ORDER NO. CPD2609248CE

Service Manual

Personal Computer

Model No. **FZ-56mk1 Series**

TOUGHBOOK

Disassembly and Assembly Procedure for PCB system

DISCLAIMER

This repair information is provided to support maintenance and repair of Panasonic products. Repair procedures may involve disassembly of electrical and electronic components and should be performed only by persons with appropriate technical knowledge, skills, tools, and safety precautions.

Improper repair, modification, or handling of the product may result in personal injury, electric shock, fire, data loss, product malfunction, or other property damage.

Before starting any repair work, ensure that proper electrostatic discharge (ESD) protection measures are in place to prevent damage to electronic components.

Repair procedures, required parts, and product configurations may vary depending on the model, region, or product specification. The procedures and illustrations provided in this document are intended as general guidance and may not represent all product variations.

Panasonic does not assume responsibility for any injury, loss, damage, cost, expense, or product failure arising from repairs, modifications, or servicing performed by users or third parties. Any repair work is performed at the sole risk and responsibility of the person carrying out the repair.

Required Tool:
Refer to the section "Required tools" in the website of "Repair Information and Manual for FZ-56."

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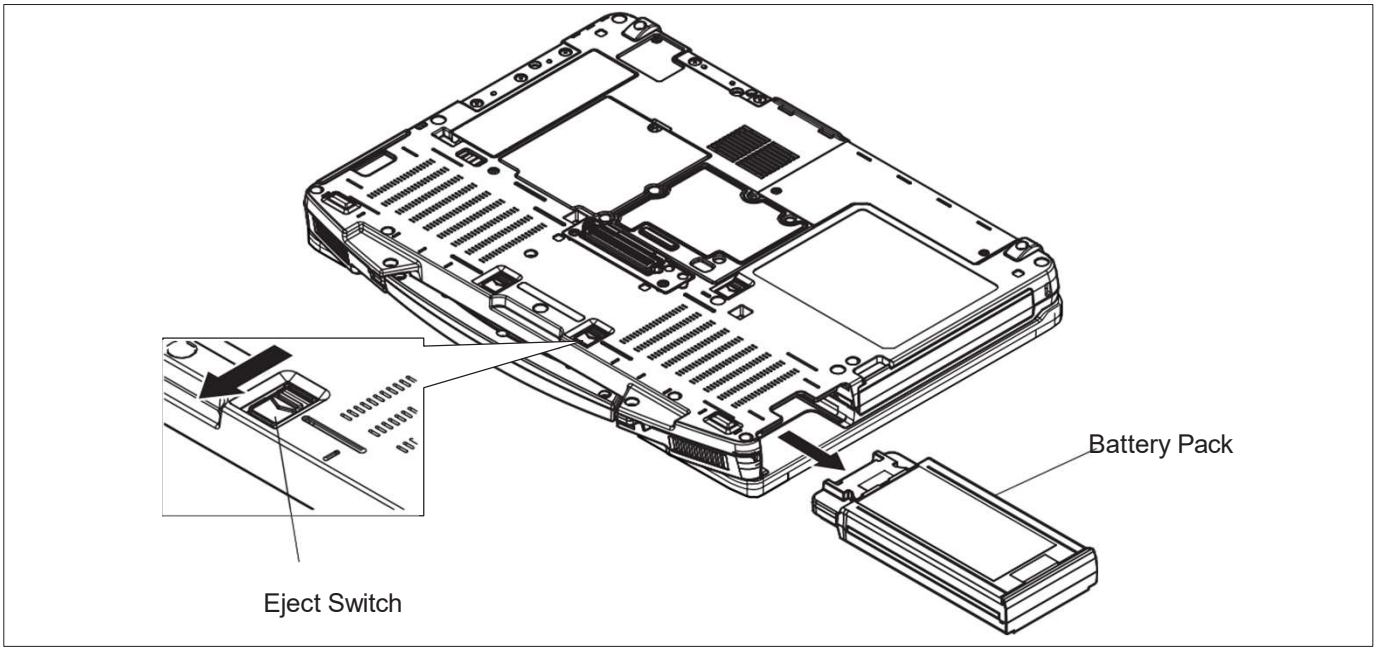
Battery Block

Disassembly Procedure

Preparation

- Before disassembling, be sure to follow the steps below.

1. Shut down Windows.
2. Turn off the power and unplug the AC adapter.
3. Slide the Eject Switch in the direction of the arrow and remove the Battery Pack.



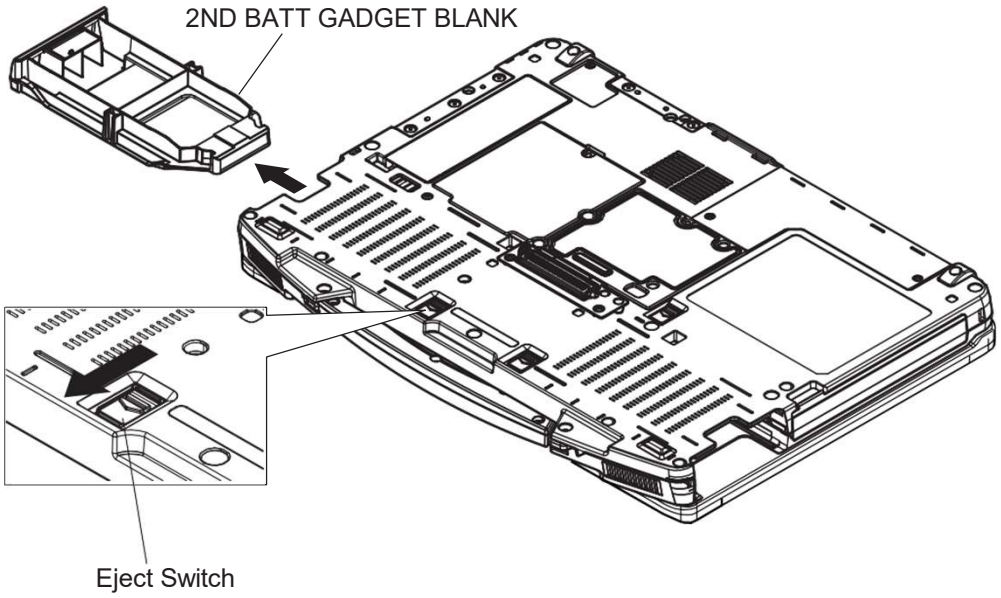
4. If there are any other connected devices, disconnect them.

Right Expansion Block

Disassembly Procedure

Remove the 2ND BATT GADGET BLANK

1. Slide the Eject Switch in the direction of the arrow and remove the 2ND BATT GADGET BLANK.

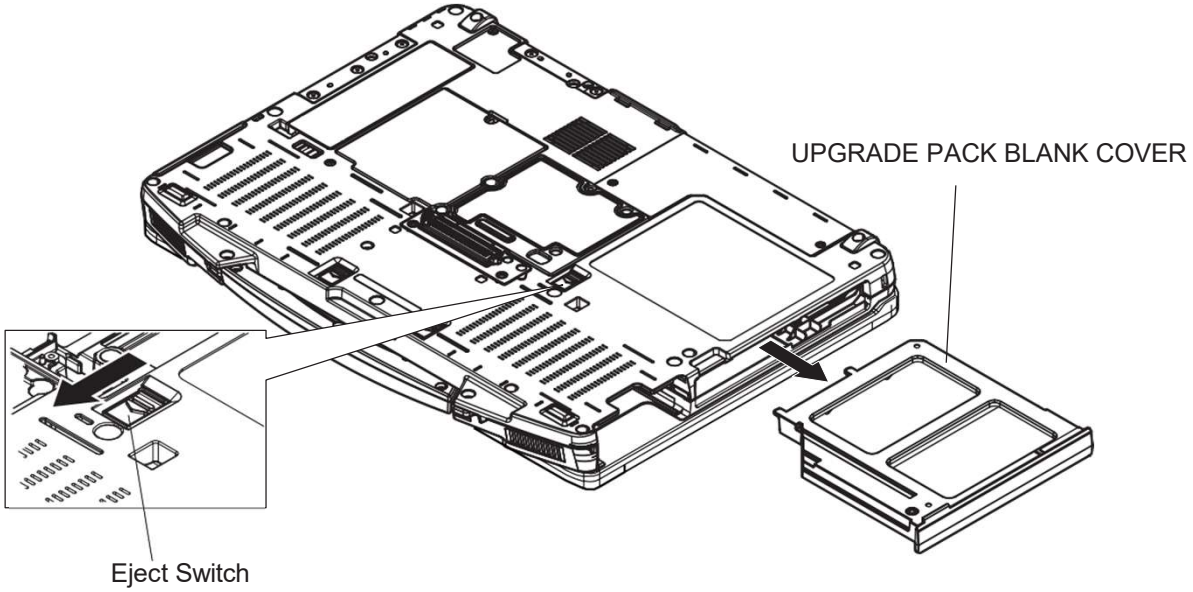


Left Expansion Block

Disassembly Procedure

Remove the UPGRADE PACK BLANK COVER

1. Slide the Eject Switch in the direction of the arrow and remove the UPGRADE PACK BLANK COVER.



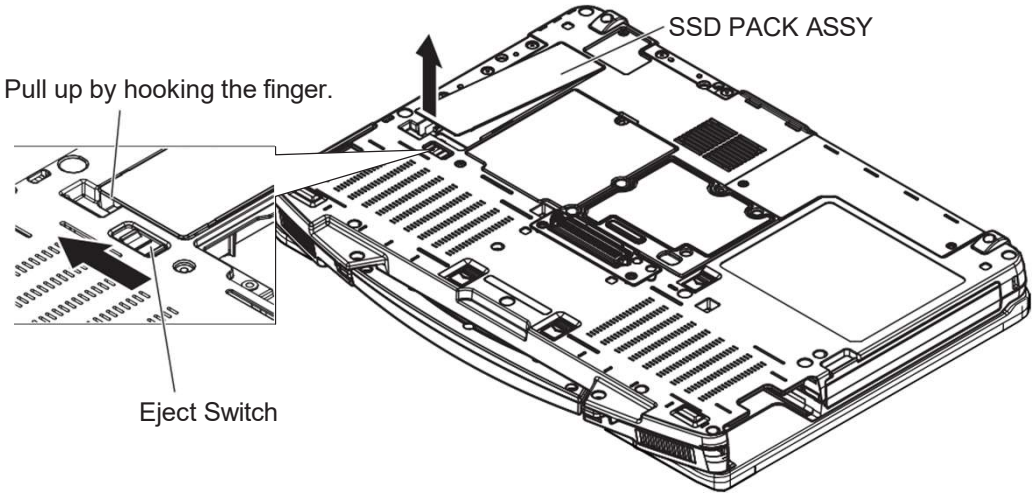
SSD Block

Disassembly Procedure

Remove the SSD PACK ASSY

■ Handling of SSD
Note that it is necessary to take countermeasures against static electricity.

