

PP-6900 Series THERMAL PRINTER USER'S MANUAL

Rev.: Original

POSIFLEX



FCC Notes:

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

CE manufacturer's Declaration of Conformity (EC Council Directive 89/336/EEC of 3 May 1989)

This product has been designed and manufactured in accordance with the International Standards EN50081-1/01.92 and EN50082-1/01.92 following the provisions of the Electro Magnetic Compatibility Directive of the European Communities as of May 1989

Warranty Limits:

Warranty terminates automatically when any person other than the authorized technicians opens the machine. The user should consult his/her dealer for the problem happened. Warranty voids if the user does not follow the instructions in application of this merchandise. The manufacturer is by no means responsible for any damage or hazard caused by improper application.

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P/N: 19780901010

Part 1

GETTING STARTED

CONGRATULATION

You have made a very wise decision by purchasing the easy loading; low noise; high resolution; light weight; high reliability and high performance thermal printer PP-6900, PP-6900S, PP-6900P, PP-6900L & PP-6900W series of Posiflex products. This series of printers has been elegantly designed for a Point-Of-Sale, kitchen & kiosk application. The PP-6900 series comply with UPOS 1.8 standards under Posiflex UPOS driver support. The manufacturer of this printer not only wishes to take this opportunity to congratulate your smart investment on buying this printer but also likes to express the wishes for your prosperous future by using it.

PRODUCT BRIEFING

The PP-6900, PP-6900S, PP-6900P, PP-6900L & PP-6900W series printer uses thermal sensitive paper in form of a roll at a width of 80 mm (standard) or 58 mm (option). These printers serve the stand-alone desktop application as well as the application within a Posiflex integrated POS system equally perfect.

PP-6900 series support 5 types of interface input through different sub-codes to the model number, also with USB ports supported. The standard model of PP-6900 is USB interface, PP-6900S is Serial interface, PP-6900W is Wi-Fi interface and for PP-6900P is parallel interface. The PP-6900L connects to a LAN port of POS systems. The PP-6900 is able to connect the USB port of POS systems either true USB interface application or simulates a RS232 device through driver and performs thermal printing particularly designed for POS applications with serial interface. The PP-6900 series is already POSReady and Win 7 compliance.

The PP-6900 series support a guillotine type auto cutter for paper partial/full cut and a manual cut mechanism. The PP-6900 series also supports user's company's LOGO downloading for superior performance. It even supports some enhancement capability for reminder function to persons around. It can be used to drive a separately purchased **kitchen bell** for such reminder function in noisy environment. This printer also supports application in different countries of various kinds of power systems by changing the power cord to the power adaptor. It offers outstandingly high printing speed. This series make beeping sound as response to Paper End or Paper Near End signals. 20 plus code pages are supported in the standard model for application convenience.

UNPACKING

Followings are items you may find when you carefully unpack the carton that delivers PP-6900 series printer. If there is any discrepancy or problem, contact your dealer immediately. **Be sure to save the packing materials in case the printer needs to be shipped at some point in the future.**

- 1). The printer itself
- 2). Thermal paper test roll 80 mm wide
- 3). One piece of spacer plate for 58mm paper width
- 4). One of the interface cables:
 - a. USB cable for PP-6900
 - b. Serial cable with 9 pin D sub Female to 9 pin D sub Male connectors for PP-6900S serial model
 - c. Parallel cable with 25 pin D sub Male to 25 pin D sub Female connectors for PP-6900P parallel model
 - d. No interface cable for PP-6900L or PP-6900W

Length of the interface cable depends on whether the order includes the power adaptor. When power adaptor is included, the interface cable is 6 ft long for stand alone application. When the power adaptor is not included in the order, the interface cable is a shorter one for integrated application in Posiflex POS system.

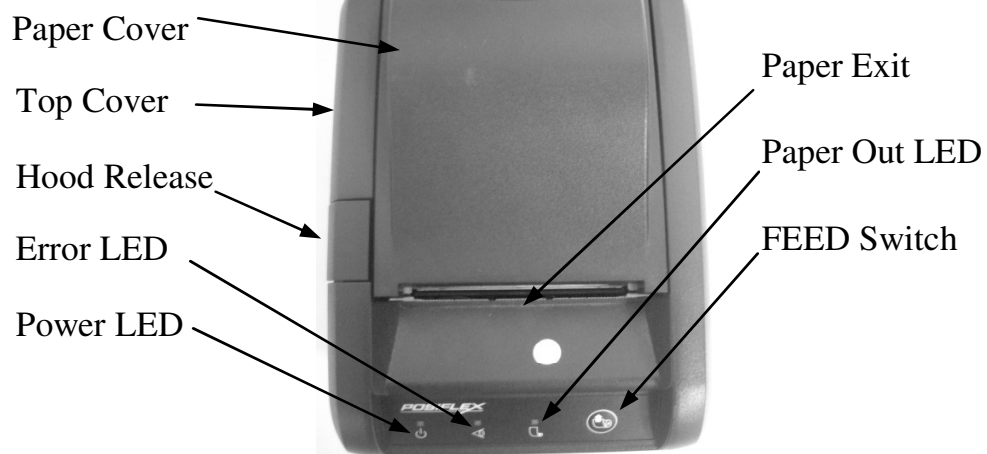
- 5). One of the power sources:
 - a. Power adaptor + power cord (depending on country type ordered)
 - b. Power USB cable (P/N: 21863256800)
- 6). This User's Manual

