

Desktop ROG Strix (G10DK)

Service Manual

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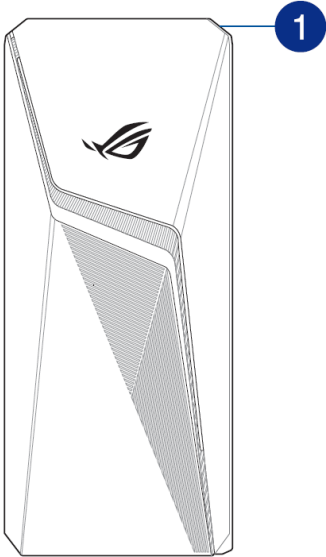
Safety precautions

- 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.
- Remove rings, watches, and any other metal objects from your hands.
- Hold components by the edges to avoid touching the ICs.
- Properly install all 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.
- Detach all clips or flaps before removing cables to prevent damage.
- Disconnect cables, connectors, and power plugs by pulling the plug evenly to avoid damage.
- Use the correct screw models on your Notebook PC to prevent damage.
- Confirm that the cable orientation is correct before connecting any cables.
- Fully remove all adhesive residue after removing and before installing any components.
- Photograph the appearance of cables, cable routing, connectors, and screws for later reference before proceeding with each step.

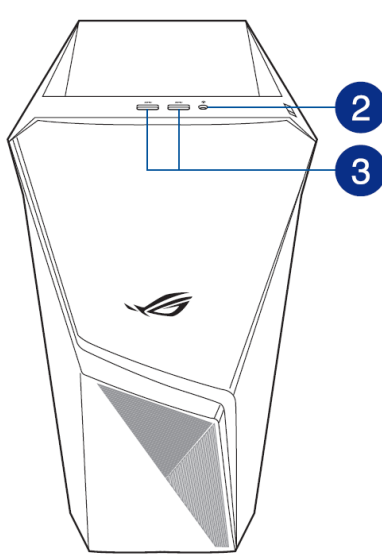
- [ASUS Desktop ROG Strix \(G10DK\) Overview](#)
- [Components Top View](#)
- [Components Bottom View](#)
- [Appropriate Tools](#)
- Disassembly steps :
 - [SLIDE DOOR](#)
 - [VGA CARD](#)
 - [FAN](#)
 - [DDR & SSD CARD](#)
 - [WIFI CARD & M.2 WIFI CARD](#)
 - [CPU COOLER](#)
 - [MAIN BOARD & CPU](#)
 - [FRONT COVER AND LED BOARD](#)
 - [POWER SWITCH](#)
 - [TOP COVER AND FRONT IO BD AND LED](#)
 - [FIO USB CABLE](#)
 - [HDD](#)
 - [POWER SUPPLY](#)
 - [WIFI MAIN ANTENNA](#)
 - [CABLE ASSEMBLY](#)

Front & Top View

Front

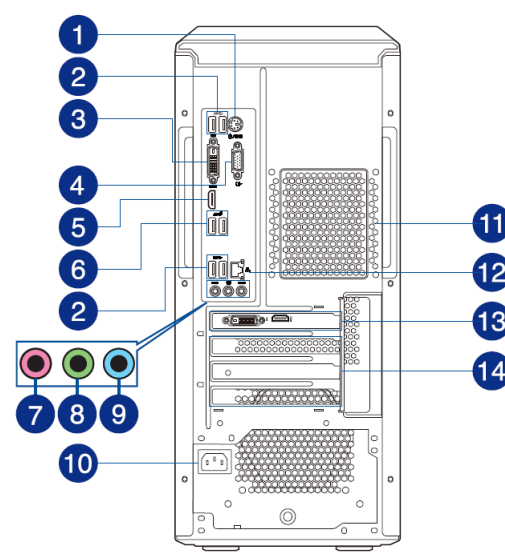


Top



- 1 Power button
- 2 Headset port
- 3 USB 3.2 Gen 1 ports

Rear Panel View



- 1 PS/2 keyboard/mouse combo port
- 2 USB 3.2 Gen 1 ports
- 3 DVI-D port
- 4 VGA port
- 5 HDMI™ port.
- 6 USB 3.2 Gen 2 ports
- 7 Microphone port (pink)
- 8 Line Out port (lime)
- 9 Line In port (light blue)
- 10 Power connector
- 11 Air vents
- 12 LAN (RJ-45) port
- 13 ASUS Graphics Cards
(on selected models only)
- 14 Expansion slot brackets

◆ VGA CARD 	◆ SYS FAN 	◆ LED BD CR 	◆ HDD SATA CABLE 	◆ WIFI ANTENNA 	◆ CABLE USB WIFI TO MB (L:300MM) 	◆ X500MA IO: 6USB/VGA/DVI/HDMI BLK AJ:LAN/3AUDIO/F1 	◆ STAND OFF M2*4.6H*4.75D 
◆ CPU 	◆ CPU COOLER 	◆ LED BD. UP 	◆ AUDIO CABLE 	◆ CABLE USB3.0 FIO TO MB (L500MM) 	◆ SIDE LED CABLE 	◆ BEZEL MYLAR 	◆ SPNL SCREW PACKAGE 
◆ SSD 	◆ MAIN BOARD 	◆ LED BD. DOWN 	◆ FIO USB CABLE 	◆ POWER SW CABLE 	◆ CPU SOCKET 	◆ ANTENNA GASKET 	◆ EMI SHIELDING GASKET 
◆ WIFI CARD 	◆ HDD 	◆ LED BD. SIDEUP 	◆ USB2.0 CRB TO MB (L750MM) 	◆ GL10DH SATA CABLE 15P F/P 430MM 	◆ POWER SWITCH HOLDER 	◆ FIO L ODD OPPENING SHIEL 	◆ SIDE DOOR PLATE 
◆ M.2 WIFI CARD 	◆ FRONT IO BD 	◆ LED BD. SIDEDOWN 	◆ POWER SUPPLY 	◆ FFC CABLE (20P 0.5 L50mm) 	◆ M2 PAD 	◆ G10DK SUB ASSY 	
◆ DDR 	◆ FFC CABLE (14P 0.5 L50mm) 						

◆ VGA Card



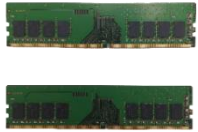
◆ SYS FAN



◆ LED BD CR



◆ DDR



◆ MAIN BOARD



◆ LED BD. UP



◆
SSD



◆ CPU SOCKET



◆ LED BD. DOWN



◆ WIFI CARD



◆ FRONT IO BD



USB CONN GASKET

◆ LED BD. SIDEUP



◆ M.2 SSD



◆ LED BD.
SIDEDOWN



Please prepare and select the appropriate tools to disassemble/assemble for the ROG Strix (G15DK) desktop.

◆ Screwdriver

Please accord to different screw specification to choose different screwdriver and head.

#1 #2 

◆ Plastic Blade



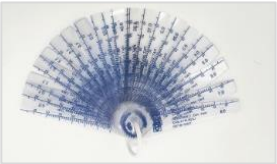
◆ Plastic Tweezers

Use a pair of tweezers to remove/insert/tidy cables.



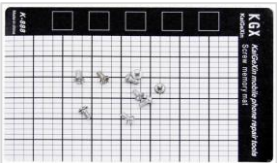
◆ Thickness Gauge

Thickness compass specification 0.05mm-1.5mm. Use it to measure the gap.



◆ Magnetism Board

Suggest local buy magnetism board to place screw, avoid mix different type screw to cause assembly damage.