1. Slide the Eject Switch in the direction of the arrow, and remove the SSD PACK ASSY while hooking the finger in the groove.

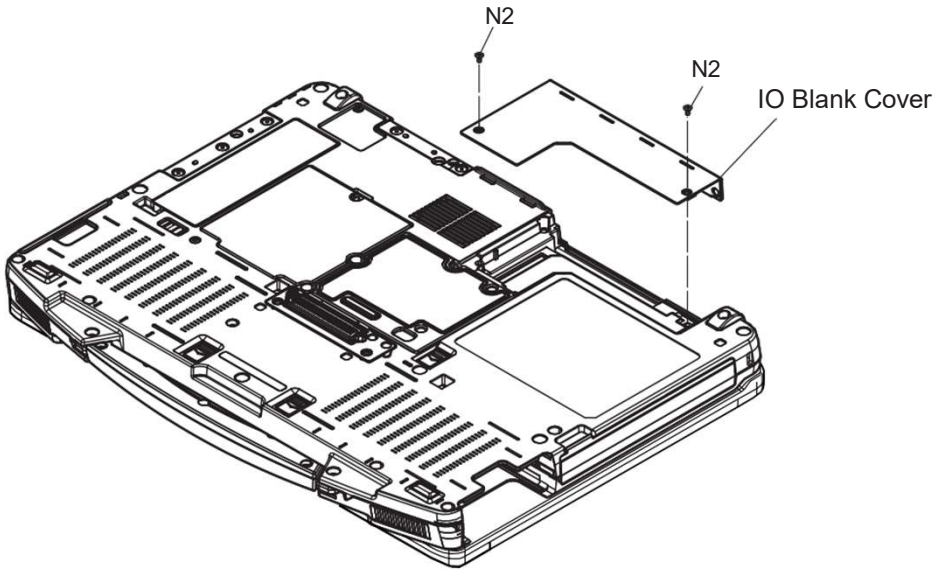


Rear Expansion Block

Disassembly Procedure

Remove the IO BLANK COVER

1. Remove 2 screws(N2) and remove the IO BLANK COVER.

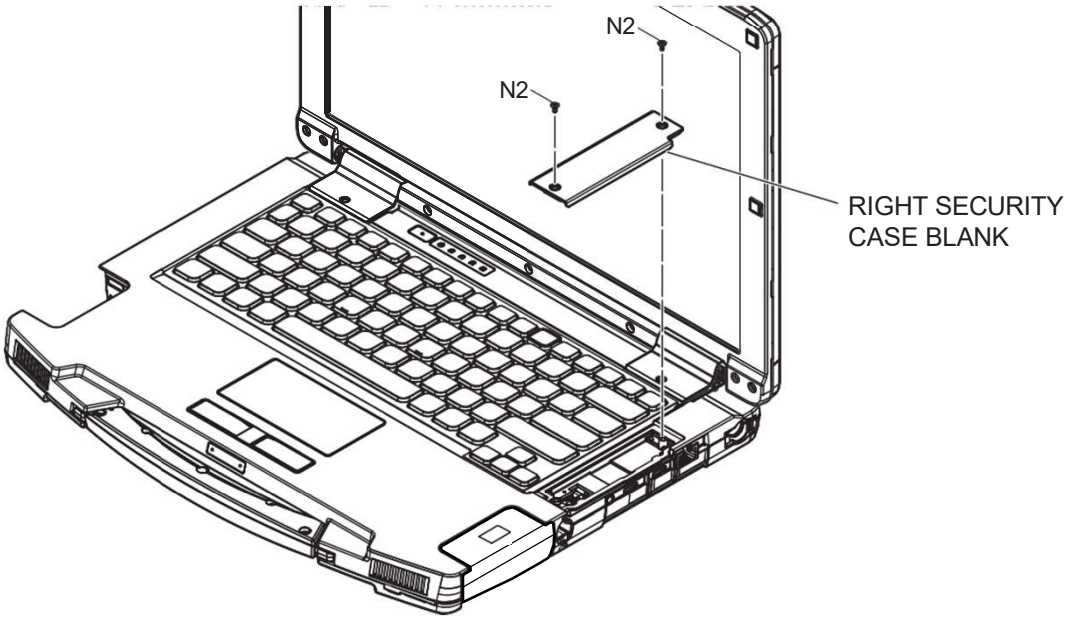


Right Security Block

Disassembly Procedure

Remove the RIGHT SECURITY CASE BLANK

1. Remove 2 screws(N2) and remove the RIGHT SECURITY CASE BLANK.



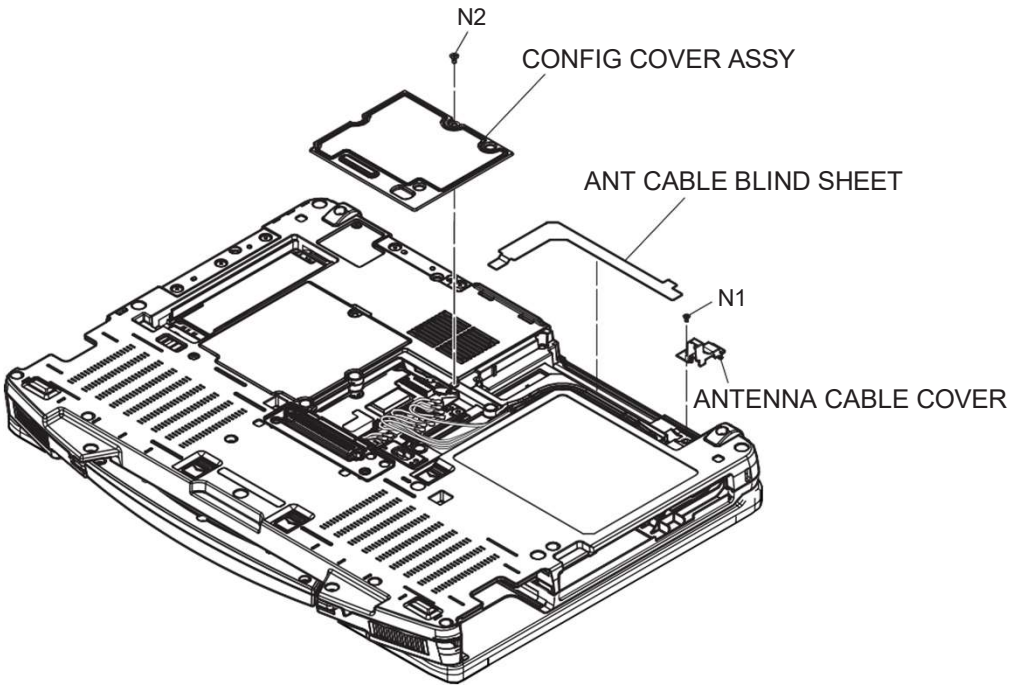
Bottom Case Block

Disassembly Procedure

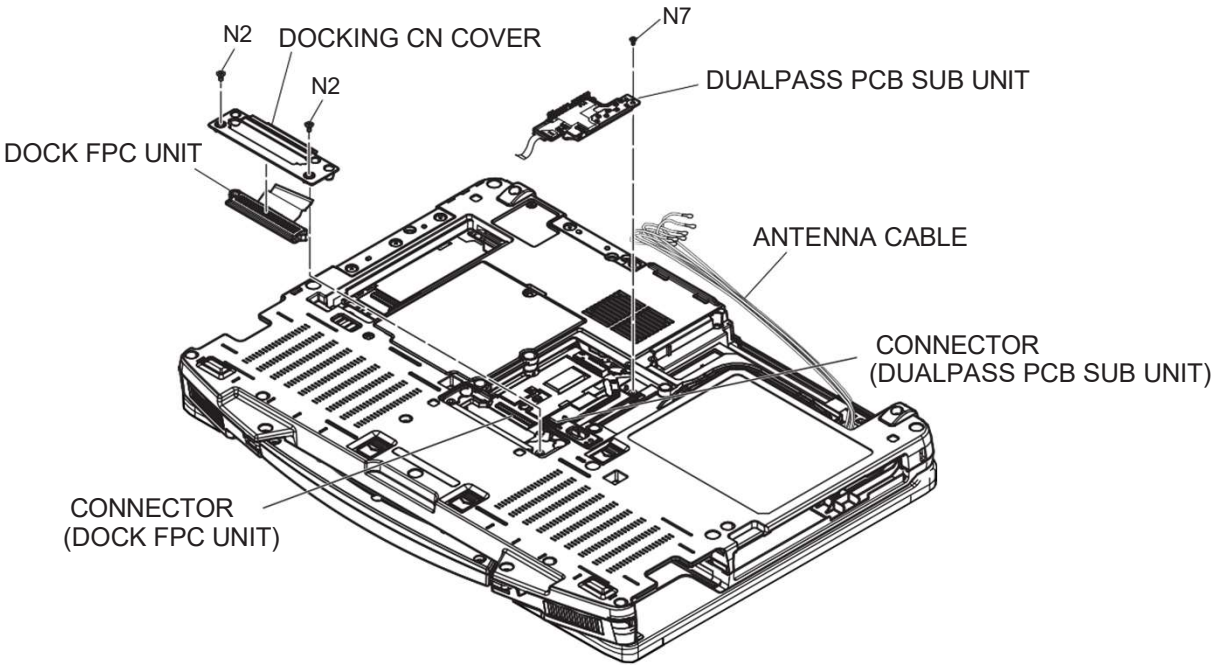
Remove the BOTTOM CASE ASSY

- remove the SSD PACK ASSY, remove the 2ND BATT GADGET BLANK, remove the UPGRADE PACK BLANK COVER, remove the IO BLANK COVER beforehand.

