# Packard Bell EasyNote SJ Disassembly Manual



#### Table of Contents Overview 2 Reassembly \_\_\_\_\_\_2 Hazardous Voltage ......3 Power Supply Unit ......3 Battery......4 Hard Disk Drive ......4 Wireless LAN Adapter ......7 CPU and CPU Fan......7 Keyboard......9 Button Board.......11 HDD Board ......14 Touchpad Button Board......17 Main Board ......21 LCD Panel Assembly......22 LCD Bezel......23 LCD Panel ......24

#### **Overview**

This document contains step-by-step disassembly instructions for the Packard Bell EasyNote SJ. The instructions are illustrated where necessary with images of the part that is being removed or disassembled.

Packard Bell reserves the right to make changes to the EasyNote SJ without notice.

#### 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:

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

# 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

All disassembly procedures can be performed using the following tools:

- Small Phillips and flat-blade screwdriver.
- Hex-bolt #5 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 buildup 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.

#### **WARNUNG**

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 lo 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. Push the 2 locks outwards to the release the battery.
- 4. Slide the battery out of the compartment.

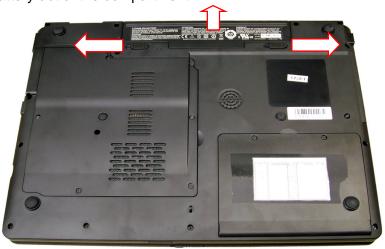


Fig. 1 Removing the battery.

### Hard Disk Drive

To remove the hard disk drive, first remove the battery (see <u>Battery</u>) and then perform the following steps:

1. Remove the 2 screws on the hard disk drive cover and remove the cover.



Fig. 2 Removing hard disk drive cover.

2. Pull the hard disk drive towards you to disconnect the drive.



Fig. 3 Disconnecting and removing hard disk drive(s).

- 3. Take the drive out of its compartment as shown in Fig. 3.
- 4. Remove the 2 screws on the metal bracket to separate it from the hard disk drive.

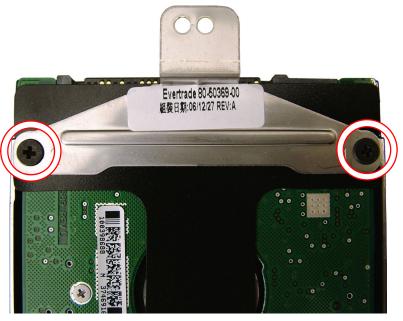


Fig. 4 Location of hard disk drive bracket screws.

**Note:** The EasyNote SJ uses S-ATA hard drives exclusively. S-ATA hard drives have no jumpers and need no specific configuration settings to work in a system with multiple hard drives.

**Note:** The hard drive bays are numbered in the casing (HDD1 and HDD2). The number of the bay corresponds with the sequence in the BIOS: the hard disk drive in bay 1 should be labelled HDD1 in the system BIOS.

**Note:** If the system ships with 2 hard drives, they will be configured as 2 separate drives and not in any type of RAID configuration.

## Memory

To remove the memory installed, first remove the battery (see <u>Battery</u>) and then perform the following steps:

1. Remove the 7 screws retaining the memory/CPU/WLAN cover and remove the cover.

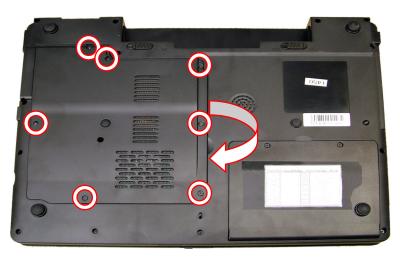


Fig. 5 Removing memory/CPU/WLAN cover.

2. Release the metal clips securing the memory module; the module will eject upwards. Carefully remove the module.



Fig. 6 Removing memory module.

**Note:** In case two memory modules are installed, you always have to remove the top module first before you can remove the second one.

# Wireless LAN Adapter

To remove the wireless LAN adapter, first remove the battery (see <u>Battery</u>) and then perform the following steps:

- 1. Remove the 7 screws retaining the memory/CPU/WLAN cover (see Fig. 5).
- 2. Carefully disconnect the 2 wireless antenna cables. Take note of which coloured wire is connected to which connector on the adapter.



Fig. 7 Location of antenna cable connectors and screws.

- 3. Remove the 2 screws securing the wireless LAN adapter (see Fig. 7); the adapter will eject upwards.
- 4. Take out the wireless LAN adapter from the slot.

#### CPU and CPU Fan

To remove the CPU, first remove the battery (see <u>Battery</u>) and then perform the following steps:

- 1. Remove the 7 screws retaining the memory/CPU/WLAN cover (see Fig. 5).
- 2. Remove the 3 screws holding the CPU fan.