OPTIONS

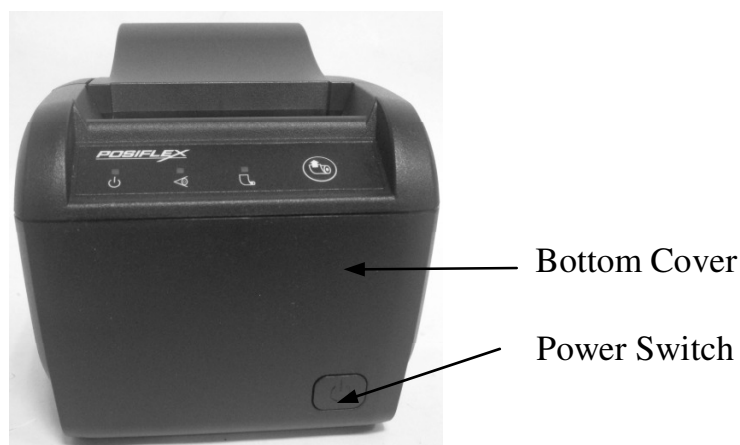
- Kitchen bell (Alarm type KL-100 or buzzer type KZ-200)
- Parallel Interface Kit.
- Serial Interface Kit.
- LAN Interface Kit.
- Wi-Fi Interface Kit.
- Language to add to standard model: Japanese Kanji, Korean, Simplified Chinese or Traditional Chinese

PRODUCT PICTURES

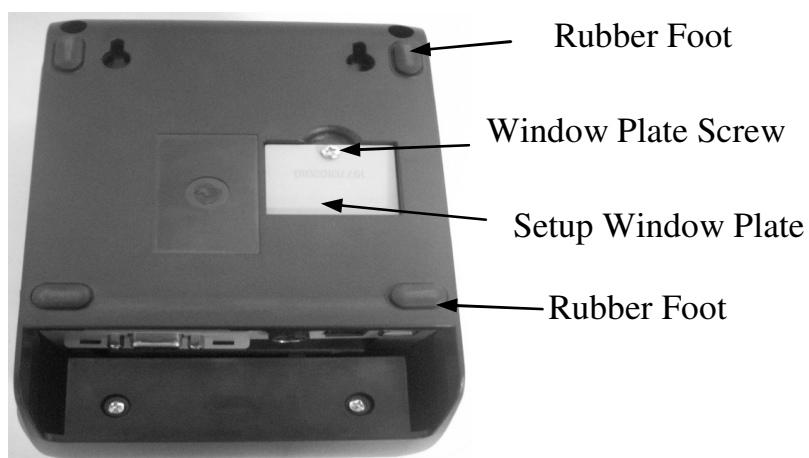
Top View



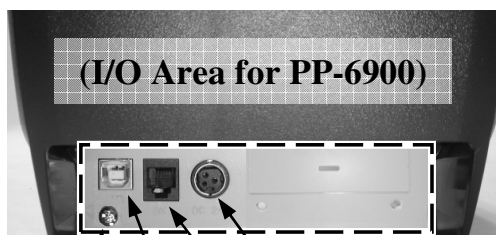
Front View



Bottom View

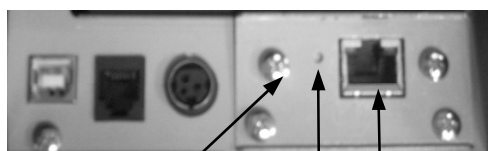


Rear View



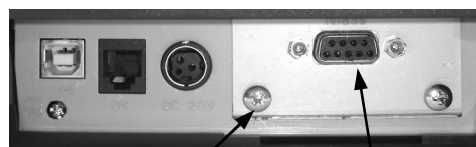
USB Port
Peripheral Port
Power Connector
Frame Ground Screw

(I/O Area for PP-6900L)



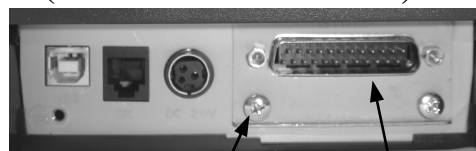
LAN Adaptor
Fixation Screw
Reset
Button
LAN Port

(I/O Area for PP-6900S)



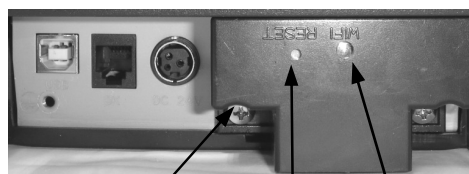
Serial Adaptor
Fixation Screw
Serial Port

(I/O Area for PP-6900P)



