Service Manual

(LW20)

LG Electronics

Contents

Chapter 1. Service information

1-1. Important service information

■ Strategy for replacing parts (FRU-Field Replaceable Units)

Before replacing parts

Make sure that latest BIOS and drivers are installed before replacing any parts (FRUs) listed in this

Use the following strategy to prevent unnecessary expense for replacing and servicing parts

1. If you are instructed to replacing a part but the replacement does not correct the problem, reinstall the original part before you continue.

2. Some computers have both a processor board and system board. If you are instructed to replace either the processor board or the system board, and replacing one of them does not correct the problem, reinstall that board, and then replace the other one.

3. If an adapter or device consists of more than one part, any of the parts (FRUs) may be the cause of the error. Before replacing the adapter or device, remove the parts (FRUs), one by one, to see if the symptoms change. Replace only the part that changed the symptoms.

Caution

The BIOS configuration on the computer you are servicing may have been customized. Running Automatic Configuration my alter the settings. Note the current configuration settings; then, when service has been completed, verify that those settings remain in effect.

■ Strategy for replacing a hard-disk drive

You have to get a User's approval before formatting or replacing a hard-disk drive. You must let the User know that the user is responsible for the loss data

Caution

The drive startup sequence in the computer you are servicing may have been changed. Be extremely careful during write operations such as copying, saving, or formatting. If you select an incorrect drive, data or programs can be overwritten.

1-2. Safety notices

> **Warning**
>
> Before the computer is powered-on after part (FRU) replacement, make sure all screws, springs, and other small parts are in place and are not left loose inside the computer. Verify this by shaking the computer and listening for rattling sounds. Metallic parts or metal flakes can cause electrical shorts.

> **Warning**
>
> some standby batteries contain a small amount of nickel and cadmium. Do not disassemble a standby battery, recharge it, throw it into fire or water, or short-circuit it. Dispose of the battery as required by local ordinances or regulations. Use only the battery in the appropriate parts listing. Use of an incorrect battery can result in ignition or explosion of the battery

> **Warning**
>
> The battery pack contains small amounts of nickel. Do not disassemble it, throw it into fire or water, or short-circuit it. Dispose of the battery pack as required by local ordinances or regulations. Use only the battery in the appropriate parts listing when replacing the battery pack. Use of an incorrect battery can result in ignition or explosion of the battery.

> **Warning**
>
> If the LCD breaks and the fluid from inside the LCD gets into your eyes or on your hands, immediately was the affected areas with water for at least 15 minutes. Seek medical care if any symptoms from the fluid are present after washing.

> **Warning**
>
> To avoid shock, do not remove the plastic cover that protects the lower part of the inverter card.

> **Warning**
>
> Though the main batteries have low voltage, a shorted or grounded battery can produce enough current to burn personnel or combustible materials.

> **Warning**
>
> Before removing any part (FRU), turn off the computer, unplug all power cords from electrical outlets, remove the battery pack, and then disconnect any interconnecting cables.

1-3. Safety information

■ General safety

Follow these rules to ensure general safety

· Observe good housekeeping in the area of the machines during and after maintenance.

· When lifting any heavy object

  1. Ensure you can stand safely without slipping.

  2. Distribute the weight of the object equally between your feet.

  3. Use a slow lifting force. Never move suddenly or twist when you attempt to lift.

  4. Lift by standing or by pushing up with your leg muscles

     (This action removes the strain from the muscles in your back.)

· Do not attempt to lift any object weights more then 16kg(35lb) or object that you think are too heavy for you.

· Do not perform any action that causes hazards to the customer, or that makes the equipment unsafe.

· Before you start the machine, ensure that other service representatives and the customer's personnel are not in a hazardous position.

· Place removed covers and other parts in a safe place, away from all personnel, while you are servicing the machine.

· Keep your tool box away from walk areas so that other people will not trip over it.

· Do not wear loose clothing that can be trapped in the moving parts of a machine. Make sure that your sleeves are fastened or rolled up above your elbows. If your hair is long, fasten it.

· Insert the ends of your necktie or scarf inside clothing or fasten it with a nonconductive clip, approximately 8 centimeters(3 inches) from the end.

· Do not wear jewelry, chains, metal-frame eyeglasses, or metal fasteners for you clothing.

· Wear safety glasses when you are hammering, drilling, soldering, cutting wire, attaching springs, using solvents, or working in any other conditions that might be hazardous to your eyes.

· After service, reinstall all safety shields, guards, labels, and ground wires. Replace any safety device that is worn or defective.

· Reinstall all covers correctly before returning the machine to the customer.

⚠	**Caution** Metal objects are good electrical conductors.

■ Electrical safety

Observe the following rules when working on electrical equipment.

⚠ **Important**

Use only approved tools and test equipment. Some hand tools have handles covered with a soft material that does not insulate you when working with live electrical currents.

Many customers have, near their equipment, rubber floor mats that contain small conductive fibers to decrease electrostatic discharges. Do not use this type of mat to protect yourself from electrical shock.

· Find the room emergency power-off switch, disconnecting switch, or electrical outlet. If an electrical outlet. If an electrical accident occurs, you can then operate the switch or unplug the power cord quickly.

· Do not work alone under hazardous conditions or near equipment that has hazardous voltages.

· Disconnect all power before

　1. Performing a mechanical inspection

　2. Working near power supplies

　3. Removing or installing main units

· Before you start to work on the machine, unplug the power cord. If you cannot unplug it, ask the customer to power-off the wall box that supplies power to the machine and to lock the wall box in the off position.

· If you need to work on a machine that has exposed electrical circuits, observe the following precautions : Ensure that another person, familiar with the power-off controls, is near you.

⚠ **Caution**

Another person must be there to switch off the power, if necessary.

· Use only one hand when working with powered-on electrical equipment. Keep the other hand in your pocket or behind your back

---

⚠ **Caution**

An electrical shock can occur only when there is a complete circuit. By observing the above rule, you may prevent a current from through your body.

· When using testers, set the controls correctly and use the approved probe leads and accessories for that tester

· Stand on suitable rubber mats (obtained locally, if necessary) to insulate you from grounds such as metal floor strips and machine frames.

· Observe the special safety precautions when you work with very high voltages. These instructions are in the safety sections of maintenance information. Use extreme care when measuring high voltages.

· Regularly inspect and maintain your electrical hand tools for safe operational condition.

· Do not use worn or broken tools and testers.

· Never assume that power has been disconnected from a circuit. First check that it has been powered off.

· Always look carefully for possible hazards in your work area. Examples of these hazards are moist floors, non-grounded power extension cables, power surges, and missing safety grounds.

· Do not touch live electrical circuits with the reflective surface of a plastic dental mirror. The surface is conductive such touching can cause personal injury and machine damage.

· Do not service the following parts with the power on when they are removed from their normal operating places in a machine.

  1. Power supply units

  2. Pumps

  3. Blowers and fans

  4. Motorgenerators

     and similar units. (This practice ensure correct grounding of the units.)

· If an electrical accident occurs

  1. Use caution ; do not become a victim of yourself.

  2. Switch off power.

  3. Send another person to get medical aid.

■ Safety inspection guide

The purpose of this inspection guide is to assist you in identifying potentially unsafe conditions.

As each machine was designed and built, required safety items were installed to protect users and service personnel from injury. This guide addresses only those items. You should use good judgment to identify potential safety hazards due to attachment of non-LG features or options not covered by this inspection guide.

If any unsafe conditions are present, you must determine how serious the apparent hazard could be and whether you can continue without first correcting the problem.

· Consider these conditions and the safety hazards they present

  1. Electrical hazards, especially primary power (primary voltage on the frame can cause serious or fatal electrical shock)

  2. Mechanical hazards, such as loose or missing hardware

Refer to the following checklist and begin the checks with the power off, and the power cord disconnected.

· Checklist

  1. Check exterior covers for damage (loose, broken, or sharp edges)

  2. Power off the computer. Disconnect the power cord.

  3. Check the power cord for :

    a. A third-wire ground connector in good condition. Use a meter to measure third-wire ground continuity for 0.1 Ω or less between the external ground pin and frame ground.

    b. The power cord should be the type specified in the parts list.

    c. Insulation must not be frayed or worn.

  4. Remove the cover.

  5. Check for any obvious non-LG alterations. Use good judgment as to the safety of any non-LG alterations.

  6. Check inside the unit for any obvious unsafe conditions, such as metal filings, contamination, water or other liquids, or signs of fire or smoke damage.

  7. Check for worn, frayed, or pinched cables.

  8. Check that the power-supply cover fasteners (screw or rivets) have not been removed or tampered with.

■ Handling devices that are sensitive to electrostatic discharge

Any computer part containing transistors or integrated circuits (ICs) should be considered sensitive to electrostatic discharge (ESD). ESD damage can occur when there is a difference in charge between objects. Protect against ESD damage by equalizing the charge so that the machine, the part, the work mat, and the person handling the part are all at the same charge.

Note

Use product-specific ESD procedures when they exceed the requirements noted here.

Make sure that the ESD protective devices you use have been certified (ISO9000) as fully effective.

· When handling ESD-sensitive parts :

1. Keep the parts in protective packages until they are inserted into the product.
2. Wear a grounded wrist strap against your skin to eliminate static on your body.
3. Prevent the part from touching your clothing. Most clothing retains a charge even when you are wearing a wrist strap.
4. Use the black side of a grounded work mat to provide a static-free work surface. The mat is especially useful when handling ESD-sensitive devices.
5. Select a grounding system, such as those listed below, to provide protection that meets the specific service requirement.

Note

The use of a grounding system is desirable but not required to protect against ESD damage.

---

    a. Attach the ESD ground clip too any frame ground, ground braid, or green-wire ground.

    b. Use an ESD ground or reference point when working on a double-insulated or battery-operated system. You can use coax or connector-outside shells on these systems.

    c. Use the round ground-prong of the AC plug on AC-operated computers.

■ Grounding requirements

Electrical grounding of the computers is required for operator safety and correct system function.

Proper grounding of the electrical outlet can be verified by a certified electrician.

1-4. Laser compliance statement

When a CD-ROM drive, DVD drive or the other laser product is installed, note the following :

> **⚠ Caution**
>
> Use of controls or adjustments or performance of procedures other than those specified here in might result in hazardous radiation exposure.

Opening the CD-ROM drive, DVD-ROM drive or the other optical storage device could result in exposure to hazardous laser radiation.

There are no serviceable parts inside those drives. Do not open

> **⚠ Danger**
>
> Emits visible and invisible laser radiation when open. Do not stare into the beam , do not view directly with optical instruments, and avoid direct exposure to the bean.

1-5. Backup (Standby) RTC battery safety information

When replacing or disposing of the backup (standby) RTC battery, note the following :

> **⚠ Caution**
>
> There is the risk of explosion if the backup (standby) RTC battery is replaced by an incorrect type.
> Dispose of used backup (standby) RTC battery according to your local ordinances or regulation.
>
> Для замены, используйте соответствующий тип батареек.
> Существует опасность воспламенения.
>
> Удаляйте отработанные батарейки согласно местным правилам или нормам.
> Неправильное удаление батареек может привести к их взрыву или пожару.
>
> باطری ذخیره (یدکی)را با نوع درست آن عوض کنید.
> خطر انفجار وجود دارد.
> باطری های ذخیره های (یدکی) استفاده شده را بر اساس دستورالعمل داخلی مصرف کنید.
> مصرف باطریهای نادرست منجر به انفجار یا آتش سوزی میشود.
>
> غير البطارية البديلة على الطراز المناسب.
> وهناك احتمال الانفجار.
> تخلص من البطاريات البديلة المستعملة حسب القوانين والانظمة المحلية.
> البطاريات المتخلص منها بصورة غير مناسبة قد تؤدي الى انفجار او احتراق.

1-6. Read this first

Before you go to the checkout guide, be sure to read this section.

Important Notes

· Only trained personnel certified by LG should service the computer.

· Read the entire FRU removal and replacement page before replacing any FRU.

· Use new nylon-coated screws when you replace FRUs.

· Be extremely careful during such write operations as copying, saving, formatting.
   Drives in the computer that you are servicing sequence might have been altered. If you selected an incorrect drive, data or programs might be overwritten.

· Replace FRUs only for the correct mode.

· When you replace a FRU, make sure the model of the machine and the FRU part number are correct by referring to the FRU parts list.

· A FRU should not be replaced because of a single, irreproducible failure. Single failures can occur for a variety of reasons that have nothing to do with a hard ware defect, such as cosmic radiation, electrostatic discharge, or software errors.

· Consider replacing a FRU only when a problem recurs. If you suspect that a FRU is defective, clear the error log and run the test again. If the error does not recur, do not replace the FRU.

· Be careful not to replace a non-defective FRU.

■ What to do first

You must fill out the record form first.

During the warranty period, the customer may be responsible for repair costs if the computer damage was caused by misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by the customer. The following list provides some common items that are not covered under warranty and some symptoms that might indicate that the system was subjected to stress beyond normal use. Before checking problems with computer, determine whether the damage is covered under the warranty by referring to the following :

Ch1. Service information
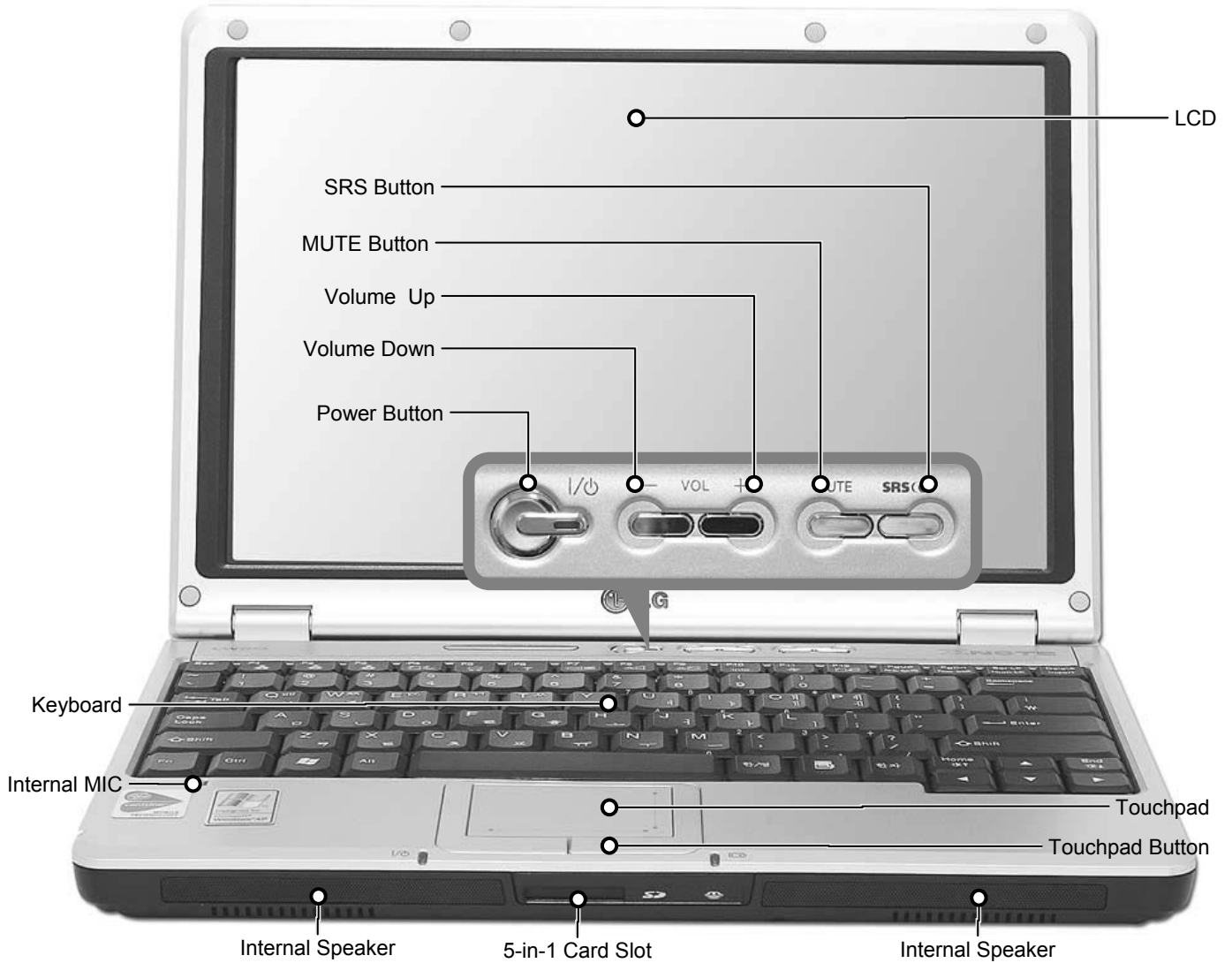
The followings are not covered under warranty :

· CD panel cracked from the application of excessive force or from being dropped

· Scratched (cosmetic) parts

· Distortion, deformation, or discoloration of the cosmetic parts

· Cracked or broken plastic parts, broken latches, broken pins, or broken connectors caused by excessive
  force

· Damage caused by liquid spilled into system

· Damage caused by improper insertion of a PC Card or the installation of an incompatible card

· Damage caused foreign material in the diskette drive

· Diskette drive damage caused by pressure on the diskette drive cover or by the insertion of a diskette
  with multiple labels

· Damaged or bent diskette eject button

· Fusses blown by attachment of a non-supported device

· Forgotten computer password (making the computer unusable)

· Sticky keys caused by spilling a liquid onto the keyboard

The following symptoms might indicate damage caused by non-warranted activities :

· Missing parts might be a symptom of unauthorized service or modification.

· If the spindle of a hard-disk drive becomes noisy, it may have been subjected to excessive force, or
  dropped.

Chapter 2. Locations

■ Front view

LCD

SRS Button

MUTE Button

Volume Up

Volume Down

Power Button

Keyboard

Internal MIC

Touchpad

Touchpad Button

Internal Speaker

5-in-1 Card Slot

Internal Speaker

■ Rear view
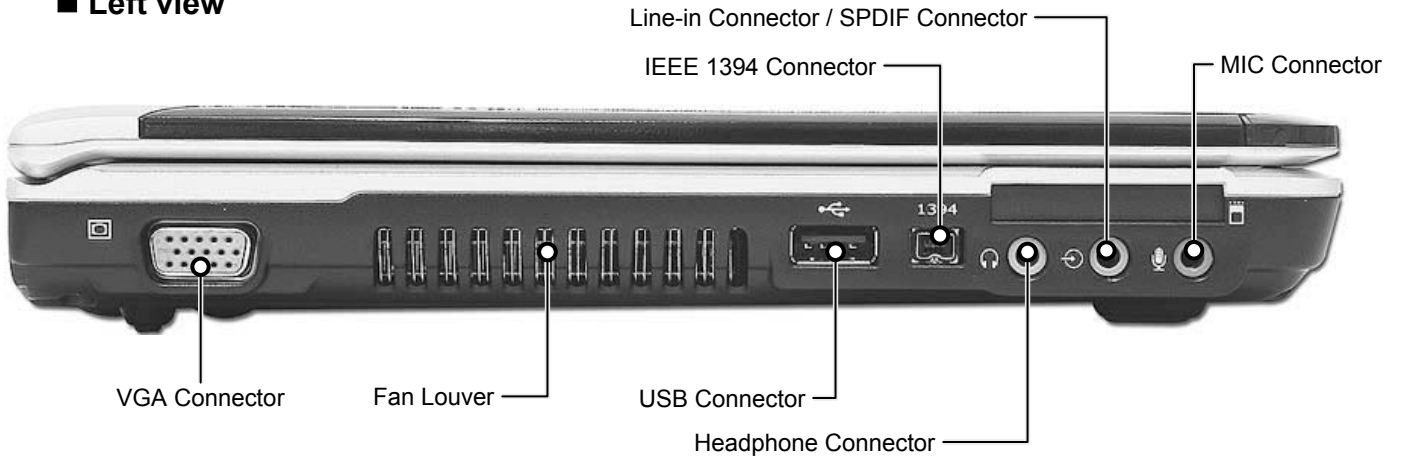
Security key hole

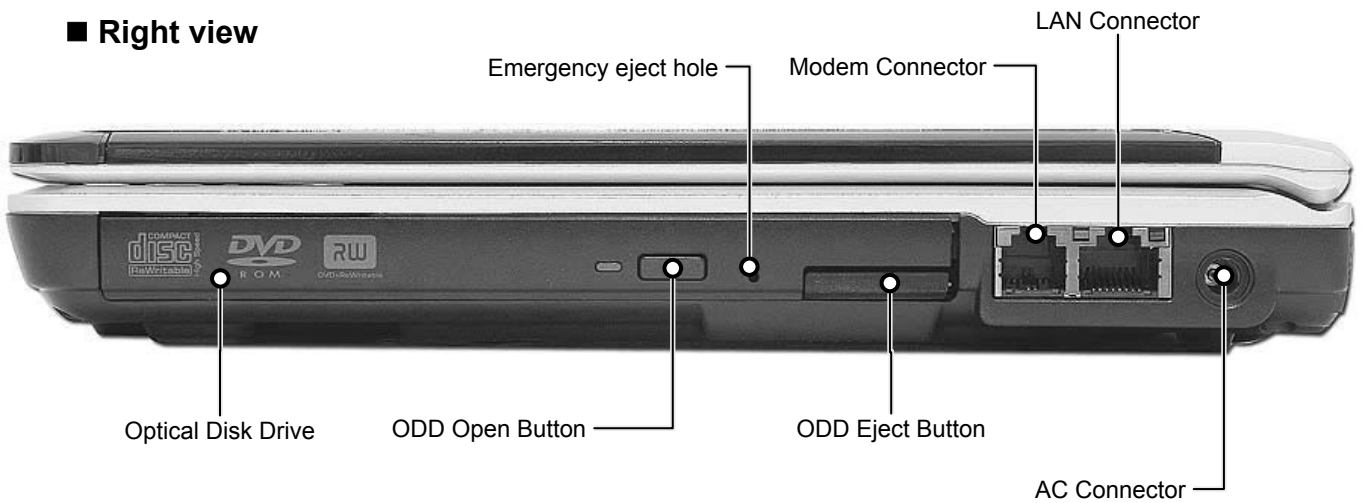USB Connector

S-VIDEO Connector

Security key hole (Kensington Lock)

User can attach a separately purchased chain lock into the security keyhole and connect it to a fixed object to prevent a notebook theft

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■ Left view

Line-in Connector / SPDIF Connector

IEEE 1394 Connector

MIC Connector

VGA Connector

Fan Louver

USB Connector

Headphone Connector

■ Right view

LAN Connector

Emergency eject hole

Modem Connector

Optical Disk Drive

ODD Open Button

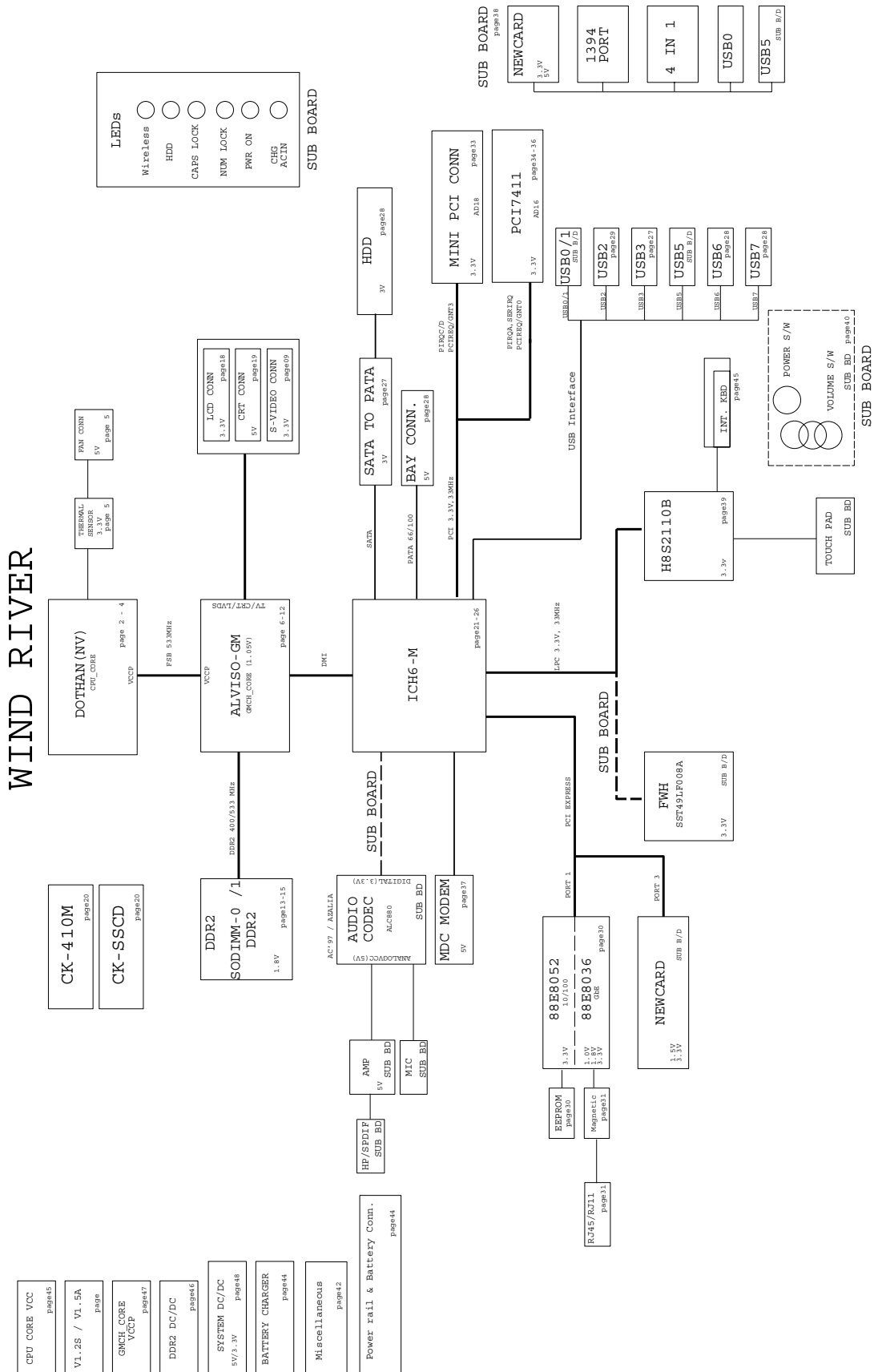ODD Eject Button

AC Connector

Emergency eject hole

Insert a thin and hard pin into this hole, and you can open the disc tray manually.

