MPC150-810-DC

All-In-One 15” Medical Grade PANEL PC

User’s Manual

Disclaimers

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Safety Approvals

- CE Marking
- FCC Class B

FCC Compliance

This equipment has been tested in compliance with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are meant to provide reasonable protection against harmful interference in a residential installation. If not installed and used in accordance with proper instructions, this equipment might generate or radiate radio frequency energy and 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 methods:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment to another outlet of a circuit that doesn't connect with the receiver.
4. Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with the emission limits.

Safety Precautions

Before getting started, read the following important safety precautions.

1. The **MPC150-810-DC** does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.
2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
3. Disconnect the power cord from the **MPC150-810-DC** before any installation. Be sure both the system and external devices are turned OFF. A sudden surge of power could ruin sensitive components that the **MPC150-810-DC** must be properly grounded.
4. Make sure it is the correct voltage of the power source before connecting the equipment to the power outlet.
5. The brightness of the flat panel display will be getting weaker as a result of frequent usage. However, the operating period varies depending on the application environment.
6. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen. The **MPC150-810-DC** may come with or w/o a touchscreen. Although the touchscreen is chemical resistant, it is recommended that you spray the liquid cleaner on a cloth first before wiping the screen. In case your system comes without the touchscreen, you must follow the same procedure and not spray any cleaner on the flat panel directly.
7. Avoid using sharp objects to operate the touchscreen. Scratches on the touchscreen may cause malfunction or internal failure to the touchscreen.
8. The flat panel display is not susceptible to shock or vibration. When assembling the **MPC150-810-DC**, make sure it is securely installed.
9. Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20℃ or above 60℃. It may damage the equipment.
10. External equipment intended for connection to signal

input/out or other connectors, shall comply with relevant UL/IEC standard (e.g. UL 60950 for IT equipment and UL 60601-1/IEC 60601 series for medical electrical equipment). In addition, all such combinations shall comply with the standard IEC 60601-1-1, safety requirements for medical electrical systems. Equipment not complying with UL 60601-1 shall be kept outside the patient environment, as defined in the standard.

11. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
    - Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
    - When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

Classification

1. Degree of production against electric shock: not classified
2. Degree of protection against the ingress of water: IPX1
3. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
4. Mode of operation: Continuous
5. Type of protection against electric shock: Class I equipment

General Cleaning Tips

You may need the following precautions before you begin to clean the computer. When you clean any single part or component for the computer, please read and understand the details below fully.

1. When you need to clean the device, please rub it with a piece of dry cloth.
2. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
3. Turn the system off before you start to clean up the component or computer.
4. Never drop the components inside the computer or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarette around the computer.

Cleaning Tools:

Although many companies have created products to help improve the process of cleaning your computer and peripherals users can also use household items to clean their computers and peripherals. Below is a listing of items you may need or want to use while cleaning your computer or computer peripherals.

Keep in mind that some components in your computer may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning.

- Cloth: A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- Water or rubbing alcohol: You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the computer. Unknown solvents may be harmful to the plastics parts.
- Vacuum cleaner: Absorb the dust, dirt, hair, cigarette particles, and other particles out of a computer can be one of the best methods of cleaning a computer. Over time these items can restrict the airflow in a computer and cause circuitry to corrode.

- Cotton swabs: Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- Foam swabs: Whenever possible it is better to use lint free swabs such as foam swabs.

Note *We strongly recommended that you should shut down the system before you start to clean any single components.*

Please follow the steps below:

1. Close all application programs
2. Close operating software
3. Turn off power switch
4. Remove all device
5. Pull out power cable

Scrap Computer Recycling

If the computer equipments need the maintenance or are beyond repair, we strongly recommended that you should inform us as soon as possible for the suitable solution. For the computers that are no longer useful or no longer work well, please contact us for recycling and we will make the proper arrangement.

Trademarks Acknowledgments

FCC Safety

This device complies with Part 15 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.

UL Module Description

MPC150-810-DC DC module is developed to suitable for the Classification Mark requirement.

Safty Symbol Description

Medical equipment with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1, and CAN/CSA C22.2 NO. 601.1

Danger of explosion if the system is on running.

Ground wire Protective Ground wire

Table of Contents

MEMO

Chapter 1
Introduction

This chapter contains general information and detailed specifications of the **MPC150-810-DC**. Chapter 1 includes the following sections:

- **General Description**
- **System Specification**
- **Dimensions**
- **I/O Outlets**
- **Package List**

1.1 General Description

The **MPC150-810-DC** is a medical grade and fanless touch panel computer, and is equipped with a 15" TFT LCD display and low power consumption CPU, the LV Intel® Pentium® M or ULV Intel® Celeron® M. The MPC150-810-DC supports Windows® 2000/XP, Windows® XP embedded, and Linux. The panel is also designed with IPX1 water resistant and able to install a mini-PCI wireless module for wireless communication.

- **Reliable and Stable Design**
  The **MPC150-810-DC** adopts fanless cooling system and anti-vibration hard-drive bay, which makes it especially suitable for vibration environments, best for POC (Point of Care) application.

- **Flexibility – a PCI Slot**
  The **MPC150-810-DC** offers a PCI slot for extended communication, control or capture card, which can satisfy all requirements for various applications.

- **Embedded O.S. Supported**
  The **MPC150-810-DC Series** not only supports Windows® 2000/XP, but also embedded OS, such as Windows® XP embedded and Linux. For storage device, the **MPC150-810-DC** also supports 2.5" HDD or CompactFlash™ card.

- **Medical-grade Product Design**
  The MPC150-810-DC has an incredible design that can be used in different medical environments.
  - Certify with Medical Certification
  - Whole Unit IPX1 Water Resistant
  - Whole Unit Fanless Design
  - Compact with PCI Expansion Design
  - Excellent ID and User-Friendly Design

1.2 System Specifications

1.2.1 Main CPU Board

- **CPU**
  - LV Intel® Pentium M 1.4GHz or ULV Intel® Celeron® M 1GHz/0KB.
- **System Chipset**
  - Intel® 855GME/852GM + 6300ESB
- **BIOS**
  - Phoenix-Award BIOS, 4Mbit with RPL/PXE LAN Boot ROM, SmartView and Customer CMOS Backup
- **System Memory**
  - One 184-pin DDR DIMM max. up to 1GB(ECC & DDR333 supported by 855GME only)

1.2.2 I/O System

- **Standard I/O**
  - Three serial ports with power, two RS-232 and one RS-232/422/485 jumper selectable
  - Four USB ports 2.0 compliant
  - One Parallel Port
  - One PS/2 mouse and keyboard
  - One Mic-in, one Line-out
  - One VGA out (supports DualView)
  - One CompactFlash™
- **Ethernet**
  - Realtek RTL 8100C Fast Ethernet
  - Two 10/100/1000 Base-T Ethernet LAN
- **Expansion Slot**
  - One PCI Slot for 32-bit/66 MHz

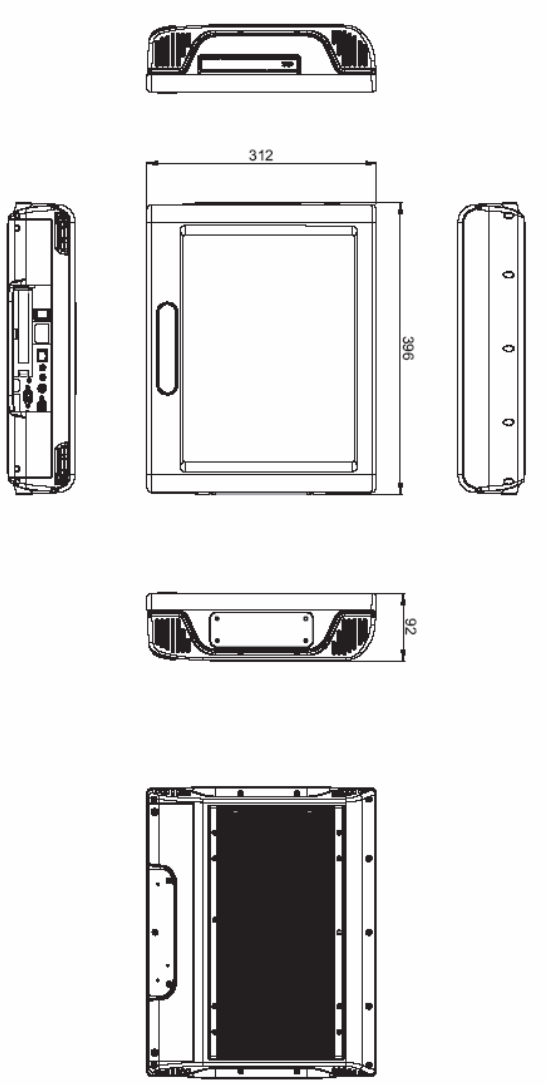
1.2.3 System Specification

- 15" XGA TFT LCD
  - Brightness -- 350 nits
  - Resolution -- 1024 x 768
- Disk Drive
  - Supports one 2.5" HDD
- Power Supply
  - ATX100W 24VDC Power Supply
- Power Input
  - 18-28VDC, 5-3.2A
- Fuse Rating
  - Fuse 3.15A/250V Slow Blow 5φ* 20mm Glass Body
- Optical Drive
  - Compact 8X CD-ROM or Optional 8X/24X Combo Drive
- Expansion Slot
  - One PCI Slot
- Net Weight
  - 7.5kg (16.5lb)
- Dimension
  - 396mm (W) x 312mm (H) x 92mm (D)
- Operation Temperature
  - 0℃~ -40℃; Relative Humidity 10% ~ 95%

