

# **Monitor Service Manual**

**Model: VG27VQ3B**

Version no. V00

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# 1. Safety Precautions

## Safety information

- Before setting up the monitor, carefully read all the documentation that came with the package.
- To prevent fire or shock hazard, never expose the monitor to rain or moisture.
- Never try to open the monitor cabinet. The dangerous high voltages inside the monitor may result in serious physical injury.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- Slots and openings on the back or top of the cabinet are provided for ventilation. Do not block these slots. Never place this product near or over a radiator or heat source unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- Use the appropriate power plug which complies with your local power standard.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Avoid dust, humidity, and temperature extremes. Do not place the monitor in any area where it may become wet. Place the monitor on a stable surface.
- Unplug the unit during a lightning storm or if it will not be used for a long period of time. This will protect the monitor from damage due to power surges.
- Never push objects or spill liquid of any kind into the slots on the monitor cabinet.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC.
- If you encounter technical problems with the monitor, contact a qualified service technician or your retailer.

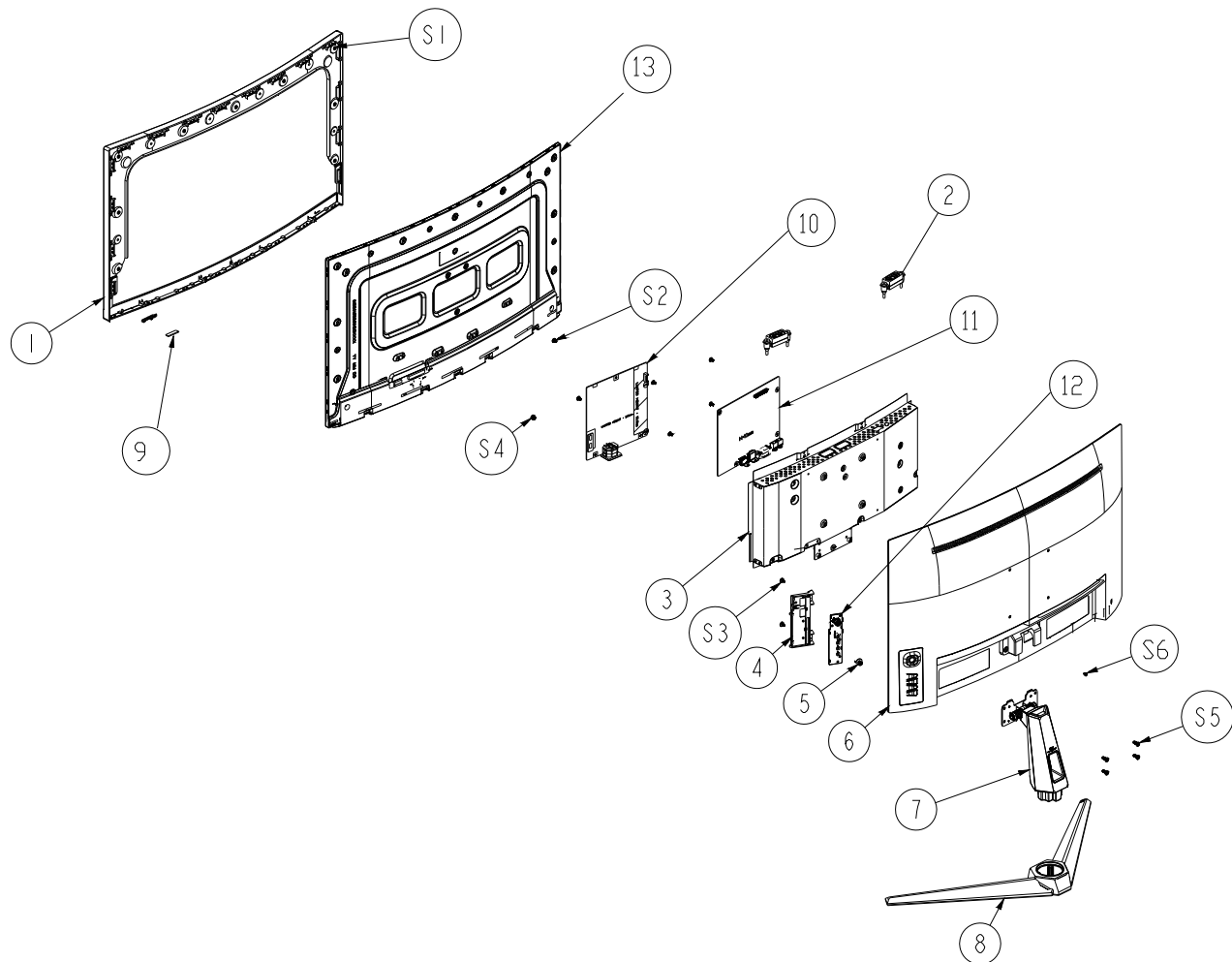
## Care & Cleaning

- Before you lift or reposition your monitor, it is better to disconnect the cables and power cord. Follow the correct lifting techniques when positioning the monitor. When lifting or carrying the monitor, grasp the edges of the monitor. Do not lift the display by the stand or the cord.
- Cleaning. Turn your monitor off and unplug the power cord. Clean the monitor surface with a lint-free, non-abrasive cloth. Stubborn stains may be removed with a cloth dampened with mild cleaner.
- Avoid using a cleaner containing alcohol or acetone. Use a cleaner intended for use with the LCD. Never spray cleaner directly on the screen, as it may drip inside the monitor and cause an electric shock.

## The following symptoms are normal with the monitor

- The screen may flicker during the initial use due to the nature of the fluorescent light. Turn off the Power Switch and turn it on again to make sure that the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- When the same image is display for hours, an afterimage of the previous screen may remain after switching the image. The screen will recover slowly or you can turn off the Power Switch for hours.
- When the screen becomes black or flashes, or cannot work anymore, contact your dealer or service center to fix it. Do not repair the screen by yourself!

