POS 46X Series

Manual

Point-of-Sale
Hardware System

TRADEMARK

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.

2. Follow all warnings and instructions marked on the product.

3. Do not use this product near water.

4. Do not place this product on an unstable cart,stand,or table.The product may fall, causing serious damage to the product.

5. 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.

6. 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.

7. Do not allow anything to rest on the power cord.Do not locate this product where persons will walk on the cord.

8. 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.

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

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

Contents

1. Unpacking the system

Take out the POS460 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:

1.1 POS system

1.2 Accessories

Driver CD

Manual

Power Cable

2. System description

2.1 Front View

USB 1 & 2	LED	Power switch

2.2 Rear View

LPT	COM4

Cash Drawer 1	COM2	COM3	Mouse	USB3	LAN

Cash Drawer 2	COM1	Keyboard	USB4	VGA
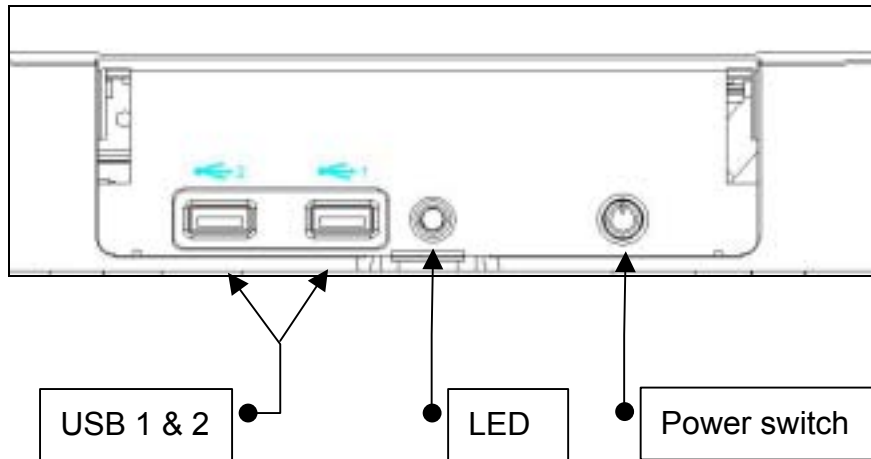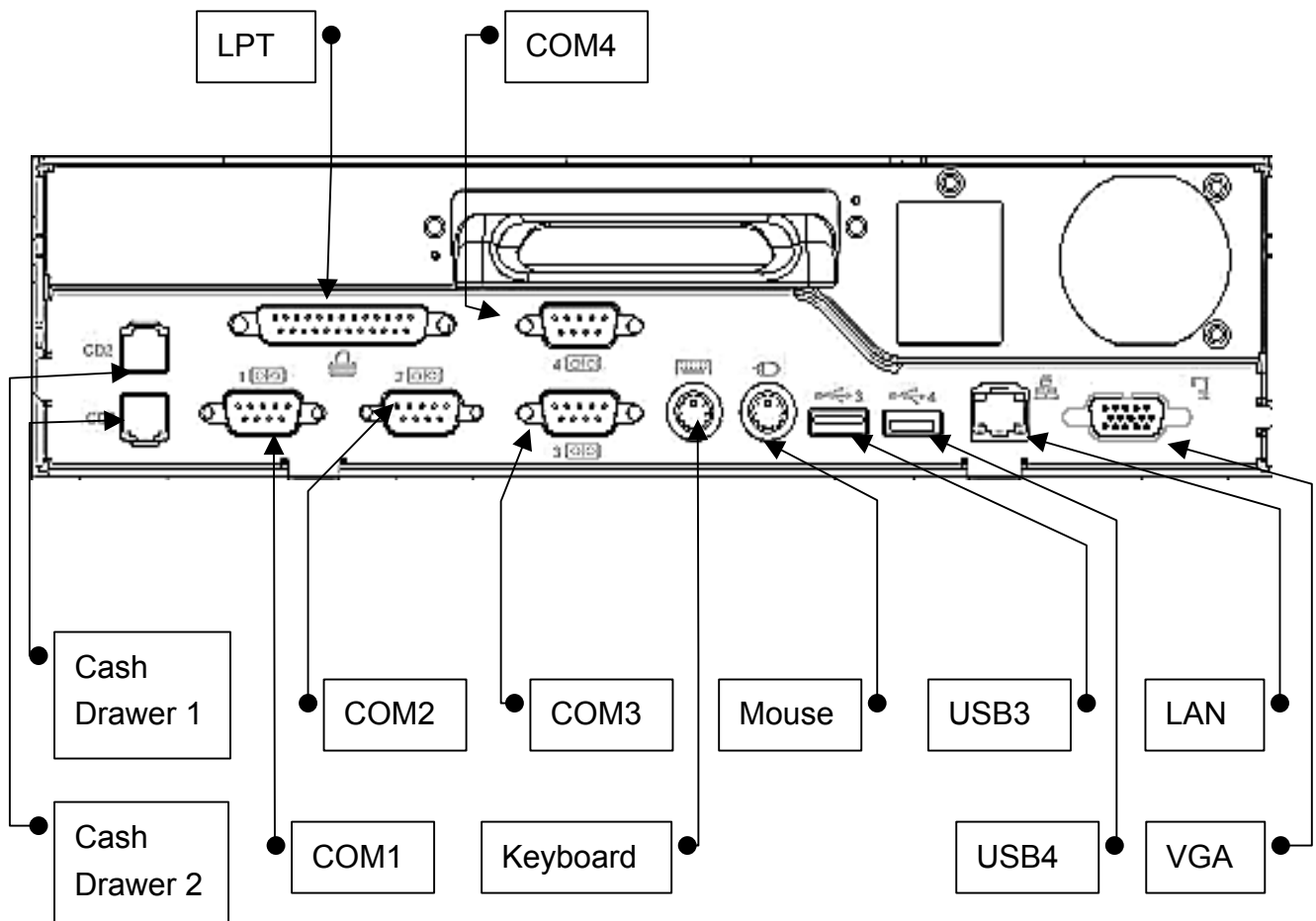
3. Installing software drivers

3.1 Driver list

Folder/File	File Description
<CD>:\B81.htm	B81 Driver List
<CD>:\Common\INTEL\Chipset	Chipset driver
<CD>:\Common\INTEL\VGA\i85x	VGA driver
<CD>:\Common\Lan_driver\R8139_810x	10/100Mb LAN driver
<CD>:\Common\INTEL\USB20	USB 2.0 driver
<CD>:\Common\SmartCard\USB	USB Smart Card Reader driver
<CD>:\Common\Elo_Touch	ELO Touch Screen driver
<CD>:\Common\POS_Touch	POSTouch Touch Screen driver

