

Acer

**Aspire M5910(G)
Service Guide**

PRINTED IN TAIWAN

Revision History

Please refer to the table below for the updates made on this service guide.

| Date | Chapter | Updates |
|------|---------|---------|
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Conventions

The following conventions are used in this manual:

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| SCREEN MESSAGES | Denotes actual messages that appear on screen. |
| NOTE | Gives additional information related to the current topic. |
| WARNING | Alerts you to any physical risk or system damage that might result from doing or not doing specific actions. |
| CAUTION | Gives precautionary measures to avoid possible hardware or software problems. |
| IMPORTANT | Reminds you to do specific actions relevant to the accomplishment of procedures. |

Service Guide Coverage

This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.

FRU Information

Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

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System Tour

Features

Below is a brief summary of the computer's many feature:

NOTE: The features listed in this section is for your reference only. The exact configuration of the system depends on the model purchased.

Operating System

- Microsoft Windows 7 Home Premium 64-bit
- Microsoft Windows 7 Home Basic 64-bit
- Microsoft Windows 7 Home Premium 32-bit
- Microsoft Windows 7 Home Basic 32-bit
- Linpus X-window mode
- FreeDos

Processor

- Socket Type: Intel Socket T LGA 1156 pin
- Socket Quantity: 1
- Processor Type:
 - Intel Lynnfield / Clarkdale
- FMB
 - 95W + 65W FMB

Chipset

- PCH: Intel H57
- Design Criteria:
 - Must meet Intel Lynnfield and Clarkdale platform design guides
- Super I/O: ITE8720
 - Should support Intel ASFC
 - Should support Intel PECI

PCB

- uATX / 244*244mm / 4 Layers

Memory subsystem

- Socket Type: DDR III connector
 - Socket Quantity: 4
 - Channel A: slot 0, 1; Channel B: slot 2, 3
 - Different colors for slot 0/2 and slot 1/3
- Dual channel support
- Capacity support:
 - Support DDR3 1.5V 1066/1333 (1GB / 2GB / 4GB)

-
- 1GB to 16GB Max memory support
 - Design Criteria:
 - Must meet Intel Lynnfield and Clarkdale Chipset platform design guide

Hard disk

- Support up to two SATA ports
- 3.5", 25.4mm
- Capacity and models are listed on AVLC

Optical disk

- Support two SATA 5.25" standard ODD
- Support DVD-ROM, DVD-SuperMulti, BD-combo, BD-rewrite
- Maximum ODD depth to 185mm with bezel
- Models are listed on AVLC

Graphics card

- No mechanical restriction to support for double slot, full length graphics cards in the single PCIe X16 slot

On-Board Graphic solution

- Intel HD Graphics (Clarkdale series CPU)
 - DVMT 5.0 technology support
 - Enhanced 3D and Clear Video technology support
 - 1 D-sub VGA port on rear
 - Dual View function support

Serial ATA controller

- Slot Type: SATA connector
- Six SATA ports:
 - 4 for HDD
 - 2 for ODD
- Storage Type support:
 - 1.HDD : Support RAID 0/1/5/10
 - 2.CD-ROM/CD-RW/DVD-ROM/DVD-RW/DVD+RW/DVD Dual/DVD SuperMultiPlus/Blu-Ray ODD
 - 3.AHCI mode supported for internal SATA port

Audio

- Chip : Realtek ALC662VC-0
- Connectors support:
 - Rear 3 jack follow HD audio definition
 - 1 front panel audio header (2*5)

LAN

- MAC Controller: H57
- PHY: REALTEK RTL8111E Giga LAN(ASF suport)

USB ports

- Ports Quantity: 12
 - 6 back panel ports
 - On-board: 2 2*5 headers
 - 4 ports for front daughter board
 - Connector Pin: standard Intel FPIO pin definition
- Data transfer rate support: USB 2.0/1.1

Extension slot

- Support one PCIe x 16 slot
- Support two PCIe x 1 slots
- Support one PCI slot

Total I/O ports

- 1 PS/2 Keyboard port,
- 1 PS/2 Mouse port
- 1 D-Sub VGA port
- 1 RJ45 LAN port
- 6 USB ports
- 3 ports Audio jack
- One HD headphone output in front bezel
- One MIC-IN in front bezel
- 4 * USB H5X2 Header (support 8 ports)
- 1 * Front Audio Pannel H5X2 header
- 1 * Front Panel IO H7X2 Header for Acer pin define
- 1 * H1X4 CPU with SAMRT FAN controller
- 1 * H1X3 System with SAMRT FAN controller
- 1 * H1X4 SPDIFOUT Header for Acer pin define
- 1 * H3X1 Clear CMOS Header (with jumper)
- 1 * onboard Buzzer
- 2 * H1X2 GPIO header

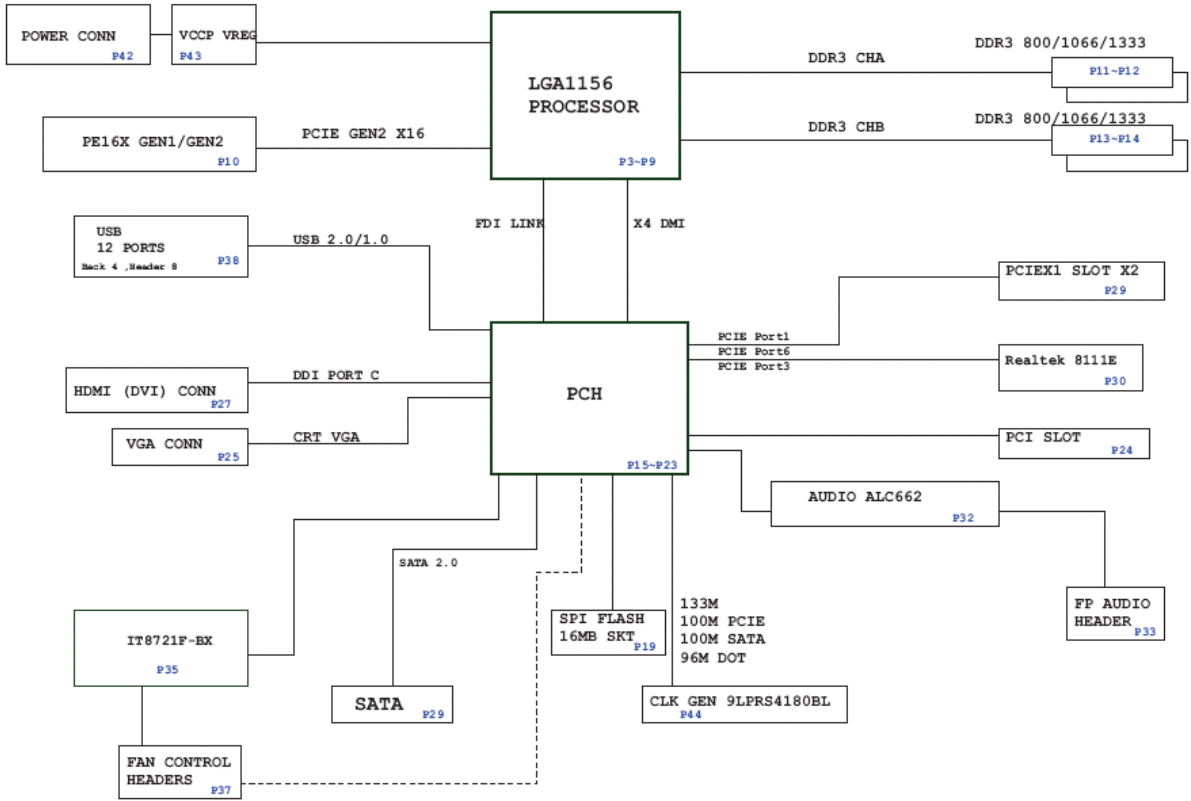
System BIOS

- 16Mbits / 2M Bytes
- AMI Kernel with Acer skin

Power supply

- FR500W

Block Diagram



System Components

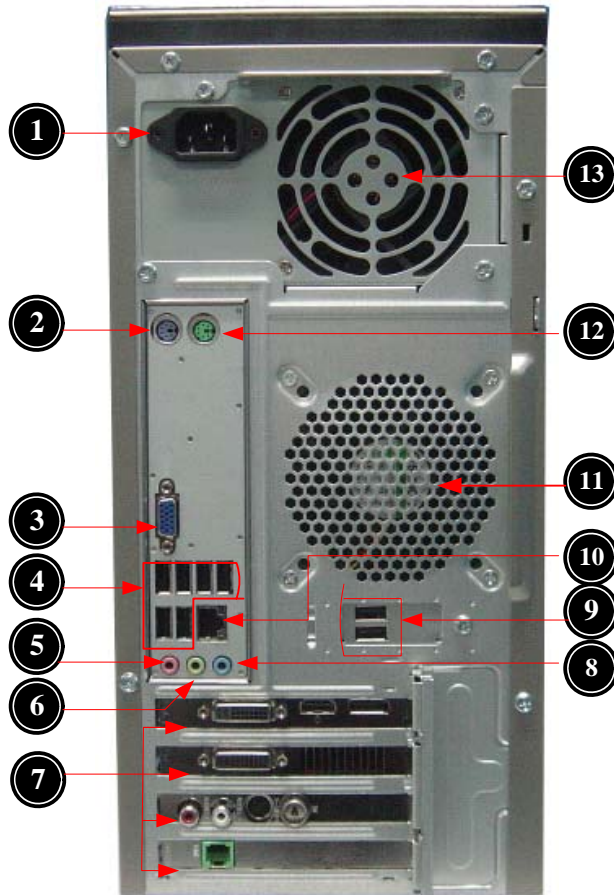
This section is a virtual tour of the system's interior and exterior components.

Front Panel



| No. | Component |
|-----|----------------------------------------------------------|
| 1 | USB 2.0 ports |
| 2 | Acer logo |
| 3 | Optical drive button |
| 4 | Optical drive button (Removable HDD bay for AM551 bezel) |
| 5 | Removable HDD bay |
| 6 | Power button |
| 7 | 16 in 1 Card Reader |
| 8 | Headphone/Speaker-out/line-out jack |
| 9 | Microphone-in jack |

Rear Panel



| No. | Component |
|-----|----------------------------------------------------------------|
| 1 | Power connector |
| 2 | PS2 keyboard port |
| 3 | VGA port |
| 4 | USB 2.0 ports |
| 5 | Mic-in |
| 6 | Line-out |
| 7 | Expansion slot (graphics card and TV tuner card and Mode card) |
| 8 | Line-in |
| 9 | USB 2.0 ports |
| 10 | LAN connector |
| 11 | System FAN |
| 12 | PS2 mouse port |
| 13 | Fan aperture |

Hardware Specifications and Configurations

Processor

| Item | Specification |
|-------------------------|---------------------------------------------------------------------------|
| Processor Type | CPUs which complaint with Intel FSB 800/1066/1333 MHz CPUs |
| Socket Type | Intel Socket T LGA 1156 pin |
| Minimum operating speed | 0 MHz (If Stop CPU Clock in Sleep State in BIOS Setup is set to Enabled.) |

BIOS

| Item | Specification |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| BIOS code programer | AMI Kernel with Acer skin |
| BIOS version | P01-A0 |
| BIOS ROM type | SPI ROM |
| BIOS ROM size | 2Mb |
| Support protocol | SMBIOS(DMI)2.4/DMI2.0 |
| Device Boot Support | Support BBS spec 1st priority: HDD 2nd priority: CD-ROM 3th priority: Removable Device 4th priority: LAN |
| Support to LS-120 drive | YES |
| Support to BIOS boot block feature | YES |

IOS Hotkey List

| Hotkey | Function | Description |
|--------|--------------------------|----------------------------------------------------------------|
| Del | Enter BIOS Setup Utility | Press while the system is booting to enter BIOS Setup Utility. |

Main Board Major Chips

| Item | Specification |
|------------------|---------------------------------------|
| Chipset | PCH: Intel H57 |
| Audio controller | Realtek ALC662VC-0 |
| LAN controller | REALTEK RTL8111E Giga LAN(ASF suport) |
| HDD controller | PCH: Intel H57 |

Memory Combinations

| Slot | Memory | Total Memory |
|---------------------------------|------------|--------------|
| Slot 1 | 1GB,2GB,4G | 1G ~4GB |
| Slot 2 | 1GB,2GB,4G | 1G ~4GB |
| Slot 3 | 1GB,2GB,4G | 1G ~4GB |
| Slot 4 | 1GB,2GB,4G | 1G ~4GB |
| Maximum System Memory Supported | | 1G~16GB |

System Memory

| Item | Specification |
|------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Memory slot number | 4 slot |
| Support Memory size per socket | 1GB/2GB/4GB |
| Support memory type | DDRIII |
| Support memory interface | DDRIII 1066/1333 |
| Support memory voltage | 1.5V |
| Support memory module package | 240-pin DDRIII |
| Support to parity check feature | Yes |
| Support to error correction code (ECC) feature | No |
| Memory module combinations | You can install memory modules in any combination as long as they match the above specifications. |

Audio Interface

| Item | Specification |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio controller | PCH: Intel H57 |
| Audio controller type | Realtek ALC662VC-0 |
| Audio channel | codec 5.1 |
| Audio function control | No |
| Mono or stereo | Stereo |
| Compatibility | The ALC662VC series support host audio controller from the Intel ICH series chipset, and also from any other HDA compatible audio controller. With EAX/ Direct Sound 3D/I3DL2/A3D compatibility, and excellent software utilities like environment sound emulation, multiple bands of software equalizer and dynamic range control, optional Dolby, Digital Live, DTS CONNECT, and Dolby Home Theater programs, provides an excellent home entertainment package and game experience for PC users. |
| Music synthesizer | No |
| Sampling rate | 192KHz (max) |
| MPU-401 UART support | No |
| Microphone/Headphone jack | Supported |

SATA Interface

| Item | Specification |
|------------------------------|----------------|
| SATA controller | PCH: Intel H57 |
| SATA controller resident bus | PCI bus |
| Number of SATA channel | SATA X 6 |
| Support bootable CD-ROM | YES |

USB Port

| Item | Specification |
|-------------------------|---------------------------------------------------------|
| Universal HCI | USB 2.0/1.1 |
| USB Class | Support legacy keyboard for legacy mode |
| USB Connectors Quantity | 6 back real ports 4 top bezel ports 2 H5X2 Hedaer |

Environmental Requirements

| Item | Specification |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Temperature | |
| Operating | +5°C ~ +35°C |
| Non-operating | -20 ~ +60°C (Storage package) |
| Humidity | |
| Operating | 15% to 80% RH |
| Non-operating | 10% to 90% RH |
| Vibration | |
| Operating (unpacked) | 5 ~ 500 Hz: 2.20g RMS random, 10 minutes per axis in all 3 axes. 5 ~500 Hz: 1.09g RMS random, 1 hour per axis in all 3 axes. |

Power Management

| Devices | S1 | S3 | S4 | S5 |
|--------------------|----------|----------|----------|----------|
| Power Button | √ | √ | √ | √ |
| USB Keyboard/Mouse | √ | √ | N/A | N/A |
| PME | Disabled | Disabled | Disabled | Disabled |
| RCT | Disabled | Disabled | Disabled | Disabled |
| WOR | Disabled | Disabled | Disabled | Disabled |

- Devices wake up from S3 should be less than.
- Devices wake up from S5 should be less than 10 seconds.

