1. Important Safety Notice

Product Announcement:

This product is certificated to meet RoHS Directive and Lead-Free produced definition. Using approved critical components only is recommended when the situation to replace defective parts. Vender assumes no liability express or implied, arising out of any unauthorized modification of design or replacing non-RoHS parts. Service providers assume all liability.

Qualified Repairability:

Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should be aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible existed improper repairing method may damage equipment or products. It is recommended that service engineers should have repairing knowledge, experience, as well as appropriate product training per new model before performing the service procedures.

NOTICE:

! To avoid electrical shocks, the products should be connected to an authorized power cord, and turn off the master power switch each time before removing the AC power cord.
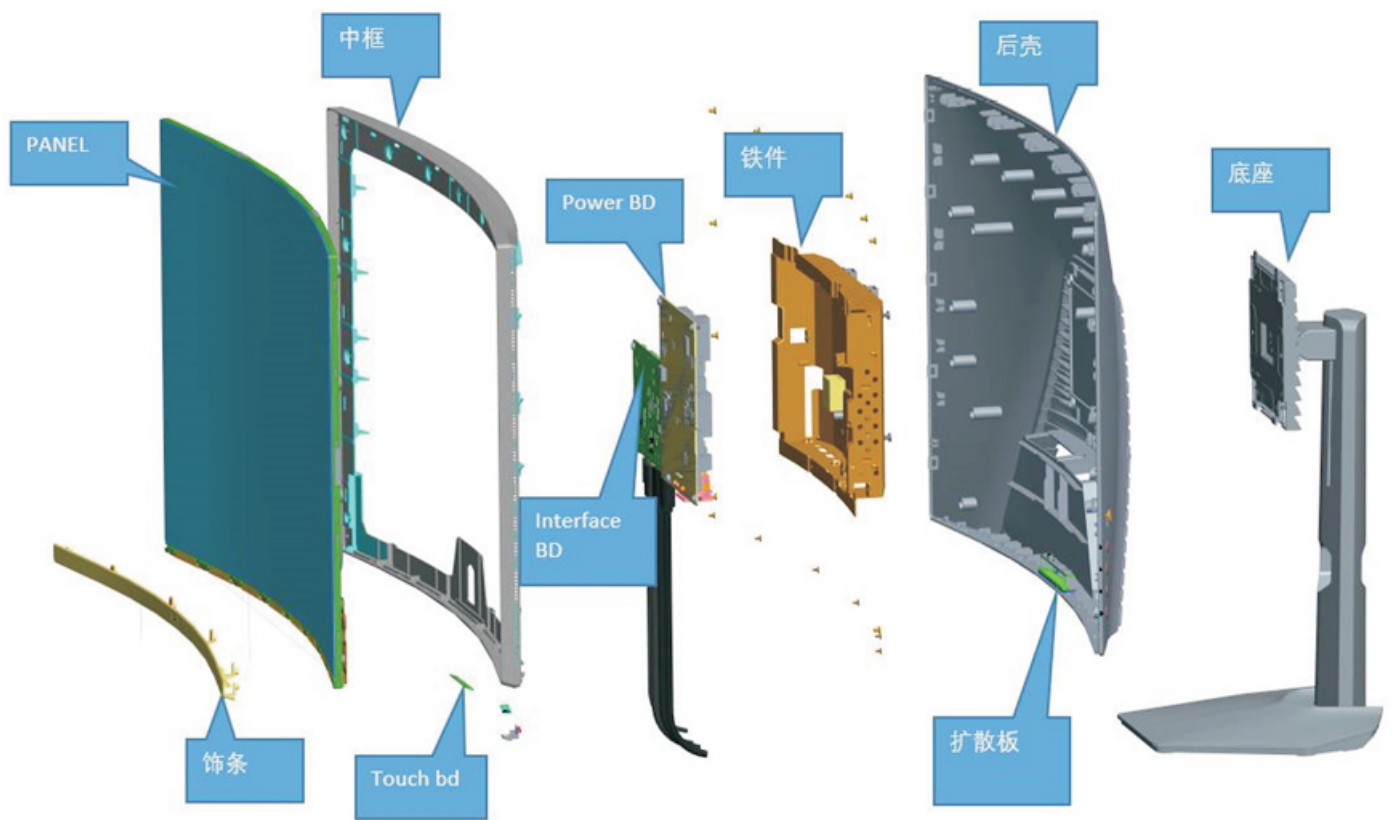
! To prevent the product away from water or expose in extremely high humility environment.