## 2. Exploded View





No.	ASUS Description
1	MIDDLE_FRAME
2	SPEAKER
3	MAINFRAME
4	KEY_FRAME
5	KEY FUNCTION
6	REAR_COVER
7	STAND ASSY
8	BASE ASSY
9	LED BOARD
10	POWER BOARD
11	MAIN BOARD
12	KEY BOARD
13	PANEL
S1	MAINFRAME SCREW
S2	SCREW D3 6
S3	SCREW M3 6
S4	SCREW M4 6
S5	SCREW M4 10
S6	SCREW P3 5

### 3. Disassembly & Assembly SOP






#### 3.1. Precaution

Please read the precautions as follows to prevent any damages to the LCD Monitor.  
Make sure all power connection is removed. Be sure that the LCD Monitor is in power off status.

<p><b>Prepare soft cloth and sponge as working platform to place LCD monitor horizontally.</b></p>	
<p><b>Hold LCD by the side carefully and DON'T touch or press panel directly.</b></p>	

#### 3.2. Appropriate tools

Please according to different screw specifications choose different screwdrivers and heads.  
The below photos are for reference only.

<p><b>Screwdriver</b></p>	
<p><b>Screwdriver</b></p>	
<p><b>HEX header screwdriver</b></p>	
<p><b>Screwdriver</b></p>	
<p><b>Disassembly tool</b></p>	

### 3.3. Disassembly Procedure

Information in this section is to perform the disassembly procedure of the LCD monitor. Depending on the failures, replace the defective parts accordingly.

ASUS VG27VQ3B LCD monitor consists of various subsystems. This section describes the procedures for LCD monitor disassembly. In addition, the detailed disassembly procedures of individual subsystem will be provided for your service needs.

The disassembly procedure consists of the following steps:

#### 3.3.1 Stand Subsystem

#### 3.3.2 Main Subsystem

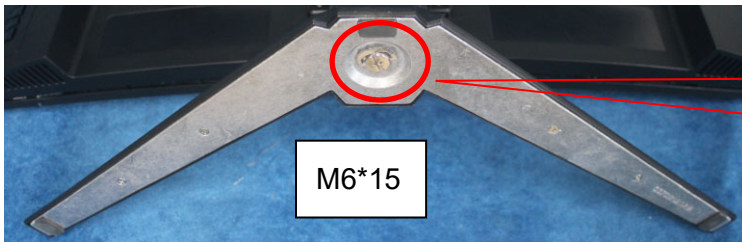
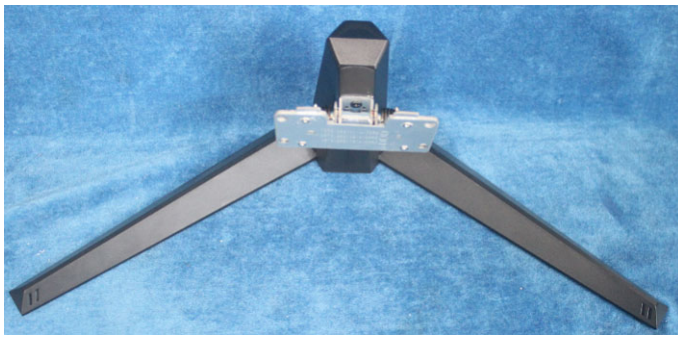
#### 3.3.3 Panel

### 3.3.1 Stand Subsystem

1. Release the screws to remove the stand & base ass'y.

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Panel/ Stand_base ass'y)	4	12±1kgf.cm	





Customer-designated STAND-BASE ASSY. The screw is preassembled. There is no TPV PN.

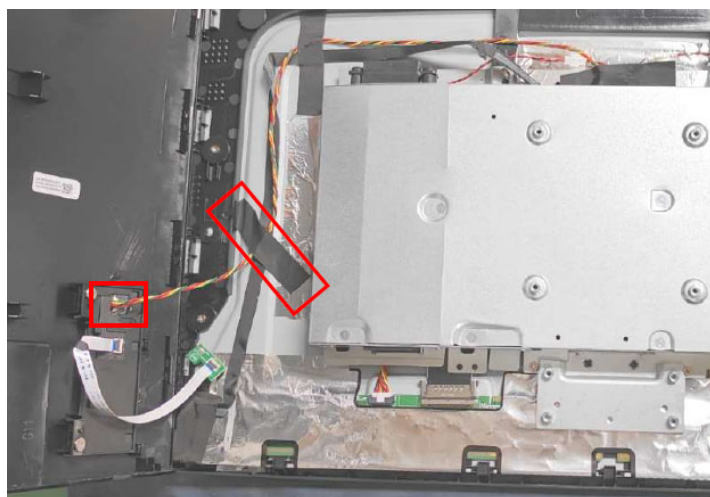
### 4.3.2 Main Subsystem

1. Release the screw. Use disassembly tool to open all the latches along the edge of the Rear Cover. (Note: Start to open the latches from bottom. Please operate in sequence as below until separate the panel from rear cover. Don't damage the key board.)

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Panel/ Rear cover)	1	6±1kgf.cm	



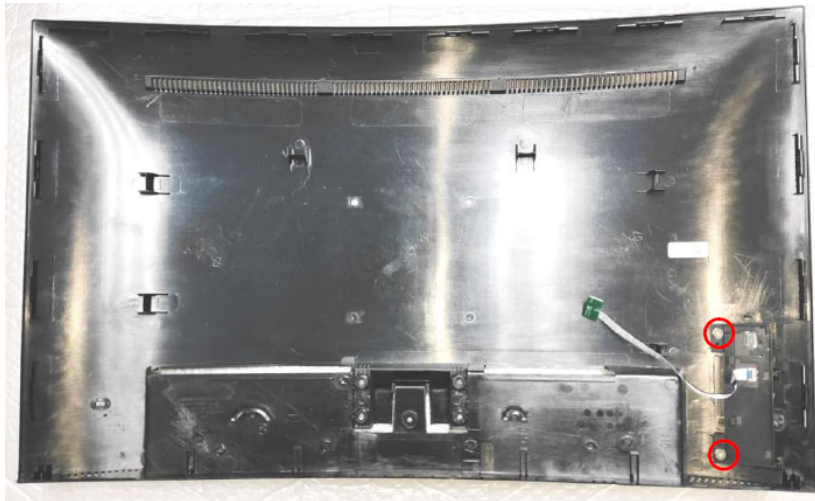
2. Gently open the rear cover and remove the LED board. Tear off the tape and disconnect the pin to remove the rear cover.



