

# HS- 2308/2310/2312

## Hybrid Desktop POS

### User's Manual

**POSIFLEX**



#### FCC Notes:

Rev.: Original

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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P/N: 15530900010

## **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. Please always follow local environmental protection laws / regulations for disposal of used batteries and always replace only with battery of same type.

### **DAILY MAINTENANCE GUIDE**

For regular cleaning of the HS systems, please use only soft haired brush or dry soft cloth. You may use moist soft cloth to remove stains when necessary. Apply only proper amount of mild neutral detergent for obstinate stains. Please note that never use Acryl dissolving solvent or Polycarbonate dissolving solvent. You may apply ammonia-based glass cleaner only on the screen surface.

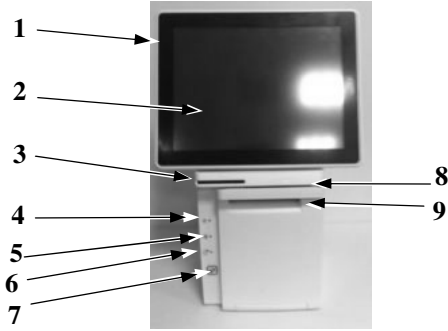
### **CAUTION**

**Risk Of Explosion If Battery Is Replaced By An Incorrect Type  
Dispose Of Used Batteries According To Local Regulations**

