

E25859

Revised Edition V2 / February 2025

IN SEARCH OF INCREDIBLE



Service Manual



COPYRIGHT INFORMATION

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK COMPUTER INC. ("ASUS").

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Copyright © 2025 ASUSTeK COMPUTER INC. All Rights Reserved.

LIMITATION OF LIABILITY

Circumstances may arise where because of a default on ASUS' part or other liability, you are entitled to recover damages from ASUS. In each such instance, regardless of the basis on which you are entitled to claim damages from ASUS, ASUS is liable for no more than damages for bodily injury (including death) and damage to real property and tangible personal property; or any other actual and direct damages resulted from omission or failure of performing legal duties under this Warranty Statement, up to the listed contract price of each product.

ASUS will only be responsible for or indemnify you for loss, damages or claims based in contract, tort or infringement under this Warranty Statement.

This limit also applies to ASUS' suppliers and its reseller. It is the maximum for which ASUS, its suppliers, and your reseller are collectively responsible.

UNDER NO CIRCUMSTANCES IS ASUS LIABLE FOR ANY OF THE FOLLOWING: (1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES; (2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR (3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF ASUS, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY.

SERVICE AND SUPPORT

Visit our multi-language website at <https://www.asus.com/support/>.

Table of Contents

Disclaimer	4
Safety precautions.....	4
Repair tools	6
Accessories.....	6
Diagnostic tools	6
Major components.....	7
Removing the bottom cover	9
Disconnecting the battery	15
Replacing the battery.....	17
Replacing the M.2 SSD module	23
Replacing the RAM module	27
Replacing the display panel module.....	31
Replacing the motherboard	48
Screw map.....	66
Wiring and connection diagrams	78

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.

Repair tools



Screwdriver



Plastic blade



Tweezers

Accessories



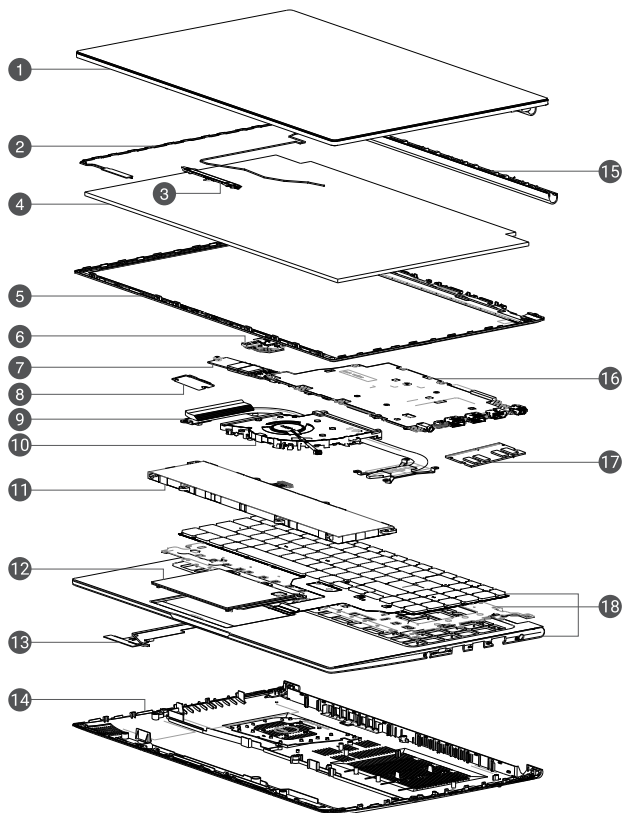
Power adapter

Diagnostic tools

Use ASUS System Diagnostics after completing any service procedures to ensure that all components are working properly.

For more information, visit www.asus.com/support/FAQ/1048490/.

Major components



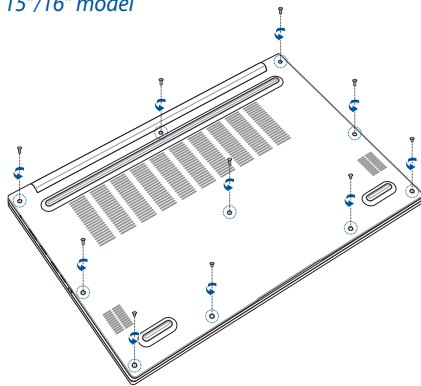
- | | |
|-----------------------|-----------------------------|
| 1. Top cover | 10. Fan |
| 2. Main antenna cable | 11. Battery |
| 3. Camera module | 12. Touchpad |
| 4. Display panel | 13. Auxiliary antenna cable |
| 5. Display bezel | 14. Bottom cover |
| 6. I/O board | 15. Hinge cap |
| 7. M.2 SSD module | 16. Motherboard |
| 8. WLAN module | 17. RAM module |
| 9. Heat sink | 18. Keyboard module |

Removing the bottom cover

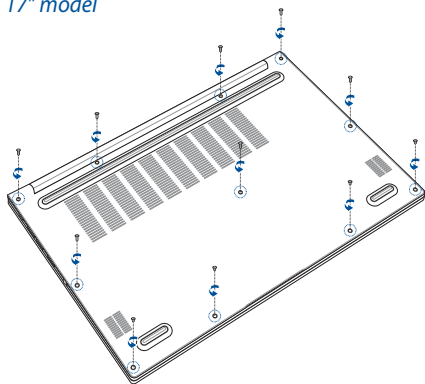
NOTE: The appearance of your Notebook PC's bottom view may vary per model.

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

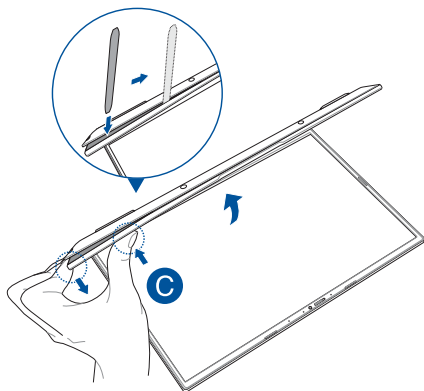
15"/16" model



17" model



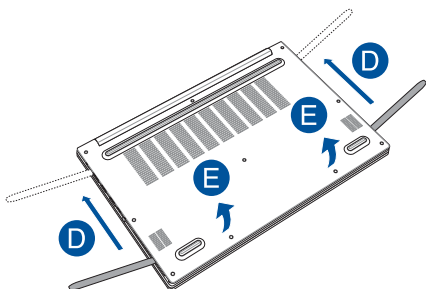
- B. Place your Notebook PC in the orientation as shown in the illustration below.
- C. Starting from the bottom edge, pry loose the bottom cover.



- D. In the orientation shown, use the plastic blade to pry open the indicated area of the bottom cover.

