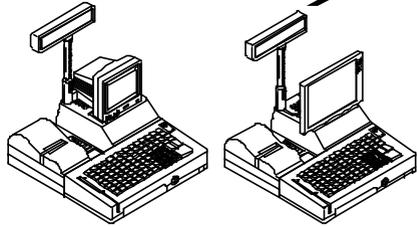


# PST - 7700 Series

## 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.

### 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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The information in this manual contains only essential hardware concerns for general user and is subject to change without notice. Posiflex reserves the right to alter product designs, layouts or drivers without notification. The system integrator shall provide applicative notices and arrangement for special options utilizing this product. The user may find the most up to date information of the hardware from web sites: <http://www.posiflex.com> or <http://www.posiflex.com.tw>

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## **ALERT TO OUR HONORABLE CUSTOMERS:**

- Please always read thoroughly all the instructions and documents delivered with the product before you do anything about it. Don't take any premature action before you have a full understanding of the consequences.
- This product contains inside a Lithium battery and maybe also a sealed type Lead acid battery if the UPS battery option is ordered. Please always follow local environmental protection laws / regulations for disposal of used batteries and always replace only with battery of same type.
- If you have an UPS battery installed in the product:
  - ✧ Temperature above **40° C must be strictly avoided** as it could cause termination of battery life and unexpected result even if the battery is not in work.
  - ✧ **Do not** power off the system just by shutting off the AC power leaving the battery supporting the whole system till completely exhausted. **Repeatedly using it up or improper maintenance reduces the battery life dramatically.**
  - ✧ Always fully recharge the battery at least once every 3 months if the battery is not connected.
  - ✧ Always **disconnect the UPS battery** from the system if the system is to be left OFF for more than **72 hours** to prevent possible damage. Only connect the UPS battery back right before you are going to re-power on the system.
  - ✧ Replace the battery as soon as the monitoring software indicates the battery is out of service. Attempt to recharge a dead battery is **dangerous!**
  - ✧ A separate battery monitor is not required for this series.

## **BRIEF INTRODUCTION**

### **THE USER'S MANUAL**

The purpose of this manual is to guide the user in the initial installation and general use of the Posiflex PST7700 series of POS terminals. It does not explain any application software that may be supplied with it.

We intend to provide our customers with all technology advantages available by evolving the product design to incorporate appropriate changes and improvements. So some detail differences may exist between this manual and the equipment supplied.

For more detailed or technical information please refer to the CD-ROM disc associated or consult our authorized dealers or visit our web site: <http://www.posiflex.com.tw/> or <http://www.posiflex.com/>

### **THE PRODUCT**

The Posiflex range of PST7700 terminals have been designed and manufactured to meet the high end demand on POS systems. It incorporates all the advances of PC technology within a rugged housing designed for use in a hostile retail environment. By providing an integrated design, It has retained many of the secure features of a traditional ECR and has avoided the wiring “spaghetti” associated with more traditional PC solutions. This Open Standard Architecture ensures that this terminal can use the PC application software and development tools that are now inexpensively available and abundant.

The terminal may be used as a self-contained unit or by using the integrated network interface as one of several terminals in a network system controlled by a “back office” computer. Versatile options can apply to it too.

An optional CD-ROM drive or an optional FDD can be installed in the PST7700 system or supplied later as an upgrade kit. The PST7700 system also provides an optional power management kit that includes a CR port with status sensibility for controlling 1 or 2 Posiflex printer drive type cash drawers and the most advanced UPS functions to safeguard the POS operation against intermittent power failure with another option UPS battery, careless touch on the power switch, and to support unmanned remote account consolidation operation, etc..

### **THE BASIC MODELS**

- PST7700 – 9” CRT monitor + matrix layout programmable keyboard
- PST7705 –12” color TFT LCD screen + matrix layout programmable keyboard
- PST7730 – 9” CRT monitor + QWERTY layout programmable keyboard
- PST7735 – 12” color TFT LCD screen + QWERTY layout programmable keyboard

## THE STANDARD FEATURES

**CPU:** C3 1.0 GHz; **HDD:** 20 GB or above; **RAM:** 128 MB

**Ethernet Networking:** The standard network port works with both 10 Base T and 100 Base T.

**Programmable Keyboard:** In either 112 key matrix or 136 key QWERTY layout with 8 KB memory.

**Numerical Keypad:** The matrix layout keyboard contains a numerical keypad.

**6 Position Key Switch:** Every PST7700 system is equipped with a 6 position key switch for several purposes. This key switch supports security lock off and multi-page programming of the programmable keyboard, answer back code and software switch off functions. 4 different types of keys are provided for different accessibility.

**Customer Display Port:** Every PST system provides a customer display port to drive any Posiflex customer display. However, the system case with a base tube of a customer display is different from that without a customer display.

**Serial Ports:** There are 4 serial ports in a PST7700 system. COM1 is shared by the customer display port and the direct driven cash drawer port if exists. COM1 is capable of providing a +5 V DC supply. COM2, COM3 and COM4 each are capable of providing independently a +5 V DC or a +12 V DC supply. All these DC supplies are achieved through internal jumper setting and they are all defaulted to give **no** DC supply at delivery.

