

E21491

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IN SEARCH OF INCREDIBLE



Service Manual



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Disclaimer

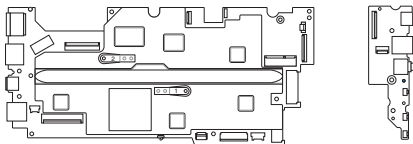
ASUS is not responsible for direct, indirect, intentional or unintentional damages resulting from improper installation and operation.

Safety precautions

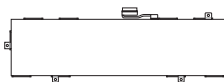
- Keep liquids or moisture away from your Notebook PC before installing or removing any components.
- Ensure to place your Notebook PC on a stable surface before installing or removing any components.
- Detach the clip or flap before removing the signal cables to prevent damage.
- Disconnect the power 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.

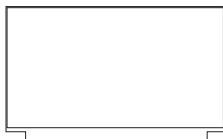
Major components



Motherboard with ports and connectors



Battery and power connector



Display panel module



M.2 SSD module

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.
-

Installation tools



Screwdriver



Plastic blade

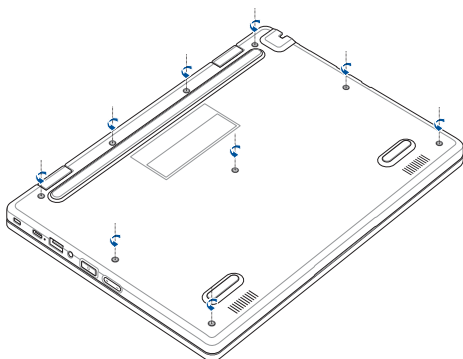


Tweezers

Removing the compartment cover

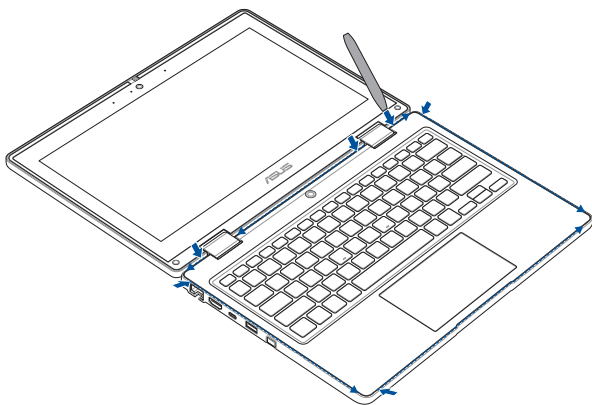
NOTE: The appearance of your Notebook PC's bottom view may vary per model.

- A. Loosen the pop-open screw(s) without removing the screw(s) from the Notebook PC's bottom cover.



- B. Place your Notebook PC in the orientation 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.

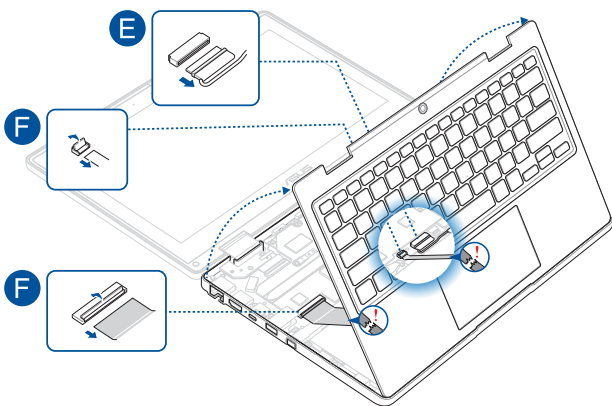
IMPORTANT! Avoid sliding the plastic blade along the side of your Notebook PC to prevent damage.



- D. Lift the compartment cover without removing it completely, then hold it in place above the chassis.

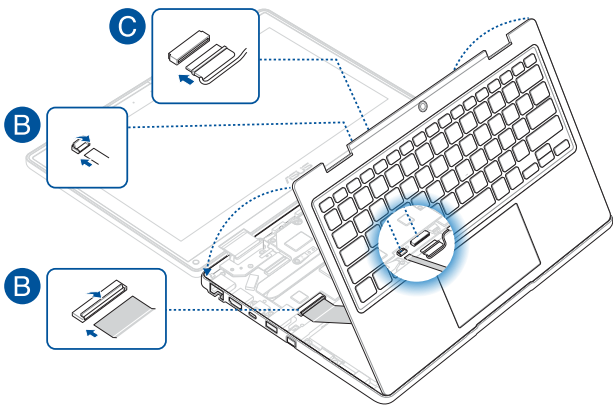
IMPORTANT! Lift the compartment cover carefully to avoid damaging the connected cable(s) or connector(s).