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

3.2 Chipset Driver Installation

a. Double click "infinst_enu_6.0.1002" 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.
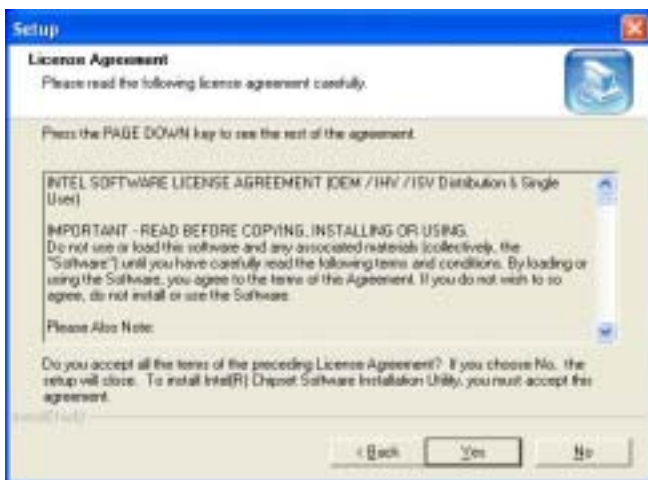
3.3 VGA Driver Installation
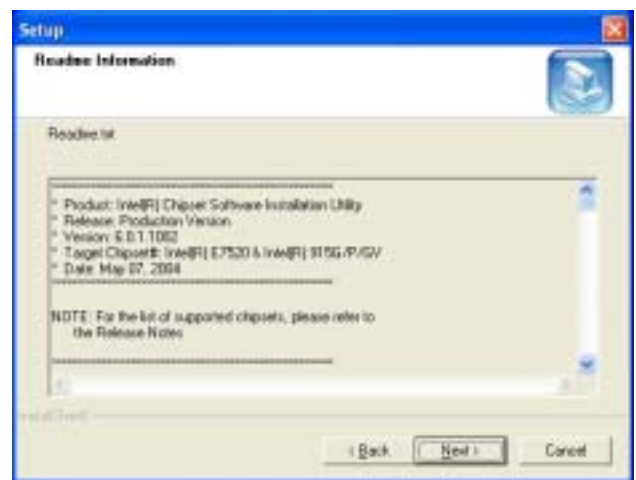

a. Double click "win2k_xp147" on the My Computer window.

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

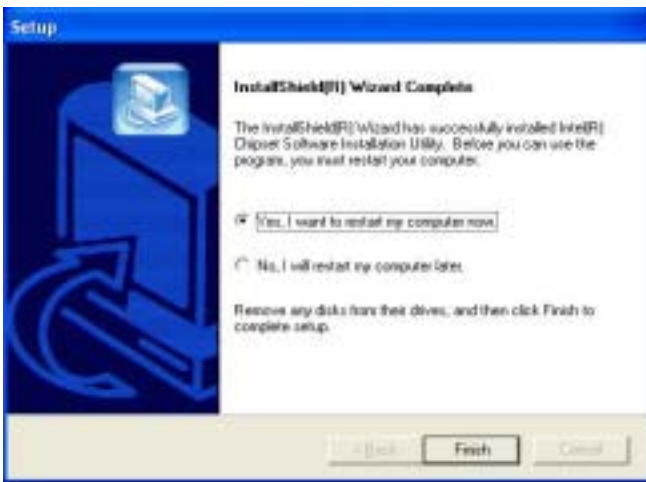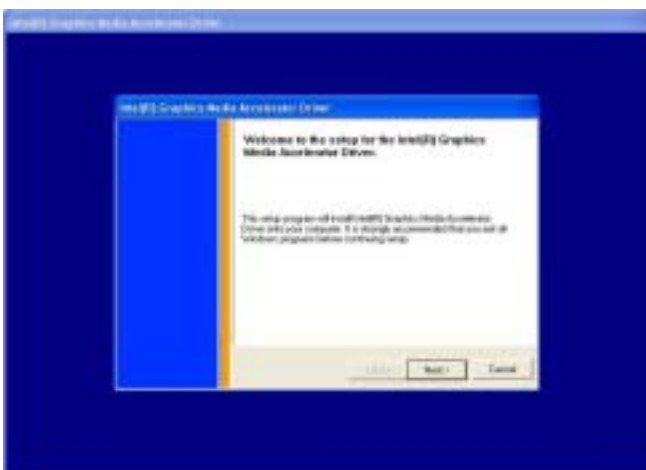c. Click the "Next" button on the Welcome window.
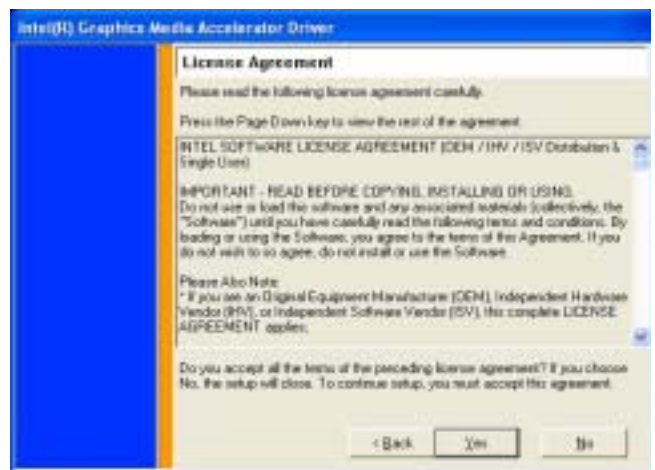
d. Click the "Yes" button on the License Agreement window.

e. Click the "Finish" button and restart your
   system.

3.4 LAN Driver Installation

a. Double click "Setup" on the My Computer
   window.
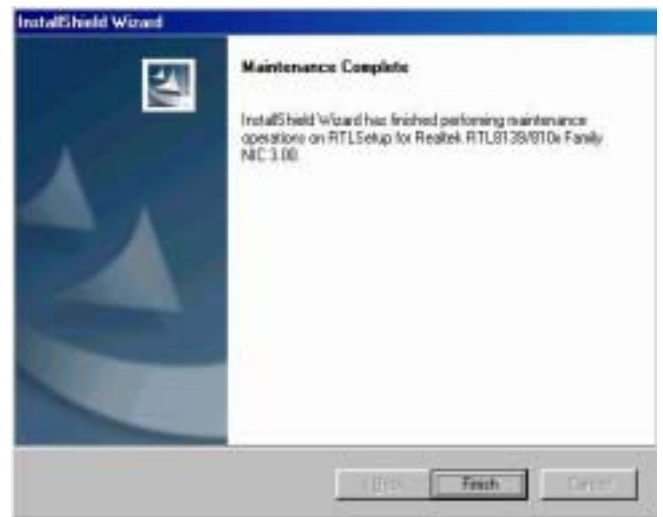
b. Click the "Finish" button on the
   Maintenance complete window.
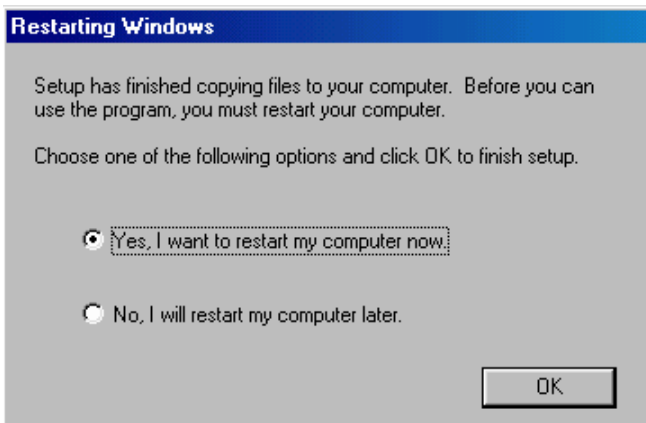
c. Click the "OK" button and restart your
   system.

