

## 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:

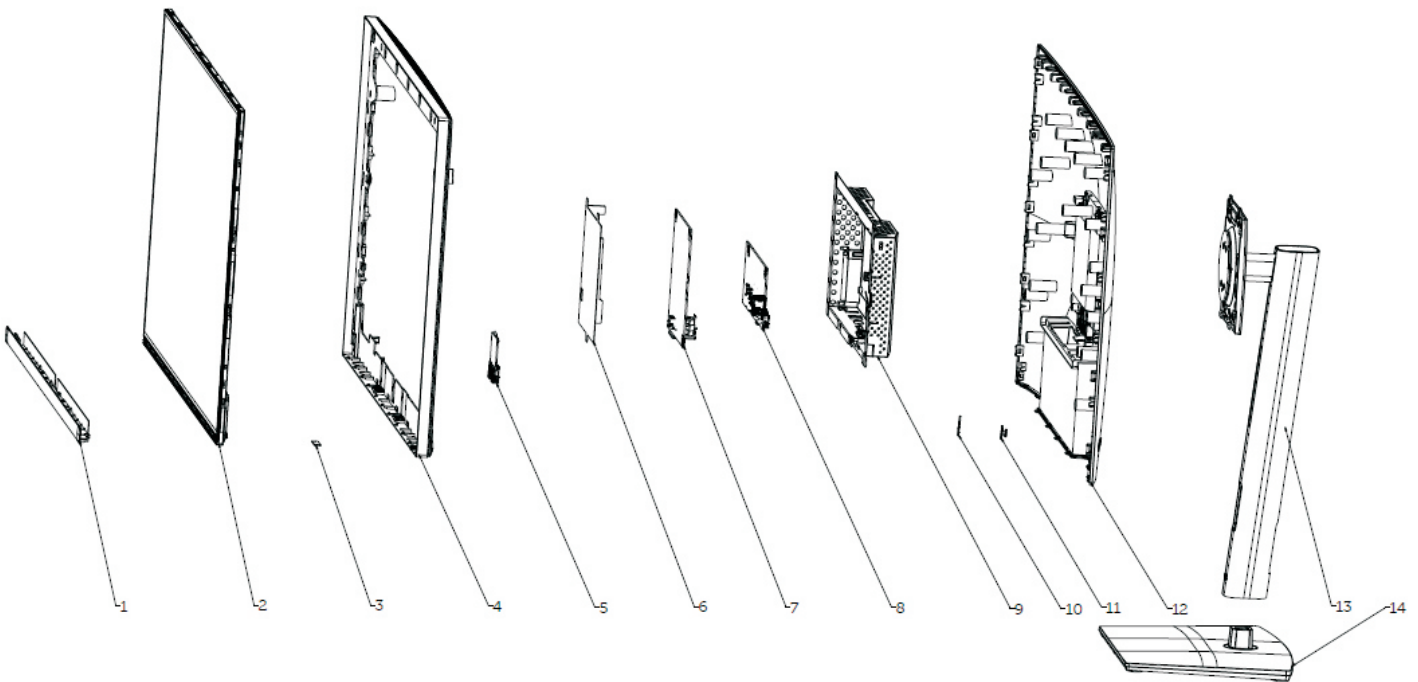
Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should be aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible 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.

