HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

ROG STRIX
GAMING NOTEBOOK PC
SERVICE MANUAL

MORE INFO:

SERVICE AND SUPPORT

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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

HDMI connector
LAN connector
USB Type-A connector
USB Type-A connector
Headphone/Headset/
Microphone jack
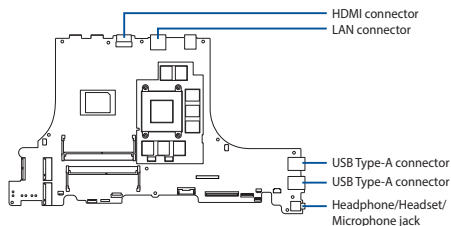
Motherboard with ports and connectors

15" model
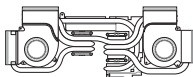
17" model
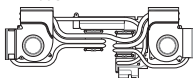
Thermal module   **Keyboard**   **RAM module**
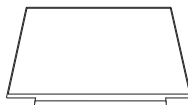
SSD module   **LCD panel module**
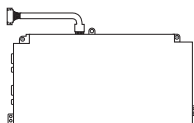
Power adapter   **Battery and power connector**

NOTE: The illustration is for reference only.

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.   Loosen the Pop-open Screw without removing the screw from the cover.

C.   Slightly lift the cover to reveal the compartment without removing the cover completely.

Pop-open Screw
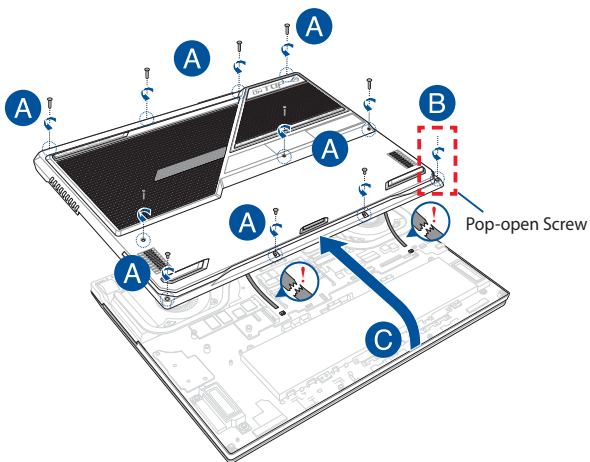
D.   Locate and disconnect the cable(s) as shown in the illustration.

NOTE: If you accidentally pull out the cable(s) from the back of the compartment cover, refer to the next page to reconnect the cable(s).

E.   Pull out the compartment cover and remove it completely from your Notebook PC.
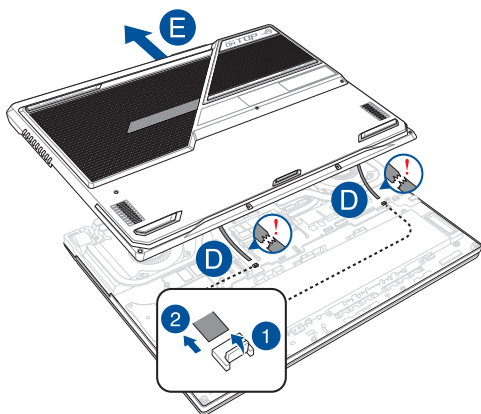
To reconnect the cable(s) to the back of the compartment cover, follow the steps below to remove the circuit board(s) first, then reconnect the cable(s) before reinstalling the circuit board(s).
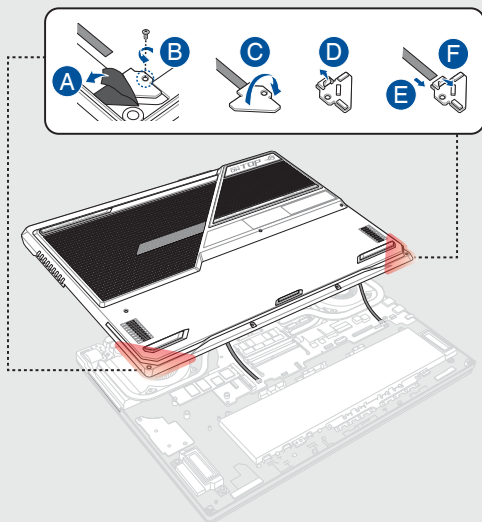
To reattach the compartment cover:

A.   Locate and reconnect the cable(s) as shown in the illustration.

B.   Align and reattach the cover of the compartment.

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

D.   Tighten the Pop-open Screw.
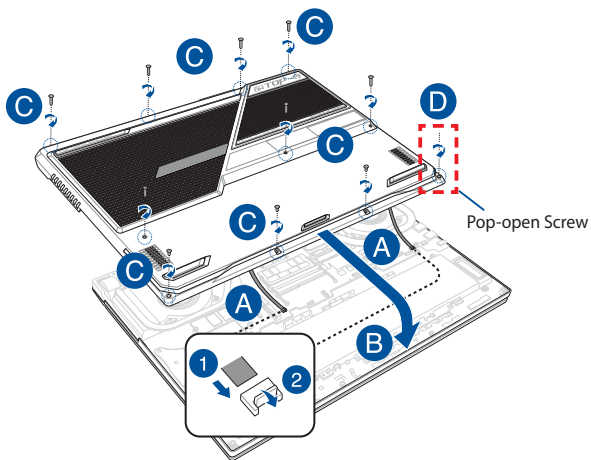
Pop-open Screw

Cover screw map

15" model

Model
G513R   G513RX   G513RS   G513RW   G513RM   G513RXZ   G513RSZ G513RWZ   513RMZ   PX513R   PX513RX   PX513RS   PX513RW   PX513RM GL543R   GL543RX   GL543RS   GL543RW   GL543RM
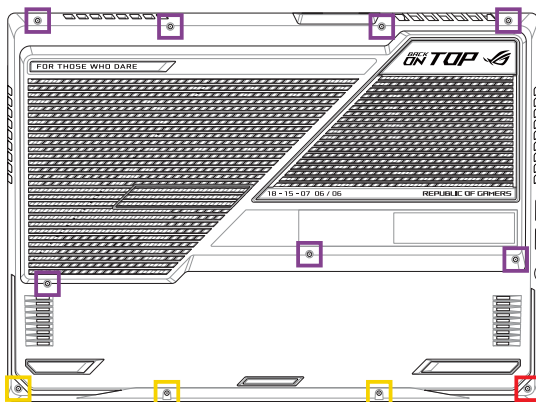
■ M2.5 X 12L (7PCS)

■ M2.5 X 6L (3PCS)

■ M2.5 X 7L (1PC Pop-open Screw)

Model
G513RC   G513RE   G513RH   G513RCZ   G513REZ   G513RHZ   PX513RE
PX513RC   PX513RH   GL543RE   GL543RC   GL543RH
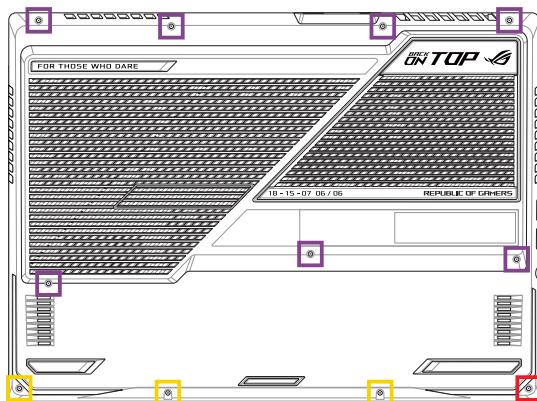
■ M2.5 X 9L (7PCS)

■ M2.5 X 4.5L (3PCS)

■ M2.5 X 5L (1PC Pop-open Screw)

17" model

Model						
G713R	G713RX	G713RS	G713RW	G713RM	G713RXZ	G713RSZ
G713RWZ	G713RMZ	PX713R	PX713RX	PX713RS	PX713RW	PX713RM
GL743R	GL743RX	GL743RS	GL743RW	GL743RM		

■ M2.5 X 12L (7PCS)

■ M2.5 X 6L (3PCS)

■ M2.5 X 7L (1PC Pop-open Screw)

Model
G713RC   G713RE   G713RH   G713RCZ   G713REZ   G713RHZ   PX713RE
PX713RC   PX713RH   GL743RE   GL743RC   GL743RH
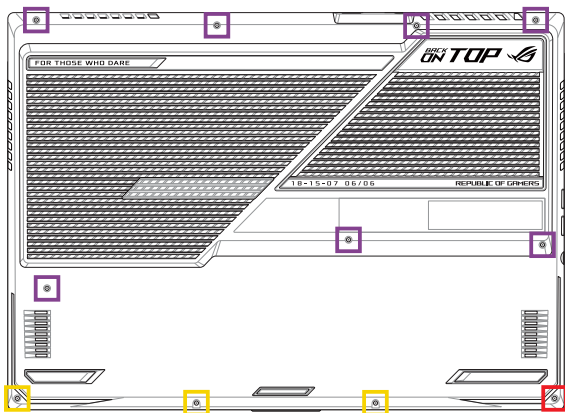
■ M2.5 X 9L (7PCS)

