

Disassembly Manual





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#### Overview

This document contains step-by-steps disassembly instructions for the Versa E680 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 E680 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 userserviceable 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.

#### **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 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 Versa E680.
- 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 <u>Removing the Battery</u>), then perform the following steps:

1. Remove the screws as shown in Fig. 2





Fig. 2 Removing the Hard disk drive cover

2. Release screw that secure HDD module as shown in Fig. 3





Fig. 3 Screw on HDD module



3. Disconnect and lift up the hard disk module as shown in Fig. 4

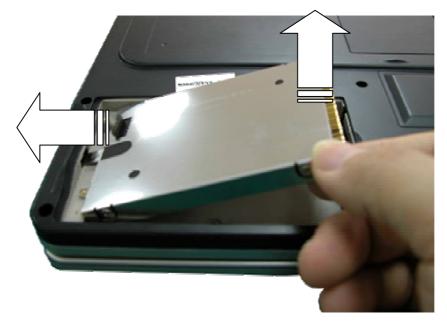


Fig. 4 Disconnecting the hard disk drive

4. Unscrew the four screws on both sides of the hard disk drive as shown in Fig. 5



Fig. 5 Unscrewing the hard disk drive bracket screws





### **Removing the Memory Module**

To remove the Memory Module, first remove the battery (see <u>Removing the Battery</u>), then perform the following steps:

1. Release the one screw retaining the memory module cover.





Fig. 6 Removing the screw retaining the memory module slot cover

2. Unclip memory module as shown in Fig. 7



Fig. 7 Removing the memory module

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



### **Removing the Wireless LAN**

To remove the Wireless Module, first remove the battery (see <u>Removing the Battery</u>), then perform the following steps:

1. Remove the screw retaining the mini PCI slot cover as shown in Fig. 8





Fig. 8 Removing the screws screw retaining the mini PCI slot cover

2. Disconnect the wireless antenna wires from the wireless module Unclip and remove the wireless LAN module.



Fig. 9 Wireless LAN & MCD Modem Module



# **Removing the CPU**

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

3. Remove the screw retaining the CPU cover as shown in Fig. 10





Fig. 10 Removing the screws retaining CPU cover

4. Remove heat sink screws, disconnect fan connector and lift up the heat sink.





Fig. 11 Removing the screws retaining the heat plate



5. Unlock CPU from CPU socket and lift up the CPU carefully.



Fig. 12 Unlock CPU



### Removing the optical disk drive

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

1. Remove the screws retaining the optical drive as shown in Fig. 13







Fig. 13 Releasing the optical drive

2. Carefully open up small gap between top cover and bottom cover. Hock on the ODD bezel and carefully remove ODD

Note 1: You might loosen only all screws marked as B instead of remove it.

**Note 2:** When assemble the ODD, you might put a tine cardboard on the ODD before insert it to base unit. It will easy the ODD installation

Note 3: You consider removing Bottom Cover before remove ODD.



# **Removing the Keyboard**

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

1. Push the keyboard cover from battery compartment as shown in Fig. 14



Fig. 14 Releasing the keyboard cover

2. Lift up the keyboard cover carefully as shown in Fig. 15



Fig. 15 Lifting up Keyboard Cover



3. Lift up the keyboard and disconnect it from the system as shown in Fig. 16



Fig. 16 Disconnect keyboard flat cable

# **Removing the Main Board**

To remove the Main Board, first remove the battery (see <u>Removing the Battery</u>), remove Keyboard (see <u>Removing Keyboard</u>) then perform the following steps:

1. Use small flat screwdriver to remove hinge cover and release screws near to battery compartment at both side.



Fig. 17 Removing the top cover screws





2. Disconnect all cable connection located near to left speaker as shown in Fig. 18



Fig. 18 LCD Cable and Left speaker connection

3. Disconnect Touch Pad Connection as shown in Fig. 19

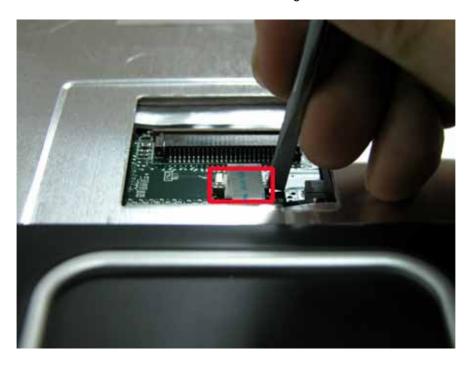


Fig. 19 Touch Pad connection



4. Flip over unit and release all screws as shown in Fig. 20







Fig. 20 Removing the top cover screws

- 5. Carefully lift up, release the top cover, and put it aside.
- 6. Unscrew screws on MDC Modem module and disconnect it before lift up MDC Modem.