3.5 USB2.0 Driver Installation

a. Right click My Computer on the windows desktop and select "properties"
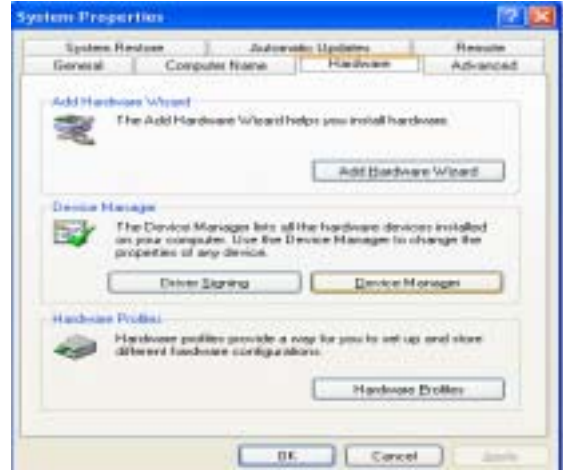
b. Select "Hardware"→"Device Manager" on system properties.
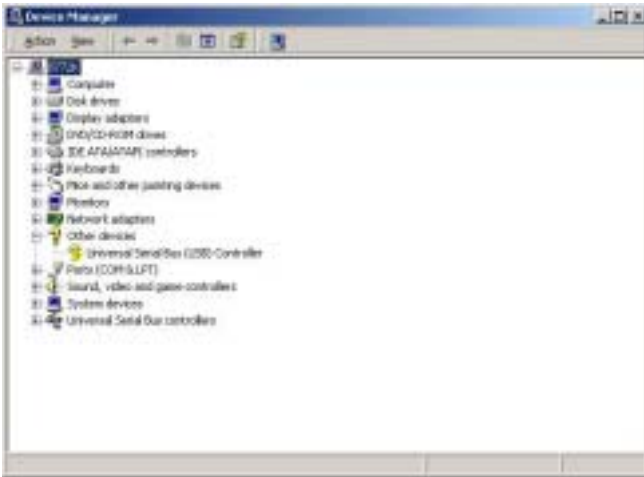
c. Select "Other Devices" → "Universal Serial Bus (USB) Controller" →"Properties" on Device Manager.
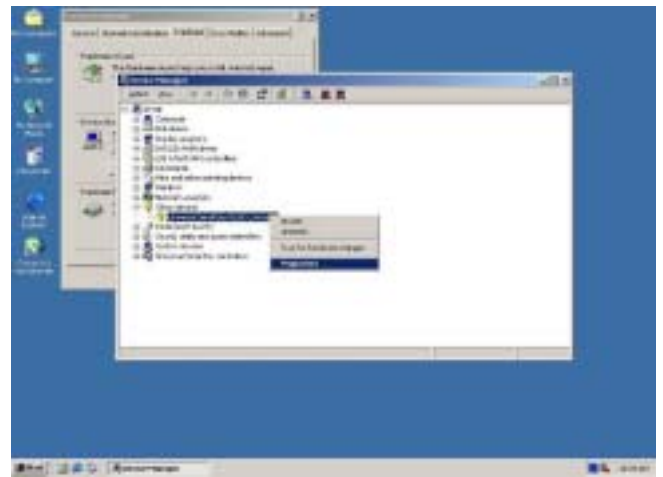
d. Select "Device"→ "Update Driver…".

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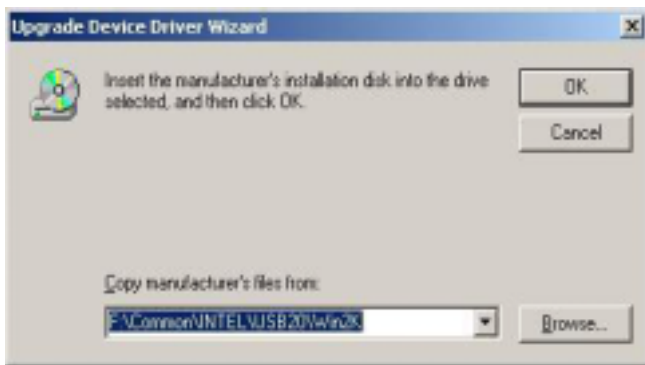
h. Press "Browse" to select driver and then click the "OK" button to next page.

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

j. Click the "Finish" button to complete this process.

k. Finished.

3.6 ELO Touch Screen Driver Installation
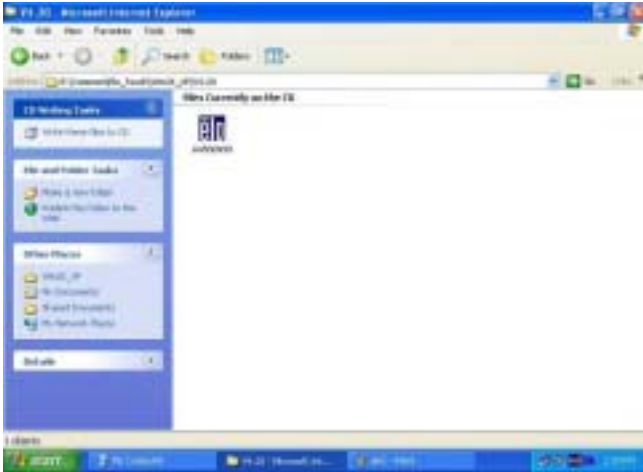
a. Click "sw500930" on the My Computer window.

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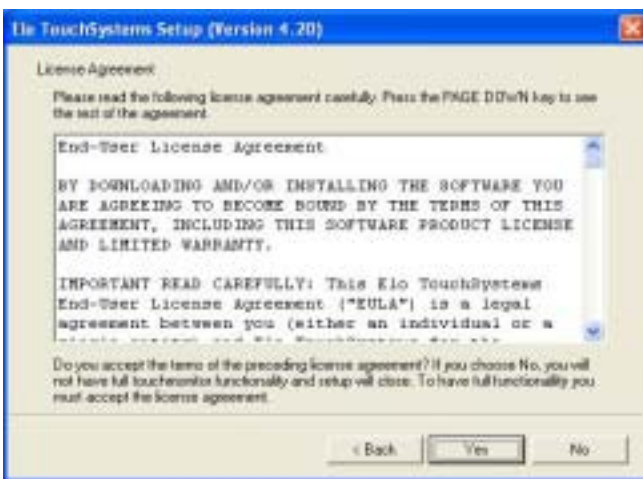
e. Click the "Yes" button on the License Agreement window.


