

Acer Chromebook R853TA

LIFECYCLE EXTENSION GUIDE

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Self-Repair

This chapter highlights the limited self-repair capabilities of the product.

Prior performing self-repair, familiarize yourself with the Safety Guidelines and Recommended Equipment sections first as described in the chapter "[Disassembly Procedures](#)".

Depending on model, the following key components are eligible for self-repair (if applicable);

- Battery pack
- HDD / SSD module
- DIMM module(s)
- WLAN module
- LTE module

If a particular key component is listed and thus would be eligible for self-repair, but is not described in the "[Disassembly Procedures](#)" section, then this component is either not present on the respective model, or it is present but embedded on the motherboard and therefore not eligible for self-repair.

⇒ **NOTE:**

Do not attempt to replace other components than those listed above.

⇒ **NOTE:**

For replacement parts, always use only Acer certified components in order to safeguard quality, optimum system performance, stability and reliability of the product.

⇒ **NOTE:**

Any damage to the product that occur during self-repair, or which has occurred as a result of a careless or unsuccessful self-repair attempt, is not covered by the standard product warranty.

Disassembly Procedures

Please refer to the chapter "[Disassembly Procedures](#)" for step by step disassembly instructions.

System BIOS & Driver Updates

Visit <http://www.acer.com/support> to discover the available system BIOS and Drivers for this product. After selecting the desired country/language, either enter the model name or product serial number, or select the product from the list of suggested models in order to get access to product-specific software and documentation.

To update the system BIOS:

- Download the desired system BIOS version from the website
- Unzip the downloaded file to your computer
- Double-click the extracted file in order to initiate the update process
- The update process itself is fully automated and its progress is visualized by means of a progress indicator
- A visual notification is shown when the update is complete

⇒ **NOTE:**





Upgrading the system BIOS incorrectly, or intermittence of the system BIOS update process could harm the product.

⇒ **NOTE:**

System BIOS upgrades or downgrades, if not performed by an Acer Service Center or authorized Service Partner, are at own risk.

To update Drivers:

Run Windows Update in order to get the latest drivers from Acer:

- Select the Start  button
- Go to **Settings**  > **Update & Security**  > **Windows Update** 
- Available Drivers will automatically be listed on the screen. Press **Download** to start the download of the respective driver
- Installation of the driver will start automatically once the download is completed

Software Recovery

This product has embedded software recovery tools which can be used to either perform a partial or full software recovery, but also to create a Factory Default recovery media.

For more information about the software recovery options, how to perform a software recovery or creating a Factory Default recovery media, please refer to the chapter "Recovery" which is available in the User Manual of the product.

⇒ **NOTE:**

In the event of not being able to create a Factory Default recovery media, it is possible to obtain a copy of the recovery media through Acer Customer Service (<http://www.acer.com/support>)

This is not a free of charge service.

Disassembly Procedures

Safety Guidelines

This chapter contains step by step procedures on how to remove and de-install components from the computer. Use the following safety guidelines to ensure your personal safety. Each procedure included in this chapter assumes that you are preparing your computer for recycling and disposal. **By performing any of these procedures you acknowledge that any remaining warranty applicable to your computer will be voided. Before you start any of the procedures in this chapter, make sure to read the following safety guidelines and the respective instructions within the chapter.**

CAUTION!

- Turn off your computer and disconnect all power sources before opening the computer cover or panels.
- To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface at the same time as touching a connector on the back of the computer.
- Take off any metal objects on your arms or fingers such as bracelets, rings or watches and make sure your hands are completely dry. Even if your unit is unplugged, there may still be some remaining electric charge.
- If a component does not come out easily, do not forcefully remove it. Instead, check that you are removing it correctly and that no wires or other parts are in the way.
- When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable.

Recommended Equipment

The following equipment are recommended to do the following maintenance procedures:

- Wrist grounding strap and conductive mat
- Flat screwdriver
- Philips screwdriver
- Polydrive screwdriver
- Plastic tweezers
- Flat plastic pry

WEEE Annex VII Component

These components are classified as requiring selective treatment:

- Battery pack
- Touchpad module
- USB board
- Mainboard
- LCD panel

Pre-disassembly Instructions

Do the following prior to starting any maintenance procedures:

1. Place the system on a stable work surface.
2. Remove the power adapter from the USB Type-C port (A) as shown in [Figure 1-1](#) or from the USB-C port (B) as shown in [Figure 1-2](#).
3. Remove all cables from system.



Figure 1-1. AC Adapter Outlet

4. Remove the microSD card from the microSD card slot (C) ([Figure 1-2](#)).

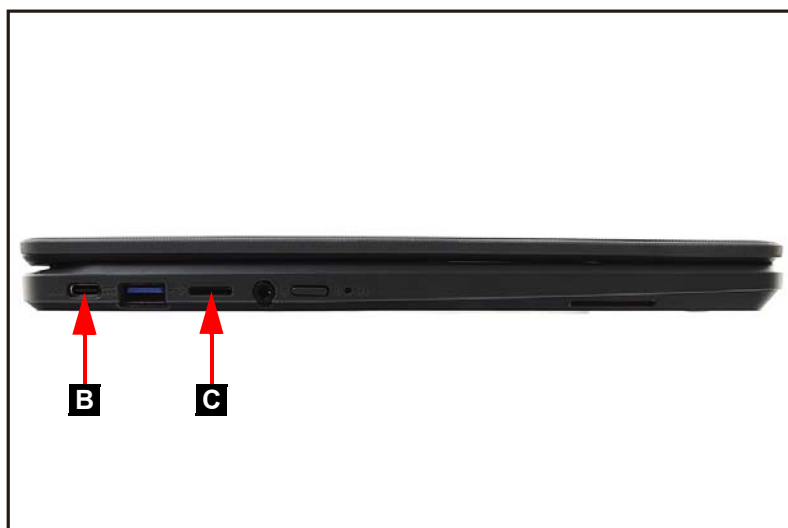


Figure 1-2. MicroSD Card Removal

⇒ **NOTE:**

Make sure the system is completely powered off.

Base Cover Removal

1. Remove eleven (11) screws from the base cover (Figure 1-3).



Figure 1-3. Base Cover Removal

2. Carefully pry up the base cover starting from the upper side to release the latches. Then continue releasing the remaining latches on the left, right, and bottom sides (Figure 1-4).



Figure 1-4. Base Cover Removal

3. Grasp and remove the base cover from the system (Figure 1-5).



Figure 1-5. Base Cover Removal

Battery Removal

Prerequisite:

Base Cover Removal

1. Find the battery pack (A) on the top assembly (Figure 1-6).
2. Detach the tape (B) securing the battery cable to the mainboard connector (Figure 1-6).