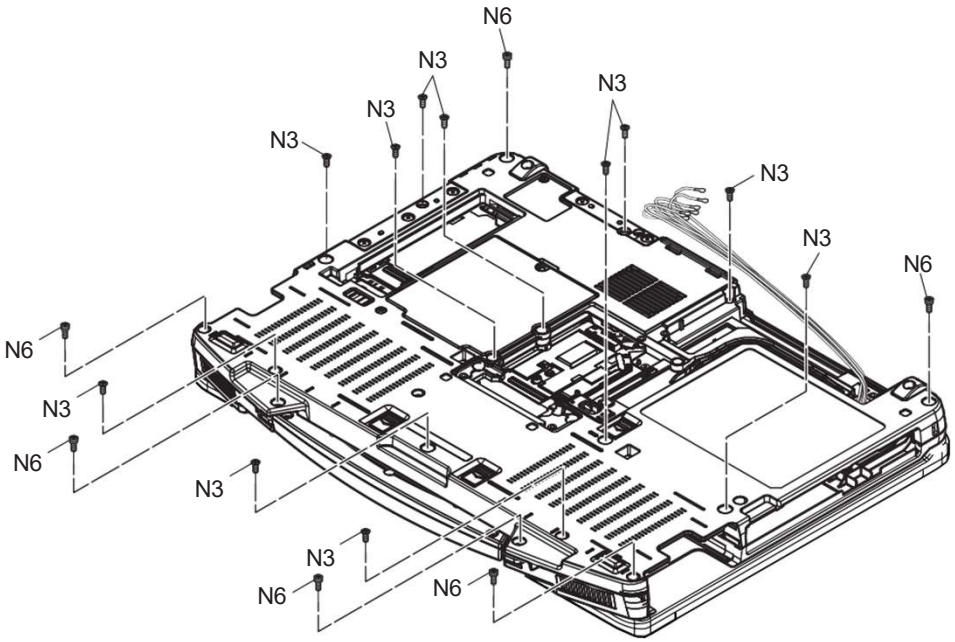
1. Remove 1 screw(N2) and remove the CONFIG COVER ASSY.
2. Peel off the ANT CABLE BLIND SHEET.
3. Remove 1 screw(N1) and remove the ANTENNA CABLE COVER.



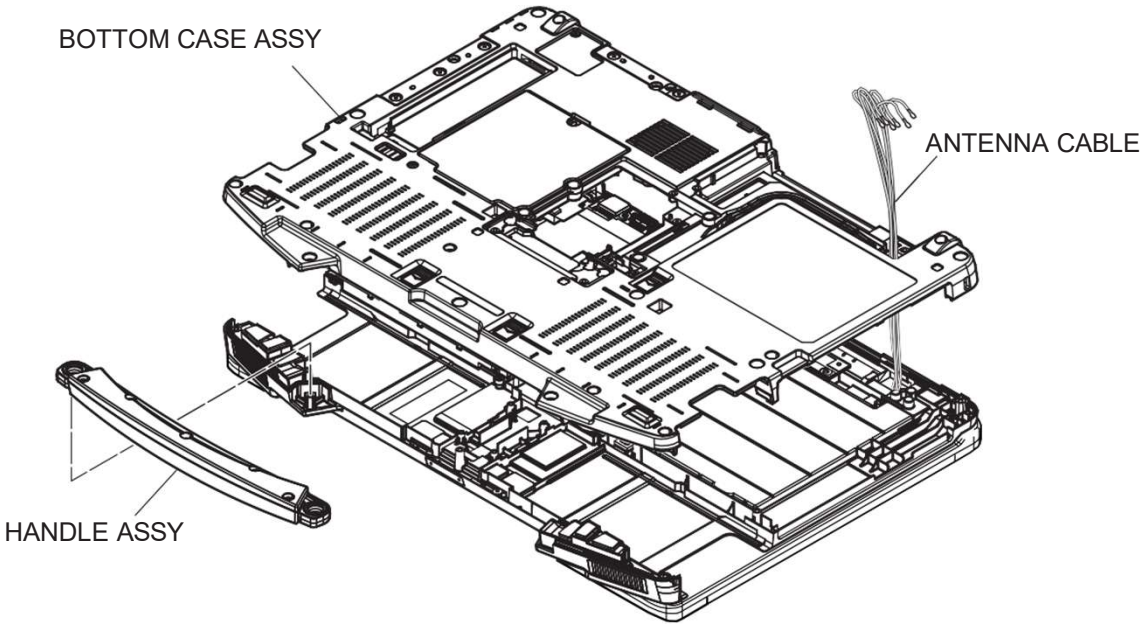
4. Remove 6 ANTENNA CABLEs from the DUALPASS PCB SUB UNIT, and pull them out as shown below.
5. Remove the FPC of the DUALPASS PCB SUB UNIT from the connector.
6. Remove 1 screw(N7) and remove the DUALPASS PCB SUB UNIT.
7. Remove 2 screws(N2) and remove the DOCKING CN COVER.
8. Remove the FPC of the DOCK FPC UNIT from the connector, and remove the DOCK FPC UNIT.



9. Remove 6 screws(N6) and 11 screws(N3).



10. Remove the BOTTOM CASE ASSY while paying attention to the ANTENNA CABLES.
11. Remove the HANDLE ASSY.



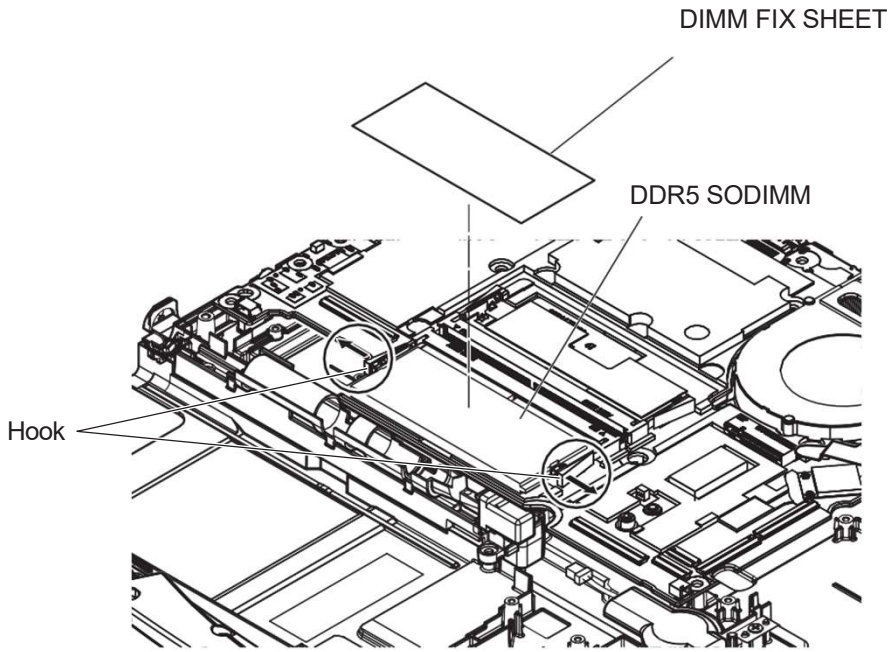
Main Board Block

Disassembly Procedure

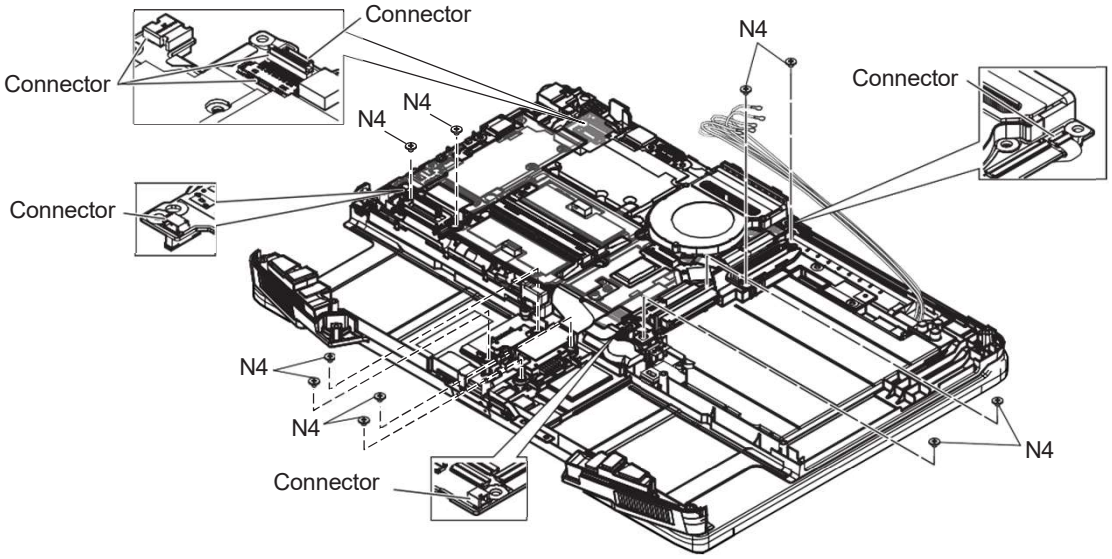
Remove the MAIN PCB UNIT

- remove the SSD PACK ASSY, remove the 2ND BATT GADGET BLANK, remove the UPGRADE PACK BLANK COVER, remove the IO BLANK COVER, remove the BOTTOM CASE ASSY beforehand.

