

# **POS 43X Series B77 User Manual**



## **Point-of-Sale Hardware System**

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Manual Version 1.0

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# Safety

## IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

## CE MARK



This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility" and 73/23/EEC "Low Voltage Directive".

## FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

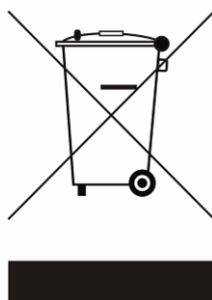
- (1) This device may not cause harmful interference
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

## LEGISLATION AND WEEE SYMBOL

**2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.**



The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

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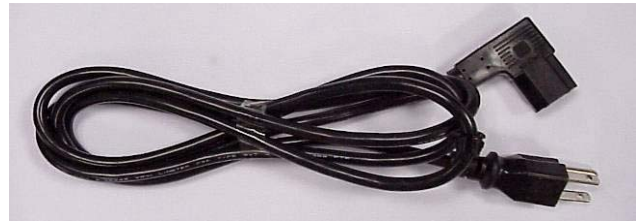
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# 1. Item Checklist

Take out the system unit from the carton. Remove the unit by carefully clutching the foam inserts and remove slowly to protect the system. The following contents should be found in the carton:



a. Drivers Bank



b. Power Cable



c. User Manual



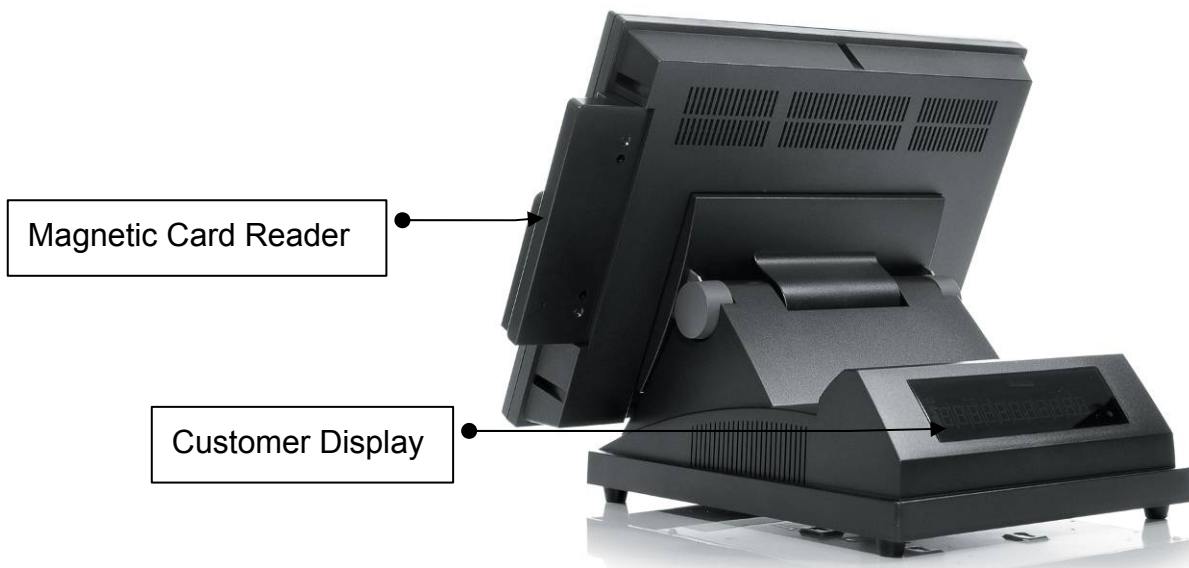
d. System

## 2. System View

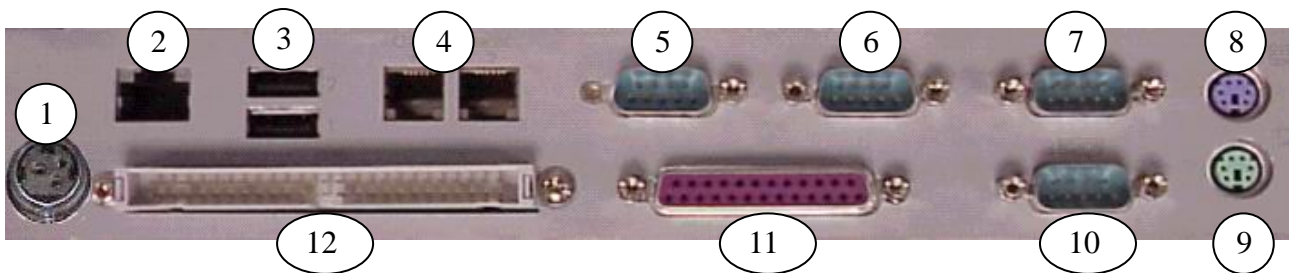
### 2.1. Front View



## 2.2 Side View



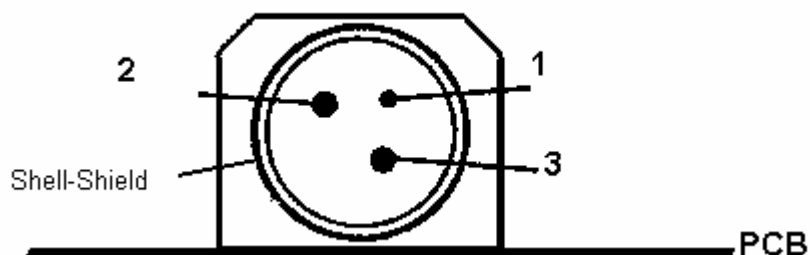
## 2.2. Rear View



| NO | Function               | NO | Function      | NO | Function   |
|----|------------------------|----|---------------|----|------------|
| 1  | DC Output 24V (Option) | 5  | COM1          | 9  | PS/2 Mouse |
| 2  | LAN                    | 6  | COM2          | 10 | COM3       |
| 3  | USB1&2                 | 7  | COM4          | 11 | LPT        |
| 4  | Cash Drawer 1&2        | 8  | PS/2 Keyboard | 12 | IDE        |

**Note:** The maximum current that can be drawn from each COM port is 500 mA.

**Note:** DC Output 24 V Pin Assignment



| Pin | Assignment |
|-----|------------|
| 1   | NC         |
| 2   | + 24V DC   |
| 3   | Ground     |

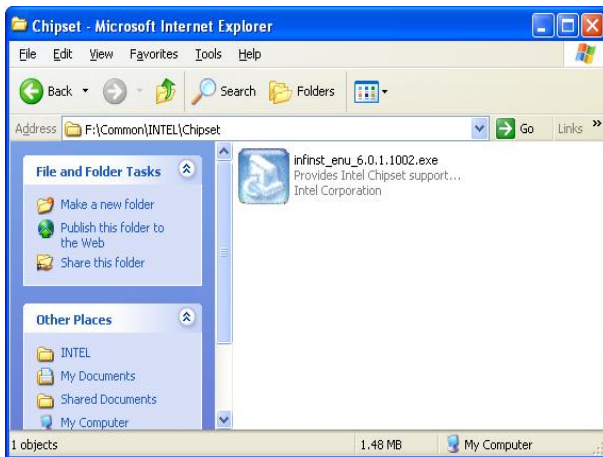
# 3. Driver Installation

## 3.1. Driver List

| Folder/File                             | File Description        |
|---|-------------------------|
| <CD>:\B77.htm                           | B77 Driver List         |
| <CD>:\COMMON\INTEL\Chipset              | Chipset Driver          |
| <CD>:\COMMON\INTEL\USB 20               | USB 2.0 Driver          |
| <CD>:\COMMON\INTEL\VGA\i85x             | VGA Driver              |
| <CD>:\COMMON\Ac97_codec\Realtek\ALC202A | Audio Driver            |
| <CD>:\COMMON\ELO_Touch                  | ELO Touch Screen Driver |
| <CD>:\COMMON\POS_Touch                  | POSTouch Screen Driver  |
| <CD>:\COMMON\Lan_driver\R8139_810x      | 10/100Mb LAN Driver     |

-The following procedures are for Windows 2000/XP, other platforms are similar.

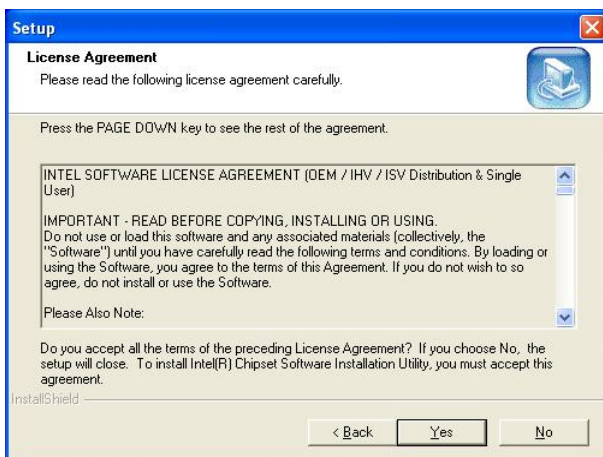
## 3.2. Chipset Driver Installation



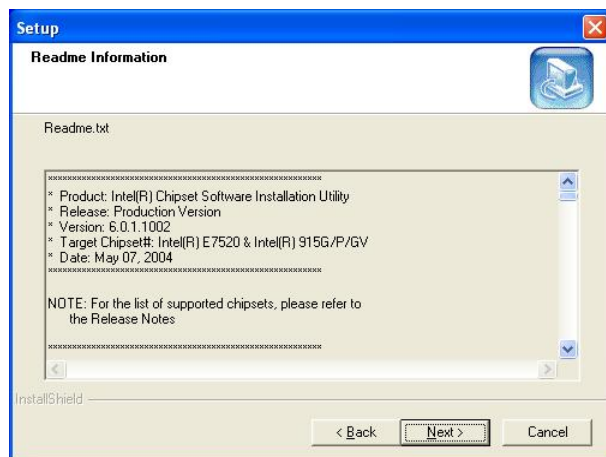
a. Double click “infinst\_enu\_6.0.1.1002” on the My computer window.



b. Click the “Next” button on the Welcome window.

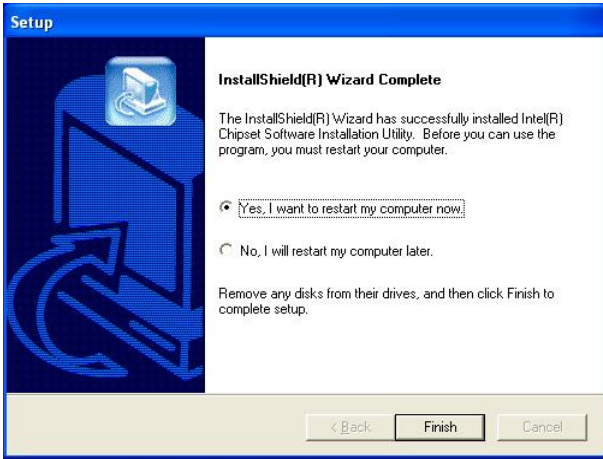


c. Click the “Yes” button on the License Agreement window.



d. Click the “Next” button on the Readme Information window.



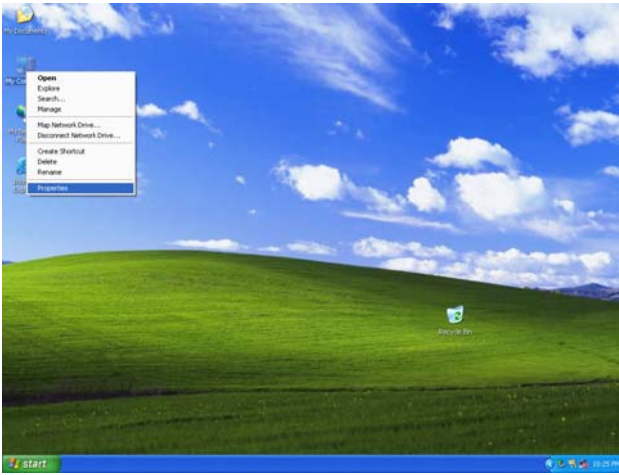


- e. Click the “Finish” button and restart your system.

