



# User Manual

## *POS 87 Series*

\*POS87-2EB-478

\*POS87-5EB-478

*Jul. 2007*

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CHAPTER


1

# Introduction


# Chapter 1 – Introduction

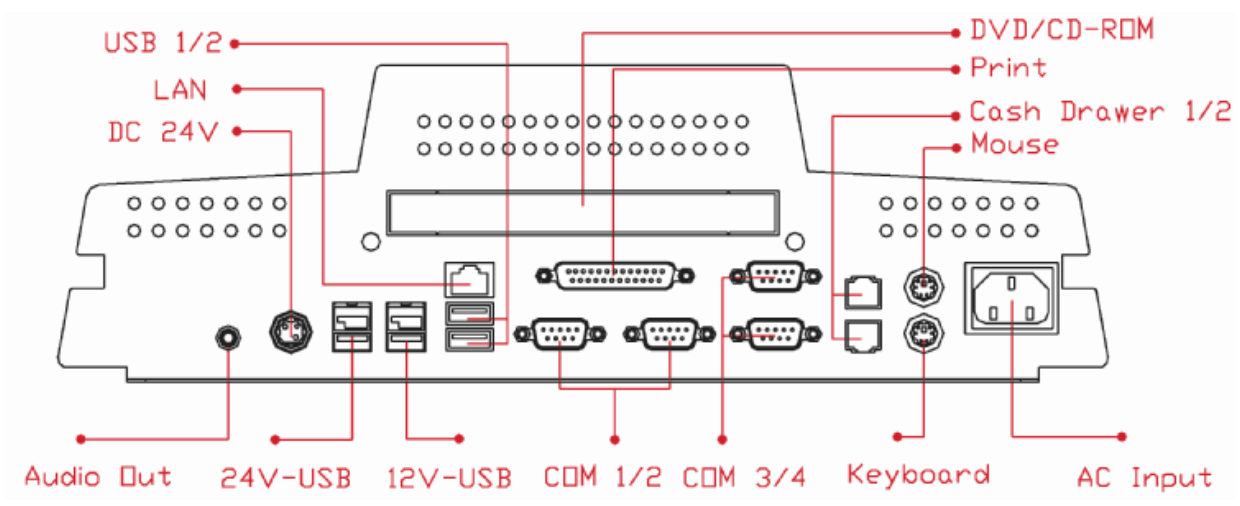
## 1.1 System Overview

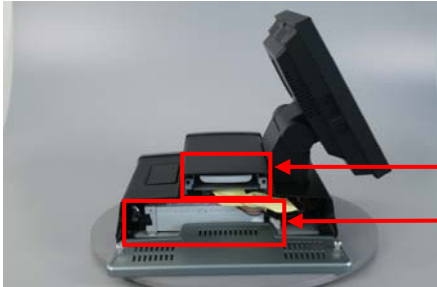
### 1.1.1 Front View

	<ul style="list-style-type: none"><li>◆ 2 Watt Speakers x 2 .</li></ul>
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### 1.1.2 Side View

	<ul style="list-style-type: none"><li>◆ I/O Panel (Please see detail description on Chapter 1.2 Specifications) .</li></ul>
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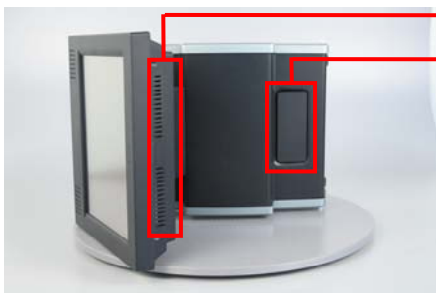
	
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	<ul style="list-style-type: none"><li>◆ HDD Driver Bay .</li><li>◆ Power Supply .</li></ul>
---	---


### 1.1.3 Rear View

	<ul style="list-style-type: none"><li>◆ Thermal Vents of CPU .</li></ul>
---	--

### 1.1.4 Top View

	<ul style="list-style-type: none"><li>◆ Thermal Vents of System .</li><li>◆ Option for Other Accessories (Pole display or 2<sup>nd</sup> display) .</li></ul>
---	---

### 1.1.5 Bottom View

	<ul style="list-style-type: none"><li>◆ Jumper Setting .</li></ul>
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## 1.2 Specification

System		
Model	SolidPOS 872	SolidPOS 875
Intel® Pentium® IV	POS87-2B-478	POS87-5B-478
Main Board		
CPU	Support Socket 478 Intel® Pentium® IV/ Celeron®, FSB up to 400MHz	
	Recommend: Intel® Mobile Celeron® 1.2 GHz or Intel® Celeron® 2.0 GHz or Intel® Pentium® IV 2.0GHz	
Core Logic	Intel® Pentium® IV: Intel® 852GM + ICH4	
System Memory	DIMM, DDR266/333, 128MB up to 1GB	
OS Support	Win XP / XPe, Linux, WEPOS, WinCE	
Display		
TFT LCD Size	12.1”	15”
Brightness	200nits	350nits
Resolution	800x600	1024x768
Touch Screen	7-wire Fujitsu Resistive Type	
Tilt Angle	0° to 90°	
Storage Device		
HDD	1 x IDE , 3.5" HDD	
Compact Flash	1 x Slot Compact Flash Type II	
CD-ROM	1x Internal, IDE, Slim Type, CD-ROM / Combo (CD-RW, DVD-R)	
I/O Ports		
Serial	6 x RS-232 COM 1/ 2/ 3/ 4: DB-9, RS-232, Pin1 w/ DCD or 5V or 12V Selectable, Pin 9 w/ RI or 5V or 12V Selectable COM 5/ 6: Internal for MSR and Touch Panel	
Parallel	1 x ECP/EPP/SPP	
USB	2 x USB2.0, 1 x USB2.0 w/ 12V 1 x USB2.0 w/ 24V 2 x Internal USB2.0 (On board pin header)	
PS/2 Mouse	1 x 6-pin mini DIN	
PS/2 Keyboard	1 x 6-pin mini DIN	
LAN	1 x RJ-45, 10/100 Base-T	
Audio	1x Audio Jack Out	
	AC'97 2.0 Compliant, 2W speaker * 2	
Cash Drawer	2 x RJ-11 (Power Pin 12/24V Selectable)	
Expansion	1 x Mini PCI	

Others		
Power Input	220W ATX with 100 - 240V AC input @ 50 - 60 Hz	
Color	Black	
EMC& Safety Compliance	FCC / CE	
Weight (Kgs)	12	12.5
Dimension L x W x H (mm)	361 x 313 x 347	361 x 370 x 384
Operating Temperature	0°C ~ 40°C	
Storage Temperature	-20°C ~ 60°C	
Storage Humidity	20% - 85% RH, non-condensing	

Main Unit Ordering Information	
Part No.	Description
POS87-2B-478	SolidPOS 872 w/ 12.1" TFT LCD, Intel® Pentium® IV Socket 478 CPU
POS87-5B-478	SolidPOS 875 w/ 15" TFT LCD, Intel® Pentium® IV Socket 478 CPU
Optional Accessories Ordering Information	
Part No.	Description
A10400623RH	2nd Display: 12.1" w/ Touch
A10400624RH	2nd Display: 15" w/ Touch
A10400188RH	2nd Display: 12.1" w/o Touch
A10400189RH	2nd Display: 15" w/o Touch
A10400622RH	Customer Display: LCD Pole Display
A10400335RH	Customer Display: VFD Pole Display
A10400010RH	MSR: 2 Tracks, PS/2 Type
A10400009RH	MSR: 3 Tracks, PS/2 Type
A10400023RH	MSR: 2 Tracks, RS-232 Type
A10400024RH	MSR: 3 Tracks, RS-232 Type
A10400019RH	iButton: PS/2 Type
A10400121RH	MSR: 2 Tracks, PS/2 Type iButton: PS/2 Type
A10400120RH	MSR: 3 Tracks, PS/2 Type iButton: PS/2 Type
A10400302RH	Smart Card: USB Type



A10400306RH	MSR: 2 Tracks, PS/2 Type Smart Card: USB Type
A10400305RH	MSR: 3 Tracks, PS/2 Type Smart Card: USB Type
A10400304RH	MSR: 2 Tracks, RS-232 Type Smart Card: USB Type
A10400104RH	MSR: 3 Tracks, RS-232 Type Smart Card: USB Type
A10400005RH	RFID: RS-232 Type
A10400266RH	WIRELESS LAN 802.11 b/g Mini PCI Module w/ Antenna
20900001RH	OS: Win XP Professional (English Version)
20900002RH	OS: WEPOS (English Version)
20600003RH	Compact Flash: 512MB
20600005RH	Compact Flash: 1GB
20300003RH	DDR333, 512MB, 184Pin, SDRAM
20300002RH	DDR333, 256MB, 184Pin, SDRAM
20200014RH	HDD: 3.5-inch, 40GB, Ultra ATA/100, 5400RPM




# Packing List

## Chapter 2 – Packing List


The unit comes securely packaged in a shipping carton. Please contact your dealer if you find that anything is missing or damaged after examining the contents. The shipping carton should contain the following standard items :

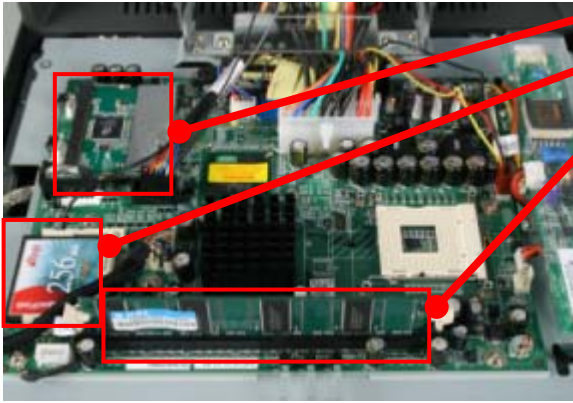


### 2.1 Standard Items

		◆ Main Unit .
		◆ Driver CD (Include manual) .
		◆ Printer power extension cable (24V) .
		◆ IDE extension cable .

