

Packard Bell
EasyNote ML
Disassembly Manual



Packard Bell®

Table of Contents

About this Guide.....	2
For More Information	2
Technician Notes.....	2
Disassembly.....	2
Reassembly	2
Required Tools	2
Hazardous Voltage.....	3
Avoid Electrostatic Discharge	3
Power Supply Unit.....	3
Battery	4
Optical Disk Drive.....	4
Hard Disk Drives.....	5
Memory	6
Wireless LAN Adapter.....	7
Keyboard.....	7
Top Cover	8
LCD Panel.....	10
Main Board.....	11
Video Board	12
Heat Sink.....	13
CPU	13
LCD Assembly	14
Webcam	15
Notice	16

About this Guide

This guide contains systematic disassembly instructions for the Packard Bell EasyNote ML. The instructions are illustrated where necessary with images of the part that is being disassembled.

Packard Bell B.V. reserves the right to make changes to the EasyNote ML without notice.

For More Information

For more information about the Packard Bell EasyNote ML, visit Packard Bell's support web site at www.packardbell.com. The support web site also has links to additional Packard Bell documentation and detailed product specifications.

Technician Notes

Only technicians authorized by Packard Bell B.V. should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indication of component replacement or printed wiring board modifications may void any warranty or exchange allowances.

Disassembly

When disassembling the system unit, follow these general rules:

- n Turn OFF the power to the system and all peripherals using the power button.
- n Unplug the AC adapter and all power and signal cables from the system.
- n Remove any SD/MMC card, ExpressCard or dummy card from the computer.
- n Do not disassemble the system into parts that are smaller than those specified in the instructions.
- n Label all removed connectors; note where the connector goes and in what position it was installed.
- n 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.

Reassembly

Reassembly is the reverse of the disassembly process. Use care to ensure that all cables and screws are returned to their proper positions. Check that no tools or any loose parts have been left inside the casing. Check that everything is properly installed and tightened.

Required Tools

To disassemble the computer, you need the following tools:

- n Wrist grounding strap and conductive mat for preventing electrostatic discharge.
- n Small Phillips screwdriver.
- n Small flat screwdriver.

Hazardous Voltage

There is hazardous voltage present inside the notebook when it is connected to an AC supply, even when the notebook's power switch is off. Exposure to hazardous voltage could cause personal injury. To avoid risk of injury, contact an Authorized Service Provider for proper (un)installation of optional hardware devices.

Avoid Electrostatic Discharge

Electrostatic electricity can easily damage circuit cards and integrated circuits (ICs). To reduce risk of damage, store them in protective packaging whenever they are not installed in the system.

Add-in cards can be extremely sensitive to ESD and always require careful handling. After removing the card from the notebook, place the card flat on a grounded, static-free surface, component-side up. Use a conductive foam pad if available, but not the card wrapper. Do not slide the card over any surface.

Before you install or remove memory modules, video memory, disk drives, circuit cards or other devices, protect them from static electricity. To do so, make sure the notebook's power switch is OFF. Then, unplug the notebook's AC power cord. Before picking up the device you (un)install, you should wear an anti-static wrist wrap (available at electronic supply stores). Be sure to connect the wrist wrap to an unpainted metal portion of the notebook casing. As an alternative, you can dissipate electrostatic build-up by touching an unpainted metal portion of the notebook casing with one hand. Then touch the device you are (un)installing with the other hand, and maintain continuous contact with it until it is (un)installed in the notebook.

Power Supply Unit

Under no circumstances should you attempt to disassemble the power supply. The power supply contains no user-serviceable parts. Inside the power supply are hazardous voltages that can cause serious personal injury. Always return a defective power supply to the dealer.

WARNING

Ensure that the notebook is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the casing cover is removed. Do not operate the notebook with the cover removed.

AVERTISSEMENT

Assurez-vous que le système est débranché de son alimentation ainsi que de toutes les liaisons de télécommunication, des réseaux, et des lignes de modem avant d'enlever le capot. Ne pas utiliser le système quand le capot est enlevé.

WARNING

Das System darf weder an eine Stromquelle angeschlossen sein noch eine Verbindung mit einer Telekommunikationseinrichtung, einem Netzwerk oder einer Modem-Leitung haben, wenn die Gehäuseabdeckung entfernt wird. Nehmen Sie das System nicht ohne die Abdeckung in Betrieb.