Power Management Function(ACPI support function)

Device Standby Mode

- Independent power management timer for hard disk drive devices(0-15 minutes,time step=1minute).
- Hard Disk drive goes into Standby mode(for ATA standard interface).
- Disable V-sync to control the VESA DPMS monitor.
- Resume method:device activated (keyboard for DOS, keyboard &mouse for Windows).
- Resume recovery time 3-5sec

Global Standby Mode

- Global power management timer(2-120minutes,time step=10minute).
- Hard disk drive goes into Standby mode(for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Resume method: Resume to original state by pushing external switch Button,modem ring in,keyboard an mouse for APM mode.
- Resume recovery time :7-10sec

Suspend Mode

- Independent power management timer(2-120minutes,time step=10minute)or pushing extern switch button.
- CPU goes into SMM
- CPU asserts STPCLK# and goes into the Stop Grant State.
- LED on panel turns amber colour.
- Hard disk drive goes into SLEEP mode (for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Ultra I/O and VGA chip go into power saving mode.
- Resume method: Resume to original state by pushing external switch Button,modem ring in,keyboard an mouse for APM mode
- Return to original state by pushing external switch button,modem ring in and USB keyboard for ACPI mode.

ACPI

- ACPI specification 1.0b
- S0,S1,S2 and S5 sleep state support.
- On board device power management support.
- On board device configuration support.

System Utilities

CMOS Setup Utility

CMOS setup is a hardware configuration program built into the system ROM, called the complementary metal-oxide semiconductor (CMOS) Setup Utility. Since most systems are already properly configured and optimized, there is no need to run this utility. You will need to run this utility under the following conditions.

- When changing the system configuration settings
- When redefining the communication ports to prevent any conflicts
- When modifying the power management configuration
- When changing the password or making other changes to the security setup
- When a configuration error is detected by the system and you are prompted ("Run Setup" message) to make changes to the CMOS setup

NOTE: If you repeatedly receive Run Setup messages, the battery may be bad. In this case, the system cannot retain configuration values in CMOS. Ask a qualified technician for assistance.

CMOS setup loads the configuration values in a battery-backed nonvolatile memory called CMOS RAM. This memory area is not part of the system RAM which allows configuration data to be retained when power is turned off.

Before you run the *CMOS Setup Utility*, make sure that you have saved all open files. The system reboots immediately after you close the Setup.

NOTE: *CMOS Setup Utility* will be simply referred to as "BIOS", "Setup", or "Setup utility" in this guide.

The screenshots used in this guide display default system values. These values may not be the same those found in your system.

Entering CMOS setup

1. Turn on the server and the monitor.

If the server is already turned on, close all open applications, then restart the server.

2. During POST, press **Delete**.

If you fail to press **Delete** before POST is completed, you will need to restart the server.

The Setup Main menu will be displayed showing the Setup's menu bar. Use the left and right arrow keys to move between selections on the menu bar.

Navigating Through the Setup Utility

Use the following keys to move around the Setup utility.

- **Left** and **Right** arrow keys – Move between selections on the menu bar.
- **Up** and **Down** arrow keys – Move the cursor to the field you want.
- **PgUp** and **PgDn** keys – Move the cursor to the previous and next page of a multiple page menu.
- **Home** – Move the cursor to the first page of a multiple page menu.
- **End** – Move the cursor to the last page of a multiple page menu.
- **+** and **-** keys – Select a value for the currently selected field (only if it is user-configurable). Press these keys repeatedly to display each possible entry, or the **Enter** key to choose from a pop-up menu.

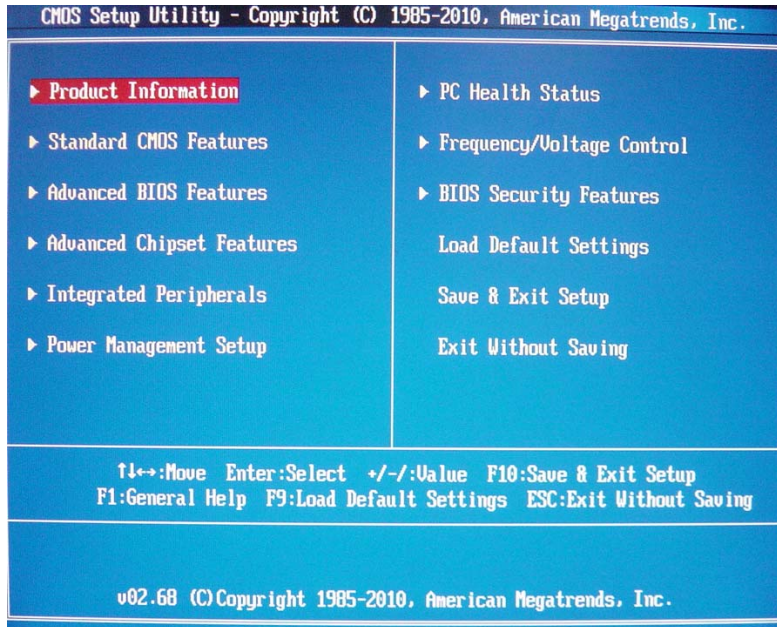
NOTE: Grayed-out fields are not user-configurable.

- **Enter** key – Display a submenu screen.

NOTE: Availability of submenu screen is indicated by a (>).

- **Esc** – If you press this key:
 - On one of the primary menu screens, the Exit menu displays.
 - On a submenu screen, the previous screen displays.
 - When you are making selections from a pop-up menu, closes the pop-up without making a selection.
- **F1** – Display the General Help panel.
- **F6** – Press to load optimized default system values.
- **F7** – Press to load fail-safe default system values.
- **F10** – Save changes made the Setup and close the utility.

Setup Utility Menus



The Setup Main menu includes the following main setup categories.

| Parameter | Description |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Product Information | This page shows the relevant information of the main board |
| Standard CMOS Features | This setup page includes all the items in standard compatible BIOS |
| Advanced BIOS Features | This setup page includes all the items of Award special enhanced features |
| Advanced Chipset Features | This setup page includes all advanced chipset features |
| Integrated Peripherals | This setup page includes all onboard peripherals |
| Power Management Setup | This setup page includes all the items of Green function features |
| PC Health Status | This setup page is the System auto detect Temperature, voltage, and fan speed |
| Frequency/Voltage Control | This setup page is the System Frequency setup |
| BIOS Security Features | Change, set or disable password. It allows you to limit access to the System |
| Load Default Setting | Load Default Setting indicates the value of the system parameters which the system would be in best performance configuration |
| Save & Exit Setup | Save CMOS value settings to CMOS and exit setup |
| Exit Without Saving | Abandon all CMOS value changes and exit setup |

In the descriptive table following each of the menu screenshots, settings in **boldface** are the default and suggested settings.

Product Information

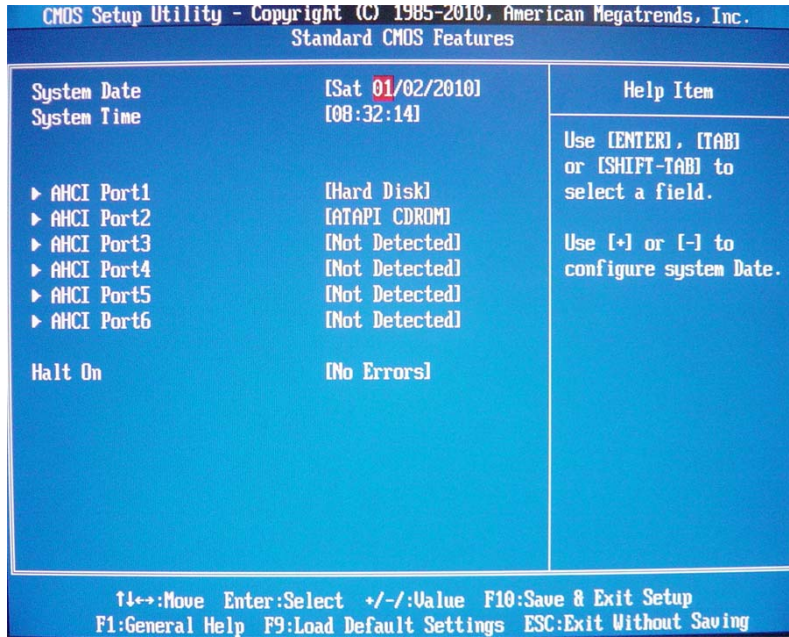
The Product Information menu displays basic information about the system. These entries are for your reference only and are not user-configurable.

| CMOS Setup Utility - Copyright (C) 1985-2010, American Megatrends, Inc. | |
|-------------------------------------------------------------------------|-----------|
| Product Information | |
| | Help Item |
| Processor Type : Intel(R) Pentium(R) CPU G6950 @ 2.80GHz | |
| Processor Speed : :2.80GHz | |
| System Memory : :2048MB | |
| Product Name : :Aspire M5910 | |
| System Serial Number : | |
| System BIOS Version : :P01-A0 | |
| BIOS Release Date : :03/19/2010 | |
| Asset Tag Number : | |

↑↓←→:Move Enter:Select +/-:Value F10:Save & Exit Setup
F1:General Help F9:Load Default Settings ESC:Exit Without Saving

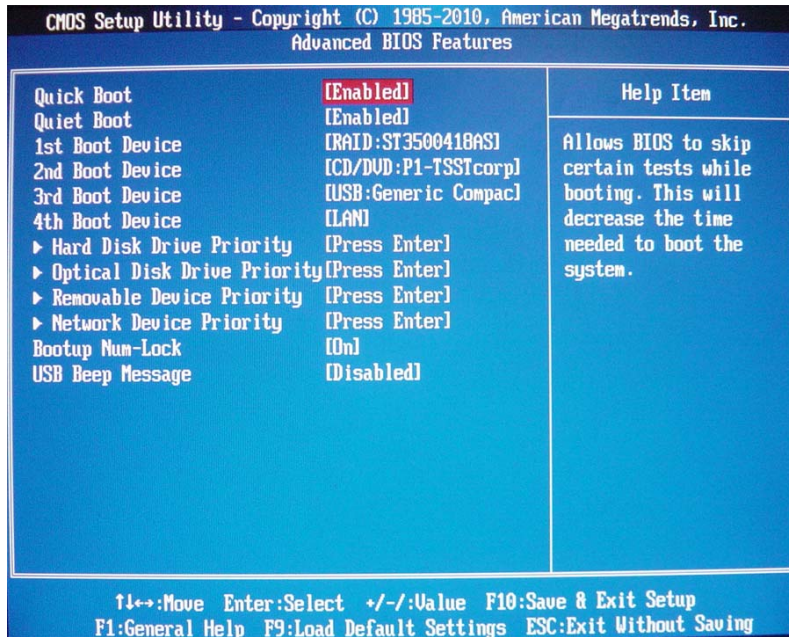
| Parameter | Description |
|----------------------|------------------------------------------------------|
| Processor Type | Type of CPU installed on the system. |
| Processor Speed | Speed of the CPU installed on the system. |
| System Memory | Total size of system memory installed on the system. |
| Product Name | Product name of the system. |
| System Serial Number | Serial number of the system. |
| System BIOS Version | Version number of the BIOS setup utility. |
| BIOS Release Date | Date when the BIOS setup utility was released |
| Asset Tag Number | Asset tag number of this system. |

Standard CMOS Features



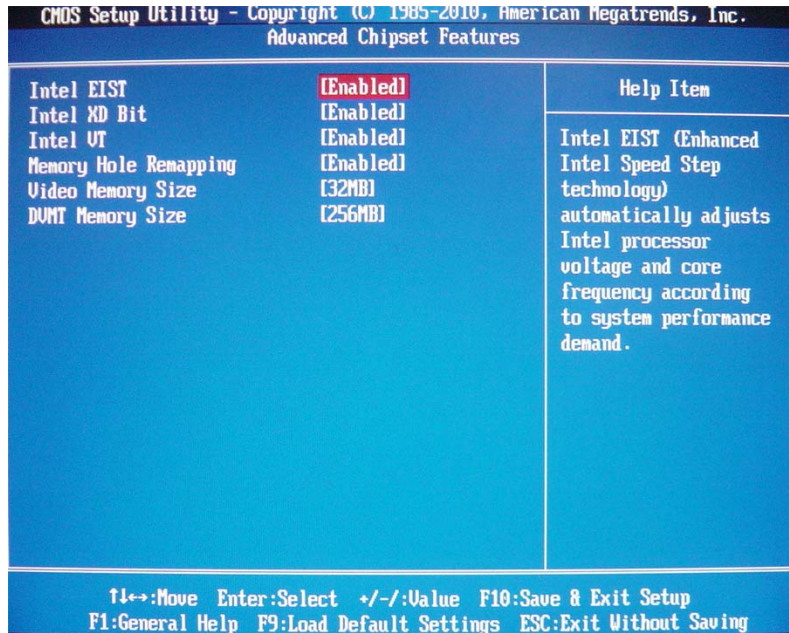
| Parameter | Description | Option |
|-------------|-----------------------------------------------------------------------|-----------------------------------------------------|
| System Date | Set the date following the weekday-month-day-year format. | |
| System Time | Set the system time following the hour-minute-second format. | |
| Halt On | Determines whether the system will stop for an error during the POST. | All, But Keyboard No Errors All Errors |

Advanced BIOS Feature



| Parameter | Description | Option |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Quick Boot | Allows you to decrease the time it takes to boot the computer by shortening or skipping certain standard booting process. | Enabled Disabled |
| Quiet Boot | When enabled, the BIOS splash screen displays during startup. When disabled, the diagnostic screen displays during startup. | Enabled Disabled |
| 1st/2nd/3rd/4th Boot Device | Specifies the boot order from the available devices. | Hard Disk CD^DVD Removable Device LAN |
| Hard Disk Drive Priority | Press Enter to access the Hard Disk Drive Priority submenu and specify the boot device priority sequence from available hard drives. | |
| Optical Disk Drives Priority | Press Enter to access the Optical Disk Drive Priority submenu and specify the boot device priority sequence from available CD/DVD drives. | |
| Removable Device Priority | Press Enter to access the Removable Device Priority submenu and specify the boot device priority sequence from available removable drives. | |
| Bootup Num-Lock | Selects power on state for Num Lock. | On Off |
| USB Beep Message | Enables or disables BIOS to display error beeps or messages during USB device enumeration. | Disabled Enabled |

Advanced Chipset Features



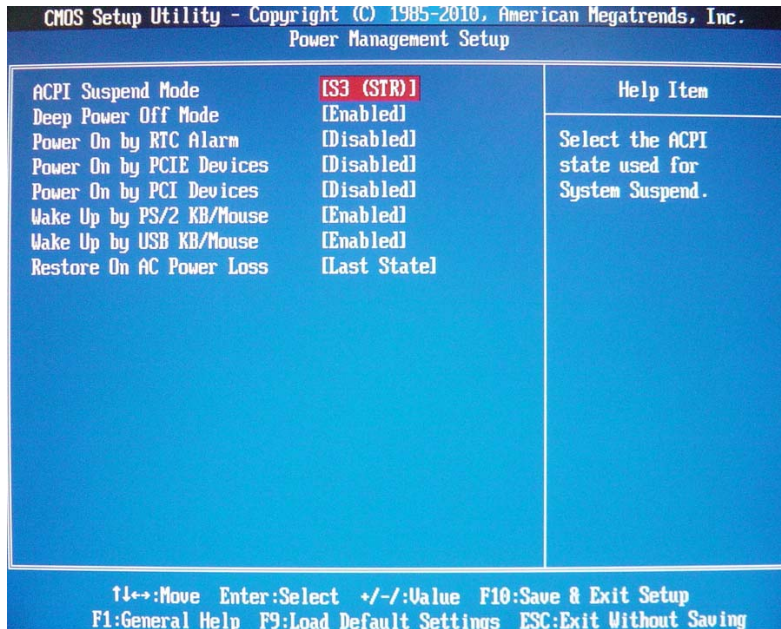
| Parameter | Description | Option |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Intel EIST | When enabled, this feature allows the OS to reduce power consumption. When disabled, the system operates at maximum CPU speed. | Enabled Disabled |
| Intel XD Bit | When enabled, the processor disables code execution when a worm attempts to insert a code in the buffer preventing damage and worm propagation. When disabled, the processor forces the Execute Disable (XD) Bit feature flag to always return to 0. | Enabled Disabled |
| Intel VT | Enables or disables the Virtualization Technology (VT) availability. If enabled, a virtual machine manager (VMM) can utilize the additional hardware virtualization capabilities provided by this technology. Note: A full reset is required to change the setting. | Enabled Disabled |
| Memory Hole Remapping | Enables or disables remapping of overlapped PCI memory above the total physical memory. | Enabled Disabled |
| Video Memory Size | Select a Video memory size | 32MB |
| DVMT Memory Size | Select a DVMT memory size | 256MB |

