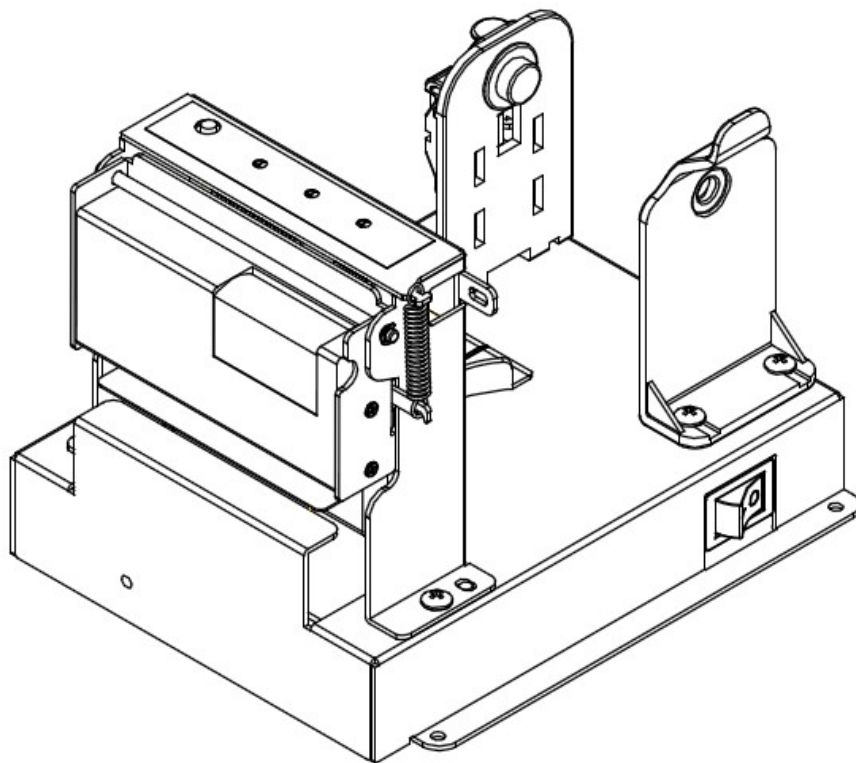


User's Manual

1 Station Thermal Kiosk Printer

Model: WP-K633IV
Version: 1.00



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1. GENERAL DESCRIPTION

1.1 Overview

The WP-K633IV Thermal Kiosk Printer is designed for Kiosk uses, panel printer, computer peripheral equipment, and so on.

1.2 Features

1. Compact kiosk Thermal printer.
2. Auto loading designed for installing paper easily
3. Interface conformity to RS-232C and USB (Virtual COM).
4. Command protocol is compatible with ESC/POS.
5. The resident data buffer has storage capacity about 128K-bytes that enables data to be received even while printing.
6. The sensors include paper end, paper load and paper out sensor.

1.3 Accessories

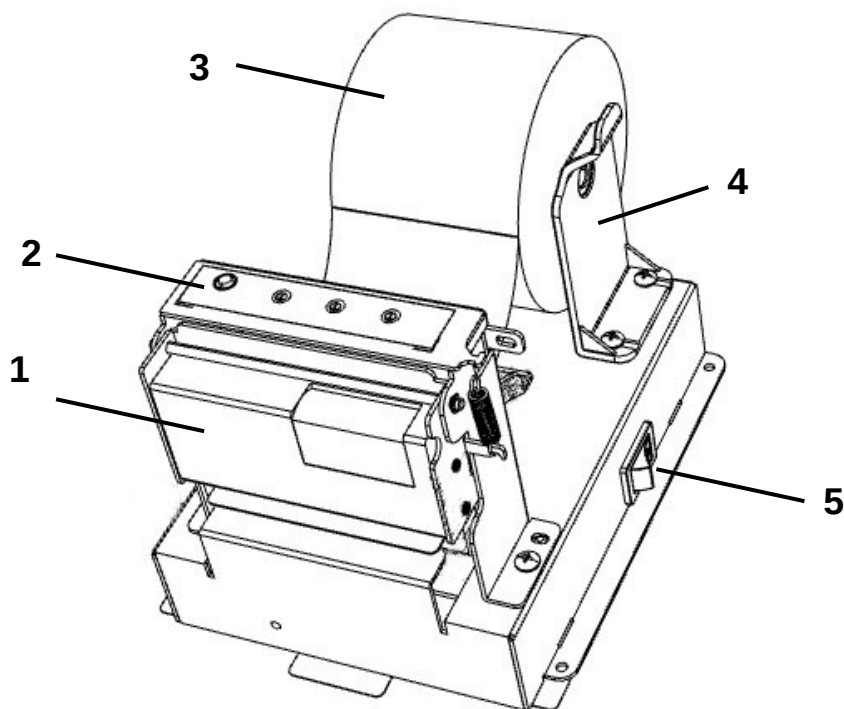
The following parts are included in this set of printer. Please confirm.

Paper roll	(1 roll)
Power supply	(1 unit)
Power cord	(1 unit)
Option(one of items below will be included)	
Cable for RS-232C (Transmit through RS-232)	(1 unit)
Cable for USB (Transmit through USB)	(1 unit)