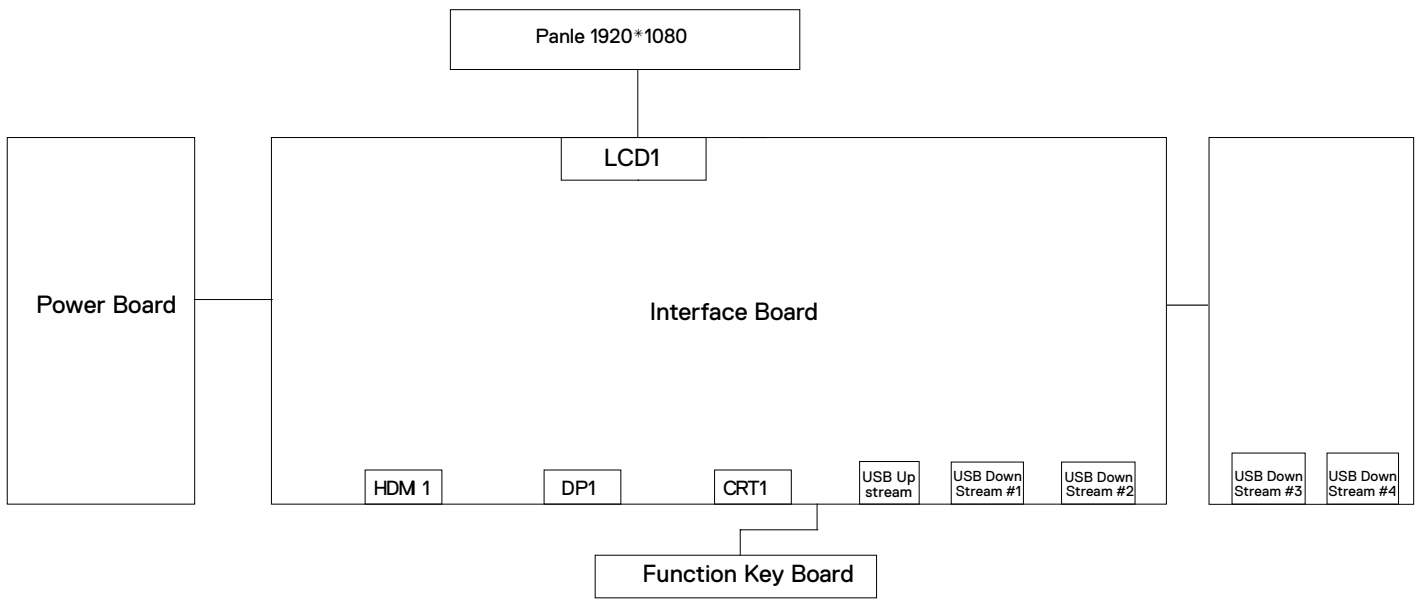
- ! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to unscrew screws.
- ! Using Lead-Free solder to well mounted the parts.
- ! The fusion point of Lead-Free solder requested in the degree of 220°C.

## 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	740.07501.0001	Panel MYALR	1
7		power board	1
8		Interface board	1
9	760.07507.0001	main bracket	1
10		Function key board	
11	742.03E02.0001	Joystick button	1
12	760.07506.0001	Back cover	
13	760.07509.0001	RISER ASSY	1
14	760.0750A.0001	BASE ASSY	1

### 3. Wiring Connectivity Diagram



## 4. Disassembly and Assembly Procedures

Necessary repair and test equipment:

1. Philips-head screwdriver
2. Hex-head screwdriver

### 4.1 Disassembly Procedures:

Remove the monitor stand base:

S1

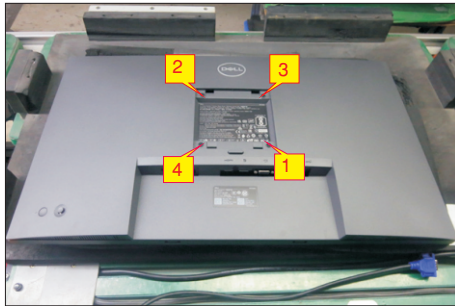
1. Place the monitor on a soft cloth or cushion.
2. Press and hold the stand-release button.
3. Lift the stand up and away from the monitor.



S2

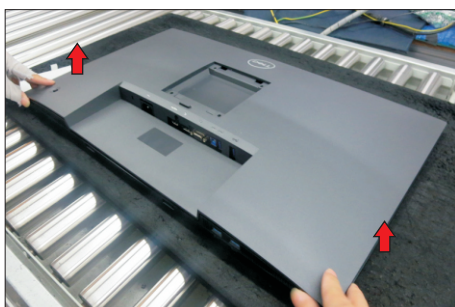
Use a Philips-head screwdriver to remove four screws for unlocking mechanisms.

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



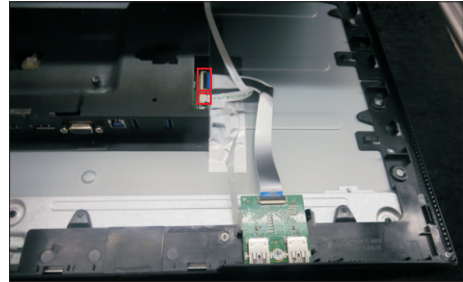
Wedge your fingers between the rear cover and the middle bezel on the corners of the top side of the monitor to release the rear cover, then use one hand to press the middle bezel, the other hand to pull up carefully the rear cover in order of arrow preference for unlocking mechanisms of rear cover.