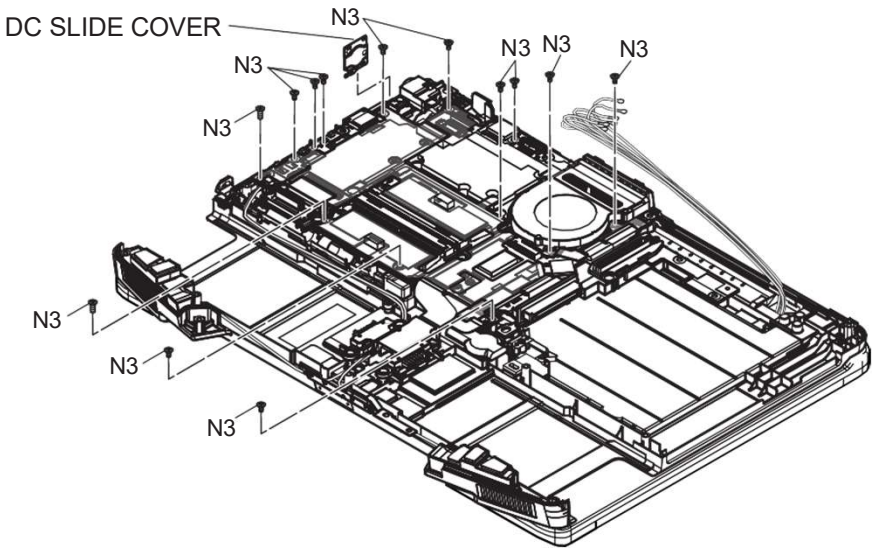
1. Peel off the DIMM FIX SHEET.
2. Remove the 2 hooks, and remove the DDR5 SODIMM.



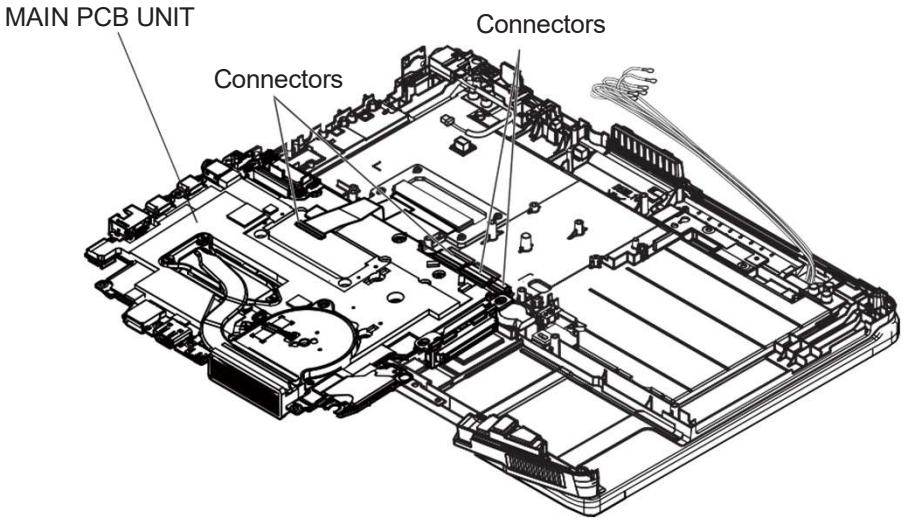
3. Remove 10 screws(N4) and disconnect 7 connectors



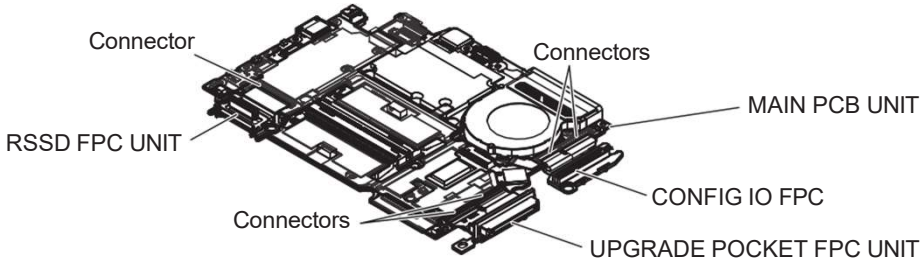
4. Remove the DC SLIDE COVER.
5. Remove 13 screws(N3).



6. Turn over the MAIN PCB UNIT as shown below, and remove 4 connectors.



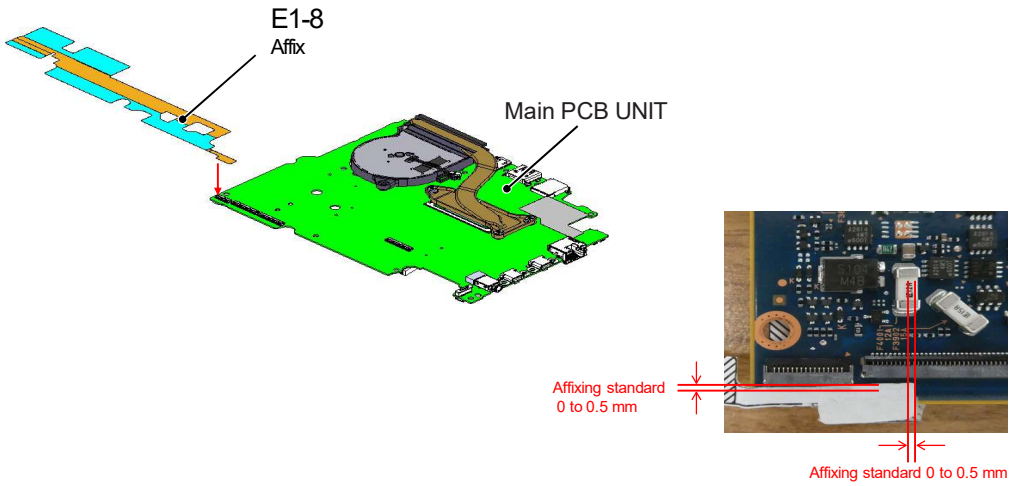
7. Remove the UPGRADE POCKET FPC UNIT, CONFIG IO FPC, and RSSD FPC UNIT from each connector of the MAIN PCB UNIT.

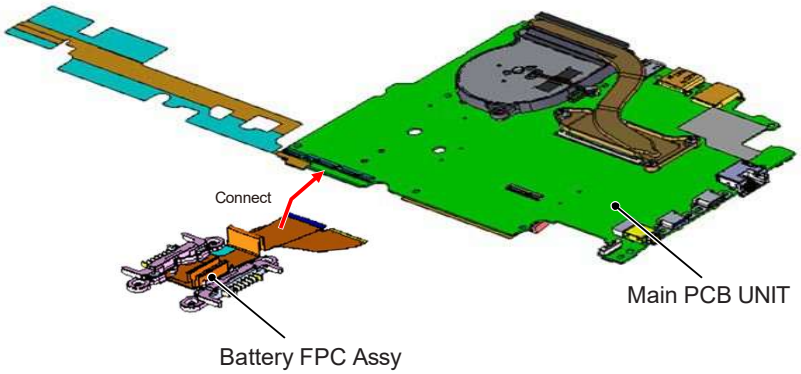


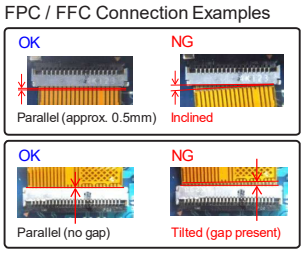
Main Board Block

Assembly Detail Information

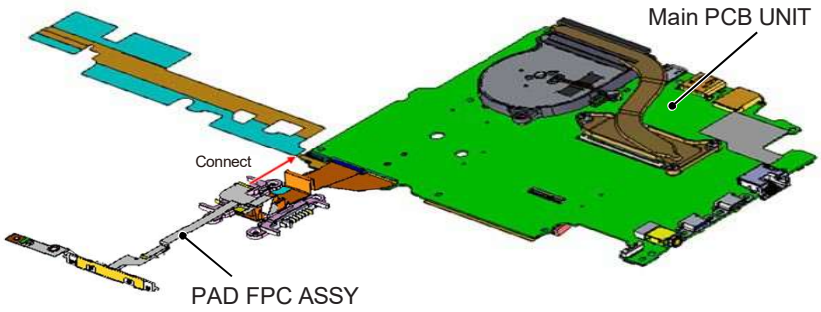
Parts Name
MAIN PWB INSUTOP SHEET (E1-8)

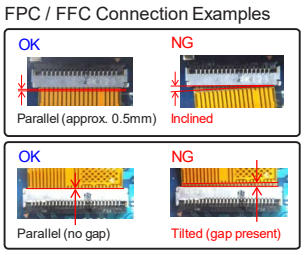






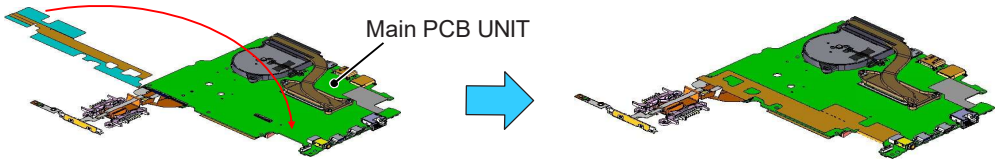
Note: The Battery FPC Assy is attached to the bottom case.

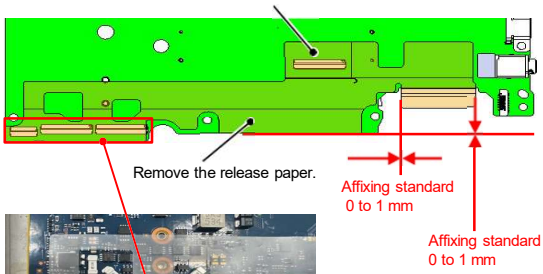


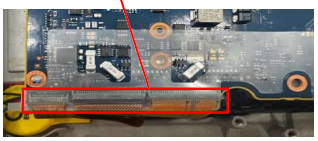


Note: The PAD PCB ASSY is attached to the bottom case.

