

E18973

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IN SEARCH OF INCREDIBLE



Service Manual



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Disclaimer

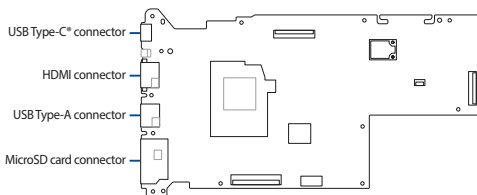
ASUS is not responsible for direct, indirect, intentional or unintentional damages resulting from improper installation and operation.

Safety precautions

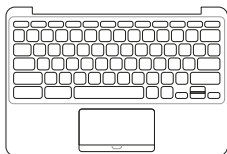
- Keep liquids or moisture away from your Notebook PC before installing or removing any components.
- Ensure to place your Notebook PC on a stable surface before installing or removing any components.
- Detach the clip or flap before removing the signal cables to prevent damage.
- Disconnect the power plug by pulling the plug evenly to avoid damage. Ensure to connect the signal cables in the correct orientation.
- Disconnect all power cables and remove the battery pack (if applicable) before cleaning your Notebook PC with liquid detergent to avoid risk of electric shock.
- Disconnect all power cables and remove the battery pack (if applicable) before installing or removing any components. Ensure to read and follow the instructions in the manual.

- Before handling components, use a grounded wrist strap or touch a safely grounded object to avoid damaging them due to static electricity.
- Keep liquids or moisture away from your Notebook PC to avoid short circuits.
- Hold components by the edges to avoid touching the ICs.
- Ensure to properly install all the components before connecting the AC power.
- Do not use power adapters or batteries from other devices to reduce the risk of injury to persons due to fire or explosion. Use only certified power adapters or batteries supplied by the manufacturer or authorized retailers.
- Ensure to install the correct screw models on your Notebook PC to prevent damage.

Major components



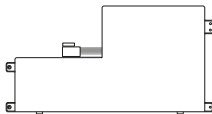
Motherboard with ports and connectors



Keyboard (Top case module)



LCD panel module



Battery and power connector



Power adapter

NOTE:

- The illustrations are for reference only.
 - The maintenance procedures described in this manual depend on the model configuration and may not reflect the entire servicing process. For servicing those components that are not covered in this manual, please visit an authorized service center for further assistance.
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Installation tools



Screwdriver



Plastic blade

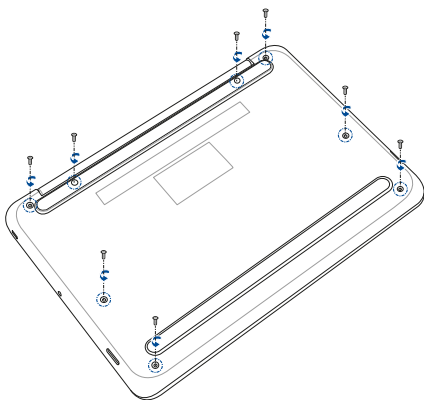


Tweezers

Removing the compartment cover

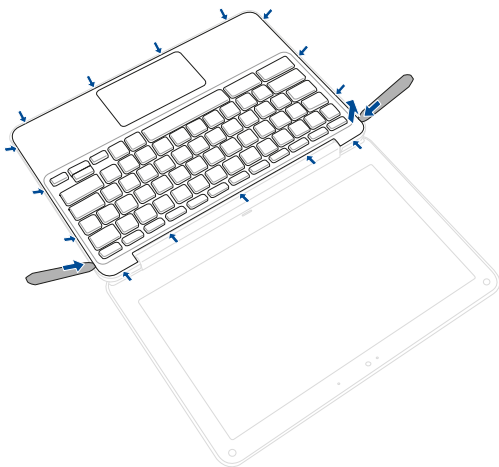
NOTE: The appearance of your Notebook PC's bottom view may vary per model.

- A. Remove the screw(s) from the Notebook PC's compartment cover.



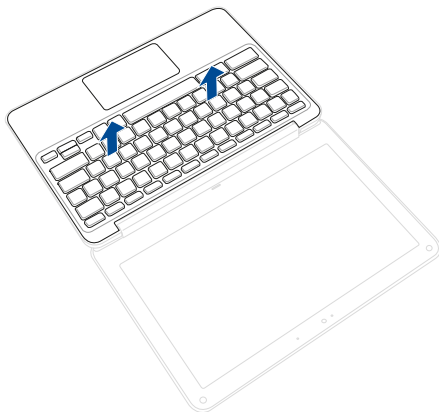
- B. Place your Notebook PC in the orientation as shown in the illustration below.
- C. Use the plastic blade to pry open the indicated area of the compartment cover as shown in the illustration below.

IMPORTANT! Avoid sliding the plastic blade along the side of your Notebook PC to prevent damage.

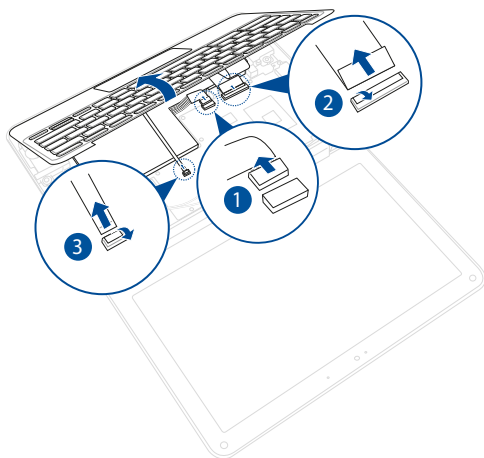


- D. Slightly lift the keyboard (top case module) to access the cable(s).