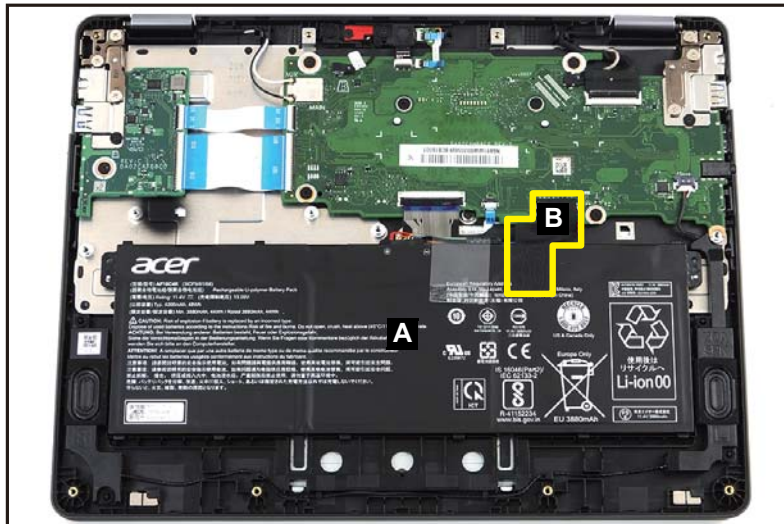


Figure 1-6. Battery Pack Removal

3. Disconnect the battery cable (C) from the mainboard connector (Figure 1-7).



Figure 1-7. Battery Pack Removal

4. Lift to release the battery pack from the guide pins (D). Then remove the battery pack from the top assembly (Figure 1-8).



Figure 1-8. Battery Pack Removal

- + **IMPORTANT:** Follow local regulations for battery disposal.

Touchpad Module Removal

Prerequisite:

Battery Removal

1. Disconnect the keyboard FPC from the mainboard connector (A) (Figure 1-9).

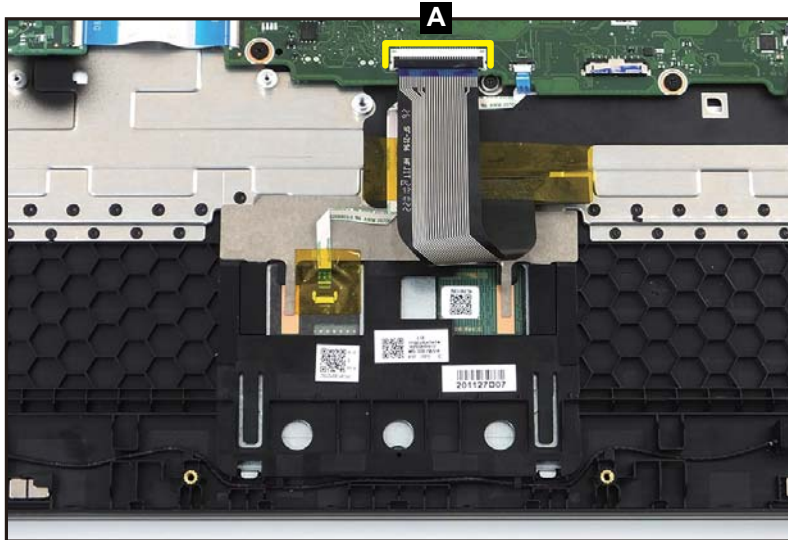


Figure 1-9. Touchpad Module Removal

2. Detach the adhesive tape (B) securing the touchpad FFC on the touchpad module. Then detach another adhesive tape from the opening on the keyboard compartment (for keyboard FPC routing) (Figure 1-10).

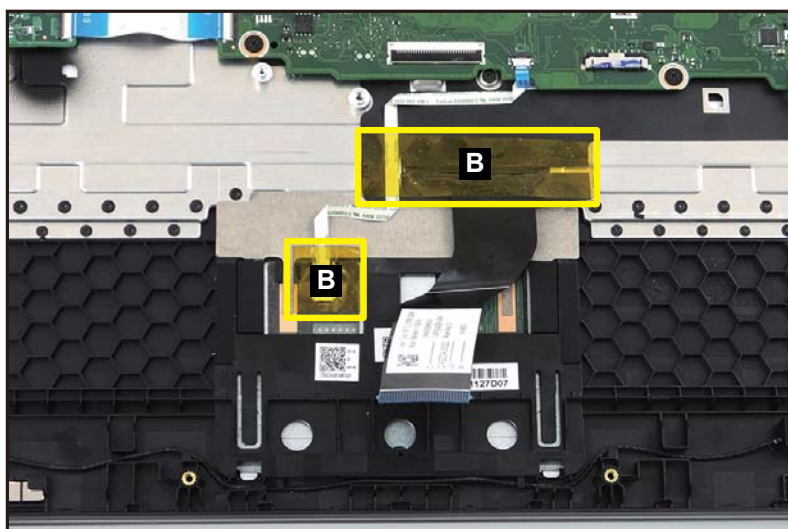


Figure 1-10. Touchpad Module Removal

3. Disconnect the touchpad FFC from the touchpad module connector (C) and the mainboard connector (D). Then remove the touchpad FFC from the top assembly (Figure 1-11).