**Parallel Port:** Each PST system is equipped with a parallel port that supports SPP/EPP/ECP.

**USB Device Connection:** The PST7700 series is equipped with two USB type A connectors for connection of USB (Universal Serial Bus) devices.

**Modem Ring-Up, LAN Or Alarm Wake-Up:** The PST7700 series can be turned on automatically upon an incoming COM port Modem call or LAN status or data packet received on LAN or a preset time/day/week/month.

## THE OPTIONAL ITEMS

- a) **Magnetic Stripe Reader:** 2 tracks, 3 tracks or JIS I/II (JIS MSR for factory upgrade only)
- b) **Customer display:**
  - 1). PD-101: 8 digits 7-segment LED display with 7 indicators
  - 2). PD-2201: 2 line by 20 character (11.25 x 7.2 mm) VFD
  - 3). PD-2301: 2 line by 20 character (9.03 x 5.25 mm) VFD
  - 4). PD-7201: 2 line by 20 character (18.35 x 8.91 mm) graphic LCD
- c) **Bar Code Scanner:**
  - 1). CCD scanner (CD-2860K) with 80 mm width read capability
  - 2). Long range CCD Scanner (CD-3830K) with 120 mm width and 250 mm depth read capability
- d) **POS printer:**

- 1). PP-2000 series: Friction type paper feed, 2 stations 9 pin dot matrix impact printer.
  - 2). PP-5600 series: Friction type paper feed, 9 pin dot matrix impact printer
  - 3). PP-5700 series: Sprocket type paper feed, 9 pin dot matrix impact printer
  - 4). PP-7000II series: Friction type auto- paper feed, High-speed thermal sensitive line dot printer
  - 5). PP-7000IIIUSB series: Friction type auto- paper feed, High-speed thermal sensitive line dot printer with USB interface
  - 6). PP-7700 series: Friction type auto- paper feed, High-speed thermal sensitive line dot printer with wireless interface.
- e) **Variety of Key Tops:**
- 1). Quad key
  - 2). Horizontal double key
  - 3). Vertical double key
  - 4). Single key
  - 5). Blank key
- f) **DRAM Memory Expansion:** Upgrade up to 1GB max.
- g) **Integrated CD-ROM Drive:** Can be ordered before delivery or as an upgrade kit to be installed into the already purchased PST product.
- h) **Integrated FDD:** 3.5" 1.44 MB
- i) **Power management kit with CR port:** The most advanced UPS functions to safeguard the POS operation against intermittent power failure with another option UPS battery, careless touch on the power switch, unmanned remote account consolidation operation, etc.
- j) **2-in-1 Cash Drawer Control Cable:** Cable CCBLA-238, when added to the optional CR port of the PST7700, can be used to control two Posiflex CR-3X00 or CR-4XX0 cash drawers.
- k) **UPS Battery:** 2.3 AH 12V lead acid battery
- l) **Preload OS:** Win98, Win 2000, Win XP embedded, Win XP pro.

### **SYSTEM BOX CONTENTS**

When you receive the system box you will find it contains several items:

- PST7700 system unit
- Cashier display carton for LCD model PST7705 or PST7735
- Customer display carton if an option of customer display is ordered
- PST accessories carton
- Other optional components as ordered

#### **Main System Unit**

The main system unit is supplied with the key tops of the programmable keyboard assembled without the transparent key caps.

### **Cashier Display Carton**

When the order is PST7700 or PST7730, the purchased 9" VGA mono CRT monitor will be shipped in a separate box from the main system unit. When the order is PST7705 or PST7735, the package for the 12.1" color TFT LCD is inserted in a side within the system box.

### **Customer Display Carton**

This is a separate carton within the main carton and contains the customer display (also called a pole display) when an option of customer display is purchased with the PST system.

### **PST Accessories Carton**

This contains most of the small parts and loose items for PST7700 and PST7705 as follows:

- This user's manual
- 1 set of keys (4 pieces) for keyboard key switch
- 1 set of keys (2 pieces) for front door lock
- Keyboard type dependent accessories as listed below
- Recovery CD for preloaded OS or Posiflex Product Information CD for driver utilities without OS
- Cable tie (5 pieces)
- VFD terminator (1 piece)
- COM1 terminator (1 piece)
- Main power cord (1 piece)

The content of keyboard type dependent accessories is listed below. Please note that these parts are different in size between the KB112 for PST7700/PST7705 and the KB136 for PST7730/PST7735. The rough measurements in millimeters of the key surfaces are also noted below:

Accessories for models	PST7700/PST7705		PST7730/PST7735		
	Qty	Note	Qty	Note	
Legend sheet in 4 colors (set)	1	P/N:10371297210	1	P/N:10371297211	
Key cap removal tool (key clip)	1	P/N:QC2000	1	P/N:QCH2000	
Single key + transparent cap	92	22 x 18 mm	52	18 x 18 mm	
Double key + transparent cap	Vertical	2	22 x 37 mm	1	18 x 37 mm
	Horizontal	0	45 x 18 mm		
Quad key + transparent cap	1	37 x 45 mm	(not applicable)		
Blank key	2	22 x 18 mm	2	18 x 18 mm	