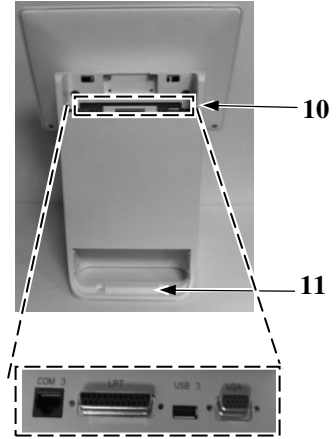
# INTRODUCTION

## PRODUCT PICTURES

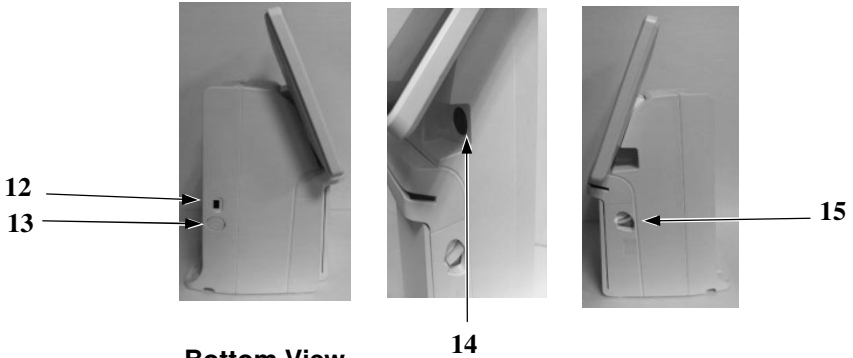
Front View



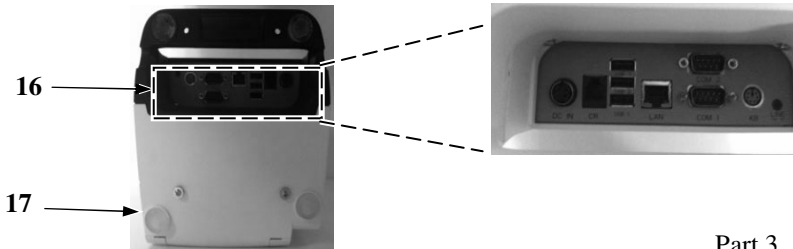
Rear View



Side Views



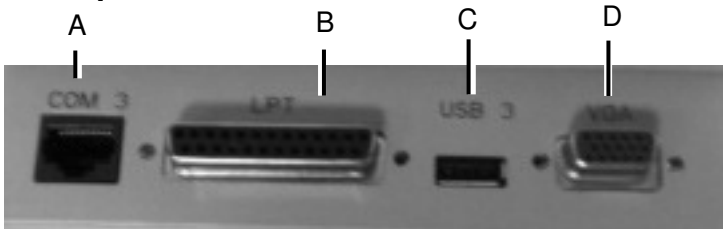
Bottom View



## PARTS IDENTIFICATION

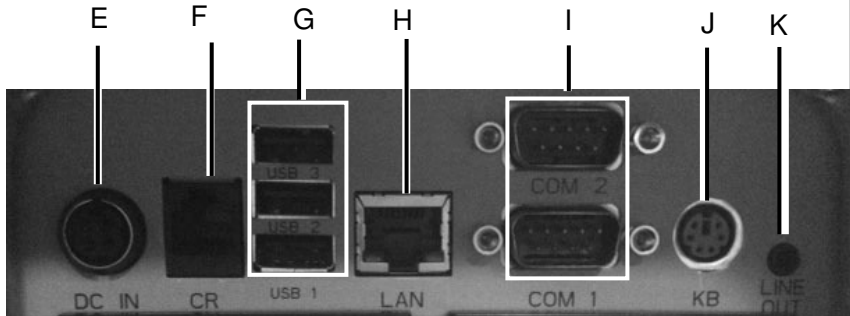
1. Main unit
2. Touch panel / LCD panel
3. Smart card slot
4. Power LED
5. Error LED
6. Paper out LED
7. Feed switch
8. MSR slot
9. Paper exit
10. Top I/O plate
11. Base stand
12. USB port
13. Power switch
14. Finger print sensor
15. Hood release button
16. Bottom I/O plate
17. Rubber foot

### Top I/O Panel



Call out	Label	Description
A	COM3	RJ45 Com port, connecting to peripherals
B	LPT	DB25 parallel port, connecting to peripherals
C	USB3	USB port, connecting to USB devices
D	VGA	Connecting to secondary display

## Bottom I/O Panel



E	DC IN	Connecting to power supply
F	CR	Controlling up to 2 cash drawers
G	USB1~3	USB port, connecting to USB devices
H	LAN	LAN port, connecting to Ethernet
I	COM1~2	DB9 Com port, connecting to peripherals
J	KB	PS/2 keyboard port, connecting to peripherals
K	LINE OUT	Analog signal port, connecting to audio devices

## PRODUCT FEATURES

### Standard Features:

- a) HS-2308: 8" touch terminal; HS-2310: 10" bezelless touch terminal; HS-2312: 12" bezelless touch terminal.
- b) CPU: Intel® Pineview processor D525 Dual Core (1M Cache, 1.80 GHz)
- c) Chipset: ICH8M.
- d) Fan free structure for harsh environment.  
Data storage device: SATA HDD 2.5" 320 GB or SSD HDD.
- e) Supports Win XP Pro, POS Ready2009, POSReady 7, Linux, Win7, WinCE.
- f) 8" TFT LCD, 800 x 600; 10" & 12" TFT LCD, 1024 x 768.
- g) Monitor tilt adjustment angle from 17° to 45°.
- h) Touchscreen: 5-wire resistance bezelless touch panel.
- i) Durable resistive type touch panel that endures million touches min. at same spot.
- j) Supports various I/O ports:

1. 3 x COM ports (DB9 x 2, RJ45 x 1), supporting +5V DC output by BIOS/+12V DC output by jumper setting.
  2. 5 x USB ports (3 on bottom I/O panel, 1 on left side, 1 on top I/O panel).
  3. 1 x Ethernet LAN port supporting 10/100/1000 Base T.
  4. 1 x CR port controlling up to two cash drawers.
  5. 1 x lineout for audio output.
  6. 1 x LPT port for parallel device connection.
- k)** One mini PCI-E extension slot in side of system.
  - l)** Power on wakeup through alarm/LAN.
  - m)** Power Supply: 120W, 12V DC.
  - n)** 3" Thermal printer with auto cutter build-in.
  - o)** Smart card reader thru USB interface supported.
  - p)** Finger print recognition supported.
  - q)** 3 tracks ISO or JIS-II MSR.