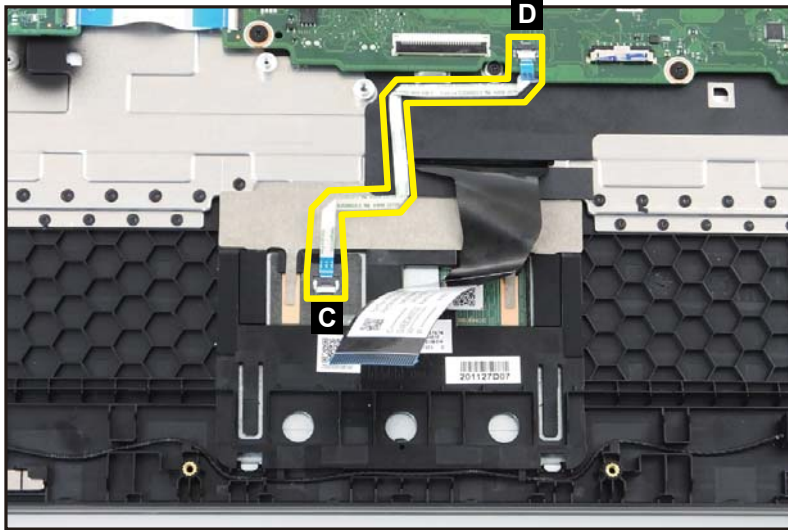


Figure 1-11. Touchpad Module Removal

4. Detach the conductive tape (E) from the touchpad module (Figure 1-12).

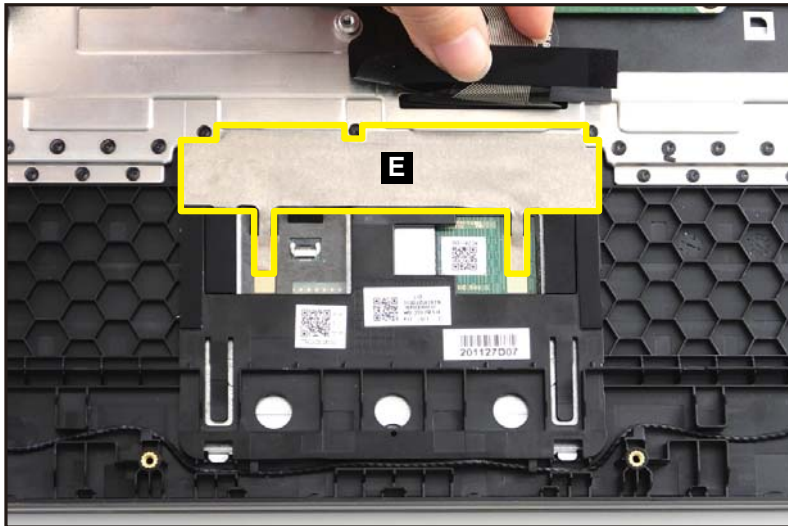


Figure 1-12. Touchpad Module Removal

5. Remove three (3) screws securing the touchpad module in place (Figure 1-13).

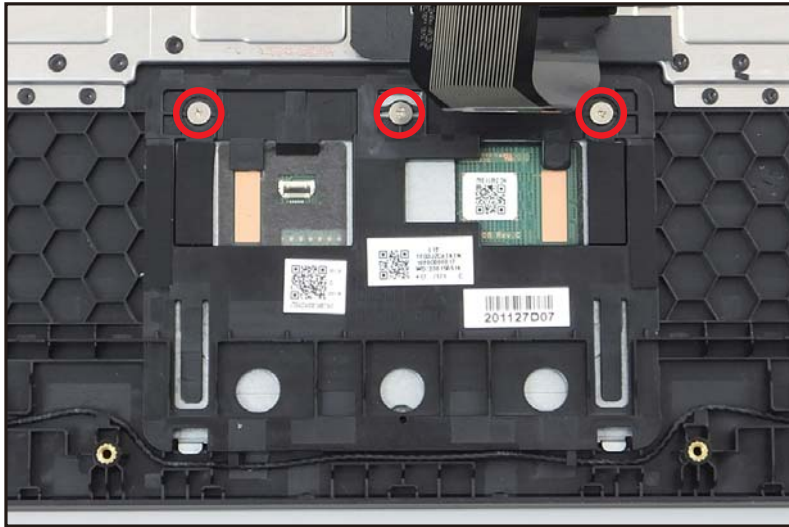


Figure 1-13. Touchpad Module Removal

6. Using the screwdriver, push the guide pins (F) firmly to release them from the top assembly (Figure 1-14).
7. Slide the touchpad module slightly to disengage it from the bottom latches (G), and then remove the touchpad module (H) from the top assembly (Figure 1-14).

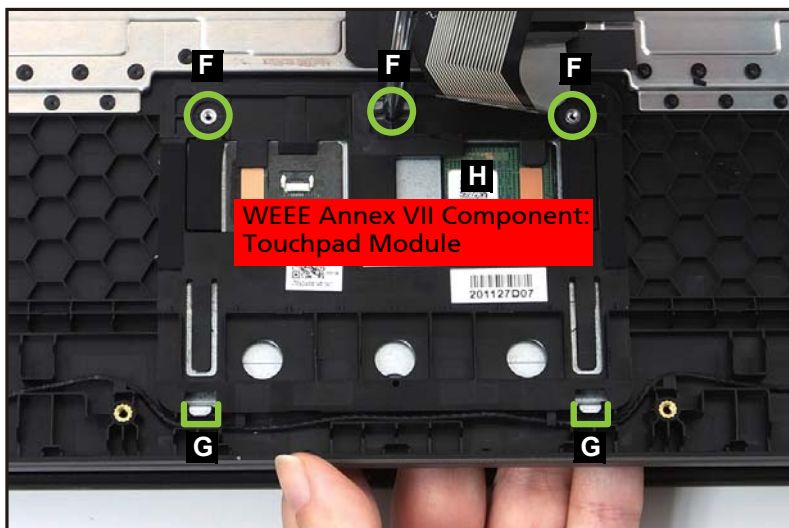


Figure 1-14. Touchpad Module Removal

8. Detach the rubbers (l) from the touchpad module (Figure 1-15).

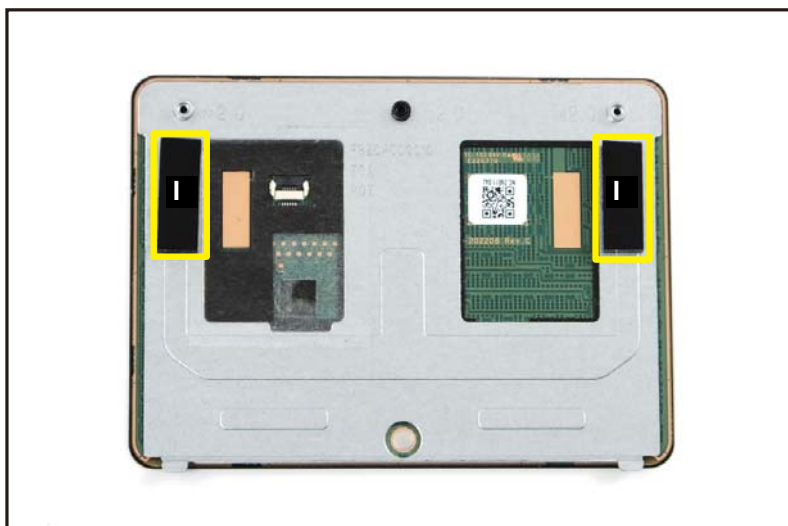


Figure 1-15. Touchpad Module Removal

LCD Module Removal

Prerequisite:

Battery Removal

1. Disconnect the WLAN antennas cables from the WLAN module connectors (A). Then unroute the WLAN antennas cables from the cable guides (Figure 1-16).