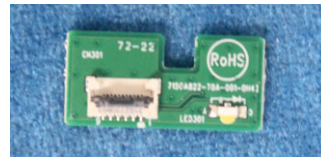
### Key board & LED board

Release the screws to remove the key board from the rear cover.

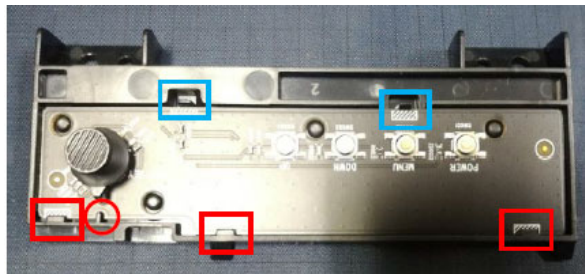
Description	Q'ty	Screw Torque	Picture & Spec
Screw(Rear cover/key board)	2	4±1kgf.cm	<p>The technical drawing shows a cross-section of a screw. The head diameter is 3.5. The head height is 0.98. The head thickness is 1.43. The shaft diameter is 0.5 ± 0.2. The shaft length is 1.4 ± 0.05. The total length is 6.0 ± 0.3. The thread is PTT (20) with a pitch of 1.27. The thread length is 30F.</p>



Disconnect the pin to remove the LED board

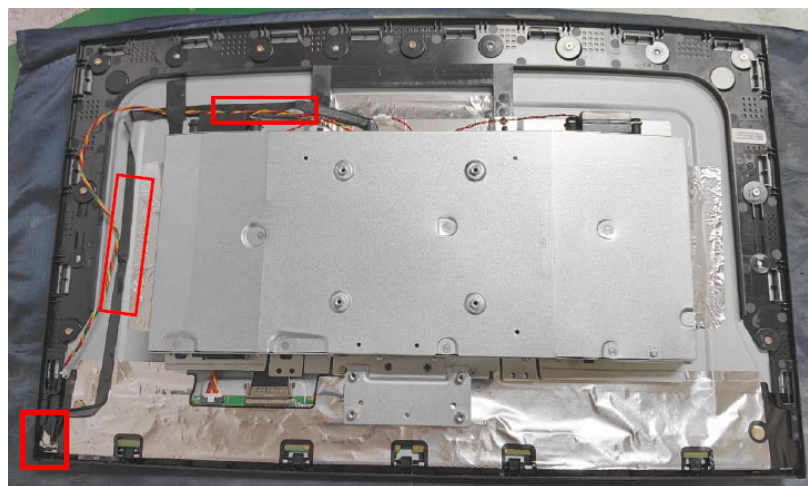
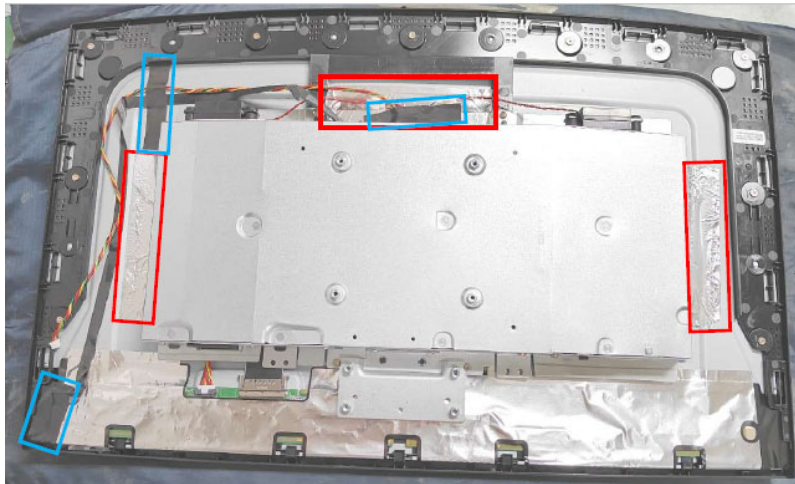


Take out the key board.



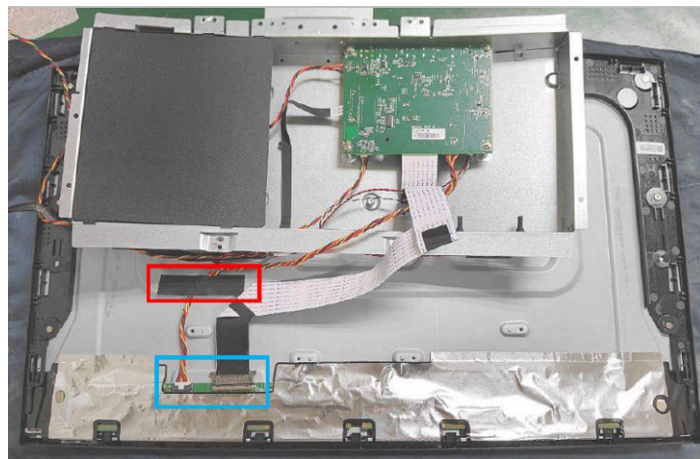
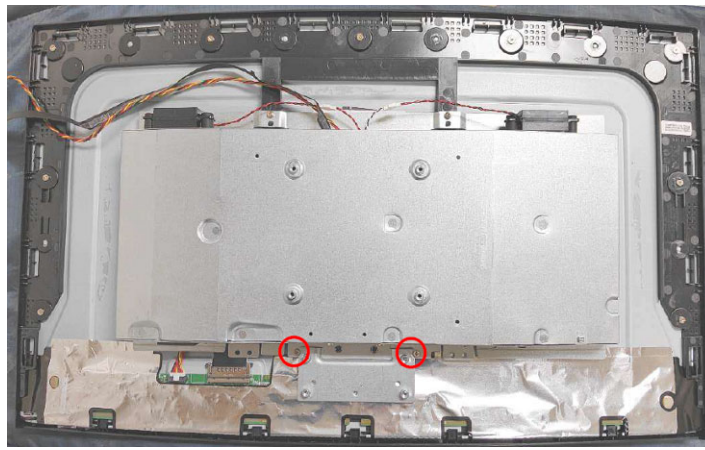
## MAIN\_FRAME