## INSTALLATION GUIDES

### IMPORTANT

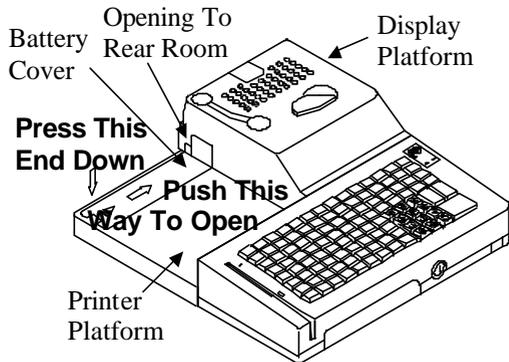
Please do not connect the power cord or turn on the main unit until you have fully read the installation guides and followed the instructions!!!

### TECHNICAL ENHANCEMENTS

Applicable technical enhancements in PST7700 series include RTC battery replacement, COM port power supply settings, VGA port power supply settings, DRAM upgrades, CD-ROM drive upgrade and adding a half length PCI adapter card. All these technical enhancement operations require purchase of applicable Technical Manual from Posiflex or consultation from Posiflex authorized dealers and should be handled only by a **qualified technician**.

### INSTALLING UPS BATTERY (OPTION)

First remove the CD-ROM platform if this option is installed. Remove the battery cover by pressing down at the marked end and pushing inward the battery cover as shown. The user may find the UPS battery lying in the battery compartment if this option is ordered. Connect the cable through the opening on the wall toward the rear room of the cabinet to the connector in the rear room. **Always disconnect the UPS battery** when the system is to be left powered off for more than few days.. Please pay particular attention to the environment requirement for UPS battery in next chapter "USING THE PST SYSTEM".



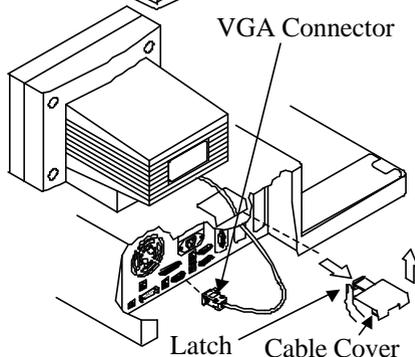
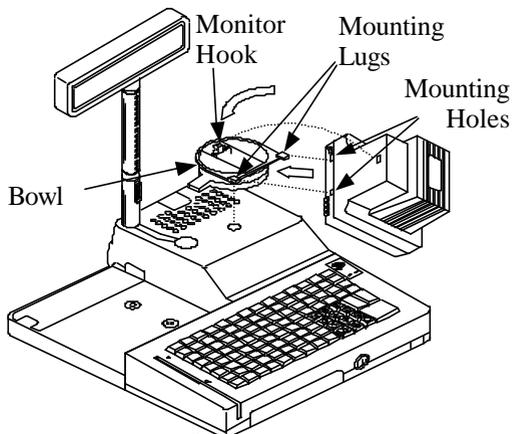
### CRT MONITOR

Upon receiving the CRT type PST7700, the monitor comes in a separate box. Install the monitor onto the PST product as following. First take both the main unit and the monitor out of their boxes. Referring to drawing below hold the monitor with the screen facing downward allowing the two mounting holes at the bottom toward the two mounting lugs on the bowl. Match the two mounting lugs into the two mounting holes, then gently push and rotate the monitor backward 90° to have the monitor sit on the bowl. On completion of this maneuver the rear of the monitor will "click" into position over the monitor hook and will be securely retained into position.

The next step is to pass the monitor cable through a square hole at the back edge of main unit. Open the back door by sliding two back door latches at the bottom of back door toward the center. The back door is easily removable. Remove the cable cover by pulling the latch on the underside of the cable cover (ref. drawing below). Connect the VGA cable to the VGA connector through this opening then put the cable cover back onto the square hole with the hook end in position first and then press the cover down to position. You will hear another click sound and the cable cover is well mounted.

To remove the monitor, first disconnect the cable then pull the latch on the underside of the cable cover to remove the cable cover. Then pull the monitor hook lever at rear bottom of the bowl by finger,

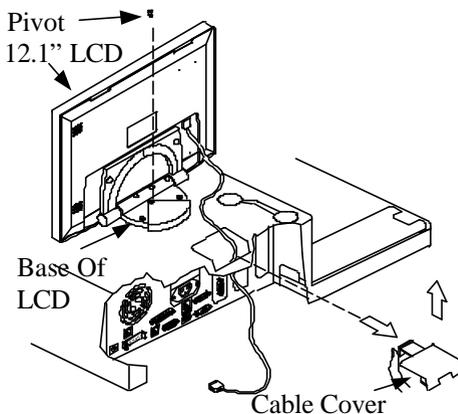
then raise and rotate the monitor forward till the CRT front is facing downward.