Parallel Adaptor
Fixation Screw
Parallel Port

(I/O Area for PP-6900W)



Wi-Fi Adaptor
Fixation Screw
Reset Button
Wi-Fi Indicator

INDICATORS

- Power LED: green
- Error LED: red (brief lit indicates printer busy)
- Paper Out LED: red

QUICK START-UP

LOADING PAPER

Desk Top Application



Release Button

Pix. 1



Pix. 2



Pix. 3

1. Press down the hood release button to release the paper cover as in **Pix. 1**.
2. Raise the released paper cover wide open manually as in **Pix. 2**.
3. Drop the thermal paper roll inside the printer in orientation.
4. Close the paper cover back leaving the tail of the paper roll coming out of the opening between the hood and the top cover as in **Pix. 3**.
5. Excessive paper will cut or roll automatically when changing the paper at power on status.

When to Replace Paper

Whenever the printer gives paper out signal or a red line appears on the thermal paper, it is the proper timing for replacing the paper. Do not wait till the print engine is dragging the paper roll at the very end. Remove the leftover and replace a new paper roll as illustrated above to prevent excessive paper dust in the printer and consequently possibility for paper jam.

CONNECTING CABLES

USB Connection

The USB connector on PP-6900U is a type B

USB connector at lower right position below the serial port.



Type A

Type B

Normal USB Plugs

Use the normal USB Cable (P/N: 21863250800) as in the left picture to connect the type A end to a normal USB port of POS system. Please visit our web site <http://www.posiflex.com> or <http://www.posiflex.com.tw> for detailed information of the USB driver installation if required. Please note that for PP-6900U, there must be no cable connection at either the serial port or the parallel port on the printer. Set in setup window the **switch position 1 to OFF, and position 2 to ON leaving the rest unchanged as factory default setting.**

Serial Connection

All the external connectors are in the recessed area at the rear bottom for PP-6900 series. The serial connector is a 9-PIN D sub Female connector. Apply the male connector of RS232 cable to this port for serial application. Please note that when serial connection is used, there must be no cable connection at the USB port on the printer. The default protocol used in serial connection is 115,200 bps, none parity, 8 data bits, 1 stop bit. Set in setup window the **switch position 1 to OFF, and position 2 to ON leaving the rest unchanged as factory default setting.**

Virtual Serial Port

A virtual serial port is a redirector driver used in USB interface which is usually used to create a pair of back-to-back virtual COM ports on the same computer. It can then communicate using virtual serial ports instead of conventional inter-process communication mechanisms.

Parallel Connection

The parallel connector is a 25-PIN D sub Male connector. Apply the female end of the parallel cable at this port for parallel application. Please note that when parallel connection is used, there must be no cable connection at the USB port on the printer. Please also note to keep parallel interface in fast operation, please adjust in setup window the **switch position 1 to OFF, and position 2 to ON leaving the rest unchanged as factory default setting.**

LAN Connection

The LAN connector is a 8-PIN RJ45 type modular connector. Please use a LAN cable of CAT 5 with proper length to connect the LAN connector on the printer to the LAN HUB as appropriate. Please note that for PP-6900L, there must be no cable connection at the USB port on the printer. Please also note that to keep LAN interface operative, please adjust in setup window the **switch position 1 to OFF, and position 2 to ON leaving the rest unchanged as factory default setting. Do not connect the peripheral device (cash drawer) to this port!!** The LAN port is 10/100baset compliant.

Peripheral Connection

The peripheral controller is a 6 pin RJ11 type modular jack. With use of Posiflex cash drawer cable 21863018010 coming with cash drawer, this port can control Posiflex cash drawer CR2200 or CR3100 or CR4000 or CR4100 or CR-6310. If a Posiflex special split cable 21863023800 is used instead, this port can control two cash drawers of the above models.

When the printer is used as a kitchen printer, please use this port for kitchen bell connection instead.

Wi-Fi Connection

To use Wi-Fi connection, please set up through official utility - Posiflex Wi-Fi POS Printer Manager. There are two interfaces to organize PP-6900W which are USB and Wi-Fi. For the first time, by using PP-6900W, please set the host terminal's Wi-Fi configuration to AD-HOC (peer to peer) mode when setting through Wi-Fi interface. Another method to set up PP-6900W is by USB interface and please use Wi-Fi POS Printer Manager to set up Printer after USB being connected.

Power Connection

The power connector is a 3-PIN jack. Either a Posiflex supplied power adaptor or a printer power cable from a Posiflex POS system can be connected to this connector to supply power for this printer. During insertion of the power plug, be sure to hear the click to obtain a firm contact.

CAUTION: Before doing the insertion or extraction of the power plug, be sure to pull the outer sleeve of the plug backward to release the internal latch. Failure to do this could damage the power plug. Such damage is considered as an artificial destruction and is not covered by the warranty.

Power On

When all the above cable connections are made correctly, you may connect your power adaptor to the wall outlet. Make sure that the type of power cord meets the local power conditions. Now the printer is ready for power on.