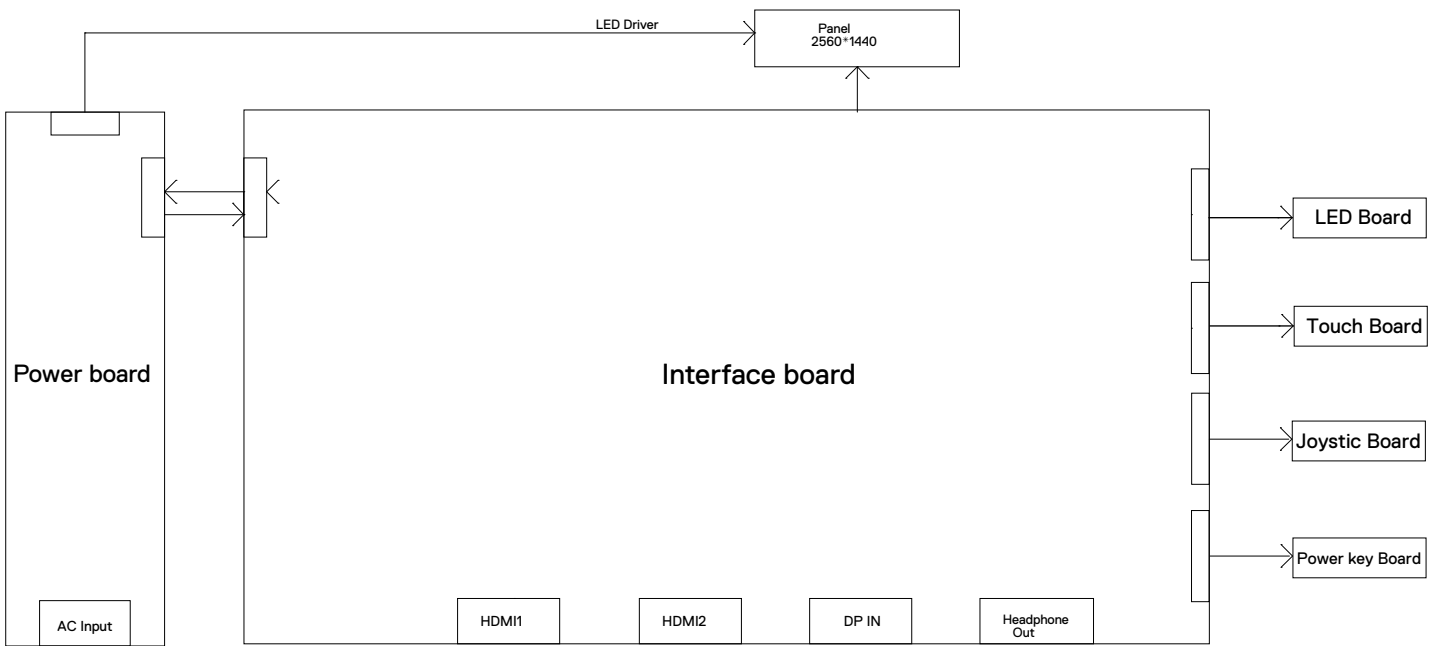! To ensure the continued reliability of this product, use only original manufacturer's specified parts.

! To ensure following safety repairing behavior, put the replaced part on the components side of PWBA, not solder side.

! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to unscrew screws.

! Using Lead-Free solder to well mounted the parts.

! The fusion point of Lead-Free solder requested in the degree of 220°C.

2. Exploded view diagram with list of items

PANEL

中框

后壳

铁件

Power BD

底座

Interface BD

饰条

Touch bd

扩散板

3. Wiring Connectivity Diagram

LED Driver

Panel
2560*1440

Power board

AC Input

Interface board

HDMI1

HDMI2

DP IN

Headphone
Out

LED Board

Touch Board

Joystic Board

Power key Board

4. Disassembly and Assembly Procedures

Necessary repair and test equipment:

1. Philips-head screwdriver

4.1 Disassembly Procedures:
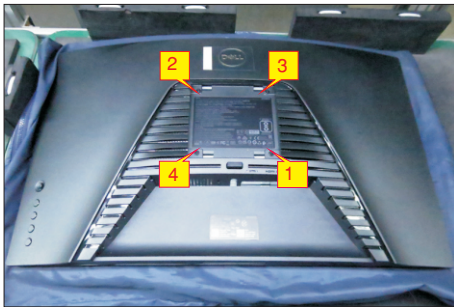
S1

Remove the monitor stand base:

1. Place the monitor on a soft cloth or cushion.

2. Press and hold the stand-release button.

3. Lift the stand up and away from the monitor.
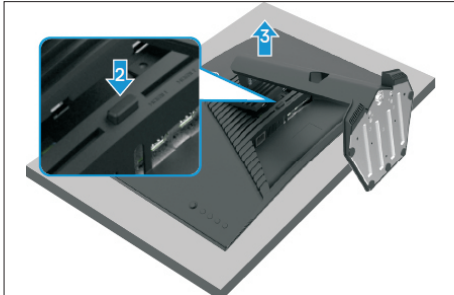

S2

Use a Philips-head screwdriver to remove four screws for unlocking mechanisms.

