%o ₁₄₁	< ₁₄₂	> ₁₄₃	
22x	fb ₁₄₄	fh ₁₄₅	fj ₁₄₆	fk ₁₄₇	ft ₁₄₈	f ₁₄₉	ffb ₁₅₀	f ₁₅₁	"9x
23x	À ₁₅₂	ffh ₁₅₃	, ₁₅₄	ffj ₁₅₅	- ₁₅₆	ç ₁₅₇	« ₁₅₈	» ₁₅₉	
24x	ffk ₁₆₀	À ₁₆₁	ffl ₁₆₂	Ł ₁₆₃	ŕ ₁₆₄	L' ₁₆₅	Š ₁₆₆	§ ₁₆₇	"Ax
25x	fb ₁₆₈	Š ₁₆₉	§ ₁₇₀	ř ₁₇₁	Ž ₁₇₂	fh ₁₇₃	ž ₁₇₄	ž ₁₇₅	
26x	° ₁₇₆	ǻ ₁₇₇	fi ₁₇₈	ł ₁₇₉	fi ₁₈₀	l' ₁₈₁	š ₁₈₂	> ₁₈₃	"Bx
27x	à ₁₈₄	š ₁₈₅	§ ₁₈₆	ł ₁₈₇	ž ₁₈₈	ı ₁₈₉	ž ₁₉₀	ž ₁₉₁	
30x	Ř ₁₉₂	Á ₁₉₃	Â ₁₉₄	Ă ₁₉₅	Ä ₁₉₆	Í ₁₉₇	Ć ₁₉₈	Ç ₁₉₉	"Cx
31x	Č ₂₀₀	É ₂₀₁	Ě ₂₀₂	Ě ₂₀₃	Ě ₂₀₄	Í ₂₀₅	Î ₂₀₆	Ď ₂₀₇	

ʹ _{32x}	Đ ₂₀₈	Ń ₂₀₉	Ñ ₂₁₀	Ó ₂₁₁	Ô ₂₁₂	Õ ₂₁₃	Ö ₂₁₄	× ₂₁₅	"Dx
ʹ _{33x}	Ř ₂₁₆	Ů ₂₁₇	Ú ₂₁₈	Ů ₂₁₉	Ü ₂₂₀	Ý ₂₂₁	Ť ₂₂₂	< ₂₂₃	
ʹ _{34x}	í ₂₂₄	á ₂₂₅	â ₂₂₆	ă ₂₂₇	ä ₂₂₈	Í ₂₂₉	ć ₂₃₀	ç ₂₃₁	"Ex
ʹ _{35x}	č ₂₃₂	é ₂₃₃	ę ₂₃₄	ě ₂₃₅	ě ₂₃₆	í ₂₃₇	î ₂₃₈	d' ₂₃₉	
ʹ _{36x}	ď ₂₄₀	ń ₂₄₁	ň ₂₄₂	ó ₂₄₃	ô ₂₄₄	ó ₂₄₅	ö ₂₄₆	÷ ₂₄₇	"Fx
ʹ _{37x}	ř ₂₄₈	ů ₂₄₉	ú ₂₅₀	ů ₂₅₁	ü ₂₅₂	ý ₂₅₃	„ ₂₅₄	“ ₂₅₅	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.4 LGR

	ó	í	ú	ý	ä	å	ö	ç	
ʹ _{00x}	— ₀	ˆ ₁	ˆ ₂	ˆ ₃	ˆ ₄	ˆ ₅	ˆ ₆	ˆ ₇	"0x
ʹ _{01x}	8	9	10	11	A ₁₂	ÿ ₁₃	α ₁₄	ü ₁₅	
ʹ _{02x}	16	17	18	19	ˆ ₂₀	ˆ ₂₁	ˆ ₂₂	ˆ ₂₃	"1x
ʹ _{03x}	€ ₂₄	‰ ₂₅	ə ₂₆	ˆ ₂₇	ˆ ₂₈	ˆ ₂₉	ˆ ₃₀	ˆ ₃₁	
ʹ _{04x}	32	! ₃₃	ˆ ₃₄	ˆ ₃₅	36	% ₃₇	ˆ ₃₈	ˆ ₃₉	"2x
ʹ _{05x}	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	ˆ ₄₆	/ ₄₇	
ʹ _{06x}	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
ʹ _{07x}	8 ₅₆	9 ₅₇	: ₅₈	ˆ ₅₉	60	= ₆₁	62	; ₆₃	
ʹ _{10x}	64	A ₆₅	B ₆₆	67	Δ ₆₈	E ₆₉	Φ ₇₀	Γ ₇₁	"4x
ʹ _{11x}	H ₇₂	I ₇₃	Θ ₇₄	K ₇₅	Λ ₇₆	M ₇₇	N ₇₈	O ₇₉	
ʹ _{12x}	Π ₈₀	X ₈₁	P ₈₂	Σ ₈₃	T ₈₄	Y ₈₅	86	Ω ₈₇	"5x
ʹ _{13x}	≡ ₈₈	Ψ ₈₉	Z ₉₀	[₉₁	92	]₉₃	94	95	
ʹ _{14x}	96	α ₉₇	β ₉₈	ς ₉₉	δ ₁₀₀	ε ₁₀₁	φ ₁₀₂	γ ₁₀₃	"6x
ʹ _{15x}	η ₁₀₄	ι ₁₀₅	θ ₁₀₆	κ ₁₀₇	λ ₁₀₈	μ ₁₀₉	ν ₁₁₀	ο ₁₁₁	
ʹ _{16x}	π ₁₁₂	χ ₁₁₃	ρ ₁₁₄	ς ₁₁₅	τ ₁₁₆	υ ₁₁₇	118	ω ₁₁₉	"7x
ʹ _{17x}	ξ ₁₂₀	ψ ₁₂₁	ζ ₁₂₂	« ₁₂₃	124	» ₁₂₅	126	— ₁₂₇	
ʹ _{20x}	128	129	130	131	132	133	134	135	"8x
ʹ _{21x}	á ₁₃₆	137	138	139	140	141	142	143	
ʹ _{22x}	144	145	146	147	148	149	150	151	"9x
ʹ _{23x}	152	153	154	ʹH ₁₅₅	156	157	158	ʹE ₁₅₉	
ʹ _{24x}	ή ₁₆₀	161	162	163	164	165	166	167	"Ax
ʹ _{25x}	168	169	170	171	172	173	174	175	
ʹ _{26x}	176	177	178	179	180	181	182	183	"Bx
ʹ _{27x}	ώ ₁₈₄	185	186	187	188	189	190	191	
ʹ _{30x}	192	193	194	195	196	197	198	ʹA ₁₉₉	"Cx
ʹ _{31x}	200	201	202	203	204	205	206	207	

‘32x	í ₂₀₈	209	210	211	ú ₂₁₂	213	214	215	”Dx
‘33x	216	217	218	ï ₂₁₉	220	221	222	ÿ ₂₂₃	
‘34x	224	225	226	227	228	229	230	231	”Ex
‘35x	é ₂₃₂	233	234	235	ó ₂₃₆	237	238	239	
‘36x	ï ₂₄₀	241	î ₂₄₂	243	ü ₂₄₄	245	Û ₂₄₆	247	”Fx
‘37x	248	249	250	251	252	253	’ ₂₅₄	, ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.5 T5