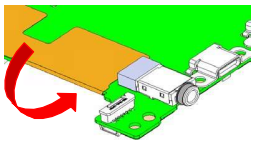
Fold back the MAIN PWB INSU TOP SHEET, and affix it.





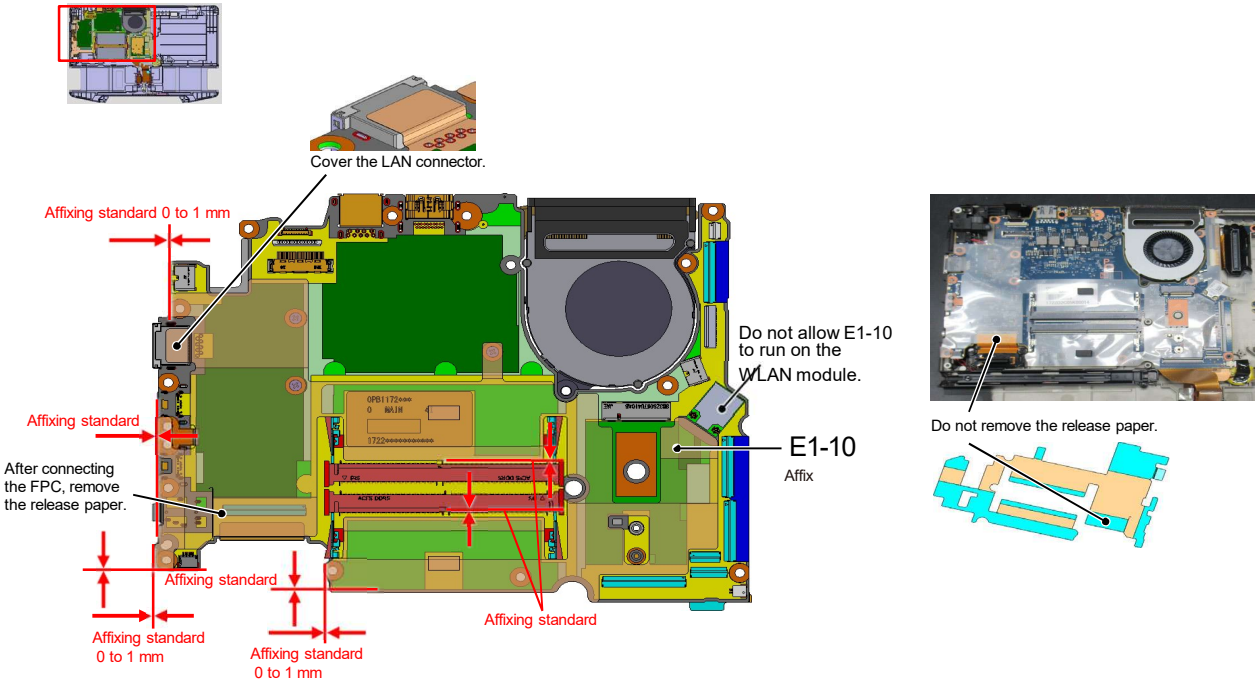


Firmly affix the MAIN PWB INSU TOP SHEET and FPC each other.

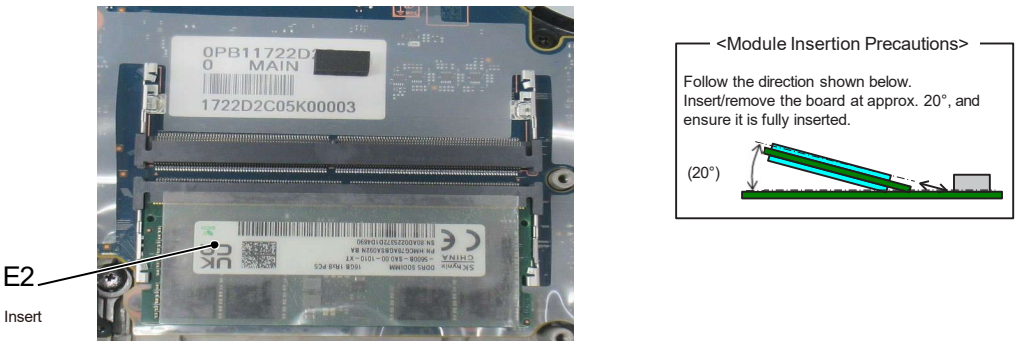


Fold back the MAIN PWB INSU TOP SHEET, and affix it.

Parts Name
MAIN PWB INSU BOTTOM SHEET (E1-10)

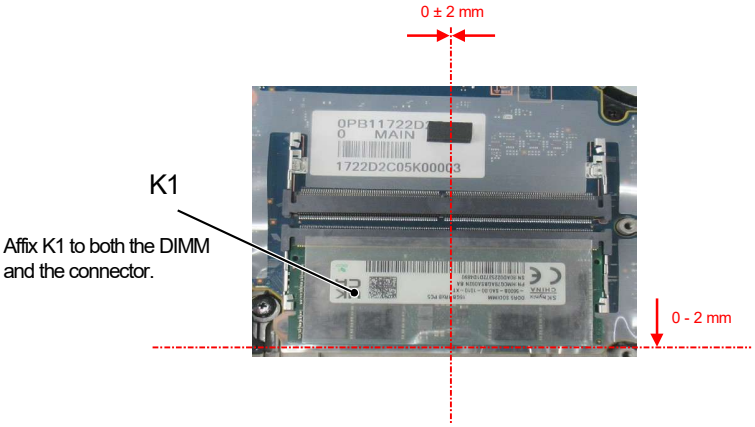


Parts Name
DDR5 SODIMM (E2)

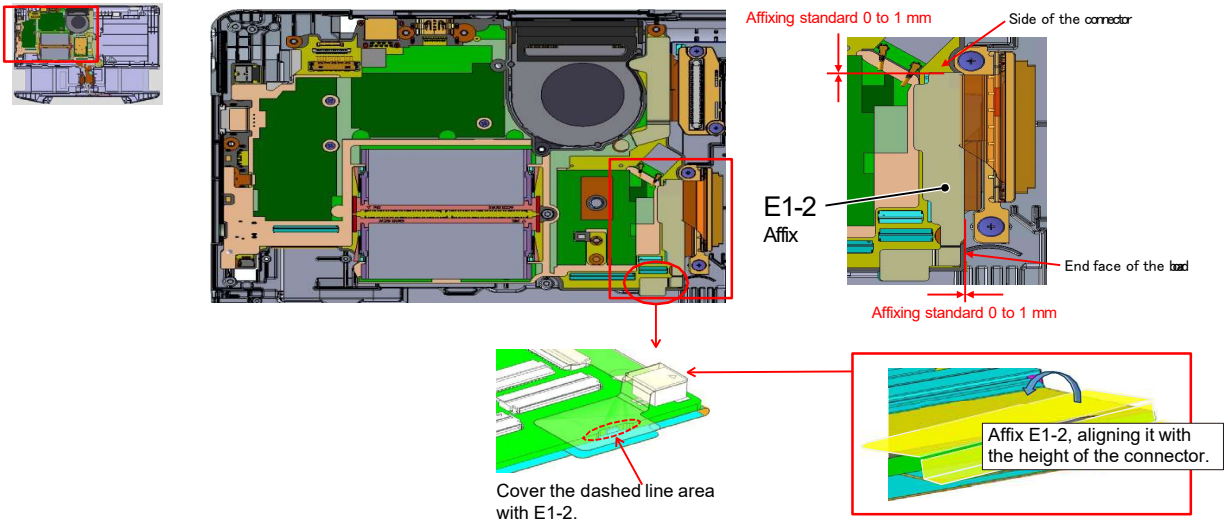


Reinstall the DIMM that was installed before disassembly.

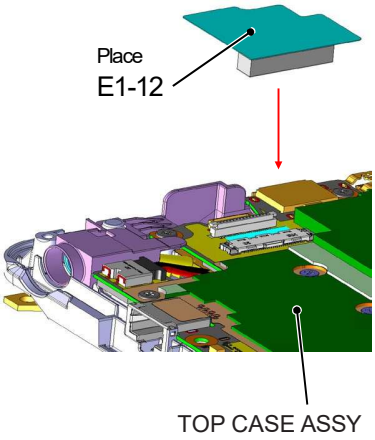
Parts Name
DIMM FIX SHEET (K1)

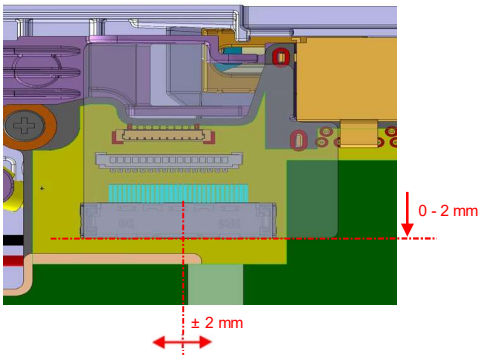


Parts Name
LEFT EX FPC FIX SHEET (E1-2)

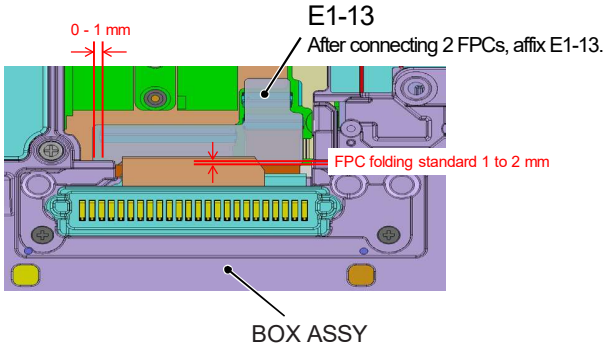


Parts Name
LCD CABLE CN FIX CUSHION (E1-12)





