Packard Bell EasyNote MT Disassembly Manual



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Table of Contents	
About this Guide	2
For More Information	2
Technician Notes	2
Disassembly	2
Reassembly	
Required Tools	2
Hazardous Voltage	3
Avoid Electrostatic Discharge	3
Power Supply Unit	3
Battery	4
Hard Disk Drive	
Memory	5
Optical Disk Drive	6
Keyboard	
Keyboard Cover	
Top Cover	
LCD Assembly	
Speakers	
Bluetooth (Optional)	
USB Board	_
Main Board	
CMOS Battery	
Wireless LAN Adapter	
TV Tuner (Optional)	
Intel Turbo Memory (Optional)	.19
CPU and Heat Sink	
I/O and HDMI Board	
Audio Board	
Subwoofer	
TV Antenna (Optional)	
Touchpad	
Button Board	
LCD Bezel	
Inverter Board	
LCD Panel	_
Webcam/Microphone	
Notice	27

About this Guide

This guide contains systematic disassembly instructions for the Packard Bell EasyNote MT. 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 MT without notice.

For More Information

For more information about the Packard Bell EasyNote MT, 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:

- Turn OFF the power to the system and all peripherals using the power button.
- Unplug the AC adapter and all power and signal cables from the system.
- Remove any SD/MMC card, ExpressCard or dummy card from the computer.
- 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.
- 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:

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

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.

Packard Bell. 4

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 the battery lock/unlock latch (A) to the unlock position.

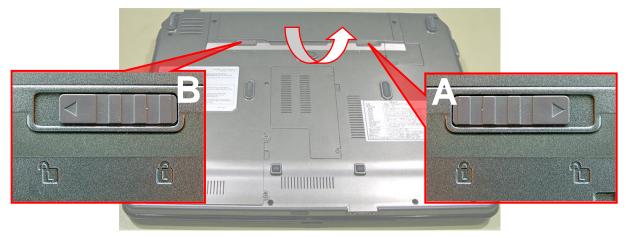


Fig. 1 Removing the battery.

- 4. Slide the battery release latch (B) to the release position (see Fig. 1).
- 5. Lift the battery upwards; there are three tabs holding the battery in place at the back (see Fig. 1).
- 6. Take the battery out of the compartment.

Hard Disk Drive

To remove the hard disk drive, first remove the battery (see <u>Battery</u> on page 4) and then perform the following steps:

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



Fig. 2 Removing hard disk drive compartment cover.

- 2. Lift the cover upwards from the right. There are two tabs holding the cover in place on the left. Raise the cover until you can remove it from the casing (see Fig. 2).
- 3. Pull the plastic tab on the hard disk drives towards the left to disconnect the drive.

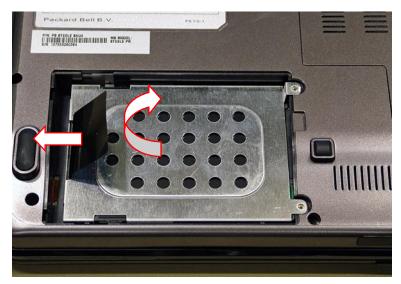


Fig. 3 Disconnecting and removing hard disk drive.

- 4. Take the drive out of the compartment (see Fig. 3).
- 5. Remove the four screws (Phillips-head) on the metal bracket holding the hard disk drive.

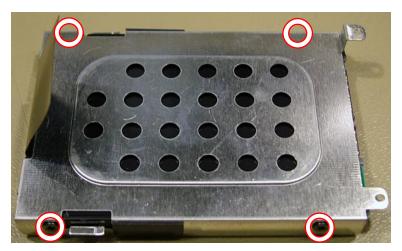


Fig. 4 Separating hard disk drive from bracket.

Note: In Fig. 4 only two screws are visible; the other two are located on the other side of the bracket.

Memory

To remove the memory installed, first remove the battery (see <u>Battery</u> on page 4) and then perform the following steps:

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



Fig. 5 Removing memory compartment cover.