IMPORTANT! Cable(s) are connected. Avoid damaging the cable connectors when removing the keyboard (top case module).

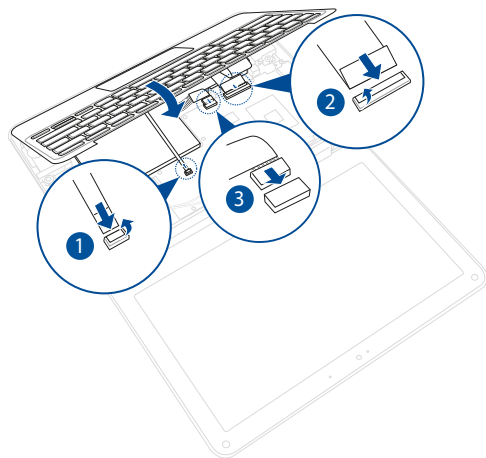


- E. Locate and disconnect the cable(s) and connector(s) as shown in the illustration below.

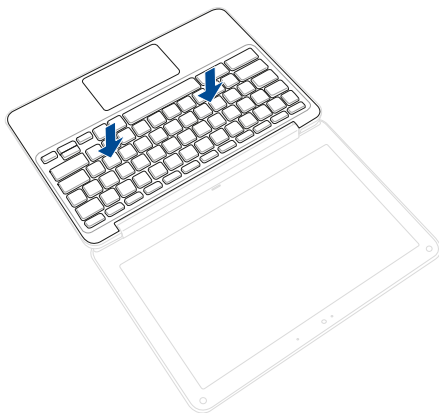


To reattach the compartment cover:

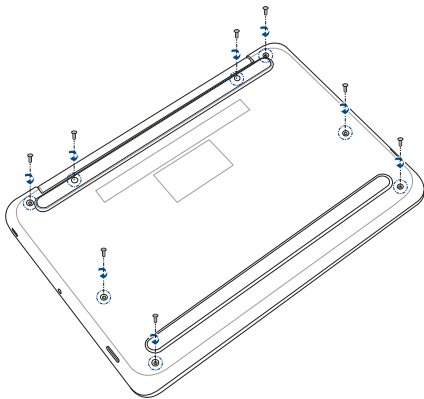
- A. Align the keyboard (top case module) with the chassis.
- B. Reconnect all the cable(s) and connector(s) as shown in the illustration below.
- C. Lower the keyboard (top case module) in place.



- D. Reattach the keyboard (top case module) to the chassis.



- E. Place your Notebook PC in the orientation as shown in the illustration below.
- F. Secure the compartment cover using the screw(s) you removed earlier.

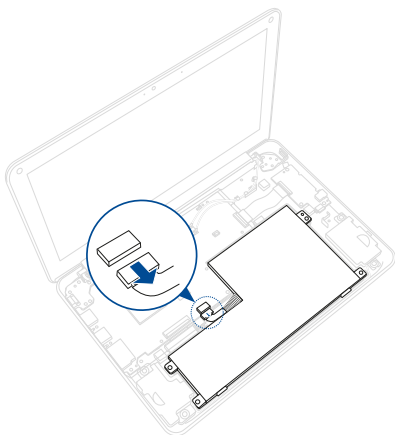


Disconnecting the battery

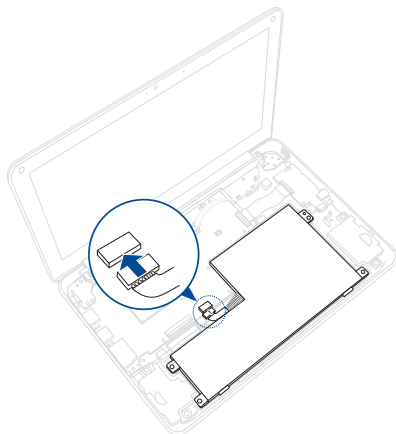
- A. Remove the compartment cover.

NOTE: For more details, refer to the *Removing the compartment cover* section in this manual.

- B. Locate and disconnect the battery power cable(s) as shown in the illustration below.



To connect the battery, align and connect the cable to the battery connector before you reattach the compartment cover.



Replacing the battery

Refer to the following steps when installing a compatible battery in your Notebook PC:

IMPORTANT! Purchase your battery from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

WARNING! Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

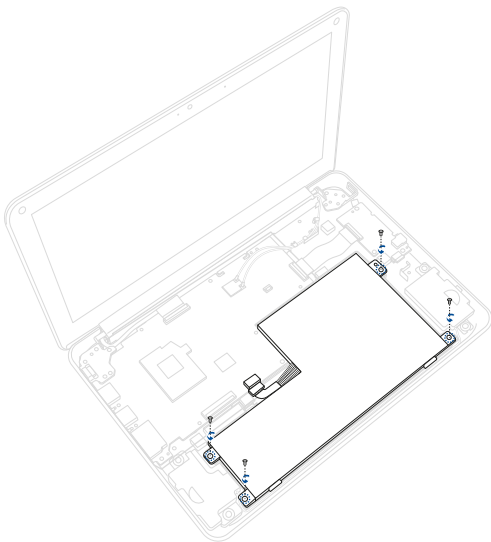
NOTE:

- The appearance of your Notebook PC's bottom view and battery may vary per model but the module installation remains the same.
 - It is recommended that you install the battery under professional supervision. You may also visit an authorized service center for further assistance.
-

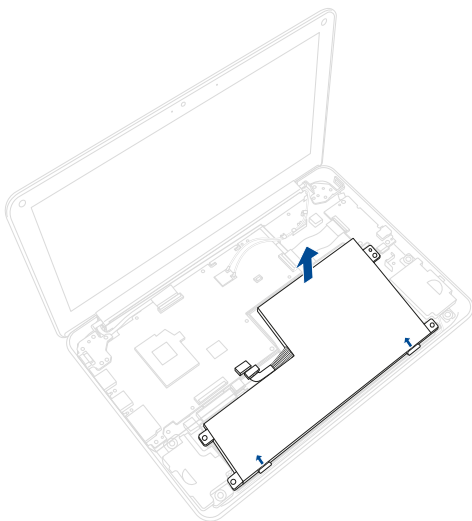
- A. Remove the compartment cover and disconnect the battery.

NOTE: For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

- B. Remove the screw(s) from the battery.

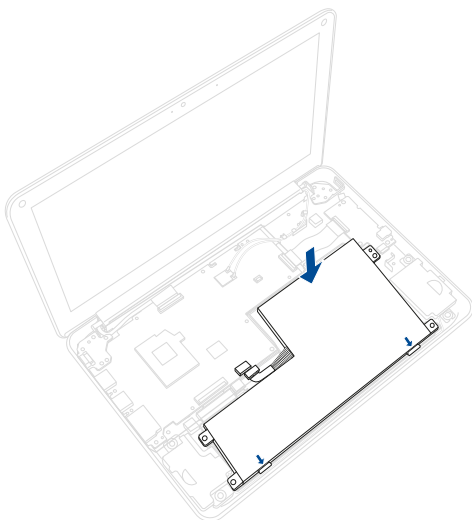


- C. Release the battery from the bottom latches. Then remove the battery.

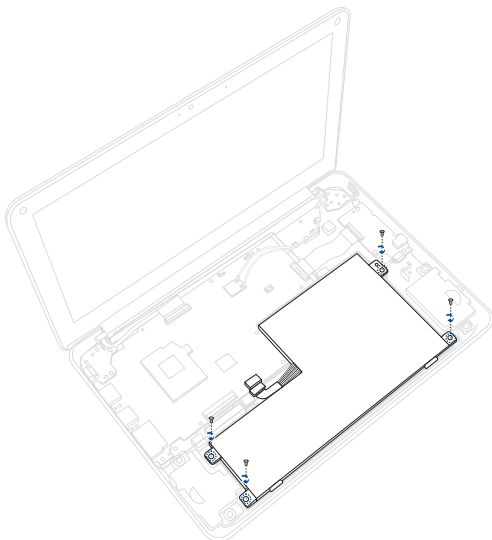


To install the new battery:

- A. Prepare the new battery.
- B. Slide the battery to the bottom latches. Then lower the battery in place.



- C. Secure the battery using the screw(s) you removed earlier.



Replacing the touchpad module

Refer to the following steps when replacing the touchpad module of your Notebook PC:

IMPORTANT! Purchase your touchpad module from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

WARNING! Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

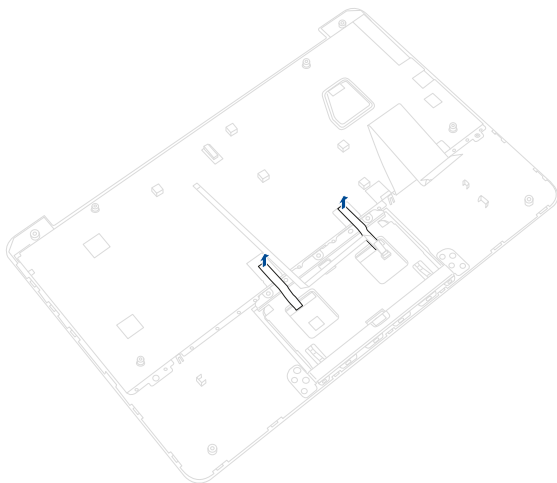
NOTE:

- The appearance of your Notebook PC's bottom view and battery may vary per model but the touchpad module installation remains the same.
 - It is recommended that you replace the touchpad module under professional supervision. You may also visit an authorized service center for further assistance.
-

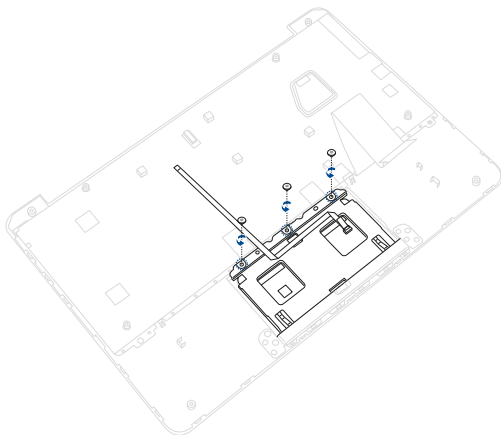
- A. Remove the compartment cover and disconnect the battery.