ADVERTENCIA

Asegúrese de que cada vez que se quite la cubierta del portátil, el sistema haya sido desconectado de la red de alimentación y de todos los enlaces de telecomunicaciones, de red y de líneas de módem. No ponga en funcionamiento el sistema mientras la cubierta esté quitada.

WAARSCHUWING

Zorg er voor dat alle verbindingen van en naar de notebook (stroom, modem, netwerk, etc) verbroken worden voordat de behuizing geopend wordt. Zet de notebook nooit aan als de behuizing geopend is.

AVVERTENZA

Prima di rimuovere il coperchio del telaio, assicurarsi che il sistema sia scollegato dall'alimentazione, da tutti i collegamenti di comunicazione, reti o linee di modem. Non avviare il sistema senza aver prima messo a posto il coperchio.

Battery

Perform the following steps to remove the battery:

1. Make sure the power is off.
2. Turn the notebook upside down.

Note: Use an anti-static mat or something soft like a piece of cloth underneath the notebook to prevent damage to the exterior of the notebook.

3. Slide both battery latches to the unlock position.

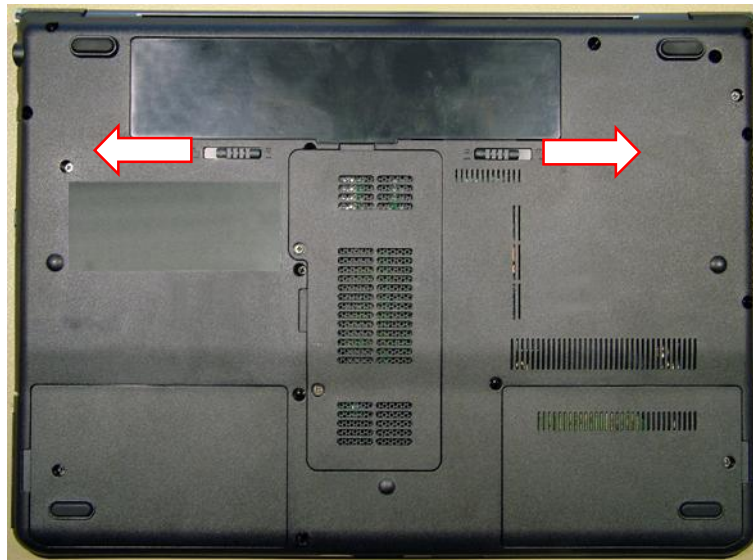


Fig. 1 Removing the battery.

4. Take the battery out of the compartment.

Optical Disk Drive

To remove the optical disk drive, first remove the battery (see [Battery](#) on page 4) and then perform the following steps:

1. Remove the two screws securing the optical disk drive.

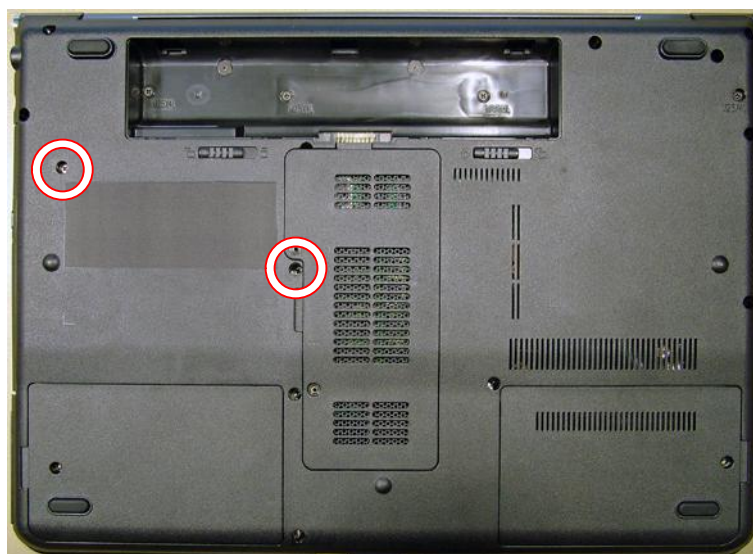


Fig. 2 Location of the screws securing the optical disk drive.

2. Use the emergency eject hole to open the optical disk drive.
3. Pull the tray and take out the optical disk drive from the drive.



Fig. 3 The tray of the optical drive.

Note: The tray bezel is a delicate part, use care when handling it.

Hard Disk Drives

To remove the hard disk drives, first remove the battery (see [Battery](#) on page 4) and then perform the following steps:

1. Remove the two screws securing the hard disk drive compartment covers.



Fig. 4 The hard disk drive compartment cover screws.

