

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.

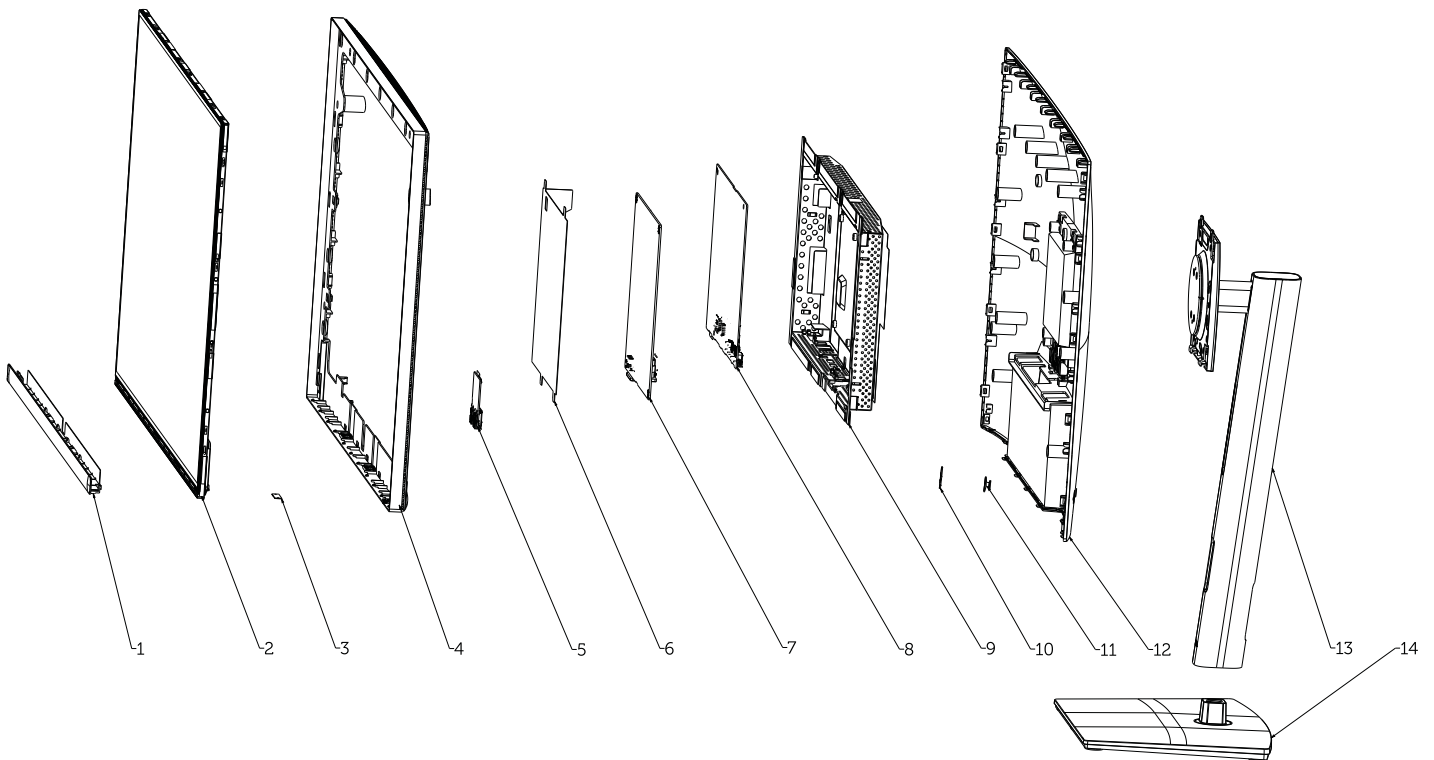
! To prevent the product away from water or expose in extremely high humidity environment.

! 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.