- 2. Lift the cover upwards from the right. There are three tabs holding the cover in place on the left. Raise the cover until you can remove it from the casing (see Fig. 5).
- 3. Release the clip on each side securing the memory module; the module will eject upwards.



Fig. 6 Removing 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.

Optical Disk Drive

To remove the optical disk drive, first remove the battery (see <u>Battery</u> on page 4) and then perform the following steps:

1. Remove the screw securing the optical disk drive.

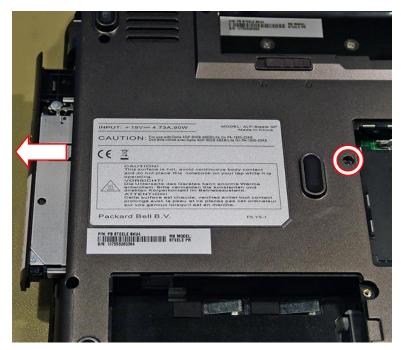


Fig. 7 Location screw securing optical disk drive.

- 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 bay (see Fig. 7).
- 4. Remove the two screws securing the metal bracket and remove it from the drive.



Fig. 8 Removing metal bracket.

5. Insert the flat screwdriver into the notch at the underside of the tray to release the tray bezel lock.

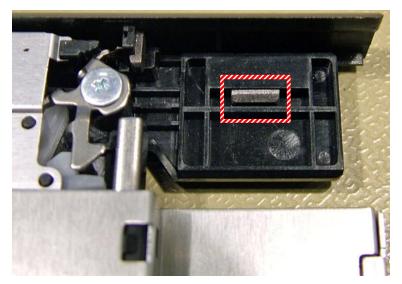


Fig. 9 Location tray bezel lock underside.

6. Insert the small flat screwdriver into the notch at the side of the tray to release the side lock.

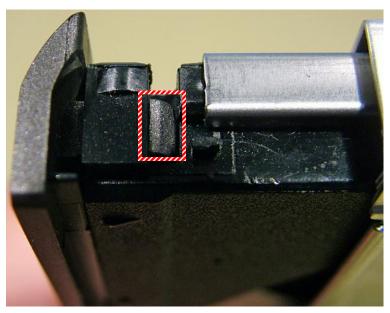


Fig. 10 Location tray bezel side lock.

7. Separate the tray bezel from the drive.

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

Keyboard

To remove the keyboard, first remove the battery (see <u>Battery</u> 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. 11 Removing keyboard.

- 3. Tilt the keyboard gently forward and let it rest upside down on the touchpad (see Fig. 11).
- 4. Before removing the keyboard entirely, carefully release the white clip securing the flat cable and disconnect the cable from the main board.

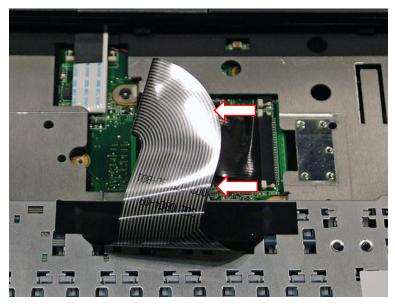


Fig. 12 Releasing keyboard flat cable.

Keyboard Cover

To remove the keyboard cover, first remove the battery (see <u>Battery</u> on page 4) and then perform the following steps:

1. Remove the nine screws securing the keyboard cover. Note that four screws are located in the battery compartment.



Fig. 13 Location keyboard cover screws.

- 2. Turn the notebook over so the top is facing up and open the LCD completely.
- 3. Release the cover by prying it up along the top side of the cover.
- 4. Tilt the cover gently forward; there are six tabs holding the cover in place on the front.

Top Cover

To remove the top cover, remove the battery (see <u>Battery</u> on page 4), remove the keyboard (see <u>Keyboard</u> on page 8), remove the keyboard cover (see <u>Keyboard Cover</u> on page 9), and then perform the following steps:

- 1. Turn the notebook upside down.
- 2. Remove the screw securing the wireless LAN compartment cover.



Fig. 14 Location of wireless LAN compartment cover screw.