(No.1~4 screw size=M4x8; Torque=10~11kgfxcm)

S3

Wedge your fingers between the rear cover and the middle bezel on the corners of the top side of the monitor to release the rear cover, then use one hand to press the middle bezel, the other hand to pull up carefully the rear cover in order of arrow preference for unlocking mechanisms of rear cover.
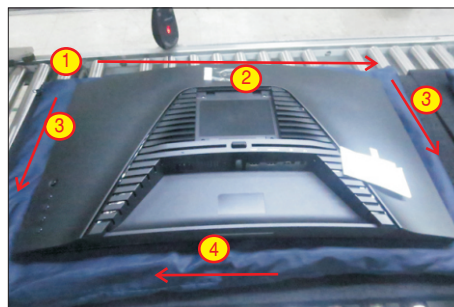

S4

Lift the rear cover up carefully. Disconnect the function key cable and LED cable from the connectors of the interface board, and then remove the rear cover.

S5
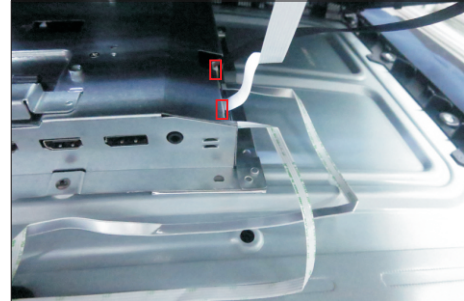
Put the rear cover on a protective cushion. Tear off the shading tape, then release the diffusion sheet from the hook of the rear cover. Use a Philips-head screwdriver to remove 4pcs screws for unlocking the function key board with the rear cover. Tear off 2pcs tapes for releasing the function key cable, then release the function key board from the hook of the rear cover.
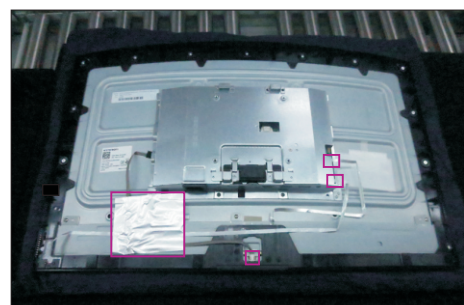
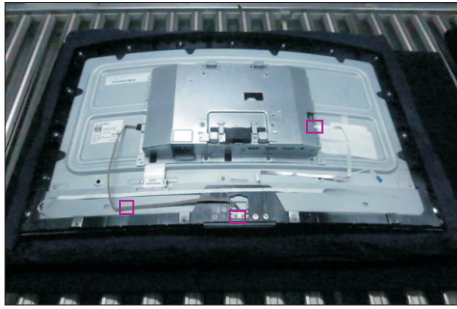(No.1~4 screw size=M2x0.2, Torque=0.8±0.2kgfxcm)