- E. Locate and disconnect the battery power cable.
- F. Locate and disconnect all the cable(s) and connector(s).
- G. Remove the compartment cover.

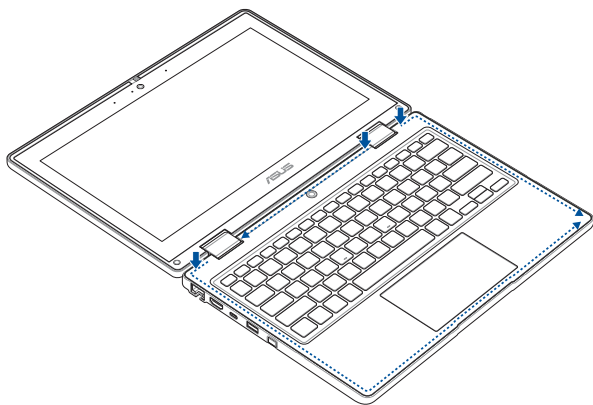


To reattach the compartment cover:

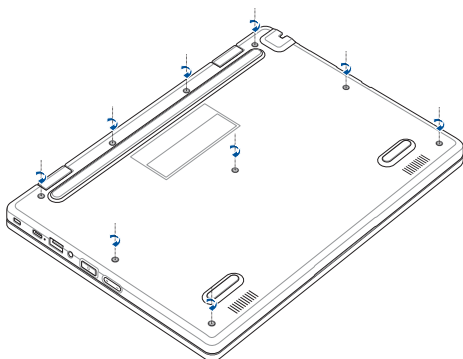
- A. Align the compartment cover with the chassis, then hold it in place above the chassis.
- B. Reconnect all the cable(s) and connector(s) as shown in the illustration below.
- C. Reconnect the battery power cable.
- D. Lower the compartment cover into place.



- E. Reattach the compartment cover to the chassis.



- F. Place your Notebook PC in the orientation shown in the illustration below.
- G. Secure the bottom cover by tightening the pop-open screw(s).



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:

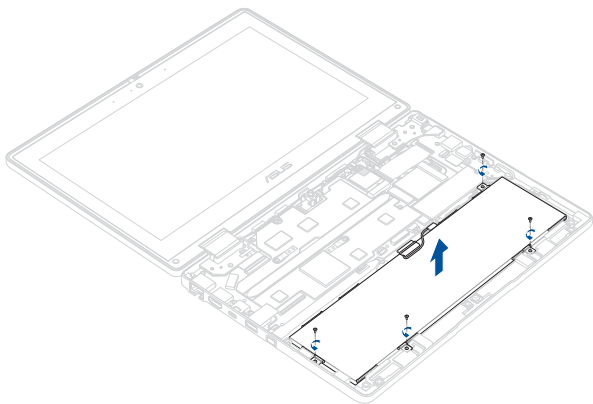
- The appearance of your Notebook PC's bottom view and battery may vary per model but the module installation remains the same.
 - It is recommended that you install the battery under professional supervision. You may also visit an authorized service center for further assistance.
-

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

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

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

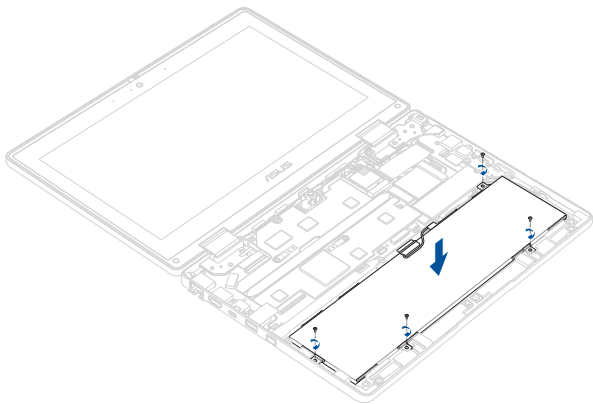
- C. Remove the battery.



To install the battery:

- A. Prepare the battery.
- B. Align and reinstall the battery.
- C. Secure the battery using the screw(s) you removed earlier.
- D. Reconnect the battery power cable.
- E. Reattach the compartment cover.

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



Replacing the M.2 SSD module

Refer to the following steps when installing a compatible M.2 SSD module in your Notebook PC:

IMPORTANT! Purchase your M.2 SSD 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.

