

Machine Disassembly and Replacement

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

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat-bladed screw driver
- Phillips screw driver
- Tweezers
- Plastic Flat-bladed screw driver
- Hexed Screw Driver

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

General Information

Before You Begin

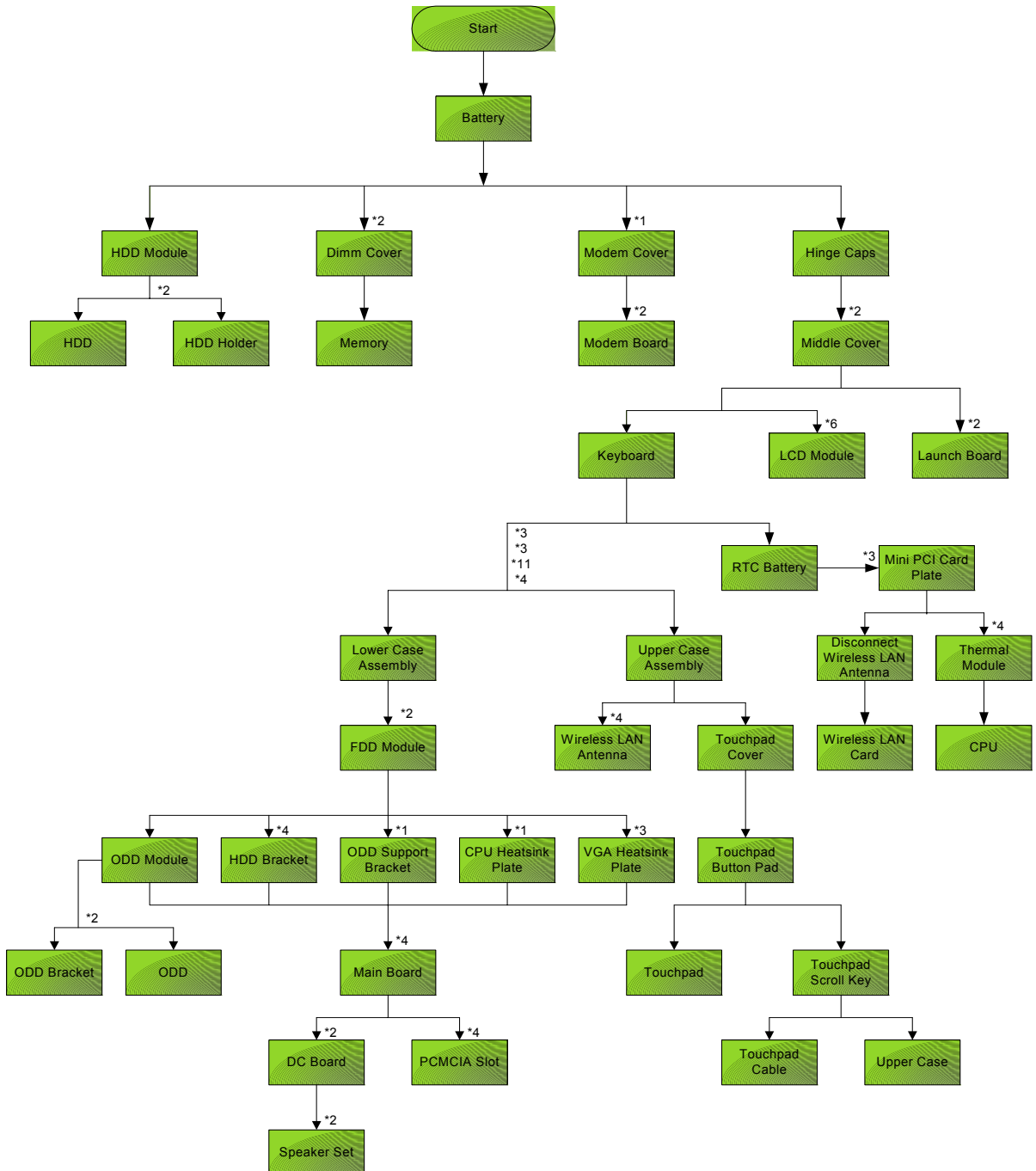
Before proceeding with the disassembly procedure, make sure that you do the following:

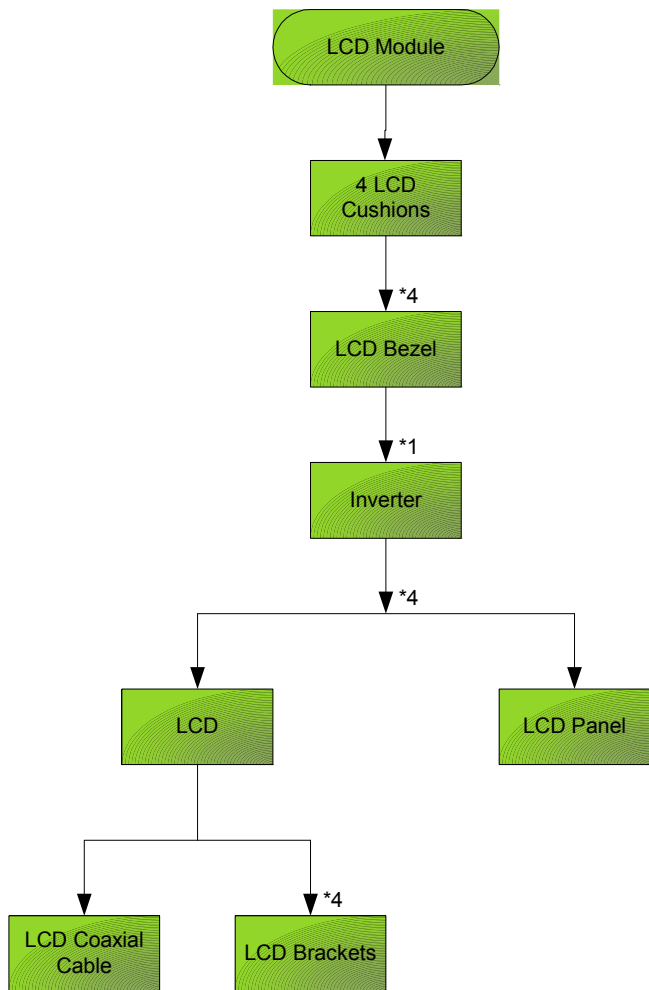
1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system

NOTE: Aspire 9100 series product uses mylar or tape to fasten the FFC/FPC/connectors/cable, you may need to tear the tape or mylar before you disconnect different FFC/FPC/connectors.

Disassembly Procedure Flowchart

The flowchart on the succeeding page gives you a graphic representation on the entire disassembly sequence and instructs you on the components that need to be removed during servicing. For example, if you want to remove the main board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.





Screw List

| Item | Description |
|------|-----------------------------------|
| A | SCREW F040 9 5.0X5.0 9.5X(IO) R00 |
| B | SCREW M2.0X0.4P+3FP ZK(NL) |
| C | SCREW M2.5 K 5/2 X0.85 4 ZK(NL) |
| D | SCREW M2.5X0.45+10K NIL |
| E | SCREW M2.5X0.45+8K ZBL |
| F | SCREW M2.5X0.45P+3F NI |
| G | SCREW M3.0X0.8P+3K NL |

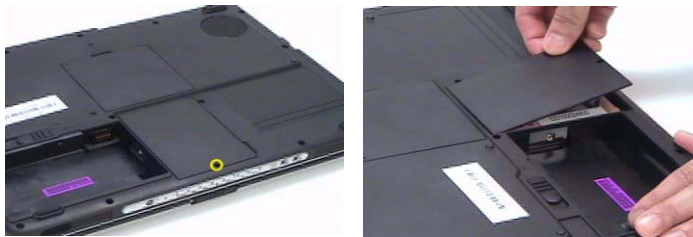
Removing the Battery

1. Unlatch the battery latch then remove the battery.

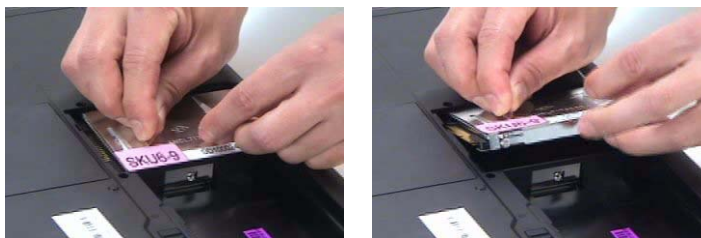


Removing the Hard Disc Drive Module

1. See "Removing the Battery" on page 50.
2. Remove the screw securing the hard disk drive (HDD) cover.
3. Then remove the HDD cover.



4. Pull the HDD module backwards as shown.
5. Remove the HDD module.



Disassembling the Hard Disc Drive Module

1. Remove two screw securing the HDD bracket.
2. Remove the other two screw on the other side.
3. Take out the HDD from the HDD bracket.