S3



S4

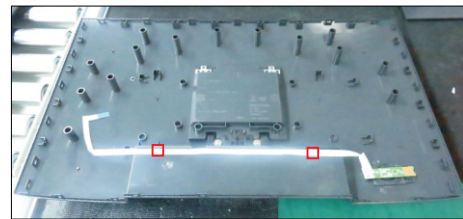
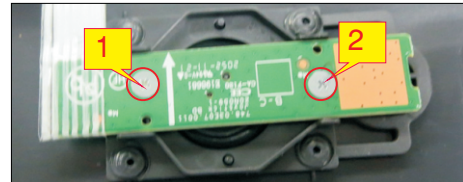
Lift the rear cover up carefully. Disconnect the key cable and USB FFC cable from the connectors of the interface board, and then remove the rear cover.



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)



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.

S6

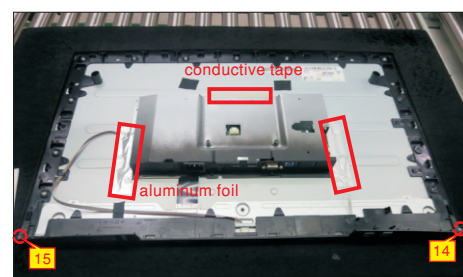
(No.1 screw size=M3x6, Torque=4±0.5kgfxcM)



Tear off 2pcs aluminium foils and 1pcs conductive tape for unfixing the bracket. Use a Philips-head screwdriver to remove 2pcs screws for locking the middle with the front bezel and the panel.

S7

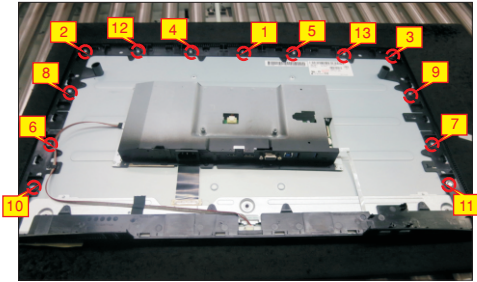
(No.14~15 screw size=M1.6x1.7, Torque=1±0.2kgfxcM)



## 4. Disassembly and Assembly Procedures

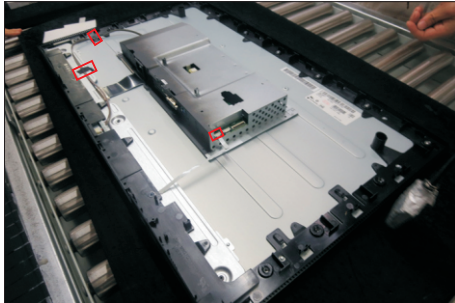
S8

Use a Philips-head screwdriver to remove 13pcs screws for unlocking the middle bezel with the panel.  
(No.1~13 screw size=M3x4, Torque=5±0.5kgfxcm)



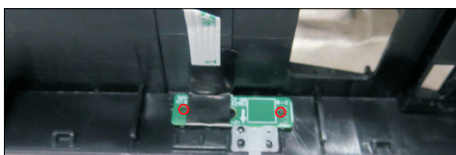
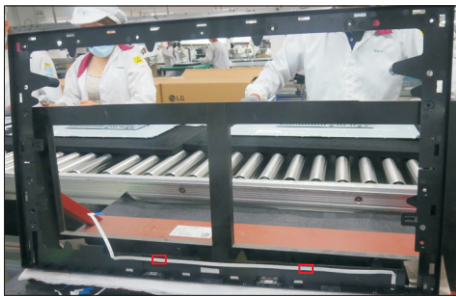
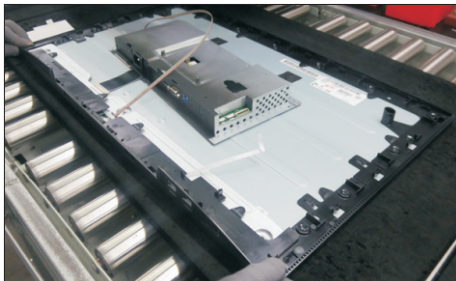
S9

Disconnect the LED cable from the connector, then release the LED cable by tearing off the tapes. Tear off the acetate tape, and then release the panel lamp cable from the hook of the middle bezel.



