

Doc. No:

Date: 2023/12

Rev. :

Chassis Service Manual

Model: GX601



Authorize by

Review by

Originator by

Form No :

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90DC0020-B0000C

GX601 LEFT SIDE DOOR/CSC | Black left side door

Fully-assembled. (Consists of Left side glass*1, Warning sticker*1, Upper steel strip*1, Lower steel strip*1, Mylar insulation*1)



90DC0020-B0010C

GX601 LEFT SIDE DOOR/WT/CSC | White left side door

Fully-assembled. (Consists of Left side glass*1, Warning sticker*1, Upper steel strip*1, Lower steel strip*1, Mylar insulation*1)



90DC0020-B0001C

GX601 RIGHT SIDE DOOR/CSC | Black right side door

Fully-assembled. (Consists of Right side glass*1, Upper steel strip*1, Lower steel strip*1, Mylar insulation*1)



90DC0020-B0011C

GX601 RIGHT SIDE DOOR/WT/CSC | White right side door (White Edition)

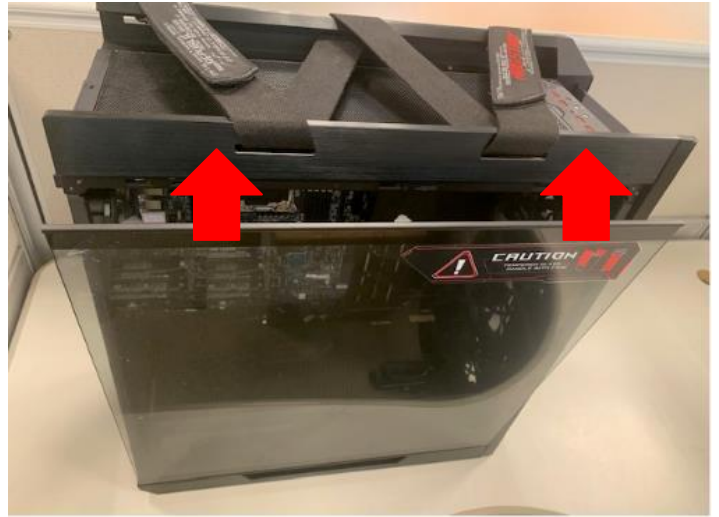
Fully-assembled. (Consists of Right side glass*1, Upper steel strip*1, Lower steel strip*1, Mylar insulation*1)



Disassembly method:

***Please handle with care when disassembling and assembling the glass side panel to avoid collision/drop/heavy pressure.**

1. Press the rear switch and lift the damaged glass panel.



2. Align the lower edge of the new glass panel with the groove on the footstand and insert it.



3. After closing the glass panel, it will be locked automatically.



90DC0020-B0004C

GX601 FIO MODULE/CSC | FIO module

FAQ: [FIO buttons and ports not working](#), [Case lighting not working](#)



Disassembly method:

1. Remove both side glass panels.



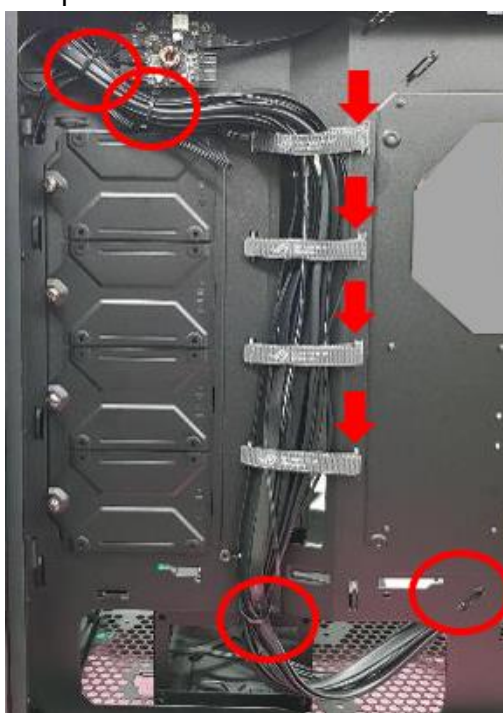
2. Remove the two screws on the cable cover panel, open it up to a 90-degree angle, and then lift it upwards to remove.



3. Disconnect the cables connected to the motherboard.



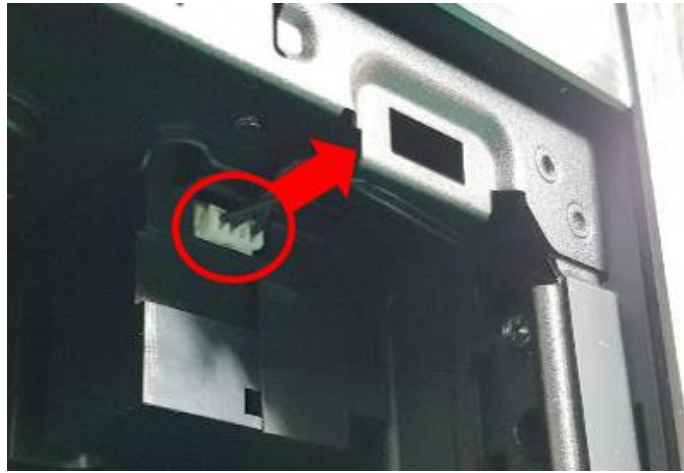
4. Remove the cable ties and straps.



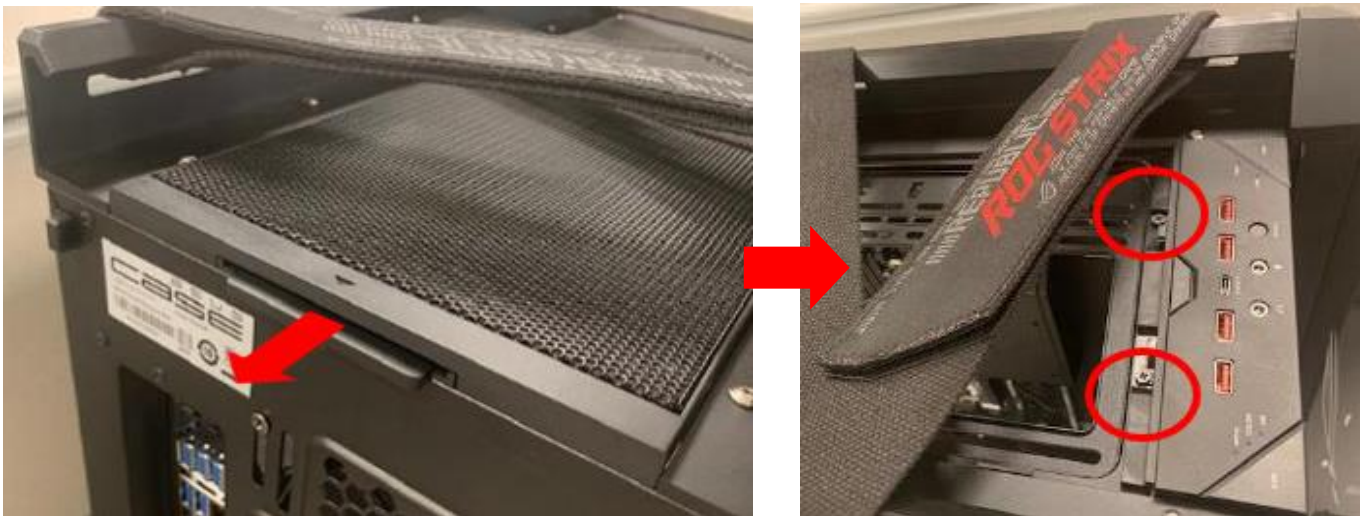
5. Remove the black signal cables.



