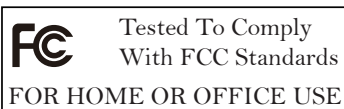

M1255

12" Atom™ Portable Medical PC

User's Manual

Version 1.1

P/N: 4042125500110P



2011.09

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Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from ARBOR. Please contact your local supplier for ordering information.

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class B

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 when the equipment is operated in a residential environment. 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. Operation of this equipment in a residential area is

likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IEC 60601-1/EN60601-1/EN60601-1-2

This product complies with the system standard IEC 60601-1 Medical Electrical Equipment Part 1: General Requirements for Safety. And therefore, the product is exclusively interconnected with IEC 60601-1 certified equipment in the patient environment.

Equipment connected to the analog or digital interfaces of the unit must comply with the respective IEC standards (e.g. IEC 60601-1 for medical equipment). Furthermore all configurations shall comply with the current version of the standard for SYSTEMS IEC 60601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore responsible that the system complies with current version of the requirements of the system standard IEC 60601-1-1. If in doubt, consult the technical service department or your local representative.

RoHS

ARBOR Technology Corp. certifies that all components in its products are in compliance and conform to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC.

The above mentioned directive was published on 2/13/2003. The main purpose of the directive is to prohibit the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic products. Member states of the EU are to enforce by 7/1/2006.

ARBOR Technology Corp. hereby states that the listed products do not contain unintentional additions of lead, mercury, hex chrome, PBB or PBDB that exceed a maximum concentration value of 0.1% by weight or for cadmium exceed 0.01% by weight, per homogenous material. Homogenous material is defined as a substance or mixture of substances with uniform composition (such as solders, resins, plating, etc.). Lead-free solder is used for all terminations (Sn(96-96.5%), Ag(3.0-3.5%) and Cu(0.5%)).

SVHC / REACH

To minimize the environmental impact and take more responsibility to the earth we live, Arbor hereby confirms all products comply with the restriction of SVHC (Substances of Very High Concern) in (EC) 1907/2006 (REACH --Registration, Evaluation, Authorization, and Restriction of Chemicals) regulated by the European Union. All substances listed in SVHC < 0.1 % by weight (1000 ppm).

About This User's Manual

This user's manual provides general information and installation instructions about the product. This User's Manual is intended for experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this booklet, please consult your vendor before further handling.

Technical Support

All ARBOR products are built to the most accurate specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Advantech equipment is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation. Your satisfaction is our primary concern. We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your products. In fact, most problems reported are minor and are able to be easily solved over the phone. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products. Please do not hesitate to call or e-mail us at:

<http://www.arbor.com.tw>

E-mail: info@arbor.com.tw

Contact Information

Add: 10F., No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City
235, Taiwan

TEL: 886-2-8226-9396

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Vendors disclaim all other warranties, either expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the hardware, the accompanying product's manual(s) and written materials, and any accompanying hardware. This limited warranty gives you specific legal rights.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

Instructions for Rechargeable Battery Pack

How to recharge:

- To recharge Lithium-ion battery, install it into the computer and then connect the power adapter to the power input plug of the computer.
- The battery will be fully charged within 2-4 hours (depending on the capacity of the battery). When finished charging, the charge indicator will turn on steadily in green and then it's recommended to remove the adapter from the computer.
- It's recommended not to recharge intermittently, which means not plugging and unplugging the power adapter frequently in short period of time.
- It's recommended to turn off the computer before charging.
- Do not use the power adapter that is not made for your computer. Supplying the computer with inappropriate voltage may cause harm to the battery or, even worse, may burn the computer.

How to use:

- It's recommended to supply power via the adapter without the battery installed, while you are to use the computer for a long time. And reinstall the battery before you go out.
- The lithium-ion battery is currently one of the most popular battery packs right now. The biggest advantage is that it has no memory effect that users needn't worry about. Users can charge the battery anytime whether the battery is fully drained or not. However, it's recommended that users drain the battery until the system shows power shortage warning and then recharge the battery. Doing so is helpful to the reliability of using the battery.
- Don't use the battery pack as a power supply for other equipment.

How to store:

- Don't expose the battery to elevated heat situations such as under direct sunlight in a car or near fire.
- Don't disassemble the battery, or the battery leakage might cause skin or eye injury. If electrolyte leaking from the battery pack contacts your skin or clothing, immediately flush it with running water. If it splashes in eye, rinse the eye at least 15 minutes with clean water and then seek medical attention.
- To avoid battery leakage or explosion, don't discard the battery into water or fire, or near a heat source such as a gas stove or an oven.
- Use the appropriate container to store the battery such as a paper box. Do not allow a metal object to touch the terminals of the battery.

- When storing for a long period of time, keep the battery approximately at the charging state of 60 ~ 80% and regularly use it. The battery should be completely discharged and recharged once each month to condition the cells inside the battery to ensure the battery delivers the most available capacity.
- The battery consists of precision electrical components and cells. Do not drop or hit the battery.

General Conditions of Storage

Temperature: 0°C ~ 60°C

Humidity: 65 ± 20RH

The table listed below describes how long the battery will be empty with the respective storage temperature conditions.

Storage Period	Storage Temperature
1 Month	-20°C ~ 60°C
3 Months	-20°C ~ 45°C
1 Year	-20°C ~ 20°C

Note:

- When the operating temperature is above 60°C or below 0°C, battery charging stops.
- When the operating temperature exceeds 65°C, battery discharging stops.
- While the medical computer is docked into the docking station, the internal battery has the higher priority to be charged; the battery that installed in the external charging slot of the docking station is not charged until the internal battery is fully charged.



Chapter 1

General Information

1.1 Packing List



1 x M1255



1 x DTC-1255



Accessory Package:
1 x User's Manual
1 x Driver CD



1 x Power Cord (left: French standard cordset)
1 x Power Cord (right: American standard cordset)



1 x Power Adapter

1 x Screws Kit

Before up and running, please make sure the package contains all of above accessories.
If any of the above items is damaged or missing, contact your vendor immediately.

1.2 Ordering Information

M1255/N270-C22	12.1" Intel® Atom™ N270 portable medical PC w/ resistive touch screen, 65W power adapter, docking station (1 x RJ-45/1 x RS-232/3 x USB/1 x VGA/1 x charging Bay) w/ VESA-75 holes
BAT-1255	External 1880mAh 4-cell Li-battery

1.3 Specifications

Model Name	Medical Panel PC M1255	
System	CPU	Intel® Atom™ N270, 1.6GHz FSB 533MHz 512K Cache
	Graphics Controller	Intel® GMA950
	Memory	1 x 200-pin SO-DIMM DDR2 2GB Memory (module installed)
	Chipset	Intel® 945GSE + ICH7M
	Audio	Azalia HD audio
	Storage	1 x 32GB 1.8" PATA SSD installed
	Connectivity	1 x Realtek 8111 PCI-E GbE LAN 1 x 802.11 b/g/n Mini PCIe Wireless LAN card 1 x Bluetooth Module
	Security	Biometric recognition by Fingerprint scanner
	Camera	Color, 2.0 Megapixel CMOS Camera
	RFID	13.56MHz RFID Reader with ISO 15693 Support
	I/O	1 x USB 2.0 Port
	Battery	Internal 1880mAh/11.1V 3-cell Li-battery External 1880mAh/14.8V 4-cell Li-battery

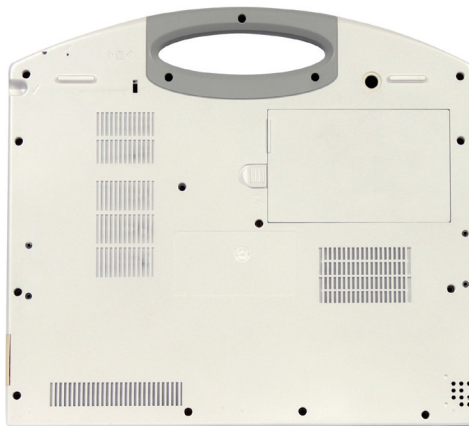
Buttons & LED	Function Key	1 x 5-way function key (brightness/volume/WLAN on/off)
		1 x Screen security lock button
		1 x On-screen keyboard button
		1 x Audio record button
		1 x Video record button
		1 x SAS button (Ctrl + Alt + Del)
		1 x Camera capture button
		1 x Bluetooth on/off button
		1 x RFID read trigger button
		1 x Barcode scan trigger button
LED Indicator	1 x Battery status LED	
	1 x WLAN/RFID on/off LED	
	Power & Bluetooth are covered by the respective buttons	
Power Button	1 x Power on/off button	
LCD Display	Size	12.1" TFT Active Matrix Panel
	Brightness	220 cd/m ² (typical)
	Max. Resolution	1024 x 768 (XGA) w/ 262,144 colors
	Viewing Angle	+70° ~ -70° (H), +55° ~ -70° (V)
	Backlight Type	CCFL
Touch Screen	Type	Analog Resistive
	Light Transparency	80%
	Controller Interface	USB Interface
Power Requirement	Power Input	DC 19V input by ext. 65w power adapter
	Power Consumption	14w (AVG.)
Mechanical & Environmental	Dimensions (W x D x H)	307 x 25 x 277 mm (12.09" x 0.98" x 10.91")
	Operating Temp.	0 ~ 40°C (32 ~ 104°F)
	Storage Temp.	-20 ~ 60°C (-4 ~ 140°F)
	Operating Humidity	8 ~ 80% (non-condensing)
	Storage Humidity	8 ~ 90% (non-condensing)
	EMI/EMC	CE/FCC Class B, CCC, EN60601-1 EN60601-1-2 compliant
	IP Rating	Front panel IP54 compliant
	Vibration	5 ~ 500Hz (3 axes: X, Y, Z), 1G PTP
	Shock	10G peak (11m Sec.)
	Weight (Net)	1.6kg (3.5 lb) with internal + external battery

1.4 Overview

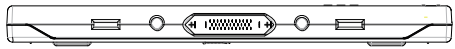
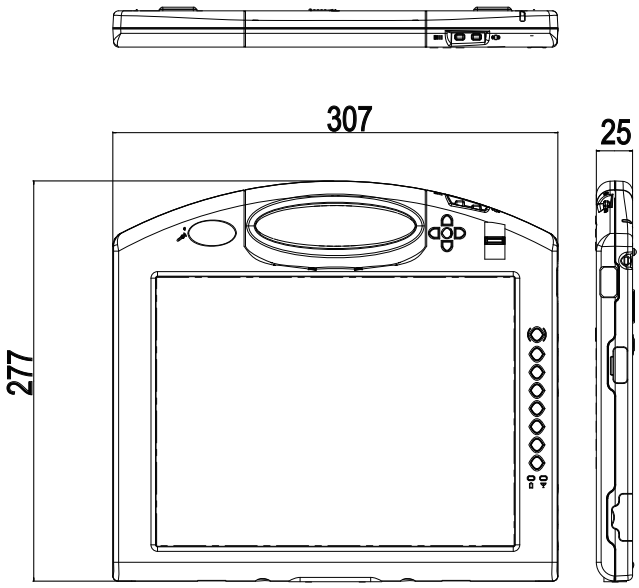
Front View



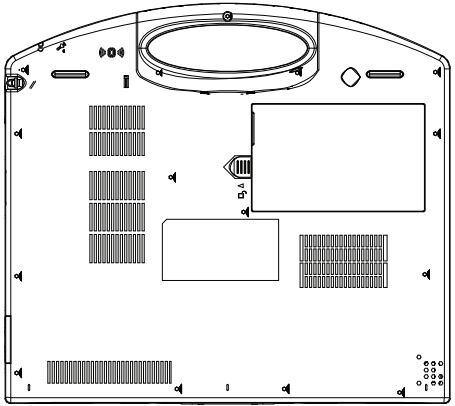
Rear View



1.5 Dimensions



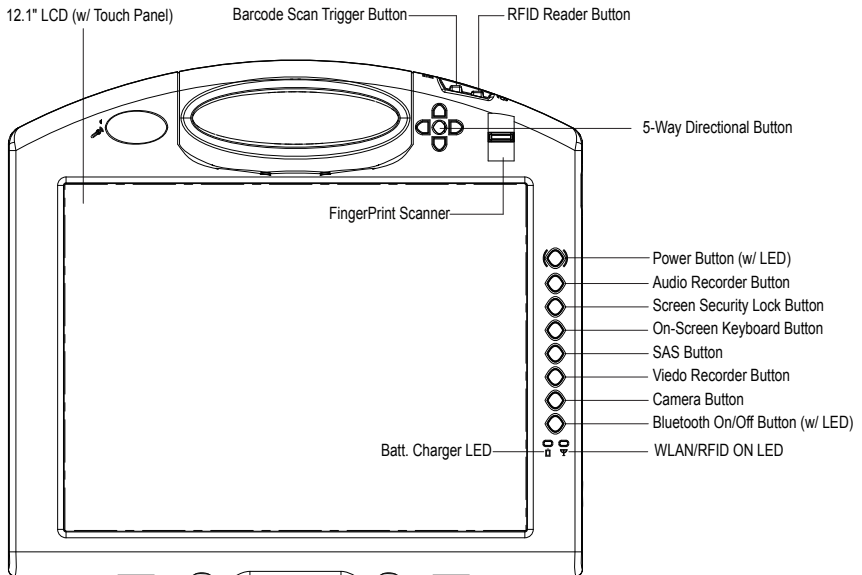
Unit: mm
















1.6 Location of Buttons and Indicators

The front panel contains power button, fingerprint scanner, function control buttons, LED indicators etc.

