

## Machine Disassembly and Replacement

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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
- Small Philips screw driver
- Philips screwdriver
- Plastic flat head screw driver
- Tweezers

**NOTE:** The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components. When you remove the stripe cover, please be careful not to scrape the cover.

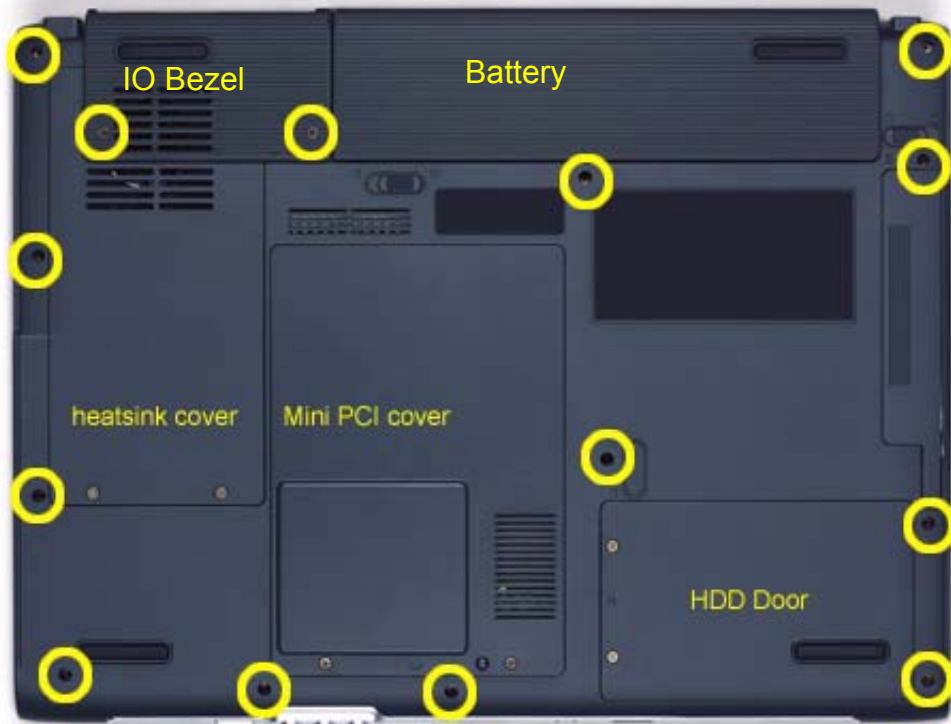
# General Information

## 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.
3. Remove the battery pack.

**NOTE:** The screws used to secure bottom case and upper case are more than one type. Please group same type of screw together as you disassemble the system for service purpose. The image below is for your reference. Please pay attention to the explanation below.



The screws that secure heatsink cover, Mini PCI cover and HDD cover are with the covers. There is no need to worry about mix them up. However, please notice that you have to group the screws on the following locations together. There are twenty screws holding the bottom case to upper case but some screws are inside the system. You may have to remove the HDD, the heatsink cover to see these screws. Mini PCI cover here also called RAM/Wireless cover.