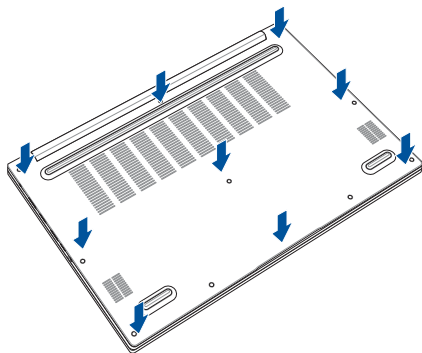
IMPORTANT! Avoid sliding the plastic blade along the side of your Notebook PC to prevent damage.

- E. Remove the bottom cover.



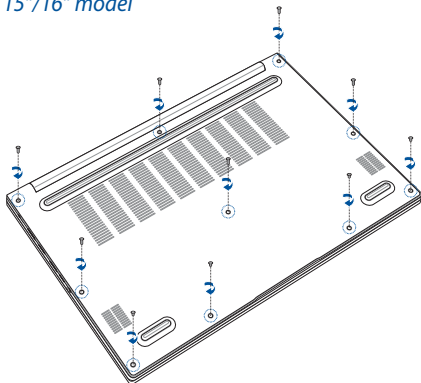
To reattach the bottom cover:

- A. Align and reattach the bottom cover.

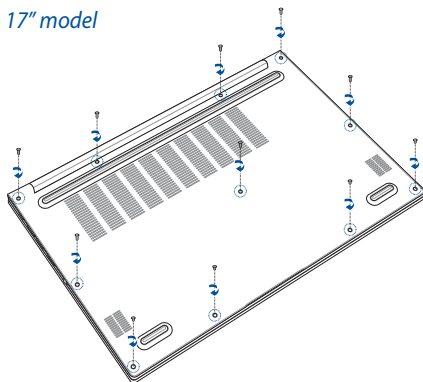


- B. Secure the bottom cover using the screw(s) you removed earlier.

15"/16" model



17" model

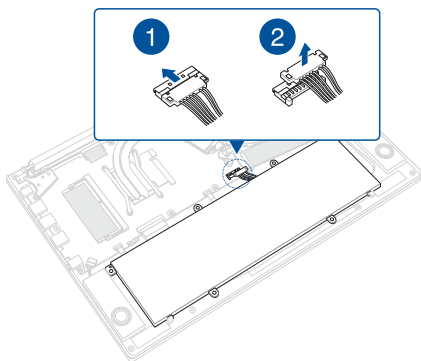


Disconnecting the battery

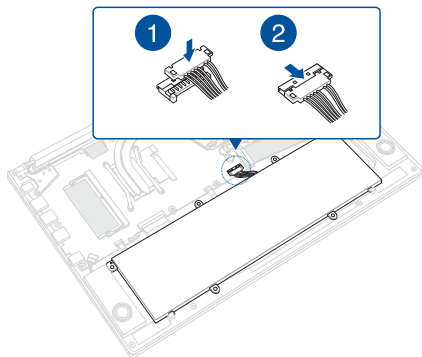
- A. Remove the bottom cover.

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

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



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

NOTE:

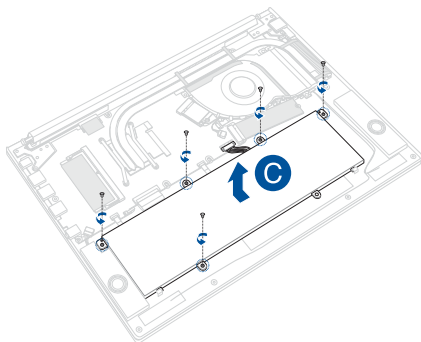
- The appearance of your Notebook PC's bottom view and battery may vary per model but the module installation remains the same.
 - It is recommended that you install the battery under professional supervision. You may also visit an authorized service center for further assistance.
-

A. Remove the bottom cover and disconnect the battery.

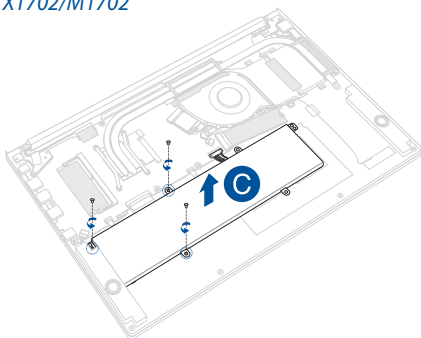
NOTE: For more details, refer to the *Removing the bottom cover* and *Disconnecting the battery* sections in this manual.

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

15" model/16" model/X1703/M1703

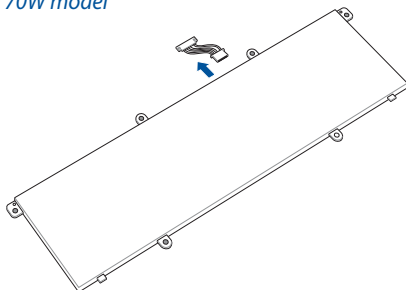


X1702/M1702



- D. Remove the battery power cable (if applicable).

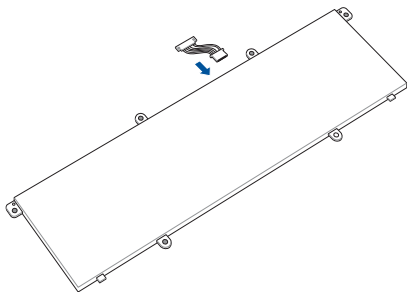
70W model



To install the new battery:

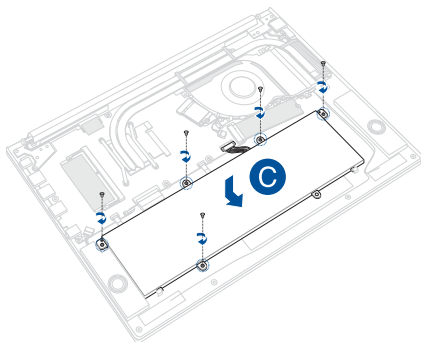
- A. Prepare the new battery.
- B. Reconnect the battery power cable to the battery (if applicable).

70W model

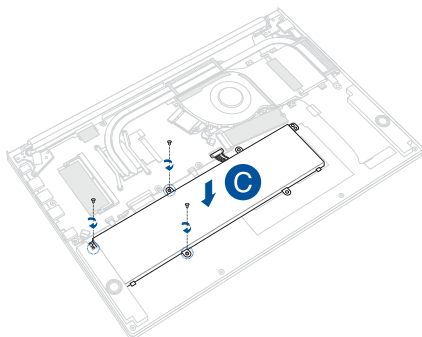


- C. Reinstall the battery.
- D. Secure the battery using the screw(s) you removed earlier.

15" model/16" model/X1703/M1703



X1702/M1702



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 bottom cover.