NOTE: For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

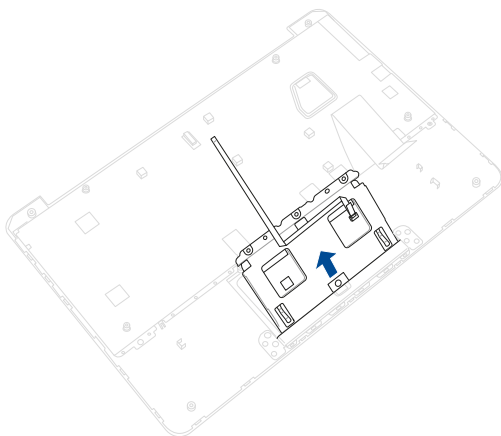
- B. Remove the conductive tape(s).



- C. Remove the screw(s) from the touchpad module.

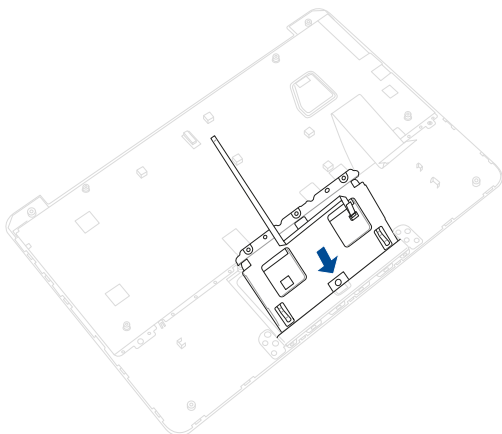


- D. Slightly lift the touchpad module, and then remove from the top case module.

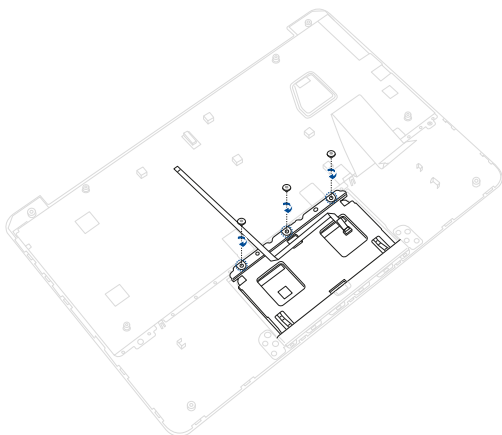


To install the new touchpad module:

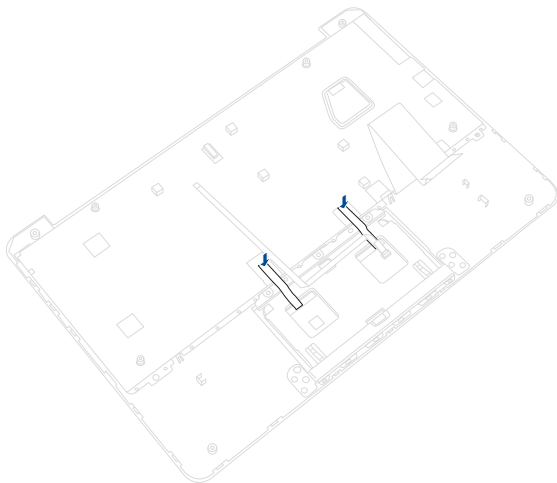
- A. Prepare the new touchpad module.
- B. Align and install the touchpad module into its compartment as shown in the illustration below.



- C. Secure the touchpad module to the top case module using the screw(s) you removed earlier.



- D. Reattach the conductive tape(s).



Replacing the LCD module

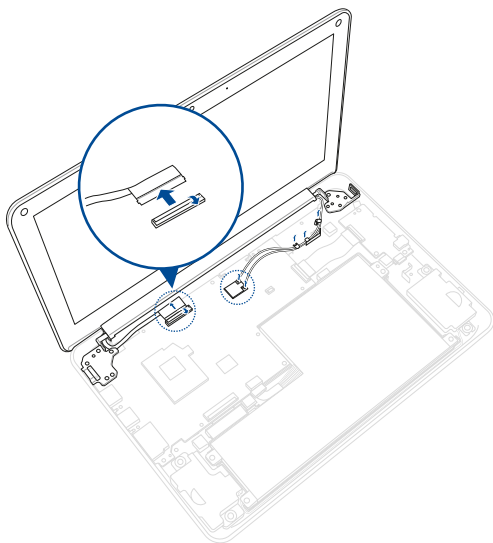
IMPORTANT! Do not bend the LCD panel module in any ways to avoid risk of LCD panel leakage.

NOTE: The illustrations are for reference only.

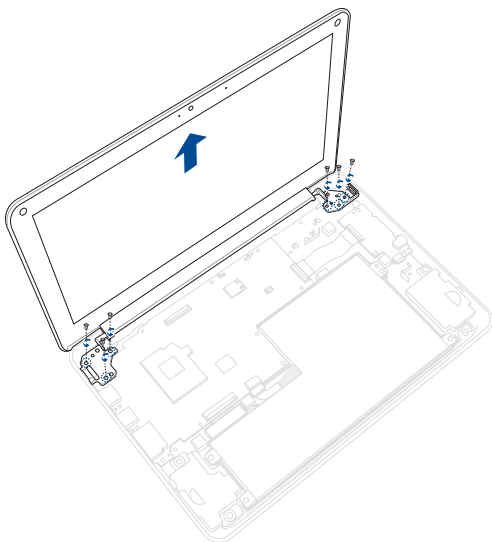
- A. Remove the compartment cover and disconnect the battery.

