

User Manual

Revision v0.9 July 2009

Bedside Terminal Hardware System



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Manual Version 1.3
P/N:

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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 2004/108/EC with regard to “Electromagnetic compatibility” and 2006/95/EC “Low Voltage Directive”.

Federal Communications Commission statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This statement complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

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

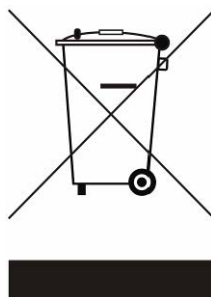
- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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.

Revision History

Changes to the original user manual are listed below:

Version	Date	Description
1.0	2009 July	Initial release

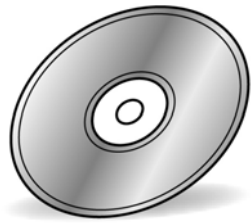
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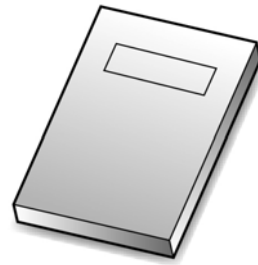
1 Item Checklist

Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

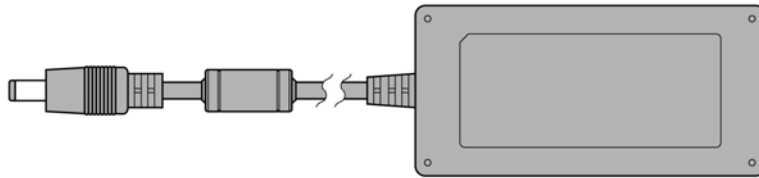
1-1 Standard Items



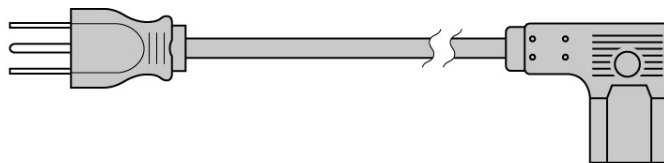
Driver CD



Manual



Power Adapter



Power Cable



System



Phone Module

2 System View

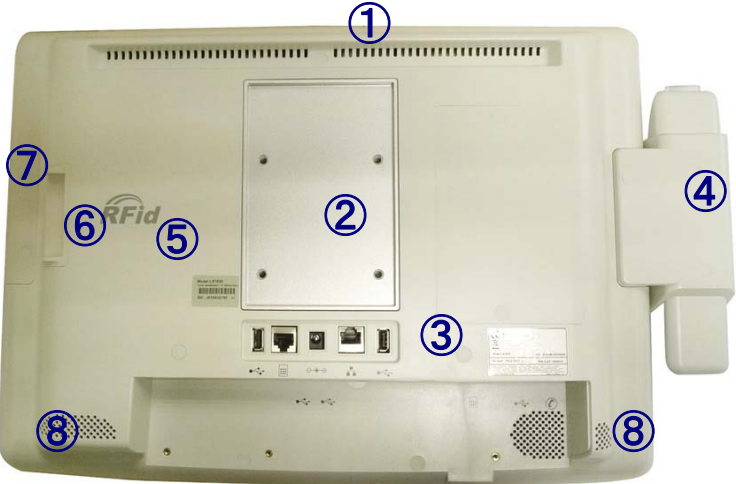
2-1 Front View



System Overview table -1

Number	Component
1	Camera
2	TV Key pad (Power, volume and channel button)
3	Smart card reader slot
4	Phone set holder

2-2 Rear View



System Overview Table -2

Number	Component
1	Ventilation
2	VESA Holes
3	Rear I/O (USBx2, DC-IN, Nursing Call, LAN Connector)
4	Phone Set Holder
5	RFID Sensor
6	Smart Card Reader Slot
7	MSR Slot (Option)
8	Speakers

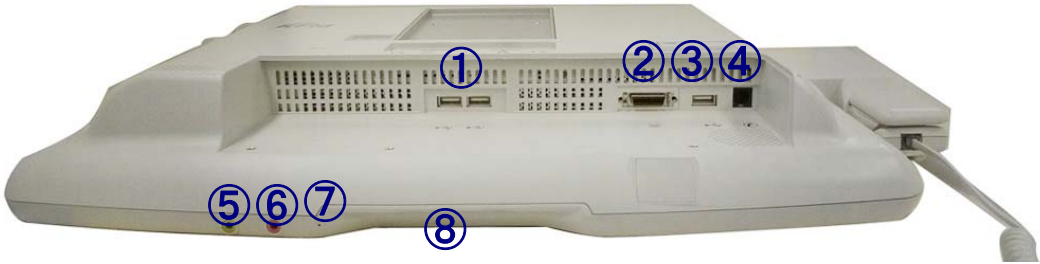
2-3 Side View



System Overview Table -3

Number	Component
1	Smart Card Reader Slot
2	MSR Slot (Option)

2-4 I/O View



System Overview Table -4

Number	Component Description
1	USB x 2
2	Nursing Call Connector
3	USB x 1
4	Phone Jack (RJ11)
5	Audio Line-out
6	Audio MIC-IN
7	Built-in MIC
8	Smart Card Reader Slot

3 Driver Installation

3-1 Driver List

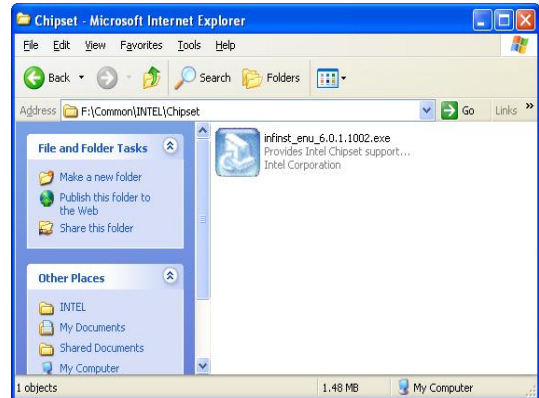
B78 V2.2 Driver List

Folder/File	File Description
<CD>:\ POS360_B78.htm	Driver List
<CD>:\COMMON\INTEL\Chipset\i8xx	Chipset Driver
<CD>:\COMMON\INTEL\USB20	USB 2.0 Driver
<CD>:\COMMON\INTEL\VGA\i85x	VGA Driver
<CD>:\COMMON\Ac97_codec\Realtek\ALC202A	Audio Driver
<CD>:\COMMON\ POS_Touch	POSTouch Driver
<CD>:\COMMON\ELO_Touch	ELO Touch Driver
<CD>:\COMMON\Lan_driver\Realtek_PCI	10/100/1000Mb LAN Driver

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

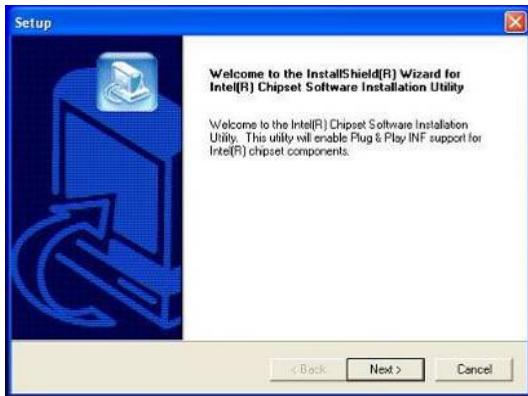
3-2 Chipset Driver Installation

Model name (Motherboard)	Function	OS	Note
(B78)	Chipset	Windows	
	USB 2.0	Win9X_ME Win2K WinNT4	
	VGA	Win9X_ME Win2K_XP Linux	Version: 14.19.50
	Audio	WinNT4 Win9X_ME_2K_XP Vista Linux	



a. Click "Chipset" in the Driver List menu of POS360 B78.