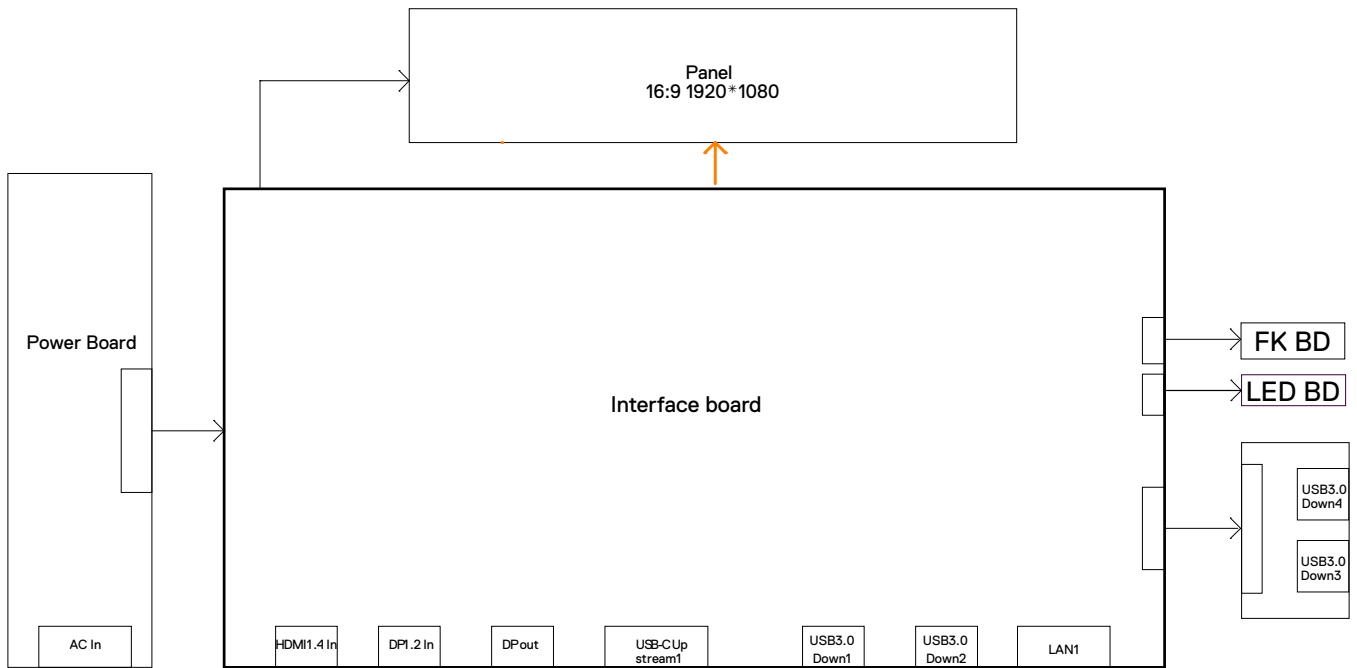
- ! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to unscrew screws.
- ! Using Lead-Free solder to well mounted the parts.
- ! The fusion point of Lead-Free solder requested in the degree of 220°C.

2. Exploded view diagram with list of items



ITEM	PART NO.	PART NAME	QUANTITY
1	760.07504.0001	Front trim	1
2		Panel	1
3		Led Board	
4	760.07505.0001	mid frame	
5		usb board	
6	740.07401.0001	panel mylar	
7		power board	1
8		Interface board	1
9	760.07401.0001	main bracket	
10		Function key board	
11	742.03E02.0001	Joystick button	1
12	760.07402.0001	back cover	1
13	760.07403.0001	RISER ASSY	1
14	760.07404.0001	BASE ASSY	1

3. Wiring Connectivity Diagram



4. Disassembly and Assembly Procedures

Necessary repair and test equipment:

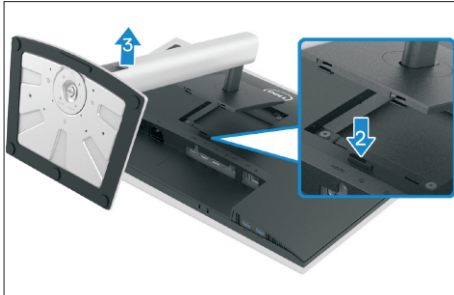
1. Philips-head screwdriver

4.1 Disassembly Procedures:

S1

Remove the monitor stand base:

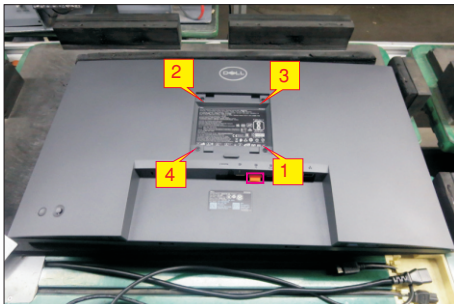
1. Place the monitor on a soft cloth or cushion.
2. Press and hold the stand-release button.
3. Lift the stand up and away from the monitor.



S2

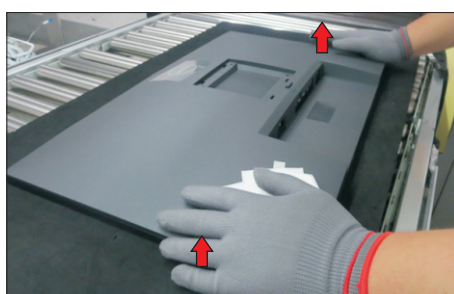
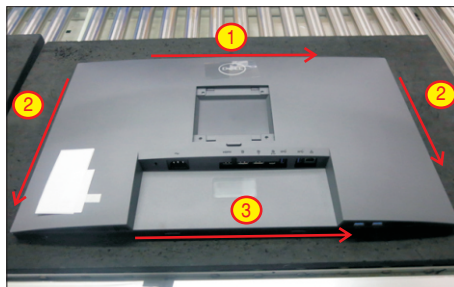
Use a Philips-head screwdriver to remove four screws for unlocking mechanisms. Remove the DP cap.