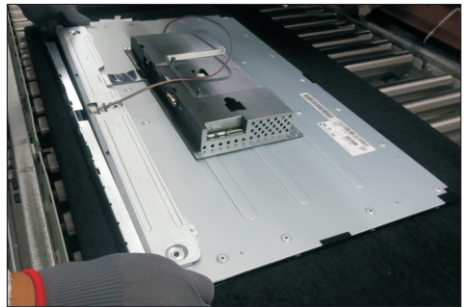
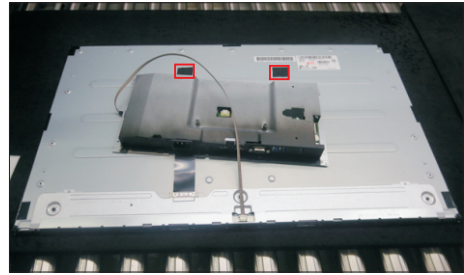
S10

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



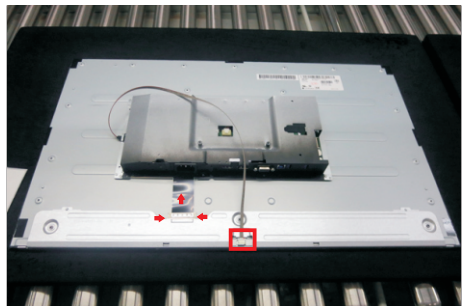
S11

Tear off tapes, then lift up the panel with the bracket for releasing the front bezel away from the panel.



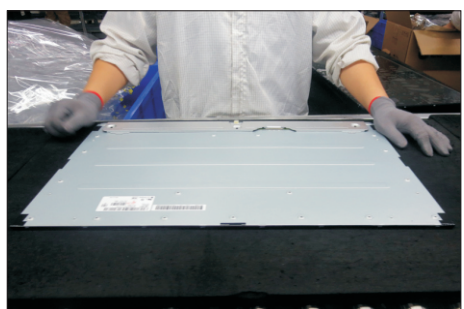
S12

Put the panel module on a protective cushion, then disconnect the panel lamp cable from the connector of panel module, then unplug the LVDS cable from the connector of the panel module.



S13

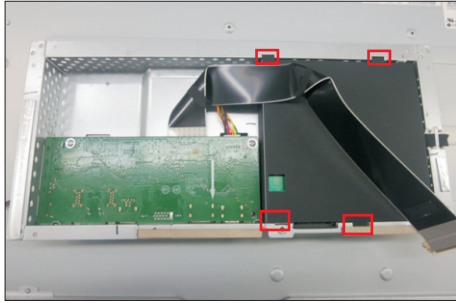
Take away the bracket chassis module and then put the bracket chassis module on a protective cushion.



## 4. Disassembly and Assembly Procedures

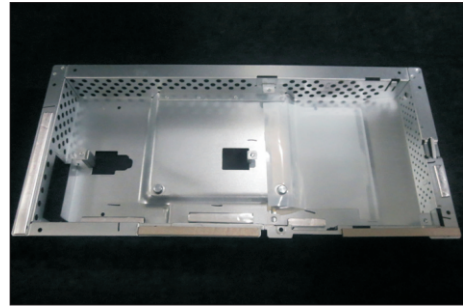
S14

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



S17

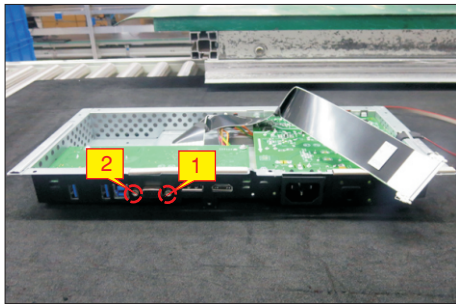
Remove the interface board and power board from the bracket chassis module carefully, and disconnect all the cables.



S15

Use a Hex-head screwdriver to remove two screws for unlocking the D-Sub connector.

(No.1~2 screws size=M3x8, Torque=6±0.5kgfxcm)

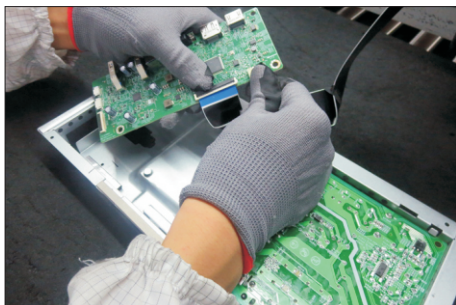
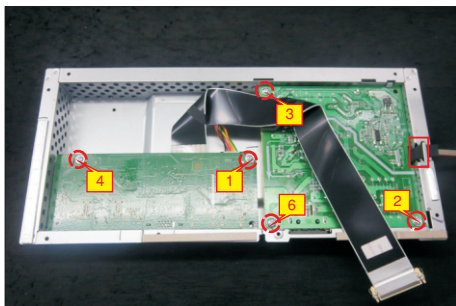


Use a Philips-head screwdriver to remove 5pcs screws for unlocking the power board and interface board, and then release all the cables from the hooks.

