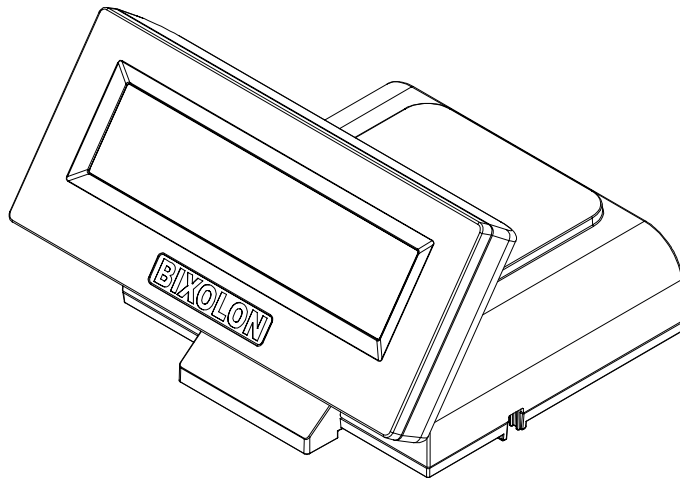


BIXOLON®

User's Manual
BCD-3000

Customer Display
Rev. 1.02



<http://www.bixolon.com>

Introduction

BCD-3000 is designed to be used while connected to computer peripherals and electronic devices such as ECR (Electronic Cash Register) and POS (Point Of Sales).

※ The main features of the printer are as follows:

1. Customer Display LCD Model
2. Character Number: 40 Letters(20 Letters x 2 Lines)
3. Interface: RS232/USB Supported
4. Rotation Angle: Vertical: 35°
5. Display Color: Background (Blue), Characters (White)
6. Emulation: ESC/POS, CD5220

It is advisable to read the contents of this manual carefully before using the printer for the first time.

※ Use only authorized supplies that can be trusted!

- We are not responsible for quality and service for damage caused by the use of unauthorized products (or recycled ones).

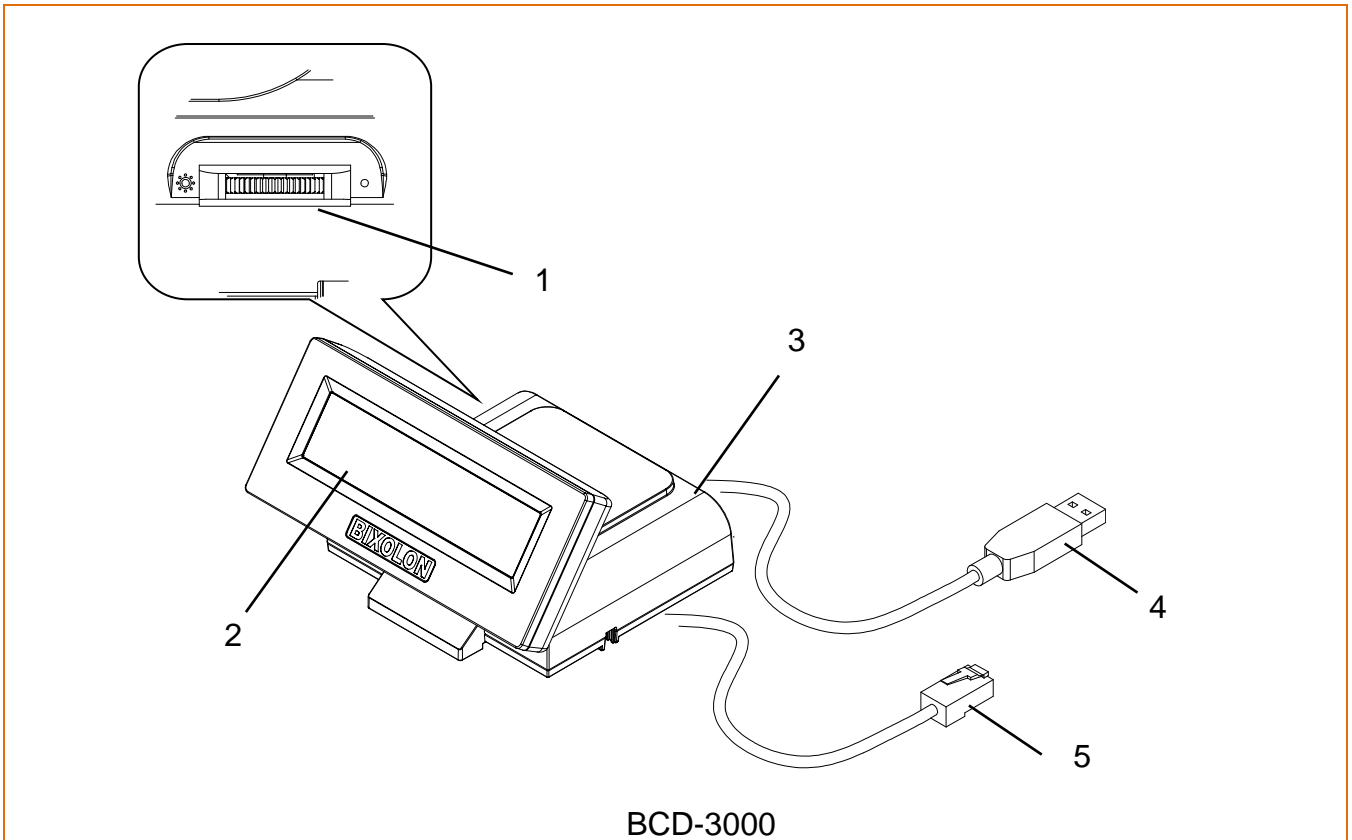
We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