S6
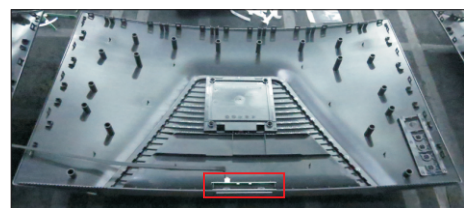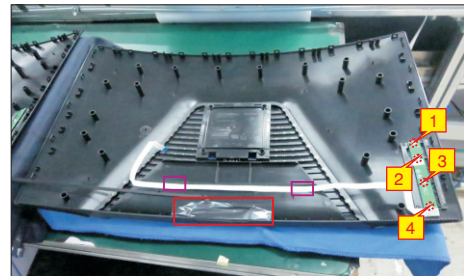
Tear off 1pcs aluminum foil for uncovering the LVDS connector and cables, then tear off the tapes to disconnect the panel cable away from the connector of the panel module. Disconnect the power key cable and touch key cable from the connectors of the interface board.
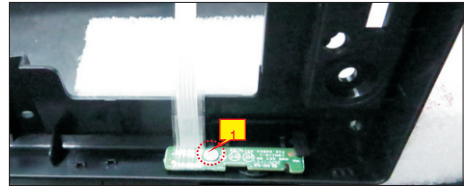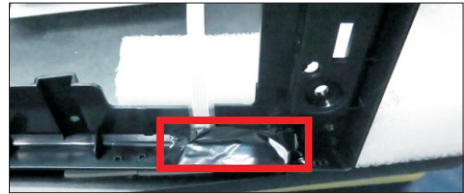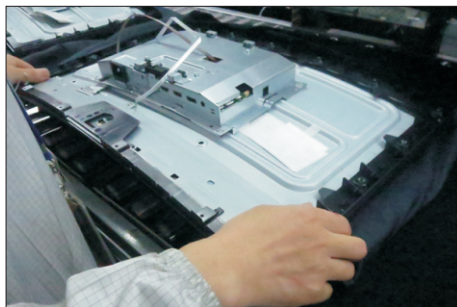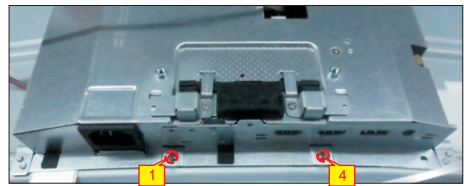
4. Disassembly and Assembly Procedures

S7

Tear off 2pcs tapes of the power cable. Use a Philips-head screwdriver to remove 6pcs screws for unlocking the middle bezel with the front bezel. Use a Philips-head screwdriver to remove 13pcs screws for unlocking the middle bezel with the panel module.

(No.1~6 Screw size=M2x3.3,Torque=3±0.5kgfxcm; No.7~19 Screw size=M3x5, Torque=3~4kgfxcm)


S8
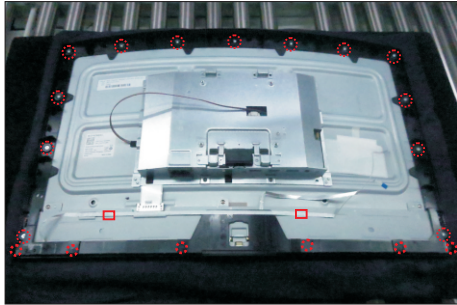
Remove the middle bezel and put it into a fixture jip, then tear off the tape for releasing the touch key board away from the middle bezel. Tear off the black PVC tape and use a Philips-head screwdriver to remove 1pcs screw for unlocking the power key board with the front bezel.

(No.1 Screw size= M2x2.4, Torque=0.8±0.2kgfxcm)

S9

Use a Philips-head screwdriver to remove 4pcs screws for locking the bracket chassis module with the panel.

(No.1~4 Screw size= M3x0.5x2.8, Torque=5~6kgfxcm)

S10

Lift up the panel module and pull out the front bezel for releasing the front bezel.

S11
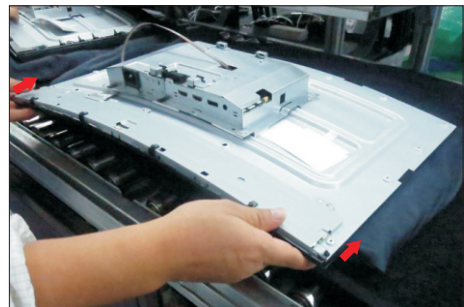
Move the bracket, and then disconnect the LVDS cable from the connector of the panel module, then lift up the bracket and put it on a protective cushion.

4. Disassembly and Assembly Procedures

S12 Turn over the bracket chassis module. Remove the Mylar from the hooks of the bracket.
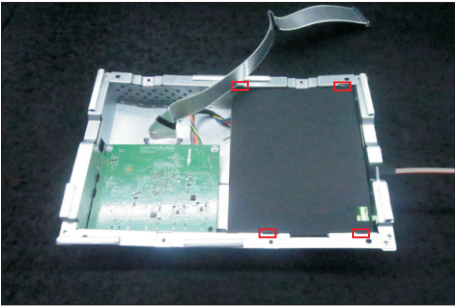
S13 Use a Philips-head screwdriver to remove 6pcs screws for unlocking power board and interface board, and then release the panel lamp cable from the hook of the bracket.
(No.1 screw size=M4x8, Torque=6±0.5kgfxcm;
 No.2~7 screw size=M3x7.5, Torque=6±0.5kgfxcm)
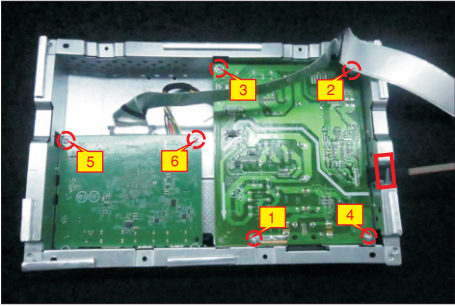
S14 Remove the circuit boards from the bracket chassis module carefully, and then disconnect all of the cables.