(No.1~4 screw size=M3x7.5, Torque=6±0.5kgfxcm;

No.5 screw size=M4x8, Torque=6±0.5kgfxcm)

S16

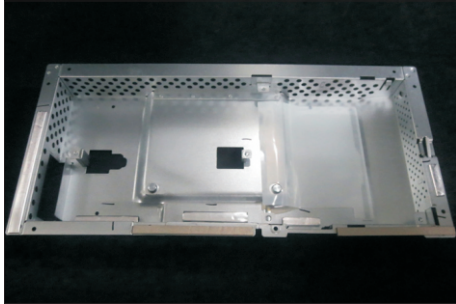


## 4. Disassembly and Assembly Procedures

### 4.2 Assembly Procedures:

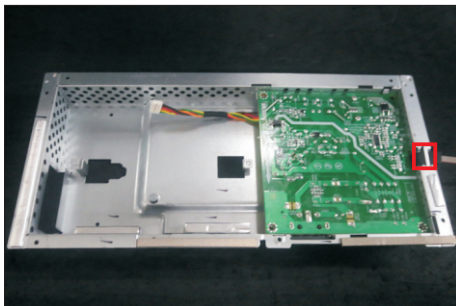
S1

Place a bracket chassis base on a protective cushion.



S2

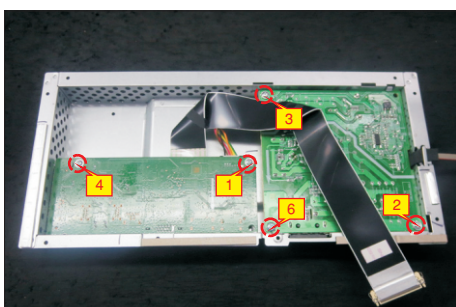
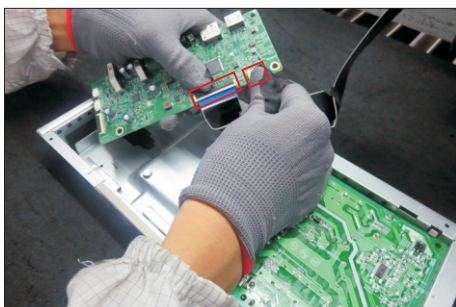
Turn over a power board and put the power board into the bracket chassis, locate the panel power cable into the hook of the bracket chassis.



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 5pcs screws for locking the power board and interface board.

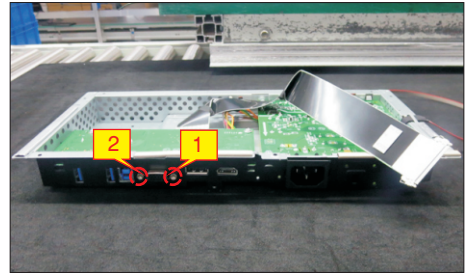
(No.1~4 screw size=M3x7.5, Torque=6±0.5kgfxcM;  
No.5 screw size=M4x8, Torque=6±0.5kgfxcM)



S4

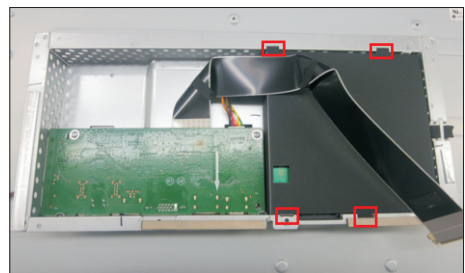
Use a Hex-head screwdriver to tighten 2pcs screws for locking the D-Sub connector.

(No.1~2 screw size=M3x8, Torque=6±0.5kgfxcM)



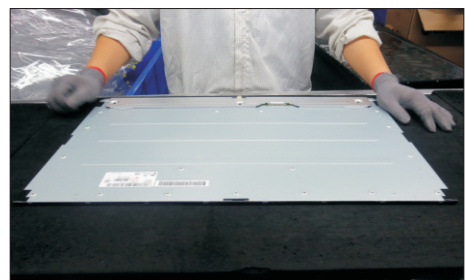
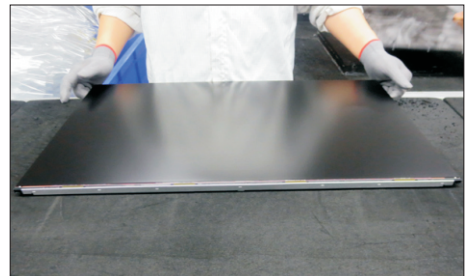
S5

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



S6

Panel preparation: Examine the panel surface according to inspection criteria. Turn over the panel to place the screen faced down for later assembling.