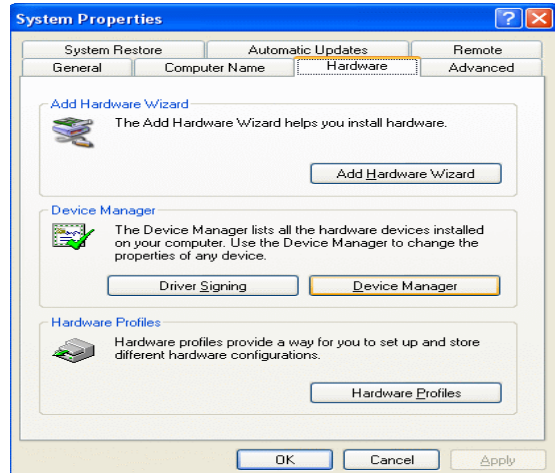
### 3.3. USB 2.0 Driver Installation

#### OS Requirements

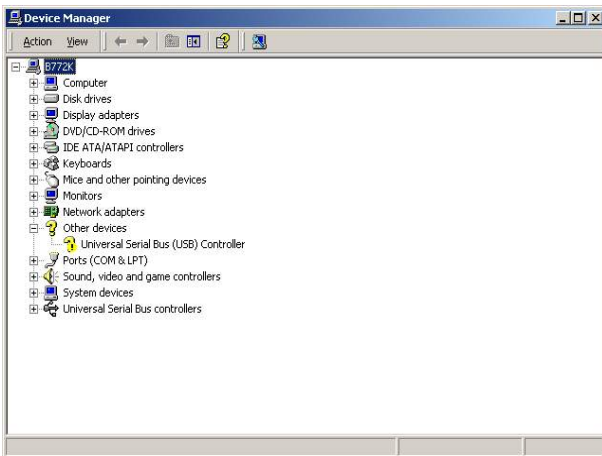
| OS                  | USB 2.0 requirements   |
|---------------------|--|
| Windows XP          | USB 2.0 drivers are provided in <a href="#">Service Pack 1</a> (SP1) for Windows XP, which is available through <a href="#">Windows Update</a> .   |
| Windows 2000        | USB 2.0 drivers are available through <a href="#">Windows Update</a> or Service Pack 4.  |
| Windows 98SE/Me     | USB 2.0 drivers are available on the <a href="#">Intel developer site</a> .  |
| Windows 98 (Retail) | Developers and OEMs should contact <a href="#">Orange Ware</a> . For end-users, if your device does not ship with Windows 98 drivers, contact your device or system manufacturer. If USB 2.0 drivers are not available, your device will operate at USB 1.1 speeds |
| Linux               | USB 2.0 support is available in <a href="#">kernel 2.4.19</a> or later development kernels, or in the 2.4.19 or later production kernel. <a href="#">More information</a> .  |



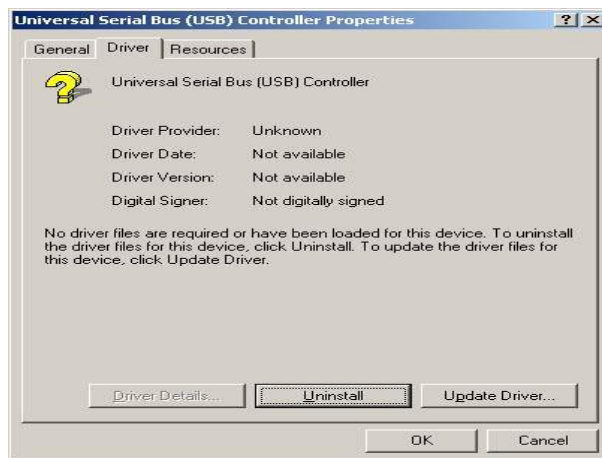
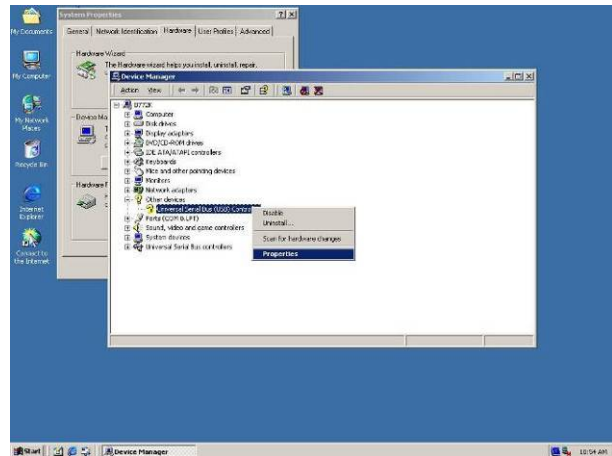
a. Right click My Computer on the windows desktop and select “properties”



b. Select “Hardware” → “Device Manager” on system properties.



c. Select “Other Devices” → “Universal Serial Bus (USB) Controller” → “Properties” on Device Manager.



d. Select “Device” → “Update Driver...”.



e. Click the “Next” button on the welcome window.



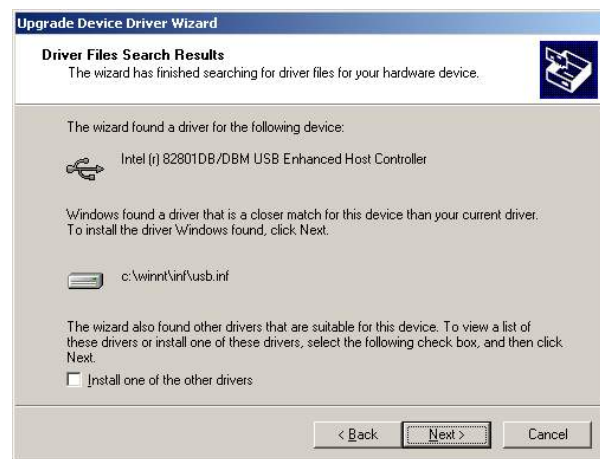
f. Select “Search for a suitable...” and click the “Next” button on the Install Hardware Device Drivers window.



g. Select “Specify a location” and click the “Next” button on the Locate Driver Files window.



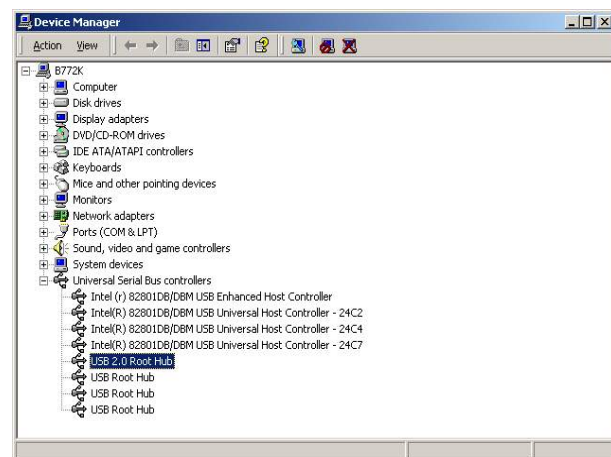
h. Press “Browse” to select driver and then click the “OK” button to next page.



i. Click the “Next” button on Driver Files Search Results window.

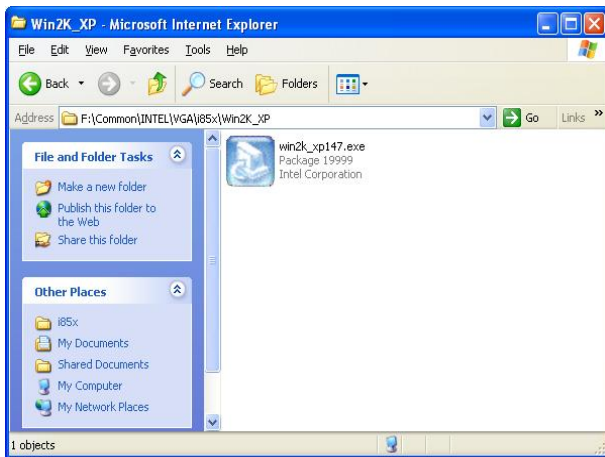


j. Click the “Finish” button to complete this process.

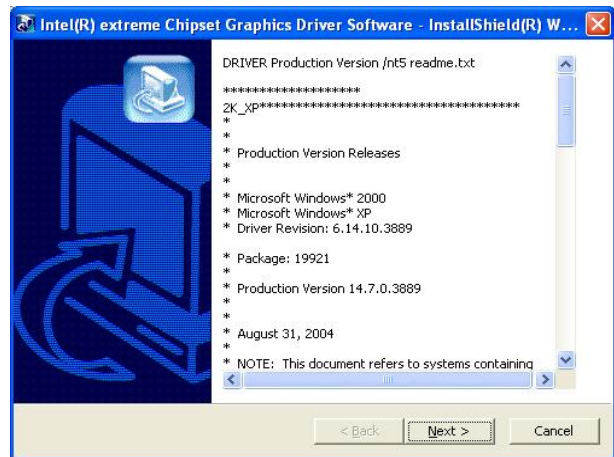


k. Finished.

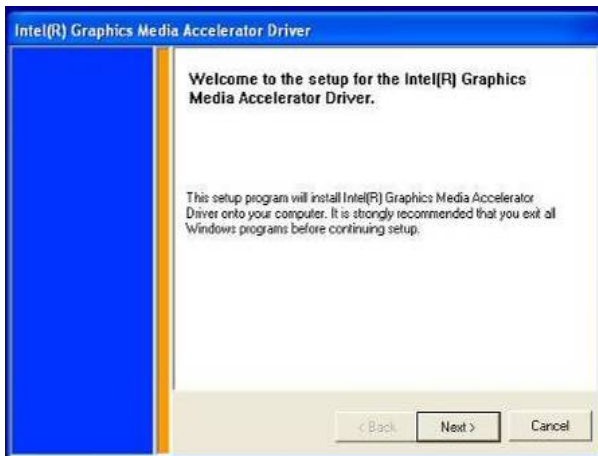
### 3.4. VGA Driver Installation



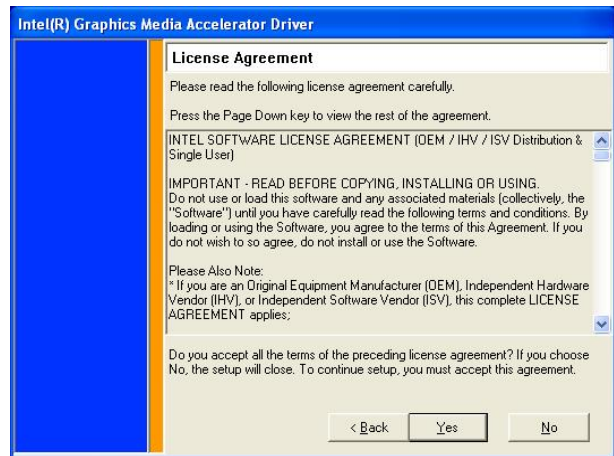
a. Double click “win2k\_xp147” on the My Computer window.



b. Click the “Next” button on the Welcome window.



c. Click the “Next” button on the Welcome window.

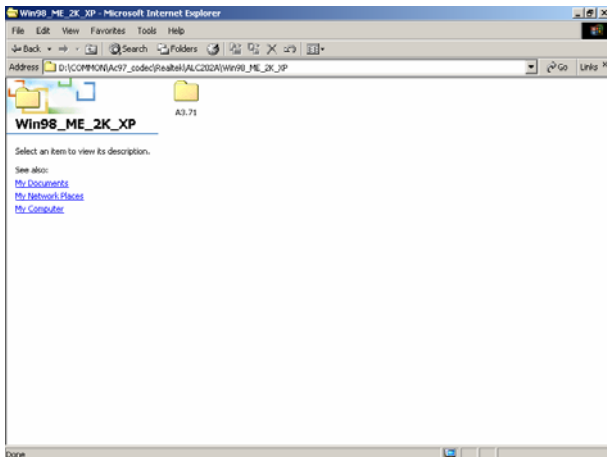


d. Click the “Yes” button on the License Agreement window.

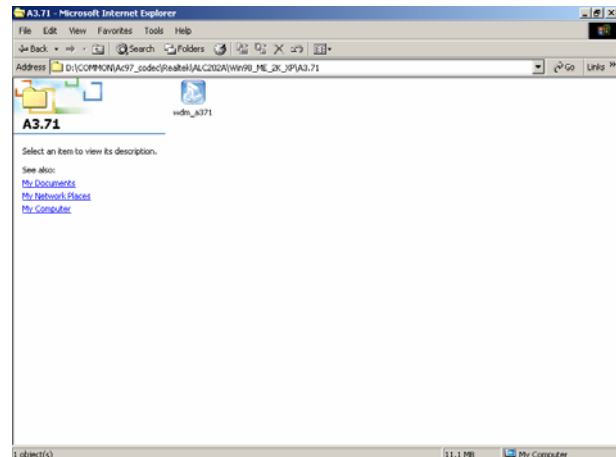


e. Click the “Finish” button and restart your system.