■ M2.5 X 4.5L (3PCS)

■ M2.5 X 5L (1PC Pop-open Screw)
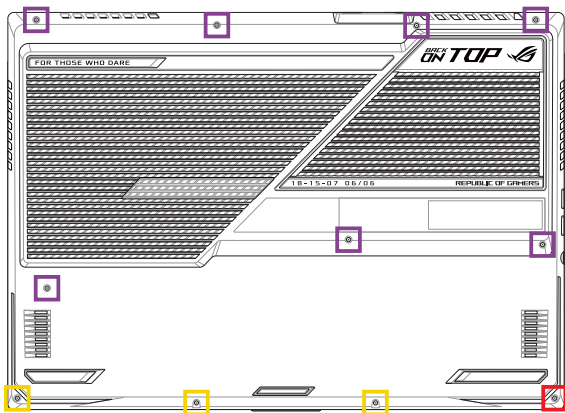
Disconnecting the battery

A. Remove the compartment cover.

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

B. Disconnect the cable from the battery connector.
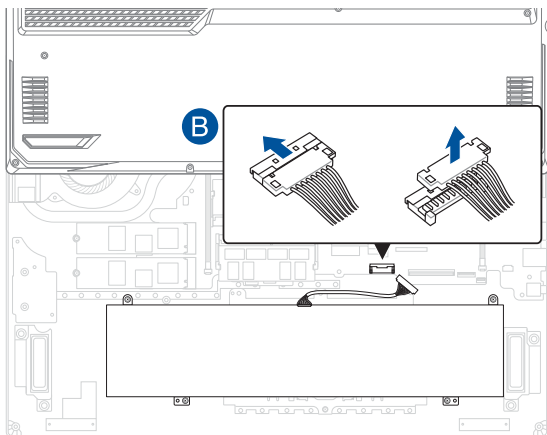
> **NOTE:** The illustration is for reference only.

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

Installing a RAM module

Upgrade the memory capacity of your Notebook PC by installing a RAM (Random Access Memory) module in the memory module compartment. The following steps show you how to install a RAM module into your Notebook PC:

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.

IMPORTANT! Visit an authorized service center or retailer for information on RAM module upgrades for your Notebook PC. Purchase RAM modules from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.
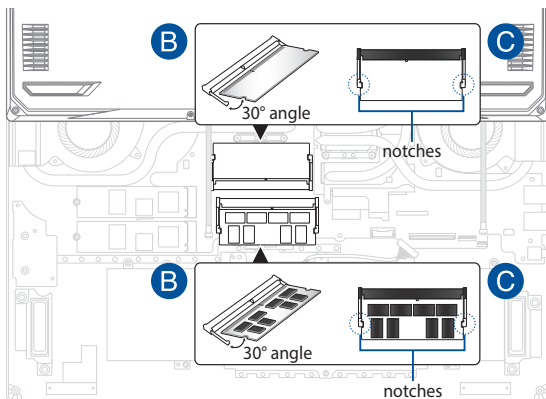
NOTE:

- The appearance of your Notebook PC's bottom view and RAM module may vary per model but the RAM module installation remains the same.

- It is recommended that you install the RAM module under professional supervision. You may also visit an authorized service center for further assistance.

A. Remove the compartment cover.

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

B. Align and insert the RAM module into the RAM module slot.

C. Push down the RAM module until it clicks in place.

Installing an M.2 card

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

IMPORTANT! Purchase your M.2 card 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.
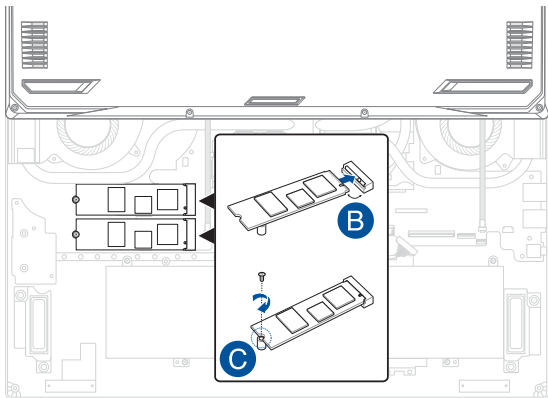
NOTE:

- The appearance of your Notebook PC's bottom view and M.2 card may vary per model but the module installation remains the same.