	ó	í	ú	‘	4	5	6	7	
‘00x	˘ ₀	‘ ₁	ˆ ₂	˜ ₃	¨ ₄	. ₅	° ₆	ˇ ₇	”0x
‘01x	˘ ₈	– ₉	˙ ₁₀	¸ ₁₁	? ₁₂	, ₁₃	< ₁₄	> ₁₅	
‘02x	“ ₁₆	” ₁₇	„ ₁₈	« ₁₉	» ₂₀	— ₂₁	— ₂₂	23	”1x
‘03x	o ₂₄	l ₂₅	ÿ ₂₆	ÿ ₂₇	Y ₂₈	y ₂₉	Đ ₃₀	đ ₃₁	
‘04x	⌞ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	”2x
‘05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	• ₄₆	/ ₄₇	
‘06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	”3x
‘07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
‘10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	”4x
‘11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
‘12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	”5x
‘13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
‘14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
‘15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
‘16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
‘17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	127	
‘20x	À ₁₂₈	Á ₁₂₉	Ã ₁₃₀	Å ₁₃₁	Ạ ₁₃₂	Â ₁₃₃	Ă ₁₃₄	Ą ₁₃₅	”8x
‘21x	Ã ₁₃₆	Ä ₁₃₇	Â ₁₃₈	Ǻ ₁₃₉	Ǻ ₁₄₀	Ǻ ₁₄₁	Ǻ ₁₄₂	Ǻ ₁₄₃	
‘22x	Ǻ ₁₄₄	È ₁₄₅	É ₁₄₆	Ẽ ₁₄₇	Ẽ ₁₄₈	Ẽ ₁₄₉	Ê ₁₅₀	Ê ₁₅₁	”9x
‘23x	Ẽ ₁₅₂	Ẽ ₁₅₃	Ẽ ₁₅₄	Ẽ ₁₅₅	ì ₁₅₆	í ₁₅₇	ĩ ₁₅₈	ĩ ₁₅₉	
‘24x	à ₁₆₀	á ₁₆₁	ã ₁₆₂	ǻ ₁₆₃	ạ ₁₆₄	â ₁₆₅	ă ₁₆₆	ą ₁₆₇	”Ax
‘25x	ă ₁₆₈	ă ₁₆₉	â ₁₇₀	ǻ ₁₇₁	ǻ ₁₇₂	ǻ ₁₇₃	ă ₁₇₄	ă ₁₇₅	
‘26x	ă ₁₇₆	è ₁₇₇	é ₁₇₈	ẽ ₁₇₉	ẽ ₁₈₀	ẹ ₁₈₁	ê ₁₈₂	ẽ ₁₈₃	”Bx
‘27x	ế ₁₈₄	ẽ ₁₈₅	ẽ ₁₈₆	ê ₁₈₇	ì ₁₈₈	í ₁₈₉	ĩ ₁₉₀	ĩ ₁₉₁	

30x	! ¹⁹²	Ò ¹⁹³	Ó ¹⁹⁴	Õ ¹⁹⁵	Ö ¹⁹⁶	Ȯ ¹⁹⁷	Ô ¹⁹⁸	Ō ¹⁹⁹	"Cx
31x	Ŕ ²⁰⁰	Ŗ ²⁰¹	Œ ²⁰²	Ĥ ²⁰³	Ơ ²⁰⁴	Ờ ²⁰⁵	Ớ ²⁰⁶	Ỡ ²⁰⁷	
32x	Ỗ ²⁰⁸	Ỗ ²⁰⁹	Ù ²¹⁰	Ú ²¹¹	Ũ ²¹²	Ủ ²¹³	Ụ ²¹⁴	Ư ²¹⁵	"Dx
33x	Ỡ ²¹⁶	Ỡ ²¹⁷	Ỡ ²¹⁸	Ỡ ²¹⁹	Ỡ ²²⁰	Ỡ ²²¹	Ỡ ²²²	Ỡ ²²³	
34x	İ ²²⁴	ò ²²⁵	ó ²²⁶	õ ²²⁷	ö ²²⁸	ȯ ²²⁹	ô ²³⁰	ō ²³¹	"Ex
35x	ŕ ²³²	ŗ ²³³	ŋ ²³⁴	ĥ ²³⁵	ơ ²³⁶	ờ ²³⁷	ớ ²³⁸	ỡ ²³⁹	
36x	ử ²⁴⁰	ợ ²⁴¹	ù ²⁴²	ú ²⁴³	ũ ²⁴⁴	ủ ²⁴⁵	ụ ²⁴⁶	ư ²⁴⁷	"Fx
37x	ừ ²⁴⁸	ứ ²⁴⁹	ữ ²⁵⁰	ử ²⁵¹	ự ²⁵²	ỳ ²⁵³	ý ²⁵⁴	ỹ ²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.6 T4