	<p>◆ HDD &amp; CD-ROM power extension cable .</p>
	<p>◆ Power Cord (The picture varies from the area you locate) .</p>
	<p>◆ CPU Heatsink .</p>

## 2.2 Optional Items



Item	Photo	Description
1		◆ 2 <sup>nd</sup> Display
2		◆ Customer Display (VFD, LCD)
3		◆ MSR (1+2 Track PS/2 or RS-232, 1+2+3 Track PS/2 or RS-232)
4		◆ 2-in-1 Card Reader (MSR, Smart Card)
5		◆ MSR and iButton
6		◆ RFID

Item	Photo	Description
7		<ul style="list-style-type: none"> <li>◆ WLAN:IEEE 802.11g</li> <li>◆ CF</li> <li>◆ Memory: DIMM, DDR266/333</li> </ul>
8		<ul style="list-style-type: none"> <li>◆ HDD: 3.5"</li> </ul>
9		<ul style="list-style-type: none"> <li>◆ Slim type CD-ROM</li> </ul>

# Getting Started

# Chapter 3 – Getting Started




## 3.1 System setup

Item	Photo	Description
1		Plug-in power cord and connect with AC power
2		Push “Start Button”





## 3.2 Hardware Installation

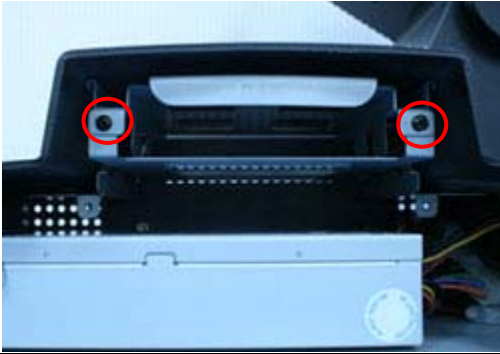


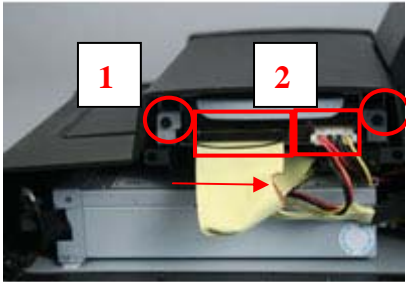

### 3.2.1 CPU Installation

Item	Photo	Description
1		Remove 2 screws
2		Install CPU and apply the thermal adhesive glue
3		Install thermal module Fasten 4 screws



### 3.2.2 Memory Installation

Item	Photo	Description
1		Remove 2 screws
2		Install Memory module

### 3.2.3 HDD Installation

Item	Photo	Description
1		Remove 2 screws from HDD case and pull out HDD case.
2		<ol style="list-style-type: none"> <li>1. Install HDD in the metal case.</li> <li>2. Fasten 4 screws</li> </ol>
3		Slide the HDD into the POS system
4		<ol style="list-style-type: none"> <li>1. Fasten 2 screws on the HDD cover</li> <li>2. Plug in IDE and power cable</li> </ol> <p>Note: Ensure the red line of IDE cable is at right hand side</p>
5		Put on the cover and fasten 2 screws

### 3.2.4 CF Card Installation

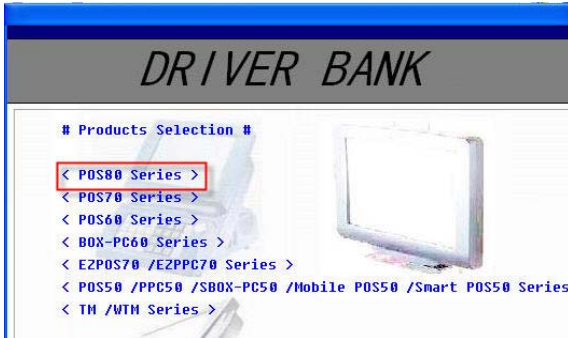

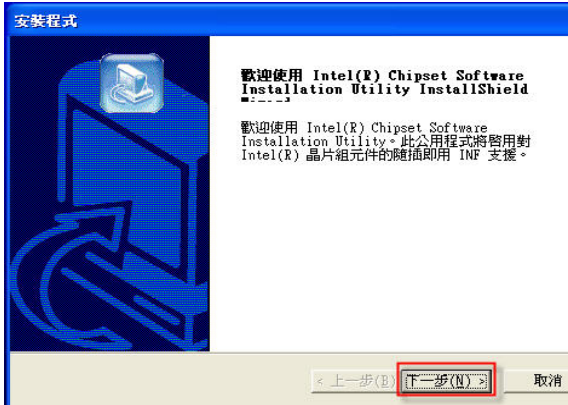
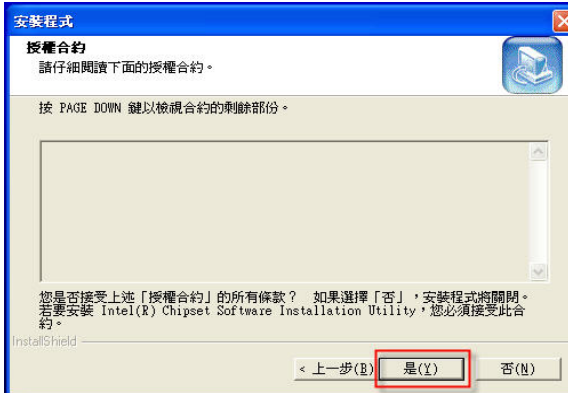
Item	Photo	Description
1		Remove 2 screws
2		Push CF into CF slot

### 3.2.5 OS Installation

- Please prepare a USB CD-ROM .
- Plug a USB CD-ROM into the USB port of POS system .
- Turn on the system and enter CMOS configuration page
- Set the boot up device as USB CD-ROM
- Reboot the system
- Install OS step by step

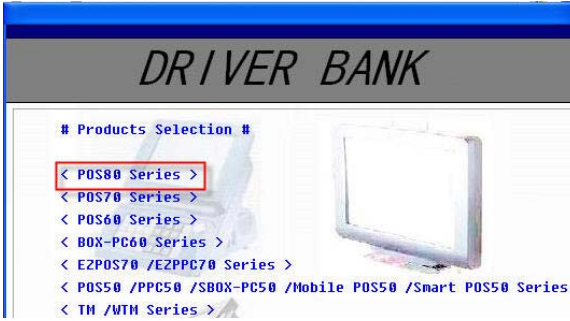

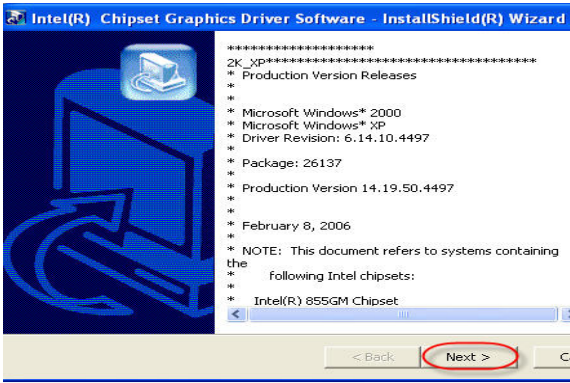
## 3.3 Software Installation

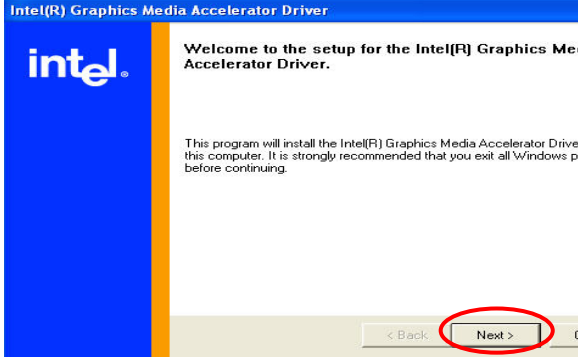
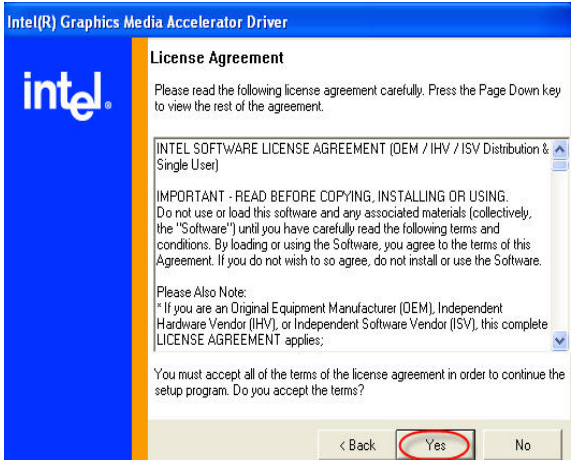
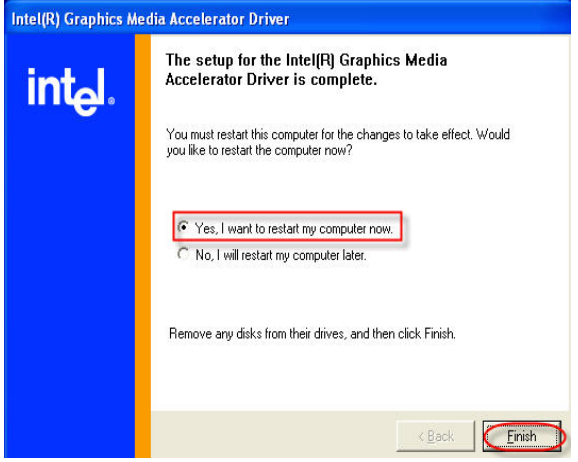
### 3.3.1 Intel Chipset Driver

Item	Photo	Description
1		Insert driver CD and select POS 8 series
2		Select “Intel Chipset Driver”
3		Click “Next”
4		Click “Yes”

Item	Photo	Description
5		<p>1. Click “Yes, Restart my computer now”</p> <p>2. Click “Complete”</p>


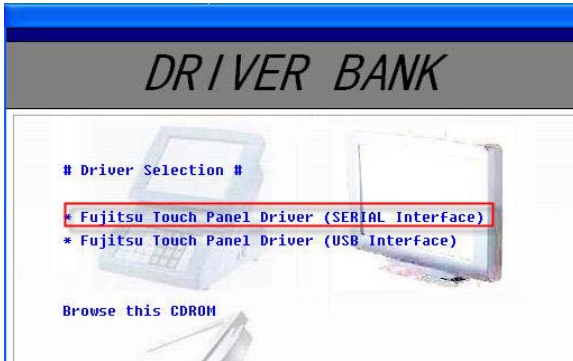


### 3.3.2 Graphic Driver

Item	Photo	Description
1		Insert driver CD and select POS 8 series
2		1. Base on OS version and select the VGA driver( Ex. WinXP)
3		1. Click “Next”



Item	Photo	Description
4		1. Click “Next”
5		1. Click “Yes”
6		1. Click “Yes, I want to restart my computer now”





### 3.3.3 Touch Panel Driver

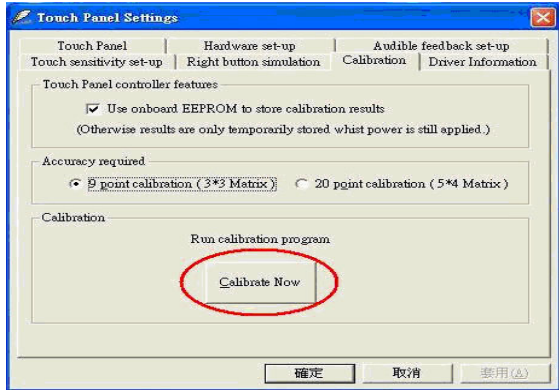

Item	Photo	Description
1		1. Insert driver CD and select POS 8 series
2		1. Select “Fujitsu Panel Driver( Serial Interface)”
3		1. Click “2. Plug and Play Device” 2. Click “OK”
4		Click “Continue Anyway”



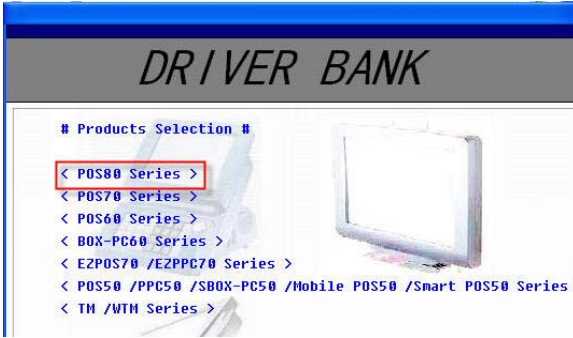

Item	Photo	Description
5		1. Click “OK”
6		1. Check device manager, the “Fujitsu Touch Panel Driver...” should be listed on the screen

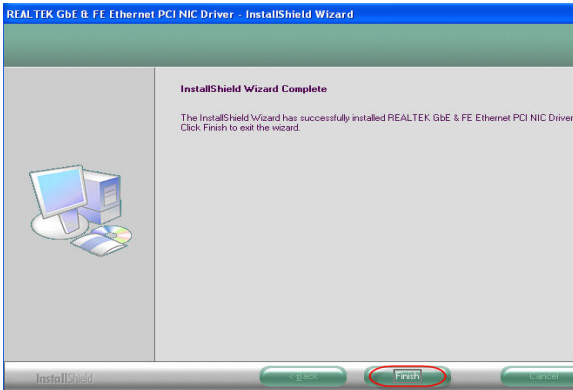
### Touch Panel Calibration

Item	Photo	Description
7		Execute “Touch Panel” from Windows Control Panel
8		Click at “Calibration”