NOTE *All specifications and images are subject to change without notice.*

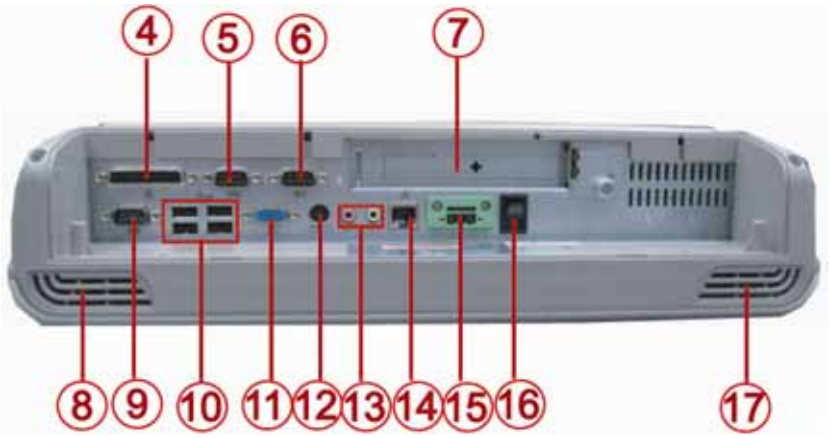
1.3 Dimensions

The following diagrams show you dimensions and outlines of the **MPC150-810-DC**.



1.4 I/O Outlets

The following figures show you the locations of the **MPC150-810-DC** I/O outlets.



No	Connector	No	Connector
1	BRIGHTNESS ADJUST	**10**	USB V2.0 X4
2	VOLUME ADJUST	**11**	VGA PORT
3	POWER LED	**12**	PS/2 FOR K/B & M/S
4	PARALLEL PORT	**13**	MIC-IN & LINE-OUT
5	COM 2	**14**	ETHERNET PORT
6	COM 3	**15**	DC POWER CONNECTOR
7	PCI SLOT	**16**	POWER SWITCH
8	SPEAKER-R	**17**	SPEAKER-L
9	COM 1		

1.5 Packing List

The package bundled with your **MPC150-810-DC** should contain the following items:

- MPC150-810-DC Unit x 1
- CD x 1 (For Driver and User's Manual)
- Quick Manual x 1
- CD-ROM Cover x 2
- IDE cable x 1
- Y Cable for PS/2 Keyboard & Mouse x 1
- Wallmount/VISA Bracket x 1
- Cable Management Kit x 2
- M4 x 12 Screws x 4 (for Wallmount/VESA Bracket)
- M4 x 8 Screws x 4 (for VESA Mounting)
- M3 x 5 Screws x 2 (for Cable Management Kit)

If you can not find this package or any items are missing, please contact AXIOMTEK distributors immediately.

1.6 Power Switch

Please use the following power switch for system power-on or power-off.

C h a p t e r 2
Hardware Installation

The **MPC150-810-DC** is convenient for your various hardware configurations, such as HDD (Hard Disk Drive), CF (CompactFlash™) card . The chapter 2 will show you how to install the hardware. It includes:

2.1 Installing the the Hard Disk Drive

The **MPC150-810-DC** offers a convenient drive bay module for users to install HDD. The system offers users one 2.5" Hard Disk Drive for installation. Please follow the steps:

Step 1 Turn off the MPC150-810-DC.

Step 2 Unplug the DC power cable.

Step 3 Release six screws which are marked on the following picture.

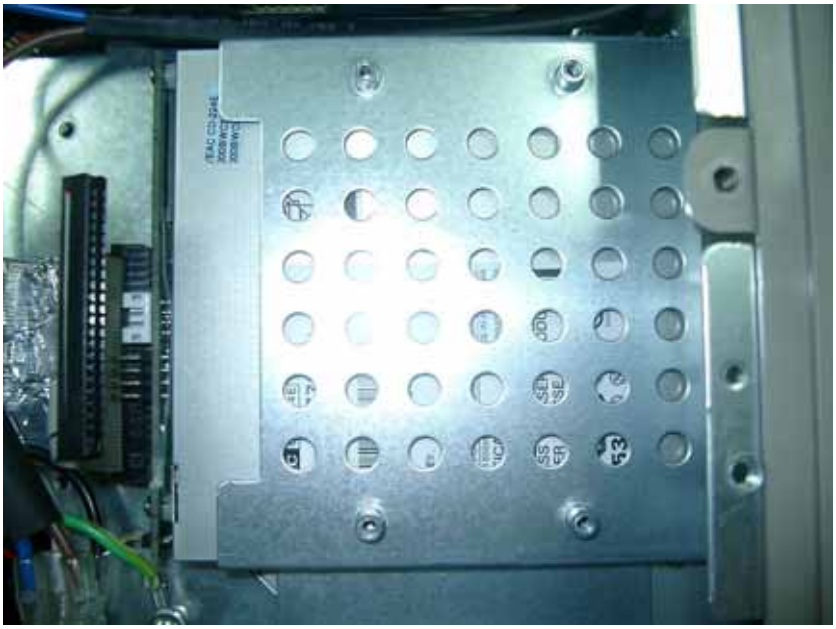
Step 4 Remove the heatsink.

Step 5 Prepare HDD Assembly Parts

- HDD Bracket x 1
- 2.5inch HDD (Parallel ATA I/F)
- Screws x 4

Step 6 Assembly the HDD with HDD bracket.

Step 7 Assembly the HDD assembly into MPC150 by following screws.



Step 8 Plug-in the IDE Cable to HDD.

Step 9 Assembly back the Heatsink.

2.2 Installing the Add-On Card

If you need to install an Add-On card, please follow these steps for ADD-On card installation:

Step 1 Turn off the MPC150-810-DC.

Step 2 Unplug the DC power cable.

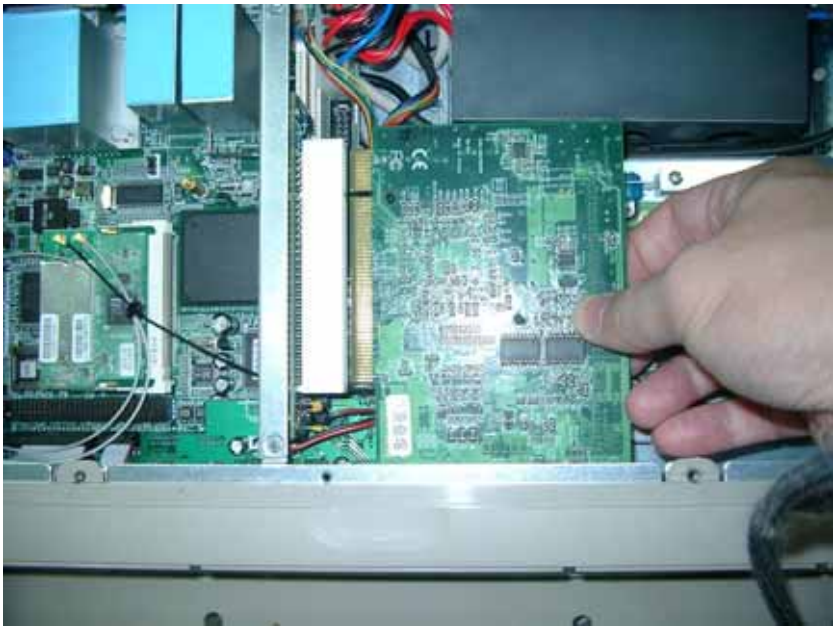
Step 3 Release six screws which are marked on the following picture.

Step 4 Remove the heatsink.

Step 5 Remove the two screws of IO Cover.

Step 6 Release the PCI Holder and Dummy Plate.

Step 7 Install the Add-On Card.



Step 8 Screw back the PCI Holder.

Step 9 Install back the IO Cover & Heatsink.