NOTE: For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

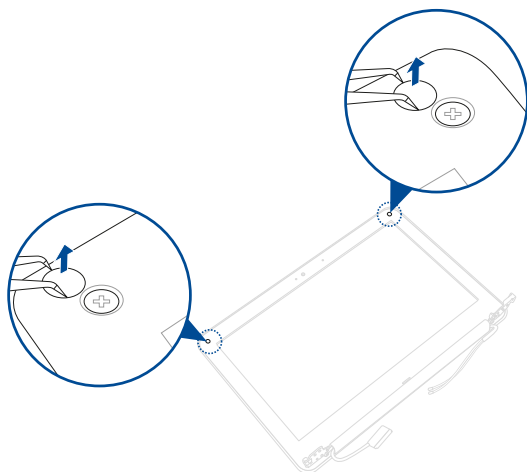
- B. Locate and disconnect all the cable(s) as shown in the illustration below. Then unroute the WLAN antenna cable(s) from the cable guides.



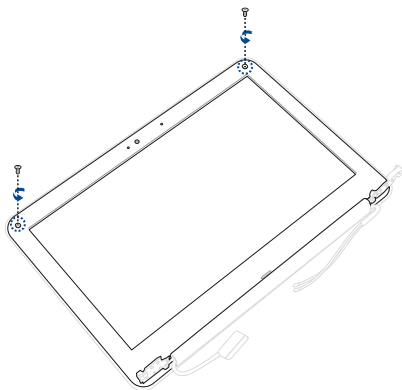
- C. Remove the screw(s) from the hinges, and then remove the LCD panel module.



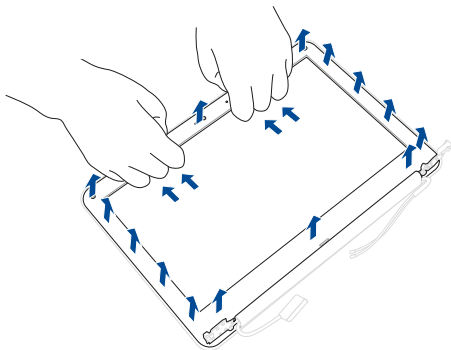
- D. Use the tweezers to remove the screw cap cover(s) from the screw(s) as shown in the illustration below.



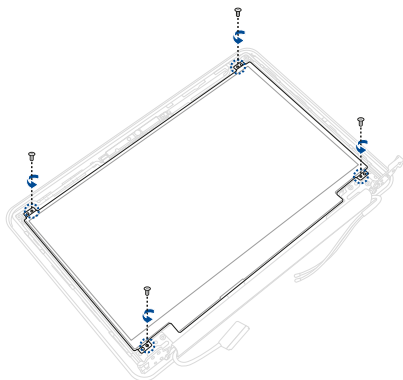
- E. Remove the screw(s) from the LCD bezel.



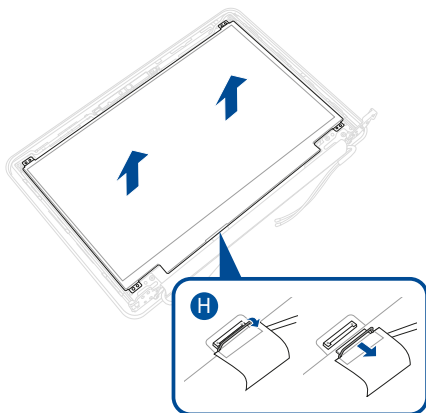
- F. Pry loose the top side of the LCD bezel first, then continue with the left, right, and bottom sides of the bezel. **DO NOT** remove the LCD bezel!



- G. Remove the screw(s) from the LCD panel.

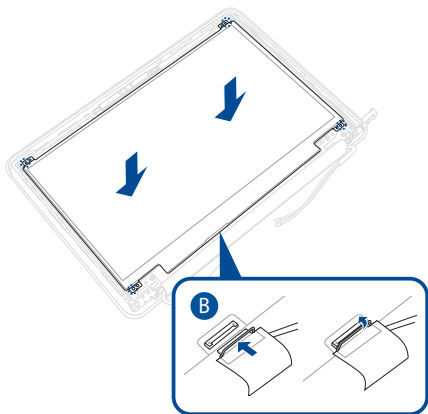


- H. Locate and disconnect the eDP cable(s) as shown in the illustration below.
- I. Remove the LCD panel.

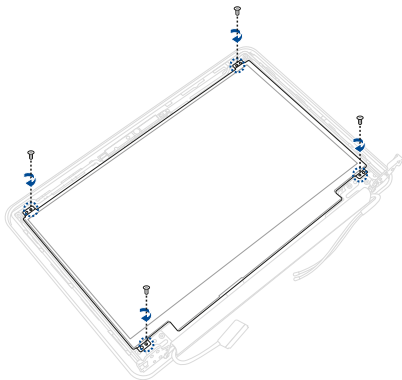


To install the new LCD panel:

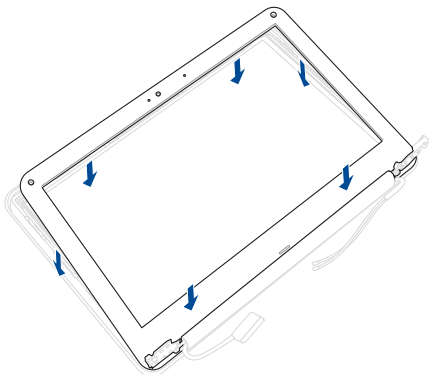
- A. Prepare the new LCD panel.
- B. Reconnect the eDP cable(s) as shown in the illustration below.
- C. Align and place the new LCD panel in the orientation as shown in the illustration below.