Fig. 8 Location of CPU fan screws.

- 3. Disconnect the power cable and remove the CPU fan (see Fig. 8).
- 4. Turn the 6 screws securing the heat sink halfway loose in designated order.



Fig. 9 Location of heat sink screws.

- 5. Now remove the 6 screws, again in designated order.
- 6. Carefully remove the heat sink.
- 7. Turn the screw in the CPU socket 180 degrees counter-clockwise to release the CPU.

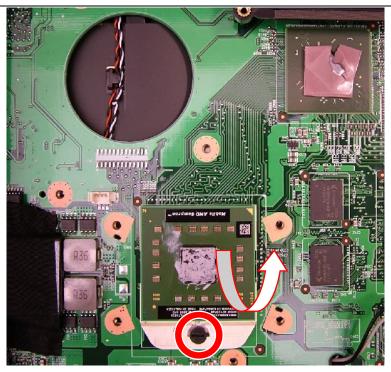


Fig. 10 Removing CPU.

8. Take out the CPU.

## Keyboard

To remove the keyboard, first remove the battery (see <u>Battery</u>) 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 cover by lifting it a bit near the USB ports on the right side of the notebook and tilt the cover backwards from right to left.



Fig. 11 Removing keyboard cover.

- 3. Tilt the cover from the front to the back and lift it out (see Fig. 11).
- 4. Remove the 2 screws securing the keyboard.



Fig. 12 Location of keyboard screws.

- 5. Tilt the keyboard gently forward (see Fig. 12).
- 6. Before removing the keyboard entirely, carefully release the clip securing the flat cable and disconnect the cable from the main board.

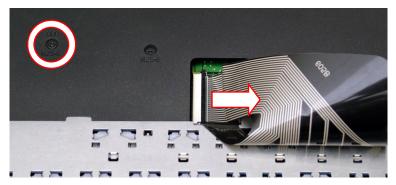


Fig. 13 Disconnecting keyboard flat cable.

# **Optical Disk Drive**

To remove the CD-ROM or DVD drive, first remove the keyboard cover (see steps 1 to 3 in <u>Keyboard</u>), and then perform the following steps:

- 1. Remove the screw (marked "ODD") securing the optical disk drive (see Fig. 13).
- 2. Use the emergency eject hole to open the optical disk drive.
- 3. Take out the optical disk drive from the drive bay.
- 4. Remove the 2 screws securing the metal bracket and remove it from the drive.



Fig. 14 Removing metal bracket.

5. Release the tray cover on one side of the tray.

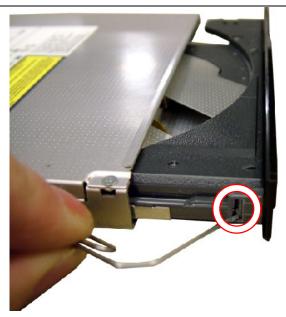


Fig. 15 Releasing tray cover (side).

6. Next release the tray cover on the bottom of the drive.

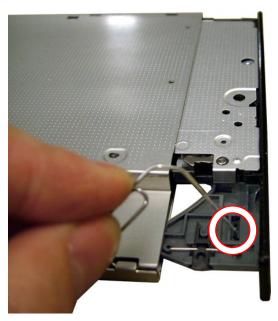


Fig. 16 Releasing tray cover (bottom).

7. Remove the cover and close the tray!

## **Button Board**

The button board contains the power button, the ECO and WiFi button, and the status LEDs. To remove the button board, remove the keyboard cover (see steps 1 to 3 in <a href="Keyboard">Keyboard</a>), and then perform the following steps:

1. Remove the 2 screws securing the button board

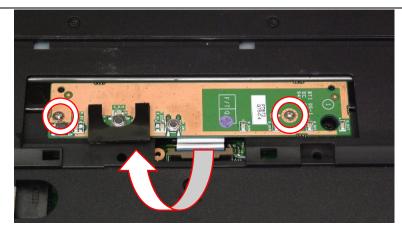


Fig. 17 Location button board screws.

- 2. Carefully disconnect the flat cable from the main board (see Fig. 17).
- 3. Lift out the button board.
- 4. Disconnect the flat cable from the button board.

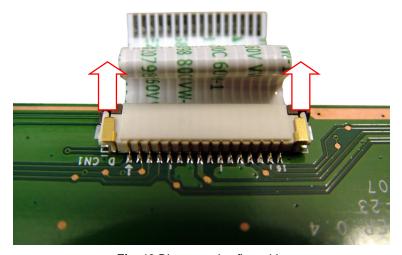


Fig. 18 Disconnecting flat cable.