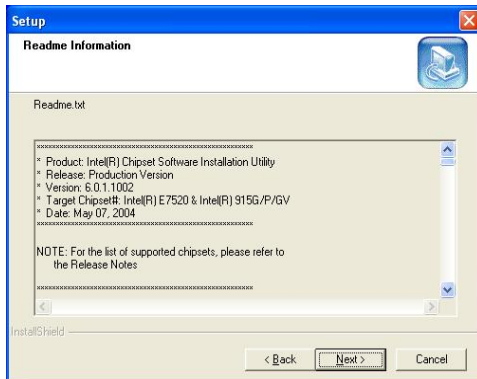
b. Double-click "infinst_enu_6.0.1.1002.exe" on the My computer window.



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



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



e. Click the "Next" button on the Readme Information window.

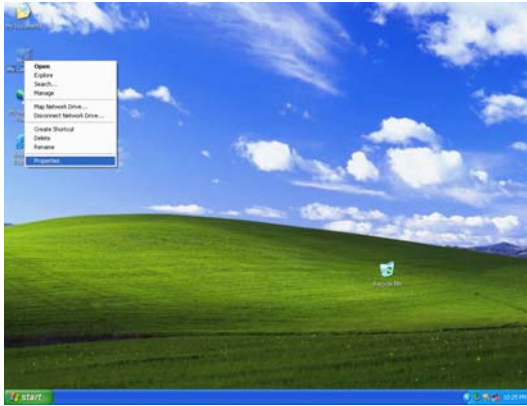


f. Click the "Finish" button and restart your system.

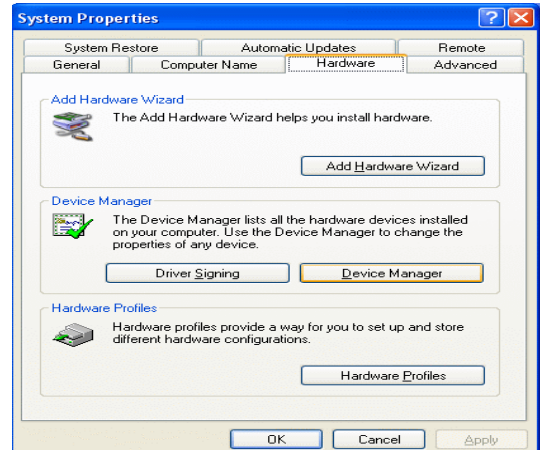
3-3 USB 2.0 Driver Installation

OS Requirements

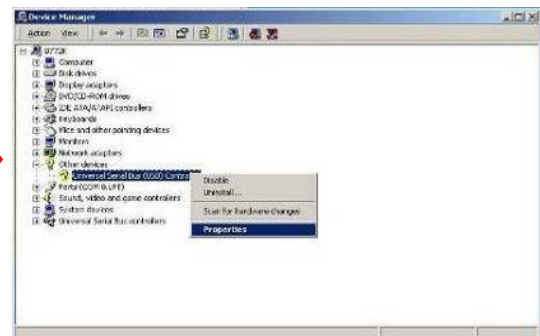
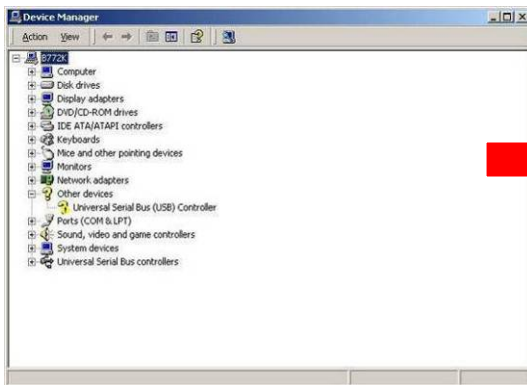
OS	USB 2.0 requirements
Windows XP	USB 2.0 drivers are provided in Service Pack 1 (SP1) for Windows XP, which is available through Windows Update .
Windows 2000	USB 2.0 drivers are available through Windows Update or Service Pack 4.
Windows 98SE/Me	USB 2.0 drivers are available on the Intel developer site .
Windows 98 (Retail)	Developers and OEMs should contact Orange Ware . 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 kernel 2.4.19 or later development kernels, or in the 2.4.19 or later production kernel. More information .



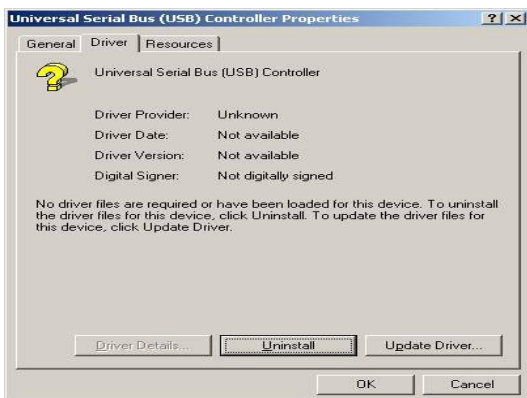
a. Right click My Computer on the desktop and select "properties"



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.



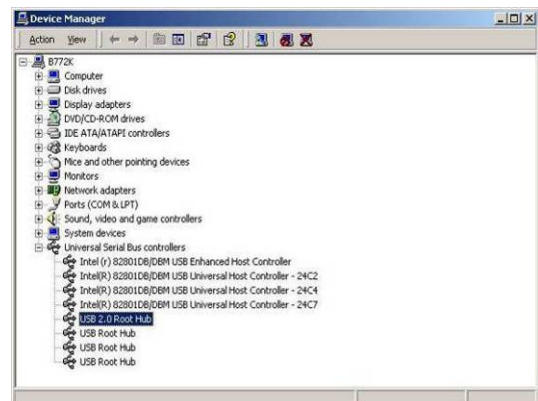
h. Press “Browse” to select the driver and then click the “OK” button to go to the next page



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



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

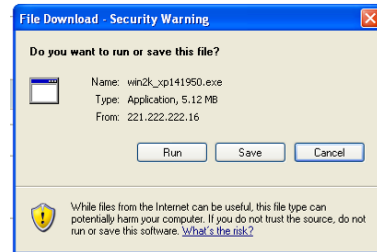


k. Finished.