S7

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

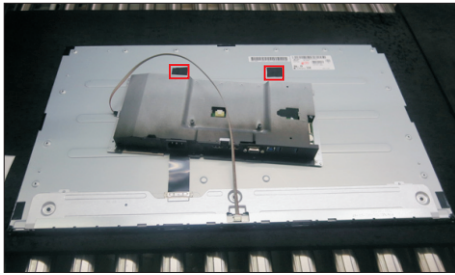
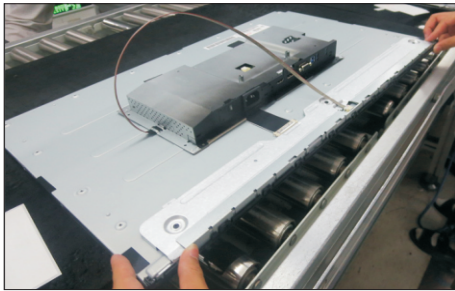


## 4. Disassembly and Assembly Procedures



S8

Take a front bezel, then lift up the panel unit and assemble the front bezel with the panel. Paste 2pcs acetate tape on the specific position of the panel.



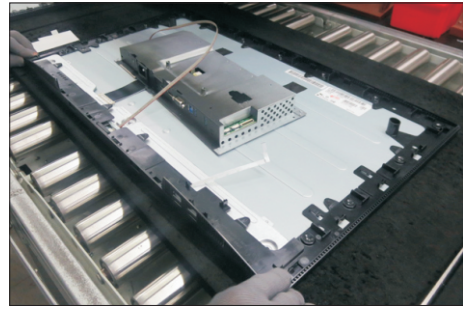
S9

Take 1pcs LED board and 1pcs middle bezel, then put the middle bezel into a fixture jip 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.



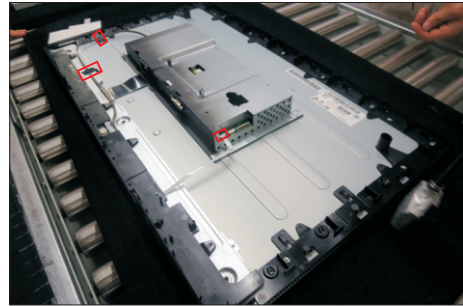
S10

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



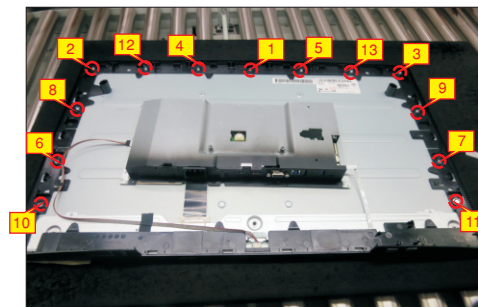
S11

Locate the panel lamp into the hook of the middle bezel, then fix the cable with 1pcs acetate tape, and then connect the LED cable to the connector of the interface board.



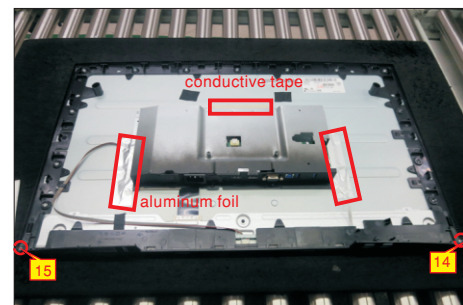
S12

Use a Philips-head screwdriver to tighten 13pcs screws for locking the middle bezel with the panel. (No.1~13 screw size=M3x4, Torque=5±0.5kgfxcm)



S13

Use a fixture jip to fix the bracket chassis, then paste 2pcs aluminum foil and 1pcs conductive tape to fix the bracket chassis module. Use a Philips-head screwdriver to tighten 2pcs screws for locking the middle bezel with the panel and front bezel. (No.14~15 screw size=M1.6x1.7, Torque=1±0.2kgfxcm)



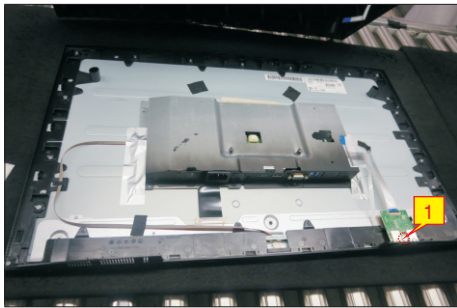
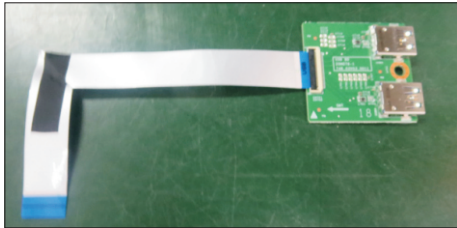