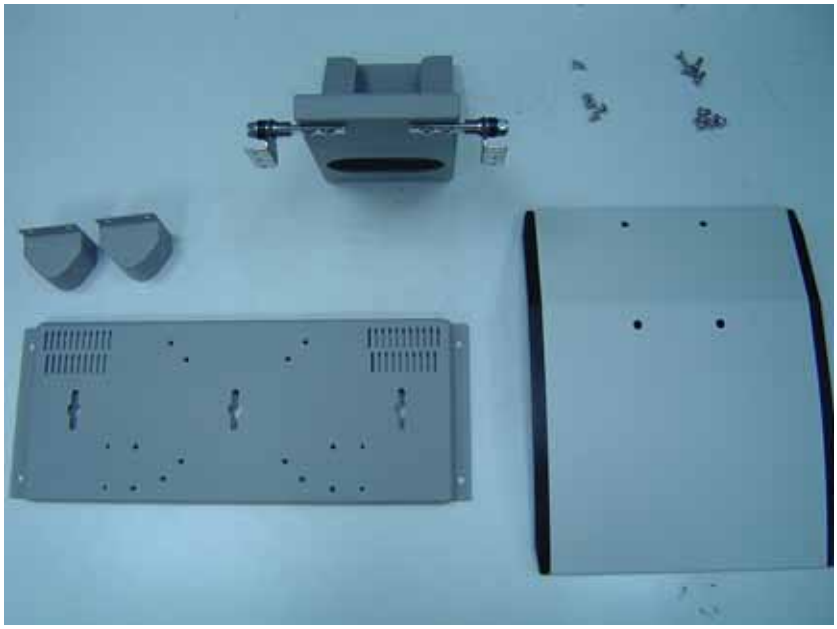
2.3 Mountings – Wallmount/VESA

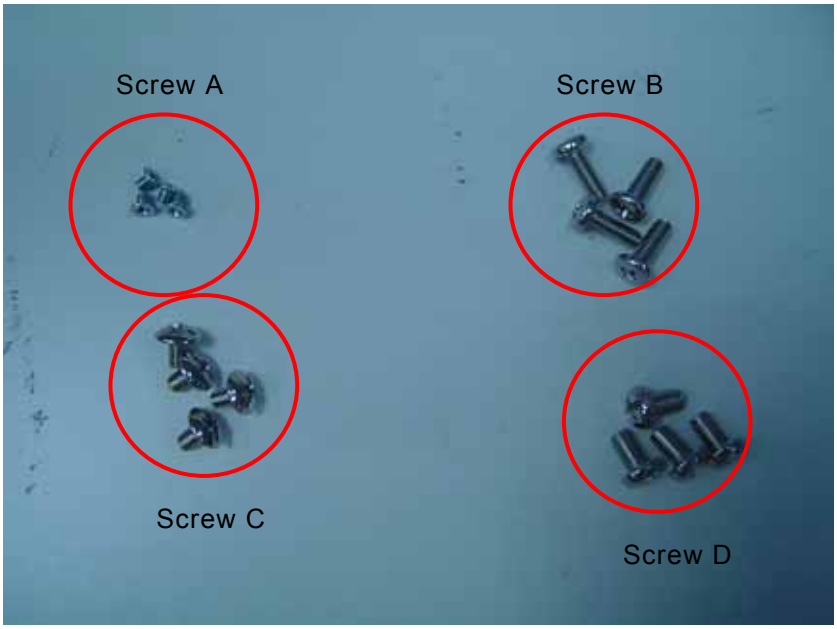
The MPC150-810-DC provides mounting for Wallmount and VESA-Arm by applying Wallmount/VESA Bracket as below.

2.4 Installing Desktop Stand (Optional)

The MPC150-810-DC provides Desktop Stand (Option) that customer can install as below.

Step 1 Prepare the parts of Desktop Stand.

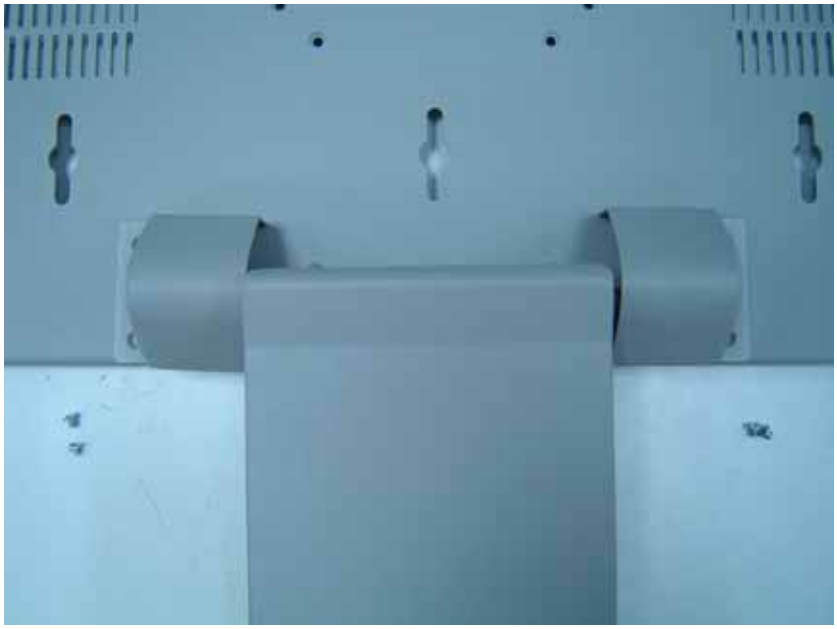



Screw A
Screw B
Screw C
Screw D

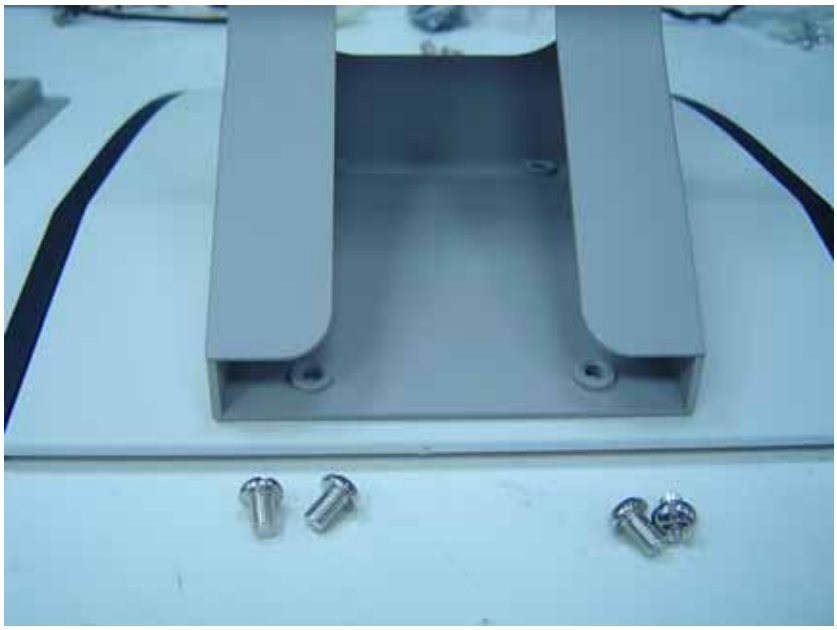
Step 2 Assembly the Desktop Stand.

Step 2-1 Assembly the Backplane (Use Screw C).

Step 2-2 Assembly the Hinge Cover (Use Screw A).



Step 2-3 Assembly the Base (Use Screw D).



Step 3 Assembly the Desktop Stand onto MPC150-810-DC (Use Screw B).

2.5 Installing Memory Module

Step 1 Turn-off the MPC150-810-DC.

Step 2 Un-plug the DC power cable.

Step 3 Release the 6 screws which are marked on the following picture.

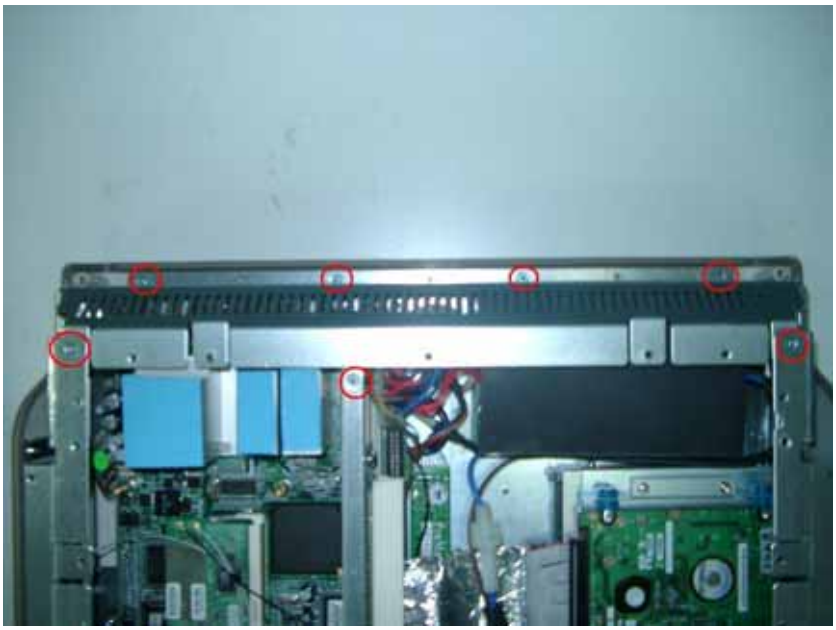
Step 4 Remove the heatsink.

Step 5 Remove the two screws of IO Cover.

Step 6 Release the following marked 18 screws.

Step 7 Remove the plastic back cover.