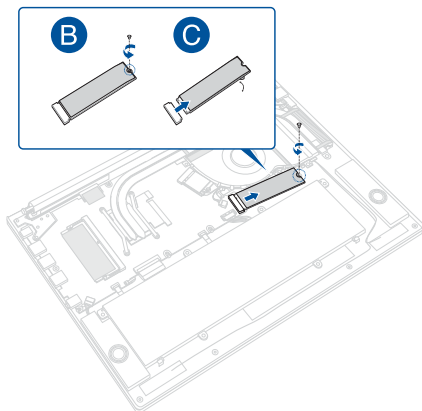
NOTE:

- 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.
-

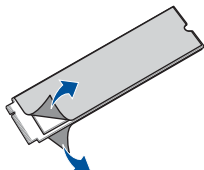
- A. Remove the bottom cover and disconnect the battery.

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

- B. Remove the screw from the M.2 SSD module.
- C. Remove the M.2 SSD module from the motherboard.

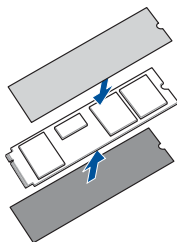


- D. Remove the polyester film from the M.2 SSD module.

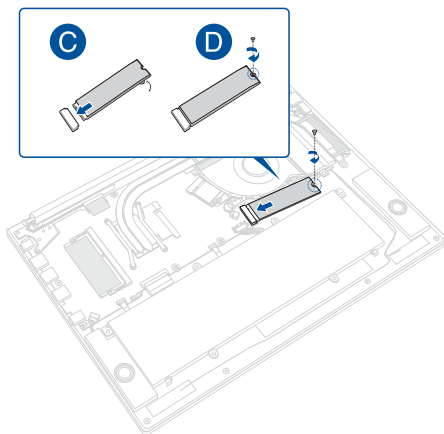


To install the new M.2 SSD module:

- A. Prepare the new M.2 SSD module.
B. Reattach the polyester film to the M.2 SSD module.



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



Replacing the RAM module

Upgrade the memory capacity of your Notebook PC by installing a RAM (Random Access Memory) module in the memory module compartment. Refer to the following steps when installing a RAM module in your Notebook PC:

IMPORTANT! Visit an authorized service center or retailer for information on RAM module upgrades for your Notebook PC. Purchase your RAM modules 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 bottom cover.

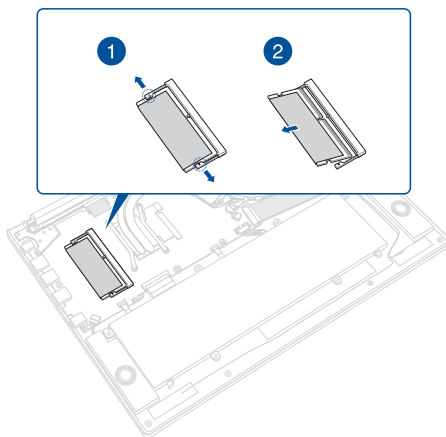
NOTE:

- 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 bottom cover and disconnect the battery.

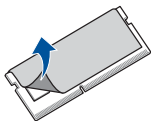
NOTE: For more details, refer to the *Removing the bottom cover* and *Disconnecting the battery* sections in this manual.

- B. Push the clips outwards to remove the RAM module.

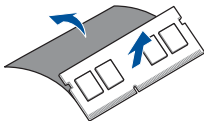


- C. Remove the polyester film from the RAM module.

1



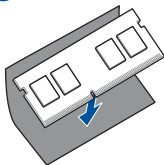
2



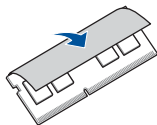
To install the new RAM module:

- A. Prepare the new RAM module.
B. Reattach the polyester film to the RAM module.

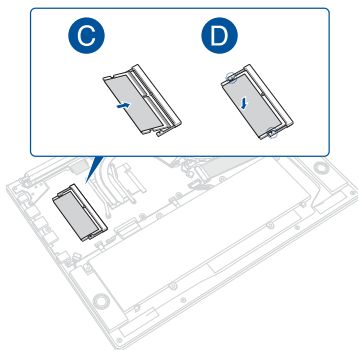
1



2



- C. Align and insert the RAM module into the RAM module slot.
- D. Push down the RAM module until it clicks in place.



Replacing the display panel module

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

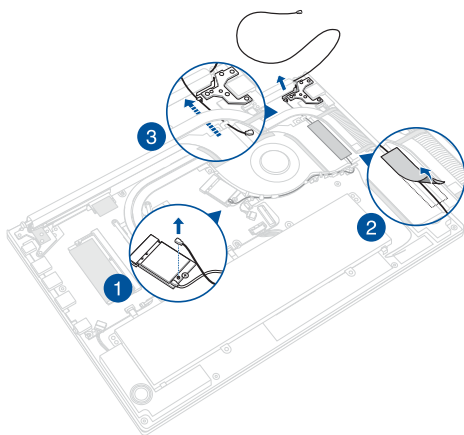
NOTE: The illustrations are for reference only.

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

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

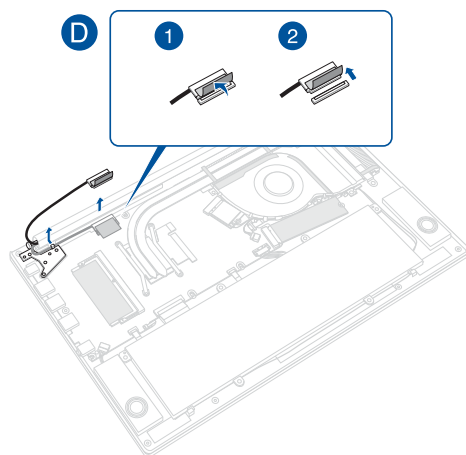
- B. (Optional) Remove the antenna cable as shown in the illustration below.

X1502/M1502/X1702/M1702

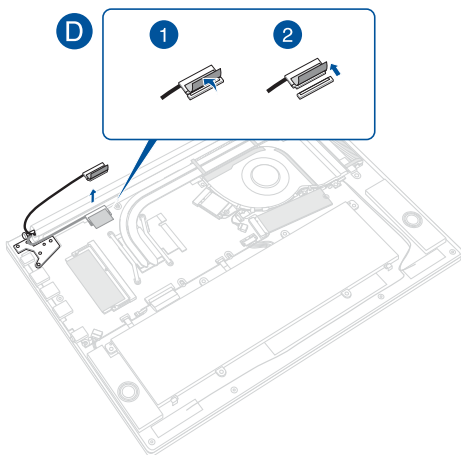


- C. (Optional) Remove the tape as shown in the illustration below.
- D. Locate and remove the connector.