2. Lift the covers upwards.
3. Remove the two screws that keep each hard disk in place.
4. Pull the plastic tab on the hard disk drives to disconnect them.

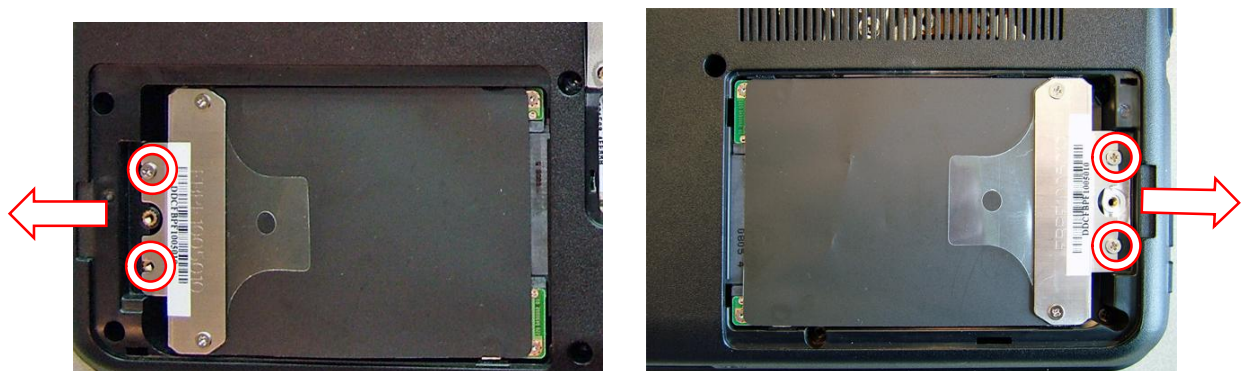


Fig. 5 Disconnecting and removing the hard disk drives.

5. Take the drives out of the compartment.
6. Remove the two screws on the metal brackets to separate them from the hard disks drives.

Note: The drive bays in the compartment are not labelled, so you cannot see which hard disk drive the BIOS considers the first disk.

Memory

To remove the memory installed, first remove the battery (see [Battery](#) on page 4) and then perform the following steps:

1. Remove the two screws securing the memory compartment cover.

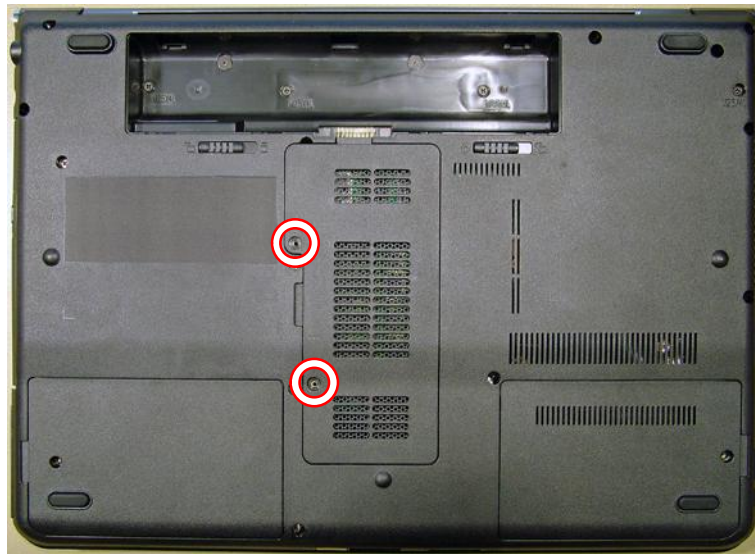


Fig. 6 Removing memory compartment cover.

2. Take away the memory compartment cover.
3. Release the clip on each side securing the memory module; the module will eject upwards.