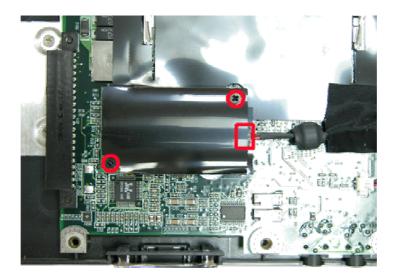
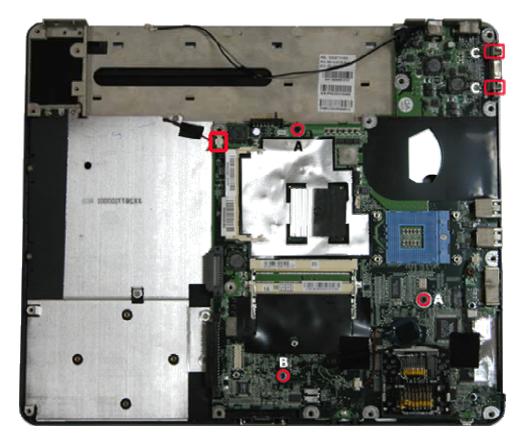




Fig. 21 Removing the top cover

# NEC

7. Unscrew screws all screws shown in Fig. 22 and disconnect right speaker connection on Main board.



A = M5x2.5 Sliver





Fig. 22 Screws on Main Board

8. Lift up Main Board as shown in Fig. 23



Fig. 23 Lifting up Main Board



**Note 1:** When lifting up Main Board bewares the coil, attach on the Wireless Antenna. **Note 2:** Make sure Wireless Antenna are properly place in correct location when assemble.





# **Removing the LCD Module**

To remove LCD Module first remove Main Board (see <u>Removing Main Board</u>), then perform the following steps:

1. Release screws show in Fig. 24





Fig. 24 Removing screws retaining LCD Module

2. Carefully lift up the LCD Module.



### **Removing the LCD Panel**

To remove the LCD panel, first remove the LCD module (see <u>Removing the LCD Module</u>), then perform the following steps:

1. Use pin to remove rubber cover on the LCD module as shown in Fig. 25





Fig. 25 Removing the rubber covers & screws on the LCD Module

2. Release the LCD Bezel carefully and put it aside as shown in Fig. 26



Fig. 26 Removing the LCD Bezel



3. Unscrew all screws circled in Fig. 27 and disconnect LCD back light cable from inverter board before lift up LCD penal.









Fig. 27 Removing the LCD panel screws

4. Remove the screws at both sides of the LCD panel in order to release the LCD hinges as shown in Fig. 28





Fig. 28 Removing the LCD Panel hinges



5. Remove the screws at both sides of the wireless antenna as shown in Fig. 29, release the wires from the adhesive tapes and put the wireless antenna aside.



Fig. 29 Removing Wireless Antenna

6. Remove the screws on LCD module holder at both sides of the LCD base cover and put it aside.



Fig. 30 Removing Wireless Antenna



7. Remove the screws at both sides of the LCD Hock and put it aside.



Fig. 31 LCD Hock





# **Removing the Touch Pad**

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

1. Unscrew the screws on the Top Cover as shown in Fig. 32

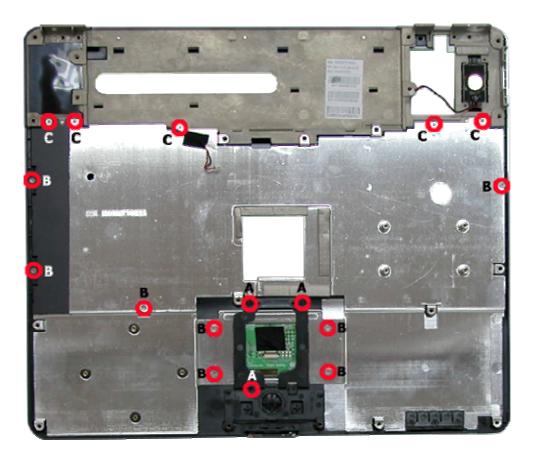


Fig. 32 Top cover

2. Carefully separate Touch Pad module from Top cover.









# **Removing the Speaker Assembly**

To remove the Speaker assembly, first open up the Keyboard cover (See <u>Removing Keyboard</u>), Remove Bottom Cover (See <u>Removing Main Board</u>) the perform the following steps:

1. Remove the screws holding Speaker Assembly as shown in Fig. 33

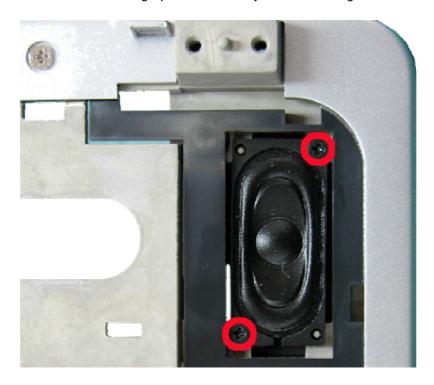




Fig. 33 Speaker Assembly

2. Carefully remove the Speaker assembly from Top Cover and place it aside.

#### **DIP Switch Setting**

No DIP Switch Setting Required on NEC Versa E680 / Packard Bell Easynote E5.



#### **Screws**

10	10	10	10
M3.5x2 Black	M6x2.5 Black	M4x3 Silver	M10.5x2 Sliver
10			
M4.5x3.5 Black	M3x2 Sliver	M5x2.5 Sliver	M6x2 Black
<b>®</b>		20	10
M2.5x10 silver	M4.5x2.5 Sliver	M3.5x2.5 Sliver	M4.5x2 Black
10			
M3.5x2 Sliver			

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NEC Versa E680/PB EasyNote E5 Disassembly Manual



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