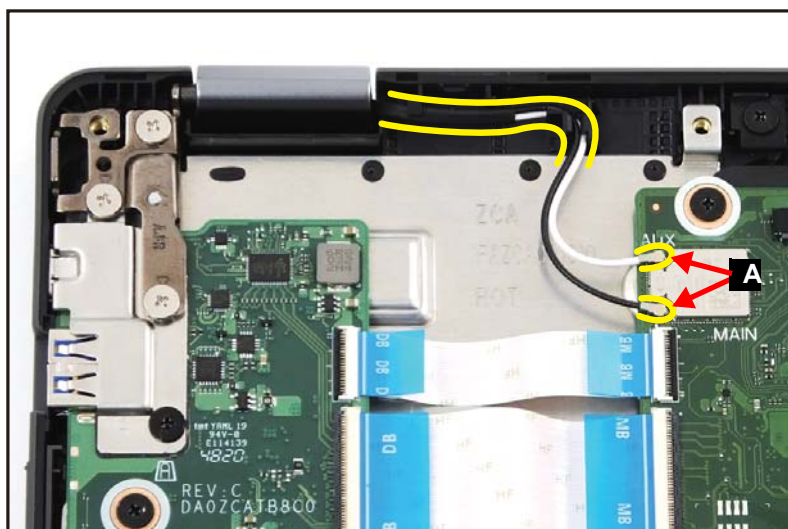


Figure 1-16. LCD Module Removal

2. Disconnect the G-sensor cable from the mainboard connector (B) (Figure 1-17).
3. Disconnect the eDP cable from the mainboard connector (C). Then unroute the eDP cable from the cable guides (Figure 1-17).

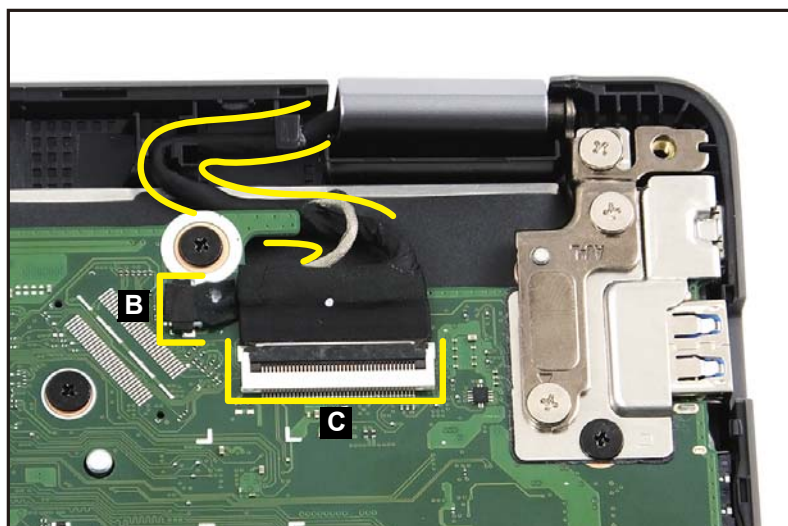


Figure 1-17. LCD Module Removal

4. Remove six (6) screws securing the LCD hinges in place ([Figure 1-18](#)).

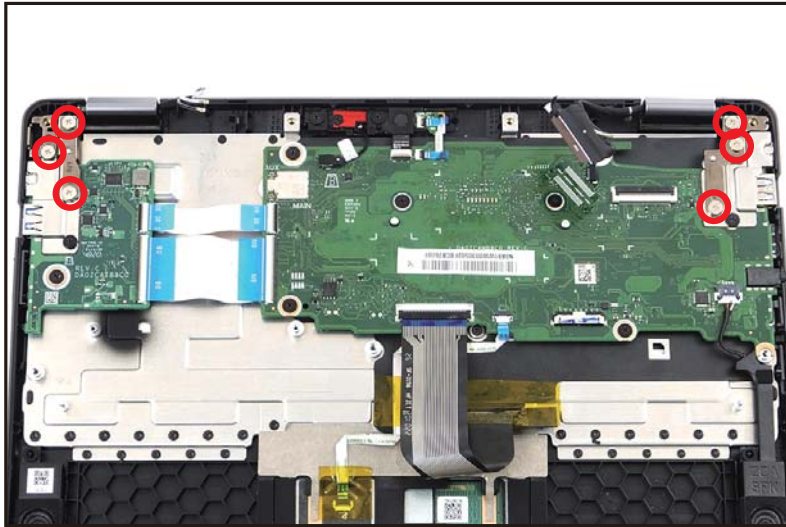


Figure 1-18. LCD Module Removal

5. Open the top assembly. Then remove the LCD module away from the top assembly ([Figure 1-19](#)).



Figure 1-19. LCD Module Removal

Keyboard Removal

Prerequisite:

Battery Removal

1. Disconnect the keyboard FPC from the mainboard connector (A) (Figure 1-20).

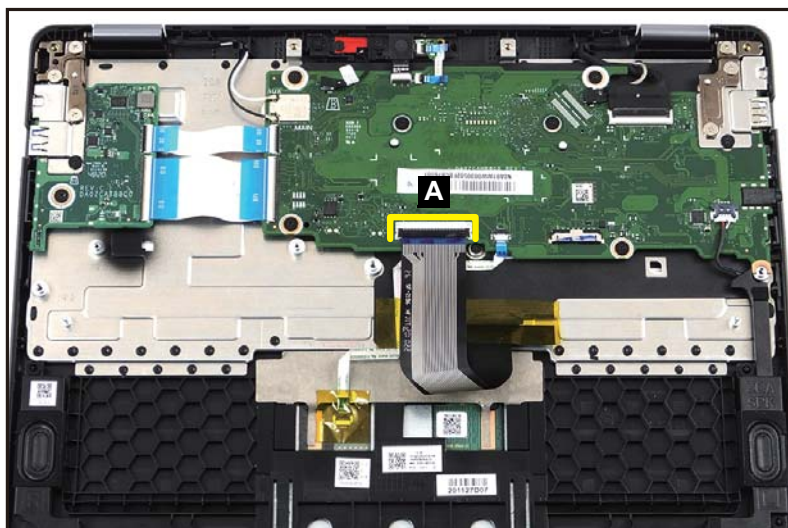


Figure 1-20. Keyboard Removal

2. Detach the adhesive tape (B) from the opening on the keyboard compartment (for keyboard FPC routing) (Figure 1-21).
3. Remove one (1) screw securing the keyboard in place (Figure 1-21).

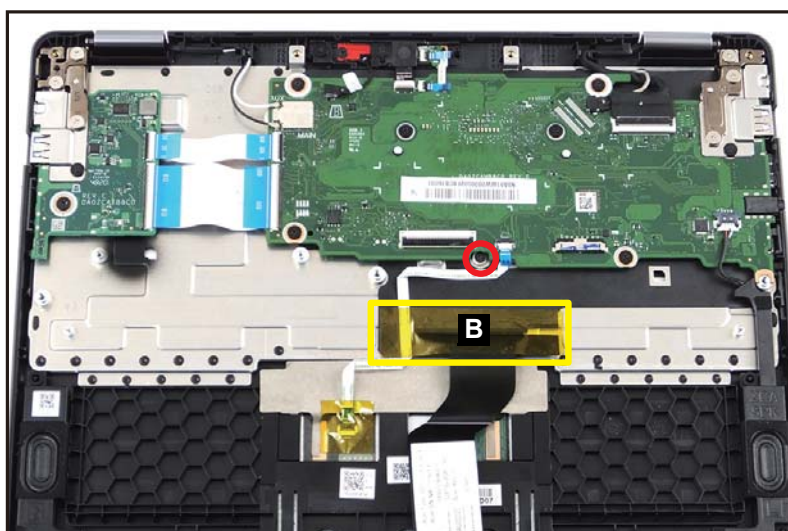


Figure 1-21. Keyboard Removal

- Using a pointed tool, push the screw hole (C) firmly to release the keyboard from the top assembly (Figure 1-22).