6. Disconnect the LED cables.



7. Lift the handle to remove the top cover, and then remove the two screws.



8. Press the front latch to remove and replace the FIO module.



9. After confirming that the appearance and buttons are normal, reassemble them back.

90DC0020-B0005C

GX601 FRONT PANEL/CSC | Front panel

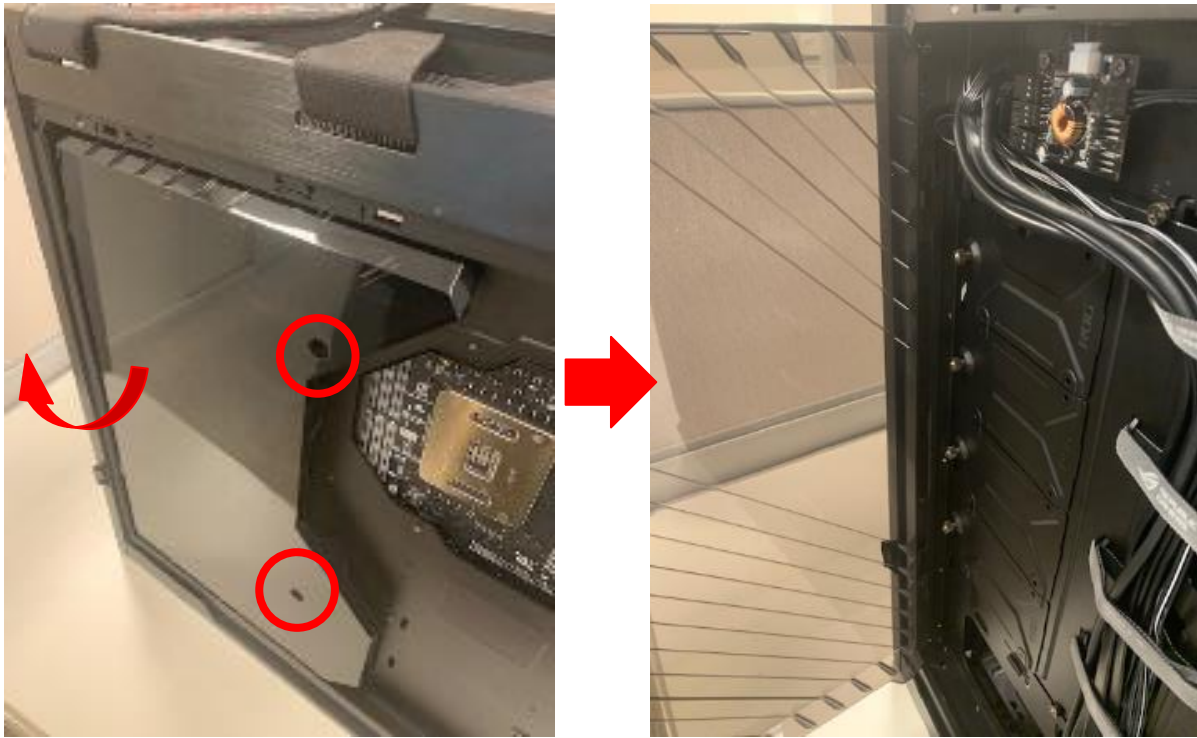


Disassembly method:

1. Remove both side glass panels.



2. Remove the two screws on the cable cover panel, then open it up to a 90-degree angle.



3. Lift the cable cover panel upwards to remove.



4. Remove three screws to pull out the front panel.



5. Separate the panel from the front glass (be careful to hold the front glass to prevent it from falling).



6. Remove the other two screws on the opposite side while holding the front glass to prevent it from falling, then take out the front glass for replacement.



7. Reassemble front panel, cable cover panel and both side glass panels back.

90DC0020-B000AC

GX601 FRONT ARGB LIGHT BRD/CSC | Light strip

FAQ: [Case lighting not working](#)



Disassembly method:

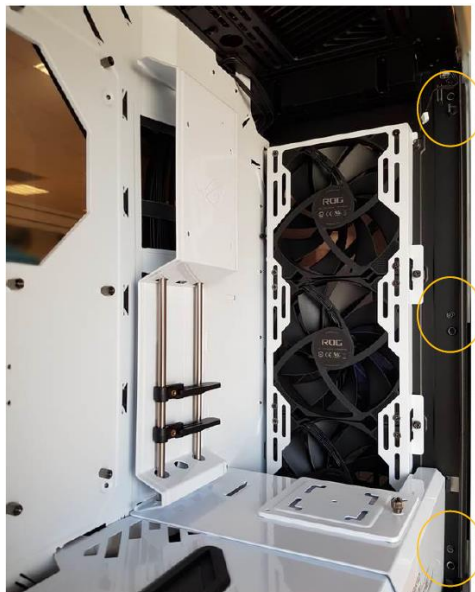
1. Detach the front filter from the chassis.



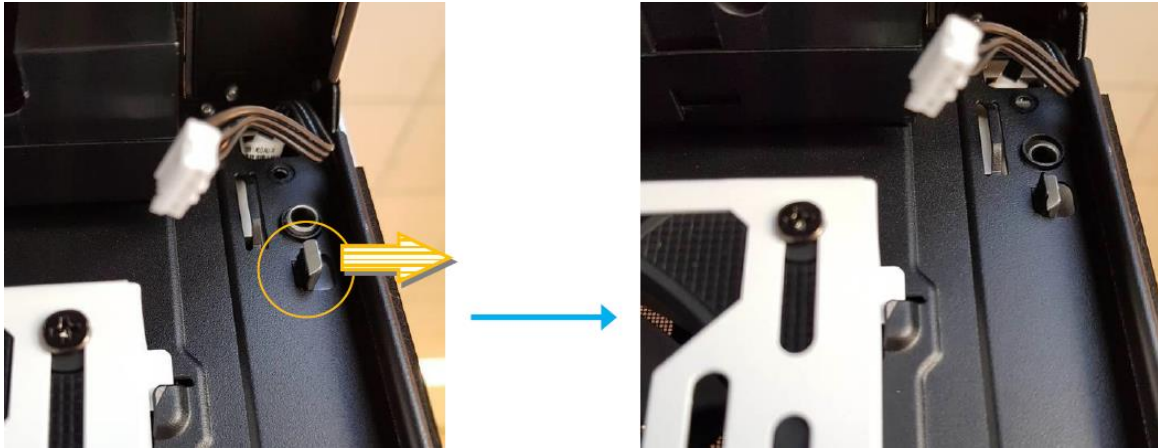
2. Disconnect the LED cables.



3. Unscrew the three long screws on the left side panel from inside the chassis.



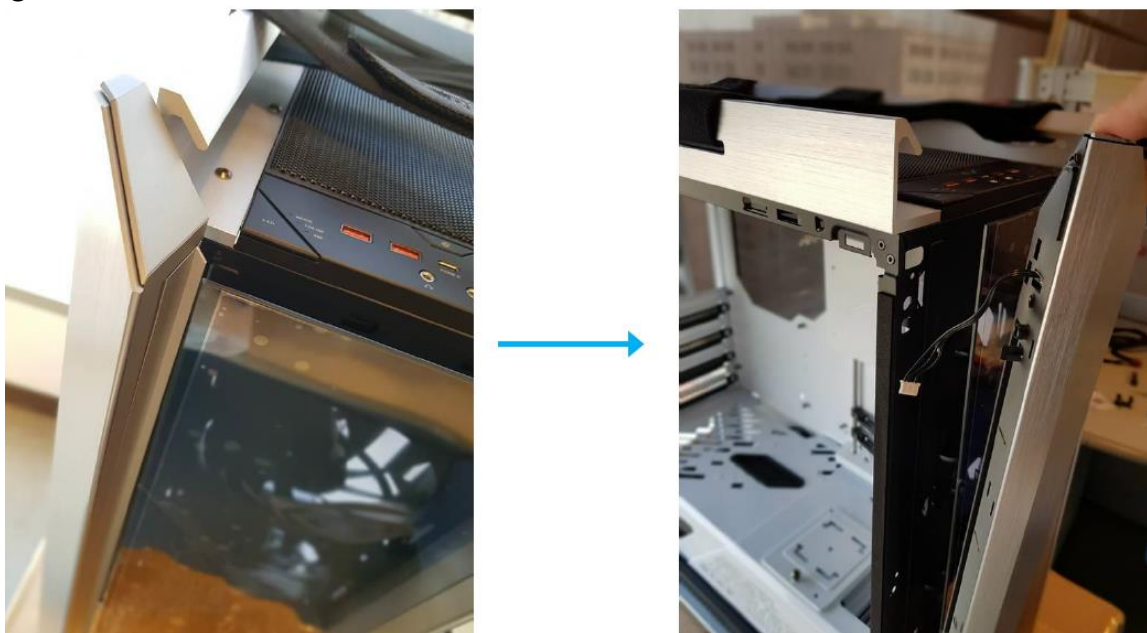
4. Gently push the hook on the upper side of the left side panel towards the outside of the chassis to loosen and detach the plastic hook from the metal piece.