1. Tear off the tapes and disconnect cable.

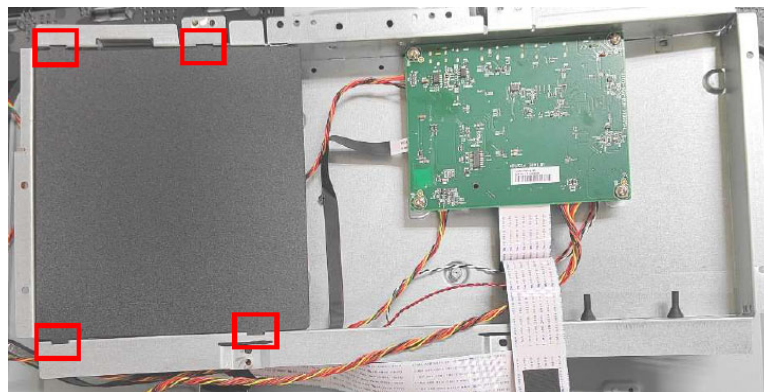


2. Release the screws and disconnect the pins to remove the main frame.

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Main frame/Panel)	2	4±1kgf.cm	<p>Technical drawing of a screw. The drawing includes a top view showing a cross-shaped head with a diameter of <math>0.85^{+0.15}</math> and a width of <math>(3.5)</math>. The side view shows a screw with a diameter of <math>\phi 5.0 \pm 0.2</math>, a length of <math>1.3 \pm 0.1</math>, and a thread length of <math>4.0^{+0.5}</math>. The thread specifications are <math>30F</math> and <math>\phi 0.91-1.43</math>. The screw is labeled <math>Ni240, F=63</math> and <math>\phi 2.88-2.96</math>.</p>



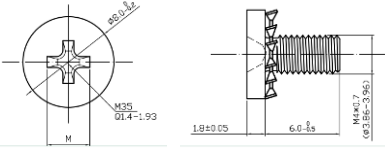
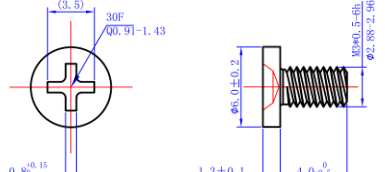
3. Remove the Mylar.

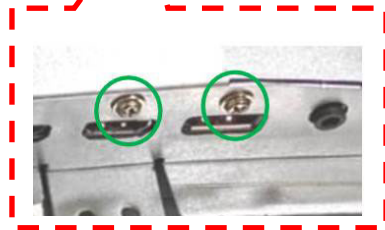
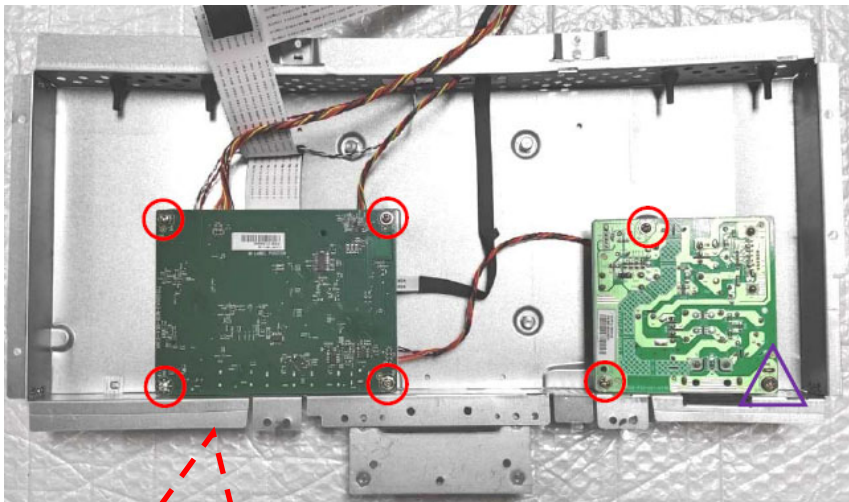


### Main Board & Power Board & Speaker

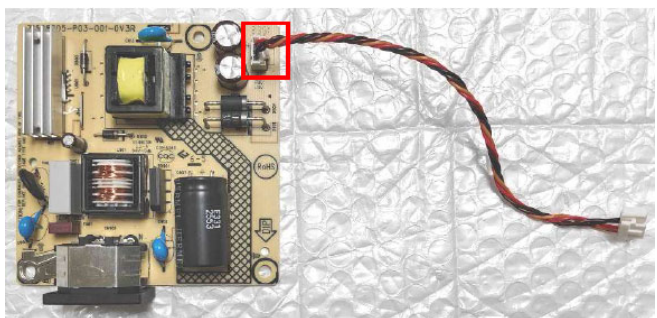
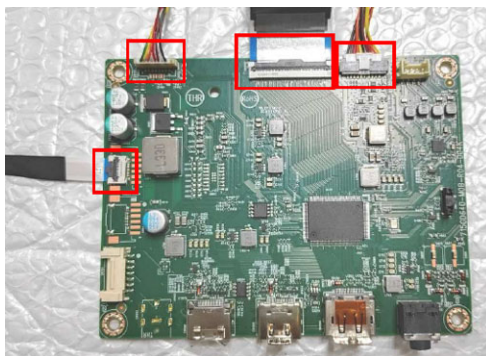
1. Release the screws marked in red, purple and green.