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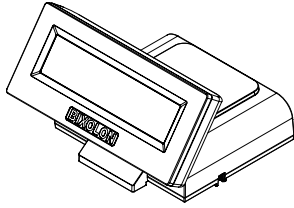
1. Product Components

- The following display models are available

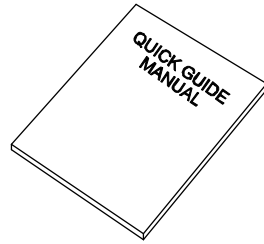


No	Component	Description
1	Brightness Level Control Switch (knob)	Control the brightness level of the backlight on the display
2	Display	Features a LCD screen. The screen can be tilted. Remove the protective film on the screen before use.
3	Stand	Support the display and must be placed on a flat surface.
4	USB Cable	Used to connect to a PC.
5	Serial Cable (RJ45)	Used to connect to the printer.

2. Unpacking



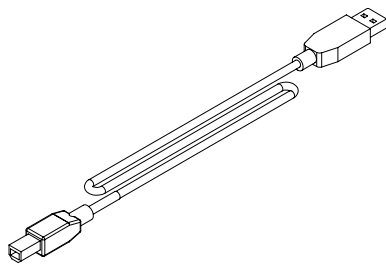
BCD-3000



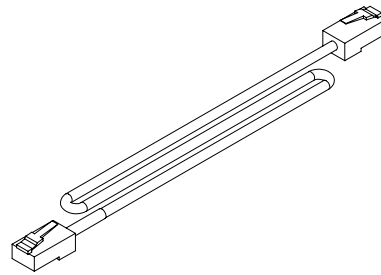
Installation Guide



CD



USB Cable (Optional)