5. Remove the left side panel from the chassis and pull out the left LED cable through the hole on the top of the chassis.



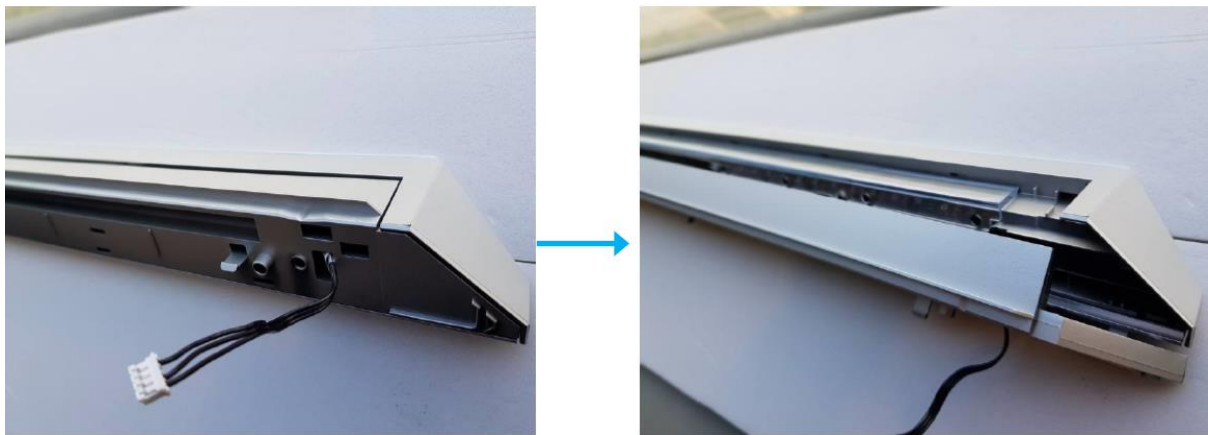
6. Pull the left side panel outward from top to bottom until it completely detaches from the front glass.



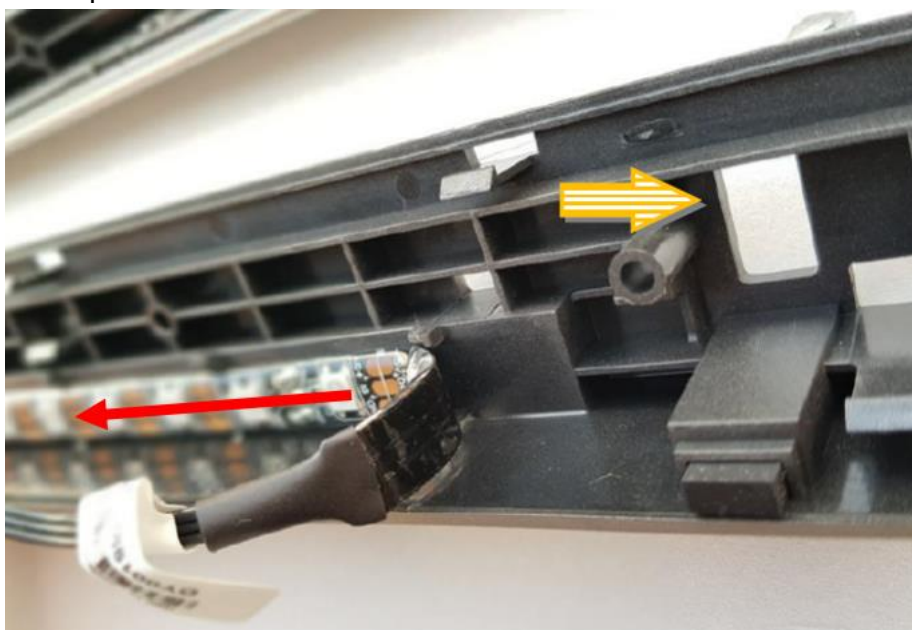
7. Place the ASUS accessory box under the glass to prevent the glass from suddenly detaching or getting damaged.



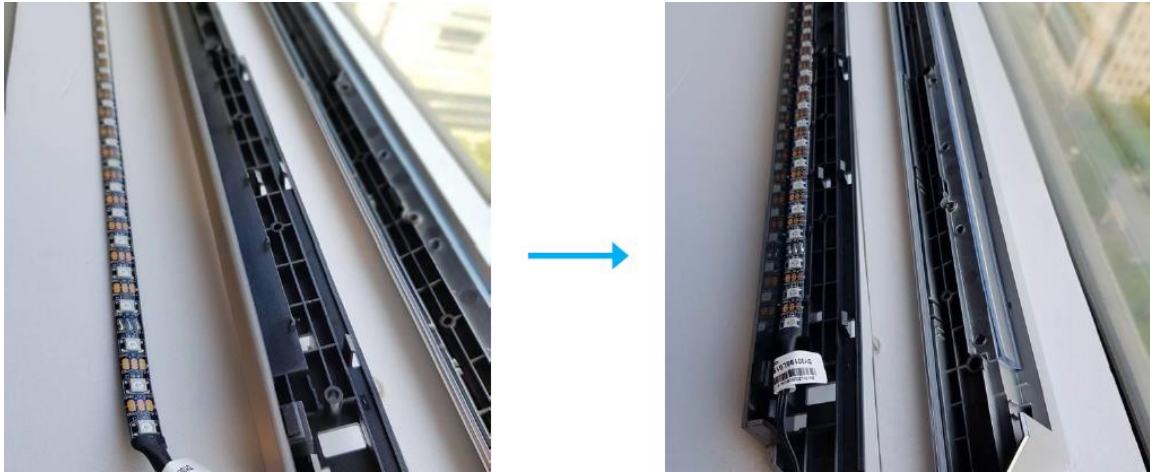
8. Separate the two plastic pieces by hand without the need for tools.



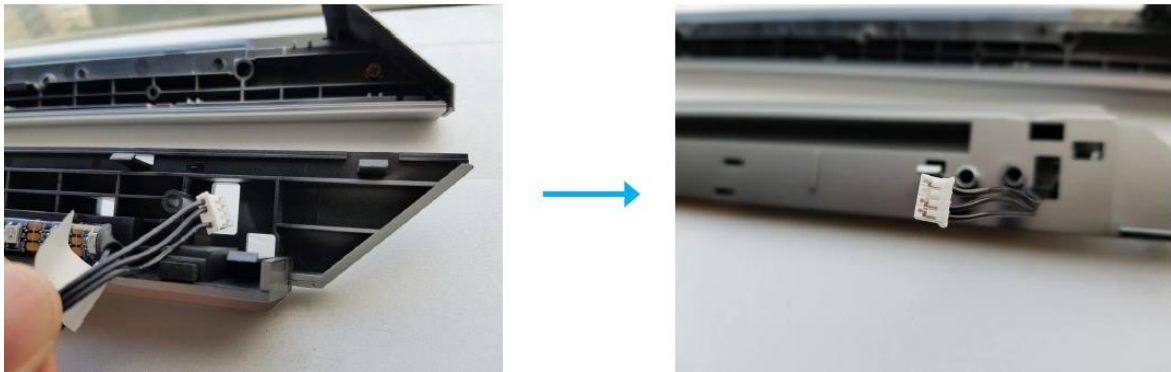
9. Tear off the LED light strip, after the wire head pass through the square hole in the plastic piece, the light strip can be torn to the end.



10. Install the new LED strip by aligning the end of the strip with the side wall and gradually sticking it upwards after removing the backing paper.



11. Once the strip is properly attached, pass the LED wire head through the square hole.



12. Reassemble the left side panel in the following order:

- ① Assemble the two plastic panels together.
- ② Remove the accessory box under the glass.
- ③ Slowly insert the front glass into the gap between the panels.
- ④ Pass the LED strip wire head through the hole on the top of the chassis.
- ⑤ Place the panel onto the chassis, ensuring the hook is securely attached.
- ⑥ Fasten the panel with the three long screws.
- ⑦ Plug the LED strip wire head into the FIO socket.