Self Test

Press and hold down the feed button while turning the on / off switch on. The printer will then perform a self-test. A sample slip of self-test result is printed as in the sample at right. The sample slip will indicate the present printer status and settings. If FEED button is pressed at this moment, a font table will be printed in page mode again for PP-6900 and the PP-6900L/PP-6900W will show IP information in this

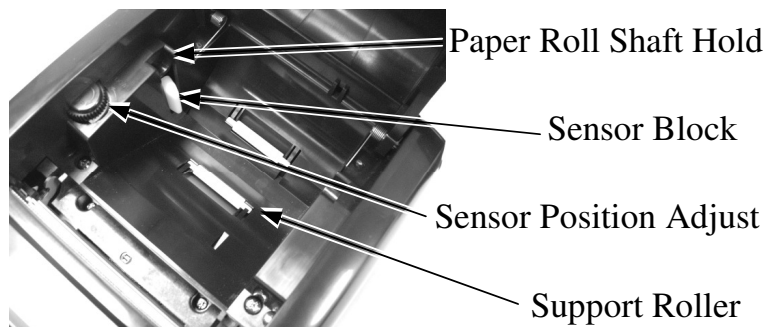


sample slip. To exit the test printing, please turn the printer off and on again.

SPECIAL ADJUSTMENTS

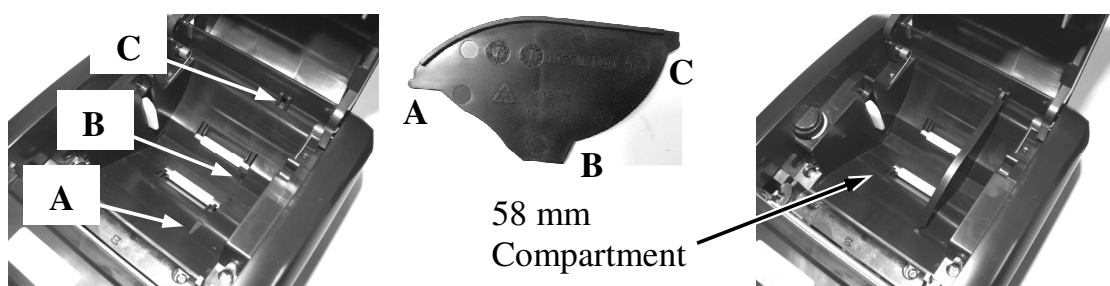
Paper Near End Sensor

The near end sensor for paper roll in the printer is able to have the printer work with paper rolls of several bobbin sizes. Please refer to the picture at right for the inside of the paper roll



compartment that there are a plastic thumb wheel for bobbin size adjustment and a sensor block in the wall. Turn the thumb wheel to adjust the proper position of sensor block. For desktop application, the sensor block should be above the bobbin seating on the 2 support rollers on bottom of paper compartment when paper near end. The acceptable paper roll bobbin outer diameter is between 18 and 24 mm.

58mm Paper Spacing Plate



The application of 58 mm width paper roll in this printer can be achieved through adoption of an option spacing plate and an internal DIP switch setting. Please refer to the last chapter of this manual for the DIP switch setting. Please refer to the middle picture above for the 58 mm paper spacing plate with its flange at top edge showing out. Insert the noted corners of the spacing plate into the 3 dents inside the paper roll compartment as arrowed in the left picture above with point A going in first. Then the 58 mm paper roll sub compartment is formed as in the right picture above.

INSTALLING DRIVER

There will be Posiflex Product Information which is specifically created for the PP-6900. Please find the appropriate subfolder from the non-specific Posiflex Product Information and please find the information document such as “read me” or installation guide or application guide and follow the instructions inside.

LAN and Wi-Fi PRINTER SPECIFIC ISSUES

Web Manager for PP-6900L

The default static IP for the PP-6900L is 192.168.192.168 and default listen port is 9100. User may set his own IP to the same network segment and use any browser to connect to the printer IP to configure the LAN setup of the PP-6900L including changing the printer IP for application according to his network administrator's request. However, **DHCP is not supported**.

Reset Button in Pin Hole

As the setup for the PP-6900L/W can be set freely, the changes are not well registered some troubles could be introduced. Therefore, in PP-6900L/W, there is a “Reset pin hole” near the LAN connector or Wi-Fi Module. Use something like a ball pen tip or straightened end of paper clip to push and holding for at least 5 seconds into this hole will reset the LAN / Wi-Fi setup of the printer back to the default values at delivery so the user may re-do all setup. The LAN setup can be viewed in the second paragraph of self-test printout for the PP-6900L.

LAN POS Printer Manager

This utility can be used to manage multiple PP-6900L's connection in the same network under Windows as long as there is no conflicting IP in the network. This utility can assign to each LAN printer a different device name for easy recognition. In case of confusion, please check the MAC addresses listed in this utility against the MAC address label you can find under each printer.