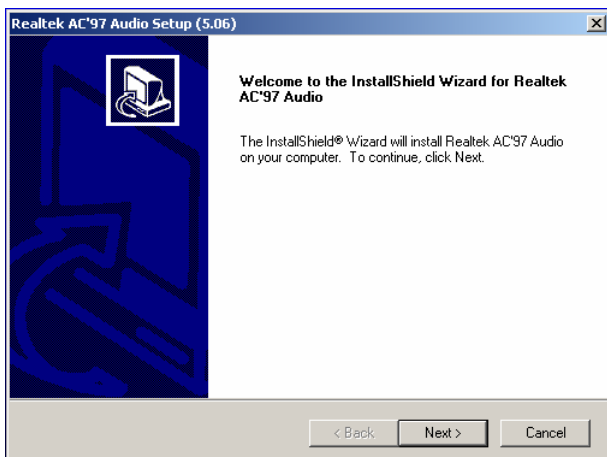
## 3.5. Audio Driver Installation



a. Click “A3.71” on the My Computer window.



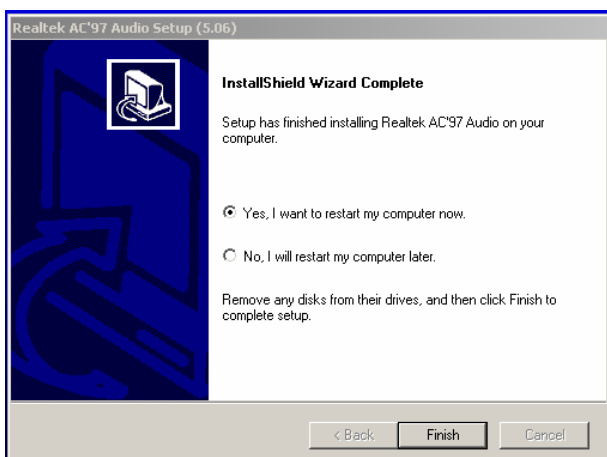
b. Double click “wdm\_a371” on the My Computer window.



c. Click “Next” button on the Realtek AC'97 Audio Setup window.

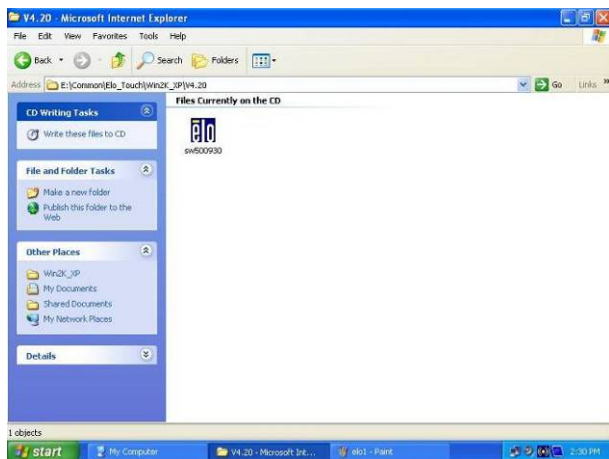


d. Click “Yes” button on the Digital Signature Not Found window.



e. Click “Finish” button on the Realtek AC'97 Audio Setup window.

### 3.6. ELO Touch Screen Driver Installation



a. Click "sw500930" on the My computer window.



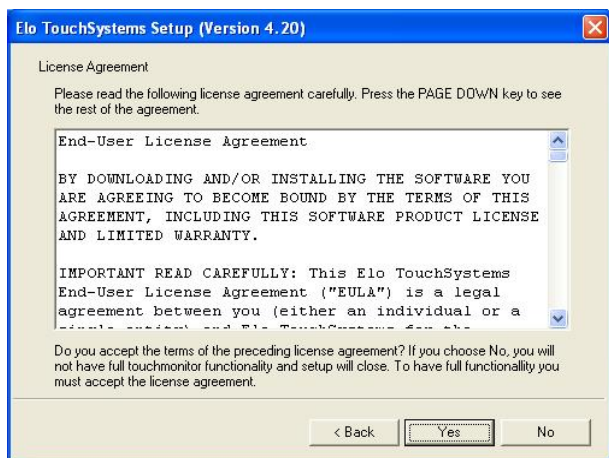
b. Click the "OK" button on the Welcome window.



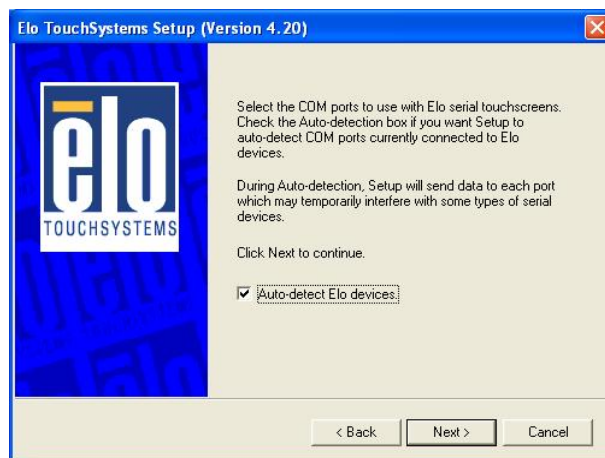
c. Click the "Unzip" button on the WinZip Self-Extractor window.



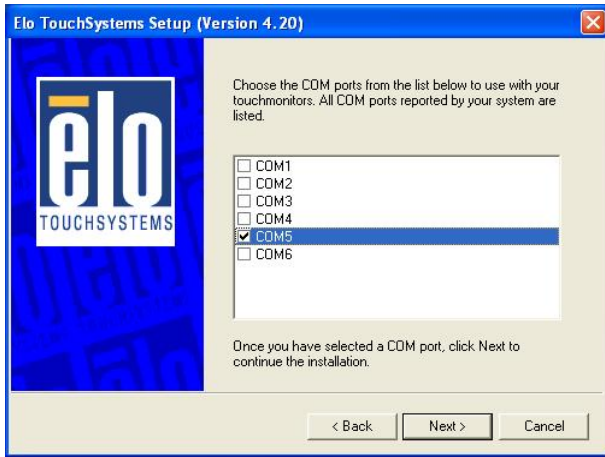
d. Select "Install Serial Touchscreen Drivers" and then click the "Next" button on the Welcome window.



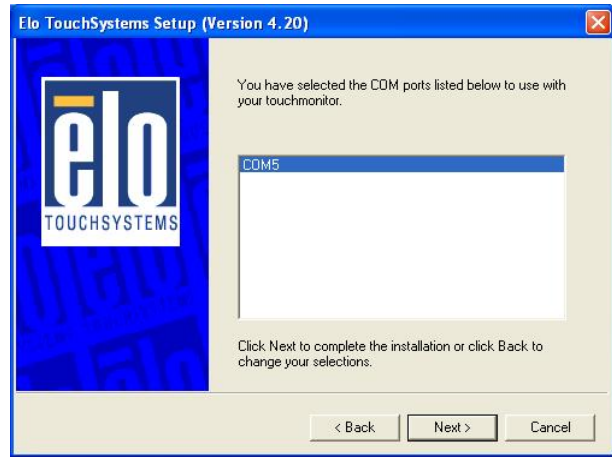
e. Click the "Yes" button on the License Agreement window.



f. Click the "Next" button on the on the "Select the COM ports..." window.



g. Select “COM5” and click the “Next” button on the Choose the COM ports... window.



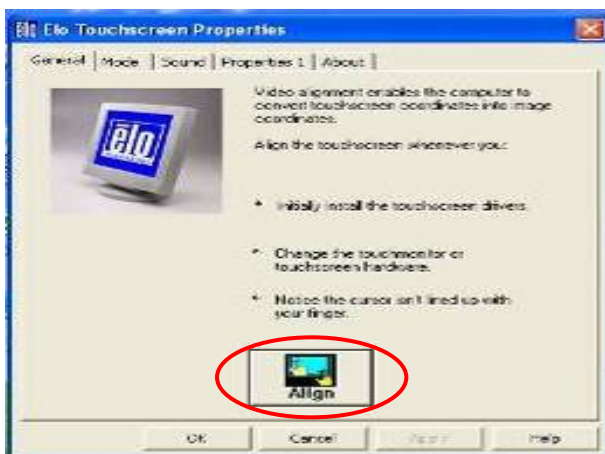
h. Click the “Next” button on the You have selected the COM ports...window.



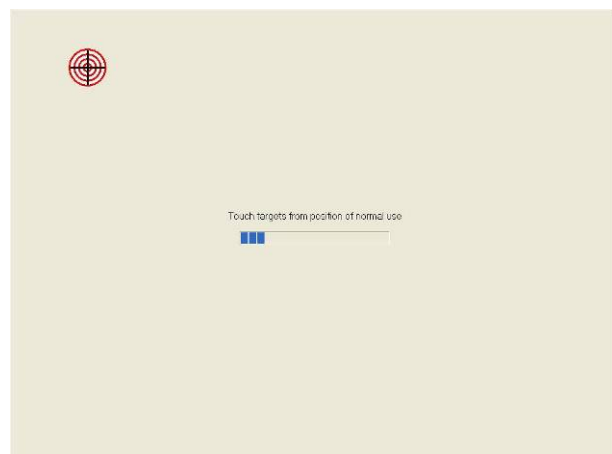
i. Click the “Finish” button on the Setup Complete window



j. Click the “Yes” button and restart your system.



k. After the computer restarted, click “Align” on the Elo Touchscreen Properties window.



l. Calibrate three red points.







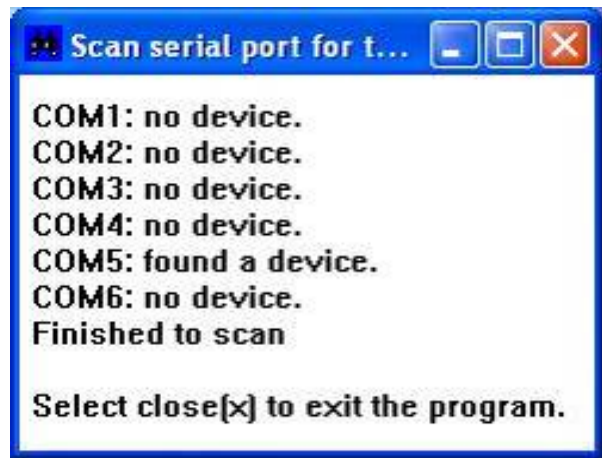
g. Click the “Continue Anyway“ button on the Hardware Installation window



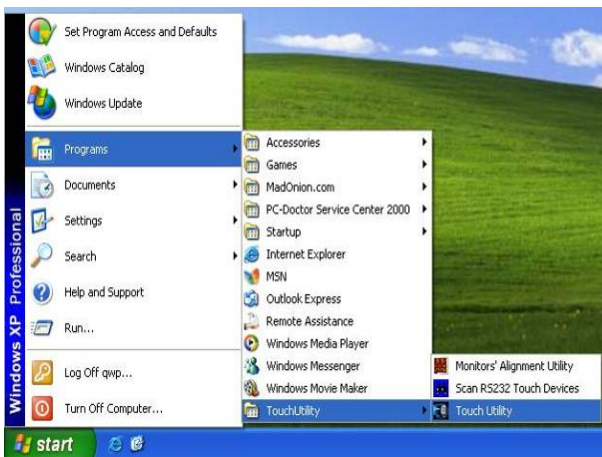
h. Click the ”OK“ button and restart your system



i. After the computer restarted, select “Programs → TouchUtility → Scan RS232 Touch Device”.



j. Automatically scan serial port for touch.



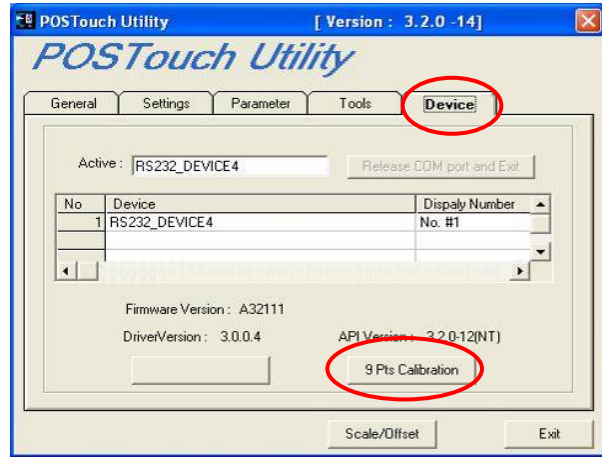
k. Select “Programs → TouchUtility → Touch Utility”.



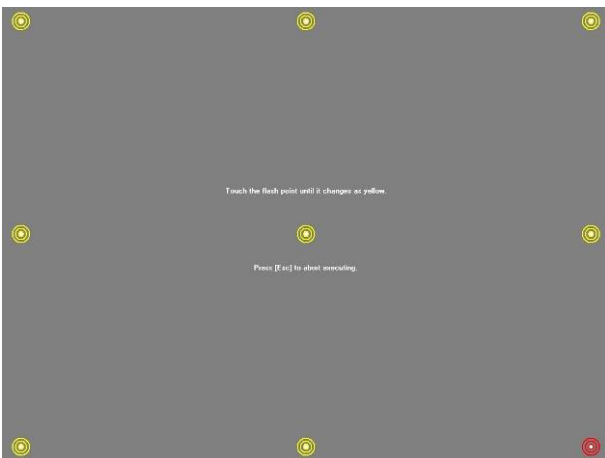
l. Click “Scale / Offset“ on the POSTouch Utility window.



m. Calibrate three red flashing points.