Description	Q'ty	Screw Torque	Picture & Spec
Screw-Red(main board/power board/main frame)	6	6±1kgf.cm	

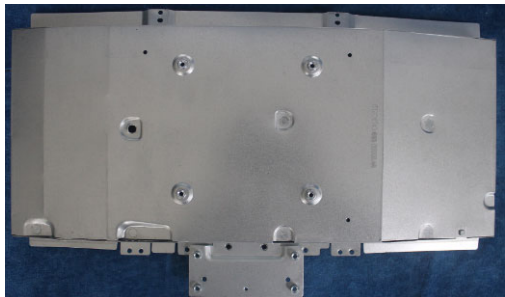
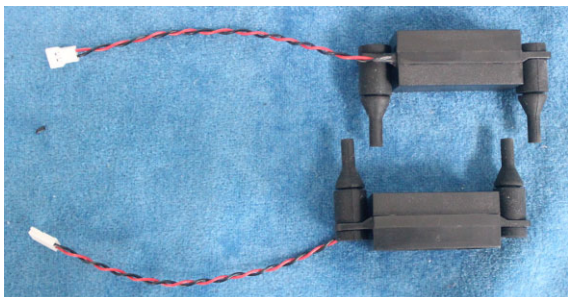
Screw-Purple (power board/ main frame)	1	6±1kgf.cm	
Screw-Red(main frame/HDMI/DP Connector)	2	4±1kgf.cm	



2. Turn over the Main Board and the Power Board and then disconnect the cables.



3. Remove the speakers from main frame.

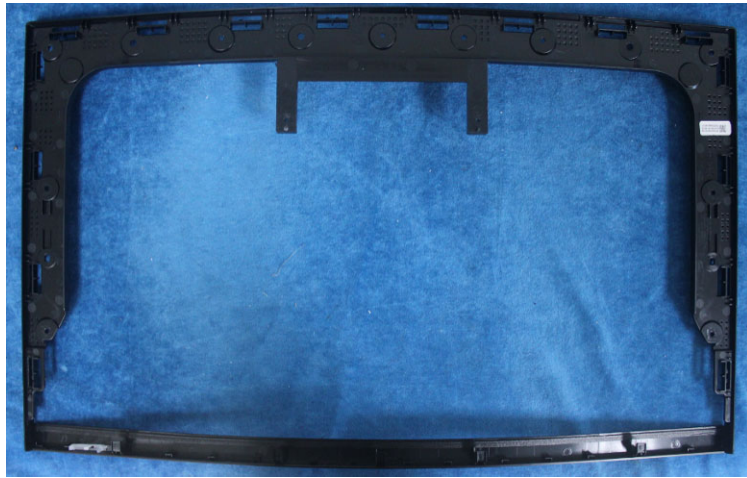


**4.3.3 Panel**

1. Release screws to separate the panel & the middle frame.

Description	Q'ty	Screw Torque	Picture &Spec
Screw-blue(middle frame/panel)	9	$4 \pm 0.5 \text{kgf.cm}$	



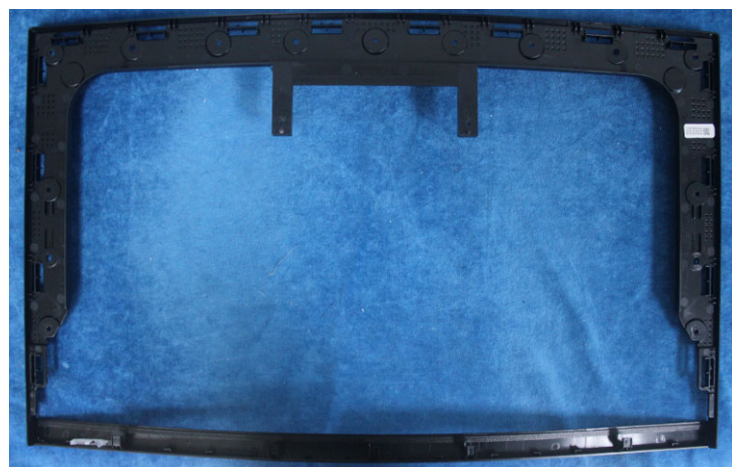


### 3.4 Assembly Procedure

#### 3.4.1 Panel

1. Prepare the panel and middle frame. Use a screwdriver to tighten the screws.

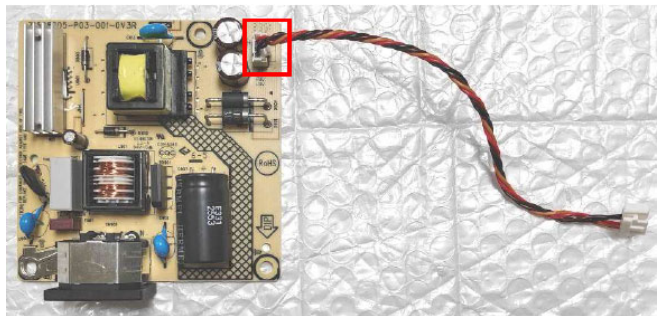
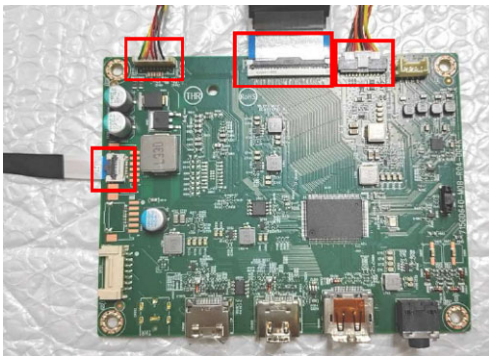
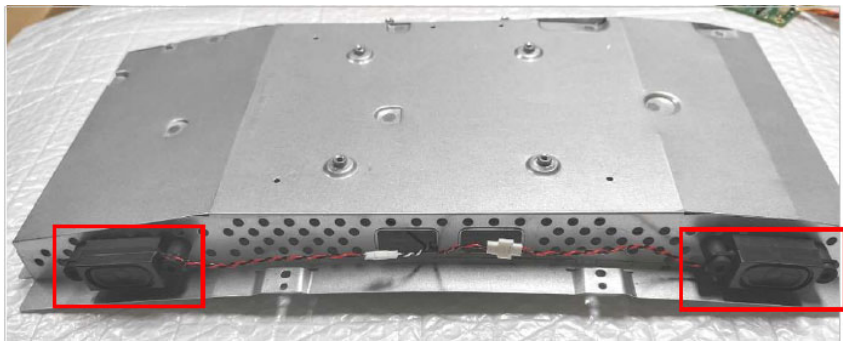
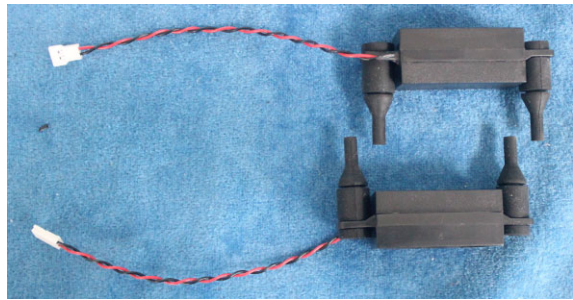
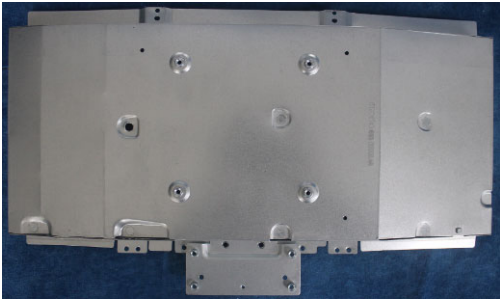
Description	Q'ty	Screw Torque	Picture & Spec
Screw-red(middle frame/panel)	9	$4 \pm 0.5 \text{kgf.cm}$	