(No.1~4 screw size=M4x10; Torque=12±0.5kgfxcm)



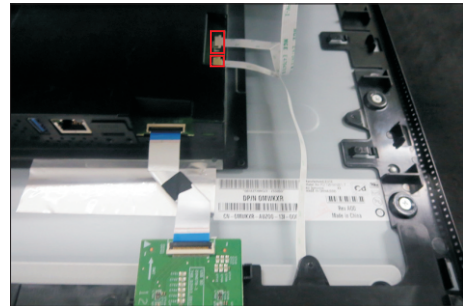
S3

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

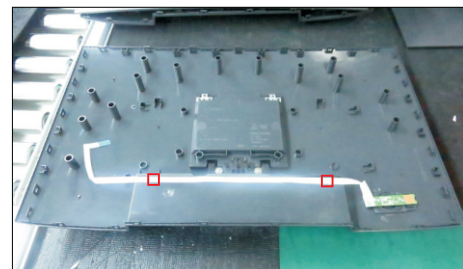
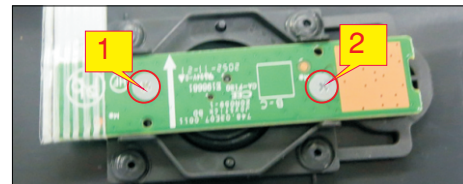
Lift the rear cover up carefully. Disconnect the key cable and USB FFC cable from the connectors of the interface board, and then remove the rear cover.



S5

Use a Philips-head screwdriver to remove 2pcs screws for unlocking the joystick key board unit, then tear off the tapes and release the USB board.

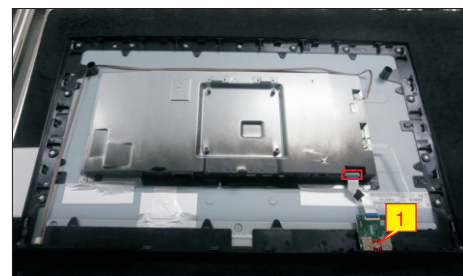
(No.1~2 screw size=M2x3.3, Torque=1±0.2kgfxcm)



S6

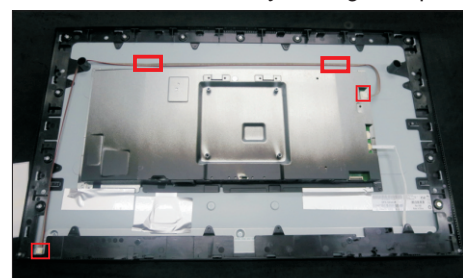
Use a Philips-head screwdriver to remove one screw for unlocking the USB board unit, then release the USB board unit and put it aside.

(No.1 screw size=M3x6, Torque=4±0.5kgfxcm)



S7

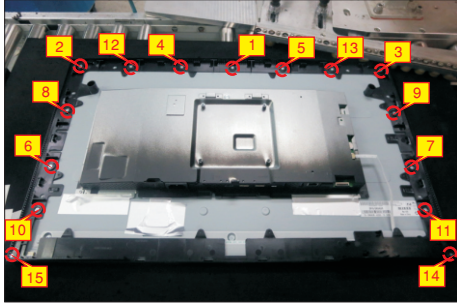
Disconnect the panel lamp cable away from the connectors of the panel module and circuit board, then release the cable by tearing off tape.



4. Disassembly and Assembly Procedures

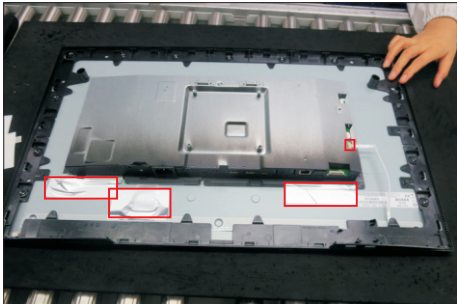
S8

Use a Philips-head screwdriver to remove 15pcs screws for unlocking the middle bezel.
(No.1~13 screw size=M3x4, Torque=5±0.5kgfxcM;
No.14~15 screw size=M1.6x1.7, Torque=1±0.2kgfxcM)



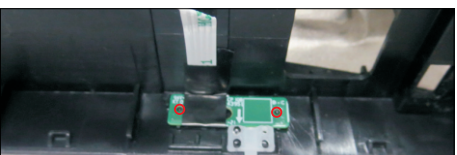
S9

Disconnect the LED cable from the connector of the board, then tear off 3pcs aluminum foil.



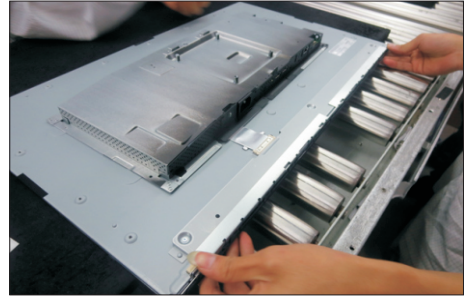
S10

Take away the middle bezel, and put it on a fixture, then tear off the mylar tape for releasing the LED board.



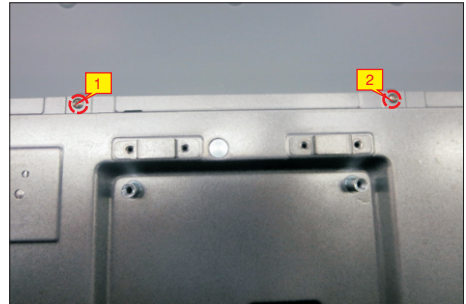
S11

Lift up the panel with the bracket for releasing the front bezel away from the panel.