90DC0020-B0025C

GX601 AL FRONT RIGHT/CSC | Black front right aluminum component

Fully-assembled. (Consists of Outer plastic part*1, Inner plastic part*1, Aluminum panel*1, M3 hexagon washer screws*4, ROG fabric label*1, Rubber gaskets for glass*2)

Disassembly method: Unscrew the screws.



90DC0020-B0065C

GX601 AL FRONT RIGHT/WT/CSC | White front right aluminum component

Fully-assembled. (Consists of Outer plastic part*1, Inner plastic part*1, Aluminum panel*1, M3 hexagon washer screws*4, ROG fabric label*1, Rubber gaskets for glass*2)

Disassembly method: Unscrew the screws.



90DC0020-B0095C

GX601 AL FRONT LEFT/CSC | Black front left aluminum component

Fully-assembled. (Consists of Outer plastic part*1, Inner plastic part*1, Light pipe*1, Light strip*1, Aluminum panel*1, M3 hexagon washer screws*3, Rubber gaskets for glass*2)

Disassembly method: Unscrew the screws.



90DC0020-B0055C

GX601 AL FRONT LEFT/WT/CSC | White front left aluminum component

Fully-assembled. (Consists of Outer plastic part*1, Inner plastic part*1, Light pipe*1, Light strip*1, Aluminum panel*1, M3 hexagon washer screws*3, Rubber gaskets for glass*2)

Disassembly method: Unscrew the screws.



90DC0020-B0045C

GX601 AL TOP RIGHT/CSC | Black upper right aluminum handle

Disassembly method: Unscrew the screws.



90DC0020-B0085C

GX601 AL TOP RIGHT/WT/CSC | White upper right aluminum handle

Disassembly method: Unscrew the screws.



90DC0020-B0035C

GX601 AL TOP LEFT/CSC | Black upper left aluminum handle

Disassembly method: Unscrew the screws.



90DC0020-B0075C

GX601 AL TOP LEFT/WT/CSC | White upper left aluminum handle

Disassembly method: Unscrew the screws.



90DC0020-B001LC

GX601 MISC/CSC | Footstand

Contents: ①Left footstand*1 ②Right footstand*1

Disassembly method: Unscrew the screws.



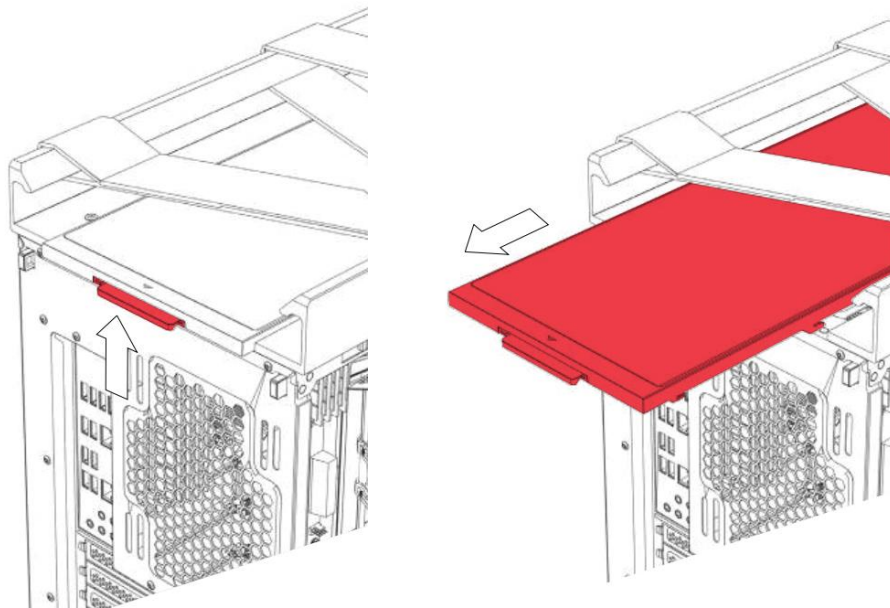
90DC0020-B000EC

GX601 TOP FILTER/CSC | Top filter

Fully-assembled. (Consists of Upper cover base*1, Upper filter*1, Upper cover mesh*1, Upper cover latch*1)



Disassembly method: Press the rear side tab upward and pull it backward to remove.



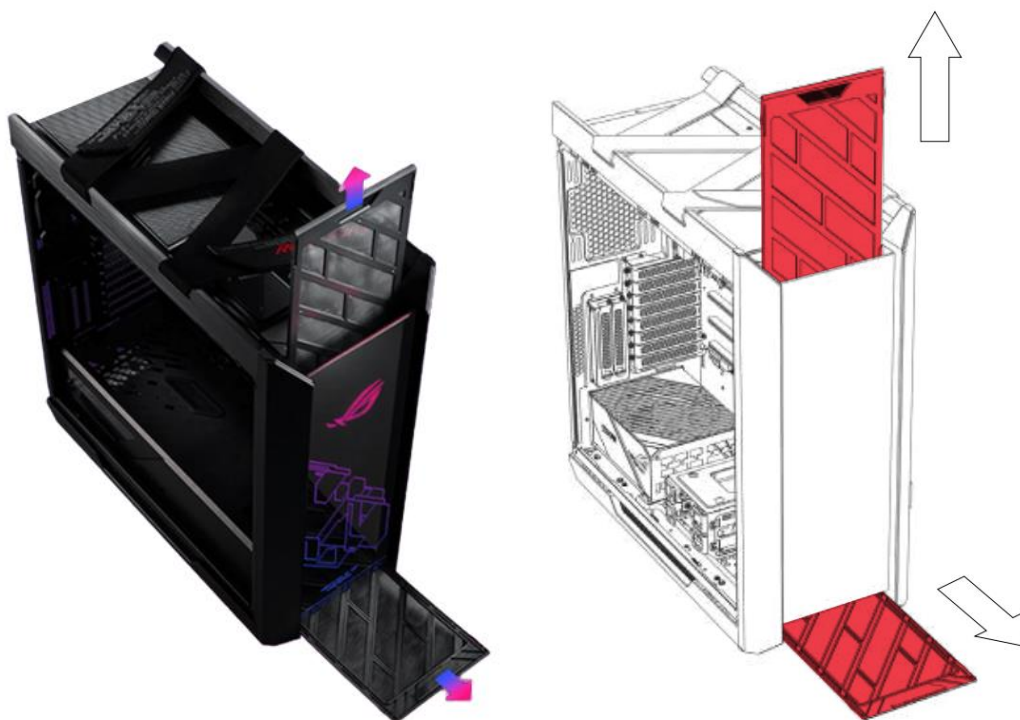
90DC0020-B001EC

GX601 FILTER/CSC | Front and bottom filters

Fully-assembled. (Consists of Cover base*1, Filter*1)

*The front filter and the bottom filter are the same component.

Disassembly method: Simply pull them out. They have a specific orientation, so make sure not to install them upside down.

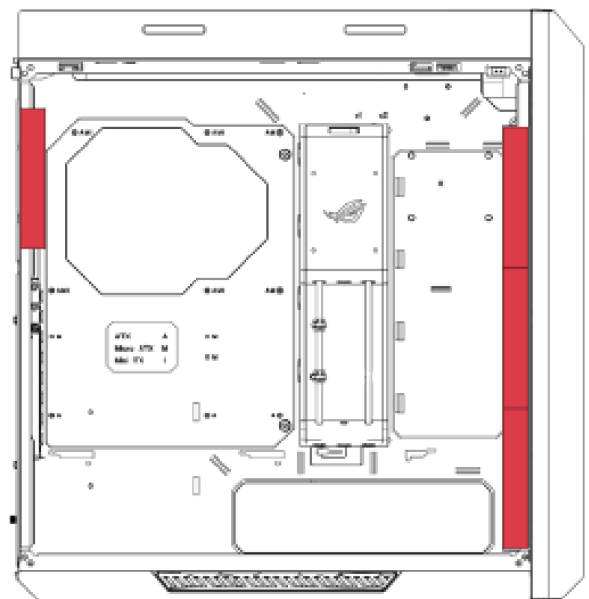


90DC0020-B0003C

GX601 SYSTEM FAN/CSC | 140mm fan

Disassembly method: Unscrew the four corner screws to remove it.