	ó	í	2	3	4	5	6	7	
00x	` ⁰	´ ¹	^ ²	~ ³	¨ ⁴	˝ ⁵	° ⁶	˘ ⁷	"0x
01x	˘ ⁸	ˉ ⁹	˙ ¹⁰	˚ ¹¹	¸ ¹²	ˊ ¹³	◁ ¹⁴	▷ ¹⁵	
02x	“ ¹⁶	” ¹⁷	„ ¹⁸	« ¹⁹	» ²⁰	— ²¹	— ²²	— ²³	"1x
03x	o ²⁴	l ²⁵	j ²⁶	ff ²⁷	fi ²⁸	fl ²⁹	ff ³⁰	ff ³¹	
04x	⌞ ³²	! ³³	" ³⁴	# ³⁵	\$ ³⁶	% ³⁷	& ³⁸	' ³⁹	"2x
05x	(⁴⁰	) ⁴¹	* ⁴²	+ ⁴³	, ⁴⁴	- ⁴⁵	. ⁴⁶	/ ⁴⁷	
06x	0 ⁴⁸	1 ⁴⁹	2 ⁵⁰	3 ⁵¹	4 ⁵²	5 ⁵³	6 ⁵⁴	7 ⁵⁵	"3x
07x	8 ⁵⁶	9 ⁵⁷	: ⁵⁸	; ⁵⁹	< ⁶⁰	= ⁶¹	> ⁶²	? ⁶³	
10x	@ ⁶⁴	A ⁶⁵	B ⁶⁶	C ⁶⁷	D ⁶⁸	E ⁶⁹	F ⁷⁰	G ⁷¹	"4x
11x	H ⁷²	I ⁷³	J ⁷⁴	K ⁷⁵	L ⁷⁶	M ⁷⁷	N ⁷⁸	O ⁷⁹	
12x	P ⁸⁰	Q ⁸¹	R ⁸²	S ⁸³	T ⁸⁴	U ⁸⁵	V ⁸⁶	W ⁸⁷	"5x
13x	X ⁸⁸	Y ⁸⁹	Z ⁹⁰	[⁹¹	\ ⁹²	] ⁹³	^ ⁹⁴	_ ⁹⁵	
14x	‘ ⁹⁶	a ⁹⁷	b ⁹⁸	c ⁹⁹	d ¹⁰⁰	e ¹⁰¹	f ¹⁰²	g ¹⁰³	"6x
15x	h ¹⁰⁴	i ¹⁰⁵	j ¹⁰⁶	k ¹⁰⁷	l ¹⁰⁸	m ¹⁰⁹	n ¹¹⁰	o ¹¹¹	
16x	p ¹¹²	q ¹¹³	r ¹¹⁴	s ¹¹⁵	t ¹¹⁶	u ¹¹⁷	v ¹¹⁸	w ¹¹⁹	"7x
17x	x ¹²⁰	y ¹²¹	z ¹²²	{ ¹²³	| ¹²⁴	} ¹²⁵	~ ¹²⁶	- ¹²⁷	
20x	Ɓ ¹²⁸	Ɗ ¹²⁹	Ɛ ¹³⁰	Ɔ ¹³¹	Ƒ ¹³²	Ǝ ¹³³	Ǝ ¹³⁴	Ɔ ¹³⁵	"8x
21x	Ƒ ¹³⁶	Ɔ ¹³⁷	Ɔ ¹³⁸	Ƒ ¹³⁹	Ƒ ¹⁴⁰	Ƒ ¹⁴¹	Ƒ ¹⁴²	Ƒ ¹⁴³	
22x	Ɔ ¹⁴⁴	Ƒ ¹⁴⁵	Ƒ ¹⁴⁶	Ƒ ¹⁴⁷	Ƒ ¹⁴⁸	Ƒ ¹⁴⁹	Ƒ ¹⁵⁰	Ƒ ¹⁵¹	"9x
23x	Ƒ ¹⁵²	Ƒ ¹⁵³	Ƒ ¹⁵⁴	Ƒ ¹⁵⁵	Ƒ ¹⁵⁶	Ƒ ¹⁵⁷	Ƒ ¹⁵⁸	Ƒ ¹⁵⁹	
24x	Ƒ ¹⁶⁰	Ƒ ¹⁶¹	Ƒ ¹⁶²	Ƒ ¹⁶³	Ƒ ¹⁶⁴	Ƒ ¹⁶⁵	Ƒ ¹⁶⁶	Ƒ ¹⁶⁷	"Ax
25x	Ƒ ¹⁶⁸	Ƒ ¹⁶⁹	Ƒ ¹⁷⁰	Ƒ ¹⁷¹	Ƒ ¹⁷²	Ƒ ¹⁷³	Ƒ ¹⁷⁴	Ƒ ¹⁷⁵	

26x	ç ¹⁷⁶	ß ¹⁷⁷	š ¹⁷⁸	ň ¹⁷⁹	ñ ¹⁸⁰	ş ¹⁸¹	ž ¹⁸²	ţ ¹⁸³	"Bx
27x	è ¹⁸⁴	ę ¹⁸⁵	ť ¹⁸⁶	ť ¹⁸⁷	fb ¹⁸⁸	ı ¹⁸⁹	ı ¹⁹⁰	ı ¹⁹¹	
30x	l ¹⁹²	ı ¹⁹³	fh ¹⁹⁴	Ã ¹⁹⁵	Í ¹⁹⁶	fj ¹⁹⁷	Æ ¹⁹⁸	Ç ¹⁹⁹	"Cx
31x	È ²⁰⁰	É ²⁰¹	Ě ²⁰²	Ě ²⁰³	fk ²⁰⁴	Ē ²⁰⁵	Ē ²⁰⁶	İ ²⁰⁷	
32x	Đ ²⁰⁸	Ñ ²⁰⁹	Ò ²¹⁰	Ó ²¹¹	Ô ²¹²	Õ ²¹³	Ö ²¹⁴	Œ ²¹⁵	"Dx
33x	Ø ²¹⁶	Œ ²¹⁷	ft ²¹⁸	Ō ²¹⁹	Ŏ ²²⁰	Ŭ ²²¹	Ū ²²²	Ł ²²³	
34x	ı ²²⁴	ı ²²⁵	ffb ²²⁶	ã ²²⁷	ı ²²⁸	ffh ²²⁹	æ ²³⁰	ç ²³¹	"Ex
35x	è ²³²	é ²³³	ě ²³⁴	ě ²³⁵	ffj ²³⁶	ē ²³⁷	ē ²³⁸	ĩ ²³⁹	
36x	đ ²⁴⁰	ñ ²⁴¹	ò ²⁴²	ó ²⁴³	ô ²⁴⁴	õ ²⁴⁵	ö ²⁴⁶	œ ²⁴⁷	"Fx
37x	ø ²⁴⁸	ø ²⁴⁹	ffk ²⁵⁰	ō ²⁵¹	ŏ ²⁵²	ŭ ²⁵³	ũ ²⁵⁴	ß ²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.7 TS3

	ó	í	ú	3	4	5	6	7	
00x	o	ı	2	3	4	5	6	↓ ⁷	"0x
01x	↑ ⁸	→ ⁹	↔ ¹⁰	11	12	13	14	15	
04x	32	33	34	35	36	37	38	39	"2x
05x	40	41	42	43	Υ ⁴⁴	45	46	47	
06x	48	49	50	f ⁵¹	52	53	54	55	"3x
07x	56	⊙ ⁵⁷	58	59	60	61	62	63	
10x	64	65	66	67	68	69	|⁷⁰	||⁷¹	"4x
11x	‡ ⁷²	73	74	75	76	77	78	79	
12x	p ⁸⁰	p ⁸¹	p ⁸²	p ⁸³	? ⁸⁴	? ⁸⁵	? ⁸⁶	87	"5x
13x	88	89	90	91	92	93	94	95	
16x	112	113	δ ¹¹⁴	115	116	117	118	119	"7x
17x	120	q ¹²¹	122	123	124	125	126	127	
36x	240	241	242	243	244	245	246	247	"Fx
37x	248	249	250	fl ²⁵¹	l ²⁵²	fi ²⁵³	i ²⁵⁴	f ²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.8 T3

	ó	í	ú	3	4	5	6	7	
00x	˘ ^o	˘ ^ı	˘ ²	˘ ³	˘ ⁴	˘ ⁵	˘ ⁶	˘ ⁷	"0x
01x	˘ ⁸	˘ ⁹	˘ ¹⁰	˘ ¹¹	˘ ¹²	˘ ¹³	14	15	