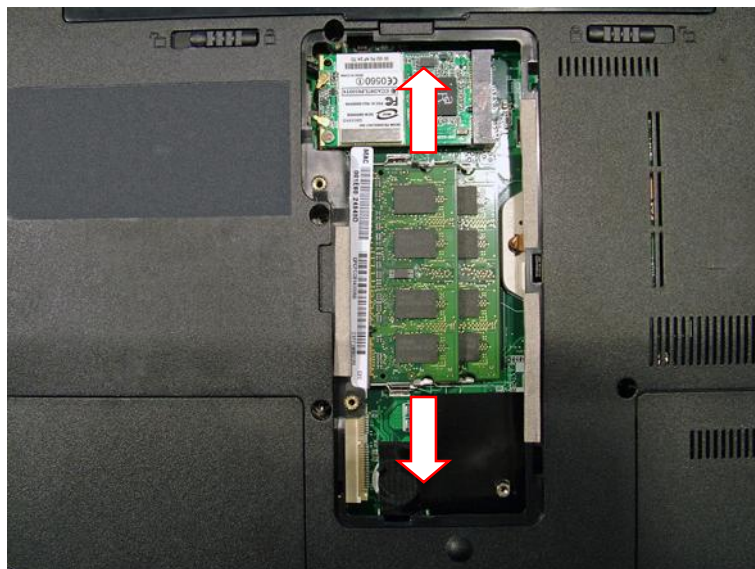


Fig. 7 Removing the memory module.

4. Carefully remove the memory module from the socket.

Note: In case two memory modules have been installed, you have to remove the top module first before you can remove the one underneath.

Wireless LAN Adapter

To remove the wireless LAN adapter, first remove the battery (see [Battery](#) on page 4) and then perform the following steps:

1. Remove the two screws securing the memory compartment cover (see [Fig. 4](#) on page 6).
2. Take away the memory compartment cover.
3. Carefully disconnect the two wireless antenna cables.
4. Remove the two screws holding the wireless LAN adapter.

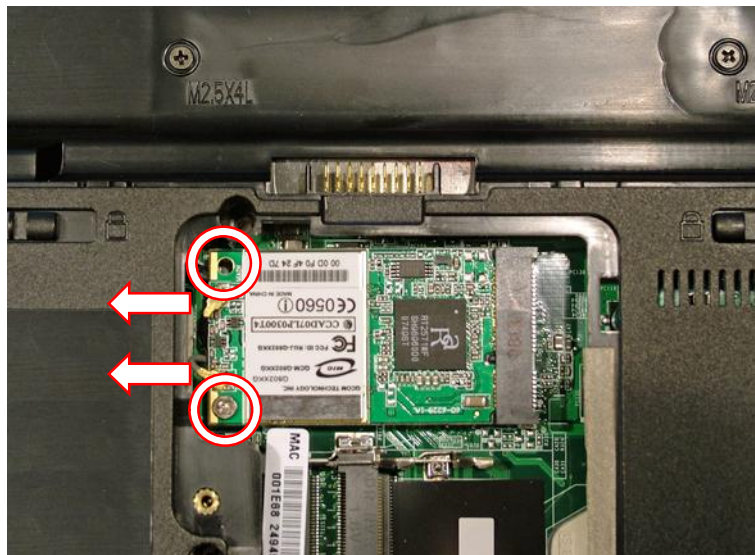


Fig. 8 Location of wireless antenna cable connectors and screws.

5. Take out the wireless LAN adapter from the socket.

Keyboard

To remove the keyboard, first remove the battery (see [Battery](#) on page 4) and then perform the following steps:

1. Turn the notebook over so the top is facing up and open the LCD completely.
2. Release the keyboard by prying it up along the top side of the keyboard. There are five tabs holding the keyboard in place on the front, particularly at the following keys: <Esc>, <F5>, <F10>, <Pause> and <*>.



Fig. 9 Removing keyboard.

3. Tilt the keyboard gently forward and let it rest upside down on the touchpad.
4. Carefully release the black clip securing the flat cable.
5. Disconnect the cable from the main board.

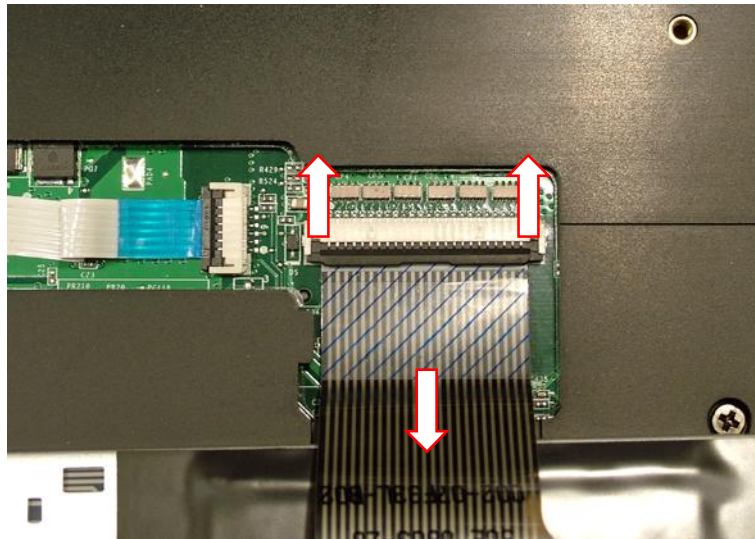


Fig. 10 Releasing keyboard flat cable.