3. Lift the cover diagonally upwards from the front left corner. There are two tabs holding the cover in place on the back and the right. Raise the cover until you can remove it from the casing.

4. Carefully disconnect the two WiFi antenna cables



Fig. 15 Location of WiFi antenna cables.

Note: There are two WiFi antenna cables connected to the wireless LAN adapter. The black WiFi antenna cable is connected to MAIN (1) connector and the white WiFi antenna cable is connected to AUX (2) connector.

- 5. Turn the notebook over so the top is facing up.
- 6. Release the white clips securing the touchpad flat cable and the button board flat cable.

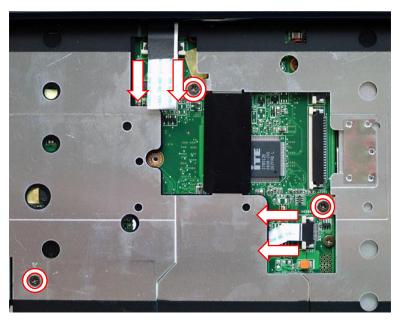


Fig. 16 Location of touchpad and button board flat cables.

- 7. Remove the three screws securing the top cover (see Fig. 16).
- 8. Turn the notebook upside down.

9. Remove the eight screws securing the top cover.



Fig. 17 Location of top cover screws.

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

LCD Assembly

To disassemble the LCD assembly, first remove the top cover (see <u>Top Cover</u> on page 10), and then perform the following steps:

1. Disconnect the LCD and webcam cables from the headers on the main board.

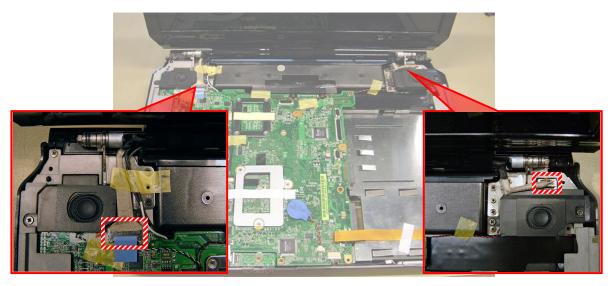


Fig. 18 Location LCD/webcam cables.

2. Open the LCD into an angle of approximately 90 degree.

3. Remove the screws (three in each side) securing the hinges.

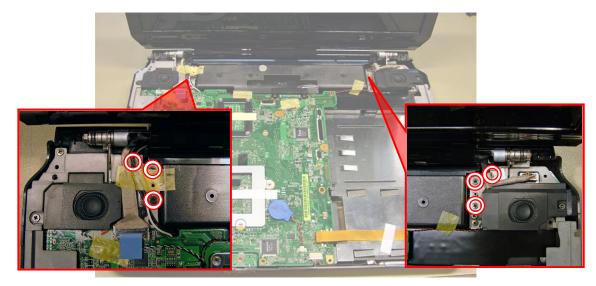


Fig. 19 Location LCD hinge screws.

Note: In Fig. 19, some of the screws are partly covered by adhesive tape and/or cables.

4. Lift out the LCD assembly.

Speakers

To remove the speakers, first remove the top cover (see <u>Top Cover</u> on page 10), and then perform the following steps:

1. Remove the screws securing the speakers to the casing.

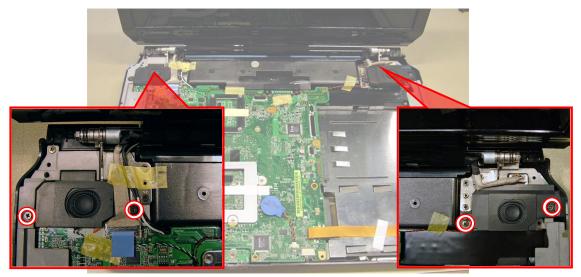


Fig. 20 Location speaker screws.