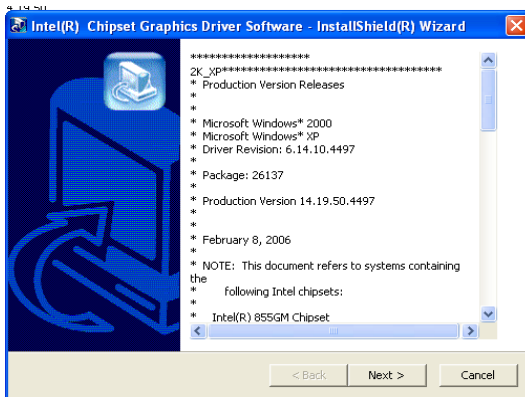
3-4 VGA Driver Installation

Model name (Motherboard)	Function	OS	Note
	Chipset	Windows	
	USB 2.0	Win9X_ME Win2K WinNT4	
(B78)	VGA	Windows_ME Win2K_XP	Version: 14.19.50
	Audio	Linux WinNT4 Win9X_ME_2K_XP Vista Linux	

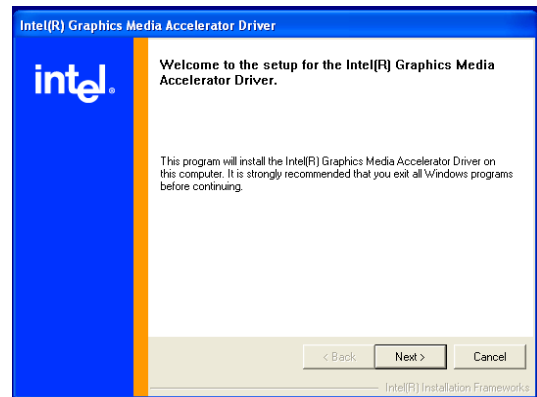
a. Click “Win2K_XP” of “VGA” section in the Driver List menu.



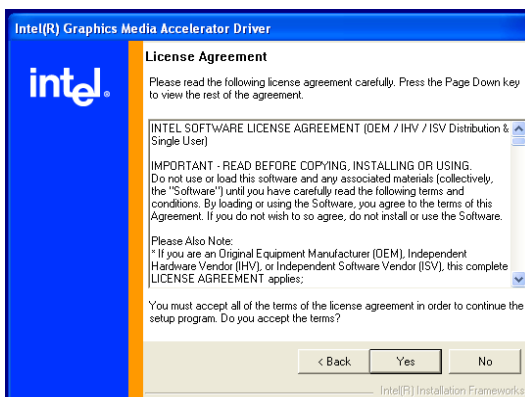
b. Click “Run” when the “File Download – Security Warning” dialog pops up.



c. Click the “Next” button on the Intel(R) Chipset Graphics Driver Software- Install Shield(R) Wizard dialog.



d. Click the “Next” button on the Intel(R) Graphics Media Accelerator Driver dialog.



e. Click the “Yes” button on the Intel(R) Graphics Media Accelerator Driver dialog.

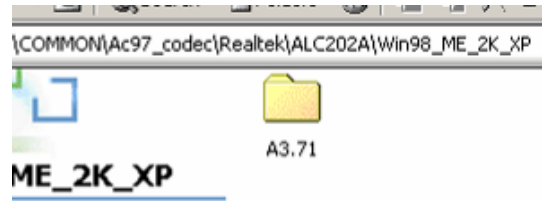


f. Select “Yes, I want to restart my computer now” and click the “Finish” button on the Intel(R) Graphics Media Accelerator Driver dialog.

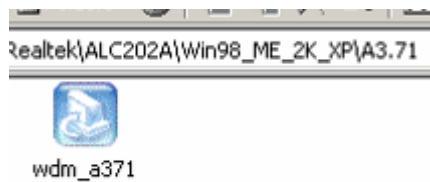
3-5 Audio Driver Installation

Model name (Motherboard)	Function	OS	Note
(B76)	Chipset	Windows	
	USB 2.0	Win9X, ME	
		Win2K	
		WinNT4	
	VGA	Win9X, ME	Version: 14.19.50
		Win2K, XP	
		Linux	
		WinNT4	
		Win9X, ME, 2K, XP	
		Linux	

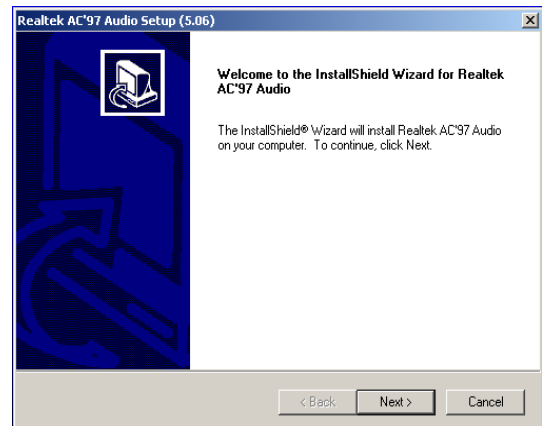
a. Click “Win9X,ME,2K_XP” of the “Audio” section in the Driver List menu.



b. Double-click “A3.71” on the My Computer window.



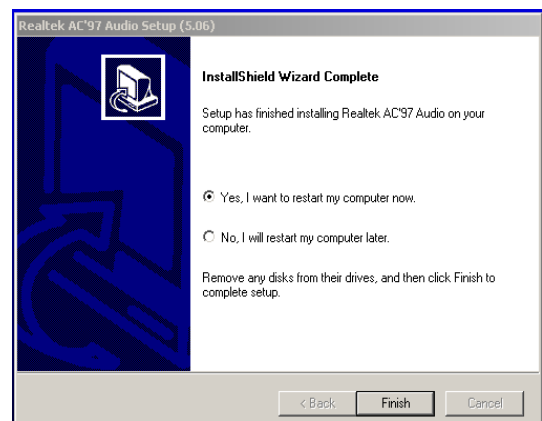
c. Double-click “wdm_a371.exe” on the My Computer window.



d. Click “Next” button on the Realtek AC’97 Audio Setup window.



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



f. Click “Finish” button on the Realtek AC’97 Audio Setup window.