Top Cover

To remove the top cover, remove the battery (see [Battery](#) on page 4) and the keyboard (see [Keyboard](#) on page 7), then perform the following steps:

1. Remove the two screws under the keyboard.

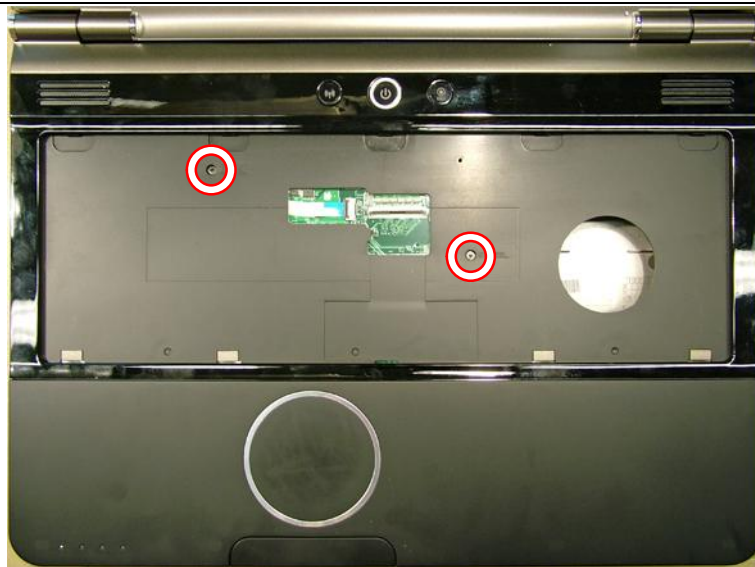


Fig. 11 Location of the touchpad connector.

2. Carefully unlock the keyboard cable connector.
3. Pull the cable out of the connector.

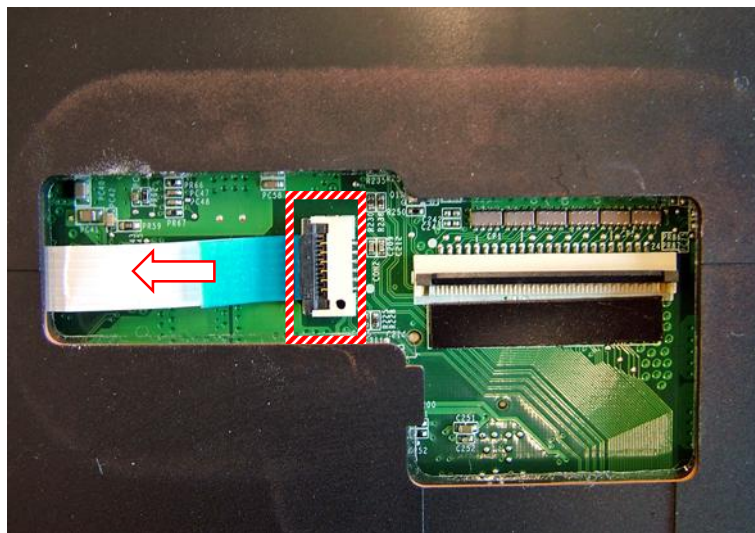


Fig. 12 Location of the bottom base screws.

4. Turn the notebook over so the top is facing down and remove the 22 screws securing the top cover:
 - a. Twelve screws on the back panel
 - b. One screw underneath the WLAN panel
 - c. Two screws below the left HDD panel
 - d. Two screws below the right HDD panel
 - e. Five screws inside the battery compartment