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.

3.7 POSTouch Touch Screen Driver Installation

a. Double click "Setup" on the My Computer window.

b. Click the "Next" button on the Welcome window.
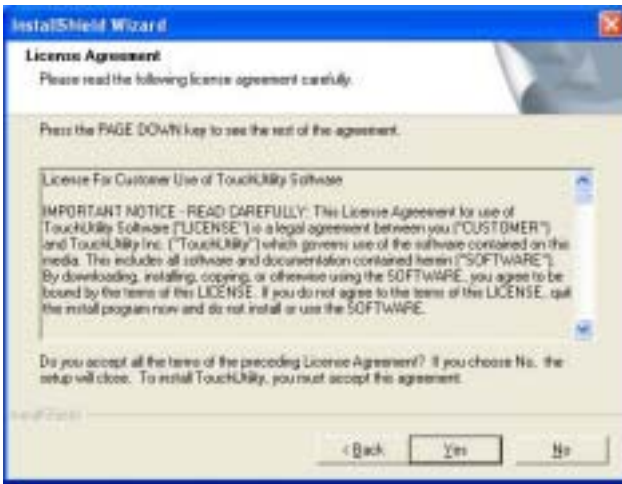
c. Click "Yes" button on the License
   Agreement window.
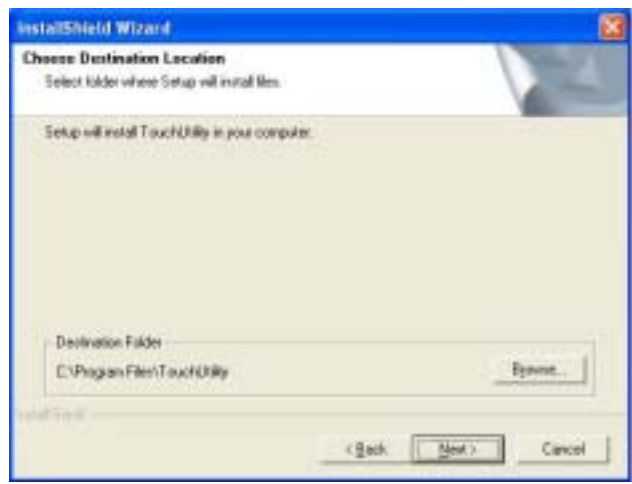
d. Click "Next" button on the Choose
   Destination Location window.
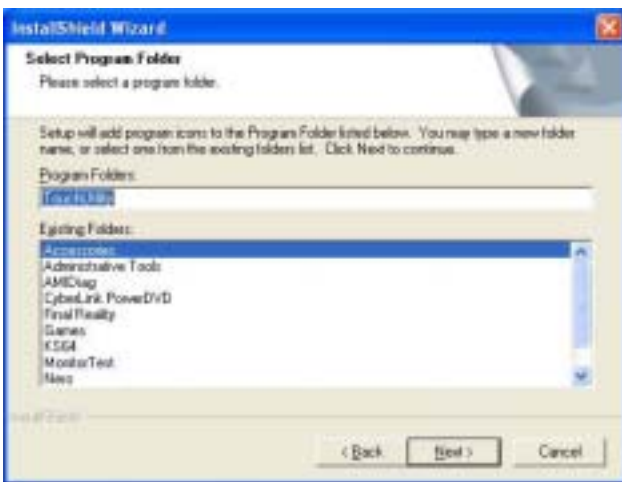
e. Click the "Next" button on the Select
   Program Folder window.

f. Click the "Finish" button on the
   InstallShield Wizard Complete window.

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

h. Click the "OK" button and restart your
   system

3.8 USB Smart card Reader Driver Installation
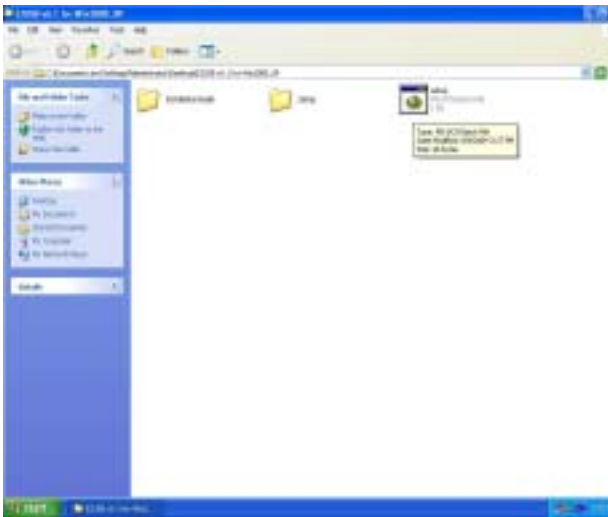
a.Double click "setup" on the "My Computer" window.

b.Click the "yes" button on the   window.
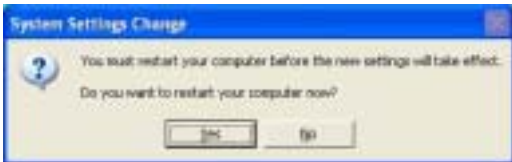
c. Click the "YES" button and restart your system.

4. Installing peripherals

4.1 Installing the magnetic card reader

The MCR unit is tested and can be supplied at your request. This MCR is removed during transportation and can be connected by the user. There are two types of MCR Module: a COM type and a keyboard type.

a. To connect the MSR connector on the right side of the system.

b. Tighten the two screws.

c. Finished

4.2 Installing the cash drawer

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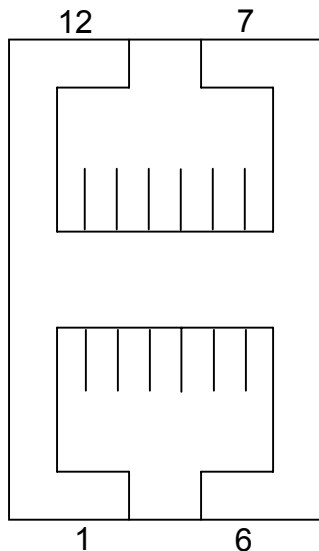
Pin	Signal	Pin	Signal
1	GND	7	GND
2	DOUT bit0	8	DOUT bit2
3	DIN bit0	9	DIN bit1
4	12V	10	12V
5	DOUT bit1	11	DOUT bit3
6	GND	12	GND

4.2.2 Cash Drawer Controller Register

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

Register Location: I/O port 4B8h

Attribute: Read / Write

Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	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 "DOUT bit3" pin output control.