### **Option Items:**

**Note: The underlined items in the following list means that option must be set prior to shipment from the factory. The rest items can be set by the dealers.**

- a) DDR3 800FSB, memory expansion up to 4GB max.
- b) SSD of at least 16GB.
- c) Secondary customer Display: 7" PD-6507, PD-340UE, PD-2607UE.
- d) WiFi modular with antenna.
- e) Preload OS Win XP Pro, POSReady 7/2009, Win 7, or Linux.
- f) RJ45 to DB9 serial port conversion cable (for COM3 port).
- g) Split cable for 2 cash drawer control.
- h) MSR.
- i) Finger print sensor.
- j) Smart card device.

## **INSTALLATION GUIDES**

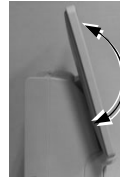
**CAUTION: Before any installation or cable connection to the set, please always make certain that the system is turned off and the external power source to the set is removed to prevent electric hazard! Never touch any metal pin in the connectors or circuits to avoid high voltage hazard or electrostatic discharge damage unless the operator is well grounded. Failure to do the above will void the product warranty!**

## TECHNICAL MANEUVERS

Applicable technical maneuvers for this terminal include serial COM port power supply settings, VGA port power supply setting, system CMOS data reset, DRAM upgrades. All these technical maneuver operations require purchase of applicable Technical Manual from Posiflex or consultation from Posiflex authorized dealers and should be handled only by a **qualified technician**.

### TILTING LCD PANEL

The tilting mechanism for this terminal utilizes hinges and there is no particular skill to turn the LCD panel to most suitable angle at 17° to 45 ° for best view.



### CONNECTING CABLES

Please connect all required cables to the appropriate connectors. Please make sure that each connector is connected to the correct port with the correct orientation. **Damages due to incorrect connection or orientation are not covered by product warranty!**

Some connectors like the COM3 or LAN or CR connector have to be gently inserted until a click is heard. It is recommended that connectors such as the COM1/2 and LPT and VGA connector be screwed into place once seated.

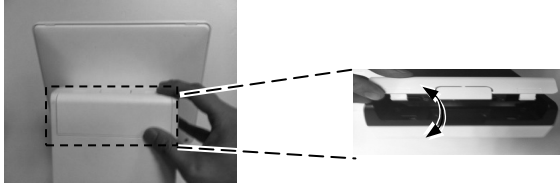
Please make sure that each connector has to be connected to the right device in the right way.

Please follow steps sequentially with reference to pictures below to do cabling for this model.

#### Opening Top Cover for Cabling

For cabling extension, essentially opening top cover on the upper I/O plate then doing connection properly for complete function.

**Step A:** Release the top cover on the upper I/O plate.



**Step B:** Connect to the following ports where necessary.



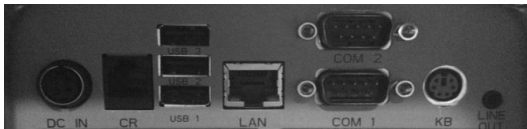
### Connecting to Ports on the Bottom Rear I/O Plate

For suitable connection on the bottom rear I/O plate, essentially doing connection properly as illustrated below:

**Step A:** Face the rear side of machine toward user then locate the bottom rear I/O plate as illustrated below:



**Step B:** Find the ports necessary for proper connection in addition to doing DC IN cabling connection.



**CAUTION:** On doing any insertion or extraction of any connector, please always hold the connector head itself instead of pulling on the cable wire. Failure to do this could damage the cable and jack that is considered as an artificial destruction and is not covered by the warranty.

## DISCONNECTING ALL CABLES

With the LCD panel turned to most backward position, the main I/O connector area will be easily accessible at bottom side of the main unit. Please **first note orientations of every existing cable connection** and then disconnect every cable properly before any further reconfiguration of cable connections.

Please note that the click lock spring has to be pressed down prior to pulling out the connector such as the LAN port or the CR port or the alternate RJ45 form COM3 port. Please also note that the fixing screws have to be loosened free prior to disconnection such as the 2 regular DB9 form COM 1/2 ports or the VGA port. Please **always hold the connector head** instead of pulling on the cable wire when disconnecting any connector. Failure to do this could damage the cable and jack that is considered as an **artificial destruction**.