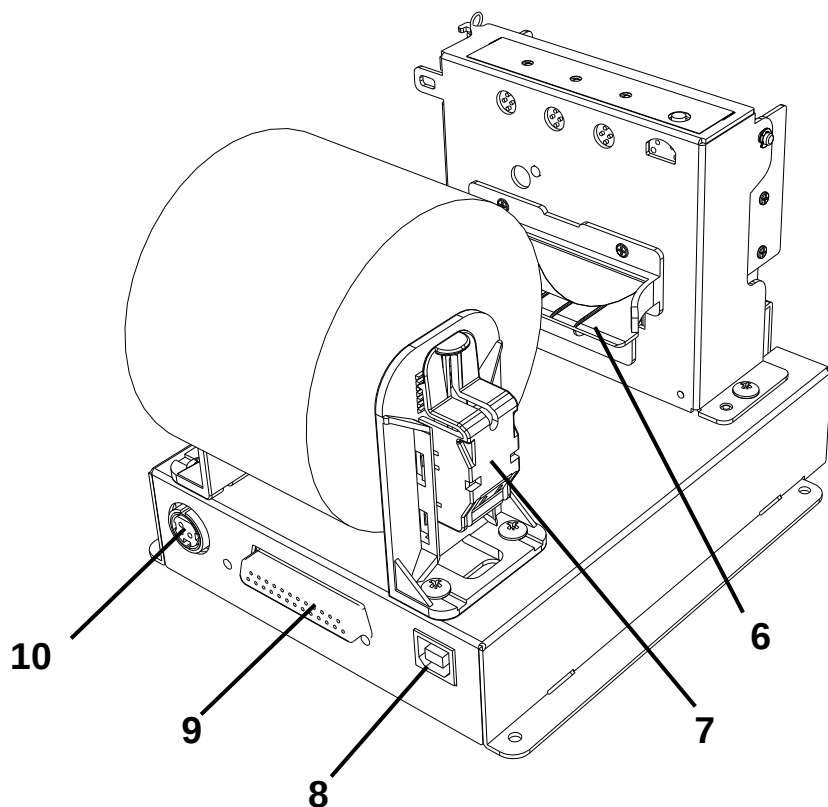
2. MAIN SPECIFICATIONS

Item			Description		
1	Printing method		Thermal line		
2	Printing speed		60 mm/s		
3	Character structure		Alphanumeric (Font A)	Alphanumeric (Font B)	Chinese
			12×24	9×17	24×24
4	Number of columns		32 columns	42 columns	16 columns
5	Character size		1.41(W) ×3.0(H)	1.1(W) ×2.0(H)	3.0(W) ×3.0(H)
6	Density		203dpi		
7	Fonts		Multilingual code page × 12, Chinese, Japanese, Thai, Korean, Others		
8	Bar code		UPC-A, UPC-E, EAN13, EAN8, CODE39, CODE93, CODABAR, CODE128, ITF		
9	Detectors		Paper end, Paper near end, Printer head overheat, Cover and cutter jam		
10	Paper		Single-ply thermal paper roll		
11	Paper roll size		57.5 ± 0.5 (W) x 80 mm (Dia.)		
12	Reliability	Head	50KM		
		Cutter	500,000 times		
13	Memory	Buffer	4 KB		
		SRAM	128 KB		
		Flash	512 KB		
14	Power supply		10VDC / 3A.		
15	Interface		RS-232C and USB		
16	Gross Weight		1.9 kg		
17	External dimensions		130(W) x 144(D) x 113(H)mm		
18	Temperature	Operating	0 to 45℃		
		Storage	-10 to 50℃		
19	Humidity	Operating	10 ~ 90 %RH		
		Storage	10 ~ 90 %RH		

3. EXTERNAL APPEARANCE AND PART DESCRIPTIONS



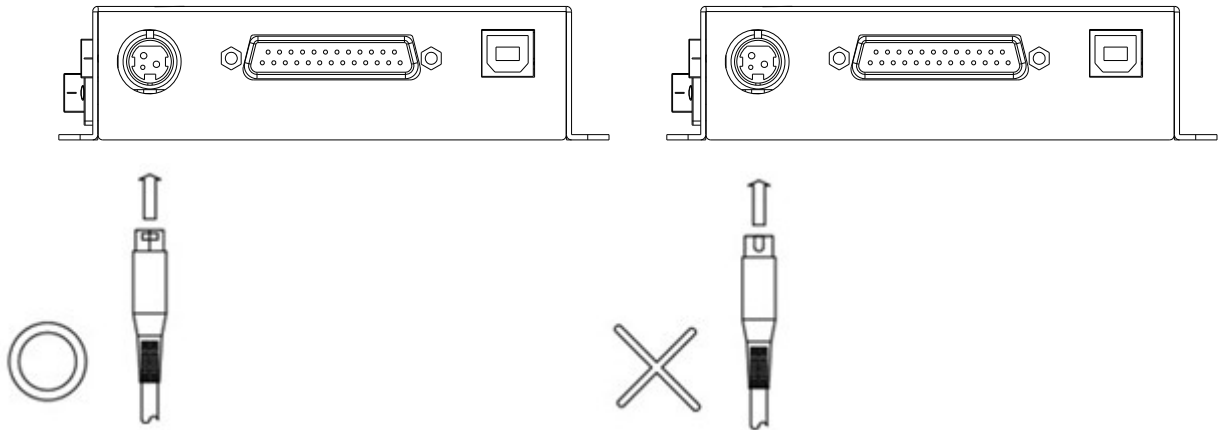
1	Cutter
2	Control panel
3	Paper roll
4	Paper holder
5	Power switch
6	Paper in
7	Near end sensor
8	USB Interface
9	RS-232 Interface
10	Power connector



4. INSTALLATIONS

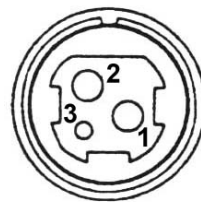
4.1 How to Connect Power Adapter

- (1) Ensure that the power switch is OFF.
- (2) Plug the power connector into the printer's power connector at the arrow mark facing upward.
- (3) Plug the power cord into the outlet, and turn on the power.



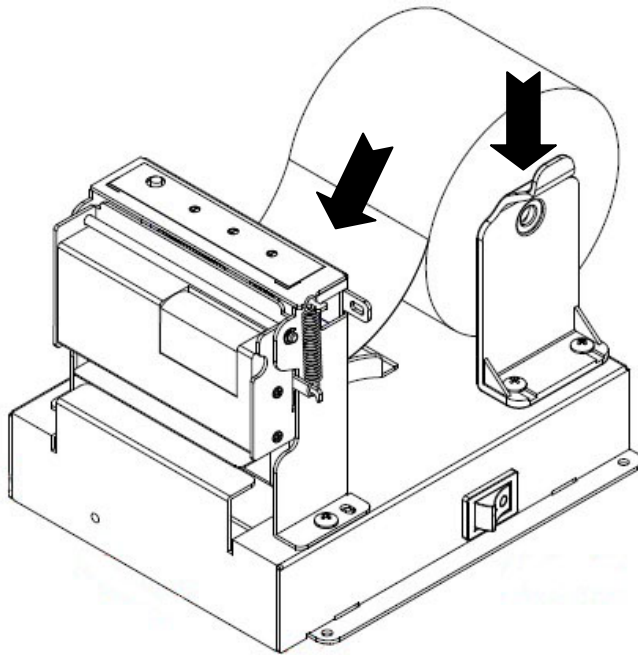
- (4) Connector Specifications shows as below:

Pin Number	Signal Name
1	+10VDC
2	GND
3	NC
Shell	Frame GND



4.2 Setting of the Printer Cover and Setting Paper

- (1) Pull the printer.
- (2) Insert the paper roll as picture below shown.
- (3) The printer will detect paper feed automatically.