Any PC connected in the same network can use TCP/IP to use PP-6900L in the way like a directly connected local printer. So, for direct I/O control by tools like “HyperTerminal” all commands applicable to the serial or parallel interface model can work on PP-6900L in the same way, as PP-6900 except the port must be TCP/IP with the IP address of the printer. Similarly, for Windows printer driver setup, please “Add Printer” and select for “Local printer” and select port “TCP/IP” with the printer IP address then use the same Windows printer driver of PP-6900L.

Posiflex Wi-Fi POS Printer Manager for PP-6900W

When setting the host system by AD-HOC mode; please set the host system IP

in the same network segment with PP-6900W in the 192.168.192.XXX. The default Wi-Fi mode for the PP-6900W is AD-HOC mode that can be searched by this printer manager utility. After starting the software, the host system will automatically search printer by Broadcast or search by IP modes and show as a list. After PP-6900 shows in the list, the IP address setting can modify. Please notice that PP-6900W Wi-Fi module will reboot automatically right after change or update setting. Finally set the host system back to original mode. For modifying the printer's Wi-Fi setting through USB interface, please connect the cable to USB port. **It is significant when using USB interface to regulate the PP-6900W, please set the hardware DIP switch 1-6 or software switch 1-6 to "ON".** After change or update setting, please set the SW 1-6 back to off and please reboot the PP-6900W right after change or update setting.

OPERATION GUIDE

MAINTENANCE GUIDE LINES

- Always turn off and disconnect power before opening the cover.
- The areas around the print head and motor become very hot during and just after printing, DO NOT touch them.
- When handling the interior of the thermal printer, please pay attention not to be hurt by any sharp edge of the metal parts.

GENERAL CLEANING

Please use soft hairbrush or compressed air to clear away any dust or paper scraps accumulation inside the printer. Check also the area of the auto-cutter regularly.

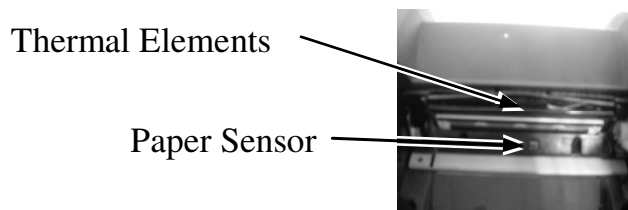
PRINT HEAD CLEANING

The print head is located underneath the roll paper passage at the exit as in the picture below. You can clean the thermal elements of the print head and paper sensor gently using a cotton swab moistened with isopropyl alcohol solvent.

NOTE: Never do this when print head is still hot

Do not touch the print head thermal elements

Do not scratch the print head thermal element



Before putting back the paper roll for printing, alcohol solvent must be dried

completely.

TROUBLE SHOOTING

This section gives solutions to some printer problems you may have.

General Problems

No LED lights up on control panel when switched on – Make sure that the power supply cables are correctly plugged into the printer, the power adaptor and to the power outlet. Make sure that power is supplied to the power outlet. If the outlet is controlled by a switch or timer, try to use another outlet.

Printing Problems

Nothing can be printed with ERROR LED flashing – Most possible cause for the flashing Error LED is that the printer has been printing for quite a period of time and the print head temperature becomes too high. After few minutes under normal ventilation, the print head should be able to cool down and the Error LED will stop flashing. Printing will resume after cooling down. If this is not the case, contact a qualified service person.

Nothing can be printed with ERROR LED ON – Check the Paper Out LED. If it is ON, most probably either the paper roll is not installed or the paper roll is at or near the end. Install a new paper roll. If the Paper Out LED is OFF, please check if the print hood is properly closed. There are 2 internal check points inside the printer to assure the locking of the hood for a decent printing. Therefore any dislocation of the hood may cause an error status and inhibition to printing. **Press down the hood at in the middle of the opening** when closing it till it audibly clicks into place. If both situations are not the cause, please try pulling the hood lock forward. If the top hood won't release automatically, **check for paper jam** described in next item.

If there is no paper jam and the print head is not overheated, turn off the printer and wait for half a minute then turn it back on. If the problem still remains, contact a qualified service person.

Nothing can be printed with ERROR LED OFF – Try to run self-test according to previous chapter to check if the printer itself works properly. If the self-test passes, check the following:

- 1). Check the connection of the interface cable at both the printer and computer ends. Also make sure that this cable meets the specification required for both the printer and the computer.
- 2). Check the printer data communication settings against the computer.
The printer settings can be found easily on the self-test print out.

If the problem remains or the self-test fails, contact your dealer or a qualified service person.

Poor printing quality – Contaminants like paper scraps and dusts on the thermal print head can lower the print quality drastically. Clean the print head

as described in previous section. Also print density is regulated thru switch settings.

Paper Jam Problems

Paper is jammed inside the printer – Push down the paper cover release button then the top paper cover can be released. Remove the jammed paper and reinstall the paper roll. Close the paper cover properly and firmly for operation.

If the auto cutter is also jammed, the top hood will be locked. However, in most of the situations the cutter will retract automatically when the hood release button is released, please re-close the hood and try opening it again.

Never force open the top hood. Please also clear away any containments accumulated in the cutter track above the thermal elements.