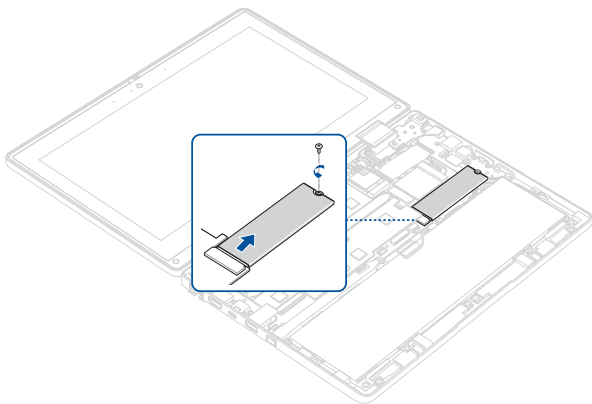
NOTE:

- The appearance of your Notebook PC's bottom view and M.2 SSD module may vary per model but the module installation remains the same.
 - It is recommended that you install the M.2 SSD module under professional supervision. You may also visit an authorized service center for further assistance.
-

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

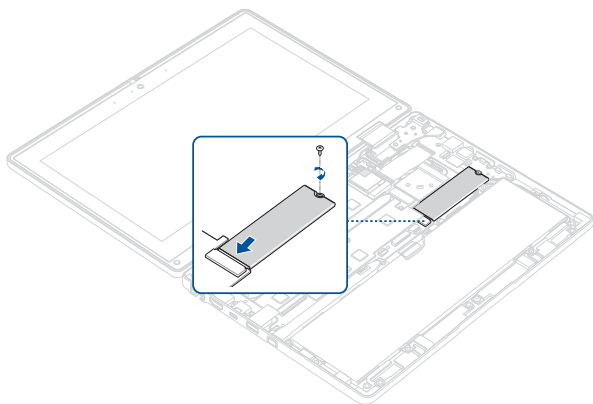
NOTE: For more details, refer to the *Removing the compartment cover* section in this manual.

- B. Remove the screw, then remove the M.2 SSD module from the motherboard.



To install the M.2 SSD module:

- A. Prepare the M.2 SSD module.
- B. Align and insert the M.2 SSD module into the M.2 connector on the motherboard.
- C. Secure the M.2 SSD module in place using the screw you removed earlier.



Replacing the display panel module

IMPORTANT! Do not bend the display panel in any way to avoid risk of display panel leakage.

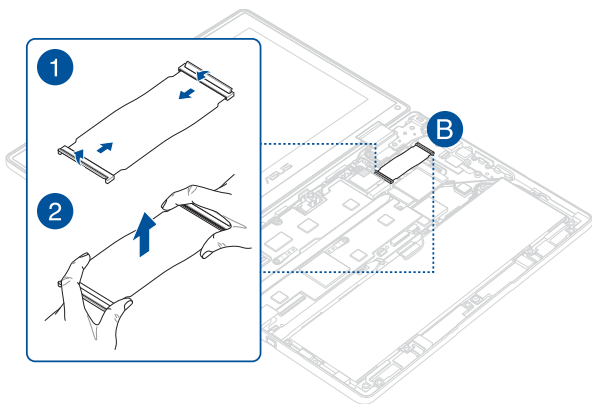
NOTE: The illustrations are for reference only.

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

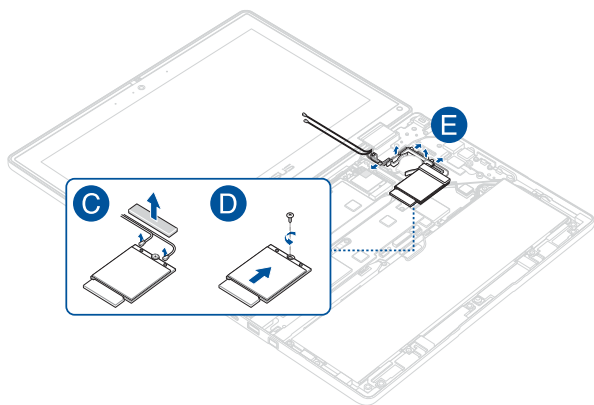
NOTE: For more details, refer to the *Removing the compartment cover* section in this manual.

- B. Locate and remove the cable as shown in the illustration below.

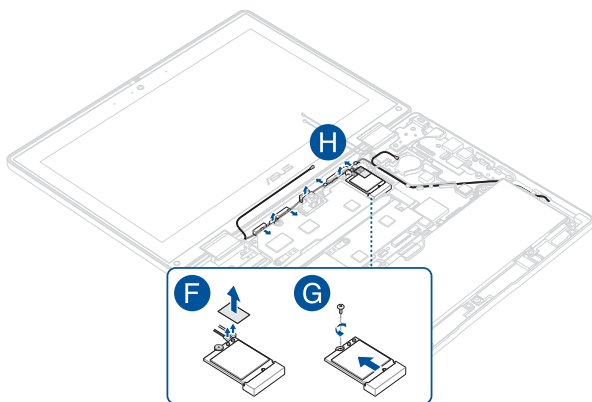
IMPORTANT! Hold the cable with both hands to avoid bending the cable.