2. Clear the speaker cables: detach any adhesive tape securing the speaker cables to the main board.

3. Disconnect the speaker cables from the header on the main board.

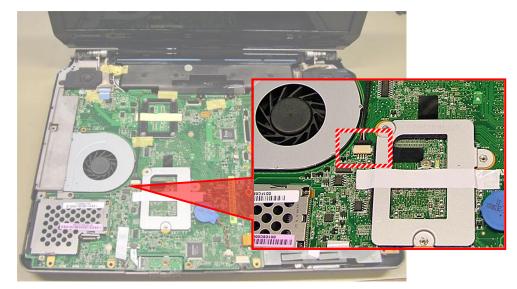


Fig. 21 Location of speaker cable header on the main board.

Note: The left and right speaker assembly share the same header on the main board.

4. Remove the speakers assembly.

Bluetooth (Optional)

To remove the optional Bluetooth module, first remove the top cover (see <u>Top Cover</u> on page 10), and then perform the following steps:

- 1. Carefully lift the Bluetooth module from the casing.
- 2. Disconnect the cable from the Bluetooth module (A).

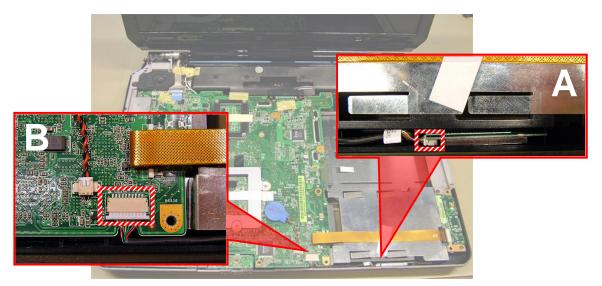


Fig. 22 Location of Bluetooth module.

3. Disconnect the cable (B) from the header on the main board (see Fig. 22).

Packard Bell. 15

USB Board

To remove the USB board, first remove the top cover (see <u>Top Cover</u> on page 10), and then do the following:

1. Release the white clip securing the USB board cable and disconnect it from the header on the main board.

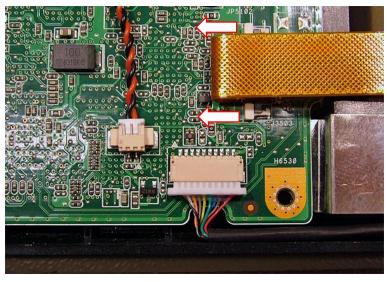


Fig. 23 Releasing the USB board cable.

2. Remove the two screws securing the USB board.

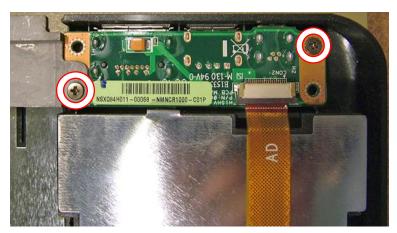


Fig. 24 Location USB board screws.

3. Clear the cable and remove the USB board.

Note: Optionally, you can disconnect the other end of the flat cable from the USB board.

Main Board

To remove the main board, remove the battery (see <u>Battery</u> on page 4), remove the hard disk drive (see <u>Hard Disk Drive</u> on page 4), remove the memory (see <u>Memory</u> on page 5), remove the CD/DVD drive (see <u>Optical Disk Drive</u> on page 6), remove the LCD assembly (see <u>LCD Assembly</u> on page 12), remove the speakers (see <u>Speakers</u> on page 13), remove the Bluetooth module (see <u>Bluetooth (Optional)</u> on page 14), remove the USB board (see <u>USB Board</u> on page 15), and then perform the following steps:

1. Remove the screws securing the brackets that hold the left and right speaker assembly.



Fig. 25 Location of speaker brackets screws.

2. Release the white clip securing the audio board cable and disconnect it from the header on the main board.

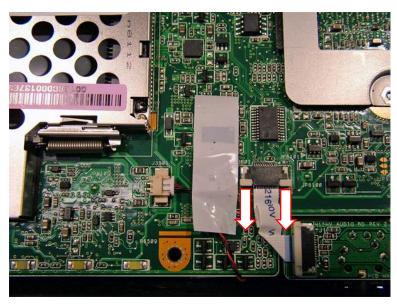


Fig. 26 Location of audio board cable.