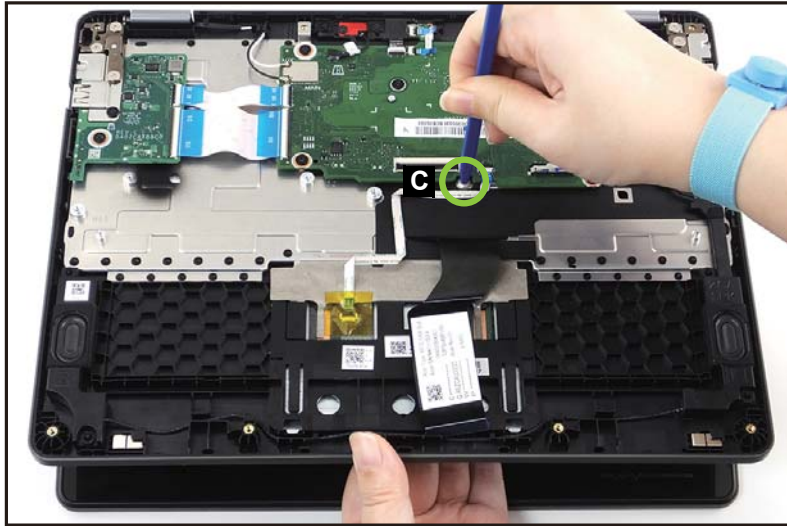


Figure 1-22. Keyboard Removal

- Carefully lift the bottom of the keyboard to release it from the top assembly.
- Unroute the keyboard FPC from the opening (D) on the keyboard compartment. Then remove the keyboard (E) (Figure 1-23).

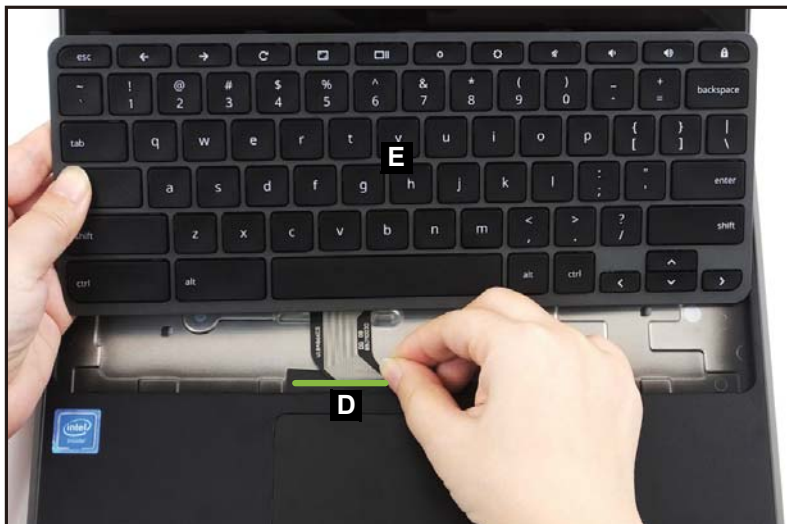


Figure 1-23. Keyboard Removal

USB Board Removal

Prerequisite:

LCD Module Removal

1. Disconnect the 20-pin USB board FFC from the mainboard connector (A) and the USB board connector (B). Then remove the 20-pin USB board FFC (Figure 1-24).
2. Disconnect the 50-pin USB board FFC from the mainboard connector (C) and the USB board connector (D). Then remove the 50-pin USB board FFC (Figure 1-24).
3. Remove two (2) screws securing the USB board and I/O bracket in place (Figure 1-24).

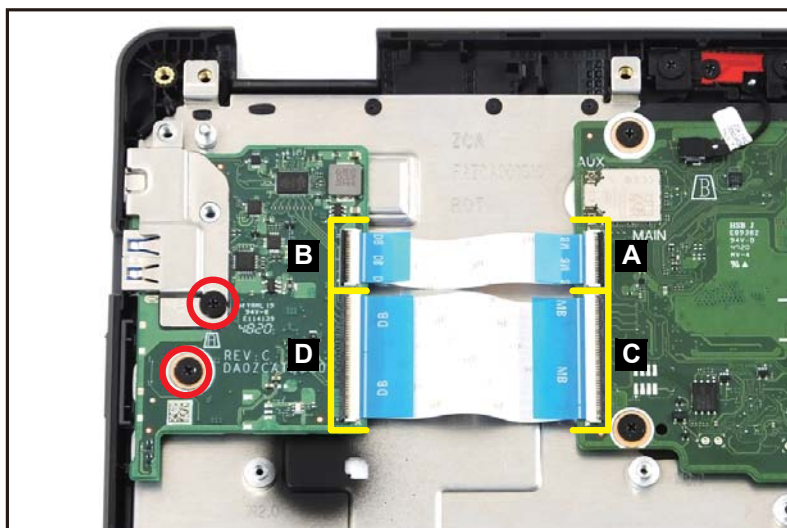


Figure 1-24. USB Board Removal

4. Release the I/O bracket from the USB port slot and guide pin (E) on the top assembly. Then remove the I/O bracket (F) (Figure 1-25).

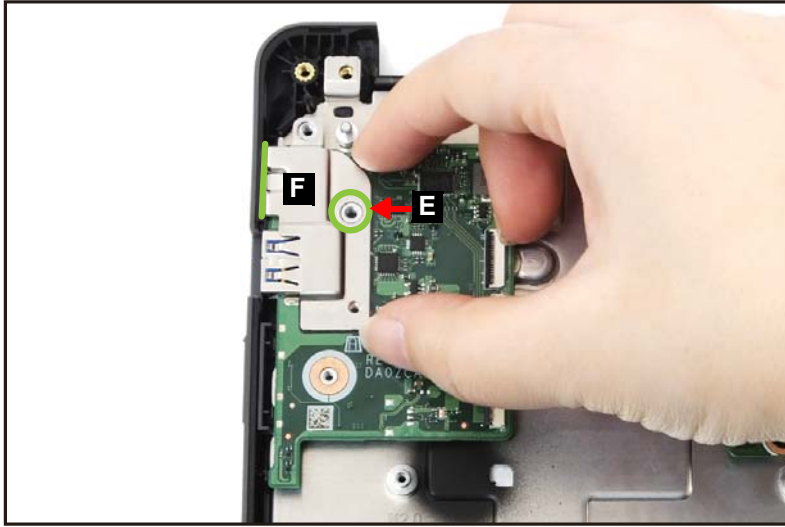


Figure 1-25. USB Board Removal

5. Release the USB board from the USB port slot and guide pins (G) on the top assembly. Then remove the USB board (H) (Figure 1-26).