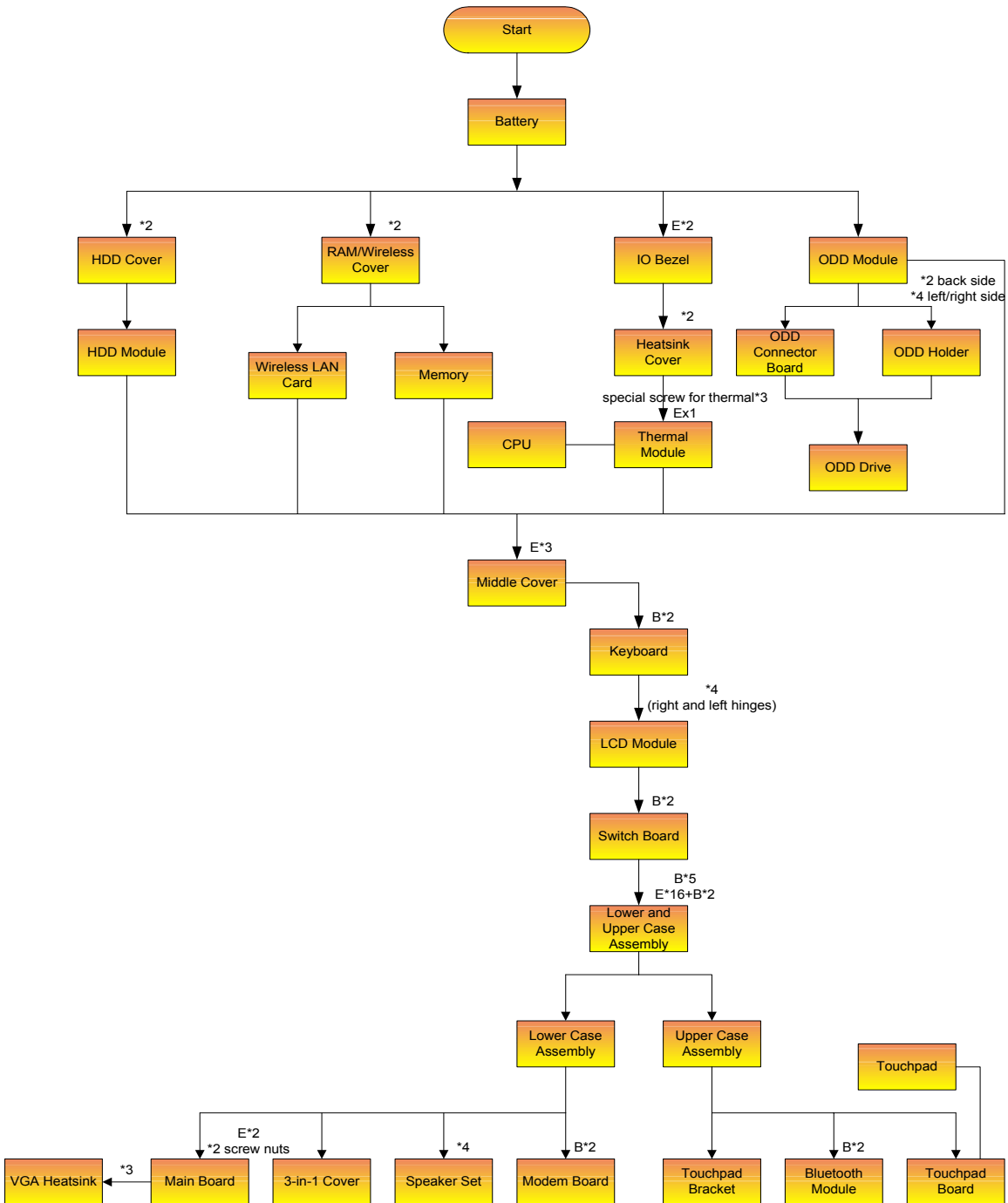
Screw Type	Location	Quantity
M2.5*6 (Part number: 86.T23V7.010)	Bottom case and IO bezel (highlight with yellow circle)	14