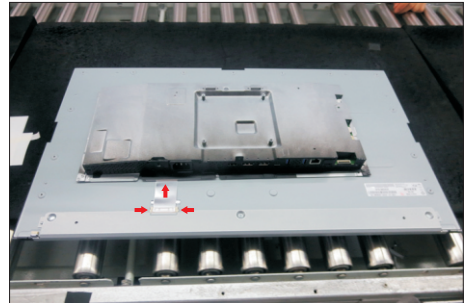
S12

Use a Philips-head screwdriver to remove 2pcs screws for unlocking the bracket with panel module.
(No.1~2 screw size=M3x4, Torque=5±0.5kgfxcM)



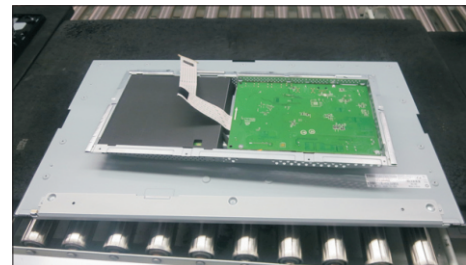
S13

Put the panel module on a protective cushion, then push the earing-locks and disconnect the LVDS cable from the connector of the panel module.



S14

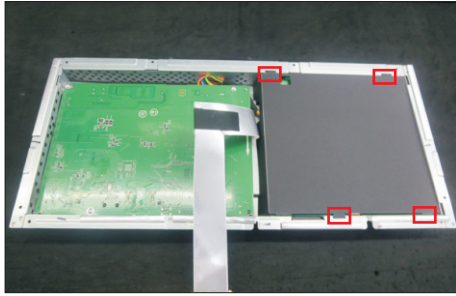
Take away the bracket chassis module and then put the bracket chassis module on a protective cushion.



4. Disassembly and Assembly Procedures

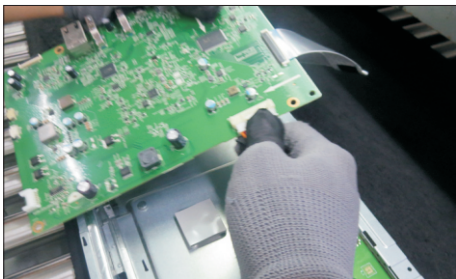
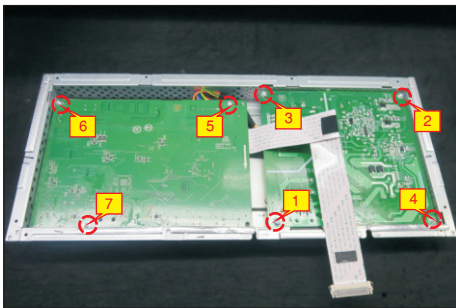
S15

Remove the black Mylar from the hooks of the bracket as the picture below shown.



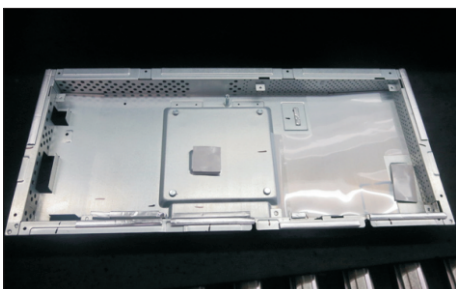
Use a Philips-head screwdriver to remove 7pcs screws for unlocking the power board and interface board, and then release all the cables from the hooks.
(No.1 screw size=M4x8, Torque=6±0.5kgfxcn;
No.2~7 screw size=M3x7.5, Torque=6±0.5kgfxcn)

S16



S17

Remove the interface board and power board from the bracket chassis module carefully, and disconnect all the cables.

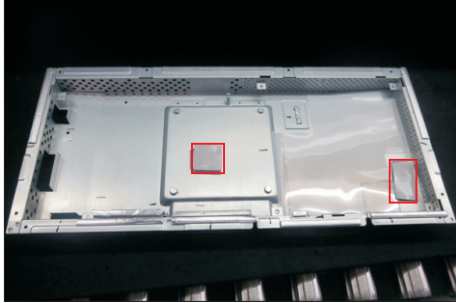


4. Disassembly and Assembly Procedures

4.2 Assembly Procedures:

S1

Place a bracket chassis base on a protective cushion, then paste 2pcs silicon sheet on the position as the picture below shown.



S2

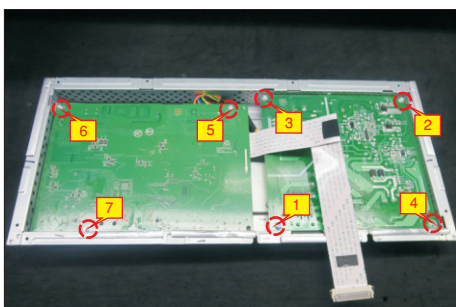
Turn over a power board and put the power board into the correct position of the bracket chassis base as the picture below shown.