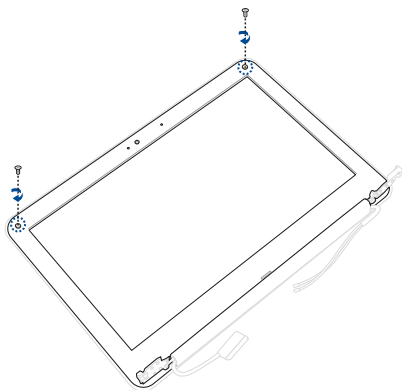
- D. Secure the LCD panel using the screw(s) you removed earlier.



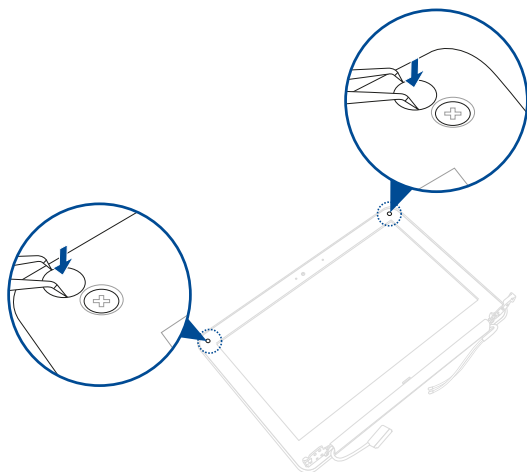
- E. Align and reinstall the LCD bezel.



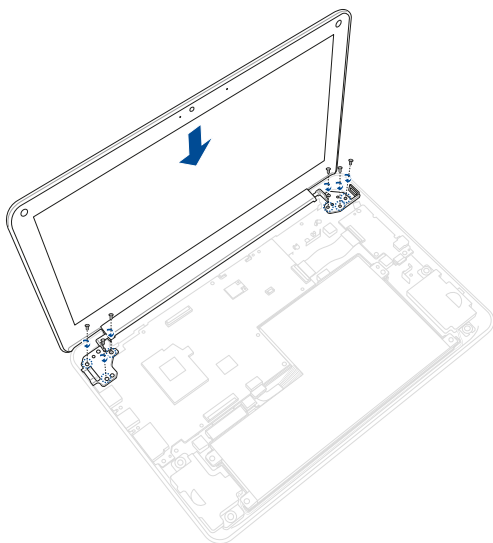
- F. Secure the LCD bezel using the screw(s) you removed earlier.



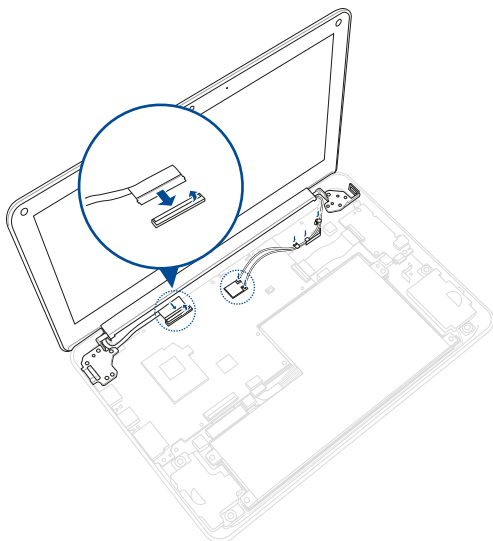
- G. Use the tweezers to replace the screw cap cover(s) as shown in the illustration below.



- H. In the orientation shown, align and place the hinges of the display module on the screw holes on the chassis.
- I. Secure the LCD panel module using the screw(s) you removed earlier.



- J. Route the WLAN antenna cable(s) through the cable guides. Then reconnect all the cable(s) as shown in the illustration below.



Replacing the motherboard

Refer to the following steps when installing the motherboard to your Notebook PC:

IMPORTANT! Purchase your motherboard from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

WARNING! Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

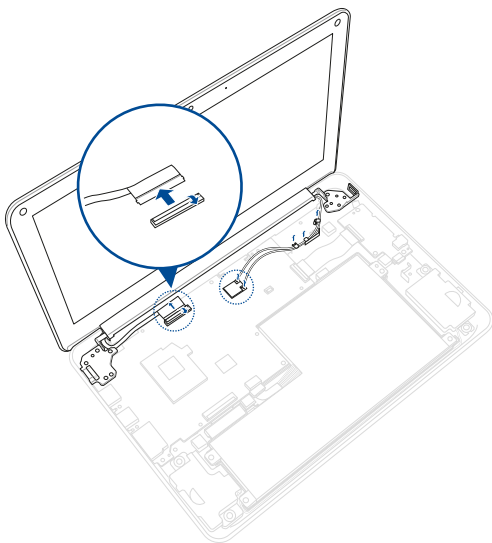
NOTE:

- The appearance of your Notebook PC's bottom view and motherboard may vary per model but the module installation remains the same.
 - It is recommended that you install the motherboard under professional supervision. You may also visit an authorized service center for further assistance.
-

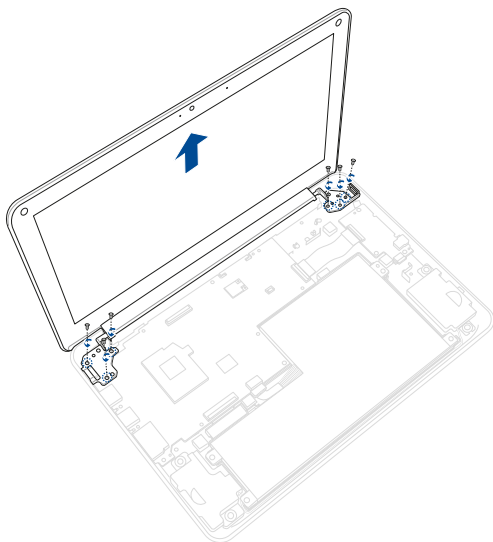
- A. Remove the compartment cover and disconnect the battery.