# **Top Cover**

To remove the top cover, remove the hard disks (see <u>Hard Disk Drive</u>), remove the optical disk drive (see <u>Optical Disk Drive</u>), remove the LCD panel assembly (see <u>LCD Panel Assembly</u>), and then perform the following steps:

1. Carefully disconnect the speaker cables connector near the palm rest at the right.

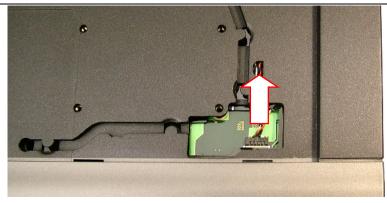


Fig. 19 Location of speaker cables connector.

2. Disconnect the standby-switch cable.

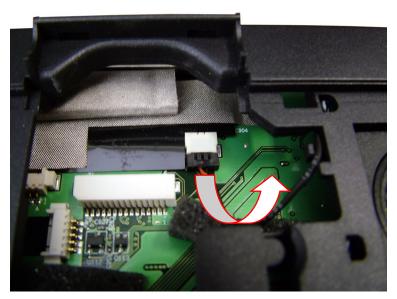


Fig. 20 Disconnecting standby-switch cable.

3. Disconnect the touchpad cable.



Fig. 21 Disconnecting touchpad cable.

- 4. Disconnect the button board flat cable (see Fig. 17).
- 5. Remove the 7 screws securing the cover.



Fig. 22 Location of top cover screws.

- 6. Turn the notebook upside down.
- 7. Remove the 13 screws (all M2.5x6).



Fig. 23 Location of top cover screws underside.

8. Turn the notebook upside down and remove the top cover.

## **HDD Board**

The HDD board contains the two Serial ATA connectors. To remove the HDD board, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Remove the 2 screws securing the HDD board.



Fig. 24 Location of HDD board screws.

2. Lift out the HDD board (it has been clicked onto the main board).

# **ODD Board**

The ODD board extends the IDE connector for the optical drive from the main board. To remove the ODD board, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Remove the screw securing the ODD board.



Fig. 25 Location of ODD board screw.

- 2. Take the ODD board aside and disconnect it from the main board.
- 3. Remove the ODD board.

# **Speakers**

To remove the speakers, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Remove the screws securing each speaker.

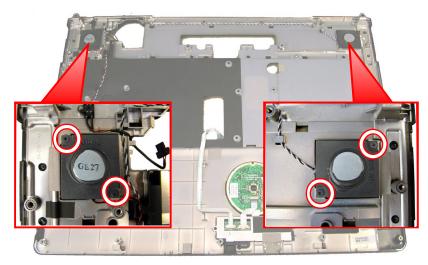


Fig. 26 Location of speaker screws.

2. Release the speaker cables from the clips and remove any tape holding the cables.

Note: The speakers can only be exchanged as a pair.

## Subwoofer

To remove the subwoofer, first remove the top cover (see  $\underline{\text{Top Cover}}$ ), and then perform the following steps:

1. Disconnect the subwoofer cable from the main board (see Fig. 27-A).

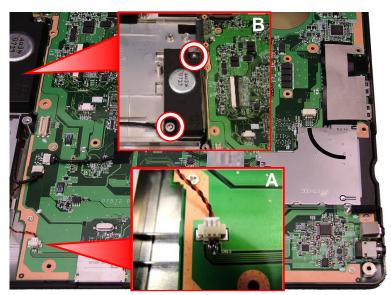


Fig. 27 Location of subwoofer and cable.

Remove the 2 screws securing the subwoofer and lift it out (see Fig. 27-B).

Note: The subwoofer is optional.

# **Touchpad Button Board**

The touchpad button board is located on the top cover. To remove it, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Release the clip securing the flat cable (the clip folds up) and disconnect the flat cable from the touchpad.

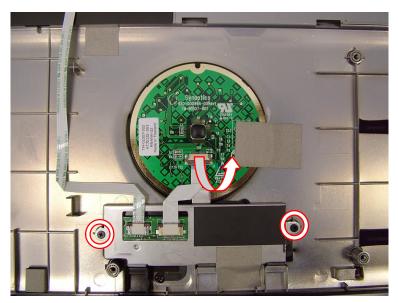


Fig. 28 Removing touchpad button board and cable.

2. Remove the 2 screws securing the touchpad button board and lift out the board including the cable (see Fig. 28).

**Note:** The touchpad is part of the top cover and it cannot be exchanged separately. You cannot remove the flat cable from the touchpad button board.