- 3. Remove the two screws securing the memory compartment cover (see Fig. 5).
- 4. Lift the cover upwards from the right. There are three tabs holding the cover in place on the left. Raise the cover until you can remove it from the casing (see <u>Fig. 5</u>).
- 5. Carefully disconnect the optional TV antenna cable.

6. Remove two screws marked with a white triangle securing the main board.



Fig. 27 Location of main board screws.

7. Remove two screws from the bracket holding the main board.



Fig. 28 Location of main board bracket screws.

8. Lift the main board out of the casing.

CMOS Battery

To remove the CMOS battery, first remove the LCD assembly (see <u>LCD Assembly</u> on page 12), and then perform the following steps:

1. Disconnect the CMOS battery cable from the header on the main board.



Fig. 29 Location CMOS battery.

2. The CMOS battery has been glued onto the main board; pull it loose gently (see Fig. 29).

Wireless LAN Adapter

To remove the wireless LAN adapter (mini PCI Express), first remove the main board (see Main Board on page 15), and then perform the following steps:

- 1. Turn the main board upside down.
- 2. Remove the two screws securing the wireless LAN adapter; it will eject upwards.



Fig. 30 Location of wireless LAN adapter screws.

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

TV Tuner (Optional)

To remove the optional TV tuner (mini PCI Express), first remove the main board (see <u>Main Board</u> on page 15), and then perform the following steps:

- 1. Turn the main board upside down.
- 2. Remove the two screws securing the TV tuner; the card will eject upwards.

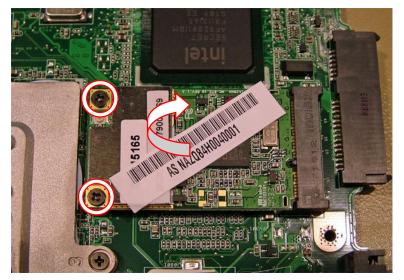


Fig. 31 Location of TV tuner screws.

3. Take out the TV tuner card from the socket.

Note: The EasyNote MT can have a TV tuner card installed or the Intel Turbo memory, not both.

Intel Turbo Memory (Optional)

To remove the optional Intel Turbo Memory module (mini PCI Express), first remove the main board (see Main Board on page 15), and then perform the following steps:

- 1. Turn the main board upside down.
- 2. Remove the two screws securing the Intel Turbo Memory module; the card will eject upwards.
- 3. Take out the Intel Turbo Memory module from the socket.

Note: The EasyNote MT can have a TV tuner card installed or the Intel Turbo memory, not both.

CPU and Heat Sink

To remove the CPU and the heat sink, first remove the main board (see <u>Main Board</u> on page 15) and then perform the following steps:

1. Turn the main board upside down.

2. Disconnect the fan cable from the header on the main board.

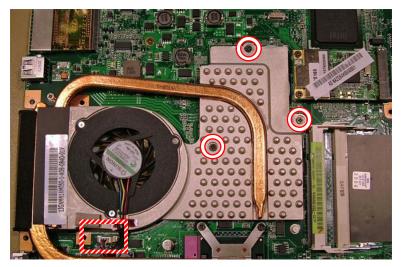


Fig. 32 Location of chipset heat sink screws.

- 3. Remove the three screws securing the heat sink in designated order (see Fig. 32).
- 4. Remove the fan/chipset heat sink.
- 5. Remove the four screws securing the CPU heat sink in designated order.

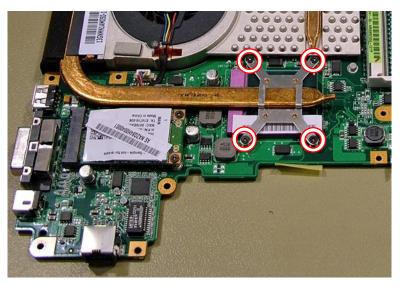


Fig. 33 Location of CPU heat sink screws.

