SERVICE MANUAL

W950JU / W955JU

notebook

Notebook Computer

W950JU / W955JU

Service Manual

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About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the ***W950JU / W955JU*** series notebook PC.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.
Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.

Appendix A, Part Lists
Appendix B, Schematic Diagrams
Appendix C, Updating the FLASH ROM BIOS

IMPORTANT SAFETY INSTRUCTIONS

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock and injury to persons when using any electrical equipment:

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 2.1A (**40** Watts) minimum AC/DC Adapter.

CAUTION

This Computer's Optical Device is a Laser Class 1 Product

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
This device may not cause harmful interference.
This device must accept any interference received, including interference that may cause undesired operation.

Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.

Do not expose the computer to any shock or vibration.	*Do not place it on an unstable surface.*	*Do not place anything heavy on the computer.*

2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

Do not expose it to excessive heat or direct sunlight.	*Do not leave it in a place where foreign matter or moisture may affect the system.*	*Don't use or store the computer in a humid environment.*	*Do not place the computer on any surface which will block the vents.*

3. **Follow the proper working procedures for the computer**. Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.

Do not turn off the power until you properly shut down all programs.	*Do not turn off any peripheral devices when the computer is on.*	*Do not disassemble the computer by yourself.*	*Perform routine maintenance on your computer.*

4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices**.

Use only approved brands of peripherals.	*Unplug the power cord before attaching peripheral devices.*

Power Safety

The computer has specific power requirements:

- Only use a power adapter approved for use with this computer.
- Your AC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The power adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the computer, make sure it is disconnected from any external power supplies.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines and power cord). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Do not plug in the power cord if you are wet.	*Do not use the power cord if it is broken.*	*Do not place heavy objects on the power cord.*

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Recharge the batteries using the notebook's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not touch the battery contacts with your hands or metal objects.

Battery Guidelines

The following can also apply to any backup batteries you may have.

- If you do not use the battery for an extended period, then remove the battery from the computer for storage.
- Before removing the battery for storage charge it to 60% - 70%.
- Check stored batteries at least every 3 months and charge them to 60% - 70%.

Battery Disposal

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Caution

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

Battery Level

Click the battery icon in the taskbar to see the current battery level and charge status. A battery that drops below a level of 10% will not allow the computer to boot up. Make sure that any battery that drops below 10% is recharged within one week.

Related Documents

You may also need to consult the following manual for additional information:

User's Manual on CD/DVD

This describes the notebook PC's features and the procedures for operating the computer and its ROM-based setup program. It also describes the installation and operation of the utility programs provided with the notebook PC.

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Insert the battery and make sure it is locked in position.
4. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
5. Attach the AC/DC adapter to the DC-In jack at the left of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter.
6. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 130 degrees); use the other hand (as illustrated in Figure 1) to support the base of the computer (**Note**: **Never** lift the computer by the lid/LCD).
7. Press the power button to turn the computer "on".

Figure 1
Opening the Lid/LCD/ Computer with AC/DC Adapter Plugged-In

Shut Down

Note that you should always shut your computer down by choosing the **Shut down** command in **Windows** (see below). This will help prevent hard disk or system problems.

Click **Settings** in the **Charms Bar** (use the **Windows Logo Key** + **C** key combination to access the Charms Bar) and choose **Shut down** from the **Power** menu.

Or

Choose **Shut down or sign out > Shut down** from the context menu (use the **Windows Logo Key** + **X** key combination to access the context menu).

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Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the ***W950JU / W955JU*** series notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about dri-vers (e.g. VGA & audio) is also found in the *User's Manual*. The manual is shipped with the computer.

Operating systems (e.g. *Window 8.1*, etc.) have their own manuals as do application softwares (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The ***W950JU / W955JU*** series notebook is designed to be upgradeable. See ***Disassembly on page 2 - 1*** for a detailed description of the upgrade procedures for each specific component. Please take note of the warning and safety information indicated by the "" symbol.

The balance of this chapter reviews the computer's technical specifications and features.

Specifications

Latest Specification Information

The specifications listed here are correct at the time of sending them to the press. Certain items (particularly processor types/speeds) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for more details.

CPU

The CPU is not a user serviceable part. Accessing the CPU in any way may violate your warranty.

Processor Options

Intel® Core™ i7 Processor
i7-6500U (2.50GHz)
4MB Smart Cache, **14nm**, DDR3L-1600MHz, TDP 15W
Intel® Core™ i5 Processor
i5-6200U (2.30GHz)
3MB Smart Cache, **14nm**, DDR3L-1600MHz, TDP 15W
Intel® Core™ i3 Processor
i3-6100U (2.30GHz)
3MB Smart Cache, **14nm**, DDR3L-1600MHz, TDP 15W
Intel® Pentium® Processor
4405U (2.10GHz)
2MB Smart Cache, **14nm**, DDR3L-1600MHz, TDP 15W
Intel® Celeron® Processor
3955U (2.00GHz), 3855U (1.60GHz)
2MB Smart Cache, **14nm**, DDR3L-1600MHz, TDP 15W

BIOS

64Mb SPI Flash ROM
AMI BIOS

Memory

Two 204 Pin SO-DIMM Sockets Supporting **DDR3L 1600MHz** Memory
Memory Expandable up to 16GB

(The real memory operating frequency depends on the FSB of the processor.)

LCD Options

15.6" (39.62cm), 16:9, HD (1366x768)/FHD (1920x1080) (Thickness: 3.8mm)

Video Adapter

Intel UMA Graphics

Dynamic Frequency
Intel Dynamic Video Memory Technology for up to **1.7GB**
Microsoft DirectX®12 Compatible

Storage

One Changeable 2.5" 7mm (h) SATA HDD/SSD

(**Factory Option**) One 9.5mm(h) Optical Device Type Drive (Super Multi Drive/Blu-Ray Writer Drive)
Or
(**Factory Option**) Dummy ODD or 7mm 2nd HDD/SSD caddy

(**Factory Option for Core i7-6500U/i5-6200U/i3-6100U/Celeron 3955U**) One M.2 **SATA/PCIe Gen2 x2** Solid State Drive (SSD)

Audio

High Definition Audio Compliant Interface
2 * Built-In Speakers
Built-In Microphone

Security

Security (Kensington® Type) Lock Slot
BIOS Password
Intel PTT

Pointing Device

Built-in Touchpad

Keyboard

Full-size “WinKey” keyboard (with numeric keypad)

M.2 Slots (Core i7-6500U/i5-6200U/i3-6100U/Celeron 3955U)

Slot 1 for **WLAN and Bluetooth** Combo Module
Slot 2 for **SATA/PCIe Gen2 x2 SSD**
(**Factory Option**) Slot 3 for **3G/4G** Module

M.2 Slots (Pentium 4405U/Celeron 3855U)

Slot 1 for **WLAN and Bluetooth** Combo Module
(**Factory Option**) Slot 2 for **3G/4G** Module

Card Reader

Embedded Multi-In-1 Card Reader
- MMC (MultiMedia Card) / RS MMC
- SD (Secure Digital) / Mini SD / SDHC/ SDXC
- MS (Memory Stick) / MS Pro / MS Duo

Interface

One HDMI-Out Port
One External Monitor Port
One Headphone-Out Jack
One Microphone-In Jack
One RJ-45 LAN Jack
One DC-in Jack
Two USB 3.0 Ports
Two USB 2.0 Ports

Communication

Built-In Gigabit Ethernet LAN
1.0M HD PC Camera Module
(with 1D-Mic or 2D-Mic - **Factory Option**)
(**Factory Option**) **3G** or **4G** M.2 Module

WLAN/ Bluetooth M.2 Modules:

(**Factory Option**) Intel® Wireless-AC 8260 Wireless LAN (**802.11ac**) + Bluetooth **4.1**
(**Factory Option**) Intel® Wireless-AC 7265 Wireless LAN (**802.11ac**) + Bluetooth **4.0**
(**Factory Option**) Intel® Wireless-AC 3165 Wireless LAN (**802.11ac**) + Bluetooth **4.0**
(**Factory Option**) Intel® Wireless-N 7265 Wireless LAN (**802.11b/g/n**) + Bluetooth **4.0**
(**Factory Option**) Third-Party Wireless LAN (**802.11b/g/n**) + Bluetooth **4.0**