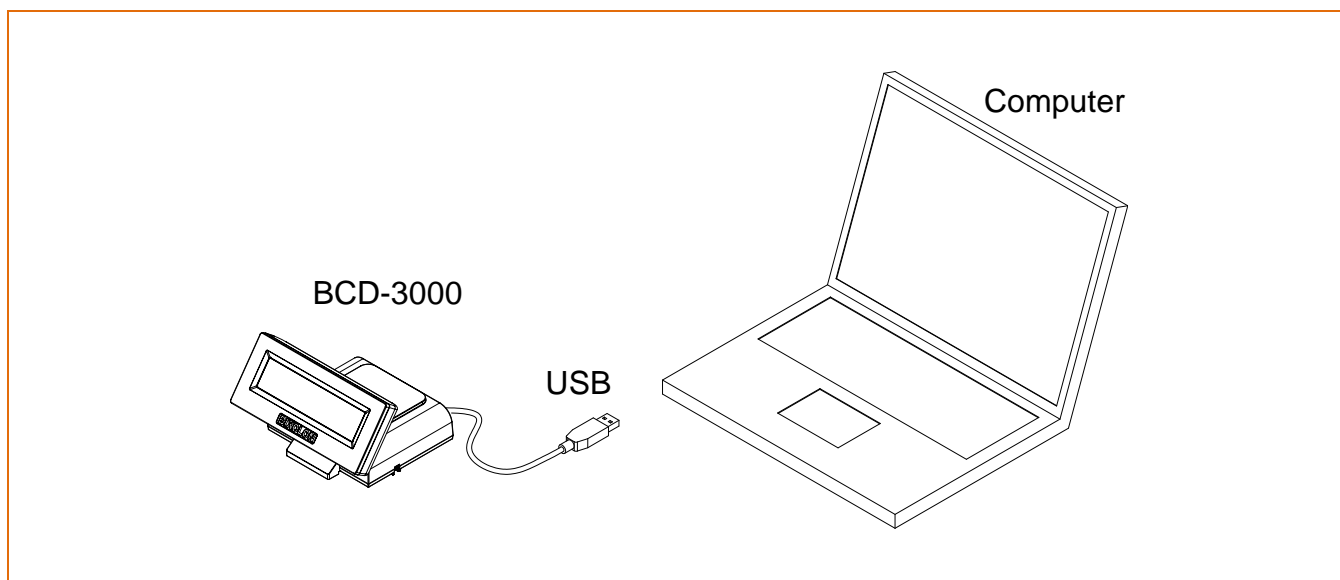


RJ45 Serial Cable (Optional,40cm)

3. How to Connect & Size

3-1 How to Connect (USB)

- 1) Install the USB Virtual COM driver.
- 2) Connect the display cable to the USB port on a PC.
- 3) Turn on the PC and display. The PC will automatically detect new hardware connected to the USB port.
- 4) Once the driver is installed, the display is ready to receive data.