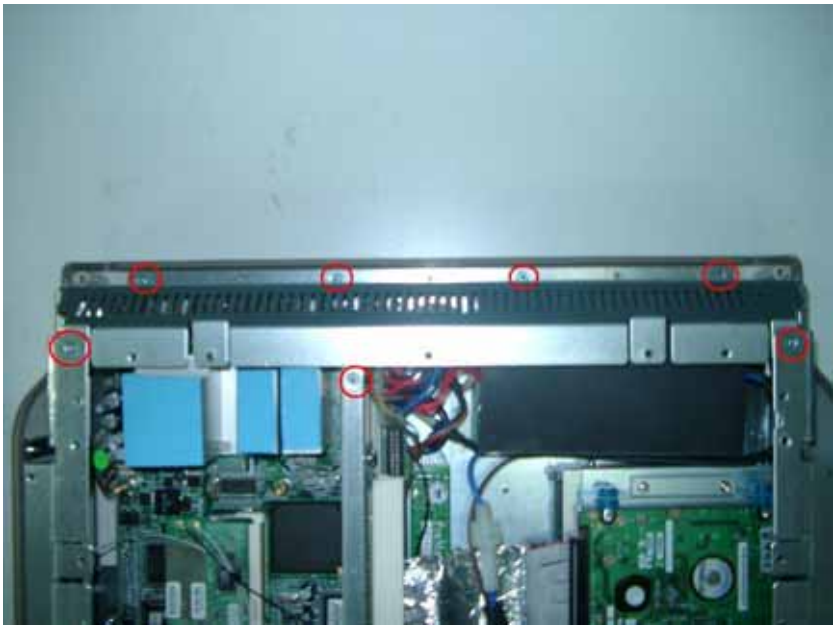
Step 8 Release the following marked 9 screws.



Step 9 Remove the metal bracket.

Step 10 Install the memory module.

Step 11 Install back the metal bracket.



Step 12 Install back the plastic back cover.

Step 13 Install back the IO Cover.

Step 14 Install back the Heatsink.

2.6 Installing Wireless Module (Optional)

You can follow the steps below to install an optional wireless module.

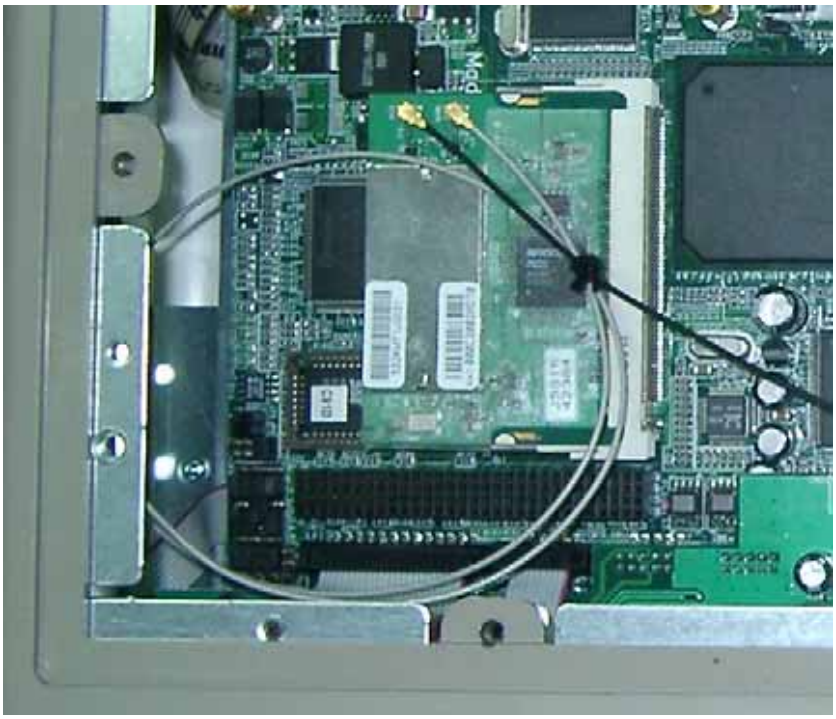
Step 1 Turn-off the MPC150-810-DC.

Step 2 Un-plug the DC power cable

Step 3 Release the 6 screws which are marked on the following picture.

Step 4 Remove the heatsink.

Step 5 Install Wireless Module & Plug-In the Antenna.



Step 6 Install back the Heatsink.

MEMO

C h a p t e r 3
Phoenix-Award BIOS Utility

The Phoenix-Award BIOS provides users with a built-in Setup program to modify basic system configuration. All configured parameters are stored in a battery-backed-up RAM (CMOS RAM) to save the Setup information whenever the power is turned off.

3.1 Entering Setup

There are two ways to enter the Setup program. You may either turn ON the computer and press <Del> immediately, or press the <Del> and/or <Ctrl>, <Alt>, and <Esc> keys simultaneously when the following message appears at the bottom of the screen during POST (Power on Self Test).

TO ENTER SETUP PRESS DEL KEY

If the message disappears before you respond and you still want to enter Setup, please restart the system to try it again. Turning the system power OFF and ON, pressing the "RESET" button on the system case or simultaneously pressing <Ctrl>, <Alt>, and <Del> keys can restart the system. If you do not press keys at the right time and the system doesn't boot, an error message will pop out to prompt you the following information:

PRESS <F1> TO CONTINUE, <CTRL-ALT-ESC> OR <DEL> TO ENTER SETUP

3.2 Control Keys

Up arrow	Move cursor to the previous item
Down arrow	Move cursor to the next item
Left arrow	Move cursor to the item on the left hand
Right arrow	Move to the item in the right hand
Esc key	Main Menu -- Quit and delete changes into CMOS Status Page Setup Menu and Option Page Setup Menu -- Exit current page and return to Main Menu
PgUp/"+" key	Increase the numeric value or make changes
PgDn/"–" key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
(Shift) F2 key	Change color from total 16 colors. F2 to select color forward, (Shift) F2 to select color backward
F3 key	Reserved
F4 key	Reserved
F5 key	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
F6 key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 key	Load the Setup default, only for Option Page Setup Menu
F8 key	Reserved
F9 key	Reserved
F10 key	Save all the CMOS changes, only for Main Menu

3.3 Getting Help

- **Main Menu**
  The online description of the highlighted setup function is displayed at the bottom of the screen.

- **Status Page Setup Menu/Option Page Setup Menu**
  Press <F1> to pop out a small Help window that provides the description of using appropriate keys and possible selections for highlighted items. Press <F1> or <Esc> to exit the Help Window.

3.4 The Main Menu

Once you enter the Award BIOS CMOS Setup Utility, the Main Menu appears on the screen. In the Main Menu, there are several Setup functions and a couple of Exit options for your selection. Use arrow keys to select the Setup Page you intend to configure then press <Enter> to accept or enter its sub-menu.

CMOS Setup Utility-Copyright © 2000-2004 Award Software

► Standard CMOS Features	► Frequency/Voltage Control
► Advanced BIOS Features	Load Fail-Safe Defaults
► Advanced Chipset Features	Load Optimized Defaults
► Integrated Peripherals	Set Supervisor Password
► Power Management Setup	Set User Password
► PnP/PCI Configurations	Save & Exit Setup
► PC Health Status	Exit Without Saving
Esc : Quit F9: Menu in BIOS F10 : Save & Exit Setup	↑ ↓ → ← : Select Item
F6 : SAVE CMOS TO BIOS	F7: LOAD CMOS FROM BIOS
Time, Date, Hard Disk Type...	

NOTE *If your computer can not boot after making and saving system changes with Setup, the Award BIOS will reset your system to the CMOS default settings via its built-in override feature.*

It is strongly recommended that you should avoid changing the chipset's defaults. Both Award and your system manufacturer have carefully set up these defaults that provide the best performance and reliability.

3.5 Standard CMOS Setup Menu

The Standard CMOS Setup Menu displays basic information about your system. Use arrow keys to highlight each item, and use <PgUp> or <PgDn> key to select the value you want in each item.

CMOS Setup Utility-Copyright © 2000-2004 Award Software
Standard CMOS Features

Date (mm:dd:yy)	Thu, Jan 10 2002	Item Help
Time (hh:mm:ss)	2 : 31 : 24	
		Menu Level ▶
▶ IDE Primary Master		
▶ IDE Primary Slave		Change the Day, month, Year and Century
▶ IDE Secondary Master		
▶ IDE Secondary Slave		
Drive A	1.44M, 3.5 in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All, But Keyboard	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **Date**
  The date format is <day>, <date> <month> <year>. Press <F3> to show the calendar.

day	It is determined by the BIOS and read only, from Sunday to Saturday.
date	It can be keyed with the numerical/ function key, from 1 to 31.
month	It is from January to December.
year	It shows the current year of BIOS.

- **Time**
  This item shows current time of your system with the format <hour> <minute> <second>. The time is calculated based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

- **Primary Master/Primary Slave/Secondary Master/Secondary /Slave**
  These items identify the types of each IDE channel installed in the computer. There are 45 predefined types (Type 1 to Type 45) and 2 user's definable types (Type User) for Enhanced IDE BIOS.

Press <PgUp>/<+> or <PgDn>/<–> to select a numbered hard disk type, or directly type the number and press <Enter>. Please be noted your drive's specifications must match the drive table. The hard disk will not work properly if you enter improper information. If your hard disk drive type does not match or is not listed, you can use Type User to manually define your own drive type.