Environmental Spec

Temperature
Operating: 5°C - 35°C
Non-Operating: -20°C - 60°C
Relative Humidity
Operating: 20% - 80%
Non-Operating: 10% - 90%

Power

Full Range AC/DC Adapter
AC Input: 100 - 240V, 50 - 60Hz
DC Output: 19V, 2.1A (**40W**)

Removable 4 Cell Smart Lithium-Ion Battery Pack, 32WH
(**Factory Option**) Removable 4 Cell Smart Lithium-Ion Battery Pack, 44WH

Dimensions & Weight

374mm (w) * 258.5mm (d) * 12 - 24.7mm (h)
2.1kg (Barebone with ODD and 32WH Battery)

External Locator - Top View with LCD Panel Open

Figure 1
Top View

1. PC Camera
2. *PC Camera LED
   **When the PC camera is in use, the LED will be illuminated in red.*
3. Built-In Microphone (W950JU only)
4. LCD
5. Power Button
6. Keyboard
7. Touchpad & Buttons

External Locator - Front & Right Side Views

FRONT VIEW

Figure 2
Front View

1. LED Indicator
2. Multi-in-1 Card Reader

RIGHT SIDE VIEW

Figure 3
Right Side View

1. Microphone-In Jack
2. Headphone-Out Jack
3. USB 2.0 Ports
4. Optical Device Drive Bay
5. Emergency Eject Hole
6. Security Lock Slot

External Locator - Left Side & Rear View

Figure 4
Left Side View

1. DC-In Jack
2. RJ-45 LAN Jack
3. External Monitor Port
4. Vent
5. HDMI-Out Port
6. USB 3.0 Ports

LEFT SIDE VIEW

Figure 5
Rear View

1. Battery

REAR VIEW

External Locator - Bottom View

Figure 6
Bottom View

1. Battery
2. Vent
3. Speakers

Overheating

To prevent your computer from overheating, make sure nothing blocks any vent while the computer is in use.

Figure 7
Mainboard Top Key Parts

1. KBC-ITE IT8587

Mainboard Overview - Top (Key Parts)

Mainboard Overview - Bottom (Key Parts)

Figure 8
Mainboard Bottom Key Parts

1. M.2 Card Connector (3G)
2. CPU
3. Memory Slots DDR3L SO-DIMM
4. CMOS Battery
5. M.2 Card Connector (SSD)
6. M.2 Card Connector (WLAN)

Mainboard Overview - Top (Connectors)

Figure 9
Mainboard Top Connectors

1. HDMI-Out Port
2. USB Port 3.0
3. Keyboard Cable Connector
4. Audio Board Cable Connector

Mainboard Overview - Bottom (Connectors)

Figure 10
Mainboard Bottom Connectors

1. ODD Connector
2. HDD Connector
3. Multi-in-1 Card Reader
4. External Monitor Port
5. RJ-45 LAN Jack
6. DC-In Jack
7. CCD Connector
8. LCD Cable Connector
9. Battery Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the ***W950JU / W955JU*** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, optical device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a lists the relevant parts you will have after the disassembly process is complete. **Note**: The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a will also provide any possible helpful information. A box with a contains warnings.

An example of these types of boxes are shown in the sidebar.

Information

Warning

NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply (the battery is removed too).

Maintenance Tools

The following tools are recommended when working on the notebook PC:

- M3 Philips-head screwdriver
- M2.5 Philips-head screwdriver (magnetized)
- M2 Philips-head screwdriver
- Small flat-head screwdriver
- Pair of needle-nose pliers
- Anti-static wrist-strap

Connections

Connections within the computer are one of four types:

Locking collar sockets for ribbon connectors	To release these connectors, use a small flat-head screwdriver to gently pry the locking collar away from its base. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Pressure sockets for multi-wire connectors	To release this connector type, grasp it at its head and gently rock it from side to side as you pull it out. Do not pull on the wires themselves. When replacing the connection, do not try to force it. The socket only fits one way.
Pressure sockets for ribbon connectors	To release these connectors, use a small pair of needle-nose pliers to gently lift the connector away from its socket. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Board-to-board or multi-pin sockets	To separate the boards, gently rock them from side to side as you pull them apart. If the connection is very tight, use a small flat-head screwdriver - use just enough force to start.

Maintenance Precautions

The following precautions are a reminder. To avoid personal injury or damage to the computer while performing a removal and/or replacement job, take the following precautions:

1. **Don't drop it**. Perform your repairs and/or upgrades on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it**. Note the proximity of any heating elements. Keep the computer out of direct sunlight.
3. **Avoid interference**. Note the proximity of any high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage components and/or data. You should also monitor the position of magnetized tools (i.e. screwdrivers).
4. **Keep it dry**. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power**. Avoid accidental shocks, discharges or explosions.
   - Before removing or servicing any part from the computer, turn the computer off and detach any power supplies.
   - When you want to unplug the power cord or any cable/wire, be sure to disconnect it by the plug head. Do not pull on the wire.
6. **Peripherals** – Turn off and detach any peripherals.
7. **Beware of static discharge**. ICs, such as the CPU and main support chips, are vulnerable to static electricity. Before handling any part in the computer, discharge any static electricity inside the computer. When handling a printed circuit board, do not use gloves or other materials which allow static electricity buildup. We suggest that you use an anti-static wrist strap instead.
8. **Beware of corrosion**. As you perform your job, avoid touching any connector leads. Even the cleanest hands produce oils which can attract corrosive elements.
9. **Keep your work environment clean**. Tobacco smoke, dust or other air-born particulate matter is often attracted to charged surfaces, reducing performance.
10. **Keep track of the components**. When removing or replacing any part, be careful not to leave small parts, such as screws, loose inside the computer.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines and power cord). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.
Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Disassembly Steps

The following table lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the Battery:

1. Remove the battery *page 2 - 5*

To remove the HDD:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*

To remove the Optical Device:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the optical device *page 2 - 8*

To remove the Caddy/2nd HDD:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the optical device *page 2 - 8*
4. Remove the caddy *page 2 - 10*

To remove the System Memory:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the system memory *page 2 - 11*

To remove the M.2 SSD:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the SSD *page 2 - 13*

To remove the Keyboard:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the keyboard *page 2 - 14*

To remove the 3G Module:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the 3G *page 2 - 16*

To remove the Wireless LAN Module:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the WLAN *page 2 - 17*

To remove the CCD Module:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 6*
3. Remove the CCD module *page 2 - 19*

Removing the Battery

1. Turn **off** the computer, turn it over.
2. Slide the latch 1 in the direction of the arrow (***Figure 1a***).
3. Slide the latch 2 in the direction of the arrow, and hold it in place (***Figure 1a***).
4. Slide the battery 3 in the direction of the arrow 4 (***Figure 1b***).

Figure 1
Battery Removal

a. Slide the latch and hold it in place.
b. Slide the battery out in the direction of the arrow.

a.

b.

3. Battery

Figure 2
HDD Assembly Removal

a. Remove the screws.
b. Remove the bottom cover.
c. Locate the HDD assembly.

Removing the Hard Disk Drive

The hard disk drive can be taken out to accommodate other 2.5" serial (SATA) hard disk drives with a height of 7.0mm (h). Follow your operating system's installation instructions, and install all necessary drivers and utilities (as outlined in **Chapter 4 of the User's Manual**) when setting up a new hard disk.

Hard Disk Upgrade Process

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***).
2. Remove the screws 1 - 13 (***Figure 2a***).
3. Lift the bottom cover 14 up from point 15 (***Figure 2b***).
4. The hard disk drive will be visible at point 16 (***Figure 2c***).

HDD System Warning

New HDD's are blank. Before you begin make sure:

You have backed up any data you want to keep from your old HDD.