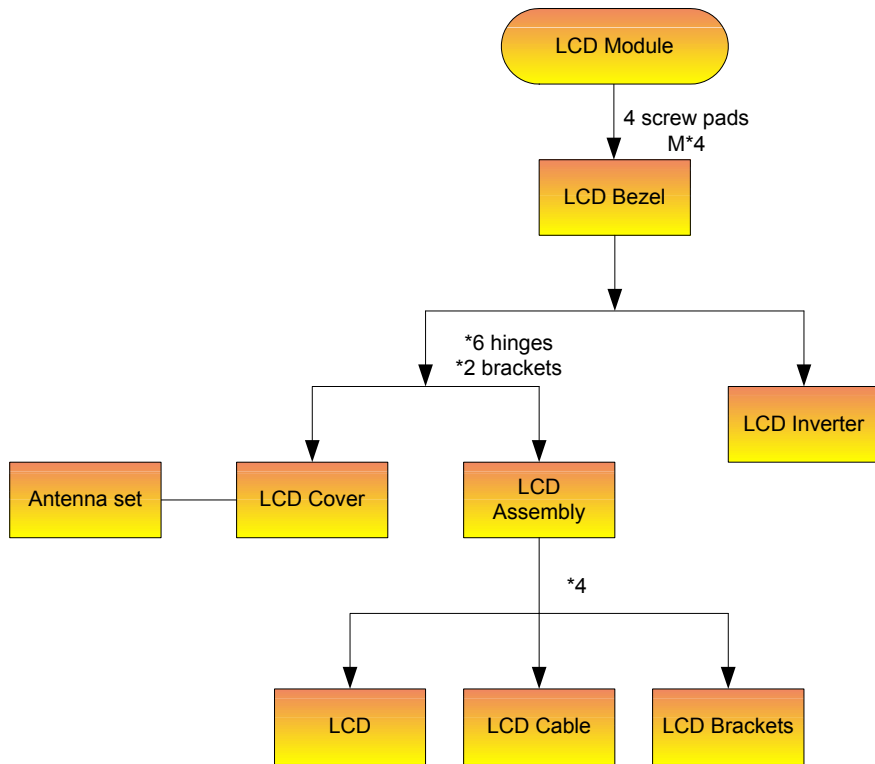
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Screw Type	Location	Quantity
M2.5*6 (Part number: 86.T23V7.010)	Remove the IO bezel then you will see.	2
M2.5*6 (Part number: 86.T23V7.010)	Remove the heatsink cover then you will see.	1
M2.5*6 (Part number: 86.T23V7.010)	Remove the HDD cover then you will see.	1
M2.5*3 (Part number: 86.T25V7.012)	Detach the HDD module then you will see.	1
M2.5*3 (Part number: 86.T25V7.012)	Remove the battery then you will see.	1

# 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 system board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.





### Screw List

Item	Description
A	SCREW M2.0X3.0-I-NI-NYLOK
B	SCREW I2.5*3M-BNIH(M2.5L3)
C	SCREW M2.5*4L-BZN-NYLOK
D	SCREW M2.0X5-I-NI-NYLOK
E	SCREW MM25060IL69
F	SCREW M2.0*5-I(NI)(NYLOK)
G	SCREW M2.0X2.5-I-NI-NYLOK
H	SCREW I2*3M-NIHY (M2L3)
I	SCREW M1.7*3.0-I (BK)
J	SCREW I3*3.5M-NIH(M3L3.5)

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## Removing the Battery Pack

1. Unlock the battery lock.
2. Slide the battery latch as shown then remove the battery pack.



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# Removing the HDD Module/the Memory and the Wireless LAN Card/the Thermal Module and the CPU/ODD Module and LCD Module

## Removing the HDD Module

1. Remove the two screws holding the HDD cover.
2. Remove the HDD cover.
3. Detach the HDD module then remove it.



## Removing the Memory and the Wireless LAN Card

1. Remove the two screws that secure the RAM/Wireless cover.
2. Remove the RAM/Wireless cover.

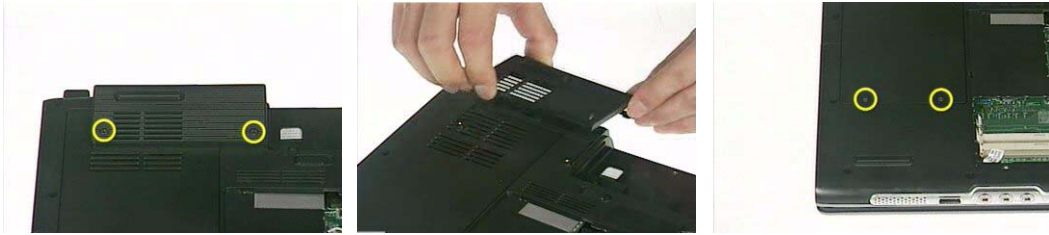


3. Pop up the memory then remove it.
4. Disconnect the auxiliary and the main wireless antennae.
5. Pop the wireless LAN card then remove it.