S3

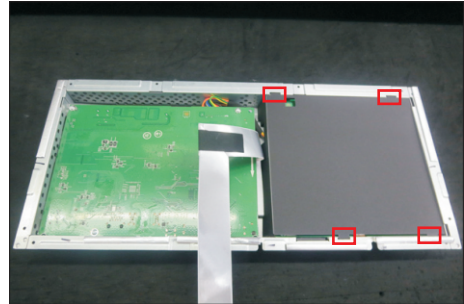
Take a interface board, connect a LVDS cable to the connector of the interface board, then connect the cable of the power board to the connector of the interface board. Turn over the interface board and locate it into the bracket. Use a Philips-head screwdriver to tighten 7pcs screws for locking the power board and interface board.

(No.1 screw size=M4x8, Torque=6±0.5kgfxcn;
No.2~7 screw size=M3x7.5, Torque=6±0.5kgfxcn)



S4

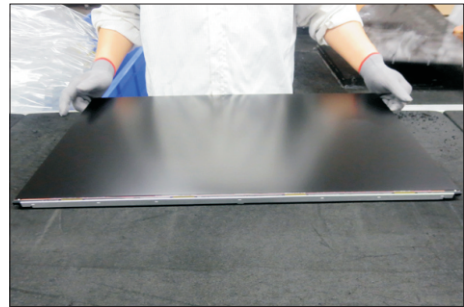
Take a mylar to insert the hooks of the bracket to cover the power board.



Panel preparation: Take a panel and then examine the panel surface according to inspection criteria.

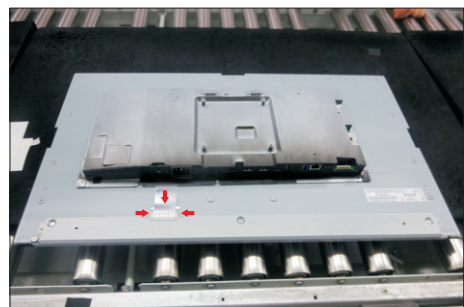
S5

Tear off the protective film of the panel screen, and then turn over the panel to place screen faced down. Paste 1pcs conductive foam on the specific position as the picture below shown.



S6

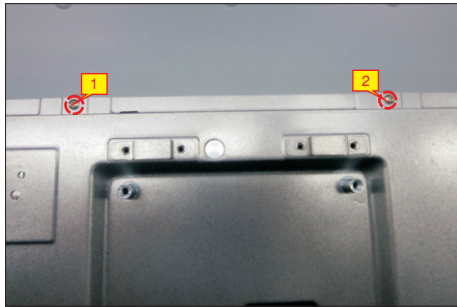
Put the bracket chassis module on the back of LCD module, then push the earing-locks and connect LVDS cable and panel lamp cable to the connectors of the panel module.



4. Disassembly and Assembly Procedures

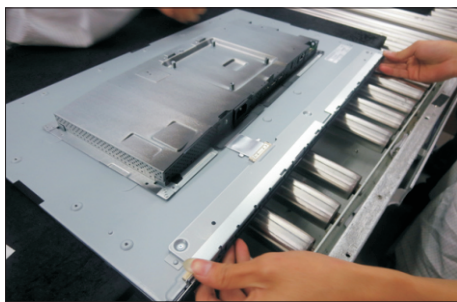
S7

Use a Philips-head screwdriver to tighten 2pcs screws for locking the bracket with panel module. (No.1~2 screw size=M3x4, Torque=5±0.5kgfxcM)



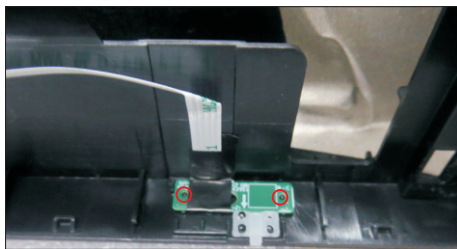
S8

Take a front bezel, then lift up the panel unit and assemble the front bezel with the panel.



S9

Take 1pcs LED board and 1pcs middle bezel, then put the middle bezel into a fixture jig to fix the middle bezel. Tear off the release paper on the back of the board, and then paste the LED board on the correct position of the middle bezel, then paste 1pcs mylar tape to cover the LED board, then fix the cable with 2pcs tapes on the middle bezel by tearing off papers.



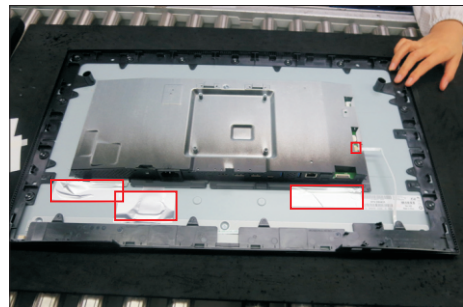
S10

Assemble the middle bezel with the front bezel and panel module, then adjust the middle bezel for two parts firmly attachment.