’02x	ˆ ₁₆	ˆ ₁₇	ˆ ₁₈	ˆ ₁₉	ˆ ₂₀	ˆ ₂₁	ˆ ₂₂	ˆ ₂₃	”1x
’03x	ˆ ₂₄	ˆ ₂₅	ˆ ₂₆	ˆ ₂₇	ˆ ₂₈	ˆ ₂₉	ˆ ₃₀	ˆ ₃₁	
’04x	’ ₃₂	’ ₃₃	’ ₃₄	’ ₃₅	’ ₃₆	’ ₃₇	’ ₃₈	’ ₃₉	”2x
’05x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	· ₄₆	/ ₄₇	
’06x	⋈ ₄₈	⋈ ₄₉	Λ ₅₀	⋈ ₅₁	⋈ ₅₂	⋈ ₅₃	⋈ ₅₄	⋈ ₅₅	”3x
’07x	⋈ ₅₆	⋈ ₅₇	⋈ ₅₈	⋈ ₅₉	⋈ ₆₀	= ₆₁	⋈ ₆₂	? ₆₃	
’10x	⋈ ₆₄	⋈ ₆₅	⋈ ₆₆	⋈ ₆₇	⋈ ₆₈	⋈ ₆₉	⋈ ₇₀	⋈ ₇₁	”4x
’11x	⋈ ₇₂	⋈ ₇₃	⋈ ₇₄	⋈ ₇₅	⋈ ₇₆	⋈ ₇₇	⋈ ₇₈	⋈ ₇₉	
’12x	⋈ ₈₀	⋈ ₈₁	⋈ ₈₂	⋈ ₈₃	⋈ ₈₄	⋈ ₈₅	⋈ ₈₆	⋈ ₈₇	”5x
’13x	⋈ ₈₈	⋈ ₈₉	⋈ ₉₀	⋈ ₉₁	⋈ ₉₂	⋈ ₉₃	⋈ ₉₄	⋈ ₉₅	
’14x	’ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
’15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
’16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
’17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	||₁₂₃	|₁₂₄	† ₁₂₅	ˆ ₁₂₆	ˆ ₁₂₇	
’22x	ˆ ₁₄₄	ˆ ₁₄₅	ˆ ₁₄₆	ˆ ₁₄₇	ˆ ₁₄₈	ˆ ₁₄₉	ˆ ₁₅₀	ˆ ₁₅₁	”9x
’23x	ˆ ₁₅₂	ˆ ₁₅₃	ˆ ₁₅₄	ˆ ₁₅₅	ˆ ₁₅₆	ˆ ₁₅₇	ˆ ₁₅₈	ˆ ₁₅₉	
’24x	ˆ ₁₆₀	đ ₁₆₁	ˆ ₁₆₂	ˆ ₁₆₃	ˆ ₁₆₄	g ₁₆₅	ˆ ₁₆₆	ˆ ₁₆₇	”Ax
’25x	ˆ ₁₆₈	⋈ ₁₆₉	ˆ ₁₇₀	λ ₁₇₁	ˆ ₁₇₂	ˆ ₁₇₃	ˆ ₁₇₄	ˆ ₁₇₅	
’26x	ω ₁₇₆	ω ₁₇₇	ˆ ₁₇₈	ˆ ₁₇₉	ˆ ₁₈₀	ts ₁₈₁	ˆ ₁₈₂	ˆ ₁₈₃	”Bx
’27x	ˆ ₁₈₄	ˆ ₁₈₅	b ₁₈₆	ˆ ₁₈₇	ˆ ₁₈₈	ˆ ₁₈₉	ˆ ₁₉₀	|₁₉₁	
’30x	ˆ ₁₉₂	Ĉ ₁₉₃	ˆ ₁₉₄	đ ₁₉₅	ˆ ₁₉₆	ˆ ₁₉₇	Ĝ ₁₉₈	Ž ₁₉₉	”Cx
’31x	ˆ ₂₀₀	Ĝ ₂₀₁	ĥ ₂₀₂	Ĥ ₂₀₃	ˆ ₂₀₄	ˆ ₂₀₅	Ĥ ₂₀₆	L ₂₀₇	
’32x	Ĥ ₂₀₈	ˆ ₂₀₉	Ĥ ₂₁₀	Ĥ ₂₁₁	ˆ ₂₁₂	J ₂₁₃	Ĥ ₂₁₄	Æ ₂₁₅	”Dx
’33x	ˆ ₂₁₆	Ĥ ₂₁₇	ˆ ₂₁₈	ˆ ₂₁₉	ˆ ₂₂₀	Ĥ ₂₂₁	ˆ ₂₂₂	ˆ ₂₂₃	
’34x	B ₂₂₄	Ĥ ₂₂₅	Ĥ ₂₂₆	Ĥ ₂₂₇	Ĥ ₂₂₈	G ₂₂₉	æ ₂₃₀	Ĥ ₂₃₁	”Ex
’35x	Ĥ ₂₃₂	Ĥ ₂₃₃	Ĥ ₂₃₄	Ĥ ₂₃₅	Ĥ ₂₃₆	Ĥ ₂₃₇	Ų ₂₃₈	Ų ₂₃₉	
’36x	N ₂₄₀	Ų ₂₄₁	Ų ₂₄₂	Ų ₂₄₃	Ų ₂₄₄	Ų ₂₄₅	R ₂₄₆	œ ₂₄₇	”Fx
’37x	ø ₂₄₈	Ų ₂₄₉	Ų ₂₅₀	Ų ₂₅₁	Ų ₂₅₂	Ų ₂₅₃	Ų ₂₅₄	ˆ ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.9 T2C

	’0	’1	’2	’3	’4	’5	’6	’7	
’00x	ˆ ₀	ˆ ₁	ˆ ₂	ˆ ₃	ˆ ₄	ˆ ₅	ˆ ₆	ˆ ₇	”0x
’01x	ˆ ₈	ˆ ₉	ˆ ₁₀	ˆ ₁₁	ˆ ₁₂	ˆ ₁₃	ff ₁₄	ff ₁₅	