- It is recommended that you install the M.2 card under professional supervision. You may also visit an authorized service center for further assistance.

- The M.2 2280 slot does not support M.2 SATA SSD.

A.   Remove the compartment cover.

> **NOTE:** For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.
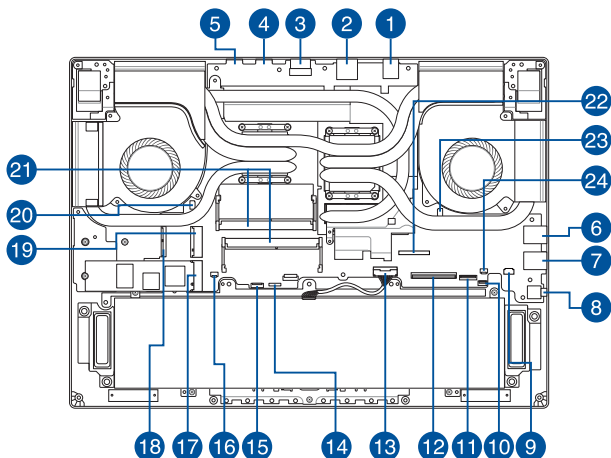
B.   Align and insert the M.2 card into the module slot.

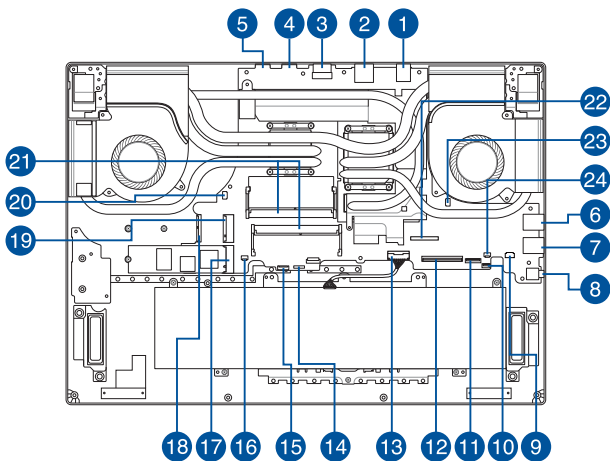C.   Secure the M.2 card in place using the bundled screw(s).

Wiring and connection diagrams

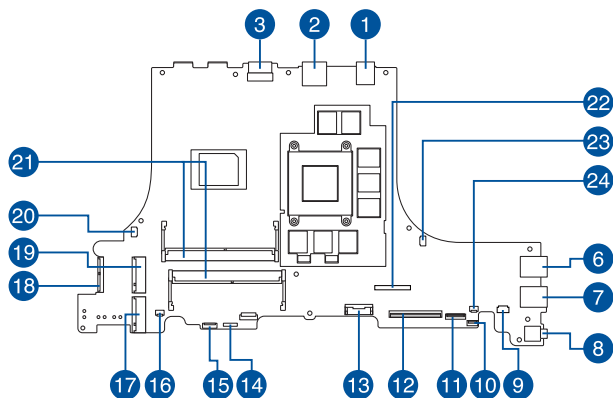**NOTE:** The illustration is for reference only.
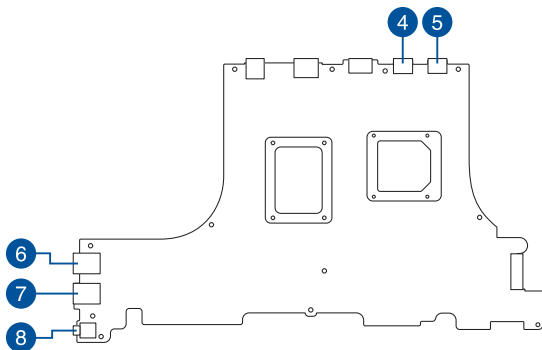
15" model

17" model

Top View

Bottom View

1. Power supply connector
2. LAN connector
3. HDMI connector
4. USB Type-C® connector
5. USB Type-C® connector
6. USB Type-A connector
7. USB Type-A connector
8. Headphone/Headset/Microphone jack
9. Speaker connector
10. Touchpad connector
11. Keyboard backlight connector (per key)
12. Keyboard membrane connector

13. Battery connector
14. Keyboard backlight connector (zone)
15. Indicator microphone connector
16. LED DR connector
17. Second SSD connector
18. Wi-Fi socket
19. Main SSD connector
20. Fan R connector
21. DDR socket
22. LVDS connector
23. Fan L connector
24. LED DL connector