# Standby Switch

The standby switch works as a soft power switch when the lid is closed; it is located in the top cover. To remove the standby switch, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Remove the screw securing the standby switch.

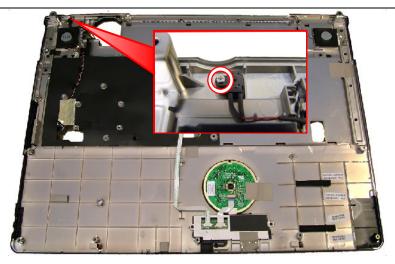


Fig. 29 Location of standby switch screw.

2. Clear the cable and remove the standby switch.

#### Modem Board

To remove the modem board, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Remove the 2 screws securing the modem (see Fig. 30-A).

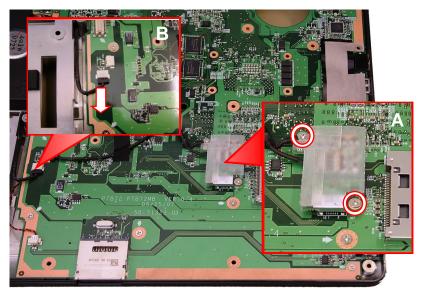


Fig. 30 Location of standby switch screw.

- 2. Take out the modem; it has been clicked onto the main board.
- 3. Disconnect the cable from the modem.

## **RJ11 Connector**

To remove the RJ11 connector, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

- 1. Disconnect the modem cable from the main board (see Fig. 30-B).
- 2. Remove the screw securing the RJ11 connector bracket.

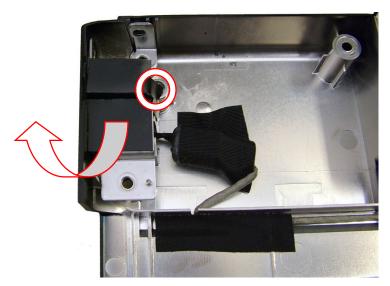


Fig. 31 Location of RJ11 connector bracket screw.

3. Take out the RJ11 connector and cable.

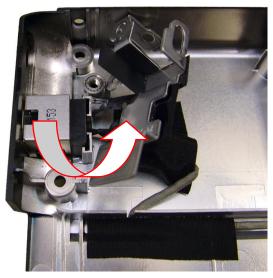


Fig. 32 Removing RJ11 connector.

**Note:** You may need to remove the HDD board (see <u>HDD Board</u>) and/or the ODD board (see <u>ODD Board</u>) to get enough clearance for the cable.

#### **Bluetooth Module**

To remove the Bluetooth module, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

1. Disconnect the antenna and the cable from the Bluetooth module.

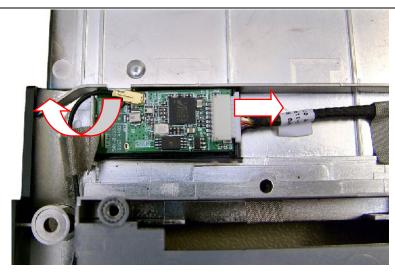


Fig. 33 Disconnect Bluetooth antenna and cable.

2. Remove the screw securing the Bluetooth module.

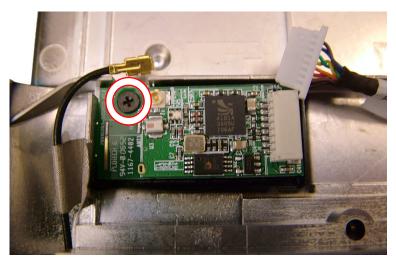


Fig. 34 Location of Bluetooth module screw.

3. Remove the Bluetooth module.

Note: Bluetooth is optional.

#### Bluetooth Antenna

To remove the Bluetooth antenna, first remove the top cover (see <u>Top Cover</u>), and then perform the following steps:

- 1. Disconnect the antenna from the Bluetooth module (see Fig. 33).
- 2. Remove the Bluetooth antenna; it has been glued onto place.



Fig. 35 Removing Bluetooth antenna.

Note: Bluetooth is optional.

#### Main Board

To remove the main board, remove the CPU and the CPU fan (see <u>CPU and CPU Fan</u>), remove the memory (see <u>Memory</u>), remove the wireless LAN adapter (see <u>Wireless LAN Adapter</u>), remove the HDD and ODD boards (see <u>HDD Board</u> and <u>ODD Board</u>), remove the modem board (see <u>Modem Board</u>), and then perform the following steps:

1. Remove the 7 screws (marked with an arrow) securing the main board.



Fig. 36 Location of main board screws.