’02x	“ ₁₆	” ₁₇	fb ₁₈	fh ₁₉	fj ₂₀	– ₂₁	— ₂₂	ff ₂₃	”1x
’03x	o ₂₄	l ₂₅	j ₂₆	fk ₂₇	fi ₂₈	fl ₂₉	ft ₃₀	ffb ₃₁	
’04x	┐ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	”2x
’05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	. ₄₆	/ ₄₇	
’06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	”3x
’07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
’10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	”4x
’11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
’12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	”5x
’13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
’14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
’15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
’16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
’17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	
’20x	П ₁₂₈	Ц ₁₂₉	Т ₁₃₀	Б ₁₃₁	Һ ₁₃₂	ffh ₁₃₃	Р ₁₃₄	З ₁₃₅	”8x
’21x	ffj ₁₃₆	К ₁₃₇	ffk ₁₃₈	К ₁₃₉	fft ₁₄₀	Һ ₁₄₁	₁₄₂	Н ₁₄₃	
’22x	Ө ₁₄₄	ё ₁₄₅	ё ₁₄₆	Ъ ₁₄₇	₁₄₈	Х ₁₄₉	Ц ₁₅₀	Ѡ ₁₅₁	”9x
’23x	Ч ₁₅₂	₁₅₃	Ә ₁₅₄	₁₅₅	Ё ₁₅₆	№ ₁₅₇	ѡ ₁₅₈	Ѓ ₁₅₉	
’24x	П ₁₆₀	Ц ₁₆₁	Т ₁₆₂	Б ₁₆₃	Һ ₁₆₄	₁₆₅	Р ₁₆₆	З ₁₆₇	”Ax
’25x	₁₆₈	К ₁₆₉	₁₇₀	к ₁₇₁	₁₇₂	Һ ₁₇₃	₁₇₄	Н ₁₇₅	
’26x	ө ₁₇₆	е ₁₇₇	ё ₁₇₈	ѐ ₁₇₉	₁₈₀	х ₁₈₁	ц ₁₈₂	ѡ ₁₈₃	”Bx
’27x	ч ₁₈₄	₁₈₅	ә ₁₈₆	₁₈₇	ё ₁₈₈	„ ₁₈₉	« ₁₉₀	» ₁₉₁	
’30x	А ₁₉₂	Б ₁₉₃	В ₁₉₄	Г ₁₉₅	Д ₁₉₆	Е ₁₉₇	Ж ₁₉₈	З ₁₉₉	”Cx
’31x	И ₂₀₀	Й ₂₀₁	К ₂₀₂	Л ₂₀₃	М ₂₀₄	Н ₂₀₅	О ₂₀₆	П ₂₀₇	
’32x	Р ₂₀₈	С ₂₀₉	Т ₂₁₀	У ₂₁₁	Ф ₂₁₂	Х ₂₁₃	Ц ₂₁₄	Ч ₂₁₅	”Dx
’33x	Ш ₂₁₆	Щ ₂₁₇	Ъ ₂₁₈	Ы ₂₁₉	Ь ₂₂₀	Э ₂₂₁	Ю ₂₂₂	Я ₂₂₃	
’34x	а ₂₂₄	б ₂₂₅	в ₂₂₆	г ₂₂₇	д ₂₂₈	е ₂₂₉	ж ₂₃₀	з ₂₃₁	”Ex
’35x	и ₂₃₂	й ₂₃₃	к ₂₃₄	л ₂₃₅	м ₂₃₆	н ₂₃₇	о ₂₃₈	п ₂₃₉	
’36x	р ₂₄₀	с ₂₄₁	т ₂₄₂	у ₂₄₃	ф ₂₄₄	х ₂₄₅	ц ₂₄₆	ч ₂₄₇	”Fx
’37x	ш ₂₄₈	щ ₂₄₉	ъ ₂₅₀	ы ₂₅₁	ь ₂₅₂	э ₂₅₃	ю ₂₅₄	я ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.10 T2B

	’o	’1	’2	’3	’4	’5	’6	’7	
’00x	` _o	’ ₁	^ ₂	~ ₃	” ₄	” ₅	° ₆	ˇ ₇	”0x
’01x	˘ ₈	- ₉	˙ ₁₀	˘ ₁₁	˘ ₁₂	l ₁₃	ff ₁₄	ff ₁₅	

’02x	“ ₁₆	” ₁₇	fb ₁₈	fh ₁₉	fj ₂₀	— ₂₁	— ₂₂	ff ₂₃	”1x
’03x	o ₂₄	l ₂₅	j ₂₆	fk ₂₇	fi ₂₈	fl ₂₉	ft ₃₀	ffb ₃₁	
’04x	└ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	”2x
’05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	· ₄₆	/ ₄₇	
’06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	”3x
’07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
’10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	”4x
’11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
’12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	”5x
’13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
’14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
’15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
’16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
’17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	
’20x	ffh ₁₂₈	F ₁₂₉	ffj ₁₃₀	Б ₁₃₁	h ₁₃₂	Ж ₁₃₃	ffk ₁₃₄	З ₁₃₅	”8x
’21x	Л ₁₃₆	К ₁₃₇	ffl ₁₃₈	Қ ₁₃₉	₁₄₀	Ғ ₁₄₁	Һ ₁₄₂	Ҳ ₁₄₃	
’22x	Ө ₁₄₄	₁₄₅	Ү ₁₄₆	Ү ₁₄₇	₁₄₈	Ұ ₁₄₉	₁₅₀	Ұ ₁₅₁	”9x
’23x	Ұ ₁₅₂	Ң ₁₅₃	Ә ₁₅₄	₁₅₅	Ё ₁₅₆	№ ₁₅₇	Ұ ₁₅₈	§ ₁₅₉	
’24x	₁₆₀	Ғ ₁₆₁	₁₆₂	Ғ ₁₆₃	h ₁₆₄	Ж ₁₆₅	₁₆₆	З ₁₆₇	”Ax
’25x	Л ₁₆₈	Қ ₁₆₉	₁₇₀	Қ ₁₇₁	₁₇₂	Ғ ₁₇₃	Һ ₁₇₄	Ҳ ₁₇₅	
’26x	Ө ₁₇₆	₁₇₇	Ү ₁₇₈	Ү ₁₇₉	₁₈₀	Ұ ₁₈₁	₁₈₂	Ұ ₁₈₃	”Bx
’27x	Ұ ₁₈₄	Ң ₁₈₅	Ә ₁₈₆	₁₈₇	Ё ₁₈₈	„ ₁₈₉	« ₁₉₀	» ₁₉₁	
’30x	A ₁₉₂	Б ₁₉₃	B ₁₉₄	Г ₁₉₅	Д ₁₉₆	Е ₁₉₇	Ж ₁₉₈	З ₁₉₉	”Cx
’31x	И ₂₀₀	Й ₂₀₁	К ₂₀₂	Л ₂₀₃	М ₂₀₄	Н ₂₀₅	О ₂₀₆	П ₂₀₇	
’32x	Р ₂₀₈	С ₂₀₉	Т ₂₁₀	У ₂₁₁	Ф ₂₁₂	Х ₂₁₃	Ц ₂₁₄	Ч ₂₁₅	”Dx
’33x	Ш ₂₁₆	Щ ₂₁₇	Ъ ₂₁₈	Ы ₂₁₉	Ь ₂₂₀	Э ₂₂₁	Ю ₂₂₂	Я ₂₂₃	
’34x	a ₂₂₄	б ₂₂₅	в ₂₂₆	г ₂₂₇	д ₂₂₈	е ₂₂₉	ж ₂₃₀	з ₂₃₁	”Ex
’35x	и ₂₃₂	й ₂₃₃	к ₂₃₄	л ₂₃₅	м ₂₃₆	н ₂₃₇	о ₂₃₈	п ₂₃₉	
’36x	р ₂₄₀	с ₂₄₁	т ₂₄₂	у ₂₄₃	ф ₂₄₄	х ₂₄₅	ц ₂₄₆	ч ₂₄₇	”Fx
’37x	ш ₂₄₈	щ ₂₄₉	ъ ₂₅₀	ы ₂₅₁	ь ₂₅₂	э ₂₅₃	ю ₂₅₄	я ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.11 T2A

	’o	’i	’2	’3	’4	’5	’6	’7	
’00x	` ₀	’ ₁	^ ₂	~ ₃	¨ ₄	” ₅	° ₆	˘ ₇	”0x
’01x	˘ ₈	- ₉	· ₁₀	˙ ₁₁	˘ ₁₂	l ₁₃	ff ₁₄	ffl ₁₅	