1. Paper thickness is 0.05-0.06mm
2. Paper width range is from 57 ± 0.5 mm
3. Roll diameter max. 80mm

5. CONTROL PANEL

5.1 Basic Operation



(1) **Feed** Line feed button

When this push-button switch is pressed once briefly (for 0.5 seconds or less), the paper is fed forward by one line. When it is held down continuously, the paper is fed forward continuously until the switch is released.

(2) **Power** lamp (green LED)

Lights indicate power well.

(3) **Paper** lamp (Yellow LED)

- Lamp indicator will remain lighting when paper near end or paper end.
- Lamp indicator will keep sparkling when printer process self testing.

The flash timing chart shows as below:

Printer status	Blinking Pattern
Self Testing	ON OFF 500 ms
Paper near end	ON OFF

Table 5-1. SEL Lamp Display

(4) **Error** lamp (red LED)

When printer cover is not properly closed or paper jam happen on cutter part or paper is not put properly , the error indicator lamp(red LED) will light.

5.2 Switch Operation (Combined Switch operation)

(1) SELF PRINT TEST

Feed + **POWER ON** (Turn the power on while holding the **Feed** button, the buzzer gives one short beep.)

Self-testing will be performed according to the VER. NO., printer settings and characters etc (Ref. sheet1). When the **Feed** button is held again after self-printing stopped, the printer will print out again. To turn off this mode, it is necessary to turn off the printer power completely.

5.3 Setting

Config via software.



6. INTERFACE SPECIFICATIONS

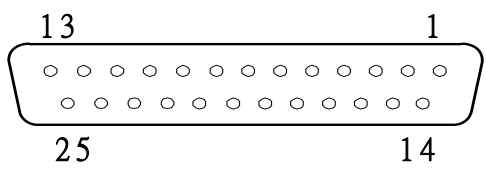
6.1 Serial interface specifications

6.1.1 Specifications (Conform to RS-232C)

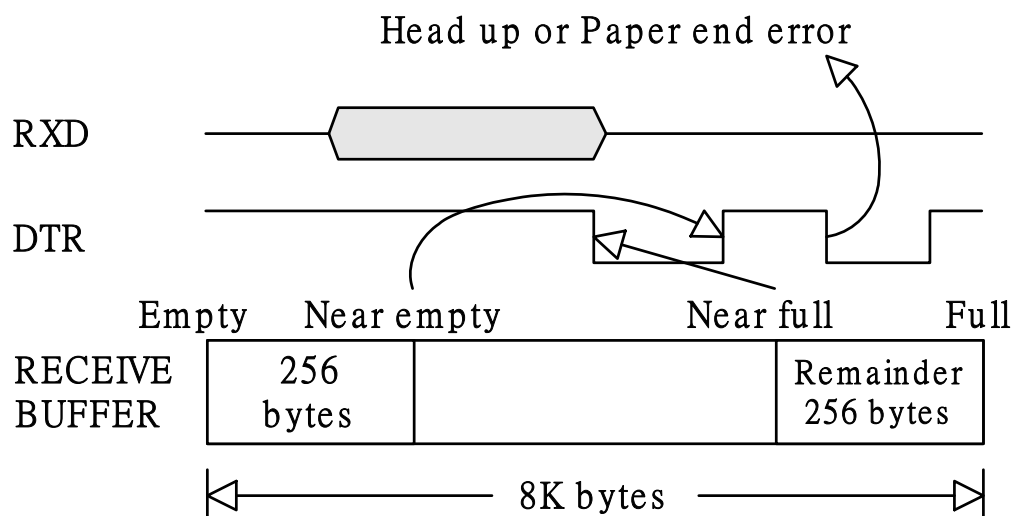
Synchronizing system : Asynchronous system
Handshaking : DTR/DSR control
Baud rates : 9600,19200,38400,115200 (Refer chapter 5-3)
Data length : Fixed 8 bit length
Parity : None

6.1.2 Pin assignment

No.	Signal Name	I/O	Signal Name
2	TXD	Output	Transmit data
3	RXD	Input	Receive data
6	DSR	Input	Data set ready
20	DTR	Output	Data terminal ready
7	GND	-	Signal ground



6.1.3 Timing Chart



6.2 USB (P) interface specifications

6.2.1 Specifications (Conform to USB 2.0)

Data transmission : USB 2.0

6.2.2 Pin assignment

No.	Signal Name	Function
1	5VDC	USB power input
2	USBD-	USB data signal -
3	USBD+	USB data signal +
4	GND	Signal ground



7. CONTROL CODE

7.1 Attached Command Description

The viewpoint of each page

COMMAND

[Name]	Command name.
[Format]	<>H indicates hexadecimal, <> indicates decimal, []k indicates k times repeat to control code and frequency.
[Range]	Gives the allowable range for set argument and data.
[Description]	Explain command function.
[Complement]	Complement particular.
[Note]	Gives important information on the setting and used of printer command, if necessary.