If selecting Type User, you will be asked to enter related information in the following items. Directly key in the information and press <Enter>. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.

If the HDD interface controller supports ESDI, select "Type 1".
If the HDD interface controller supports SCSI, select "None".
If the HDD interface controller supports CD-ROM, select "None".

CYLS.	number of cylinders	**LANDZONE**	landing zone
HEADS	number of heads	**SECTORS**	number of sectors
PRECOMP	write precom	**MODE**	HDD access mode

If there is no hard disk drive installed, select NONE and press <Enter>.

- **Dive A type/Drive B type**
  The item identifies the types of floppy disk installed in the computer, as drive A or drive B.

None	No floppy drive installed
360K, 3.5 in	3.5 inch PC-type standard drive; 360Kb Mini ITXcity
1.2M, 3.5 in	3.5 inch AT-type high-density drive; 1.2MB Mini ITXcity
720K, 3.5 in	3.5 inch double-sided drive; 720Kb Mini ITXcity
1.44M, 3.5 in	3.5 inch double-sided drive; 1.44MB Mini ITXcity
2.88M, 3.5 in	3.5 inch double-sided drive; 2.88MB Mini ITXcity

- **Halt On**
  This item determines whether the system will halt or not, if an error is detected while powering up.

No errors	The system booting will halt on any errors detected. (default)
All errors	Whenever BIOS detects a non-fatal error, the system will stop and you will be prompted.
All, But Keyboard	The system booting will not stop for a keyboard error; it will stop for other errors.
All, But Diskette	The system booting will not stop for a disk error; it will stop for other errors.
All, But Disk/Key	The system booting will not stop for a keyboard or disk error; it will stop for other errors.

Press <Esc> to return to the Main Menu page.

3.6 Advanced BIOS Features

This section allows you to configure and improve your system, to set up some system features according to your preference.

CMOS Setup Utility-Copyright © 2000-2004 Award Software
Advanced BIOS Features

CPU Feature	Press Enter	Item Help
Hard Disk Boot Priority	Press Enter	
Virus Warning	Disabled	Menu Level ►
CPU L1 & L2 Cache	Enabled	
CPU L2 Cache	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	HDD-0	
Second Boot Device	Floppy	
Third Boot Device	SCSI	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
APIC Mode	Enabled	
PS/2 Mouse Function Control	Enabled	
OS Select for DRAM >64MB	Non-OS2	
Report No FDD For WIN 95	No	
Full Screen Logo Show	Disabled	
Small Screen Show	Disabled	
Summary Screen Show	Enabled	
Display board ID	Disabled	
↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

- **Hard Disk Boot Priority**
  This item can select boot device priority.
- **Virus Warning**
  This option flashes on the screen. During and after the system boot up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system with the following message. You can run an anti-virus program to locate the problem. The default setting is "*Disabled*".

! WARNING !
Disk boot sector is to be modified
Type "Y" to accept write or "N" to abort write
Phoenix-Award Software, Inc.

Enabled	It automatically activates while the system boots up and a warning message appears for an attempt to access the boot sector or hard disk partition table.
Disabled	No warning message will appear for attempts to access the boot sector or hard disk partition table.

NOTE *This function is only available with DOS and other operating systems that do not trap INT13.*

- **CPU L1 & L2 Cache**
  These two options speed up memory access. However, it depends on the CPU/chipset design. The default setting is *"Enabled"*. CPUs without built-in internal cache will not provide the "CPU Internal Cache" item on the menu.

Enabled	Enable cache
Disabled	Disable cache

- **Quick Power On Self Test**
  This option speeds up Power on Self Test (POST) after you turn on the system power. If set as Enabled, BIOS will shorten or skip some check items during POST. The default setting is "*Enabled*".

Enabled	Enable Quick POST
Disabled	Normal POST

- **First/Second/Third Boot Device**
  These items let you select the 1st, 2nd, and 3rd devices that the system will search for during its boot-up sequence. The wide range of selection includes Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, LAN and Disabled.

- **Boot Other Device**

This item allows users to enable or disable the boot device not listed in the First/Second/Third boot devices option above. The default setting is "*Enabled"*.

- **Swap Floppy Drive**
  This item allows you to determine whether to enable Swap Floppy Drive or not. When enabled, the BIOS swap floppy drive assignment makes Drive A become Drive B, and vice versa. The default setting is "*Disabled".*

- **Boot Up Floppy Seek**
  During POST, BIOS will determine the floppy disk drive type, 40 or 80 tracks. The 360Kb type is 40 tracks while 720Kb, 1.2MB and 1.44MB are all 80 tracks. The default value is *"Enabled"*.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Please be noted BIOS can not differentiate 720K, 1.2M or 1.44M drive type as they all are 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. There will be no warning message displayed if the installed drive is 360K.

- **Boot Up NumLock Status**
  Set the the Num Lock status when the system is powered on.
  The default value is *"On"*.

- **Gate A20 Option**
  The default value is *"Fast"*.

Normal	The A20 signal is controlled by keyboard controller or chipset hardware.
Fast	Default: Fast. The A20 signal is controlled by Port 92 or chipset specific method.

- **Typematic Rate Setting**
  This item determines the typematic rate of the keyboard. The default value is *"Disabled"*.

Enabled	Enable typematic rate and typematic delay programming.
Disabled	Disable typematic rate and typematic delay programming. The system BIOS will use default value of these 2 items, controlled by keyboard.

- **Typematic Rate (Chars/Sec)**
  This option refers to character numbers typed per second by the keyboard. The default value is *"6"*.

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

- **Typematic Delay (Msec)**
  This option defines how many milliseconds must elapse before a held-down key begins generating repeat characters. The default value is *"250"*.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

- **Security Option**
  This item allows you to limit access to the system and Setup, or just to Setup. The default value is *"Setup"*.

System	If a wrong password is entered at the prompt, the system will not boot, the access to Setup will be denied, either.
Setup	If a wrong password is entered at the prompt, the system will boot, but the access to Setup will be denied.

NOTE *To disable the security, select PASSWORD SETTING at Main Menu and then you will be asked to enter a password. Do not type anything, just press <Enter> and it will disable the security. Once the security is disabled, the system will boot and you can enter Setup freely.*

- **OS Select for DRAM >64MB**
  This item allows you to access the memory over 64MB in OS/2.

- **Report No FDD For WIN 95**

Select Yes to release an IRQ when the system doesn't have any floppy drive, for compatibility with Windows 95 logo certification. In the Integrated Peripherals screen, select Disabled for the Onboard FDC Controller field.

Press <Esc> to return to the Main Menu page.

3.7 Advanced Chipset Features

Since the features in this section are related to the chipset on the CPU board and are completely optimized, you are not recommended to change the default settings in this setup table unless you are well oriented with the chipset features.

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Advanced Chipset Features

DRAM Timing	By SPD	Item Help
CASs Latency Time	2.5	
Active to Recharge Delay	7	Menu Level ►
DRAM RAS# to CAS# Delay	3	
DRAM RAS# Recharge	3	
DRAM Data Integrity Mode	Non-ECC	
MGM Core Frequency	Auto Max 400/333MHz	
System BIOS Cacheable	Enable	
Video BIOS Cacheable	Disabled	
Memory Hole At 15M-16M	Disabled	
Delayed Transaction	Disabled	
Delay Prior to Thermal	16 Min	
AGP Aperture Size (MB)	64	
Init Display First	Onboard	
** On-Chip VGA Setting **		
On-Chip VGA	Enabled	
On-Chip Frame Buffer Size	32MB	
Boot Display	Auto	
Panel Scaling	Auto	
Panel Number	640 x480	
↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

- **SDRAM CAS latency Time**
  You can select CAS latency time in HCLKs 2, 3, or Auto. The board designer should set the values in this field, depending on the

DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU.

- **DRAM Data Integrity Mode**
  This option sets the data integrity mode of the DRAM installed in the system. The default setting is "Non-ECC".

- **System BIOS Cacheable**
  Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. The default value is *"Disabled"*.

- **Video BIOS Cacheable**
  This item allows you to change the Video BIOS location from ROM to RAM. Video Shadow will increase the video speed.

- **Video RAM Cacheable**
  Selecting Enabled allows caching of the video BIOS ROM at C0000h to C7FFFh, resulting in better video performance. However, if any program writes to this memory area, a system error may result. The default value is *"Disabled"*.

- **Memory Hole at 15M-16M**
  You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements. The default value is *"Disabled"*.

- **Delayed Transaction**
  The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select *Enabled* to support compliance with PCI specification version 2.1. The options available are *Enabled* and *Disabled*.

- **AGP Aperture Size (MB)**
  The field sets aperture size of the graphics. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. The options available are 4M, 8M, 16M, 32M, 64M, 128M and 256M.

Press <Esc> to return to the Main Menu page.

3.8 Integrated Peripherals

This section allows you to configure your SuperIO Device, IDE Function and Onboard Device.