Front Side




Control Buttons

Button		Description
	Bar Code Scanner	Press to trigger the bar code scanner.
	RFID Reader	Press to enable/disable the RFID reader.
	Speaker volume	Press the upper/lower button to increase/decrease the speaker volume.
	WLAN	Press to enable/disable the Wi-Fi connection.
	LCD backlight	Press the left/right button to decrease/increase LCD backlight.
	Power	Press to turn the power on/off or to wake the system up from hibernation mode.
	Audio Record	Press to bring up the recorder application.
	Screen Security Lock	Press to lock/unlock the touchscreen.
	On-screen Keyboard	Press to bring up or close the on-screen keyboard.
	SAS	Press to lock/log on to the system (Ctrl+Alt+Del).
	Video Record	Press to start video recording. Press again to stop recording.
	Camera	Press to take pictures.
	Bluetooth	Press to enable/disable Bluetooth connectivity.

LED Indicators

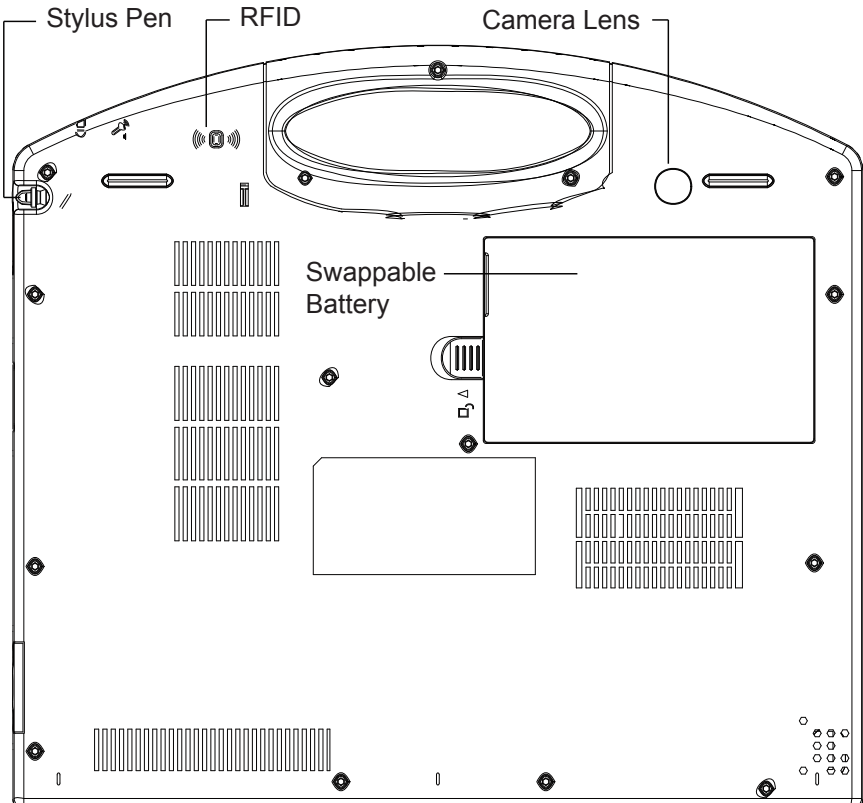
LED	Color	Status	Description
Power	Green	On	When power is on, the green LED underneath the power button glows
		Blinking	Hibernation mode
		Off	No power
WLAN/RFID	Green	On	WLAN connection is active
		Off	WLAN connection is inactive
	Amber	On	RFID reader enabled
		Off	RFID reader disabled
Bluetooth	Blue	On	Bluetooth connection is active
Battery Charging	Red	Blinking	Battery charge level is below 20%
	Amber	Blinking	Battery charge level is between 20% and 70%
	Green	Blinking	Battery charge level is between 70% and 99%
		On	Battery charge level exceeds 100%
Battery Discharging	Red	On	Battery charge level is below 10%
		Blinking	Battery charge level is below 20%
	Amber	On	Battery charge level is between 20% and 70%
	Green	On	Battery charge level exceeds 70%

Note:

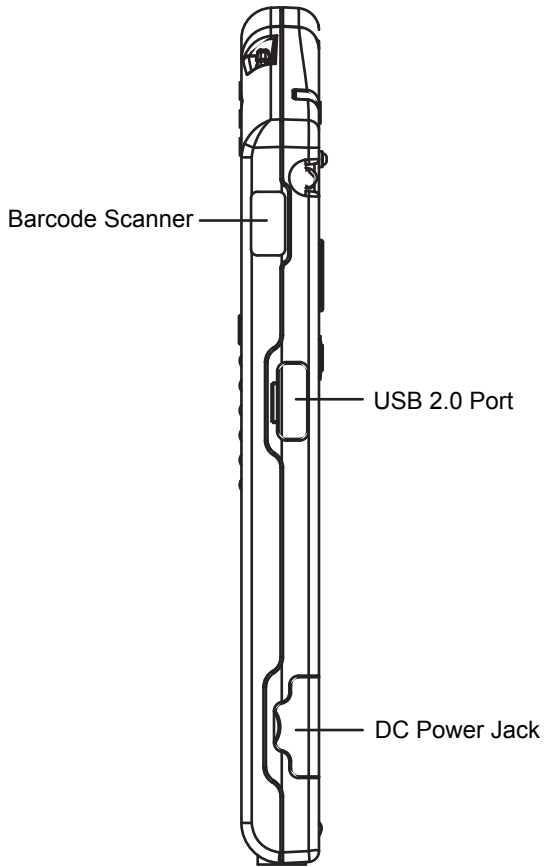
The LED indicator  is shared between WLAN and RFID. When the WLAN and RFID functions are both enabled, the LED light is mixed with amber and green colors.

Rear Side

The rear side contains a stylus pen, the RFID reader, the 2.0M pixels CCD, and a swappable battery.



Right Side



1.7 Bar Code Types

As following format, M1255 Medical PC supports these 1D and 2D barcodes.

Linear	Matrix
BC412 (requires end-user license from IBM)	Aztec
China Post	Chinese Sensible Code (Han Xin Code)
Codabar (NW7)	Data Matrix
Code 11	Grid Matrix Code
Code 128	MaxiCode
Code 32	QR Code
Code 39	Micro QR Code
Code 93 and 93i	Postal
Code 2 of 5	Intelligent Mail Barcode
EAN	(formerly 4-state customer barcode)
Interleaved 2 of 5	Australian Post
Label Code	British Post
Matrix 2 of 5	Canadian Post
MSI	ID-tag (UPU 4-state)
Plessey	Japanese Post
PosiCode	Netherlands (KIX) Post
GS1 DataBar (formerly RSS)	Korea Post
Telepen	Planet Code
Trioptic Code	Postnet
UPC	OCR
Stacked	OCR-A
Codablock F	OCR-B
Code 16K	OCR MICR (E 13 B)
Code 49	
GS1 Composite (formerly EAN/UCC)	
MicroPDF417	
PDF417	
TCIF Linked Code 39 (TLC39)	



Chapter 2

Using the Medical PC

2.1 Getting Started

This chapter will help you have your medical PC up and running smoothly, and give you the information about how to utilize the various functions.

The medical PC supports Windows XP Professional and Windows Vista. Before installing operating system and driver utilities, you should prepare your own USB keyboard, USB CD ROM drive, and the power adapter included in the package if the battery charge level is insufficient. When the operating system on your computer is ready, please use the accompanying CD ROM to install the drivers and utilities for the respective devices. The following sections will guide you through the drivers and utilities installation step by step.

2.2 Periodic Cleaning & Disinfection

It is strongly recommended that users follow the cleaning and disinfection instructions described below to ensure proper maintenance activities.

Procedures for Cleaning & Disinfection

1. Always power off your unit first, when you clean or disinfect it.
2. To wipe the outer case, use lint-free cloth, lightly moistened with warm water and a mild, non-abrasive cleaning solution made of either:
 - 70% isopropyl alcohol
 - 10% bleach solution
 - Dimethyl ethylbenzyl ammonium chlorides 0.125%, dimethyl benzyl ammonium chlorides 0.125%, Isopropyl alcohol 14.850% (Sani-Cloth®)
 - Isopropanol 17.2%; Diisobutylphenoxyethyl dimethyl bezyl ammonium chlorides 0.28% (CaviCide®)
3. The touch screen can be wiped down (e.g. to remove fingerprints) during operation while powered on using standard computer screen solution.

Caution:

- Do not spill liquids on or around the Medical PC.
- Do not use other solutions than the ones mentioned above.
- Do not touch, press or rub the display panel with abrasive cleaning compounds, instruments, brushes, or rough-surface materials.
- Never spray cleaning liquids or foam onto the Medical PC or soak it for cleaning.
- Do not use solvents to clean the unit.
- Do not clean, disinfect, or sterilize any part of the system by autoclaving or with the use of ethylene oxide gas; doing so may damage the unit.
- Never spray or squirt any type of liquid onto the Medical PC; if a spray, gel or foam is needed, spray the liquid onto a cloth and then use the cloth to wipe or rub down the component.
- Always avoid contamination to minimize the need for disinfectants.
- Do not spill, spray, or squirt liquids to the power block and the power cable.

2.3 Docking & Undocking

The docking station (DKS-1255) is equipped with one RJ-45, one VGA, three USB connectors and one battery charging bay. It's useful for users to connect multiple peripheral devices at the same time.

Caution:

The docking station comes with an solenoid valve for locking the computer, and the only way of taking the computer off the docking station is passing identity recognition. Thus, before sliding the computer into the docking station, make sure you are immediately to install operating system, the fingerprint scanner driver/application, and the function key application (these are the necessary software for undocking). Otherwise, the computer is locked by the solenoid of the docking station until the necessary software are ready.

To implement the undocking mechanics, please follow the instructions below:

1. Install the operating system for the computer (a USB type CD ROM drive is needed).
2. After the operating system is installed, the next is to install the driver for fingerprint scanner. Put the CD ROM into the CD ROM drive and then please refer to section **2.4.10 Fingerprint Scanner Driver Installation** step by step.
3. When the fingerprint scanner driver is installed, the next is to install the fingerprint scanner application. Refer to section **2.4.11 Fingerprint Scanner Application Installation** for the installation procedures.
4. The next is to install the function key application. please refer to section **2.4.12 FunctionKey Interface Installation**.
5. With the fingerprint scanner driver/application and function key interface installed, you are now available to remove your computer from the docking station by logging on the system again. There are three ways to log on the system: clicking **Start > Log Off** to log off and log on, pressing the **Ctrl-Alt-Del** combination keys, or simply pressing the **SAS** function button.

Note: When logging on the system, you are prompted to swipe your finger across the fingerprint scanner. Before using this fingerprint identification function, make sure you have registered at least one fingerprint via the fingerprint registration utility. Please refer to section **2.8 SAS** for further details about fingerprint registration and identification. Otherwise, you should click **Cancel** and enter password to log on.

The computer will be unlocked for 20 seconds by default, with an open-lock icon showing on the screen, when ID verification is successfully accepted. During the unlocked interval, please press the button on the right side to release the hook which fixes the computer, and now you can take the computer away by holding its handle. See the figure below.



If the computer isn't removed from docking station in 20 seconds, the docking station will lock it again and a close-lock icon shows up on the screen. The lock interval setting can be configured by users. Please refer to section **2.14 Function Key Tray** for changing lock interval.

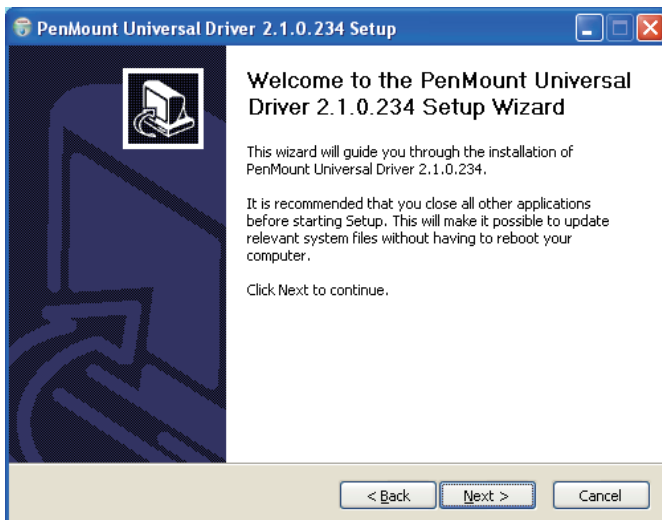
2.4 Driver Installation

2.4.1 Touch Screen Driver Installation

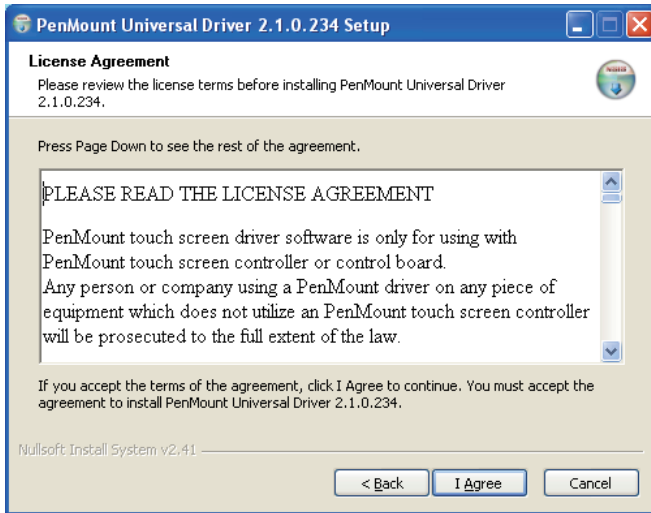
1. After you put the CD ROM into the CD-ROM drive, the driver and utility installation main menu appears. Click **Touch Screen** to install the driver for touch screen.