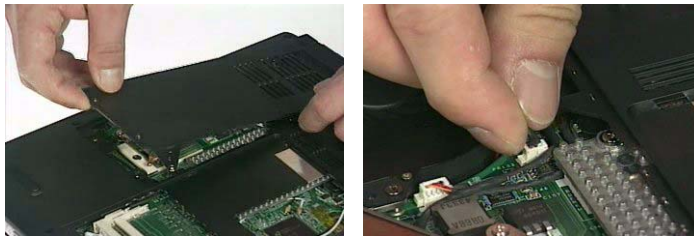


## Removing the Thermal Module and CPU

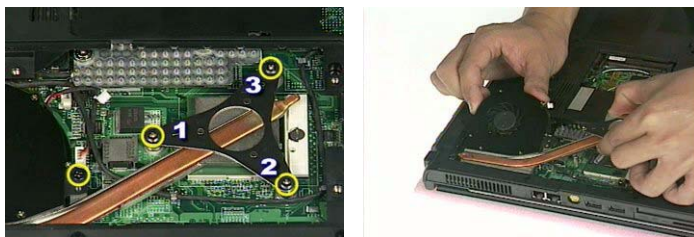
1. Remove the two screws holding the IO bezel.
2. Then remove the IO bezel.
3. Remove the two screws that secure the heatsink cover.



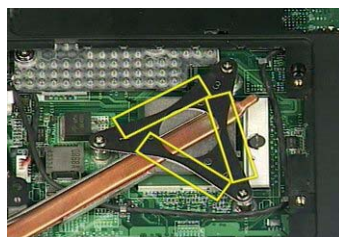
4. Remove the heatsink cover from the main unit.
5. Disconnect the fan cable.



6. Remove the four screws that secure the thermal module.
7. Pull the thermal module outwards then remove it.

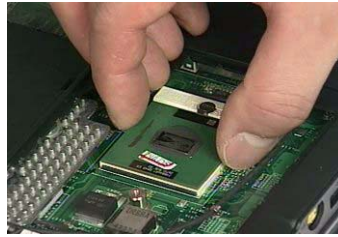
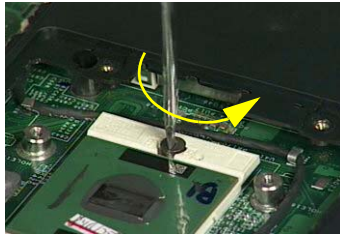


**NOTE:** The edge of the thermal module as shown is very sharp. Be very careful as you remove the thermal module.



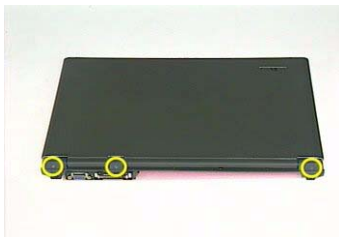
8. Use a flat-bladed screwdriver to release the CPU lock.
9. Remove the CPU from the socket carefully.



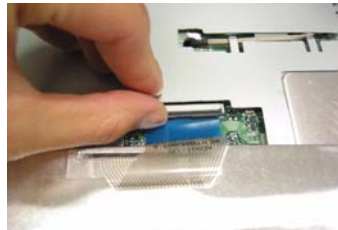


## Removing the ODD Module

1. Remove the three screws holding the middle cover.
2. Detach the middle cover carefully.

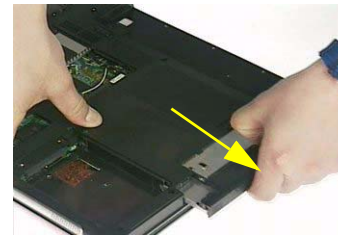
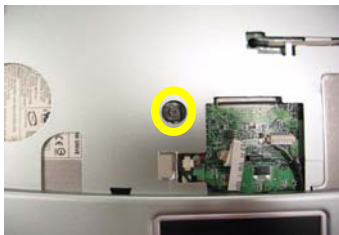


3. Turn over the keyboard as shown.
4. Disconnect the keyboard cable from the main board then remove the keyboard.



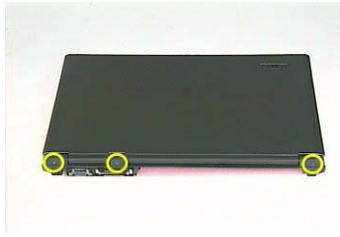
5. Remove the screw that fastens the ODD module.
6. Turn over the notebook computer then detach the ODD module carefully.