### LCD CASHIER DISPLAY

When the PST7705 or PST7735 is ordered, the user has to take the 12.1" TFT LCD cashier display out from the cashier display carton and assemble it onto the main unit per following instructions.

Unscrew and take out the pivot that is screwed on the display platform of the main unit. Unfold the base of the operator display and insert it into the opening on the display

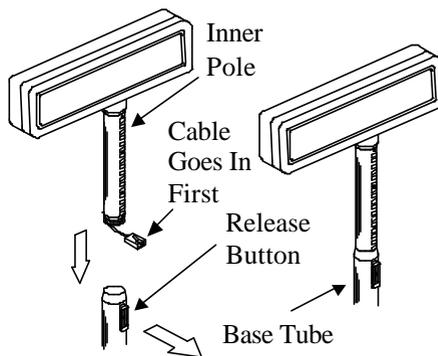


platform of the main unit till it clicks. Screw the pivot back to secure the base of the cashier display on the display platform of the main unit as in drawing below. Remove the cable cover on the display platform (same way as the instructions for CRT model) and connect the VGA connector of the 12.1" TFT LCD through the cable cover opening into the rear room. Reserve some sag in the cable so that the LCD cashier display will be allowed to turn and reinstall the cable cover.

### CUSTOMER DISPLAY

When the PST7700 series is ordered with the customer display option, the terminal will be delivered with the base tube for the display already fitted to corner of the display platform.

The customer display head can be easily inserted into the base tube after first inserting the signal cable. Pull out the release button on the base tube to allow the inner tube of the display head to travel



down into the base tube. Please ensure that the latching track on the inner-pole matches up with the release button. Open the back door and find the connector marked "customer display" or "VFD". Please remove the VFD terminator from this connector and store in a safe place. Insert the cable plug of the customer display into customer display connector until a click sound is heard.

**Please NOTE: The VFD connector must always be populated either with the VFD terminator or a plug from the customer display (Failure to do this will prevent COM1 from working correctly).**

Close the back door then slide the two door latches outward and the installation is completed. Please refer to the instructions in the part "TO USE THE PST SYSTEM" for later adjustment on the most comfortable position and direction of the customer display.

### PROGRAMMABLE KEYBOARD

The PST terminal is equipped with an extremely versatile programmable keyboard. The application of this keyboard requires no software driver and is free from any software compatibility issue. This keyboard comes in 2 different layouts : KB112 for PST7700/PST7705 and KB136 for PST7730/PST7735. The key tops of the 2 layouts are different in their basic sizes, so all the accessories for the 2 layouts cannot be mutually exchanged. However, they are common in structure.

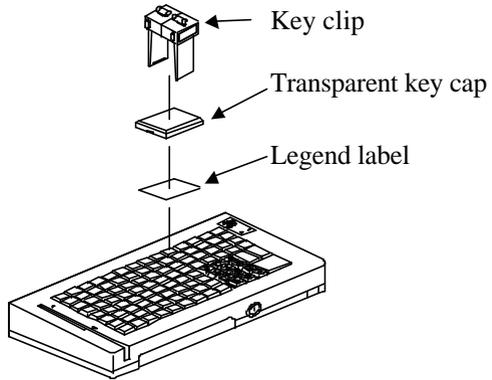
The keyboard is shipped from the factory with the key tops fitted, but

without the transparent key caps (these are in the accessories box). Also supplied with the keyboard are 4 die cut self-adhesive A4 label sheets that may be printed by most conventional means with whatever legends are required by the application.

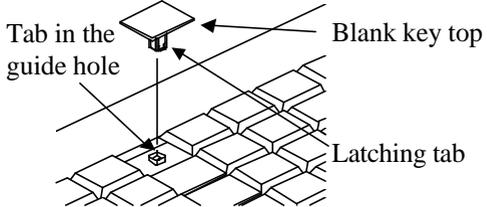
Each type of key top (with transparent key cap) listed in the table at end of BRIEF INTRODUCTION can be separately purchased in certain quantities and applied for variety in keyboard layout presentation.

The user may use the key clip (to be found in the accessory box) to pull off the key caps and apply the printed legend label on the key top then recap the transparent key cap for identification.

The user may also use a flat bladed screwdriver (not the key clip) to remove the key tops for rearrangement of the key tops. However, it is absolutely important to correctly orientate the key tops before they are inserted into the keyboard frame; **failure to do so could result in permanent damage.** Please note that on at least one side of the square stem of the key top, there is a small latching tab to match with a corresponding tab on the bottom inner side of the guide hole as in the example drawing above.



The system integrator can program the content of the keyboard for the application software following the technical guidance of Posiflex keyboard programming utilities.