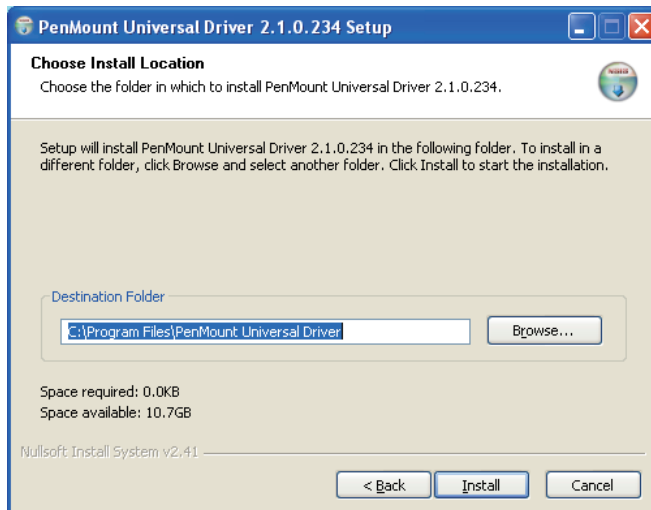
2. When you see the welcome wizard, click Next to continue.



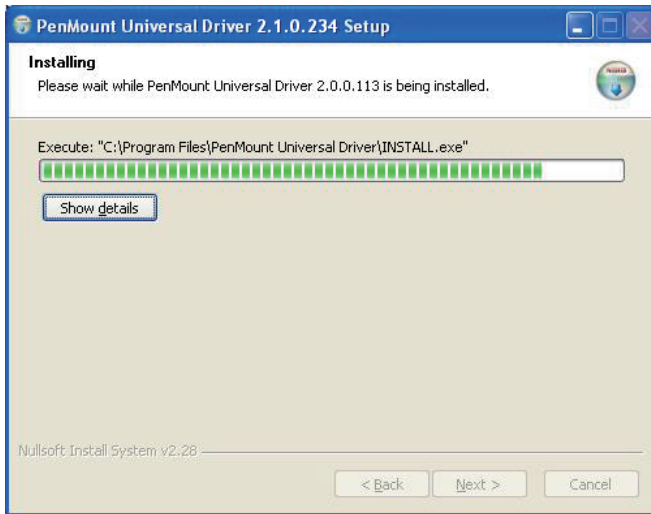
3. Please read the license agreement first, and click **I Agree** to continue.



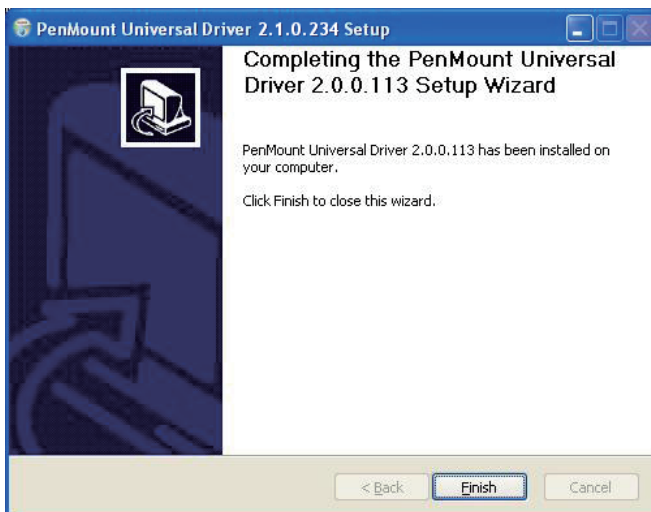
4. Click **Browse** to change the installation directory, or immediately click **Install** to continue.



5. Please wait for a while until the progress bar completes.



6. The installation is completed. Click **Finish** to close this window.



2.4.2 Chipset Driver Installation

1. Click **Chipset** of the main menu to install the chipset device driver.



2. Make sure you have closed all programs running and then click **Next** to continue.



- Please read the license agreement first, and click **Yes** to continue.



- Please read the Readme file for system requirements and installation information, and click **Next** to continue.



5. The chipset device driver installation is completed. Click **Finish** to close the window.



2.4.3 Graphics Driver Installation

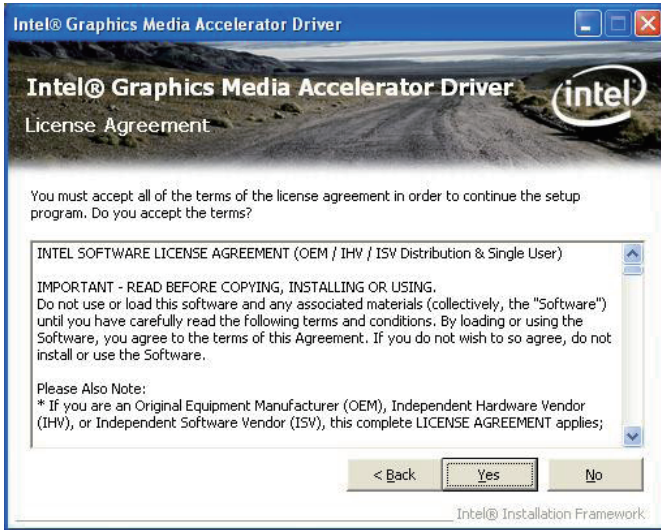
1. Click **VGA** of the main menu to install the graphics device driver.



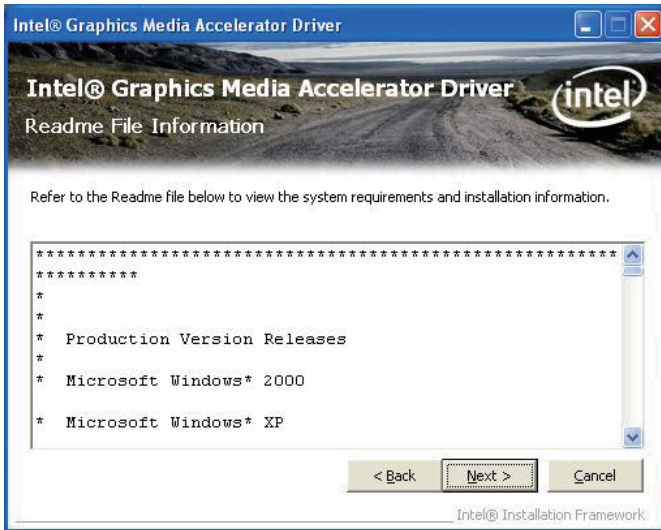
2. Make sure you have closed all programs running and then click **Next** to continue.



3. Please read the license agreement first, and click **Yes** to continue.



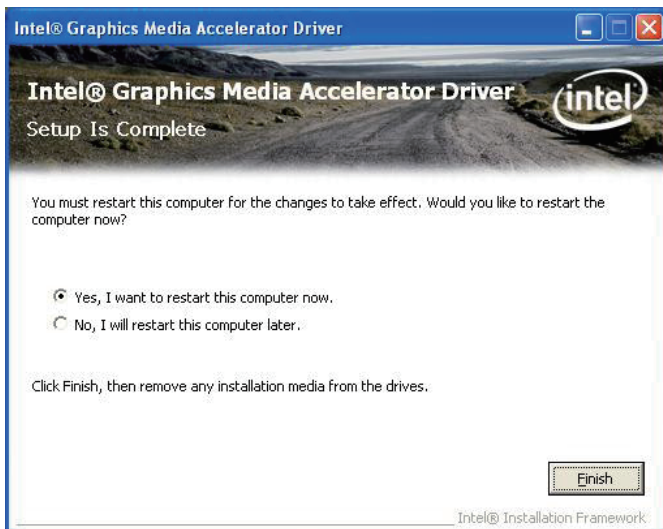
4. Please read the Readme file for system requirements and installation information, and click **Next** to continue.



5. The graphics device driver installation is completed. Click **Next** to continue.



6. After installing the graphics device driver, click **Finish** with **Yes** radio button selected to restart your computer to have the changes take effect, or with **No** to restart this computer later.



2.4.4 Audio Driver Installation

1. Click **Audio** of the main menu to install the audio device driver.



2. Click **Next** to continue.



- After installing the audio device driver, click **Finish** with **Yes** radio button selected to restart your computer to have the changes take effect, or with **No** to restart this computer later.

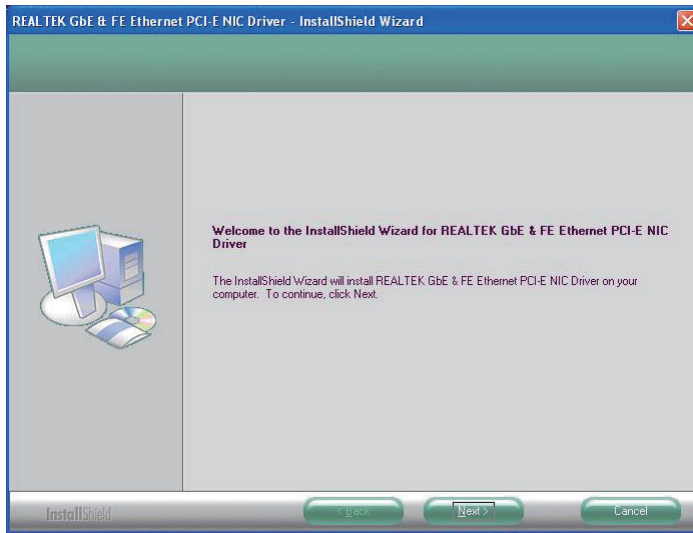


2.4.5 LAN Driver Installation

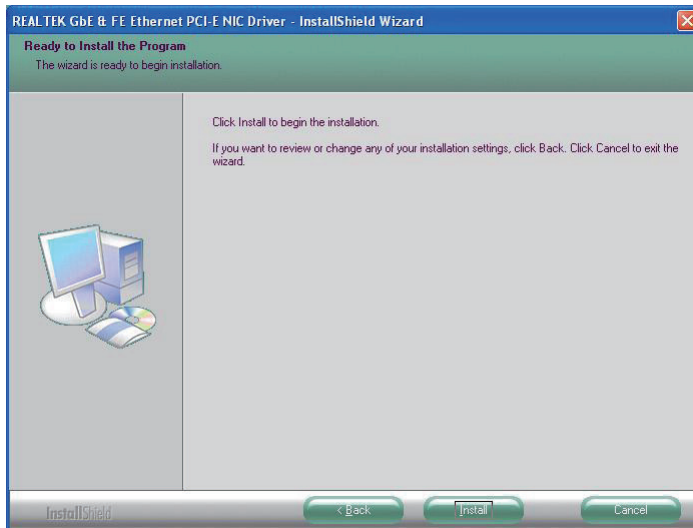
- Click **LAN** of the main menu to install the LAN device driver.



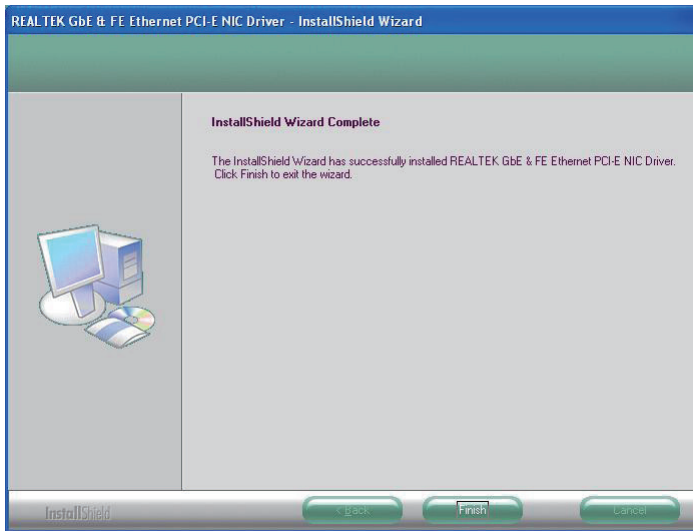
2. Click **Next** to continue.