4. Disassembly and Assembly Procedures

4.2 Assembly Procedures:

S1 Place a bracket chassis base on a protective cushion, then stick 1pcs Silicon sheet on the position as the picture below shown.

S2 Take 1pcs power board, then connect 1pcs panel lamp cable to connect with the power board. Turn over the power board and put it into the bracket.

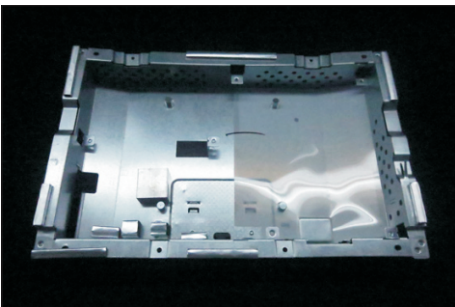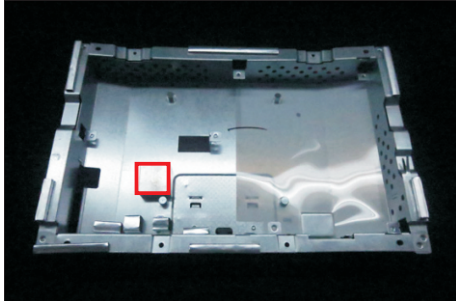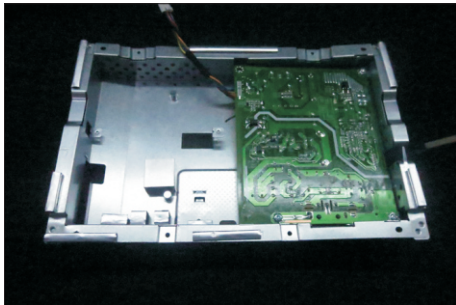**S3** Take 1pcs interface board, connect 1pcs LVDS cable to the connector of the interface board, then connect the connective cable to the interface board. Turn over the interface board and locate it into the bracket. Use a Philips-head screwdriver to tighten 6pcs screws for locking the circuit board, then locate the panel lamp cable into the hook of the bracket.

(No.1 screw size=M4x8, Torque=7±0.5kgfxcm;
 No.2~6 screw size=M3x7.5, Torque=7±0.5kgfxcm)
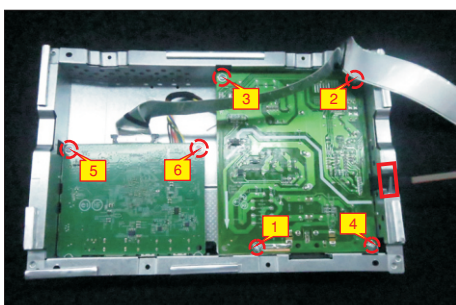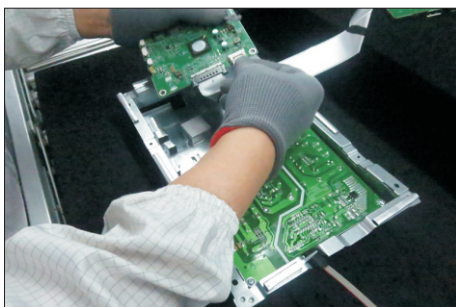
S4 Take 1pcs mylar to insert the hooks of the bracket to cover the power board, then locate the panel lamp cable into the hook as the picture below shown.
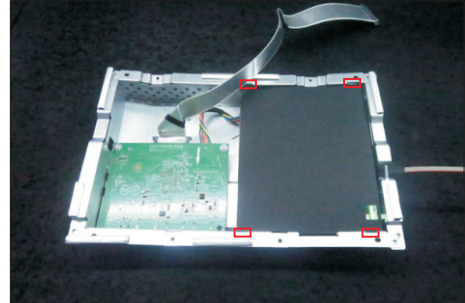
S5 Panel preparation: Take out 1pcs panel module from the carton, then remove the protective film by tearing off the tapes, and then examine the panel surface according to inspection criteria. Turn over the panel, and then place screen faced down for later assembling.

S6 Put the bracket chassis module on the back of the panel module. Push the earing-locks and then connect the LVDS cable to the connector of the panel module.

4. Disassembly and Assembly Procedures

S7 Take 1pcs front bezel, lift up the panel module and then assemble the front bezel with the panel.