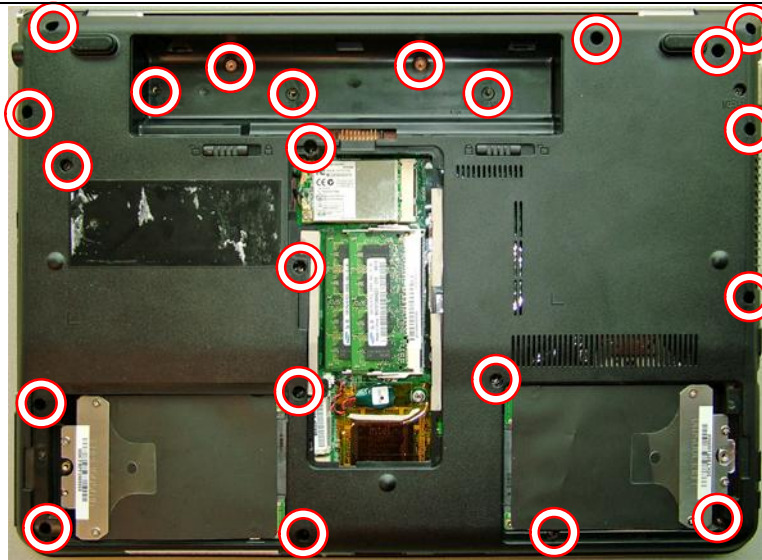


Fig. 13 Location of the top cover screws.

5. Turn the notebook over so the top is facing up.
6. Tilt the screen all the way to allow space for the hinge covers to come loose.
7. Carefully take away the top cover from the base.

LCD Panel

To remove the LCD panel, first remove the top cover (see above) and then perform the following steps:

1. Open the WLAN panel and disconnect the two antenna cables.



Fig. 14 Disconnecting the wireless antenna cables.

2. Turn the notebook over and remove the screw holding the ground wire.
3. Disconnect the LCD cable from the main board.
4. Remove the two screws in each the top left- and right-hand corner.
5. Take away the LCD panel.

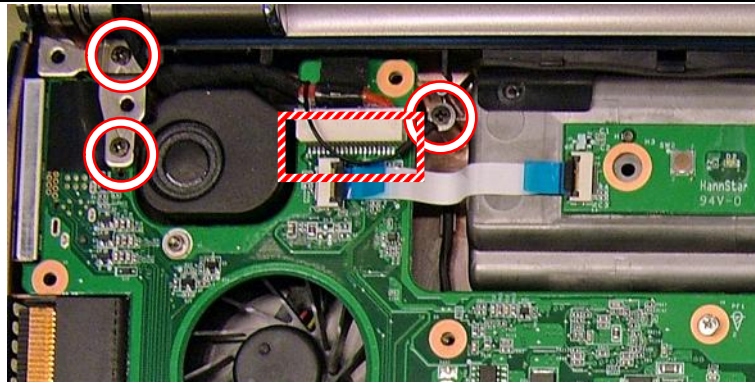


Fig. 15 LCD hinge screws, LCD cable and grounding cable screw.

Main Board

To remove the main board, perform all of the above disassembly steps, then perform the following steps:

1. Disconnect the five cables from the main board.

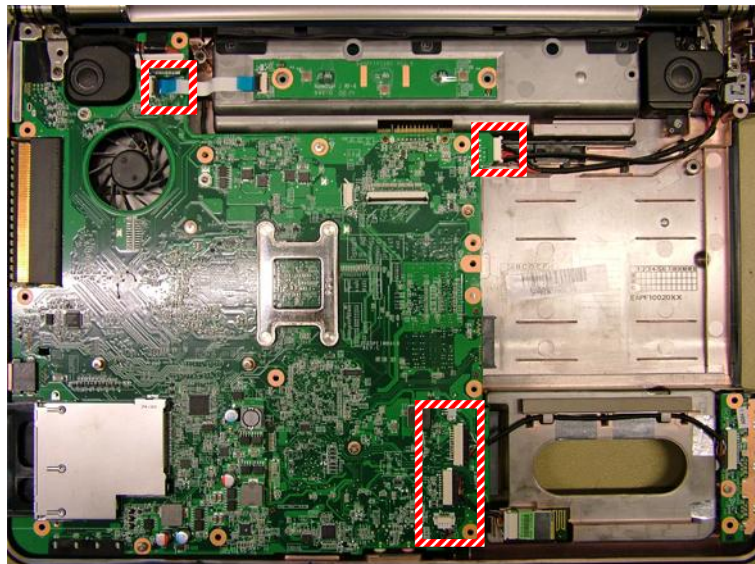


Fig. 16 Location of left speaker bracket screw.