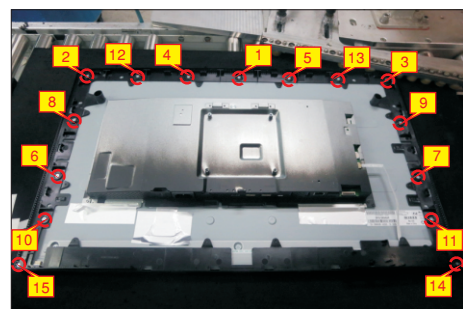
S11

Connect the LED cable to the connector of the interface board, then paste 2pcs aluminum foil to the bracket, then paste 1pcs aluminum foil to cover the LVDS connector of the panel.



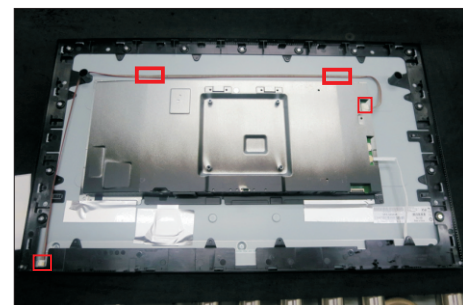
S12

Use a Philips-head screwdriver to tighten 13pcs screws for locking the middle bezel with the panel. Use a Philips-head screwdriver to tighten 2pcs screws for locking the middle bezel with the panel. (No.1~13 screw size=M3x4, Torque=5±0.5kgfxcM; No.14~15 screw size=M1.6x1.7, Torque=1±0.2kgfxcM)



S13

Take 1pcs panel lamp cable to connect the panel with the circuit board, then tear off the tape on the back the cable and fix the cable as the picture shown.

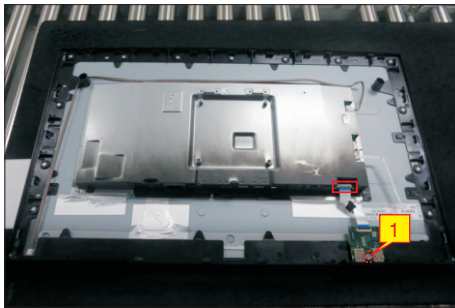
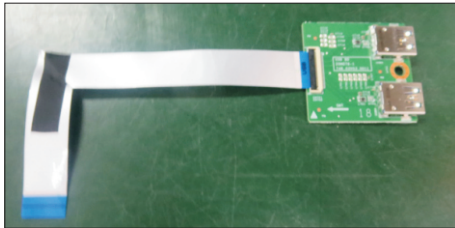


4. Disassembly and Assembly Procedures

S14

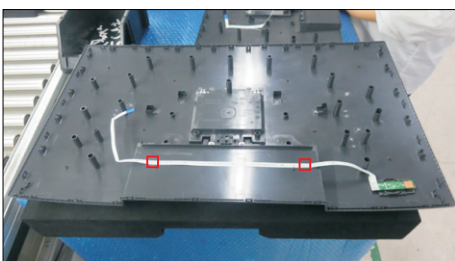
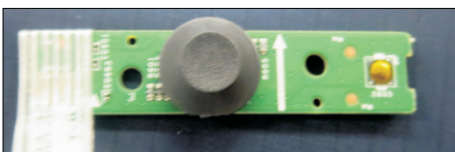
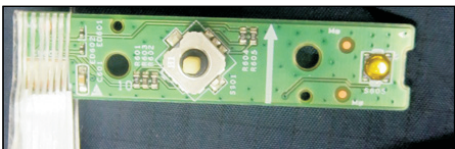
Take 1pcs USB board and a connect cable. Connect the cable to the USB board, then paste 1pcs conductive foam on the back of the board. Locate the USB board into the hook of the middle bezel. Use a Philips-head screwdriver to tighten one screw for locking the USB unit with middle bezel.

(No.1 screw size=M3x6, Torque=4±0.5kgfxcM)



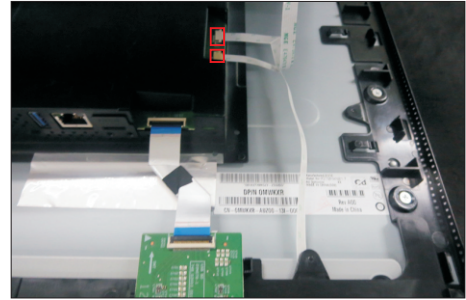
Take 1pcs joystick key, 1pcs joystick board and 1pcs rear cover, then assemble the joystick key with board. Locate the joystick board to the correct position of the rear cover, then use a Philips-head screwdriver to tighten 2pcs screws for locking the joystick board with rear cover, then fix the key cable with 2pcs tapes.

(No.1~2 screw size=M2x3.3, Torque=1±0.2kgfxcM)



S16

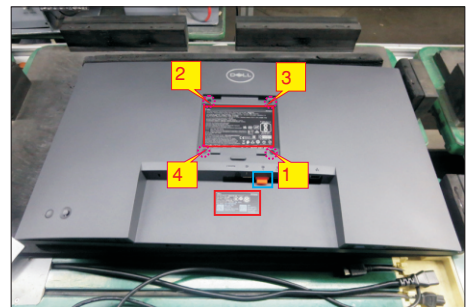
Move the assembled rear cover close to the panel unit, then connect the key cable and USB FFC cable to the connectors of interface board. Put down the rear cover and push the rear cover on the positions marked as the picture below shown for mechanisms engagement.