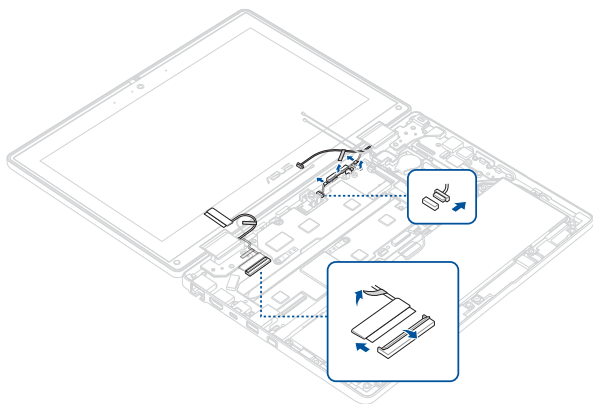
- C. Locate and disconnect the antenna cable(s).
- D. Remove the screw, then remove the LTE module.
- E. Remove the antenna cable(s) from the cable guide.



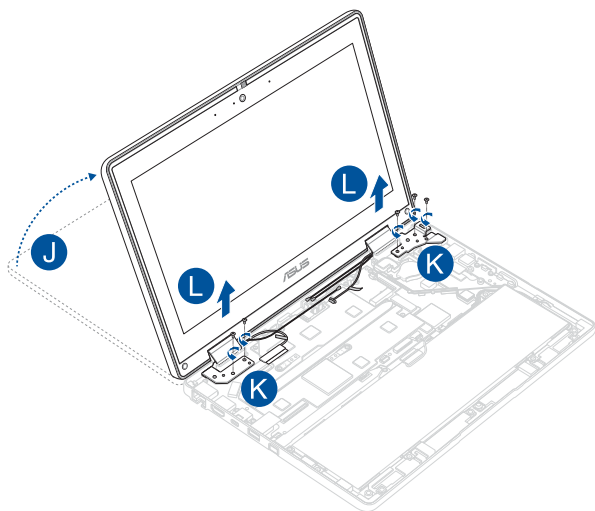
- F. Locate and disconnect the antenna cable(s).
- G. Remove the screw, then remove the Wi-Fi module.
- H. Remove the antenna cable(s) from the cable guide.



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

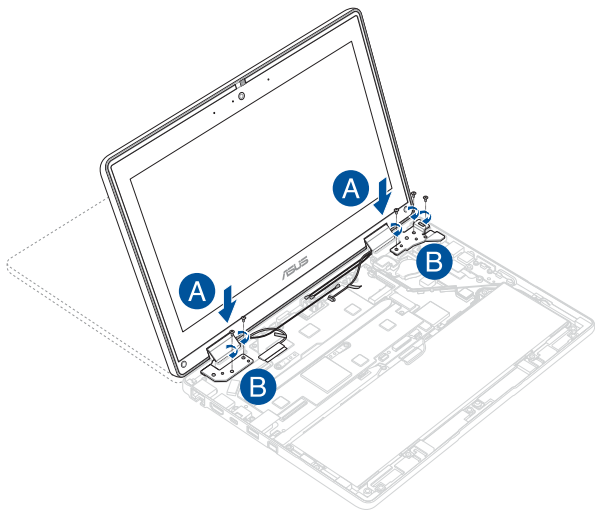


- J. Place your Notebook PC in the orientation shown in the illustration below.
- K. Remove the screw(s) from the hinges.
- L. Remove the display panel module.

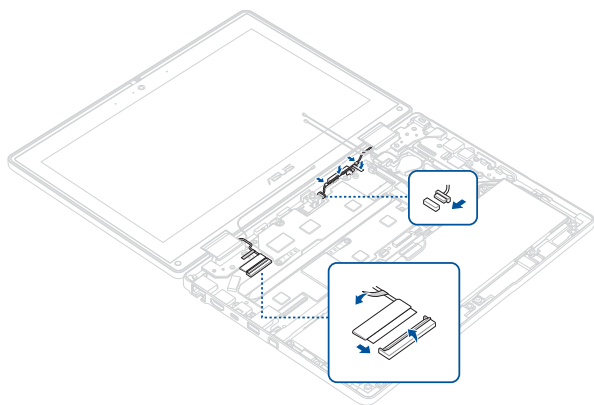


To install the display panel module:

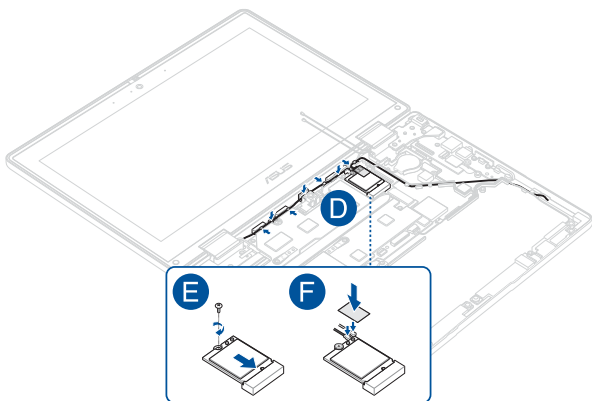
- A. In the orientation shown, align and place the hinges of the display panel module on the screw holes of the chassis.
- B. Secure the hinges using the screw(s) you removed earlier.



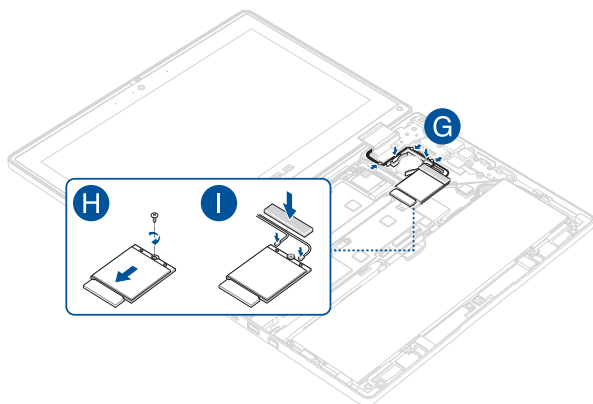
- C. Locate and reconnect all the cable(s) and connector(s) as shown in the illustration below.



- D. Route the antenna cables through the cable guides.
- E. Align and reinstall the Wi-Fi module, then secure the Wi-Fi module using the screw you removed earlier.
- F. Reconnect the antenna cable(s).

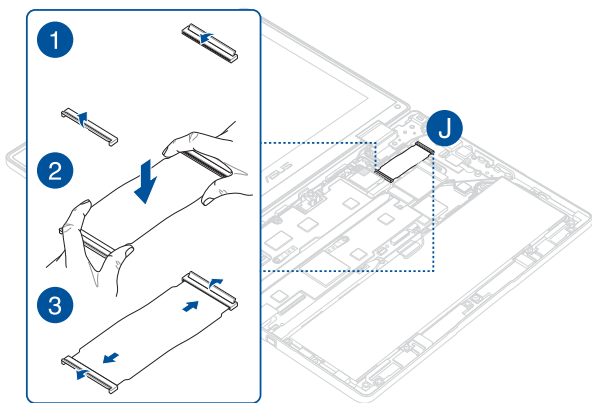


- G. Route the antenna cables through the cable guides.
- H. Align and reinstall the LTE module, then secure the LTE module using the screw you removed earlier.
- I. Reconnect the antenna cable(s).



- J. Place and reconnect the cable as shown in the illustration below.

IMPORTANT! Hold the cable with both hands to avoid bending the cable.



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.

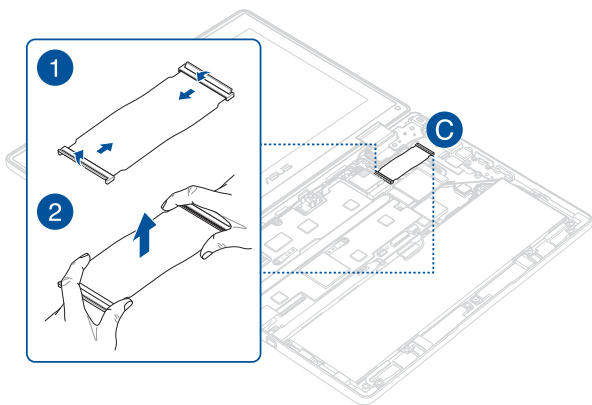
NOTE: For more details, refer to the *Removing the compartment cover* section in this manual.

- B. Remove the M.2 SSD module.

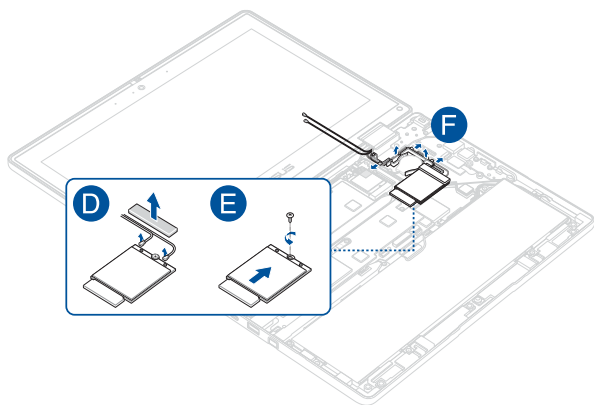
NOTE: For more details, refer to the *Replacing the M.2 SSD module* section in this manual.