3. Click **Install** to start installation, or **Back** to go back to the previous step.



4. Click **Finish** to close the wizard window.

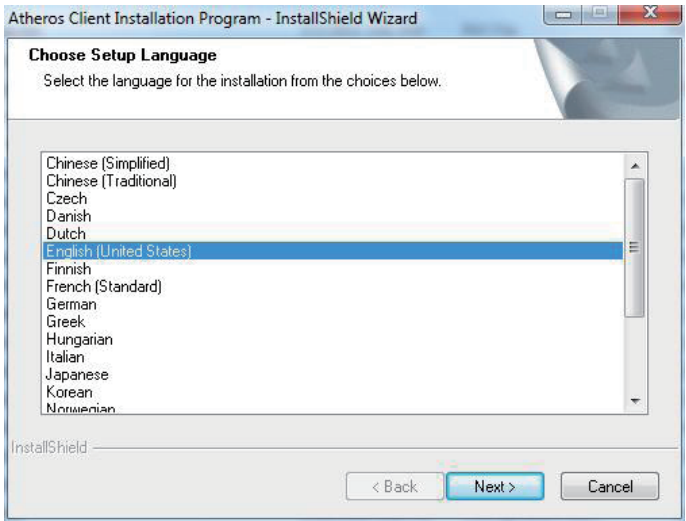


2.4.6 Wireless LAN Driver Installation

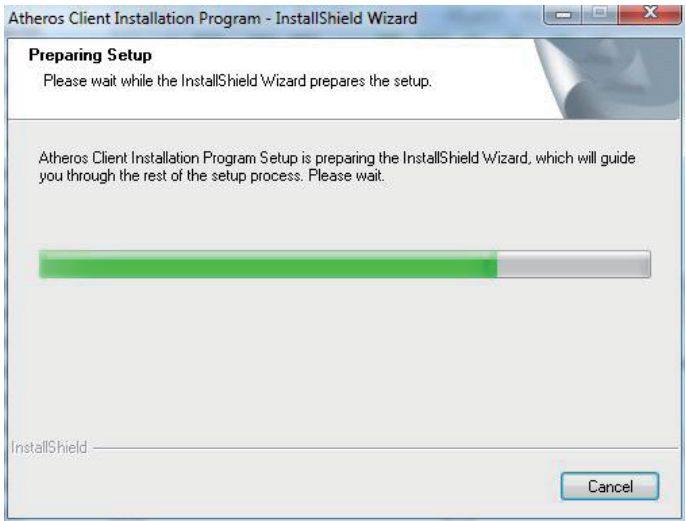
1. Click **WiFi** of the main menu to install the wireless LAN device driver.



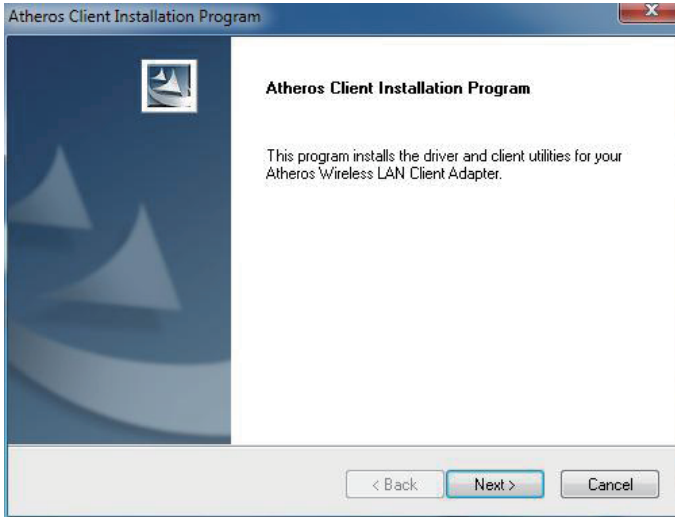
2. Select preferred language.



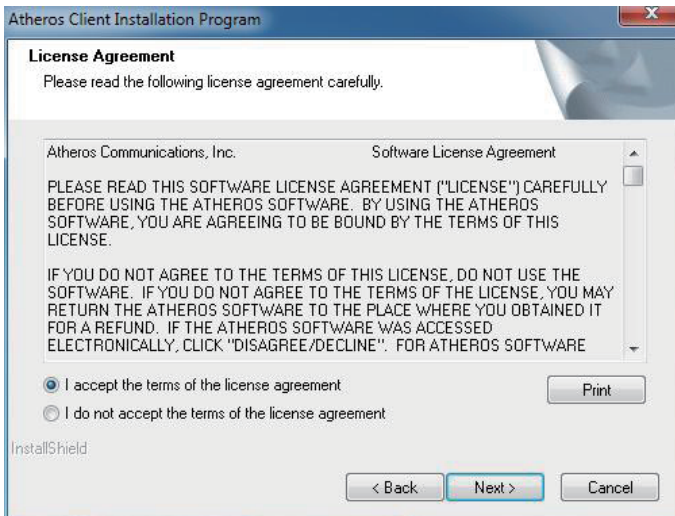
3. Wait for the process.



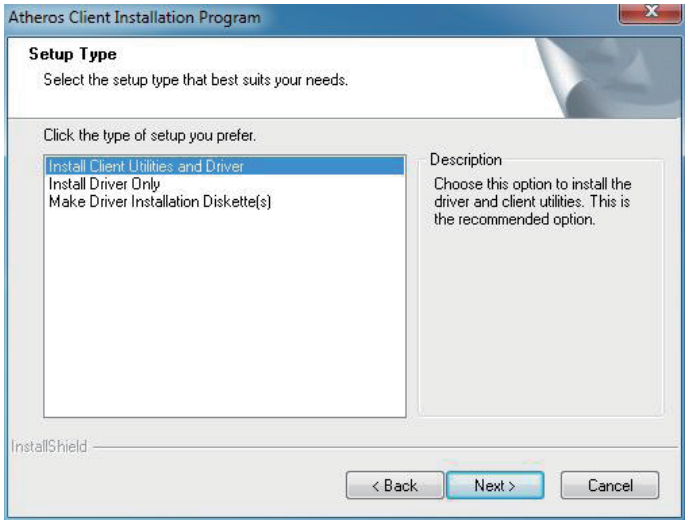
4. Click “Next >”.



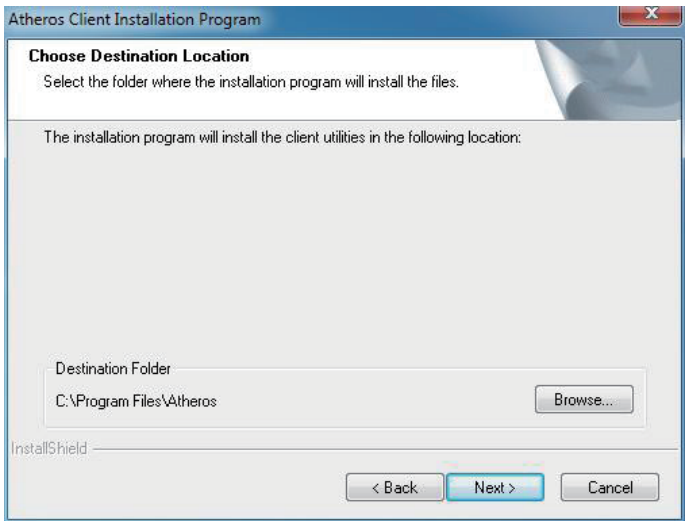
5. Choose “I accept the terms of the license agreement” and click “Next >”.



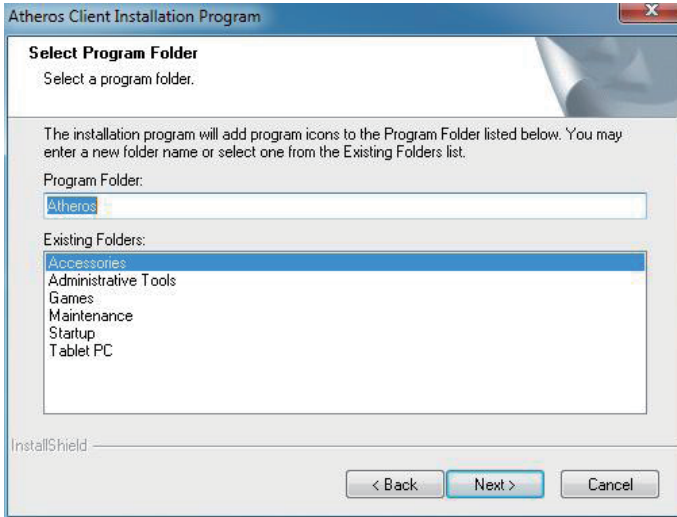
6. Select preferred type and Click “Next >”.



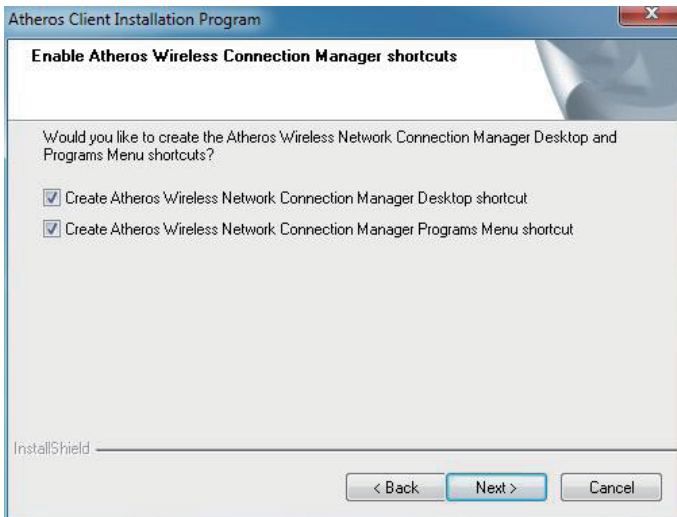
7. Click “Next >”.



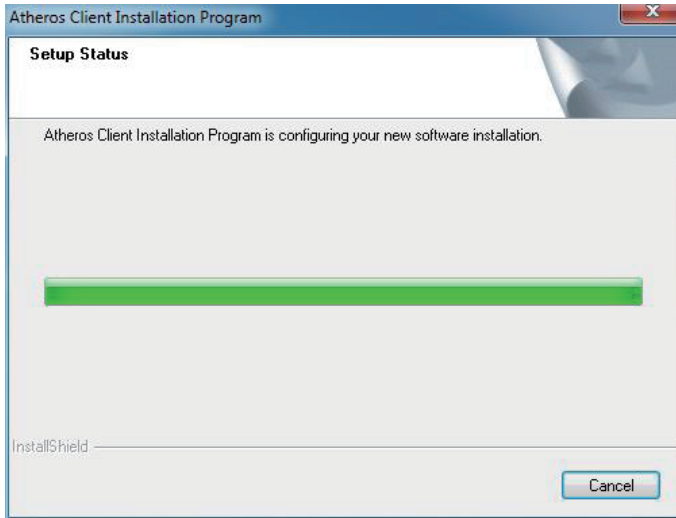
8. Click “Next >”.



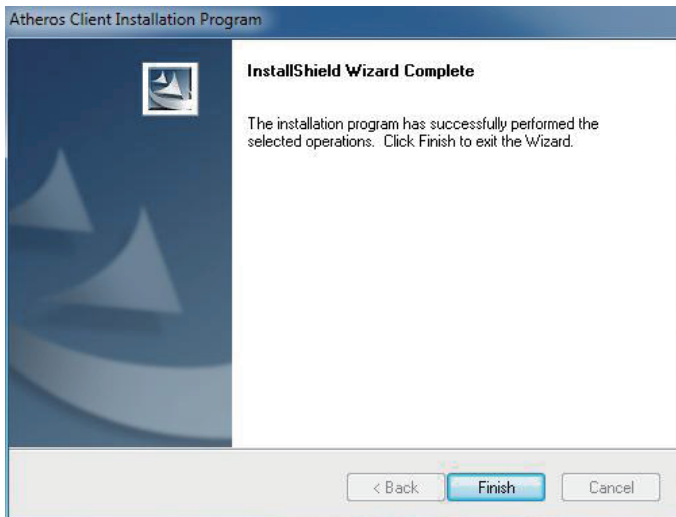
9. Click “Next >” to create shortcuts.



10. Wait for the process.



11. Click "Finish" to complete all process.



2.4.7 Bluetooth Driver Installation

1. Click **Bluetooth** of the main menu to install the Bluetooth device driver.



2. A dialog box shows up. Click the down arrow to drop down the selection menu and choose a language item and then click **OK** to continue.