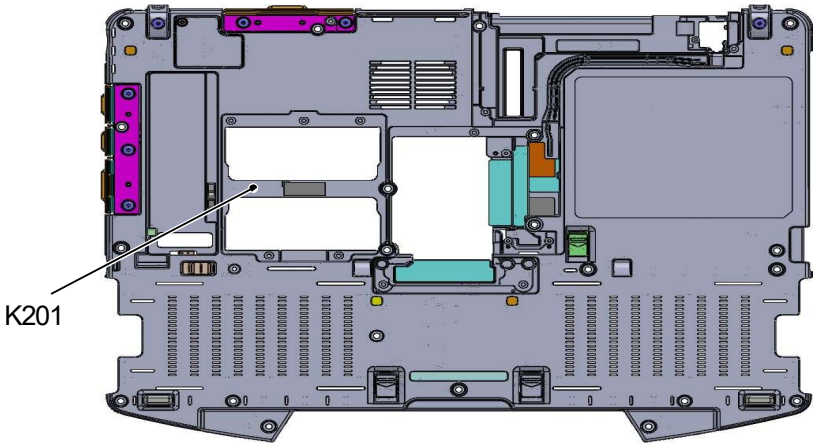
Parts Name
BOTTOM FPC CN FIX SHEET (E1-13)



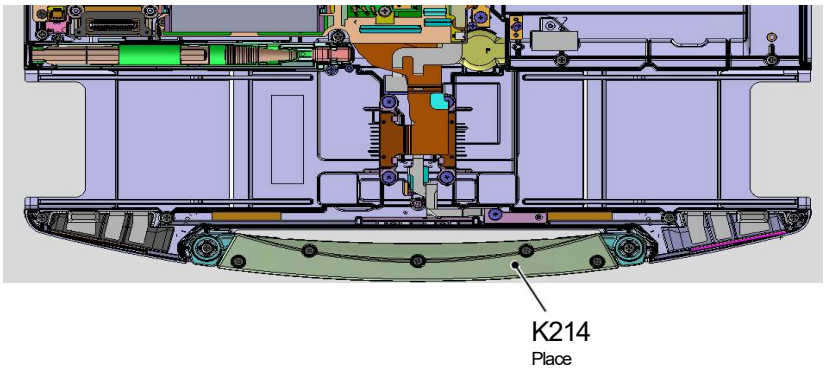
Bottom Case Block

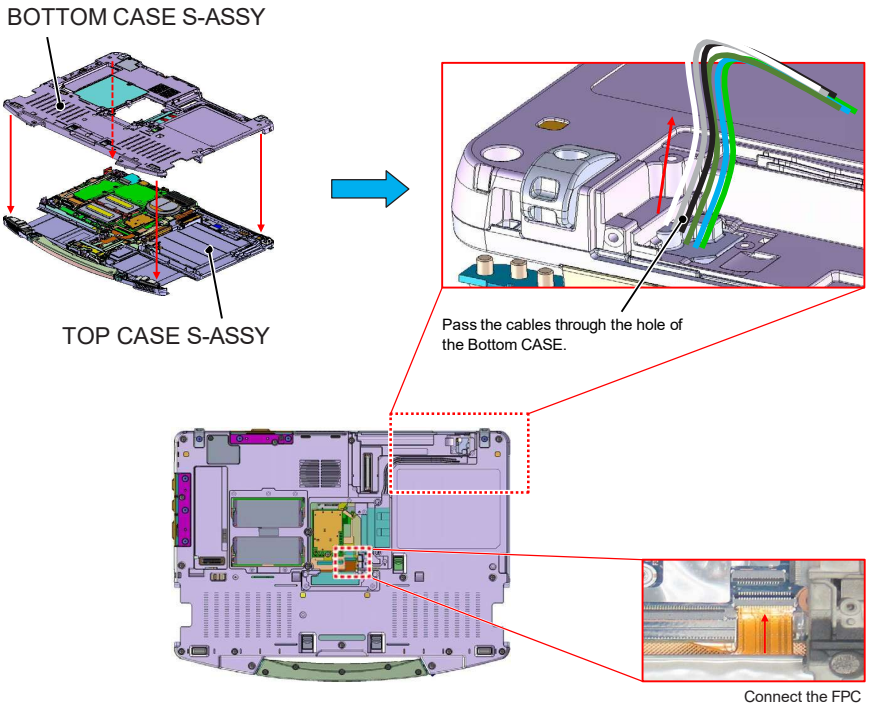
Assembly Detail Information

Parts Name
BOTTOM CASE ASSY (K201)

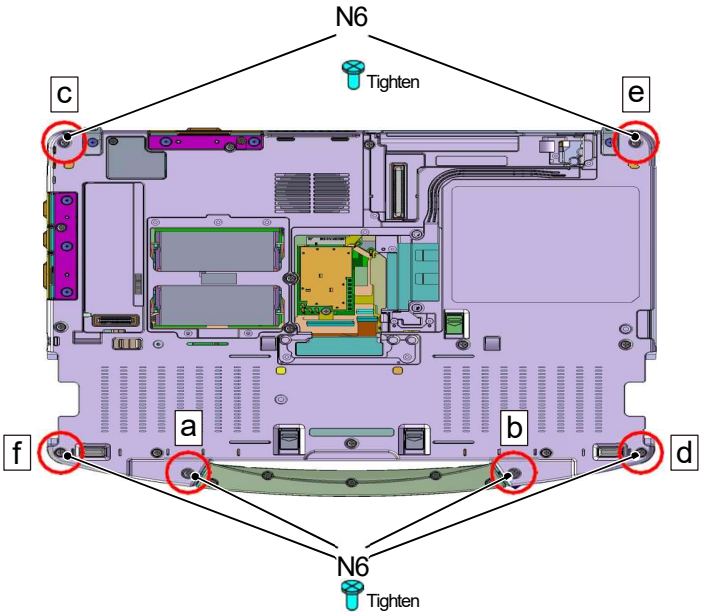


Parts Name
HANDLE ASSY (K214)





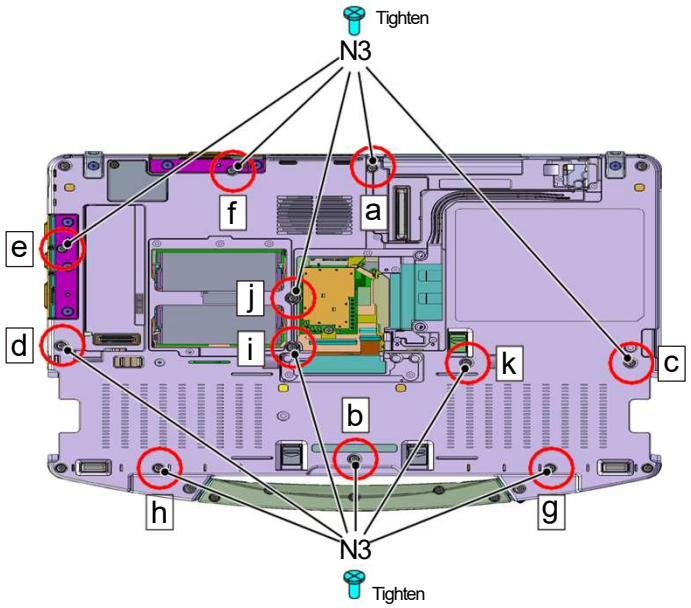
Parts Name
SCREW M2.6 NYLOK (N6)



Screw tightening torque
0.60 N•m ± 0.05 N•m (6.0 ± 0.5 kgf•cm)

Screw tightening order
a to f

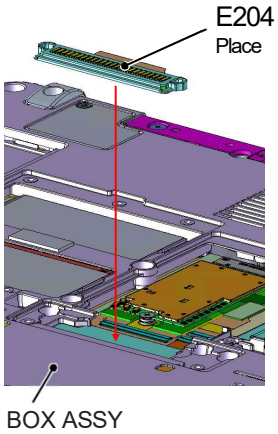
Parts Name
SCREW M2.6 NYLOK (N3)

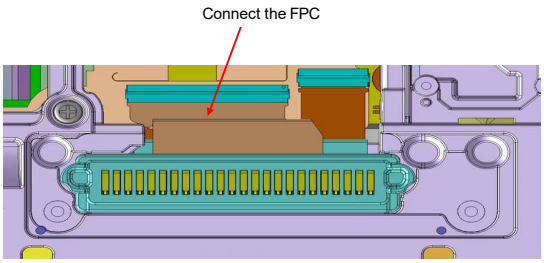


Screw tightening torque
0.60 N•m ± 0.05 N•m (6.0 ± 0.5 kgf•cm)

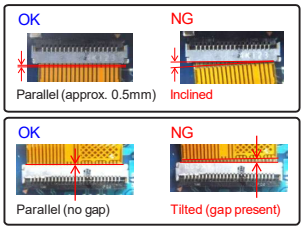
Screw tightening order
a to k

Parts Name
DOCK FPC UNIT (E204)

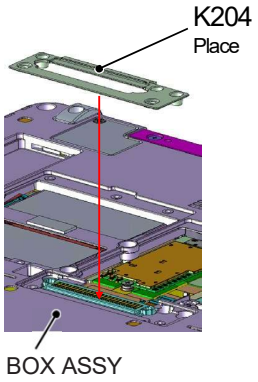


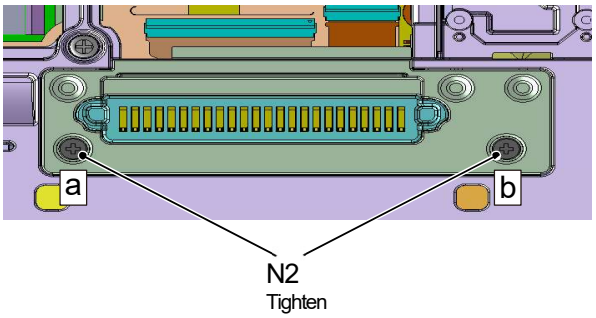


FPC / FFC Connection Examples



Parts Name
DOCKING CN COVER (K204)
SCREW M2.6 NYLOK (N2)