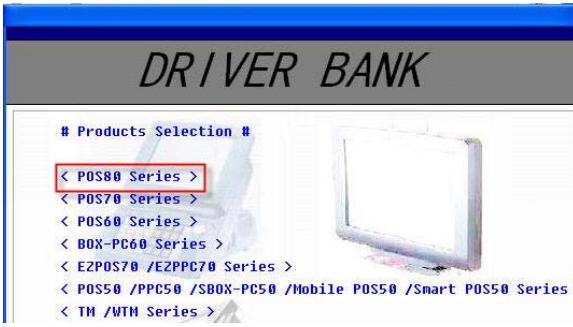
Item	Photo	Description
9		Click at “Calibrate Now”
10	 <p>Please touch the point in the screen. [Home] [Test] [Exit] [Cancel] [Arrow Keys] [Move point] [Enter] [Next Screen]</p>	1. Follow the cursor to click on the screen for calibration



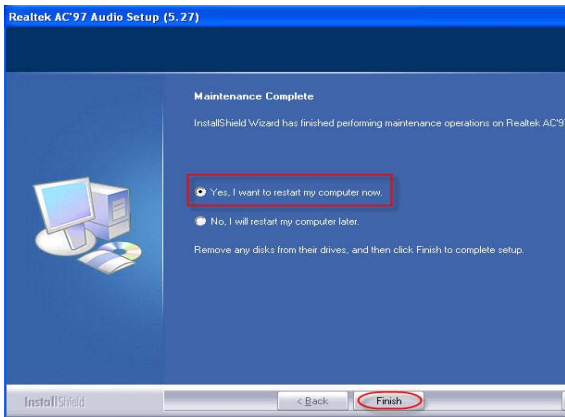
### 3.3.4 Lan Driver

Item	Photo	Description
1		1. Insert driver CD and select POS 8 series
2		1. Select “RTL8100 Lan Driver”

Item	Photo	Description
3		1. Click “Install”
4		1. Click “Finish”
5		1. Click “Yes, I want to restart my computer now” 2. Click “Finish”


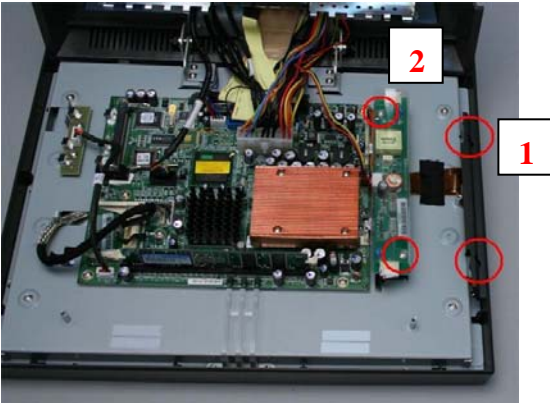
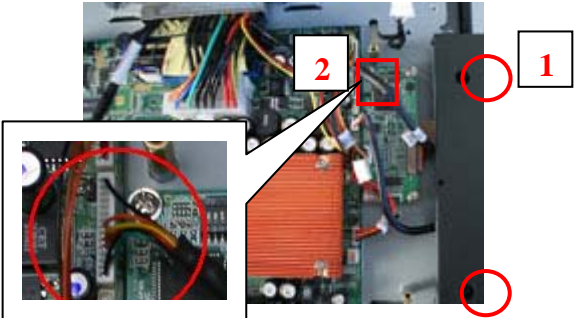
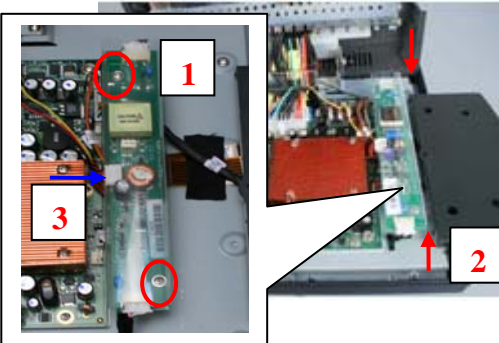
### 3.3.5 Audio Driver

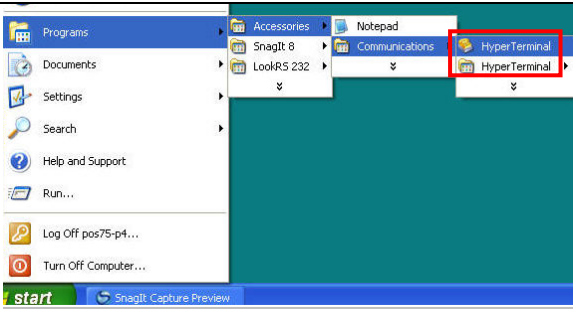


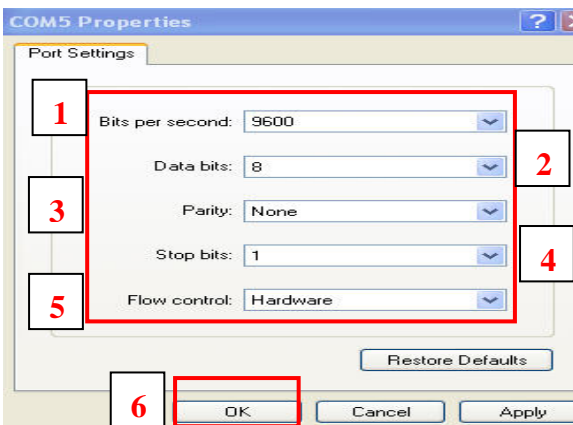
Item	Photo	Description
1		1. Insert driver CD and select POS 8 series

Item	Photo	Description
2	 <p>The screenshot shows a window titled "DRIVER BANK". On the left, under "# Products Selection #", there is a list of drivers: INTEL Chipset Driver, Graphics Driver, Touch Driver, RTL8100 Lan Driver, AC'97 Audio Driver (highlighted with a red box), and Wireless Lan Driver. On the right, there is an image of a computer monitor.</p>	1. Select "AC '97 Audio Driver"
3	 <p>The screenshot shows a "Hardware Installation" warning dialog box. It contains a yellow warning icon and text stating: "The software you are installing for this hardware: Realtek AC'97 Audio has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing." At the bottom, there are two buttons: "Continue Anyway" (highlighted with a red box) and "STOP Installation".</p>	1. Click "Continue Anyway"
4	 <p>The screenshot shows the "Realtek AC'97 Audio Setup (5.27)" window. It has a blue background with a computer icon on the left. The main text says "Maintenance Complete" and "InstallShield Wizard has finished performing maintenance operations on Realtek AC'97 A". Below this, there are two radio buttons: "Yes, I want to restart my computer now." (highlighted with a red box) and "No, I will restart my computer later." Below the radio buttons, it says "Remove any disks from their drives, and then click Finish to complete setup." At the bottom, there is a "Finish" button (highlighted with a red box) and a "&lt; Back" button. The "InstallShield" logo is in the bottom left corner.</p>	1. Select "Yes, I want to restart my computer now"

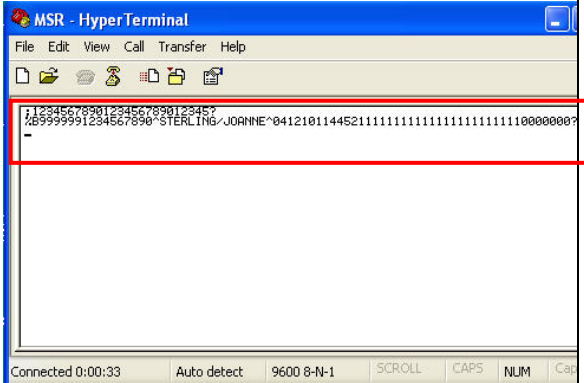
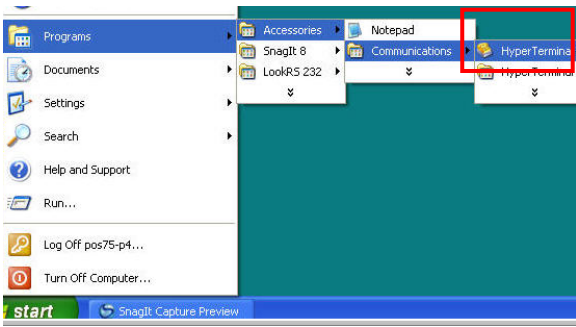


## 3.4 Optional Items Installation

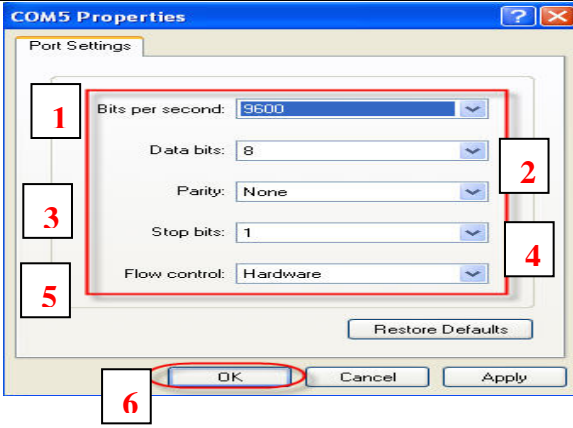
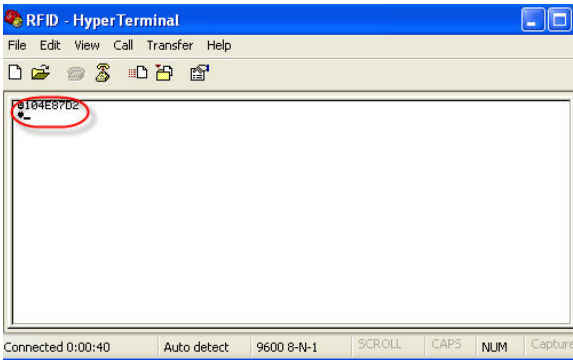
### 3.4.1 MSR / RFID

Item	Photo	Description
1		1. Remove 2 screws from system
2		1. Remove plastic cover 2. Remove inverter from system
3		1. Fasten 2 screws to connect MSR and POS system 2. Plug MSR cable on main board(CN5)
4		1. Put inverter in the system and fasten 2 screws 2. Plug LCD cables to inverter 3. Plug cable between main board and inverter 4. Close front cover and fasten 2 screws


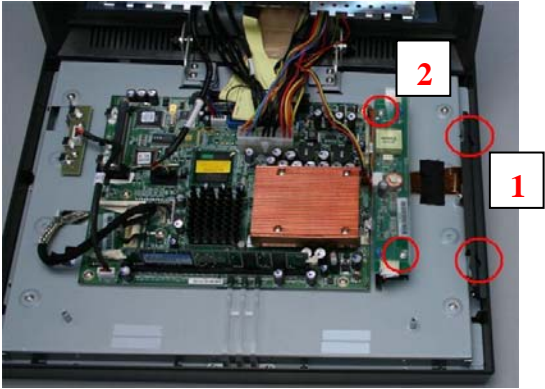
MSR Verification (Only for RS-232 interface)		
Item	Photo	Description
5		1. Click “Start”→”Program”→”Accessories” → “Communications”→ “Hyper Terminal”
6		1. Name for the MSR Module(Ex. MSR) 2. Click “OK”
7		1. Set Connect using as “COM5” 2. Click “OK”
8		1. Set Bits per second: 9600 2. Data bits: 8 3. Parity: None 4. stop bits: 1 5. Flow control: Hardware 6. Click “OK”