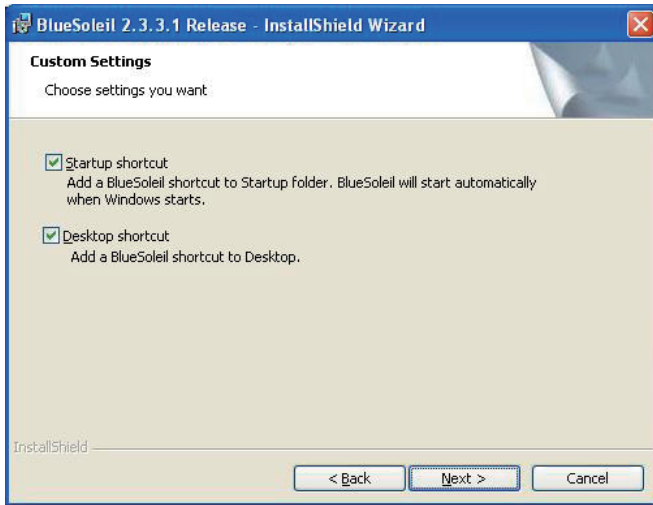
3. Check the driver information and click **Next** to continue.



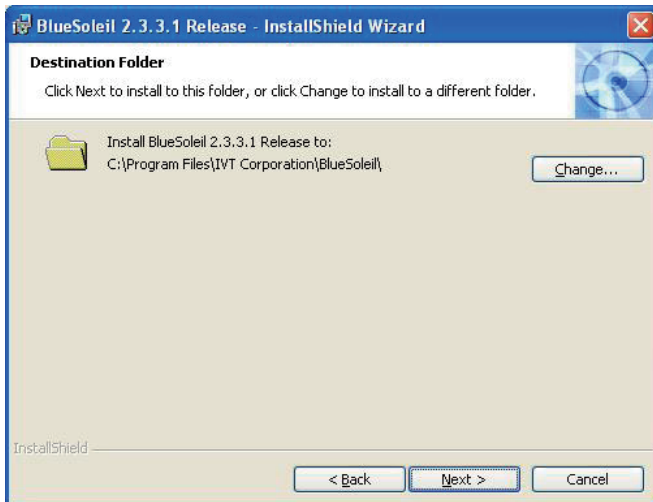
4. Please read the license agreement first; select **I accept the terms in the license agreement** and then click **Next** to continue.



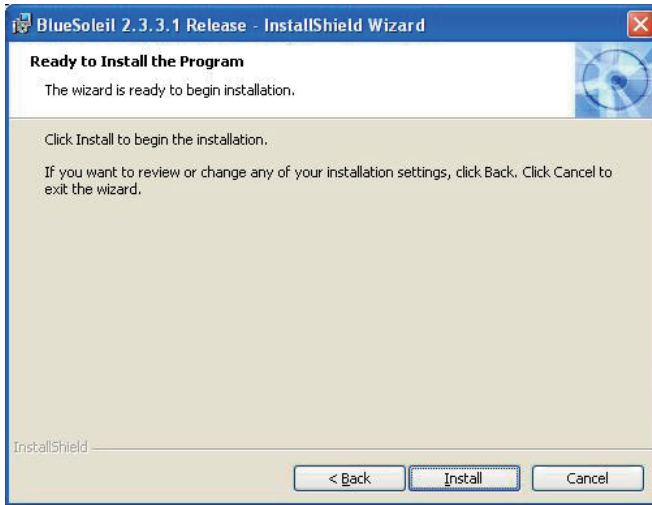
5. If you want to create shortcuts to Startup folder or Desktop, tick the check boxes beside the text label and then click **Next** to continue.



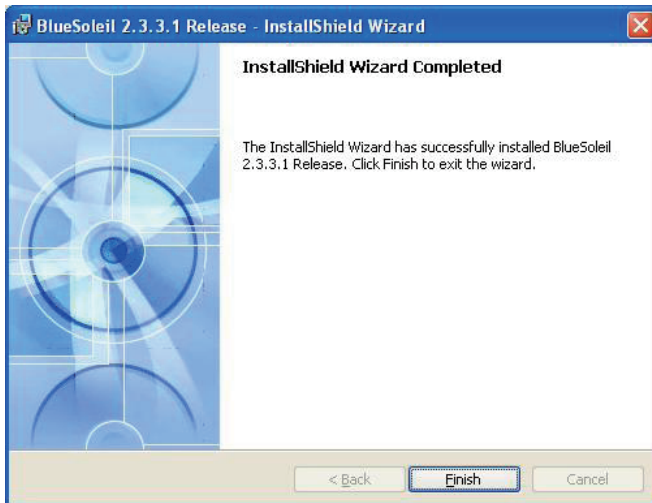
6. Click **Next** to install to this folder, or click **Change** to install to a different folder.



7. Click **Install** to start installation, or click **Back** to go back to the previous step.



8. After the installation is completed, click **Finish** to close the window.



2.4.8 RFID Driver Installation

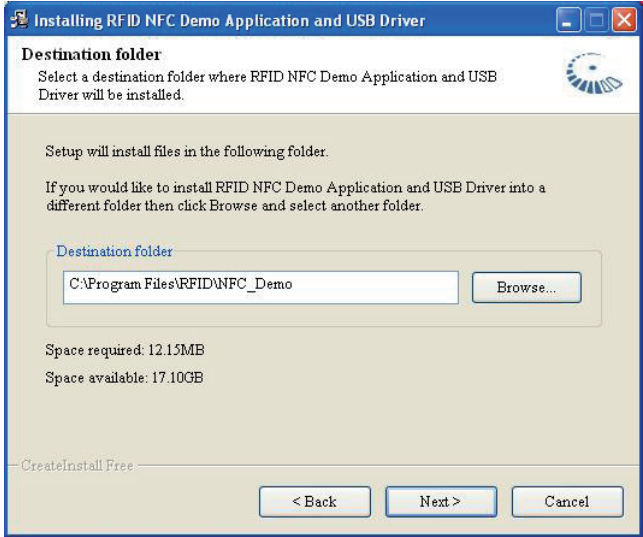
1. Click **RFID** of the main menu to install the RFID and USB devices driver. The “AP” letters on its icon implies this is an application, not driver.



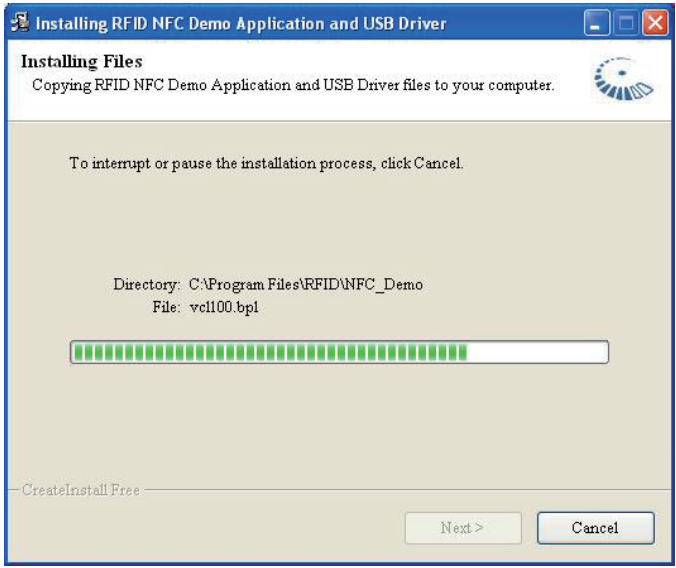
2. Read the information and then click **Next** to continue.



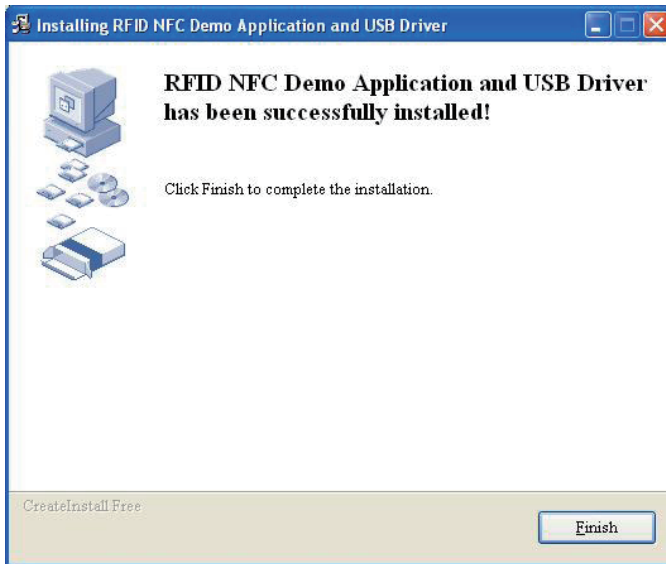
3. Click **Next** to install to this folder, or click **Browse** to install to a different folder.



4. The application is being installed, please wait for a while.



5. Click **Finish** to complete the installation.



Note:

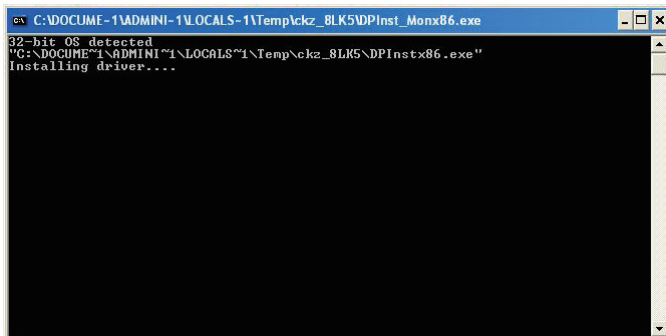
After installation, the RFID device information in Device Manager may appear with an exclamation mark. To solve this problem, please manually update the driver for this device just once.

2.4.9 RS-232 Driver Installation

1. Click **RS-232** of the main menu to install the com port devices driver.



2. The driver is being installed, please wait for a while and then the installation will automatically completed.



2.4.10 Fingerprint Scanner Driver Installation

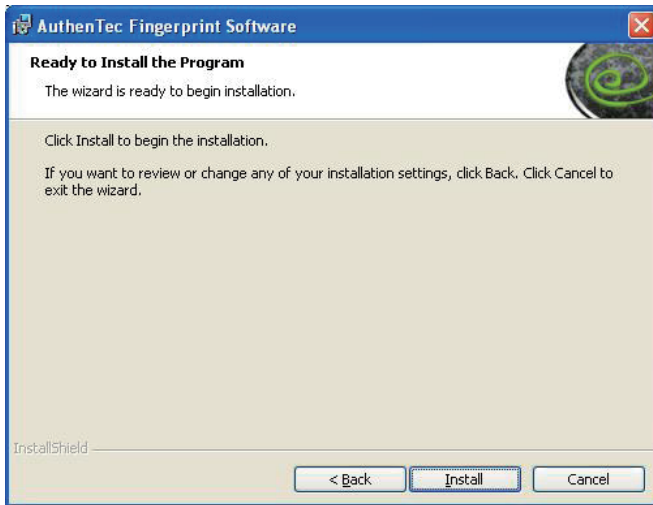
1. Click **Finger print** of the main menu to install the fingerprint scanner driver.



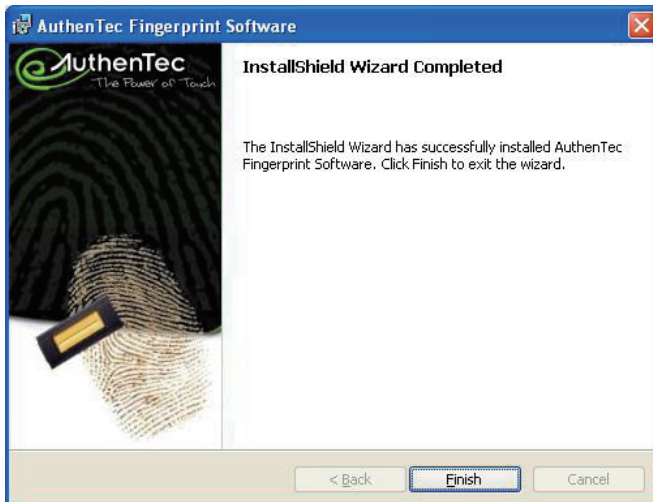
2. Click **Next** to continue.



3. Click **Install** to start installation.



4. The installation is completed. Click **Finish** to close the window.



2.4.11 Fingerprint Scanner Application Installation

1. Click **Finger print AP** of the main menu to install the fingerprint scanner application. The “AP” letters on its icon implies this is an application, not driver.



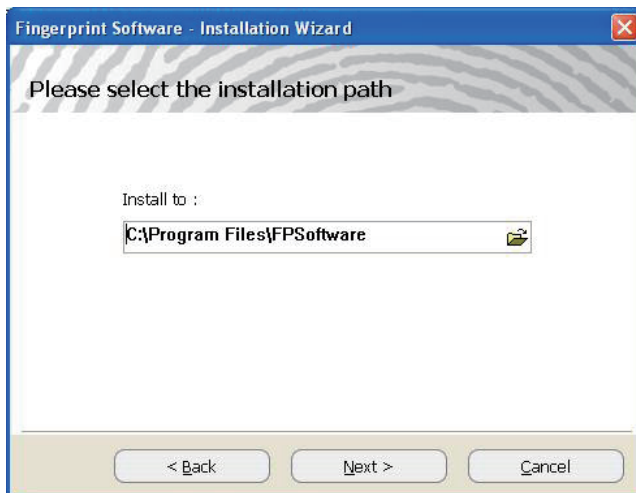
2. Click **Next** to continue.