      = 1: Opening the Cash Drawer2

      = 0: Allow closing the Cash Drawer2

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

      = 1: Opening the Cash Drawer2

      = 0: Allow closing the Cash Drawer2

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

      = 1: Opening the Cash Drawer1

      = 0: Allow closing the Cash Drawer1

Bit 0: Cash Drawer1 "DOUT 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

Command	Cash Drawer 1
O 4B8 01	Opening
O 4B8 00	Allow to closing
➢ Set the I/O address 4B8h bit0 =1 for opening the Cash Drawer1 by "DOUT bit0" pin control. ➢ Set the I/O address 4B8h bit0 = 0 to allow closing Cash Drawer1.	

Command	Cash Drawer 1
I 4B8	Check status
➢ The I/O address 4B8h bit4 =1 means the Cash Drawer1 is closed or no Cash Drawer. ➢ The I/O address 4B8h bit4 =0 means the Cash Drawer1 is open.	

4.3 Installing the customer display

a. Take out the rubber cover.

b. Take out the round plastic
   cover

c. Loosen the two screws.

d. Release the VFD cover.

e. Install the stand base.
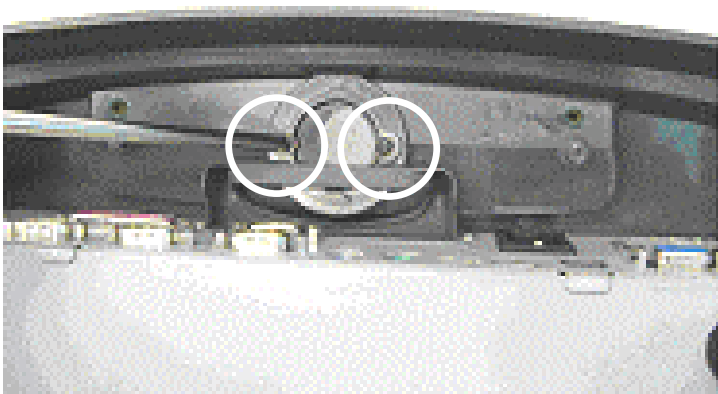
f. Tighten the two screws to fix the stand base.

g. Install the VFD cover and tighten it with the two screws.

h. Install the stand stud.

i. Install the VFD cable.

j. Install the short or the long pole.

k. Assemble the VFD.
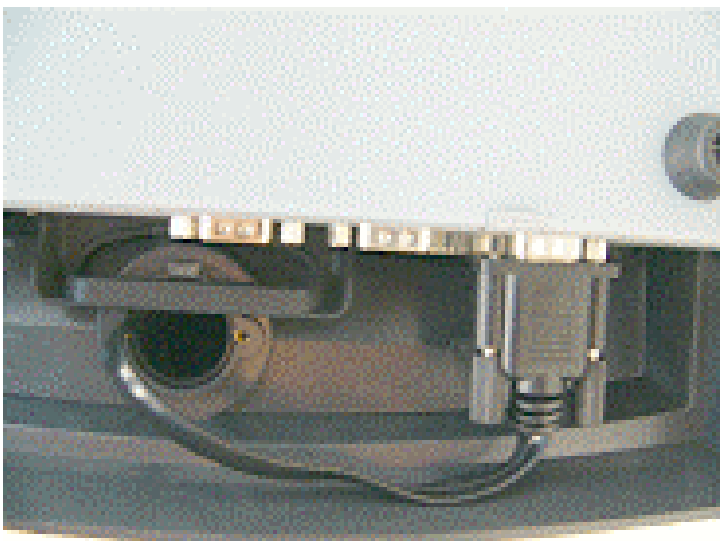
l. Connect VFD cable to the COM port. Don't forget to setup the COM port power.

m. Finished.

4.4 Installing the second display

Please ensure that the system power is turned off before connecting the second display. Failure to do so may damage the electronics of the system, and is not covered by the product warranty.
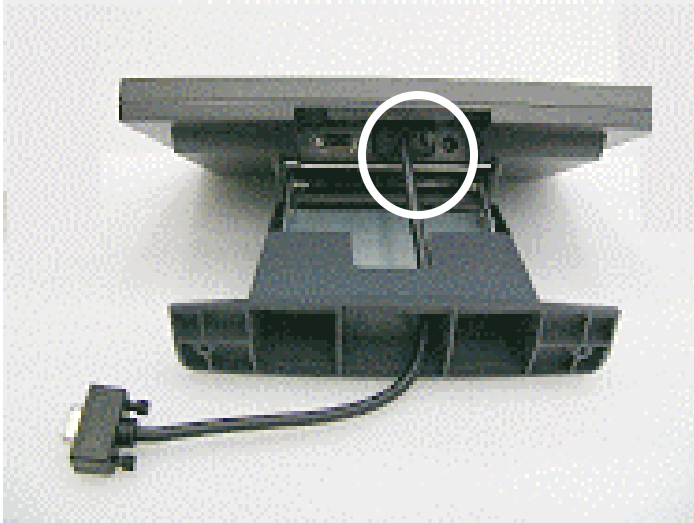
a. Insert the male head of the VGA cable into the VGA port.
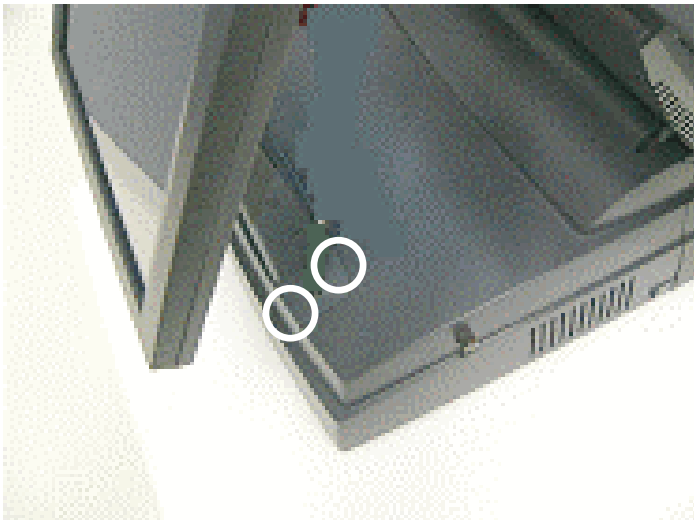
b. Mount the second display on the rear of the system and tighten the five screws on the supporter.

c. Insert the other end of the VGA cable (female) into the VGA port of the system to establish the connection.