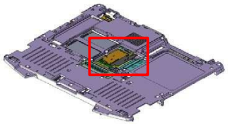




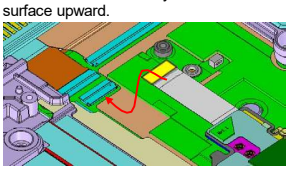
Screw tightening torque
0.45 N•m ± 0.05 N•m (4.5 ± 0.5 kgf•cm)

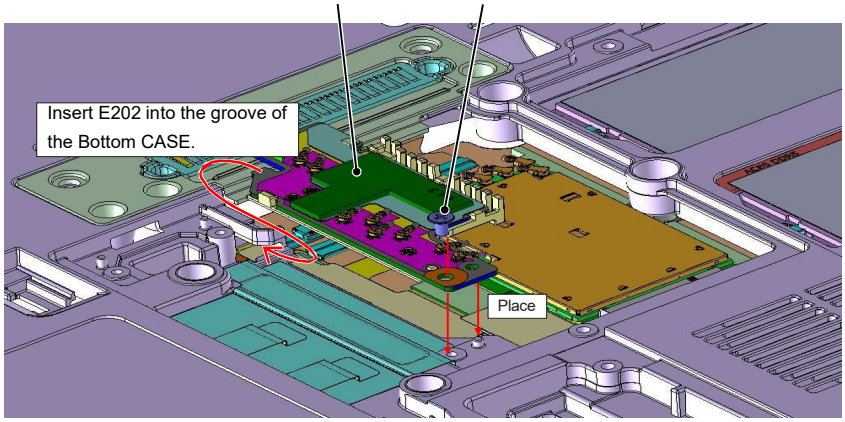
Screw tightening order
a to b

Parts Name
DUALPASS WWAN PCB (E202)
SCREW M2 x 3.5(#0) (N7)



Insert the FFC with the yellow terminal surface upward.

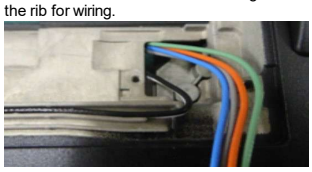




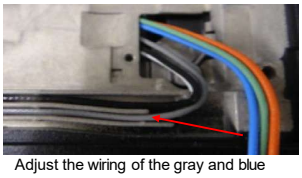
Screw tightening torque
0.20 N•m ± 0.02 N•m (2.0 ± 0.2 kgf•cm)

Parts Name
ANTENNA CABLE COVER (K213)
SCREW M2 NYLOK (N1)

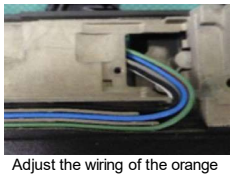
Wire the antenna cables in turn along the rib for wiring.



Adjust the wiring of the black and white cables. Make sure that the other cables are not entangled inside.

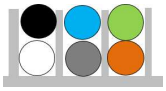


Adjust the wiring of the gray and blue cables. Make sure that the other cables are not entangled inside.



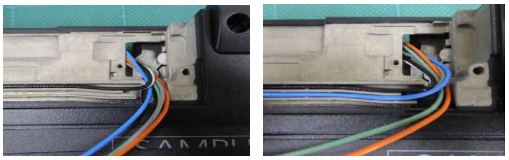
Adjust the wiring of the orange and green cables.

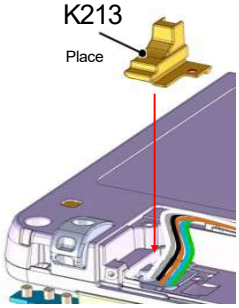
Wiring configuration

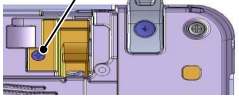


Note: Make sure that the cables are completely set in the L-shaped groove.

Failure examples

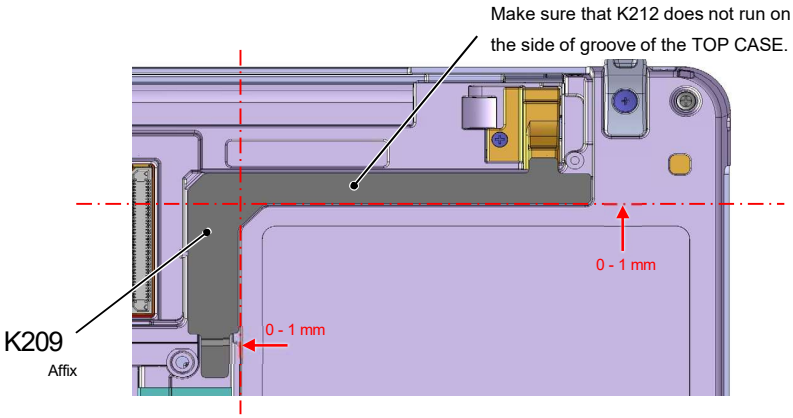




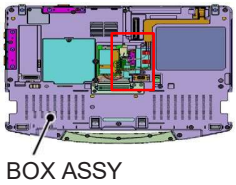


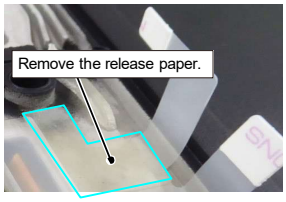
Screw tightening torque
2.0 N•m ± 0.02 N•m (2.0 ± 0.2 kgf•cm)

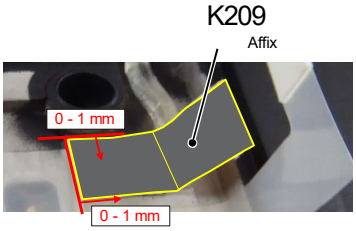
Parts Name
ANT CABLE BLIND SHEET (K212)

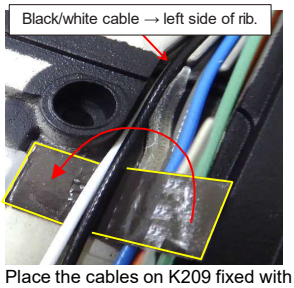


Parts Name
WIFI NOISE REDUCTION SHEET A (K209)

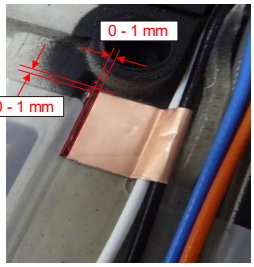


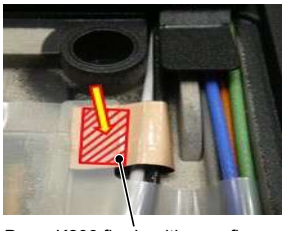




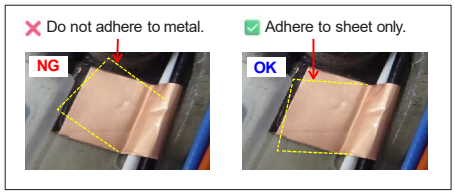


Place the cables on K209 fixed with a double-sided tape. Wrap K209 around the cables, and affix and secure it.

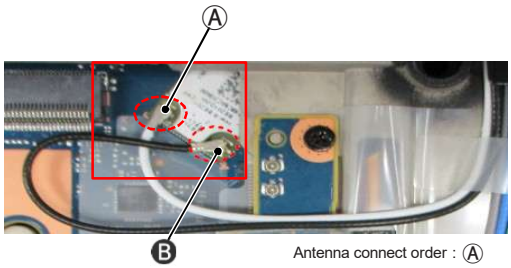




Press K209 firmly with your finger, and bond it securely.



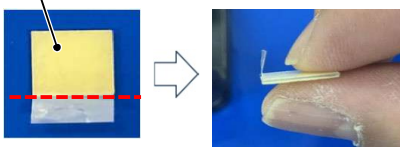
Parts Name
WLAN CN FIX SHEET (K207)



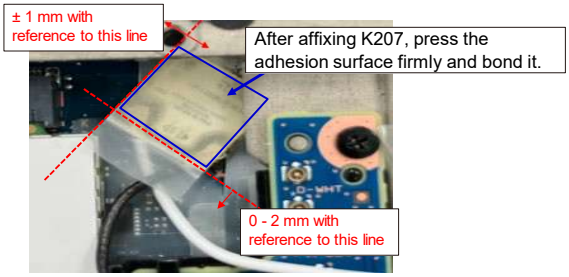
Antenna connect order : Ⓐ

K207

Bend K207 at 90 degrees.
Use the bent part as a handle (gripping part).

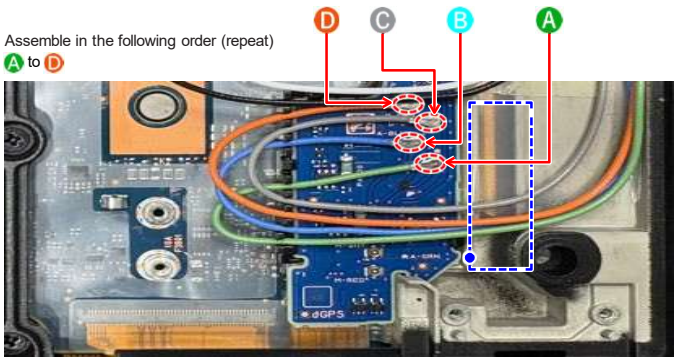


Affix K207, covering the antenna terminal.