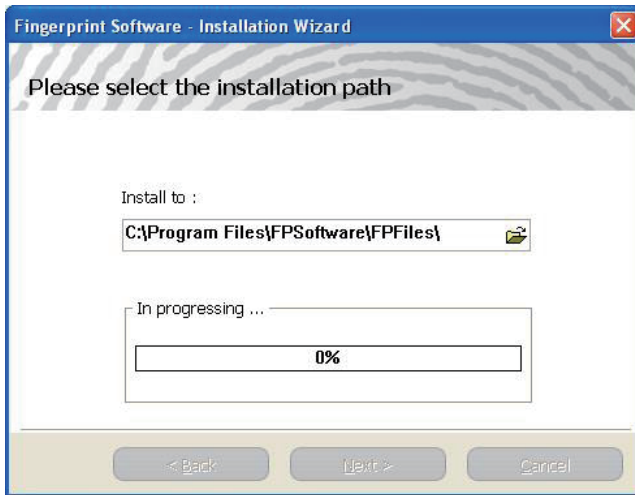
3. Please read the license agreement first; select ***I accept the terms in the license agreement*** and then click ***Next*** to continue.



4. Click ***Next*** to install to this folder, or click the folder icon to locate a different path for installation.



- The installation is in progress. Wait for a while until the progress bar reaches the end.



- Click **Finish** to complete the installation.



2.4.12 FunctionKey Interface Installation

1. Click **Function keys** of the main menu to install the functionKey Interface as a component into the control panel.



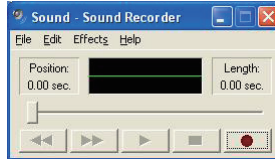
2. Click **Finish** to complete the installation.



Note: With this utility installed, an on-screen keyboard, which is different to the Windows on-screen keyboard, will automatically show up when users are to log on to the system. It is useful especially when no physical keyboard is available.

2.5 Audio Recording

The medical PC is equipped with a built-in microphone. Press the audio record button located on the front panel to bring up Windows Sound Recorder for voice or audio recording.



2.6 Screen Security Lock

Press once to disable the touch screen function; press again to enable. While the touch screen is disabled, you can still control your computer via keyboard/mouse.



2.7 On-screen Keyboard

Press to bring up or close the Windows on-screen keyboard.



2.8 SAS



For security reason when you are to leave or take the computer off the docking station, press once to bring up the fingerprint verification dialog box (if the fingerprint scanner application is installed and enabled). Or press twice to bring up the password logon dialog box and then type in your password to access the computer. It allows you to quickly switch between users without actually logging off the computer.

Before using the SAS function, you have to create the password for your user account in Windows XP and then register your fingerprint as a template for logon use. The steps as follows will guide you through the fingerprint registration.

1. Make sure you have created the password for your user account.
2. Select **Start > Programs > Fingerprint Software > Fingerprint Registration** to launch the fingerprint registration application and the Windows Logon Setting window appears.
3. The column field labeled **'User Name'** displays **'User1'** by default which is the current user account in Windows XP.
4. Type in the password which was created for the current user account.
5. Retype the password to confirm it.
6. Tick the check box labeled **'Use WindowsLogon'** and click **OK**. If not, the fingerprint identification will not be launched when logging.

Windows Logon Setting

Hint:

User name:

Password:

Confirm Password:

Domain:

Use WindowsLogon

OK Cancel

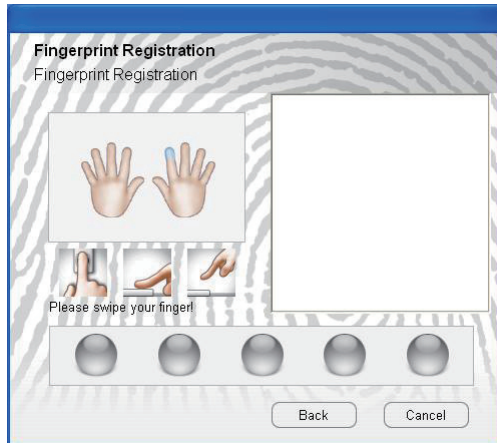
7. After the Windows Logon Setting is finished, the Fingerprint Registration window appears. Click on any of the fingers shown on screen and press next.



8. With the selected finger appearing in blue, the 'Next' button becomes available to be clicked. Click it to continue.



9. When this window shows up, swipe your finger across the finger identification sensor on the top right of your computer.



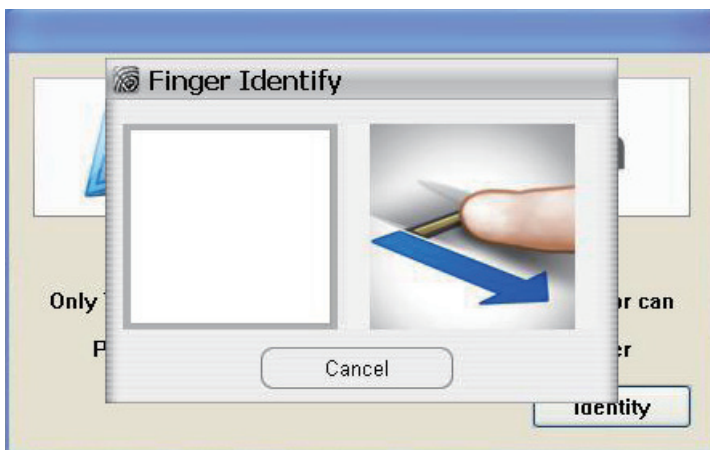
10. Please swipe your finger again until the counter below shows **OK** that means your fingerprint registration is successfully accepted.



11. The finger you have just registered appears in green. Click **Finish** to close the window. And then a dialog box appears to ask you to restart Windows; press **Yes** to restart immediately.



12. After the fingerprint template is registered, you can press the **SAS** button to bring up the fingerprint identification window. To access your computer, swipe your finger across the fingerprint scanner, or click **Cancel** and then enter password instead for identity verification.



2.9 Video Recording

Press video record button to launch the CCD video recorder and the window shows up.

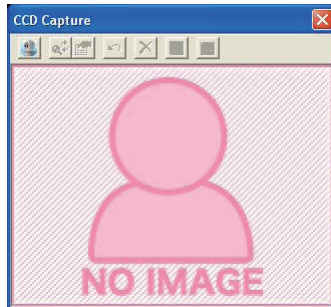


Press again to enable the CCD lens, which you will hear the two smooth sounds of music. Now you can see the real image shown in the window. Press the button; you may see a pop-up dialog box asking for video compression mode selection. Click **OK** to start video recording and you can see the hint text showing that the video is saving on the tool bar. Press the button to stop recording and you can see the hint text showing that the video is saved. You can find the recorded video files in the path of **C:\Documents and Settings\ [user account]\My Documents\ccd**.

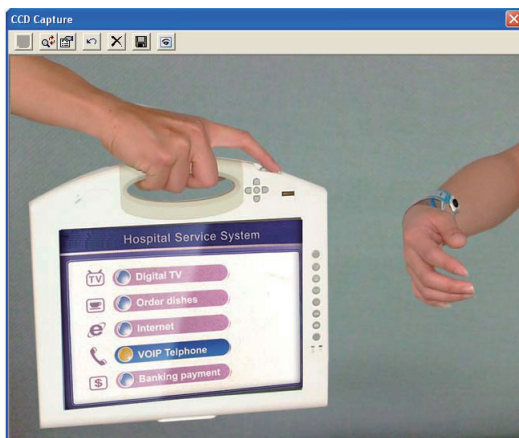


2.10 Camera

Press the camera button to launch the CCD camera and the window shows up.



Having enabled the CCD lens by pressing the button again, you will hear the two smooth sounds of music. Now you can see the real image shown in the window. Press the button, you can hear a shutter sound, to take a picture and you can see the hint text showing that the image is saved in BMP file format. Please find the saved files in the path of **C:\Documents and Settings\[user account]\My Documents\ccd**.



2.11 Bluetooth

Press to enable/disable Bluetooth connectivity. It's convenient when the computer leaves the docking station. You can connect the devices like mouse, keyboard, mobile phones or computers to this medical PC via the Bluetooth wireless connection.



2.12 Bar Code Scanner

The medical PC supports 1D/2D bar codes for retrieving information of the objects. Hold the computer by the handle and place the bar code of the object towards the bar code scanner in proper distance. Press the bar code scan trigger to receive the information.



Bar code button



2.13 RFID Reader

Press the RFID button to enable RFID reader and the RFID LED indicator turns on in amber. Get the RFID object near the RFID sensor at the rear of the medical PC to receive information.

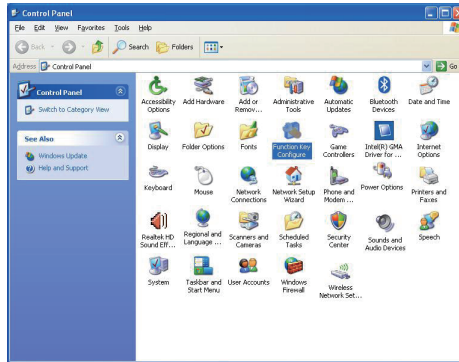


RFID button



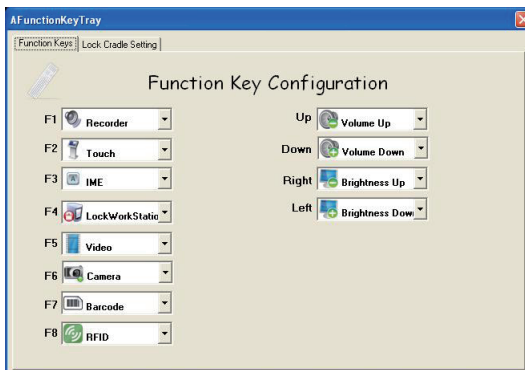
2.14 Function Key Tray

With the FunctionKey utility installed, see the figure below, a new item named **FunctionKey Tray Configuration** is created in **Control Panel**. This applet gives the definition list of function buttons and interval time setting of docking station lock functions.



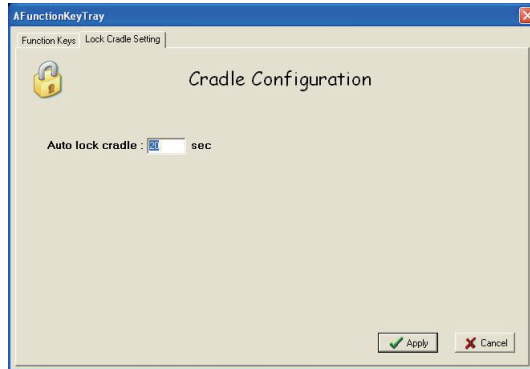
2.14.1 Function Key Configuration

Having clicked the icon, the **Function Keys** tab shows up displaying the function key configuration.



2.14.2 Lock Interval

Click the **Lock Cradle Setting** tab, type in the respected lock interval time in seconds and click Apply to have the setting take effect.



Chapter 3

BIOS

3.1 BIOS Main Setup

The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the AMI BIOS is immediately activated. Use the left/right arrow keys to highlight a particular configuration screen from the top menu bar or use the down arrow key to access and configure the information below.

Note: In order to increase system stability and performance, our engineering staff are constantly improving the BIOS menu. The BIOS setup screens and descriptions illustrated in this manual are for your reference only, may not completely match what you see on your screen.

BIOS SETUP UTILITY	
Main	Advanced Boot Security Exit
System Overview	
BIOS Version :1.09.00.M1255 EC Version :1.09 Build Date :05/06/09	
Processor	
Genuine Intel(R) CPU N270 1.6GHz Speed :1600MHz	
System Memory	
Size :504MB	
System Time	[00:00:38]
System Date	[Tue 01/01/2002]
Use [ENTER], [TAB] or [SHIFT-TAB] to select a field. Use [+] or [-] to configure system Time.	
← Select Screen ↑↓ Select Item +- Change Field Tab Select Field F1 General Help F10 Save and Exit ESC Exit	
v02.61 (C) Copyright 1985-2006, American Megatrends, Inc.	

System Time

Set the system time.