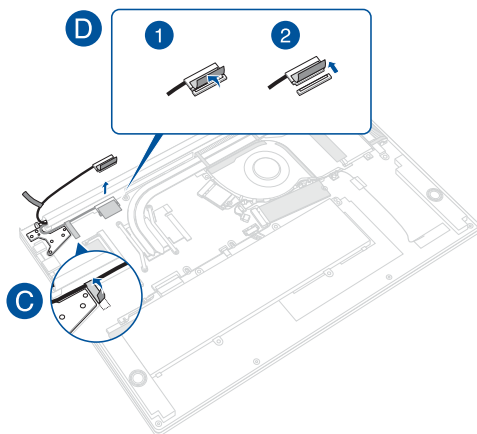
15" model/X1703/M1703



X1603/M1603

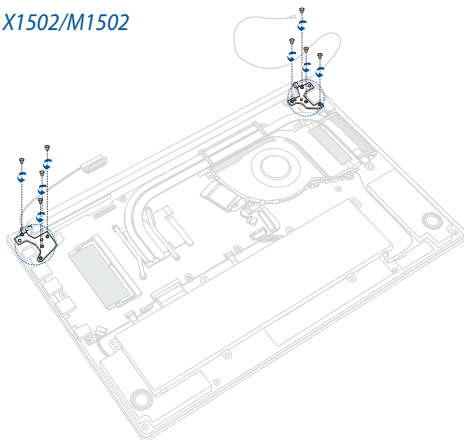


X1702/M1702

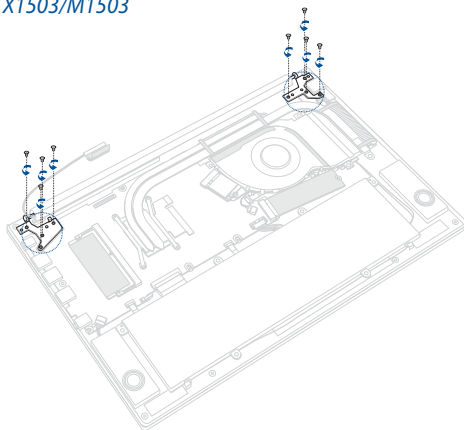


- E. Remove the screw(s) from the hinges.

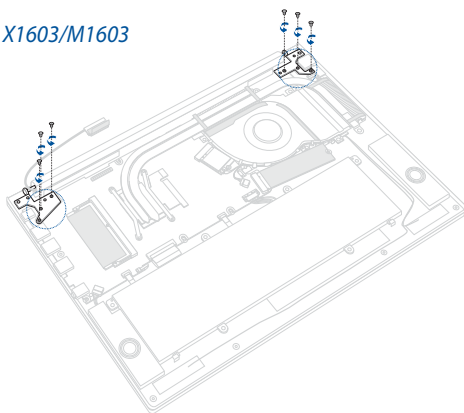
X1502/M1502



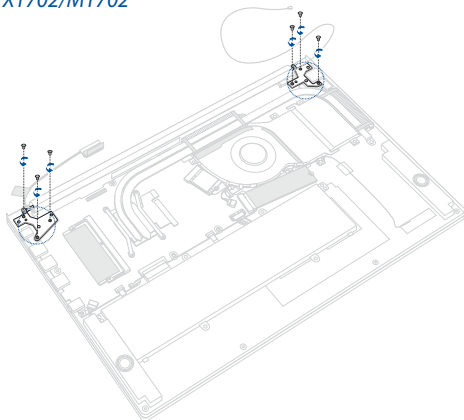
X1503/M1503



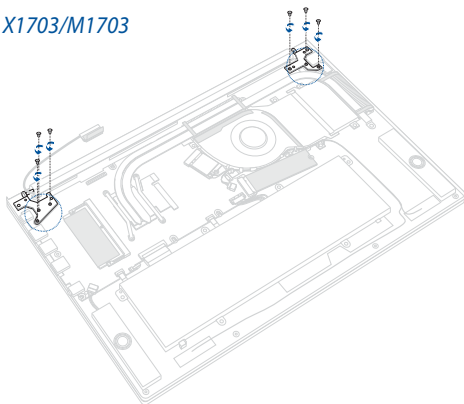
X1603/M1603



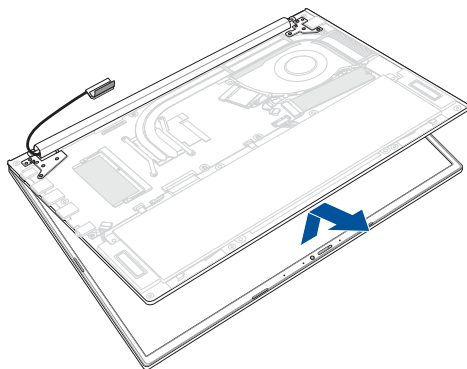
X1702/M1702



X1703/M1703

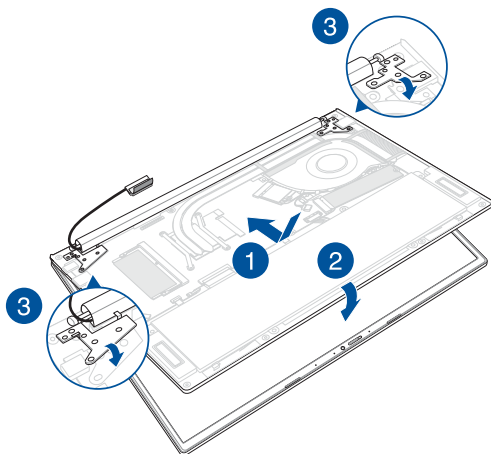


- F. Release the display panel module as shown in the illustration below.



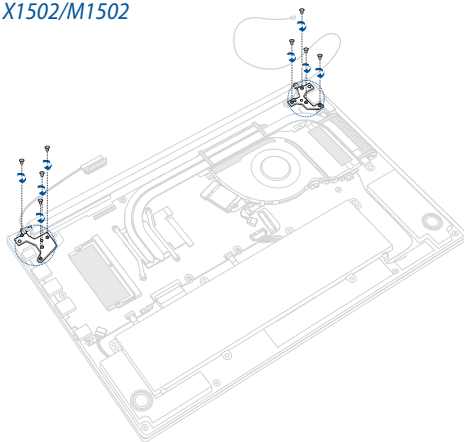
To install the new display panel module:

- A. Prepare the new display panel module.
- B. In the orientation shown, align and place the hinges of the display panel module on the screw holes of the chassis.