◆ Alcohol 95%



◆ Thermal Grease



◆ Cable Tie (Local Buy)



◆ Needle nose pliers



◆ Glove



◆ Dust-free Cloth





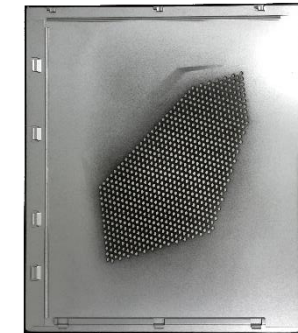
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 

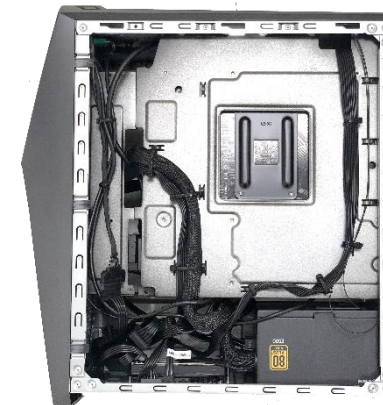
Step 1 : Remove screws *4pcs.

Step 2 : Pull the side doors*2pcs.

Screws	QTY	Spec	Torque (kgf-cm)
 	4	#6-32*6.3L (7.3,2.45)(B)//KL,MACHINE NY B-ZN #2	8.0±0.5



SLIDE DOOR (L)



SLIDE DOOR (R)

Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 





Step 1 : Disconnect connector.

Step 2 : Open the door.

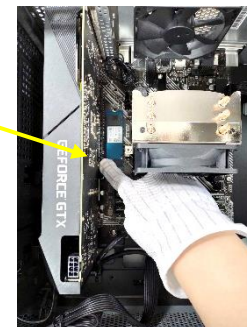
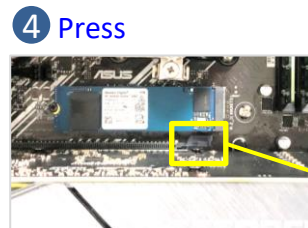
Step 3 : Remove screws *4pcs.

Step 4 : Press and unlock the VGA card.

Step 5 : Take out the VGA card.

Screws	QTY	Spec	Torque(kgf-cm)
 	2	M3*6L (5.5,2.15) (P) #2	4.0± 0.5
 	2	#6-32*6.3L (7.3,2.45)(B)	4.0± 0.5

EN-0337483





Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 

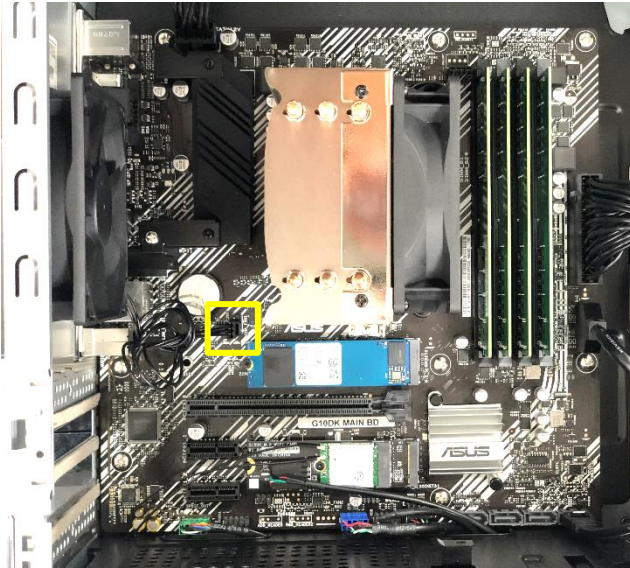
Step 1 : Disconnect (yellow mark) FAN connector *1pcs.

Step 2 : Remove 4 screws on the outside of iron grid.

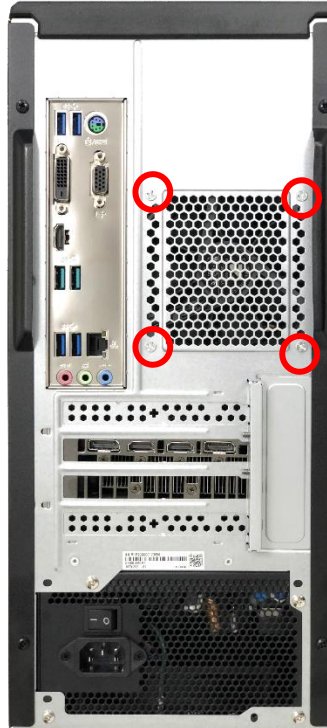
Step 3 : Take out the Fan*1 pcs.

Screws	QTY	Spec	Torque (kgf-cm)
 	4	M5*10L (F) W-NI (TP5)	8.0±0.5

1 Disconnect (yellow mark)



2 Remove



3



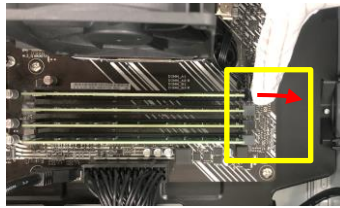
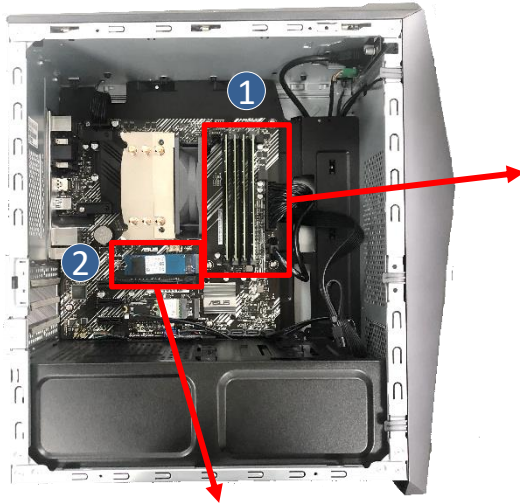
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Unlock then remove DDR *4pcs.

Step 2 : Remove screw *1pcs then take out the SSD *1pcs.

Screws	QTY	Spec	Torque (kgf-cm)
	1	M2*3L(4.6,0.8) (K)#1	2.0 ±0.2



(*4pcs)



Assembly Notice

Please follow the below criteria to assemble DDR.

Memory slot	1pcs	2pcs	3pcs	4pcs
DIMM_A1				●
DIMM_A2		●	●	●
DIMM_B1			●	●
DIMM_B2	●	●	●	●



Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Disconnect the RF CABLE (connectors)*2pcs.

Step 2 : Remove the screw *1pcs.

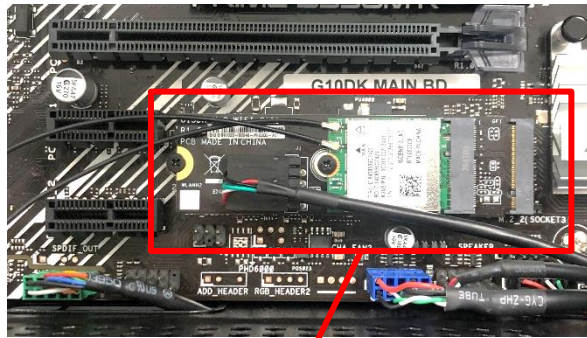
Step 3 : Remove WIFI CARD.

Step 4 : Disconnect CABLE USB WIFI TO MB connector *1pcs.

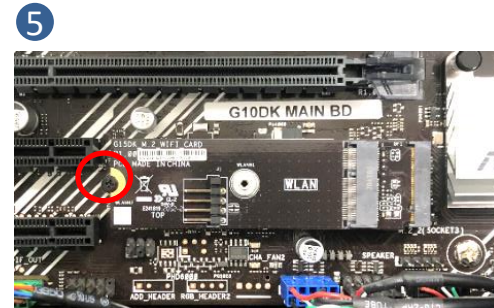
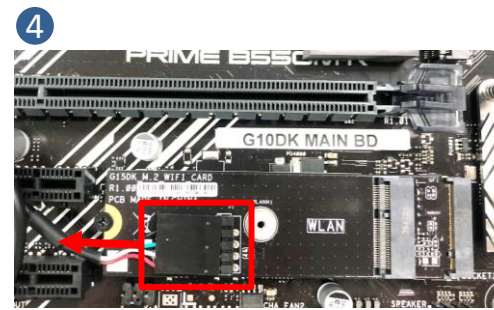
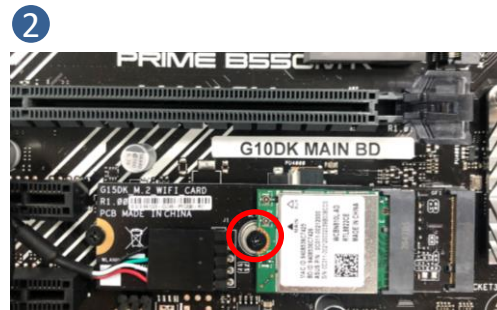
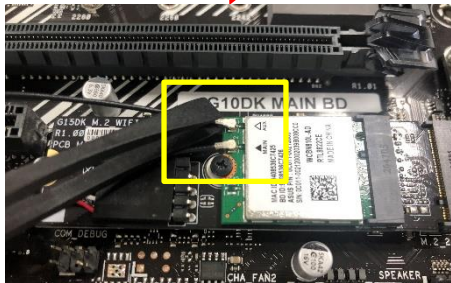
Step 5 : Remove the screw *1pcs.