Removing the Optical Disc Drive Module

1. See “Removing the Battery” on page 50.
2. See “Removing the Hard Disc Drive Module” on page 50.
3. Remove the screw securing the optical disc drive (ODD) module.
4. Push the ODD module outwards with a flat headed screw driver.
5. Then remove the ODD module.



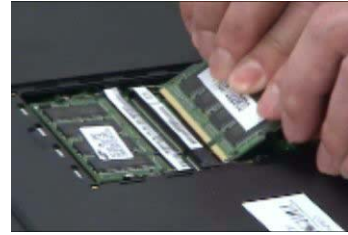
Disassembling the Optical Disc Drive Module

1. Remove two screws securing the ODD bracket.
2. Then remove the ODD bracket.



Removing the Memory

1. See “Removing the Battery” on page 50.
2. Remove the two screws securing the DIMM cover then remove the DIMM cover.
3. Pop out the memory.
4. Then remove the memory from the DIMM socket.



Removing the LCD Module

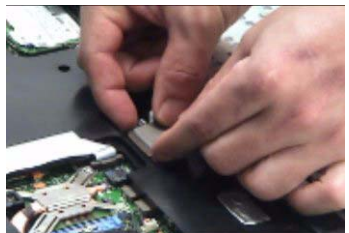
Removing the Middle Cover

1. See “Removing the Battery” on page 50.
2. Open the notebook as image shows.
3. Detach the middle cover carefully then remove it.



Removing the Keyboard

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. Remove the four screws securing the keyboard.
4. Turn the keyboard over as shown.
5. Disconnect the keyboard cable then remove the keyboard.

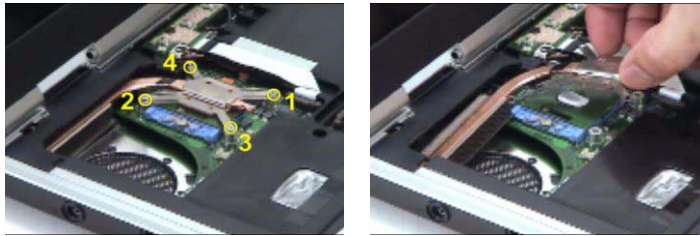


Removing the Fan, the CPU Thermal Module and the CPU

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. Remove the three screws securing the system fan.
5. Disconnect the fan cable.
6. Then detach the fan from the main unit.

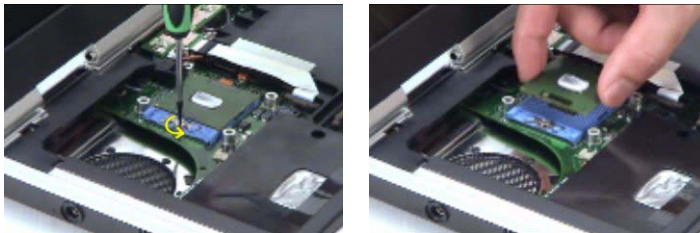


7. Remove the four screws securing the CPU thermal module.
8. Then remove the CPU thermal module.



NOTE: Please remove the screws in the order that the image indicates. Start from 4, 3, 2 then 1. When you reassemble the CPU thermal module, secure the screws as the order: 1, 2, 3 then 4. This can help you average the force to each screw, therefore the CPU module can be secured well.

9. Release the CPU lock with a flat headed screw driver.
10. Then detach the CPU from the socket carefully.



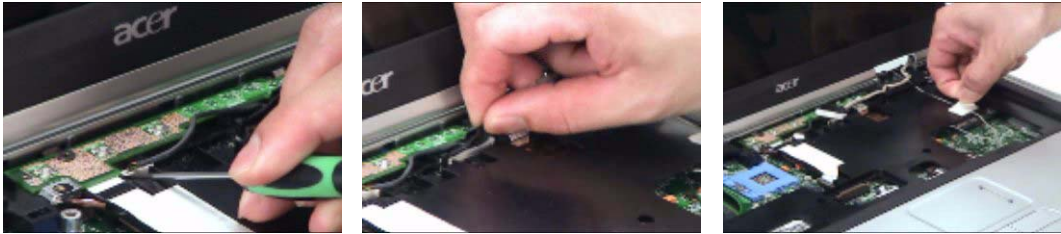
Removing the Wireless LAN Card

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. Pop out the wireless LAN card.
4. Disconnect the main and the auxiliary antennae.
5. Then remove the wireless LAN card from the main unit.