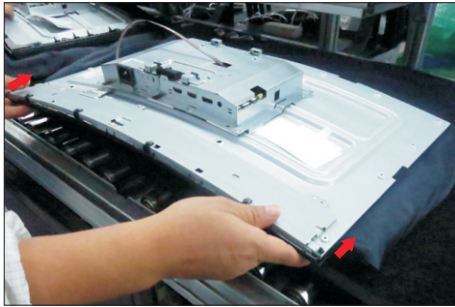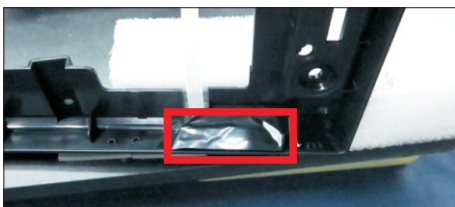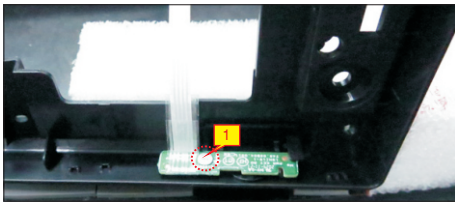**S8** Take 1pcs power key board and 1pcs middle bezel, then locate the power key board to the specific position of the middle bezel. Put the unit into a fixture, and then use a Philips-head screwdriver to tighten 1pcs screw for locking the power key board with the middle bezel. Cover the power key board with 1pcs black adhesive tape.

(No.1 Screw size= M2x2.4, Torque=0.8±0.2kgfxcm)

S9 Take 1pcs touch key board, and tear off the release paper on the specific position of the middle bezel, and then paste the touch key board on the middle bezel.

S10 Assemble the middle bezel with power key board and touch key board with the front bezel and panel unit.
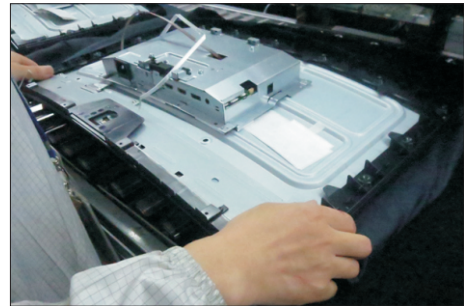
S11 Adjust the bracket chassis module, and then use a Philips-head screwdriver to tighten 4pcs screws for locking the bracket chassis module with the panel.

(No.1~4 Screw size= M3x0.5x2.8, Torque=5~6kgfxcm)
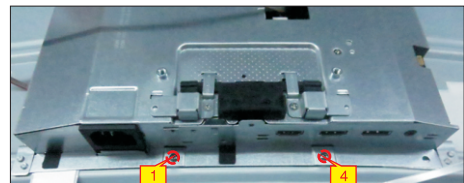
S12 Fix the power key cable by tear off 2pcs tape papers on the back of the cable. Use a Philips-head screwdriver to tighten 13pcs screws for locking the middle bezel with the panel module.

(No.1~13 Screw size= M3x5, Torque=3~4kgfxcm)
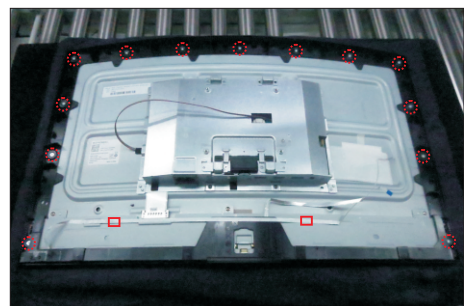
S13 Use a Philips-head screwdriver to tighten 6pcs screws for locking the middle bezel with front bezel.

(No.1~6 Screw size=M2x3.3, Torque=1.2±0.2kgfxcm)
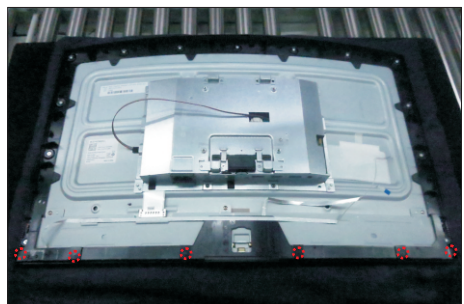
4. Disassembly and Assembly Procedures

S14 Tear off the tape paper on the back of the panel lamp cable, then connect the panel lamp to the connector of the panel, and then fix the lamp cable with tapes. Connect the touch key cable and power key cable to the connectors of board. Paste 1pcs aluminum foil to fix the cover the LVDS connector and cables as the picture below shown.