’02x	“ ₁₆	” ₁₇	fb ₁₈	fh ₁₉	fj ₂₀	– ₂₁	— ₂₂	ff ₂₃	”1x
’03x	o ₂₄	l ₂₅	j ₂₆	fk ₂₇	fi ₂₈	fl ₂₉	ft ₃₀	ffb ₃₁	
’04x	└ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	”2x
’05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	~ ₄₅	• ₄₆	/ ₄₇	
’06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	”3x
’07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
’10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	”4x
’11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
’12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	”5x
’13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
’14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
’15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
’16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
’17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	
’20x	Г ₁₂₈	Ғ ₁₂₉	Ғ ₁₃₀	Ғ ₁₃₁	Һ ₁₃₂	Җ ₁₃₃	Җ ₁₃₄	Љ ₁₃₅	”8x
’21x	Ї ₁₃₆	Қ ₁₃₇	Қ ₁₃₈	Қ ₁₃₉	Æ ₁₄₀	Ң ₁₄₁	Ң ₁₄₂	Ѕ ₁₄₃	
’22x	Ө ₁₄₄	Ҙ ₁₄₅	Ҙ ₁₄₆	Ҙ ₁₄₇	Ҙ ₁₄₈	Ҙ ₁₄₉	Ҙ ₁₅₀	Ҙ ₁₅₁	”9x
’23x	Ҙ ₁₅₂	Є ₁₅₃	Ә ₁₅₄	Һ ₁₅₅	Ё ₁₅₆	№ ₁₅₇	Ѡ ₁₅₈	§ ₁₅₉	
’24x	Ғ ₁₆₀	Ғ ₁₆₁	Ғ ₁₆₂	Ғ ₁₆₃	Һ ₁₆₄	Җ ₁₆₅	Җ ₁₆₆	Љ ₁₆₇	”Ax
’25x	Ї ₁₆₈	Қ ₁₆₉	Қ ₁₇₀	Қ ₁₇₁	æ ₁₇₂	Ң ₁₇₃	Ң ₁₇₄	Ѕ ₁₇₅	
’26x	Ө ₁₇₆	Ҙ ₁₇₇	Ҙ ₁₇₈	Ҙ ₁₇₉	Ҙ ₁₈₀	Ҙ ₁₈₁	Ҙ ₁₈₂	Ҙ ₁₈₃	”Bx
’27x	Ҙ ₁₈₄	Є ₁₈₅	Ә ₁₈₆	Һ ₁₈₇	Ё ₁₈₈	„ ₁₈₉	« ₁₉₀	» ₁₉₁	
’30x	А ₁₉₂	Б ₁₉₃	В ₁₉₄	Г ₁₉₅	Д ₁₉₆	Е ₁₉₇	Ж ₁₉₈	З ₁₉₉	”Cx
’31x	И ₂₀₀	Й ₂₀₁	К ₂₀₂	Л ₂₀₃	М ₂₀₄	Н ₂₀₅	О ₂₀₆	П ₂₀₇	
’32x	Р ₂₀₈	С ₂₀₉	Т ₂₁₀	У ₂₁₁	Ф ₂₁₂	Х ₂₁₃	Ц ₂₁₄	Ч ₂₁₅	”Dx
’33x	Ш ₂₁₆	Щ ₂₁₇	Ъ ₂₁₈	Ы ₂₁₉	Ь ₂₂₀	Э ₂₂₁	Ю ₂₂₂	Я ₂₂₃	
’34x	а ₂₂₄	б ₂₂₅	в ₂₂₆	г ₂₂₇	д ₂₂₈	е ₂₂₉	ж ₂₃₀	з ₂₃₁	”Ex
’35x	и ₂₃₂	й ₂₃₃	к ₂₃₄	л ₂₃₅	м ₂₃₆	н ₂₃₇	о ₂₃₈	п ₂₃₉	
’36x	р ₂₄₀	с ₂₄₁	т ₂₄₂	у ₂₄₃	ф ₂₄₄	х ₂₄₅	ц ₂₄₆	ч ₂₄₇	”Fx
’37x	ш ₂₄₈	щ ₂₄₉	ъ ₂₅₀	ы ₂₅₁	ь ₂₅₂	э ₂₅₃	ю ₂₅₄	я ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.12 LY1

	’o	’i	’2	’3	’4	’5	’6	’7	
’00x	ff ₀	€ ₁	ff ₂	ff ₃	/ ₄	• ₅	” ₆	с ₇	”0x
’01x	fl ₈	fb ₉	₁₀	fj ₁₁	fi ₁₂	fh ₁₃	fk ₁₄	ft ₁₅	

´02x	ı ₁₆	ı ₁₇	` ₁₈	´ ₁₉	˘ ₂₀	ˇ ₂₁	ˉ ₂₂	° ₂₃	"1x
´03x	ı ₂₄	ß ₂₅	æ ₂₆	œ ₂₇	ø ₂₈	Æ ₂₉	Œ ₃₀	Ø ₃₁	
´04x	₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	"2x
´05x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	· ₄₆	/ ₄₇	
´06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
´07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
´10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
´13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
´14x	' ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	¨ ₁₂₇	
´20x	Ł ₁₂₈	ł ₁₂₉	ŀ ₁₃₀	ŋ ₁₃₁	„ ₁₃₂	… ₁₃₃	† ₁₃₄	‡ ₁₃₅	"8x
´21x	ˆ ₁₃₆	‰ ₁₃₇	Š ₁₃₈	‹ ₁₃₉	Œ ₁₄₀	Ž ₁₄₁	ˆ ₁₄₂	— ₁₄₃	
´22x	ł ₁₄₄	' ₁₄₅	' ₁₄₆	" ₁₄₇	" ₁₄₈	• ₁₄₉	— ₁₅₀	— ₁₅₁	"9x
´23x	~ ₁₅₂	™ ₁₅₃	Š ₁₅₄	› ₁₅₅	œ ₁₅₆	ž ₁₅₇	~ ₁₅₈	ÿ ₁₅₉	
´24x	₁₆₀	ı ₁₆₁	¢ ₁₆₂	£ ₁₆₃	¤ ₁₆₄	¥ ₁₆₅	ı ₁₆₆	§ ₁₆₇	"Ax
´25x	¨ ₁₆₈	© ₁₆₉	a ₁₇₀	« ₁₇₁	¬ ₁₇₂	₁₇₃	® ₁₇₄	— ₁₇₅	
´26x	° ₁₇₆	± ₁₇₇	² ₁₇₈	³ ₁₇₉	' ₁₈₀	μ ₁₈₁	¶ ₁₈₂	· ₁₈₃	"Bx
´27x	ı ₁₈₄	¹ ₁₈₅	º ₁₈₆	» ₁₈₇	¼ ₁₈₈	½ ₁₈₉	¾ ₁₉₀	¿ ₁₉₁	
´30x	À ₁₉₂	Á ₁₉₃	Â ₁₉₄	Ã ₁₉₅	Ä ₁₉₆	Å ₁₉₇	Æ ₁₉₈	Ç ₁₉₉	"Cx
´31x	È ₂₀₀	É ₂₀₁	Ê ₂₀₂	Ë ₂₀₃	Ì ₂₀₄	Í ₂₀₅	Î ₂₀₆	Ï ₂₀₇	
´32x	Ð ₂₀₈	Ñ ₂₀₉	Ò ₂₁₀	Ó ₂₁₁	Ô ₂₁₂	Õ ₂₁₃	Ö ₂₁₄	× ₂₁₅	"Dx
´33x	Ø ₂₁₆	Ù ₂₁₇	Ú ₂₁₈	Û ₂₁₉	Ü ₂₂₀	Ý ₂₂₁	Þ ₂₂₂	ß ₂₂₃	
´34x	à ₂₂₄	á ₂₂₅	â ₂₂₆	ã ₂₂₇	ä ₂₂₈	å ₂₂₉	æ ₂₃₀	ç ₂₃₁	"Ex
´35x	è ₂₃₂	é ₂₃₃	ê ₂₃₄	ë ₂₃₅	ì ₂₃₆	í ₂₃₇	î ₂₃₈	ï ₂₃₉	
´36x	ð ₂₄₀	ñ ₂₄₁	ò ₂₄₂	ó ₂₄₃	ô ₂₄₄	õ ₂₄₅	ö ₂₄₆	÷ ₂₄₇	"Fx
´37x	ø ₂₄₈	ù ₂₄₉	ú ₂₅₀	û ₂₅₁	ü ₂₅₂	ý ₂₅₃	þ ₂₅₄	ÿ ₂₅₅	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.13 OT1