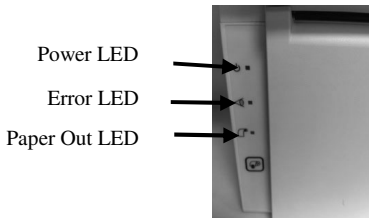
**Damages due to incorrect disconnection operation are not covered by product warranty!**

## INTEGRATED THERMAL PRINTER

This integrated thermal printer uses thermal sensitive paper in form of a roll at a width of 58/80 mm and supports a guillotine type auto cutter for paper partial/full cut mechanism.

## INDICATORS

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

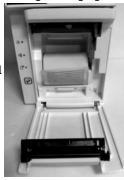


## LOADING PAPER

### Desk Top Application

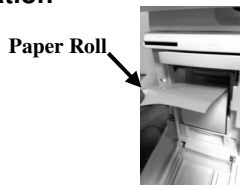


Pix. 1



Pix. 2

### Paper Roller Orientation



Pix. 3



Pix. 4  
Part 9

1. Press down the hood release button to release the paper cover as in **Pix 1**.
2. Pull down the released paper cover wide open manually as in **Pix. 2**.
3. Drop the thermal paper roll inside the printer in orientation as in **Pix 3**.
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. 4**.
5. Excessive paper will cut 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.

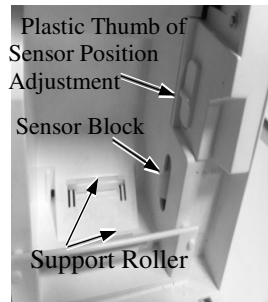
### Self Test

One way is to press and hold down the feed button while turning the on /off switch for the first time. 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.



The other way is to open the printer cover, install the paper roll then close the cover, while pressing Feed button to have a self test.

If FEED button is pressed at self-test moment, a font table will be printed in page mode continuously.



## Paper Near End Sensor ADJUSTMENTS

The near end sensor for paper roll in the printer is able to have the printer work with paper rolls of different bobbin diameter. Please refer to the picture at right for the inside of the paper roll compartment that there are a plastic thumb of sensor position adjustment for bobbin size adjustment and a sensor block in the wall. Slide the plastic thumb of sensor position adjustment to change the proper position of sensor block by pushing upward or downward.

## MAINTENANCE GUIDE LINES

- \* Please 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.

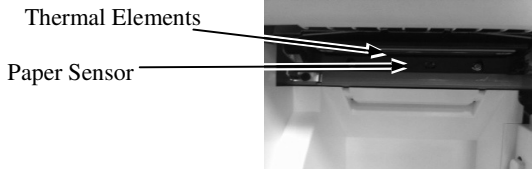
## GENERAL CLEANING

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. Before putting back the paper roll for printing, alcohol solvent must be dry completely.

**NOTE:** Never do this when print head is still hot. Do not touch the print head thermal elements and scratch the print head



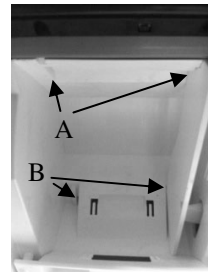
## Paper Jam Problems

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

## 58mm Paper Installation

To facilitate a 58mm paper width printing job, using a pair of 58mm paper spacing plates applies 58 mm width paper roll from 80mm cavity in this printer by adapting an optional spacing plate and an internal software switch setting.

As illustrated at the right photo, insert the noted corners of the spacing plate into the 2 dents inside the



paper roll compartment at both sides as arrowed. With point **A** going in first then **B** secondly, then the 58mm paper roll sub compartment is formed accordingly.

### **Printer Interface**

Although the printer is USB interface, it is converted to virtual COM port by software at delivery.

### **Advanced Analysis Tool**

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

To start the dump mode: One way is to turn off printer; Open print hood; Hold down FEED button while turning printer on; Close the hood.