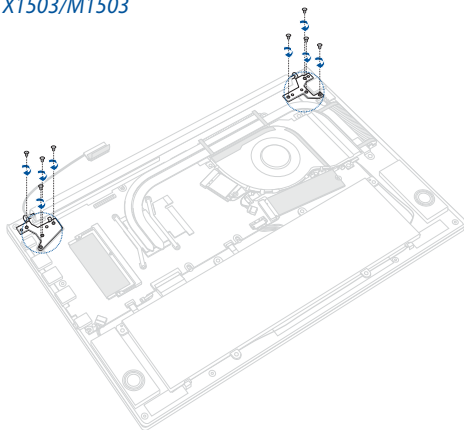


- C. Secure the hinge using the screw(s) you removed earlier.

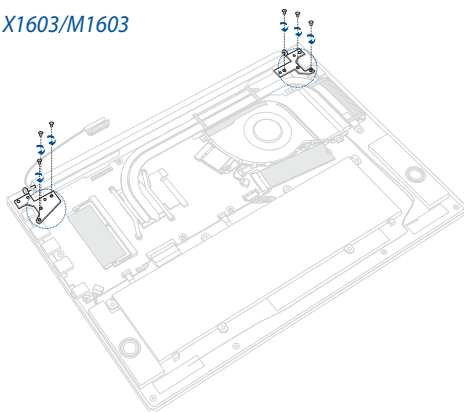
X1502/M1502



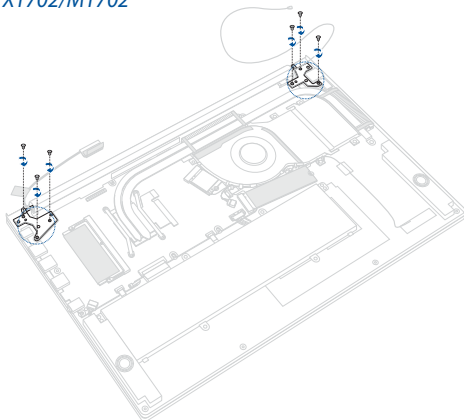
X1503/M1503



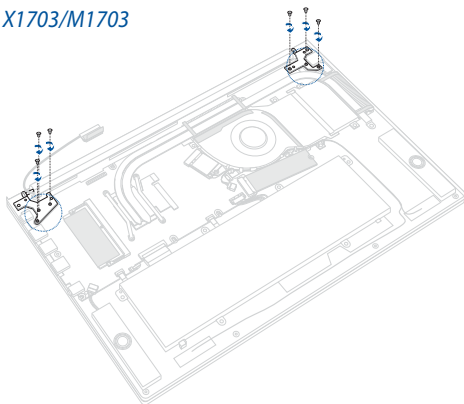
X1603/M1603



X1702/M1702

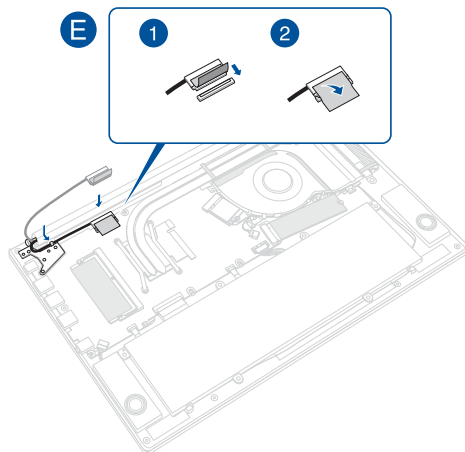


X1703/M1703

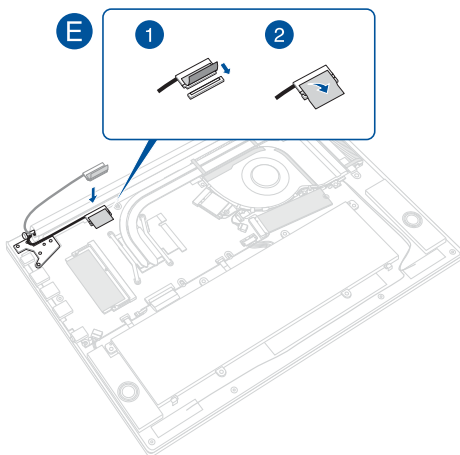


- D. (Optional) Reattach the tape as shown in the illustration below.
- E. Locate and reconnect the connector.

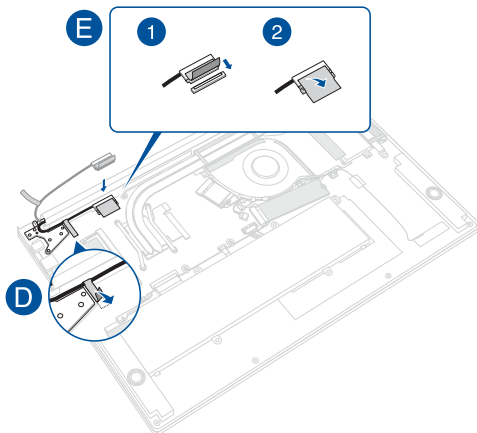
15" model/X1703/M1703



X1603/M1603

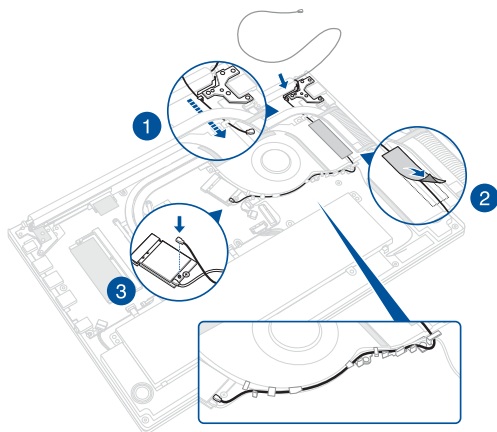


X1702/M1702



- F. (Optional) Reconnect the antenna cable as shown in the illustration below.

X1502/M1502/X1702/M1702



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 bottom 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 bottom cover and disconnect the battery.

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

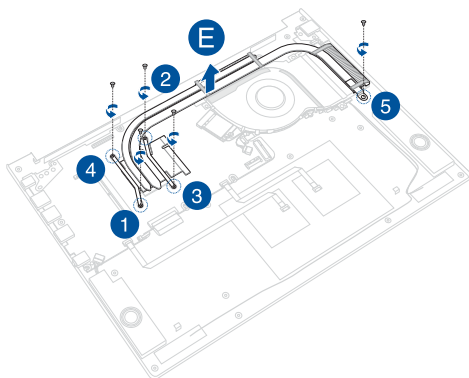
- B. Remove the M.2 SSD module and the RAM module.

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

- C. Remove the display panel module.

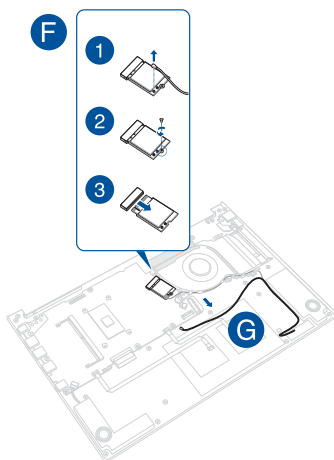
NOTE: For more details, refer to the *Replacing the display panel module* section in this manual.