Item	Photo	Description
9		1. Stripe the MSR card to Reader and card information will be shown on the screen
<b>RFID Verification</b>		
Item	Photo	Description
10		1. Click “Start”→”Program”→”Accessories” → “Communications”→ “Hyper Terminal”
11		1. Name for the RFID Module(Ex. RFID) 2. Click “OK”
12		3. Set Connect using as “COM5” 4. Click “OK”

Item	Photo	Description
13		<ol style="list-style-type: none"> <li>1. Set Bits per second: 9600</li> <li>2. Data bits: 8</li> <li>3. Parity: None</li> <li>4. Stop bits: 1</li> <li>5. Flow control: Hardware</li> <li>6. Click "OK"</li> </ol>
14		<ol style="list-style-type: none"> <li>1. Stripe the RFID card to Reader and card information will be shown on the screen</li> </ol>

### 3.4.2 MSR / Smart Card

Item	Photo	Description
1		Remove 2 screws from system
2		<ol style="list-style-type: none"> <li>3. Remove plastic cover</li> <li>4. Remove inverter from system</li> </ol>







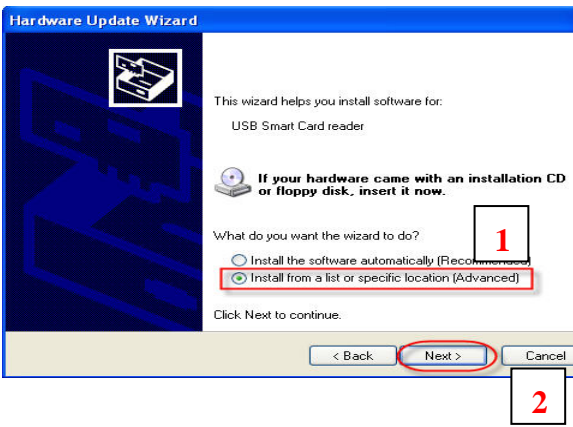
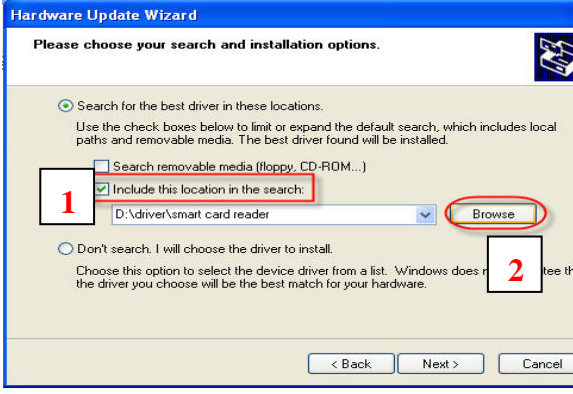
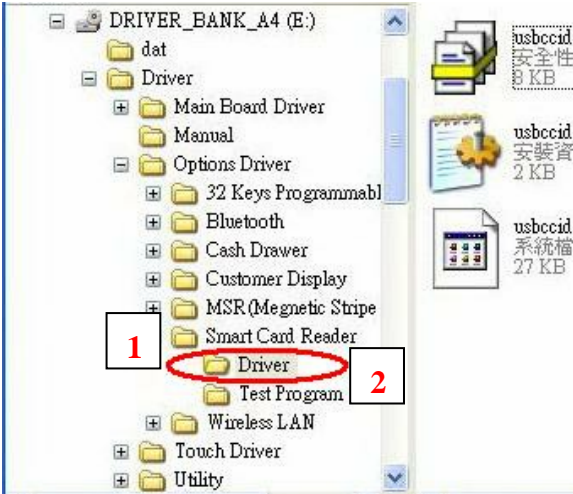
Item	Photo	Description
3		<ol style="list-style-type: none"> <li>1. Fasten 2 screws to connect MSR and POS system</li> <li>1 Plug MSR cable on main board(CN5)</li> <li>3. Plug smart card cable on main board(USB2)(if smart card is selected)</li> </ol>
4		<ol style="list-style-type: none"> <li>1. Put inverter in the system and fasten 2 screws</li> <li>2. Plug LCD cables to inverter</li> <li>3. Plug cable between main board and inverter</li> <li>4. Close front cover and fasten 2 screws</li> </ol>

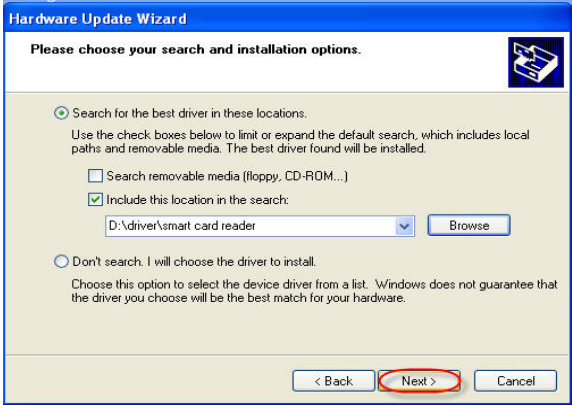
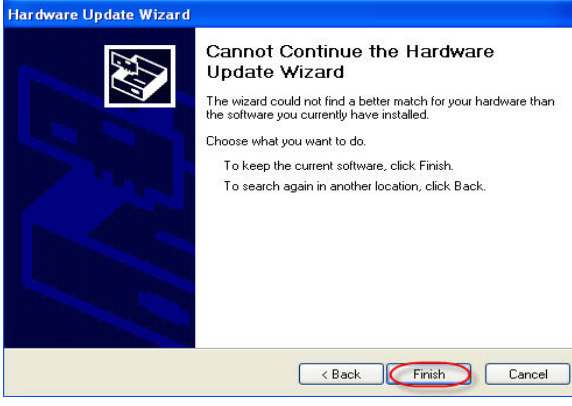


**MSR Verification, please refer to 3.4.1 item 5 to 9**

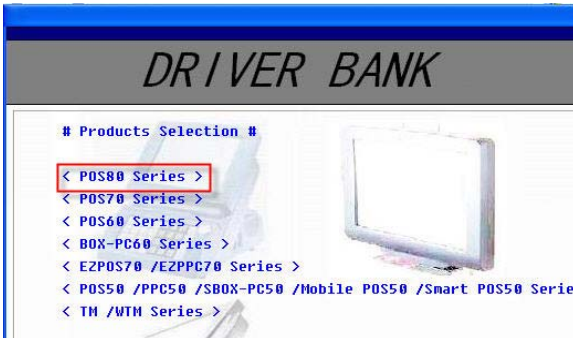

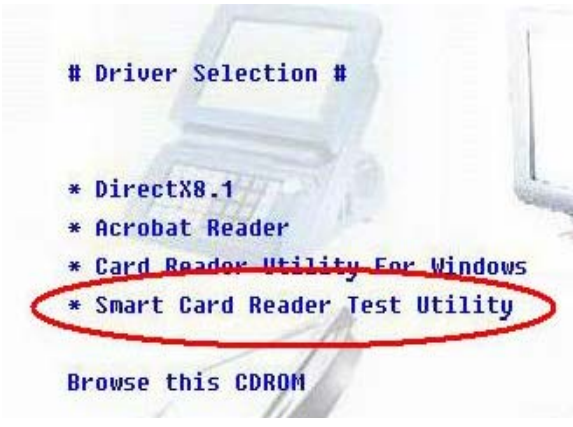
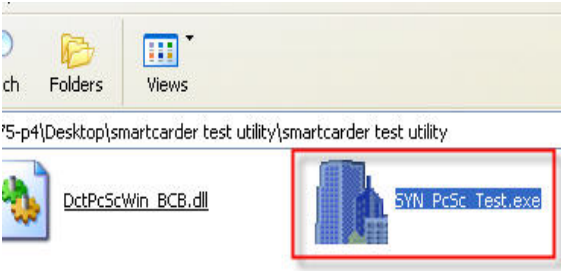
#### Smart Card Driver Installation

Item	Photo	Description
5		<ol style="list-style-type: none"> <li>1. Click “Start”→ “Setting”→ “Control Panel”</li> </ol>
6		<ol style="list-style-type: none"> <li>1. Click System</li> </ol>

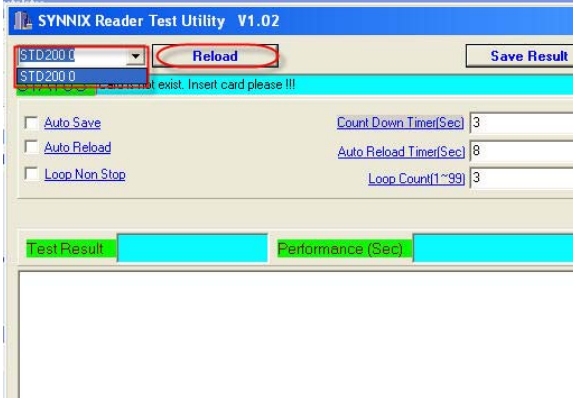
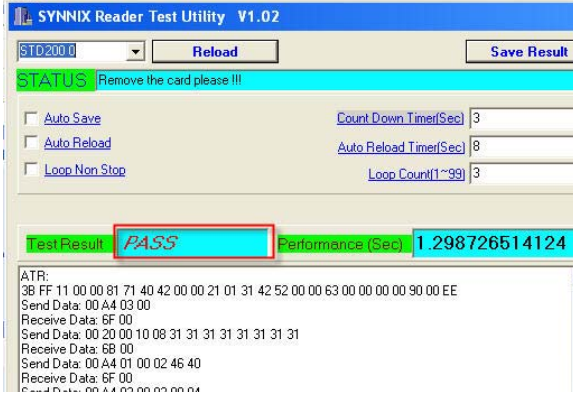
Item	Photo	Description
7		<ol style="list-style-type: none"> <li>1. Click “Hardware”</li> <li>2. Click “Device Manager”</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Right click the mouse</li> </ol>
9		<ol style="list-style-type: none"> <li>1. Click “Update Driver”</li> </ol>
10		<ol style="list-style-type: none"> <li>1. Select “No, not this time”</li> <li>2. Click “Next”</li> </ol>

Item	Photo	Description
11		<ol style="list-style-type: none"> <li>1. Select “Install from a list or specific location (Advanced)”</li> <li>2. Click “Next”</li> </ol>
12		<ol style="list-style-type: none"> <li>1. Select “Indicate the location in the network”</li> <li>2. Click “Browse”</li> </ol>
13		<ol style="list-style-type: none"> <li>1. Select CD-ROM, folder named “smart card reader”</li> <li>2. Click “OK”</li> </ol>


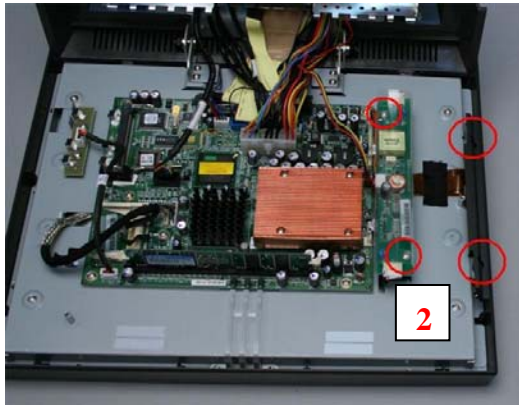
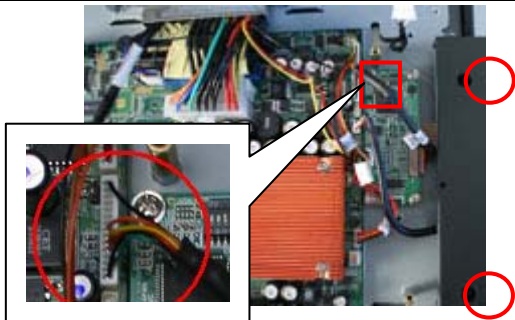
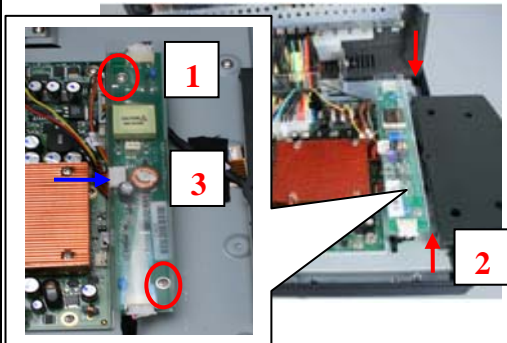
Item	Photo	Description
14		1. Click “Next”
15		1. Click “Finish”
16		1. The USB Smart Card reader device is detected by the system
<b>Smart Card Utility Verification</b>		
Item	Photo	Description
17		1. Click “My Computer” 2. Click “CD-ROM”