### 3.4.2 Main subsystem

#### Main board & Power board & Speaker

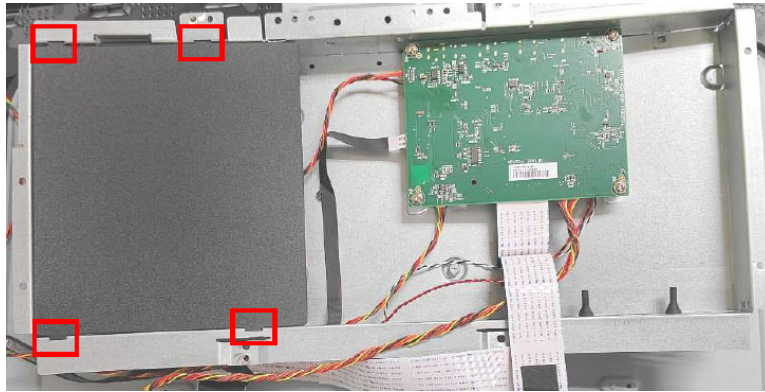
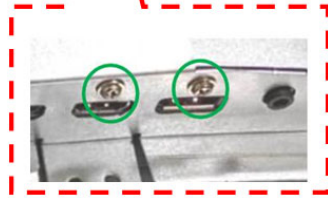
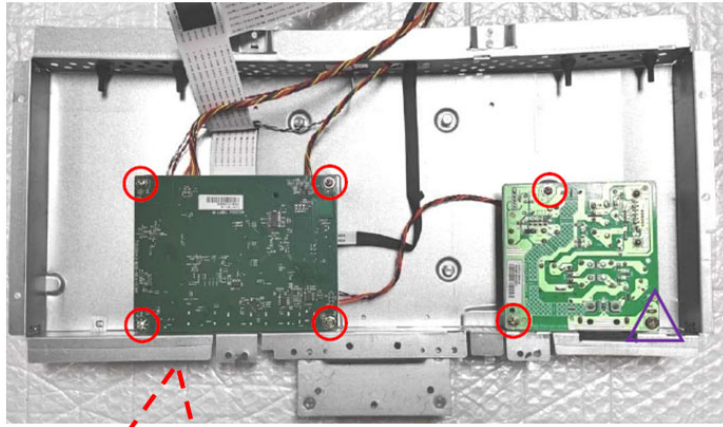
1. Prepare a main frame, a main board, a power board, speakers and some essential cables. Assemble the speakers. Connect every pins as below.



2. Use a screwdriver to tighten the screws. Put on the mylar.

Description	Q'ty	Screw Torque	Picture & Spec
Screw-Red(main board/power board/main frame)	6	6±1kgf.cm	
Screw-Purple (power board/main frame)	1	6±1kgf.cm	