Integrated Peripherals



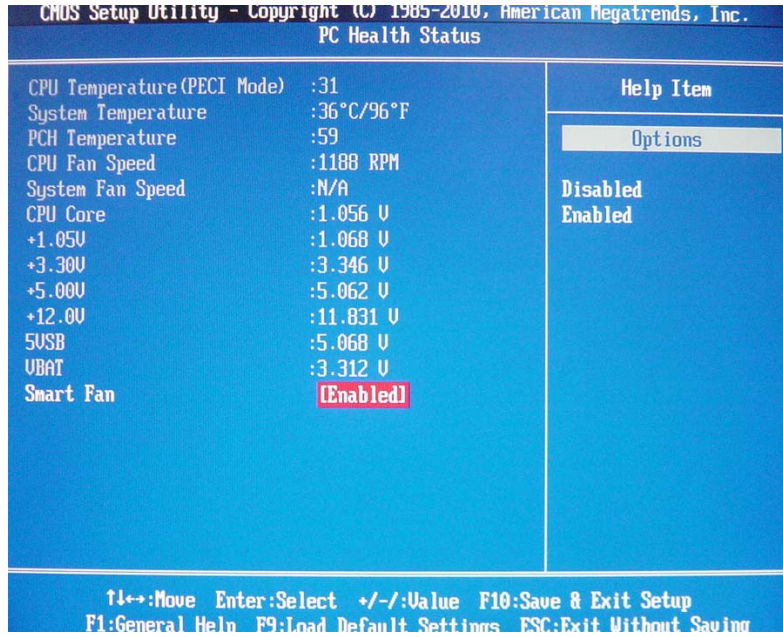
| Parameter | Description | Option |
|--------------------------|-------------------------------------------------------------------------------------|----------------------------|
| Onboard SATA Controller | Enables or disables the onboard SATA controller. | Enabled Disabled |
| Onboard SATA Mode | Select an operating mode for the onboard SATA. | RAID Native IDE |
| Onboard USB Controller | Enables or disables the onboard USB controller. | Enabled Disabled |
| Legacy USB Support | Enables or disables support for legacy USB devices. | Enabled Disabled |
| USB Storage Emulation | Enables or disables support for legacy USB devices. | Enabled Disabled |
| Onboard Audio Controller | Enables or disables the onboard audio controller. | Enabled Disabled |
| Onboard LAN Controller | Enables or disables the onboard LAN controller. | Enabled Disabled |
| Onboard LAN Option ROM | Enables or disables the load of embedded option ROM for onboard network controller. | Enabled Disabled |

Power Management Setup



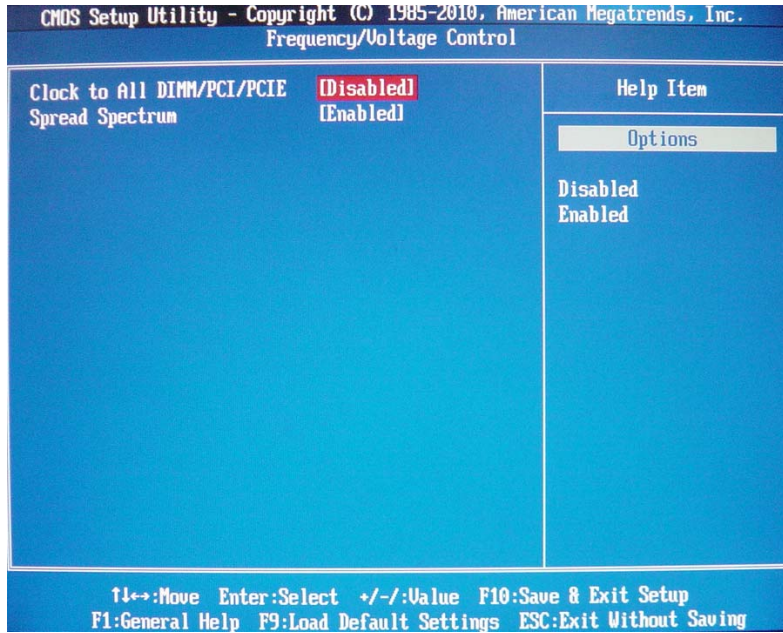
| Parameter | Description | Option |
|---------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| ACPI Suspend Mode | Select an ACPI state. | S3 (STR) S1 (POS) |
| Deep power off mode | Select the Deep power off Mode | Enabled Disabled |
| Power On by RTC Alarm | Enables or Disables to wake up the system by RTC Alarm Function | Enabled Disabled |
| Power On by PCIE Devices | Enables or disables to wake up the system from a power saving mode through an event on PCI Express device. | Enabled Disabled |
| Power On by PCI Devices | Enables or disables to wake up the system from a power saving mode through an event on PCI device. | Enabled Disabled |
| Wake Up by PS/2 KB/ Mouse | Enables or disables to wake up the system from a power saving mode using a PS2 keyboard or mouse. | Enabled Disabled |
| Wake Up by USB KB/ Mouse | If enabled, press any key or click the mouse will wake system from S1/ S3 state. | Enabled Disabled |
| Restore On AC Power Loss | Enables or disables the system to reboot after a power failure or interrupt occurs. | Power Off Power On Last State |

PC Health Status



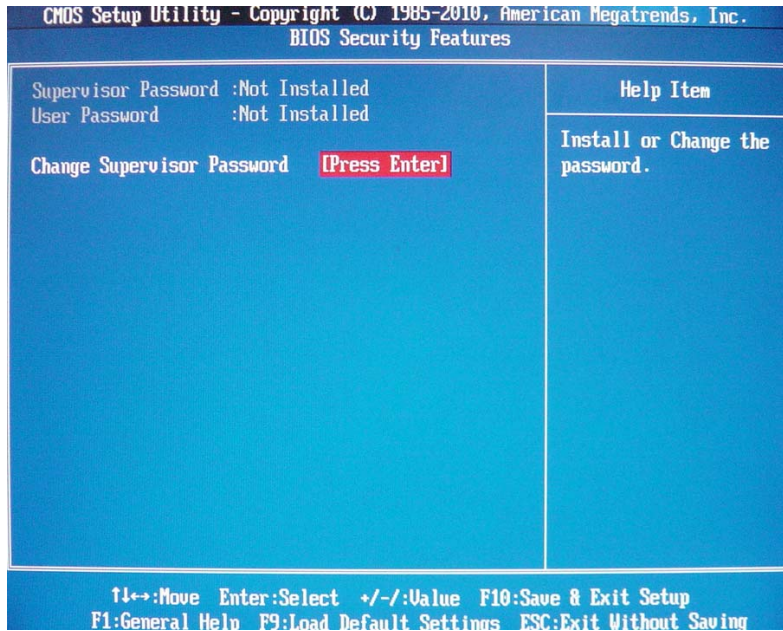
| Parameter | Description | Option |
|-----------|------------------------------------------------------------|---------------------|
| Smart FAN | Enables or disables the smart system fan control function. | Enabled Disabled |

Frequency/Voltage Control



| Parameter | Description | Option |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Clock to All DIMM/PCI | Enables or disables control the clock to all DIMM/PCI | Enabled Disabled |
| Spread Spectrum | Enables or disables the reduction of the mainboard's EMI. Note: Remember to disable the Spread Spectrum feature if you are overclocking. A slight jitter can introduce a temporary boost in clock speed causing the overclocked processor to lock up. | Enabled Disabled |

BIOS Security Features



| Parameter | Description |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Supervisor Password | Indicates the status of the supervisor password. |
| User Password | Indicates the status of the user password. |
| Change Supervisor Password | Supervisor password prevents unauthorized access to the BIOS Setup Utility. Press Enter to change the Supervisor password. |

Setting a supervisor password

1. Use the up/down arrow keys to select Change Supervisor Password menu then press **Enter**.
A password box will appear.
2. Type a password then press **Enter**.
The password may consist up to six alphanumeric characters (A-Z, a-z, 0-9)
3. Retype the password to verify the first entry then press **Enter** again.
4. Press **F10**.
5. Select **Yes** to save the new password and close the Setup Utility.

Changing the supervisor password

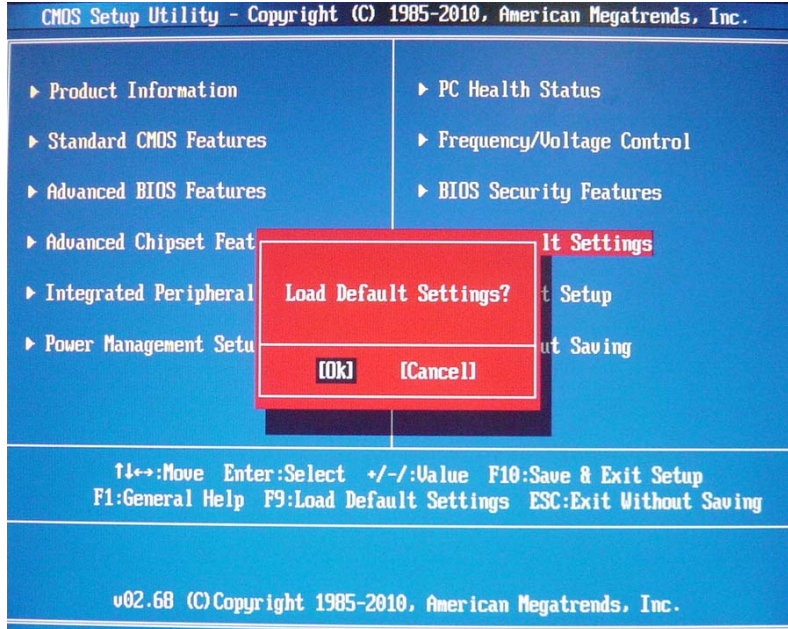
1. Use the up/down arrow keys to select Change Supervisor Password menu then press **Enter**.
2. Type the original password then press **Enter**.
3. Type a new password then press **Enter**.
4. Retype the password to verify the first entry then press **Enter** again.
5. Press **F10**.
6. Select **Yes** to save the new password and close the Setup Utility.

Removing a supervisor password

1. Use the up/down arrow keys to select Change Supervisor Password menu then press **Enter**.
2. Enter the current password then press **Enter**.
3. Press **Enter** twice without entering anything in the password fields.

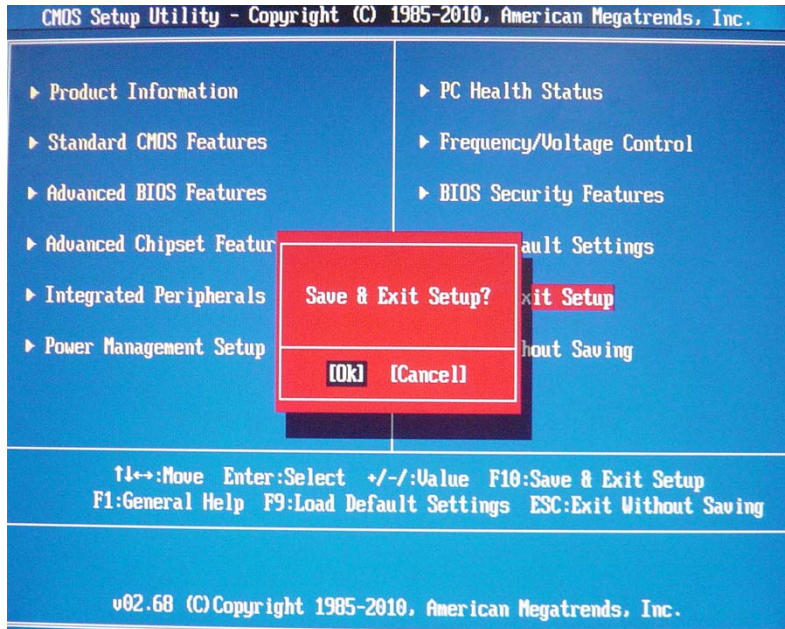
Load Default Settings

The Load Default Settings menu allows you to load the default settings for all BIOS setup parameters. Setup defaults are quite demanding in terms of resources consumption. If you are using low-speed memory chips or other kinds of low-performance components and you choose to load these settings, the system might not function properly.



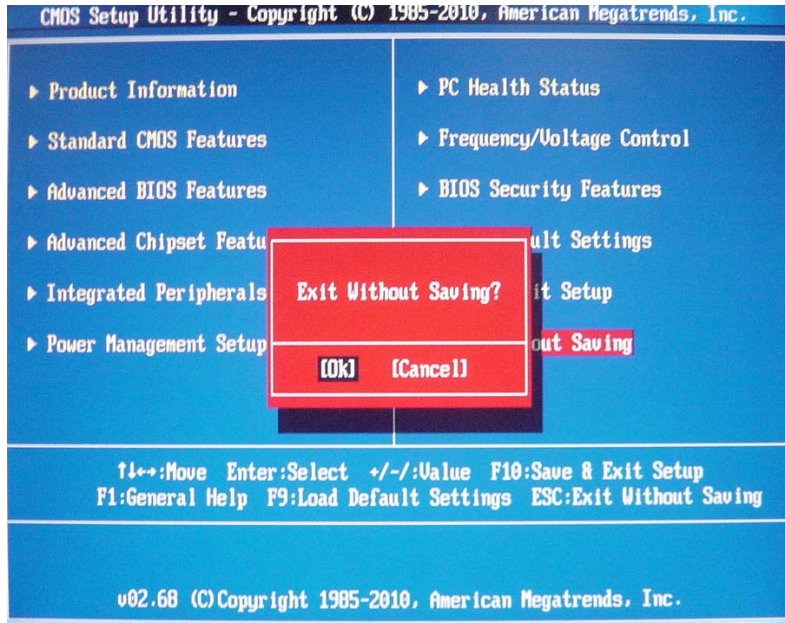
Save & Exit Setup

The Save & Exit Setup menu allows you to save changes made and close the Setup Utility.



Exit Without Saving

The Exit Without Saving menu allows you to discard changes made and close the Setup Utility.



System Disassembly

This chapter contains step-by-step procedures on how to disassemble the desktop computer for maintenance and troubleshooting.

Disassembly Requirements

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat-blade screwdriver
- Philips screwdriver
- Hex screwdriver
- Plastic flat-blade screwdriver
- Plastic tweezers

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.

Pre-disassembly Procedure

Before proceeding with the disassembly procedure, perform the steps listed below:

1. Turn off the system and all the peripherals connected to it.
2. Unplug the power cord from the power outlets.
3. Unplug the power cord from the system.
4. Unplug all peripheral cables from the system.
5. Place the system unit on a flat, stable surface.

Removing the Side Panel

1. Remove the two screws located on the rear edge of the side panel.



2. Slide the side panel toward the back of the chassis until the tabs on the cover disengage with the slots on the chassis.
3. Lift the side panel away from the server and put it aside for reinstallation later.