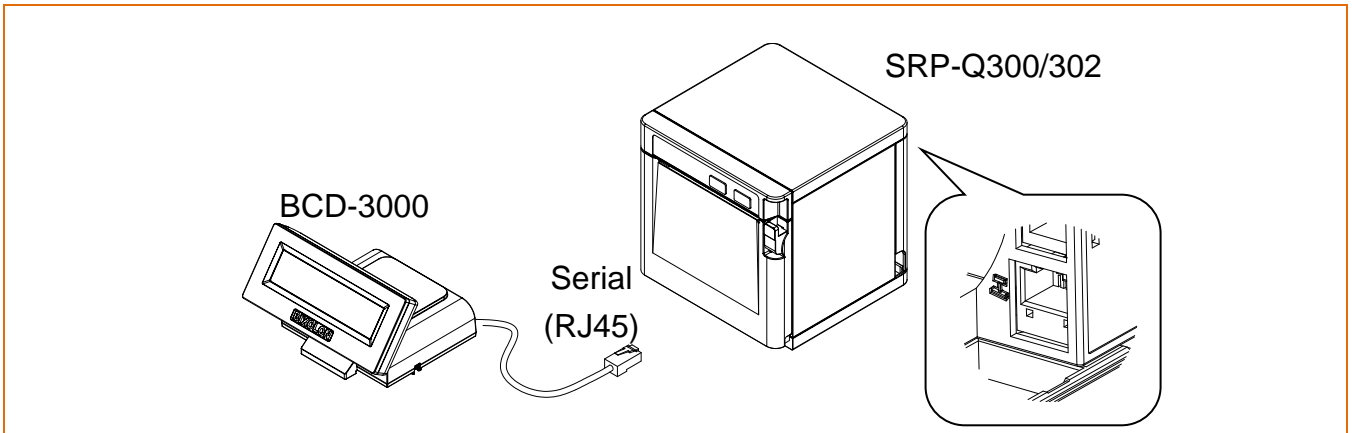


Caution or Warning

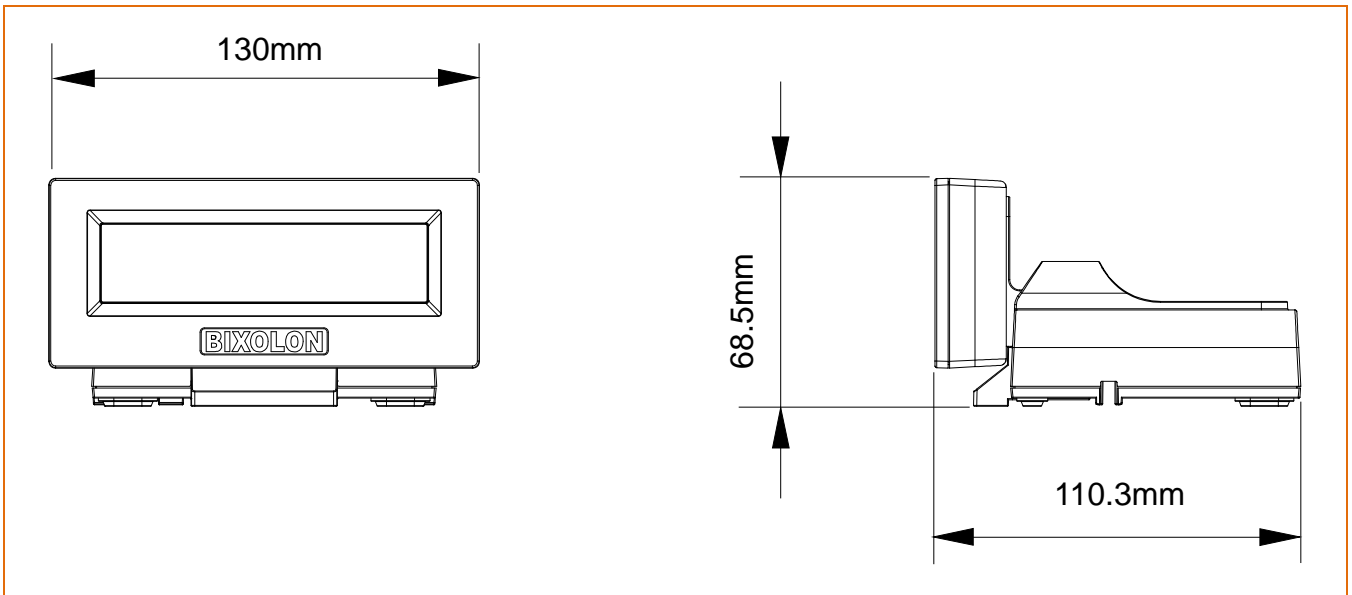
- If the PC and Display are connected, the driver may not be installed properly. Please disconnect the PC when installing the driver.

3-2 How to Connect (RJ45)

- Connect the display cable to the LCD port on the printer.
Make sure to connect to the LCD port as it is unique to our model.