3-6 10/100/1000MB LAN Driver Installation

PCI 100Mb LAN for B78 v1.0	DOS
<ul style="list-style-type: none">• Realtek RTL8139 / 8100	Win9X, ME, 2K, XP
	Vista
	Linux
PCI 1000Mb LAN for B78 v2.0	DOS
<ul style="list-style-type: none">• Realtek RTL8110	Win9X, ME, 2K, XP
	Vista
	Linux

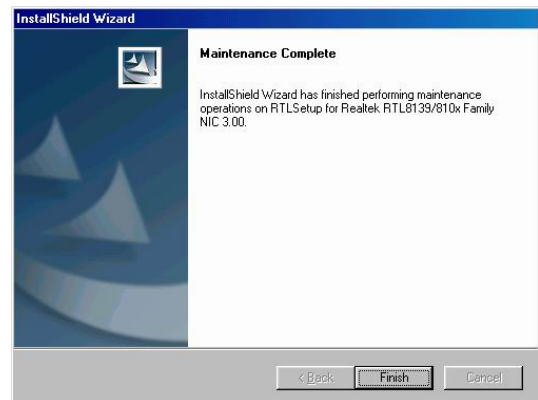
a. In the “Realtek RTL8110” section, click on Win9X, ME, 2K, XP



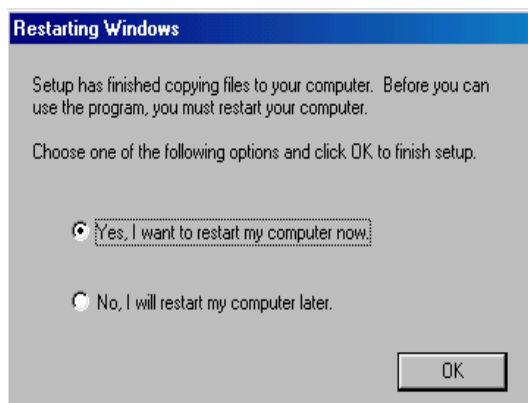
b. Double-click “v709”



c. Double-click Setup.exe



d. Click the Finish button on the Maintenance Complete window.

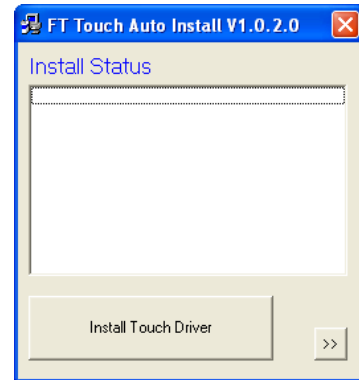


e. Click the OK button and restart your system.

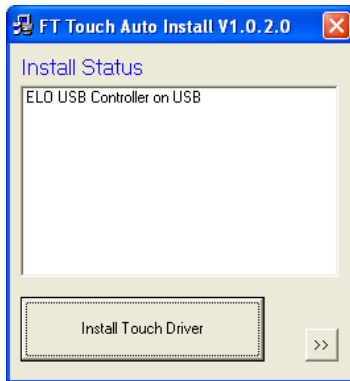
3-7 ELO Touch Driver Installation

Touch Screen auto detect/ install program. Use for:		
• ELO • POS Touch • POS Touch-HID • POS Touch+	Windows	Read Me
Touch Screen		
	DOS	
	Windows	v463
• ELO	WindowsAlpha	v481 (alpha driver)
	Linux	
Touch Screen		
	DOS	
• POS Touch	Windows	
	Linux	

a. In the “ELO” section, click on “Windows”.



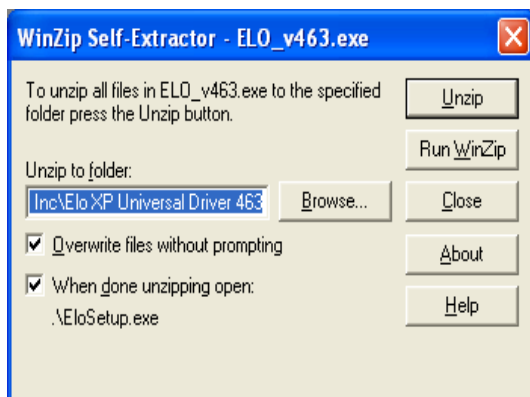
b. Click “Install Touch Driver” on “FT Touch Auto Install V1.0.2.0” window to detect the touch type in your system.



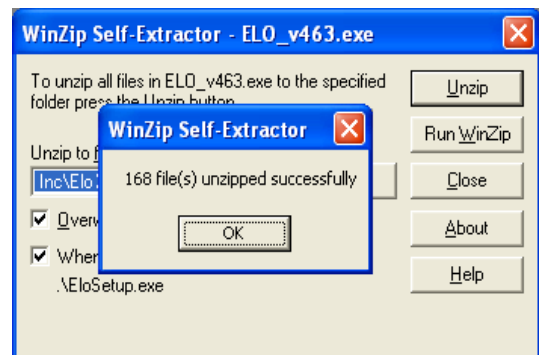
c. Click “Install Touch Driver”.



d. A “WinZip Self-Extractor” dialog will pop up. Click “OK”.



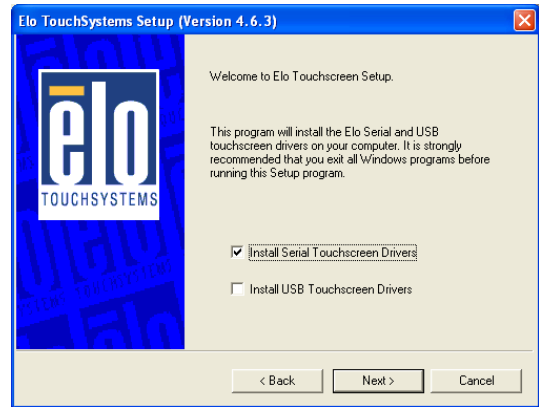
e. Click “Browse” button to identify a location or folder name to save to. Click “Unzip” button to extract the files.



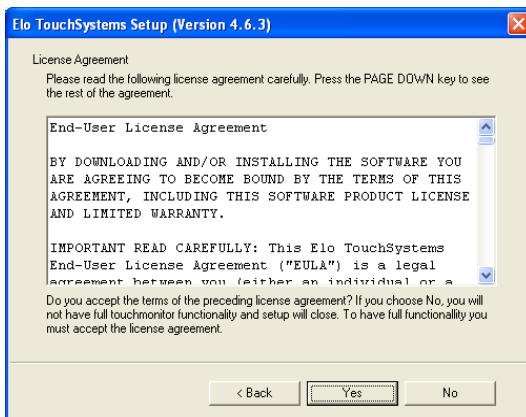
f. Finished unzipping. Click “OK”.