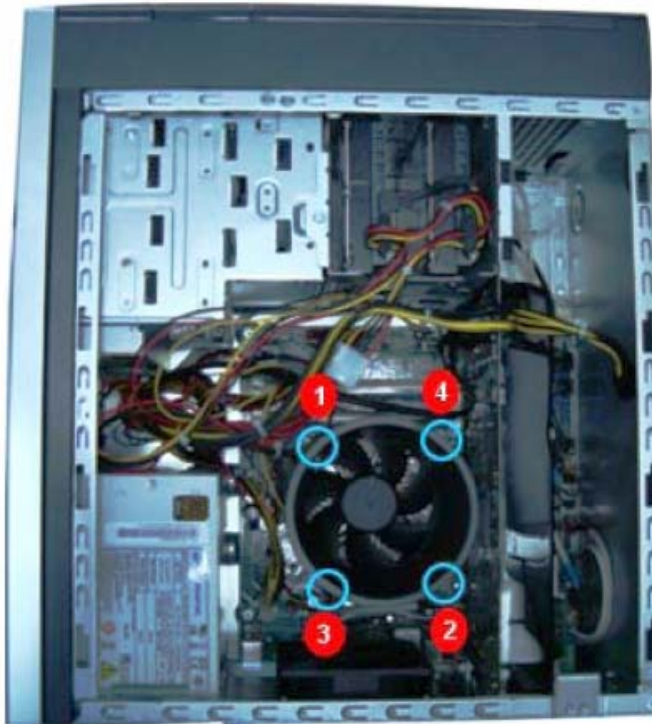
Removing the Heat Sink Fan Assembly

WARNING: The heat sink becomes very hot when the system is on. NEVER touch the heat sink with any metal or with your hands.

1. disconnect the fan cable from the mainboard.



2. Use a long-nosed screwdriver to loosen the four screws on the heat sink, in the order as shown below.



3. Lift the heat sink fan assembly away from the mainboard.

Removing the Processor

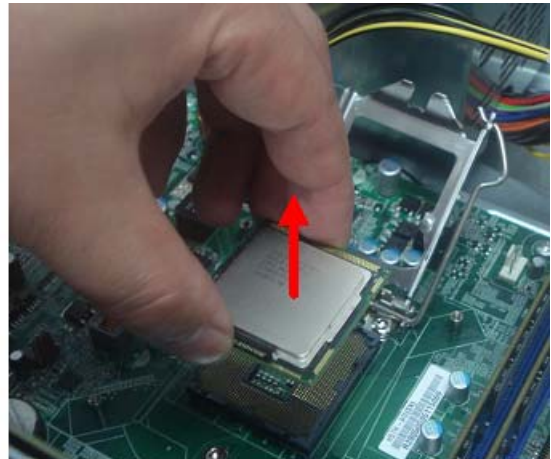
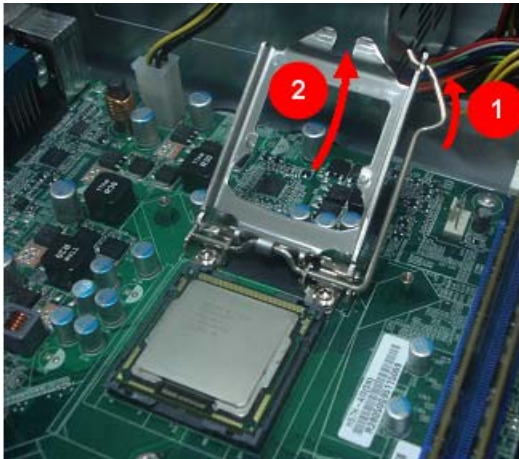
IMPORTANT: Before removing a processor from the mainboard, make sure to create a backup file of all important data.

WARNING: The processor becomes very hot when the system is on. Allow it to cool off first before handling.

1. Release the load lever.



2. Lift the load lever and load plate to the fully open, upright position (1) and (2).
3. Pull out the processor from the socket.

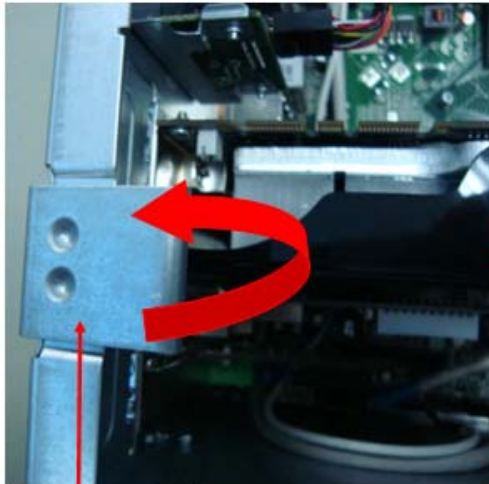


IMPORTANT: If you are going to install a new processor, note the arrow on the corner to make sure the processor is properly oriented over the socket.



Removing the VGA Card

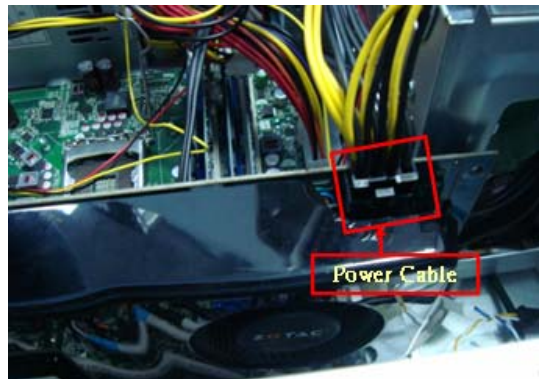
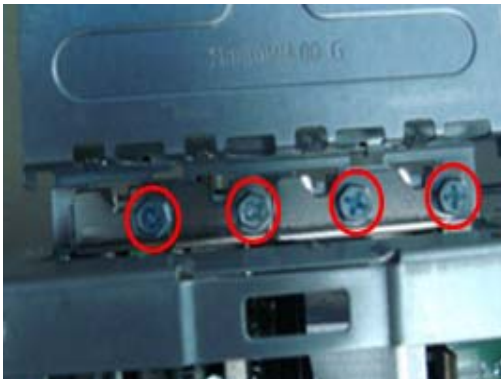
1. Release the Slot cover lock.



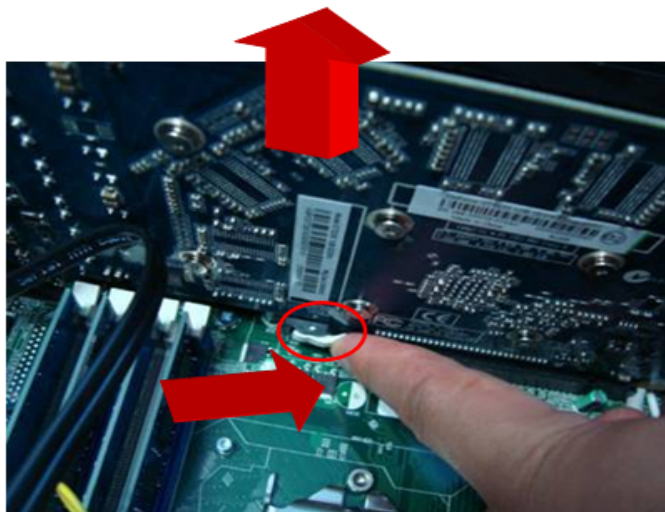
Slot Cover Lock



2. Remove the screw from chassis.
3. Disconnect the power cables from the VGA card.



4. One finger Press the clip and the same time Gently pull the card to remove it from the mainboard.



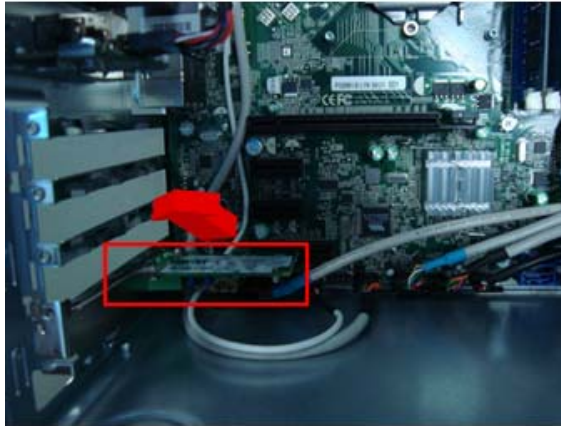
Removing the TV Card

1. Gently pull the TV card to remove it from the mainboard.



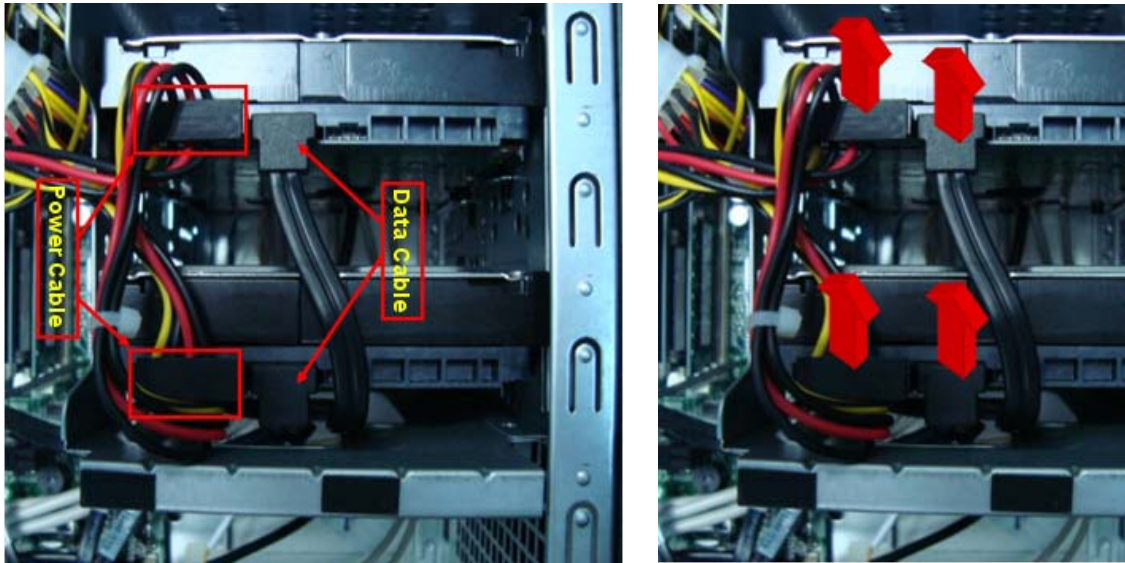
Removing the Mode Card

1. Gently pull the Mode card to remove it from the mainboard.

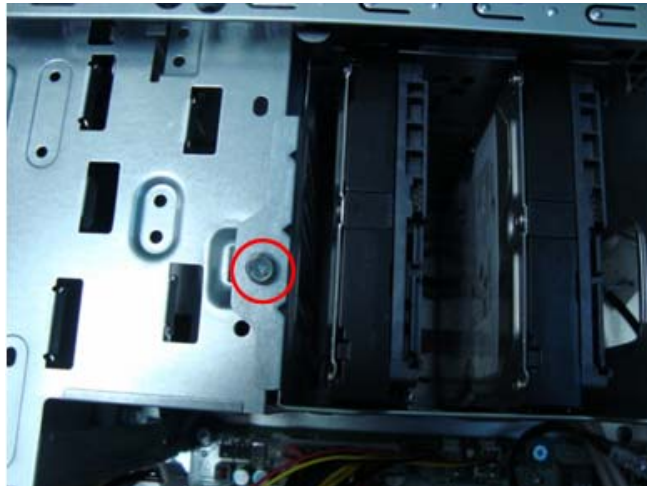


Removing the Hard Disk Drive

1. Disconnect the data and power cables from the rear of the optical drive and the mainboard.



2. Remove the HDD bracket
 - a. Remove the screw that secures the HDD bracket to the ODD bracket.

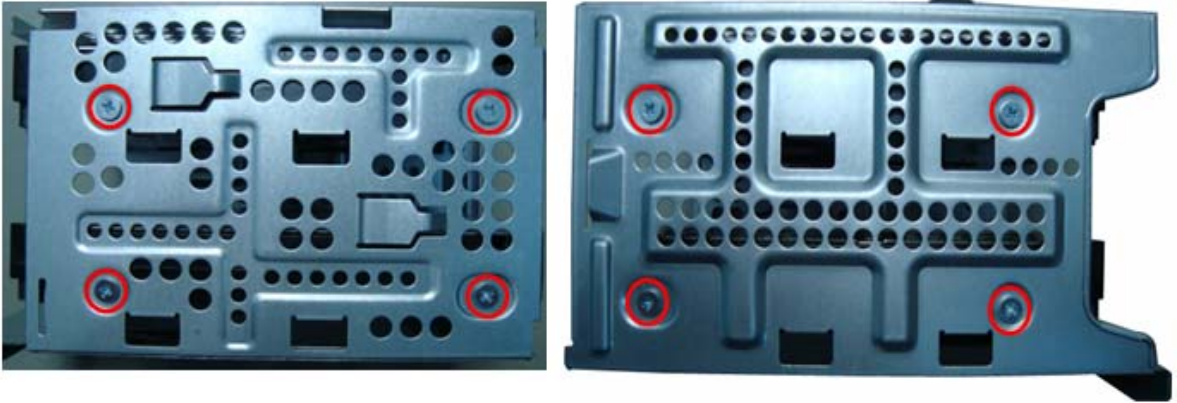


- b. Lift the bracket up and turn it over.

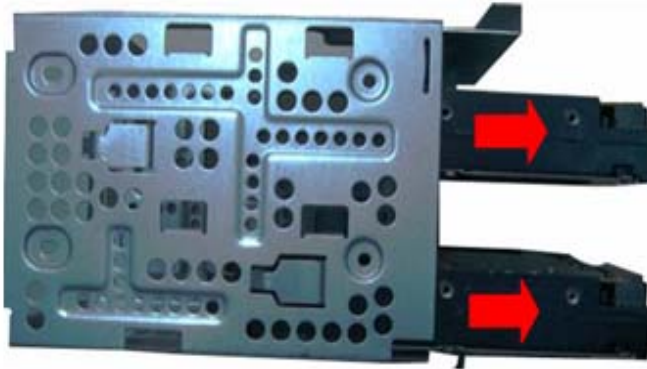


3. Remove the HDD module

- a. Remove the eight screws secure the HDD module to the HDD bracket.

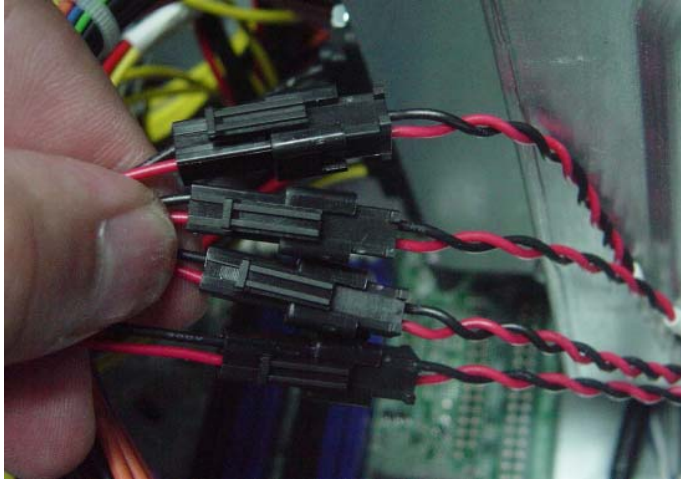


- b. Slide the HDD out of the bracket.