- D. Remove the screw(s) one by one in the sequence shown in the illustration below.
- E. Remove the heat sink.

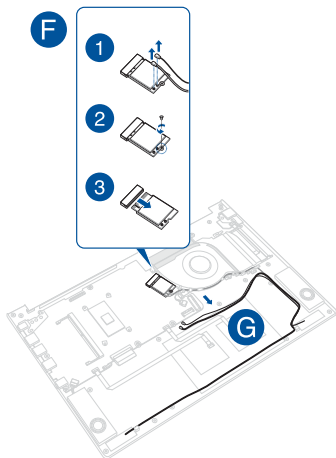


- F. Remove the WLAN module.
- G. Remove the antenna cable from the cable guide(s) as shown in the illustration below.

X1502/M1502/X1702/M1702

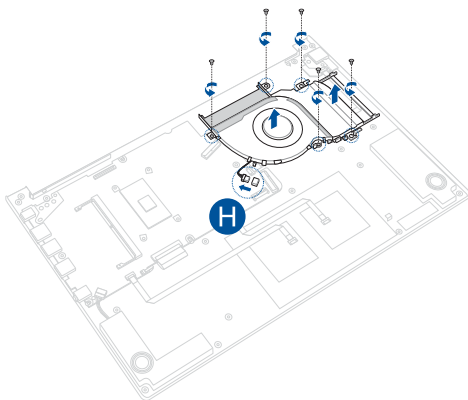


X1503/M1503/X1603/M1603/X1703/M1703

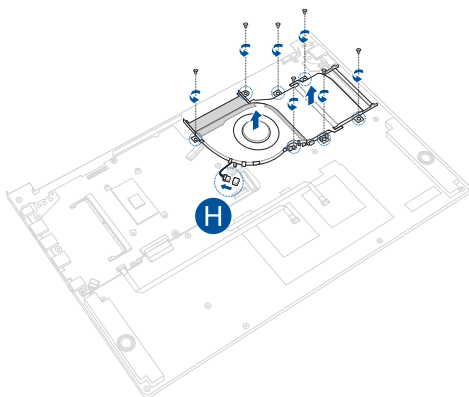


- H. Locate and remove the connector.
- I. Remove the screw(s) from the fan module then remove the fan module.

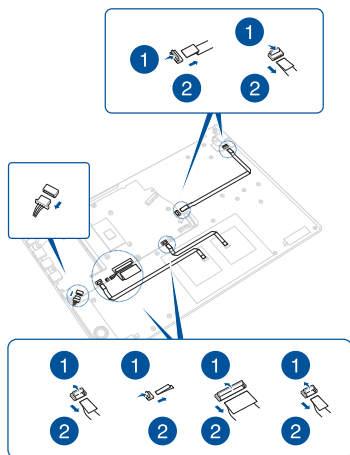
15"/16" model



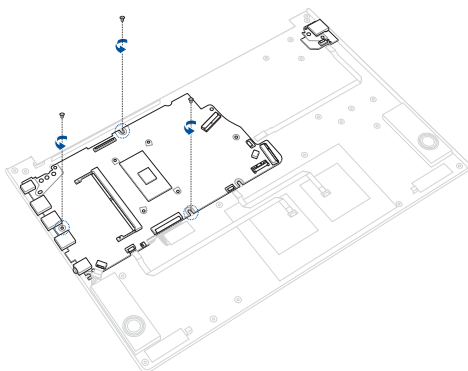
17" model



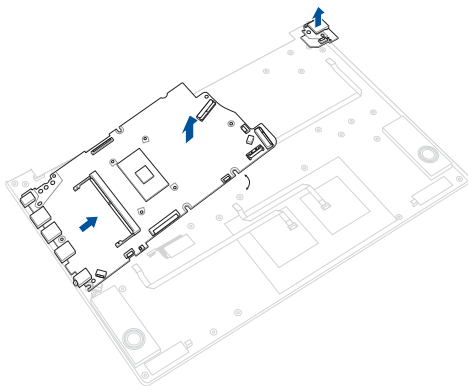
- J. Remove all the cable(s) and connector(s) as shown in the illustration below.



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

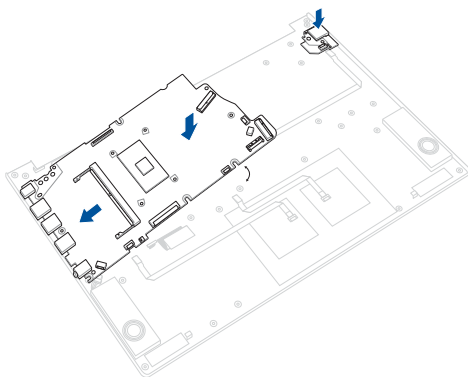


- L. Remove the motherboard and I/O board.

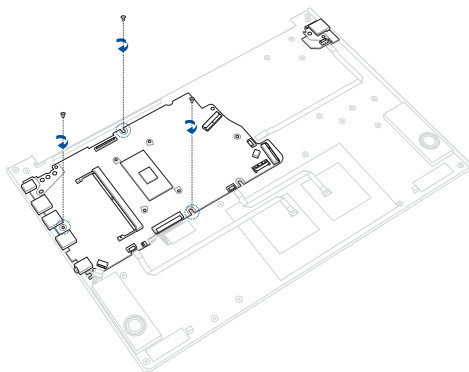


To install the new motherboard and I/O board:

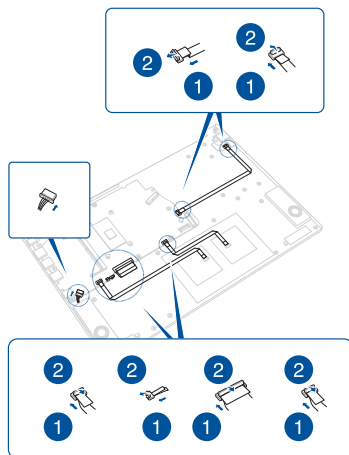
- A. Prepare the new motherboard and I/O board.
- B. Align and place the motherboard and I/O board in the chassis as shown in the illustration below.



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

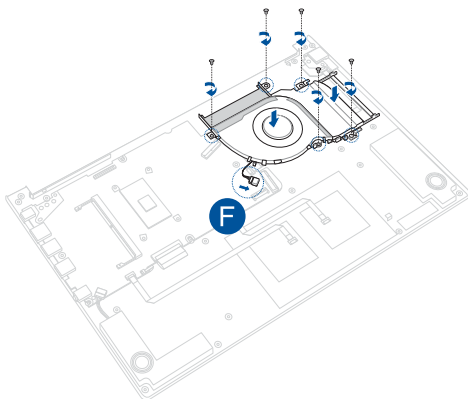


- D. Reconnect all the cable(s) and connector(s) as shown in the illustration below.