The time format is:

Hour : 00 to 23

Minute : 00 to 59

Second : 00 to 59

System Date

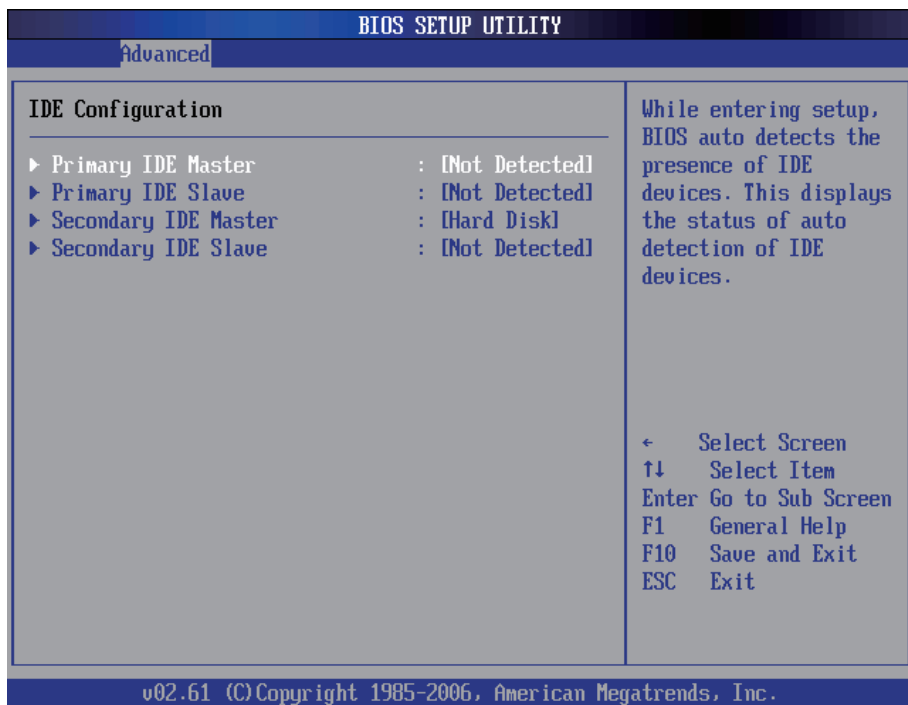
Set the system date. Note that the 'Day' automatically changes when you set the date.

The date format is: **Day** : Sun to Sat
 Month : 1 to 12
 Date : 1 to 31
 Year : 1999 to 2099

3.2 Advanced Settings

BIOS SETUP UTILITY				
Main	Advanced	Boot	Security	Exit
Advanced Settings		Configure the IDE device(s) .		
WARNING: Setting wrong values in below sections may cause system to malfunction.				
▶ IDE Configuration				
Install OS Configuration	[Disable]			
External USB Configuration	[Enable]			
Cradle Configuration	[Lock]			
		← Select Screen		
		↑↓ Select Item		
		Enter Go to Sub Screen		
		F1 General Help		
		F10 Save and Exit		
		ESC Exit		
v02.61 (C) Copyright 1985-2006, American Megatrends, Inc.				

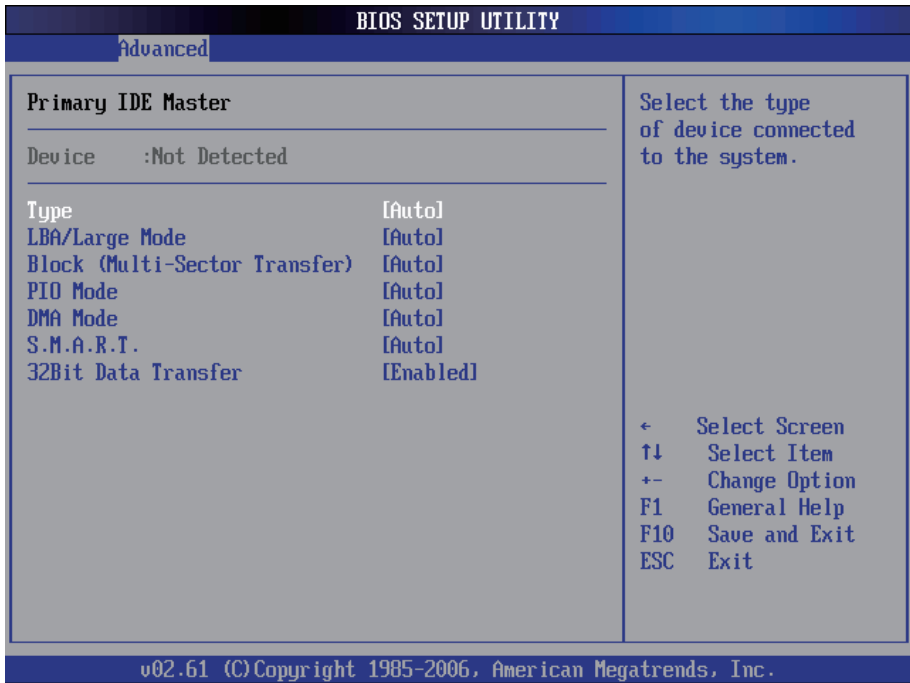
3.2.1 IDE Configuration



Primary/Secondary IDE Master/Slave

Select one of the hard disk drives to configure it. Press <Enter> to access its the sub menu.

IDE Configuration Sub Menu



Type

This setting determines the type of the IDE device. The default value is **Auto**.

LBA/Large Mode

This setting enables or disables support for IDE drives with capacities greater than 528MB. The default value is **Auto**.

Block (Multi Sector Transfer)

This setting enables or disables to support IDE drives using Block Mode. The default value is **Auto**.

PIO Mode

This setting determines the IDE Programmed I/O mode. The default value is **Auto**.

DMA Mode

This setting determines the IDE DMA mode. The default value is **Auto**.

S.M.A.R.T

This setting determines the IDE Self-monitoring, Analysis and Reporting Technology mode. The default value is **Auto**.

32Bit Data Transfer

This setting determines support for IDE drives that permit 32-bit accesses. The default value is **Enabled**.

3.2.2 Install OS Configuration

With this function disabled, you are not able to install operating system. Enable it for installing operating system and remember to disable this function again after installation completed.

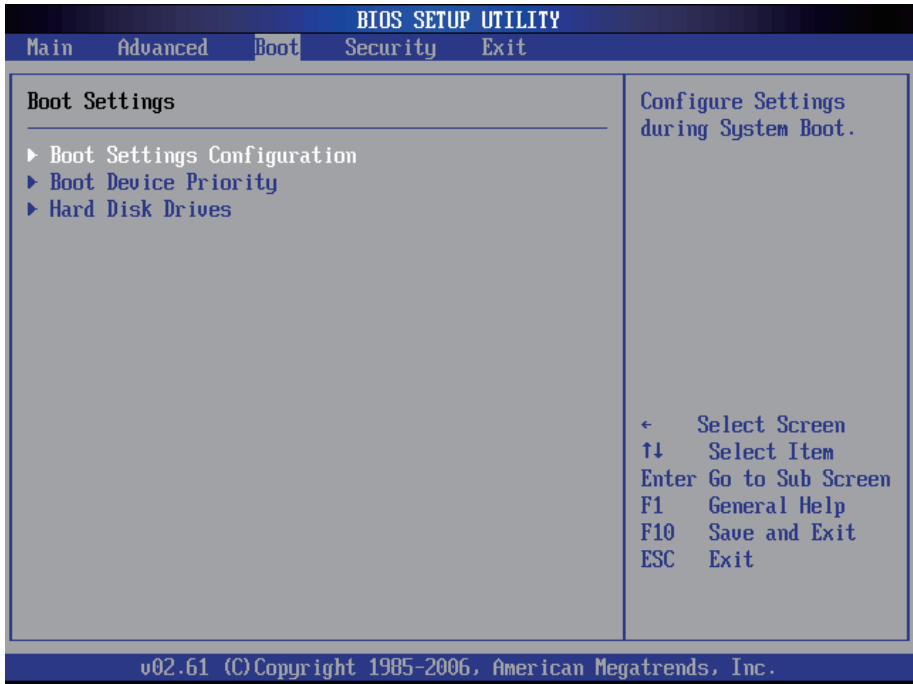
3.2.3 External USB Configuration

Disabling this function will have the USB port on the right side unavailable to protect the computer from unauthorized data access. It's enabled by default. Note when you decide to disable the external USB port, you'd better to enable the supervisor password as well via BIOS setup utility. See section **3.3 Security** for further details.

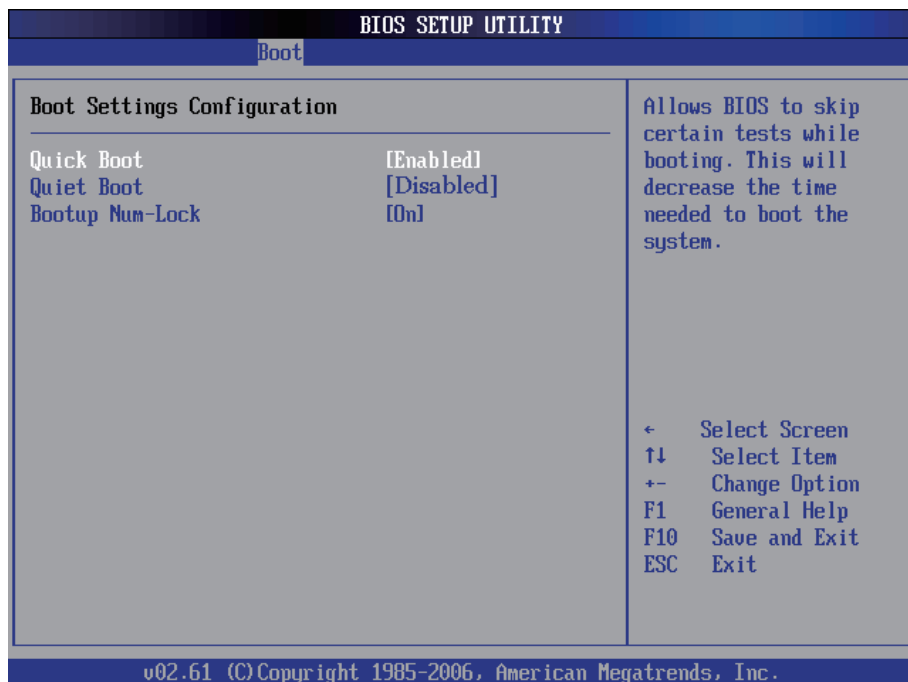
3.2.4 Cradle Configuration

Set this function to Lock or Unlock. When set to Lock, users cannot take the computer off the cradle until they have passed identity verification. When set to Unlock, users can easily take the computer off the cradle without any identity verification if the system power turns on.

3.3 Boot Settings



3.3.1 Boot Settings Configuration



Quick Boot

During the power on self test, the BIOS checks the hardware devices and counts the system memory. But all of these system tests are needed every time you boot, and can be turned off to save time. Enable this setting to turn those tests which are not needed.

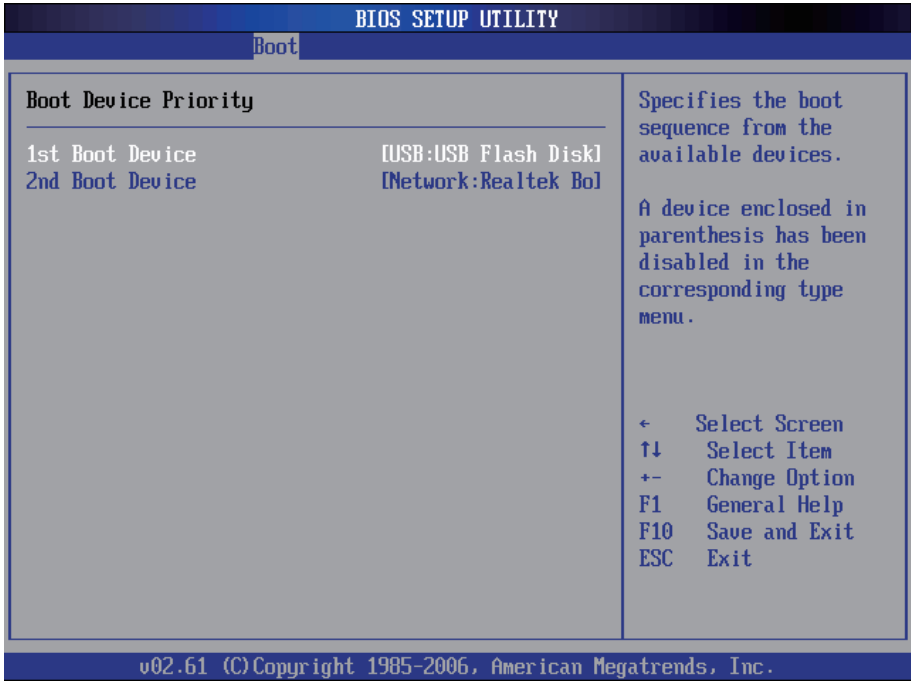
Quiet Boot

This setting determines if the BIOS should hide the normal POST messages with the motherboard or system manufacture's full-screen logo. When it is enabled, the BIOS will display the full-screen logo during the boot-up sequence, hiding normal POST messages. When it is disabled, the BIOS will display the normal POST messages instead of the full-screen logo.