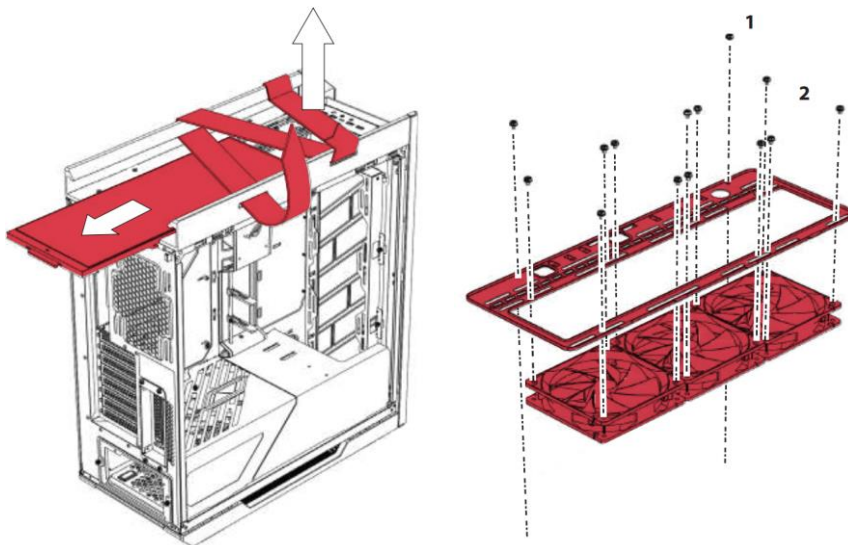
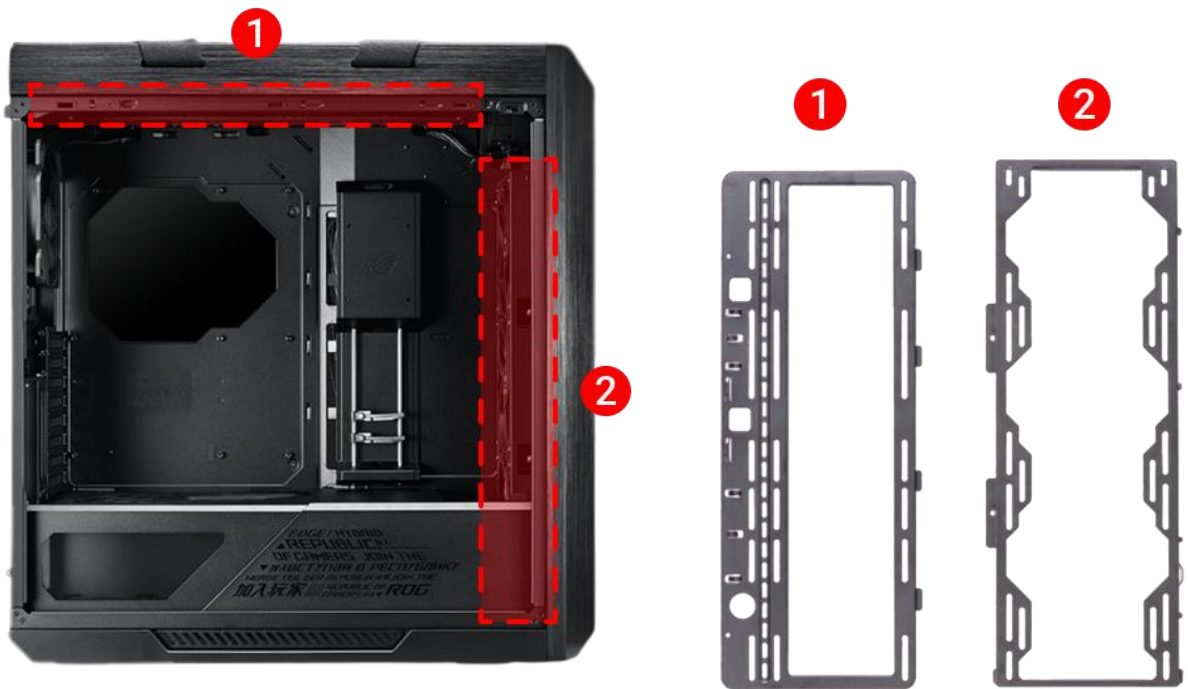
FAQ: [Fan not spinning](#), [Fan noise](#), [Unable to control fan speed](#)

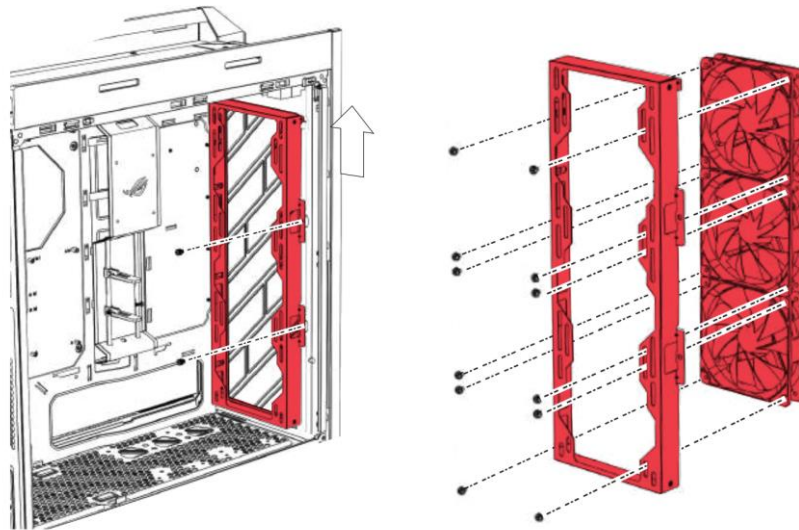


90DC0020-B003LC

GX601 MISC/CSC | Fan bracket

Contents: ①Top water-cooling radiator bracket*1 ②Front window water-cooling radiator bracket*1



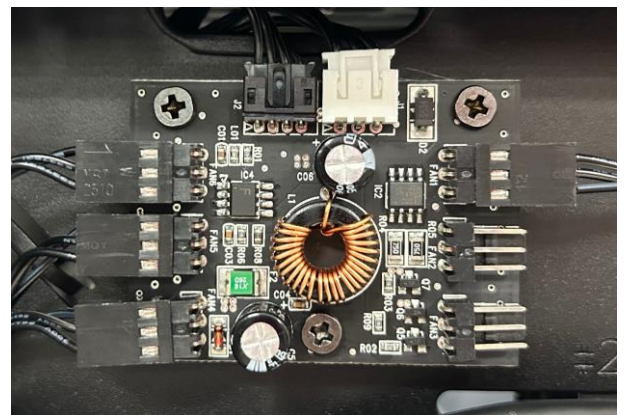


90DC0020-B0006C

GX601 HUB/CSC | Fan hub

Disassembly method: Unscrew the three screws to remove it.

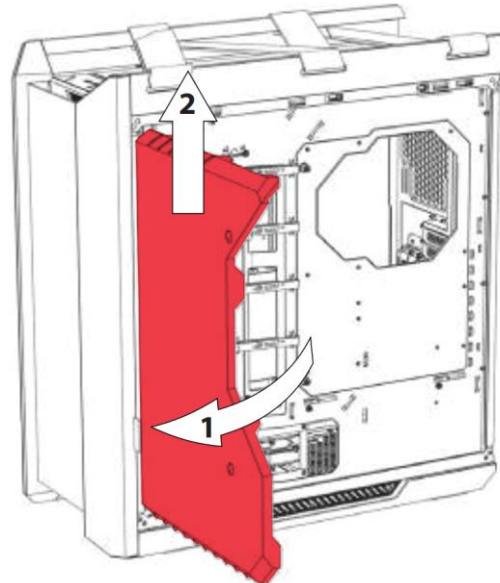
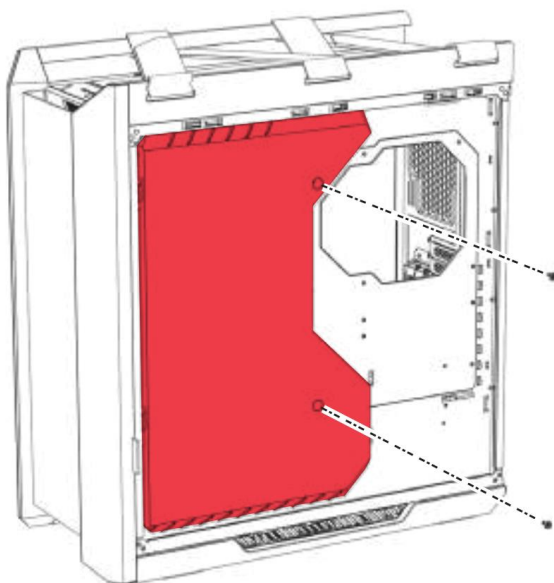
FAQ: [Fan not spinning](#), [Unable to control fan speed](#)