Advanced Analysis Tool

This printer supports **Hexadecimal Dump** for experienced user to view exactly what data is received by the printer. This can be useful in finding software problems.

To start the dump mode: Turn off printer; Open print hood; Hold down FEED button while turning printer on; Close the hood.

To stop the dump mode: Press the FEED button to print out the last line; Turn off the printer.

During dump mode: All commands except **DLE EOT** and **DLE ENQ** are disabled.

USEFUL TIPS

- Please note that only those qualified technicians may adjust several jumpers for some technical settings. Please visit our web site <http://www.posiflex.com> or <http://www.posiflex.com.tw> for details of the technical information such as driver installation, DIP switch settings and command sets etc. if required.
- Place the printer on a sturdy, level surface.
- Choose a place that is well ventilated and free of excessive dust, smoke or fume.
- Do not put the printer under direct sunlight or near a heater.
- Ideal room temperature is from 5°C to 40°C. Ideal humidity is from 20% to 85% RH (no condensation).
- Do not set any liquid or drinks such as coffee on the printer case.
- Do not touch any metal part to avoid possible electrostatic damage.

- Do not touch the areas around the print head and motor during or right after printing. It can be very hot.
- Do not allow the cut receipt to slide back into the cutter during the operation. As this would lead to multiple cutting at the lower edge of a receipt and the multiple cut thin slips tend to cause mechanical malfunction.
- Use a grounded AC power outlet with only the power cord and power adaptor furnished with the printer.
- Do not use a power outlet of a circuit shared with any equipment that uses a lot of power or causes great electrical noises, such as a copier, electric motors or a coffee maker.
- Do not use thermal paper containing Sodium (Na+), Potassium (K+) and Chlorine (Cl-) ions that can harm the print head thermal elements.
- If the surface of thermal paper is scratched with a hard object such as a nail, the paper may become discolored.
- If thermal paper touches diazzo copy paper immediately after copying, the printed surface may be discolored.
- Use only water paste, starch paste, polyvinyl paste or CMC paste when gluing thermal paper.
- If thermal paper touches anything containing phthalic acid ester plasticizer for a long time, the image formation ability may be reduced or the printed image may fade.
- Use of volatile organic solvents such as alcohol, ester and ketone or some adhesive tapes on thermal paper can cause discoloration.
- Thermal paper must not be stored with the printed surfaces against each other as the printing may be transferred between the surfaces.
- Since the paper roll is highly thermal sensitive, please keep them in a dark place that is 20° and 65% RH when not installed in the printer. Avoid extended exposure to direct light. Use only products made from polyethylene, polypropylene or polyester for storage of thermal paper.

SPECIFICATIONS

PRINTER

ITEM	SPECIFICATION
Printing method	Thermal sensitive line dot method
Effective printing width	64 mm / 72mm (Max.)
Thermal head configuration	512 dots line / 576 dots line
Printing speed	200 mm / sec. max.
Paper feed method	Friction auto-feed

Paper load method	Drop and use
Auto-cutter capability	Partial cut (1 point at center left)/full cut
Paper cutting method	Guillotine cutting
Manual cutter	Saw tooth blade
Dot Pitch	0.125 x 0.125 mm
Life span of print length	100 km
Life span of paper cutting	1 million or more
Input power type	DC
Input voltage	24 V + / - 5 %
Dimension (mm)	148 (W) x 205 (D) x 143 (H)
Weight	1.2 Kg net

PAPER

PAPER TYPE	THERMAL ROLL PAPER
Paper roll formation	External side is heat-sensitive side
Paper width	80 (or 58) + 0 / - 1 mm
Paper roll outer diameter	83 mm max.
Paper roll inner diameter	12 + 1 / - 0 mm
Paper thickness	60 ~ 80 um

POWER ADAPTOR

ITEM	REQUIREMENT
Input voltage	100 V AC ~ 240 V AC
Input frequency	50 ~ 60 HZ
Input current	1.8 A MAX. @ 115 V AC
Output voltage	+ 24 V DC
Output power	50 W
Static load	0 A ~ 2.08A
Output regulation	+ / - 5 %
EMI standards	VDE – A, FCC – A, VCCI – A

MULTIPLE INTERFACE ISSUE

For model PP-6900, there is only 1 connector for host connection through USB. For PP-6900P, there are 2 connectors for host connection: USB and in addition to Parallel port. For PP-6900S, there are 2 connectors for host connection: USB Port and in addition to the Serial port. For PP-6900L, there are 2 connectors for host connection: USB and in addition to the LAN port. Please always connect **only one interface at a time**. Simultaneous multiple host connections could result in unexpected results!

UPOS CONCERNS

The UPOS compliance and OPOS compliance ability of the PP-6900 series dictates the printer to perform certain internal affairs such as counter refreshment periodically. For Switch position 3-4, it can be disabled.

When the printer is engaged in such operations there will be a brief period of time that the printer is busy without externally apprehensible cause. In other words, the printer will lit the ERROR LED briefly once in a while even when no external communication is in process and that is definitely normal.