Chapter 3. System information

■ Specification

- CPU
  - · Dothan 1.6 ~ 2.1 GHz
  - · μFCPGA

- Main Chipset & Graphic
  - · Intel 915GM,ICH6-M

- Memory
  - · 2SODIMM – Up to 2GB
  - · DDR2 PC2-3200S/4200S Capable (400/533MHz)

- HDD
  - · 1.8" 5mm/8mm 30/40/60GB PATA Type

- Communication
  - · MDC
  - · Modem, Daughter Card Type
  - · Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller
  - · Marvell Yukon 88E8036 PCI-E 10/100 Ethernet Controller

- Wireless LAN Solution
  - · 802.11bg/abg Mini PCI Type, Hexa-band Antenna

- Card Slot
  - · Express Card Slot
  - · 5-in-I Card Slot (XD Picture, Memory Stick, Memory Stick Pro, Multi Media Card, SD Card)

- ODD
  - · Removable Optical Storage
  - · DVD, DVD-COMBO, DVD Super Multi
  - · Optional DMB Support

- Port
  - · VGA, 3X USB(2.0), RJ11, RJ45, Headphone, Line-in/SPDIF, Mic-in, AC-in, IEEE1394, S-Video

- Input Devices
  - · Keyboard : 86Key Keyboard
  - · Touchpad

- Buttons
  - · Power, Volume Down, Volume Up, Mute, SRS

- Indicator (LED)
  - · Power On, Charge, HDD, Caps Lock, Num Lock, Wireless

- Power
  - · 65 Watt 18.5V 3.5A Adapter

- Audio
  - · Realtek Azalia Audio Codec ALC880, Stereo speakers

- Battery
  - · 6 Cell 4.8AHr, CYLINDRICAL (Li-Ion)

■ System Block Diagram

WIND RIVER

LEDs
- Wireless
- HDD
- CAPS LOCK
- NUM LOCK
- PWR ON
- CHG
- ACIN

SUB BOARD

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- NEWCARD 3.3V 5V
- 1394 PORT
- 4 IN 1
- USB0
- USB5 STB B/D

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VCCP

FAN CONN
5V
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THERMAL SENSOR
3.3V
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LCD CONN 3.3V page18
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USB0/1
USB2
USB3
USB5
USB6
USB7

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PCIREQ/GNT3

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SATA

PATA 66/100

PCI 3.3V,33MHz

LPC 3.3V, 33MHz

POWER S/W
VOLUME S/W
SUB BOARD

INT. KBD
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H8S2110B
3.3v
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TOUCH PAD
SUB BD

CK-410M
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DDR2 400/533 MHz

AUDIO CODEC
ALC880
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SUB BOARD

PCI EXPRESS

FWH
SST49LF008A
3.3V
SUB B/D

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PORT 3

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3.3V

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NEWCARD 1.5V 3.3V SUB B/D

AMP 5V SUB BD
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■ Fn key combinations

The following table shows the function of each combination of Fn with a function key.

Function of Fn keys has nothing to do with Operating System.

[Fn] + [F1]	User defined Hot key. (available from OSD Setting)
[Fn] + [F2]	User defined Hot key. (available from OSD Setting)
[Fn] + [F3]	User defined Hot key. (available from OSD Setting)
[Fn] + [F4]	Forces the computer to enter power-saving mode. (ex: system standby and hibernation)
[Fn] + [F5]	Press the combination once to disable the touch pad, and press again to enable the touch pad. (The touch pad initialization takes 1~2 seconds, so wait for the initialization to end before using the touch pad)
[Fn] + [F6]	Wireless LAN Enable/Disable Toggle.
[Fn] + [F7]	Monitor toggle. When the computer is attached to an external monitor, you can change the display output location with **[Fn] + [F7] combination.** You can switch to and from the three types of display modes, LCD display only, the external monitor only, or both at the same time.
[Fn] + [F8]	Audio Enable/disable •Refer to Battery Miser 2005 Help.
[Fn] + [F9]	LCD Auto Brightness control Enable/Disable. Enable/disable Auto Brightness control. (ON/OFF) •Refer to Battery Miser 2005 Help.
[Fn] + [F10]	System information.
[Fn] + [F11]	CPU Cooling Fan control mode (Normal / Slow / Fast).
[Fn] + [F12]	Maximum power-saving mode. (When OSD is installed.)
[Fn] + Home	Darken the LCD (8 Steps).
[Fn] + End	Brighten the LCD (8 Steps).
[Fn] + Scr Lk [Num Lk]	Num Lock
[Fn] + [Delete]	Insert
Fn + PgUp (Prt Sc Sys Rq)	Print Screen
Fn + PgDn (Pause Break)	Pause

■ Status indicators

The system status indicators show the status of the computer
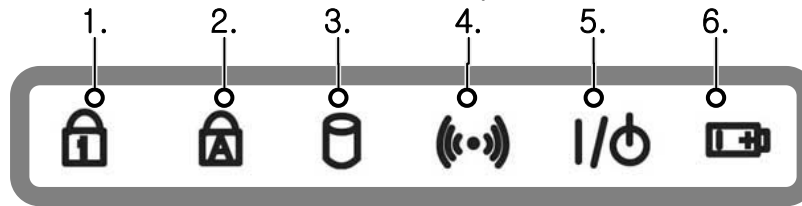
1. Num lock

Num lock indicator lights up when Num lock key is pressed.

By pressing Fn + Scr LK (Num LK) key, you can use the embedded numeric keys.

To disable the embedded numeric keys, press Fn + Scr LK (Num LK) key again.

 - The Num Lock indicator is off while an external keyboard is connected if OSD keyboard setup is

   configured not to use embedded keypad with an external keyboard connection.

2. Caps lock

Caps lock indicator lights up when the Caps lock key is pressed.

When this indicator lights up, you can type capital letters without pressing the Shift key.

3. Drive in use

Drive in use indicator lights up when data is being written to or read from the hard disk or optical disk

drive.

 - Do not turn off the power when **Drive in use indicator is on**.

   It may result in loss of data in the hard disk.

4. Wireless activity indicator

Off: Wireless LAN is not in use.

Blinking(3-4 Seconds): Searching for Access point for Wireless LAN Connection.

Blinking (short interval): Data is transferring with Wireless LAN is on.

5. Power

Power status indicator indicates the following status of the computer.

Off: The computer is turned off or is in hibernation mode.

On: The computer is turned on.

Blinking: The computer is in standby mode.

6. Battery status indicator

Orange light: Battery is being charged.

Orange light/ Blinking (Green): Battery is being charged - battery is remaining more than 90% of its

 maximum capacity.

Off: Battery is being discharged.

Green: Battery is fully charged or empty while the AC adapter is connected.

Blinking (Green): Battery is remaining less than 10%, or being discharged.

Blinking (Red): A battery error occurs.

 - The Battery indicator blinks as you have set the alarm action from the Battery miser 2005.

■ BIOS Flash

You can update BIOS using a floppy disk drive.

Because this system is not equipped with any floppy disk drive, you have to use an external USB drive for a BIOS update. In order to boot up with an USB drive, please set Removable Device as the first boot up drive in the boot menu of BIOS setup.

· How to update flash ROM in DOS

1. Create 'boot up' flash update diskette.
2. Copy a ROM image file (*.wph) into the root of the flash update diskette.
3. Copy phlash16.exe to the flash update diskette.
4. Insert the diskette into the FDD of your computer.
5. Boot your computer with the diskette, and type 'phlash16*.wph /mode=n'.
6. Cold boot and follow the instruction displayed on the screen.

· Flash options /mode=n

0 – Default mode. Keep the current DMI information and update BIOS image only.

1 – Update DMI information only.
   If new DMI information is not specified, the current DMI information is left unchanged.

2 – Update BIOS and DMI information.
   If new DMI information is not specified, the current DMI information is left unchanged.

3 – Update BIOS and DMI information.
   DMI information is updated to the DMI string and options specified in the new BIOS image.

Note

DMI is Desktop Management Interface

■ BIOS Setup

BIOS (Basic Input and Output System) Setup saves the system configuration in **CMOS RAM**, and check the configurations during startup. Use the **BIOS Setup Utility** to change and save the system environment, hardware configurations, power saving mode, etc.

· Open the BIOS Setup Utility in the following situations :

   1. to change the BIOS setup
   2. to replace the backup battery
   3. system configuration error occurs
   4. to change the boot order
   5. to set/change a password

Press the power button.

When the **LG** logo appears on the screen, press F2 and enter the **BIOS Setup Utility**.

■ BIOS Setup

■ Using the keys

The keys used in the BIOS Setup Utility and their functions are described at the bottom.

· F1 , Alt + H : General Help

Display the descriptions of the keys used in the setup utility.

· ↓ , ↑ : Select Item

Navigate and select items in the setup utility. The selected item becomes highlighted.

· ← , → : Select Menu

Move to another menu.

· − / + , Space Bar : Change Values

Change the value of a selected item.

· F9 : Load Default Configuration

Display Setup Confirmation window. Press Enter to load default configuration.

· Enter↵ : Select Sub-Menu

Some items have sub-menus. Display the sub-menu for a selected item.

· F10 : Save and Exit

Display Setup Confirmation window. Press **Enter** to save and exit.

· Esc : Exit

In a sub-menu, press **Esc** to move to the previous window. In Main menu, click **Esc** to move to Exit menu.

■ Main menu

System Time
Current time. Use <**Tab**>, <**Shift-Tab**>, or <**Enter**> keys to move around these fields. To change the value, press <+> or <−> key.

System Date
Today date. Use <**Tab**>, <**Shift-Tab**>, or <**Enter**> keys to move around these fields. To change the value, press <+> or <−> key. Set any date from year 1981 to 2079. It will automatically keep track of leap years. The system date can also be set from the operating system.

Product Name
This shows the name of PC.

Processor Type
This shows the type of CPU.

Processor Spd
This shows the speed CPU.

BIOS Version
This shows the Version of BIOS.

KBC Version
This shows the Version of KBD firm ware.

UUID
This is for display only. This shows the UUID.

Pri Master
Enter its submenu by pressing <**Enter**>. In this submenu, it would show the device of Primary IDE Master is HDD and its parameters.

Sec Slave
Enter its submenu by pressing <**Enter**>. In this submenu, it would show the device of Secondary IDE Slave is optical drive and its parameters.

Total Memory
This is for display only. This shows size of system memory.

■ Advanced menu

Legacy USB Support
There are two options to this field: **Enabled**, and **Disabled**. This field allows you to **enable** or **disable** the legacy USB support.

Boot-time Diagnostic Screen
Enables the Boot-time Diagnostic Screen.

SATA Controller Mode
Set SATA (Serial ATA) Controller Mode.

AHCI Configuration
Enables the AHCI (Advanced Host Controller Interface).

Battery Charge Stop Percentage
Set Battery Charge Stop Percentage.

Fan Mode Control
Set Fan Mode Control.

Fn Key Setup
Set Sticky fn key function.

Wake On Lan
Enables Wake On Lan.

PXE/Remote Boot
Enables PXE/Remote Boot.

Execute-Disable Bit Capability
Enables Execute-Disable Bit Capability.

■ Security menu

Supervisor Password Is
This shows the system's supervisor password has been set, or not.

Set Supervisor Password
Set Supervisor Password.

User Password Is
This shows the system's User Password has been set, or not.

Set User Password
Set User Password.

Password on boot
Enables Password on boot.

HDD Password Is
This shows the system's HDD Password has been set, or not.

Set HDD Password
Set HDD Password.

■ Boot menu

Boot menu enables you to set the boot order for the CD-ROM drive, Removable devices Hard drive, and Network boot as shown below.

CD-ROM Drive

Removable Devices

Hard Drive

B2 D0 Yukon PXE

■ Exit menu

Exit Saving Changes
Select Exit Saving Changes to save new setup information in CMOS RAM. CMOS RAM stores the information using the backup battery; therefore, the information will not be lost when the computer is turned off.

Exit Discarding Changes
Select Exit Discarding Changes to discard new setup information. If you made changes to items other than date, time, and passwords, the Setup Warning asks you to save the new configurations. Select Yes and press Enter to save the new configuration.

Load Setup Defaults
Select Load Setup Defaults to change the setup information to the factory default settings. If you select Load Setup Defaults or press F9, Setup Confirmation asks you to confirm your selection. Press Yes to load setup defaults.

Discard Changes
Discard change value.

Save Changes
Save change value.

Chapter 4. Symptom-to-part index

The symptom-to-part index in this section lists symptoms and errors and their possible causes.

The most likely cause is listed first.

Note

If replacing a part (FRU) does not solve the problem, put the original part back in the computer.

Do not replace a non-defective FRU.

■ Power system checkout

· To verify a symptom, do the following :

  1. Power off the computer.

  2. Remove the battery pack.

  3. Connect the AC adapter.

  4. Check that power is supplied when you power on the computer.

  5. Power off the computer.

  6. Disconnect the AC adapter and install the charged battery pack.

  7. Check that the battery pack supplies power when you power on the computer.

· If you suspect a power problem, see the appropriate one of the following power supply checkouts :

  1. Checking the AC adapter

  2. Checking the operational charging

  3. Checking the battery pack

  4. Checking the backup battery

· Checking the AC adapter

If the power-on indicator does not turn on, check the power cord of the AC adapter for correct continuity and installation.

If the computer does not charge during operation, go to "Checking operational charging."

To check the AC adapter, do the following :

1. Unplug the AC adapter cable from the computer.
2. Measure the output voltage at the plug of the
   AC adapter cable. See the following figure:
3. If the measured output voltage is incorrect, remove
   the power cord from the AC adapter and then re-
   connect it in about ten seconds.
4. Measure the output voltage at the plug of the AC adapter cable.
5. If the measured output voltage is incorrect, replace the AC adapter.
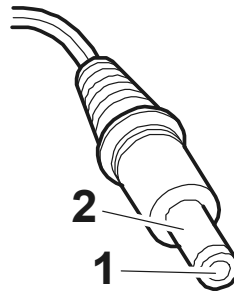
Pin	Voltage (V dc)
1	+18.0 ~ +19.2
2	Ground

· If the voltage is not correct, replace the AC adapter.

· If the voltage is acceptable, do the following :

 1. Replace the system board.

 2. If the problem persists, check the AC adapter whether it is correct product or not.

Note

Noise from the AC adapter does not always indicate a defect.

· Checking operational charging

 1. To check whether the battery charges properly during operation, use a discharged battery pack or a battery pack that has less than 50% of the total power remaining when installed in the computer. Perform operational charging. If the battery status indicator or icon does not turn on, remove the battery does not turn on, replace the battery pack.

 2. If the charge indicator still does not turn on, replace the system board. Then reinstall the battery pack.

Note

Do not charge battery pack, when its temperature is below 0℃ or above 75℃.

· Checking the battery pack

 1. Open the Power Meter window by clicking **Start** →**Control Panel** →**Power Options** and then; check the total power remains. Battery charging does not start until the power Meter shows that less than 95% of the total power remains; under this condition the battery pack can charge to 100% of its capacity. This protects the battery pack from being overcharged or from having a shortened life.

 2. To check the status of your batter, move your cursor to the Power Meter icon in the icon tray of the Windows taskbar and wait for a moment (but do not click), and the percentage of battery power remaining is displayed. To get detailed information about the battery, double-click the Power Meter icon.

Note

If the battery pack becomes hot, it may not be able to charge. Remove it from the computer and Leave it at room temperature for a while. After it cools down, reinstall and recharge it.

· The Characteristics of the battery pack

1. Self-discharge

   The battery gradually loses its power over time without ever being used.

2. Periodic full discharge / charge

   Frequent recharge of the battery pack can reduce the capacity of the battery pack. When this happens, you can perform the full discharge / charge to improve the capacity. You should perform periodic full discharge /charge once every 30~60 days.

   You should always use the battery until its power is low; then fully charge the battery.

3. Trickle charge

   If the temperature of the battery pack drops below 10℃ , the trickle charging begins.

   The trickle charging may take 32 hours for the battery pack to be fully charged.

· To check the battery pack, do the following :

1. Power off the computer.

2. Remove the battery pack and measure the voltage between battery terminals 1(-) and 5(+).

    See the following figure :
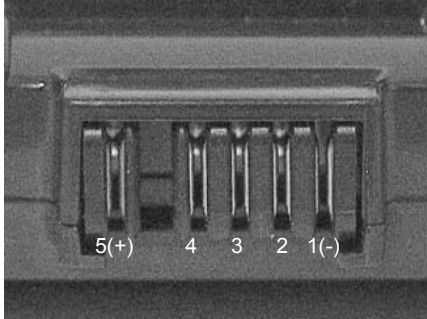
Terminal	Voltage (V dc)
1	Ground(-)
5	+0V ~ +12.6V (6 cell)

3. If the voltage is still less than +11.1 V DC after recharging, replace the battery.

4. If the voltage is more than +11.1 V DC, measure the resistance between battery terminals 1 and 2.
    The resistance must be 2 to 4 $k\Omega$ (typically 3 $k\Omega$).

5. If the resistance is not correct, replace the battery pack. If the resistance is correct, replace the system board.

Note

Charging will take at least 3 hours.

Note

Battery is an expendable supplier, so its capacity and used time can be reduced by using the computer.

■ Numeric error codes

Symptom / Error	FRU or action, in sequence
0200 Fixed disk failure (The hard disk is not working)	1.Reset the hard-disk drive. 2.Load Setup Defaults in BIOS Setup Utility. 3.Hard-disk drive. 4.System board.
0210 Stuck Key error	1.Check the keyboard if it is pressed. 2.Replace the keyboard.
0211 Keyboard error	Run interactive tests of the keyboard and the auxiliary input device.
0212 Keyboard Controller Failed	System board.
0220 Monitor type error - Monitor type does not match the one specified in CMOS.	Load Setup Defaults in BIOS Setup Utility.
0230 System RAM error - System RAM Failed at offset.	1.DIMM 2.System board
0231 Shadow RAM error - Shadow RAM failed at offset	System board
0232 Extended RAM error - Extended RAM Failed at address line	1. DIMM 2. System board
0250 System battery error – System battery is dead	Replace the backup battery and run BIOS Setup Utility to reset the time and date.

Symptom / Error	FRU or action, in sequence
0251 System CMOS checksum bad – System CMOS checksum is not correct. – Default configuration used.	Replace the backup battery and run BIOS Setup Utility to reset the time and date.
0252 Password checksum bad – The password is cleared.	Reset the password by running BIOS Setup Utility.
0260 System timer error	1. Replace the backup battery and run BIOS Setup Utility to reset the time and date. 2. System board.
0271 Check date and time settings – Date and time error.	Run BIOS Setup Utility to reset the time and date.
0280 Previous boot incomplete - Default configuration used	1. Load "Setup Default" in BIOS Setup Utility. 2. DIMM. 3. System board.
0281: Memory Size found by POST differed from EISA CMOS	Load Setup Defaults in BIOS Setup Utility.
02D0 System cache error – Cache disabled (RAM cache failed and BIOS disabled)	1. Load "Setup Default" in BIOS Setup Utility. 2. System board.
02F4 EISA CMOS not writable	1. Load "Setup Default" in BIOS Setup Utility. 2. Replace the backup battery. 3. System board.
02F5 DMA test failed	1. DIMM 2. System board
02F6 Software NMI failed	1. DIMM 2. System board

Symptom / Error	FRU or action, in sequence
02F7 Fail – Safe timer NMI failed	1. DIMM 2. System board
0611 IDE configuration changed	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0612 IDE configuration error	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0613 Com A configuration changed	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0614 Com A configuration error	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0615 Com B configuration changed	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0616 Com B configuration error	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0617 Floppy configuration changed	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0618 Floppy configuration error	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
0619 Parallel port configuration changed	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.
061A Parallel port configuration error	1. Load Setup Defaults in BIOS Setup Utility. 2. System board.

■ Error message

Symptom / Error	FRU or action, in sequence
Device address conflict.	1. Load Setup Defaults in BIOS Setup Utility. 2. Backup battery. 3. System board.
Allocation error for device.	1. Load Setup Defaults in BIOS Setup Utility. 2. Backup battery. 3. System board.
Failing bits: nnnn.	1. DIMM. 2. System board.
Invalid System Configuration Data.	1. DIMM. 2. System board.
I/O Device IRQ Conflict.	1. Load Setup Defaults in BIOS Setup Utility. 2. Backup battery. 3. System board.
Operating System not found.	1. Check that the operating system has no failure and is installed correctly. 2. Enter BIOS Setup Utility and see whether the hard -disk drive and the diskette drive are properly identified. 3. Reset the hard-disk drive. 4. Reinstall the operating system. 5. Diskette drive. 6. Hard-disk drive. 7. System board.
Hibernation error.	1. Restore the system configuration to what it was before the computer entered hibernation mode. 2. If memory size has been changed, re-create the hibernation file.
FAN error.	Fan.
Thermal sensing error.	System board.

■ LCD-related symptoms

> **Note**
>
> Before removing or disassembling LCD, power off the computer, unplug all power cords from electrical
>
> outlets, remove the battery pack also.

Symptom / Error	FRU or action, in sequence
LCD screen becomes dark suddenly.	Check out Battery Miser.
Nothing displayed on LCD screen.	1. Check out Battery Miser. 2. Choose Never in the Turn off Monitor item on Power Options Properties. 3. Check the power save mode switch if it is pressed by something. 4. Check the System is in standby or hibernation mode.
LCD backlight not working. LCD too dark. LCD brightness cannot be adjusted.	1. Reconnect inverter to the board connector. 2. Replace inverter. 3. LCD assembly. 4. System board.
LCD color cannot be adjusted. LCD screen abnormal. Characters missing pixels. LCD screen unreadable. Wrong color displayed.	1. Reset all LCD connectors. 2. Replace LCD cable. 3. LCD assembly. 4. System board.
Horizontal or vertical lines displayed on LCD	LCD assembly.
Power-on indicator on, and a blank\LCD during POST.	LCD assembly. System board.