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Integrated Peripherals

► On Chip IDE Device	Press Enter	
► On Board Device	Press Enter	Menu Level ►
► Superior Device	Press Enter	
Onboard LAN boot ROM	Disable	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

CMOS Setup Utility-Copyright © 1984-2001 Award Software
On Chip IDE Device

IDE DMA transfer Access	Enabled	
On-Chip Primary PCI IDE	Enabled	Menu Level ►
IDE Primary Master PIO	Auto	
IDE Primary Master PIO	Auto	
IDE Primary Master UDMA	Auto	
IDE Primary Master UDMA	Auto	
On-Chip Primary PCI IDE	Enabled	
IDE Secondary Master PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Master PIO	Auto	
** On-Chip Serial ATA Setting **		
SATA Mode	IDE	
On-Chip Serial ATA	Auto	
Serial ATA Port0	Primary Master	
Serial ATA Port1	Primary Master	
IDE HDD Block Mode	Enabled	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

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On board Device

USB Controller	Enable	
USB 2.0 Controller	Enabled	Menu Level ►
USB Keyboard Support	Disabled	
USB Mouse Support	Disabled	
AC97 Audio	Auto	
Hance Rapid Watchdog	0	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

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Super IO Device

Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	Menu Level ►
Onboard Serial Port 1	2F8/IRQ3	
UART Mode Select	Normal	
Red, TxD Active	Hi,Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR-Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Select	EEP1.7	
ECP Mode Use DMA	3	
ICH Serial Port 1	3E8	
ICH Serial Port 1 Use IRQ	IRQ10	
ICH Serial Port 2	2E8	
ICH Serial Port 2 Use IRQ	IRQ11	
PWRON after power fail	OFF	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **IDE Primary/Secondary Master/Slave PIO**
  The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device. The options available are Auto, Mode 0, Mode 1, Mode 2, Mode 3, and Mode 4.

- **IDE Primary/Secondary Master/Slave UDMA**

Ultra DMA 66/100 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software support Ultra DMA 33/66/100, select Auto to enable BIOS support. The options available are Auto, Mode 0, Mode 1, and Mode 2.

- **On-Chip Primary/Secondary PCI IDE**
  The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately. The default value is *"Enabled"*.

NOTE *Choosing Disabled for these options will automatically remove the IDE Primary Master/Slave PIO and/or IDE Secondary Master/Slave PIO items on the menu.*

- **USB Keyboard Support**
  Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard.

- **Init Display First**
  This item allows you to decide to active whether PCI Slot or AGP first. The options available are PCI Slot, AGP.

- **IDE HDD Block Mode**
  This field allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive.

- **POWER ON Function**
  This option allows users to select the type of power ON sequence for the system to follow. The default value is "Button-Only".

BUTTON-ONLY	Follows the conventional way of turning OFF system power (via power button).
Password	Upon selecting this option, the KB POWER ON Password line appears. Press <Enter> and you'll be prompted to enter and confirm a password of your choice. After setting the password, succeeding attempts to power ON the system will result to null. For system to activate, user must input the password via keyboard then press <Enter>.
Hot KEY	This option is very similar with that of Password. Hot-key combinations range from Ctrl-F1 to Ctrl-F12. User may define this combination from the Hot key Power ON option.

- **Onboard FDC Controller**
  Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install and-in FDC or the system has no floppy drive, select Disabled in this field. The options available are Enabled, Disabled.

- **Onboard Serial Port 1/Port 2**
  Select an address and corresponding interrupt for the first and second serial ports. The options available are 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

- **UART2 Duplex Mode**
  The second serial port offers these infrared interface modes:
  - **IrDA**
  - **ASKIR IrDA-compliant serial infrared port**
  - **Normal (default value)**

  NOTE *The UART Mode Select will not appear on the menu once you disable the setting of Onboard Serial Port 2.*

  When UART Mode Select is set as ASKIR or IrDA, the options RxD, TxD Active and IR Transmittion delay will appear.

- **Parallel Port Mode**
  Select an operating mode for the onboard parallel (printer) port. Select Normal unless your hardware and software require one of the other modes offered in this field. The options available are EPP1.9, ECP, SPP, ECPEPP1.7, and EPP1.7.

- **ECP Mode Use DMA**

Select a DMA channel for the parallel port for use during ECP mode.

Press <Esc> to return to the Main Menu page.

3.9 Power Management Setup

The Power Management Setup allows you to save energy of your system effectively. It will shut down the hard disk and turn OFF video display after a period of inactivity.

CMOS Setup Utility-Copyright © 1984-2001 Award Software
Power Management Setup

ACPI function	Enabled	Item Help
ACPI Suspend Type	S1(POS)	
Power Management	Min Saving	
PM Control by APM	Yes	Menu Level ►
Video Off Method	V/H SYNC+Blank	
Video off After	Standby	
MODEM Use IRQ	3	
Suspend Mode	1 Hour	
HDD Power Down	15 Min	
Soft-Off by PWR-BTTN	Instant-Off	
CPU THRM-Throttling	50.0%	
Wake-up by PCI card	Enabled	
PowerOn by Ring	Enabled	
Wake UP On LAN	Enabled	
USB KB Wake-Up From S3	Disabled	
Resume by Alarm	Disabled	
Date (of Month) Alarm	0	
Time (hh:mm:ss) Alarm	0:0:0	
** Reload Global Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD,COM,LPT Port	Disabled	
PCI PIRQ[A-D]#	Disabled	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **ACPI Function**
  This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI). The function is always defaulted in the "*Enabled*" mode.

- **Power Management**
  This option allows you to select the type (or degree) of power saving for Doze, Standby, and Suspend modes. The table below describes each power management mode:

Max Saving	It is maximum power savings, only available for SL CPUs. The inactivity period is 1 minute in each mode.
User Define	It sets each mode. Select time-out periods in the PM Timers section.
Min Saving	It is minimum power savings. The inactivity period is 1 hour in each mode (except the hard drive).
Disabled	Default value

- **PM Control by APM**
  If Advanced Power Management (APM) is installed on your system, selecting Yes gives better power savings. The default value is "Yes".

No	System BIOS will ignore APM when power managing the system
Yes	System BIOS will wait for APM's prompt before it enters any PM mode (i.e., DOZE, STANDBY or SUSPEND). ***Note:*** *If APM is installed or if there is a task running, even when the timer has timed out, the APM will not prompt the BIOS to put the system into any power saving mode!*

NOTE *If APM is not installed, this option has no effect.*

- **Video Off Method**
  Determines the manner in which the monitor is blanked.

V/H SYNC+Blank	Turns OFF vertical and horizontal synchronization ports and writes blanks to the video buffer
DPMS	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards Association (VESA). Use the software supplied for your video subsystem to select video power management values.
Blank Screen	System only writes blanks to the video buffer.

- **Video Off After**
  As the system moves from lesser to greater power-saving modes, select the mode in which you want the monitor to blank off. The default value is *"Standby"*.

NA	System BIOS will never turn off the screen
Suspend	Screen off when system is in SUSPEND mode
Standby	Screen off when system is in STANDBY mode
Doze	Screen off when system is in DOZE mode

NOTE *Green monitors detect the V/H SYNC signals to turn off its electron gun.*

- **Modem Use IRQ**

3, 4, 5, 7, 9, 10, 11, NA	For external modem, 3 or 4 will be used for card type modem. It is up to card definition. Default is 3.

- **Doze Mode**
  After the selected period of system inactivity (1 minute to 1 hour), the CPU clock runs at slower speed while all other devices still operate at full speed. The default value is *"Disabled"*.

Disabled	System will never enter doze mode
1/2/4/6/8/10/20/30/40 Min/1 Hr	Defines the continuous idle time before the system entering DOZE mode.

- **Standby Mode**
  After the selected period of system inactivity (1 minute to 1 hour), the fixed disk drive and the video shut off while all other devices still operate at full speed. The default value is *"Disabled"*.

Disabled	System will never enter STANDBY mode
1/2/4/6/8/10/20/30/40 Min/1 Hr	Defines the continuous idle time before the system entering STANDBY mode. If any item defined in (J) is enabled & active, STANDBY timer will be reloaded

- **Suspend Mode**
  After the selected period of system inactivity (1 minute to 1 hour), all devices except the CPU shut off. The default value is *"Disabled"*.

Disabled	System will never enter SUSPEND mode
1/2/4/6/8/10/20/30/40 Min/1 Hr	Defines the continuous idle time before the system entering SUSPEND mode. If any item defined in (J) is enabled & active, SUSPEND timer will be reloaded

- **HDD Power Down**
  After the selected period of drive inactivity (1 to 15 minutes), the hard disk drive powers down while all other devices remain active. The default value is *"Disabled"*.

Disabled	HDD's motor will not power OFF.
1/2/3/4/5/6/7/8/9/10/11/12/13/14/15 Min	Defines the continuous HDD idle time before the HDD enters power saving mode (motor OFF)

- **Throttle Duty Cycle**
  When the system enters Doze mode, the CPU clock runs only part of the time. You may select the percent of time that the clock runs. The default value is *"62.5%"*.

- **VGA Active Monitor**
  When Enabled, any video activity restarts the global timer for Standby mode. The default value is *"Enabled"*.