S17

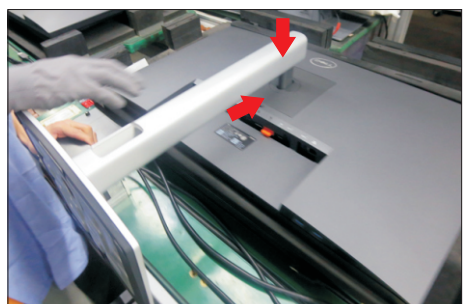
Use a Philips-head screwdriver to tighten 4pcs screws for locking rear cover with the assembled unit. Stick 2pcs labels on the specific positions as the picture below shown. Insert 1pcs DP cap.

(No.1~4 screw size=M4x10; Torque=12±0.5kgfxcM)



S18

Take 1pcs assembled stand base, then fit the two tabs on the upper part of the stand into the grooves on the back of the monitor, and then press the stand so that the monitor mounting area snaps onto the stand.



4. Disassembly and Assembly Procedures

S19

Lift up the monitor, then provide power supply and a video signal to the monitor, then turn on the monitor for functionality check.



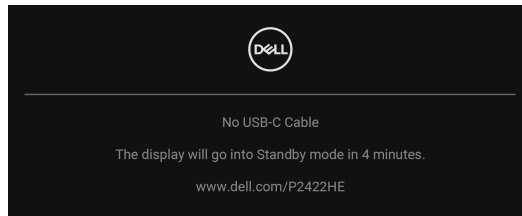
5. Trouble Shooting Instructions

Self-test

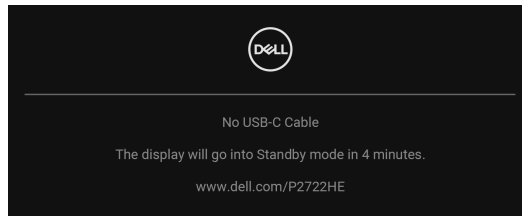
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the computer.
3. Turn on the monitor.

If the monitor cannot sense a video signal and is working correctly, the following message will appear:



or



 **NOTE: The message may be slightly different according to the connected input signal.**

 **NOTE: While in self-test mode, the power LED remains white.**

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.

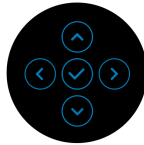
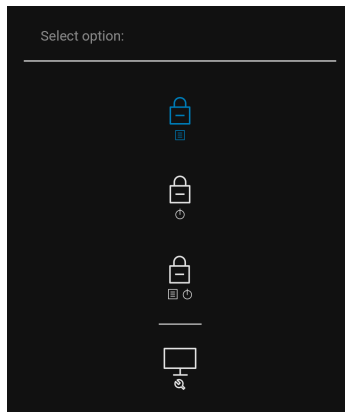
5. Trouble Shooting Instructions


Built-in diagnostics

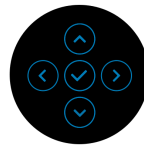
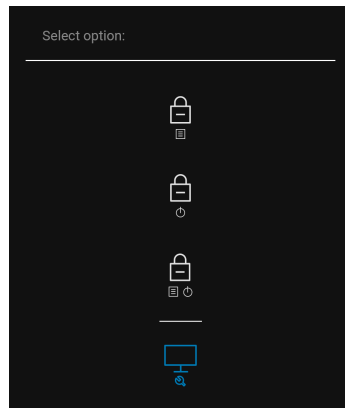
Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with your monitor, or with your computer and video card.

To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Move and hold the joystick up/down/left/right for about 4 seconds until a pop-up menu appears.



3. Move the joystick to highlight the Diagnostic icon  and then press the joystick to confirm. A gray test pattern appears.



4. Carefully inspect the screen for abnormalities.
5. Press the joystick to change the test patterns.
6. Repeat steps 4 and 5 to inspect the display in red, green, blue, black, white, and text screens.
7. Press the joystick to end the diagnostic program.

5. Trouble Shooting Instructions

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	<ul style="list-style-type: none">• 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 pressed fully.• Ensure that the correct input source is selected in the Input Source menu.
No Video/Power LED on	No picture or no brightness	<ul style="list-style-type: none">• Increase brightness & 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.
Poor Focus	Picture is fuzzy, blurry, or ghosting	<ul style="list-style-type: none">• Eliminate video extension cables.• Reset the monitor to factory settings.• Change the video resolution to the correct aspect ratio.
Shaky/Jittery Video	Wavy picture or fine movement	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Check environmental factors.• Relocate the monitor and test in another room.
Missing Pixels	LCD screen has spots	<ul style="list-style-type: none">• 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: www.dell.com/pixelguidelines.