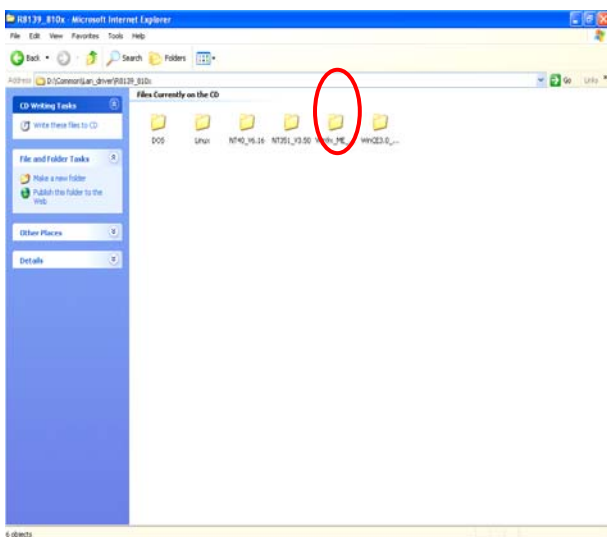


n. Select "Device → 9Pts Calibration" on the POSTouch Utility window.

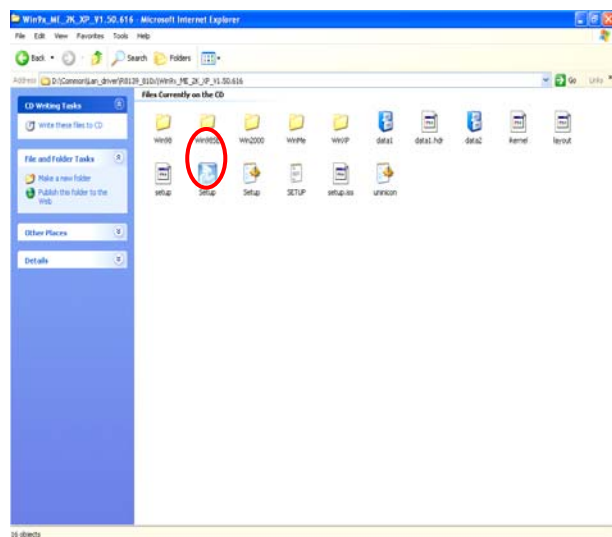


o. Calibrate nine red flashing points. Then, click "Exit" on the POSTouch Utility window.

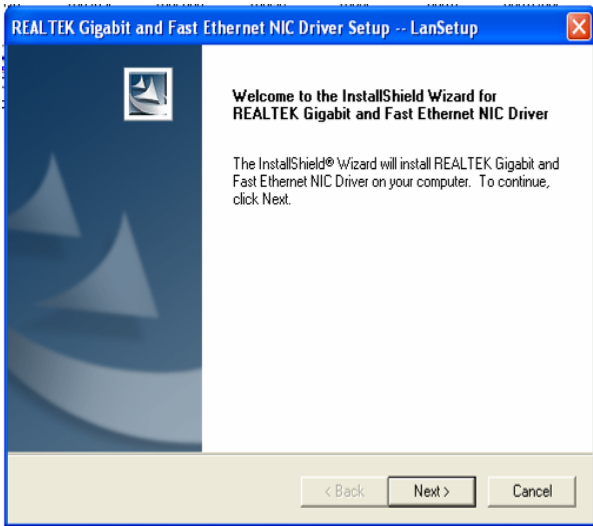
### 3.8. LAN Driver Installation



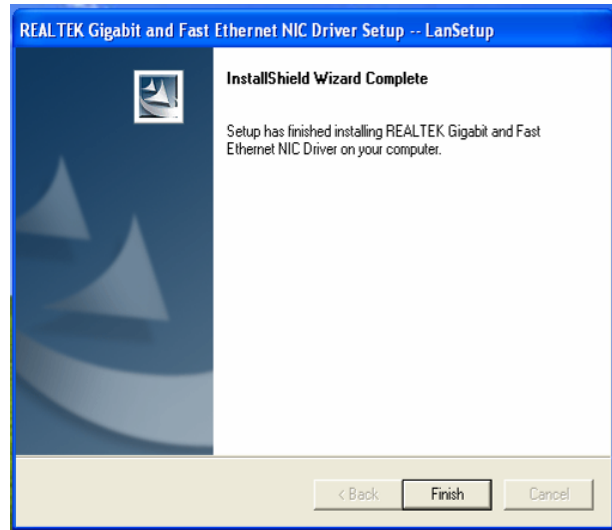
a. Click the "Win9x\_ME\_..." on the "Rtl8139\_810x" window.



b. Click the "Setup" button on the "Win9x\_ME\_2K\_XP\_..." window.



- c. Click the “Next” on the “REALTEK Gigabit and Fast Ethernet NIC Driver Setup” window.



- d. Click the “Finish” on the “REALTEK Gigabit and Fast Ethernet NIC Driver Setup” window.

## 4. Peripherals Installation

### 4.1. Customer Display Installation



- a. Remove the hinge covers on both sides using a screwdriver or finger to push the clip.



- b. Remove the screws (6) (three on each side).



c. Remove the screws (2).



d. Disconnect the cables (2).



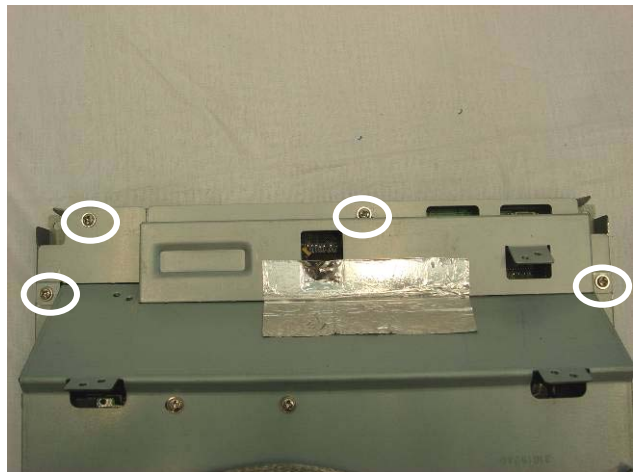
e. Lift the LCD module up.



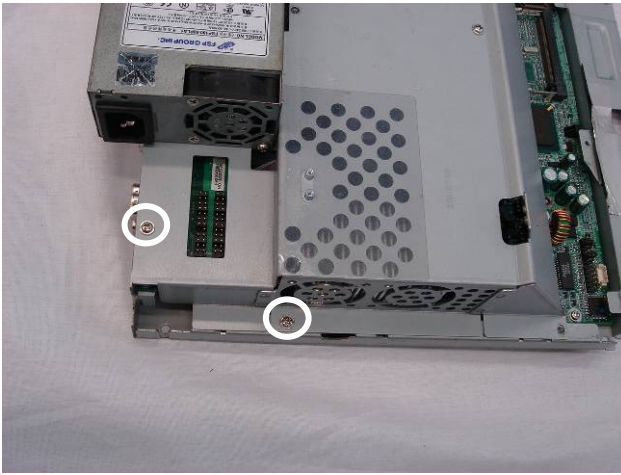
f. Remove the screws (4).



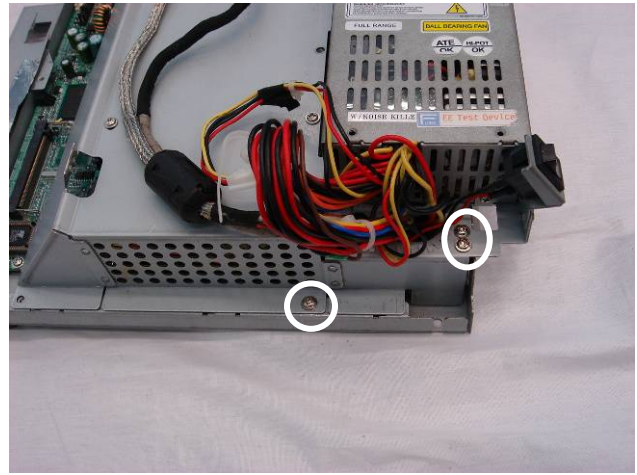
g. Lift the base cover up and remove it.



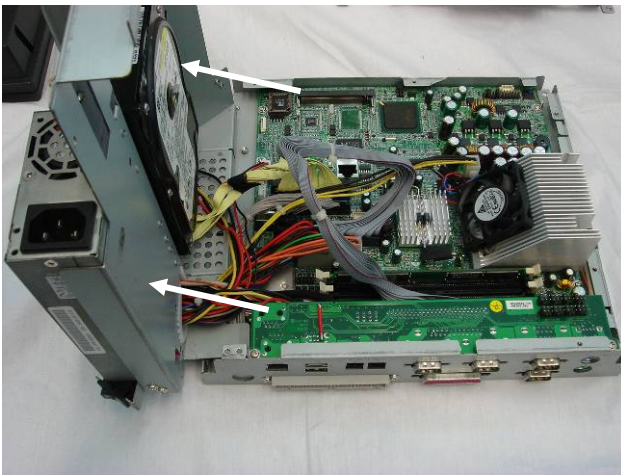
h. Remove the screws (4) that secure the front bracket.



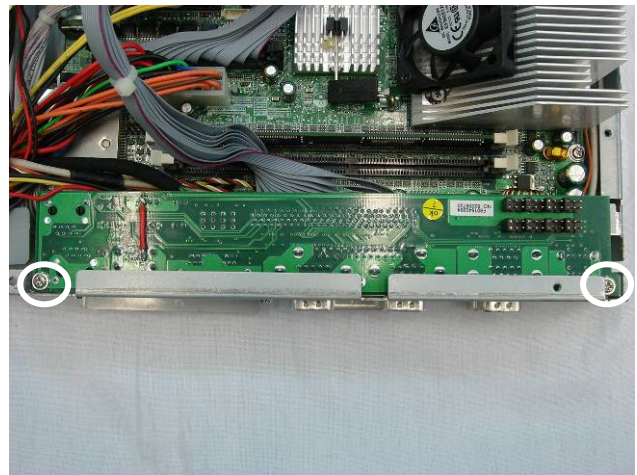
i. Remove the screws (2) that secure the back bracket.



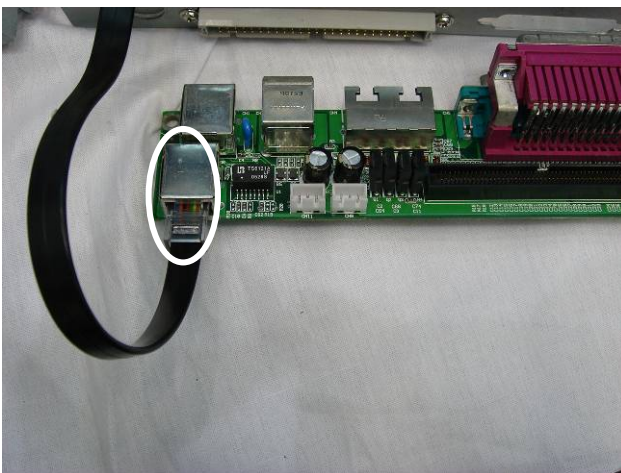
j. Remove the screws (3) that secure the back bracket.



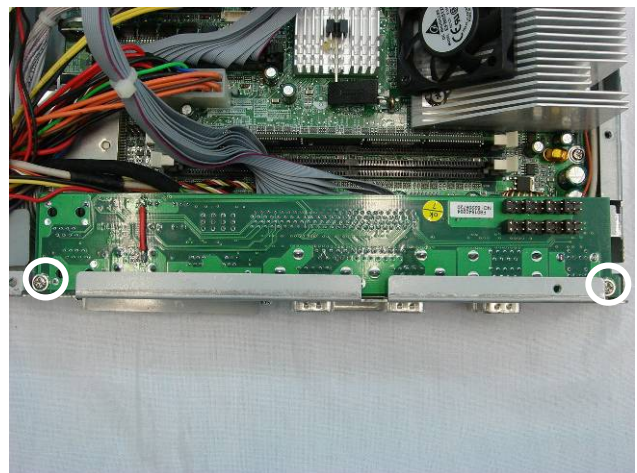
k. Lift the chassis box up, taking care not to stretch the cables which are still connected.