### INTERNAL KB WEDGE BARCODE SCANNER

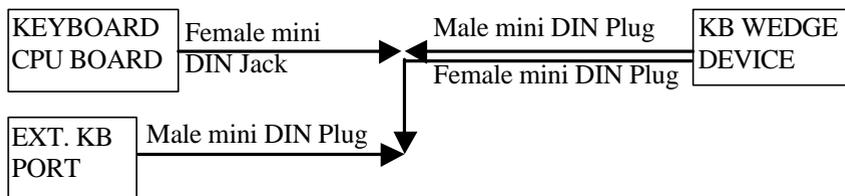
The PST system is designed to allow several PS/2 KB interface devices connected in a chain share the KB port. The terminal is supplied with two devices already in the chain. The first is the programmable keyboard followed by the magnetic stripe reader (MSR) if installed.

It is possible to add additional devices to this chain in either an internal or external manner subject to a **maximum of 5 devices**. For external connection, open the front door using the mechanical key and connect the KB interface device to the PS/2 KB port inside. However internal connection is

preferred for a permanent device like a bar code scanner in POS business.

To access the internal connection you must remove the keyboard. To do this first unlock the front door lock and then remove the two mounting screws from the underneath of the chassis located just behind the front edge of the terminal. Once these screws have been removed it is possible to lift the front edge of the keyboard housing and then rotate the keyboard “up and back”. This then exposes the keyboard controller on the underside of the keyboard. Connector for the external KB port is normally inserted into socket on controller board of programmable keyboard. To add an internally connected device, remove this cable from the controller board and insert the new device between them. Match the top edge of the programmable keyboard with rear cabinet of main unit and close it to the bottom chassis. Before closing it, the cables must be fixed to the bottom chassis with a cable tie and a piece of cable cover at side of bottom chassis must be taken away. Mount back the two screws from bottom side then the installation for internally connected KB wedge device is done.

We strongly advise users to consult with their dealers to have an authorized technician for such installation.



## PRINTER

Assemble the printer following the instructions supplied with the printer.

Remove the battery cover as in UPS battery section. The user may find the UPS battery lying in the battery compartment if this option is ordered. Connect the printer cable through the opening on the wall toward the rear room of the cabinet to the connector marked “LPT” (if the printer is a parallel printer). Or connect the cable to a proper “COM” port (COM 1 through COM 4) according to the definition on the application program (if the printer is a serial printer). The 24 VDC power cable (CCBLA-146A to be separately purchased) should be inserted to the 24 VDC connector in the rear room if the printer is to use this power supply from the terminal. These cables should pass through the opening on the wall where the UPS battery cover joins the case. Replace the battery cover and connect the signal and power cables to the appropriate connectors on the underside of the printer. Finally place the printer on the printer platform of the terminal.

## CASH DRAWER

The PST7700 installed with power management kit option is able to control most of the common cash drawers available on the market. However, it is recommended that the Posiflex CR-3100 or CR-3200 or CR-4000 or CR-4100 or CR-4210 be used since the terminal has been designed to compliment these cash drawers both mechanically and electrically.

The PST7700 will directly control the cash drawer using the cash drawer port (CR) both to operate the opening mechanism and to monitor the drawer open status. Both functions may be accomplished under software control of the COM1 serial port.

Use the cable supplied with the CR-3X00/4X00 cash drawer (Part No. CCBLA-180) for connection to the CR port in PST7700. This cable has a 6 pole plug at one end and a 8 pole plug at the other. The 8 pole plug should be inserted into the connector marked: "signal cable from POS Printer" at the rear of the cash drawer. The 6 pole plug should be inserted in the connector marked "CR" found in the rear room of the terminal.

The user may also use the optional 2-in-1 cash drawer control cable CCBLA-238 to control 2 cash drawers in 1 port. It has a 6 pole plug at one end and two 8 pole plugs at the other. The 6 pole plug should be inserted in the connector marked "CR" found in the rear room of the terminal. Each 8 pole plug should be inserted into the connector marked "signal cable from POS Printer" at the rear of one of the cash drawers. The cable lengths for the two 8 pole plugs are different. Use the shorter one for the original cash drawer "CR1" and use the longer one for the extended cash drawer "CR2" that will be distinguished by the software command.

## AC POWER

The power supply operating voltage *must* be checked and altered if necessary. This must be done *WITHOUT* any connection to the AC power.

The operating voltage adjustment switch is located close to the power input connector in the rear room.

The switch should indicate either 115 volts or 230 volts. When set at 115 volts the acceptable power supply voltage range is 90 volts to 130 volts whilst at 230 volts the acceptable power supply voltage ranges from 190 volts to 260 volts.

The power supply cable should first be connected to the power inlet (but *NOT* the wall socket). This cable should be secured to the latticed bottom of the rear room using a cable tie provided. The cable may exit either at the side or back of the rear compartment by using the relevant breakout section in the chassis plastic molding.

## USING THE PST SYSTEM

### BEFORE POWER ON – *A Check List*

It is *very* important that you check the following operational points:

#### **Ventilation**

This terminal must *NOT* be operated in an environment with restricted ventilation. There must be at least 25 mm air clearance around any top or side ventilation holes with a free flow of air around the unit at *ALL* times for the installation.