**Caution or Warning**

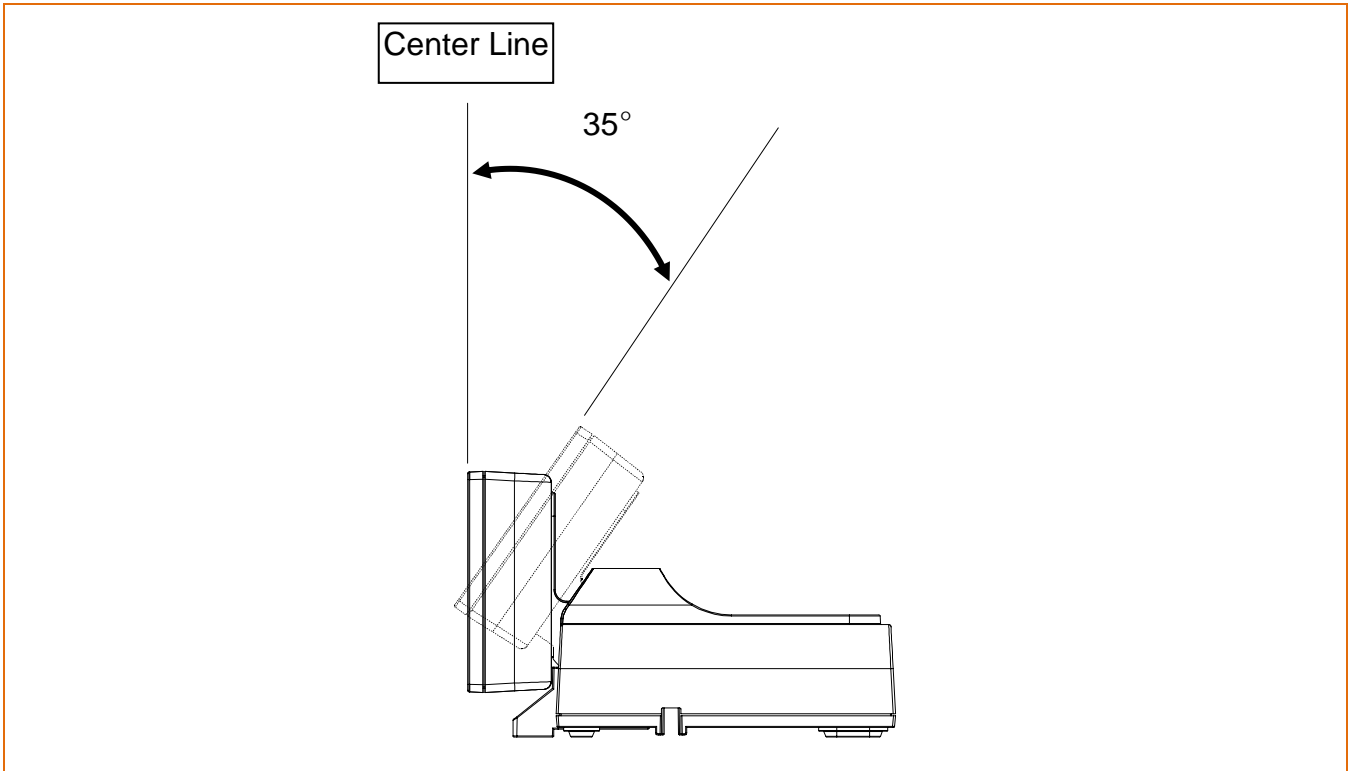
- Use only the compatible cable as the RJ45 port is designed exclusively for Bixolon SRP-Q300/302 printer serial (UART) communication port.
- Do not connect the RJ45 Plug to any port other than the serial communication port (especially, LAN port) to avoid damage.