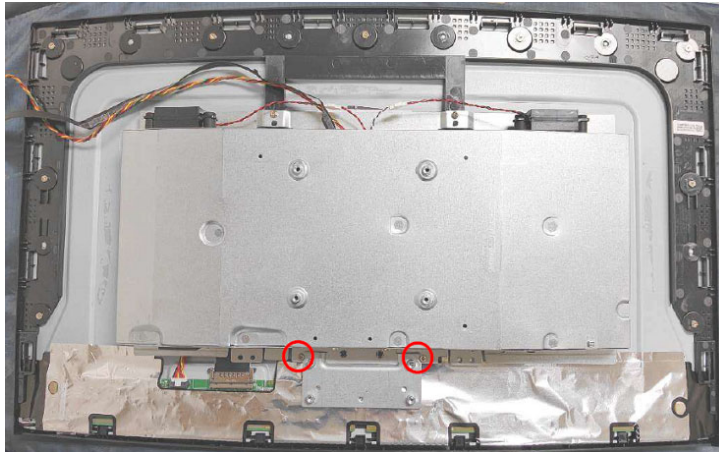
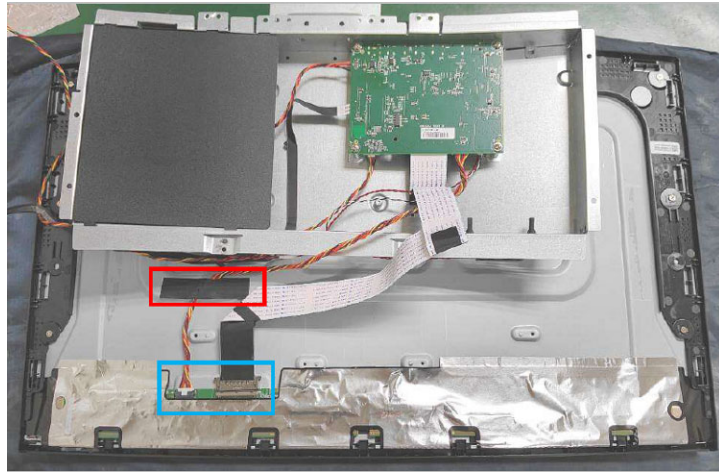
Screw-Red(main frame/HDMI/DP Connector)	2	4±1kgf.cm	
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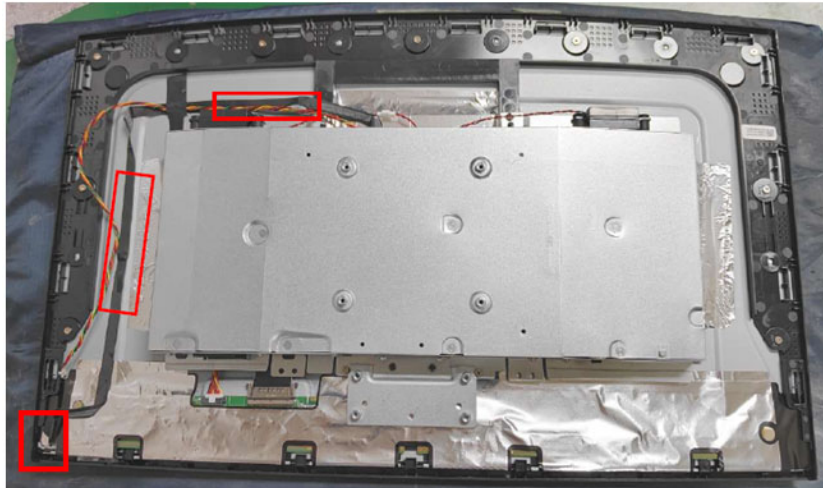
**Main frame**

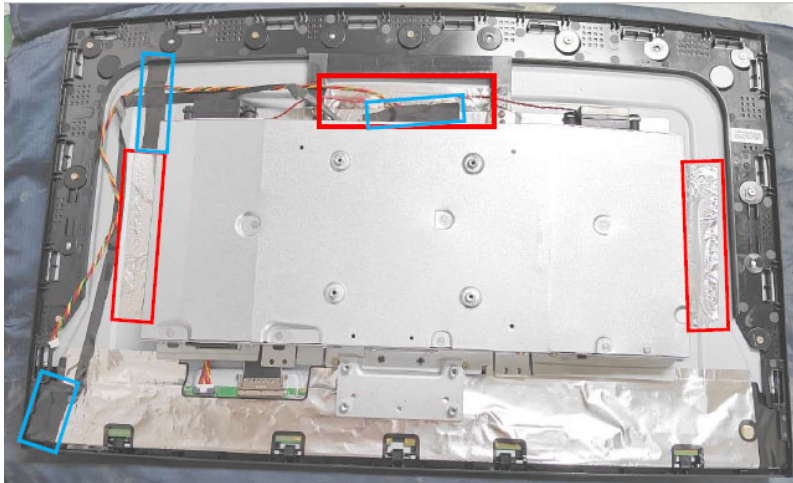
1. Put the main frame on panel. Connect the pins and paste the tapes. Use screwdriver to tighten the screws.

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Main frame/Panel)	2	4±1kgf.cm	



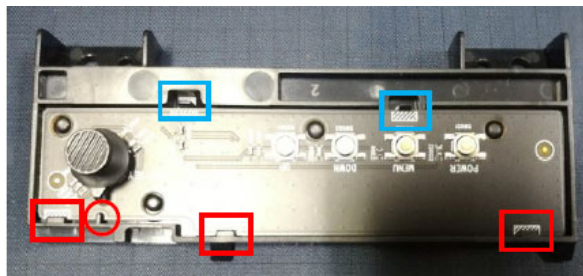
2. Connect the cable and paste the tapes.



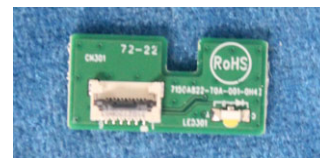


### Key board & LED board

1. Assemble the key board.

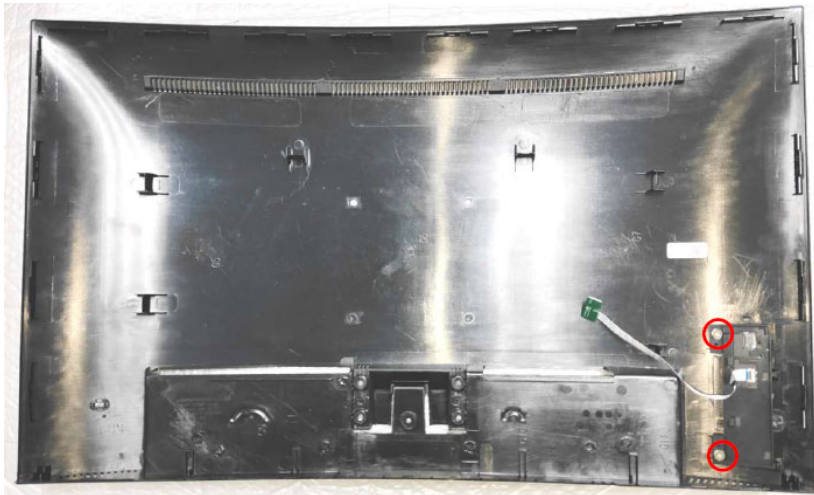


2. Assemble the LED board.



3. Use a screwdriver to tighten the key board to rear cover.

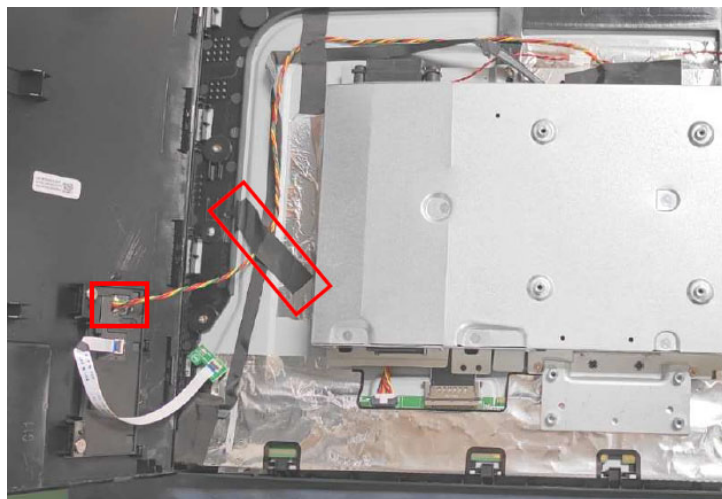
Description	Q'ty	Screw Torque	Picture &Spec
Screw(Rear cover/key board)	2	4±1kgf.cm	