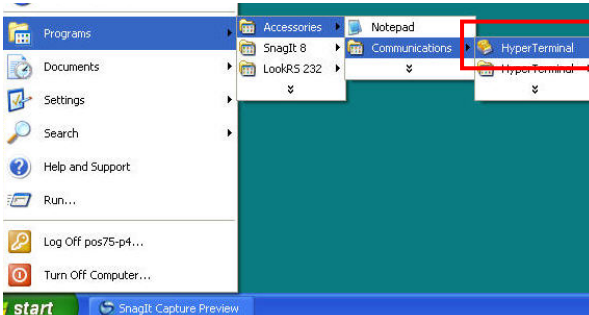
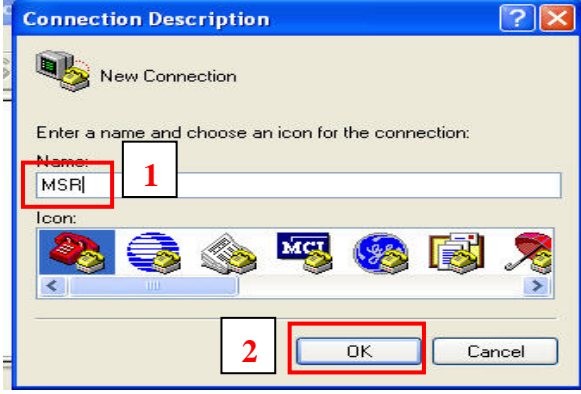

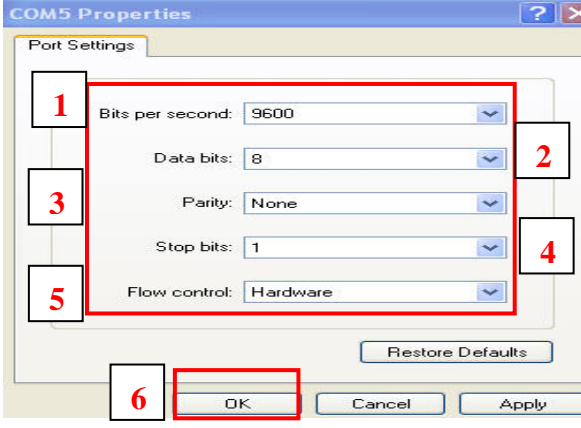
Item	Photo	Description
18	 <p># Products Selection #</p> <ul style="list-style-type: none"> <li>&lt; POS80 Series &gt;</li> <li>&lt; POS70 Series &gt;</li> <li>&lt; POS60 Series &gt;</li> <li>&lt; BOX-PC60 Series &gt;</li> <li>&lt; EZPOS70 /EZPPC70 Series &gt;</li> <li>&lt; POS50 /PPC50 /SB0X-PC50 /Mobile POS50 /Smart POS50 Series &gt;</li> <li>&lt; TM /WTM Series &gt;</li> </ul>	1. Insert driver CD and select POS 8 series
19	 <p># Products Selection #</p> <ul style="list-style-type: none"> <li>* INTEL Chipset Driver</li> <li>* Graphics Driver</li> <li>* Touch Driver</li> <li>* RTL8100BL Lan Driver</li> <li>* AC'97 Audio Driver</li> <li>* Wireless Lan Driver</li> <li>* Smart Card Reader Driver</li> <li>* DirectX8.1 / Acrobat Reader / Card Reader Utility</li> </ul>	1. Select "Directx8.1 / Acrobat Reader/ Card Reader Utility"
20	 <p># Driver Selection #</p> <ul style="list-style-type: none"> <li>* DirectX8.1</li> <li>* Acrobat Reader</li> <li>* Card Reader Utility For Windows</li> <li>* Smart Card Reader Test Utility</li> </ul> <p>Browse this CDROM</p>	1. Select "Smart Card Reader Test Utility"
21	 <p>ch Folders Views</p> <p>'5-p4\Desktop\smartcarder test utility\smartcarder test utility</p> <p>DctPcScWin_BCB.dll</p> <p>SYN PcSc Test.exe</p>	1. Select "SYN PcSc Test.exe"



Item	Photo	Description
22		<ol style="list-style-type: none"> <li>1. Select “STD2000”</li> <li>2. Click “Reload”</li> </ol>
23		<ol style="list-style-type: none"> <li>1. The result will show “PASS” on the screen</li> </ol>

### 3.4.3 MSR / iButton

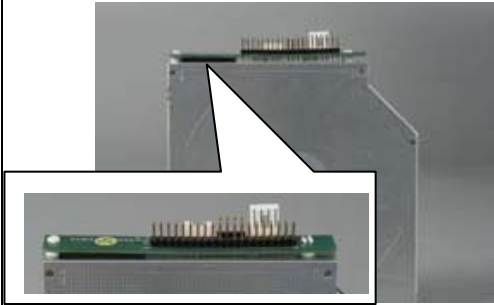
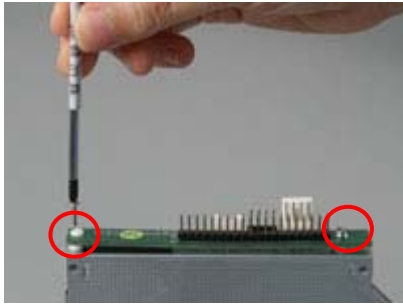


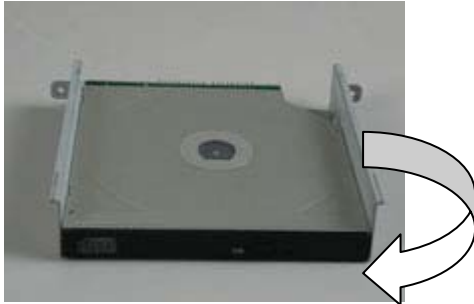
Item	Photo	Description
1		Remove 2 screws from POS system
2		<ol style="list-style-type: none"> <li>1. Remove plastic cover</li> <li>2. Remove inverter from system</li> </ol>
3		<ol style="list-style-type: none"> <li>1. Fasten 2 screws to connect MSR / iButton and POS system</li> <li>2. Plug MSR cable on main board(CN5)</li> </ol>
4		<ol style="list-style-type: none"> <li>1. Put inverter in the system and fasten 2 screws</li> <li>2. Plug LCD cables to inverter</li> <li>3. Plug cable between main board and inverter</li> <li>4. Close front cover and fasten 2 screws</li> </ol>
<b>MSR Verification (Only for RS-232 interface)</b>		

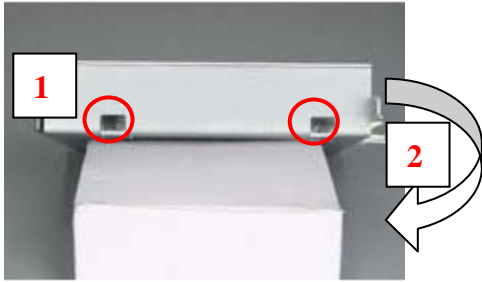


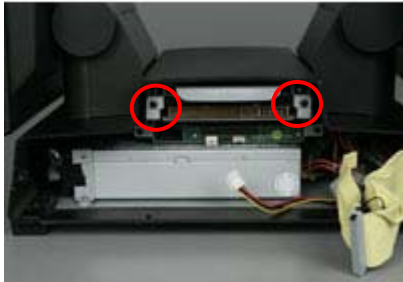
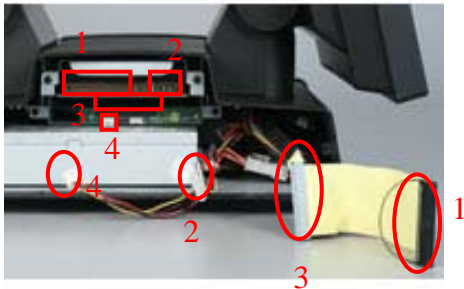
Item	Photo	Description
5		<ol style="list-style-type: none"> <li>1. Click “Start” → “Program” → “Accessories” → “Communications” → “Hyper Terminal”</li> </ol>
6		<ol style="list-style-type: none"> <li>1. Name for the MSR Module(Ex. MSR)</li> <li>2. Click “OK”</li> </ol>
7		<ol style="list-style-type: none"> <li>1. Set “Connect using” as COM5</li> <li>2. Click “OK”</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Set Bits per second: 9600</li> <li>2. Data bits: 8</li> <li>3. Parity: None</li> <li>4. stop bits: 1</li> <li>5. Flow control: Hardware</li> <li>6. Click “OK”</li> </ol>






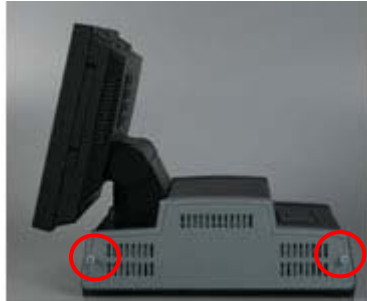


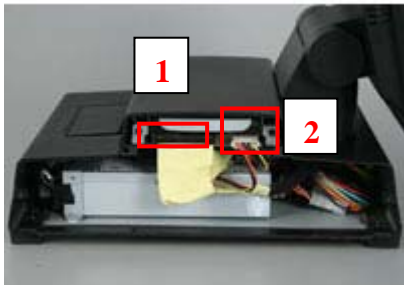
### 3.4.4 CD-ROM

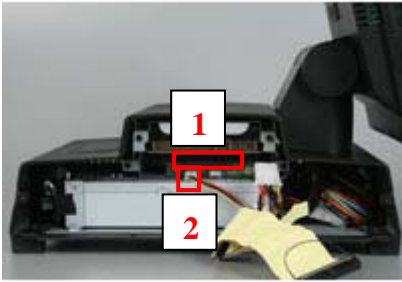

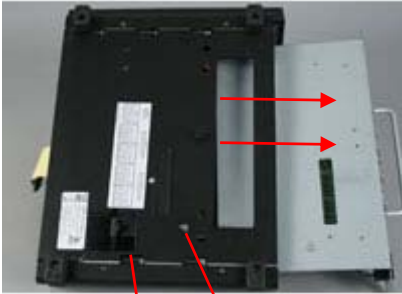
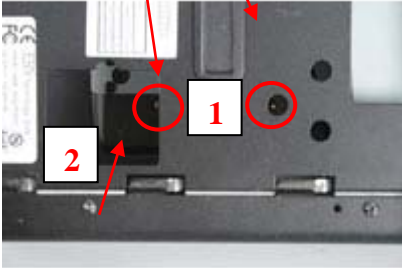
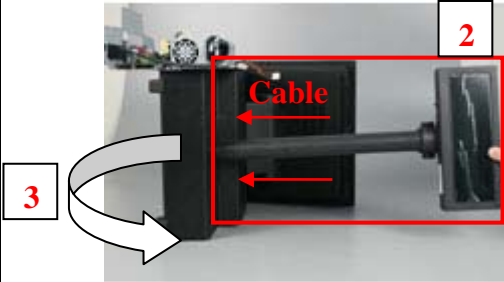
Item	Photo	Description
1		1. Connect converter board to CD-ROM
2		1. Fasten 2 screws on the converter board
3		1. Take out CD-ROM chassis
4		1. Push CD-ROM into chassis
5		1. Right turn CD-ROM 90 degree to the side view