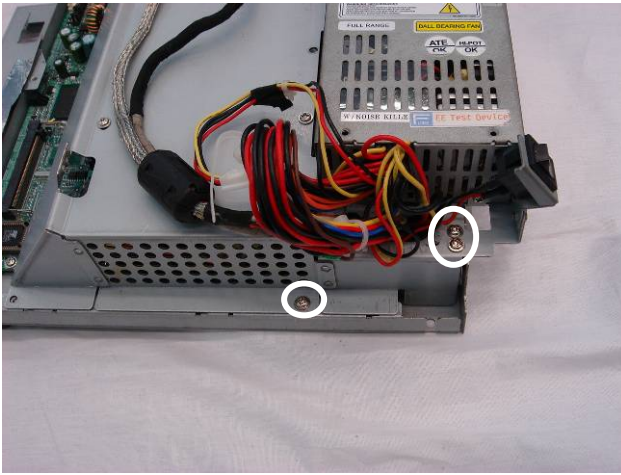
l. Remove the screws (2) that secure the I/O board.



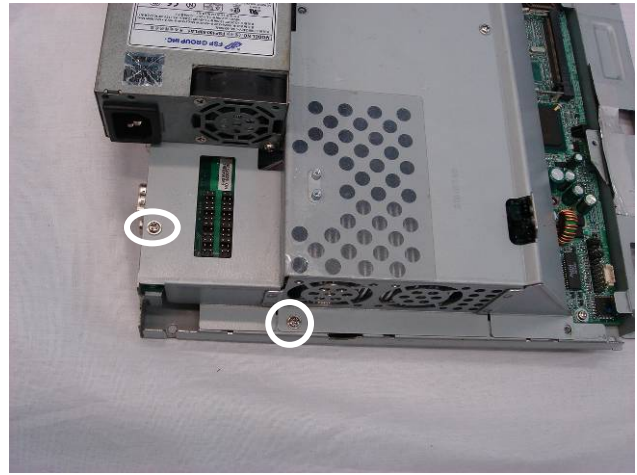
m. Connect the cable (1) on the I/O board.



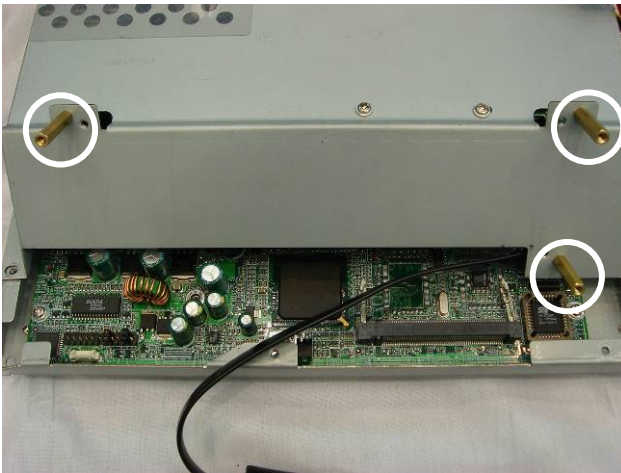
n. Tighten the screws (2).



o. Tighten the screws (3).



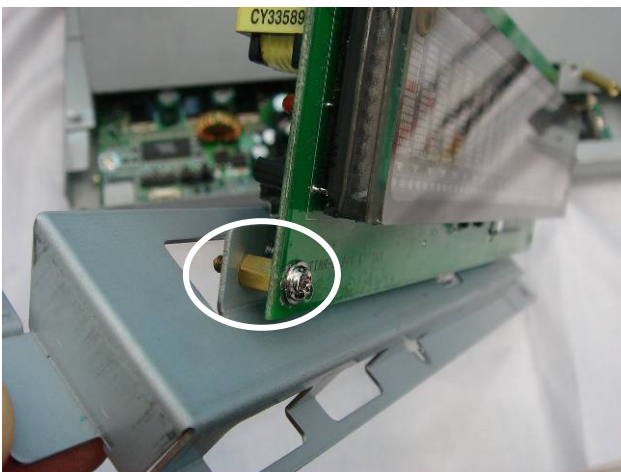
p. Tighten the screws (2).



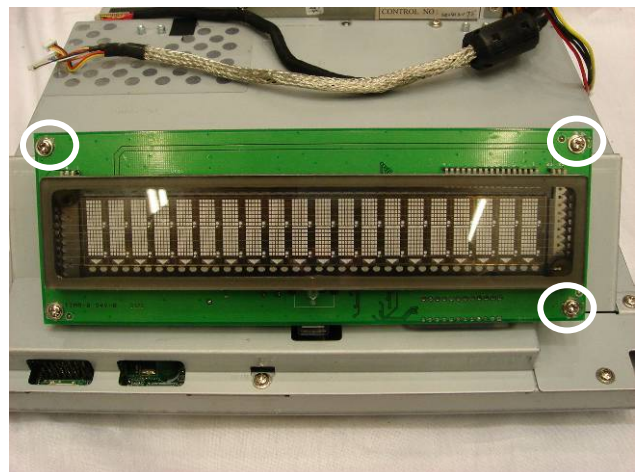
q. Tighten the brass hex screws (3).



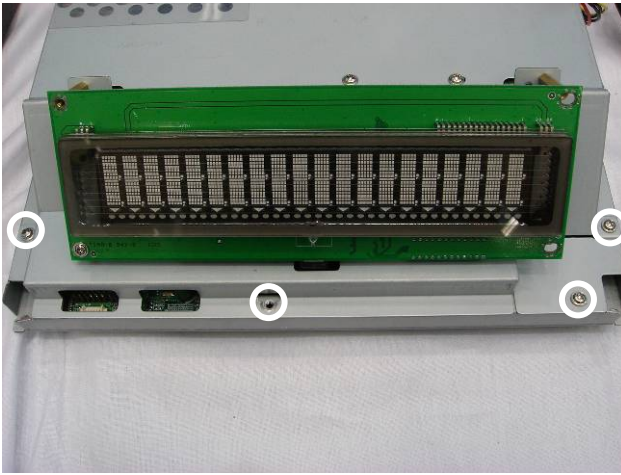
r. Pass the cable through the front bracket and then connect the cable (1) to the MSR board.



s. Tighten the brass hex screw (1) on the front bracket.



t. Tighten the screws (3)

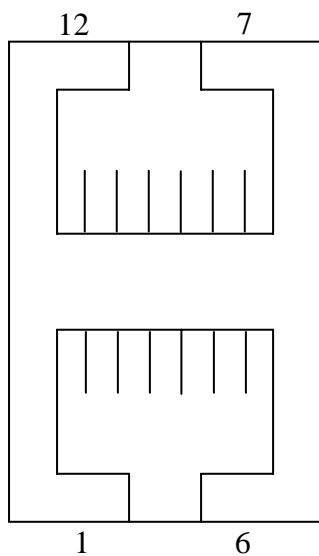


u. Tighten the screws (4).

## 4.2. Cash Drawer Installation

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

### 4.2.1 Cash Drawer Pin Assignment



| Pin | Signal    | Pin | Signal    |
|-----|-----------|-----|-----------|
| 1   | GND       | 7   | GND       |
| 2   | DOUT bit0 | 8   | DOUT bit2 |
| 3   | DIN bit0  | 9   | DIN bit1  |
| 4   | 12V / 24V | 10  | 12V / 24V |
| 5   | DOUT bit1 | 11  | DOUT bit3 |
| 6   | GND       | 12  | GND       |

### 4.2.2 Cash Drawer Controller Register

The Cash Drawer Controller use two I/O addresses to control the Cash Drawer – The Cash Drawer Control Register and the Cash Drawer Status Register.

#### 4.2.2.1 Cash Drawer Control Register and Cash Drawer Status Register

Register Location: I/O port 4B8h

Attribute: Write / Read

Size: 8bit

| <b>BIT</b>       | BIT7     | BIT6     | BIT5 | BIT4 | BIT3  | BIT2  | BIT1  | BIT0  |
|------------------|----------|----------|------|------|-------|-------|-------|-------|
| <b>Attribute</b> | Reserved | Reserved | Read | Read | Write | Write | Write | Write |

Bit 7: Reserved.

Bit 6: Reserved.

Bit 5: Cash Drawer2 "DIN bit1" pin input status.

= 1: the Cash Drawer2 closed or no Cash Drawer.

= 0: the Cash Drawer2 opened.

Bit 4: Cash Drawer1 "DIN bit0" pin input status.

= 1: the Cash Drawer1 closed or no Cash Drawer.

= 0: the Cash Drawer1 opened.

Bit 3: Cash Drawer2 "DOOUT bit3" pin output control.

= 1: Opening the Cash Drawer2

= 0: Allow closing the Cash Drawer2

Bit 2: Cash Drawer2 "DOOUT bit2" pin output control.

= 1: Opening the Cash Drawer2

= 0: Allow closing the Cash Drawer2

Bit 1: Cash Drawer1 "DOOUT bit1" pin output control.

= 1: Opening the Cash Drawer1

= 0: Allow closing the Cash Drawer1

Bit 0: Cash Drawer1 "DOOUT bit0" pin output control.

= 1: Opening the Cash Drawer1

= 0: Allow closing the Cash Drawer1

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

#### 4.2.3 Cash Drawer control command example

Use Debug.EXE program under DOS or Windows98

| <b>Command</b>   | <b>Cash Drawer</b> |
|--|--------------------|
| O 4B8 01   | Opening            |
| O 4B8 00   | Allow to closing   |
| <ul style="list-style-type: none"> <li>➤ Set the I/O address 4B8h bit0 =1 for opening the Cash Drawer1 by "DOOUT bit0" pin control.</li> <li>➤ Set the I/O address 4B8h bit0 = 0 to allow closing Cash Drawer1.</li> </ul> |                    |

| <b>Command</b>   | <b>Cash Drawer</b> |
|--|--------------------|
| I 4B8  | Check status       |
| <ul style="list-style-type: none"> <li>➤ The I/O address 4B8h bit4 =1 means the Cash Drawer1 is closed or no Cash Drawer.</li> <li>➤ The I/O address 4B8h bit4 =0 means the Cash Drawer1 is open.</li> </ul> |                    |



# 5. System Disassembly

## 5.1. Replace the Touch Board, Inverter Board and MSR Board



a. Remove the hinge cover on both sides using a screwdriver or finger to push the clip.



b. Remove the screws (6) (three on each side).



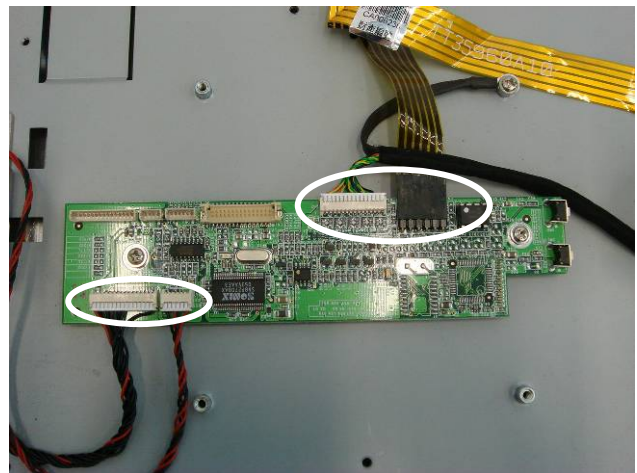
c. Remove the screws (2).



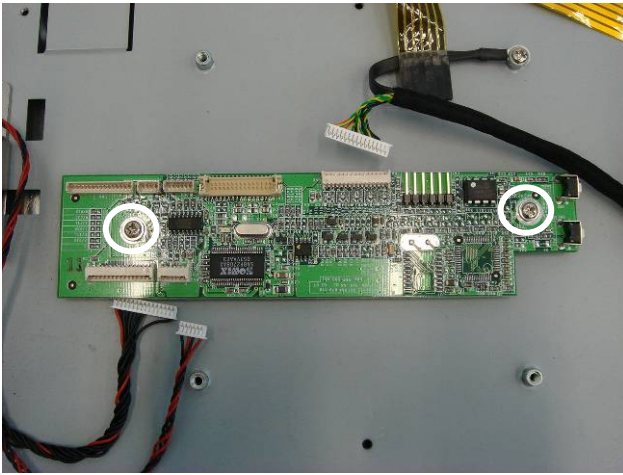
d. Disconnect the cables (2).



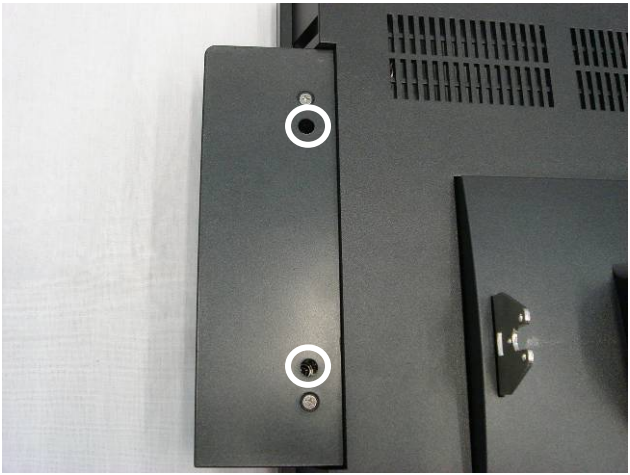
e. Lift the LCD module up.



f. Disconnect the cables (4).



g. Remove the screws (2) to replace the touch board.



h. Remove the screws (2).



i. Remove the MSR cover.