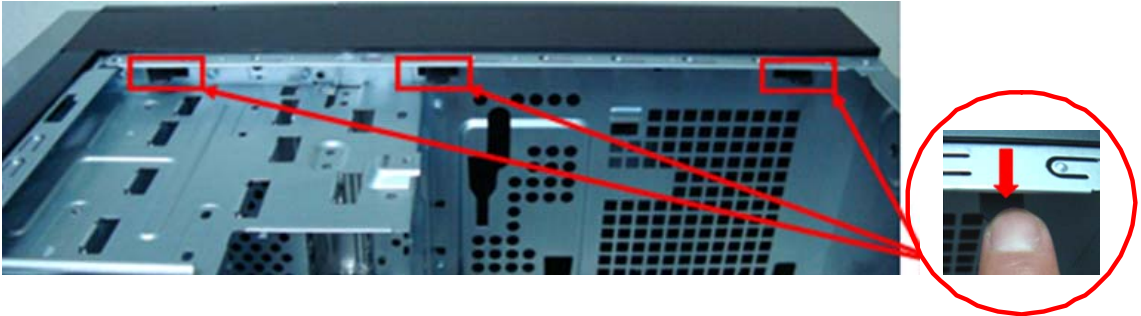


Removing the Front Bezel

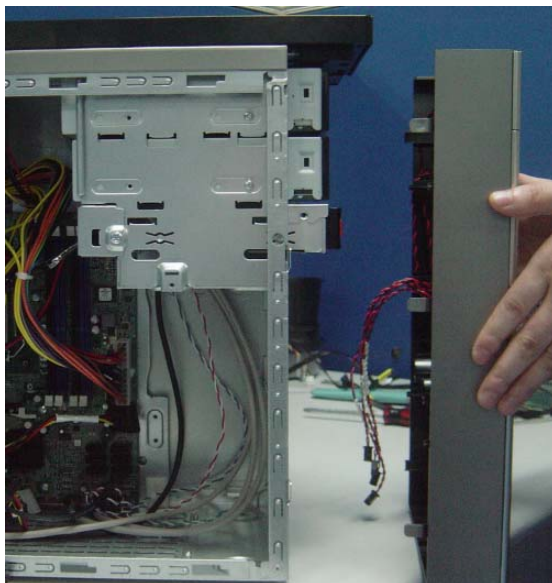
1. Disconnect the LED cable.



2. Release the front bezel from the chassis interior.

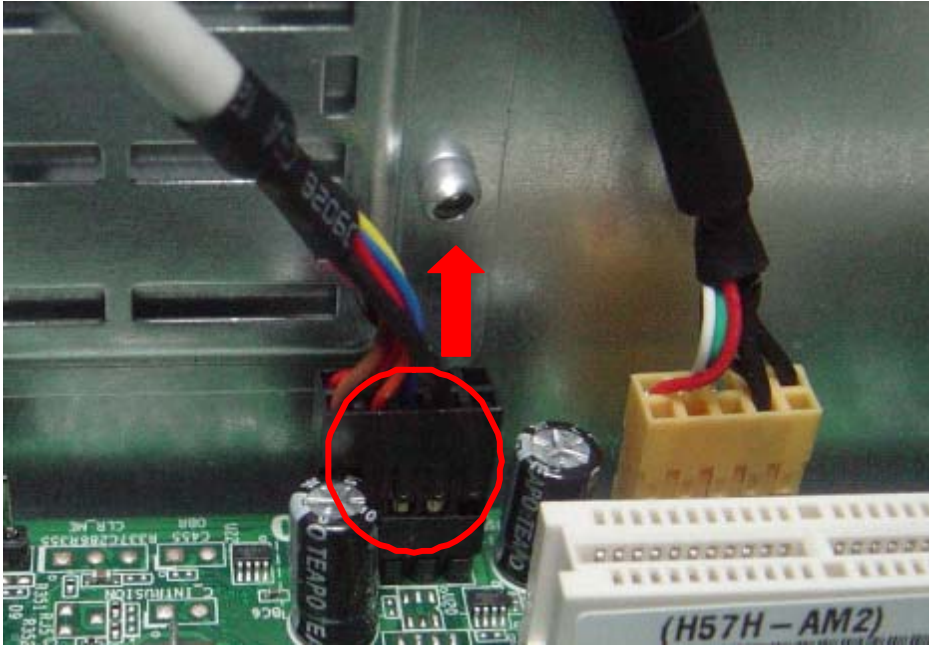


3. Pull the bezel away from the chassis.



Removing Rear USB Board

1. Remove USB cable



2. Release the screw of rear usb.

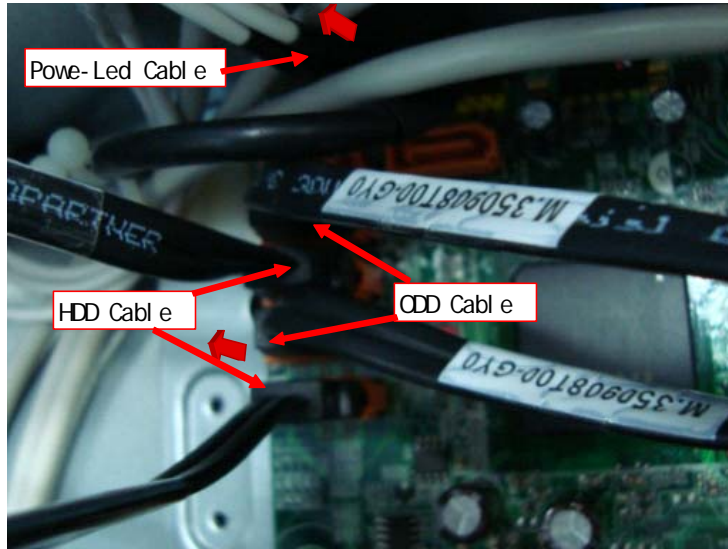


3. Remove the rear usb board.

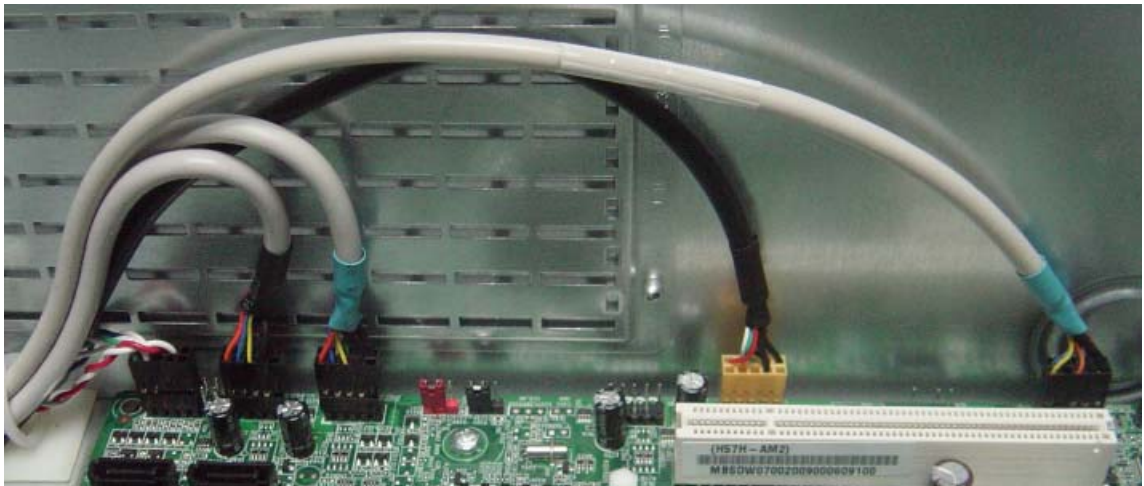


Removing the Cables

1. Remove power switch and LED cables from slot of M/B
2. Remove HDD Data and ODD Data cables from slot of M/B.

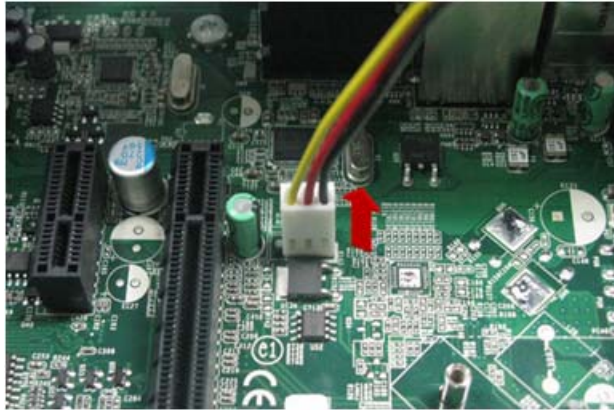


3. Remove USB1/2/3 cable from M/B.
4. Remove FIO cable and Audio cable from M/B



Remove System FAN

1. Remove System FAN cable from M/B.



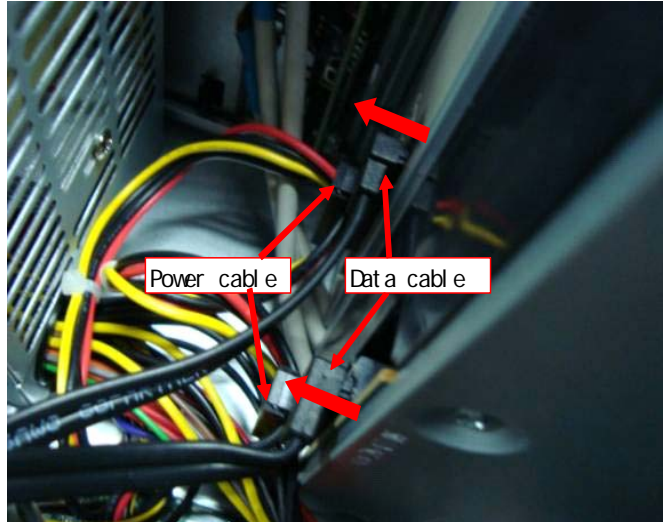
2. Release four screws according to the following picture.



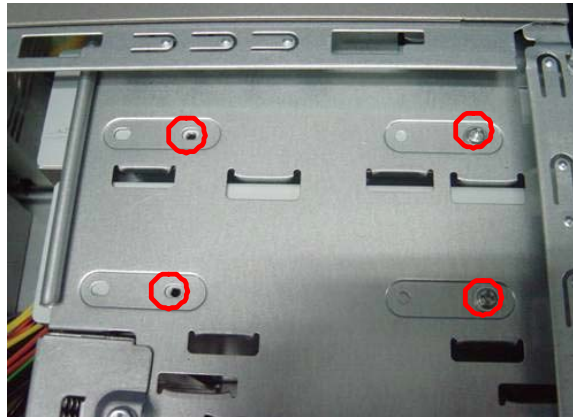
3. Take off the system fan from chassis.

Removing the Optical Drive

1. Disconnect the data and power cables from the rear of the optical drive.



2. Remove Four screw from the optical drive.

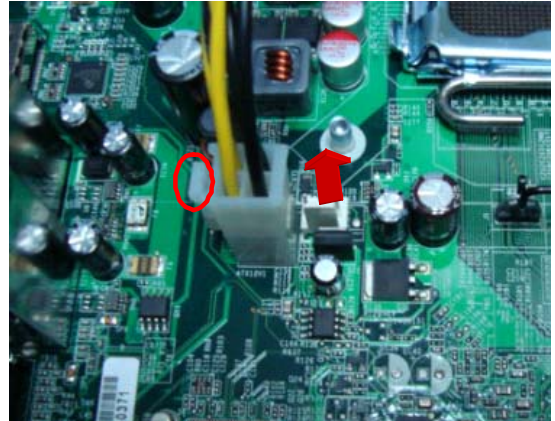
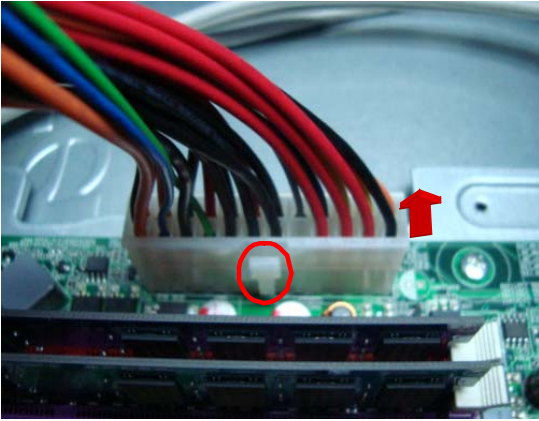


3. Pull the drive out of the drive.

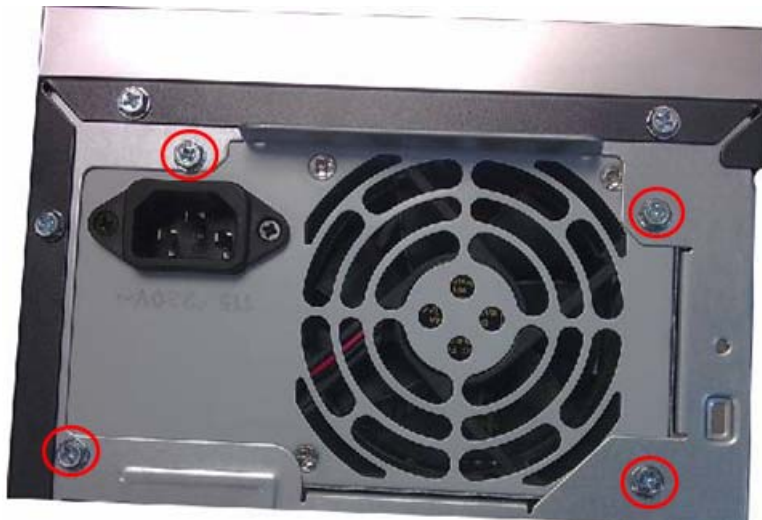


Removing the Power Supply

1. Disconnect the 24-pin and 4-pin power supply cables from the mainboard.



2. Remove the four screws that secure the power supply to the chassis.



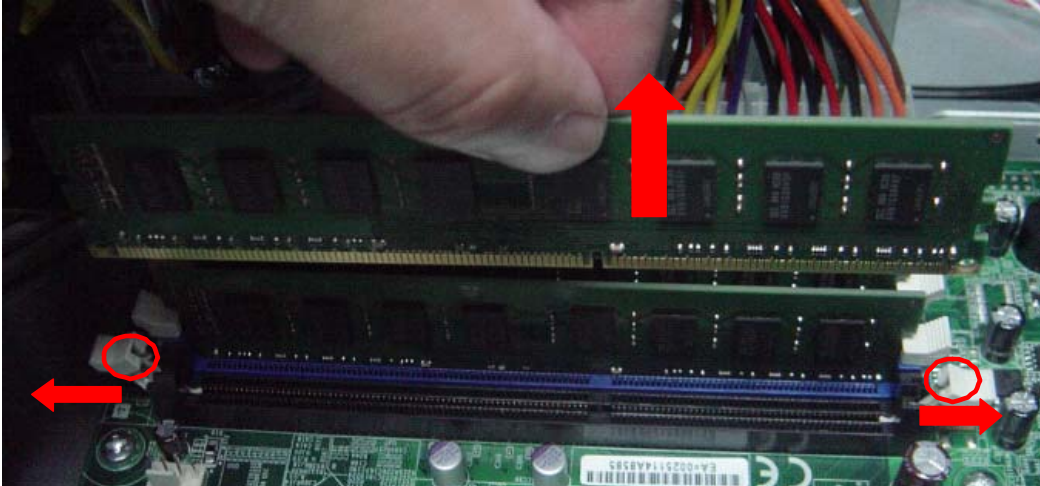
3. Lift the power supply module out of the chassis.



Removing the Memory Modules

IMPORTANT: Before removing any DIMM from the memory board, make sure to create a backup file of all important data.