- 2. Remove the 2 hex bolts adjacent to the DVI-I connector.
- 3. Lift up the main board.
- 4. Disconnect the Bluetooth cable (optional).
- 5. Lift the main board out and turn it upside down.

6. Disconnect the RTC battery cable and remove the RTC battery; it has been glued onto place.

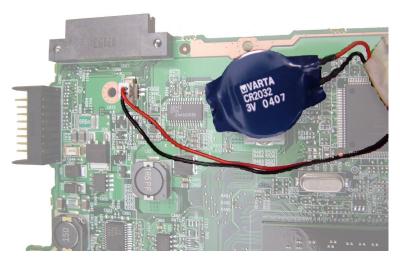


Fig. 37 Location of RTC battery.

# LCD Panel Assembly

To disassembly the LCD panel assembly, first remove the keyboard (see <u>Keyboard</u>), remove the CPU cover (see step 1 in <u>CPU and CPU Fan</u>), remove the wireless LAN antenna (see step 2 in <u>Wireless LAN Adapter</u>), and then perform the following steps:

- 1. Remove the LCD cable cover.
- 2. Disconnect the 3 LCD cable connectors.

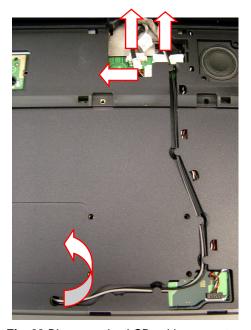


Fig. 38 Disconnecting LCD cable connectors.

- 3. Pull the wireless LAN antenna cables through the base and clear them from the clips (see Fig. 38).
- 4. Remove 2 screws from the back panel of the notebook.



Fig. 39 Location of screws on back panel.

5. Remove 2 screws from the bottom of the notebook.



Fig. 40 Location of screws.

5. Open the LCD panel to a 90-degree angle and lift out the LCD panel assembly.

## LCD Bezel

To remove the LCD bezel, first remove the LCD panel assembly (see <u>LCD Panel Assembly</u>), and then do the following:

1. Remove the 4 rubber stoppers from the upper part and 2 stoppers from the lower part of the LCD bezel.



Fig. 41 Location of stoppers/screws securing LCD bezel.

- 2. Remove the 6 screws (that were covered by the stoppers) securing the LCD bezel.
- 3. Remove the LCD bezel; it has been clicked into place.

## LCD Panel

To remove the LCD panel, first remove the LCD bezel (see <u>LCD Bezel</u>), and then do the following:

1. Remove the 4 screws from the hinges.



Fig. 42 Location of screws securing hinges.

2. Disconnect both cables from the inverter board.



Fig. 43 Disconnecting cables from inverter board.

3. Remove the screw securing the grounding cable.

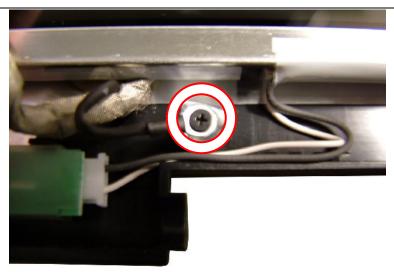


Fig. 44 Removing grounding cable screw.

- 4. Lift out the panel.
- 5. Remove the 4 screws on each side securing the brackets for the panel.



Fig. 45 Location of screw securing brackets.

6. Push the clips to disconnect the LCD cable from the back of the panel.

#### Inverter Board

To remove the inverter board, first remove the LCD bezel (see <u>LCD Bezel</u>), and then do the following:

- 1. Disconnect both cables from the inverter board (see Fig. 43).
- 2. Remove the screw securing the inverter board and extract the board; it may be glued onto place.

## Webcam

To remove the webcam, first remove the LCD bezel (see LCD Bezel), and then do the following:

1. Disconnect the cable from the webcam.

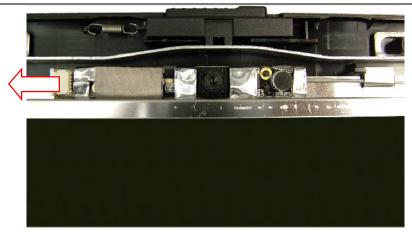


Fig. 46 Location of webcam connector.

2. Lift out the webcam; it may be glued and/or taped onto place.

Note: You have to remove the LCD panel if the webcam cable needs to be replaced.

#### WLAN Antenna

To remove the wireless antenna, first remove the LCD panel (see <u>LCD Panel</u>), and then do the following:

1. The wireless LAN antenna has been glued onto place, loosen both.



Fig. 47 Location WLAN antenna cables.

- 2. Remove the webcam (see Webcam) to clear the cable of the antenna on the left
- 3. Release the cable from the clips in the shielding foil.

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