You have all the CD-ROMs and FDDs required to install your operating system and programs.

If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

a.

b.

c.

14. Bottom Cover

- 13 Screws

5. Slightly lift and pull the hard disk assembly in the direction of arrow 17 (*Figure 3d*).
6. Lift the hard disk assembly 18 out of the bay 19 (*Figure 3e*).
7. Remove the screws 20 - 21 and the adhesive cover 22 from the hard disk 23 (*Figure 3f*).
8. Reverse the process to install a new hard disk (do not forget to replace all the screws and bottom cover).

Figure 3
HDD Assembly Removal (cont'd.)

d. Slightly lift and pull the HDD assembly in the direction of the arrow.
e. Lift the HDD assembly out of the bay.
f. Remove the screws and adhesive cover.

d.

e.

f.

18. HDD Assembly
22. Adhesive Cover
23. HDD

- 2 Screws

Figure 4
Optical Device Removal

a. Pull out the optical device.
b. Pry the bezel off the optical device.
c. Separate the bezel and optical device

Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***) and bottom cover (***page 2 - 6***).
2. Carefully pull out the optical device 1 out of the bay at point 2 (***Figure 4a***).
3. Carefully pry the bezel 4 off the optical device at point 3 (***Figure 4b***).
4. Separate the bezel 4 and the optical device (***Figure 4c***).

a.

b.

c.

1. Optical Device
4. Bezel

5. Reverse the process to attach the front bezel 4 with the new optical device at point 5 (*Figure 5e*).
6. Insert the new optical device 1 and carefully slide it into the computer (the device only fits one way. DO NOT FORCE IT; The screw holes should line up). Take care to avoid folding the connector underneath.
7. Replace the bottom cover and tighten the screws.
8. Restart the computer to allow it to automatically detect the new device.

Figure 5
Optical Device Assembly

d. Install the front bezel.
e. Insert the optical device.

d.

e.

1. Optical Device
4. Bezel

Removing the Caddy/Second Hard disk

Figure 6
Caddy/2nd HDD Removal

a. Remove the caddy from the ODD bay.
b. Remove the screws.
c. Lift the HDD assembly out.
d. Separate the connector and HDD.

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***) and bottom cover (***page 2 - 6***).
2. Carefully pull out the caddy 1 out of the bay at point 2 (***Figure 6a***).
3. Remove screws 3 - 8 (***Figure 6b***) to release the hard disk assembly.
4. Lift the hard disk 9 and connector 10 out (***Figure 6c***).
5. Separate the hard disk 9 and connector 10 (***Figure 6d***).
6. Reverse the process to install a new HDD (do not forget to replace the screws and bottom cover).
7. Restart the computer to allow it to automatically detect the new device.

a.

b.

c.

d.

1. Caddy
9. HDD
10. HDD Connector

- 6 Screws

Removing the System Memory (RAM)

The computer has two memory sockets for 204 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR3L Up to 1066/1333 MHz. The main memory can be expanded up to 8GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDR3L** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***) and bottom cover (***page 2 - 6***).
2. The RAM modules will be visible at point 1 on the mainboard (***Figure 7b***).
3. Gently pull the two release latches (2 & 3) on the sides of the memory socket in the direction indicated by the arrows (***Figure 7b***). The RAM module 4 will pop-up (***Figure 7c***), and you can then remove it.

Figure 7
RAM Module Removal

a. The RAM modules will be visible at point 1 on the mainboard.
b. Pull the release latches.
c. Remove the module.

a.

b.

c.

Single Memory Module Installation

If your computer has a single memory module, then insert the module into the **Channel 0 (JDIMM1 / RAM1)** socket. In this case this is the **horizontal memory socket**.

Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

4. RAM Module

Figure 8
RAM Module Assembly

d. Insert the RAM modules properly.

4. Pull the latches to release the second module if necessary.
5. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
6. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE IT; it should fit without much pressure.
7. Replace the bottom case and the screws (see ***page 2 - 6***).
8. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

d.

4. RAM Module

Removing the M.2 SSD Module

1. Turn **off** the computer, turn it over, remove the battery (***page 2 - 5***).
2. The M.2 SSD module will be visible at point 1 on the mainboard (***Figure 9a***).
3. Remove the screw 2 (***Figure 9b***)
4. The M.2 SSD module 3 (***Figure 9c***) will pop-up, and you can remove it from the computer.

a.

b.

c.

Figure 9
M.2 SSD Module Removal

a. Locate the M.2 SSD.
b. Remove the screw.
c. The M.2 SSD module will pop up.

3.M2 SSD Module

- 1 Screw

Figure 10
Keyboard Removal

a. Remove screw and release the keyboard by pressing at point 3.
b. Disconnect the keyboard ribbon cable from the locking collar socket.
c. Remove the keyboard.

Removing the Keyboard

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***).
2. Remove screws 1 - 2 from the bottom case and press at point 3 to release the keyboard (***Figure 10a***).
3. Turn the computer over, remove the keyboard 4 (***Figure 10c***).
4. Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable 5. Disconnect the keyboard ribbon cable from the locking collar socket 6 (***Figure 10d***).
5. Carefully lift up the keyboard 4 off the computer (***Figure 10e***).

a.

b.

c.

4. Keyboard

- 2 Screws

6. Connect the keyboard ribbon cable to the locking collar socket 8, and be careful not to bend the keyboard ribbon cable 7 (***Figure 11d***).
7. Insert the keyboard 4 at point 9 and then slide the keyboard in at point 10 and 11 (***Figure 11e***).
8. Tighten the screws 12 - 13 to secure the keyboard (***Figure 11f***).

d.

e.

f.

Figure 11
Keyboard Assembly

d. Connect the keyboard ribbon cable to the locking collar socket.
e. Insert the keyboard at point 9 and slide it in.
f. Tigthen the screws.

4. Keyboard

- 2 Screws

Figure 12
3G Module Removal

a. Locate the 3G.
b. Disconnect the cable and remove the screw.
c. The 3G module will pop up and lift it out of the computer.

Note: Make sure you reconnect the antenna cable to the "1 + 2" socket (***Figure 13b***).

5.Wireless LAN Module

- 1 Screw

Removing the 3G Module

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***) and bottom cover (***page 2 - 6***).
2. The 3G module will be visible at point 1 on the mainboard (***Figure 12a***).
3. Carefully disconnect the cables 2 & 3, and then remove the screw 4 (***Figure 12b***)
4. The 3G module 5 (***Figure 12c***) will pop-up, and you can remove it from the computer.

a.

b.

c.

Removing the Wireless LAN Module

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***) and bottom cover (***page 2 - 6***).
2. The Wireless LAN module will be visible at point 1 on the mainboard (***Figure 13a***).
3. Carefully disconnect the cables 2 & 3, and then remove the screw 4 (***Figure 13b***)
4. The Wireless LAN module 5 (***Figure 13c***) will pop-up, and you can remove it from the computer.

a.

b.

c.

Figure 13
Wireless LAN Module Removal

a. Locate the WLAN.
b. Disconnect the cable and remove the screw.
c. The WLAN module will pop up and lift it out of the computer.

Note: Make sure you reconnect the antenna cable to the "1 + 2" socket (***Figure 13b***).

5.Wireless LAN Module

- 1 Screw

Wireless LAN and Combo Module Cables

Note that the cables for connecting to the antennae on WLAN and WLAN & Bluetooth Combo modules are not labelled. The cables/covers (each cable will have either a black or transparent cable cover) are color coded for identification as outlined in the table below.

Module Type	Antenna Type	Cable Color	Cable Cover Type
WLAN/WLAN & Bluetooth Combo	WM 1	Black	Transparent
	WM 2	Gray	
	WM 3	White	

Cable 1 is usually connected to antenna 1 (Main) on the module, and cable 2 to antenna 2 (Aux).