6. Carefully remove the CPU heat sink.

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

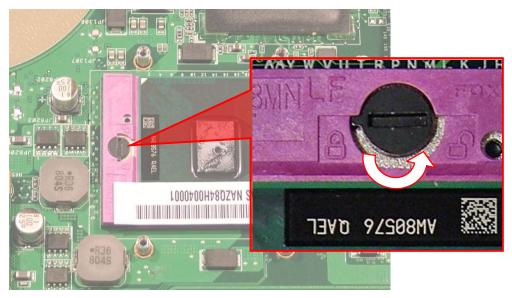


Fig. 34 Location of screw securing CPU.

8. Carefully take out the CPU from the socket.

I/O and HDMI Board

To remove the I/O and HDMI board, first remove the main board (see <u>Main Board</u> on page 15), and then do the following:

1. Remove the two screws securing the board to the main board.

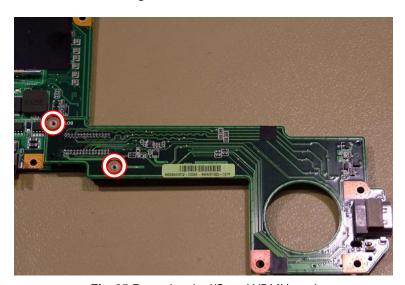


Fig. 35 Removing the I/O and HDMI board.

Note: Fig. 35 shows the other side of the main board, the screws are located on the other side of the main board.

2. Disconnect the I/O and HDMI board from the main board.

Note: During re-assembly, align the I/O and HDMI board properly with the main board before reconnecting them to prevent damage to the pins of the connector on the main board.

Packard Bell. 22

Audio Board

To remove the audio board, first remove the main board (see <u>Main Board</u> on page 15), and then do the following:

1. Remove the screw securing the board.



Fig. 36 Releasing the audio board.

Note: Fig. 36 shows the audio cable still connected. However, this was disconnected at step 2 of the main board disassembly (see <u>Main Board</u> on page 15).

2. Remove the audio board.

Subwoofer

To remove the subwoofer, first remove the main board (see <u>Main Board</u> on page 15), and then do the following:

1. Remove the three screws securing the subwoofer.

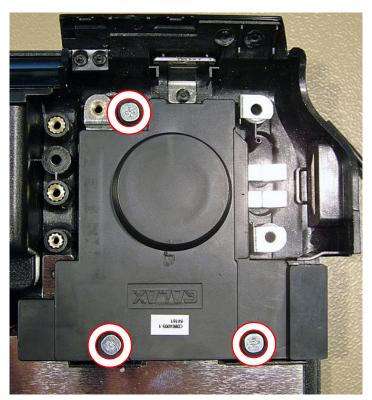


Fig. 37 Location subwoofer screws.

2. Take out the subwoofer.

TV Antenna (Optional)

To remove the optional TV antenna cable, first remove the main board (see Main Board on page 15), and then perform the following steps:

1. Remove the screw securing the TV antenna connector.

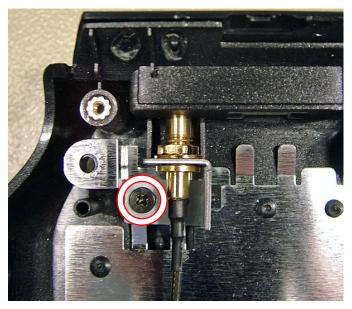


Fig. 38 Location of TV antenna connector.

2. Clear the cable and take out the TV antenna.

Touchpad

To remove the touchpad module, first remove the top cover (see $\underline{\text{Top Cover}}$ on page 10), and then do the following:

1. Carefully release the white clip securing the touchpad flat cable and disconnect the cable from the header on the top cover.

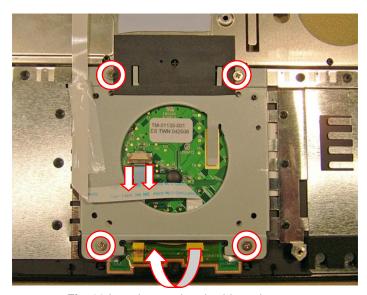


Fig. 39 Location touchpad cable and screws.