- C. Locate and remove the cable as shown in the illustration below.

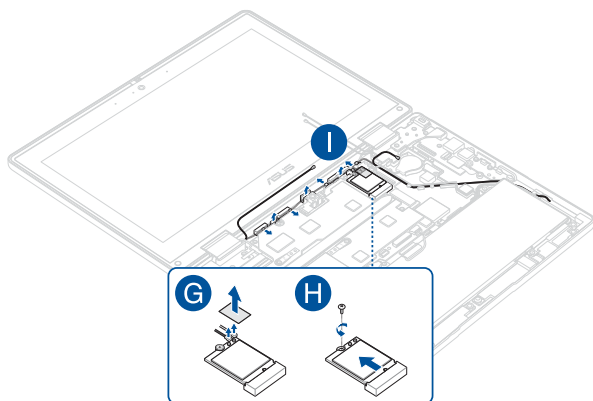
IMPORTANT! Hold the cable with both hands to avoid bending the cable.



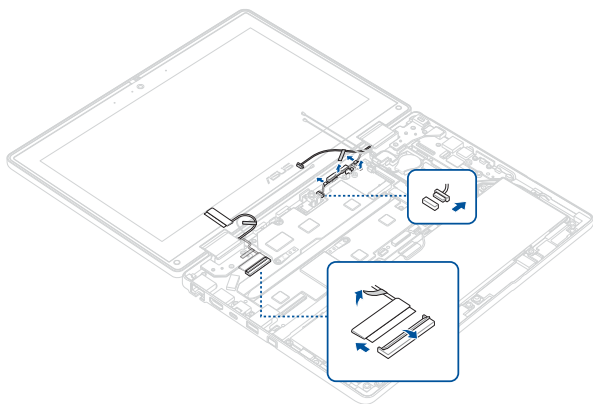
- D. Locate and disconnect the antenna cable(s).
- E. Remove the screw, then remove the LTE module.
- F. Remove the antenna cable(s) from the cable guide.



- G. Locate and disconnect the antenna cable(s).
- H. Remove the screw, then remove the Wi-Fi module.
- I. Remove the antenna cable(s) from the cable guide.

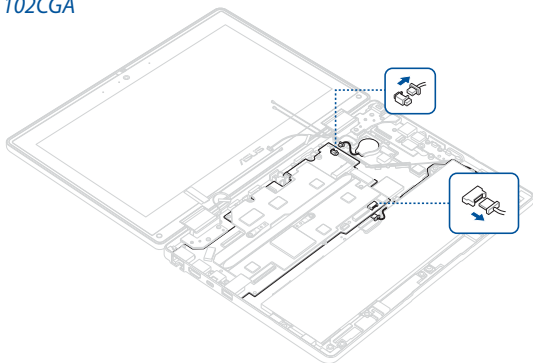


- J. Locate and disconnect all the cable(s) and connector(s) as shown in the illustration below.

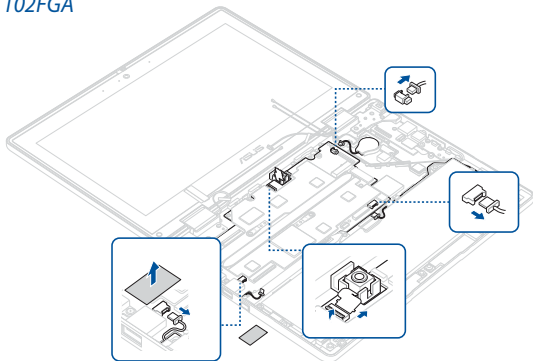


- K. Locate and remove all the cable(s) and connector(s) as shown in the illustration below.