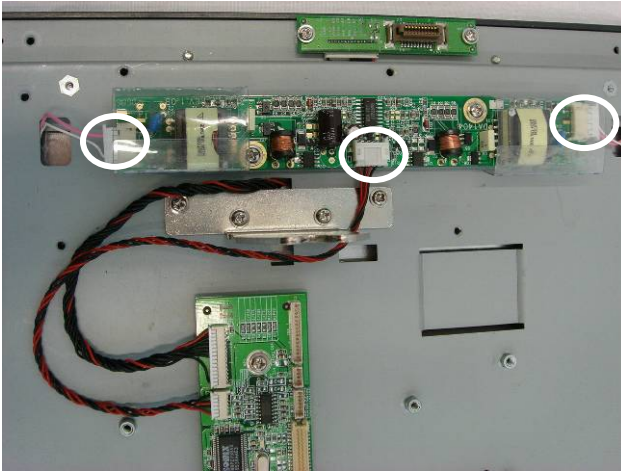
j. Remove the screws (4).



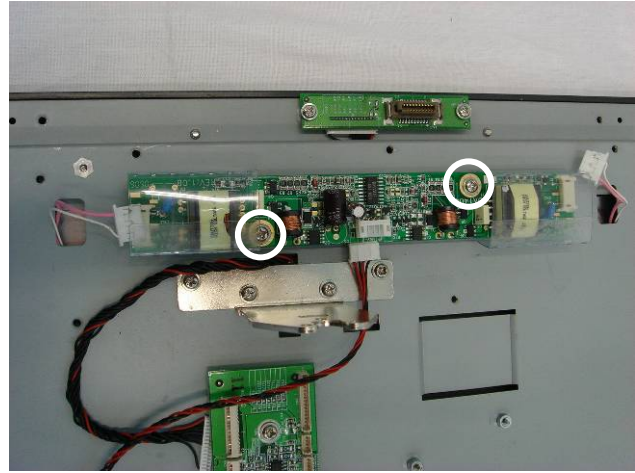
k. Remove the screws (2).



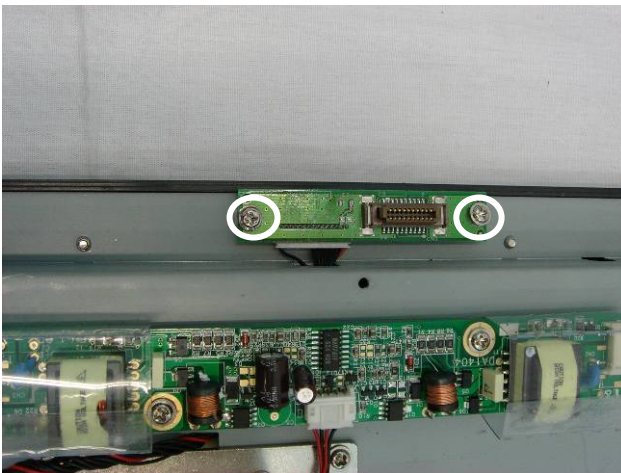
l. Lift the LCD cover up.



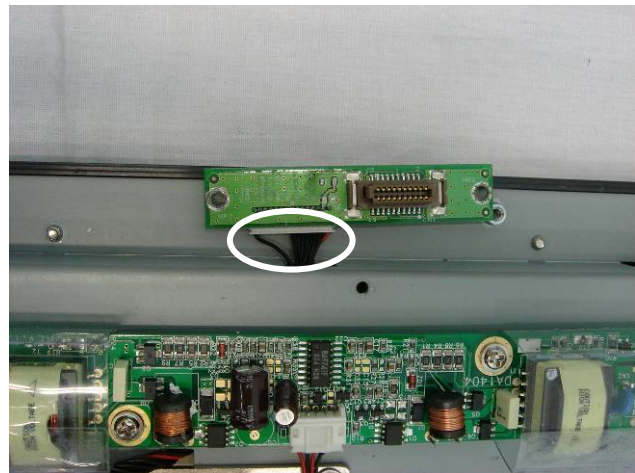
m. Disconnect the cables (3).



n. Remove the screws (2) to replace the inverter board.



o. Remove the screws (2).



p. Disconnect the cable (1) to replace the MSR board.

## 5.2. Open the Back Bracket



a. Remove the hinge covers on both sides using a screwdriver or finger to push the clip.



b. Remove the screws (6) (three on each side).



c. Remove the screws (2).



d. Disconnect the cables (2).



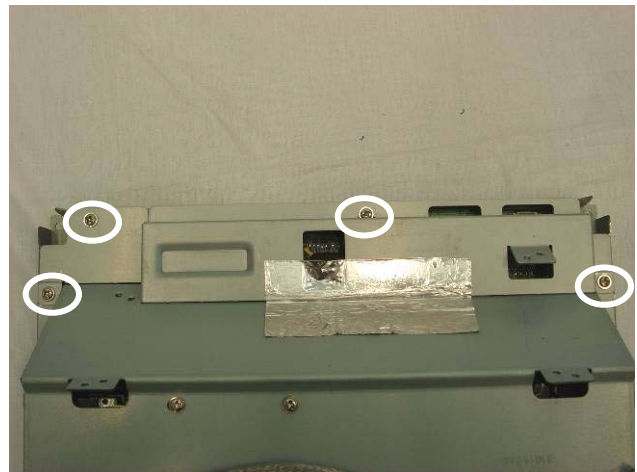
e. Lift the LCD module up.



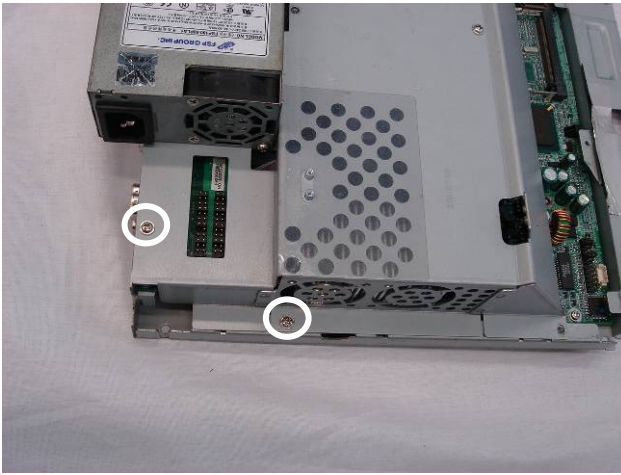
f. Remove the screws (4).



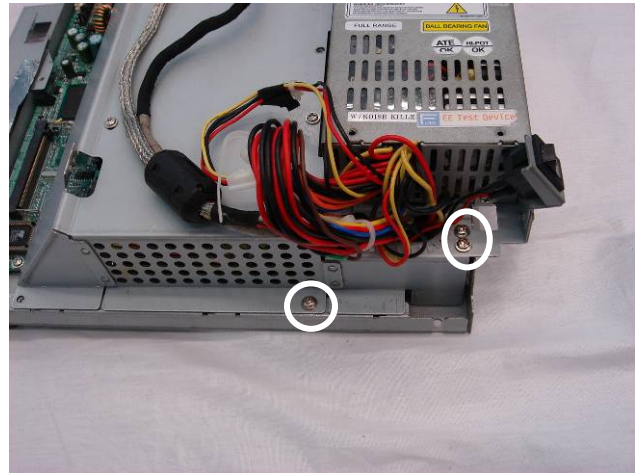
g. Lift the base cover up and remove it.



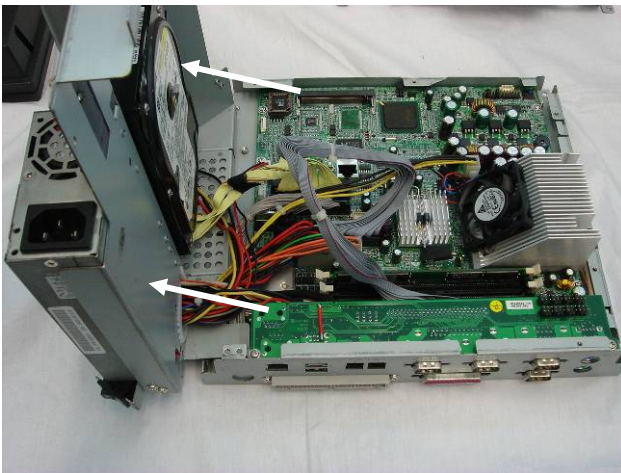
h. Remove the screws (4) that secure the front bracket.



i. Remove the screws (2) that secure the back bracket.



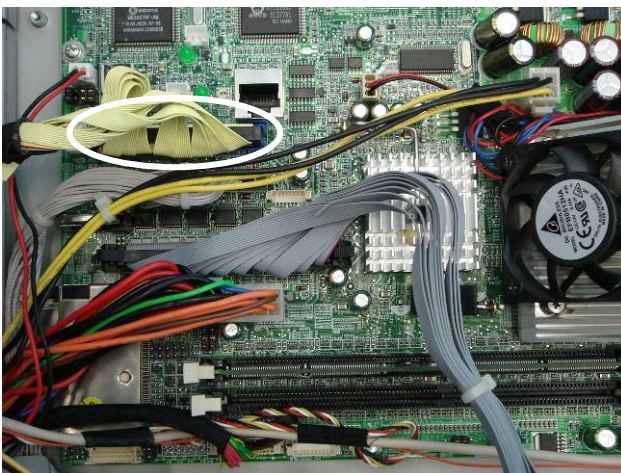
j. Remove the screws (3) that secure the back bracket.



k. Lift the back bracket up, taking care not to stretch the cables which are still connected.

### 5.3. Replace the HDD

To replace the HDD, please first follow the steps in chapter 5.2.



a. Disconnect the IDE2 cable (1).



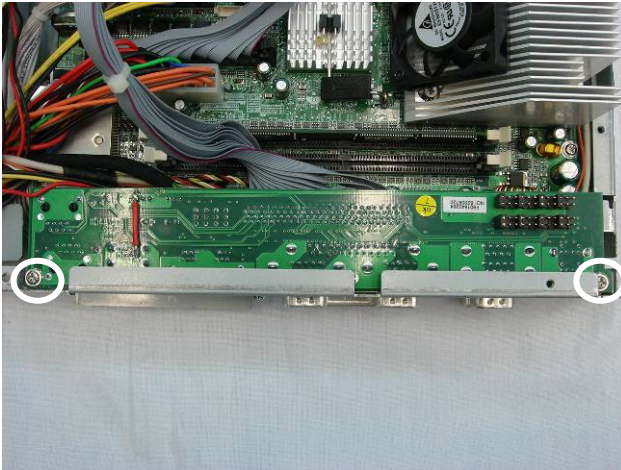
b. Remove the screws (4).



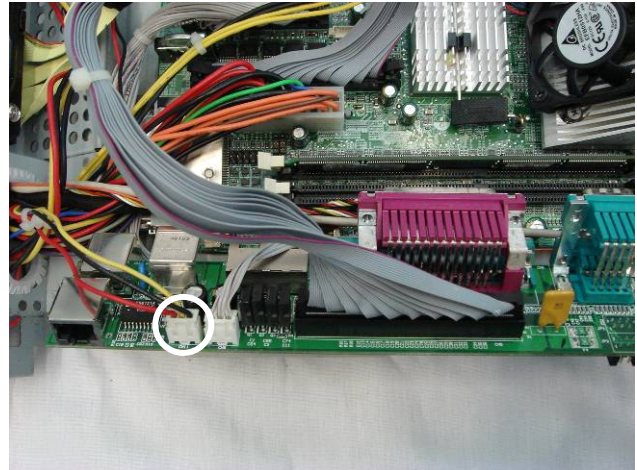
c. Disconnect the cable (1) to replace the HDD.