NOTE: For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

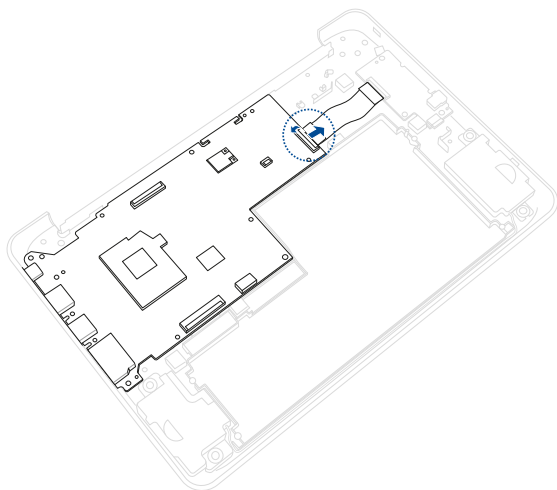
- B. Place your Notebook PC in the orientation as shown in the illustration below.
- C. Locate and disconnect all the cable(s) as shown in the illustration below. Then unroute the WLAN antenna cable(s) from the cable guides.



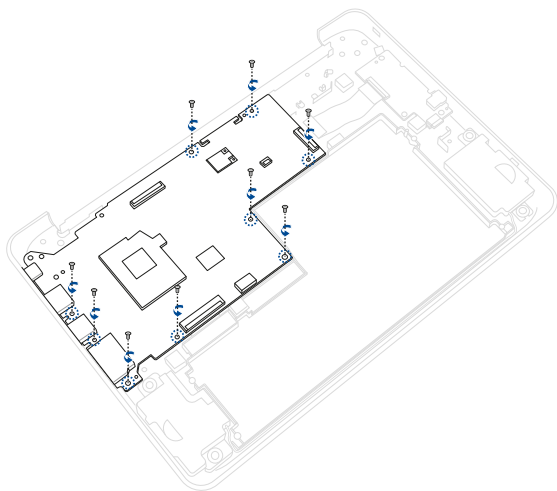
- D. Remove the screw(s) from the hinges, and then remove the LCD panel module.



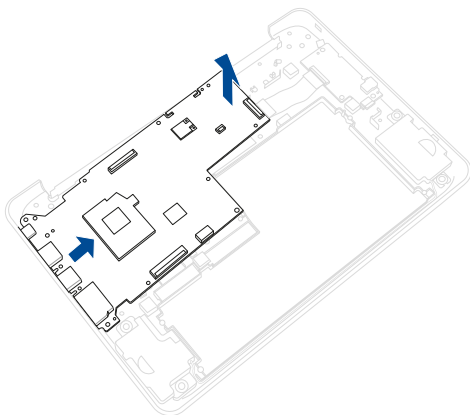
- E. Locate and disconnect the USB board FPC as shown in the illustration below.



- F. Remove the screw(s) from the motherboard.

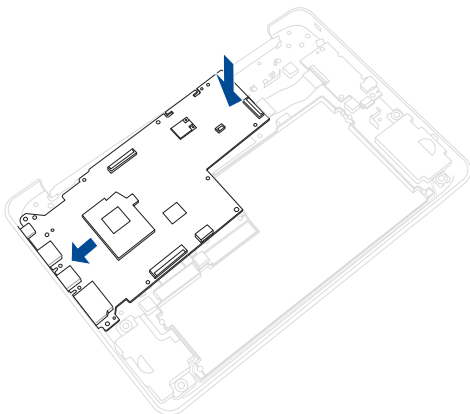


- G. Release the motherboard I/O connectors from the I/O slots on the chassis. Then remove the motherboard.

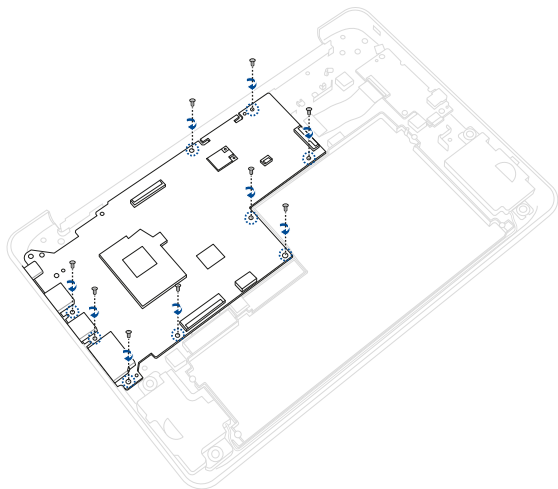


To install the new motherboard:

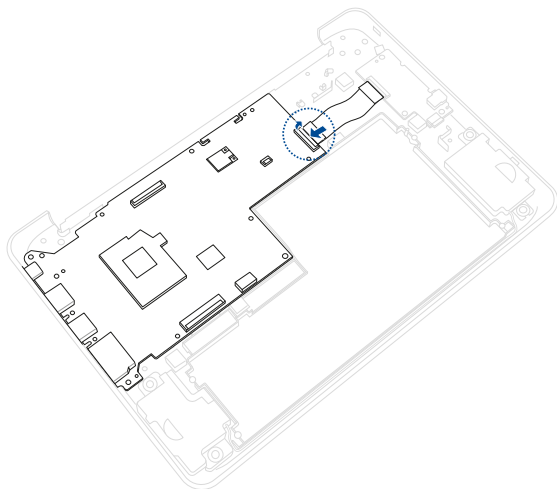
- A. Prepare the new motherboard.
- B. Align and insert the motherboard I/O connectors into the I/O ports on the chassis. Then lower the motherboard back in the chassis.



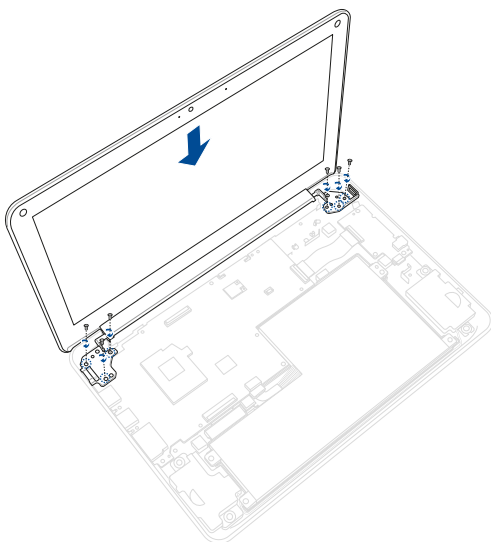
- C. Secure the motherboard using the screw(s) you removed earlier.



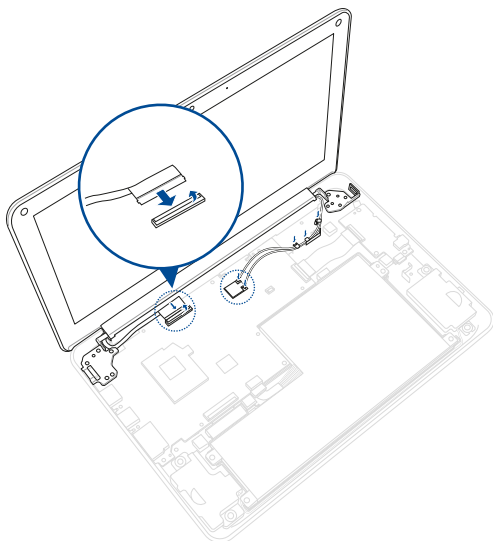
- D. Reconnect the USB board FPC as shown in the illustration below.



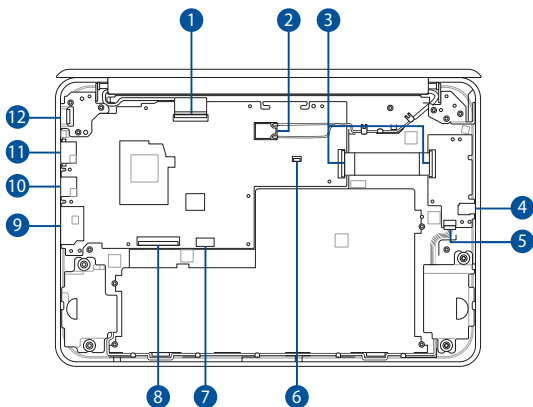
- E. In the orientation shown, align and place the hinges of the display module on the screw holes on the chassis.
- F. Secure the LCD panel module using the screw(s) you removed earlier.



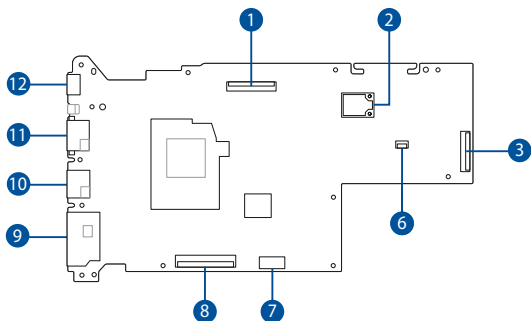
- G. Route the WLAN antenna cable(s) through the cable guides. Then reconnect all the cable(s) as shown in the illustration below.



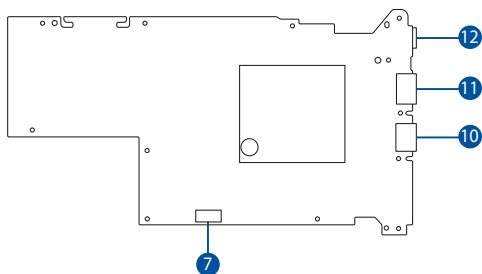
Wiring and connection diagrams



Top View



Bottom View



- | | |
|--|----------------------------|
| 1. eDP/Touch connector | 7. Battery power connector |
| 2. WiFi module | 8. Keyboard connector |
| 3. I/O FPC connector | 9. MicroSD card connector |
| 4. Headphone/Headset/
Microphone jack | 10. USB Type-A connector |
| 5. Speaker connector | 11. HDMI connector |
| 6. Touchpad connector | 12. USB Type-C® connector |