Removing the CCD

1. Turn **off** the computer, turn it over to remove the battery (***page 2 - 5***).
2. Run your fingers around the inner frame of the LCD panel at the points as indicated by the arrows 1 - 4 (***Figure 14a***).
3. Lay the computer down on a flat surface with the top case up forming a 90 degree angle. Push the LCD front cover 5 upwards before carefully lifting it up.
4. Remove the LCD front cover 5 (***Figure 14c***).

a.

b.

c.

Figure 14
CCD Removal

a. Run your fingers around the inner frame of the LCD panel at the points indicated by the arrows.
b. Lay the computer down on a flat surface with the top case up forming a 90 degree angle. Push the LCD front panel upwards before carefully lifting it up.
c. Remove the LCD front cover.

5. LCD Front Cover

Figure 15
CCD Removal (cont'd)

d. Disconnect the cable.
e. Remove the CCD module.

5. Disconnect the cable 6.
6. Remove the CCD module 7 (***Figure 15f***).
7. Reverse the process to install a new CCD module.

d.

e.

7. CCD Module

Appendix A:Part Lists

This appendix breaks down the ***W950JU / W955JU*** series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer's* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

Part List Illustration Location

The following table indicates where to find the appropriate part list illustration.

Table A - 1
Part List Illustration Location

Part	W950JU	W955JU
Top	*page A - 3*	*page A - 4*
Bottom	*page A - 5*	*page A - 6*
LCD	*page A - 7*	*page A - 8*
DVD Dual Drive	*page A - 9*	*page A - 10*
Dummy ODD	*page A - 11*	
HDD	*page A - 12*	*page A - 12*
2nd HDD	*page A - 14*	

Top - W950JU

ITEM	PART NAME	PART NO	REMARK
1	VINB K/B USA(BLACK)& FRAME(US) MODULE W950AU	6-79-W950AU0K-010-V	W950AU
2	TOP CASE MODULE W950SU2	6-39-W95S2-014	
3	HALL SENSOR BOARD V1.0 W950KU	6-77-W95K1-D01	
4	SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
5	WIRE CABLE FOR LID 3P 40MM (HL) W550EU	6-43-W5503-011	
6	BATTERY BOARD V2.0 W950KU	6-77-W95KQ-D02	
7	NVIDIA GeForce GTX 1050 Ti 4GB(DC&AMD 530 4GB (DPI&AV) PM(LF)(3) CHARLE-E-DEBUG VER.0	6-77-W950JU00-D02B-1F	
7	NVIDIA GeForce GTX 1050 Ti 4GB(DC&AMD 530 4GB (DPI&AV) PM(LF)(3) CHARLE-E-DEBUG VER.0	6-77-W950JU00-D02B-2D	
7	NVIDIA GeForce GTX 1050 Ti 4GB(DC&AMD 530 4GB (DPI&AV) PM(LF)(3) CHARLE-E-DEBUG VER.0	6-77-W950JU00-D02B-2F	
7	NVIDIA GeForce GTX 1050 Ti 4GB(DC&AMD 530 4GB (DPI&AV) PM(LF)(3) CHARLE-E-DEBUG VER.0	6-77-W950JU00-D02B-2G	
7	NVIDIA GeForce GTX 1050 Ti 4GB(DC&AMD 530 4GB (DPI&AV) PM(LF)(3) CHARLE-E-DEBUG VER.0	6-77-W950JU00-D02B-2H	
8	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-030	
9	SCREW M2*4L KI BZ ICT NY	6-35-B6120-4RA	
10	FAN MODULE W251HUQ	6-31-W25HS-100	
11	CPU HEATSINK MODULE W540SU2	6-31-W5S2N-103	
12	SCREW M2.5*5L KI NI ICT NY	6-35-B1125-5RA	
13	SPK+CABLE L 2W 4Ω 230MM (PK251249090) W950KU	6-23-5W95K-0L1	
14	TOUCH PAD SYNAPTICS 84*42 TM-03175-001 N240LU	6-49-N2403-010	
15	TP TAPE MYLAR PET W540EU	6-40-W5401-010	
16	FFC CABLE TP TO KB 60MM 0.7V (PITCH=0.5,8PIN) (HT) W940JU	6-43-W94J0-010-1	
17	POWER SWITCH BOARD V2.0 W945LUQ	6-77-W94LS-D02-A	
18	TAPE MYLAR TRANSPARENT (20*10*0.05) P180HM	6-40-P1803-020	
19	TAPE MYLAR TRANSPARENT (30*5*0.05) W25UHPQ	6-40-W25P3-010	
20	SPK+CABLE R 2W 4Ω 60MM (PK251249090) W950KU	6-23-5W95K-0R1	
21	AUDIO BOARD (W/O SPDIF) V1.0 W950JU	6-77-W95J9-D01	
21	AUDIO BOARD (W/SPDIF) V3.0 W950JU	6-77-W95J8-D03	
22	FFC CABLE MB TO AUDIO BOARD (OKLS) 164MM 5V 6P W950JU2	6-43-W95S0-020-2	
23	FFC CABLE FOR POWER BD TO M/B 150MM 20V 4PIN (OKLS) W950JU2	6-43-W95S0-010	
24	FFC CABLE MB TO AUDIO BOARD (OKLS) 173MM 5V 14PIN W950JU2	6-43-W95S0-030-2	
25	ODD BOARD V3.0 W950KU	6-77-W95KN-D03	
26	W/O HDD ASS'Y W950KU	6-79-W950KU0J-010	
26	W/ HDD ASS'Y W950KU	6-79-W950KU0J-020	
27	CPU SUPPORTER FOR HURON RIVER SECC W150HNM	6-33-W150S-011	
28	WLAN+BT COMB INTEL 3168NGW FOR 2X2&AMBALA BD 802.11AC+BT 2X2 (CNVi) W950JU	6-88-W95LF-4240	OPTION
28	WLAN+BT COMB INTEL WIFI6E(AX-411) 3GS COMB FOR 2X2&AMBALA BD 802.11AX + BT 3GS(CNVi)+PCI-E M2 2230 2X2 W940JU	6-88-N240F-4200	OPTION
28	WLAN+BT COMB INTEL 3168NGW FOR 2X2&AMBALA BD 802.11AC+BT 2X2 (CNVi) W950JU	6-88-W95LF-4220	OPTION
28	WLAN+BT COMB LITEON QCA6174A+QCA6174A 802.11AC+BT 4.0 (CNVi) M.2 2230 2X2 W950JU	6-88-S210F-9400	OPTION
28	WLAN+BT COMB LITEON QCA6174A+QCA6174A 802.11AC+BT 4.0 (CNVi) M.2 2230 2X2 W950JU	6-88-N170F-5100	OPTION
28	WLAN+BT COMB INTEL 3168NGW FOR 2X2&AMBALA BD 802.11AC+BT 4.0 (CNVi) M.2 2230 2X2 W950JU	6-88-N25JF-4200	OPTION
29	BATTERY 3V 220MA BBBCR2032B (KTS)	6-23-6A2B2-030	
30	SSD M2 2280 256GB LITE-ON QLGT-256BMP) (PCIE G2*2) (MLC)	6-85-D51R6-L00	OPTION
30	M2 (22x80mm) PCIe Gen II x 2 SSD 128GB MLC LGT-128BMP LITE-ON	6-85-D40C8-L02	OPTION
30	SSD M2 2280 256GB CRUCIAL CT250M500SSD4 (M2B3D) SATA3 MLC	6-85-D51R0-100	OPTION
30	WCDMA HUAWEI MU735 (VSPA) NGFF CARD (SD INTERFACE) WITHOUT GPS SCW7U	6-88-S210W-8810	OPTION
30	LTE 4.0 W/ GPS MODULE (WITH)(DOUBLE ANTENNA) NGFF CARD FOR JAPAN NGFF M2 CARD (SD INTERFACE) VER.0	6-88-W3306-8830	OPTION
30	LTE 4.0 W/ GPS MODULE (WITH) (FRAME) (WITH)(DOUBLE ANTENNA) NGFF M2 CARD (SD INTERFACE) VER.0	6-88-W3306-8841	OPTION
31	MYLAR(12*2*0.75T) FOR W940SU2	6-40-00150-12D	
32	TOP ANTENNA AL FOIL (94.3*30.9) W950AU	6-47-W9502-010	ONLY FOR LTE-2
33	ANTENNA PCB(4 SAE) 4M LTE-2 (2.4G&5G/5G/5G/5G/2G/2G/GPS) LTE-2 W950JU	6-23-7W950-030	必須先選NO.1LTE-1天線才可以選LTE-2天線
34	SCREW M2*2.5L (H=2.5) STEEL ICT NY FOR NGFF CARD(CHANGE WATERIAL)	6-35-ZA120-2RS	ONLY FOR CPU 6200U/6200U/6500U/3955U
35	SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
35	SCREW M2*2L KI NI ICT NY (DD=Ø5 ,T=0.5)	6-35-B1120-2RQ	ONLY FOR CPU 6200U/6200U/6500U/3955U