3-3 Sizes

4. Features

4-1 Tilting

- The device can be tilted to the degree you want. Please follow the instructions below to avoid damage or malfunction when installing the device. The screen can be tilted to the right from the center line. (Tilt: max. 35°)

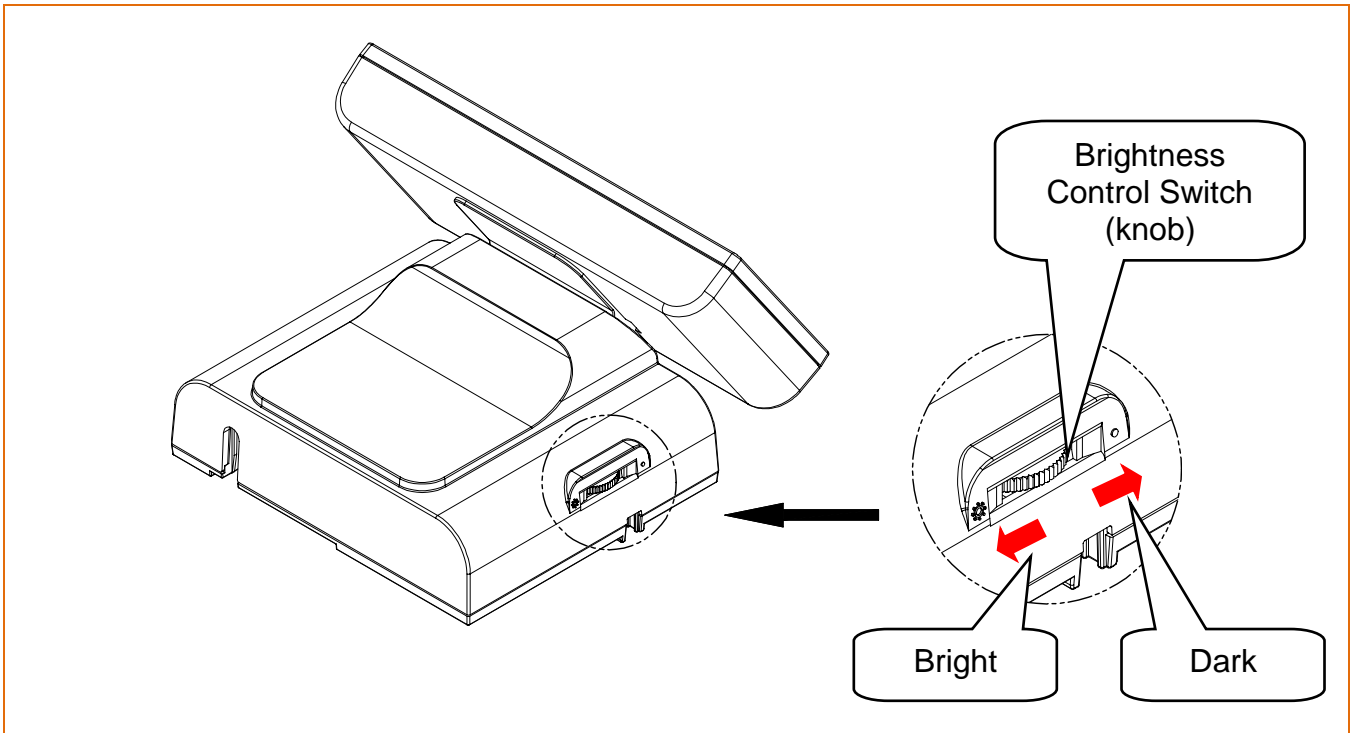


Caution or Warning

- Do not tilt over the limit as it can cause damage.
- To change angle of display screen with ease, you might as well hold stand to adjust it.

4-2 LCD Brightness Level Control

- The brightness level of the LCD backlight can be adjusted using the Brightness Level Control Switch (knob).



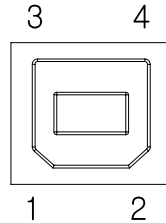
Caution or Warning

- Do not use any tools other than your hands to control the Brightness Level switch (knob) to avoid damage.

5. Connection

5-1 USB Communication

5-1-1 USB Interface Connector



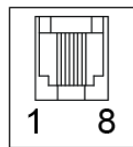
5-1-2 USB Interface Connector Pin Layout

Pin No.	Signal	Designation(Color)	Function
Shell	Shield	Drain cable	Grounding of frame
1	VBUS	Red	Host power
2	D-	White	Data line (D-)
3	D+	Green	Data line (D+)
4	GND	Black	Grounding of signal

Caution or Warning

- Please only use the genuine USB cable supplied by the manufacturer to avoid damage or malfunction.