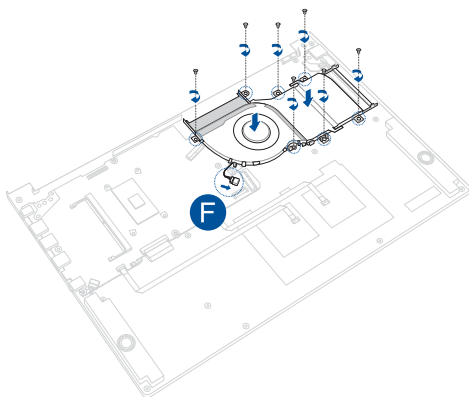


- E. Reinstall the fan module then secure the fan module using the screw(s) you removed earlier.
- F. Reconnect the connector.

15"/16" model

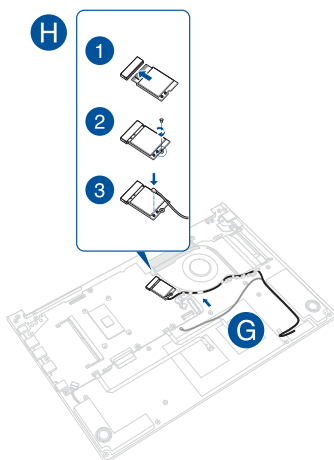


17" model

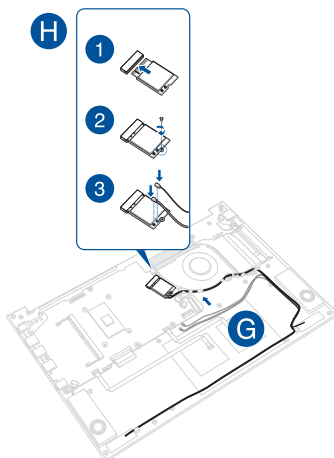


- G. Route the antenna cable through the cable guide(s) as shown in the illustration below.
- H. Reinstall the WLAN module.

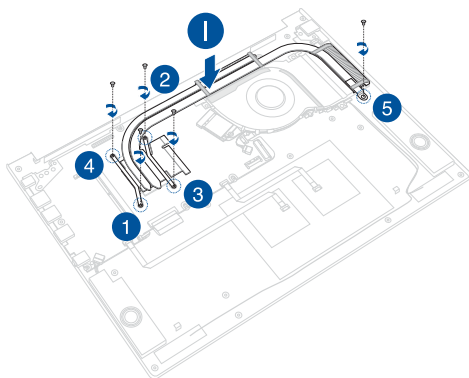
X1502/M1502/X1702/M1702



X1503/M1503/X1603/M1603/X1703/M1703



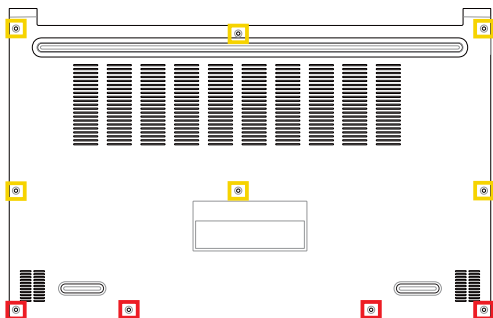
- I. Reinstall the heat sink.
- J. Secure the screw(s) one by one in the sequence shown in the illustration below.



Screw map

Cover screw map

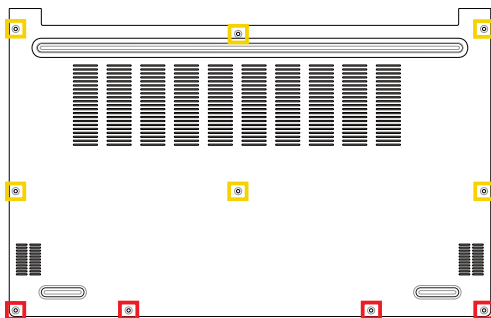
X1502/M1502



■ M2.0 X 6.5L (6pcs)

■ M2.0 X 3.5L (4pcs)

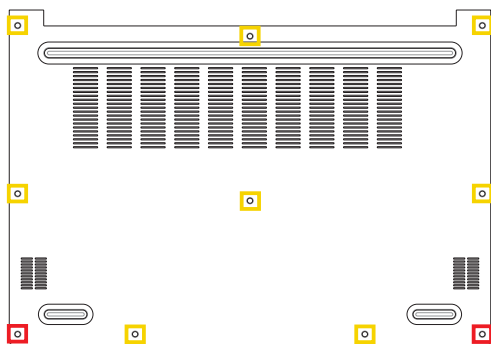
X1503/M1503



■ M2.0 X 6.5L (6pcs)

■ M2.0 X 4.0L (4pcs)

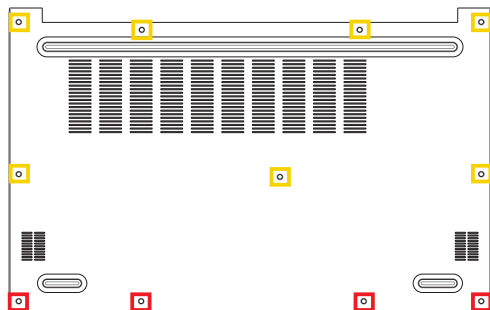
X1603/M1603



■ M2.0 X 7.5L (8pcs)

■ M2.0 X 5.5L (2pcs)

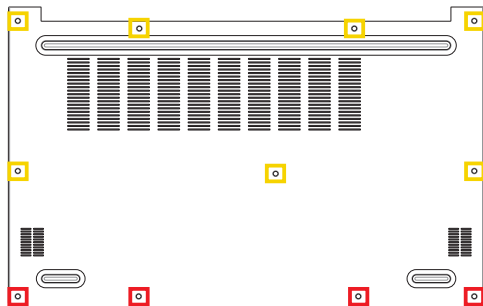
X1702/M1702



■ M2.0 X 8.0L (7pcs)

■ M2.0 X 5.0L (4pcs)

X1703/M1703

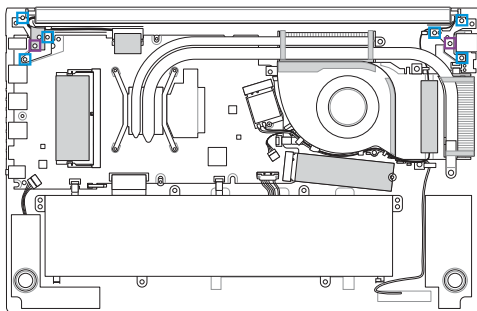


■ M2.0 X 6.5L (7pcs)