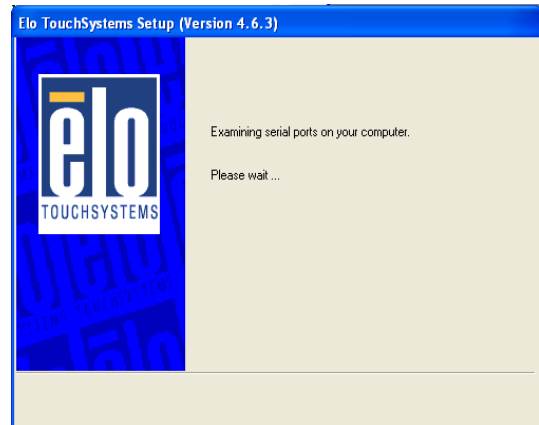
g. Click “Next”.



h. Check the “Install Serial Touchscreen” Drivers” check box and click “Next”.



i. Click “Yes” to accept the “End User License Agreement”.



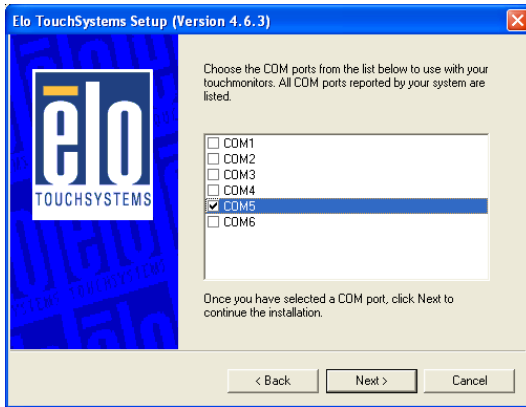
j. Examining serial ports on the computer



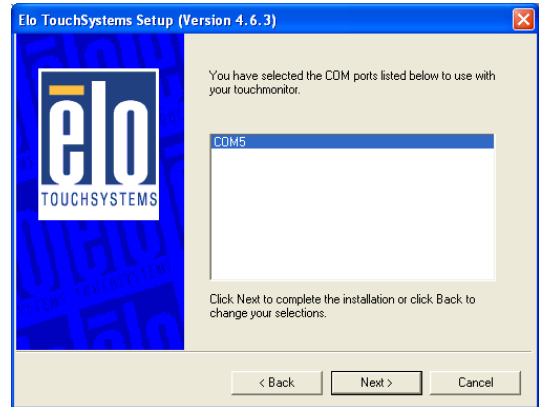
k. Check the box “Auto-detect Elo devices” and click “Next”.



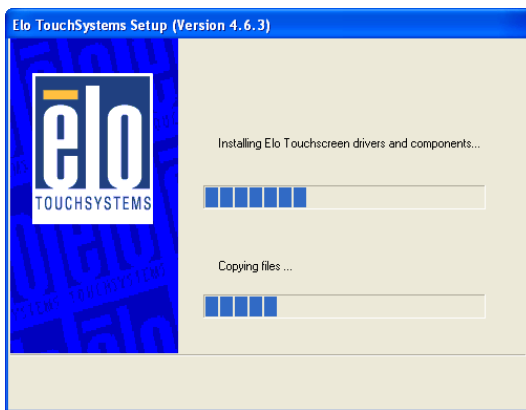
l. The computer is searching for a connected to Elo Touchscreen



m. Touchscreen found on “COM5”.
Click “Next”.



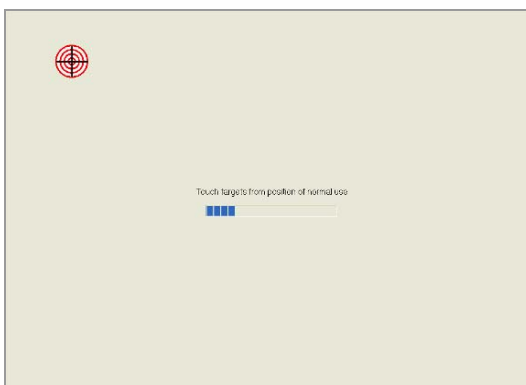
n. Click “Next” to complete the driver installation



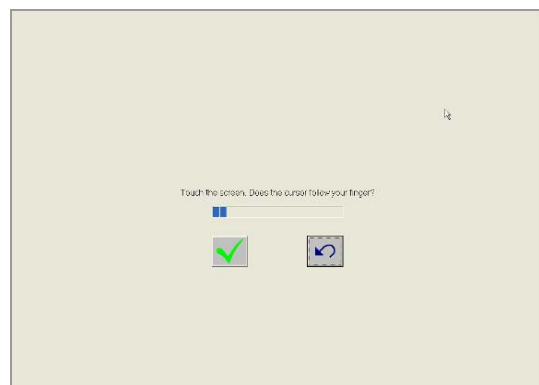
o. Driver is installing



p. The driver installation and setup are now complete. Click “Finish” to start the touchscreen calibration.



q. Follow the instructions on the screen to calibrate the Touchscreen.

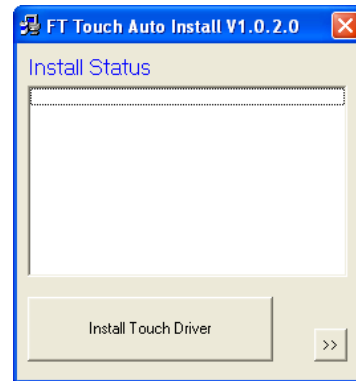


r. Verify that the touchscreen is working correctly by moving your finger on the screen. The mouse cursor should follow your finger. Finally, touch the green checkmark to save the calibration settings and exit the program

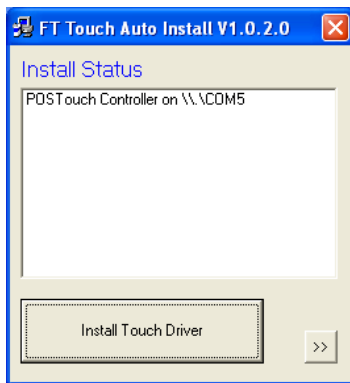
3-8 POSTouch Driver Installation

Touch Screen auto detect/ install program. Use for:		
<ul style="list-style-type: none"> ELO POS Touch POS Touch-HID POS Touch+ 	Windows	Read Me
Touch Screen	DOS	
<ul style="list-style-type: none"> ELO 	Windows	v463
	WindowsAlpha	v481 (alpha driver)
	Linux	
Touch Screen	DOS	
<ul style="list-style-type: none"> POS Touch 	Windows	
	Linux	

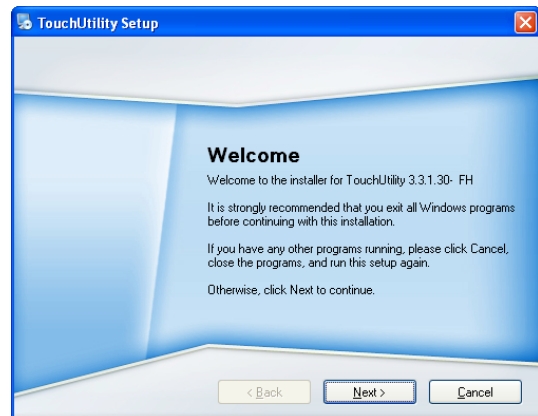
a. In the “Touch Screen auto...” section, click “Windows”.



b. Click “Install Touch Driver” on “FT Touch Auto Install V1.0.2.0” window to detect the touch type in your system.