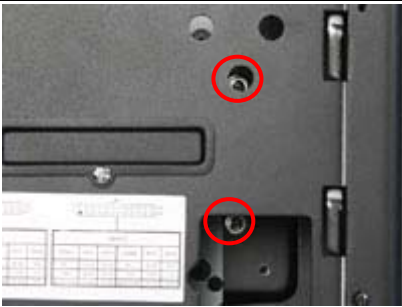




Item	Photo	Description
6		<ol style="list-style-type: none"> <li>1. Fasten 2 screws</li> <li>2. Right turn CD-ROM 180 degree to another side view</li> </ol>
7		<ol style="list-style-type: none"> <li>1. Fasten 2 screws</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Slide the CD-ROM module into system</li> </ol>
9		<ol style="list-style-type: none"> <li>1. Fasten 2 screws</li> </ol>
10		<ol style="list-style-type: none"> <li>1. Connect cables follow numbers listed</li> </ol>


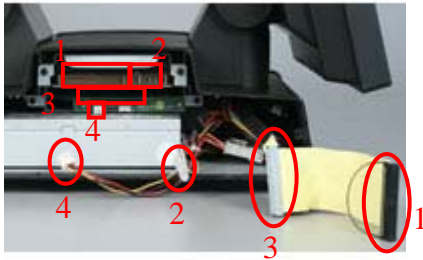



Item	Photo	Description
16		1. Put side cover back and tighten 2 screws

### 3.4.5 Pole Display-VFD

Item	Photo	Description
1		Loosen 2 screws and remove side cover
2		1. Move the case to bottom side 2. Loosen the screw
3		1. Move the case to the other side 2. Loosen 2 screws
4		1. Pull out IDE cable 2. Pull out power cable

Item	Photo	Description
5		<ol style="list-style-type: none"> <li>1. Pull out IDE cable</li> <li>2. Pull out power cable</li> </ol>
6		<ol style="list-style-type: none"> <li>1. Move the case to bottom side</li> </ol>
7		<ol style="list-style-type: none"> <li>1. Pull out metal case</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Remove 2 screws</li> <li>2. Remove plastic cover</li> </ol>
9		<ol style="list-style-type: none"> <li>1. Move system to VFD side</li> <li>2. Locate VFD at plastic cover position and have power cable go through the cover</li> <li>3. Right turn to bottom side</li> </ol>

Item	Photo	Description
10		1. Fasten 2 screws at bottom side
11		1. Connect RS-232 cable to COM 4
12		1. Press all cables down
13		1. Push in the metal case
14		1. Put side cover back and tighten 2 screws

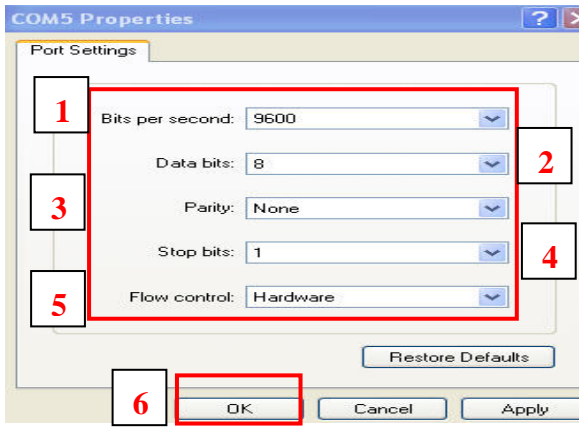
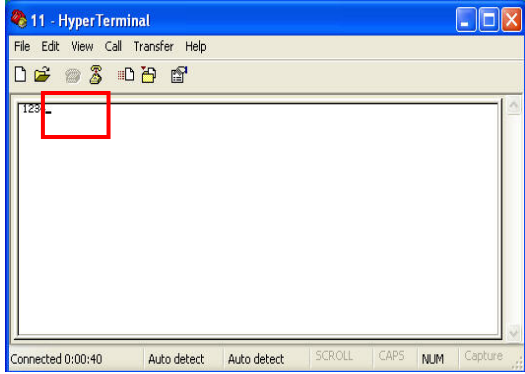
Item	Photo	Description
15		<ol style="list-style-type: none"> <li>1. Move the case to bottom side</li> <li>2. Tighten the screw</li> </ol>
16		<ol style="list-style-type: none"> <li>2. Connect cables follow numbers listed</li> </ol>
17		<ol style="list-style-type: none"> <li>1. Upper IDE cable with red line at right side</li> <li>2. Lower IDE cable with red line at left side</li> </ol>
18		<ol style="list-style-type: none"> <li>1. Put side cover back and tighten 2 screws</li> </ol>
19		<ol style="list-style-type: none"> <li>1. Move the case to bottom side</li> <li>2. Remove 1 screw to open jumper cover</li> </ol>

Item	Photo	Description																		
20	<p>JP1</p> <table><tr><th>COM3</th><th>Pin1</th><th>Pin9</th><th>COM4</th><th>Pin1</th><th>Pin9</th></tr><tr><td>5V</td><td>21-22</td><td>15-16</td><td>5V</td><td>9-10</td><td>3-4</td></tr><tr><td>12V</td><td>25-26</td><td>33-34</td><td>12V</td><td>5</td><td>1-2</td></tr></table>	COM3	Pin1	Pin9	COM4	Pin1	Pin9	5V	21-22	15-16	5V	9-10	3-4	12V	25-26	33-34	12V	5	1-2	1. Adjust JP1, 12V and short 1-2 at Pin 9
COM3	Pin1	Pin9	COM4	Pin1	Pin9															
5V	21-22	15-16	5V	9-10	3-4															
12V	25-26	33-34	12V	5	1-2															

### VFD Utility Verification




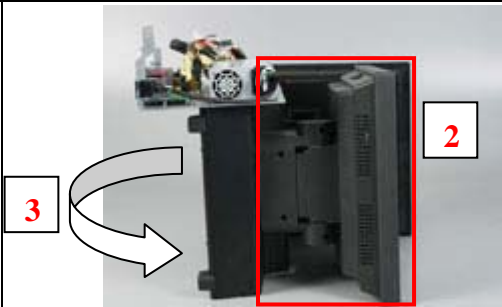
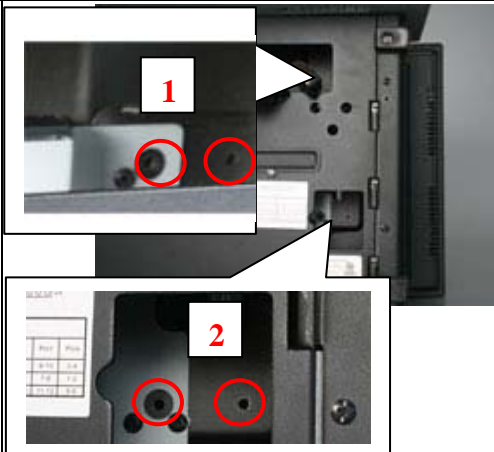
Item	Photo	Description
21		1. Click “Start”→”Program”→”Accessories” → “Communications”→ “Hyper Terminal”
22		1. Name for the MSR Module(Ex. VFD) 2. Click “OK”
23		1. Set “Connect using” as COM4 2. Click “OK”

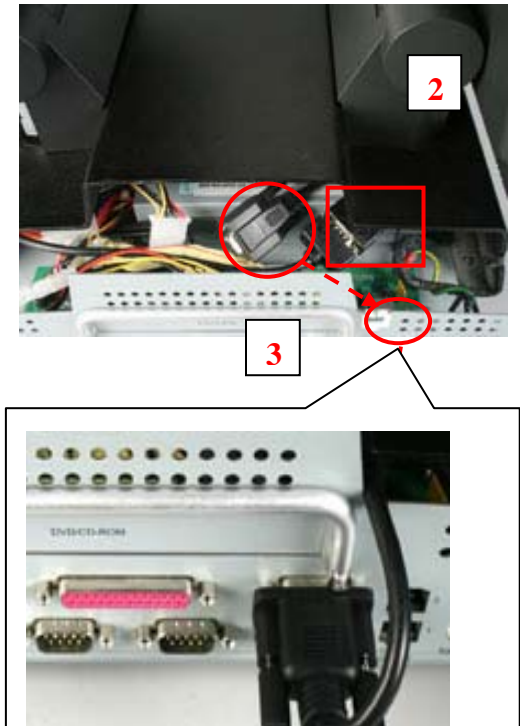
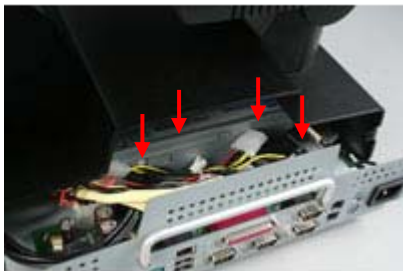

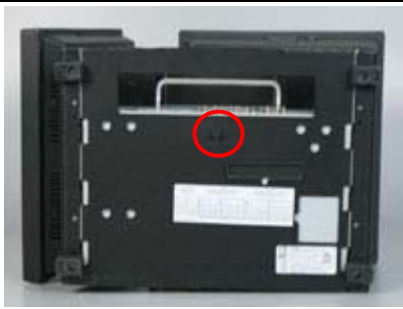


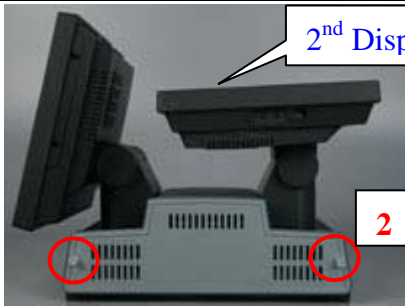
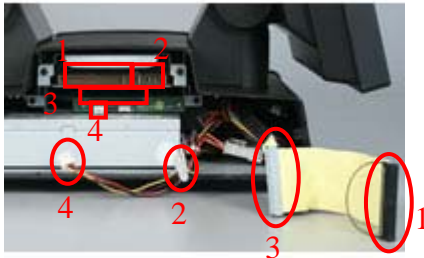
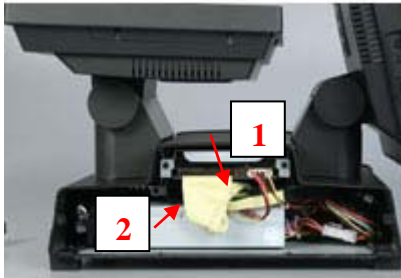

Item	Photo	Description
24		<ol style="list-style-type: none"> <li>3. Set Bits per second: 9600</li> <li>4. Data bits: 8</li> <li>5. Parity: None</li> <li>6. stop bits: 1</li> <li>7. Flow control: Hardware</li> <li>8. Click “OK”</li> </ol>
25		<ol style="list-style-type: none"> <li>1. Key in any letter or Numbers( Ex. Test)</li> <li>2. The letters will show on the VFD screen</li> </ol>