■ M2.0 X 3.5L (4pcs)

Hinge screw map

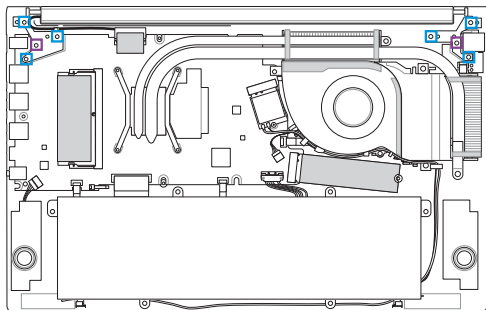
X1502/M1502



■ M2.5 X 4.5L (6pcs)

■ M2.5 X 3.5L (2pcs)

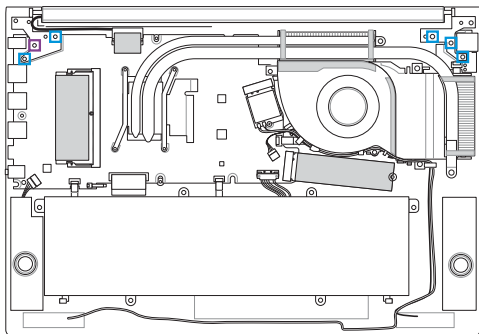
X1503/M1503



■ M2.5 X 4.5L (6pcs)

■ M2.5 X 3.5L (2pcs)

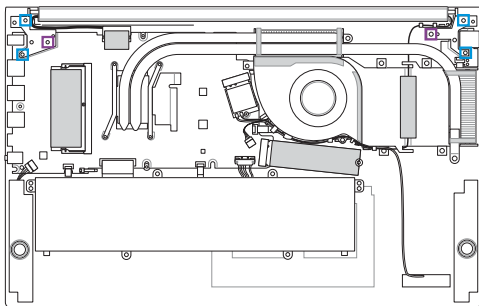
X1603/M1603



■ M2.5 X 5.0L (5pcs)

■ M2.5 X 4.0L (1pc)

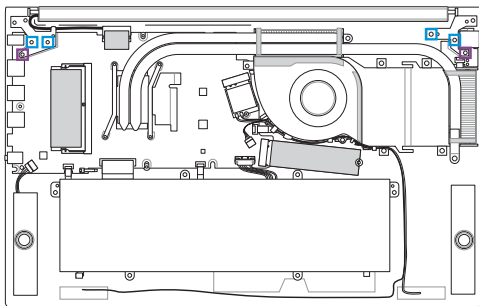
X1702/M1702



■ M2.5 X 5.0L (4pcs)

■ M2.5 X 4.0L (2pcs)

X1703/M1703

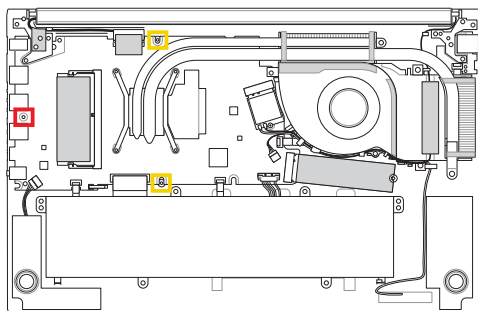


■ M2.5 X 3.5L (4pcs)

■ M2.5 X 4.5L (2pcs)

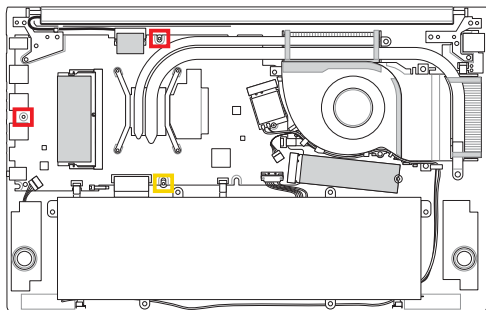
Motherboard screw map

X1502/M1502/X1603/M1603/X1703/M1703



- M2.0 X 3.5L (1pc)
- M2.0 X 2.0L (2pcs)

X1503/M1503

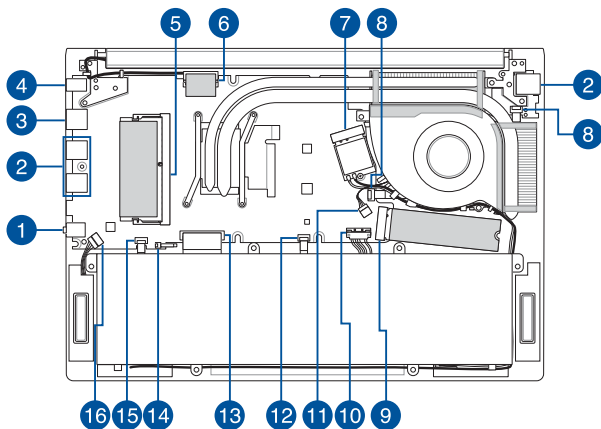


■ M2.0 X 3.5L (2pcs)

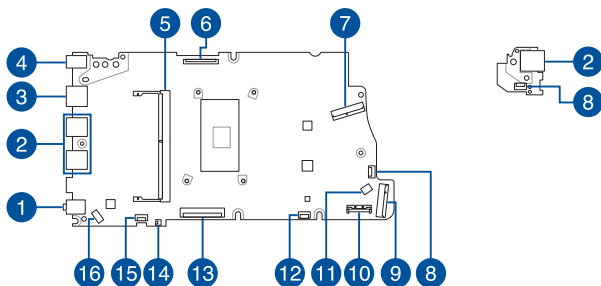
■ M2.0 X 2.0L (1pc)

Wiring and connection diagrams

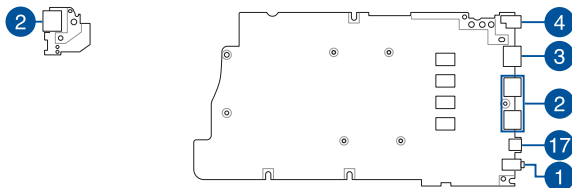
NOTE: The illustrations are for reference only.



Top View



Bottom View



- | | |
|-----------------------------------|----------------------------------|
| 1. Audio connector | 10. Battery connector |
| 2. USB Type-A connector | 11. Fan connector |
| 3. HDMI connector | 12. Touchpad connector |
| 4. Power supply connector | 13. Keyboard connector |
| 5. RAM module slot | 14. Keyboard backlight connector |
| 6. eDP connector/Camera connector | 15. Fingerprint sensor connector |
| 7. WLAN connector | 16. Speaker connector |
| 8. I/O board connector | 17. USB Type-C® connector |
| 9. M.2 SSD connector | |

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.