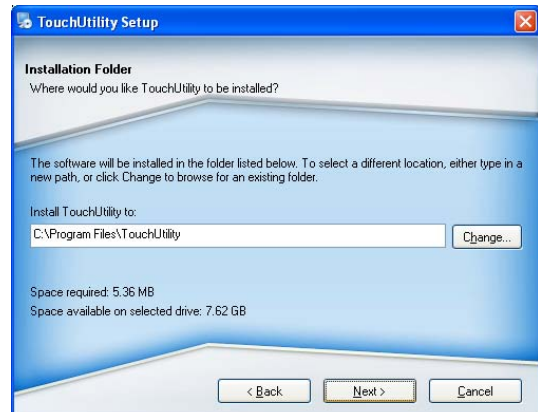
c. “FT Touch Auto Install” program will detect what touch type and interface being installed on the system.



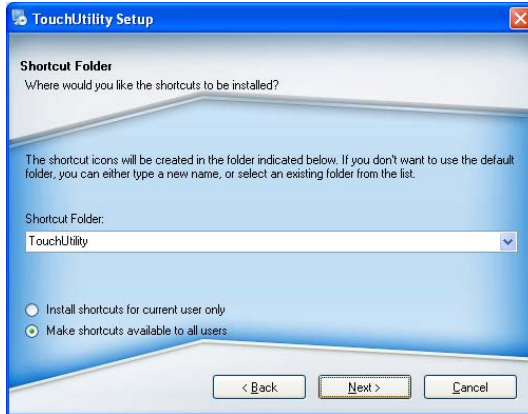
d. Click “Next”.



e. Select “I agree...” and click “Next”.



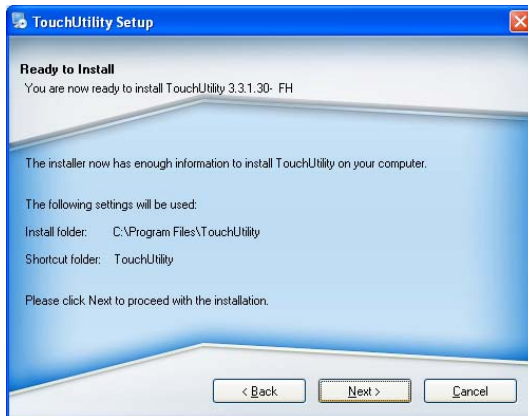
f. Select the installation folder for the touch utility driver and click “Next”.



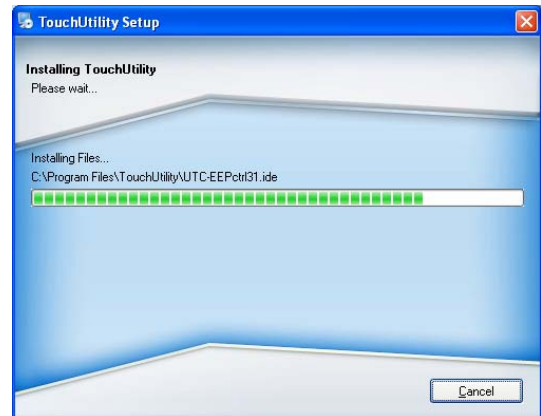
g. Select the shortcut folder for the touch utility driver and click "Next".



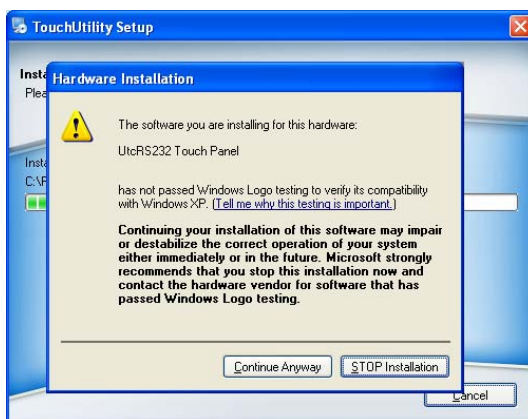
h. Click "Next".



i. Click "Next".



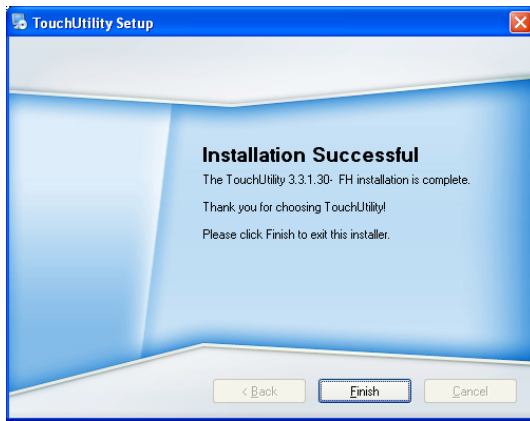
j. The computer is installing the touch driver



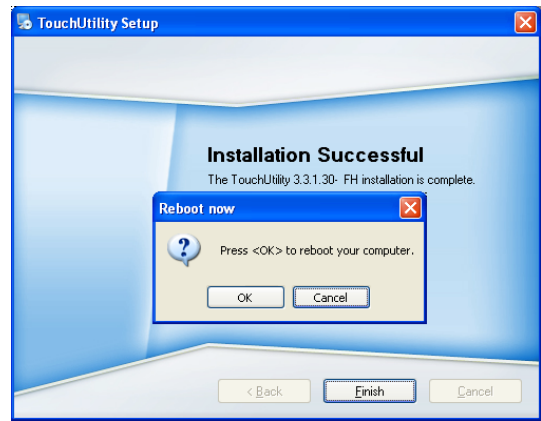
k. Click "Continue Anyway" button.



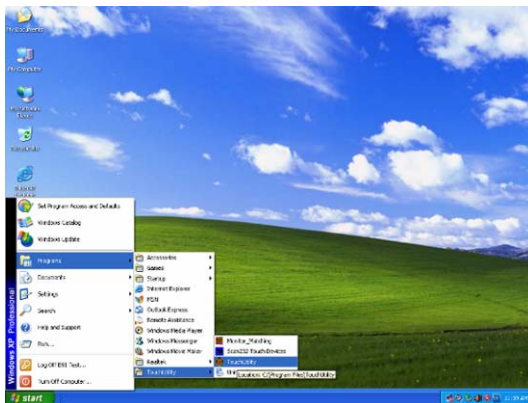
l. The serial ports are scanned for a touch device. The Touch panel is on COM5.