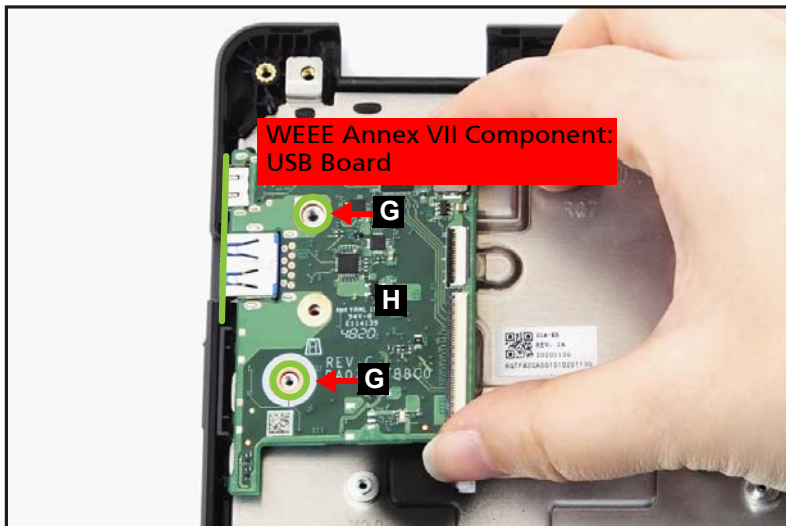


Figure 1-26. USB Board Removal

10. Release the I/O bracket from the USB port slot and guide pins (I) on the top assembly. Then remove the I/O bracket (J) (Figure 1-28).

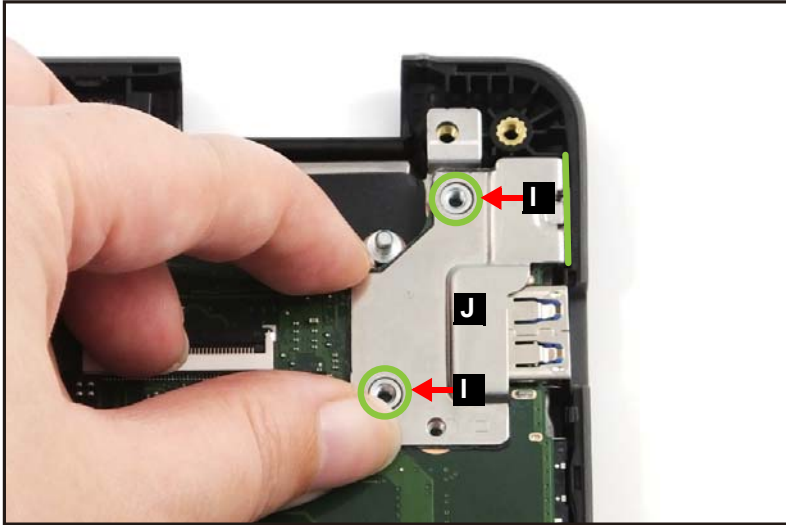


Figure 1-28. Mainboard Removal

11. Release the mainboard from the I/O ports slots and guide pins (K) on the top assembly. Then remove the mainboard (L) (Figure 1-29).

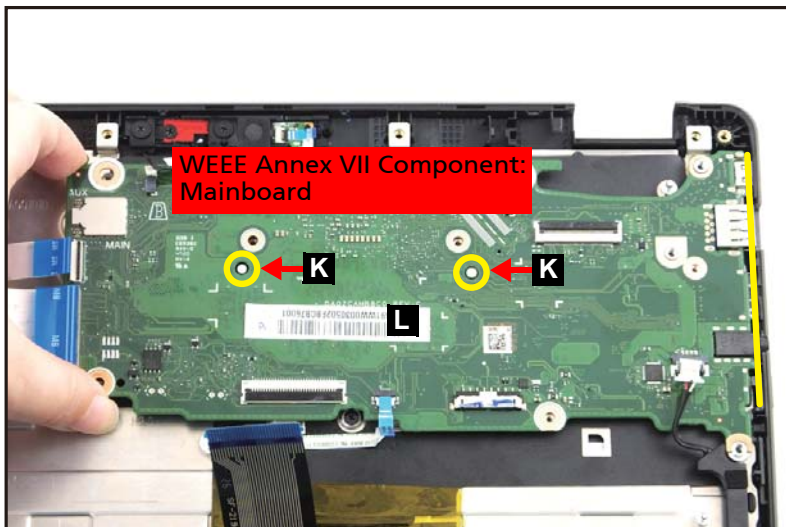


Figure 1-29. Mainboard Removal

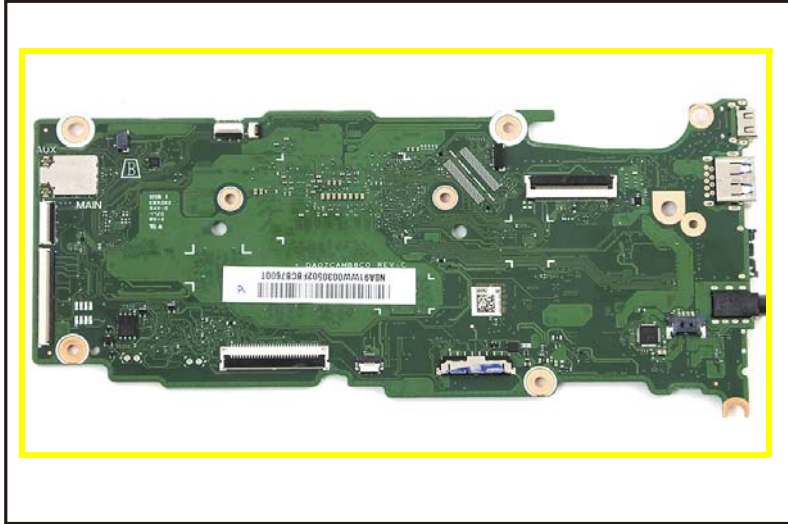


Figure 1-30. Mainboard

+ **IMPORTANT:**

Circuit boards >10 cm² have been highlighted with a yellow rectangle as shown in [Figure 1-30](#). Remove the circuit board and follow local regulations for disposal.