Figure A - 1
Top - W950JU

Top - W955JU

Figure A - 2
Top - W955JU

ITEM	PART NAME	PART NO	REMARK
1	WIN8 K/B USA(BLACK)& FRAME(US) MODULE W950AU	6-79-W950AU0K-010-W	
2	TOP CASE MODULE W955SU2	6-39-W9552-012	
3	HALL SENSOR BOARD V1.0 W950KU	6-77-W95K1-D01	
4	SCREW M2*3L KI NI ICT NY (OD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
5	WIRE CABLE FOR LID 3P 40MM (HL) W550EU	6-43-W5503-011	
6	BATTERY BOARD V2.0 W950KU	6-77-W95KQ-D02	
7	NOR [illegible] SSD 1GB EDP(A)(B L, E-[illegible]) TPU(B) [illegible] W950JU	6-77-W950JU00-D02B-1F	
7	NOR [illegible] SSD 1GB EDP(A)(B) TPU(L)(B) [illegible] W950JU	6-77-W950JU00-D02B-2D	
7	NOR [illegible] SSD 1GB EDP(A)(B) TPU(L)(B) [illegible] W950JU	6-77-W950JU00-D02B-2F	
7	NOR [illegible] SSD 1GB EDP(A)(B) TPU(L)(B) [illegible] W950JU	6-77-W950JU00-D02B-2G	
7	NOR [illegible] SSD 1GB EDP(A)(B) TPU(L)(B) [illegible] W950JU	6-77-W950JU00-D02B-2H	
8	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-030	
9	SCREW M2*4L KI BZ ICT NY	6-35-B6120-4RA	
10	FAN MODULE W251HUQ	6-31-W25HS-100	
11	CPU HEATSINK MODULE W540SU2	6-31-W5S2N-103	
12	SCREW M2.5*5L KI NI ICT NY	6-35-B1125-5RA	
13	TOUCH PAD SYNAPTICS 84*42 TM-03175-001 N240LU	6-49-N2403-010	
14	TP TAPE MYLAR PET W540EU	6-40-W5401-010	
15	FFC CABLE TP TO MB 80MM 0.7V (PITCH=0.5,8P)90 (HT) W940JU	6-43-W94J0-010-1	
16	POWER SWITCH BOARD V2.0 W945LUQ	6-77-W94LS-D02-A	
17	TAPE MYLAR TRANSPARENT (20*10*0.05) P180HM	6-40-P1803-020	
18	SPK+CABLE L 2W 4Ω 23MM (PK251249)00 W950KU	6-23-5W95K-0L1	
19	FFC CABLE FOR POWER BD TO M/D 150MM 20V 4PIN (OKLD) W950U2	6-43-W95S0-010	
20	SPK+CABLE R 2W 4Ω 58MM (PK251249)00 W950KU	6-23-5W95K-0R1	
21	AUDIO BOARD (W/SPDIF) V3.0 W950JU	6-77-W95J8-D03	
21	AUDIO BOARD (W/O SPDIF) V1.0 W950JU	6-77-W95J9-D01	
22	FFC CABLE MB TO AUDIO BOARD (OKLD) 164MM 5V 6P W950U2	6-43-W95S0-020-2	
23	CPU SUPPORTER FOR HURON RIVER SECC W150HMM	6-33-W150S-011	
24	TAPE MYLAR TRANSPARENT (30*540.05) W251HPQ	6-40-W25P3-010	
25	ODD BOARD V3.0 W950KU	6-77-W95KN-D03	
26	FFC CABLE MB TO AUDIO BOARD (OKLD) 173MM 5V 14PIN W950U2	6-43-W95S0-030-2	
27	W/O HDD ASS'Y W950KU	6-79-W950KU0J-010	
27	W/ HDD ASS'Y W950KU	6-79-W950KU0J-020	
28	[illegible]	6-88-W95LF-4240	OPTION
28	[illegible]	6-88-N240F-4200	OPTION
28	[illegible]	6-88-W95LF-4220	OPTION
28	[illegible]	6-88-S210F-9400	OPTION
28	[illegible]	6-88-N170F-5100	OPTION
28	[illegible]	6-88-N25JF-4200	OPTION
29	BATTERY 3V 220MA BBBCR2032B (KTS)	6-23-6A2B2-030	
30	SSD M2 2280 256GB LITE-ON CL61-256BP) (PCIE G2X2) OKLD	6-85-D51R6-L00	OPTION
30	M2 (22x80mm) PCIe Gen II x 2 SSD 128GB MLC LGT-128BP LITE-ON	6-85-D40C8-L02	OPTION
30	SSD M2 2280 256GB CRUCIAL CT256M4SSD3 (MX200) SATA3 MLC	6-85-D51R0-100	OPTION
30	[illegible]	6-88-S210W-8810	OPTION
30	[illegible]	6-88-W3306-8830	OPTION
30	[illegible]	6-88-W3306-8841	OPTION
31	TOP ANTENNA AL FOIL (94.3*30.9) W950AU	6-47-W9502-010	ONLY FOR LTE-2
32	[illegible]	6-23-7W950-030	必須先選XOTL/LTE-1/天線才可以選LTE-2天線

Bottom (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	BATP S LI 14.8V/32WH 4S2P 3MP/3IN 98BB233F 22BH W950KU "TEXTURE"	6-87-W95KS-42F2	
1	BATP S LI 15.2V/29.5WH/4WH PSE 4S2P 3MP/3IN 98BB233F W97WLU "TEXTURE"	6-87-W97KS-42L	
1	BATP S LI 14.8V/32WH 4S2P 3MP/3IN 98BB233F 22BH W950KU "TEXTURE"	6-87-W95KS-42F3	
1	BATP S LI 15.2V/29.5WH/4WH PSE 4S2P 3MP/3IN 98BB233F W97WLU "TEXTURE"	6-87-W97KS-42L1	
2	BOTTOM CASE MODULE W950SU2	6-39-W95S3-012	
2	BOTTOM CASE MODULE W950SU2-C	6-39-W95S3-012-C	
3	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-8R0	
4	SCREW M2.5*6L K BZ ICT NY	6-35-82125-6RA	
5	PRODUCT LABEL FOR W950JU	6-45-W950JU03-010	
5	PRODUCT LABEL FOR W950AU	6-45-W950AU03-010	
5	PRODUCT LABEL(MOUSE"NOTEBOOK COMPUTER") FOR W952AU	6-45-W952AU03-7J0	
5	PRODUCT LABEL FOR W951AU	6-45-W951AU03-010	
6	SCREW M2*5L KICT=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W950AU0Q-010	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W950AU0W-001	(OPTION)
7	W/O ODD ASS'Y W950KU	6-79-W950KU0Z-000	(OPTION)
7	(PRE-PROCESS)DUMMY ODD ASS'Y W950KU	6-79-W950KU0Z-010	(OPTION)
8	DUMMY 3IN1 MEM PUSH TYPE PC+ABS (C7230P-7010E) W970DU	6-42-W9708-030	
9	BOTTOM CASE AL FOIL (AL+3M467+PET) W950AU	6-40-W95A3-010	
10	SPONGE FOR TOP CASE (57*6*2) (SM55+SONY G4000)	6-47-0019A-570	Only for W950AU-C W950JU-C