- **Soft-Off by PWR-BTTN**
  This option only works with systems using an ATX power supply. It also allows the user to define which type of soft power OFF sequence the system will follow. The default value is *"Instant-Off"*.

Instant-Off	This option follows the conventional manner systems perform when power is turned OFF. Instant-Off is a soft power OFF sequence requiring only the switching of the power supply button to OFF
Delay 4 Sec.	Upon turning OFF system from the power switch, this option will delay the complete system power OFF sequence by approximately 4 seconds. Within this delay period, system will temporarily enter into Suspend Mode enabling you to restart the system at once.

- **Power On by Ring**
  This option allows the system to resume or wake up upon detecting any ring signals coming from an installed modem. The default value is *"Enabled"*.

- **IRQ 8 Break Suspend**
  You can turn on or off monitoring of IRQ8 (the Real Time Clock) so it does not awaken the system from Suspend mode. The default value is *"Disabled"*.

- **Reload Global Timer Events**
  When *Enabled*, an event occurring on each device listed below restarts the global time for Standby mode.

Press <Esc> to return to the Main Menu page.

3.10 PnP/PCI Configuration Setup

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

CMOS Setup Utility-Copyright © 1984-2001 Award Software
PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help
		Menu Level ►
Resources Controlled By	Auto (ESCD)	
►IRQ Resources	Press Enter	Select Yes if you are using a Plug and play capable operating system select No if you need the BIOS to configure non-boot devices
PCI/VGA Palette Snoop	Disabled	
↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

- **PNP OS Installed**
  Select Yes if the system operating environment is Plug-and-Play aware (e.g., Windows 95). The default value is "No".

- **Reset Configuration Data**
  Normally, you leave this item Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup or if installing a new add-on cause the system reconfiguration a serious conflict that the operating system can not boot. Options: *Enabled, Disabled*.

- **Resources Controlled By**
  The Award Plug and Play BIOS can automatically configure all boot and Plug and Play-compatible devices. If you select Auto, all interrupt request (IRQ), DMA assignment, and Used DMA fields

disappear, as the BIOS automatically assigns them. The default value is *"Manual"*.

- **IRQ Resources**
  When resources are controlled manually, assign each system interrupt to one of the following types in accordance with the type of devices using the interrupt:

  1. Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1).
  2. PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

  The default value is "*PCI/ISA PnP*".

- **DMA Resources**
  When resources are controlled manually, assign each system DMA channel as one of the following types, depending on the type of device using the interrupt:

  1. Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific DMA channel.
  2. PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

  The default value is *"PCI/ISA PnP"*.

- **Memory Resources**
  This sub menu can let you control the memory resource.

- **PCI/VGA Palette Snoop**
  Some non-standard VGA display cards may not show colors properly. This item allows you to set whether MPEG ISA/VESA VGA Cards can work with PCI/VGA or not. When enabled, a PCI/VGA can work with a MPEG ISA/VESA VGA card; when disabled, a PCI/VGA cannot work with a MPEG ISA/VESA Card.

- **Assign IRQ For USB/VGA**
  Enable/Disable to assign IRQ for USB/VGA.

Press <Esc> to return to the Main Menu page.

3.11 PC Health Status

This section supports hardware monitering that lets you monitor those parameters for critical voltages, temperatures and fan speed of the board.

CMOS Setup Utility-Copyright © 1984-2001 Award Software
PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current GMCH Temperature		
Current CPU Temp.		Menu Level ►
Current System Temp.		
Current FAN1 Speed		
Current FAN2 Speed		
Vcore		
VTT		
+3.3V		
+5V		
+12V		
-12V		
-5V		
VBAT (V)		
5VSB (V)		
Shutdown Temperature	Disabled	

↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **Current CPU Temperature**
  These read-only fields reflect the functions of the hardware thermal sensor that monitors the chip blocks and system temperatures to ensure the system is stable.

- **Current FAN1/FAN2 Speed**
  These optional and read-only fields show the current speeds in RPM (revolution per minute) for the CPU fan and chassis fan as monitored by the hardware monitoring IC.

Press <Esc> to return to the Main Menu page.

3.12 Frequency/Voltage Control

This section is to control the CPU frequency and Supply Voltage, DIMM OverVoltage and AGP voltage.

CMOS Setup Utility-Copyright © 1984-2001 Award Software
Frequency/Voltage Control

Auto Detect DIMM/PCI Clk	Enabled	Item Help
Spread Spectrum	[Disabled]	Menu Level ►
↑↓→← : Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

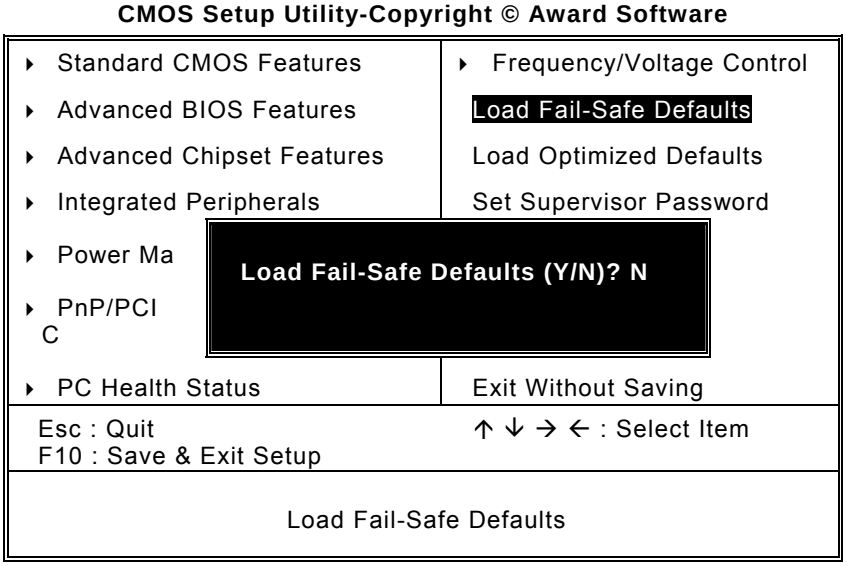
- **Auto Detect DIMM/PCI Clk**
  This item automatically detects the clock speeds of the system memory installed as well as the PCI interface. The options available are Enabled and Disabled. The default setting is ***Enabled***.

- **Speed Spectrum**
  This item directly relates to the EMI performance of the whole system. When enabled, all system clocks run at slower speeds thereby decreasing the electromagnetic interference to the surrounding environment. Disabling this item improves the system performance but simultaneously increase the EMI. The default setting is ***Disabled.***

Press <Esc> to return to the Main Menu page.

3.13 Load Fail-Safe Defaults

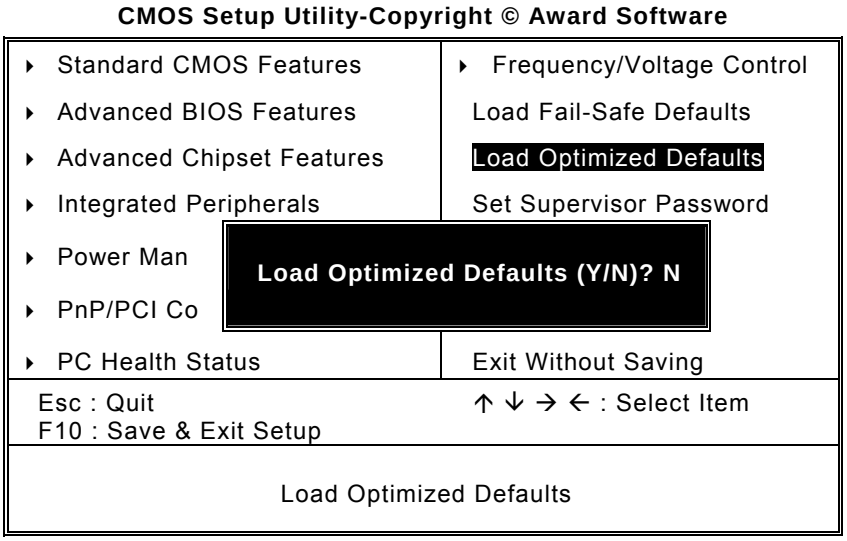
This option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high-performance features.



To load BIOS defaults value to CMOS SRAM, enter "Y". If not, enter "N".

3.14 Load Optimized Defaults

This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.



To load SETUP defaults value to CMOS SRAM, enter "Y". If not, enter "N".

3.15 Set Supervisor/User Password

You can set either supervisor or user password, or both of then. The differences between are:

1. **Supervisor password:** can enter and change the options of the setup menus.
2. **User password:** just can enter but do not have the right to 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 PASSWORD:

Type the password with eight characters at most, and press <Enter>. The password typed will now 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.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED.