5. System Maintenance & Repair

5.1 System disassembly

a. Loosen the two screws.

b. Press the buttons and
   remove the rear cover.

c. Pull the holder.
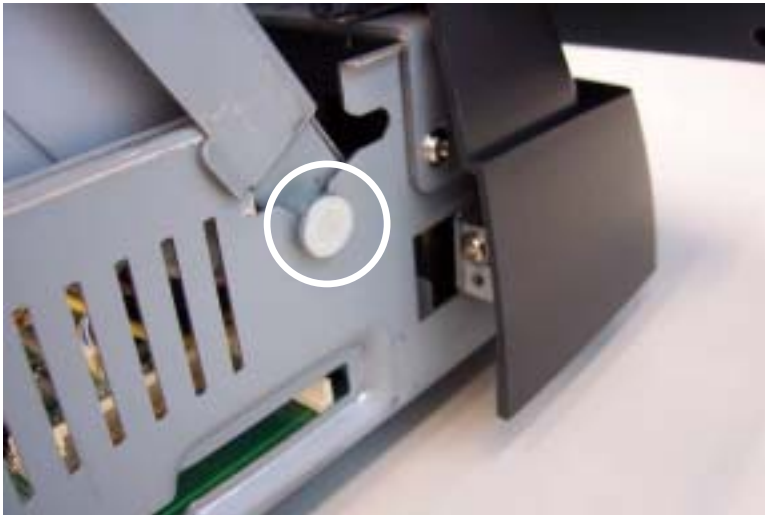
d. Fix the rear base bracket in the position indicated in the picture.

f. You can now replace the HDD, the Main board and the power supply.

. Remark: To replace the HDD, the Main Board and the Power supply, please follow the instruction in chapter 5.1 first.

5.2 Replacing the HDD

a. Loosen the four screws.

b. Loosen the IDE cable and the HDD power connector.

5.2 Replacing the power supply

a. Loosen the five screws.

b. Loosen all the connectors of the power supply.

5.3 Replacing the Main board (V1.X)
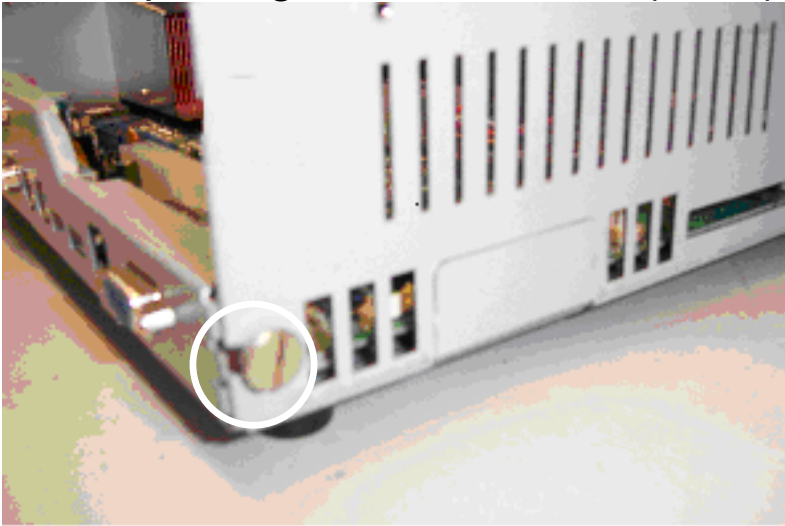
a. Loosen the screw on the right side..

b. Loosen the screw on the left side.

c. Loosen the one screw on the M/B.

d. Pull the base chassis.

5.4 Replacing the Main board (V2.X)

a. Loosen the screw on the right side..

b. Loosen the screw on the left side.

c. Loosen the one screw on the M/B.
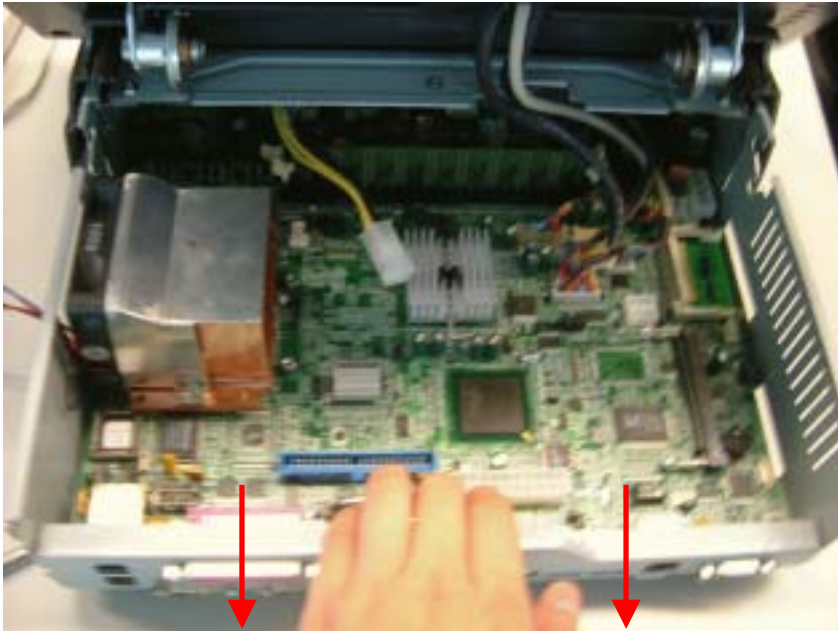
d. Pull the base chassis.

Appendix A: Specification

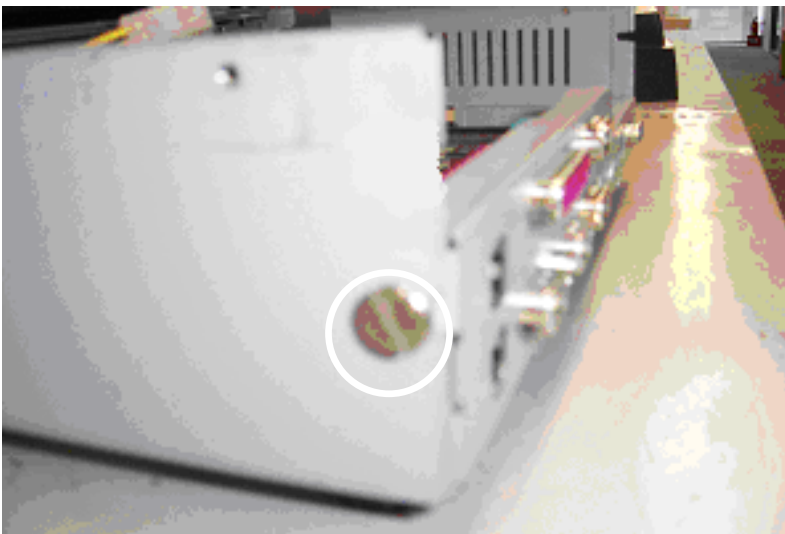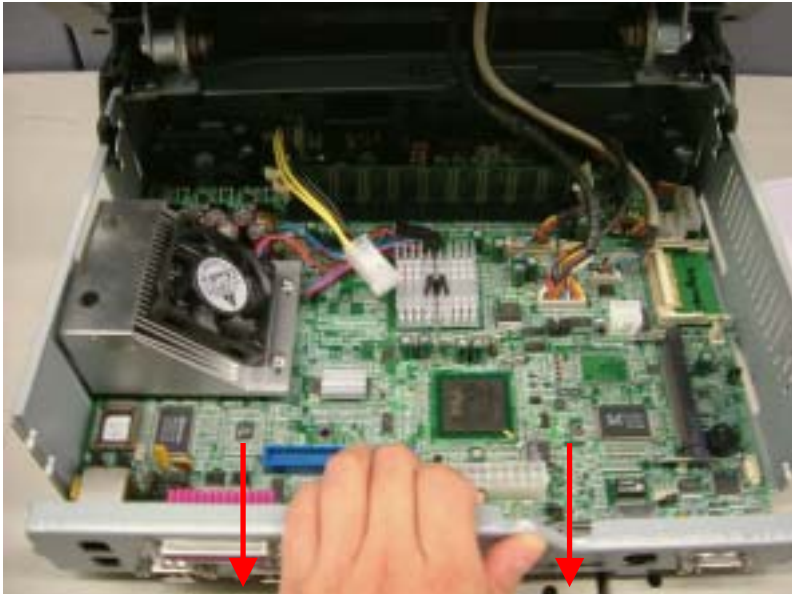| Motherboard	B81
Core Logic	Intel 852GM and ICH4
CPU	Socket478 FSB 400MHz Intel Pentium-4 / Celeron / Pentium-4 Mobile / Mobile Celeron CPU processors
System Memory	2 x DDR 200 / 266 DIMM socket, up to 1GB
Video Controller	Built-in Core Logic
VGA memory	Share main memory 8MB ~ 64MB
BIOS	AWARD PnP BIOS
I/O controller	- W83627HF x 1: supports COM1 ~ COM2, LPT1 - Fintek F81216D x 1: support COM3 ~ COM6 (COM5 for touch screen controller; COM6 for MSR) - ICH4: support USB1~4 (USB1.1/2.0), IDE connector
IDE Connector	One 40-pin IDE connector (Primary)
Compact Flash	N/A
Storage device	1x 3.5" HDD drive bay
Mini PCI	1 x Mini PCI socket supported
Wireless LAN	Optional Mini PCI 802.11b or 802.11b/g or 802.11a/b/g wireless LAN card & antenna
Ethernet Controller	Realtek RTL8100C 10/100Mb