7.2 Control Codes

Command	codes	Name and description
HT	<09>H	Execute the horizontal tab.
LF	<0A>H	Print and line feed.
CR	<0D>H	Carriage return
ESC @	<1B>H<40>H	Initialization of printer
ESC SP	<1B>H<20>H	Set right spacing of character.
ESC d	<1B>H< 64>H	Print and feed n lines
ESC !	<1B>H<21>H	Set print mode collectively
ESC E	<1B>H<44>H	Specifying/releasing of the highlighting
ESC G	<1B>H<47>H	Specifying/releasing of the double printing
ESC 2	<1B>H<32>H	Setting of the 1/6 inch line feed spacing
ESC 3	<1B>H<33>H	Setting of the line feeding amount in minimum paper feeding pitch units
ESC J	<1B>H<4A>H	Printing and paper feeding in minimum pitch units
ESC v	<1B>H<76>H	Send of paper status
ESC n 0	<1B>H<75>H<30>H	Send of the drawer status
ESC R	<1B>H<52>H	Select of international characters
ESC i	<1B>H<69>H	Full cut
ESC m	<1B>H<6D>H	Partial cut
ESC t	<1B>H<74>H	Select the character code table
ESC a	<1B>H<61>H	Select of printing position justification
ESC p	<1B>H<70>H	Drawer kick-out
ESC *	<1B>H<2A>H	Specifying of bit image mode
GS *	<1D>H<2A>H	Defined of the downloading/ bit image
GS /	<1D>H<2F>H	Printing of the downloading/ bit image
GS k	<1D>H<6B>H	Bar code printing
GS w	<1D>H<77>H	Selection of Bar code width
GS h	<1D>H<68>H	Selection of Bar code height

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HT

[Name]	Horizontal tab
[Format]	< 09 >H
[Range]	Move starting position to next horizontal tab position.
[Note]	This command is ignored when next horizontal tab position isn't set.

LF

[Name]	Print and line feed
[Format]	< 0A >H
[Description]	Prints the data of in the buffer and feed one line of paper. Only line feed is executed when ahead of print data is absent.

CR

[Name]	Carriage return
[Format]	<0D>H
[Description]	Set the print starting position to the beginning of line.

ESC @

[Name]	Initialize printer
[Format]	<1B>H<40>H
[Description]	Clears the data in the printer buffer and resets the print mode (Default state).

ESC SP *n*

[Name]	Setting of character right spacing.
[Format]	<1B>H<20>H< <i>n</i> >
[Range]	$0 \leq n \leq 31$
[Description]	Set character right spacing with half dot unit. <i>n</i> indicates number of dots, add up spacing amount of <i>n</i> dots share to right of character. Therefore the character width become to following table.
[Default]	<i>n</i> = 0

ESC d *n*

[Name]	Print and feed paper <i>n</i> line
[Format]	< 1B>H<64>H< <i>n</i> >
[Range]	$0 \leq n \leq 255$
[Description]	Print and feed paper <i>n</i> lines

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ESC ! *n*

[Name] Set print mode collectively
[Format] < 1B>H<21>H<*n*>
[Range] $0 \leq n \leq 255$
[Description] Set print mode.

Each bit of *n* is used as follows.

Bit	Function	Value	
		0	1
0	Not defined		
1	Not defined		
2	Not defined		
3	Highlighting	Cancellation	Set
4	Not defined		
5	Double-width	Cancellation	Set
6	Not defined		
7	Not defined		

[Default] $n = 1$

ESC 2

[Name] Setting of the 1/6 inch line feed spacing.
[Format] < 1B>H<32>H
[Description] Sets the line-feeding amount to 1/6 inch for each line.

ESC 3 *n*

[Name] Setting of line feeding amount in minimum paper feeding pitch units.
[Format] < 1B>H<33>H<*n*>
[Range] $0 \leq n \leq 255$
[Description] Sets the line-feeding amount to $n/203$ inch for each line.
[Default] $n = 34$

ESC J *n*

[Name] Printing and paper feeding in minimum pitch units.
[Format] < 1B>H<4A>H<*n*>
[Range] $0 \leq n \leq 255$
[Description] Printing the data in the printer buffer and feeding paper of $n/203$ inch.

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ESC E

[Name]	Specifying/releasing of the highlighting
[Format]	< 1B>H<44>H<n>
[Range]	$0 \leq n \leq 1$
[Description]	$n=0$, releasing of the highlight printing. $n=1$, specifying of the highlight printing.
[Reference]	ESC !
[Default]	$n = 0$

ESC G

[Name]	Specifying/releasing of the double printing
[Format]	< 1B>H<47>H<n>
[Range]	$0 \leq n \leq 1$
[Description]	$n=0$, releasing of the double printing. $n=1$, specifying of the double printing.
[Reference]	ESC E
[Default]	$n = 0$

ESC v

[Name]	Sending of the printer status
[Format]	< 1B>H<76>H
[Description]	The status that is sent will be 1 byte of data, and the contents will be as show in the table below.

Bit	Function	Value	
		0	1
0	Paper near-end	Paper present	No paper
1	Not defined		
2	Paper end	Paper present	No paper
3	Not defined		
4	Not defined	Fixed at 0	
5	Not defined		
6	Not defined		
7	Not defined		

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ESC u 0

[Name] Sending of the printer status
[Format] < 1B>H<75>H<30>H
[Description] Send the status for connector pin 3 of the drawer.

Bit	Function	Value	
		0	1
0	Level of pin No. 3	'L'	'H'
1	Not defined		
2	Not defined		
3	Not defined		
4	Not defined	Fixed at 0	
5	Not defined		
6	Not defined		
7	Not defined		

ESC R n

[Name] Selection of international character
[Format] < 1B>H<52>H<n>
[Range] $0 \leq n \leq 10$

n	Character set	n	Character set
0	U.S.A	7	Spain
1	France	8	Japan
2	Germany	9	Norway
3	U.K.	10	Denmark II
4	Denmark I	11	Spain II
5	Sweden	12	Latin America
6	Italy	13	Korea

ESC i

[Name] Full cut.
[Format] < 1B>H<69>H

ESC m

[Name] Partial cut.
[Format] < 1B>H<6D>H

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ESC t n

[Name] Select the character code table

[Format] < 1B>H<74>H<n>

[Range] $0 \leq n \leq 9$

n	Character Code Table	n	Character Code Table
0	PC437	5	PC865
1	Katakana	6	PC852
2	PC858	7	PC866
3	PC860	8	PC857
4	PC863	9	Windows Codepage

ESC a n

[Name] Selection of printing position justification

[Format] < 1B>H<61>H<n>

[Range] $0 \leq n \leq 2$

[Description] Aligns all the printing data on one line to the specified position. This command will only be valid when is has been input at the beginning of line.

n	Position
0	Left end aligning
1	Centering
2	Right end aligning

ESC p m n1 n2

[Name] Specified pulse generation for drawer kick-out

[Format] < 1B>H<70>H<m><n1><n2>

[Range] $0 \leq m \leq 1, 0 \leq n1 \leq n2 \leq 255$

[Description] The ON time will be $n1 \times 2$ ms, and the off time will be $n2 \times 2$ ms.