Step 6 : Remove M.2 WIFI CARD.

Screws	QTY	Spec	Torque (kgf-cm)
	2	M2*3L(4.6,0.8) (K)#1	2.0±0.2

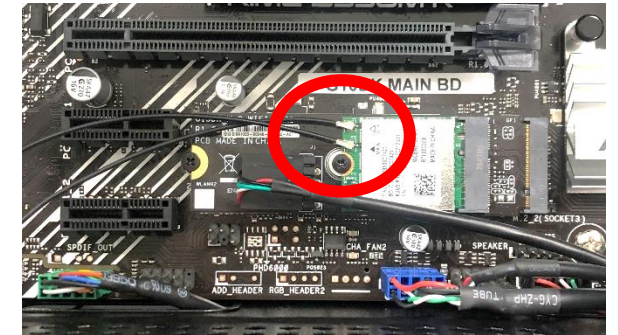


① Disconnect



Assembly Notice

Please according to below image to assemble RF cable.




Disassembly Notice

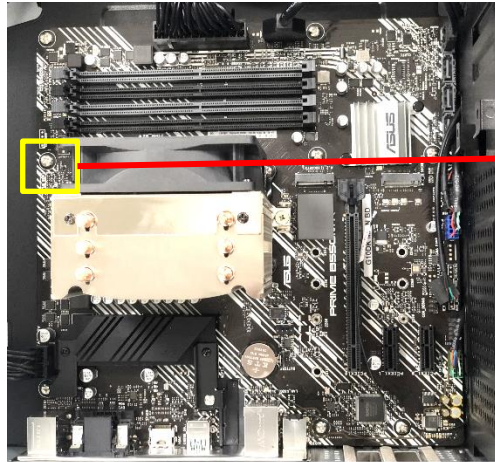
Please be sure to pull out adapter and disconnect the battery. 

Step 1 : Disconnect connector.

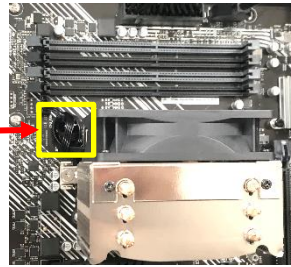
Step 2 : Remove screws *2pcs.

Step 3 : Remove the CPU Cooler.

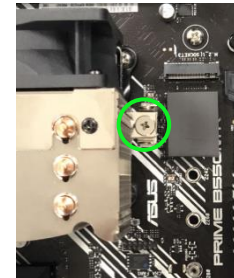
Screws	QTY	Spec	Torque (kgf-cm)
	2	M3*4L (6.3,2.05) (P) #2	6.0±0.5



① Disconnect



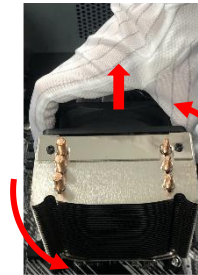
② Remove



③ Take it out



If the CPU COOLER is hard to disassemble, please move the COOLER left and right to separate.



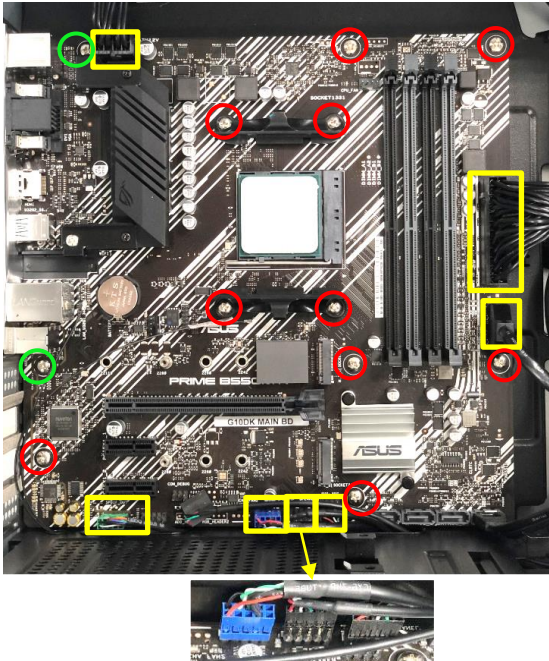
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

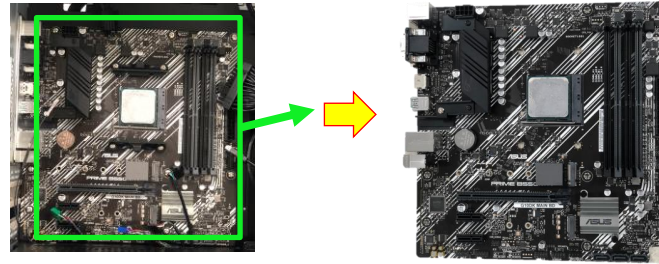
- Step 1 : Disconnect (yellow mark) connectors *8pcs.
- Step 2 : Remove screws *12pcs (Red and green mark).
- Step 3 : Take out the Main Board.
- Step 4 : Remove the CPU.
- Step 5 : Remove the CPU Cooler socket.

Screws	QTY	Spec	Torque (kgf-cm)
	2	M3*4L (6.3,2.05) (P) #2	6.0±0.5
	10	SCREW #6-32 L6*H2.3 (B) W-NI	6.0±0.5

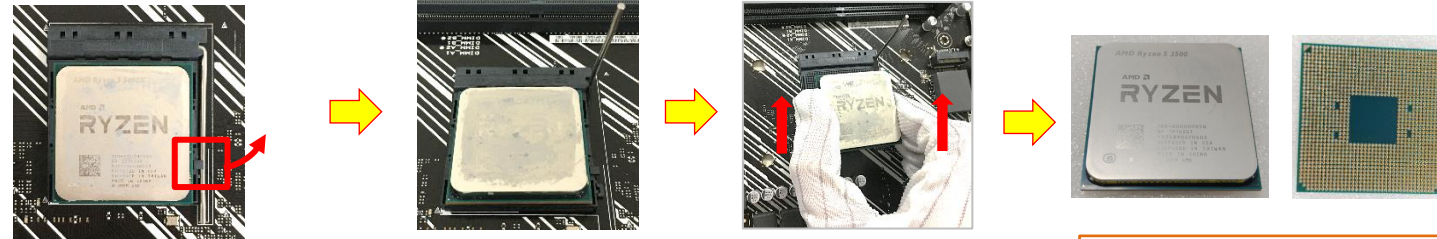
- ① Disconnect (yellow mark)
- ② Unscrew (Red and green mark)