LCD Panel Removal

Prerequisite:

LCD Module Removal

1. Starting from the upper edges, pry the LCD cover to release latches. Then continue to release the upper, left, and right latches (Figure 1-31).



Figure 1-31. LCD Panel Removal

2. Continue to release the bottom latches (Figure 1-32).



Figure 1-32. LCD Panel Removal

3. Release the eDP cable from the left hinge cap. Then remove the LCD panel (A) (Figure 1-33).



Figure 1-33. LCD Panel Removal

Top Assembly Removal

Prerequisite:

Ensure that the **Speakers, Touchpad Module, USB Board, Mainboard, Keyboard,** and **Rear Camera Module** have been disassembled prior removing the top assembly.

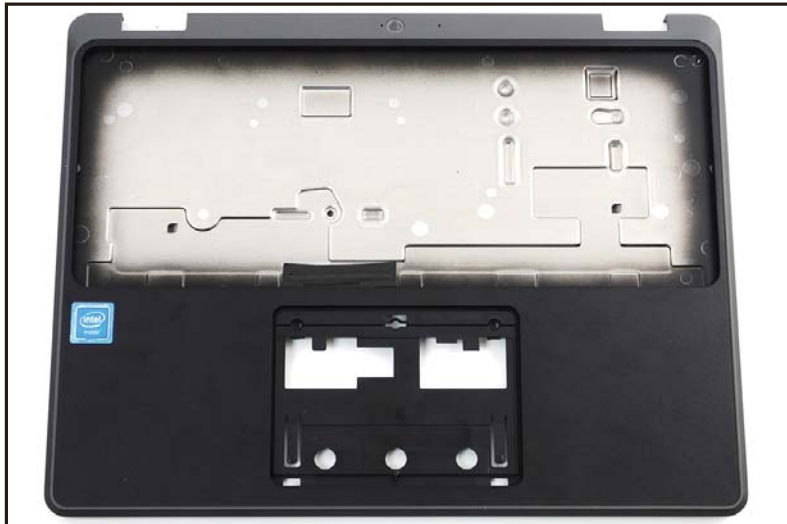


Figure 1-34. Top Assembly

Troubleshooting

This chapter shows you how to deal with common system problems. Read it before calling a technician if a problem occurs. Solutions to more serious problems require opening up the computer. Do not attempt to open the computer yourself; contact your dealer or authorized service center for assistance.

Troubleshooting tips

This computer incorporates an advanced design that delivers on-screen error message reports to help you solve problems.

If the system reports an error message or an error symptom occurs, see “Error messages” below. If the problem cannot be resolved, contact your dealer.

Error messages

If you receive an error message, note the message and take the corrective action. The following table lists the error messages in the alphabetical order together with the recommended course of action.

Table 1-1. Error Messages

Error Messages	Corrective Action
CMOS battery bad	Contact your dealer or an authorized service center.
CMOS checksum error	Contact your dealer or an authorized service center.
Disk boot failure	Insert a system (bootable) disk, then press Enter to reboot.
Equipment configuration error	Press F2 (during POST) to enter BIOS utility, then press Exit in the BIOS utility to reboot.
Hard disk 0 error	Contact your dealer or an authorized service center.
Hard disk 0 extended type error	Contact your dealer or an authorized service center.
I/O parity error	Contact your dealer or an authorized service center.
Keyboard error or no keyboard connected	Contact your dealer or an authorized service center.
Keyboard interface error	Contact your dealer or an authorized service center.
Memory size mismatch	Press F2 (during POST) to enter BIOS utility, then press Exit in the BIOS utility to reboot.

If you still encounter problems after going through the corrective measures, please contact your dealer or an authorized service center for assistance.

FRU (Field Replaceable Unit) List

Please contact your local service center to find out how to obtain the part or replace your device.