	ó	í	ú	ý	ú	ý	ú	ý	
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’00x	Γ _o	Δ ₁	Θ ₂	Λ ₃	Ξ ₄	Π ₅	Σ ₆	Υ ₇	”0x
’01x	Φ ₈	Ψ ₉	Ω ₁₀	11	fi ₁₂	fl ₁₃	14	15	
’02x	l ₁₆	j ₁₇	` ₁₈	’ ₁₉	˘ ₂₀	˘ ₂₁	– ₂₂	° ₂₃	”1x
’03x	˘ ₂₄	ß ₂₅	æ ₂₆	æ ₂₇	ø ₂₈	Æ ₂₉	Œ ₃₀	Ø ₃₁	
’04x	/ ₃₂	! ₃₃	” ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	’ ₃₉	”2x
’05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	– ₄₅	• ₄₆	/ ₄₇	
’06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	”3x
’07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	i ₆₀	= ₆₁	¿ ₆₂	? ₆₃	
’10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	”4x
’11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
’12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	”5x
’13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	“ ₉₂	]₉₃	^ ₉₄	’ ₉₅	
’14x	’ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	”6x
’15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
’16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	”7x
’17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	– ₁₂₃	— ₁₂₄	” ₁₂₅	~ ₁₂₆	.. ₁₂₇	
’20x	ff ₁₂₈	ffi ₁₂₉	ffl ₁₃₀	fb ₁₃₁	fh ₁₃₂	fj ₁₃₃	fk ₁₃₄	ft ₁₃₅	”8x
’21x	ffb ₁₃₆	ffh ₁₃₇	ft ₁₃₈	ffj ₁₃₉	ffk ₁₄₀	fft ₁₄₁	142	143	
’24x	160	161	162	163	164	165	166	167	”Ax
’25x	168	169	170	171	172	173	174	175	
	”8	”9	”A	”B	”C	”D	”E	”F	

11.14 TS1

	’0	’1	’2	’3	’4	’5	’6	’7	
’00x	o	1	2	3	4	5	6	7	”0x
’01x	8	9	10	˘ ₁₁	˘ ₁₂	, ₁₃	14	15	
’02x	16	17	„ ₁₈	19	20	– ₂₁	– ₂₂	23	”1x
’03x	← ₂₄	→ ₂₅	26	27	28	29	30	31	
’04x	⌞ ₃₂	33	34	35	\$ ₃₆	37	38	’ ₃₉	”2x
’05x	40	41	* ₄₂	43	, ₄₄	45	• ₄₆	/ ₄₇	
’06x	48	49	50	51	52	53	54	55	”3x
’07x	56	57	58	59	⟨ ₆₀	– ₆₁	⟩ ₆₂	63	
’12x	80	81	82	83	84	85	86	Ω ₈₇	”5x
’13x	88	89	90	91	92	93	↑ ₉₄	↓ ₉₅	
’20x	128	129	130	131	† ₁₃₂	‡ ₁₃₃	||₁₃₄	‰ ₁₃₅	”8x
’21x	• ₁₃₆	°C ₁₃₇	138	139	f ₁₄₀	¢ ₁₄₁	142	143	

‘22x	144	145	£ 146	147	! 148	ı 149	đ 150	™ 151	"9x
‘23x	152	153	154	Nº 155	156	e 157	o 158	159	
‘24x	160	161	¢ 162	£ 163	¤ 164	¥ 165	ı 166	§ 167	"Ax
‘25x	168	© 169	ª 170	171	¬ 172	173	® 174	175	
‘26x	° 176	± 177	² 178	³ 179	180	µ 181	¶ 182	• 183	"Bx
‘27x	184	¹ 185	º 186	√ 187	¼ 188	½ 189	¾ 190	€ 191	
‘32x	208	209	210	211	212	213	× 214	215	"Dx
‘33x	216	217	218	219	220	221	222	223	
‘36x	240	241	242	243	244	245	÷ 246	247	"Fx
‘37x	248	249	250	fl 251	l 252	fi 253	i 254	f 255	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.15 T1

	‘o	‘ı	‘2	‘3	‘4	‘5	‘6	‘7	
‘00x	` 0	‘ 1	^ 2	~ 3	¨ 4	” 5	° 6	ˇ 7	"0x
‘01x	˘ 8	ˉ 9	˙ 10	˚ 11	¸ 12	, 13	< 14	> 15	
‘02x	“ 16	” 17	„ 18	« 19	» 20	— 21	— 22	23	"1x
‘03x	o 24	ı 25	j 26	ff 27	fi 28	fl 29	ffi 30	ffl 31	
‘04x	ı 32	! 33	" 34	# 35	\$ 36	% 37	& 38	' 39	"2x
‘05x	(40	) 41	* 42	+ 43	, 44	- 45	• 46	/ 47	
‘06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	"3x
‘07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
‘10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	"4x
‘11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
‘12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	"5x
‘13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	
‘14x	‘ 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	"6x
‘15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	
‘16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	"7x
‘17x	x 120	y 121	z 122	{ 123	| 124	} 125	~ 126	- 127	
‘20x	Ā 128	Ȧ 129	Ć 130	Č 131	Ǧ 132	Ǧ 133	Ě 134	Ǧ 135	"8x
‘21x	Ĺ 136	Ĺ 137	Ł 138	Ń 139	Ń 140	Ń 141	Ō 142	Ŕ 143	
‘22x	Ř 144	Ś 145	Š 146	Ş 147	Ť 148	Ť 149	Ů 150	Ů 151	"9x
‘23x	Ỳ 152	Ž 153	Ž 154	Ž 155	U 156	i 157	đ 158	§ 159	
‘24x	ă 160	ą 161	ć 162	č 163	d' 164	ě 165	ę 166	ğ 167	"Ax
‘25x	í 168	l' 169	ł 170	ń 171	ň 172	ŋ 173	ó 174	í 175	