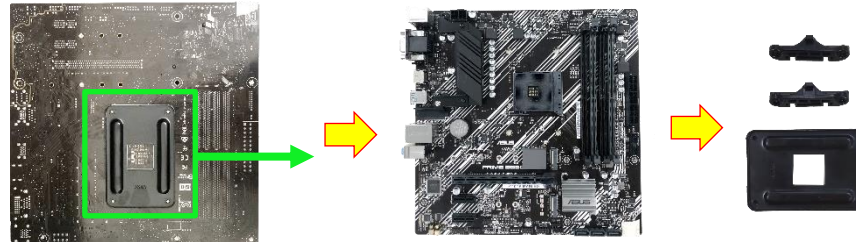
③ Take out Main Board



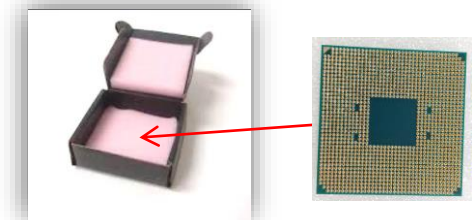
④ Lift up



⑤ Remove

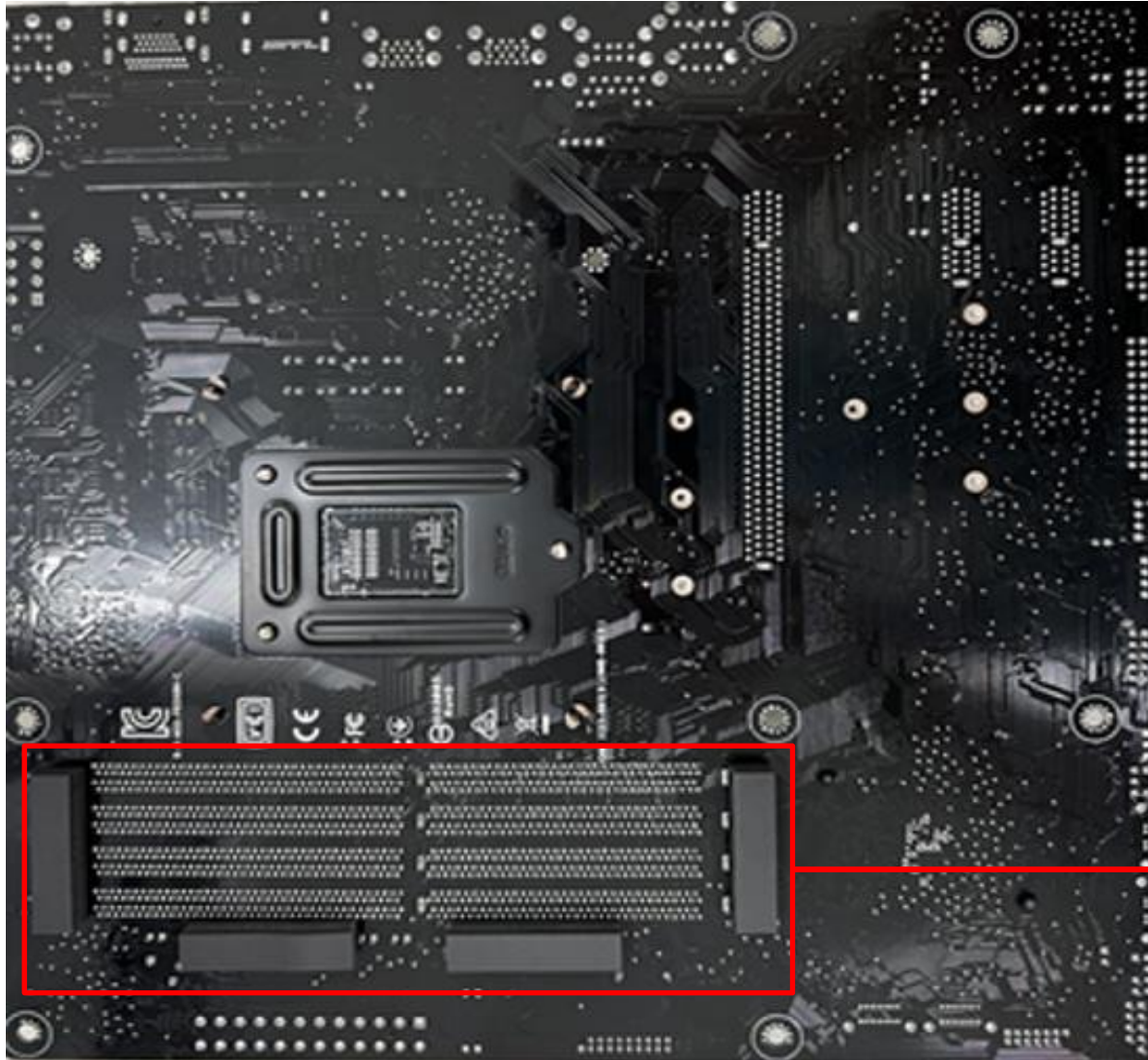


Pin facing down on Processor packaging to protect the CPU.



Assembly Notice

⚠ Please follow the below image to Add sponge *4pcs (red mark)on motherboard DIMM Area.

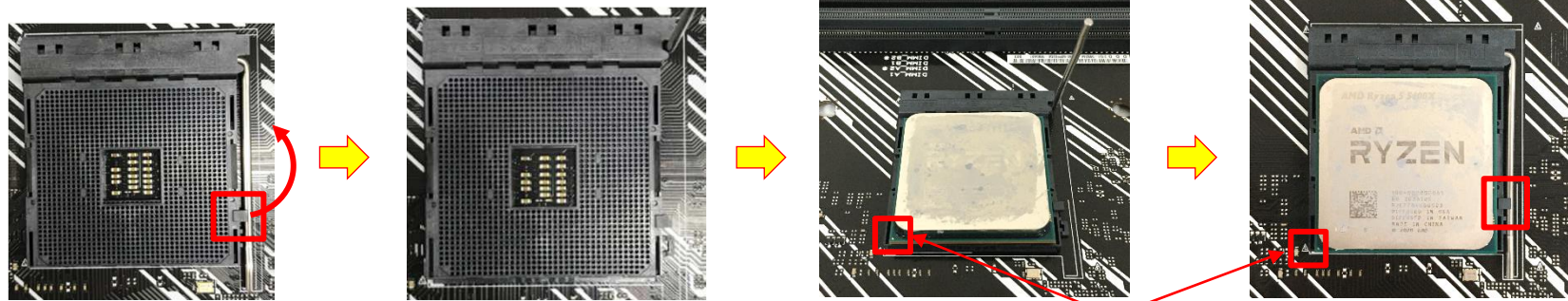


D700TD MB SPONGE L35 W8 T8//L35 W8 T8

Assembly Notice



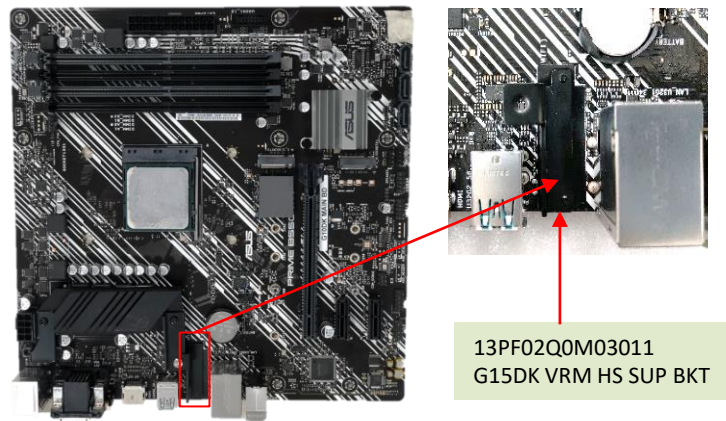
Please follow the instructions to assemble the CPU.