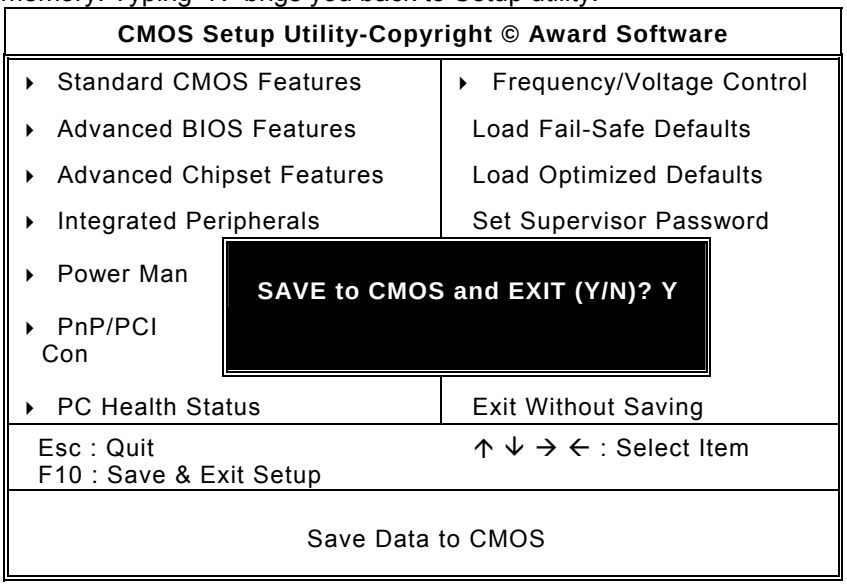
When a password is enabled, you have to type it every time you enter Setup. This prevents any unauthorized person from changing your system configuration.

Additionally when a password is enabled, you can also require the BIOS to request a password every time the system reboots. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option. If the Security option is set to "System", the password is required during boot up and entry into Setup. If set as "Setup", prompting will only occur prior to entering Setup.

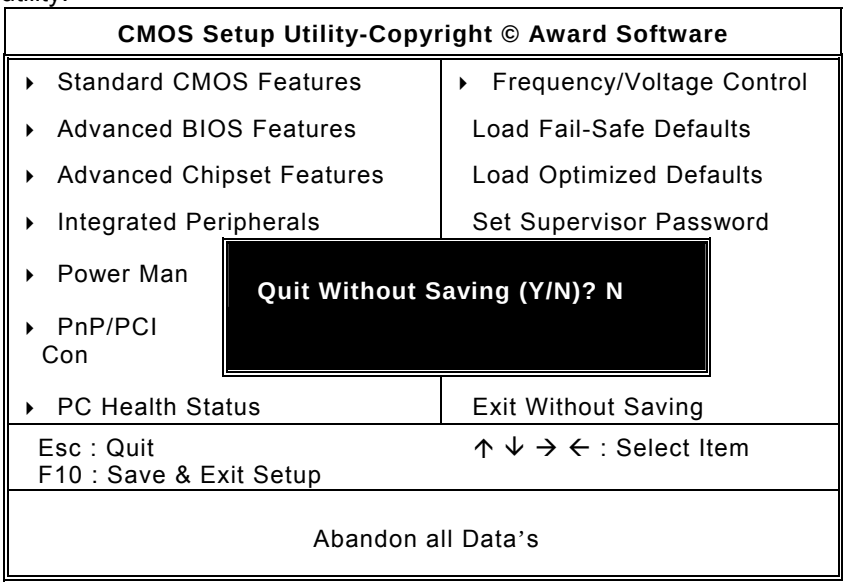
3.16 Save & Exit Setup

This allows you to determine whether or not to accept the modifications. Typing "Y" quits the setup utility and saves all changes into the CMOS memory. Typing "N" brigs you back to Setup utility.



3.17 Exit Without Saving

Select this option to exit the Setup utility without saving the changes you have made in this session. Typing "Y" will quit the Setup utility without saving the modifications. Typing "N" will return you to Setup utility.



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Chapter 4
Driver Installation

4.1 System

MPC150-810-DC supports Windows 2000/XP. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

1. Insert Driver CD and select the \MPC150-810\Driver\..

2. Follow Step 1 to Step 5 for motherboard's driver installation.

4.2 Touch Screen

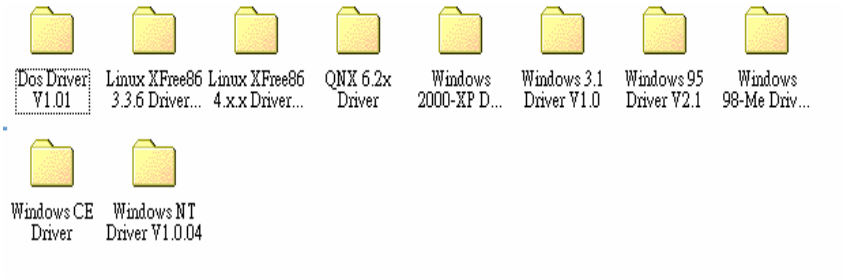
4.2.1 Specification

Touch Screen	For 8-wire analog resistive type
Touch Screen Controller	DMC9000
Communications	RS-232
Baud Rate	19200 baud rate fixed
Resolution	1024 x 1024 (10-bit A/D converter inside)
Power Input	5V to 12V DC
Power Consumption	12V: 27mA+ i where (i = v/touch screen sheet R) 5V: 23mA+ i where (i = v/touch screen sheet R)
Board Size	6.0 x 2.0 cm
Portrait	Support 90o to 270o screen rotation
Static Protection	ESD device option
Others	Touch activate indication LED on board

4.2.2 Driver Installation- Windows 98/2000/XP/CE.NET/XP-Embedded

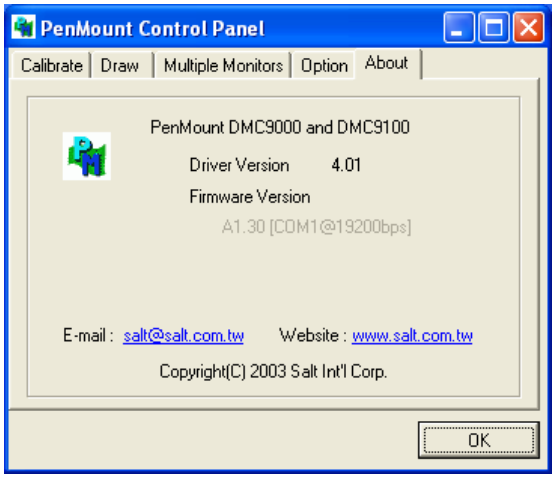
The touch screen of MPC150-810-DC provides a driver for use with Windows 2000/XP. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.

1. Insert Driver CD and select the D:\MPC150-810\Driver\Step6 - Touch\Driver\Win2000-XP\setup.exe

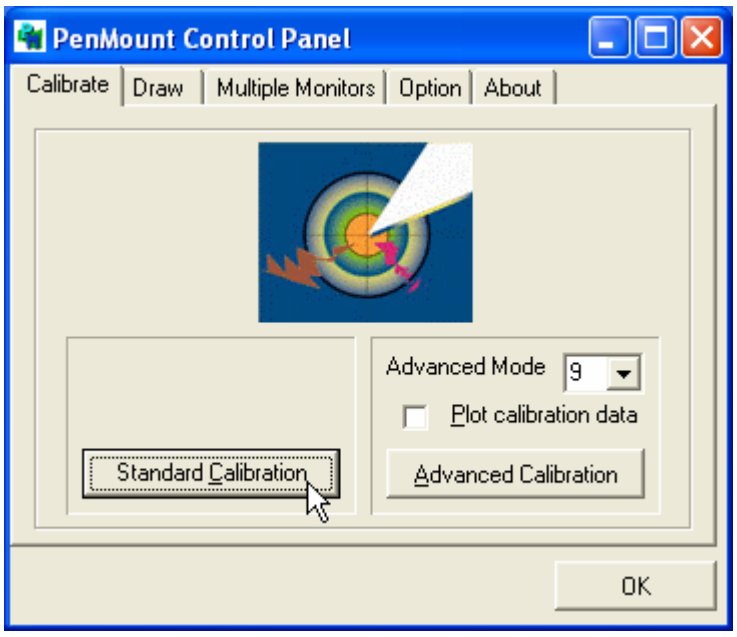


2. Follow the install procedure and press OK.

3. Click Start menu and select "PenMount Utilities". You can see PenMount Control Panel

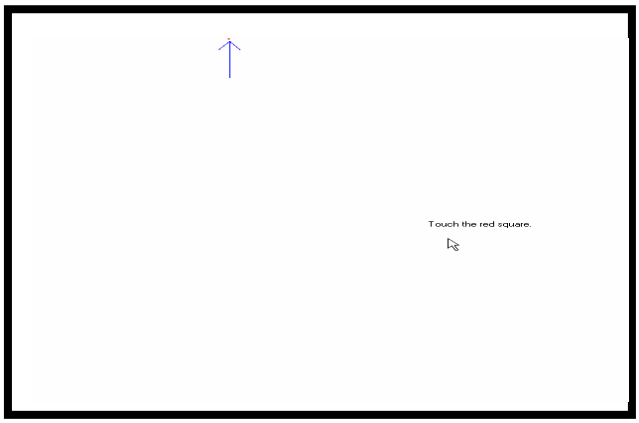


4. Select the "Standard Calibrate" tab



5. Calibration:

   To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration; there are five points on screen for calibration.



6. Press OK.