26x	ř ₁₇₆	ś ₁₇₇	š ₁₇₈	š ₁₇₉	ť ₁₈₀	ť ₁₈₁	ů ₁₈₂	ů ₁₈₃	"Bx
27x	ÿ ₁₈₄	ž ₁₈₅	ž ₁₈₆	ž ₁₈₇	ij ₁₈₈	i ₁₈₉	ı ₁₉₀	£ ₁₉₁	
30x	À ₁₉₂	Á ₁₉₃	Â ₁₉₄	Ã ₁₉₅	Ä ₁₉₆	Å ₁₉₇	Æ ₁₉₈	Ç ₁₉₉	"Cx
31x	È ₂₀₀	É ₂₀₁	Ê ₂₀₂	Ë ₂₀₃	Ì ₂₀₄	Í ₂₀₅	Î ₂₀₆	Ï ₂₀₇	
32x	Ð ₂₀₈	Ñ ₂₀₉	Ò ₂₁₀	Ó ₂₁₁	Ô ₂₁₂	Õ ₂₁₃	Ö ₂₁₄	Œ ₂₁₅	"Dx
33x	Ø ₂₁₆	Ù ₂₁₇	Ú ₂₁₈	Û ₂₁₉	Ü ₂₂₀	Ý ₂₂₁	Þ ₂₂₂	Û ₂₂₃	
34x	à ₂₂₄	á ₂₂₅	â ₂₂₆	ã ₂₂₇	ä ₂₂₈	å ₂₂₉	æ ₂₃₀	ç ₂₃₁	"Ex
35x	è ₂₃₂	é ₂₃₃	ê ₂₃₄	ë ₂₃₅	ì ₂₃₆	í ₂₃₇	î ₂₃₈	ï ₂₃₉	
36x	ø ₂₄₀	ñ ₂₄₁	ò ₂₄₂	ó ₂₄₃	ô ₂₄₄	õ ₂₄₅	ö ₂₄₆	œ ₂₄₇	"Fx
37x	ø ₂₄₈	ù ₂₄₉	ú ₂₅₀	û ₂₅₁	ü ₂₅₂	ý ₂₅₃	þ ₂₅₄	ß ₂₅₅	
	"8	"9	"A	"B	"C	"D	"E	"F	

11.16 T1 (Swash)

	ó	í	ú	ý	ú	ý	ó	í	
00x	° ₀	° ₁	° ₂	° ₃	° ₄	° ₅	° ₆	° ₇	"0x
01x	° ₈	° ₉	° ₁₀	° ₁₁	° ₁₂	° ₁₃	° ₁₄	° ₁₅	
02x	" ₁₆	" ₁₇	" ₁₈	" ₁₉	" ₂₀	" ₂₁	" ₂₂	" ₂₃	"1x
03x	o ₂₄	l ₂₅	J ₂₆	cl ₂₇	fl ₂₈	fl ₂₉	rt ₃₀	sp ₃₁	
04x	° ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	¢ ₃₈	' ₃₉	"2x
05x	(₄₀	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	. ₄₆	/ ₄₇	
06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	
10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	
14x	' ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	
20x	Ǻ ₁₂₈	Ǻ ₁₂₉	Ć ₁₃₀	Č ₁₃₁	Ǻ ₁₃₂	Ǻ ₁₃₃	Ǻ ₁₃₄	Ǻ ₁₃₅	"8x
21x	Ǻ ₁₃₆	Ǻ ₁₃₇	Ǻ ₁₃₈	Ǻ ₁₃₉	Ǻ ₁₄₀	Ǻ ₁₄₁	Ǻ ₁₄₂	Ǻ ₁₄₃	
22x	Ǻ ₁₄₄	Ǻ ₁₄₅	Ǻ ₁₄₆	Ǻ ₁₄₇	Ǻ ₁₄₈	Ǻ ₁₄₉	Ǻ ₁₅₀	Ǻ ₁₅₁	"9x
23x	Ǻ ₁₅₂	Ǻ ₁₅₃	Ǻ ₁₅₄	Ǻ ₁₅₅	Ǻ ₁₅₆	Ǻ ₁₅₇	Ǻ ₁₅₈	Ǻ ₁₅₉	

‘24x	ǎ ₁₆₀	q ₁₆₁	ć ₁₆₂	č ₁₆₃	d’ ₁₆₄	ě ₁₆₅	ǧ ₁₆₆	ğ ₁₆₇	"Ax
‘25x	ĺ ₁₆₈	l’ ₁₆₉	t ₁₇₀	ń ₁₇₁	ň ₁₇₂	ŋ ₁₇₃	ő ₁₇₄	í ₁₇₅	
‘26x	ř ₁₇₆	ś ₁₇₇	š ₁₇₈	ș ₁₇₉	t’ ₁₈₀	ț ₁₈₁	ú ₁₈₂	û ₁₈₃	"Bx
‘27x	ÿ ₁₈₄	ź ₁₈₅	ž ₁₈₆	ż ₁₈₇	ij ₁₈₈	ı ₁₈₉	ı̇ ₁₉₀	£ ₁₉₁	
‘30x	À ₁₉₂	Á ₁₉₃	Â ₁₉₄	Ã ₁₉₅	Ä ₁₉₆	Å ₁₉₇	Æ ₁₉₈	Ç ₁₉₉	"Cx
‘31x	È ₂₀₀	É ₂₀₁	Ê ₂₀₂	Ë ₂₀₃	Ì ₂₀₄	Í ₂₀₅	Î ₂₀₆	Ï ₂₀₇	
‘32x	Ð ₂₀₈	Ñ ₂₀₉	Ò ₂₁₀	Ó ₂₁₁	Ô ₂₁₂	Õ ₂₁₃	Ö ₂₁₄	Œ ₂₁₅	"Dx
‘33x	Ø ₂₁₆	Ù ₂₁₇	Ú ₂₁₈	Û ₂₁₉	Ü ₂₂₀	Ý ₂₂₁	Þ ₂₂₂	ß ₂₂₃	
‘34x	à ₂₂₄	á ₂₂₅	â ₂₂₆	ã ₂₂₇	ä ₂₂₈	å ₂₂₉	æ ₂₃₀	ç ₂₃₁	"Ex
‘35x	è ₂₃₂	é ₂₃₃	ê ₂₃₄	ë ₂₃₅	ì ₂₃₆	í ₂₃₇	î ₂₃₈	ï ₂₃₉	
‘36x	ø ₂₄₀	ñ ₂₄₁	ò ₂₄₂	ó ₂₄₃	ô ₂₄₄	õ ₂₄₅	ö ₂₄₆	œ ₂₄₇	"Fx
‘37x	ø ₂₄₈	ù ₂₄₉	ú ₂₅₀	û ₂₅₁	ü ₂₅₂	ý ₂₅₃	þ ₂₅₄	ß ₂₅₅	
	"8	"9	"A	"B	"C	"D	"E	"F	