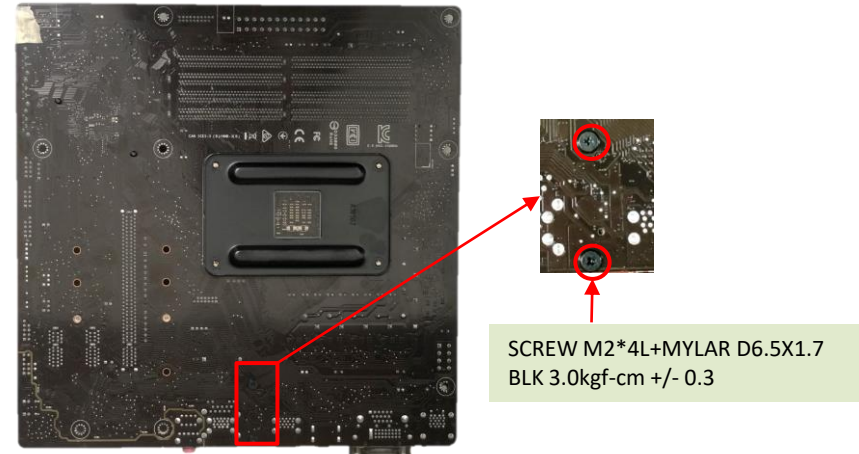
CPU triangle must be aligned to MB triangle.



Please follow the instructions to assemble VRM HS SUP BKT.



13PF02Q0M03011
G15DK VRM HS SUP BKT



SCREW M2*4L+MYLAR D6.5X1.7
BLK 3.0kgf-cm +/- 0.3

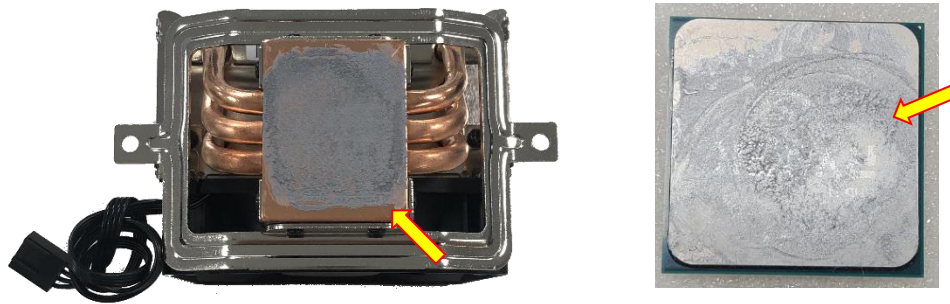
Assembly Notice

Please be sure to pull out adapter and disconnect the battery. 

 Please make sure that re-smear thermal material on CPU Die, if thermal module have to be reassembled.

Step-1 :

Using dust-free cloth with 95% alcohol to clean up the residual thermal grease on CPU& GPU Die.



Step-2 :

Please use plastic tool (Plastic stick) to get Thermal Grease, and smear over CPU around 0.2~0.3mm thick.



Attention:

1. Please clean plastic tool with Dust-free cloth and 95% alcohol before using.
2. Please mix well before Thermal grease using (In case Oil-Grease separation).

Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Pull the latch slightly away.

Step 2 : Turn over the front case and Disconnect the connectors *2pcs of the cable inside.

Step 3 : Tear off the Mylar.

Step 4 : Disconnect FFC *2pcs.

Step 5 : Remove Screw*7pcs.

Step 6 : Disconnect the connector.

Step 7 : Remove screws *2pcs located on the LED BD. SIDEDOWN .

Step 8 : Take out the LED BD. SIDEDOWN *1pcs.

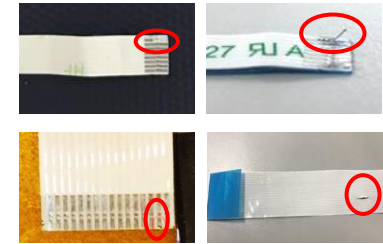
1 Pull the Latch (Blue mark)



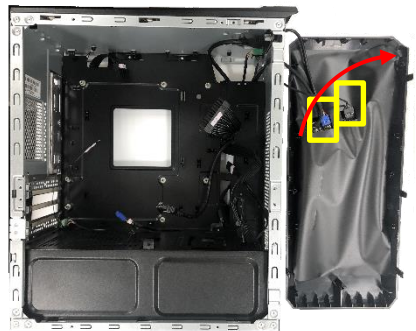
Please notice there have cable retaining on the front case and mainframe.

Assembly Notice

If FFC is damage during disassembly, please replace new one. Here are some samples of FFC damage:



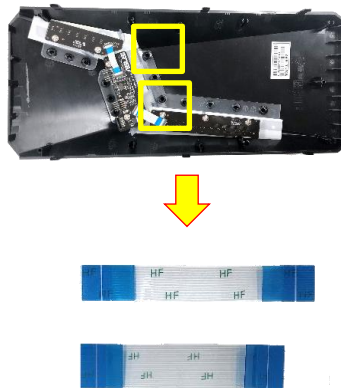
2 Turn over and Disconnect



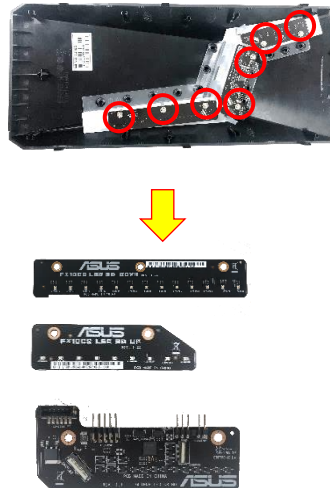
3 Tear off



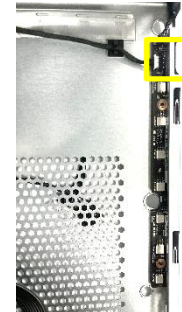
4 disconnect



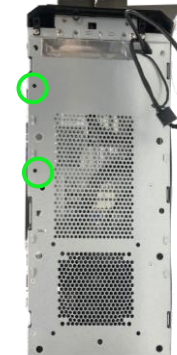
5 Unscrew



6 Disconnect



7 Unscrew

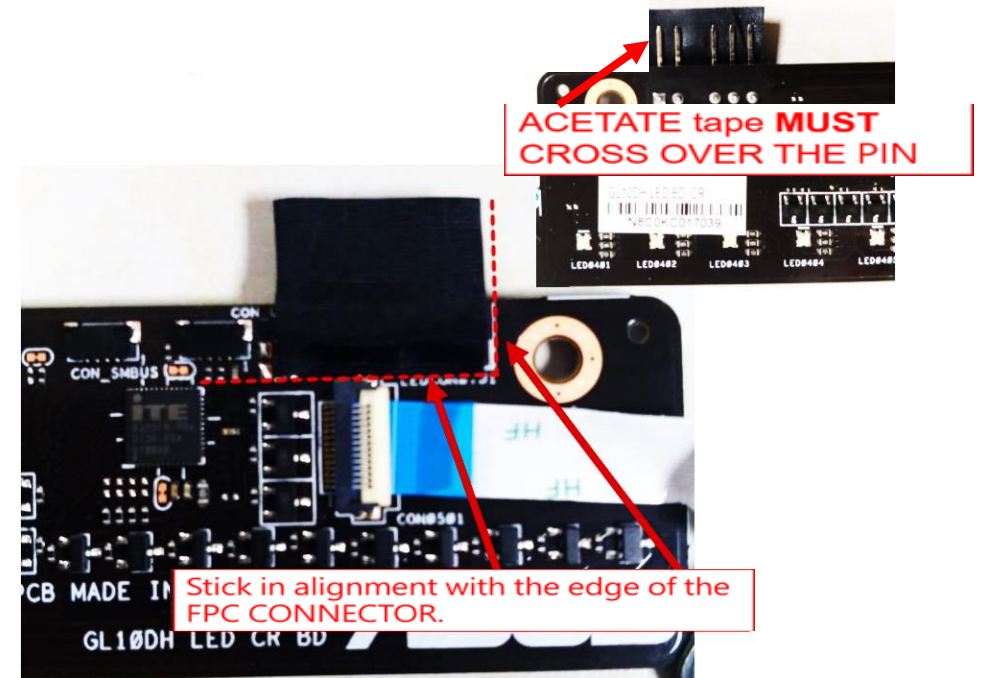
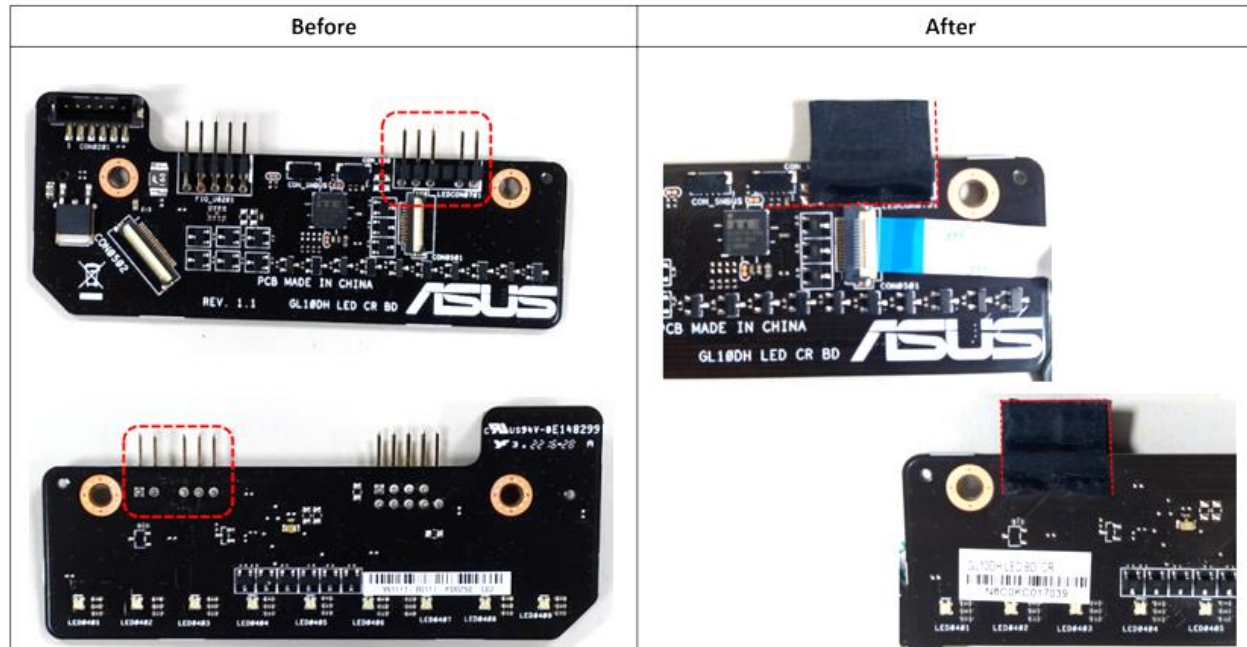


8 Take out



Assembly Notice

⚠ Before assemble cable on LED CR BD, Please add 2pcs ACETATE tape on the LED CR BD Pin as below picture.



Assembly Notice

⚠ Before assemble two cables, please follow below to paste ACETATE TAPE.

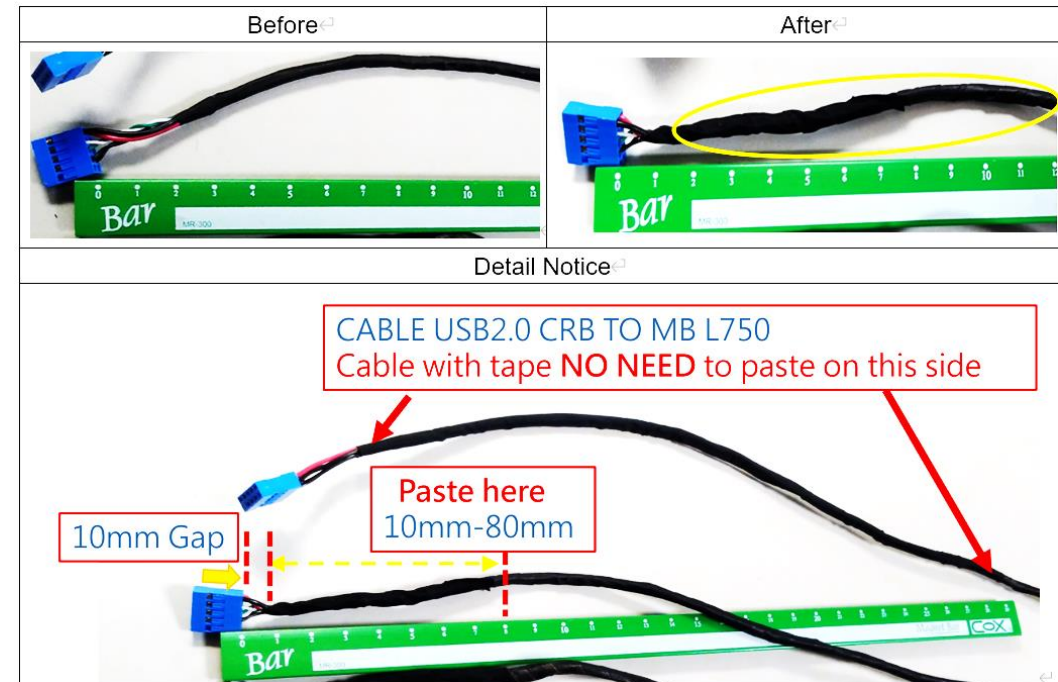
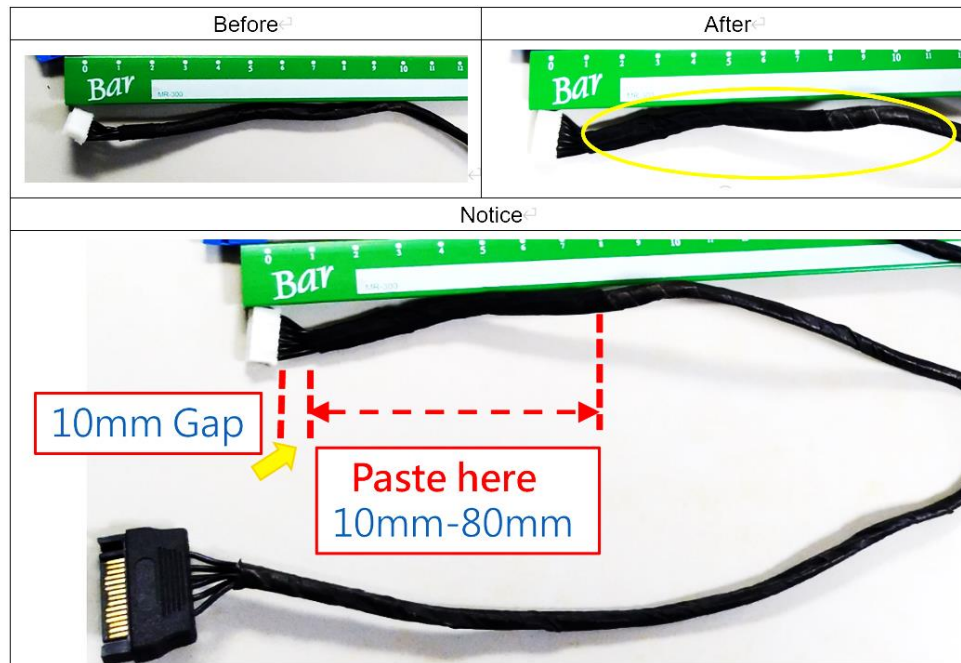
Step1-1 : Winding the two cables with ACETATE TAPE to increase the insulation layer.

Step1-2 : Double arrow (angle between 10~80mm)

Note: The two cables are GL10DH SATA CABLE 15P F/P 430MM and CABLE USB2.0 CRB TO MB L750.