1. Press the holding clips on both sides of the DIMM slot outward to release the DIMM.
2. Gently pull the DIMM upward to pull it away from the M/B.

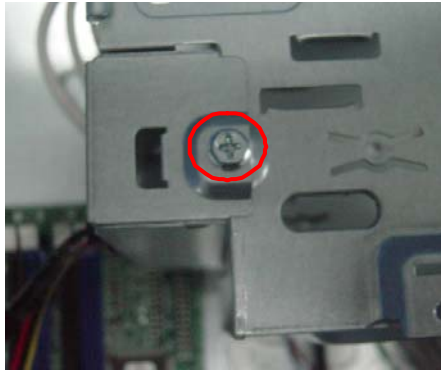


Removing the removable HDD bay

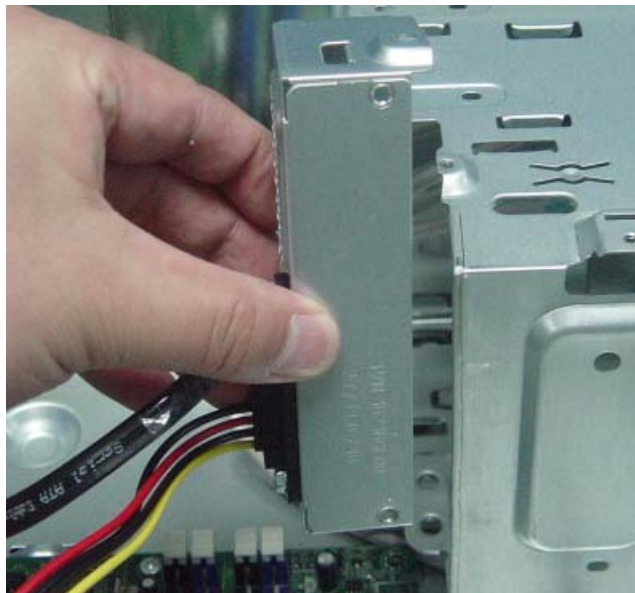
1. Remove the HDD rail



2. Remove the screws that secure the HDD bay.

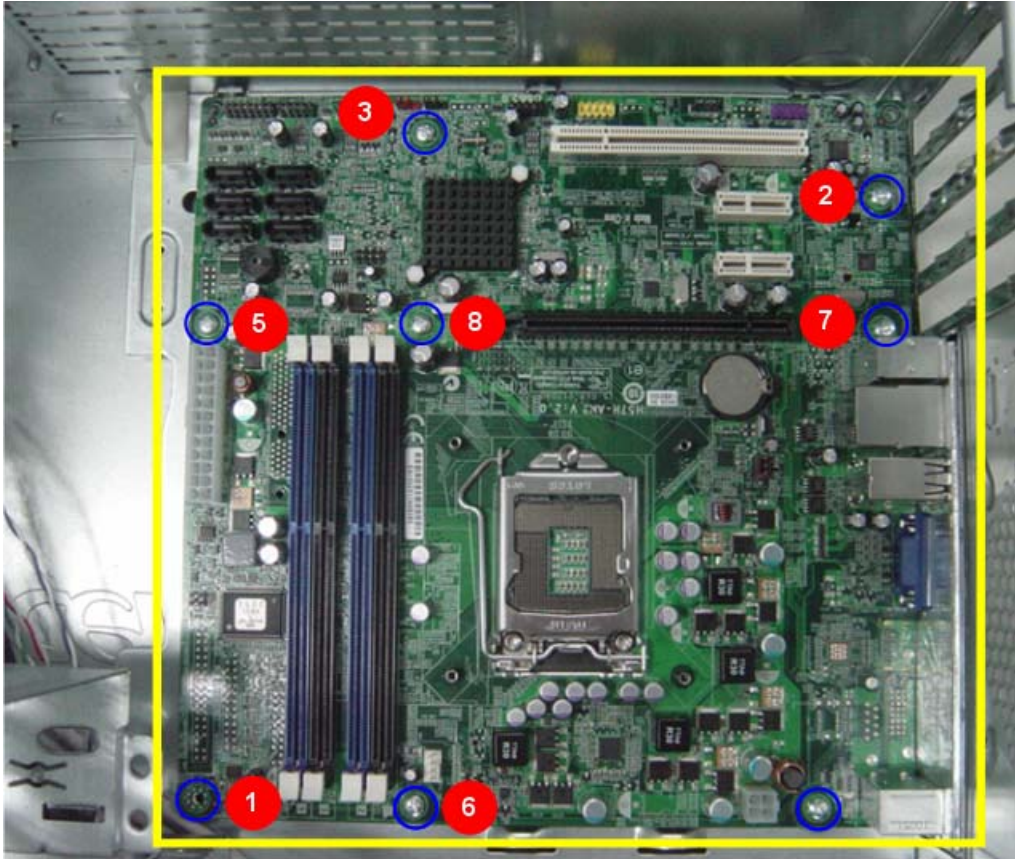


3. Remove the HDD bay.



Removing the Mainboard

1. Remove the eight screws that secure the mainboard to the chassis.



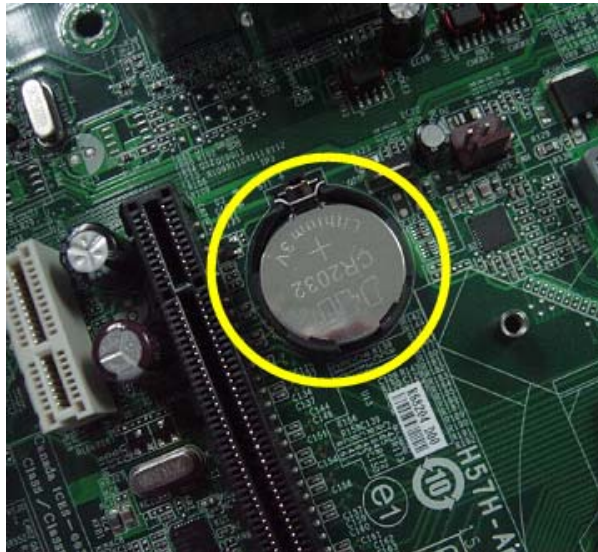
Note: Circuit boards >10 cm² has been highlighted with the yellow rectangle as above image shows.

Please detach the Circuit boards and follow local regulations for disposal.

2. Lift the board from the chassis.



3. Remove the RTC battery.



System Troubleshooting

This chapter provides instructions on how to troubleshoot system hardware problems.

Hardware Diagnostic Procedure

IMPORTANT: The diagnostic tests described in this chapter are only intended to test Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.

1. Obtain the failing symptoms in as much detail as possible.
2. Verify the symptoms by attempting to recreate the failure by running the diagnostic tests or repeating the same operation.
3. Refer to “Power System check” and “Beep Codes” to determine which corrective action to perform.

System Check Procedures

Power System Check

If the system will power on, skip this section. Refer to System External Inspection.

If the system will not power on, do the following:

- Check if the power cable is properly connected to the system and AC source.
- Check if the voltage selector switch is set to the correct voltage setting.

System External Inspection

1. Inspect the LED indicators on the front panel, which can indicate the malfunction.
2. Make sure that air flow is not blocked.
3. Make sure nothing in the system is making contact that could short out power.
4. If the problem is not evident, continue with System Internal Inspection.

System Internal Inspection

1. Turn off the system and all the peripherals connected to it.
2. Unplug the power cord from the power outlets.
3. Unplug the power cord from the system.
4. Unplug all peripheral cables from the system.
5. Place the system unit on a flat, stable surface.
6. Remove the system covers. For instructions on removing system covers, refer to “System Disassembly”.
7. Verify that components are properly seated.
8. Verify that all cable connectors inside the system are firmly and correctly attached to their appropriate connectors.
9. Verify that all components are Acer-qualified and supported.
10. Replace the system covers.
11. Power on the system.
12. If the problem with the system is not evident, you can try viewing the POST messages and BIOS event logs during the system startup.

Beep Codes

Beep codes are used by the BIOS to indicate a serious or fatal error to the end user. Beep codes are used when an error occurs before the system video has been initialized. Beep codes will be generated by the system board speaker, commonly referred to as the PC speaker.

AMIBIOS displays the checkpoints in the bottom right corner of the screen during POST. This display method is limited, since it only displays checkpoints that occur after the video card has been activated.

Not all computers using AMIBIOS enable this feature. In most cases, a checkpoint card is the best tool for viewing AMIBIOS checkpoints.

| Beep Symptom | Cause and Description |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| One short beep | System is ready. System is OK. |
| Continuous one long beep | Memory not installed or memory error. |
| One long beep and two short beeps then repeat. | VGA not installed or VGA error. Graphics card error/not installed, graphics card memory error or graphics card BIOS checksum error. |
| One long beep then two short beep | BIOS damaged. BIOS is damaged, BIOS POST jumps to Boot Block to execute the default procedures. |
| Two short beeps | CMOS damaged. CMOS checksum error or CMOS battery loss occurs. |

Checkpoints

A checkpoint is either a byte or word value output to I/O port 80h. The BIOS outputs checkpoints throughout bootblock and Power-On Self Test (POST) to indicate the task the system is currently executing. Checkpoint sare very useful in aiding software developers or technicians in debugging problems that occur during the pre-boot process.

Viewing BIOS checkpoints

Viewing all checkpoints generated by the BIOS requires acheckpoint card, also referred to as a POST card or POST diagnostic card. These are ISA or PCI add-in cards that show the value of I/O port 80h on a LED display. Checkpoints may appear on the bottom right corner of the screen during POST. This display method islimited, since it only displays checkpoints thatoccur after the video card has been activated.

Bootblock Initialization Code Checkpoints

The Bootblock initialization code sets up the chipset, memory, and other components before system memory is available. The following table describes the type of checkpoints that may occur during the bootblock initialization portion of the BIOS.

NOTE: Please note that checkpoints may differ between different platforms based on system configuration. Checkpoints may change due to vendor requirements, system chipset or option ROMs from add-in PCI devices.

| Checkpoint | Description |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before D0 | If boot block debugger is enabled, CPU cache-as-RAM functionality is enabled at this point. Stack will be enabled from this point. |
| D0 | Early Boot Strap Processor (BSP) initialization like microcode update, frequency and other CPU critical initialization. Early chipset initialization is done. |
| D1 | Early super I/O initialization is done including RTC and keyboard controller. Serial port is enabled at this point if needed for debugging. NMI is disabled. Perform keyboard controller BAT test. Save power-on CPUID value in scratch CMOS. Go to flat mode with 4GB limit and GA20 enabled. |
| D2 | Verify the boot block checksum. System will hang here if checksum is bad. |
| D3 | Disable CACHE before memory detection. Execute full memory sizing module. If memory sizing module not executed, start memory refresh and do memory sizing in Boot block code. Do additional chipset initialization. Re-enable CACHE. Verify that flat mode is enabled. |
| D4 | Test base 512KB memory. Adjust policies and cache first 8MB. Set stack. |
| D5 | Bootblock code is copied from ROM to lower system memory and control is given to it. BIOS now executes out of RAM. Copies compressed boot block code to memory in right segments. Copies BIOS from ROM to RAM for faster access. Performs main BIOS checksum and updates recovery status accordingly. |
| D6 | Both key sequence and OEM specific method is checked to determine if BIOS recovery is forced. Main BIOS checksum is tested. If BIOS recovery is necessary, control flows to checkpoint E0. See Bootblock Recovery Code Checkpoints section for more information. |
| D7 | Restore CPUID value back into register. The Bootblock-Runtime interface module is moved to system memory and control is given to it. Determine whether to execute serial flash. |
| D8 | The Runtime module is uncompressed into memory. CPUID information is stored in memory. |
| D9 | Store the Uncompressed pointer for future use in PMM. Copying Main BIOS into memory. Leaves all RAM below 1MB Read-Write including E000 and F000 shadow areas but closing SMRAM. |

| Checkpoint | Description |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DA | Restore CPUID value back into register. Give control to BIOS POST (ExecutePOSTKernel). See POST Code Checkpoints section of document for more information. |
| DC | System is waking from ACPI S3 state. |
| E1-E8 EC-EE | OEM memory detection/configuration error. This range is reserved for chipset vendors & system manufacturers. The error associated with this value may be different from one platform to the next. |

Bootblock Recovery Code Checkpoints

The Bootblock recovery code gets control when the BIOS determines that a BIOS recovery needs to occur because the user has forced the update or the BIOS checksum is corrupt. The following table describes the type of checkpoints that may occur during the Bootblock recovery portion of the BIOS.

NOTE: Checkpoints may differ between different platforms based on system configuration. Checkpoints may change due to vendor requirements, system chipset or option ROMs from add-in PCI devices.

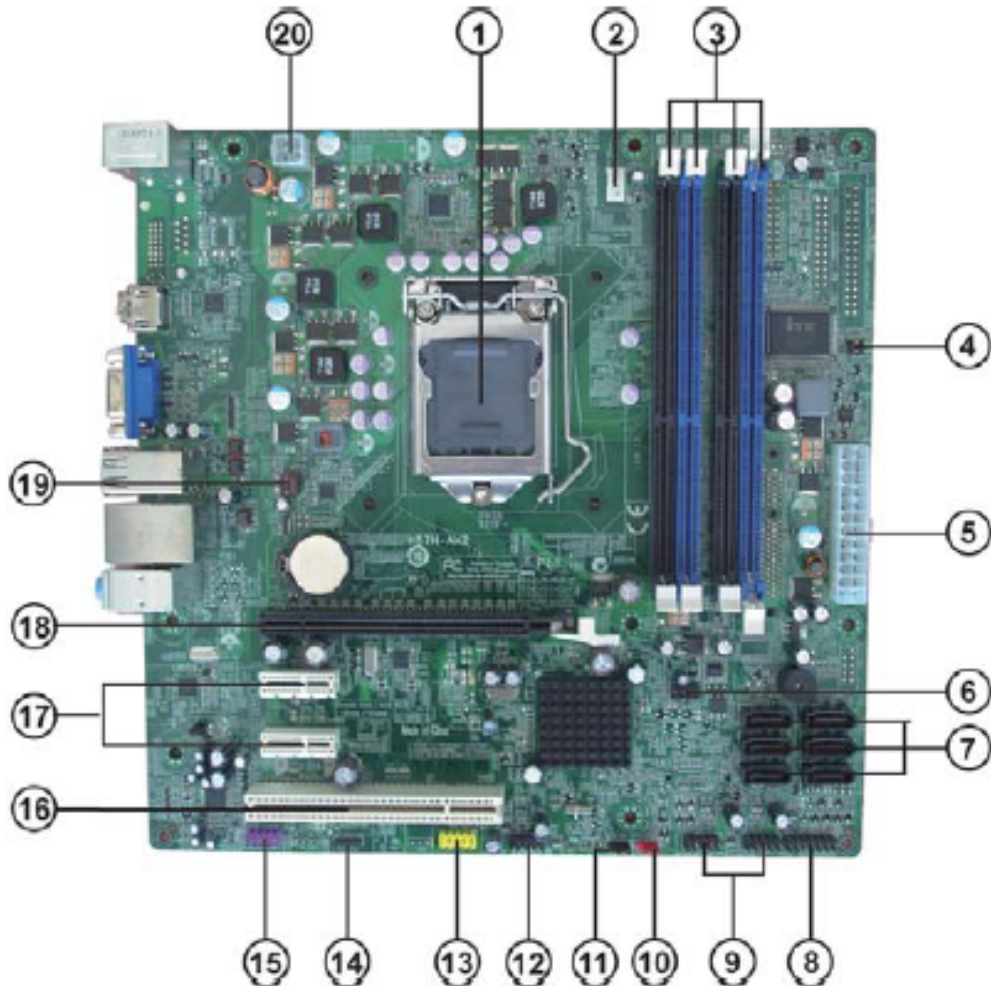
| Checkpoint | Description |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E0 | Initialize the floppy controller in the super I/O. Some interrupt vectors are initialized. DMA controller is initialized. 8259 interrupt controller is initialized. L1 cache is enabled. |
| E9 | Set up floppy controller and data. Attempt to read from floppy. |
| EA | Enable ATAPI hardware. Attempt to read from ARMD and ATAPI CDROM. |
| EB | Disable ATAPI hardware. Jump back to checkpoint E9. |
| EF | Read error occurred on media. Jump back to checkpoint EB. |
| F0 | Search for pre-defined recovery file name in root directory. |
| F1 | Recovery file not found. |
| F2 | Start reading FAT table and analyze FAT to find the clusters occupied by the recovery file. |
| F3 | Start reading the recovery file cluster by cluster. |
| F5 | Disable L1 cache. |
| FA | Check the validity of the recovery file configuration to the current configuration of the flash part. |
| FB | Make flash write enabled through chipset and OEM specific method. Detect proper flash part. Verify that the found flash part size equals the recovery file size. |
| F4 | The recovery file size does not equal the found flash part size. |
| FC | Erase the flash part |
| FD | Program the flash part. |
| FF | The flash has been updated successfully. Make flash write disabled. Disable ATAPI hardware. Restore CPUID value back into register. Give control to F000 ROM at F000:FFF0h. |

BIOS Recovery

1. This function only effects when the BIOS BootBlock section is healthy.
2. Allow to execute recovery function media: FDD / USB storage / ODD.
3. The recovery media to support Boot function is unnecessary.
4. Recovery step as follow:
 - 4-1. Copy the latest BIOS ROM file to the root directory of recovery media.
 - 4-2. Rename the BIOS ROM file to be "AMIBOOT.ROM".
 - 4-3. Insert the recovery device to system and then power on the system.
 - 4-4. Don't do anything during the recovery function to be progress but just only observe the recovery media has been loading or not.
 - 4-5. If the recovery function run normally, the recovery function will execute 1~3 minutes.
 - 4-6. The system will auto reboot after the recovery function finished and please enter the setup menu to load default after system reboot.