### 3.4.6 2<sup>nd</sup> Display

Item	Photo	Description
1		Loosen 2 screws and remove side cover
2		<ol style="list-style-type: none"> <li>1. Move the case to bottom side</li> <li>2. Loosen the screw</li> </ol>
3		<ol style="list-style-type: none"> <li>1. Move the case to the other side</li> <li>2. Loosen 2 screws</li> </ol>
4		<ol style="list-style-type: none"> <li>1. Pull out IDE cable</li> <li>2. Pull out power cable</li> </ol>
5		<ol style="list-style-type: none"> <li>1. Pull out IDE cable</li> <li>2. Pull out power cable</li> </ol>

Item	Photo	Description
6		1. Move the case to bottom side
7		1. Pull out metal case
8		1. Remove 2 screws 2. Remove plastic cover
9		1. Move system to 2 <sup>nd</sup> display side 2. Locate 2 <sup>nd</sup> display at plastic cover position 3. Right turn to bottom side
10		1. Fasten 2 screws at bottom side 2. Fasten another 2 screws at bottom side

Item	Photo	Description
11		<ol style="list-style-type: none"> <li>1. Turn the case to top side</li> <li>2. Connect VGA cable</li> <li>3. Pass RS-232 cable through the chassis and connect to COM 4</li> </ol>
12		<ol style="list-style-type: none"> <li>1. Press all cables down</li> </ol>
13		<ol style="list-style-type: none"> <li>1. Push in the metal case</li> </ol>
14		<ol style="list-style-type: none"> <li>1. Tighten the bottom screw</li> </ol>

Item	Photo	Description
15		<ol style="list-style-type: none"> <li>1. Move system to side view</li> <li>2. Put side cover back and tighten 2 screws</li> </ol>
16		<ol style="list-style-type: none"> <li>1. Connect cables follow numbers listed</li> </ol>
17		<ol style="list-style-type: none"> <li>1. Upper IDE cable with red line at right side</li> <li>2. Lower IDE cable with red line at left side</li> </ol>
18		<ol style="list-style-type: none"> <li>1. Move to side part</li> <li>2. Put side cover back and tighten 2 screws</li> </ol>

## 2<sup>nd</sup> Display with touch panel



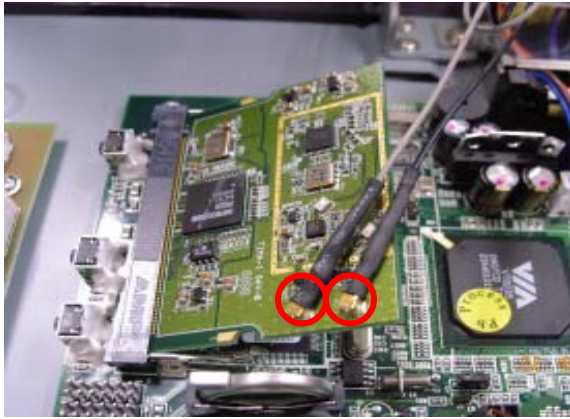
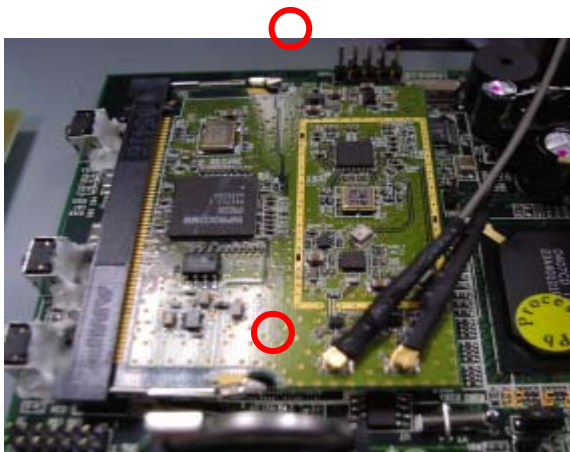
If you order the 2<sup>nd</sup> display comes with touch panel, please remember to adjust COM 4 jumper setting, select 9-10 of Pin1 at the bottom side of POS system. So that it could supply 5V DC on pin 1 for touch panel.

### Note:


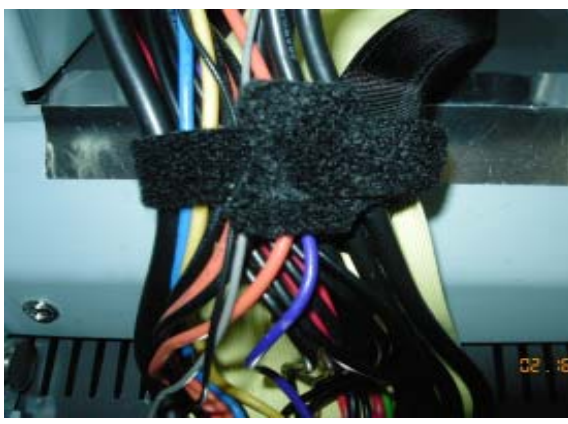

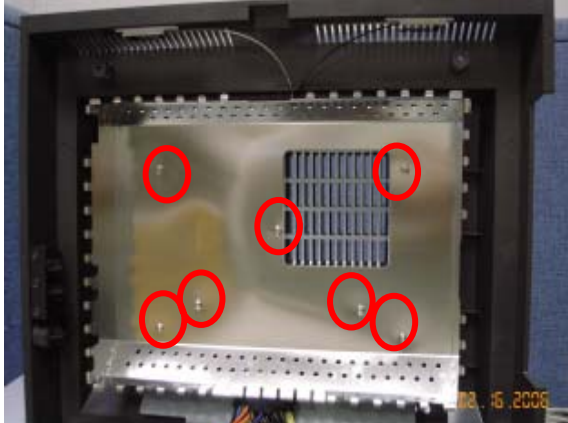
1. The pin 6 of 2<sup>nd</sup> VGA cable supply 12V DC power directly, so it doesn't need to connect with any external power adapter.
2. The VGA port of the POS system is designed specifically for our display kits. So please do not connect to any normal monitor or LCD.

Pin	Assignment
1	RED
2	GREEN
3	BLUE
4	Monitor ID bit 2
5	Ground
6	+12VDC Output
7	GREEN Ground
8	BLUE Ground
9	no pin (keyway)
10	Sync Ground
11	Monitor ID bit 0
12	Monitor ID bit 1
13	Horizontal Sync
14	Vertical Sync
15	Not Used

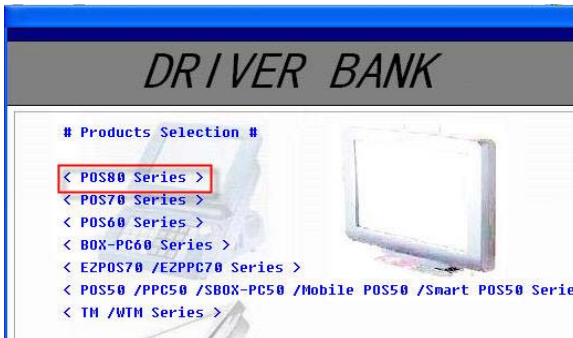

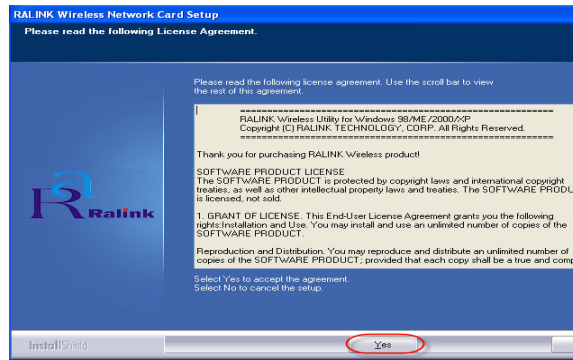
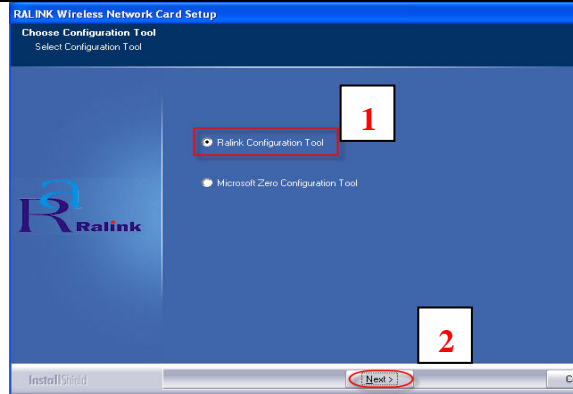
### 3.4.7 Mini PCI Wireless LAN

Item	Photo	Description
1		Mini PCI Wireless LAN
2		<ol style="list-style-type: none"> <li>1. Use screw driver to open upper case</li> <li>2. Remove 2 screws</li> </ol>
3		<ol style="list-style-type: none"> <li>1. Insert the WLAN card to mini PCI slot</li> <li>2. Connect the Antenna to card as red mark</li> </ol>
4		<ol style="list-style-type: none"> <li>1. Press Wireless LAN Card</li> <li>2. Make sure connected well</li> </ol>



Item	Photo	Description
5		<ol style="list-style-type: none"> <li>1. Remove 2 screws from cover bracket</li> <li>2. Remove cover bracket</li> <li>3. Antenna cable needs to go under cover bracket</li> <li>4. Remove EMI cover</li> </ol>
6		<ol style="list-style-type: none"> <li>1. Tied Antenna cable with other cables</li> </ol>
7		<ol style="list-style-type: none"> <li>1. Stick the Antenna by temped tape to back cover</li> </ol>
8		<ol style="list-style-type: none"> <li>1. Tighten 7 screws on EMI cover.</li> </ol>



Mini PCI Wireless Lan Driver Installation		
Item	Photo	Description
9		1. Insert driver CD and select POS 8 series
10		1. Select “Wireless Lan Driver”
11		1. Click “Yes”
12		1. Select “Ralink Configuration Tool” 2. Click “Next”

Item	Photo	Description
13		<ol style="list-style-type: none"> <li>1. Select “Optimize for WiFi mode”</li> <li>2. Click “Next”</li> </ol>
14		<ol style="list-style-type: none"> <li>1. Select “No, not this time”</li> <li>2. Click “Next”</li> </ol>
15		<ol style="list-style-type: none"> <li>1. Select “Yes, I want to restart my computer now”</li> <li>2. Click “Finish”</li> </ol>