Bootup Num-Lock

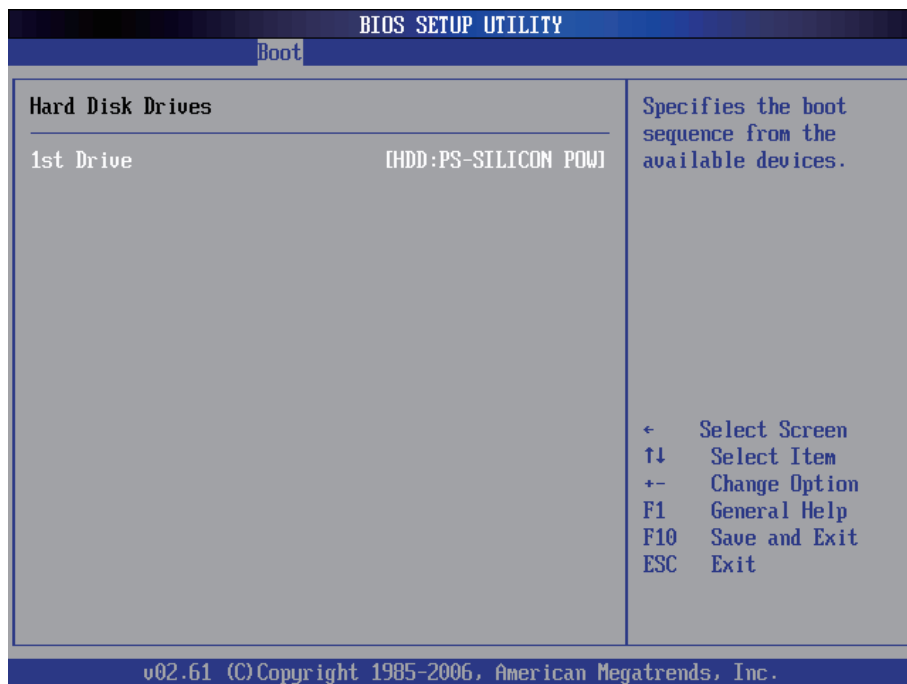
This setting determines whether the Num Lock key should be activated at boot up.

3.3.2 Boot Device Priority



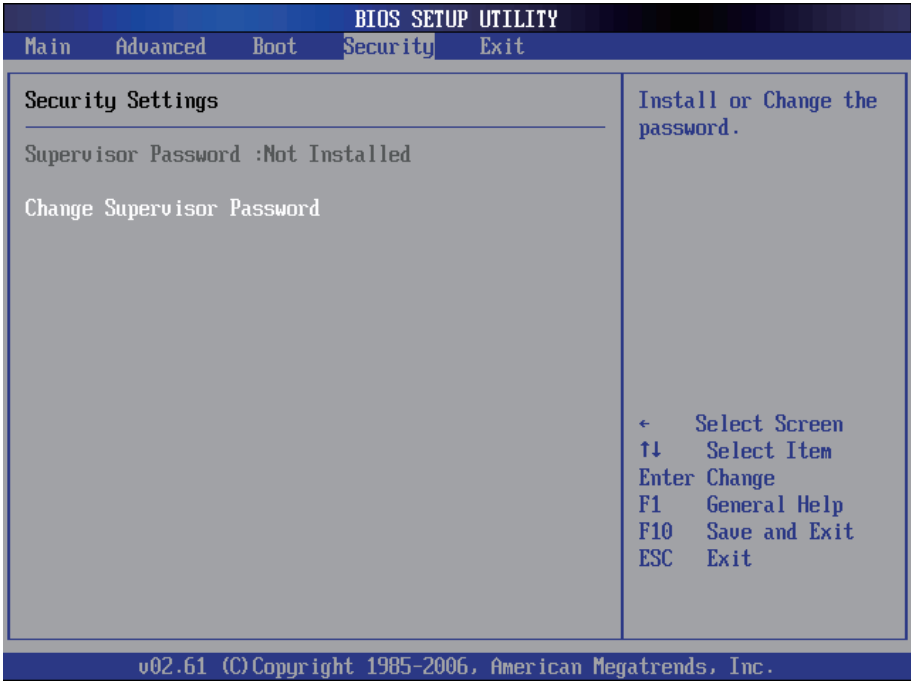
This setting determines the order that the BIOS uses to look for a boot device from which to load the operating system during the DOS boot process.

3.3.3 Hard Disk Drives



This function displays the information of HDD detected.

3.4 Security



Supervisor Password

Set **Change Supervisor Password** to enter and change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Enter New Password:

Type the password, up to six characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password.

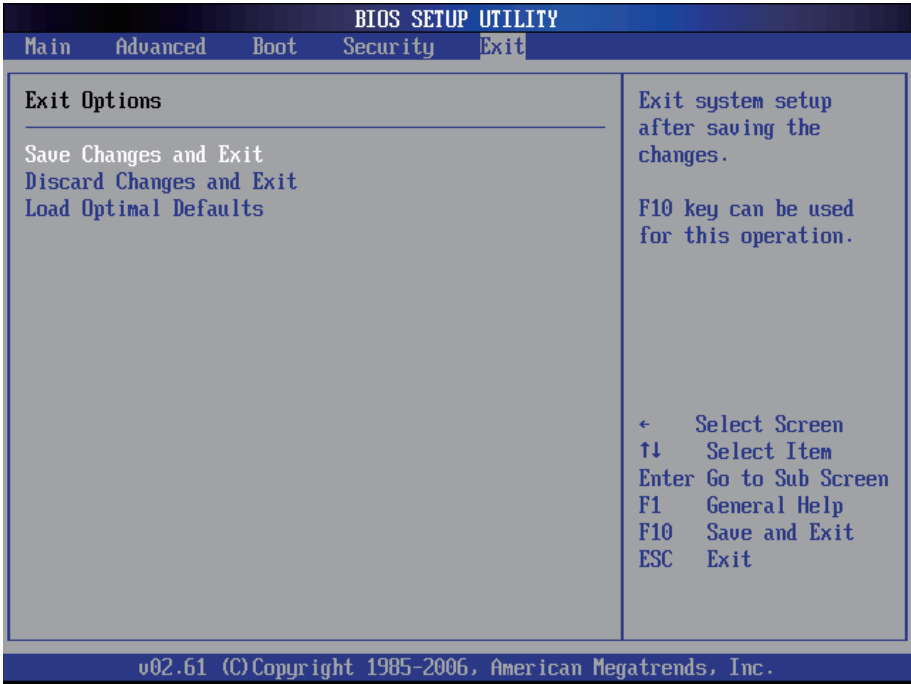
With a password created, a Password Check item appears. Set this item to **Setup**, you will be prompted to enter the password every time you try to enter the BIOS Setup utility. This prevents an unauthorized person from changing any part of your system configuration.

You can also have the BIOS to request a password every time your system is rebooted by setting it to **Always**. This would prevent unauthorized use of your computer.

To clear the password, just leave the field blank and press <Enter> when you are prompted to enter a new password. Once the password is cleared, the following message will appear at the center of the screen.

Password Uninstalled.

3.5 Exit Options



Save Changes and Exit

Pressing <Enter> on this item and it asks for confirmation:

Save configuration changes and exit setup?

Pressing <OK> stores the selection made in the menus in CMOS - a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

Discard Changes and Exit

Exit system setup without saving any changes.
<ESC> key can be used for this operation.

Load Optimal Defaults

When you press <Enter> on this item, you get a confirmation dialog box with a message:

Load Optimal Defaults?
[OK] [Cancel]

Pressing [OK] loads the BIOS Optimal Default values for all the setup configurations.

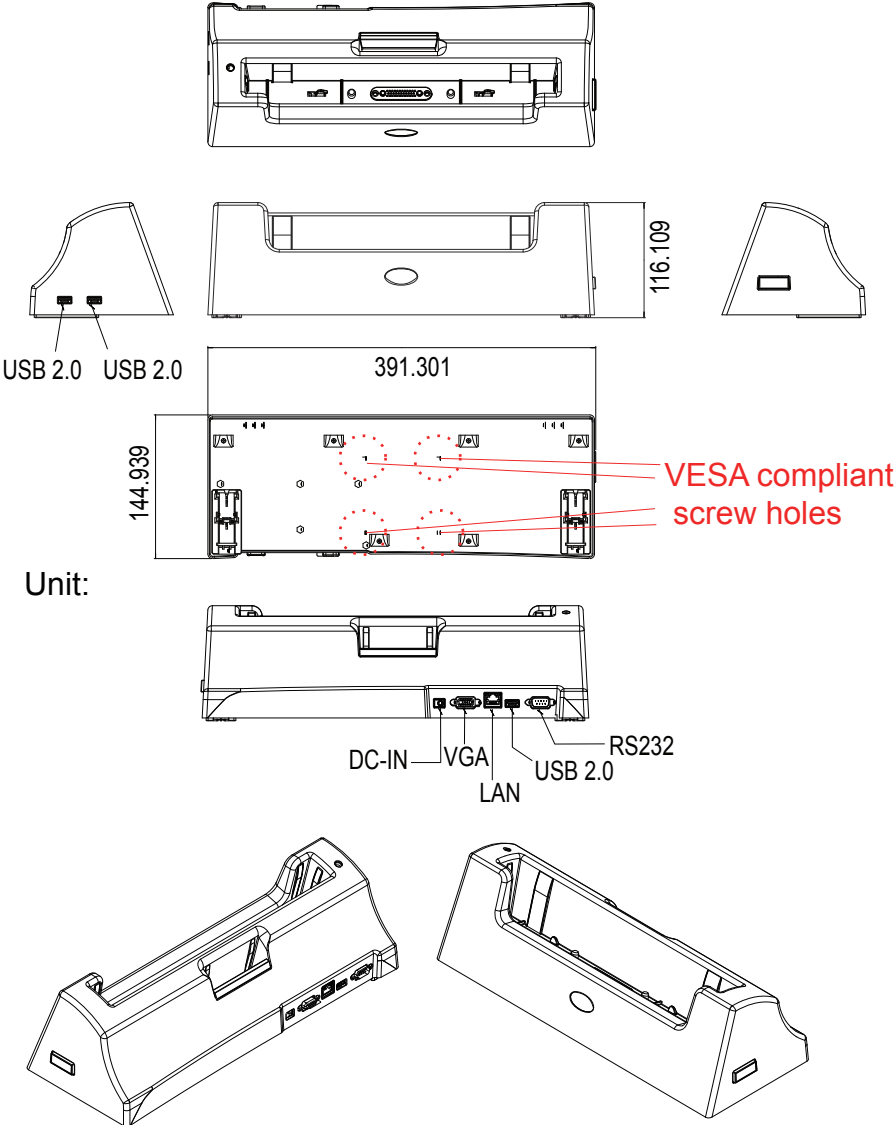
<F9> key can be used for this operation.



Appendix

A.1 Docking Station

By using the docking station, users can connect external peripheral devices, such as a monitor, a serial device, USB devices etc.



A.1.1 Connecting an External CRT

There is a 15-pin analog RGB interface connector located at the back of the docking station for connecting a secondary display. The system can support simultaneous display on both its LCD display and on the external CRT display.

Note:

1. When you connect an external CRT or VGA-based monitor to the VGA port of the docking station and if the external monitor appearance is abnormal, please modify the display properties to set the external monitor as the primary monitor. After the external monitor appearance becomes normal, you can set the medical PC back to primary and then the problem disappears.
2. The preferred resolution is 1024 x 768 because this is what the LCD Panel needs to operate full screen.

A.1.2 External Serial Port (COM)

The docking station supports a serial port of D-SUB 9-pin male connector which supports RS-232.

To connect the serial device, follow the steps below:

1. Turn off the Portable Medical PC system and the serial device.
2. Attach the interface cable of the serial device to the 9-pin D-SUB serial connector. Be sure to fasten the retaining screws.
3. Turn on the computer and the attached serial device.
4. Refer to the serial device's manual for instructions to configure the operation environment to recognize the new attached devices.
5. If the serial device needs specified IRQ or address, you may need to run the CMOS setup to change the hardware device setup.

A.1.3 LAN Port

M1255 provides one Realtek 8111 10/100/1000Base-T Ethernet (RJ-45) interface. For network connection, follow the instructions below:

1. Turn off the Medical PC system and the Ethernet hubs.
2. Plug in one end of cable from a 10/100/1000Base-T hub to the system's RJ-45 jack.
3. Turn on the Medical PC system and the Ethernet hubs.

A.1.4 USB Ports

M1255 provides four external USB ports to connect to external USB devices. USB ports and devices are hot plug capable. Therefore any USB device can be connected at all time without the need to power down your system. Note that for many of these devices you will first have to install proper device drivers before they can be recognized by the system.

A.1.5 DC Power Input

One end of the power cable is fitted with a standard power connector that connects to any normal wall outlet (types differ per country). To connect the system to power, follow the instructions below:

1. Make the system power switched off.
2. Plug the circular connector firmly into the circular socket of the docking station or the medical PC.
3. For operation, power up the system.

A.1.6 LED Indicator on Docking Station

The LED indicator of the docking station only displays the status of the external battery installed in the charging slot.

Color	Status	Description
Green (charge level above 70%)	On	The external battery has full charged or stops charging temporarily because the batteries installed in the computer are charging with a higher priority.
	Blinking	External battery is charging.
Amber (charge level between 20 and 70%)	On	The external battery stops charging temporarily because the batteries installed in the computer are charging.
	Blinking	External battery is charging.
Red (charge level below 20%)	On	The external battery stops charging temporarily because the batteries installed in the computer are charging.
	Blinking	External battery is charging.
OFF		No power

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