S15 Take 1pcs joystick key and 1pcs function key board, assemble the joystick key with the function key board, then press the joystick key to check if it work normally.

S16 Take 1pcs rear cover, then put the rear cover on a cushion foam for later assembling. Take 1pcs diffusion sheet, plug 1pcs LED cable to the connector of the diffusion sheet .
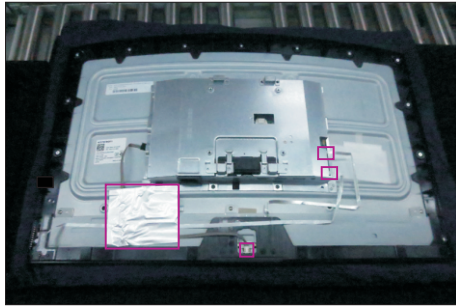

S17 Tear off the adhesive tape paper of the diffusion sheet, then locate and fix the diffusion sheet with LED cable on the hook of the rear cover.
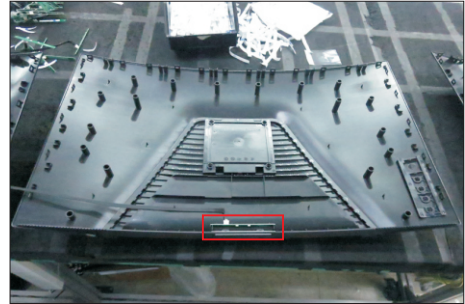
S18 Locate the function key board with Joystick key to the specific position of the rear cover, then use a Philips-head screwdriver to tighten 4pcs screws for locking the function key board with the rear cover. Tear off the tape papers on the back of the key cable, and then fix the key cable with 2pcs tapes. Paste 1pcs shading tape to cover the diffusion sheet.

(No.1~4 screw size=M2x0.2, Torque=0.8±0.2kgfxcm)
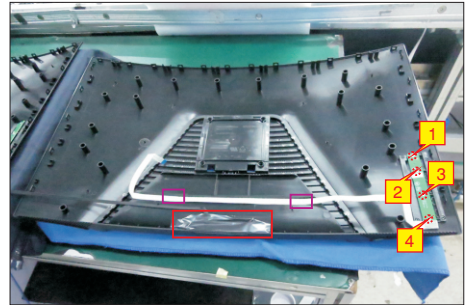
S19 Move the assembled rear cover with function key board close to the assembled unit, then connect function key cable and LED cable to the connectors of the board. Put down the rear cover and push the rear cover for mechanisms engagement.
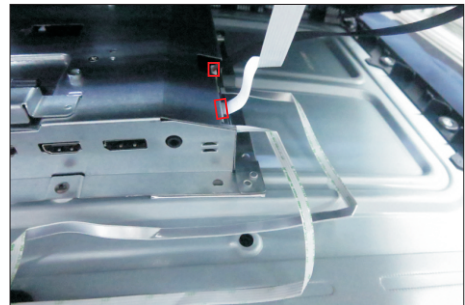
4. Disassembly and Assembly Procedures

S20

Use a Philips-head screwdriver to tighten 4pcs screws for locking the rear cover with the assembled unit. Paste 2pcs labels on the specific positions.
(No.1~4 screw size=M4x10; Torque=9±0.5kgfxcm)

S21

Take a stand close to the monitor. Fit the two tabs on the upper part of the stand into the grooves on the back of the monitor, and then lower the stand so that the monitor mounting area snaps onto the stand.

S22

Take 1pcs base, assemble the base with the stand, then use a screwdriver to tighten the detached screw clockwise for locking the stand with base.

S23

Lift up the monitor to checking the gap between the front bezel with panel module , then provide power supply and a video signal to the monitor, then turn on the monitor for functionality check.

Self-test

Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:
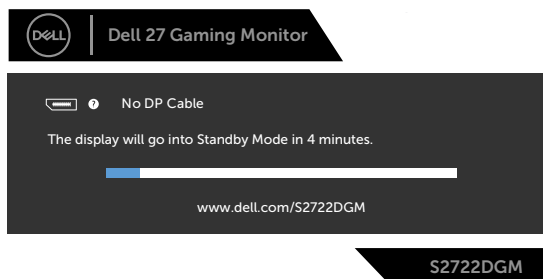
1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer. To ensure proper Self-Test operation, remove all digital and the analog cables from the back of computer.
3. Turn on the monitor.

The floating dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through the screen.