m	Connector Pin
0	Drawer kick No.2 pin (drawer 1)
1	Drawer kick No.5 pin (drawer 2)

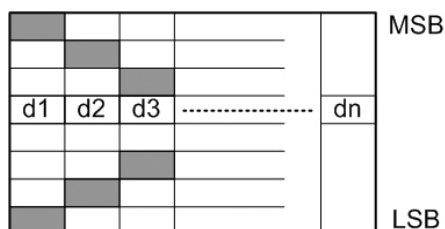
WP-K633IV 1 Station Thermal Kiosk Printer

ESC * m n1 n2 [<d>]k

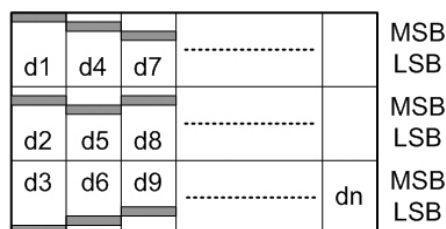
- [Name] Specifying of the bit image mode
- [Format] <1B>H<2A>H<m><n1><n2>[<d>]k
- [Range] $m=0,1,32,33$, $0 \leq n1 \leq 255$, $0 \leq n2 \leq 3$, $0 \leq d \leq 255$
- $$k = n1 + 256 \times n2 \quad (m=0,1)$$
- $$k = (n1 + 256 \times n2) \times 3 \quad (m=32,33)$$
- [Description] This command specifies the bit image of mode m with regard to the number of dots specified $n1$ and $n2$.
- The number of dots for printing will be divided by 256, and the quotient will become $n2$ with the remainder becoming $n1$. Accordingly, the number of dots in the horizontal direction will be $n1_256 \times n2$.
 - In a situation where the bit image data input exceeds the dot position that are capable of being printed on one line, the portion of data in excess will be rejected for reading.
 - d is the bit image data. When the data to be printed, the corresponding bit should be set to 1, and data which not to be printed should have the corresponding bit set to 0.

m	Mode	Vertical direction		Horizontal direction	
		Number of dots	Dot density	Dot density	Max. number of dots
0	8-dots single density	8	60dpi	100dpi	224
1	8-dots double density	8	60dpi	203dpi	448
32	24-dots single density	24	203dpi	100dpi	224
33	24-dots double density	24	203dpi	203dpi	448

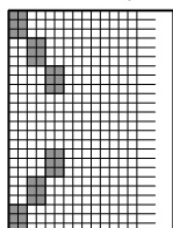
In 8 dots mode



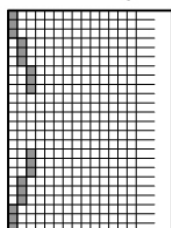
In 24 dots mode



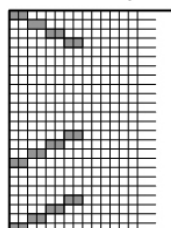
Single density



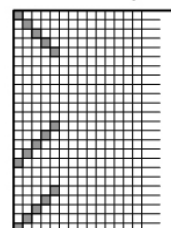
Double density



Single density



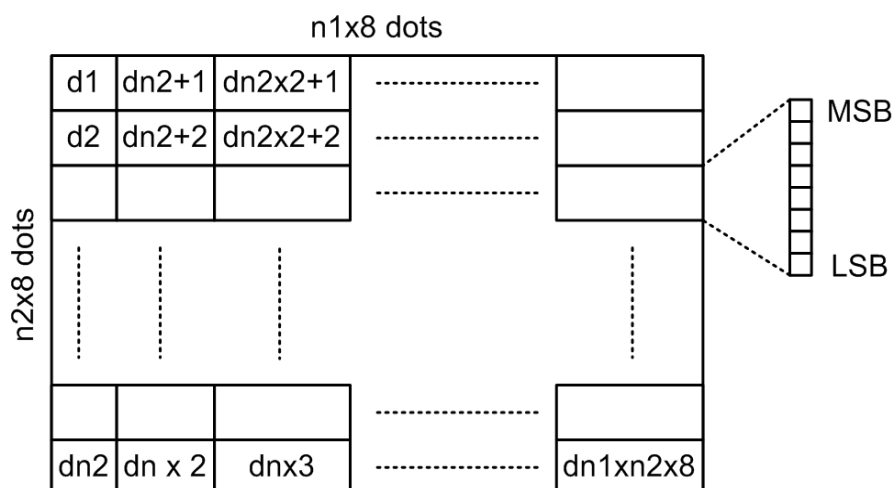
Double density



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GS * n1 n2 <d> n1 x n2 x 8

- [Name] Define of the downloading / bit image
- [Format] < 1D>H<2A>H<n1><n2>[<d>] n1 x n2 x 8
- [Range] $0 \leq n1 \leq 255$
 $0 \leq n2 \leq 48$
 $n1 \times n2 \leq 1300$
- [Description] Specifies the downloading/bit image using the number of dots specified by $n1$ and $n2$.
The number of dots in the horizontal direction will be $n1 \times 8$, and the number dots in the vertical direction will be $n2 \times 8$, d is the bit image data.
After the downloading/bit image has been defined, the definition will be effective until redefinition, or until the ESC @ or until the power is switched off.



GS / m

- [Name] Printing of the downloading / bit image
- [Format] < 1D>H<2F>H<m>
- [Range] $0 \leq m \leq 255$
- [Description] Printing the downloading/bit image using the mode specified by m.

m	Mode name	Dot density in the vertical direction	Dot density in the horizontal direction
0,48	Normal mode	203dpi	203dpi
1,49	Double wide mode	203dpi	100dpi
2,50	Double height mode	100dpi	203dpi
3,51	Double wide and double height mode	100dpi	100dpi

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GS w n

[Name]	Selection of bar code width (enlargement rate)
[Format]	< 1D>H<77>H<n>
[Range]	$2 \leq n \leq 4$
[Description]	n indicates the number of the fine element width.

GS h n

[Name]	Selection of bar code height
[Format]	< 1D>H<68>H<n>
[Range]	$1 \leq n \leq 255$
[Description]	n indicates the number of dots in the vertical direction.

GS k n [d]k NUL

[Name]	Selection of bar code height
[Format]	< 1D>H<6B>H<n> [d] k <00>H
[Range]	$0 \leq n \leq 7$
[Description]	d indicates the characters for printing, and k shows the number of characters for printing.