GL10DH SATA CABLE 15P F/P 430MM

CABLE USB2.0 CRB TO MB L750



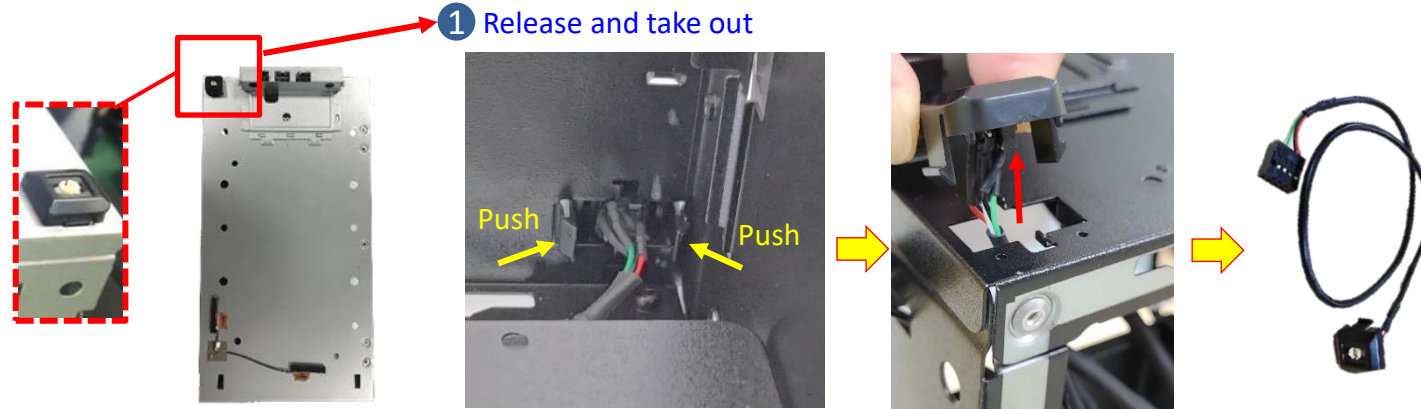
Disassembly Notice

Please be sure to pull out AC POWER CORD.



Step 1 : Push hooks then take out POWER SW CABLE with POWER SWITCH HOLDER from CHASSIS.

Step 2 : Push hooks then separate POWER SW CABLE and POWER SWITCH HOLDER.



2 Release and separate

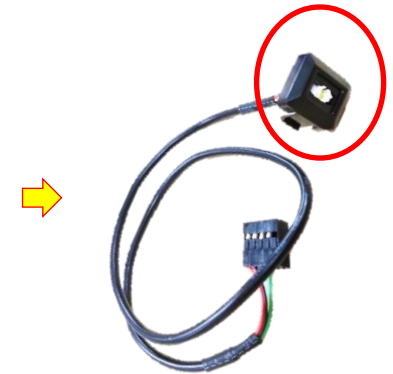


Assembly Notice

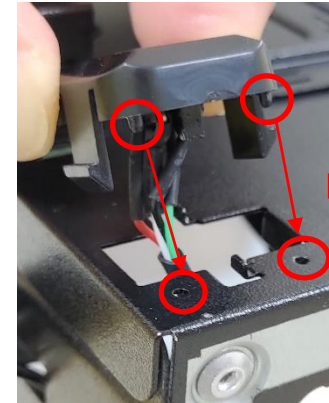
⚠ When need to reuse old POWER SWITCH HOLDER, please make sure the hooks no broken or deformation.



⚠ Please according to below image to assemble POWER SW CABLE and POWER SWITCH HOLDER.



⚠ Please according to below image to assemble POWER SW CABLE(with HOLDER).



Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Disconnect connectors *1pcs and remove screws *3pcs located on the LED BD. SIDEUP.

Step 2 : Remove screws *2pcs.

Step 3 : Pull the latch slightly away from the edge case until it's detached.

Step 4 : Take out the Top Case.

Step 5 : Disconnect connectors *2pcs and remove screw *1pcs on the Front IO BD.

Step 6 : Remove screw*2pcs.

Step 7 : Pull the IO BD bracket.

Step 8 : Remove Screw*2pcs.

Step 9 : Remove the Front IO BD.

Screws	QTY	Spec	Torque (kgf-cm)
T	3	M2.5*4L (K) B-ZN NY #1	2.5±0.5
	4	#6-32 L6*H2.3 (B) W-NI//UNEEC	8.0±0.5
	3	M3*4L (6.3,2.05) (P) #2	3.0±0.5

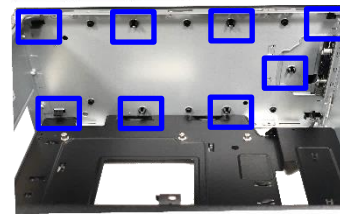
① Disconnect and Unscrew



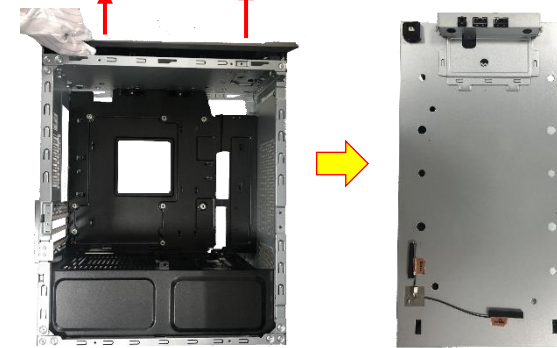
② Unscrew



③ Pull the Latch (Blue mark)