The other way is to open cover, press down FEED button until the error LED flashes; Close cover.

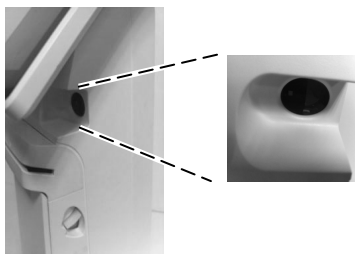
To stop the dump mode: Open cover; Press the FEED button to print out the last line; open cover then close.

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

## **FINGER PRINT SENSOR RECOGNITION**

The finger print sensor is intended to help recognize encrypted data by way of accurate fingerprint representation and image. User is required to perform a fingerprint sensor recognition job by actually operating on externally supported fingerprint recognition software (not provided by Posiflex) to get a confidential fingerprint image which is highly compressed and digitally encoded accurate representation of fingerprint features. The template is created when a user registers a finger and is stored in an encrypted file.

Behind the touch terminal, the finger print sensor is located at the upper right corner side as illustrated. After the sensor is enabled, the sensor blinks in red to detect with finger presence, blue for standby mode. If you enable your terminal's power-saving function but your third party application does not support this, then your fingerprint sensor will enter "sleep



mode” even though your workstation does not. If this occurs, you will need to reboot the system. Please check with your application developer for compatibility.

### Cleaning the Sensor

Depending on the available amount, the sensor window may need to clean periodically. To clean it, apply the sticky side of a piece of adhesive cellophane tape on the window and peel it away as in the drawing at right.

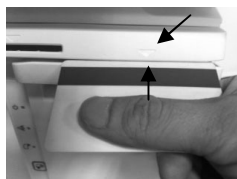


Under heavy usage, the window coating on some sensors may turn cloudy from the salt in perspiration. Gently wipe the window with a cloth (**not paper**) dampened with a mild ammonia-based glass cleaner.

**Note:** With the purpose of acquiring a clear finger image; please position your finger on the pad gently and not only the tip in the center of the sensor window. Do not “roll” your finger and please notice that it will distort your fingerprint if pressing too hard or light will not expose a large enough area of your finger.

## MSR

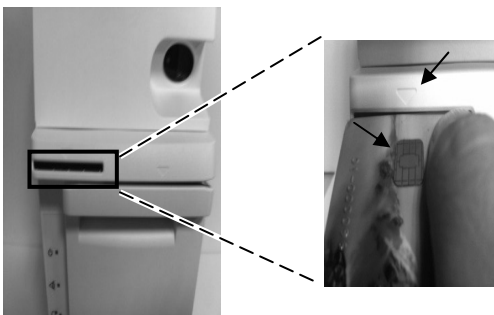
For magnetic stripe card reading, be sure to insert the card to the bottom with magnetic stripe facing upward and toward the arrowed triangle mark aside the slot. There is a “**Posiflex USB MSR Manager**” program provided to control some parameter configuration for ISO MSR. The features controllable in this program cover: each track enable/disable, Alt+Num approach for ASCII codes and Leading/Stop code enable/disable.



## USB SMART CARD

### Card Insertion

For smart card reading, please insert the end of the smart chip first and have the chip facing upward and toward the triangle mark aside the side slot of HS as in the example picture in the right side view. Under power saving mode, when the card is removed, the USB connection is disconnected from host, vice versa.



With power saving mode, the smart card can be waged between suspending and wake-up modes via host.