Exploded Diagrams

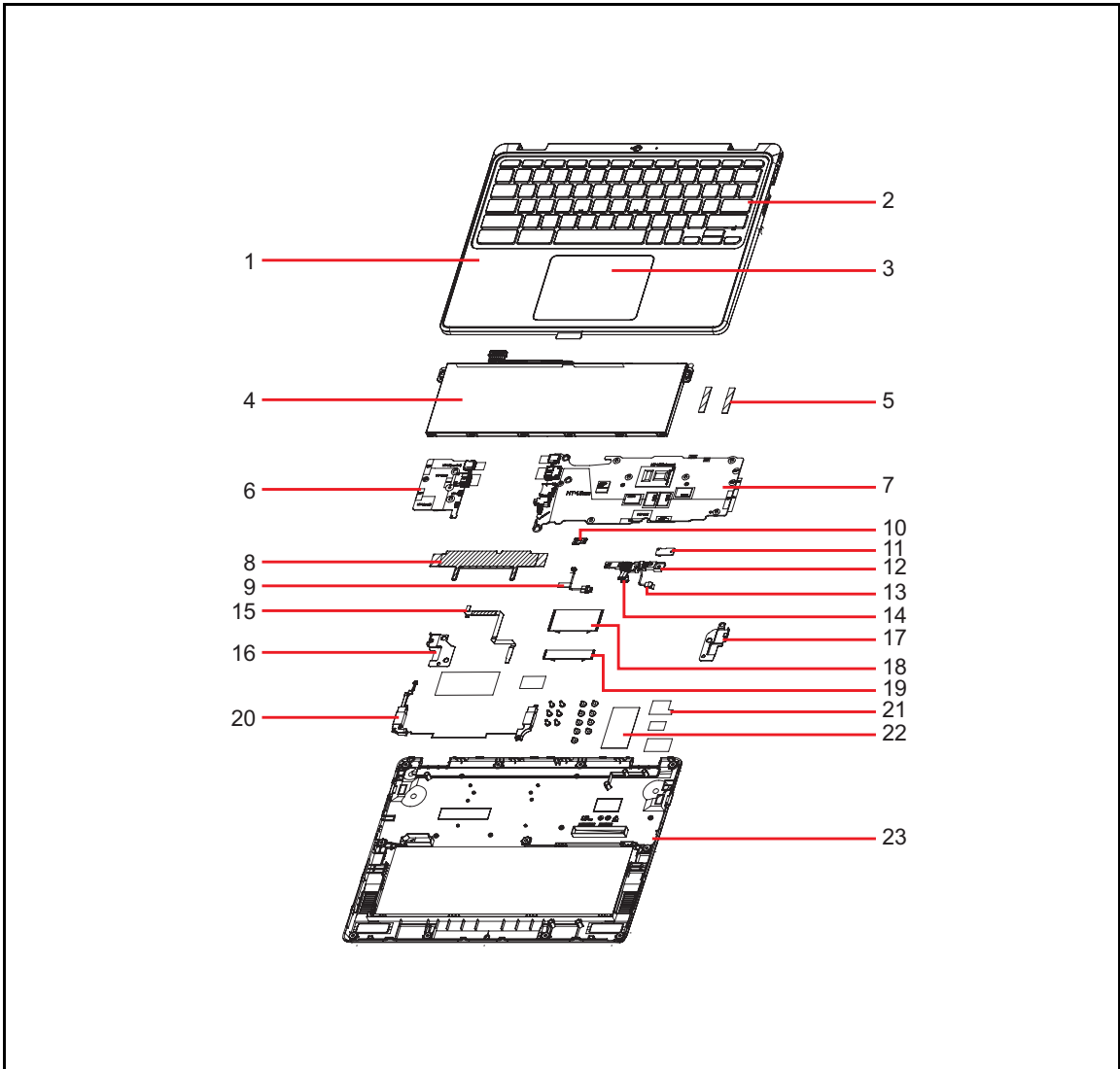


Figure 1-35. System Exploded Diagram

Table 1-2. System Exploded Diagram

No.	Description
1	Top Assembly
2	Keyboard
3	Touchpad
4	Battery Pack
5	Touchpad Rubbers
6	USB Board

Table 1-2. System Exploded Diagram (Continued)

No.	Description
7	Mainboard
8	Conductive Tape
9	LED Cable
10	LED Board
11	Microphone Board
12	Camera Holder
13	Microphone Cable
14	Camera Module
15	Touchpad FFC
16	Left I/O Bracket
17	Right I/O Bracket
18	USB Board FFC (H)
19	USB Board FFC (L)
20	Speakers
21	Actetate Tape (for Battery)
22	Insulator Mylar (on Battery Cable)
23	Base Cover

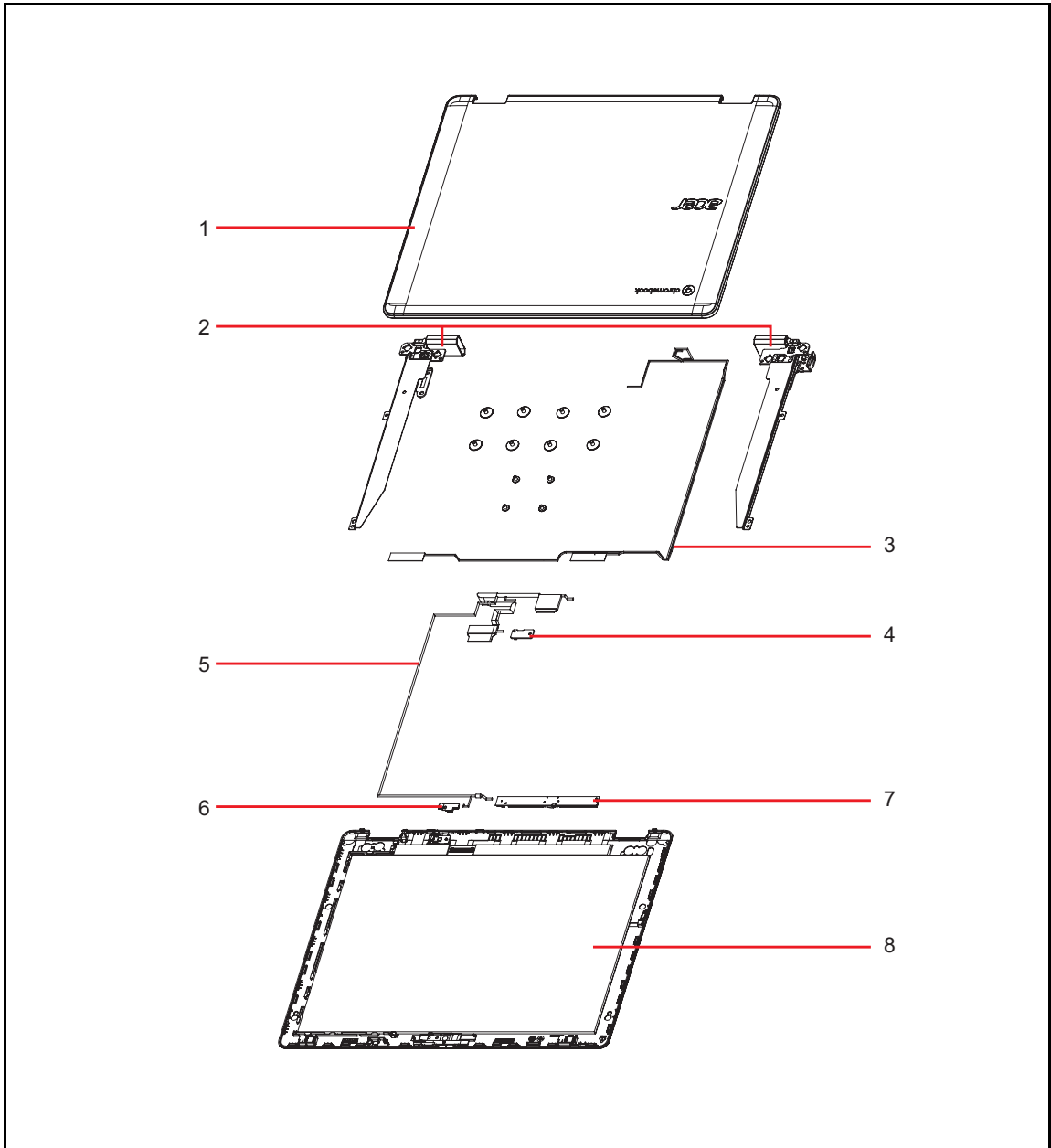


Figure 1-36. LCD Assembly Exploded Diagram

Table 1-3. LCD Assembly Exploded Diagram

No.	Description
1	LCD Cover
2	LCD Hinge L
	LCD Hinge R
3	WLAN Antenna (MAIN+AUX)

No.	Description
4	G-sensor Board
5	eDP Cable
6	Microphone Board
7	Camera Module
8	LCD Module with Bezel

Software Update







Updating your software

Please visit <http://go.acer.com/?id=17883>

Personal Data Removal

Removing your personal data

There are three options to choose from:

- Option 1: Select **Start**  > **Settings**  > **Update & Security**  > **Recovery**. Under **Reset this PC**, select **Get started**. Open **Recovery settings**.
- Option 2: Restart your PC to get to the sign-in screen, then press and hold down the **Shift key** while you select the **Power**  icon > **Restart** in the lower-right corner of the screen. After your computer restarts, select **Troubleshoot** > **Reset this PC**.
- Option 3: Select **Start** , then press and hold down the **Shift key** while you select the **Power**  icon > **Restart** to restart your computer into Recovery Mode. After your computer restarts, select **Troubleshoot** > **Reset this PC**.