#### **Operating Environment**

The equipment must not be operated or stored in extremes of both temperature and humidity/moisture.

(Operating range 0°C to + 35°C and up to 80% relative humidity – non condensing max. wet bulb 26°C)

#### **Power Supply**

The operating voltage of the power supply should be checked to confirm that it is set within the range of the local power supply. The power cable, the power outlet and any power fusing arrangements must conform to local safety regulations.

#### **UPS Battery (option)**

##### **General care:**

The UPS battery is consumables beyond product warranty. Please definitely observe the alerts in beginning of this manual. If the equipment is to be powered off for more than few days, please always **disconnect** the battery from the system. Reconnect it and turn on the system to recharge the battery for 1 ~ 2 hours every 3 months for temperature lower than 30°C. Recharge for 1 ~ 2 hours every month for temperature over 30°C. Temperature above **40°C must be strictly avoided** as it could cause termination of battery life and unexpected result even if the battery is not in work. The UPS battery can support basically the data preservation and smooth running of the system during intermittent or few minutes (3 ~ 8 min. depending on loading and battery condition) power failure if the power management option is installed.

##### **Battery replacement:**

In the preloaded OS for a PST7700 with power management option, there is a built in utility Power Manager that will indicate the UPS battery status of the battery. When an installed UPS battery is found to be disabled, please replace the used up UPS battery at power off as soon as possible.

##### **Emergency treatment:**

The battery is constructed maintenance free and leakproof. Its storage

room also provides very good protection as long as the ambient temperature remains below 30°C and the ventilation of the PST system is free. However, should any accident happen and the sulfuric acid from the battery spills on skin or clothing, wash immediately with water. If the acid comes in contact with eyes, rinse eyes with large amount of clean water and see a doctor immediately. A larger external battery may be connected to give an extended operation. Please check your dealer about this capability when required.

**WARNING:**

**If there are any signs of over charging or leakage of electrolyte please contact your dealer immediately**

**Printer DC Power Supply**

This power supply is designed to support a Posiflex POS printer via the right cable. Careless use of it will cause permanent damage.

**VGA Display Port**

The VGA port in the PST terminal supports a 12 volt DC power to the monitor inside the VGA signal cable. This may cause permanent damage to any other monitor not designed to use this facility. Please use only a designed monitor with the PST equipment. Consult your dealer if you have any doubt.

(*Note:* 12 volt DC power is available on pin 9 of the VGA connector and is supported by the UPS function if the power management option is installed.)

The video memory of this port shares the system memory. The video memory size can be set in the CMOS setting to match the user's application.

**Customer Display Port**

The customer display connector must always be occupied either by the terminator plug (as supplied) or by one of the family of Posiflex customer displays. Without this provision the COM1 port and the cash drawer control (when power management option is installed) may fail to work correctly.

**Serial Port – COM1**

COM1 serial port must always be occupied by a suitable serial device or COM1 terminator (as supplied). If this port is left vacant or connected with something like a mouse the customer display port and the cash drawer control (when power management option is installed) may fail to work correctly.

**LED INDICATORS**

Besides the LED on MSR unit there are another two LED's on the main unit in the area with the 6-position electronic key. The green LED at right, called as the power LED, and the orange LED at left, called as the Standby LED, together exhibit several different system statuses depending on whether or not an UPS battery and the power management kit are fitted.

- (a) Without an UPS battery the power LED lights to show that the system is turned ON under presence of AC power. The standby LED indicates that

AC power is available when the system is powered off.

- (b) With a UPS battery fitted together with the power management kit:
1. The standby LED lights steadily to indicate the presence of AC power at system powered off. The system cannot be turned on if the AC power fails. The power LED goes ON and the standby LED goes OFF when the system is powered up.
  2. During power failure period at system turned on, the power LED flashes to indicate that the system is running on battery power.
  3. The power LED turns OFF and the standby LED flashes rather fast as the UPS battery approaches a discharged condition to remind the operator that power will soon finish. In few seconds, the whole system will soon be automatically turned off and both LED' s will be OFF.

In case the AC power resumes during the usage of the battery, the flashing LED will keep on flashing for few seconds till the AC supply is stable.

### **POWER ON/OFF CONTROL**

The PST7700 terminal implements electronic power control, such that the main power to the system may be controlled by many methods as below:

1. Hardware power switch
2. Software OFF command
3. Automatic power ON control
4. Emergency power OFF

Switching from OFF to ON requires a normal supply of the AC power.

#### **Hardware Power Switch**

This button is located on the lower right hand front edge of the keyboard and can be used to turn the system on and off alternatively if no optional power management kit installed. When this option is installed, the external switch can also be programmed to be an ON only switch through software command so that when this switch is accidentally pressed during system turned on, the system just remains on and unaffected.

#### **Software Off Command**

The system may also be shut down under software control if the optional power management kit is installed. Please just follow the arrangement by your system integrator for this capability.