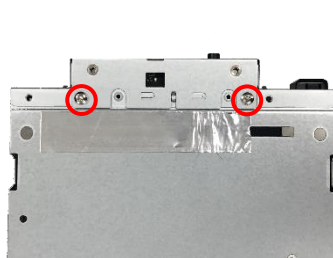
④ Take out



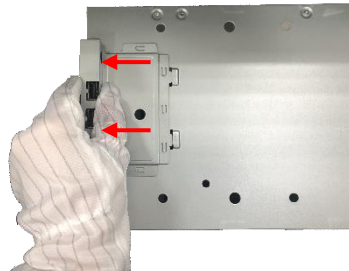
⑤ Disconnect and Unscrew



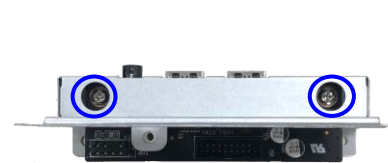
⑥ Unscrew



⑦ Pull the bracket



⑧ Unscrew




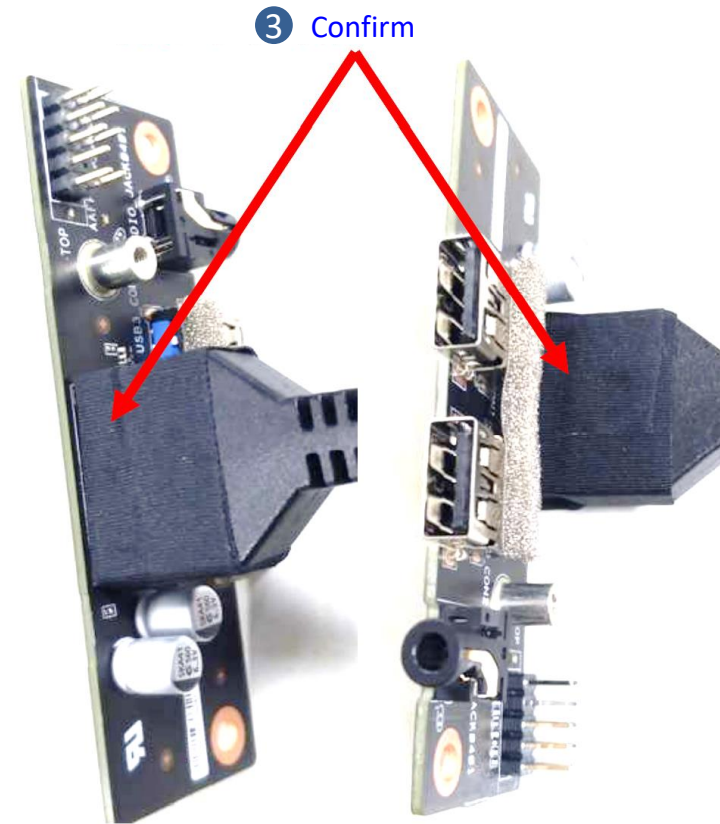
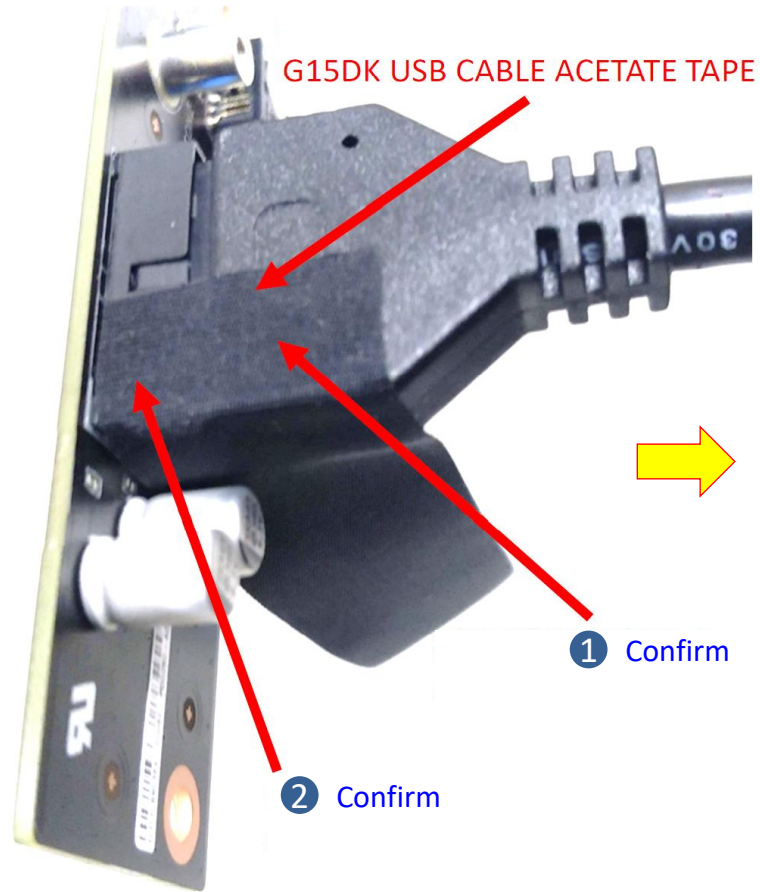
⑨ Remove



Assembly Notice

Please be sure to pull out adapter and disconnect the battery. 

-  Please follow the below criteria to assemble FIO USB CABLE.
- Step-1 : Make sure the acetate is attached to the Cable plug.
- Step-2 : Make sure the acetate is attached to the connector.
- Step-3 : Make sure the acetate is securely attached to the surface of the part on each side when wrapping.





Disassembly Notice

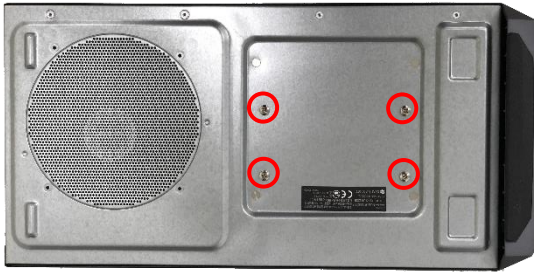
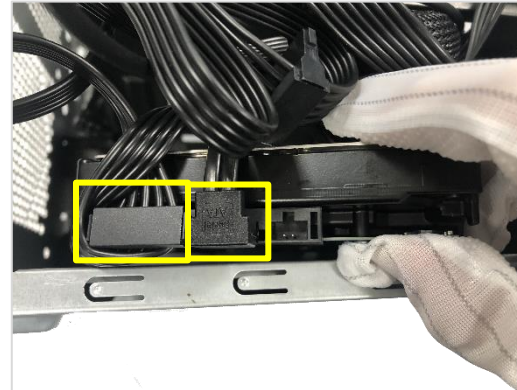
Please be sure to pull out adapter and disconnect the battery. 

Step 1 : Remove screws *4pcs.

Step 2 : Disconnect the connectors *2pcs.

Step 3 : Take out the HDD.

Screws	QTY	Spec	Torque (kgf-cm)
 	4	SCREW #6-32*6L(7.1,2.3) (B) #2	6.5±0.5

① Unscrew**② Disconnect****③**



Disassembly Notice

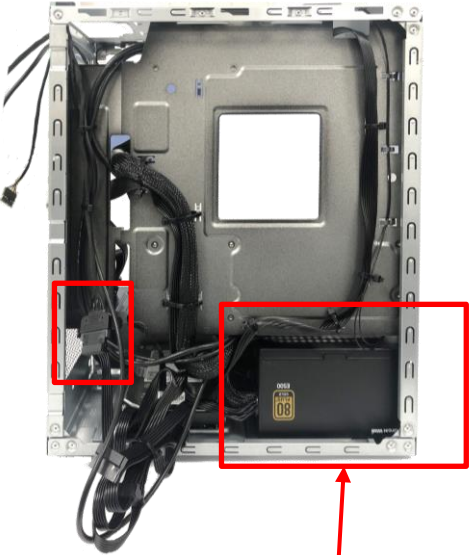
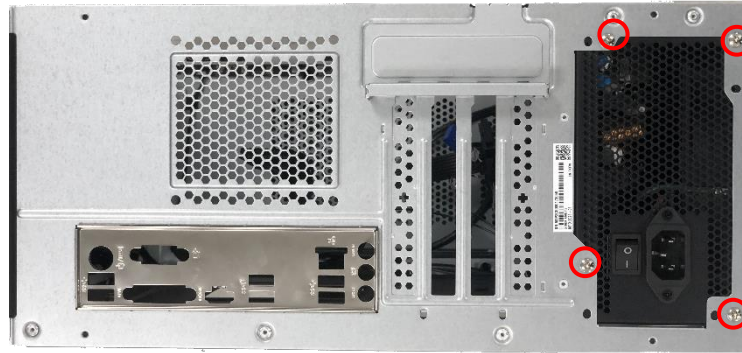
Please be sure to pull out adapter and disconnect the battery. 

Step 1 : Disconnect the connector *1pcs.

Step 2 : Remove screws *4pcs.

Step 3 : Take out the POWER SUPPLY.

Screws	QTY	Spec	Torque (kgf-cm)
 	4	SCREW #6-32 L6*H2.3 (B) W-NI	8.0±0.5

1 Disconnect**2** Unscrew**3** Take out

Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 

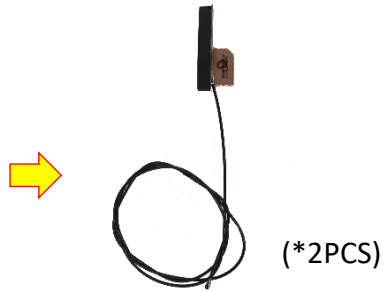
Step 1 : Tear off the Gasket and ANTENNA*2pcs.


Step 2 : Take out ANTENNA.

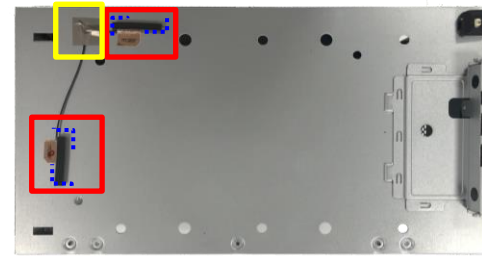
① Tear off



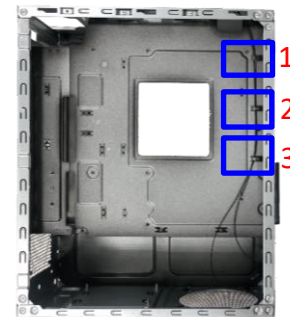
②

**Assembly Notice**

 Please follow the red and yellow mark to paste the Antenna and gasket.



 Clip the 2 Antenna cables into a hook at the place Point 1~3.



Assembly Notice

Please be sure to pull out adapter and disconnect the battery. 



Tidy up the cable of the back mainframe as illustrated.