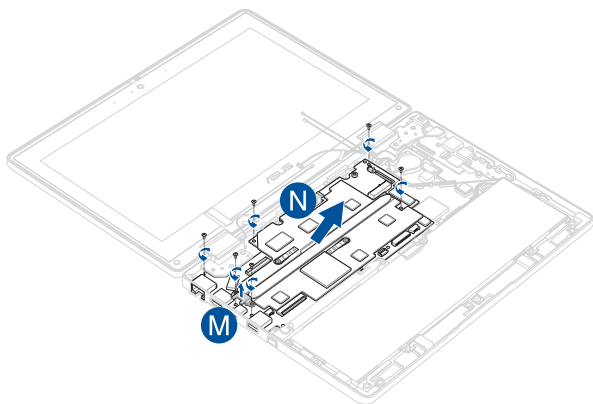
BR1102CGA



BR1102FGA

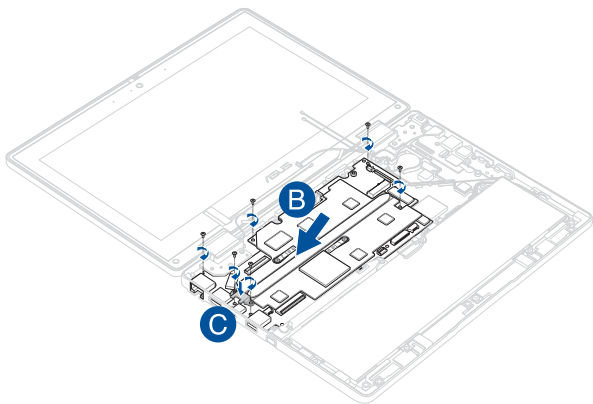


- L. Remove the screw(s).
- M. Remove the bracket.
- N. Remove the motherboard from the chassis.



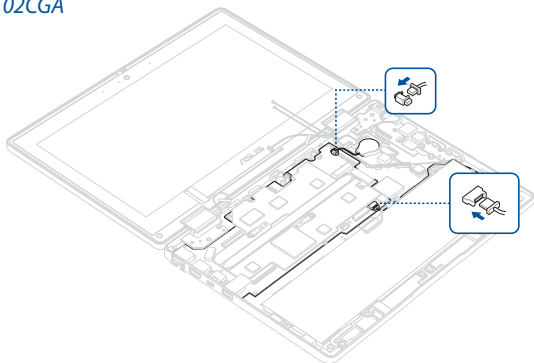
To install the motherboard:

- A. Prepare the motherboard.
- B. Align and place the motherboard in the chassis.
- C. Secure the bracket using the screw(s) you removed earlier.
- D. Secure the motherboard using the screw(s) you removed earlier.

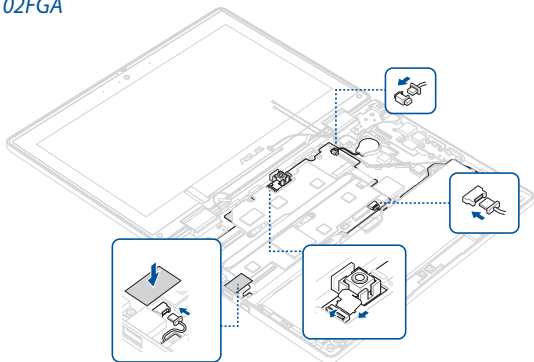


- E. Locate and reconnect all the cable(s) and connector(s) as shown in the illustration below.