## 4. Disassembly and Assembly Procedures

S14

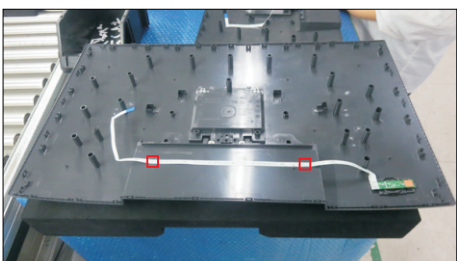
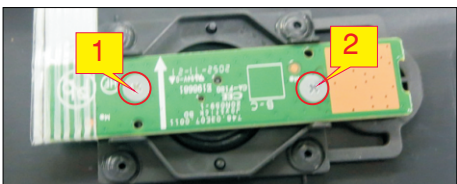
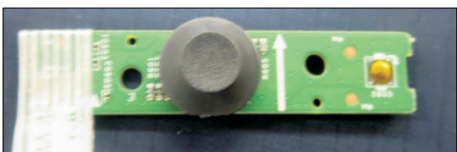
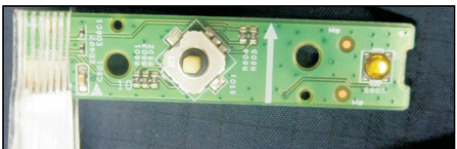
Take 1pcs USB board and a connect cable. Connect the cable to the USB board, then paste 1pcs conductive foam on the back of the board. Locate the USB board into the hook of the middle bezel. Use a Philips-head screwdriver to tighten one screw for locking the USB unit with middle bezel.

(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.

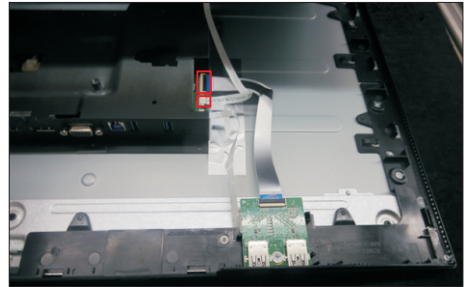
(No.1~2 screw size=M2x3.3, Torque=1±0.2kgfxcM)



S15

S16

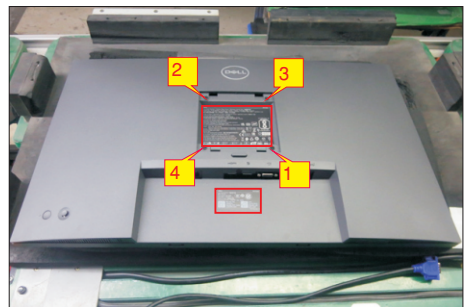
Move the assembled rear cover close to the panel unit, then connect the key cable and USB FFC cable to the connectors of interface board. Put down the rear cover and push the rear cover on the positions marked as the picture below shown for mechanisms engagement.



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

(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.



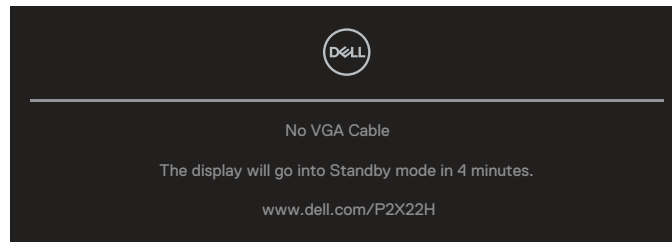
## 5. Trouble Shooting Instructions

### Self-Test

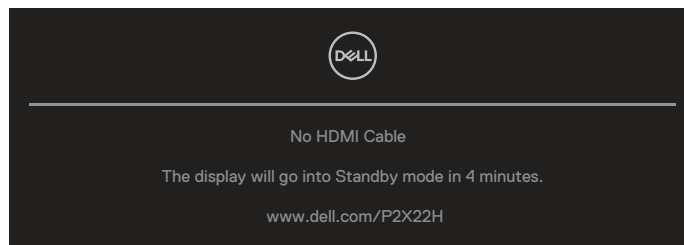
Your monitor provides a self-test feature that allows you to check if your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Disconnect all video cables from the monitor. This way, the computer doesn't have to be involved.
3. Turn on the monitor.