I/O	Front: 2x USB port (USB 1.1/2.0)
	Rear: 4x Powered COM port
	        (pin1/pin9 support +5V/+12V/standard signal select by jumper)
	        1x Parallel Port (DB25F)
	        1x PS/2 Keyboard, 1x PS2 Mouse
	        2x RJ11 Cash Drawer with 12V/24V power select by jumper
	        1x RJ45 LAN port
	        2x USB port (USB 1.1/2.0)

LCD & Touch Panel	0 ~70 degree Title angel Resistive touch panel supported by COM5
	- POS462: 12.1" SVGA(800x600) / XGA (1024x768) LCD, up to 180nits - POS465: 15" XGA (1024x768) LCD, up to 250nits - POS467: 17" SXGA (1280x1024) LCD, up to 260nits
Optional Peripherals	- MSR (RS-232) or Smart IC card reader (USB) - MSR (RS-232) and Dollars Key I-button (PS/2 KB) - MSR (PS/2 KB) and Smart IC Card reader (USB) - Dallas Key I-button (PS/2 KB) - VFD/LCD Pole Display
Power Supply	Internal FT-8180 180W ATX

Operational temperature	5 ~ 35°C
Storage Temperature	-20 ~ 60 degree C
EMI/EMS	FCC/CE CLASS A, LVD
Main Board dimensions	274 x 230mm
System Dimensions (W x D x H)	➢ POS462: 323x355x182-288mm ➢ POS465: 378x365x182-305mm ➢ POS467: 404x366x182- 334mm

Appendix B: Jumper settings
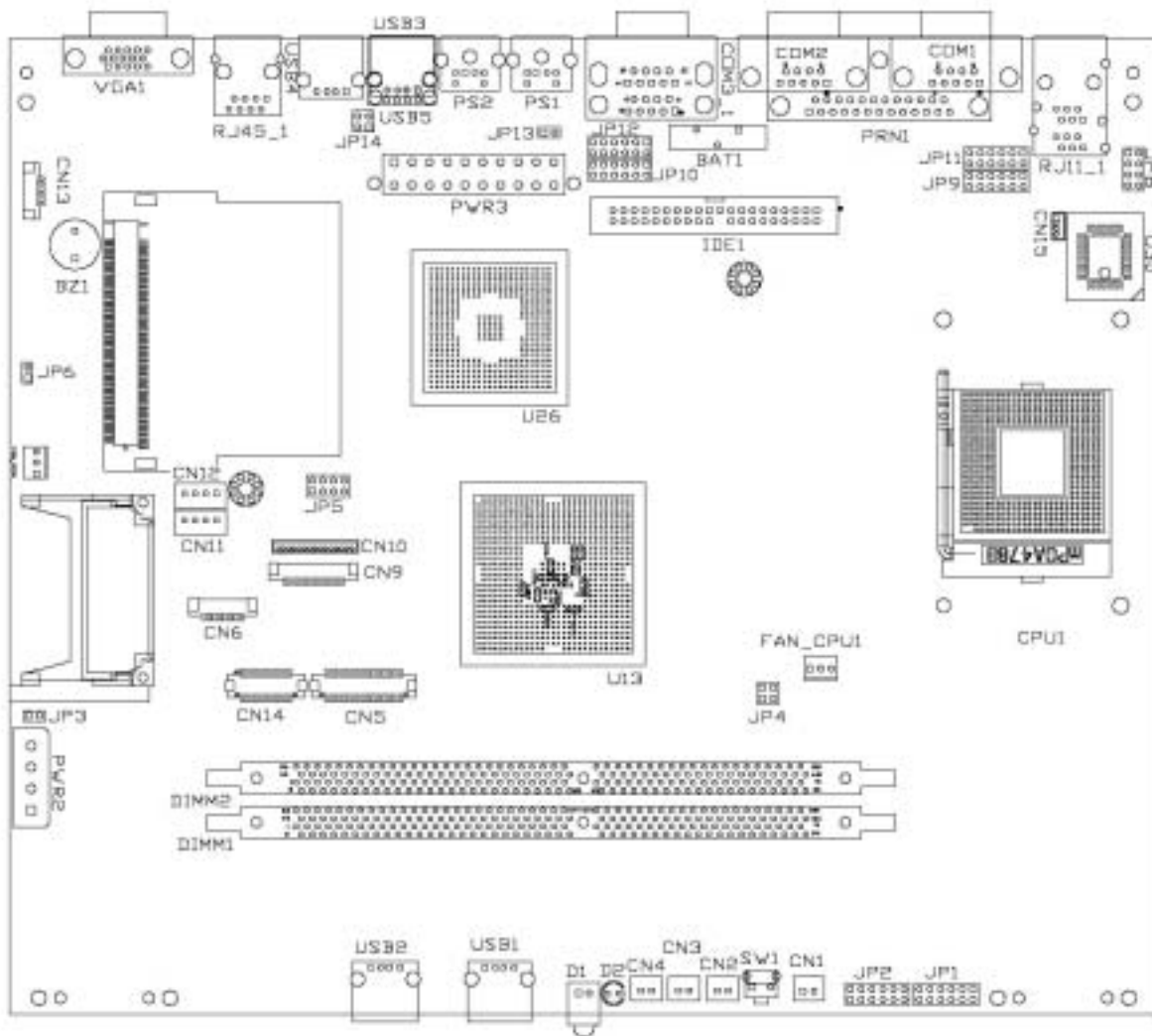
1. Compact Flash Master/Slave Setting   Factory Default Setting