90DC0020-B000JC

GX601 HIDE/CSC | Cable cover panel

Contents: Plastic panel*1, Suspension screws*2

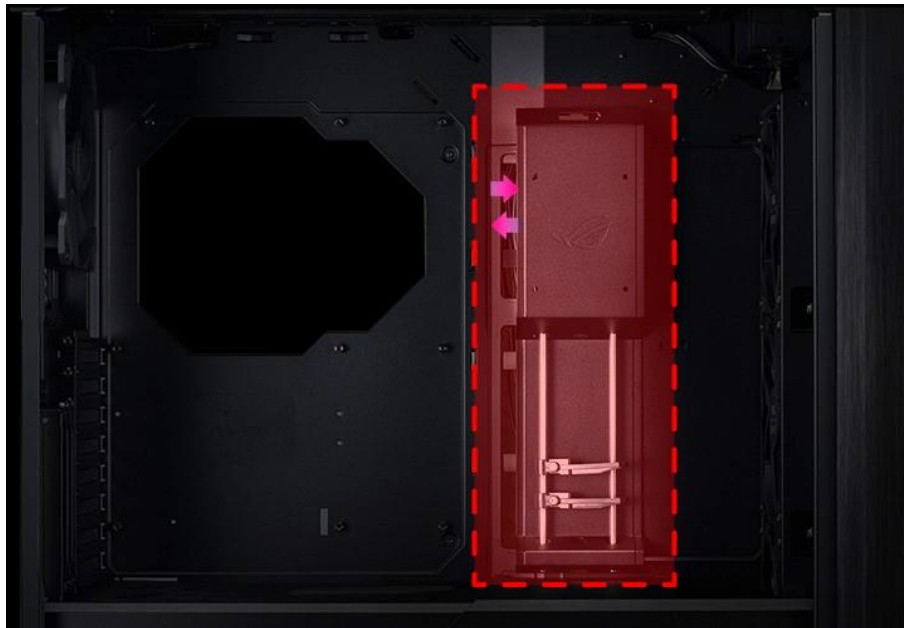


90DC0020-B0009C

GX601 VGA HOLDER/CSC | Black VGA holder

Fully-assembled. (Consists of Function bracket*1, GPU swing arm*2, M3 nuts*2, VGA support tube*2, Flat round head M3 chassis screws*4, Suspension screws*2)

Disassembly method: Unscrew the 2 screws on the rear side.

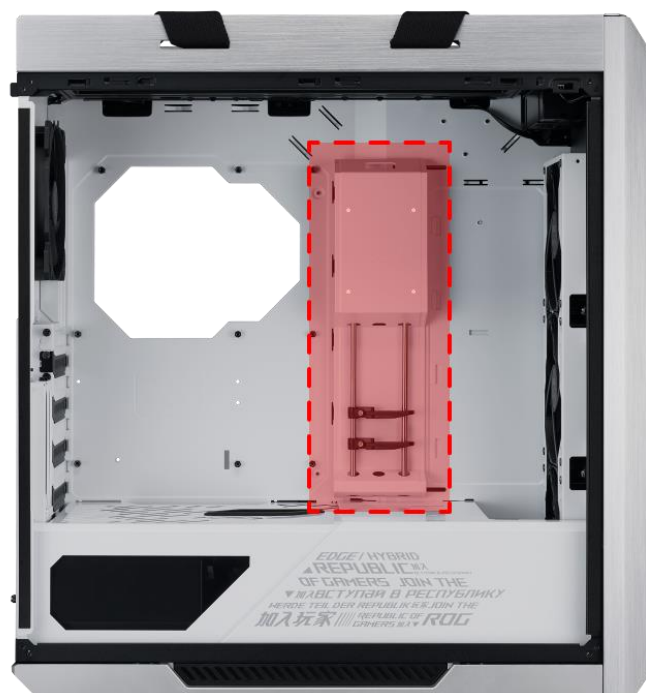


90DC0020-B0019C

GX601 VGA HOLDER/WT/CSC | White VGA holder

Fully-assembled. (Consists of Function bracket*1, GPU swing arm*2, M3 nuts*2, VGA support tube*2, Flat round head M3 chassis screws*4, Suspension screws*2)

Disassembly method: Unscrew the 2 screws on the rear side.



90DC0020-B000KC

GX601 PCI/CSC | Black PCI vertical GPU bracket

Fully-assembled. (Consists of PCI slot cover*2, Vertical GPU bracket*1, Chassis screws 6#32*6)

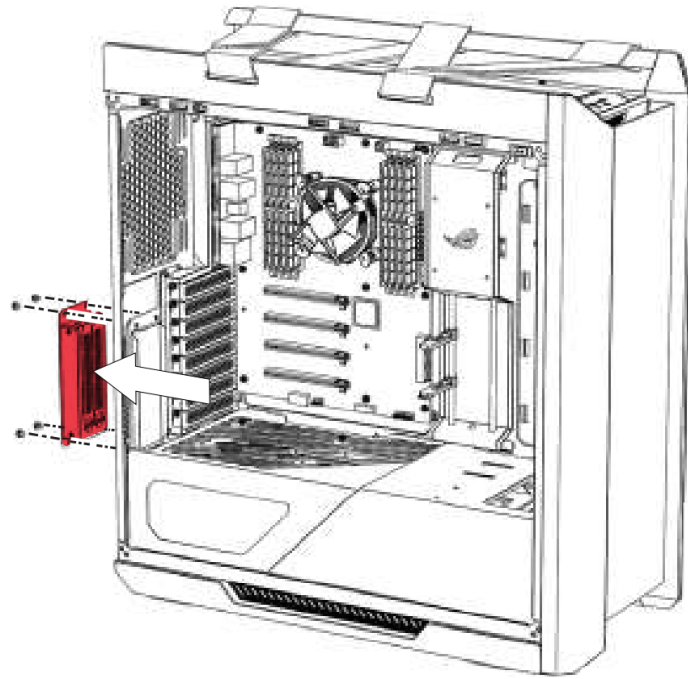


90DC0020-B001KC

GX601 PCI/WT/CSC | White PCI vertical GPU bracket

Fully-assembled. (Consists of PCI slot cover*2, Vertical GPU bracket*1, Chassis screws 6#32*6)