FURTHER TECHNICAL INFORMATION

PRINTER SETUP

There are two different ways to set up PP-6900. Firstly, one is the DIP Switch in the bottom of printer for setting up the function such as baud rate, paper width and others. Another switch is setup trough software to adjust such as printer density and others. The following explanation is going to describe these switches settings.



DIP Switch:

On bottom cover of the PP-6900 series thermal printer, there is a screwed metal plate for setup window. In this window, there is an 8-position DIP switch for printer setup. Please use proper tool to change the switch setting when necessary. The switch position counting starts from the nearest edge of printer. The functions of each position may evolve with the revisions of the firmware. The information below applies to the latest version to the date of print of this manual.

DIP Switch Position Behavior Table

Switch position	ON	OFF
1~2	Baud rate definition (Refer to the table below)	
3~4	Paper Width & Printable Width (Refer to the table below)	
5	Print speed (200 mm / sec)	Print speed (170 mm / sec)
6	USB interface (Default)	Other interface
7	Auto Cutter Disable	Auto Cutter enable
8	Firmware Update Enable	Firmware Update Disable

Effect of positions 1 & 2 on baud rate is defined as in table below:

SW1 Pos. 1	OFF	OFF	ON	ON
SW1 Pos. 2	OFF	ON	OFF	ON
Baud rate setup	19200 bps	115200 bps	9600 bps	38400 bps

Please notice when being used in USB mode and preferably Virtual Serial Port,

please place the SW1-1&2 to ON position in order to use Virtual COM port.
Effect of positions 3, 4 on Paper & Printable Width is defined as below:

SW1 Pos. 3	OFF	ON	OFF
SW1 Pos. 4	OFF	OFF	ON
Paper & Printable Width	80 mm / 512 dot	80 mm / 576 dot	58 mm / 424 dot

Toggle **SW1 Pos. 5** to “On”, the print speed is 200 mm/sec; “Off”, the print speed is 170 mm/sec.

Toggle **SW1 Pos. 6** to “ON” for USB interface, and toggle it to “OFF” for the others (Serial, Parallel, LAN, Wi-Fi, etc.)

Switch position 7 defines the auto cutter. When it is essential to enable the paper auto cut function, be sure to be placed to “Off”. On the other hands, the auto cutter function will disable when it is placed at “On”.

Switch position 8 defines the firmware update function. If the printer needs to update the firmware, please set to “ON” position. In order to operate perfectly, please set in “OFF” when the printer does not need to update the firmware or in normal situation.

The factory default for each position is listed as below:

Switch 1 Position	1	2	3	4	5	6	7	8
Default setup for PP-6900	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF

Software switch:

Another method to set up PP-6900 series is through the software switch setting, which means that other functions must be changed by software utility. Please visit our web site <http://www.posiflex.com> or <http://www.posiflex.com.tw> to download the **PP-6900 software switch utility**. Software switches has divided into **SW1, SW2, SW3 and SW4**. The following information is going to describe these settings.

The switch position behavior definitions of software **SW1** are the same as those of hardware **DIP switch**. Please refer to **DIP Switch Poison Behavior Table** in Part 17.

Only either **SW1** or **DIP switch** can be enabled at one time. If **SW1** is enabled, **DIP switch** is automatically disabled, and vice versa. Toggling **SW4 Pos.8** controls which to be enabled, as shown in the **SW4 switch poison behavior table** in Part 20.

SW2 Switch Position Behavior Table

Switch position	ON	OFF
1	Paper Back Feed Disable.	Enable Paper Back Feed.
2	Disable cut paper after cover return.	Enable cut paper after cover return.
3	Full-cut mode.	Partial-cut mode.
4	Cut without paper feed	Cut with auto paper feed
5	Busy on “buffer full”	Busy on “buffer full” and/or “off line”
6	CR code (0Dh) effective	CR code (0Dh) invalid

7	Even parity	None parity
8	XON/XOFF handshaking	DSR/DTR handshaking

Software switch 2-1 control the retractable function. When this switch is set to OFF, printer will enable to retract paper 6.5 mm before it starts to print with the aim of reducing paper loss. In contrast, it will print straightly when this switch is placed to ON. Please notice that the factory default of this switch is OFF.

For software switch 2-2, it is recommended to place at Off. In this way, the printer performs an automatic paper cut each time when the top cover is closed (e.g. after paper roll being loaded) with the printer in operating condition.

However, if it is placed in ON, it will not automatically cut paper after top cover being closed. For switch position 2-3, if the printed paper does not need to be completely cut, please set this switch to “OFF”, the paper will auto-cut partially and leave a tiny piece that user needs to rip the printed paper after cover return; when it is set to “On”, the paper will fully cut after paper being printed.

For switch position 2-4, when it is set to “OFF”, the paper will feed before cutting when software does not define this point and there will be a further paper feeding after cutting to prevent last 2 lines cut. Before setting this switch to “ON”, please make sure that your software will take care of enough paper feed for printed lines cut prevention issue.