5-2 Serial Communication (RJ45)



5-2-1 Serial Communication (RJ45) Connector Pin Layout

Pin No.	Signal	Input/Output
1	+5VDC	Input
2	RXD	Input
3	TXD	Output
4	N.C	-
5	Grounding of signal	-
6	N.C	-
7	RTS	Output
8	CTS	Input

Caution or Warning

- The serial port (RJ45) is designed exclusively for SRP-Q300/302 models only. Do not connect any other devices to avoid damage or malfunction.

6 VMSM (Virtual Memory Switch Manager)

- Other than DIP switch settings, you can change the following settings using VMSM software. The following settings apply when powered on and are executed by the initialization command.

1) MSW 1 (BCD Common Setting)

Memory S/W	Function	Default	Content to be set	Range to be set
1	Character code table Selection	n=0	Page 0 is selected	0,17,18,20,27,31 or 0,1,2,3,4,5,14,15,16, 17,18,19,20,21,25, 26,27,28,29,30,31,32, 33,36,38,40,41,49,50,51
2	International character set selection	n=0	U.S.A is selected	0-15
3	Selection of the peripheral devices	n=2	Display is selected	1-3
4	Cursor display	n=1	Cursor On	0, 1
5 ~ 7	Reserved		-	-
8	Sleep mode selection	n=0	Sleep mode off	0, 1

2) MSW 2 (BCD-2000 Setting)

Memory S/W	Function	Default	Content to be set	Range to be set
1 ~8	Reserved	-	-	-

3) MSW 3 (BCD-3000 Setting)

Memory S/W	Function	Default	Content to be set	Range to be set
1	Baud rate(bps)	(*)Refer to following Table	9600bps	-
2				
3				
4	Word length	n = 0	8bit	0: 8bit 1: 7bit
5	Parity selection	n = 0	No	0: No 1: Yes
6	Parity check	n = 0	None	0: None(or Odd) 1: Even
7	Handshaking	n = 0	DTR/DSR	0: DTR/DSR 1: Xon/Xoff
8	Reserved	-	-	-

(*) In connecting BCD-3000 with SRP-Q300 via Serial communication, baud rates will fix at 9600bps.

(*) Refer to following Table

Memory Switch			Baud rate(bps)	Remark
MSW3-3	MSW3-2	MSW3-1		
OFF	OFF	OFF	9600	(Default)
OFF	OFF	ON	4800	-
OFF	ON	OFF	2400	-
OFF	ON	ON	1200	-
ON	OFF	OFF	115200	-
ON	OFF	ON	57600	-
ON	ON	OFF	38400	-
ON	ON	ON	19200	-

4) MSW 4 (Display Position Setting)

Memory S/W	Function	Default	Content to be set	Range to be set
1	Set horizontal row	BCD-2000: n = 4 BCD-2000K: n = 2 BCD-3000: n = 2	3-47.Character & Line Position Reference for command	
2	Max character number	BCD-2000: n = 30 BCD-2000K: n = 20 BCD-3000: n = 20		
3	Horizontal start position of the first character	BCD-2000: n = 0 BCD-2000K: n = 11 BCD-3000: n = 0		
4	Vertical start position of the first character	BCD-2000: n = 0 BCD-2000K: n = 12 BCD-3000: n = 0		
5	character space	BCD-2000: n = 0 BCD-2000K: n = 2 BCD-3000: n = 0		
6	line space	BCD-2000: n = 0 BCD-2000K: n = 6 BCD-3000: n = 0		
7~8	Reserved	-	-	-

5) MSW 5 (Emulation Mode Setting)