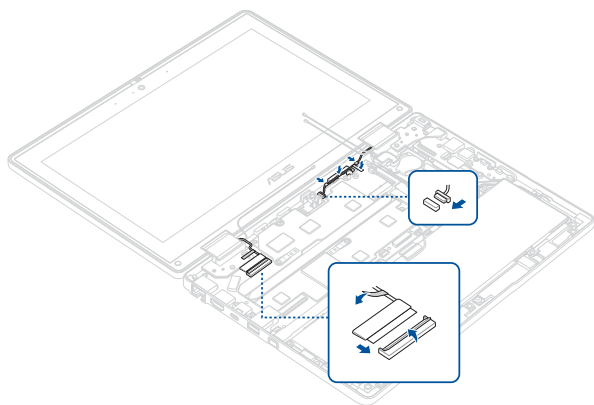
BR1102CGA



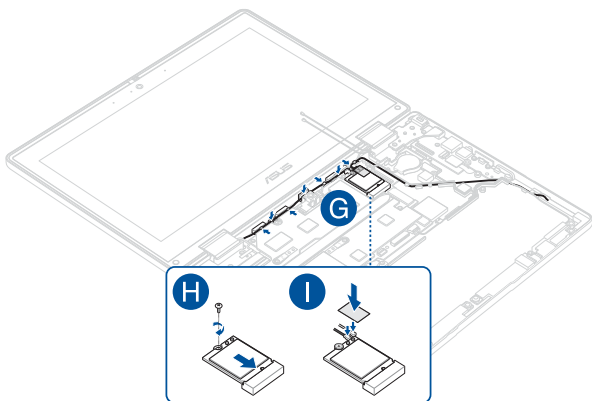
BR1102FGA



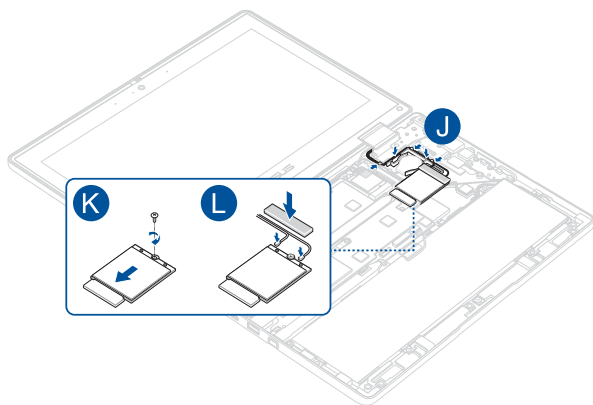
- F. Locate and reconnect all the cable(s) and connector(s) as shown in the illustration below.



- G. Route the antenna cables through the cable guides.
- H. Align and reinstall the Wi-Fi module, then secure the Wi-Fi module using the screw you removed earlier.
- I. Reconnect the antenna cable(s).



- J. Route the antenna cables through the cable guides.
- K. Align and reinstall the LTE module, then secure the LTE module using the screw you removed earlier.
- L. Reconnect the antenna cable(s).

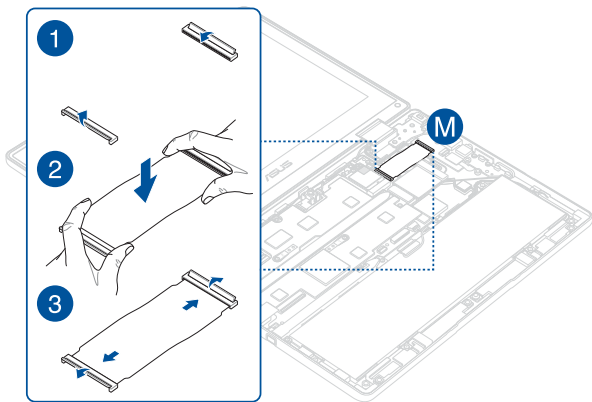


- M. Place and reconnect the cable as shown in the illustration below.

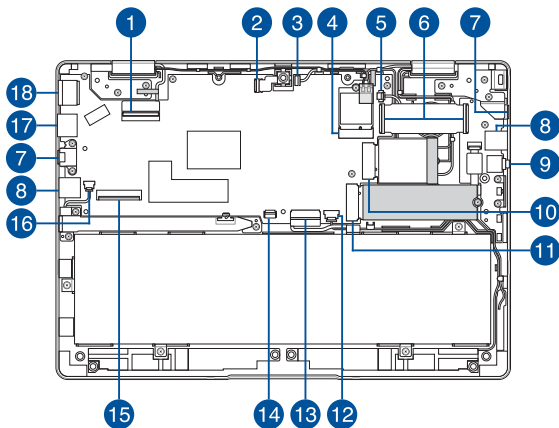
IMPORTANT! Hold the cable with both hands to avoid bending the cable.

- N. Reinstall the M.2 SSD module.

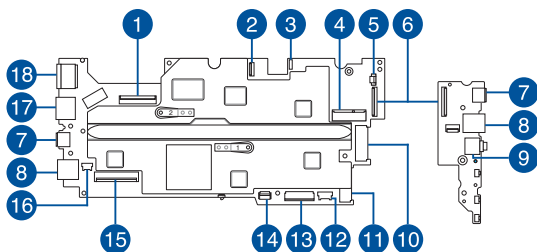
NOTE: For more details, refer to the *Replacing the M.2 SSD module* section in this manual.



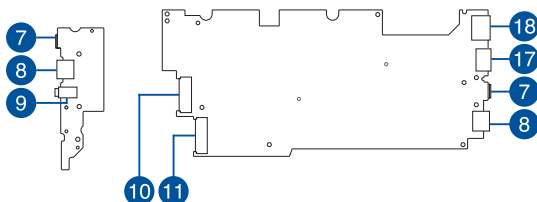
Wiring and connection diagrams



Top View



Bottom View



- | | |
|-------------------------------|-------------------------------|
| 1. eDP connector | 10. LTE module connector |
| 2. Camera connector* | 11. M.2 SSD connector |
| 3. Proximity sensor connector | 12. Speaker connector |
| 4. Wi-Fi module connector | 13. Battery connector |
| 5. RTC connector | 14. Touchpad connector |
| 6. I/O board FFC connector | 15. Keyboard connector |
| 7. USB Type-C® connector | 16. Stylus charger connector* |
| 8. USB Type-A connector | 17. HDMI connector |
| 9. Audio connector | 18. LAN connector |

* On selected models

[illegible]