<i>n</i>	Barcode type	Bytes k
0	UPC-A	$k=12$
1	UPC-E	$k=7$
2	EAN-13	$k=12$ or $k=13$
3	EAN-8	$k=7$ or $k=8$
4	CODE 39	$2 \leq K \leq 14$

8. CHARACTER CODE TABLES

8.1 International Character sets

	Country	ASCII (Hexadecimal notation)											
		23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
0	USA	#	\$	@	[	\	]	^	`	{		}	~
1	France	#	\$	à	°	ç	§	^	`	é	ù	è	¨
2	Germany	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	β
3	U.K.	£	\$	@	[	\	]	^	`	{		}	~
4	Denmark I	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	~
5	Sweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
6	Italy	#	\$	@	°	\	é	^	ù	à	ò	è	ì
7	Spain I	Pt	\$	@	ı	Ñ	ı	^	`	¨	ñ	}	~
8	Japan	#	\$	@	[	¥	]	^	`	{		}	~
9	Norway	#	¤	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
10	Denmark II	#	\$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
11	Spain II	#	\$	á	ı	Ñ	ı	é	´	ı	ñ	ó	ú
12	Latin America	#	\$	á	ı	Ñ	ı	é	ü	ı	ñ	ó	ú
13	Korea	#	\$	@	[	₩	]	^	´	{		}	~

8.2 Code Page: 00H to 7FH

	00	10	20	30	40	50	60	70
0	NUL	DLE	(SP)	0	@	P	`	p
1		XON	!	1	A	Q	a	q
2			"	2	B	R	b	r
3		XOF	#	3	C	S	c	s
4	EOT	DC4	\$	4	D	T	d	t
5	ENQ		%	5	E	U	e	u
6			&	6	F	V	f	v
7			'	7	G	W	g	w
8		CAN	(	8	H	X	h	x
9	HT		)	9	I	Y	i	y
A	LF		*	:	J	Z	j	z
B		ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	
D	CR	GS	-	=	M	]	m	}
E			.	>	N	^	n	~
F			/	?	O	_	o	(SP)

8.3 Code Page: PC437 (USA, European Standard)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	á	☐	L	⌌	α	≡
1	ü	æ	í	☐	⊥	⌌	β	±
2	é	Æ	ó	☐	⌌	⌌	Γ	≥
3	â	ô	ú		⌌	⌌	π	≤
4	ä	ö	ñ	⌌	—	⌌	Σ	∫
5	à	ò	Ñ	⌌	⌌	⌌	σ	∫
6	å	û	ä	⌌	⌌	⌌	μ	÷
7	ç	ù	ü	⌌	⌌	⌌	τ	≈
8	ê	ÿ	¿	⌌	⌌	⌌	Φ	○
9	ë	Ö	⌌	⌌	⌌	⌌	θ	●
A	è	Ü	⌌	⌌	⌌	⌌	Ω	•
B	ï	ø	½	⌌	⌌	■	δ	√
C	î	£	¼	⌌	⌌	■	∞	n
D	ì	¥	¡	⌌	=	■	Ø	²
E	Ä	Pt	«	⌌	⌌	■	€	■
F	Å	f	»	⌌	⌌	■	∩	(SP)

8.4 Code Page: Katakana (Japanese)

	80	90	A0	B0	C0	D0	E0	F0
0	—	⊥		ー	タ	ミ	=	×
1	—	⊥	。	ア	チ	ム	ト	円
2	—	⊥	⌈	イ	ツ	メ	±	年
3	—	⊥	⌋	ウ	テ	モ	⊥	月
4	—	—	、	エ	ト	ヤ	▲	日
5	—	—	、	オ	ナ	ユ	▲	時
6	—		ヲ	カ	ニ	ヨ	▼	分
7	—		ア	キ	ヌ	ラ	▼	秒
8		⌈	イ	ク	ネ	リ	♠	〒
9		⌋	ウ	ケ	ノ	ル	♥	市
A		⌋	エ	コ	ハ	レ	♦	区
B		⌋	オ	サ	ヒ	ロ	♣	町
C		⌋	ヤ	シ	フ	ワ	●	村
D		⌋	ユ	ス	ハ	ソ	○	人
E		⌋	ヨ	セ	ホ	ゝ	／	■
F	+	ノ	ツ	ソ	マ	。	＼	(SP)

8.5 Code Page: PC850 (Multilingual)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	á	☐	Ł	ò	Ó	–
1	ü	æ	í	☐	⊥	Ð	β	±
2	é	Æ	ó	☐	⌞	Ê	Ô	=
3	â	ô	ú		⌞	Ë	Ò	¾
4	ä	ö	ñ	⌞	–	È	õ	¶
5	à	ò	Ñ	Á	†	€	Õ	§
6	å	û	ä	Â	ã	í	μ	÷
7	ç	ù	ó	À	Ã	î	þ	¸
8	ê	ÿ	¿	©	ℒ	ï	þ	○
9	ë	Ö	®	¶	℞	⌞	Ú	¨
A	è	Ü	¬		⌞	⌞	Û	•
B	ï	ø	½	℞	⌞	■	Ù	¹
C	î	£	¼	⌞	⌞	■	ý	³
D	ì	Ø	ì	¢	=	ì	Ý	²
E	Ä	×	«	¥	⌞	ì	—	■
F	Å	f	»	⌞	α	■	´	(SP)

8.6 Code Page: PC860 (Portuguese)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	á	☐	L	⊥	α	≡
1	ü	À	í	☐	⊥	⊥	β	±
2	é	È	ó	☐	⊥	⊥	Γ	≥
3	â	ô	ú		⊥	⊥	π	≤
4	ã	õ	ñ	⊥	—	⊥	Σ	∫
5	à	ò	Ñ	⊥	⊥	⊥	σ	∫
6	Á	Ú	ä	⊥	⊥	⊥	μ	÷
7	ç	ù	ü	⊥	⊥	⊥	τ	≈
8	ê	ì	¿	⊥	⊥	⊥	Φ	○
9	Ê	Õ	Ò	⊥	⊥	⊥	θ	●
A	è	Ü	¬	⊥	⊥	⊥	Ω	•
B	Í	φ	½	⊥	⊥	■	δ	√
C	Ô	£	¼	⊥	⊥	■	∞	n
D	ì	Ù	ì	⊥	=	■	∅	²
E	Ã	Pt	«	⊥	⊥	■	∈	■
F	Â	Ó	»	⊥	⊥	■	∩	(SP)