## **CUSTOMER DISPLAY UPGRADE KIT (OPTIONAL)**

### **Rear Top Mount Customer Display**

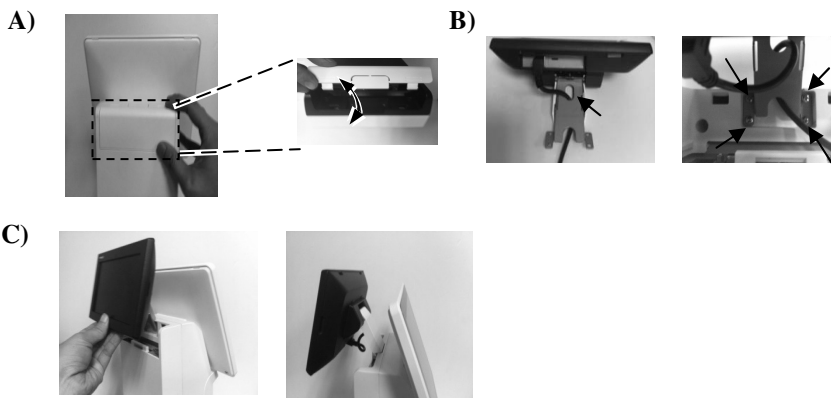
To mount the rear top mount upgrade kit like PD/LM6507, PD-340UE, PD-2607UE or LM-2008 on the back of the terminal,

- A) Release the top cover on the I/O plate.
- B) Adjust the rear bracket of 2<sup>nd</sup> display to its adequate angle, release the rear bracket cable cover and connect one USB cable end at the 2<sup>nd</sup> display USB port, the other at the USB port on the top I/O plate by routing thru the cable exit hole.

Apply carefully the 4 small fixation shoulder screws that come along with the above 2<sup>nd</sup> display series to the back of this terminal at the screw hole circled in the below picture.

Please do not screw them to the bottom. Hook the rear bracket of the upgrade kit onto the shoulder screws. Slide down the upgrade kit and gently tighten the shoulder screws.

- C) Close the rear bracket cable cover as illustrated.



**Do not overdo the tightening or unrecoverable thread damage will occur.**

## CONNECTING CASH DRAWER (OPTIONAL)

The RJ11 connector in I/O area of the terminal can be used for controlling most of the common cash drawers available on the market. However, it is most recommended to use Posiflex CR-2200 or CR-2210 or CR-3100 or CR-4000 or CR-4100 or CR-6300 for best compliance to operate the opening mechanism and to monitor the drawer open status.

This cable of Cash Drawer has a 6-pole plug at one end and an 8-pole plug at the other. The 8-pole plug should be inserted into the connector of the cash drawer which marked "Signal". The 6-pole plug should be inserted in the connector marked "CR" which can be found in the main connection area in the system.

The user may also purchase the optional 2-in-1 cash drawer control cable 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 I/O area in the system. 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.

## OPERATING SYSTEM RECOVERY

For the terminal preloaded with operating system in HDD, Posiflex provides recovery DVD delivered with the touch terminal for the preloaded operating system. The System Integrator shall take care of software restoration after OS recovered. A Posiflex supplied USB interface DVD drive will be required for such action. Other brand DVD drive may require its specific driver different from what supported in the recovery DVD.

**Please use the recovery DVD in rescue operation only. Using it otherwise may wipe out whatever stored in the HDD!** All upgrade devices drivers needed for manual installation in usual way are available in the subfolder "\drivers" in OS recovered HDD and the latest versions of these required drivers will be available on our web: <http://www.posiflex.com.tw>. Then follow instructions from your system integrator for software recovery.

## OPERATING SYSTEM INSTALLATION

The installation of an OS into a machine without any preloaded OS could

constitute major difficulty for average user or obstacle by possibly unintentional negligence even for PC veterans to accomplish such a task. Therefore, OS installation into a system without preloaded OS is highly discouraged. Posiflex shall not be responsible for any technical support to questions arisen due to non-preloaded OS.

## **USING THE TOUCH TERMINAL APPLICATION ENVIRONMENT**

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

### **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 40°C and up to 80% humidity – non condensing, max. wet bulb 26°C)

### **Power Supply**

The operating voltage range of the power adaptor should cover the local power supply for proper operation. The power cable, the power outlet and any power fusing arrangements must conform to local safety regulations.

Please **never do any connection / disconnection** when system is still powered on. **Please always keep the external power adaptor in a free air circulation.**

## **POWER ON/OFF CONTROL**

### **Power Indicator**

There is a power indicator LED at center of lower left rim of HS main body. This LED lights up orange when external power is ready and turns to blue when system power is turned ON.