Jumper and Connector Information

M/B Placement



| LABEL | COMPONENTS |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. CPU Socket | Supports the LGA1156 Intel Lynnfield/Havendale/Clarkdale processors |
| 2. CPU_FAN | CPU cooling fan connector |
| 3. DIMM1~4 | 240-Pin DDR3 SDRAM slots(Channel A: DIMM4, DIMM2 Channel B: DIMM3, DIMM1) * Single Channel Mode: DIMM2 must be populated. * Dual Channel Mode: DIMM2 and DIMM1 must be populated. |
| 4. GPIO0~1 | General Purpose I/O Signals |
| 5. ATX1 | Standard 24-pin ATX power connector |
| 6. SPI_DEBUG | SPI debug header-factory use only |
| 7. SATA1~6 | Serial ATA connectors |
| 8. F_PANEL | Front panel switch/LED header |
| 9. F_USB3~4 | Front panel USB headers |
| 10. CLR_CMOS | Clear CMOS jumper |
| 11. ME_DISABLE | ME disable jumper |
| 12. F_USB2 | Front panel USB header |
| 13. F_USB1 | Front panel USB header(Card Reader) |
| 14. SPDIF_OUT1 | SPDIF out header |
| 15. F_AUDIO1 | Front panel audio header |
| 16. PCI1 | 32-bit add-on card slots |
| 17. PCIE1X-1~2 | PCI Express x1 slot |
| 18. PCIE16X | PCI Express x16 slot |
| 19. SYS_FAN | System cooling fan connector |
| 20. ATX_12V | Auxiliary 4-pin power connector |

Jumper Setting

The section explains how to set jumper for correct configuration of the mainboard.



Setting Jumper

Use the motherboard jumpers to set system configuration options. Jumpers with more Than one pin are numbered. When setting the jumpers, ensure that the jumper caps are Placed on the correct pins.

Checking Jumper Settings

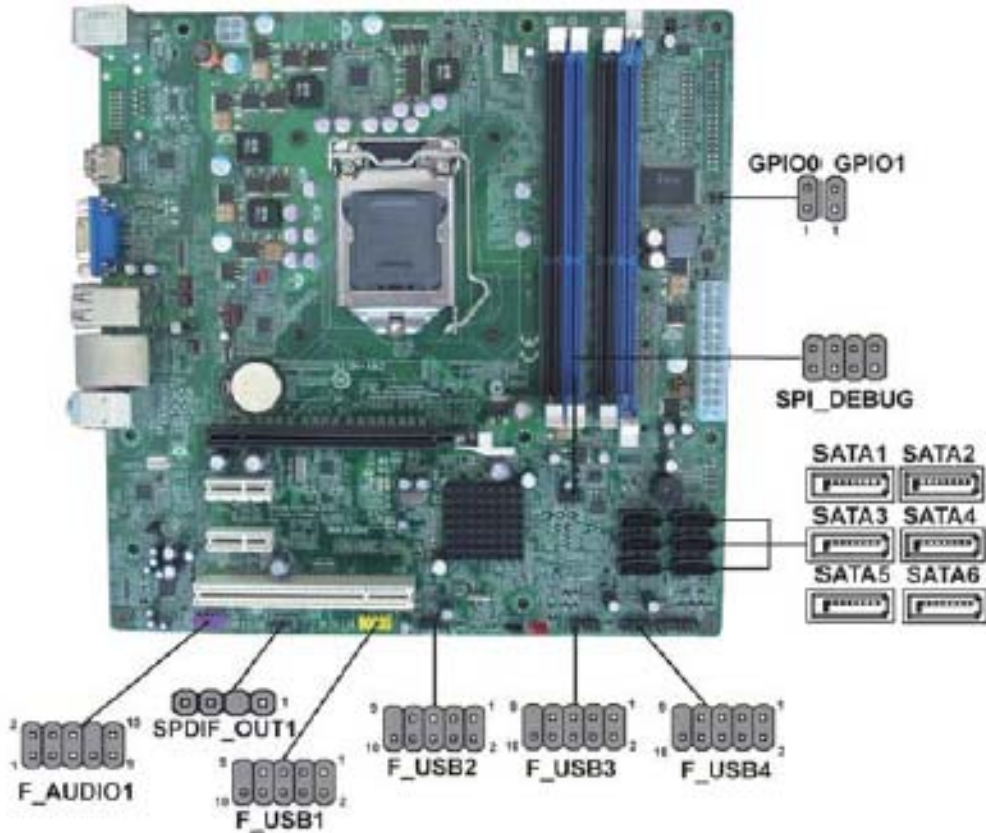
The following illustration shows the location of the motherboard jumpers. Pin 1 is labeled.



| Jumper | Type | Description | Setting (default) | |
|------------|-------|-------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| CLR_CMOS | 3-pin | CLEAR CMOS | 1-2: NORMAL 2-3: CLEAR Before clearing the CMOS, make sure to turn the system off. |  CLR_CMOS |
| ME_DISABLE | | MEDISABLE | 1-2: NORMAL 2-3: MEDISABLE |  ME_DISABLE |

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:



SATA1~6: Serial ATA connectors

These connectors are used to support the new Serial ATA devices for the highest data transfer rates (3.0 Gb/s), simpler disk drive cabling and easier PC assembly. It eliminates limitations of the current Parallel ATA interface. But maintains register compatibility and software compatibility with Parallel ATA.

| Pin | Signal Name | ?Pin | Signal Name |
|-----|-------------|------|-------------|
| 1 | Ground | 2 | TX+ |
| 3 | TX- | 4 | Ground |
| 5 | RX- | 6 | RX+ |
| 7 | Ground | - | - |

F_USB1~4: Front Panel USB headers

The motherboard has four USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you

have this kind of case, use auxiliary USB connector to connect the front-mounted ports to the motherboard.

| Pin | Signal Name | Function |
|-----|-------------|----------------------------|
| 1 | USBPWR me | Front Panel USB Power |
| 2 | USBPWR | Front Panel USB Power |
| 3 | USB_FP_P0- | USB Port 0 Negative Signal |
| 4 | USB_FP_P1- | USB Port 1 Negative Signal |
| 5 | USB_FP_P0+ | USB Port 0 Positive Signal |
| 6 | USB_FP_P1+ | USB Port 1 Positive Signal |
| 7 | GND | Ground |
| 8 | GND | Ground |
| 9 | Key | No pin |
| 10 | USB_FP_OC0 | NC |

Please make sure that the USB cable has the same pin assignment as indicated above. A different pin assignment may cause damage or system hang-up.

COM2: Onboard serial port header

Connect a serial port extension bracket to this header to add a second serial port to your system.

| Pin | Signal Name | Function |
|-----|-------------|----------------------------|
| 1 | DCD me | Data Carrier Detect |
| 2 | SIN | Serial Input |
| 3 | SOUT | UART B Serial Output |
| 4 | DTR | UART B Data Terminal Ready |
| 5 | GND | Ground |
| 6 | DSR | Data Set Ready |
| 7 | RTS | RART B Request to Send |
| 8 | CTS | Clear to Send |
| 9 | RI | Ring Indicator |
| 10 | NC | No pin |

SPDIF_OUT1: SPDIF out header

This is an optional header that provides an SPDIF_OUT (Sony/Philips Digital Interface) output to digital multimedia device through optical fiber or coaxial connector.

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 1 | +5V | 2 | KEY |
| 3 | SPDIF | 4 | GND |

C_INTRUSION: Chassis detect header

This detects if the chassis cover has been removed. This function needs a chassis equipped with intrusion detection switch and needs to be enabled in BIOS.

| Pin | Signal Name |
|-----|-------------|
| 1 | Caseopen |
| 2 | GND |

INT_SPK1: Internal speaker

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 1 | Output_L | 2 | GND |
| 3 | Output_R | 4 | Ground |
| 5 | GND | 6 | GND |
| 7 | N/A | 8 | VCC |

OBR: Button recovery jumper

| Pin | Signal Name |
|-----|-------------|
| 1 | OBR |
| 2 | GND |

PRINTER: Oboard parallel port header

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 1 | STROBE | 2 | PD0 |
| 3 | PD1 | 4 | PD2 |
| 5 | PD3 | 6 | PD4 |
| 7 | PD4 | 8 | PD6 |

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 9 | PD7 | 10 | ACK |
| 11 | BUSY | 12 | PE |
| 13 | SLCT | 14 | ALF |
| 15 | ERROR | 16 | INTT |
| 17 | SLCTIN | 18 | Ground |
| 19 | Ground | 20 | Ground |
| 21 | Ground | 22 | Ground |
| 23 | Ground | 24 | Ground |
| 25 | Ground | 26 | NC |
| | | | |

TPM: TPM Module Header

This header allows user to protect the PC from impermissible visit.

| Pin | Signal Name | Pin | Signal Name |
|-----|------------------|-----|-------------|
| 1 | CK_P_33M_T PM | 2 | GND |
| 3 | FWH4 | 4 | NC |
| 5 | PCIRST_L1 | 6 | SMBDATA |
| 7 | PCIRST_L1 | 8 | FWH2 |
| 9 | VCC3 | 10 | FWH1 |
| 11 | FWH0 | 12 | GND |
| 13 | NC | 14 | NC |
| 15 | 3VSBY | 16 | SIRQ |
| 17 | GND | 18 | GND |
| 19 | LPCPD_L | 20 | SMBCLK |
| | | | |

SPI_DEBUG: SPI_DEBUG header

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------------|
| 1 | CS | 2 | WP Signal Name |
| 3 | DI | 4 | HOLD |

| Pin | Signal Name | Pin | Signal Name |
|-----|-------------|-----|-------------|
| 5 | VCC | 6 | CLK |
| 7 | GND | 8 | DO |

GPIO0~1: Button recovery jumper

| Pin | Signal Name |
|-----|-------------|
| 1 | GP36(GP16) |
| 2 | GND |

FRU (Field Replaceable Unit) List

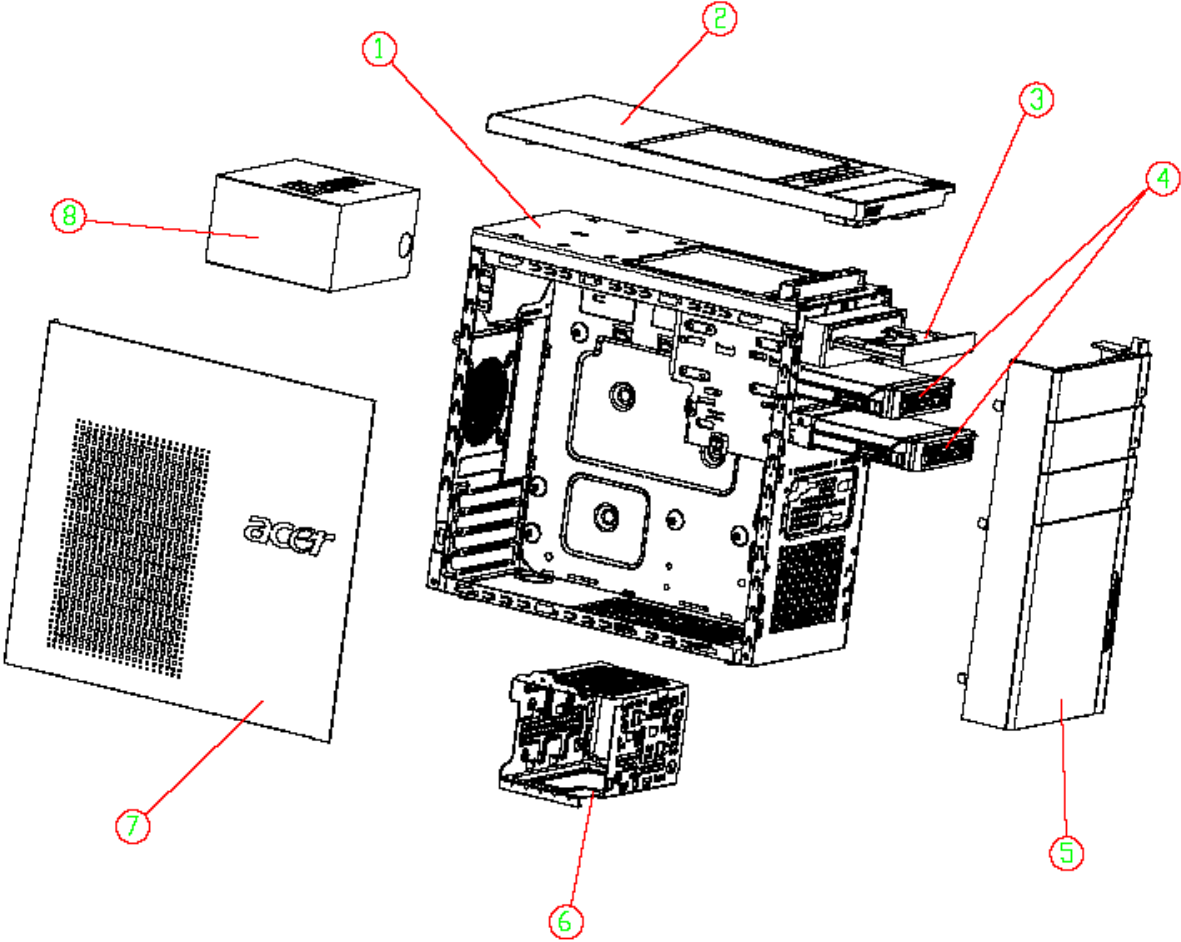
This chapter offers the FRU (Field Replaceable Unit) list in global configuration of the Aspire M5910(G) desktop computer. Refer to this chapter whenever ordering the parts to repair or for RMA (Return Merchandise Authorization).