**NOTE:** When you reattach the ODD, please make sure you attach the ODD module completely to the main unit. Otherwise, you can not fasten the screw and the screw may damage the main board.

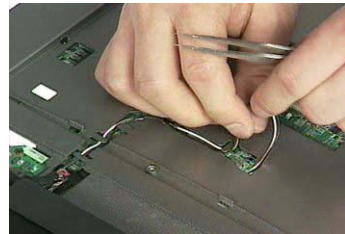
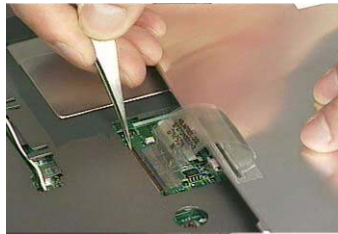


## Removing the LCD Module

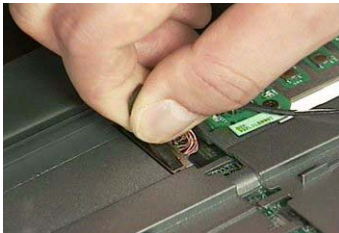
1. Remove the three screws holding the keyboard cover.
2. Open the LCD module as the picture shown then detach the keyboard cover from the main unit.



3. Remove the two screws that secure the keyboard as shown.
4. Turn over the keyboard as shown and disconnect the keyboard cable then remove the keyboard.
5. Pull out the antenna set with a tweezers then take out the antenna set from the main unit.



6. Disconnect the LCD coaxial cable.
7. Remove the four screws holding the right and the left hinge. Two on each side.
8. Then detach the LCD module from the main unit.



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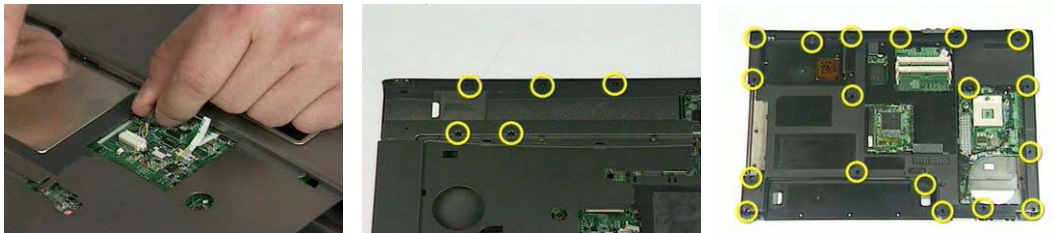
## Disassembling the Main Unit

### Separate the Main Unit Into the Upper and the Lower Case Assembly

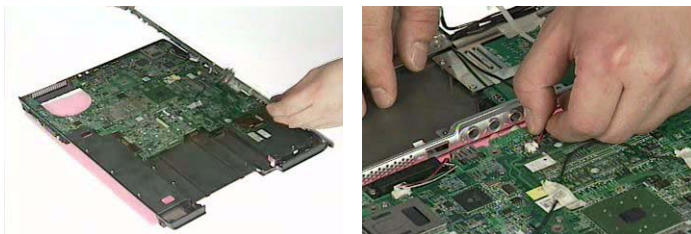
1. Remove the two screws holding the switch board.
2. Remove the switch board.
3. Disconnect the touchpad FFC from the main board.



4. Disconnect the bluetooth cable.
5. Remove the five screws that secure the upper case.
6. Remove the eighteen screws on the bottom as shown.