## 5.4. Replace the Power Supply

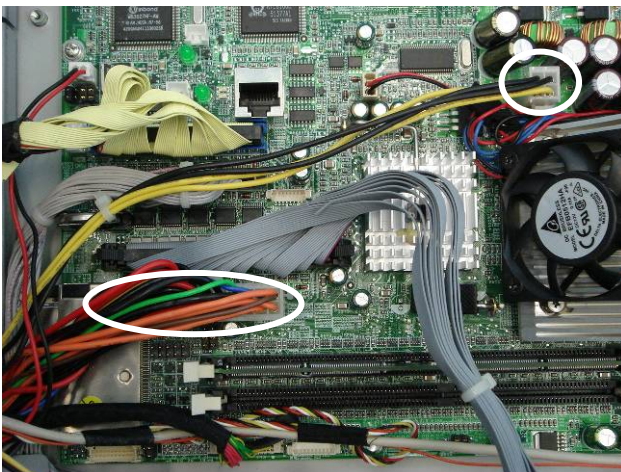
To replace the power supply, please first follow the steps in chapter 5.2.



a. Remove the screws (2) that secure the I/O board.



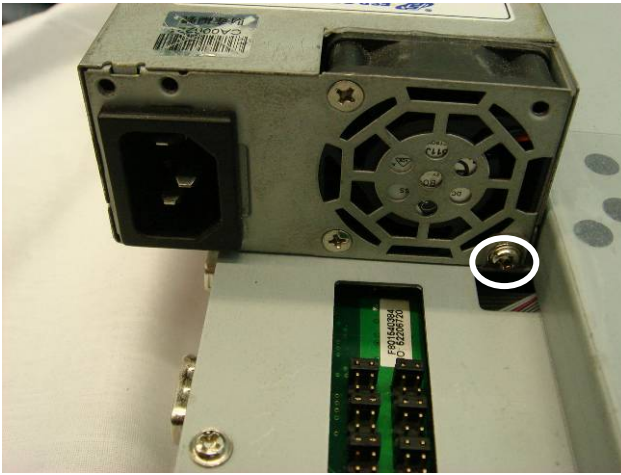
b. Disconnect the cables (1).



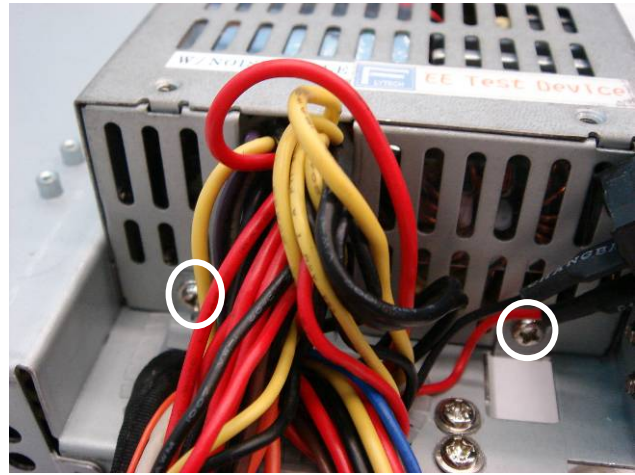
c. Disconnect the cables (2): 40pin cable and PWR2.



d. Disconnect the cable (1).



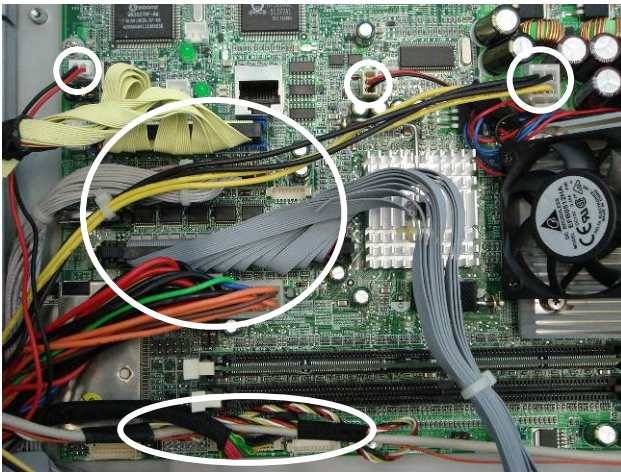
e. Remove the screw (1).



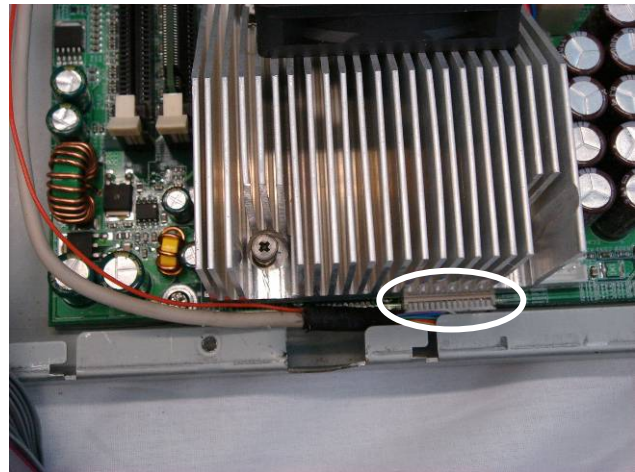
f. Remove the screws (2) to replace the power supply.

## 5.5. Replace the Motherboard

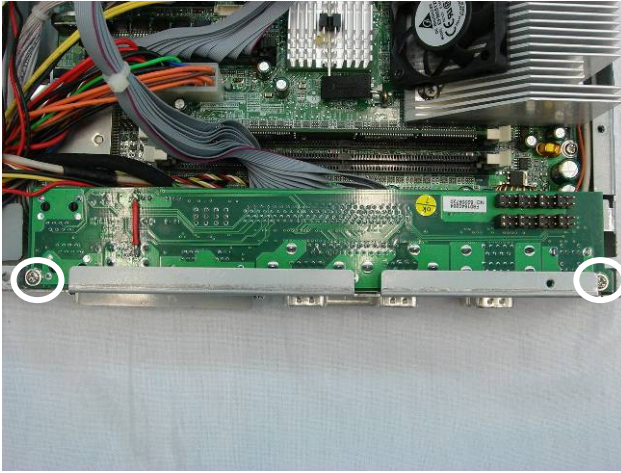
To replace the motherboard, please first follow the steps in chapter 5.2.



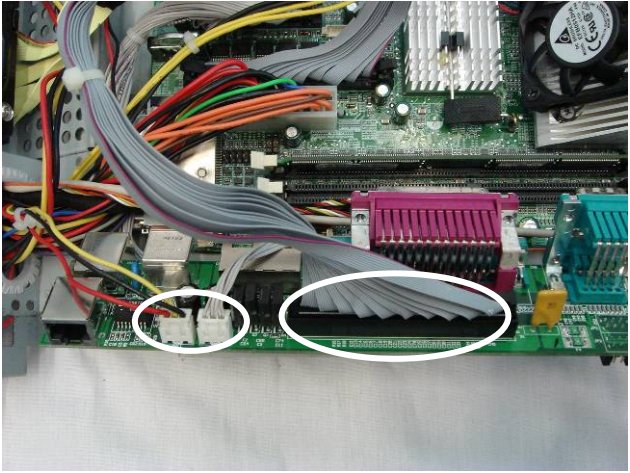
a. Disconnect the cables (9): power switch cable (CN11), fan cable, IDE1, IDE2, 100pin cable, 40pin cable, PWR2, LCD interface (CN3), and inverter power cable (CN6).



b. Disconnect the card reader cable (CN12).



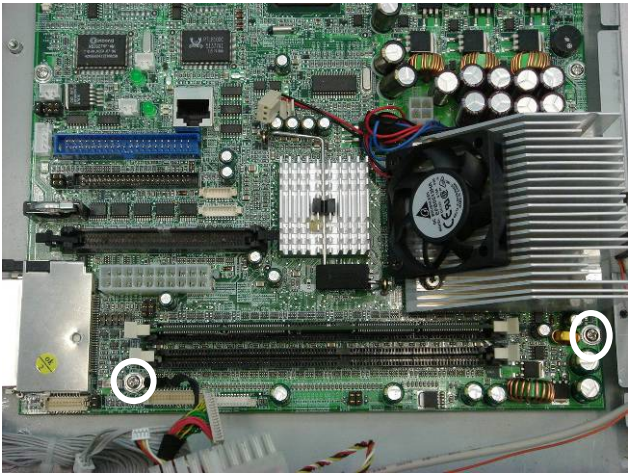
c. Remove the screws (2) that secure the I/O board.



d. Disconnect the cables (3): 100pin cable, power cable and LED cable.



e. Remove the screws (4).



f. Remove the screws (2) to replace the motherboard.



## 6. Specification

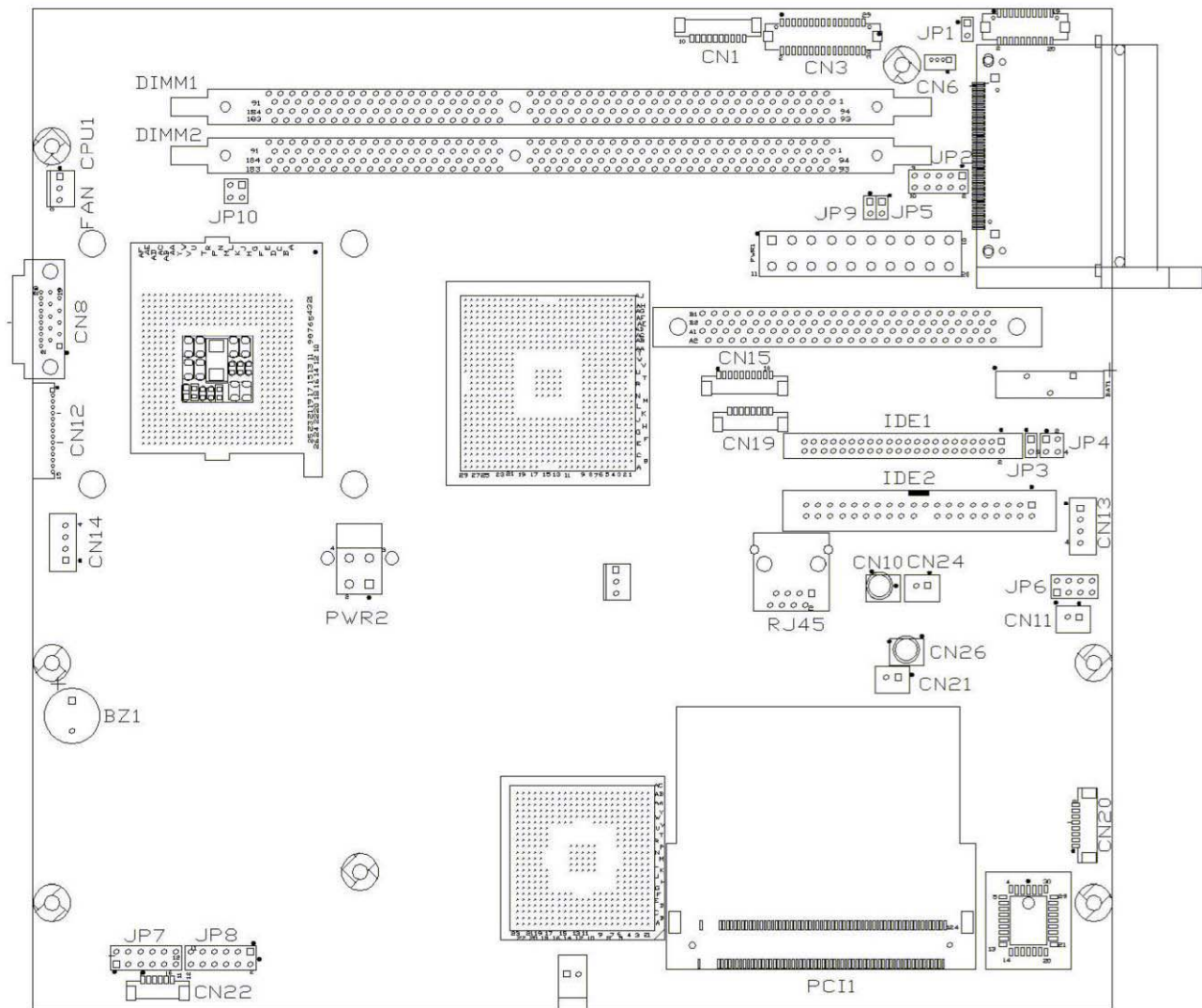
|                              |   |
|------------------------------|---|
| <b>Mainboard</b>             | <b>B77</b>  |
| CPU Supports                 | Intel P4 FSB 400 MHz                                    |
| Chipset                      | Mobile Celeron 1.2G / Intel 852GM                       |
| System Memory                | 2 x DIMM up to 2GB DDR                                  |
| Graphic Memory               | Built-in chipset AGP 4 x SMA up to 64MB                 |
| <b>Storage</b>               |   |
| HDD                          | 1 x 3.5" Drive Bay                                      |
| <b>LCD Touch Panel</b>       |   |
| LCD Size                     | 15" TFT LCD   |
| Brightness                   | Up to 250 cd/m <sup>2</sup>                             |
| Maximal Resolution           | 1024 x 768  |
| Touch Screen Type            | Resistive   |
| Tilt Angle (Degree)          | -10° ~ 65°  |
| <b>External I/O Ports</b>    |   |
| USB                          | 2   |
| Serial / COM                 | 4 x COM pin1/pin 9 with power                           |
| Parallel Port                | 1   |
| LAN (10 / 100)               | 1 x RJ45  |
| Cash Drawer                  | 2 x RJ11  |
| POS Printer Power Port       | +24V DC output (Optional)                               |
| <b>Power</b>                 |   |
| Power Supply                 | Internal 180W ATX switching mode power supply           |
| <b>Environment</b>           |   |
| EMC & Safety                 | FCC Class A, CE, LVD                                    |
| Operating Temperature        | 5°C ~ 35°C (41°F ~ 95°F)                                |
| Storage Temperature          | -20°C ~ 60°C (-4°F ~ 140°F)                             |
| Operating Humidity           | 20% - 80% RH non condensing                             |
| Storage Humidity             | 20% - 85% RH non condensing                             |
| <b>Peripheral</b>            |   |
| Magnetic Card Reader         | 3 Tracks (RS-232 / PS 2 interface)                      |
| Customer Display             | VFD / LCD flush mount type                              |
| Mounting Support             | VESA mount 100 x 100 mm                                 |
| <b>Dimension (W x D x H)</b> | 390 x 368 x 226 ~ 347mm<br>15.4" x 14.5" x 8.9" ~ 13.7" |
| <b>Weight</b>                | N.W. 9 kgs / 4.10 lbs / G.W. 10 kgs / 4.55 lbs          |