■ Indeterminate problems

· You are here because the diagnostic tests did not identify which adapter or device failed, wrong devices

   are installed, a short circuit is suspected, or the system is inoperative.

   Follow these procedures to isolate the failing FRU (do not isolate FRUs that have no defects).

· Verify that all attached devices are supported by the computer.

· Verify that the power supply being used at the time of the failure is operating correctly.

   1. Power off the computer

   2. Visually check each FRU for damage. Replace any damaged FRU.

   3. Remove or disconnected all of the following devices :

       a. Non-LG devices.

       b. Printer, mouse, and other external devices.

       c. Battery pack.

       d. PC cards.

       e. ODD (CD-ROM, Combo) drive or FDD drive in the Bay.

       f. Hard-disk drive.

Note

Use the other memory card because it needs when operating computer.

---

   4. Power on the computer.

   5. Determine whether the problem has changed.

   6. If the problem does not recur, reconnect the removed devices one at a time until you find the failing FRU.

   7. If the problem remains, replace the following FRUs one at a time.

       (do not replace a non-defective FRU)

       a. LCD assembly (Check external monitor whether the same problem recurs or not).

       b. Keyboard.

       c. Keydeck (TouchPad and Scroll Button assembly).

       d. System board.

Chapter 5. Removing and replacing a part (FRU)

> **Danger**
>
> Before removing any FRU, power off the computer, unplug all power cords from electrical
> outlets, remove the battery pack, and then disconnect any interconnecting cables.

> **Caution**
>
> Before the computer is powered on after FRU replacement, make sure that all screws, springs,
> and other small parts are in place and are not loose inside the computer. Verify metal flakes can
> cause electrical short circuits.

> **Note**
>
> As for the screw, every Torque 3±0.2Kgfcm(0.196Nm)

■ 1010 Battery Pack

1. Push the battery latch in the direction shown below; then slide the battery pack out of the slot.

■ 1020 Hard Disk Drive

Remove the following parts in order before replacing this part.

1. Battery Pack(1010)

1. Remove 2 HDD Cover Screws.
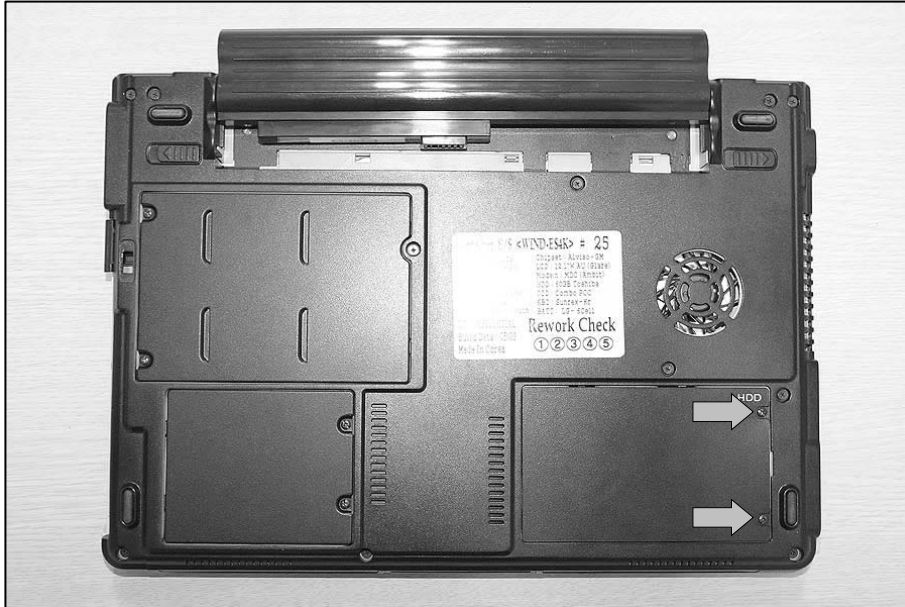
2. Open HDD Cover, then remove HDD.

■ 1030 Optical Disk Drive

Remove the following parts in order before replacing this part.

1. Battery Pack(1010)

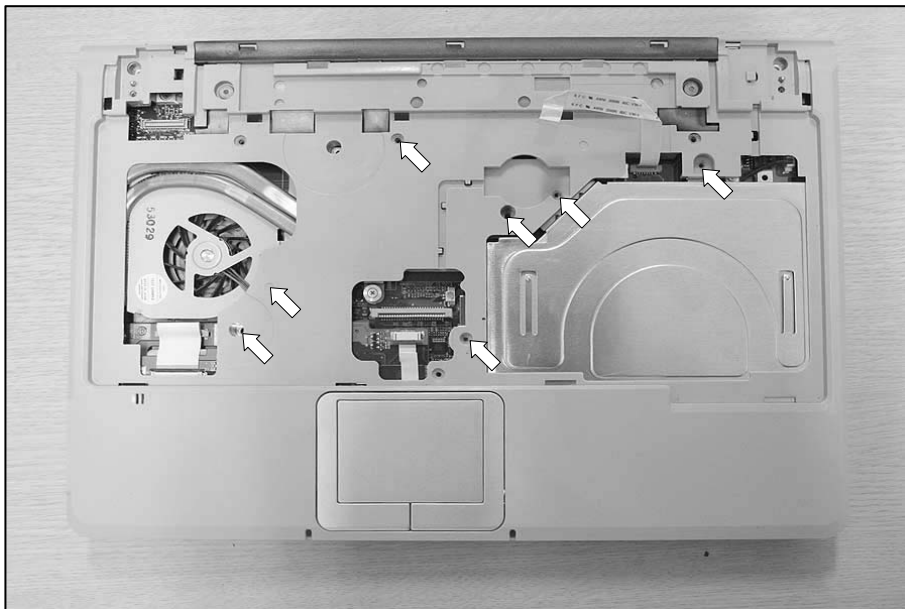1. Push the ODD Knob in the direction shown below, then remove ODD from slot.

■ 1040 Retainer

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020)

1. Remove 2 Screws.
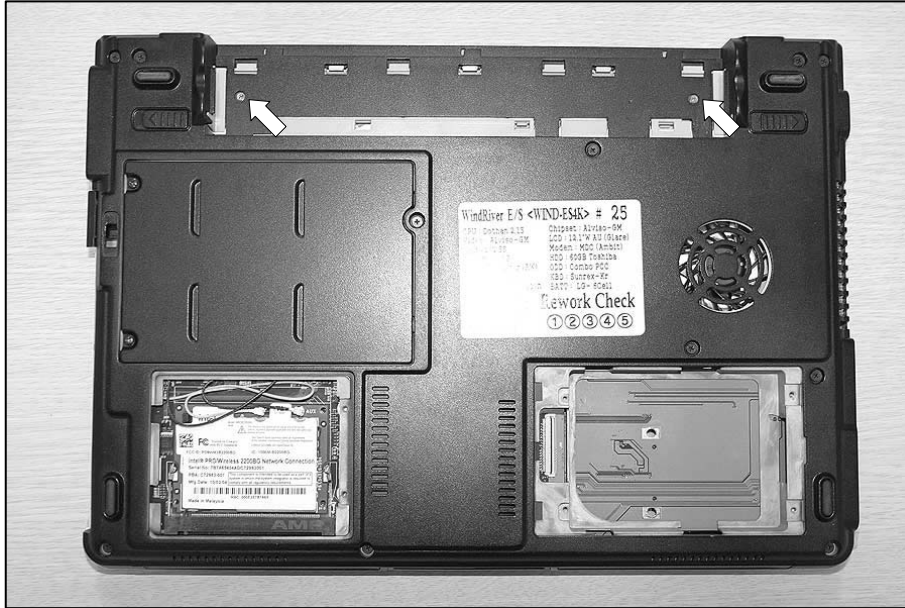
No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 X L4.0	2

2. Pull up the Hinge Cap using a (-) type screwdriver.

3. Disconnect Retainer Connector.

4. Remove Retainer.

■ 1050 Keyboard

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040)

1. Remove 12 Screws.
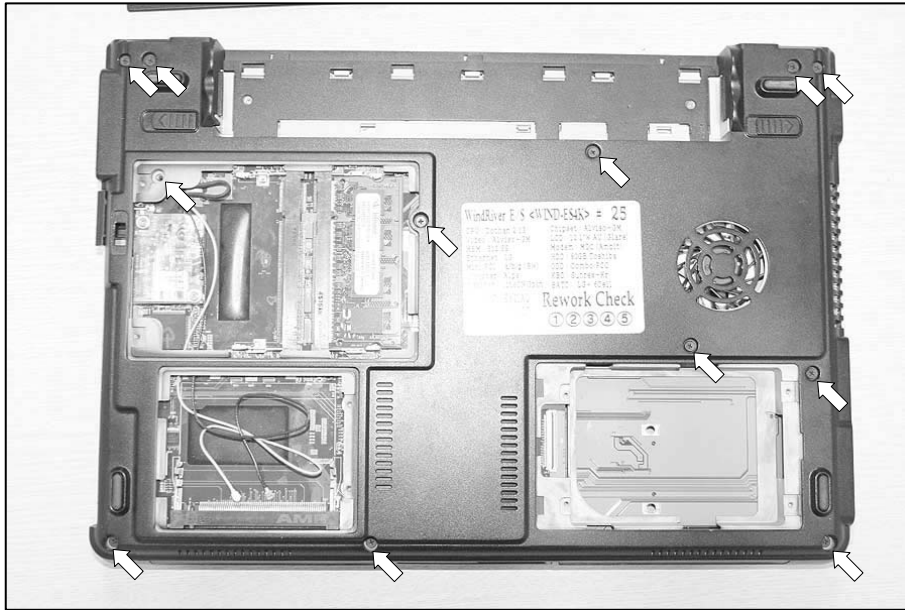
No.	FRU No.	Specification	Qty
1	1SZZBA4097B	D4.5 X L6.5	12

2. Disconnect Keyboard Connector.

2. Remove Keyboard.

■ 1060 Display Module

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

1. Remove 2 Hinge Screws. (Left / Right)

No.	FRU No.	Specification	Qty
1	1SZZBA4097B	D4.5 X L6.5	2

2. Remove Display Module.
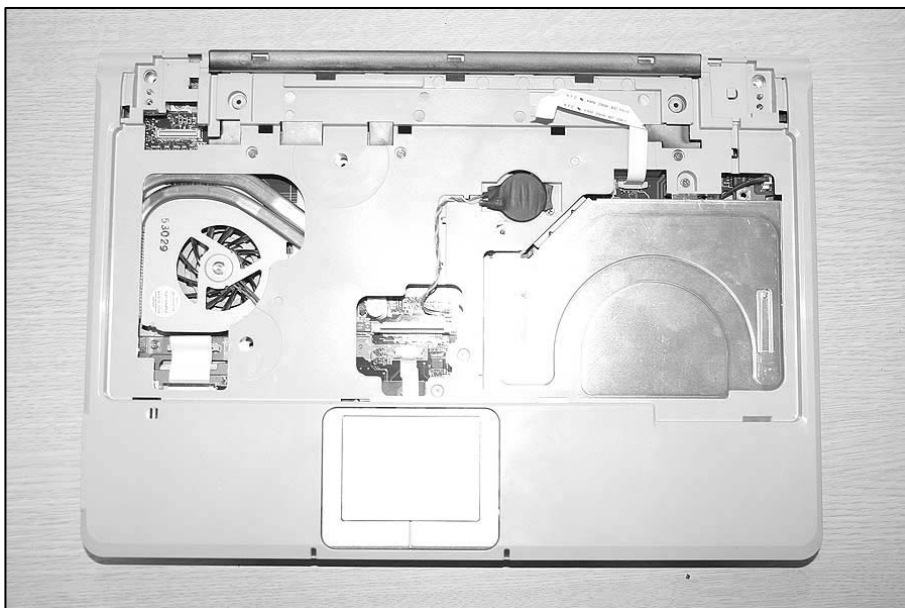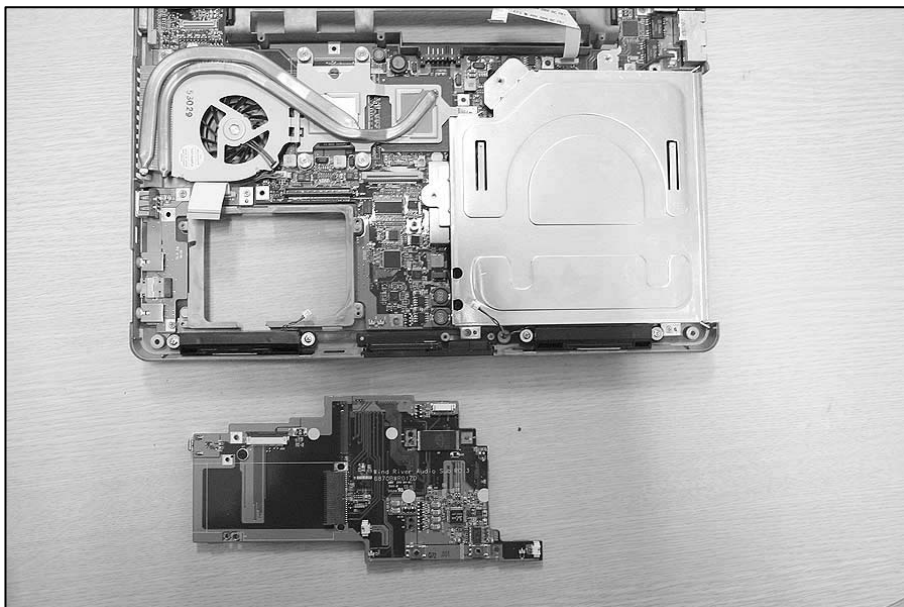
■ 1070 Key Deck

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060)

1. Disconnect RTC Battery Connector then, remove RTC Battery.
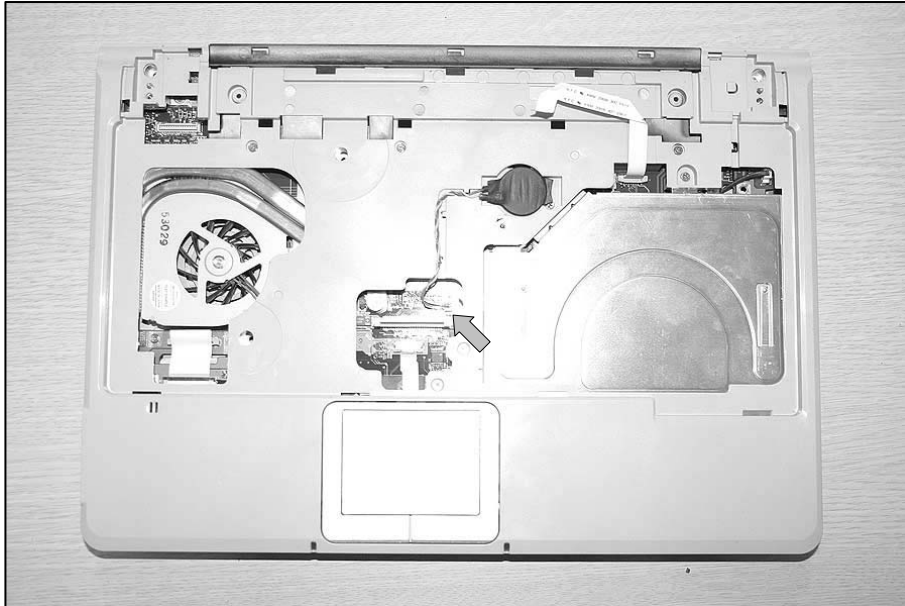
2. Remove 7 Screws.

No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 X L4.0	7

2. Disconnect Touchpad Connector.
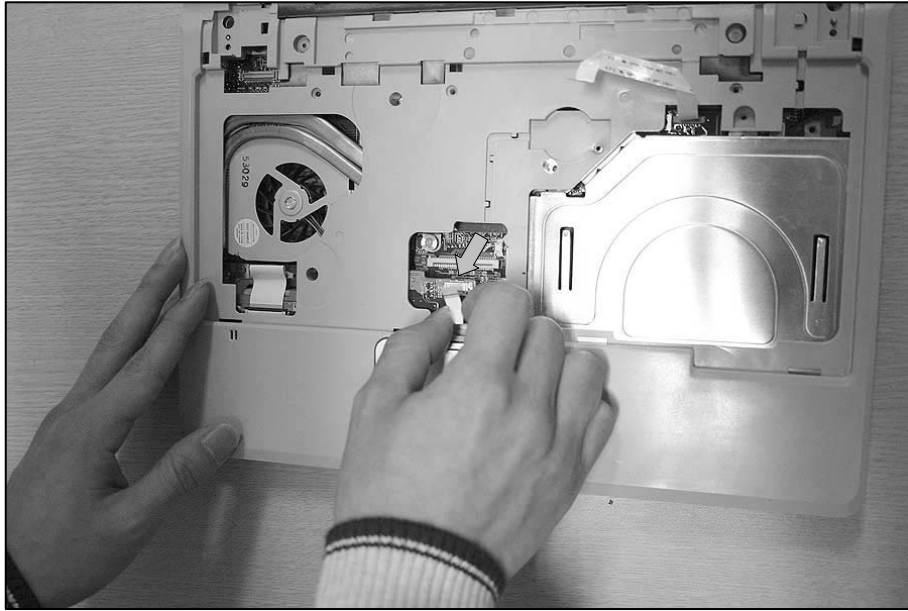
3. Remove Key Deck.
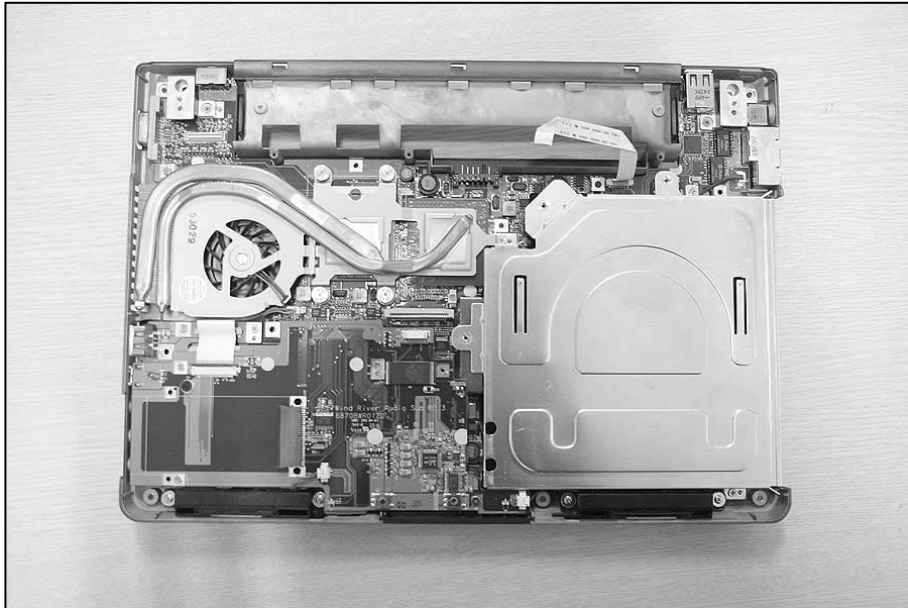
■ 1080 Sub B/D
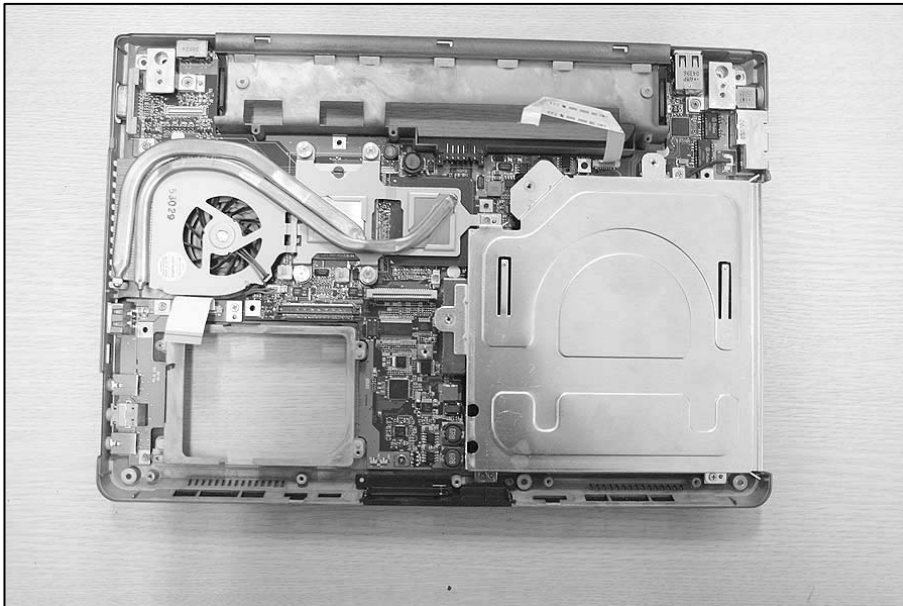
Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060) 6. Key Deck(1070)

1. Remove 5 Sub B/D Screws.

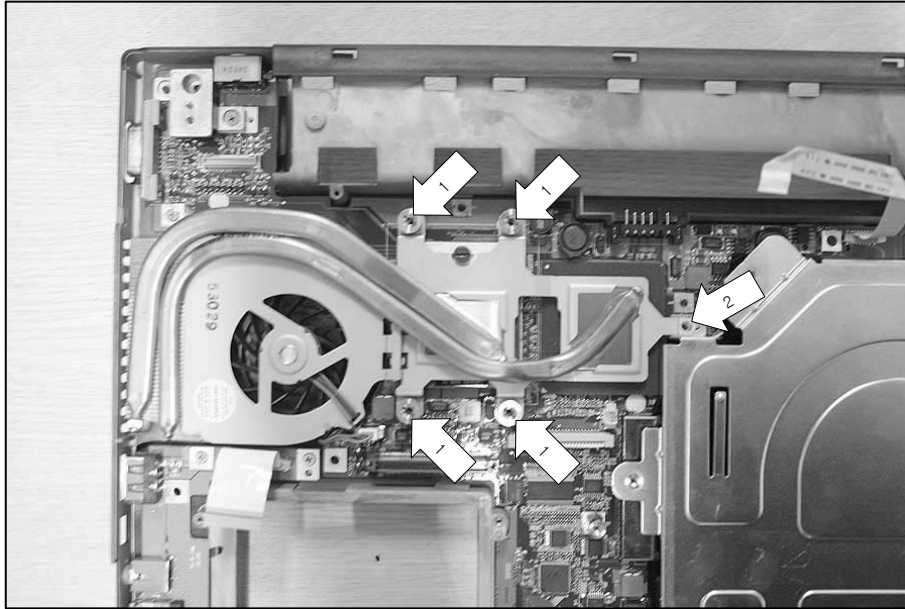| No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 X L4.0	5

2. Remove Sub B/D.

■ 1090 Speaker

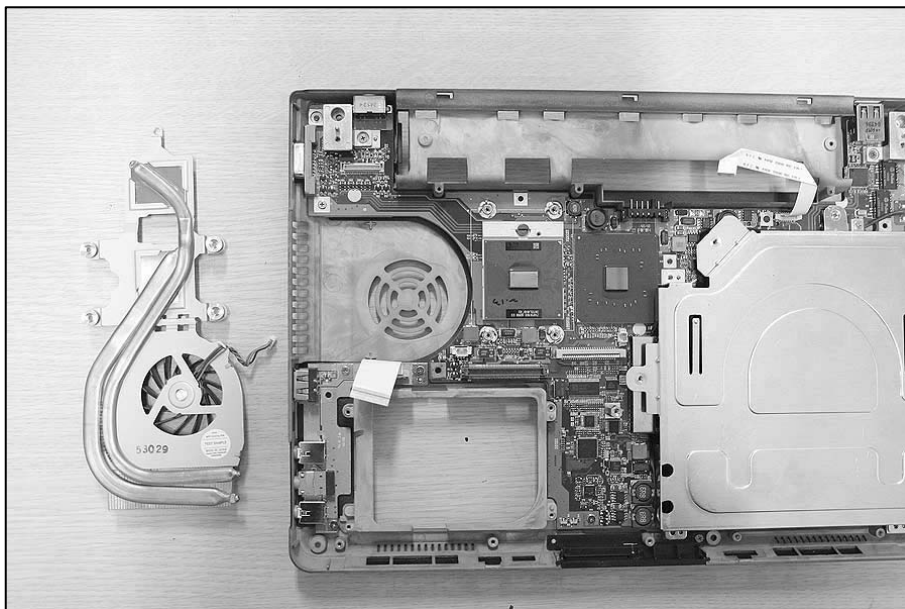**Remove the following parts in order before replacing this part.**