# BIOS setup

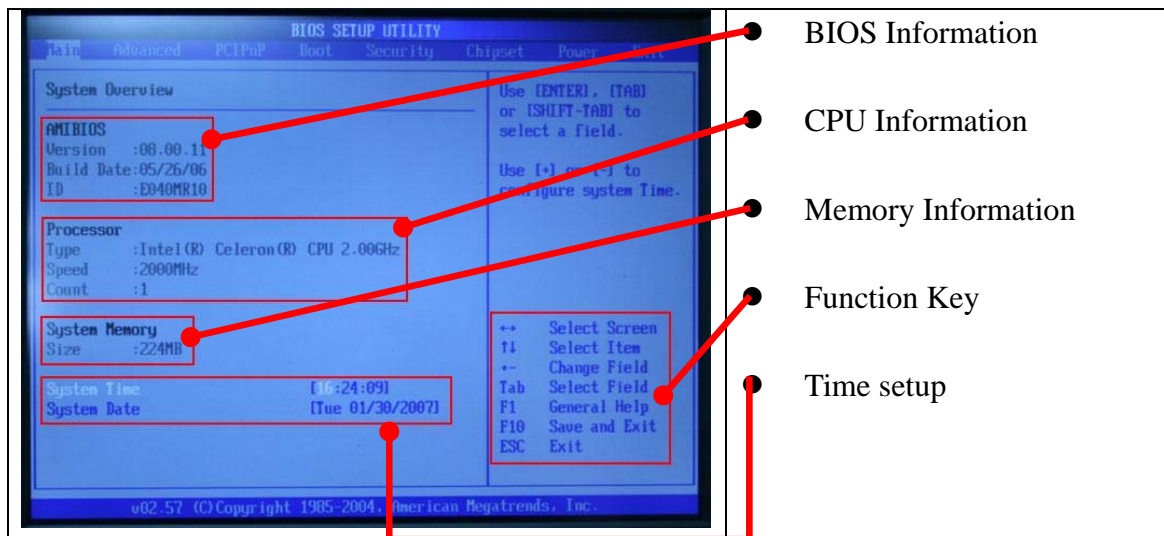
# Chapter 4 – BIOS setup

## 4.1 P4 M/B

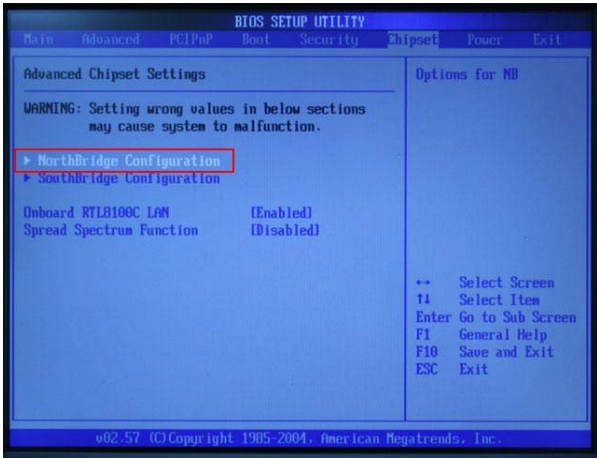
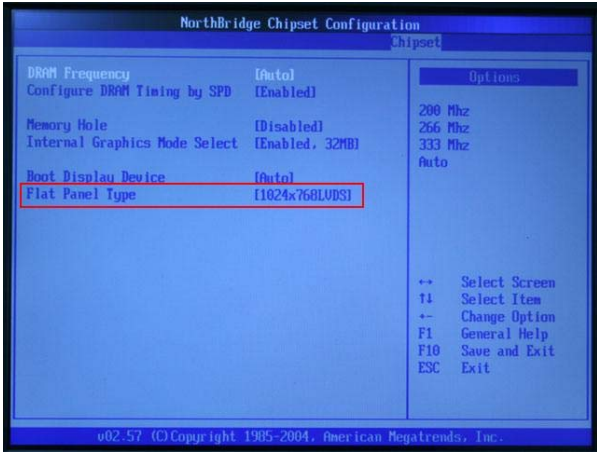
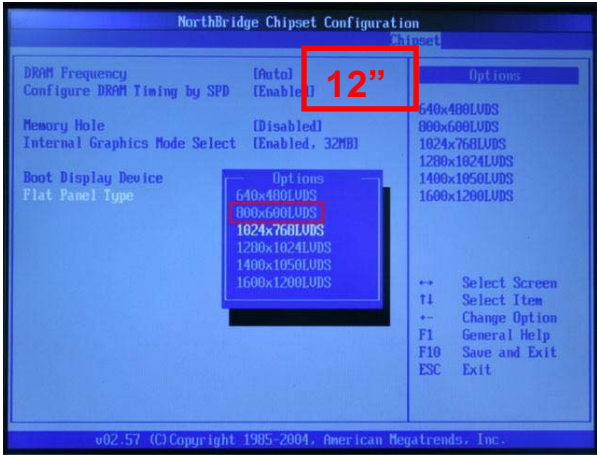
(POS87-2EB-478, POS87-5EB-478)

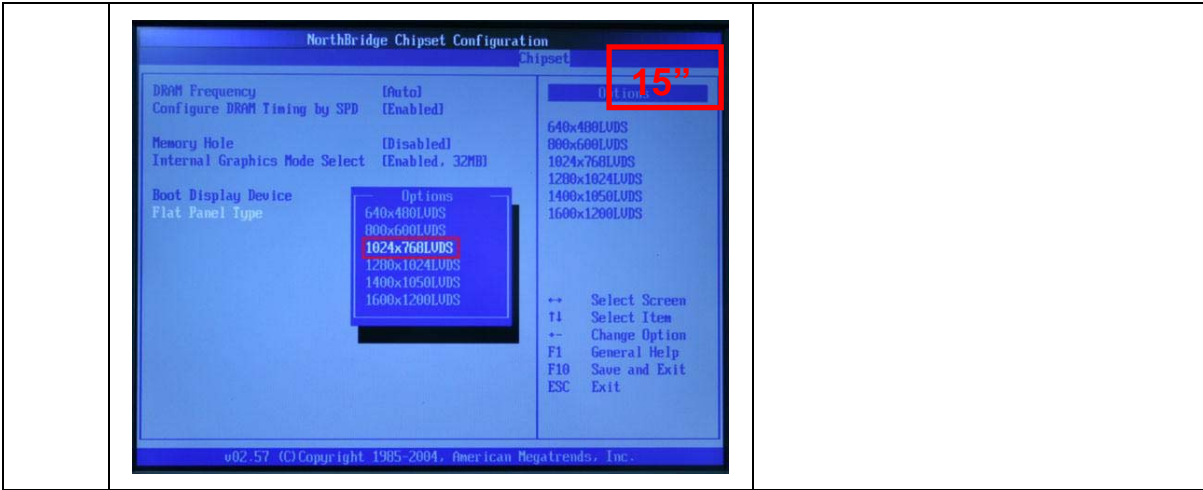
### 4.1.1 Starting Setup

To enter BIOS, please click at “Delete” when booting up the POS system and you will see the picture below.



## 4.1.2 Resolution setup

Item	Photo	Description
1	 <p>BIOS SETUP UTILITY Main Advanced PCIPnP Boot Security Chipset Power Exit</p> <p>Advanced Chipset Settings</p> <p>WARNING: Setting wrong values in below sections may cause system to malfunction.</p> <p>▶ NorthBridge Configuration ▶ SouthBridge Configuration</p> <p>Onboard RTL8100C LAN (Enabled) Spread Spectrum Function (Disabled)</p> <p>Options for MB</p> <p>↔ Select Screen ↑↓ Select Item Enter Go to Sub Screen F1 General Help F10 Save and Exit ESC Exit</p> <p>v02.57 (C) Copyright 1985-2004, American Megatrends, Inc.</p>	Enter “Northbridge Configuration” of “Chipset”
2	 <p>NorthBridge Chipset Configuration</p> <p>Chipset</p> <p>DRAM Frequency (Auto) Configure DRAM Timing by SPD (Enabled) Memory Hole (Disabled) Internal Graphics Mode Select (Enabled, 32MB)</p> <p>Boot Display Device (Auto) Flat Panel Type (1024x768LVD)</p> <p>Options</p> <p>200 Mhz 266 Mhz 333 Mhz Auto</p> <p>↔ Select Screen ↑↓ Select Item ← Change Option F1 General Help F10 Save and Exit ESC Exit</p> <p>v02.57 (C) Copyright 1985-2004, American Megatrends, Inc.</p>	Enter “Flat Panel Type”
3	 <p>NorthBridge Chipset Configuration</p> <p>Chipset</p> <p>DRAM Frequency (Auto) Configure DRAM Timing by SPD (Enabled) Memory Hole (Disabled) Internal Graphics Mode Select (Enabled, 32MB)</p> <p>Boot Display Device (Auto) Flat Panel Type</p> <p>Options</p> <p>640x480LVD 800x600LVD 1024x768LVD 1280x1024LVD 1400x1050LVD 1600x1200LVD</p> <p>↔ Select Screen ↑↓ Select Item ← Change Option F1 General Help F10 Save and Exit ESC Exit</p> <p>v02.57 (C) Copyright 1985-2004, American Megatrends, Inc.</p>	Choose your panel type 12” – 800x600 15” – 1024x768



CHAPTER

# 5

## M/B Information

Chapter 5

# Chapter 5 – M/B Information

## 5.1 M/B Jumper Setting

(POS87-2EB-478, POS87-5EB-478)

### Clear CMOS Setup

If you want to clear the CMOS Setup (for example forgot the password you should clear the setup and then set the password again.), you should close the JP1 about 3 seconds, then open again. Set back to normal operation mode.

JP1: Clear CMOS Setup

JP1	Description
1-2	Keep CMOS Setup (Normal Operation)
2-3	Clear CMOS Setup

### Compact Flash Card Master/Slave Mode Setting

JP2: Master/Slave Mode Setting

JP2	Description
OPEN	SLAVE
SHORT	MASTER

### Keyboard Setting

JP3: Keyboard Setting

JP3	Description
Open	Disabled
Short	Enabled



## DCD or DTR Select of COM6 Setting

JP4: DCD/DTR Setting

JP4	Description
1-2	DCD
2-3	DTR

## Pentium 4/Mobile P4/Mobile P4-M Select

JP7: Pentium 4/Mobile P4/Mobile Pentium 4-M Select

JP7	Description
1-2	Pentium 4
2-3	Mobile Celeron/P4-M

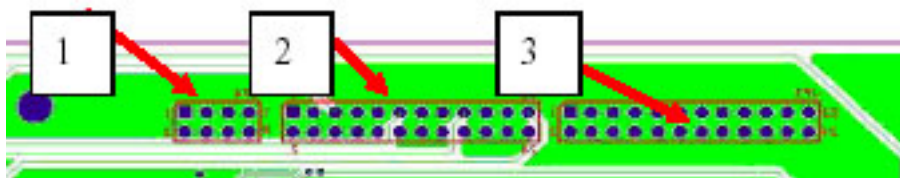
## LCD Power setting

JP8: This jumper is for the setting of LCD panel voltage.

JP8	Description
1-2	+3.3V
3-4	+5V

## 5.2 COM & RJ-11 Jumper Settings

Before installing the cash drawer or any peripherals which use COM ports, please make sure you configure all the “Power” settings accurately.



### 1. Cash Drawer

Cash Drawer	JP4
12V	5-6,7-8
24V	1-2,3-4

## 2. COM1 & COM2

COM 1	Pin 1	Pin9	COM 2	Pin1	Pin9
5V	21-22	15-16	5V	9-10	3-4
12V	19-20	13-14	12V	7-8	1-2
DCD/RI	23-24	17-18	DCD/RI	11-12	5-6

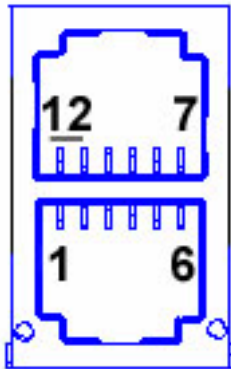
## 3. COM3 & COM4

COM 3	Pin 1	Pin9	COM 4	Pin1	Pin9
5V	21-22	15-16	5V	9-10	3-4
12V	19-20	13-14	12V	7-8	1-2
DCD/RI	23-24	17-18	DCD/RI	11-12	5-6

## 5.3 Cash Drawer Introduction

The POS system provides RJ-11 x 2 for cash drawer. And both could support 12V & 24V cash drawer which could be configured on the bottom side of POS system.

### Pin Assignment



Pin	Assignment	Pin	Assignment
1	GND	7	GND
2	DOUT 0	8	DOUT 1
3	DIN 0	9	DIN 1
4	12V/24V	10	12V/24V
5	NC	11	NC
6	GND	12	GND

### I/O Address

I/O Address: 280H (For both Cash Drawers which are controlled by data bit)

Cash Drawer 1: DIN0=>Bit0, DOUT0=>Bit4

Cash Drawer 2: DIN1=>Bit1, DOUT1=>Bit5

CHAPTER

# 6

## Reversion

# Chapter 6 – Reversion History

Version	Item	Descriptions	Page