**OS Support**

Windows XP, WEPOS, XP Embedded, XP Professional Embedded, WIN 2000 professional Embedded, WIN NT 4.0, Linux

# 7. Connectors & Jumper Settings

## B77 Main Board



# 1. Connectors

| Connector | Function                     |
|-----------|------------------------------|
| CN1       | COM5 for Touch               |
| CN3       | Single Channel LCD Interface |
| CN6       | Inverter Power               |
| CN10      | IDE ACT LED                  |
| CN11      | Power Switch                 |
| CN12      | Card Reader CONN             |
| Cn13      | USB 6                        |

| Connector     | Function                           |
|---------------|------------------------------------|
| CN14          | USB 5                              |
| CN15          | AC97+Power BT to Front Side I/O Bd |
| CN18/<br>CN19 | USB 3 / USB 4                      |
| CN20          | I-Button                           |
| CN21          | Hardware Reset                     |
| CN22          | XC9536 Modify Port                 |
| CN24          | Power LED CONN                     |

## 2. Jumper Settings

### 1. Compact Flash Setting

⊙Factory Default Setting

| Function | JP1 (SHORT) |
|----------|-------------|
| Master   | ⊙1-2        |
| Slave    | N/C         |

### 2. ACPI Mode Setting

| Function | JP3 (SHORT) |
|----------|-------------|
| Disable  | 1-2         |
| Enable   | ⊙N/C        |

### 3. I- Button Setting

| Function     | JP4 (SHORT) |
|--------------|-------------|
| Use I-BUTTON | N/C         |
| No I-BUTTON  | ⊙1-2, 3-4   |

### 4. CMOS Operation mode

| Function    | JP5 (SHORT) |
|-------------|-------------|
| CMOS Normal | ⊙N/C        |
| COMS Reset  | 1-2         |

### 5. Power Mode Setting

| Function  | JP9 (SHORT) |
|-----------|-------------|
| ATX Power | ⊙N/C        |
| AT Power  | 1-2         |

## 6. CPU Voltage Setting

| CPU Type                               | JP7 (SHORT)                        | JP8 (SHORT) |
|--|------------------------------------|-------------|
| ◎P4                                    | 1-2, 3-4, 5-6,<br>7-8, 9-10, 11-12 | N/C         |
| P4-M (1.3V)<br>PERF MODE<br>Note 1,2,3 | N/C                                | 3-4, 9-10   |

### Note 1, 2, 3

Note 1: P4-M (1.4GHz +) PERF MODE is 1.3V

Note 2: P4-M (1.2GHz) PERF MODE is 1.2V

Note 3: P4-M GHI# Setting

- Pull up is Battery MODE
- Pull down is PERF MODE

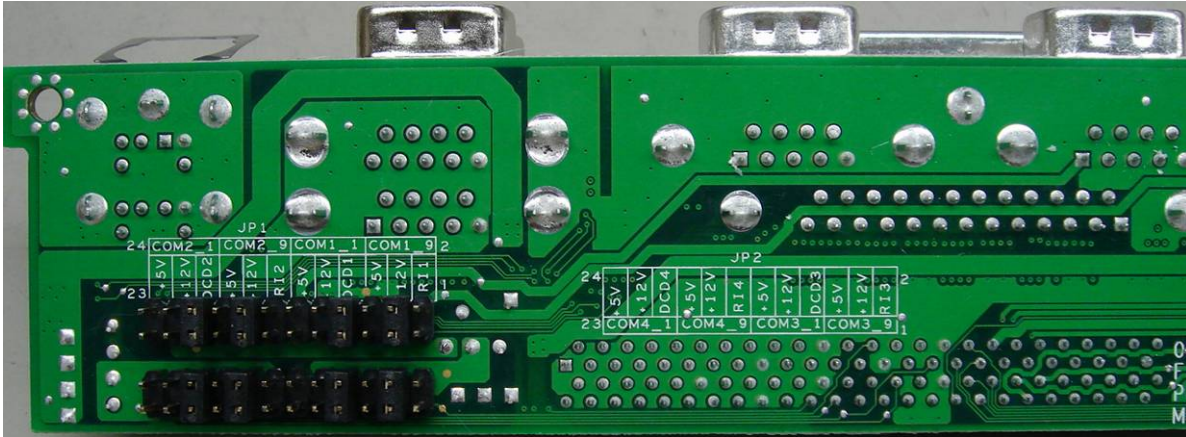
## 7. LCD ID Setting

| Panel Number | Resolution  | LVDS |         | JP6   |       |       |       |
|--------------|-------------|------|---------|-------|-------|-------|-------|
|              |             | Bits | Channel | 1-2   | 3-4   | 5-6   | 7-8   |
| 0            | 640 x 480   | 18   | Single  | SHORT | SHORT | SHORT | SHORT |
| 1            | 800 x 600   | 18   | Single  | SHORT | SHORT | SHORT | OPEN  |
| 2            | 1024 x 768  | 18   | Single  | SHORT | SHORT | OPEN  | SHORT |
| 3            | 1280 x 1024 | 24   | Dual    | SHORT | SHORT | OPEN  | OPEN  |
| 4            | 1024 x 768  | 24   | Single  | SHORT | OPEN  | SHORT | SHORT |
| 5            | 800 x 600   | 24   | Single  | SHORT | OPEN  | SHORT | OPEN  |

Note:



### 3. I/O Jumper Settings



#### 1. COM1/COM2 Jumper Setting : JP1

⊙Factory Default Setting

| COM1 |      |     |       |      |       | COM2  |       |       |       |       |       |
|------|------|-----|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 1-2  | 3-4  | 5-6 | 7-8   | 9-10 | 11-12 | 13-14 | 15-16 | 17-18 | 19-20 | 21-22 | 23-24 |
| RI-1 | +12V | +5V | DCD-1 | +12V | +5V   | RI-2  | +12V  | +5V   | DCD-2 | +12V  | +5V   |
| ⊙    |      |     | ⊙     |      |       | ⊙     |       |       | ⊙     |       |       |
| PIN9 |      |     | PIN1  |      |       | PIN9  |       |       | PIN1  |       |       |

#### 2. COM3/COM4 Jumper Setting : JP2

| COM3 |      |     |       |      |       | COM4  |       |       |       |       |       |
|------|------|-----|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 1-2  | 3-4  | 5-6 | 7-8   | 9-10 | 11-12 | 13-14 | 15-16 | 17-18 | 19-20 | 21-22 | 23-24 |
| RI-3 | +12V | +5V | DCD-3 | +12V | +5V   | RI-4  | +12V  | +5V   | DCD-4 | +12V  | +5V   |
| ⊙    |      |     | ⊙     |      |       | ⊙     |       |       | ⊙     |       |       |
| PIN9 |      |     | PIN1  |      |       | PIN9  |       |       | PIN1  |       |       |

# 8. BIOS Settings

## 1. BIOS Setup Utility

The BIOS setup defines how the system is configured. You need to run this program the first time you configure this product. You may need to run it again if you change the configuration.

You need to connect a PC keyboard to the keyboard connector to run the BIOS setup utility.

## 2. Starting the BIOS Setup

1. Turn on or reboot this product.
2. Press the DEL key immediately after the product is turned on, or press the DEL key when the following message is displayed during POST (the Power on Self-Test).

***Press DEL to enter SETUP.***

3. The main menu of the BIOS setup is displayed.
4. If the supervisor password is set, you must enter it here.

## 3. When a Problem Occurs

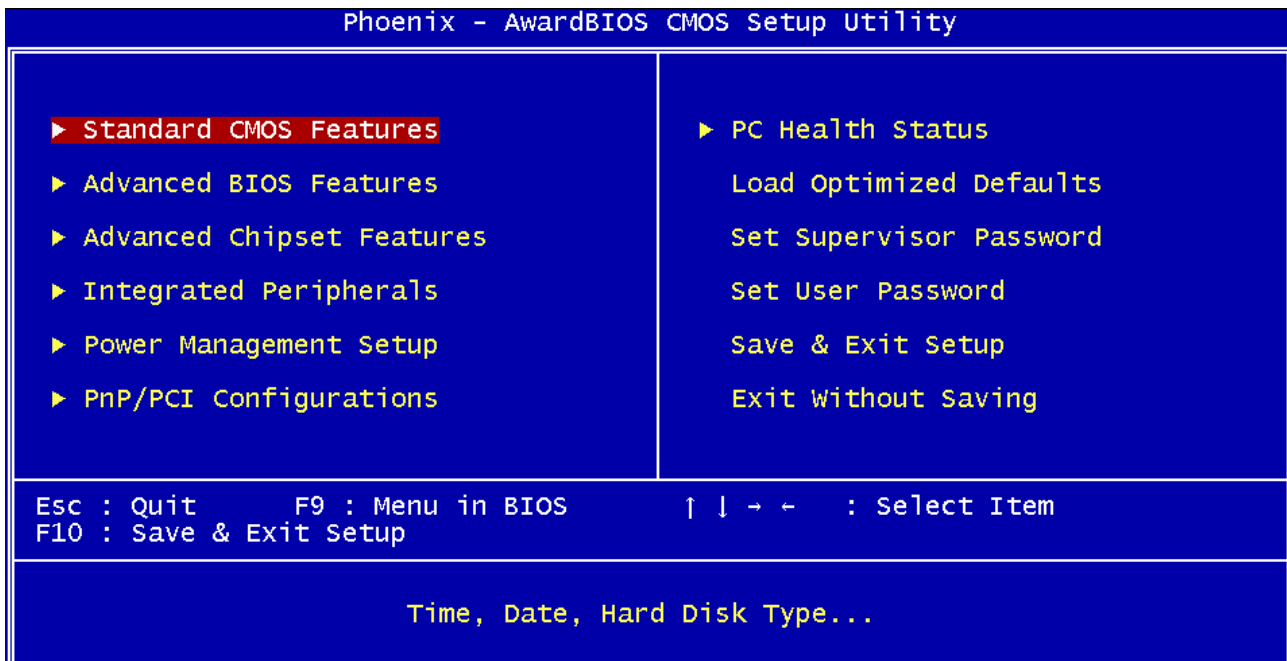
If, after making and saving system changes with the Setup utility, you find that this product no longer boots, start the BIOS setup and execute the following.

***Load Optimized Defaults***

## 4. BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

Note: The BIOS menu below is from B77 BIOS version B77FV 10C.BIN. If you have a different BIOS version, the contents of the menu may differ.



### **Standard CMOS Features**

Use this menu for basic system configuration.

### **Advanced BIOS Features**

Use this menu to set the Advanced Features available on the system.

### **Advanced Chipset Features**

Use this menu to change the values in the chipset registers and optimize the system's performance.

### **Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals.

### **Power Management setup**

Use this menu to specify your settings for power management.

### **PnP/PCI Configurations**

This entry appears if your system supports Plug and Play and PCI Configuration.

### **PC health status**

Displays CPU, System Temperature, Fan Speed, and System Voltages Value.

### **Load Optimized Defaults**

Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.



**Set Supervisor Password**

Enables you to change, set, or disable the supervisor or user password.

**Set Password**

Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

**Save & exit setup**

Save CMOS value changes to CMOS and exits setup.

**Exit without saving**

Ignores all CMOS value changes and exits setup.