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060) 6. Key Deck(1070) 7. Sub B/D(1080)

1. Remove 4 Speaker Screws.
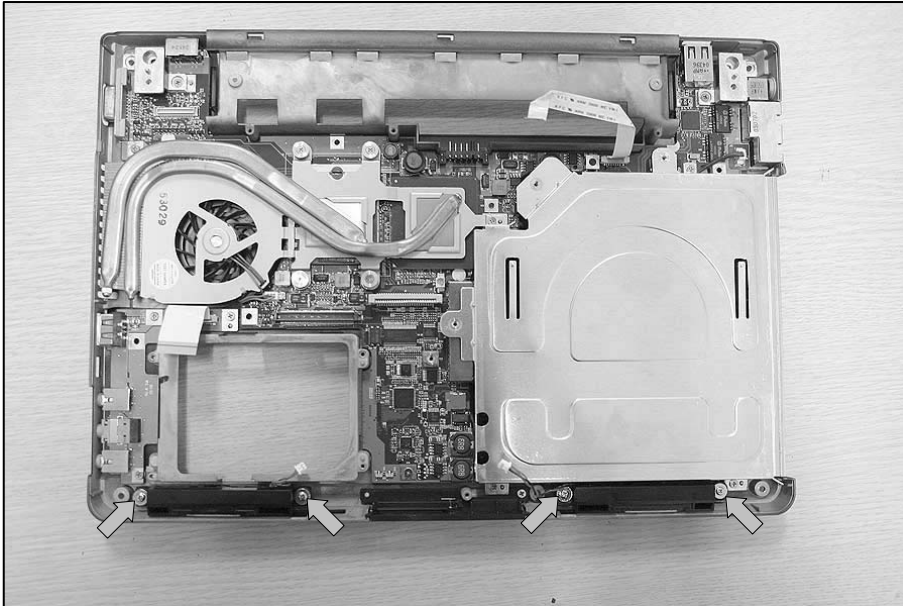
No.	FRU No.	Specification	Qty
1	1SZZBA4027A	D8.0 X L6.5	4

2. Remove Speakers.

■ 1100 Fan Assembly

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060) 6. Key Deck(1070) 7. Sub B/D(1080) 8. Speaker(1090)

1. Remove 5 Screws.

No.	FRU No.	Specification	Qty
1	1SZZBA4020A	D4.0 X L8.8	4
2	1SZZBZ4014C	D2.0 X L5.0	1

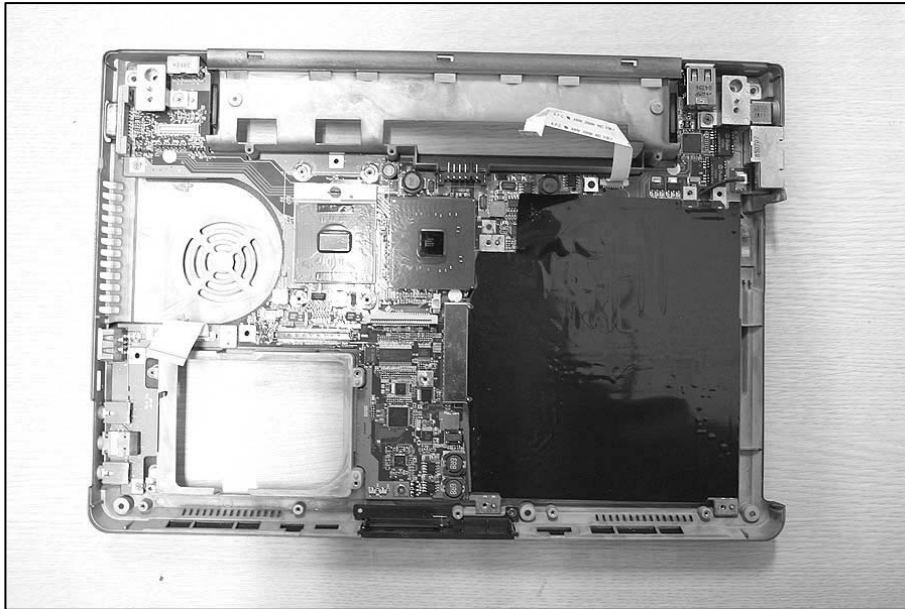2. Remove Fan Assy.
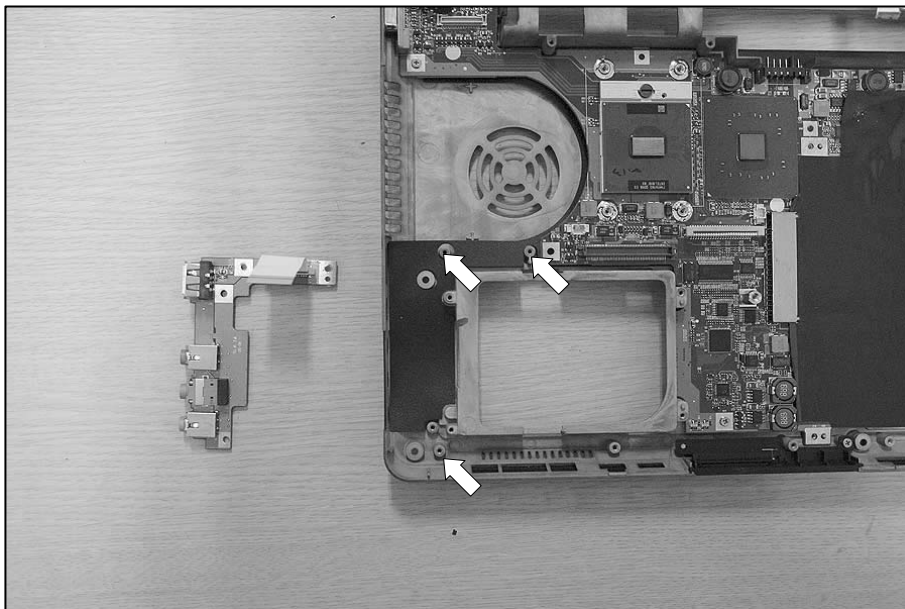
■ 1110 Main Board

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060) 6. Key Deck(1070) 7. Sub B/D(1080) 8. Speaker(1090)

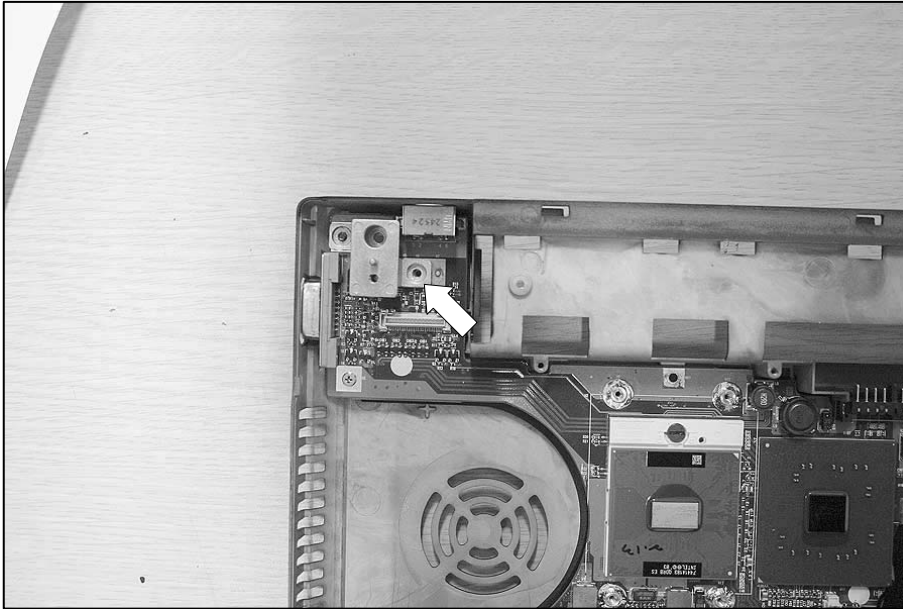9. Fan Assy(1100)

1. Remove ODD Plate.

2. Remove 3 Screws, then remove I/O Jack Sub Board.

No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 X L4.0	3

3. Remove a Screw, then remove Hinge Left.

No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 x L4.0	1

4. Remove a Screw, then remove Hinge Right.

No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 x L4.0	1

5. Remove 2 Screws and 1 Hexagon Screw.
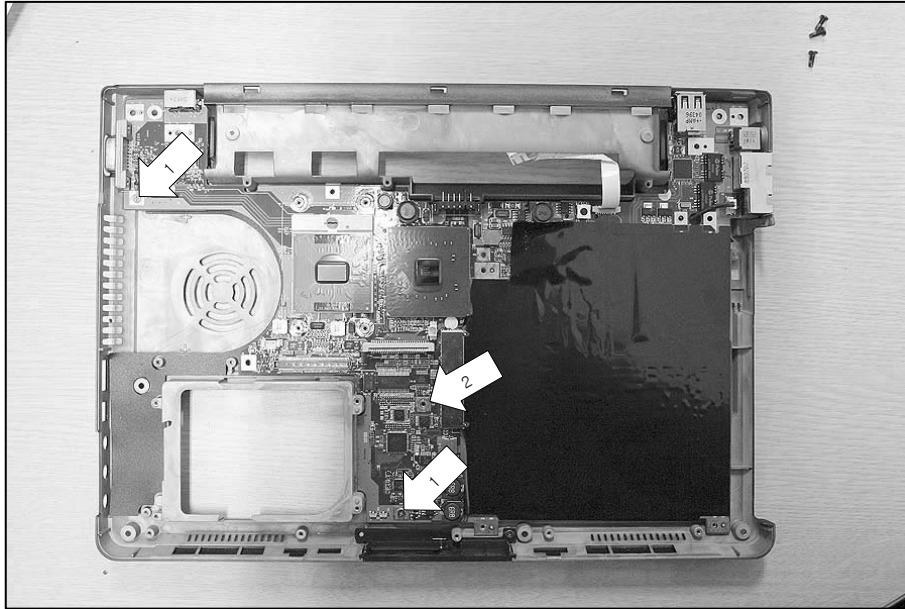
No.	FRU No.	Specification	Qty
1	1SZZBA4080A	D4.0 X L4.0	2
2	1SZZBA4101A	D2.0 x L11.5	1

6. Remove Main Board.
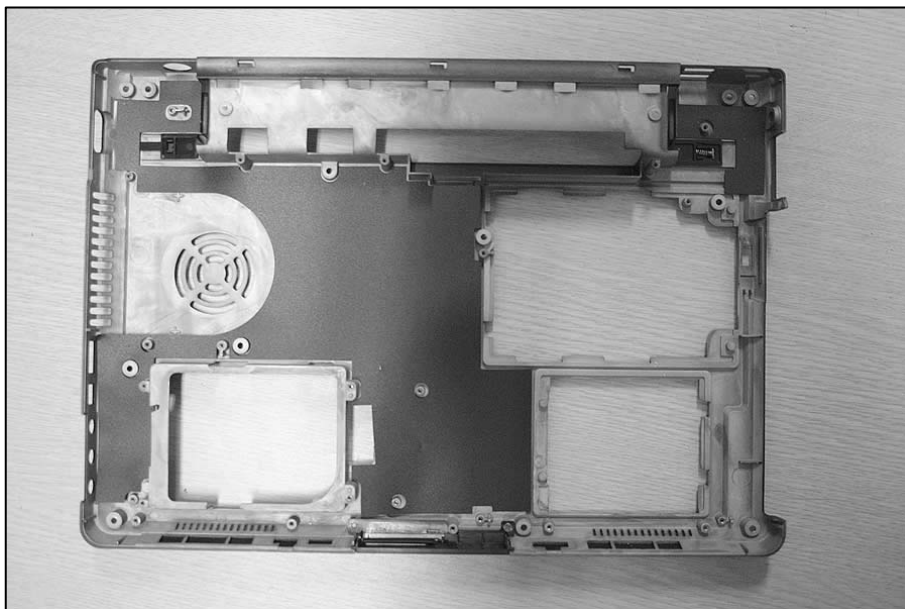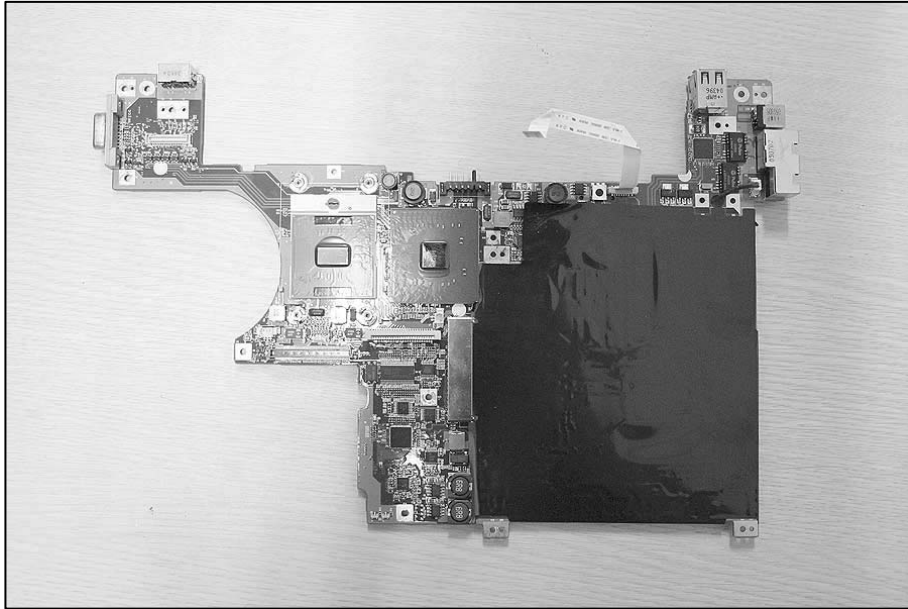
■ 1120 Display Module Exploded View

Remove the following parts in order before replacing this part.

1. Battery Pack(1010) 2. Hard Disk Drive(1020) 3. Retainer(1040) 4. Keyboard(1050)

5. Display Module(1060)

1. Remove 6 Rubber Caps, then remove 4 Screws.

No.	FRU No.	Specification	Qty
1	1SZZBA4104A	D2.5 X L4.5	4
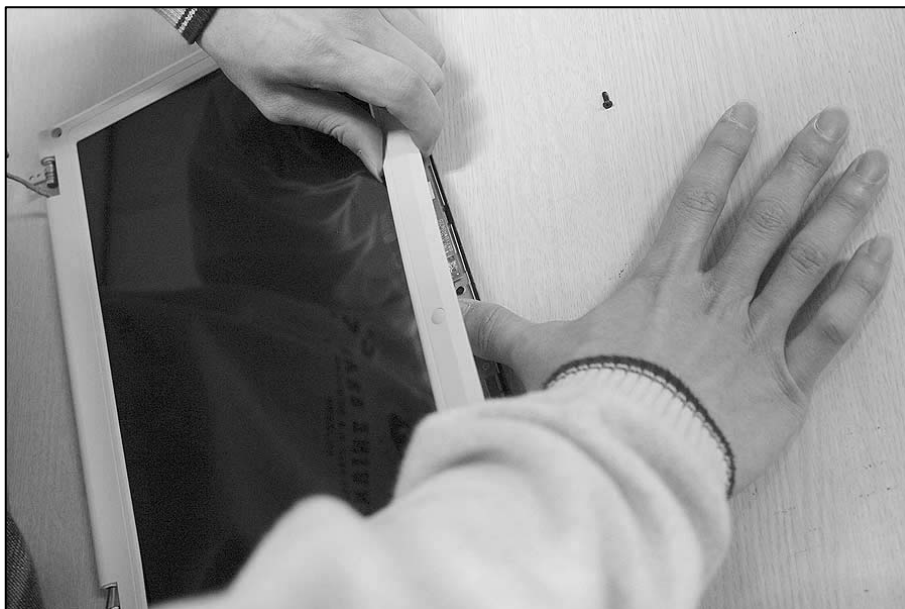
2. Remove LCD Front.

3. Remove 4 Screws.
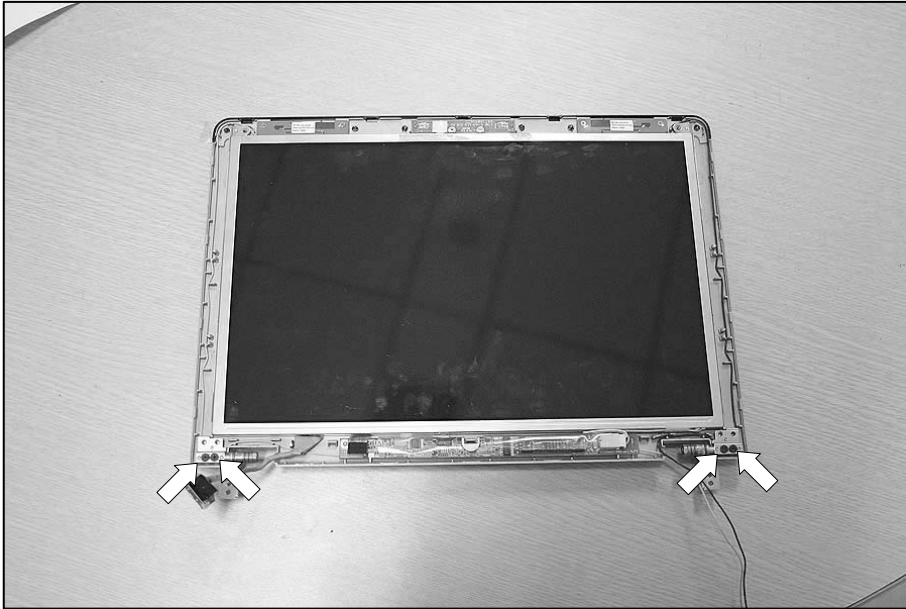
No.	FRU No.	Specification	Qty
1	1SZZBA4104A	D2.5 X L4.5	4

4. Remove LCD Hinge. (Left / Right).

5. Remove Inverter.
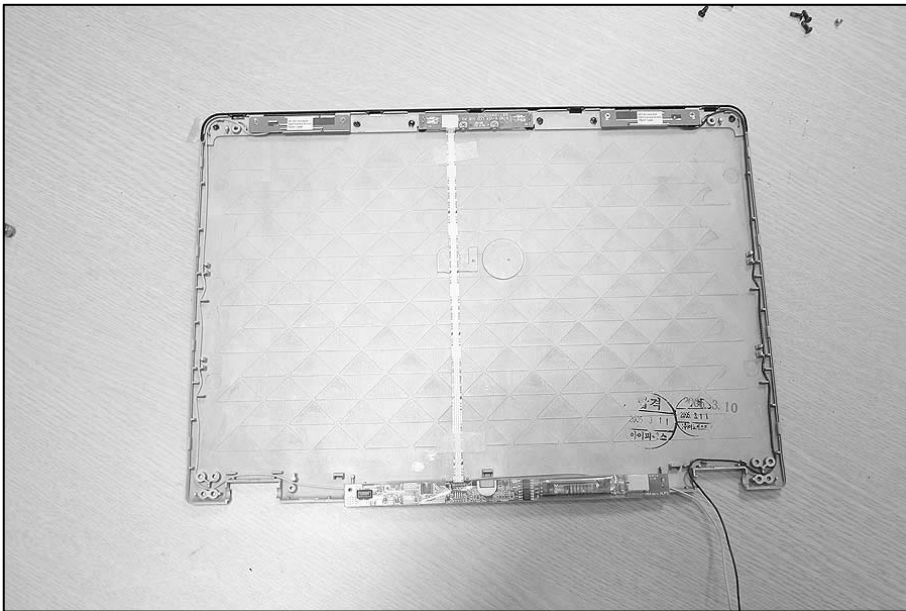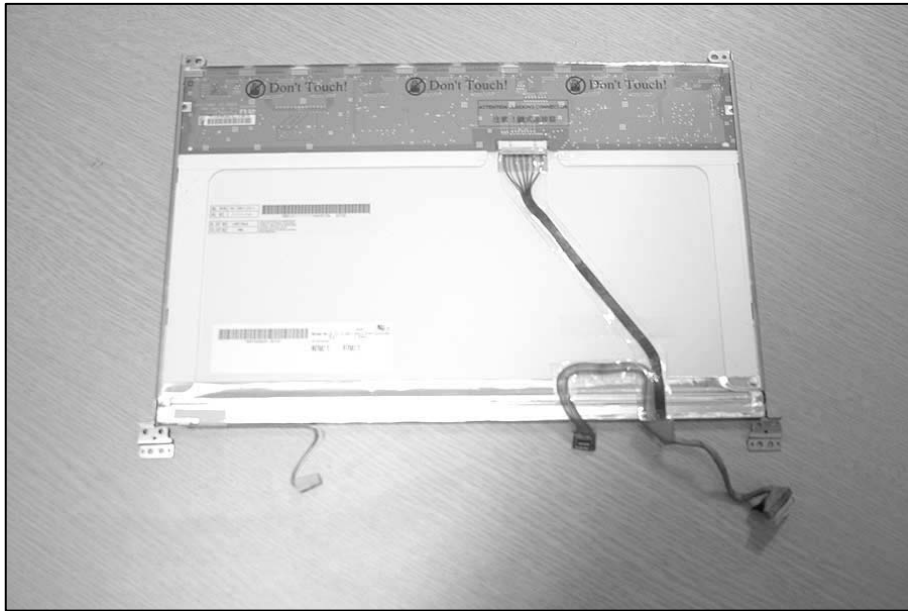
6. Disconnect LED Sub Board Connector.
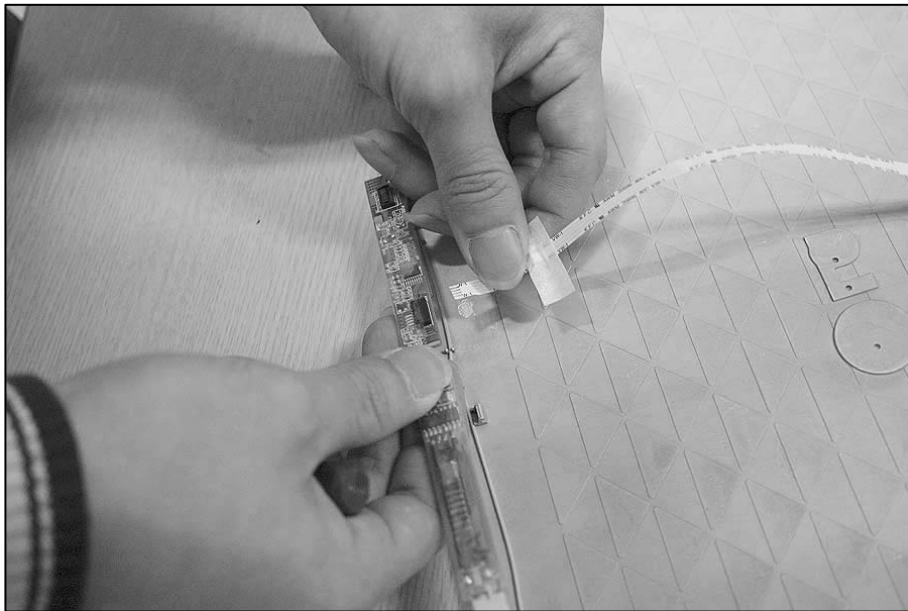
7. Remove 2 Screws, then remove LED Sub Board.
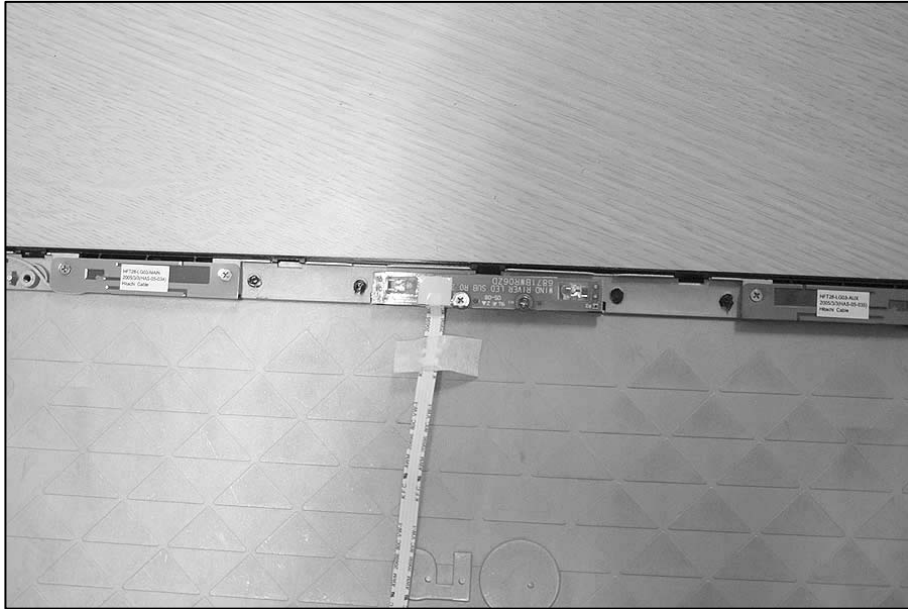
No.	FRU No.	Specification	Qty
1	1SZZBA4041A	D3.5 X L3.0	2