Figure A - 3
Bottom (W950JU)

A.Part Lists

Bottom (W955JU)

Figure A - 4
Bottom (W955JU)

ITEM	PART NAME	PART NO	REMARK
1	BKP S LI NON/ZCW 43P 39P/CSE 98W/42CSF COM VCCGGCGLBEL AND FRENCH CAUTION	6-87-W955S-42F2	
1	BKP S LI NON/ZCW 43P 39P/CSE 98W/42CSF COM VCCGGCGLBEL AND FRENCH CAUTION	6-87-W955S-42F3	
2	BOTTOM CASE MODULE W955TU	6-39-W9553-T11	
2	BOTTOM CASE MODULE W955KL	6-39-W9553-K11	
2	BOTTOM CASE MODULE W955KL-C	6-39-W9553-K11-C	
3	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-8R0	
4	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
5	PRODUCT LABEL FOR W955KL	6-45-W955KL03-010	
5	PRODUCT LABEL FOR W955KU	6-45-W955KU03-010	
5	PRODUCT LABEL FOR W955TU	6-45-W955TU03-010	
5	PRODUCT LABEL FOR W955SU2	6-45-W955SU23-010	
5	PRODUCT LABEL FOR W955AU	6-45-W955AU03-010	
5	PRODUCT LABEL FOR W955LU	6-45-W955LU03-010	
5	PRODUCT LABEL FOR W955JU	6-45-W955JU03-010	
6	SCREW M2*5L KICT=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955AU0Q-010	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955SU20-000	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955KL0Q-010	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955LU0Q-002	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W955SU2W-010	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W955AU0W-001	(OPTION)
7	W/O ODD ASS'Y W955SU2	6-79-W955SU2Z-000	(OPTION)
7	W/O ODD ASS'Y W955AU	6-79-W955AU0Z-000	(OPTION)
8	DUMMY 3IN1 NON PUSH TYPE PC+ABS (C2F2C6P-7H1DE) V97G5UW	6-42-W9708-030	

LCD (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET+3M8915) E51Q0	6-40-E51Q1-030-1	
2	CCD LENS PMMA W650SR	6-42-W6501-010	
3	(PRE-PROCESS) FRONT COVER MODULE FOR DUAL-MIC W950JU	6-78-W950JU01-002	
4	SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
5	LCD 15.6' FHD INNOLUX N156HGE-LG1 3.4MM (LED)	6-50-LB234-V00	
5	LCD 15.6' FHD/IPS/EDP LG LP156WF4-SPL1 (N4X)(LED) 3.2MM	6-50-LB232-L01	
5	LCD 15.6' HD EDP GLARE TYPE INNOLUX N156BGE-E42 (LED) 3.6 MM	6-50-L8136-V00	
5	LCD 15.6' HD EDP LG LP156WHB-TPD1 ((LED) 3.8 MM	6-50-L8138-L09	
6	UVC CAMERA DESIGN FIX DN8V9XTK-30 IN HD HYNIX H8BS V94ULU FW6X0 W/LED W/D-MIC	6-88-W94LC-4900	OPTION
6	UVC CAMERA DESIGN FIX DN8V9XTK-30 IN HD HYNIX H8BS V94ULU FW6X0 W/LED W/O-MIC	6-88-W94LC-4910	OPTION
6	UVC CAMERA CHICONY FIX CMFTH4210029ULH IN HD HYNIX H8BS V94ULU FV5286 W/LED W/D-MIC	6-88-W94LC-5110	OPTION
6	UVC CAMERA CHICONY FIX CMFTH4210029ULH IN HD HYNIX H8BS V94ULU FV5287 W/LED W/O-MIC	6-88-W94LC-5120	OPTION
7	LCD HINGE L SECOND SOURCE W950SU2	6-33-W95S1-0L1-1	
8	LCD BACK COVER MODULE W950SU2	6-39-W95S1-025	
8	LCD BACK COVER MODULE W950SU2-C	6-39-W95S1-025-C	
9	LCD BACK COVER PROTECTION MYLAR (PET+3M8915) (CHANGE)W650SR	6-40-W6508-012	
10	SCREW M2*2L KI BK/Z ICT NY(Ø8,T=0.6)	6-35-B6120-2RE	
11	SCREW M2.5*6L K BZ ICT NY	6-35-82125-6RA	
12	WIRE CABLE FOR LVDS 280MM 20V 40P OIL/YL CONN,MC40E60(-HF) W950JU (C-OUT)	6-43-W95K1-011-K	
12	WIRE CABLE FOR EDP 200MM 20V 30P (HL/LA CONN,A09030-30) W955AU	6-43-W9551-011-P	
13	WIRE CABLE FOR CCD D-MIC 420MM 3.3V 8P (HL) W950KL	6-43-W95KT-011	
14	LCD HINGE R SECOND SOURCE W950SU2	6-33-W95S1-0R1-1	
15	ANTENNA WLAN COMBO WGT WL1+WL2 PCB 2.4G/5GHZ WL1=700MM WL2=700MM W950AU	6-23-7W95L-011	OPTION
16	ANTENNA IPEX 3G+LTE WGT LTE-1 PCB 0.7G/0.8G/0.9G/1.5G/1.8G/1.9G/2.1G/2.6GHZ L=550MM	6-23-7W950-020	OPTION
17	TOP CASE MYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	
18	WASHER Ø6*Ø3*0.3t (MYLAR)	6-37-02000-601	
19	TAPE MYLAR (B),MYLAR M550J	6-40-M55J2-020	
20	CCD SPONGE(11*3*3) SM55+SONY G4000 W547CZ	6-47-0019A-116	

Figure A - 5
LCD (W950JU)

LCD (W955JU)

Figure A - 6
LCD (W955JU)

ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET+3M8915) E51Q00	6-40-E51Q1-030-1	
2	CCD LENS PMMA W955SU2	6-42-W9551-010	
3	LCD FRONT COVER MODULE W955SU2	6-39-W9551-011	
4	SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
5	LCD 15.6" FHD INNOLUX N156HGE-LG1 3.4MM (LED)	6-50-LB234-V00	
5	LCD 15.6" HD EDP LG LP156WHB-TPD1 ((LED) 3.8 MM	6-50-L8138-L09	
5	LCD 15.6" HD EDP GLARE TYPE INNOLUX N156BGE-E42 (LED) 3.6 MM	6-50-L8136-V00	
5	LCD 15.6" FHD/IPS/EDP LG LP156WF4-SPL1 (N4XLED) 3.2MM	6-50-LB232-L01	
6	UVC CAMERA DESIGN FIX OMNIVISION OV9726 HD HYNIX H265 V5940U FV620U WALED W/D-MIC	6-88-W94LC-4900	OPTION
6	UVC CAMERA DESIGN FIX OMNIVISION OV9726 HD HYNIX H265 V5940U FV620U WALED W/D-MIC	6-88-W94LC-5110	OPTION
7	LCD HINGE L W955SU2	6-33-W9551-0L1	
8	LCD BACK COVER MODULE W955SU2	6-39-W9551-021	
8	LCD BACK MODUEL W955SU2-C	6-39-W9551-021-C	
9	LCD BACK COVER PROTECTION MYLAR (PET+3M8915) W650SR	6-40-W6508-012	
10	SCREW M2*2L KI BK/Z ICT NY(Ø8,T=0.6)	6-35-B6120-2RE	
11	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
12	WIRE CABLE FOR LVDS 200MM 20V 4P OL/YL CONLMC40050D-HF) W950KU (C-OUT)	6-43-W95K1-011-K	
12	WIRE CABLE FOR EDP 200MM 20V 30P OL/LA CONLA0902MD-30) W955AU	6-43-W9551-011-P	
13	WIRE CABLE FOR CCD D-MIC 420MM 3.3V 8P (HL) W950KU	6-43-W95KT-011	
14	LCD HINGE R W955SU2	6-33-W9551-0R1	
15	ANTENNA IPEX4 WLAN COMBO WGT WL1/WL2 PCB 2.4G/5G#2 WL1=53MM WL2=45MM W950LU	6-23-7W95L-011	OPTION
16	ANTENNA IPEX4 3G+LTE WGT LTE-1 PCB D70/D85/D95/D150/D60/D90/215/2.6G#2 L=55MM	6-23-7W950-020	需要出3G/LTE 模組 必須此3G1/LTE-1天線
17	TOP CASE MYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	