#### **Automatic Power On Control**

The system may also turn on according to some preset conditions such as Modem Ring Up and Alarm Clock Wake Up or LAN Wake Up.

To utilize Modem Ring Up or Alarm Clock Wake Up function, the user should enter the CMOS setup by pressing “Del” key at system boot up,

choose for “PM Wake Up Events” in “Power Management Setup” and make the “Ring Power Up Control” enabled for Modem Ring Up or select the “Power Up by Alarm” for Alarm Clock Wake Up. Save the configuration and exit the CMOS setup program. The Preset Power On Control will then be ready. For LAN wakeup, an operating caller system connected through LAN to the system is required. It also requires a qualified networking technician to check the LAN chip ID of the system for the caller system to wake up.

When the PST7700 system is turned off after a successful boot up, the preset automatic power on functions will keep monitoring for the preset conditions and turn on the system when the preset conditions are met.

Please note that if the PST7700 system is improperly turned off before a complete boot up procedure, the above preset power on control functions will be disabled until next turning off after a complete boot up.

### **Emergency Power Off**

In case of serious system halt due to any reason, the system could fail to be powered off through normal means. Press and hold the Power ON/OFF Switch for Emergency Power Off. Release the switch after the system powered off. It will take about 4 seconds if no power management kit installed and it takes about 10 seconds if the option installed. If there appears to give a special coded beep tone in the pattern “short, long, short, long, short” prior to the system power off in this process, please remove the AC power and wait for few minutes to allow the hardware registers to reset (If there is no such beep, AC removal is not required). Then you may restart the system and take remedial action against the precious failure.

## **CRT MONITOR (for PST7700/PST7730)**

### **Mechanical Adjustments**

The PST terminal has been designed with a novel support for the monitor. Beside the usual tilt and swivel mechanism, this terminal has incorporated “slide” capability so that the monitor position may be fully adjusted. At all times the monitor is firmly supported on the display platform, this gives a stable wobble free image and an absence of mechanical damage.

### **Display Controls**

There are 1 power ON/OFF switch and 2 control knobs at front and adjustment holes for V-size, H-phase and focus at rear.

### **Display Utility Driver**

The end user of the PST terminals is not supposed to install the utility drivers personally. If an optional preloaded OS is ordered, the required driver will be already installed in the preloaded OS. However, the driver will always be available over our web site: <http://www.posiflex.com>

## **LCD MONITOR (for PST7705/PST7735)**

### **Mechanical Adjustments**

The 12.1" LCD color display is integrated on display platform to give the operator the clearest view. The display may be lifted from the horizontal to the upright position and rotated through a total of 90° (left 45° max., right 45° max.). Please do not attempt to exceed these limits.

### **Display Controls**

There are some push buttons on side of the LCD panel including power ON/OFF switch and the OSD knob. Please use OSD knob and find all the controllable on screen display.

### **Display Utility Driver**

Please refer to "Display Utility Driver" section for CRT monitor.

## **CUSTOMER DISPLAY**

All customer displays of the PST series support versatile easy and secure mechanical adjustments on sideway slide (except PD-101), height adjustment, horizontal rotation and up/down tilt.

The display frame of PD-2201, PD-2301 and PD-7201 can slide horizontally for a total sliding distance of 100 mm. For height adjustment, please pull out the release button, adjust the display to the height required, and then release the button switch. The horizontal rotation is almost 360 degrees for any required viewing direction. The up/down tilt of PD-2201, PD-2301 and PD-7201 provide 2 different view angles ---14.5° and 30°. However, there are 8 viewing angles for PD-101 ranging from -2.5° to 60°.

## **PROGRAMMABLE KEYBOARD**

The standard programmable keyboard for PST7700/7705 is a 8 x 14 matrix layout keyboard coded as KB112. The keyboard for PST7730/7735 is coded as KB136 which provides at the lower part a keyboard layout resembling the standard PC keyboard of each country.

### **6 Position Key-Lock**

The extraordinary 6 position key switch in programmable keyboard on PST series provides a multi-page capability and excellent superiority against any other similar product. The switch positions are named: LP, LCK, L1, L2, L3, L4. The position LCK may be marked as "🔒". This position LCK is designed to provide a "Security Lock-Off" function. With the key at this position, all KB input is prohibited to prevent unauthorized data/command input. With the key at any other position, the whole programmable keyboard can be programmed as each independently different keyboard. In other words, this keyboard has the power of 5 programmable keyboards plus a "Security Lock-Off". The key may only be removed from positions **LCK** and **L1**.

There are 4 keys supplied with each keyboard and the lock is so designed that each key may turn the 6 position key switch to correspondent position range. The keys are named: PRG, REG, Z, GT.