Removing the LCD Module

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. Disconnect the inverter cable with a flat headed screw driver.
5. Take out the LVDS cable then disconnect the LVDS cable.
6. Tear off the tape securing the wireless LAN antennae then release the antennae.



7. Remove the two screws securing the LCD module on the rear side.
8. Remove the two screws securing the LCD module on the bottom.
9. Then detach the LCD module carefully.



Disassembling the LCD Module

Removing the LCD Bezel

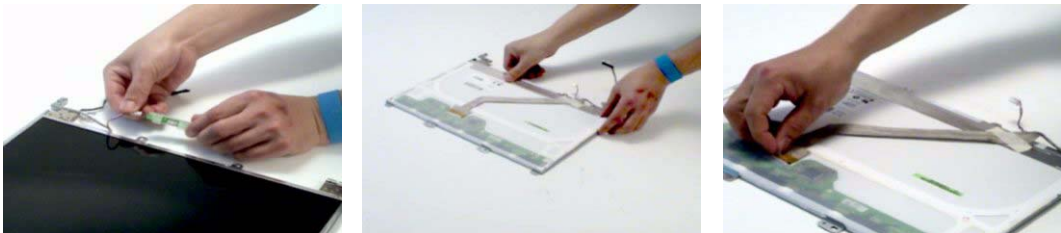
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Fan, the CPU Thermal Module and the CPU” on page 53.
5. See “Removing the Wireless LAN Card” on page 54.
6. See “Removing the LCD Module” on page 55.
7. Detach the two rubber pads and the two screw pads.
8. Remove the four screws securing the LCD bezel.
9. Detach the LCD bezel carefully.



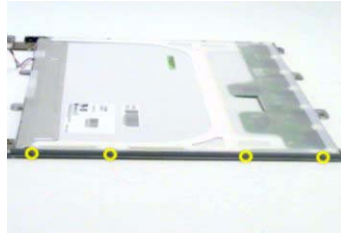
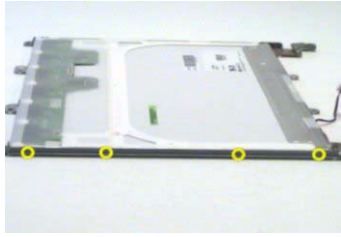
10. Remove the nine screws securing the LCD to the LCD panel.
11. Take out the LCD assembly from the LCD panel.
12. Disconnect the LCD inverter cable.



13. Disconnect the LCD inverter board.
14. Turn over the LCD.
15. Disconnect the LCD cable.



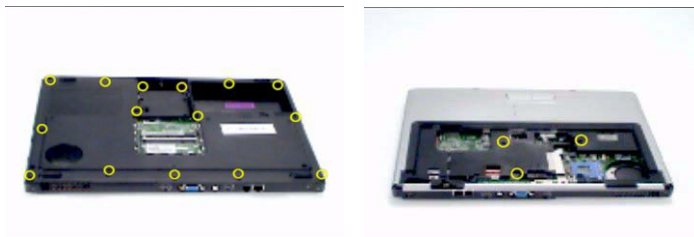
16. Remove the four screws securing the right LCD bracket, then remove the right bracket.
17. Remove the four screws securing the left LCD bracket, then remove the left bracket.



Disassembling the Main Unit

Removing the Upper Case Assembly

1. See “Removing the Battery” on page 50..
2. See “Removing the Hard Disc Drive Module” on page 50.
3. See “Removing the Optical Disc Drive Module” on page 51.
4. See “Removing the Memory” on page 51.
5. See “Removing the LCD Module” on page 53.
6. Remove the fifteen screws securing the lower case assembly and the upper case assembly on the bottom.
7. Remove the three screws securing the upper case assembly.