For switch position 2-5, if the switch is set to “ON”, the busy signal set to host only when input buffer is full. When it is set to “OFF”, busy signal is sent to host whenever the input buffer is full or an off line status occurs. Therefore, signals including the paper near end detect will generate busy signal to the host. Moreover, the printer will keep on beeping at Paper End (completely no paper) till paper is replaced when S2-5 is “ON”. When S2-5 is “OFF”, the printer will keep on beeping every 3 seconds at Paper Near End (still long paper in replacement) till paper is replaced.

For switch position 2-6 and when it is set to ON, the printer responds to a carriage return command (CR code or 0Dh) with also a line feed (LF code or 0Ah) action. Then if the text editor always expresses the change to a new line with both the CR and LF codes, there will be an extra line advancement than expected. However it works for some old editors that express the change to a new line with only either one of the LF code or the CR code.

Switch position 2-7 defines the parity check regulation in serial interface.

In PP-6900, it is selectable between even and none.

For switch position 2- 8 can choose the handshaking method in serial interface. When it is set to ON, the printer transmits an “XOFF” for busy signal and sends an “XON” for not busy signal. When it is set to OFF, the printer signifies the busy status over hardware signals that can be detected by the host as “DSR” or “CTS”.

SW3 Switch Position Behavior Table

Switch position	ON	OFF
1	Raster Bitmap Print by line print.	Raster Bitmap Print by buffer batch.
2	Print speed 120 mm/s, Enable	Disable
3	THAI font process, 3-Pass	1-Pass
4	UPOS Info Auto Write, Enable	Disable
5~8	Print Density Adjust	

For switch position 3-1, it defines the printing behavior of the printer on graphic printing. When it is set to ON, the printer prints on each printing command received immediately. However, the printer may have to engage brake frequently waiting for next command resulting in trembling. When this switch is set to OFF, the printer starts printing only when more graphical data is collected thus performing a much smoother printing operation. For switch position 3-2, it defines the print speed while process printing; when it is set to “On”, print speed is enabled in 120 mm/s, when it is set to “Off”, the print speed is enabled in 200 mm/s or 170 mm/s for DIP Switch Position behavior. For switch position 3-3, Thailand (THAI) font process is being undertaken and signifies 3-Pass when it is set to “On”; it signifies “1-Pass” when it is set to “Off”. For switch position 3-4, UPOS Auto Write is enabled when it is set to “On”; “Off”, it is disabled. For switch 3~5, 6, 7, 8, Print Density Adjust is enabled.

Effect of positions 5, 6 , 7 & 8 on Print Density is defined as below:

SW3 Pos.5	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
SW3 Pos.6	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON
SW3 Pos.7	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF
SW3 Pos.8	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
Print Density (%)	100	105	110	115	120	125	130	95	90	85	80

Since the qualities of different paper are not alike, please regulate the print density and printing speed to obtain the satisfaction of printing quality.

SW4 Switch Position Behavior Table

Switch position	ON	OFF
1	Available “Beep” sounds after printing.	Disable “Beep” sounds after printing.
2~3	Barcode Height Reduction. (Refer to the table below)	
4~5	Line Space Reduction (Refer to the table below)	
6~7	Line Feed Reduction (Refer to the table below)	
8	DIP switch is disabled Software Switch SW1 is enabled	DIP switch is enabled. Software Switch SW1 is disabled

SW4-1 switch control the “Beep” sound after printing. Please select “ON” if this beep sound is required and it will not make any sound after “OFF” is

selected.

Software switch SW4-2&3 helps user to save paper by reducing the barcode height to 25%, 50% or 75% of the original size. Please refer to the following table to change this switch's setting.

Effect of positions 2 & 3 on Barcode Height Reduction as in table below:

SW4 Pos. 2	OFF	ON	OFF	ON
SW4 Pos. 3	OFF	OFF	ON	ON
Barcode Height Reduce	Disable	Reduce 25%	Reduce 50%	Reduce 75%

This function is to reduce the spaces between every two lines in every single paragraph. For SW4-4&5, please refer to the below table before regulating the percentage of line space reduce.

Effect of positions 4 & 5 on Line Space Reduction as in table below:

SW4 Pos. 4	OFF	ON	OFF	ON
SW4 Pos. 5	OFF	OFF	ON	ON
Line Space Reduce	Disable	Reduce 25%	Reduce 50%	Reduce 75%

For switch 4 position 6 & 7, it can reduce the spare space between paragraphs. No matter how many blank lines, this function will reduce the total unused space for three particular percentages which are 25%, 50% and 75%. Please refer to the following table to adjust switch 4-6&7.

Effect of positions 6 & 7 on Line Feed Reduction as in table below:

SW4 Pos. 6	OFF	ON	OFF	ON
SW4 Pos. 7	OFF	OFF	ON	ON
Line Space Reduce	Disable	Reduce 25%	Reduce 50%	Reduce 75%

For software switch SW4-8, it can control hardware DIP switch to be disabled or available. When it is set to ON, the SW1 can set up through software switch1 only. The functions of Hardware DIP Switch will be invalid setting.

Note: Please reboot the printer after setting adjustment finished.

