

N E C

Versa M400

Packard Bell.

EasyNote M5

EasyNote M7

Disassembly Manual



NEC

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Overview

This document contains step-by-steps disassembly instructions for the Versa M400/PB EasyNoteM5 M7 chassis. The instructions are illustrated where necessary with images of the part that is being removed or disassembled. Furthermore, the screws that are removed are shown next to the image of the parts themselves.

NEC reserves the right to make changes to the Versa M400 chassis without notice.

Technician Notes

Only technicians authorized by NEC Computers International BV 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 Instructions

When disassembling the system unit, follow these general rules:

- 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.
- Turn off the power and disconnect all power and all options.

Reassembly Instructions

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 chassis. Check that everything are properly installed and tightened.

Required Tools

All disassembly procedures can be perform using the following tools:

- PH 0x60 Philips screwdriver
- PH 0x40 Philips screwdriver
- 4.0 x 60 Flat screwdriver
- 2.0 x 30 Flat screwdriver
- SW5.0 Spacer screwdriver
- Small tweezers
- Pin

Hazardous Voltage

There is hazardous voltage present inside the computer when it is connect to an AC supply, even when the computer'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 your system.

Add-in cards can be extremely sensitive to ESD and always require careful handling. After removing the card from the computer, 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 your computer's power switch is OFF. Then, unplug the computer'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 computer chassis. As an alternative, you can dissipate electrostatic build-up by touching an unpainted metal portion of the computer chassis 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 computer.

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 your dealer.

WARNING

Ensure that the computer is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is removed. Do not operate the computer 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 chasis, 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 computer (stroom, modem netwerk, etc) verbroken worden voordat de behuizing geopend wordt. Zet de computer 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

Removing the Battery

Perform the following steps to remove the battery:

1. Make sure to power off the unit.
2. Turn the unit upside down.
3. Unlock the battery and slide it out of its place as the arrow shows in Fig. 1



Fig. 1 Removing the battery

Removing the Hard Disk Drive

To remove the hard disk drive, first remove the battery (see [Removing the Battery](#)), then perform the following steps:

1. Remove the screws as shown in Fig. 2

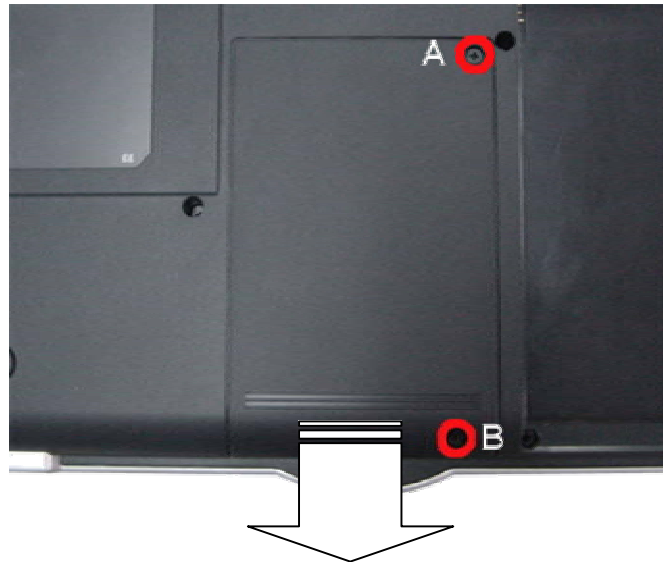


Fig. 2 Removing the Hard disk drive cover



2. Disconnect the HDD as shown in Fig. 3



Fig. 3 Disconnecting the hard disk drive

3. Unscrew the four screws on both sides of the hard disk drive as shown in Fig. 4

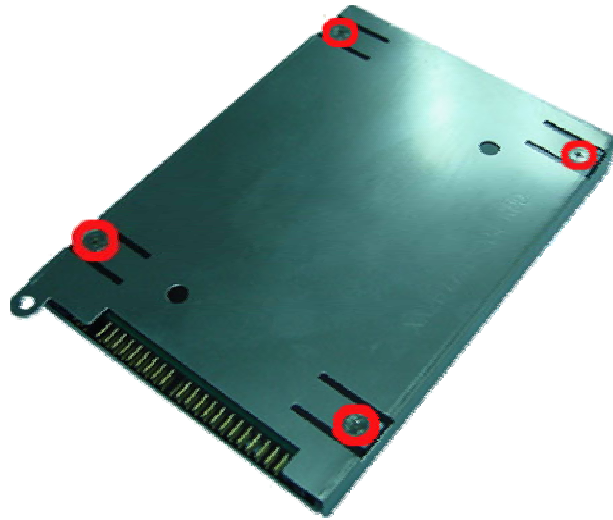


Fig. 4 Unscrewing the hard disk drive shield screws



Removing the Optical Disk Drive

To remove the ODD, first remove the battery (see [Removing the Battery](#)), then the HDD Cover (see Removing the Hard Disk Drive), then perform the following steps:

1. Remove the screws retaining the optical drive connector as shown in Fig. 5



Fig. 5 Releasing the optical drive



2. Push the metal plate in the HDD compartment in order to disconnect the optical drive out from the base unit as shown in Fig. 6

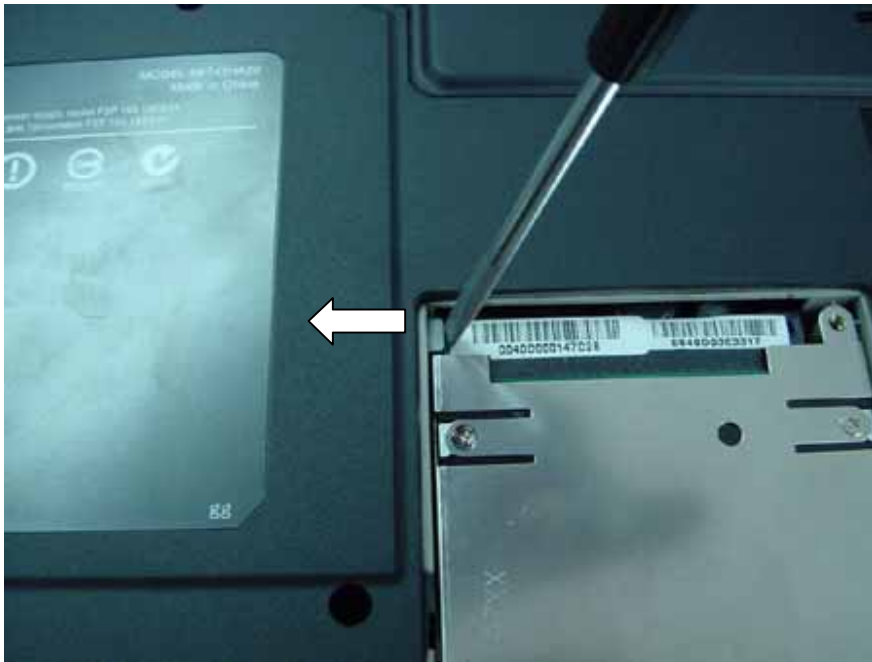


Fig. 6 Removing the optical drive

3. Remove the Optical Drive Bracket from the ODD as shown in Fig. 7



Fig. 7 Removing the Optical Drive Bracket



M2x2.5 Silver

Removing the Keyboard

To remove the Keyboard, first remove the battery (see [Removing the Battery](#)), then perform the following steps:

1. Use a flat screwdriver to lift up the Keyboard Cover as shown in Fig. 8



Fig. 8 Removing the Keyboard Cover

2. Unlock Keyboard as shown in Fig. 9



Fig. 9 Unlock Keyboard

3. Lift up the keyboard and disconnect it from the system as shown in Fig. 10

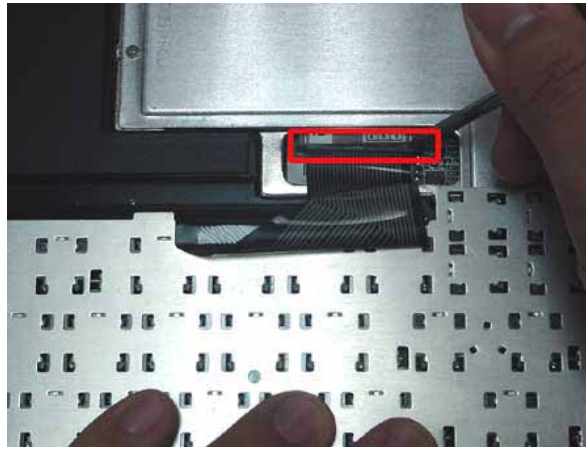


Fig. 10 Removing the keyboard flat cable

Removing the Memory Module

To remove the Memory Module, first remove the Battery (see [Removing the Battery](#)), remove the Keyboard (see [Removing the Keyboard](#)) then perform the following steps:

1. Release the screws retaining the memory module slot cover.



Fig. 11 Removing the screw retaining the memory module slot cover



M2x2.5 Silver

2. Unclip the memory module as shown in Fig. 12

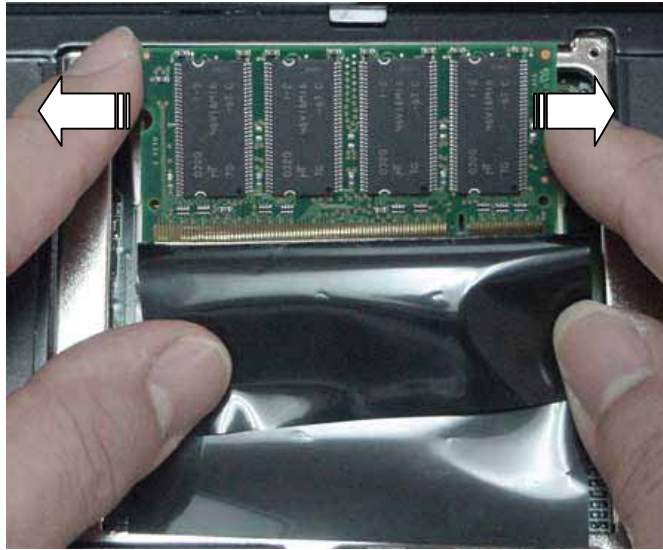


Fig. 12 Removing the memory module

3. Remove the memory module from its slot and put it aside.

Removing the LCD Module

To remove the LCD Module, first remove the Battery (see [Removing the Battery](#)), remove the Keyboard (see [Removing the Keyboard](#)) then perform the following steps:

1. Disconnect the LCD connectors as shown in Fig. 13



Fig. 13 Disconnecting LCD Connector

2. Carefully pull the LCD cable upward to release both Hinge Cover as shown in Fig. 14

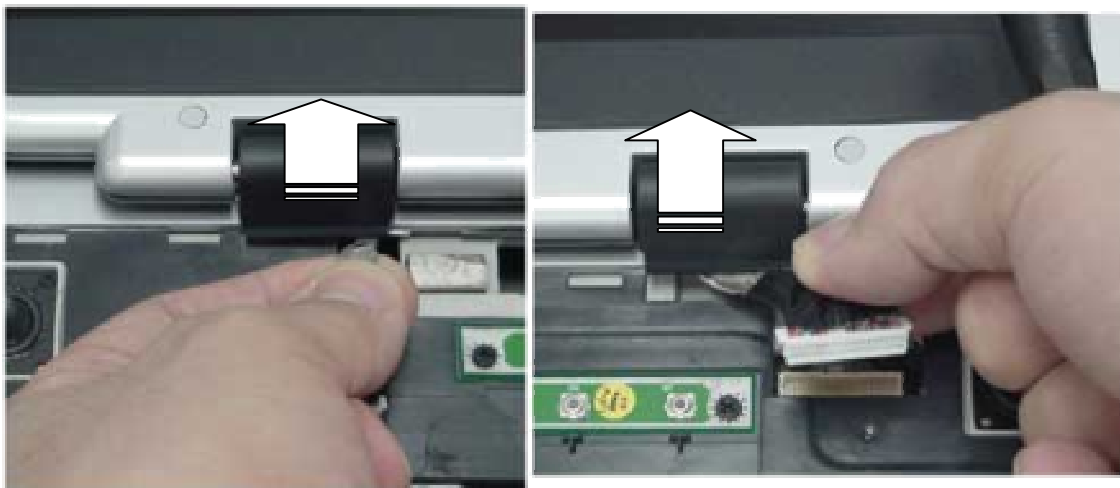


Fig. 14 Removing the Hinge Covers

3. Release the screws on the LCD Hinges as shown in Fig. 15



Fig. 15 Releasing the LCD Hinges

4. Carefully lift up the LCD module and place it in a safe place.



Removing the 15" LCD Panel

To remove the LCD panel, first remove the LCD module (see [Removing the LCD Module](#)), then perform the following steps:

1. Use a pin to remove the rubber covers on the LCD module as shown in Fig. 16 & Fig. 17



Fig. 16 Removing the rubber covers on the LCD Module

2. Unscrew all screws shown in Fig. 17



Fig. 17 Screws on the LCD Module



A = M2x4 Black



B = M2.5x7
Black

3. Release the LCD Bezel from the side carefully and put it aside as shown in Fig. 18

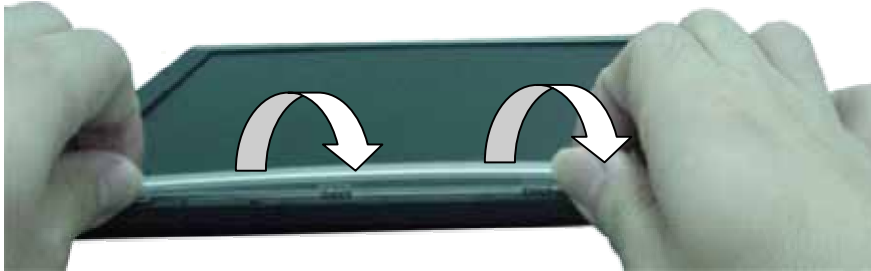


Fig. 18 Removing the LCD Bezel

Note: For the 15" LCD Models, you need to open up the LCD Bezel from either left or right side of LCD module.

4. Unscrew all screws encircled in Fig. 19



Fig. 19 Removing the LCD panel screws



5. Remove the Side Rubber Covers at the side of the LCD. Release all four screws.



Fig. 20 Remove Side Rubber Cover

6. Carefully lift up LCD panel together with the Inverter board and disconnect the power cable from the Inverter board. Disconnect the inverter connector remaining on the left side of the inverter board. Put a side the inverter board.
7. Remove the screws on both sides of the LCD panel in order to release the LCD hinges as shown in Fig. 21

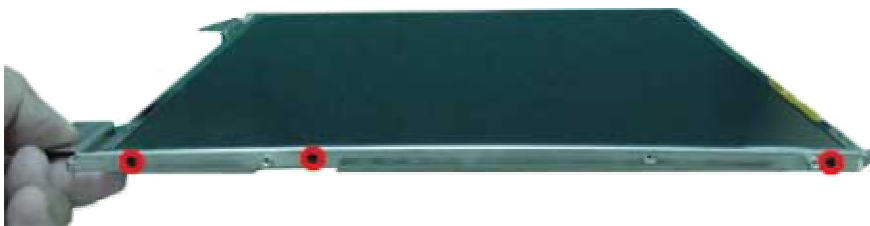


Fig. 21 Removing the LCD Panel hinges



Removing the 15.4" LCD Panel

To remove the LCD panel, first remove the LCD module (see [Removing the LCD Module](#)), then perform the following steps:

1. Use a pin to the remove rubber covers on the LCD module as shown in Fig. 22



Fig. 22 Removing the rubber covers on the LCD Module

2. Unscrew all screws as shown in Fig. 23



Fig. 23 Screws on the LCD Module



3. Release the LCD Bezel from the side carefully and put it aside as shown in Fig. 24

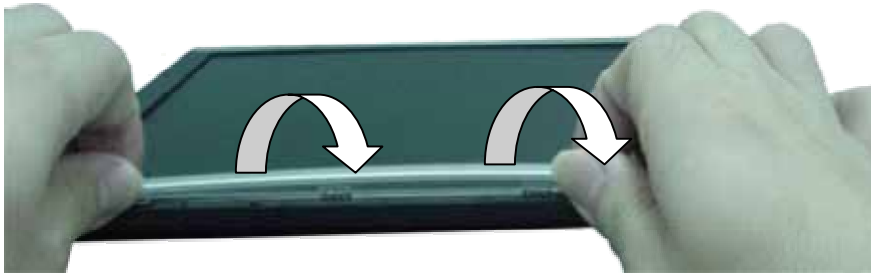


Fig. 24 Removing the LCD Bezel

Note: For the 15.4" LCD Models, you need to open up the LCD Bezel from either left or right side of LCD module.

4. Unscrew all screws encircled in Fig. 25



Fig. 25 Removing the LCD panel screws



5. Remove the Side Rubber Covers at the side of the LCD. Release all two screws.



Fig. 26 Removing the Side Rubber Covers



M2x4 Black

6. Carefully lift up the LCD panel together with the Inverter board and disconnect the power cable from the Inverter board. Disconnect the inverter connector remaining on the left side of the inverter board. Put a side the inverter board.

7. Remove the screws on both sides of the LCD panel in order to release the LCD hinges as shown in Fig. 27



Fig. 27 Removing the LCD Panel hinges



M2x3.5 Black

8. Release the speakers at both sides of the LCD back cover as shown in Fig. 28



Fig. 28 Removing the Speakers



M2x3.5 Black

Removing the CPU

To remove the CPU, first remove the battery (see [Removing the Battery](#)), then perform the following steps:

1. Remove the screw retaining the CPU Cover as shown in Fig. 29



Fig. 29 CPU Cover



2. Release all screws on the heat sink, disconnect the Fan connector and carefully remove the heat sink as shown in Fig. 30