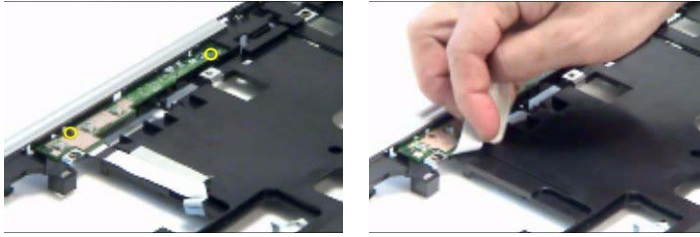


8. Disconnect the touchpad cable.
9. Disconnect the power board cable.
10. Then detach the upper case assembly.



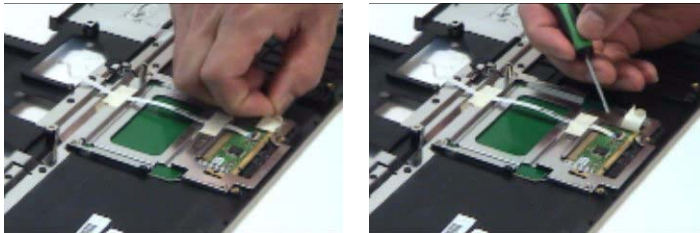
Removing the Power Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Hard Disc Drive Module” on page 50.
3. See “Removing the Optical Disc Drive Module” on page 51.
4. See “Removing the Memory” on page 51.
5. See “Removing the LCD Module” on page 53.
6. Remove the two screws securing the power board.
7. Tear off the tape holding the power board cable then remove the power board.

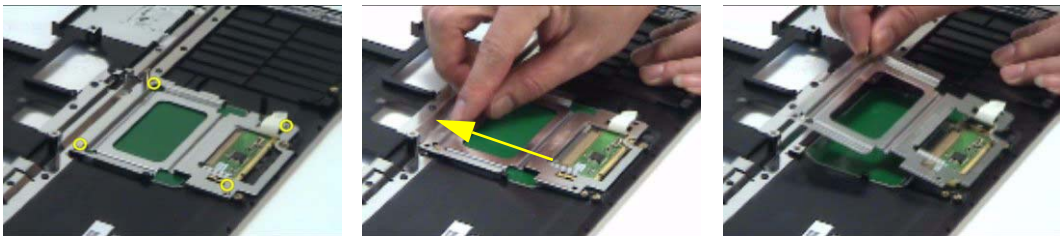


Removing the Touchpad Bracket, the Touchpad Board and the Touchpad

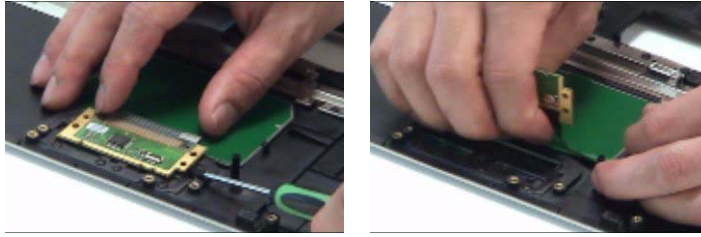
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. Pull back the tape covering the touchpad FFC.
7. Disconnect the touchpad FFC the remove it.



8. Remove the four screws securing the touchpad bracket.
9. Slide the touchpad bracket back as shown.
10. Then remove the touchpad bracket.



11. Use a flat headed screw driver to detach the touchpad board.
12. Then detach the touchpad carefully.

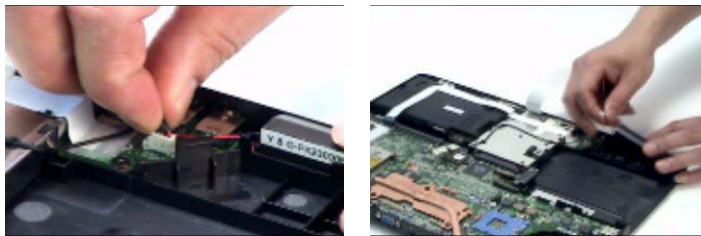


Removing the Speaker Set

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. Disconnect the SW DJ board cable.
7. Disconnect the CIR receiver cable.
8. Then disconnect the audio board FFC cable.



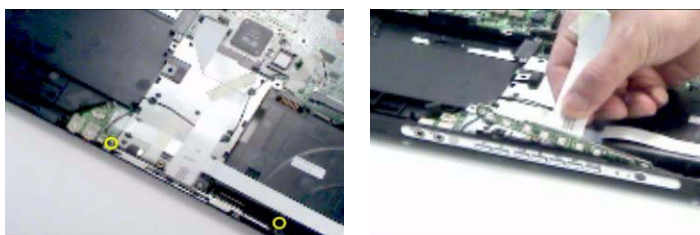
9. Disconnect the speaker set cable.
10. Then detach the speaker set from the lower case.



Removing the SW DJ Board Assembly

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. See “Removing the Speaker Set” on page 60.