NOTES:

- When ordering FRU parts, check the most up-to-date information available on your regional web or channel. For whatever reasons a part number is changed, it will NOT be noted on the printed Service Guide. For Acer authorized service providers, your Acer office may have a different part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for service.
- To scrap or to return the defective parts, follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.
- This document will be updated as more information about the FRU list becomes available.

Aspire M5910(G) Exploded Diagram(AM551 ASSY)

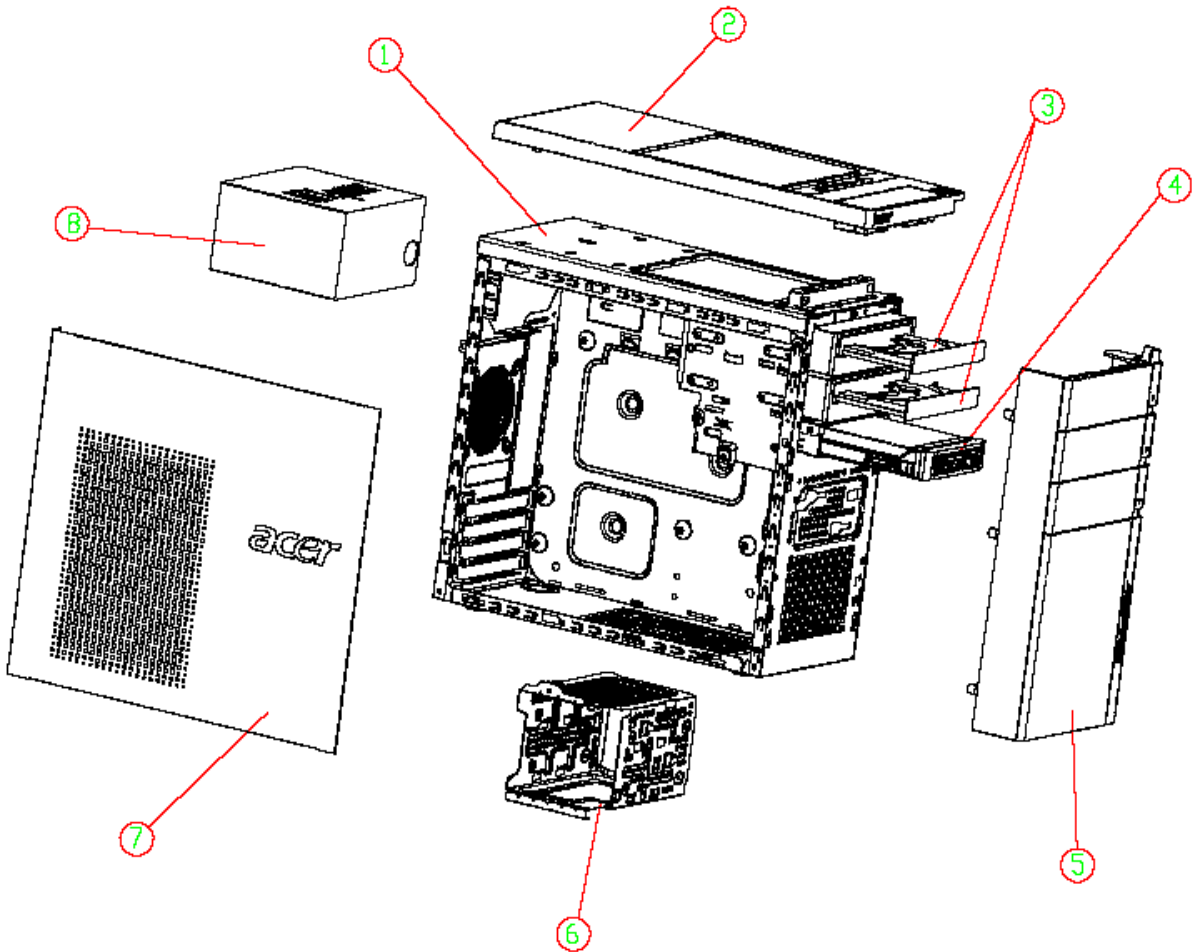
NOTE: This section will be updated when more information becomes available.



| ITEM | NAME | Q'TY | ITEM | NAME | Q'TY |
|------|-----------------------|------|------|-------------|------|
| 1 | CHASSIS ASM | 1 | 5 | FRONT BEZEL | 1 |
| 2 | TOP-COVER | 1 | 6 | HDD COVER | 1 |
| 3 | ODD | 1 | 7 | SIDE COVER | 1 |
| 4 | REMOVABLE HDD CARRIER | 2 | 8 | POWER | 1 |






Aspire M5910(G) Exploded Diagram(AM550 ASSY)




NOTE: This section will be updated when more information becomes available.






| ITEM | NAME | Q'TY | ITEM | NAME | Q'TY |
|------|-----------------------|------|------|-------------|------|
| 1 | CHASSIS ASM | 1 | 5 | FRONT BEZEL | 1 |
| 2 | TOP-COVER | 1 | 6 | HDD COVER | 1 |
| 3 | ODD | 1 | 7 | SIDE COVER | 1 |
| 4 | REMOVABLE HDD CARRIER | 2 | 8 | POWER | 1 |

Aspire M5910(G) FRU List

| Components | Model Name or Key Spec. | Acer P/N |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------|
| MB Kit | | |
|  | MB Kit aSampras EIH57MK for M5 Intel H57 Realtek RTL8111E Giga LAN ATX W/O 1394 LF w/i D-Sub port | MB.SDW07.002 |
| Chassis | | |
| | Hon Hai Chassis MicroATX HM090H with front USB 4 port for Aspire AM550 bezel | HS.13100.117 |
| | Hon Hai Chassis MicroATX HM090K w/i 3.5" carrierx2 w/i FIO USB 4 port for Aspire AM551 bezel | HS.13100.124 |
| Bezel | | |
| | Hon Hai Aspire Bezel AM550 USB 4 port bezel for HM090H chassis | PZ.11900.175 |
| | Hon Hai Aspire Bezel AM551 w/i 3,5"x2 carrier ,USB 4 port bezel for HM090K chassis | PZ.11900.182 |
| Card Reader | | |
|  | 16-in-1 CR Realtek RTS-5181, 720mm USB cable, for 2010 M5 | CR.10400.116 |
| | 16-in-1 CR RI236 UT330-LK, 720mm USB cable, for 2010 M5 | CR.10400.115 |
| CPU Cooler | | |
|  | Cooler Intel LGA 1156 FXC PKP775G01U12 w/i duct | HI.10800.049 |
| | CM iCooler LGA1156 w/i pure al 93x93x40h w/i 9025 fan w/i 75mm duct | HI.10800.058 |
| System Fan | | |
|  | SYSTEM FAN KDE 1209/GP 92*92*25 (ROHS) | HI.S150F.002 |
| Power Supply | | |
|  | FR 500W EUP 82+ (ES5.0) | PY.50008.004 |
| | FR 500W EUP 82+ (ES5.0) | PY.50008.005 |
| | FR 500W EUP 82+ (ES5.0) | PY.5000B.003 |

| Components | Model Name or Key Spec. | Acer P/N |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------|
| CPU | | |
|  | CPU Intel Core i7 870 LGA 2.93G 8M 1333 1156 95W B-1 Quad Core | KC.87001.CI7 |
| | CPU Intel Core i7 860 LGA 2.8G 8M 1333 1156 95W B-1 Quad Core | KC.86001.CI7 |
| | CPU Intel Core i5 750 LGA 2.66G 8M 1333 1156 95W B-1 | KC.75001.CI5 |
| | CPU Intel Core i5 670 LGA 3.46G 4M 1333 1156 C-2 73W, Dual Core | KC.67001.CI5 |
| | CPU Intel Core i5 661 LGA 3.33G 4M 1333 1156 C-2 87W, Dual Core | KC.66101.CI5 |
| | CPU Intel Core i5 660 LGA 3.33G 4M 1333 1156 C-2 73W Dual Core | KC.66001.CI5 |
| | CPU Intel Core i5 650 LGA 3.2G 4M 1333 1156 C-2 73W, Dual Core | KC.65001.CI5 |
| | CPU Intel Core i3 540 LGA 3.06G 4M 1333 1156 73W C-2 Dual Core | KC.54001.CI3 |
| | CPU Intel Core i3 530 LGA 2.93G 4M 1333 1156 73W C-2 Dual Core | KC.53001.CI3 |
| | Pentium Dual Core G6950 (2.8G 2M 1066FSB) | KC.69501.DEG |
| Memory | | |
|  | M378B2873FHS-CH9 LF 128*8 46nm | KN.1GB0B.036 |
| | M378B5673FH0-CH9 LF 128*8 46nm | KN.2GB0B.024 |
| | GU502203EP0201 LF 128*8 0.065um | KN.1GB0H.015 |
| | GU512303EP0202 LF 128*8 0.065um | KN.2GB0H.009 |
| | 75.073C1.G02 LF 128*8 0.065um | KN.1GB01.031 |
| | 75.A73C1.G02 LF 128*8 0.065um | KN.2GB01.025 |
| | M378B2873EH1-CH9 LF 128*8 0.055um | KN.1GB0B.030 |
| | M378B5673EH1-CH9 LF 128*8 0.055um | KN.2GB0B.014 |
| HDD | | |
|  | 500 | KH.50007.012 |
| | 640 | KH.64007.002 |
| | 1T | KH.01K07.003 |
| | 500 | KH.50001.012 |
| | 1T | KH.01K01.007 |
| | 1.5TB | KH.15K01.002 |
| | 500 | KH.50008.014 |
| | 640 | KH.64008.003 |
| | 1T (5400 RPM) | KH.01K08.005 |
| | 1.5T(5400RPM) | KH.15K08.001 |
| | 2T (5400 RPM) | KH.02K08.001 |
| DVD-ROM | | |
| | DH-16D5S Win7 | KV.0160F.002 |
| | DH-20N(H/F) Win7 | KV.0160D.016 |

| Components | Model Name or Key Spec. | Acer P/N |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------|
|  | ODD TOSHIBA DVD-ROM HH DL 16X TS-H353C LF Black Bezel SATA (HF+Win7) | KV.01601.001 |
| | GH-41F(H/F) Win7 non-Labelflash | KU.0160D.049 |
| | DH-16AASH (H/F) Win7 non-Labelflash | KU.0160F.009 |
| | ODD TOSHIBA Super-Multi DRIVE HH DL 16X TS-H653G LF Black Bezel SATA (HF+Win7) | KU.01601.007 |
| | DH-4O3S Win7 | KV.0040F.002 |
| | ODD HLDS BD COMBO HH 6X CH10N Black Bezel SATA w/ WIN7 | KO.0060D.004 |
| | ODD HLDS BD COMBO HH 6X CH20N Black Bezel SATA HF + Win7 | KO.0060D.005 |
| | DH-6E2S Win7 non-Labelflash | KO.0060F.002 |
| | ODD HLDS BD RW HH 6X BH30N Black Bezel SATA HF +Win7 | KU.0060D.004 |
| | ODD HLDS BD RW HH 6X BH20F Black Bezel SATA (Win7 FW) | KU.0060D.005 |
| VGA | | |
|  | NV GT340 1GB DDR5 DVI+HDMI+VGA ATX (HYNIX) | VG.PCPT3.401 |
| | NV GT330 2GB DDR2 DVI+HDMI+VGA ATX (SAMSUNG) | VG.PCPT3.301 |
| | NV GT330 2GB DDR2 DVI+HDMI+VGA ATX (HYNIX) | VG.PCPT3.302 |
| | NV GT320 1GB sDDR3 DVI+HDMI+VGA ATX (SAMSUNG) | VG.PCPT3.201 |
| | NV GT320 1GB sDDR3 DVI+HDMI+VGA ATX (HYNIX) | VG.PCPT3.202 |
| | NV 315 512MB sDDR3 DVI+HDMI+VGA ATX (SAMSUNG) | VG.PCPT3.151 |
| | NV 315 512MB sDDR3 DVI+HDMI+VGA ATX (HYNIX) | VG.PCPT3.152 |
| | GEFORCE 310 512MB DDR2 SAMSUNG (64BITS) VGA DVI HDMI ATX BRACKET ROHS | VG.PCPT3.101 |
| | GEFORCE 310 512MB DDR2 HYNIX (64BITS) VGA DVI HDMI ATX BRACKET ROHS | VG.PCPT3.102 |
| | HD5850 1GB (256BITS) GDDR5 SAMSUNG DVI DVI HDMI DP ATX BRACKET ROHS | VG.A5850.001 |
| | HD5750 1GB GDDR 5 (128BITS) HYNIX DVI DVI HDMI DP W/ATX BKT ROHS | VG.APC57.501 |
| | HD5570 1GB DDR 3 (128BITS) SAMSUNG DVI HDMI VGA W/ATX BKT ROHS | VG.APC55.701 |
| | HD5450 512MB SDDR 3 (64BITS) SAMSUNG DVI HDMI VGA W/ATX BKT ROHS | VG.APC54.501 |
| TV-Tuner | | |
|  | Avermedia H751-A TV Tuner Card PCIe Hybrid ATSC, S/W Encoder | TU.10500.045 |
| | Avermedia H751-D TV Tuner Card PCIe Hybrid DVB-T, S/W Encoder | TU.10500.048 |
| | Avermedia A750 TV Tuner Card PCIe DMB-TH Digital, w/i external antenna | TU.10500.063 |
| Modem | | |

| Components | Model Name or Key Spec. | Acer P/N |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------|
|  | Lite-On PCI Modem card, D-1156I#/A7A, LSI Universal Modem (PCI) 56K V.92 - Pinball (P40) | FX.10100.004 |
| WLAN | | |
|  | WP81R1, WLAN PCI Card 802.11b/g/n 1T x 2R, Realtek RTL8190 | NI.10200.021 |
| | WN7600R, WLAN PCI-Ex1 card 802.11 b/g/n 1T x 2R, Ralink 1T x 2R, RT2790+RT2720 | NI.10200.008 |
| | WN7601R, Ralink RT3090, 802.11b/g/n 1x1 WLAN PCI-E x1 card | NI.10200.037 |
| Mouse | | |
|  | Lite-on Optical mouse USB SM-9625 with new color AC-MT-018 | MS.11200.048 |
| | Chicony RF2.4 MG-0766 with new silver color | MS.11200.054 |
| | Lite-on Optical mouse USB SM-9625S new silver color AC-MT-113 | MS.11200.068 |
| | Chicony wireless mouse RF2.4 MG-0766 new silver color AC-MT-113 | MS.11200.069 |
| External Speaker | | |
| | Neosonica Speaker Acer logo /LF /0810 / 9M-20A200-000 | SP.10600.011 |
| | Neosonica speaker USB new silver color AC-MT-113 | SP.10600.035 |
| KB | | |
|  | Keyboard LITE-ON SK-9625S USB 104KS Silver US new silver color AC-MT-113 | KB.USB0B.203 |
| | Keyboard LITE-ON SK-9625S USB 104KS Silver US new silver color AC-MT-113 | KB.USB0B.242 |
| | Keyboard CHICONY KU-0760 USB Standard 104KS Black US w/o eKey | KB.USB03.192 |
| | Keyboard CHICONY KU-0760 USB Standard 104KS Black US w/o eKey | KB.USB03.311 |
| | Keyboard LITE-ON SK-9625 USB Standard 104KS Black US w/o eKey | KB.USB0B.158 |
| | Keyboard LITE-ON SK-9625 USB Standard 104KS Black US w/o eKey | KB.USB0B.202 |