8. Remove LED Lens.
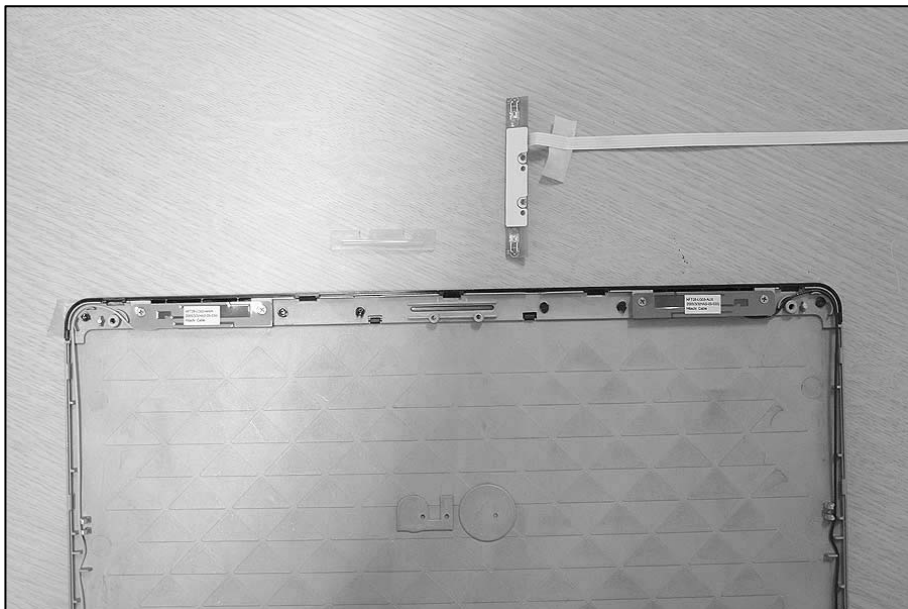
9. Remove 2 Screws, then remove Left Antenna.

No.	FRU No.	Specification	Qty
1	1SZZBA4041A	D3.5 X L3.0	2

10. Remove 2 Screws, then remove Right Antenna.
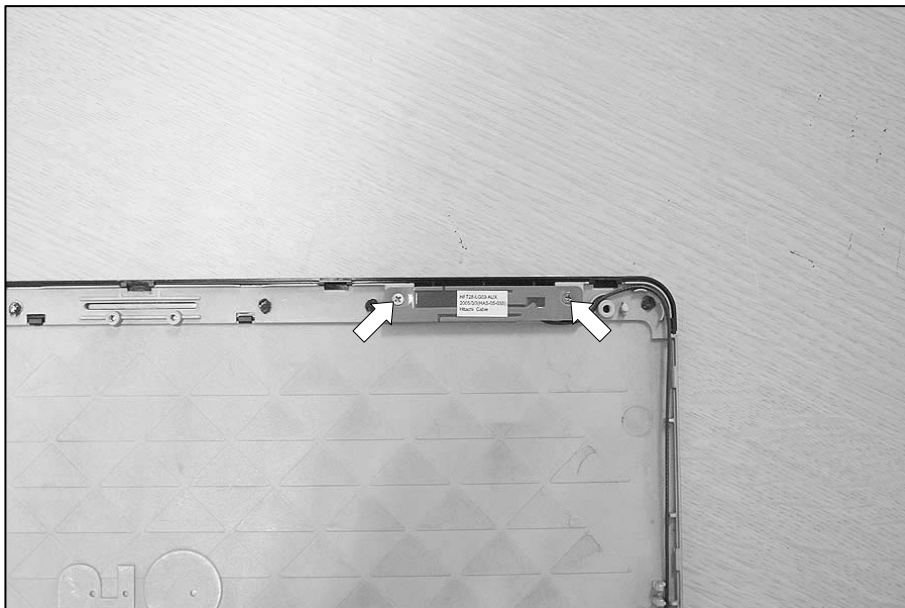
No.	FRU No.	Specification	Qty
1	1SZZBA4041A	D3.5 X L3.0	2
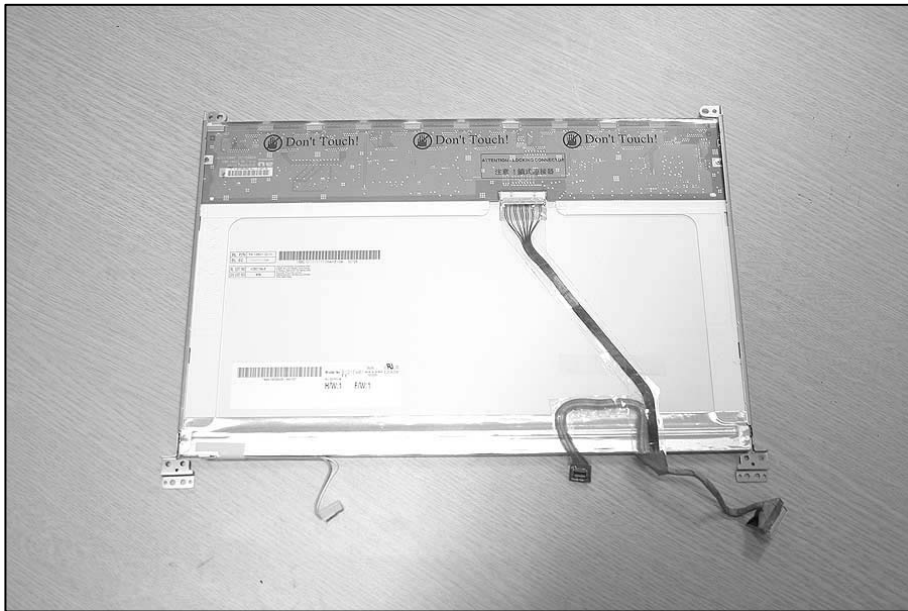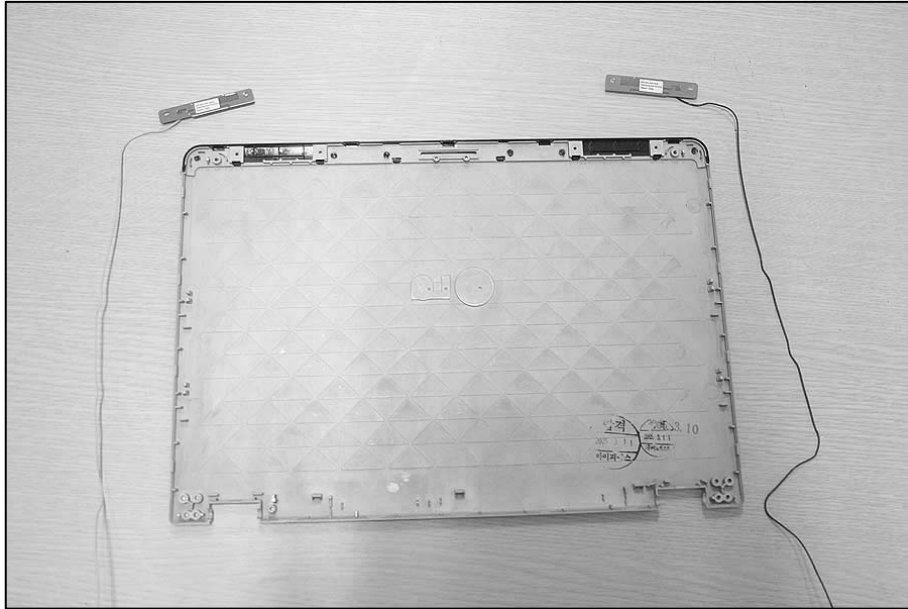
12. Remove 4 Screws, then remove LCD Brackets.
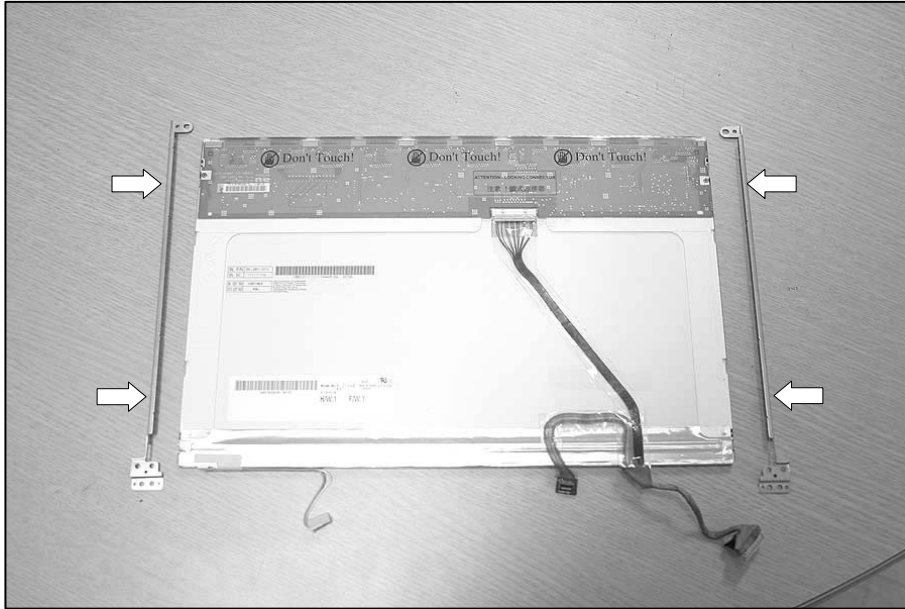
No.	FRU No.	Specification	Qty
1	1SZZBA4041A	D3.5 X L3.0	4

13. Disconnect LCD Cable.
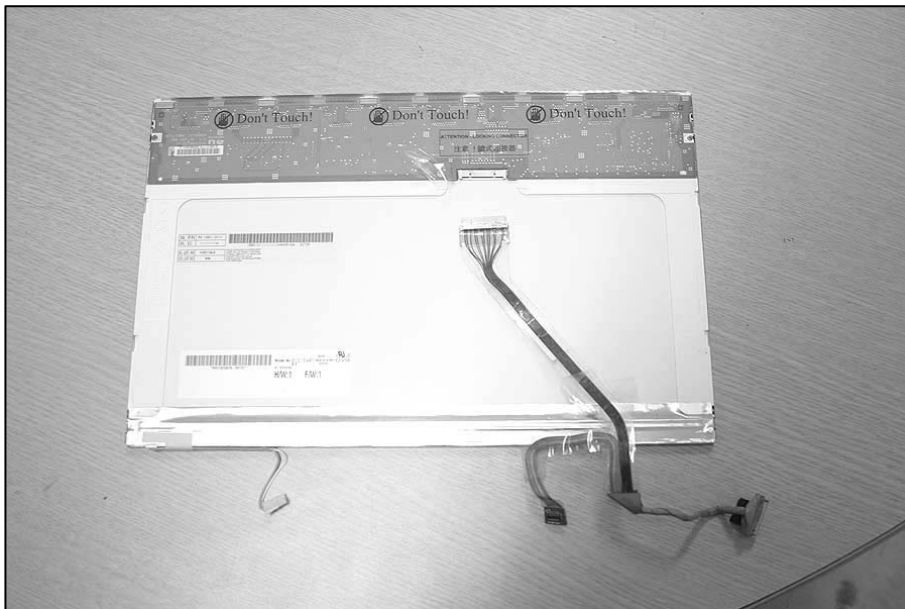
Chapter 6. Part lists

2005-06-20   WNR05

Location	Part Number	Specification	Remarks
NCPU1	0IMCR00003A	RH80536GE0462M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 770 2.13GHZ/800MHZ C0-STEPPING(SL7SL)	
NCPU1	0IMCR00005A	RH80536GE0412M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 760 2.00GHZ/800MHZ C0-STEPPING(SL7SM)	
NCPU1	0IMCR00007A	RH80536GE0362M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 750 1.86GHZ/800MHZ C0-STEPPING(SL7S9)	
NCPU1	0IMCR00009A	RH80536GE0302M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 740 1.73GHZ/800MHZ C0-STEPPING(SL7SA)	
NMEM1	0IMMR00005B	M470T3354BZ0-CD5 SAMSUNG ELECTRONICS 200P SODIMM BK 256MB 32MX64 533MHZ DDR2 SDRAM WITH 32MX16 PB FR	
NMEM1	0IMMR00008A	HYS64T64020HDL-3.7-A INFINEON 200P SODIMM BK 512MB 64MX64 533MHZ DDR2 SDRAM WITH 32MX16	
NMEM1	0IMMR00053B	HYMP532S64P6-C4 HYNIX 200P SODIMM BK 256MB 32MX64 533MHZ DDR2 SDRAM WITH 32MX16	
LUS08	1SZZBA4080A	+ D4.0 L4.0MM SWRH4 M2 H1.0 SILVER K2 TIP#0	
NSCRB	1SZZBA4104A	+ D2.5 L4.5MM MSWR3 / FN . BK WINDRIVER .	
NSCR7	1SZZBA4097B	+ D4.5 L6.5MM SWRH4 M2.5 H1.0 BK HUNTER TIP NO.0 ROHS 160	
NSCR9	1SZZBA4101A	HEXAGON D2.0 L11.5MM BSP, BSW HEXA SAMWON YL WINDRIVER M2 H6.0MM INNER	
HTM18	1SZZBZ4020A	+ D4.0 L8.8MM SWRH4 FAN ASSEMBLY SILVER MCKINLEY L(10.0) WITH HEAD LENGTH TIP#0	
NSCRA	1SZZBZ4027A	+ D8.0 L6.5MM MSWR3 / FN SPEAKER SILVER WINDRIVER SPEAKER SCREW	
NODD2	2026B10007A	UJ-822BPT1-G PCC 8X 8X 24X 24X 10X 2X 2X 2.4X 2.4X 2X 24X NOTE BOOK 9.5MM ROHS WINDRIVER SUPER MULTI	
NODD2	2029B09004A	GCC-4246N HLDS 8X 24X 24X 24X 9.5MM ROHS WINDRIVER COMBO ASSY	
NODD2	2029B09005A	UJDA765 PANASONIC 8X 24X 24X 24X 9.5MM ROHS WINDRIVER COMBO ASSY	
NCSE5	3110BD0020A	WINDRIVER MG BOTTOM CASE	
NFRM2	3110BM3036A	WINDRIVER ZN HINGE FRAME R	
NFRM1	3110BM3037A	WINDRIVER ZN HINGE FRAME L	
NCSE4	3111B0TS79A	WINDRIVER KBD DECK ASS Y	
NCSE3	3111B97122A	WINDRIVER DISPLAY FRONT ASSY	
NPLT1	3300BP3520A	PLATE WINDRIVER ODD BAY	

Location	Part Number	Specification	Remarks
NPLT2	3300BP4472A	PLATE WINDRIVER HDD	
NCVR2	3550BM4200A	WINDRIVER PCABS . ODD WEIGHT SAVER COVER	
NCVR3	3551B90003A	WINDRIVER . RETAINER ASSY (수출향)	
NCVR4	3551B90004B	WINDRIVER MEMORY DOOR ASSY	
NCVR5	3551B90005A	WINDRIVER . 4 IN 1 ASSY	
NCVR6	3551B90006B	WINDRIVER . MINI PCI ASSY	
NCVR7	3551B90008A	WINDRIVER HDD COVER	
NCSN2	3610BM4033A	WINDRIVER RUBBER SPEAKER CUSHION	
NCSN1	3610BP4025A	WINDRIVER RUBBER BOTTOM	
NLED1	3680BM4092A	WINDRIVER PMMA LED DISPLAY 12.1INCH	
NKBD2	3823B01150A	KOREA WINDRIVER SUNREX 84KEY	
NKBD2	3823B01151A	US ENGLISH WINDRIVER SUNREX 84KEY	
NLBL2	3850BB9214A	ID LABEL WINDRIVER .	
NSHT2	3858BP4480A	N WINDRIVER BADGE LG LOGO	
NSHT3	3858BP4482A	. WINDRIVER SPEAKER GRILL LEFT	
NSHT4	3858BP4483A	. WINDRIVER SPEAKER GRILL RIGHT	
NSHT5	3858BZ3038A	. WINDRIVER SHEET INSULATION BOTTOM	
NSHT6	3858BZ4498A	. WINDRIVER SHEET INSULATION BOTTOM RIGHT	
NHNG2	4775B00057A	WINDRIVER 6.5 KGF-CM HINGE RIGHT LATCHLESS 12.1INCH	
NHNG1	4775B00058A	WINDRIVER 6.5 KGF-CM HINGE LEFT LATCHLESS 12.1INCH	
NBRK1	4810BP3353A	WINDRIVER SUS LCD LEFT 0.5T 12.1INCH	
NBRK2	4810BP3354A	WINDRIVER SUS LCD RIGHT 0.5T 12.1INCH	
NCSN3	4850BP4067A	WINDRIVER RUBBER DISPLAY FRONT UPPER 12.1INCH	
NCSN4	4850BP4068A	WINDRIVER RUBBER DISPLAY FRONT LOWER 12.1INCH	
NCSN5	4850BP4071A	WINDRIVER EVA DISPLAY REAR CENTER	
NCSN6	4850BP4072A	WINDRIVER EVA DISPLAY REAR LEFT	
NCSN7	4850BP4073A	WINDRIVER EVA DISPLAY REAR RIGHT	
NCSN9	4850BP4078A	WINDRIVER EVA DISPLAY REAR LCD CONN	
NHLD4	4930BM3101A	WINDRIVER RUBBER HDD HOLDER	
NHLD1	4930BM4045A	WINDRIVER PCABS BATTERY KNOB HOLDER LEFT	
NHLD2	4930BM4046A	WINDRIVER PCABS BATTERY KNOB HOLDER RIGHT	
NHLD3	4930BM4047A	WINDRIVER PCABS DRIVE KNOB LOCK HOLDER	
NNOB1	4940BM4174A	WINDRIVER PCABS BATTERY KNOB	

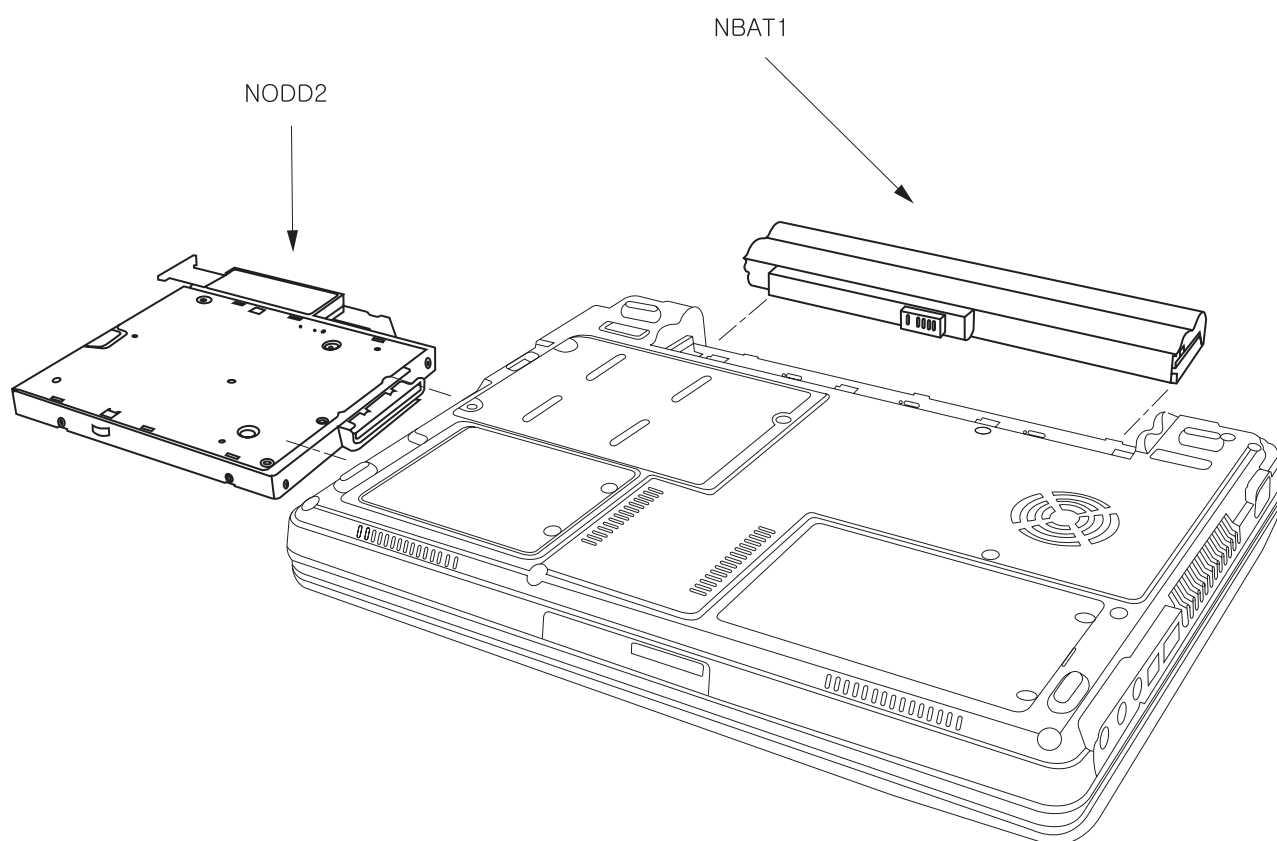| Location	Part Number	Specification	Remarks
NNOB2	4940BM4175A	WINDRIVER PCABS DRIVE KNOB LOCK	
NSPR1	4970BW4570A	WD0.25MM ID3.0MM N9 L11.0MM 0.6KGF WINDRIVER BATEERY SPRING	
NANT2	5011B00026A	HITACHI WIRELESS R WINDRIVER	
NANT1	5011B00027A	HITACHI WIRELESS L WINDRIVER	
MKM16	5022BZ4025A	THERMAL PCS-TC-11-T-13 19X19MM T130UM ZEBRA-2(MOBILE) GRAY K=4.7(W/M-C)	
NPADN	5022BZ4027A	THERMAL SILICON 12X12MM, 0.5T HUNTER COH2003, DARK ORANGE, CONDUCTIVIEY 3.5W/MK, NORTHBRDIGE	
NFAN2	5901B09287A	THERMAL FAN ASSY WINDRIVER TOSHIBA	
NLCD2	6304FCI010A	N121I1-L02 CHIMEI TFT COLOR 12.1 INCH WXGA 1280X800 LVDS 200NITS GLARE	
NSPK2	6401B02546A	. ESTEC 1.5W . . SPECKER R WINDRIVER	
NSPK1	6401B02547A	. ESTEC 1.5W . . SPEAKER L WINDRIVER	
NCABC	6410BM21002	PT8XXK9KB0A-033 LONGWELL KS 1000MM 3P CONN W/VELCRO TIE BLACK	
NCABC	6410BM21601	SP-022+IS-034 H05VV-F I-SHENG KS 1000MM 3P CONN W/VELCRO TIE BLACK	
NACA1	6708BA0036P	PA-1650-02GR LITEON 65W 18.5V/3.5A 3PIN WITHOUT PFC WINDRIVER	
NACA1	6708BA0044P	HP-OK065B13 HIPRO 65W 18.5V/3.5A 3PIN WITHOUT PFC WINDRIVER	
NINV1	6708BI0096A	KUBNKM106A ALPS GENERAL GENERAL GENERAL WINDRIVER OZ9910	
NINV1	6708BI0097A	IM8822 NMB GENERAL GENERAL GENERAL WINDRIVER OZ964	
NLAN1	6718M000013	WM3B2200BGMWF INTEL INTERFACE STANDARD IEEE802.11G 54M 4 LAYERS REV 3.0 PRO/WIRELESS 2200BG LAN MINI	
NLAN1	6718M000014	WM3B2200BGRWF INTEL INTERFACE STANDARD IEEE802.11G 54M 4 LAYERS REV 3.0 PRO/WIRELESS 2200BG LAN MINI	
NLAN1	6718M000015	WM3B2915AGNAF INTEL IEEE 802.11ABG STANDARD PROTOCOL 54M 4 LAYERS REV 3.0 MINIPCI TYPE IIIB FORM FAC	
NLAN1	6718M000018	WM3B2915AGRWF INTEL IEEE 802.11ABG STANDARD PROTOCOL 54M 4 LAYERS REV 3.0 MINIPCI TYPE IIIB FORM FAC	
NHDD2	6744A00001A	MK3006GAL TOSHIBA 30GB EIDE INNER 4200RPM WIND RIVER	
NHDD2	6744A00002A	MK4006GAH TOSHIBA 40GB EIDE INNER 4200RPM WIND RIVER	
NHDD2	6744A00003A	MK6006GAH TOSHIBA 60GB EIDE INNER 4200RPM WIND RIVER	
NCAB3	6850B32001A	AWM 20696 80C VW-1 32 . 36X16.5, 0.5PITCH KFC WINDRIVER, AUDIO BD TO MAIN BD	
NCAB4	6851B34039A	LCD CABLE 100X147 25 WINDRIVER, WANSHIH	