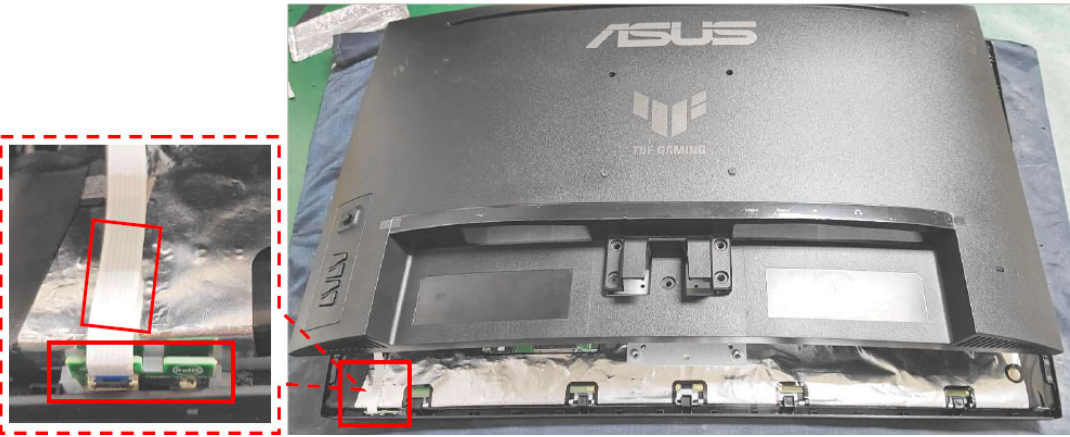


**Assemble the rear cover and panel**

Connect the pin of key board. Assemble the LED board to middle frame. And then assemble the rear cover. Use a screwdriver to tighten the screw.

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Panel/Rear cover)	1	6±1kgf.cm	

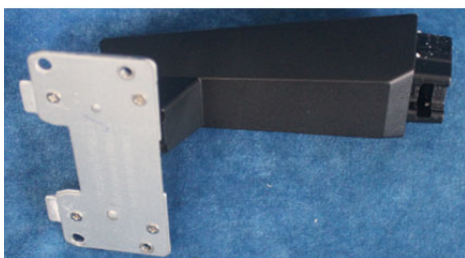


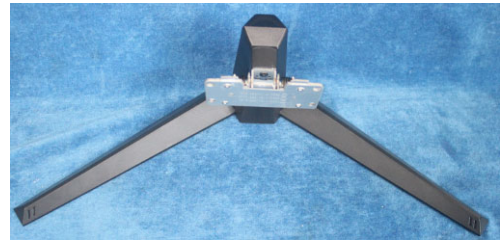
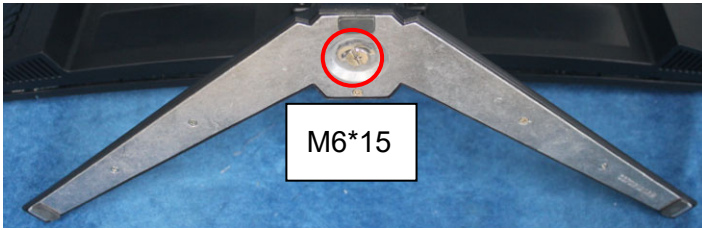


### 3.4.3 Stand Subsystem


Tighten the screw to assemble the stand ass'y and base ass'y. Assemble the stand-base ass'y to monitor. Use a screwdriver to tighten the screws.

Description	Q'ty	Screw Torque	Picture &Spec
Screw(Panel/ Stand_base ass'y)	4	12±1kgf.cm	





## 4. Trouble shooting

Problem	Possible Solution
Power LED is not ON	<ul style="list-style-type: none"> <li>• Press the  button to check if the monitor is in the ON mode.</li> <li>• Check if the power cord is properly connected to the monitor and the power outlet.</li> <li>• Check Power Indicator function in main menu OSD. Select "ON" to turn on power LED.</li> </ul>
The power LED lights amber and there is no screen image	<ul style="list-style-type: none"> <li>• Check if the monitor and the computer are in the ON mode.</li> <li>• Make sure the signal cable is properly connected the monitor and the computer.</li> <li>• Inspect the signal cable and make sure none of the pins are bent.</li> <li>• Connect the computer with another available monitor to check if the computer is properly working.</li> </ul>
Screen image is too light or dark	<ul style="list-style-type: none"> <li>• Adjust the Contrast and Brightness settings via OSD.</li> </ul>
Screen image bounces or a wave pattern is present in the image	<ul style="list-style-type: none"> <li>• Make sure the signal cable is properly connected to the monitor and the computer.</li> <li>• Move electrical devices that may cause electrical interference.</li> </ul>
Screen image has color defects (white does not look white)	<ul style="list-style-type: none"> <li>• Inspect the signal cable and make sure that none of the pins are bent.</li> <li>• Perform Reset via OSD.</li> <li>• Adjust the R/G/B color settings or select the Color Temperature via OSD.</li> </ul>
No sound or sound is low	<ul style="list-style-type: none"> <li>• Adjust the volume settings of both your monitor and computer.</li> <li>• Make sure the computer sound card driver is properly installed and activated.</li> </ul>