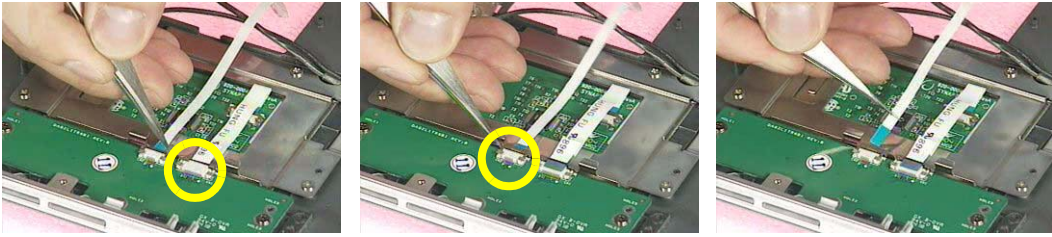
7. Detach the upper case assembly and place it next to the lower case assembly.
8. Disconnect the microphone cable then remove the upper case assembly.



### Disassembling the Upper Case Assembly

1. Disconnect the touchpad board to touchpad FFC.
2. Disconnect the touchpad board to main board FFC.
3. Then detach the touchpad board to main board FFC from the touchpad board.

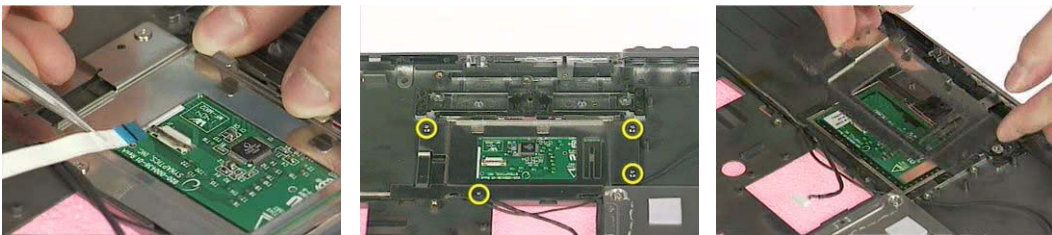




4. Remove the three screws that secure the touchpad board.
5. Remove the touchpad board from the upper case.
6. Disconnect the touchpad board to touchpad FFC.



7. Remove the touchpad board to touchpad FFC from the upper case assembly.
8. Remove the four screws holding the touchpad bracket.
9. Detach the touchpad bracket from the upper case assembly.

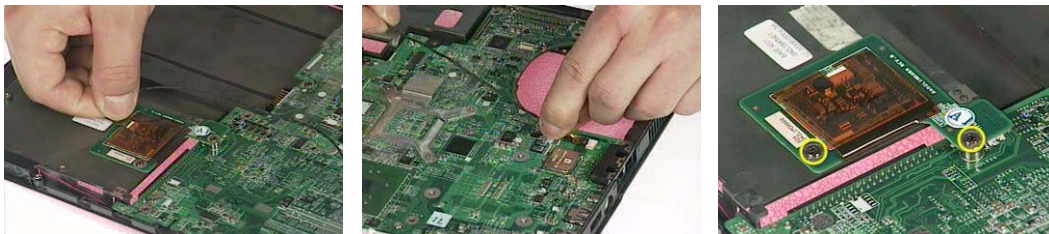


10. Remove the touchpad from the upper case.
11. Remove the two screws that secure the bluetooth module.
12. Disconnect the bluetooth module then remove it.

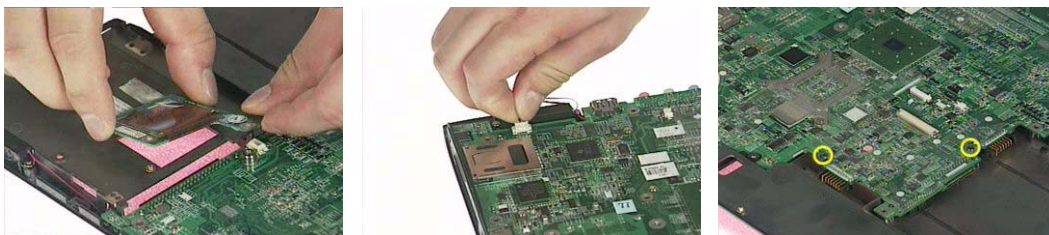


## Disassembling the Lower Case Assembly

1. Disconnect the MDC cable from the modem board.
2. Detach the MDC cable from the main board.
3. Remove the two screws holding the modem board.