Memory S/W	Function	Default	Content to be set	Range to be set
1	BCD-2000/2000K/3000 Command Emulation	(*)Refer to following Table	ESC/POS	0~15
2				
3				
4				
5	Reserved	-	-	-
6				
7				
8				

(*)BCD-2000/2000K/3000 Command Emulation

MSW5-4	Memory Switch			Emulation	Remark
	MSW5-3	MSW5-2	MSW5-1		
OFF	OFF	OFF	OFF	ESC/POS	Note 1
OFF	OFF	OFF	ON	CD5220	
OFF	OFF	ON	OFF	PD6000	
OFF	OFF	ON	ON	UTC Standard / UTC Enhance	
OFF	ON	OFF	OFF	Reserved	
OFF	ON	OFF	ON		
OFF	ON	ON	OFF		
OFF	ON	ON	ON		
ON	OFF	OFF	OFF		
ON	OFF	OFF	ON		
ON	OFF	ON	OFF		
ON	OFF	ON	ON		
ON	ON	OFF	OFF		
ON	ON	OFF	ON		
ON	ON	ON	OFF		
ON	ON	ON	ON		

Note1: In the event that every MSW5 is off, emulation will be controlled by Dip-Switch.

Caution or Warning

- If new settings do not apply, please contact your dealer for assistance.

7. Specifications

Display		
Display Method		STN LCD
Display Color	Background / Text(Image)	Blue / White
Active Area	(W) x (H) mm	95.95 x 19.15
Visual Area	(W) x (H) mm	99.0 x 24.0
Brightness	(cd/m ²)	100
Character Number	(Letters) x (Lines)	30 x 4
Character Type(Set)		95 Alphanumeric, 6 International
Character Pattern	(W) x (H) dot	8*16 dot matrix
Character Size	(W) x (H) mm	4.24 x 8.48
Character Space	(mm)	0.03
Receive Buffer	[byte]	1K
Emulation		ESC/POS, CD5220
Power & Interface		
Power	Voltage	USB: 5VDC±5%(USB Bus Power) / RS232: 5VDC ~ 24VDC
Interface		RS232/USB
Software		
Windows Driver	Windows XP (32bit/64bit) / WEPOS/2003 Server (32bit/64bit) / 2008 Server (32bit/64bit) / VISTA (32bit/64bit) / Windows 7 (32bit/64bit) / Windows 8 (32bit/64bit) / Windows 10 (32bit/64bit)	
OPOS Driver	Windows XP (32bit/64bit) / WEPOS / 2003 Server (32bit/64bit) / 2008 Server (32bit/64bit) / VISTA (32bit/64bit) / Windows 7 (32bit/64bit) / Windows 8 (32bit/64bit) / Windows 10 (32bit/64bit)	
SDK	Windows, Android, iOS SDK	
Exterior		
Body Color	Ivory / Black	
Rotation Angle	vertical: 35°	
Overall Dimension	(W) x (D) x (H)mm	130 x 110.3 x 68.5
Product weight	(g)	240G
Environment & Reliability		
Operating Temperature	[°C] / [°F]	0 ~ 40 / 32 ~ 104
Operating Humidity	[%]	10 ~ 80
Storage Temperature	[°C] / [°F]	-20 ~ 55 / -4 ~ 140
Storage Humidity	[%]	10 ~ 90
Reliability (Display)	(hours)	50,000 (Backlight)

Warning - U.S.A

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ii) Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Notice - Canada

i) Class A Digital Device : Wired Device

This Apparatus complies with class "A" limits for radio interference as specified in the Canadian department of communications radio interference regulations.

Get appareil est conforme aux normes class "A" d'interference radio tel que specifier par ministre canadien des communications dans les reglements d'interference radio.

Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the display "OFF", before you connect or remove the cables on the rear side, in order to guard the display against the static electricity. If the display is damaged by the static electricity, you should turn the display "OFF".

Waste Electrical and Electric Equipment (WEEE)



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