5. Trouble Shooting Instructions

Stuck-on Pixels	LCD screen has bright spots	<ul style="list-style-type: none">• 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: www.dell.com/pixelguidelines.
Brightness Problems	Picture too dim or too bright	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Adjust brightness & contrast controls via OSD.
Geometric Distortion	Screen not centered correctly	<ul style="list-style-type: none">• Reset the monitor to factory settings.
Horizontal/Vertical Lines	Screen has one or more lines	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Perform monitor self-test feature check and determine if these lines are also in self-test mode.• Check for bent or broken pins in the video cable connector.• Run the built-in diagnostics.
Synchronization Problems	Screen is scrambled or appears torn	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode.• Check for bent or broken pins in the video cable connector.• Restart the computer in the safe mode.
Safety Related Issues	Visible signs of smoke or sparks	<ul style="list-style-type: none">• Do not perform any troubleshooting steps.• Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	<ul style="list-style-type: none">• 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.

5. Trouble Shooting Instructions

Missing Color	Picture missing color	<ul style="list-style-type: none">• Perform monitor self-test feature check.• 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	<ul style="list-style-type: none">• Try different Preset Modes in Color setting OSD. Adjust R/G/B value in Custom Color in Color settings OSD.• Change the Input Color Format to RGB or YCbCr/YPbPr 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	<ul style="list-style-type: none">• 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.

5. Trouble Shooting Instructions

Product specific problems

Common symptoms	What you experience	Possible solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	<ul style="list-style-type: none">• Check the Aspect Ratio setting in the Display settings OSD.• Reset the monitor to factory settings.
Cannot adjust the monitor with the joystick	OSD does not appear on the screen	<ul style="list-style-type: none">• Turn Off the monitor, unplug the power cord, plug it back, and then turn On the monitor.• Check whether the OSD menu is locked. If yes, move and hold the joystick up/down/left/right for 4 seconds to unlock (for more information, see Lock).
No input signal when user controls are pressed	No picture, the LED light is white	<ul style="list-style-type: none">• 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. Re-plug the signal cable 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	<ul style="list-style-type: none">• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen.• Run the built-in diagnostics.
No video at HDMI/DisplayPort/USB Type-C port	When connected to some dongle/docking device at the port, there is no video when unplugging/plugging the cable from the notebook	<ul style="list-style-type: none">• Unplug the HDMI/DisplayPort/USB Type-C cable from dongle/docking device, then plug the docking HDMI/DisplayPort/USB Type-C cable to the notebook.

5. Trouble Shooting Instructions

No network connection	Network dropped or intermittent	<ul style="list-style-type: none">• Do not turn Off the monitor during network connection.
The LAN port is not functioning	OS setting or cable connection issue	<ul style="list-style-type: none">• Ensure that the latest BIOS and drivers for your computer are installed on your computer.• Ensure that the RealTek Gigabit Ethernet Controller is installed in the Windows Device Manager.• If your BIOS Setup has a LAN/GBE Enabled/Disabled option, make sure it is set to Enabled.• Ensure that the Ethernet cable is connected securely on the monitor and the hub/router/firewall.• Check the status LED of the Ethernet cable to confirm connectivity. Re-connect both ends of the Ethernet cable if the LED is not lit.• First power off the computer and unplug the USB Type-C cable and the power cord from the monitor. Then, power on the computer and plug the power cord and the USB Type-C cable into the monitor.

5. Trouble Shooting Instructions

Universal Serial Bus (USB) specific problems

Common symptoms	What you experience	Possible solutions
USB interface is not working	USB peripherals are not working	<ul style="list-style-type: none">• Check that your monitor is turned On.• Reconnect the upstream cable to your computer.• Reconnect the USB peripherals (downstream connector).• Turn off the monitor and turn it on again.• Reboot the computer.• Certain USB devices such as portable hard drive require higher power source; connect the drive to the computer directly.
USB Type-C port does not supply power	USB peripherals can not be charged	<ul style="list-style-type: none">• Check that the connected device is compliant with the USB-C specification. The USB Type-C port supports USB 3.2 Gen1 and an output of 65 W.• Check that you use the USB Type-C cable shipped with your monitor.
SuperSpeed USB 5 Gbps (USB 3.2 Gen1) interface is slow	SuperSpeed USB 5 Gbps (USB 3.2 Gen1) peripherals working slowly or not working at all	<ul style="list-style-type: none">• Check that your computer is SuperSpeed USB 5 Gbps (USB 3.2 Gen1)-compatible.• Some computers have USB 3.2, USB 2.0, and USB 1.1 ports. Ensure that the correct USB port is used.• Reconnect the upstream cable to your computer.• Reconnect the USB peripherals (downstream connector).• Reboot the computer.
Wireless USB peripherals stop working when a USB 3.2 device is plugged in	Wireless USB peripherals responding slowly or only working as the distance between itself and its receiver decreases	<ul style="list-style-type: none">• Increase the distance between the USB 3.2 peripherals and the wireless USB receiver.• Position your wireless USB receiver as close as possible to the wireless USB peripherals.• Use a USB-extender cable to position the wireless USB receiver as far away as possible from the USB 3.2 port.