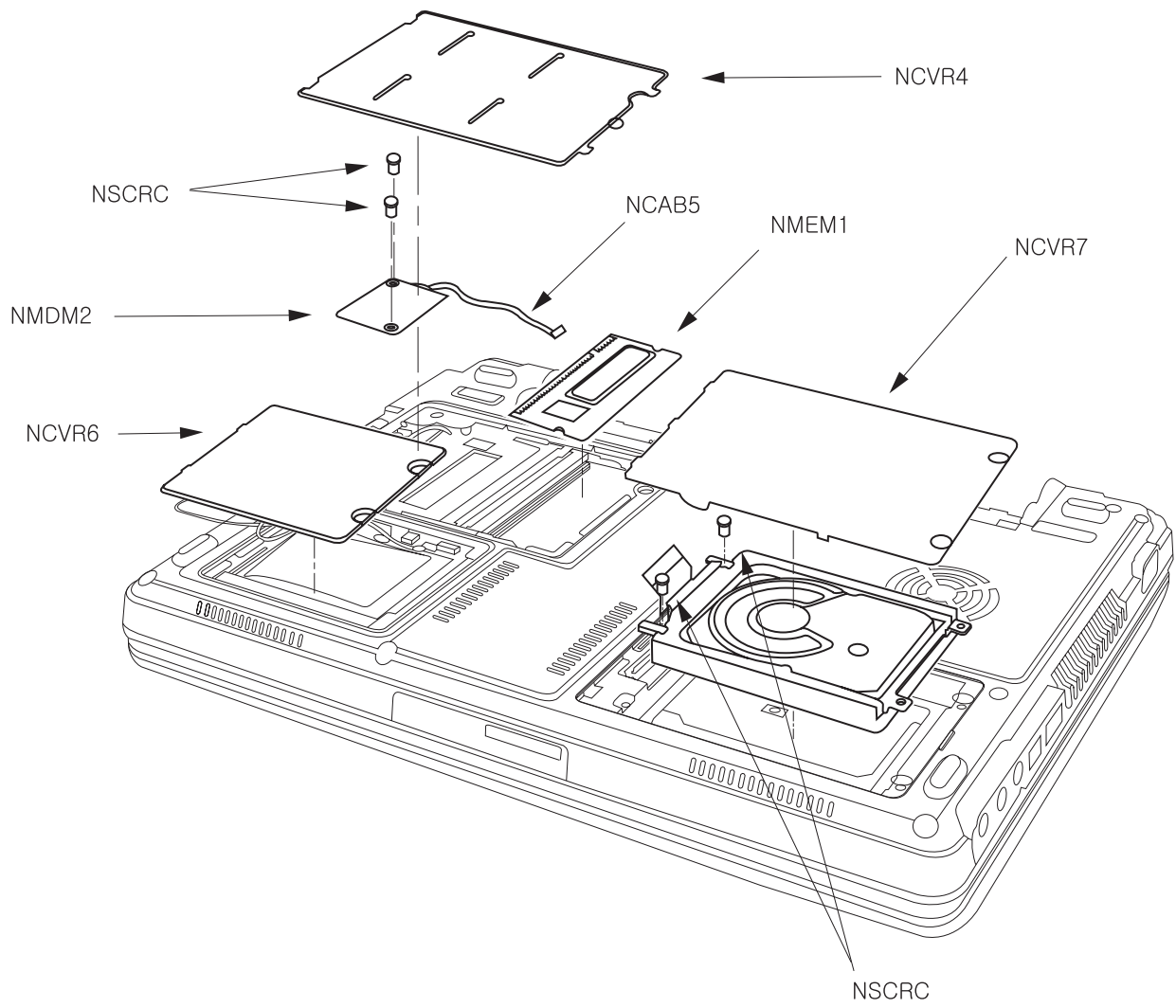| Location	Part Number	Specification	Remarks
NCAB5	6851B34040A	MODEM CABLE 70 2 WINDRIVER, MDC CABLE	
NMDM2	6871BG867AB	T60M893.05 FOXCONN 2 LAYERS 00L0 AZALIA MDC1.5 FORMFACTOR INTERNAL 56K MDC MODEM LF(LEAD FREE)	
NMDM2	6871BG869AA	MA560-3 LF(LEAD FREE) QCOM 2 LAYERS 1A MDC1.5 FORM FACTOR V.92 MODEM CARD	
NMLB2	6871BWRGBAA	N LGE 10 LAYERS REV 0.5 WINDRIVER MP GIGA MAIN B/D ASSY	
NMLB2	6871BWRTBAA	N LGE 10 LAYERS REV 0.5 WINDRIVER MP 10/100 MAIN B/D ASSY	
NSUB2	6871BWRG0AA	N LGE 4 LAYERS REV0.5 WINDRIVER PILOT AUDIO BD ASSY PB FREE	
NSUB3	6871BWRG4PA	N WIMTEC 2 LAYERS REV0.3 WINDRIVER PILOT LCD LED B/D ASSY PB FREE	
NCAB2	6871BWRG7PA	WIMTEC 1 LAYERS – WINDRIVER TOSHIBA HDD FPC ASSY	
NBAT1	6911B00122A	4800MAH 3S-2P SIMPLO LI-ION CYLINDERICAL WINDRIVER LGC CELL	
NBAT1	6911B00122B	4800MAH 3S-2P SIMPLO LI-ION CYLINDERICAL WINDRIVER SANYO CELL	
NRTC1	6911B00125A	160MHA CR2025 SONY LI-ION COIN WINDRIVER RTC ASSY	
NCSN8	3610BM4034A	WINDRIVER RUBBER MIC .	
NSCRC	1SZZBA4017F	Screw, M2.0xL3.5bk	
NSCRD	1SZZBZ4014C	Screw, M2.0xL5.0bk	
HTO03	1SZZBA4041A	+ D3.5 L3.0MM SWRH4 DUMMY COVER FIX SILVER MAGELLAN DISPLAY	
NCAB4	6851B34038A	LCD CABLE 100X147 25 WINDRIVER, WANSHIH	
NCVR9	3551B90003B	WINDRIVER . RETAINER ASSY (내수향) X-note	
NSHT7	3858BZ4511A	WINDRIVER LED PROTECT LIGHT	
NGSK1	4986BZ4202A	EMI FABRIC 10X30X0.7 WINDRIVER FOR WIRELESS LAN	
NLBL3	3850BF9047A	POP LABEL WINDRIVER DOMESTIC	
NLBL4	3850BF9048A	POP LABEL WINDRIVER EXPORT	
NLBL5	3850BB4125A	WIN XP, DT ALL, NEW	
NDMB1	LGPCDMB04	NT Windriver DMB module	
NSHT8	3858BZ4513A	DISPLAY HUNTER-ALL PB FREE	
NSUB1	6871BWRG3PB	SUB / N WIMTEC 4 LAYERS REV0.5 WINDRIVER MP I/O JACK SUB B/D ASSY PB FREE	
NSHT9	3858BZ4510A	WINDRIVER KENGSINGTON LOCK	
NSUB1	6871BWRG3PC	SUB / N WIMTEC 4 LAYERS REV0.5 WINDRIVER MP I/O JACK SUB B/D ASSY PB FREE	
NCABC	6410BK21005	PL8B1S3J10A-060 LONGWELL SAA 1830MM 3PIN CONN BLAC	
HTM14	3850BB9110C	INTEL GRYPHON BANIAS LOGO 252352-001 INTEL CENTRINO LABEL N N	

Location	Part Number	Specification	Remarks
NKBD2	3823B01150B	KOREA WINDRIVER SUNREX 84KEY SILVER	
NKBD2	3823B01151B	US ENGLISH WINDRIVER SUNREX 84KEY SILVER	
NKBD2	3823B01152A	US INTER WINDRIVER SUNREX	
NKBD2	3823B01152B	US INTER SILVER WINDRIVER SUNREX	
NKBD2	3823B01153A	RUSSIA WINDRIVER SUNREX	
NKBD2	3823B01153B	RUSSIA SILVER WINDRIVER SUNREX	
NKBD2	3823B01154A	ARABIC WINDRIVER SUNREX	
NKBD2	3823B01154B	ARABIC SILVER WINDRIVER SUNREX	
NKBD2	3823B01155A	SPANISH WINDRIVER SUNREX	
NKBD2	3823B01155B	SPANISH SILVER WINDRIVER SUNREX	
NKBD2	3823B01156A	PORTUGUESE WINDRIVER SUNREX	
NKBD2	3823B01156B	PORTUGUESE SILVER WINDRIVER SUNREX	
NKBD2	3823B01157A	HEBREW WINDRIVER SUNREX	
NKBD2	3823B01157B	HEBREW SILVER WINDRIVER SUNREX	
NKBD2	3823B01158A	TURKISH WINDRIVER SUNREX	
NKBD2	3823B01158B	TURKISH SILVER WINDRIVER SUNREX	
NKBD2	3823B01159A	GERMAN WINDRIVER SUNREX	
NKBD2	3823B01159B	GERMAN SILVER WINDRIVER SUNREX	
NKBD2	3823B01160A	CANADIAN FRENCH WINDRIVER SUNREX	
NKBD2	3823B01160B	CANADIAN FRENCH SILVER WINDRIVER SUNREX	
NKBD2	3823B01161A	HUNGARY WINDRIVER SUNREX	
NKBD2	3823B01161B	HUNGARY SILVER WINDRIVER SUNREX	
NKBD2	3823B01162A	BRAZIL WINDRIVER SUNREX	
NKBD2	3823B01162B	BRAZIL SILVER WINDRIVER SUNREX	
NKBD2	3823B01163A	ITALY WINDRIVER SUNREX	
NKBD2	3823B01163B	ITALY SILVER WINDRIVER SUNREX	
NKBD2	3823B01164A	SWEDEN FINLAND WINDRIVER SUNREX	
NKBD2	3823B01164B	SWEDEN FINLAND SILVER WINDRIVER SUNREX	
NKBD2	3823B01165A	DENMARK WINDRIVER SUNREX	
NKBD2	3823B01165B	DENMARK SILVER WINDRIVER SUNREX	
NKBD2	3823B01166A	FRENCH WINDRIVER SUNREX	
NKBD2	3823B01166B	FRENCH SILVER WINDRIVER SUNREX	
NKBD2	3823B01167A	NORWAY WINDRIVER SUNREX	

Location	Part Number	Specification	Remarks
NKBD2	3823B01167B	NORWAY SILVER WINDRIVER SUNREX	
NKBD2	3823B01168A	TAIWAN WINDRIVER SUNREX	
NKBD2	3823B01168B	TAIWAN SILVER WINDRIVER SUNREX	
NMEM1	0IMMR00006B	M470T6554BZ0-CD5 SAMSUNG ELECTRONICS 200P SODIMM BK 512MB 64MX64 533MHZ DDR2 SDRAM WITH 32MX16 PB FR	
NCSE2	3111B97125A	WINDRIVER . CASE REAR SILVER LG LOGO	
NCSE2	3111B97125B	WINDRIVER . CASE REAR BLUE LG LOGO	
NCSE2	3111B97126A	WINDRIVER . CASE REAR SILVER X-NOTE LOGO	
NCSE2	3111B97126B	WINDRIVER . CASE REAR BLUE X-NOTE LOGO	
NCVRA	3550BM2102A	WINDRIVER PC COVER ANTENNA 12.1INCH	

Location	LG P/N	SPECIFICATION	REMARKS
NODD2	2026B10007A	UJ-822BPT1-G PCC 8X 8X 24X 24X 10X 2X 2X 2.4X 2.4X 2X 24X NOTE BOOK 9.5MM ROHS WINDRIVER SUPER MULTI	DVD REWRITABLE
NODD2	2029B09004A	GCC-4246N HLDS 8X 24X 24X 24X 9.5MM ROHS WINDRIVER COMBO ASSY	COMBO ASSEMBLY
NODD2	2029B09005A	UJDA765 PANASONIC 8X 24X 24X 24X 9.5MM ROHS WINDRIVER COMBO ASSY	COMBO ASSEMBLY
NBAT1	6911B00122A	4800MAH 3S-2P SIMPLO LI-ION CYLINDERICAL WINDRIVER LGC CELL	BATTERY ASSEMBLY
NBAT1	6911B00122B	4800MAH 3S-2P SIMPLO LI-ION CYLINDERICAL WINDRIVER SANYO CELL	BATTERY ASSEMBLY

NCVR4

NSCRC

NCAB5

NMEM1

NCVR7

NMDM2

NCVR6

NSCRC

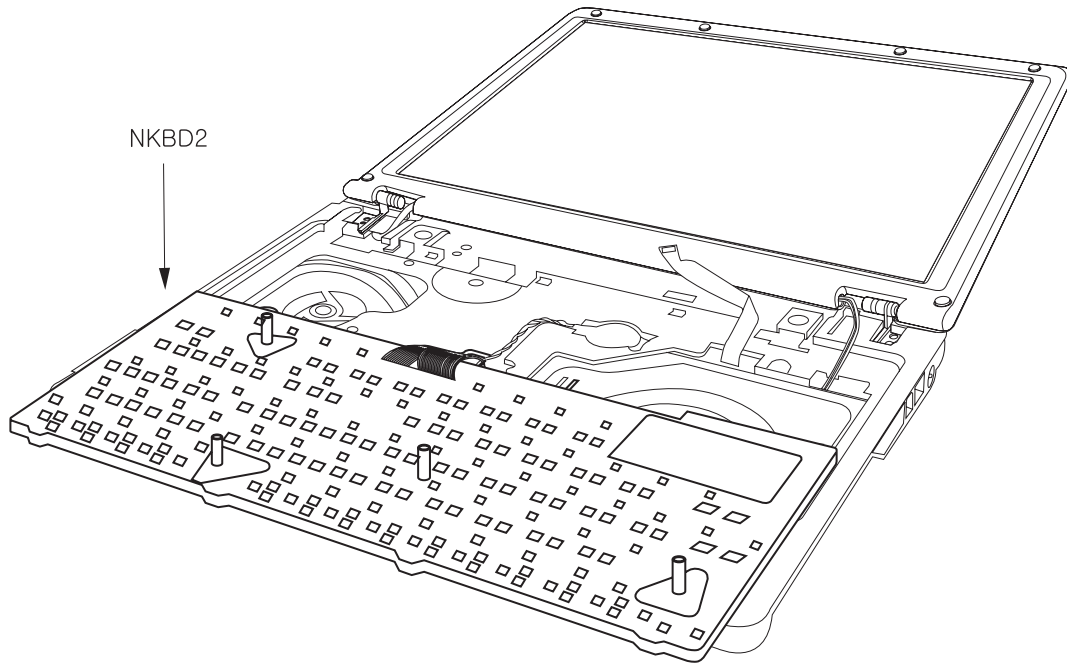| Location	LG P/N	SPECIFICATION	REMARKS
NSCRC	1SZZBA4017F	Screw, M2.0xL3.5bk T60M893.05 FOXCONN 2 LAYERS 00L0 AZALIA	SCREW,DRAWING PWB(PCB)
NMDM2	6871BG867AB	MDC1.5 FORMFACTOR INTERNAL 56K MDC MODEM LF(LEAD FREE)	ASSEMBLY MAIN
NMDM2	6871BG869AA	MA560-3 LF(LEAD FREE) QCOM 2 LAYERS 1A MDC1.5 FORM FACTOR V.92 MODEM CARD	PWB(PCB) ASSEMBLY,MAIN
NCVR4	3551B90004B	WINDRIVER MEMORY DOOR ASSY	COVER
NCVR6	3551B90006B	WINDRIVER . MINI PCI ASSY	COVER
NCVR7	3551B90008A	WINDRIVER HDD COVER	COVER
NMEM1	0IMMR00005B	M470T3354BZ0-CD5 SAMSUNG ELECTRONICS 200P SODIMM BK 256MB 32MX64 533MHZ DDR2 SDRAM WITH 32MX16 PB FR	IC,MEMORIES
NMEM1	0IMMR00008A	HYS64T64020HDL-3.7-A INFINEON 200P SODIMM BK 512MB 64MX64 533MHZ DDR2 SDRAM WITH 32MX16	IC,MEMORIES
NMEM1	0IMMR00053B	HYMP532S64P6-C4 HYNIX 200P SODIMM BK 256MB 32MX64 533MHZ DDR2 SDRAM WITH 32MX16	IC,MEMORIES
NMEM1	0IMMR00006B	M470T6554BZ0-CD5 SAMSUNG ELECTRONICS 200P SODIMM BK 512MB 64MX64 533MHZ DDR2 SDRAM WITH 32MX16 PB FR	IC,MEMORIES
NCAB5	6851B34040A	MODEM CABLE 70 2 WINDRIVER, MDC CABLE	CABLE ASSEMBLY
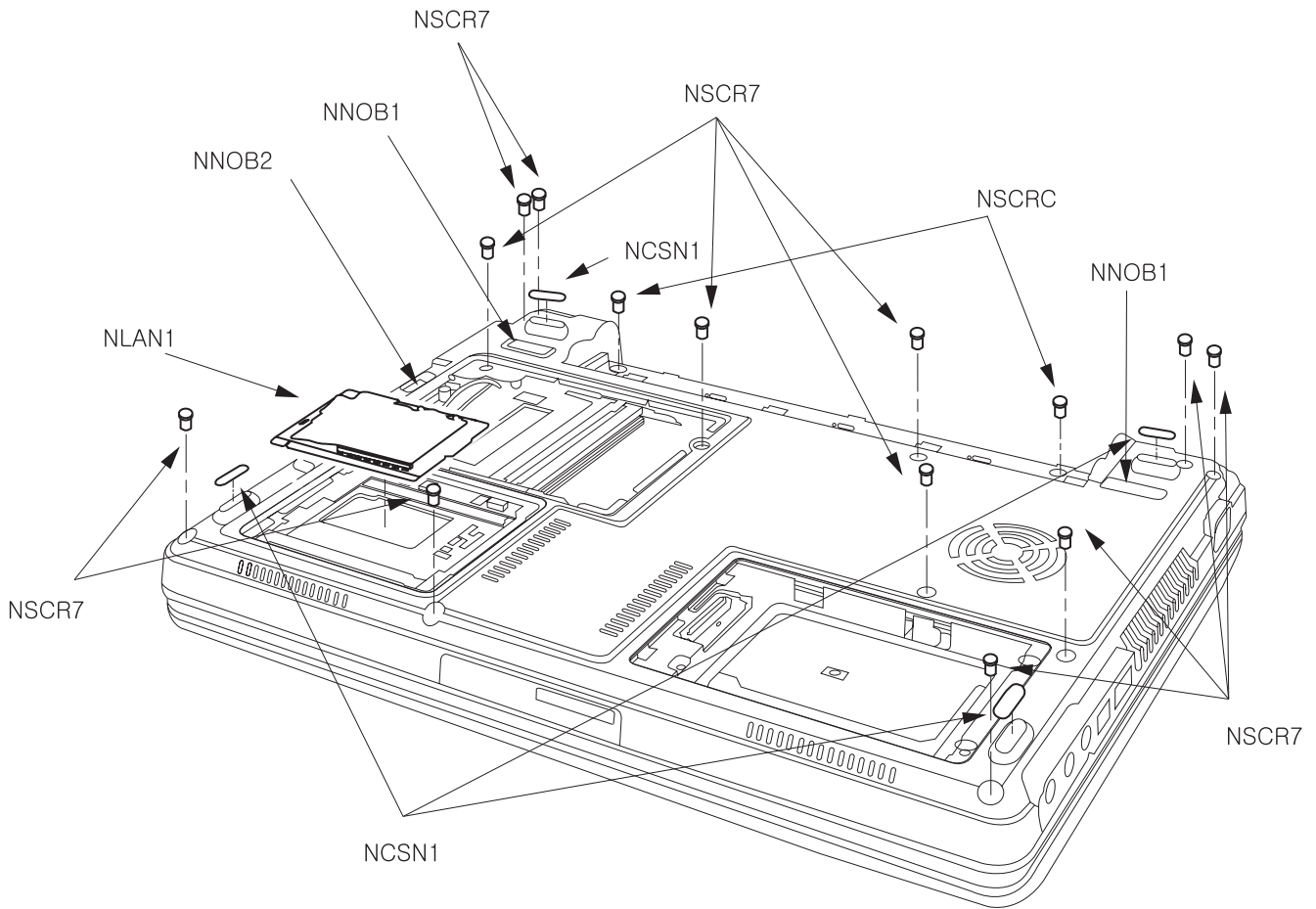
Location	LG P/N	SPECIFICATION	REMARKS
NSCR7	1SZZBA4097B	+ D4.5 L6.5MM SWRH4 M2.5 H1.0 BK HUNTER TIP NO.0 ROHS 160	SCREW,DRAWING
NCSN1	3610BP4025A	WINDRIVER RUBBER BOTTOM	FOOT
NNOB1	4940BM4174A	WINDRIVER PCABS BATTERY KNOB	KNOB
NNOB2	4940BM4175A	WINDRIVER PCABS DRIVE KNOB LOCK	KNOB
NLAN1	6718M000013	WM3B2200BGMWF INTEL INTERFACE STANDARD IEEE802.11G 54M 4 LAYERS REV 3.0 PRO/WIRELESS 2200BG LAN MINI	LANCARD MINI PCI
NLAN1	6718M000014	WM3B2200BGRWF INTEL INTERFACE STANDARD IEEE802.11G 54M 4 LAYERS REV 3.0 PRO/WIRELESS 2200BG LAN MINI	LANCARD MINI PCI
NLAN1	6718M000015	WM3B2915AGNAF INTEL IEEE 802.11ABG STANDARD PROTOCOL 54M 4 LAYERS REV 3.0 MINIPCI TYPE IIIB FORM FAC	LANCARD MINI PCI
NLAN1	6718M000018	WM3B2915AGRWF INTEL IEEE 802.11ABG STANDARD PROTOCOL 54M 4 LAYERS REV 3.0 MINIPCI TYPE IIIB FORM FAC	LANCARD MINI PCI
NSCRC	1SZZBA4017F	Screw, M2.0xL3.5bk	SCREW,DRAWING