8.7 Code Page: PC863 (Canadian-French)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	ı	░	Ł	⊥	α	≡
1	ü	È	˘	▒	⊥	⊥	β	±
2	é	Ê	ó	▓	⊥	⊥	Γ	≥
3	â	ô	ú		└	ℒ	π	≤
4	Â	Ë	¨	└	—	Ł	Σ	∫
5	à	İ	>	└	†	ƒ	σ	∫
6	¶	û	³	└	ƒ	π	μ	÷
7	ç	ù	—	└			τ	≈
8	ê	¤	î	└	ℒ	≠	Φ	○
9	ë	Ô	ƒ		ƒ	└	θ	●
A	è	Ü	└		⊥	└	Ω	•
B	ï	¢	½	└	⊥	■	δ	√
C	î	£	¼	└		■	∞	ⁿ
D	=	Ù	¾	└	=	■	∅	²
E	À	Û	«	└		■	€	■
F	§	f	»	└	⊥	■	∩	(SP)

8.8 Code Page: PC865 (Nordic)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	á	☐	L	⊥	α	≡
1	ü	æ	í	☐	⊥	⊥	β	±
2	é	Æ	ó	☐	⊥	⊥	Γ	≥
3	â	ô	ú		⊥	⊥	π	≤
4	ä	ö	ñ	⊥	—	⊥	Σ	∫
5	à	ò	Ñ	⊥	⊥	⊥	σ	∫
6	å	û	ä	⊥	⊥	⊥	μ	÷
7	ç	ù	ó	⊥	⊥	⊥	τ	≈
8	ê	ÿ	¿	⊥	⊥	⊥	Φ	○
9	ë	Ö	⌞	⊥	⊥	⊥	θ	●
A	è	Ü	⌞	⊥	⊥	⊥	Ω	•
B	ï	ø	½	⊥	⊥	■	δ	√
C	î	£	¼	⊥	⊥	■	∞	n
D	ì	Ø	ì	⊥	=	■	Ø	²
E	Ä	Pt	«	⊥	⊥	■	€	■
F	Å	f	α	⊥	⊥	■	∩	(SP)

8.9 Code Page: PC852 (Eastern Europe)

	80	90	A0	B0	C0	D0	E0	F0
0	ç	É	á	☐	Ł	đ	Ó	-
1	ü	Í	í	☐	⊥	Đ	β	”
2	é	í	ó	☐	⌈	Ǻ	Ô	˘
3	â	ô	ú		⌈	Ě	Ň	˘
4	ä	ö	À	⌈	—	ď	ń	
5	û	ł	ą	Á	⌈	Ň	ň	§
6	ć	ĩ	ž	Â	Ǻ	í	Š	÷
7	ç	Ś	ž	Ě	Ǻ	î	š	˘
8	ł	ś	Ę	Ś	Ł	ě	Ř	○
9	ë	Ö	ę	⌈	⌈	⌈	Ú	˘
A	Ő	Ü		⌈	⌈	⌈	ř	•
B	ő	ť	ž	⌈	⌈	■	Ú	ű
C	î	ť	Č	⌈	⌈	■	ý	Ř
D	Ž	ł	ş	Ž	=	⌈	Ý	ř
E	Ä	×	«	ž	⌈	Ů	ţ	■
F	Ć	č	»		α	■	’	(SP)

8.10 Code Page: PC866 (Russian)

	80	90	A0	B0	C0	D0	E0	F0
0	А	Р	а	░░░░	ℒ	⊥	р	Ё
1	Б	С	б	▒▒▒▒	⊥	⊥	с	ё
2	В	Т	в	▒▒▒▒	⊥	⊥	т	Е
3	Г	У	г		└	ℒ	у	ε
4	Д	Ф	д	└	—	—	ф	Ї
5	Е	Х	е	└	└	└	х	ї
6	Ж	Ц	ж	└	└	└	ц	Ӧ
7	З	Ч	з	└	└	└	ч	ӱ
8	И	Ш	и	└	ℒ	└	ш	○
9	Й	Щ	й	└	└	└	щ	•
A	К	Ъ	к		ℒ	└	ъ	·
B	Л	Ы	л	└	⊥	▀	ы	√
C	М	Ь	м	└	└	▀	ь	Na
D	Н	Э	н	└	=	▀	э	¤
E	О	Ю	о	└	└	▀	ю	■
F	П	Я	п	└	⊥	▀	я	(SP)

8.11 Code Page: PC857 (Turkish)

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	☐	Ł	ǫ	Ó	-
1	ü	æ	í	☐	⊥	ǻ	β	±
2	é	Æ	ó	☐	⌞	Ê	Ô	
3	â	ô	Ú		┌	Ë	Ò	¾
4	ä	ö	ñ	└	—		õ	¶
5	à	ò	Ñ	Á	⊢		Õ	§
6	å	û	Ğ	Â	ã	í	μ	+
7	ç	ù	ğ	À	Ã	î		,
8	ê	±	ı	©	Ł	ï	×	○
9	ë	Ö	®	≡	℞	⌋	Ú	..
A	è	Ü	⌈		⌌	⌈	Û	•
B	ï	ø	½	⌈	⌌	■	Ù	¹
C	î	£	¼	⌋	⌌	■	ì	³
D		Ø	ı	ø	=	⌊	ÿ	²
E	Ä	Ş	“	¥	≡	ì	—	■
F	Å	ş	”		α	■	,	(SP)