2. Remove the seven screws holding the main board.
3. Lift the main board out of the bottom base.

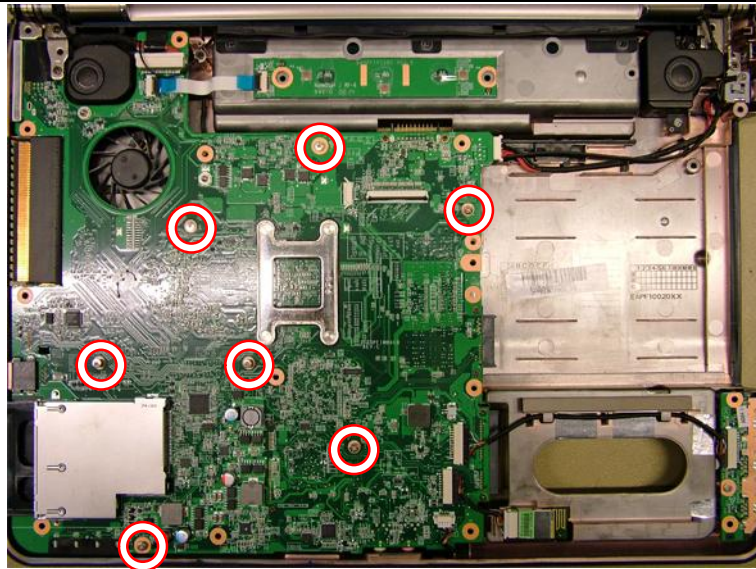


Fig. 17 Location of the main board screws.

Video Board

To remove the video board, first remove the battery (see [Main Board](#) on page 11), then perform the following steps:

1. Flip over the main board so you can see the back, which contains the heat sink.
2. Remove the five screws from the elevated video board.

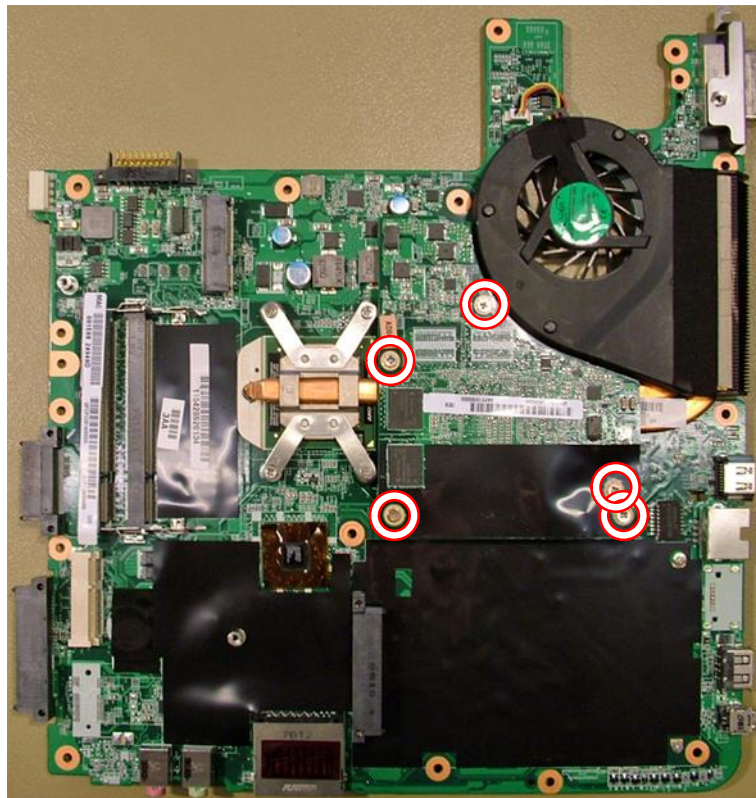


Fig. 18 Location of the video board.

3. Carefully lift the video board out of its socket.

Heat Sink

To remove the optional Intel Turbo Memory module (mini PCI Express), first remove the video board (see above), and then perform the following steps:

1. Disconnect the CPU fan cable.
2. Remove the four screws securing the heat sink.
3. Remove the three screws securing the CPU fan.