4
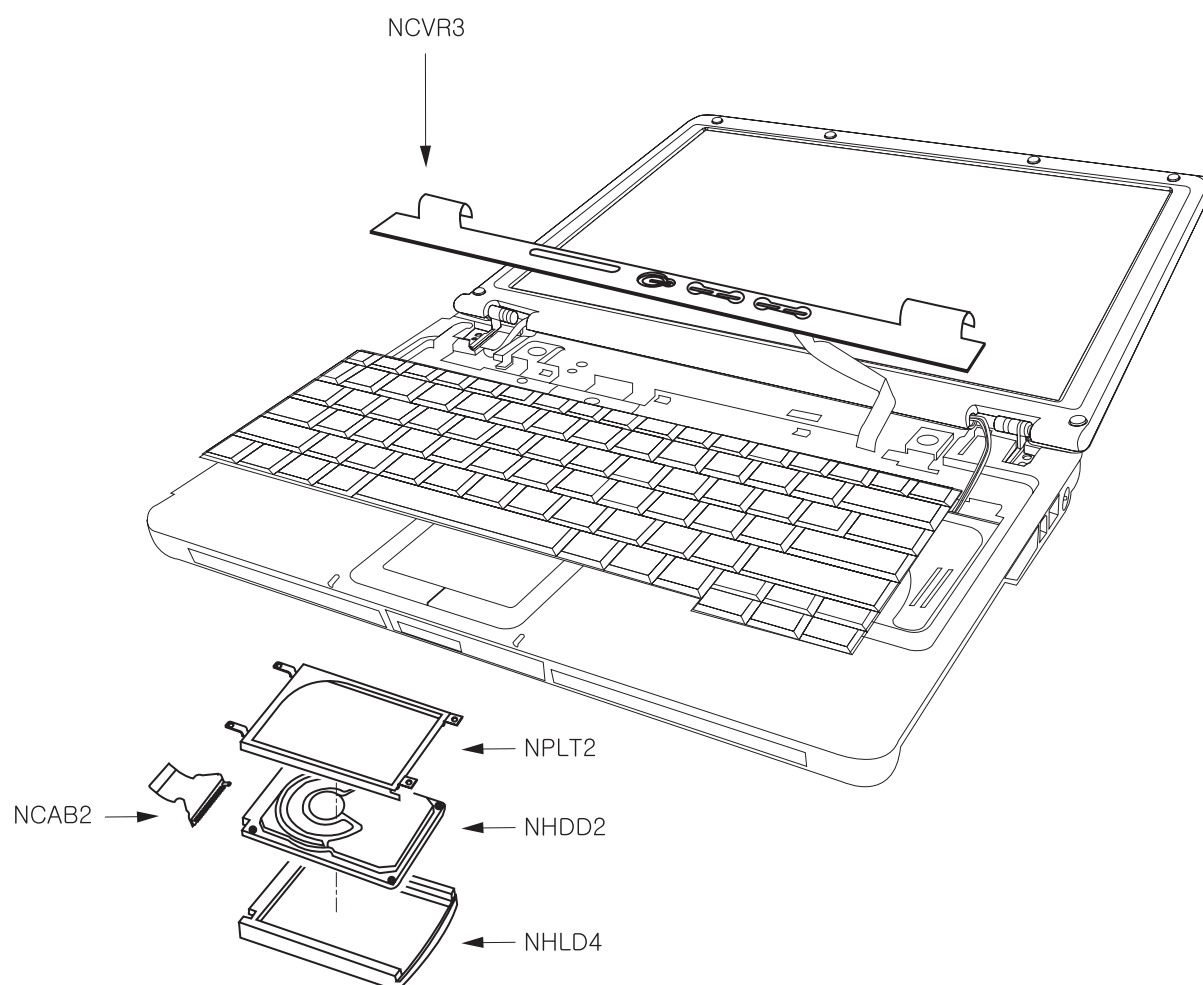
Location	LG P/N	SPECIFICATION	REMARKS
NCAB2	6871BWRG7PA	WIMTEC 1 LAYERS - WINDRIVER TOSHIBA HDD FPC ASSY	PWB(PCB) ASSEMBLY,FPC
NPLT2	3300BP4472A	PLATE WINDRIVER HDD	PLATE
NHDD2	6744A00001A	MK3006GAL TOSHIBA 30GB EIDE INNER 4200RPM WIND RIVER	HDD,1.8"
NHDD2	6744A00002A	MK4006GAH TOSHIBA 40GB EIDE INNER 4200RPM WIND RIVER	HDD,1.8"
NHDD2	6744A00003A	MK6006GAH TOSHIBA 60GB EIDE INNER 4200RPM WIND RIVER"	HDD,1.8
NHLD4	4930BM3101A	WINDRIVER RUBBER HDD HOLDER	HOLDER
NCVR3	3551B90003A	WINDRIVER . RETAINER ASSY	COVER

NKBD2

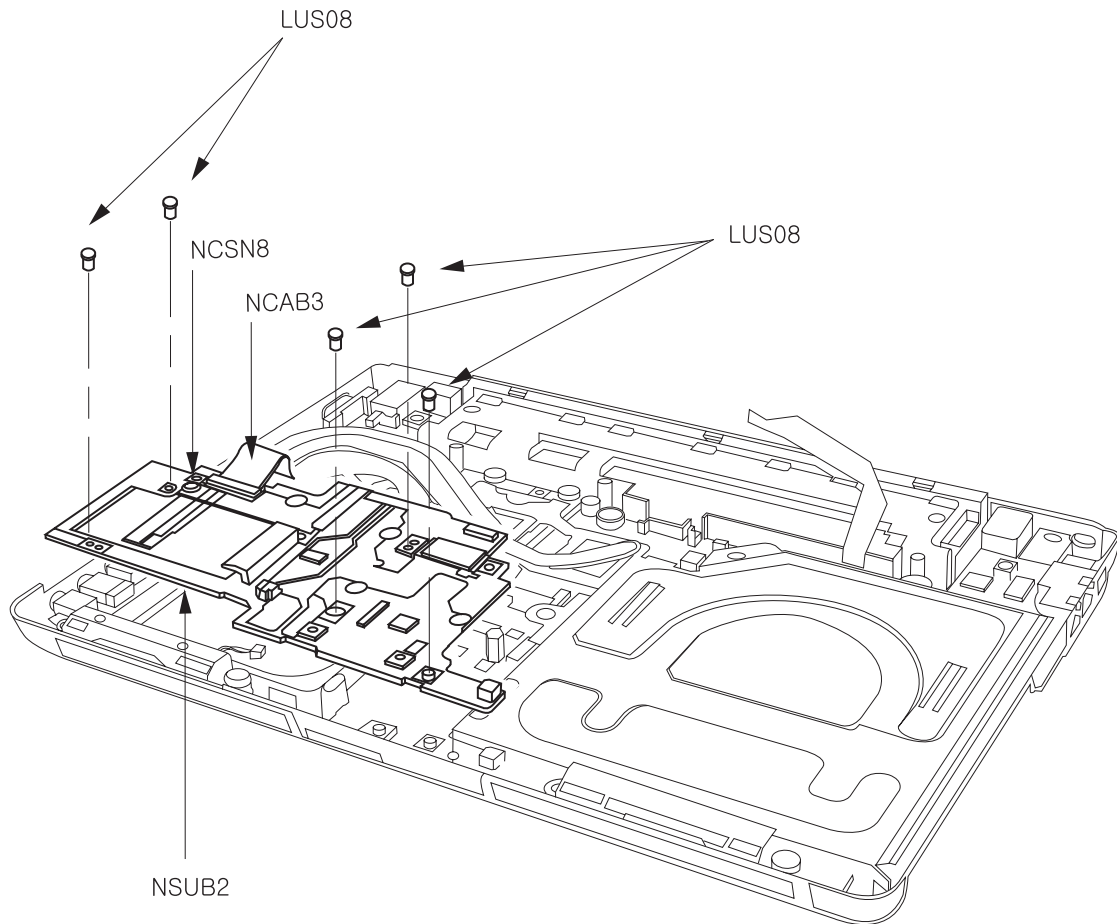| Location	LG P/N	SPECIFICATION	REMARKS
NKBD2	3823B01150A	KOREA WINDRIVER SUNREX 84KEY	KBD ASSEMBLY
NKBD2	3823B01151A	US ENGLISH WINDRIVER SUNREX 84KEY	KBD ASSEMBLY

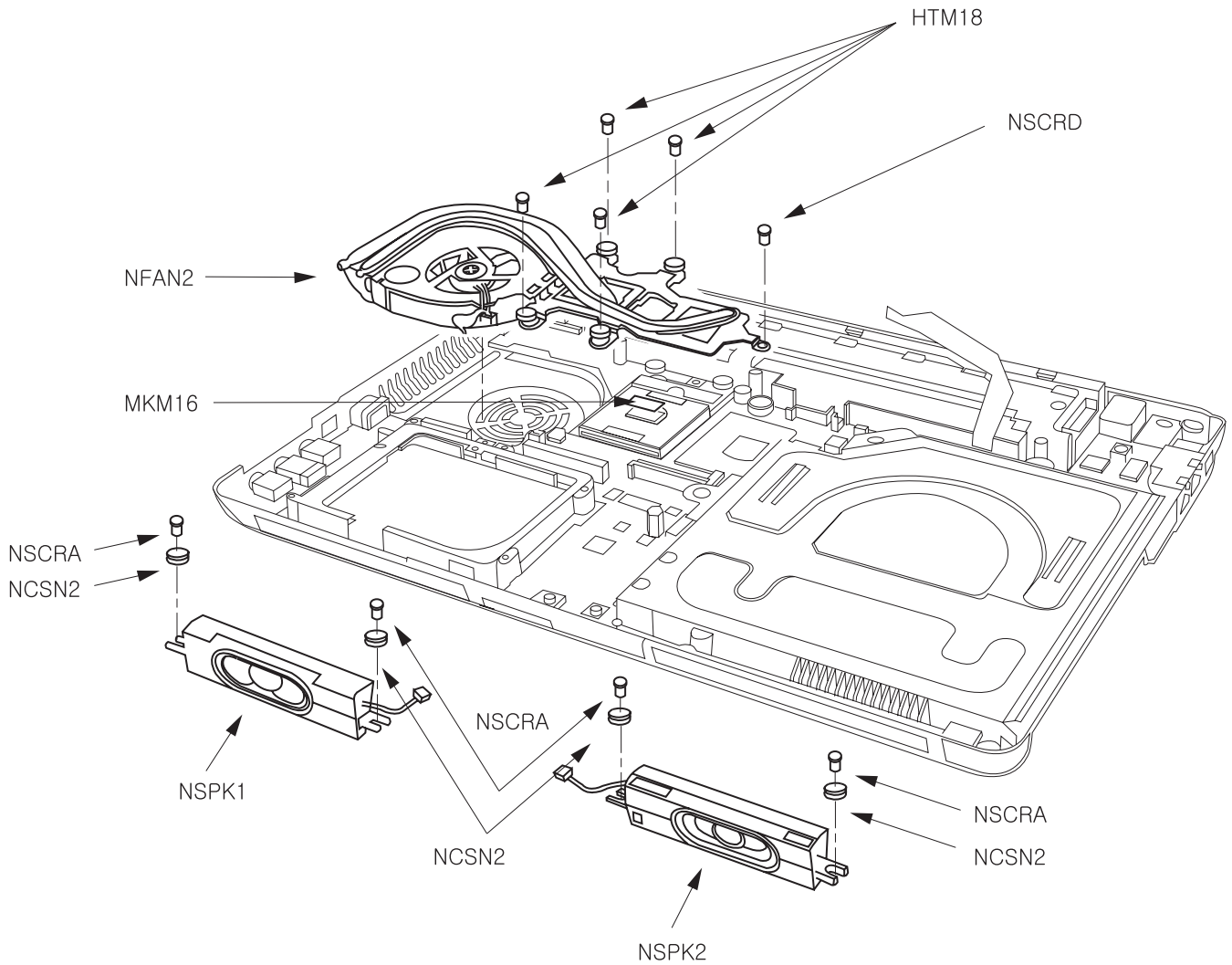| Location	LG P/N	SPECIFICATION	REMARKS
NKBD2	3823B01150B	KOREA WINDRIVER SUNREX 84KEY SILVER	KBD ASSEMBLY
NKBD2	3823B01151B	US ENGLISH WINDRIVER SUNREX 84KEY SILVER	KBD ASSEMBLY
NKBD2	3823B01152A	US INTER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01152B	US INTER SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01153A	RUSSIA WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01153B	RUSSIA SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01154A	ARABIC WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01154B	ARABIC SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01155A	SPANISH WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01155B	SPANISH SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01156A	PORTUGUESE WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01156B	PORTUGUESE SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01157A	HEBREW WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01157B	HEBREW SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01158A	TURKISH WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01158B	TURKISH SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01159A	GERMAN WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01159B	GERMAN SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01160A	CANADIAN FRENCH WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01160B	CANADIAN FRENCH SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01161A	HUNGARY WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01161B	HUNGARY SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01162A	BRAZIL WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01162B	BRAZIL SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01163A	ITALY WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01163B	ITALY SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01164A	SWEDEN FINLAND WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01164B	SWEDEN FINLAND SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01165A	DENMARK WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01165B	DENMARK SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01166A	FRENCH WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01166B	FRENCH SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01167A	NORWAY WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01167B	NORWAY SILVER WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01168A	TAIWAN WINDRIVER SUNREX	KBD ASSEMBLY
NKBD2	3823B01168B	TAIWAN SILVER WINDRIVER SUNREX	KBD ASSEMBLY

Location	LG P/N	SPECIFICATION	REMARKS
NSCR7	1SZZBA4097B	+ D4.5 L6.5MM SWRH4 M2.5 H1.0 BK HUNTER TIP NO.0 ROHS 160	SCREW,DRAWING

Location	LG P/N	SPECIFICATION	REMARKS
LUS08	1SZZBA4080A	+ D4.0 L4.0MM SWRH4 M2 H1.0 SILVER K2 TIP#0	SCREW,DRAWING
NRTC1	6911B00125A	160MHA CR2025 SONY LI-ION COIN WINDRIVER RTC ASSY	BATTERY ASSEMBLY
NCSE4	3111B0TS79A	WINDRIVER KBD DECK ASS Y	CASE ASSEMBLY

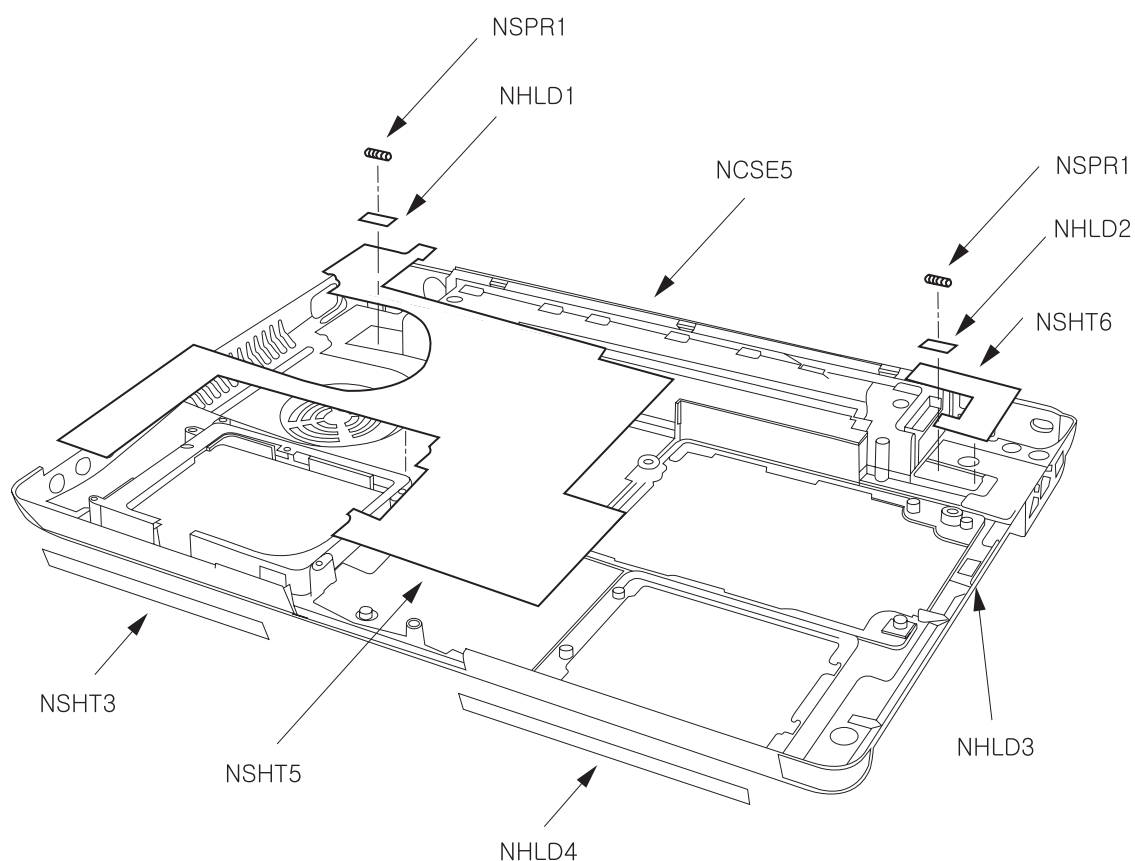| Location	LG P/N	SPECIFICATION	REMARKS
NSUB2	6871BWRG0AA	N LGE 4 LAYERS REV0.5 WINDRIVER PILOT AUDIO BD ASSY PB FREE	PWB(PCB) ASSEMBLY,SUB
LUS08	1SZZBA4080A	+ D4.0 L4.0MM SWRH4 M2 H1.0 SILVER K2 TIP#0	SCREW,DRAWING
NCAB3	6850B32001A	AWM 20696 80C VW-1 32 . 36X16.5, 0.5PITCH KFC WINDRIVER, AUDIO BD TO MAIN BD	CABLE CONNECTING
NCSN8	3610BM4034A	WINDRIVER RUBBER MIC .	FOOT

Location	LG P/N	SPECIFICATION	REMARKS
NFAN2	5901B09287A	THERMAL FAN ASSY WINDRIVER TOSHIBA	FAN ASSEMBLY
MKM16	5022BZ4025A	THERMAL PCS-TC-11-T-13 19X19MM T130UM ZEBRA-2(MOBILE) GRAY K=4.7(W/M-C)	PAD
NSPK1	6401B02547A	. ESTEC 1.5W . . SPEAKER L WINDRIVER	SPEAKER
NSPK2	6401B02546A	. ESTEC 1.5W . . SPECKER R WINDRIVER	SPEAKER
NSCRA	1SZZBZ4027A	+ D8.0 L6.5MM MSWR3 / FN SPEAKER SILVER WINDRIVER SPEAKER SCREW	SCREW DRAWING
NSCRD	1SZZBZ4014C	Screw, M2.0xL5.0bk	SCREW,DRAWING
NCSN2	3610BM4033A	WINDRIVER RUBBER SPEAKER CUSHION	FOOT
HTM18	1SZZBZ4020A	+ D4.0 L8.8MM SWRH4 FAN ASSEMBLY SILVER MCKINLEY L(10.0) WITH HEAD LENGTH TIP#0	SCREW DRAWING
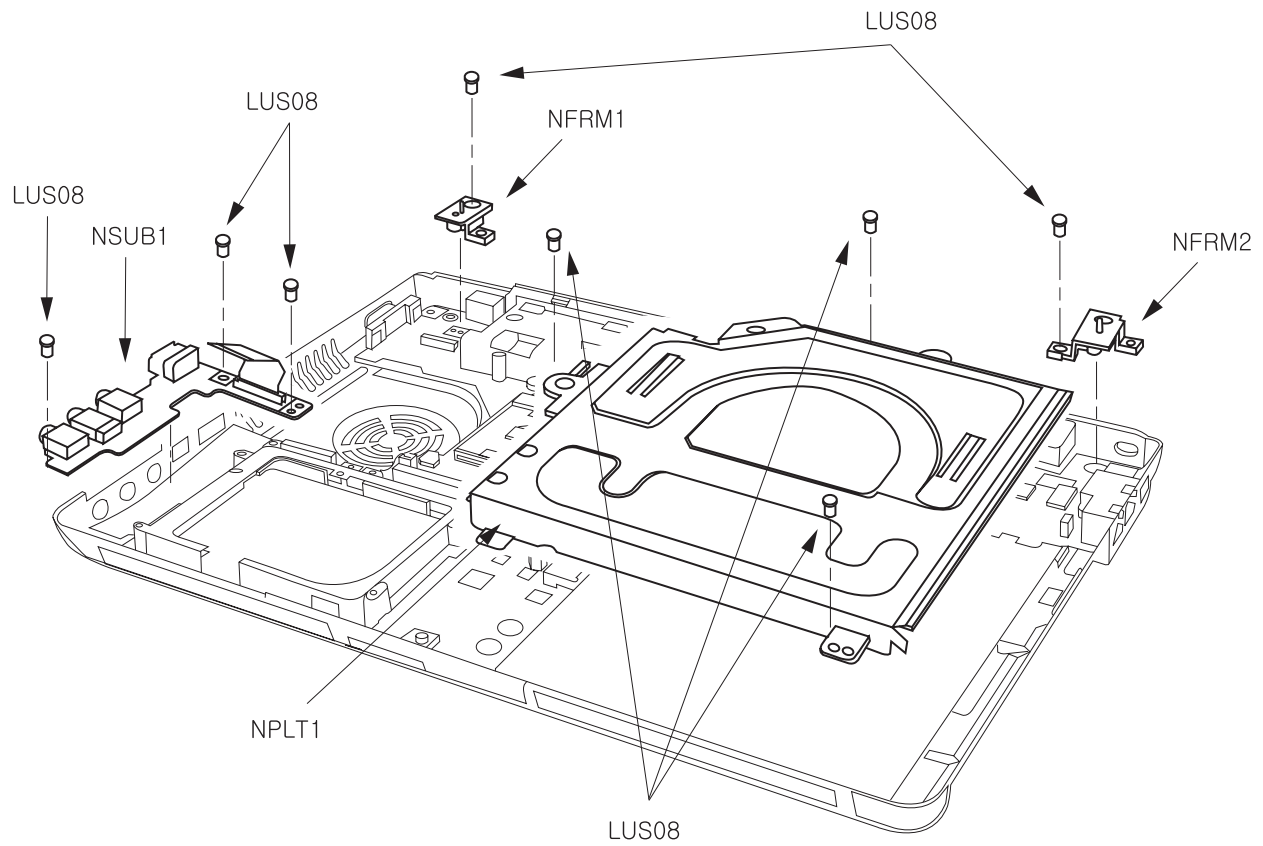
Location	LG P/N	SPECIFICATION	REMARKS
LUS08	1SZZBA4080A	+ D4.0 L4.0MM SWRH4 M2 H1.0 SILVER K2 TIP#0	SCREW,DRAWING
NSUB1	6871BWRG3PB	SUB / N WIMTEC 4 LAYERS REV0.5 WINDRIVER	PWB(PCB)
		MP I/O JACK SUB B/D ASSY PB FREE	ASSEMBLY
NPLT1	3300BP3520A	PLATE WINDRIVER ODD BAY	PLATE
NFRM1	3110BM3037A	WINDRIVER ZN HINGE FRAME L	CASE
NFRM2	3110BM3036A	WINDRIVER ZN HINGE FRAME R	CASE
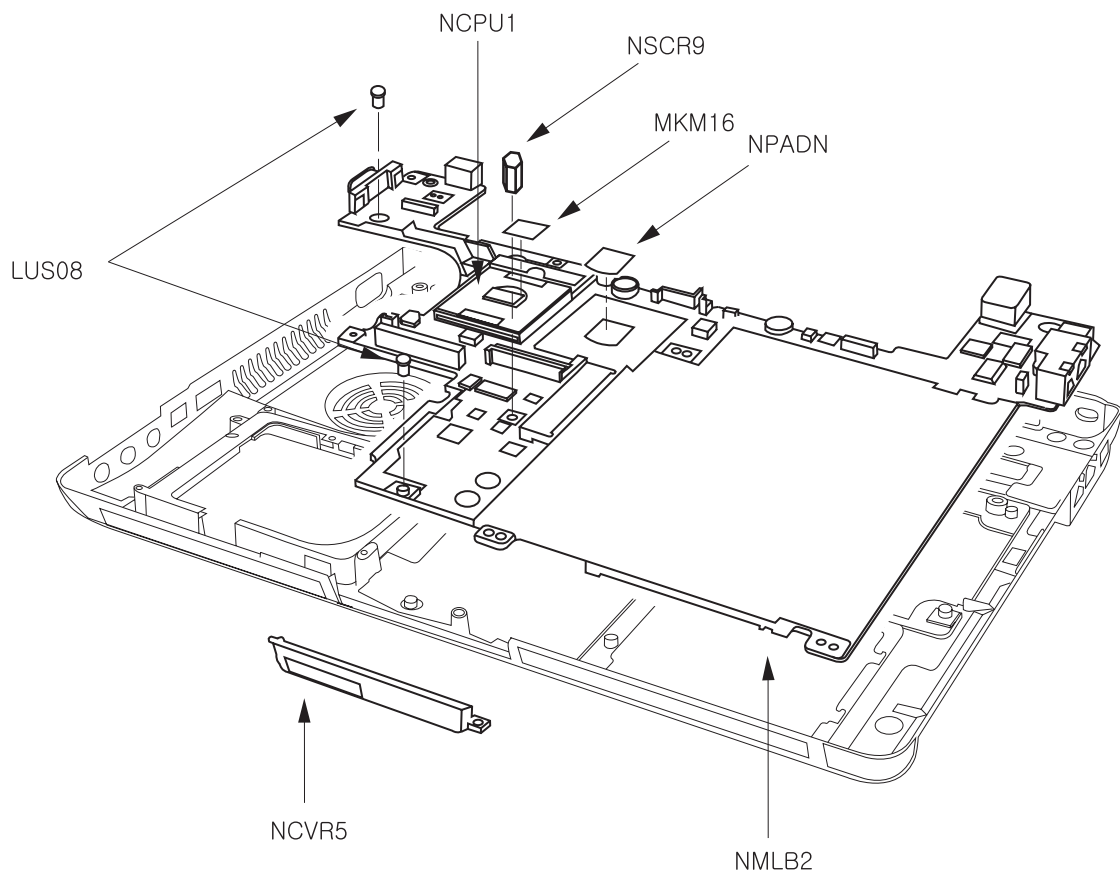
NCPU1