> **Dell** | Dell 27 Gaming Monitor
>
> ▭ ❓ No DP Cable
> The display will go into Standby Mode in 4 minutes.
>
> www.dell.com/S2722DGM
>
> S2722DGM

or

> **Dell** | Dell 27 Gaming Monitor
>
> ▭ ❓ No HDMI 1 Cable
> The display will go into Standby Mode in 4 minutes.
>
> www.dell.com/S2722DGM
>
> S2722DGM

or

> **Dell** | Dell 27 Gaming Monitor
>
> ▭ ❓ No HDMI 2 Cable
> The display will go into Standby Mode in 4 minutes.
>
> www.dell.com/S2722DGM
>
> S2722DGM
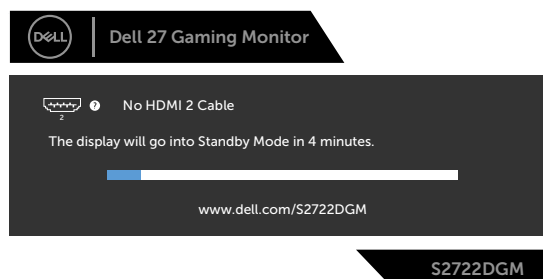
4. This box also appears during normal system operation if the video cable becomes disconnected or damaged.
5. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after you use the previous procedure, check your video controller and computer, because your monitor is functioning properly.

Built-in diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with your monitor, or with your computer and video card.

To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
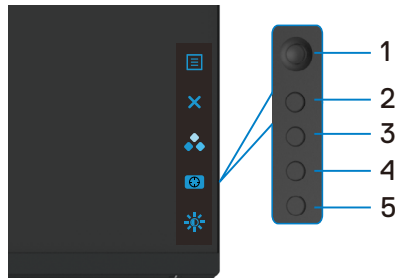2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold **Button 5** for 4 seconds, system will pop OSD message, select ⬚ and press Button 1. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Move joystick (Button 1) to right. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white, and text screens.

The test is complete when the text screen appears. To exit, press **Button 5** again.

If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common problems

The following table contains general information about common monitor problems you might encounter and the possible solutions:

Common Symptoms	What You Experience	Possible Solutions
No Video/ Power LED off	No picture	· Ensure that the video cable connecting the monitor and the computer is properly connected and secure. · Verify that the power outlet is functioning properly using any other electrical equipment. · Ensure that the power button is depressed fully. · Ensure that the correct input source is selected in the **Input Source** menu.
No Video/ Power LED on	No picture or no brightness	· Increase brightness and contrast controls via OSD. · Perform monitor self-test feature check. · Check for bent or broken pins in the video cable connector. · Run the built-in diagnostics. · Ensure that the correct input source is selected in the **Input Source** menu.
Missing Pixels	LCD screen has spots	· Cycle power on-off. · Pixel that is permanently off is a natural defect that can occur in LCD technology. · For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **https://www.dell.com/pixelguidelines**.
Stuck-on Pixels	LCD screen has bright spots	· Cycle power On-Off. · Pixel that is permanently off is a natural defect that can occur in LCD technology. · For more information on Dell Monitor Quality and PixelPolicy, see Dell Support site at: **https://www.dell.com/pixelguidelines**.
Brightness Problems	Picture too dim or too bright	· Reset the monitor to factory settings. · Adjust brightness and contrast controls via OSD.

5. Trouble Shooting Instructions

Common Symptoms	What You Experience	Possible Solutions
Safety Related Issues	Visible signs of smoke or sparks	• Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to factory settings. • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing Color	Picture missing color	• Perform monitor self-test. • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Check for bent or broken pins in the video cable connector.
Wrong Color	Picture color not good	• Try different **Preset Modes** in **Color** settings OSD. Adjust **R/G/B** value in **Custom Color** in **Color** settings OSD. • Change the **Input Color Format** to **RGB** or **YCbCr** in the **Color** settings OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	• Set the screen to turn off after a few minutes of screen idle time. These can be adjusted in Windows Power Options or Mac Energy Saver setting. • Alternatively, use a dynamically changing screensaver.

Product specific problems

Problem	What you experience	Possible solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	· Check the Aspect Ratio setting in the Display menu OSD. · Reset the monitor to factory settings.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	· Turn off the monitor, unplug the monitor power cable, plug it back, and then turn on the monitor.
No Input Signal when user controls are pressed	No picture, the LED light is white	· Check the signal source. Ensure the computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. · Check whether the signal cable is plugged in properly. Connect the signal cable again, if necessary. · Reset the computer or video player.
The picture does not fill the entire screen	The picture cannot fill the height or width of the screen	· Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. · Run the built-in diagnostics.