4. Remove the modem board from the lower case.
5. Disconnect the speaker cable from the main board.
6. Remove the two screws that secure the main board.



7. Remove the two screw nuts as shown.
8. Then you can detach the main board from the upper case.
9. Remove the three screws that secure the VGA heatsink.



10. Remove the VGA heatsink from the main board as shown.
11. Remove the three in one cover from the lower case.
12. Remove the two screws that secure the speaker set on one side.



13. Then remove another two screws holding the speaker set on the other side.
14. Then take out the speaker set from the lower case.



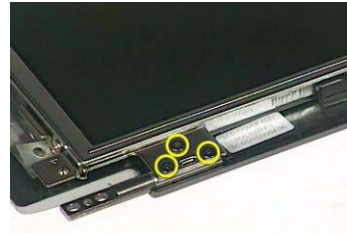
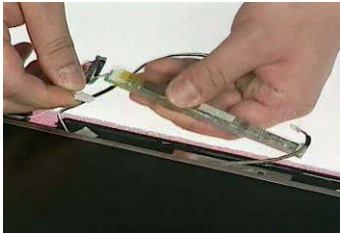


## Disassembling the LCD Module

1. Remove the four screw caps as shown.
2. Remove the four screws holding the LCD bezel.
3. Then detach the LCD bezel from the LCD module.



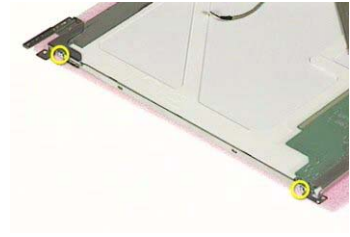
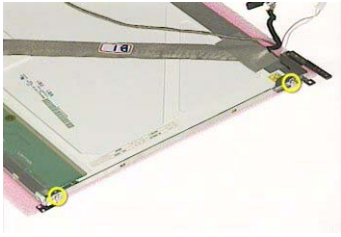
4. Disconnect the inverter board then remove it.
5. Remove the three screws holding the right hinge.
6. Then remove the three screws that secure the left hinge.



7. Remove one screw that secure the LCD bracket.
8. Remove another screw holding the LCD bracket on the other side.
9. Then detach the LCD panel from the LCD cover carefully.



10. Remove the two screws holding the right bracket.
11. Then remove the right bracket.
12. Remove another two screws that tighten the left bracket.



13. Remove the left bracket as the picture shows.
14. Tear off the tape fastening the LCD cable.
15. Tear off the the LCD cable fastening the LCD cable, then remove it..





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## Disassembling the External Modules

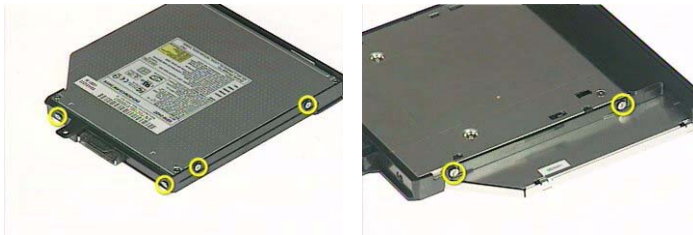
### Disassembling the HDD Module

1. Remove the two screws holding the HDD bracket on one side.
2. Remove another two screws holding the HDD bracket on the other side.
3. Then take the hard disc drive out from the HDD bracket.



### Disassembling the Optical Drive Module

1. Remove the four screws as the picture shows.
2. Remove the two screws that secure the optical disc drive and the ODD holder.



3. Push the ODD holder as shown.
4. Detach the ODD holder.
5. Disconnect the ODD connector board then remove it.