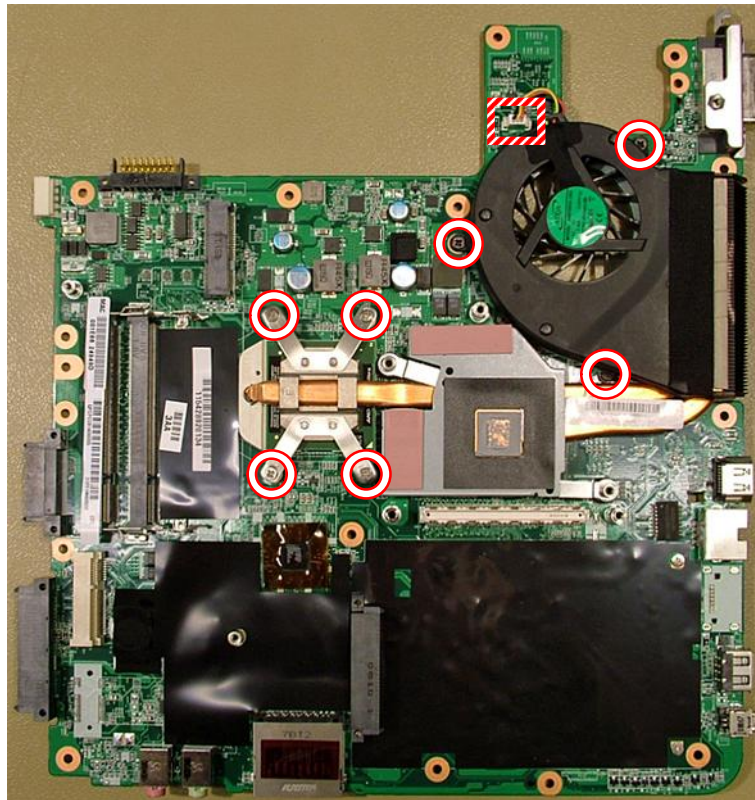


Fig. 19 Location of the heat sink.

4. Lift the heat sink assembly from the mainboard.

CPU

To remove the CPU, first remove the heat sink (see above), and then follow these steps:

1. Turn the screw in the CPU into the unlock position to release the CPU.

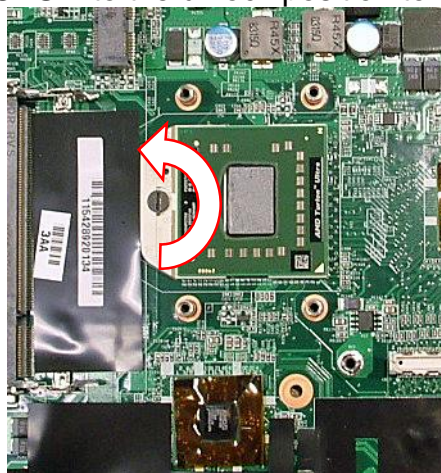


Fig. 20 Unlocking the CPU.

LCD Assembly

To disassemble the LCD panel, first remove it (see [LCD Panel](#) on page 10) and then perform the following steps:

1. Remove the six rubber stoppers and then remove the screws.



Fig. 21 The rubber stoppers and screws.

2. Remove the front cover from the LCD panel.
3. Remove the screws holding the LCD panel to the brackets.

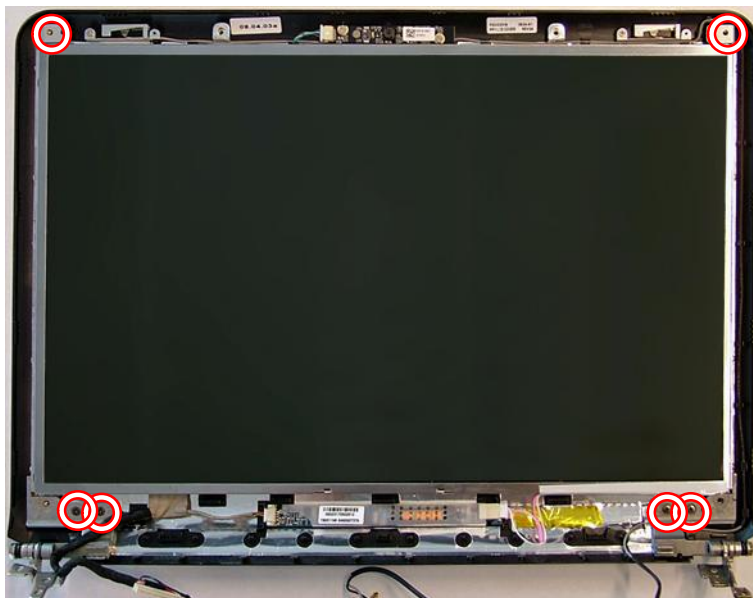


Fig. 22 The brackets screws.

4. Take away the LCD panel.

Webcam

To remove the webcam, first remove the top cover of the LCD panel (see above) and then perform the following steps:

1. Remove both screws and lift out the webcam.



Fig. 23 The webcam screws.

Notice

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