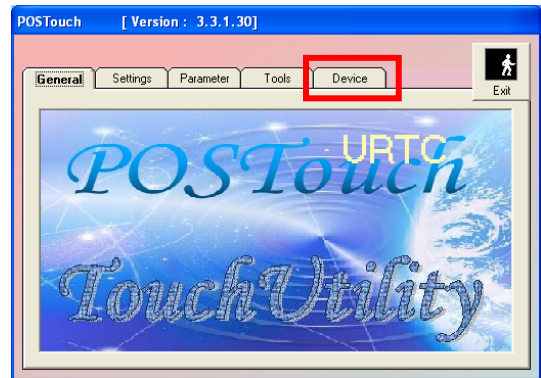
m. Click "Finish".



n. Click "OK" to restart the computer and finish the touch utility installation.



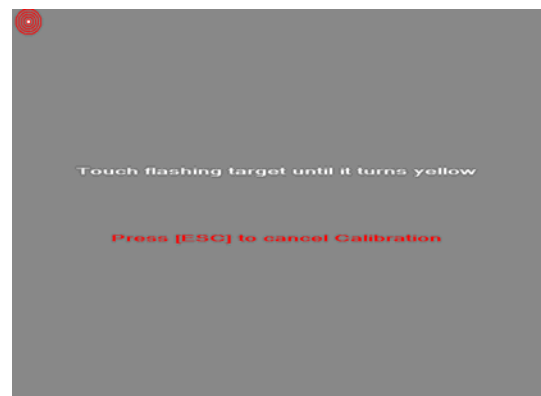
o. The computer has restarted. Click on the "Start" button, select "Programs", then select "Touchutility".



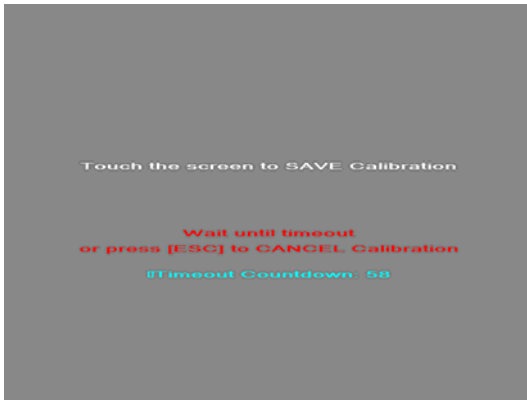
p. Select the Device tab.



q. Click on the 3 points or the 9 points calibration button.



r. Follow the instructions on the screen to do the calibration of the touch panel



s. Touch anywhere on the screen to save the calibration.

4 Peripheral Installation

4-1 Phone Set Installation



- a. Slide the Phone module into the Phone set holder as the direction of arrow shows.
- b. Connect the phone cable to the connector on the Phone module.



- c. Connect the other end of the Phone cable to the connector on the System.