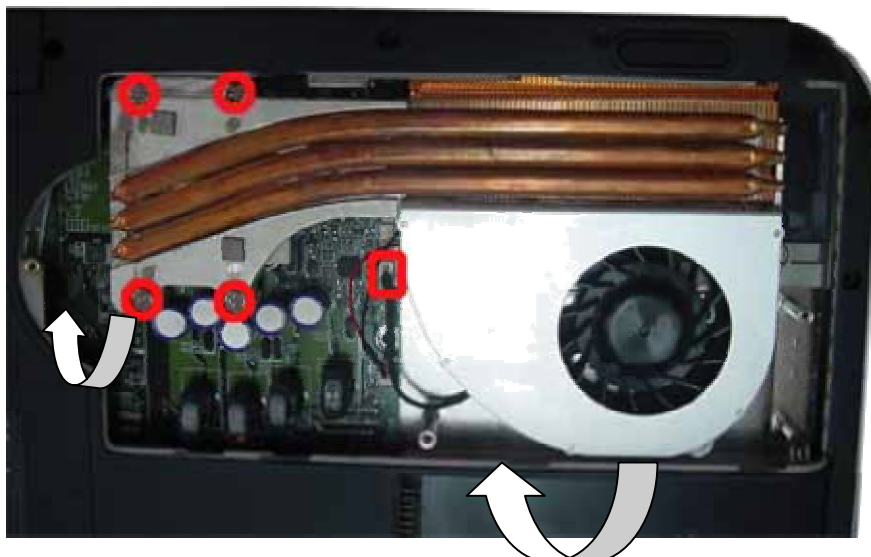


Fig. 30 Removing the heat sink



3. Unlock the CPU and carefully remove it from the CPU socket as shown in Fig. 31 Fig. 31



Fig. 31 Unlocking the CPU

Removing the Bottom Cover

To remove the Bottom Cover, first remove the keyboard (see [Removing the keyboard](#)), remove the CPU (see [Removing the CPU](#)), remove the LCD module (see [Removing the LCD Module](#)) then perform the following steps:

1. Remove the screws maintaining the Quick Key Board, lift it up and place it in safe location.



Fig. 32 Removing the Quick Key Board

2. Release all screws as shown in Fig. 33



Fig. 33 Removing the top cover screws


M2.5x3.5 Black


M2.5x3.5 Black

3. Flip over the unit and remove the screws as shown in Fig. 34

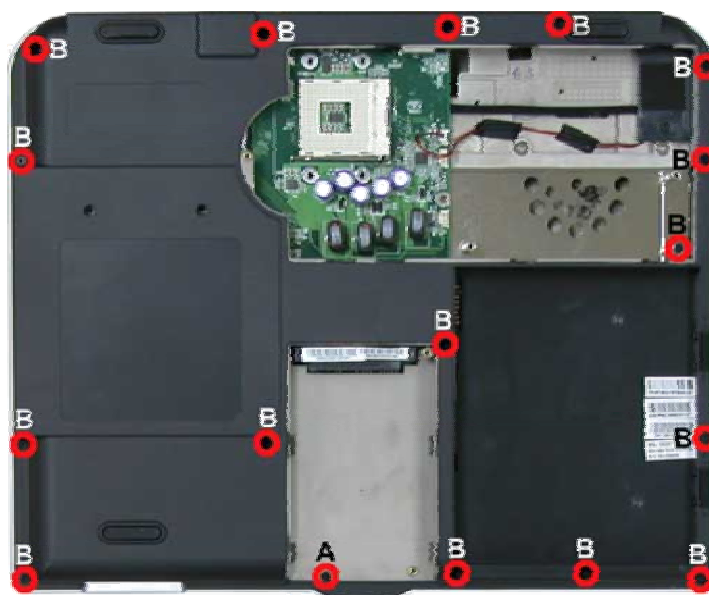
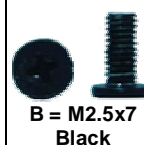


Fig. 34 Removing screws on bottom of the system



4. Remove the screws on the rear side of the system.



Fig. 35 Rear side of the system



5. Carefully lift up the bottom cover, release it and put it aside.



Fig. 36 Removing the Bottom Cover

Note: When assembling bottom cover, please make sure that the bottom cover is properly insert into top cover especially the corner near to rear of the system.



Removing the Main Board

To remove the main board, first remove the Bottom Cover (See [Removing the Bottom Cover](#)) then perform the following steps:

1. Disconnect the LED Board as shown in Fig. 37

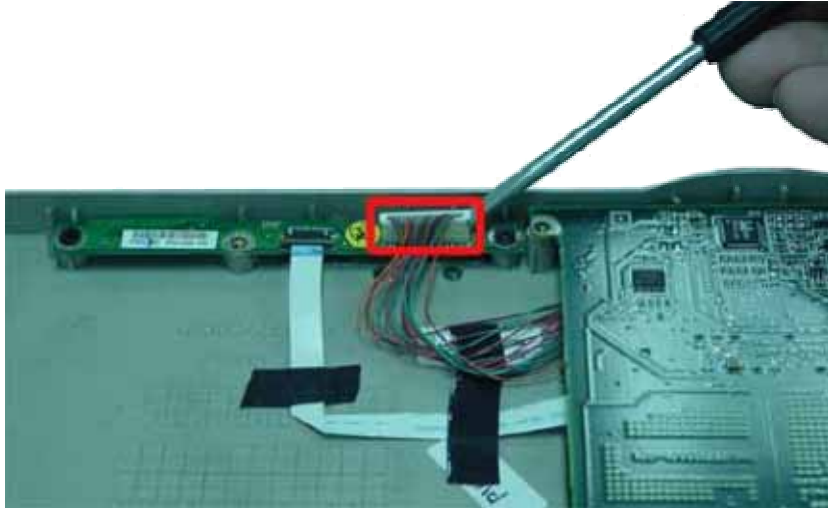


Fig. 37 Disconnecting main board and LED board

2. Carefully separate the Main Board assembly from the top cover as shown in Fig. 38

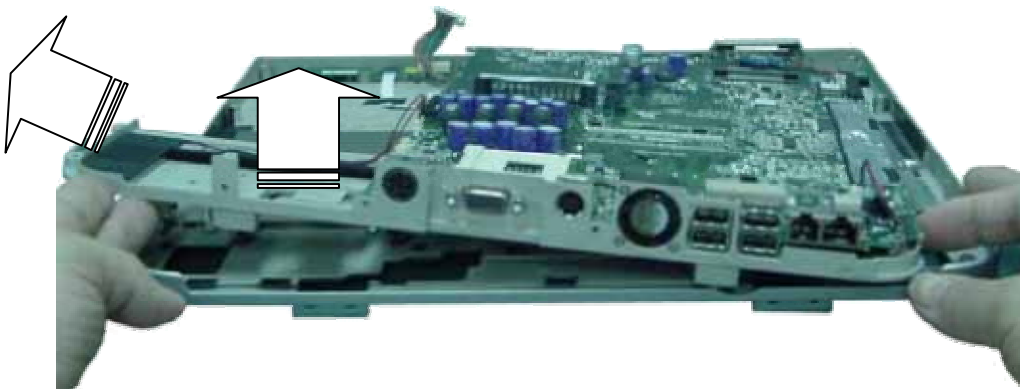


Fig. 38 Lifting up the Main Board assembly

3. Disconnect all connector from the Main Board and remove the screw holding the heat plate as shown in **Error! Reference source not found.**

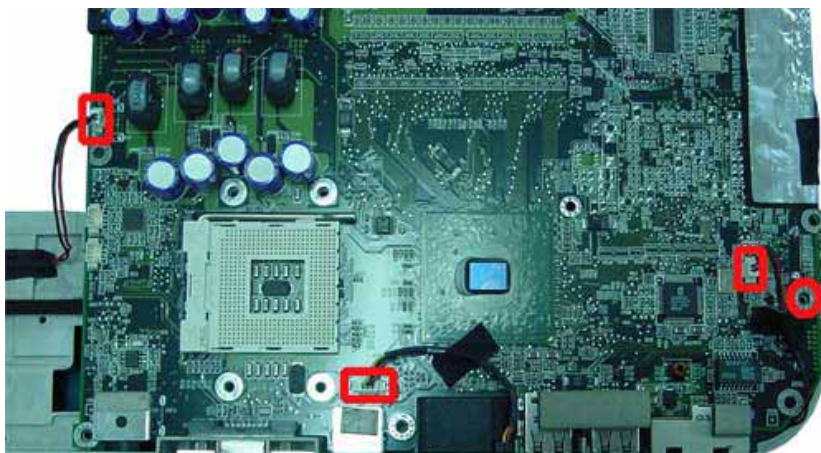


Fig. 39 Separating Main board



M2.5x7 Black

Removing the MDC Modem Module

To remove the MDC Modem Module, first remove the Main Board (see [Removing the Main Board](#)), then perform the following steps:

1. Remove the screws retaining the MDC Modem as shown in Fig. 40

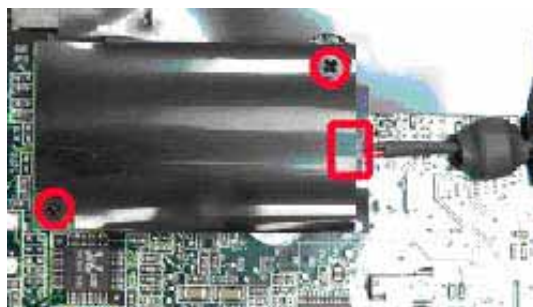


Fig. 40 Removing the screws retaining the MDC Modem



M2x4.5 Black

2. Carefully lift up the MDC modem module.
3. Disconnect the cable attached to the MDC modem and put the modem aside.

Note: The location of the MDC modem in the Versa M400/EasyNote M5 is different than the one in the EasyNote M7. On the M7 the MDC modem is located under the touch pad. On the M5 the MDC modem is next to the PCMCIA slot.

Removing the WLAN Module

To remove the WLAN Module on Versa E400/EasyNote M5, first remove the Main Board (see [Removing the Main Board](#)), then perform the following steps:

To remove the WLAN Module on EasyNote M7, first remove the Keyboard (see [Removing the Keyboard](#)), then perform the following steps:

1. Disconnect the WLAN antenna connection on the WLAN Module then unclip it as shown in Fig. 41



Fig. 41 Removing the WLAN Module

2. Carefully lift up the WLAN module and put it aside.

Note: The location of the WLAN module in the Versa M400/EasyNote M5 is different than the one in the EasyNote M7. On the M7 the WLAN module is located under the keyboard. On the M5 the WLAN module is next to the PCMCIA slot.

Removing the Touch Pad

To remove the touch pad, first remove the Main Board (see [Removing the Main Board](#)), then perform the following steps:

1. Unscrew the screws on the Touch Pad assembly as shown in Fig. 42 and remove the touch pad assembly from the Top cover.

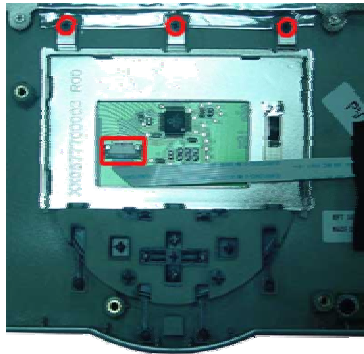


Fig. 42 Touch Pad



Removing the Speaker Assembly

To remove the Speaker assembly, first remove the Main Board (see [Removing the Main Board](#)), then perform the following steps:

1. Remove the screws holding Audio Board holder as shown in Fig. 43

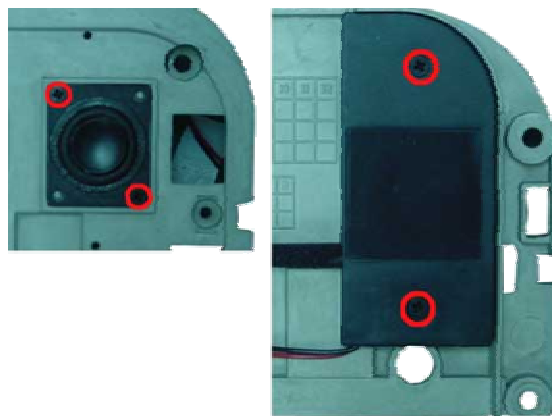


Fig. 43 Screw at Audio Board Holder



2. Carefully remove the Speaker assembly from bottom base and place it aside.

DIP Switch Setting

No DIP Switch settings are available for the Versa M400/EasyNote M5 and EasyNote M7.

Screws

			
M2x3.5 Black	M2x3 Black	M2x4.5 Black	M2.5x7 Black
			
M2.5x5 Black	M2.5x3.5 Black	M2x4 Black	M3x21 Silver
			
M2x2.5 Silver	M2x4.5 Silver	M3x4 Silver	M5x10 Silver

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