DVD DUAL (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	.SCREW M2*3L KI NI ICT NY (DD=ø4.5,DT=0.4)	6-35-B1120-3RE	
2	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
3	SATA DVD SUPER MULTI 5 1/4" 8X 9.5MM DU-8A6SH0XX F/W: DC5J H/W: 01 VVIN 8) PLDS	6-85-A088X-L04	FOR PLDS
3	SATA DVD SUPER MULTI 5 1/4" 8X 9.5MM UJ8E2 (UBP1-B) F/W: 1.00/2000 H/W: 1.00 VVIN 0) PANASONIC	6-85-A088X-P06	FOR PANASONIC
3	SATA DVD SUPER MULTI 5 1/4" 8X 9.5MM SU-208 0V/W A VERG0 F/W: TC00 VVIN 8) TSST	6-85-A088X-T07	FOR TSST
4	ODD BEZEL MODULE W950SU2	6-42-W95SZ-101	
5	SUPER MULTI ODD BEZEL LABEL (SIZE CHANGE)	6-45-W860Q-011	

Figure A - 7
DVD DUAL (W950JU)

DVD DUAL (W955JU)

Figure A - 8
DVD DUAL (W955JU)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L KI NI ICT NY (DD=Ø4.0,DT=0.8)	6-35-B1120-3RD	
2	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
3	SATA DVD SUPER MULTI 5 1/4" 8X 9.5MM DU-8A6SHXXX F/A- DC32 H/A- DC (WIN 8) PLDS	6-85-A088X-L04	FOR PLDS
3	SATA DVD SUPER MULTI 5 1/4" 8X 9.5MM SU-208 GB/A- A VERSIO F/A- TOSD (WIN 8) TSST	6-85-A088X-T07	FOR TSST
4	ODD BEZEL MODULE W955SU2	6-42-W955Z-102	
5	SUPER MULTI ODD BEZEL LABEL (SIZE CHANGE)	6-45-W860Q-011	

Dummy ODD (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	.SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
2	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
3	DUMMY ODD PC+ABS GINAR D231(+) W950SU2	6-42-W95SZ-041	

Figure A - 9
Dummy ODD (W950JU)

HDD (W950JU)

Figure A - 10
HDD (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	HDD MYLAR (PET0.25T+CR2030) W940TU	6-40-W940J-010	
2	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

HDD (W955JU)

ITEM	PART NAME	PART NO	REMARK
1	HDD MYLAR (PET0.25T+CR2030) W940TU	6-40-W940J-010	
2	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

Figure A - 11
HDD (W955JU)

2nd HDD (W950JU)

Figure A - 12
2nd HDD (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2L KI BK/Z ICT NY (Ø6,T=0.5)	6-35-B6120-2RC	
2	ODD TO HDD BOARD V3.0 W950SU2 (W/ REPEATER)	6-77-W95KN-D13-A	
3	.SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
4	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
5	DUMMY ODD PC+ABS GINAR D231(+) W950SU2	6-42-W95SZ-041	
6	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the ***W950JU / W955JU*** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page	Diagram - Page
System Block Diagram - Page B - 2	*DDR3L SO-DIMM_B_0 - Page B - 15*	*VDD3, VDD5 - Page B - 28*
Skylake ULT - Page B - 3	*Panel, Inverter - Page B - 16*	*VDDQ, VDDQ_VTT, 1.5VS, 1.8VS - Page B - 29*
Skylake ULT DDR - Page B - 4	*CRT - Page B - 17*	*1.0V Series - Page B - 30*
Skylake ULT RTC/HDA/CLK/SD - Page B - 5	*PS8625 - Page B - 18*	*VCore, VCCGT, VCCSA, VCCIO - Page B - 31*
Skylake ULT LPC/SPI/SMB - Page B - 6	*Card Reader & RTL8411B - Page B - 19*	*Charger, DC-In - Page B - 32*
Skylake ULT Power Maint - Page B - 7	*HDMI, RJ45, Fan - Page B - 20*	*NCP81206 Regulator - Page B - 33*
Skylake ULT GPIOS/I2C/EMMC - Page B - 8	*M.2 (WLAN, 3G, SSD) - Page B - 21*	*Audio Board - Page B - 34*
Skylake ULT PCIE, USB, SATA - Page B - 9	*Audio Codec - Page B - 22*	*Power SW Board - Page B - 35*
Skylake ULT Power 1 - Page B - 10	*USB 3.0, G Sensor, TPM - Page B - 23*	*Option BOM List - Page B - 36*
Skylake ULT Power 2 - Page B - 11	*KBC ITE IT8587 - Page B - 24*	
Power-VSS - Page B - 12	*CCD, MIC, LID, I/O Connector - Page B - 25*	
CFG, RSVD, VCCGT - Page B - 13	*HDD, ODD, LED - Page B - 26*	
DDR3L SO-DIMM_A_0 - Page B - 14	*3V, 5V, 3VS, 5VS - Page B - 27*	

Table B - 1
SCHEMATIC DIAGRAMS

Version Note

The schematic diagrams in this chapter are based upon version 6-7P-W95J4-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 35
System Block Diagram

Skylake ULT

Processor Pullups/Pull downs
STRAP PIN
PU/PD for JTAG signals
SINGLE=50ohm, DIFF=85ohm, L <=10"
CAD Note: Capacitor need to be placed close to buffer output pin
U55A
U55D
SKL_ULT
SKL_ULT/BGA
DDI
EDP
DISPLAY SIDEBANDS
JTAG
CPU MISC
1 OF 20
4 OF 20
74AUP1G07GW
MTN7002ZHS3
PTH1
TH05-3H103FR
10K_1%
1:2 (4mils:8mils)
THERM_VOLT
DDR_PG_CTRL
DDR_VTT_PG_CTRL
V_VCCDDQ
VDD5
VDD3
VCC_JTAG
VCCIO_OUT
RSMRST_PWRGD_N
SKTOCC_N
SKTOCC_R_N
THRMTRIP_R_N
H_PROCHOT#
H_CATERR#
H_PECI
EDP_RCOMP
EDP_DISP_UTIL
EDP_UTIL
VGA_CTRLCLK
VGA_CTRLDATA
HDMI2_CTRLCLK
HDMI2_CTRLDATA
XDP_TCK_JTACK
PCH_JTAG_TCK
PCH_JTAG_TDI
PCH_JTAG_TDO
PCH_JTAG_TMS
XDP_TMS
XDP_TDI_R
XDP_TDO_R
XDP_TCLK
XDP_TRST#
D02 增加測試點
D02 略不上件
D02 略上件
D02 略上件
D02 略

Skylake ULT DDR

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Skylake ULT DDR

Skylake ULT RTC/HDA/CLK/SD

Sheet 4 of 35
Skylake ULT RTC/
HDA/CLK/SD

B.Schematic Diagrams

Skylake ULT LPC/SPI/SMB

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Skylake ULT LPC/ SPI/SMB

Skylake ULT Power Maint

Sheet 6 of 35
Skylake ULT Power Maint

Skylake ULT GPIOS/I2C/EMMC

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Skylake ULT
GPIOS/I2C/EMMC

Skylake ULT PCIE, USB, SATA

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Skylake ULT PCIE, USB, SATA

Skylake ULT Power 1

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Skylake ULT
Power 1

Skylake ULT Power 2

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Skylake ULT
Power 2

Power-VSS

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Power-VSS

CFG, RSVD, VCCGT

Sheet 12 of 35
CFG, RSVD, VCCGT

DDR3L SO-DIMM_A_0

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DDR3L SO-DIMM_A_0

DDR3L SO-DIMM_B_0

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DDR3L SO-DIMM_B_0

B.Schematic Diagrams

Panel, Inverter

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Panel, Inverter

CRT

Sheet 16 of 35
CRT

PS8625

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PS8625

Card Reader & RTL8411B

Sheet 18 of 35
Card Reader & RTL8411B

HDMI, RJ45, Fan

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HDMI, RJ45, Fan

M.2 (WLAN, 3G, SSD)