### **Hardware Power Switch**

The power switch located at left side of the main unit is a tactile pushbutton switch. This switch controls the power

on/off of the system. After external power is preset, this switch turns the system on when pushed only. This switch turns the system off when pushed again during power on status. However, if the system hangs due to any reason such as software resource conflict, a simple push power switch may fail to turn off the power. In this case, please utilize the **forced power off feature** by pressing the power switch and holding for more than 15 seconds.



There must always be at least 10 seconds waiting before switching on again once the system is powered off successfully.

### **Automatic Power On Control**

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

To utilize Alarm Clock Wake Up function, the user should enter the BIOS setup by pressing “Del” key at system boot up, choose in “Power Management Setup” and make the “Resume by Alarm” for Alarm Clock Wake Up. Save the configuration and exit the BIOS setup program.

The Preset Power On Control will then be ready. For LAN wakeup, the item “PCI Express PM Function” must be enabled in “Power Management Setup” and 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 terminal is turned off after a successful boot up with external power continuously supplied, 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 terminal 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.

### **USB PORTS**

There are in total 5 USB ports for external connection: 1 at left side above power switch; 1 in upper rear I/O area; the other 3 in bottom rear I/O area; All of them comply with USB 2.0 standard.

## **CUSTOMER DISPLAY**

Please follow the instructions on the manual that comes along with the customer display when it is installed.

## **DISPLAY ISSUES**

### **Main LCD Display**

For best viewing result please set your display resolution at 1024 x 768 with high color for “10” & “12” type; 800 x 600 for 8”.

### **VGA Port**

The VGA port in this terminal supports top mount 2<sup>nd</sup> display. To support the +12V DC power to the 2<sup>nd</sup> display monitor, have a qualified technician to set a software setting to supply the required power through the internal BIOS setting according to Posiflex technical information. **Do not connect other monitor to this port before the power in this port is disabled.**

## **SERIAL PORTS – COM1/2/3**

This terminal features 3 COM ports. All can be configured to supply +5 V DC output through BIOS setup or jumper settings. COM1/2 ports are standard DB9 connector as status at delivery. COM3 is RJ45 serial port as status at delivery, it can convert to DB-9 connector or DB25 connector if the option conversion cable is applied.

## **PARALLEL PORT**

For this terminal, the parallel port with DB25 female connector is mandatory. It should be connected to the LPT port on the top I/O plate.

## **TOUCH PANEL**

All paragraphs below are applicable for models with touch panel only. The user of those models without touch panel can ignore them and consider this user’s manual ends here.

### **Mouse Emulation**

When the touch driver is properly installed, this touch panel works exactly like a standard mouse for each interface. However, if the system is running under safe mode, the touch panel calibration may become unsatisfactory due to disabled drivers. It is recommended to use a standard USB mouse or keyboard in this mode.

All the below mentioned mouse emulation functions can be manipulated through relevant software. The system can give a beep and a click on the left button of a mouse at the point when the touch panel is touched. If the point touched is dragged across the screen surface, it works as the mouse drag and drop feature. If the point is touched, released and touched within a short time interval, it is double-clicking left button of the mouse. To obtain the effect like clicking on the right button of a mouse, touching any point on the screen surface after touching the right-click sticky button results as a click on the right button of the mouse at that point.

## Touch Manager

Touch Terminal Manager for each type of touchscreen is available for user to set up touchscreen functions. If your system is preloaded with the OS of your choice, the chances are that the Manager is already installed on your system. Nevertheless, you can also download the Manager from our website:

1. Visit us at <http://www.posiflex.com>, and click **Support** on the main menu bar.
2. On **Support** page, click **Download** on the left to access **Download** page.
3. In **Search by keyword** search bar on **Download** page, type “Touch Terminal Manager”, and then press **Enter**.
4. In the search results, select and download the Manager that suits the touchscreen type of your system.

### 警告

本電池如果更換不正確會有爆炸的危險  
請依製造商說明書處理用過之電池