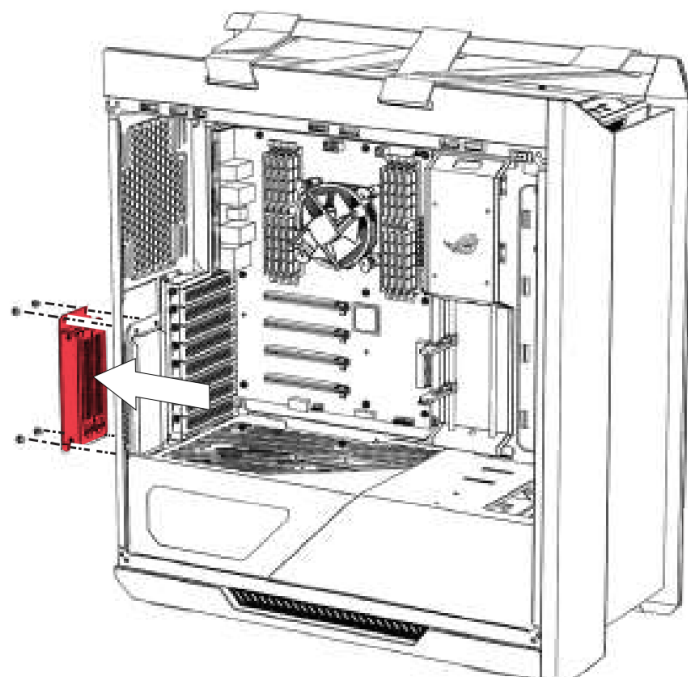


90DC0020-B002KC

GX601 SINGLE PCI/CSC | Vertical PCIe bracket

Contents: Black PCIe bracket*1, White PCIe bracket*1

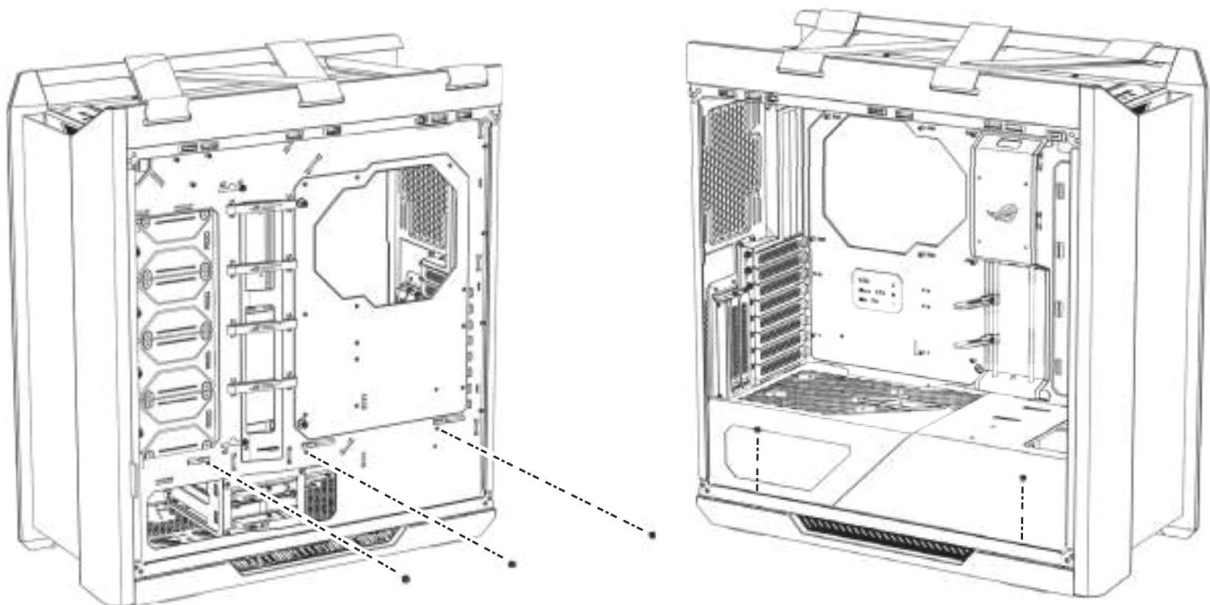
*Can be replaced with PCI vertical GPU bracket.

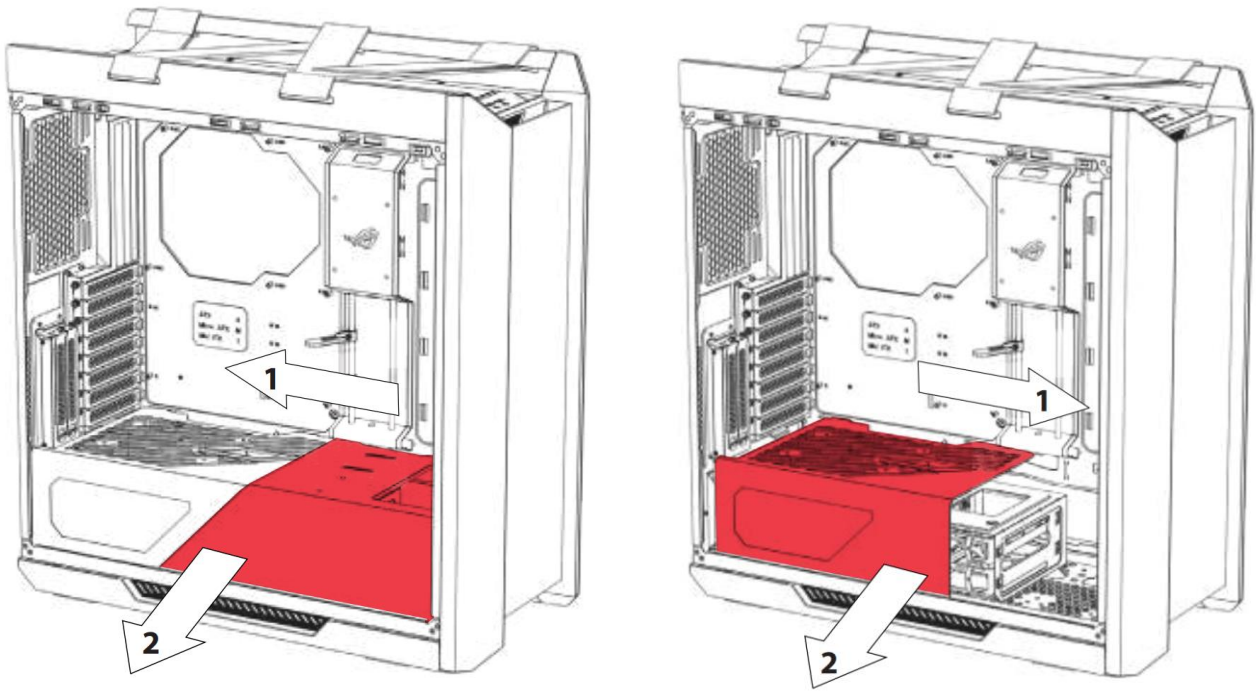


90DC0020-B001JC

GX601 HIDE/CSC | PSU cover

Contents: ①Front cover plate*1 ②Rear cover plate*1 ③Transparent side cover*1





90DC0020-B000LC

GX601 MISC/CSC | Repair kits

Contents: ①Fabric handles*1 ②PSU transparent side cover*1 ③PSU bracket*1 ④PCI slot cover*8 ⑤HDD tray*2

Chassis foot pad*4, 6*5 thin flat round head screw*1, Motherboard standoff*1, Motherboard pillar*1, M4 countersunk head hexagon socket screws*5, Thumb suspension screws*2, Thumb screws*3, Front panel long screws*3, M3 hexagon washer screws*4, Bottom self-tapping screws*4, Bottom countersunk head self-tapping screws*2, Flat round head M3 chassis screws*4, Fan screws*8, 6*6 hexagon washer screws*10, Suspension screws for cable cover panel*2, Suspension screws for VGA holder*2