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M.2 (WLAN, 3G, SSD)

Audio Codec

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Audio Codec

USB 3.0, G Sensor, TPM

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USB 3.0, G Sensor, TPM

KBC ITE IT8587

Sheet 23 of 35
KBC ITE IT8587

CCD, MIC, LID, I/O Connector

Sheet 24 of 35
CCD, MIC, LID, I/O Connector

B.Schematic Diagrams

HDD, ODD, LED

Sheet 25 of 35
HDD, ODD, LED

Windows 7	WLAN ON	LIGHT
	WLAN OFF	NO LIGHT
Windows 8	Airplane ON	LIGHT
	Airplane OFF	NO LIGHT

3V, 5V, 3VS, 5VS

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3V, 5V, 3VS, 5VS

VDD3, VDD5

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VDD3, VDD5

VDDQ, VDDQ_VTT, 1.5VS, 1.8VS

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VDDQ, VDDQ_VTT,
1.5VS, 1.8VS

1.0V Series

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1.0V Series

VCore, VCCGT, VCCSA, VCCIO

Sheet 30 of 35
VCore, VCCGT, VCCSA, VCCIO

Charger, DC-In

Sheet 31 of 35
Charger, DC-In

NCP81206 Regulator

Sheet 32 of 35
NCP81206
Regulator

Audio Board

Sheet 33 of 35
Audio Board

Power SW Board

Sheet 34 of 35
Power SW Board

Option BOM List

Sheet 35 of 35
Option BOM List

Functionitem	ADD	DEL
W/O TPM	R292	U2,R180,R158,C151,C152,C162,C165

Functionitem	ADD	DEL
W/O USB Charger	R506,R507,R232,R272	R238,C211,U9,R244,R240,R275

Functionitem	ADD	DEL
W/O 3G		J_SIM1,C411,C23,C767,C764,C765 C766,C313,C322,R363,R366,Q7,R360 Q18,C268,H28,J_3G1,R810,R753,R752 R765,C559,C558

Functionitem	ADD	DEL
EDP Panel	J_LCD1,R251,R10,R9,C20,C19,C15 C16,C17,C18,R341,R559,R16,R546 R547,R550,R551,R555,R556	J_LCD2,R7,R8,R253,R254,R3,R4,R5,R6 R542,C462,C464,C468,C467,C470,C469 R567,C457,L62,C456,C1117,C458,L63 C587,L61,L80,C471,C459,R671,C463 R672,C578,R557,R558,R296,R294,C461 C465,C507,C466,C472,C509,U13,R554 R673,R560

Functionitem	ADD	DEL
BASE SKU CPU (SSD PCIE only)	R635,R636,R637,R639,R638,R640 R641,R642,R607,R608,C562,C563 R609,R614,C560,C561	R605,R606,C556,C557,R581,R582,C554 C555

Functionitem	ADD	DEL
W945JU	SW1,SW3,R77	SW2,SW4,R78,R207

Functionitem	ADD	DEL
W950JU	J_CARD-REV2,SW6,SW8 J_LID1,J_AUDIO2,R241 R67,C207,U10,C304,SD3,SPWR_SW1	J_CARD-REV1,SW2,SW4,SD2,SPWR_SW2 U1,C3,R68,R208

CHANGE: 1)J_RJ1(改-21-B40A0-008) 2)R207 10K_04

Functionitem	ADD	DEL
W/TV Tuner	L37,J_TV1,C254,	

Functionitem	ADD	DEL
W/O HDMI PS8201A	C226,C239,C240,C244,C225 C242,C241,C243,R278,R280 R281,R283,R284,R285,R286 R287,D90,D91,D5,D6,D7 Q22,Q42,R288,R488,R518 R580,R585,R663,R664,R665 R666,R667,Q24	U5,C539,C538,C541,C540,C543 C542,C544,C546,R571,R569 C545,C484,C534,C536,C485 C483,C535,C537,R338,R339 R358,R570,R572,R573,R574 R575

Functionitem	ADD	DEL
W/G-Sensor	C450,C449,C451,R539,R538 R584,U29,Q9	R577

Appendix C:Updating the FLASH ROM BIOS

To update the FLASH ROM BIOS, you must:

- Download the BIOS update from the web site.
- Unzip the files onto a bootable CD/DVD/USB Flash Drive.
- Reboot your computer from an external CD/DVD/USB Flash Drive.
- Use the flash tools to update the flash BIOS using the commands indicated below.
- Restart the computer booting from the HDD and press **F2** at startup enter the BIOS.
- Load setup defaults from the BIOS and save the default settings and exit the BIOS to restart the computer.
- After rebooting the computer you may restart the computer again and make any required changes to the default BIOS settings.

Download the BIOS

1. Go to **www.clevo.com.tw** and point to **E-Services** and click **E-Channel**.
2. Use your user ID and password to access the appropriate download area (BIOS), and download the latest BIOS files (the BIOS file will be contained in a batch file that may be run directly once unzipped) for your computer model (**see sidebar for important information on BIOS versions**).

Unzip the downloaded files to a bootable CD/DVD/ or USB Flash drive

1. Insert a bootable CD/DVD/USB flash drive into the CD/DVD drive/USB port of the computer containing the downloaded files.
2. Use a tool such as Winzip or Winrar to unzip all the BIOS files and refresh tools to your bootable CD/DVD/USB flash drive (you may need to create a bootable CD/DVD with the files using a 3rd party software).

Set the computer to boot from the external drive

1. With the bootable CD/DVD/USB flash drive containing the BIOS files in your CD/DVD drive/USB port, restart the computer and press **F2** (in most cases) to enter the BIOS.
2. Use the arrow keys to highlight the **Boot** menu.
3. Use the "+" and "-" keys to move boot devices up and down the priority order.
4. Make sure that the CD/DVD drive/USB flash drive is set first in the boot priority of the BIOS.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.

BIOS Version

Make sure you download the latest correct version of the BIOS appropriate for the computer model you are working on.

You should only download BIOS versions that are V1.01.XX or higher as appropriate for your computer model.

Note that BIOS versions are not backward compatible and therefore **you may not downgrade your BIOS to an older version** after upgrading to a later version (e.g if you upgrade a BIOS to ver 1.01.05, you **MAY NOT** then go back and flash the BIOS to ver 1.01.04).

Use the flash tools to update the BIOS

1. Make sure you are not loading any memory management programs such as HIMEM by holding the **F8** key as you see the message "**EFI Shell**". You will then be prompted to give "**Y**" or "**N**" responses to the programs being loaded by EFI Shell. Choose "N" for any memory management programs.
2. You should now see DISK **fsX**:\> (X is the designated drive number for the CD/DVD drive/USB flash drive).
3. **Type the following command**:

   fsX:\> Flash.nsh

4. The utility will then proceed to flash the BIOS.
5. You should then be prompted to press any key to restart the system or turn the power off, and then on again but make sure you remove the CD/DVD/USB flash drive from the CD/DVD drive/USB port before the computer restarts.

Restart the computer (booting from the HDD)

1. With the CD/DVD/USB flash drive removed from the CD/DVD drive/USB port the computer should restart from the HDD.
2. Press **F2** as the computer restarts to enter the BIOS.
3. Use the arrow keys to highlight the **Exit** menu.
4. Select **Load Setup Defaults** (or press **F3**) and select "**Yes**" to confirm the selection.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.

Your computer is now running normally with the updated BIOS

You may now enter the BIOS and make any changes you require to the default settings.