7. Remove the two screws securing the SW DJ board assembly.
8. Remove the SW DJ board assembly from the lower case.



9. Remove the two screws securing the SW DJ board and SW DJ board bracket.
10. Then remove the SW DJ board.



Removing the Audio Board

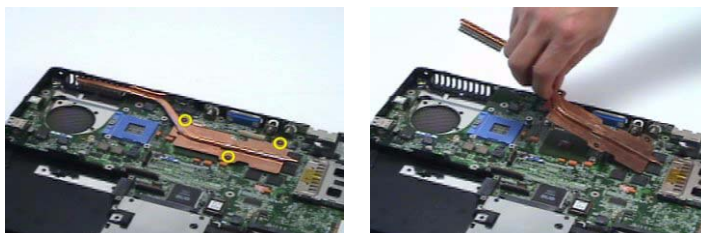
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. See “Removing the Speaker Set” on page 60.
7. See “Removing the SW DJ Board Assembly” on page 60.
8. Remove the screw securing the audio board.
9. Detach the audio board FFC.
10. Release the CIR receiver cable.
11. Then detach the audio board.



Removing the VGA Thermal Module

1. See “Removing the Battery” on page 50.

2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. Remove the three screws securing the VGA thermal module.
7. Then detach the VGA thermal module.



Removing the Modem Board

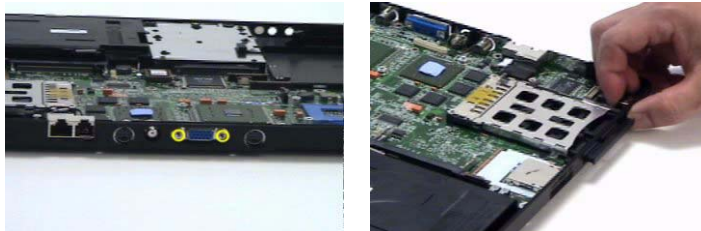
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. Remove the two screws securing the modem board.
7. Disconnect the modem board connector.
8. Disconnect the modem board cable then remove the board.



Removing the Main Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.
4. See “Removing the Power Board” on page 58.
5. See “Removing the Upper Case Assembly” on page 58.
6. See “Removing the Speaker Set” on page 60.
7. See “Removing the SW DJ Board Assembly” on page 60.
8. See “Removing the Audio Board” on page 61.
9. See “Removing the VGA Thermal Module” on page 61.

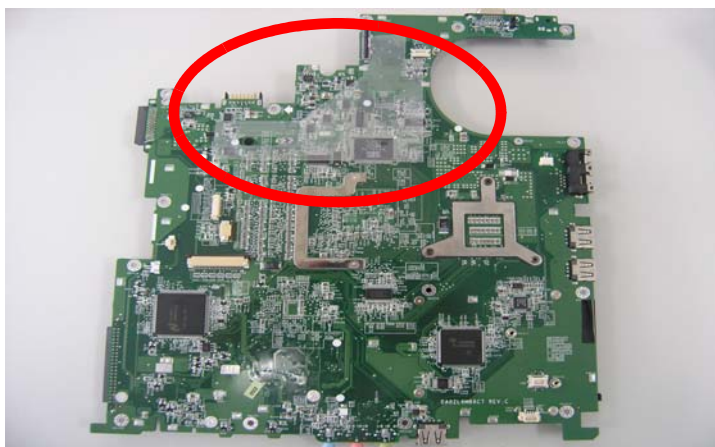
10. See “Removing the Modem Board” on page 62.
11. Remove the two nut screws securing the main board.
12. Press the PCMCIA card button.



13. Remove the dummy card.
14. Remove the two screws securing the main board to the lower case.
15. Then detach the main board from the lower case carefully.



IMPORTANT:When assembling/disassembling the main board, whenever there is a mylar on the main board (see the highlighted with red below; the mylar is semi-transparent, film-like stuff), it should be transferred “if necessary” to the replacement main board. Because the main board mylar should be stuck to the main board to prevent the antenna cable and the main board components short circuit. The short could cause the main board or the antenna cable burned.



Removing the Control Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 53.
3. See “Removing the Keyboard” on page 53.

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4. See “Removing the Power Board” on page 58.
 5. See “Removing the Upper Case Assembly” on page 58.
 6. See “Removing the Speaker Set” on page 60.
 7. See “Removing the SW DJ Board Assembly” on page 60.
 8. See “Removing the Audio Board” on page 61.
 9. See “Removing the VGA Thermal Module” on page 61.
 10. See “Removing the Modem Board” on page 62.
 11. See “Removing the Main Board” on page 62.
 12. Turn over the main board as shown.
 13. Disconnect the control board antenna.
 14. Pop out the control board then remove it.