NSCR9

MKM16

NPADN

LUS08

NCVR5

NMLB2

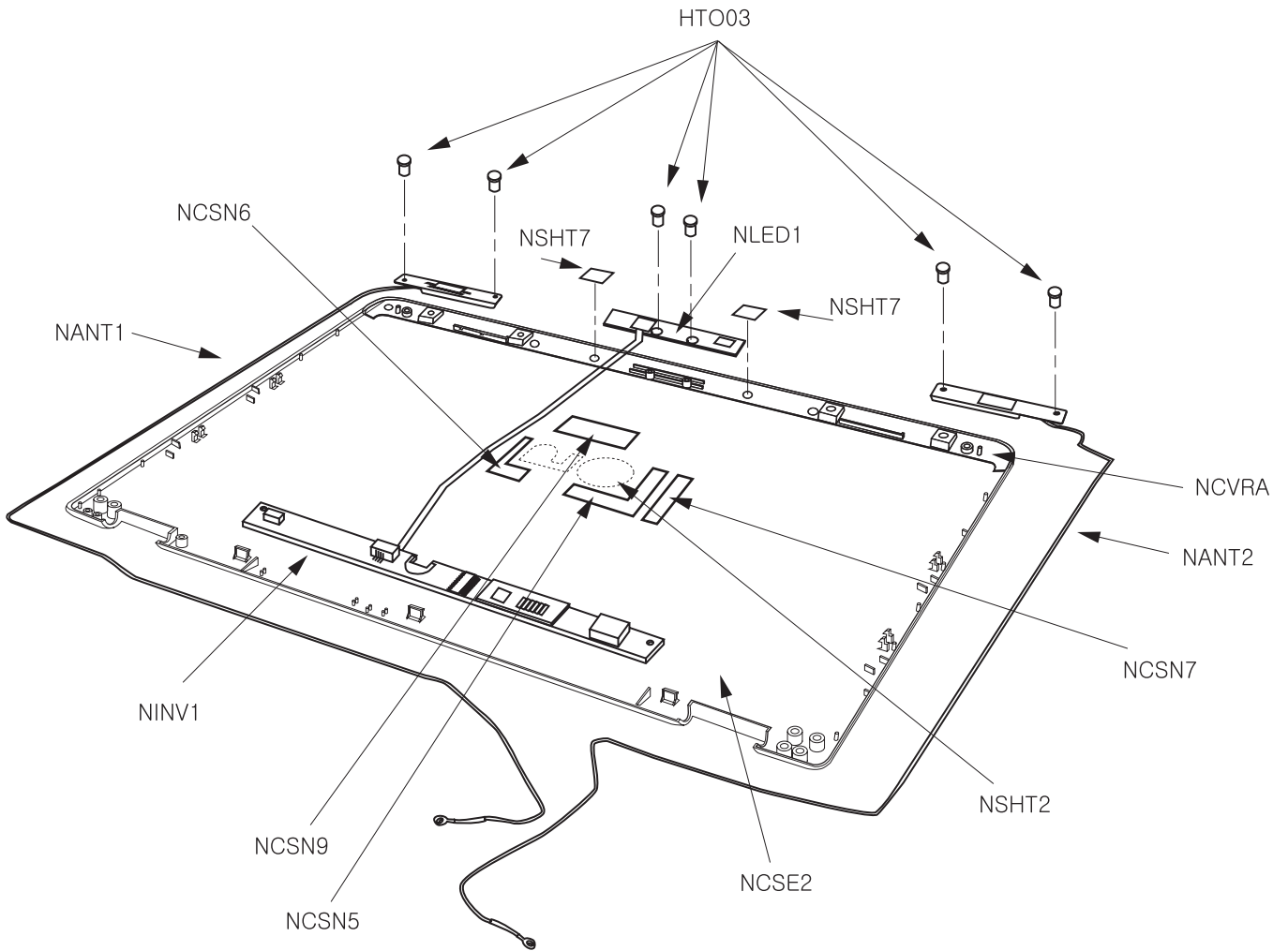| Location	LG P/N	SPECIFICATION	REMARKS
LUS08	1SZZBA4080A	+ D4.0 L4.0MM SWRH4 M2 H1.0 SILVER K2 TIP#0	SCREW,DRAWING
NCPU1	0IMCR00003A	RH80536GE0462M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 770 2.13GHZ/800MHZ C0-STEPPING(SL7SL)	IC,MICRO CONTROLLER
NCPU1	0IMCR00005A	RH80536GE0412M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 760 2.00GHZ/800MHZ C0-STEPPING(SL7SM)	IC,MICRO CONTROLLER
NCPU1	0IMCR00007A	RH80536GE0362M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 750 1.86GHZ/800MHZ C0-STEPPING(SL7S9)	IC,MICRO CONTROLLER
NCPU1	0IMCR00009A	RH80536GE0302M LG INTEL 478P UFCPGA TRAY NT CPU PENTIUM-M 740 1.73GHZ/800MHZ C0-STEPPING(SL7SA)	IC,MICRO CONTROLLER
NSCR9	1SZZBA4101A	HEXAGON D2.0 L11.5MM BSP, BSW HEXA SAMWON YL WINDRIVER M2 H6.0MM INNER	SCREW,DRAWING
MKM16	5022BZ4025A	THERMAL PCS-TC-11-T-13 19X19MM T130UM ZEBRA-2(MOBILE) GRAY K=4.7(W/M-C)	PAD
NPADN	5022BZ4027A	THERMAL SILICON 12X12MM, 0.5T HUNTER COH2003, DARK ORANGE, CONDUCTIVIEY 3.5W/MK, NORTHBRDIGE	PAD
NCVR5	3551B90005A	WINDRIVER . 4 IN 1 ASSY	COVER
NMLB2	6871BWRGBAA	N LGE 10 LAYERS REV 0.5 WINDRIVER MP GIGA MAIN B/D ASSY	PWB(PCB) ASSEMBLY,MAIN
NMLB2	6871BWRTBAA	N LGE 10 LAYERS REV 0.5 WINDRIVER MP 10/100 MAIN B/D ASSY	PWB(PCB) ASSEMBLY,MAIN

Location	LG P/N	SPECIFICATION	REMARKS
NSHT3	3858BP4482A	. WINDRIVER SPEAKER GRILL LEFT	SHEET (MECH)
NSHT5	3858BZ3038A	. WINDRIVER SHEET INSULATION BOTTOM	SHEET (MECH)
NSHT6	3858BZ4498A	. WINDRIVER SHEET INSULATION BOTTOM RIGHT	SHEET (MECH)
NCSE5	3110BD0020A	WINDRIVER MG BOTTOM CASE	CASE
NHLD1	4930BM4045A	WINDRIVER PCABS BATTERY KNOB HOLDER LEFT	HOLDER
NHLD2	4930BM4046A	WINDRIVER PCABS BATTERY KNOB HOLDER RIGHT	HOLDER
NHLD3	4930BM4047A	WINDRIVER PCABS DRIVE KNOB LOCK HOLDER	HOLDER
NHLD4	4930BM3101A	WINDRIVER RUBBER HDD HOLDER	HOLDER
NSPR1	4970BW4570A	WD0.25MM ID3.0MM N9 L11.0MM 0.6KGF WINDRIVER BATEERY SPRING	SPRING,COIL
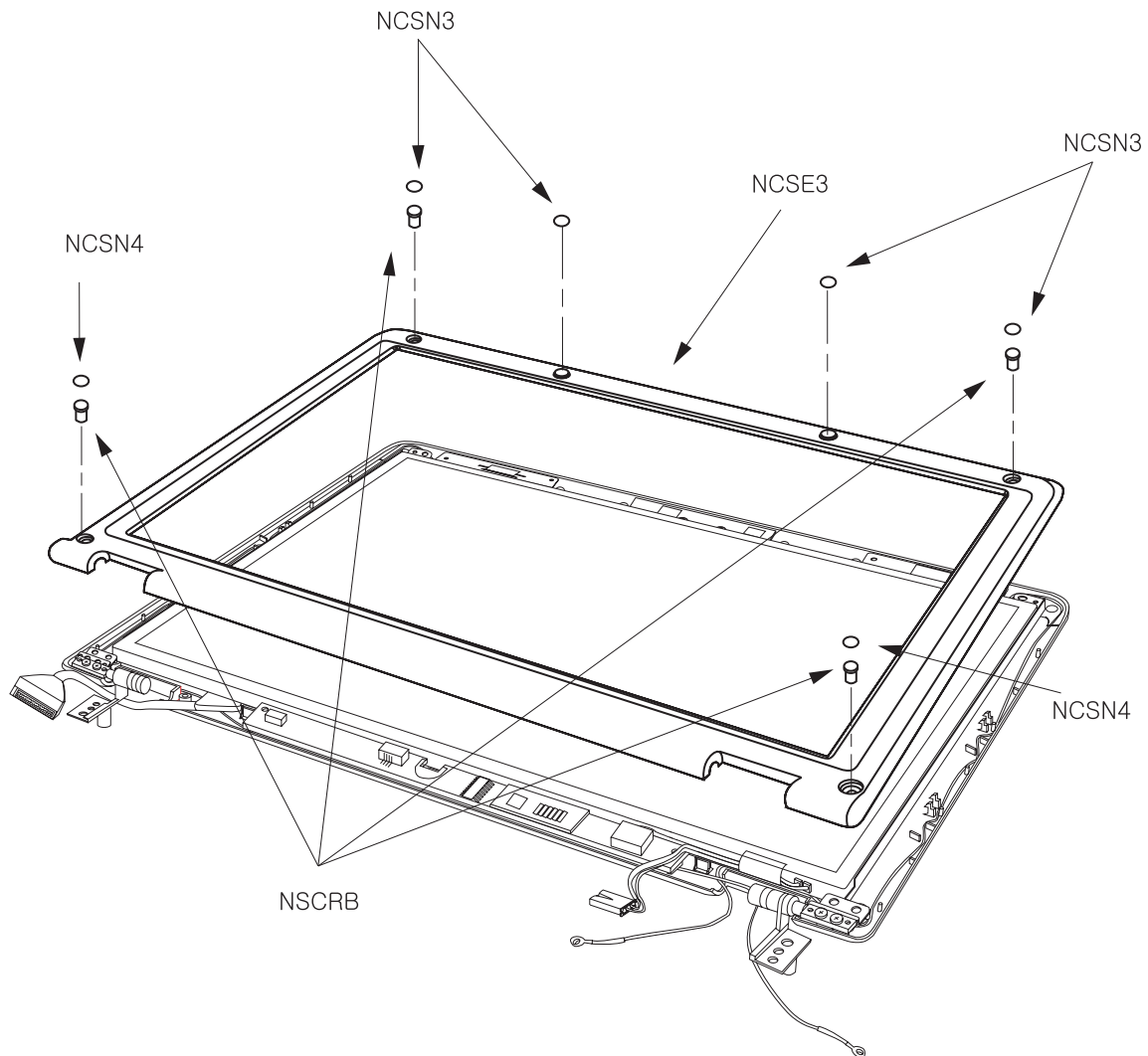
Location	LG P/N	SPECIFICATION	REMARKS
NSCRB	1SZZBA4104A	+ D2.5 L4.5MM MSWR3 / FN . BK WINDRIVER .	SCREW,DRAWING
NCSN3	4850BP4067A	WINDRIVER RUBBER DISPLAY FRONT UPPER 12.1INCH	CUSHION
NCSN4	4850BP4068A	WINDRIVER RUBBER DISPLAY FRONT LOWER 12.1INCH	CUSHION
NCSE3	3111B97122A	WINDRIVER DISPLAY FRONT ASSY	CASE ASSEMBLY
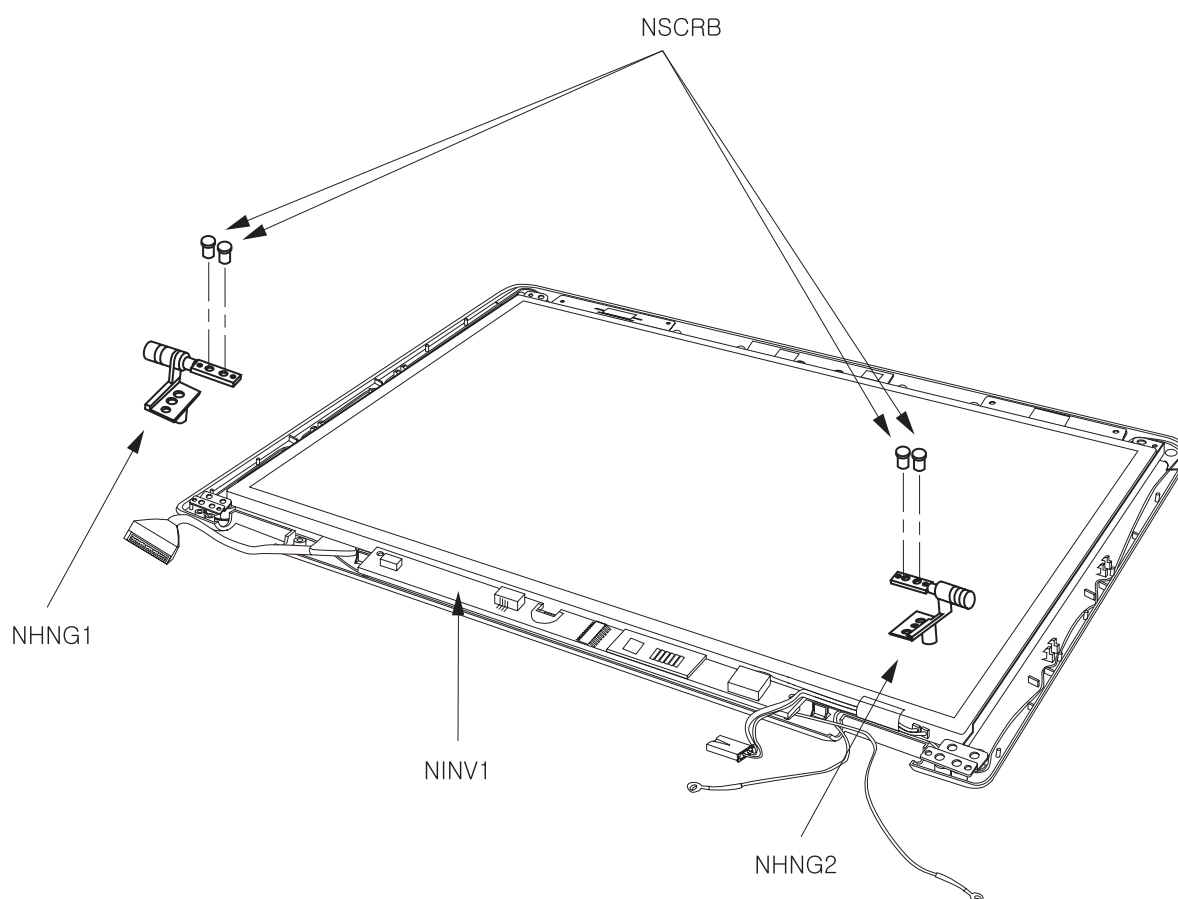
Location	LG P/N	SPECIFICATION	REMARKS
NSCRB	1SZZBA4104A	+ D2.5 L4.5MM MSWR3 / FN . BK WINDRIVER .	SCREW,DRAWING
NHNG1	4775B00058A	WINDRIVER 6.5 KGF-CM HINGE LEFT LATCHLESS 12.1INCH	HINGE ASSEMBLY
NHNG2	4775B00057A	WINDRIVER 6.5 KGF-CM HINGE RIGHT LATCHLESS 12.1INCH	HINGE ASSEMBLY
NINV1	6708BI0096A	KUBNKM106A ALPS GENERAL GENERAL GENERAL WINDRIVER OZ9910	POWER SUPPLY INVERTER
NINV1	6708BI0097A	IM8822 NMB GENERAL GENERAL GENERAL WINDRIVER OZ964	POWER SUPPLY INVERTER

HTO03

NCSN6

NANT1

NSHT7

NLED1

NSHT7

NCVRA

NANT2

NINV1

NCSN7

NSHT2

NCSN9

NCSE2

NCSN5

Location	LG P/N	SPECIFICATION	REMARKS
HTO03	1SZZBA4041A	+ D3.5 L3.0MM SWRH4 DUMMY COVER FIX SILVER MAGELLAN DISPLAY	SCREW,DRAWING
NANT1	5011B00027A	HITACHI WIRELESS L WINDRIVER	ANTENNA
NANT2	5011B00026A	HITACHI WIRELESS R WINDRIVER	ANTENNA
NLED1	3680BM4092A	WINDRIVER PMMA LED DISPLAY 12.1INCH	LENS
NINV1	6708BI0096A	KUBNKM106A ALPS GENERAL GENERAL GENERAL WINDRIVER OZ9910	POWER SUPPLY INVERTER
NINV1	6708BI0097A	IM8822 NMB GENERAL GENERAL GENERAL WINDRIVER OZ964	POWER SUPPLY INVERTER
NCSN5	4850BP4071A	WINDRIVER EVA DISPLAY REAR CENTER	CUSHION
NCSN6	4850BP4072A	WINDRIVER EVA DISPLAY REAR LEFT	CUSHION
NCSN7	4850BP4073A	WINDRIVER EVA DISPLAY REAR RIGHT	CUSHION
NCSN9	4850BP4078A	WINDRIVER EVA DISPLAY REAR LCD CONN	CUSHION
NSHT2	3858BP4480A	N WINDRIVER BADGE LG LOGO	SHEET (MECH)
NSHT7	3858BZ4511A	WINDRIVER LED PROTECT LIGHT	SHEET (MECH)
NCSE2	3111B97125A	WINDRIVER . CASE REAR SILVER LG LOGO	CASE ASSEMBLY
NCSE2	3111B97125B	WINDRIVER . CASE REAR BLUE LG LOGO	CASE ASSEMBLY
NCSE2	3111B97126A	WINDRIVER . CASE REAR SILVER X-NOTE LOGO	CASE ASSEMBLY
NCSE2	3111B97126B	WINDRIVER . CASE REAR BLUE X-NOTE LOGO	CASE ASSEMBLY
NCVRA	3550BM2102A	WINDRIVER PC COVER ANTENNA 12.1INCH	COVER
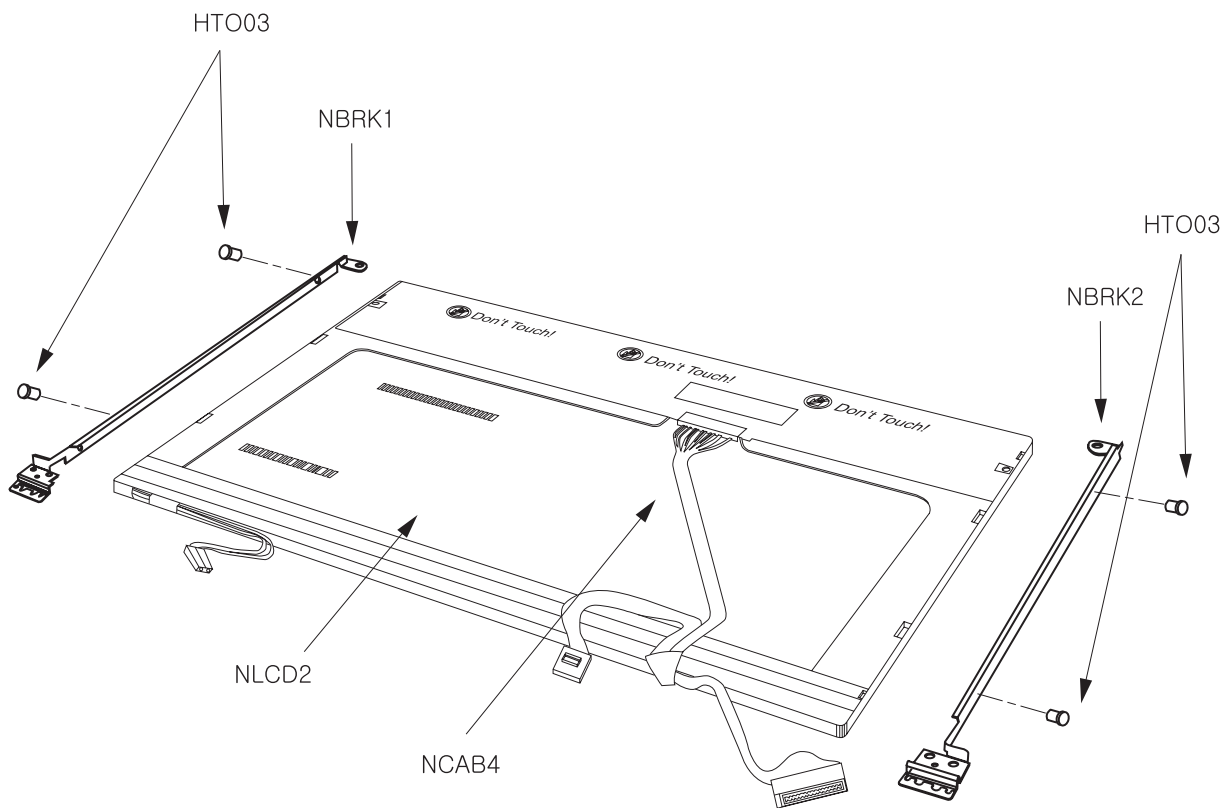
Location	LG P/N	SPECIFICATION	REMARKS
HTO03	1SZZBA4041A	+ D3.5 L3.0MM SWRH4 DUMMY COVER FIX SILVER MAGELLAN DISPLAY	SCREW,DRAWING
NBRK1	4810BP3353A	WINDRIVER SUS LCD LEFT 0.5T 12.1INCH	BRACKET
NBRK2	4810BP3354A	WINDRIVER SUS LCD RIGHT 0.5T 12.1INCH	BRACKET
NCAB4	6851B34039A	LCD CABLE 100X147 25 WINDRIVER, WANSHIH	CABLE ASSEMBLY
NLCD2	6304FCI010A	N121I1-L02 CHIMEI TFT COLOR 12.1 INCH WXGA 1280X800 LVDS 200NITS GLARE	LCD