Function	JP3 (SHORT)
Master	1-2
Slave	NC

2. CMOS Operation mode

Function	JP6 (SHORT)
CMOS Normal	NC
CMOS Reset	1-2

3. POWER USB Power setting (Reserved)

Function	JP14 (SHORT)
+24V	1-2
+12V	3-4

4. Cash Drawer Power setting

Function		JP8 (SHORT)
Cash Drawer 1	+12 V	1-2
	+24V	3-4
Cash Drawer 2	+12 V	5-6
	+24V	7-8

5. COM1 Power setting

Pin	Function	JP9 (SHORT)
1	DCD	1-2
	+5V	3-4
	+12V	5-6
9	RI	7-8
	+5V	9-10
	+12V	11-12

6. COM2 Power setting

Pin	Function	JP11 (SHORT)
1	DCD	1-2
	+5V	3-4
	+12V	5-6
9	RI	7-8
	+5V	9-10
	+12V	11-12

7. COM3 Power setting

Pin	Function	JP10 (SHORT)
1	DCD	1-2
	+5V	3-4
	+12V	5-6
9	RI	7-8
	+5V	9-10
	+12V	11-12

8. COM4 Power setting

Pin	Function	JP12 (SHORT)
1	DCD	1-2
	+5V	3-4
	+12V	5-6
9	RI	7-8
	+5V	9-10
	+12V	11-12

9. CPU Frequency Setting

Function	JP4 (SHORT)
FSB400	1-2, 3-4
FSB533	3-4

10. CPU Voltage setting

CPU Type	JP1 (SHORT)	JP2 (SHORT)
Mobile Celeron 1.2 G (1.3V)	NC	3-4, 9-10
P4, Celeron	1-2, 3-4, 5-6, 7-8, 9-10, 11-12	NC

11. 2nd Display power setting

Function	JP15 (SHORT)
+12V	1-2
N/C	1

12. LCD ID Setting

Panel Number	Resolution	JP6 (SHORT)			
		1-2	3-4	5-6	7-8
0	640 X 480	Short	Short	Short	Short
1	800 X 600	Short	Short	Short	Open
2	1024 X 768	Short	Short	Open	Short
3	1280 X 1024	Short	Short	Open	Open

Note:

OPEN

SHORT

Appendix C: 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.
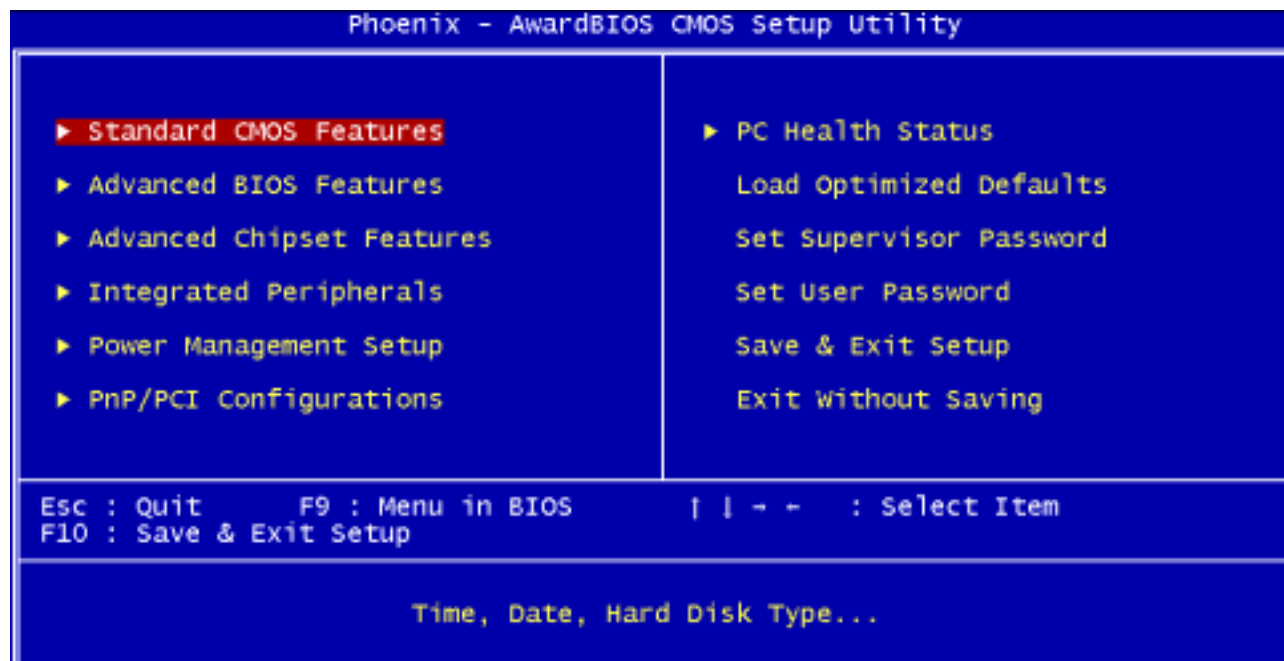
3. When a Problem Occurs

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 B81 BIOS version B81FV10A.BIN. If you have a different BIOS version, the contents of the menu may differ.

```
          Phoenix - AwardBIOS CMOS Setup Utility

   ▶ Standard CMOS Features          ▶ PC Health Status

   ▶ Advanced BIOS Features             Load Optimized Defaults

   ▶ Advanced Chipset Features          Set Supervisor Password

   ▶ Integrated Peripherals             Set User Password

   ▶ Power Management Setup             Save & Exit Setup

   ▶ PnP/PCI Configurations             Exit Without Saving


   Esc : Quit        F9 : Menu in BIOS      ↑ ↓ → ←   : Select Item
   F10 : Save & Exit Setup

                   Time, Date, Hard Disk Type...
```

Standard CMOS Features

This setup page includes the standard CMOS features.

Advanced BIOS Features

This setup page includes the enhanced AWARD BIOS features.

Advanced Chipset Features

This setup page includes the Chipset features

Integrated Peripherals

Change, set, or disable on board super I/O functions.

Power Management setup

This category determines the system power consumption of the system.

PNP/PCI Configurations

This category specifies the value (in units of PCI bus clocks) of the latency timer for the PCI bus master and the IRQ level for PCI devices.

PC health status

This page shows hardware monitor information.

Load Optimized Defaults

BIOS defaults indicate the most appropriate value of the system parameters for a standard system performance.

.

Set Supervisor Password

Change, set, or disable password. It allows the supervisor to change BIOS settings.

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 exit setup.

Exit without saving

Discard all CMOS value changes and exit setup.