- 2. Remove the four screws securing the touchpad bracket to the top cover (see Fig. 41).
- 3. Remove the touchpad module.

Note: The described procedure applies only to the touchpad module, which holds the touchpad buttons; the touchpad surface is part of the top cover.

Button Board

To remove the button board, first remove the top cover (see <u>Top Cover</u> on page 10), and then perform the following steps:

1. Remove the three screws securing the button board.

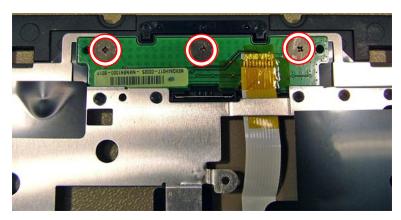


Fig. 40 Location of button board screws.

2. Remove the button board.

LCD Bezel

To remove the LCD bezel, first remove the LCD assembly (see <u>LCD Assembly</u> on page 12), and then perform the following steps:

- 1. Remove the eight screw covers on the LCD bezel (four at the top and four at the bottom).
- 2. Remove the screws that became accessible after removing the covers.

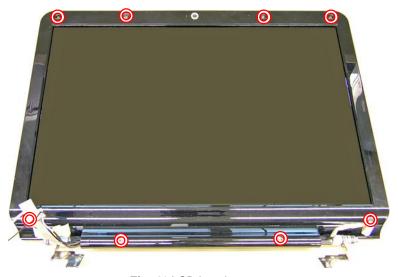


Fig. 41 LCD bezel screws.

Note: In Fig. 41, the screws in each of the lower corner are covered by cables.

3. Carefully pry open the LCD bezel; it has been clicked into place.

Inverter Board

To remove the inverter board, first remove the LCD bezel (see <u>LCD Bezel</u> on page 24), and then do the following:

1. Disconnect the cable on both ends of the inverter board.



Fig. 42 Location of inverter board.

- 2. Remove the screw securing the inverter board (see Fig. 42).
- 3. Extract the inverter board.

LCD Panel

To disassembly the LCD panel, remove the LCD bezel (see <u>LCD Bezel</u> on page 24), and then perform the following steps:

- 1. Disconnect the cable on both ends of the inverter board (see Fig. 42).
- 2. Remove the two screws securing the top bracket and remove the bracket.

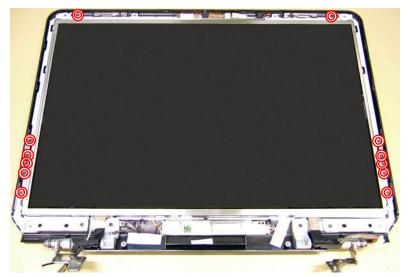


Fig. 43 Location of bracket screws.

26

3. Remove the ten screws securing the side brackets (five screws on each side) and remove the brackets (see Fig. 43).

- 4. Separate the LCD panel from the back cover.
- 5. Disconnect the LCD cable.

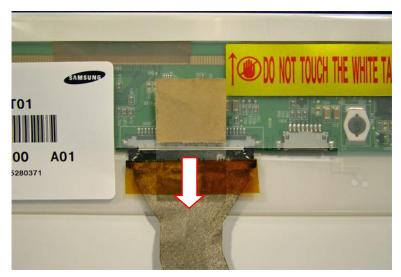


Fig. 44 Location of LCD cable connector.

6. Remove the side brackets (four screws on each side) from the LCD panel.

Webcam/Microphone

To remove the webcam and microphone, first remove the LCD panel (see LCD Panel on page 25), and then do the following:

1. Disconnect the cable from the header on the module.

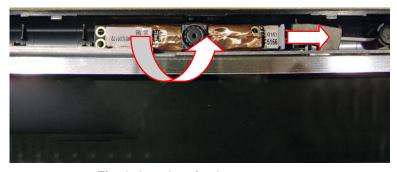


Fig. 45 Location of webcam connector.

- 2. Carefully remove any adhesive tape securing the module (see Fig. 45).
- 3. Extract the webcam/microphone module.

27

Notice

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Authors: Wouter Willemse & Juan M. Calviño

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