The available positions for each key type are listed in the table below:

✓ = accessible

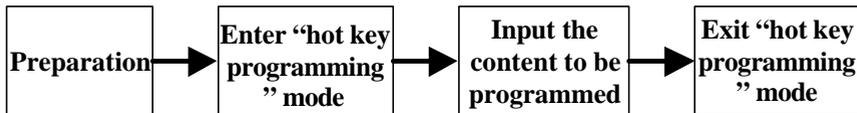
✗ = not accessible

	PRG	REG	Z	GT
LP	✓	✗	✗	✗
LCK	✓	✓	✓	✓
L1	✓	✓	✓	✓
L2	✓	✓	✓	✓
L3	✓	✗	✓	✓
L4	✗	✗	✗	✓

Therefore, if each page is programmed for different level of authority, each key can be distributed for different level of management using the system.

### Instant Content Update

The system integrator may program the keyboard to allow the instant WYSIWYG (What You See Is What You Get) update function in trade-off of highly technical programming capability of the keyboard. The instant content update utilizes the Hot Key programming ability of the programmable keyboard that can be arranged in four steps:



The preparation requires a standard PS/2 keyboard connected to the external keyboard connector of the PST7700 series in the front door area. To enter the Hot Key programming mode, press the **left** "Alt" key and the "PRT SC" ("Print Screen") key on the PS-2 keyboard at the same time and press the key on the programmable keyboard to be updated after two beeps from the system. Please then use the PS/2 keyboard to type the content to be programmed for that key. Press both the **left** "Alt" key and the "PRT SC" (Print Screen) again at the end to exit the Hot Key programming mode. The system gives 1 beep here to notify a successful input, 3 beeps for input failure.

### MSR – MAGNETIC STRIPE READER

The Magnetic Stripe Reader (MSR) slot is located at the left side of the Programmable Keyboard if the MSR option is ordered when the PST system is equipped with the standard 112 key programmable keyboard. There are 3 choices of the reader types-- tracks 1+2, or 2+3 or all 3 tracks separately.

For card reading, be sure to insert the card to the bottom with magnetic stripe facing the mark aside the slot. The movement of the card can be either inserting the card from the top surface then sliding the card down out

of the slot, or sliding the card upward from the lower side of the slot till it reaches the top end as long as the card is a standard one. A non-standard card recorded without complete degaussing prior to recovery may accept only one direction in card reading.

The MSR indicator will light up in green when the MSR is ready to read, blink during reading, and then give a green light if the reading is successful. The MSR indicator will turn to be red if the reading fails due to improper sliding or poor magnetic intensity of the magnetic stripe, the MSR indicator will then turn back to green when the MSR is again ready to read.

### **FRONT DOOR**

At the front of the programmable keyboard there is a door with a mechanical lock to the right of it. Turning the key clockwise will release the front door lock, the door may be fully opened by hand then. This lock also physically locks the programmable keyboard subassembly housing to the chassis of the main unit, which prevents unauthorized access to the internal electronics. There are the external PC keyboard connector and the optional 1.44MB 3.5" Floppy Disk Drive (FDD) behind the door.

### **EXTERNAL PC KEYBOARD**

From time to time it will be necessary or more convenient to use a standard PC keyboard. This may be to reprogram the PST keyboard key definitions, or to alter some aspects of either the DOS operating system or the application program. The PC keyboard may be plugged into the 5 pin DIN socket behind the front door.

This socket may also be used to trial a new device that is required to be daisy chained to the keyboard port (e.g. a table scanner). Please keep in mind the previously mentioned limit of 5 devices.

### **3.5" FDD**

This option is a regular PC device, it accepts any 3.5" floppy diskette formatted to 1.44 MB or 720 KB.

### **REAR ROOM**

The terminal has a rear room that covers the signal and power connector area and is designed to provide a tidy and secure termination for all cables into and out of the terminal. Cables may be secured by attaching them with cable ties to the lattice base of the compartment.

Access to the rear room is gained by releasing the rear door latches. These are located under the lower edge of the door at either side of the door. They may be located by "feeling the ridges" on the latch, sliding both latches to the center of the door will release the door. These latches are intentionally stiff.

## PRINTER

One of the major design features of the PST terminals is the ability to accommodate a very large range of printers. The terminal provides a printer platform where the printer can be mounted (use the Velcro strips in the accessories kit for fixation aid), and also provides a regulated 24 volts DC power line to power the printer.

The terminal can accommodate both parallel and serial interfaces.

Please consult the printer user manual before assembling and connecting any printers to the terminal.

## USB

There are two standard USB female connectors in the rear room. Both support the Universal Serial Bus Specification standard 2.0 and also 1.1.

## SYSTEM PROTECTION

In the Posiflex POS system delivered with preloaded OS, there is a function built in for system protection. A screen as below will pop up for a short period of time in operation system booting up stage.

In normal practice, nothing has to be done and the system boot up continues. However, this function is useful for our end users to fight against virus attacks or malicious system invasions nowadays or even some possible system crash. Please connect a PS/2 keyboard to KB port of the system to engage this function if there is no specific instruction from your system integrator. Press the three key combination of “Ctrl” + “Alt” + “F12” at the above screen or press the key on programmable keyboard per your system integrator’s arrangement.

Please follow screen display to refresh the system back up then you can call for instruction on system restore from your system integrator once the disaster occurs.