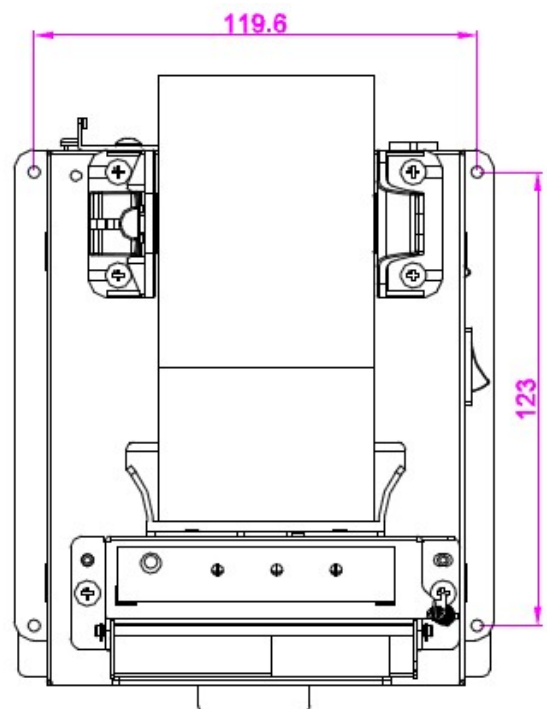
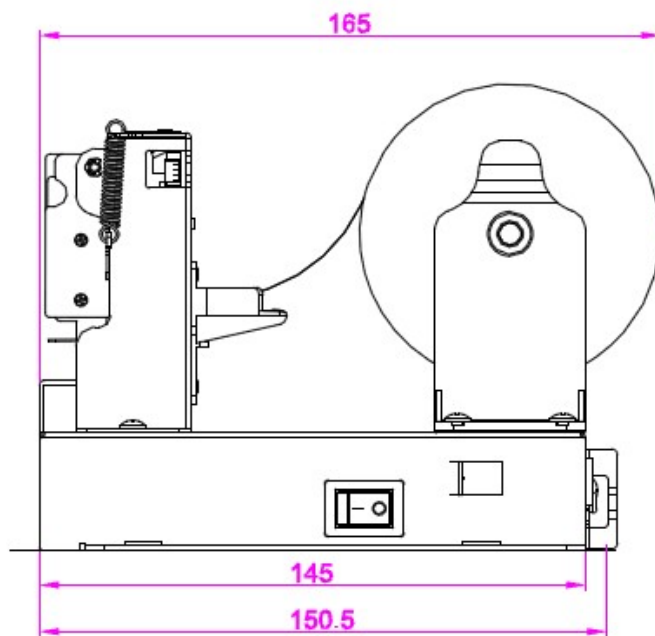
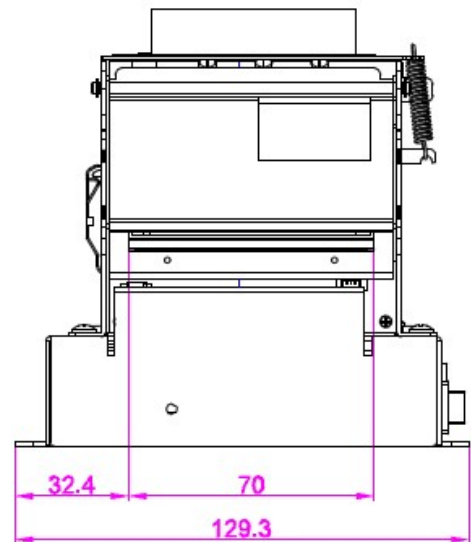
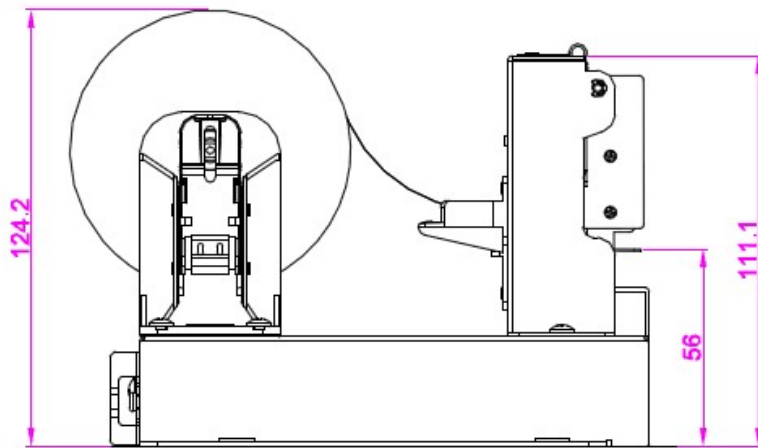
8.12 Code Page: PC862 (Hebrew)

	80	90	A0	B0	C0	D0	E0	F0
0	א	ב	א	⋯	ל	⌚	α	≡
1	ב	ס	í	⋯	⊥	⌚	β	±
2	ג	ע	ó	⋯	⌚	⌚	Γ	≥
3	ד	ף	ú		⌚	⌚	π	≤
4	ה	פ	ñ	⌚	—	⌚	Σ	∫
5	ו	ץ	Ñ	⌚	⌚	⌚	σ	∫
6	ז	צ	ª	⌚	⌚	⌚	μ	÷
7	ח	ק	º	⌚	⌚	⌚	τ	≈
8	ט	ר	¿	⌚	⌚	⌚	Φ	°
9	י	ש	⌚	⌚	⌚	⌚	Θ	·
A	ך	ת	⌚	⌚	⌚	⌚	Ω	·
B	כ	ס	½	⌚	⌚	■	δ	√
C	ל	£	¼	⌚	⌚	■	∞	n
D	ם	¥	ı	⌚	=	■	φ	²
E	נ	Ps	«	⌚	⌚	■	ε	■
F	ן	f	»	⌚	⌚	■	∩	

8.13 Windows Code Page

	80	90	A0	B0	C0	D0	E0	F0
0	€			°	À	Ð	à	ð
1		‘	í	±	Á	Ñ	á	ñ
2	,	’	¢	²	Â	Ò	â	ò
3	f	“	£	³	Ã	Ó	ã	ó
4	„	”	¤	´	Ä	Ô	ä	ô
5	…	•	¥	µ	Å	Õ	å	õ
6	†	–	¦	¶	Æ	Ö	æ	ö
7	‡	—	§	·	Ç	×	ç	÷
8	ˆ	˜	¨	¸	È	Ø	è	ø
9	‰	™	©	¹	É	Ù	é	ù
A	Š	š		º	Ê	Ú	ê	ú
B	<	>	«	»	Ë	Û	ë	û
C	Œ	œ	¬	¼	Ì	Ü	ì	ü
D			-	½	Í	Ý	í	ý
E			®	¾	Î	Þ	î	þ
F		ÿ	—	¿	Ï	ß	ï	ÿ

9. EXTERNAL DIMENSIONS



Unit: mm