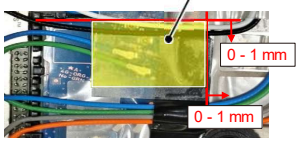
Parts Name
DUALPASS CN SHEET 2 (K208)

Assemble in the following order (repeat)
Ⓐ to Ⓓ

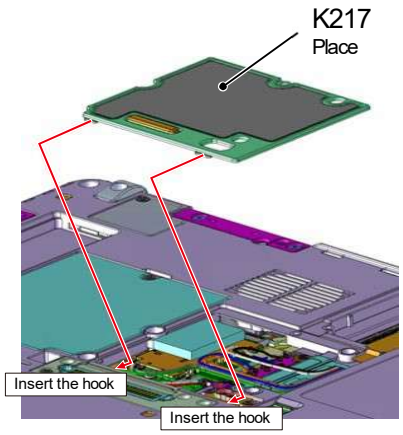


Antenna connect order : Ⓐ Ⓑ Ⓒ Ⓓ

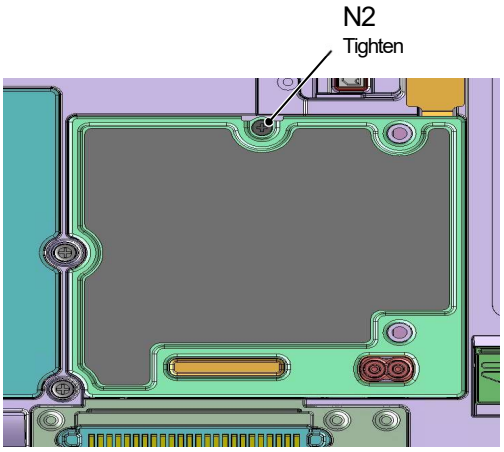
K208
Affix



Parts Name
CONFIG COVER ASSY (K217)



Parts Name
SCREW M2.6 NYLOK (N2)

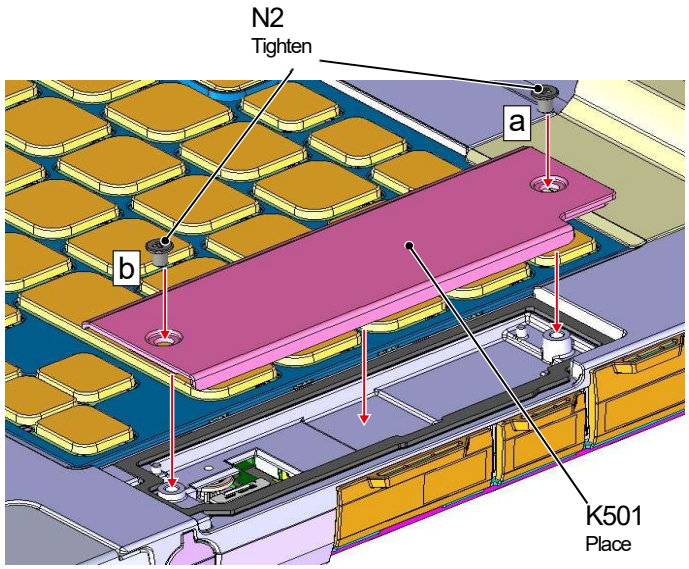


Screw tightening torque
0.45 N•m ± 0.05 N•m (4.5 ± 0.5 kgf•cm)

Right Security Block

Assembly Detail Information

Parts Name
RIGHT SECURITY CASE BLANK (K501)
SCREW M2.6 NYLOK (N2)



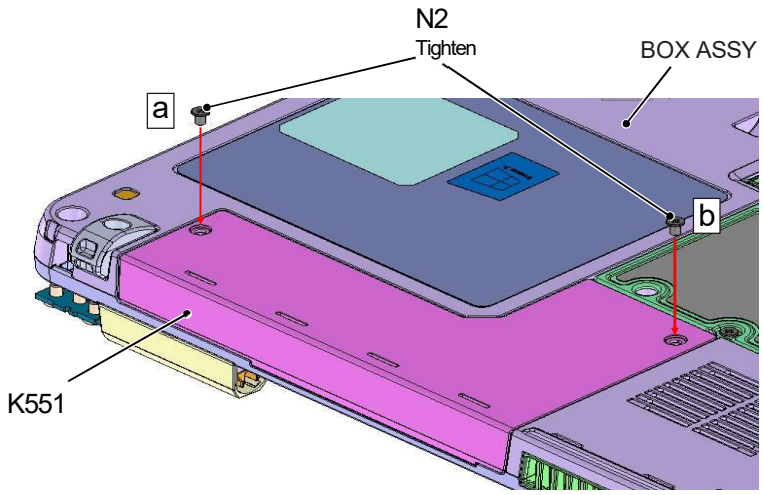
Screw tightening torque
0.45 N•m ± 0.05 N•m (4.5 ± 0.5 kgf•cm)

Screw tightening order
a to b

Rear Expansion Block

Assembly Detail Information

Parts Name
IO BLANK COVER (K551)
SCREW M2.6 NYLOK (N2)



Screw tightening torque
0.45 N•m ± 0.05 N•m (4.5 ± 0.5 kgf•cm)

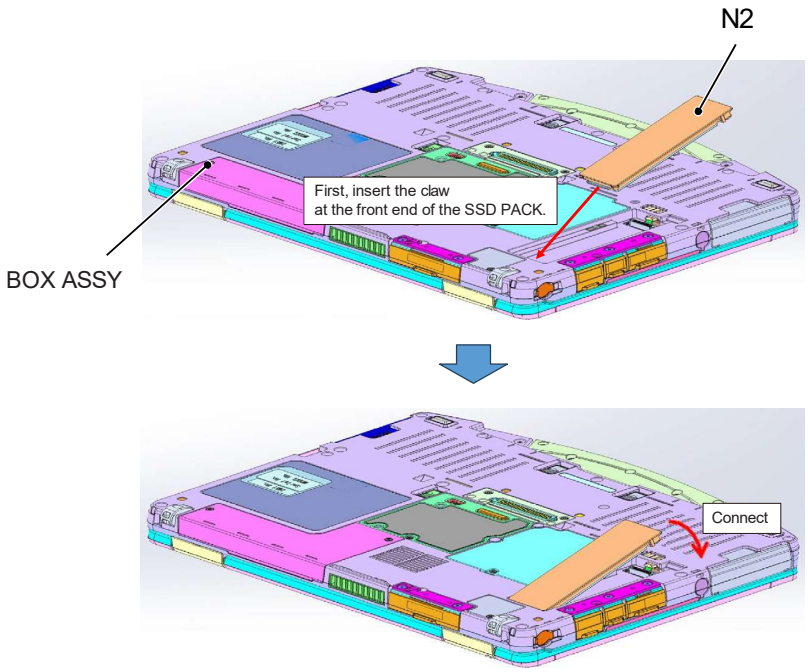
Screw tightening order
a to b

<Note for assembly order>
Insert K551 while sliding it from the side. Align K551 with the screw holes (a/b) of the BOX ASSY, and affix it securely.

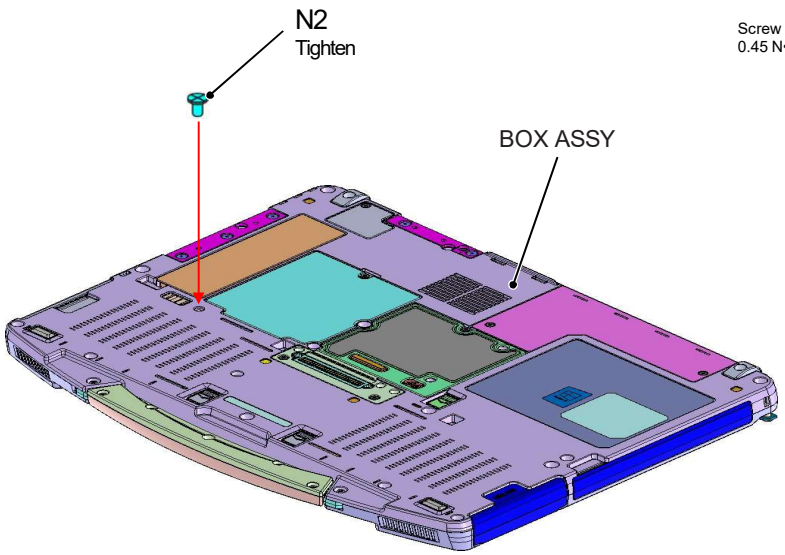
SSD Block

Assembly Detail Information

Parts Name
SSD PACK ASSY



Parts Name
SCREW M2.6 NYLOK (N2)

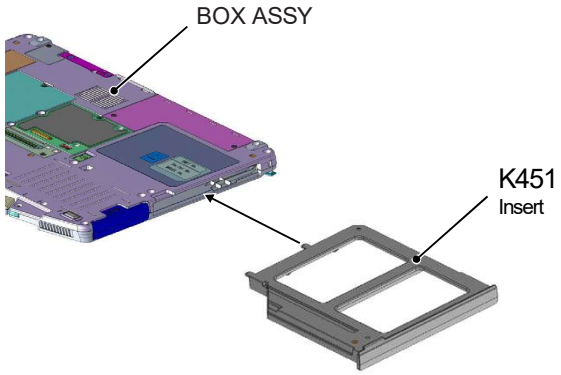


Screw tightening torque
0.45 N•m ± 0.05 N•m (4.5 ± 0.5 kgf•cm)

Left Expansion Block

Assembly Detail Information

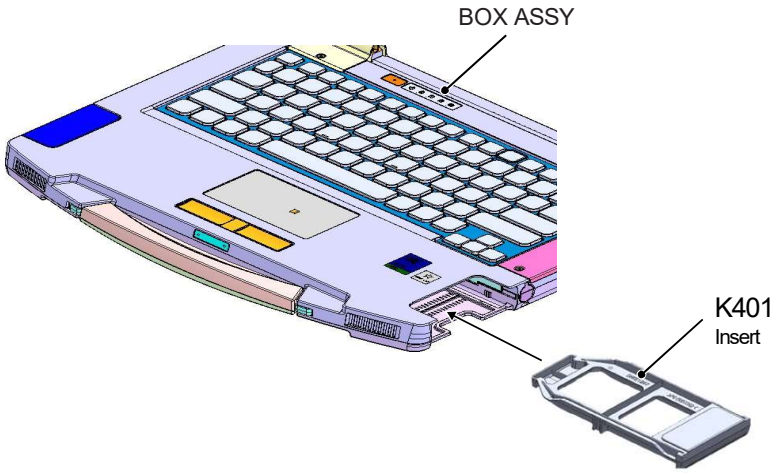
Parts Name
UPGRADE PACK BLANK COVER (K451)



Right Expansion Block

Assembly Detail Information

Parts Name
2ND BATT GADGET BLANK (K401)



Battery Block

Assembly Detail Information

Parts Name
BATTERY PACK (A21)