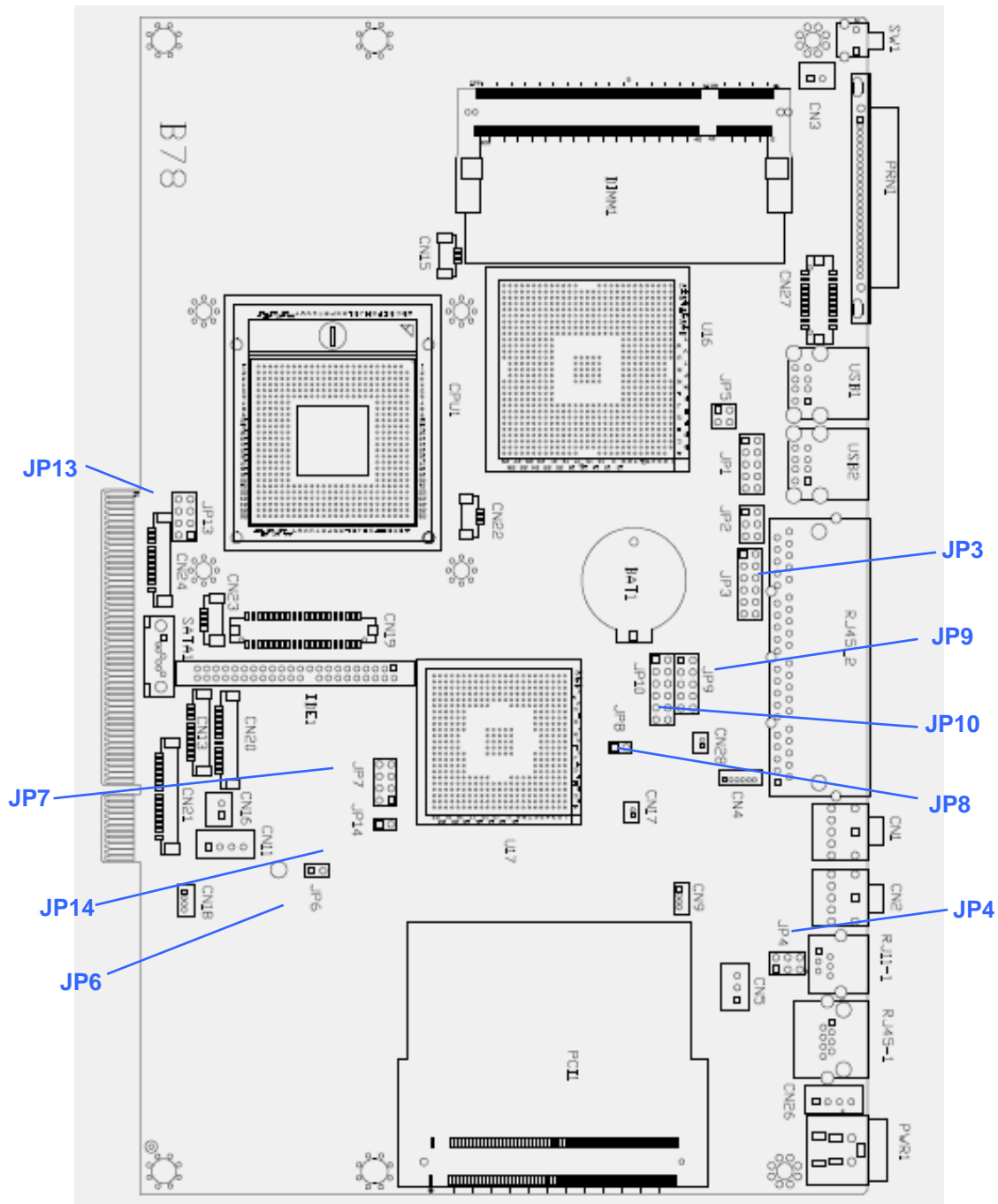
5 Specification

Model Name	Bedside Terminal
Motherboard	B78 v2.2
CPU Supports	Celeron M ULV 1.0GHz, 512kb cache
Chipset	Intel 852GM and ICH4 FSB 400Mhz
System Memory	2 x DDR SO-DIMM slot, up to 2 GB
Graphic Memory	Share system memory max 64MB
LCD / Touch Panel	
LCD Size	18.5" TFT LCD
Brightness	300nits
Maximal Resolution	1366x 768
Touch Screen Type	Resistive touch(USB interface)
Storage	
HDD	2.5" Slim HDD bay, SATA HDD
Expansion	
mini-PCI Slot	1, support 802.11 b/g,a/b/g WLAN card
External I / O Ports	
USB 2.0	3 x USB Type A
Audio Jack	1 x MIC-in, 1 x Line-out
Handset Jact	1 x RJ-11
Remote control	1 x SCSI 26pin
Interfaces accessible via secure / hidden arm access panel	
Nurse call system	1 x RJ-48
Ethernet connection 10/100/1000MB	1 x RJ-45
USB 2.0	2 x USB Type A
Power input	19V DC
Audio	
Speaker	2 x 3W Speaker
Power	
Power Adapter	DC 19V / 90W
Environment	
EMC & Safety	FCC Class B, CE, LVD
Operating Temperature	0°C ~ 35°C (32°F ~ 95°F)
Storage Temperature	-20° ~ 60°C (-4°F ~ 140°F)

Operating Humidity	5% - 95% RH non-condensing
Storage Humidity	5% - 95% RH non-condensing
Dimension (W x D x H)	462 .5x 336 x 75 (mm) (Without handset)
Weight	6.8 kg including telephone cradle and handset (max)
Mounting	75mm x 75mm
OS Support	Windows-XP / Linux
Optional Additional Features (Note: options which can be retro-fitted to be advised)	
Camera (Build in)	1.3M pixels CCD camera module
Magnetic stripe card reader(Optional)	ISO 3 tracks MSR module (side mounting)
Smart card reader dual interface(Optional)	Internal USB connection (option)
	Mifare passive RFID reader below 5cm distance
RFID Module Spec.	Approval: PC/SC standard
	Working Frequency: 13.56MHz
	ISO 14443 A&B&C
	Communication Speed:115,200 bps

B78 v2.2 Jumper Settings

5-1 Motherboard Layout



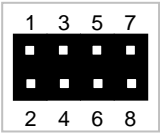
5-2 Jumper Settings

The diagram below illustrates the default jumper settings for the Main Board. An asterisk (*) indicates the default setting.



5-2-1 Connectors & Function

Connector	Function
BAT1	CMOS Battery Base (Use CR2023)
CN1	Audio Line Out
CN2	Audio MIC In
CN3	Internal Power Switch
CN4	Speaker & MIC Connector
CN9	CD-IN Connector
CN11	Power Connector For 3.5" HDD
CN13	COM5 for Touch
CN15	CPU FAN Connector
CN16	Hardware Reset
CN18	USB2
CN19	LCD Interface Connector
CN20	Inverter Connector
CN21	Card Reader Connector
CN22	System FAN Connector
CN23	IrDA Connector
CN24	FT Status Interface
CN26	Internal Power In Connector
CN27	Internal LPT Connector
CN28	Internal PCI Reset Output Connector
IED1	Secondary IDE Connector (Pitch = 2.0mm)
PRN1	Parallel Port
PWR1	+19V Power Adaptor
RJ11_1	Cash Drawer Connector
RJ45_1	LAN (On Board)
RJ45_2	COM1, COM2, COM3, COM4
SATA1	SATA Connector
USB1	USB3, USB4
USB2	USB5, USB6
JP1	VGA Port
JP2	VGA Power



LCD ID Setting

Panel #	Resolution	LVDS		JP7
		Bits	Channel	(1-2) (3-4) (5-6) (7-8)
1	1366 x 768	24	Single	



Power Mode Setting

Function	JP6 (1-2)
ATX Power	
ⒸAT Power	

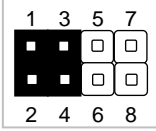
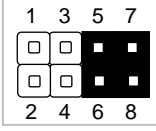
CMOS Operation Mode

Function	JP8 (1-2)
ⒸCMOS Normal	
CMOS Reset	

USB Path Setting (do not change)

Function	JP14 (1-2)
To Docking	
◎To Motherboard	

System Indicator Function (do not change)

Function	JP13 (1-2) (3-4) (5-6) (7-8)
◎Disable	
Enable	

◎ = Default

Note:



OPEN



SHORT

6 BIOS Settings

6-1 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.

6-2 Starting the BIOS Setup

Turn on or reboot this product.

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.

The main menu of the BIOS setup is displayed.

If the supervisor password is set, you must enter it here.

6-3 When a Problem Occurs

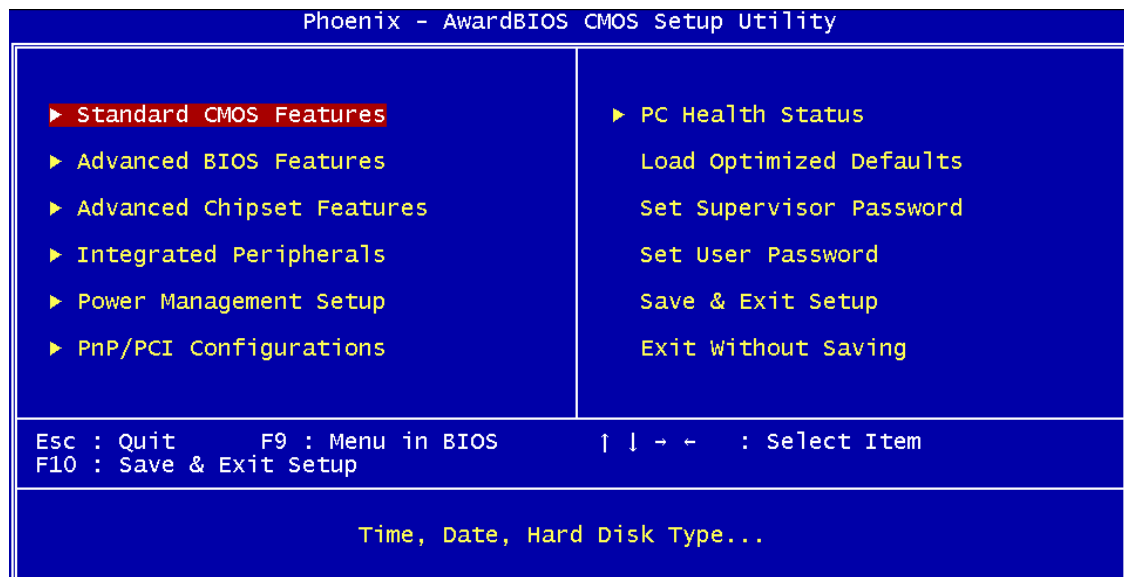
If, after making and saving system changes with the Setup utility, you find that this product no longer boots, start the BIOS setup and execute the following

Load Optimized Defaults

6-4 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 setup menus shown in this section are for reference only and may not exactly match the items of your BIOS version.



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.