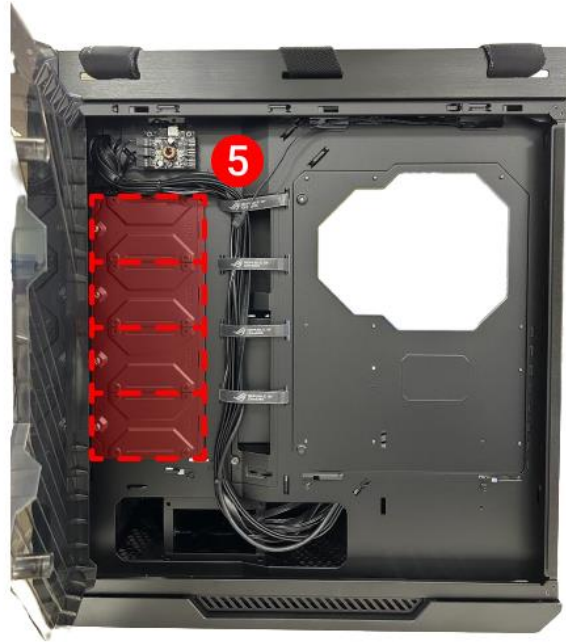




3



4

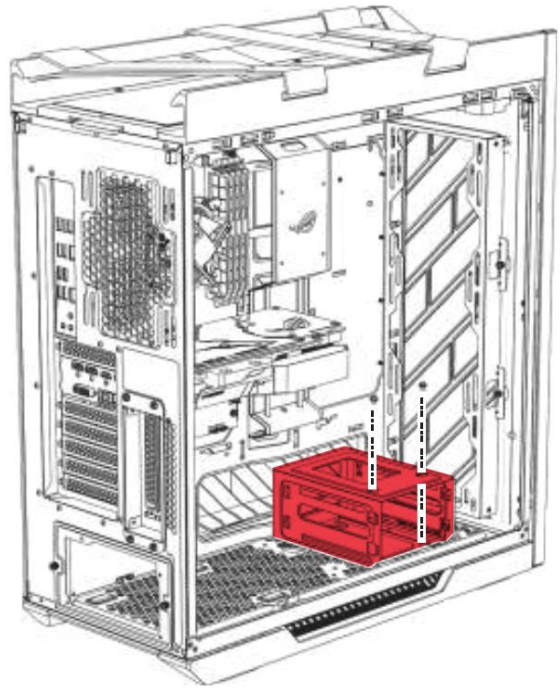


5

90DC0020-B002LC

GX601 MISC/CSC | HDD tray

Contents: Tray*2, Tray bracket*1



90DC0020-B000DC

GX601 CPU 8 PIN CABLE/CSC | CPU 8pin cable



90DC0020-B001DC

GX601 19 PIN CABLE/CSC | 19pin cable



90DC0020-B0007C

GX601 ACCESSORY/CSC | Black accessory box

Contents: Vertical GPU Kit*1, Pump bracket*1, Pump bracket captive thumb screw*1, Cable ties*10, USB type A (3.0) dust cover*2, USB type C (3.1) dust cover*1, Flat round head M3 chassis screws*40, Standoff tool*1, Motherboard standoffs*3, Chassis screws 6#32*4



90DC0020-B0017C

GX601 ACCESSORY/WT/CSC | White accessory box

Contents: Vertical GPU Kit*1, Pump bracket*1, Pump bracket captive thumb screw*1, Cable ties*10, USB type A (3.0) dust cover*2, USB type C (3.1) dust cover*1, Flat round head M3 chassis screws*40, Standoff tool*1, Motherboard standoffs*3, Chassis screws 6#32*4



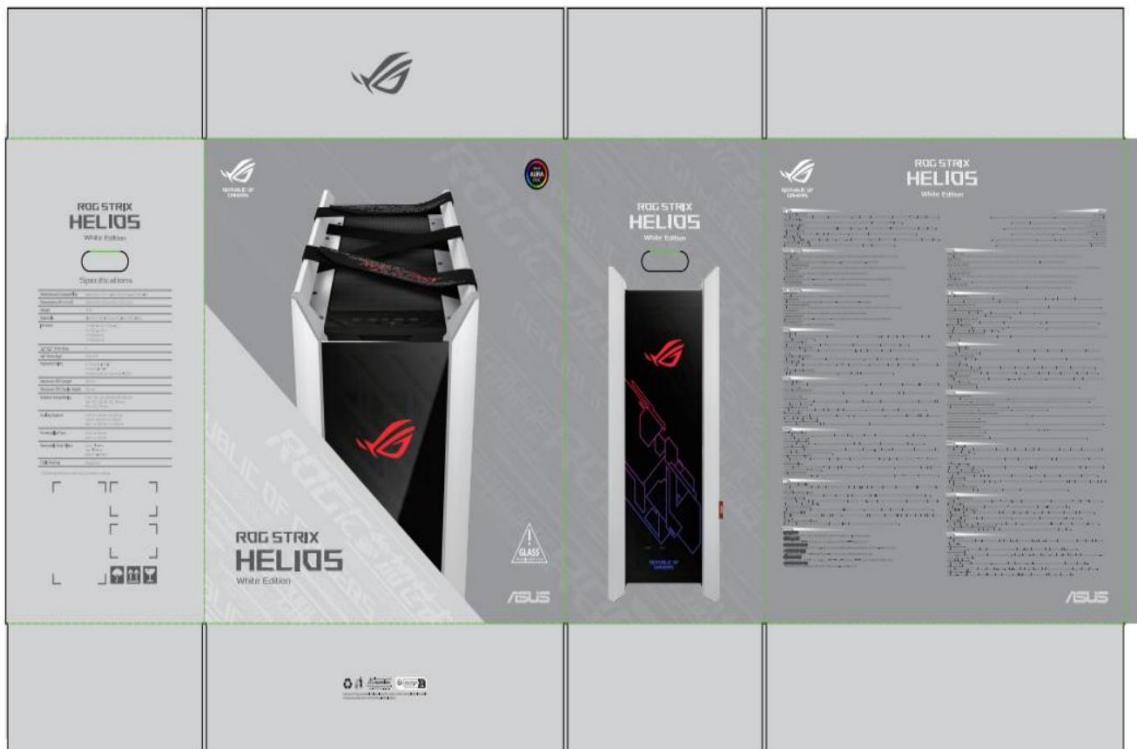
90DC0020-B000CC

GX601 COLOR BOX/CSC | Black box



90DC0020-B001CC

GX601 COLOR BOX/WT/CSC | White box



FAQ:

1. Fan not spinning - Related components: [140mm fan](#), [Fan hub](#)

- ①Dust and debris can accumulate on the fan blades over time, causing it to stop spinning. Check for any physical obstructions that may be blocking the fan's movement and remove them. Please remove the fan from the fan hub and directly connect it to the fan header on the motherboard. If the fan still doesn't work, please replace the fan.
- ②Make sure that the fan is properly connected to the fan hub. The fan has a 3-pin connector, ensure that the cable is securely plugged into the motherboard or the fan hub.
- ③If it is confirmed that the fan can work, it means the fan hub is damaged, please replace it.

2. Fan noise - Related components: [140mm fan](#)

- ①Over time, dust can accumulate on the fan blades, causing them to become unbalanced and produce noise. Turn off your computer and carefully clean the fan blades using compressed air or a soft brush to remove any dust or debris.
- ②To reduce the fan noise, you can use the fan speed control button to lower the fan speed. However, lowering the fan speed may impact the cooling performance of your system. It's important to ensure that your system's temperature remains within a safe range even with the reduced fan speed.

3. Unable to control fan speed - Related components: [140mm fan](#), [Fan hub](#)

- ①The built-in fans in GX601 are DC Fans, which require a DC voltage greater than the fan's start voltage to operate. The Fan HUB in GX601 provides only two speeds (High speed: 1400rpm \pm 10%; Low speed: 900rpm \pm 10%), and it does not offer fan speed control like PWM fans, which can adjust the speed through PWM duty.
- ②DC fans can operate as long as they receive a DC voltage higher than the fan's start voltage. Taking GX601 fans as an example:
 - ◆Voltage range: DC5V ~ DC13.2V
 - ◆Start Voltage = 5V
 - ◆Rated Voltage = 12V
- ③The GX601 fan hub is designed to control the voltage according to the built-in DC fans:
 - ◆Low-speed fan operates at a DC voltage of +6.3V (greater than the 5V start voltage to ensure fan startup)
 - ◆High-speed fan operates at a DC voltage of +12V
- ④If a user replaces the DC fans in GX601 and finds that the low-speed mode fails to start,

it is possible that the replacement fan has a start voltage higher than 6.3V. Therefore, if you plan to replace the DC fans yourself, make sure their start voltage is equal to or lower than 6.3V.

4. FIO buttons and ports not working - Related components: [FIO module](#)

- ① Ensure that the cables connecting the FIO buttons and ports to the motherboard are properly connected. Sometimes, these cables can come loose or get disconnected, leading to functionality issues.
- ② Reconnecting the cables can resolve poor connections. Gently disconnect all the cables, wait for a while, and then plug them back into the corresponding headers on the motherboard.
- ③ If reconnecting the cables does not solve the issue, please replace the FIO module.

5. Case lighting not working - Related components: [FIO module](#), [Light strip](#)

- ① Ensure that the case lighting cables are properly connected to the power source. Test the case lighting with a different PSU, connect the case lighting to a known working PSU to determine if the lighting functions properly.
- ② Verify if the RGB controller is correctly connected. Make sure that the connecting cable of the controller is correctly connected with the RGB header of the motherboard.
- ③ Two types of lighting control of GX601 (1) Self-control (2) Sync up with MB Lighting
If the LED button on the FIO panel is unable to switch the lighting control, please replace the FIO module.