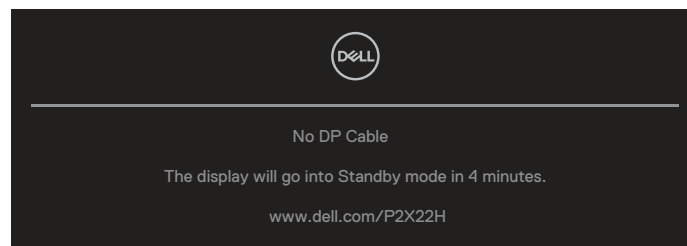
The floating dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through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



or



or



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.

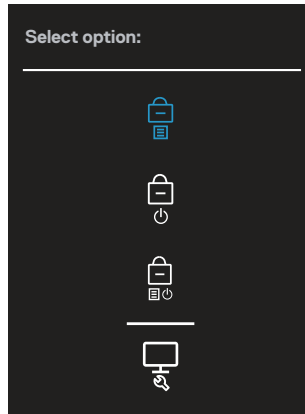
## 5. Trouble Shooting Instructions

### Built-in diagnostics

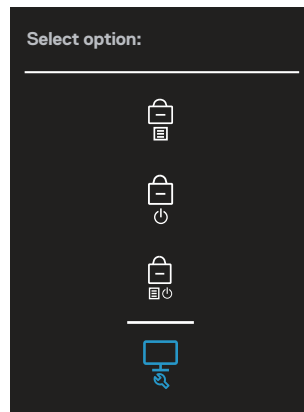
Your monitor has a built-in diagnostic tool that helps you determine if any screen abnormality you experience is an inherent problem with your monitor, or with your computer and video card.

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 about 4 seconds until a pop-up menu appears.



3. Move the joystick to highlight the Diagnostic icon  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	Possible Solutions
No Video/Power LED off	<ul style="list-style-type: none"><li>Ensure that the video cable connecting the monitor and the computer is properly connected and secure.</li><li>Verify that the power outlet is functioning properly using any other electrical equipment.</li><li>Ensure that the power button is pressed.</li><li>Ensure that the correct input source is selected via the <a href="#">Input Source</a> menu.</li></ul>
No Video/Power LED on	<ul style="list-style-type: none"><li>Increase brightness and contrast controls using the OSD.</li><li>Perform monitor self-test feature check.</li><li>Check for bent or broken pins in the video cable connector.</li><li>Run the built-in diagnostics.</li><li>Ensure that the correct input source is selected via the <a href="#">Input Source</a> menu.</li></ul>
Poor Focus	<ul style="list-style-type: none"><li>Eliminate video extension cables.</li><li>Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>Change the video resolution to the correct aspect ratio.</li></ul>
Shaky/Jittery Video	<ul style="list-style-type: none"><li>Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>Check environmental factors.</li><li>Relocate the monitor and test in another room.</li></ul>
Missing Pixels	<ul style="list-style-type: none"><li>Cycle power On-Off.</li><li>Pixel that is permanently Off is a natural defect that can occur in LCD technology.</li><li>For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: <a href="http://www.dell.com/pixelguidelines">www.dell.com/pixelguidelines</a>.</li></ul>
Stuck-on Pixels	<ul style="list-style-type: none"><li>Cycle power On-Off.</li><li>Pixel that is permanently off is a natural defect that can occur in LCD technology.</li><li>For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: <a href="http://www.dell.com/pixelguidelines">www.dell.com/pixelguidelines</a>.</li></ul>
Brightness Problems	<ul style="list-style-type: none"><li>Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>Adjust brightness &amp; contrast controls via OSD.</li></ul>
Geometric Distortion	<ul style="list-style-type: none"><li>Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>Adjust horizontal &amp; vertical controls via OSD.</li></ul>

## 5. Trouble Shooting Instructions

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Horizontal/ Vertical Lines	<ul style="list-style-type: none"><li>• Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>• Perform monitor self-test feature check and determine if these lines are also in self-test mode.</li><li>• Check for bent or broken pins in the video cable connector.</li><li>• Run the built-in diagnostics.</li></ul>
Synchronization Problems	<ul style="list-style-type: none"><li>• Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>• Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode.</li><li>• Check for bent or broken pins in the video cable connector.</li><li>• Restart the computer in the safe mode.</li></ul>
Safety Related Issues	<ul style="list-style-type: none"><li>• Do not perform any troubleshooting steps.</li><li>• Contact Dell immediately.</li></ul>
Intermittent Problems	<ul style="list-style-type: none"><li>• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.</li><li>• Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li><li>• Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.</li></ul>
Missing Color	<ul style="list-style-type: none"><li>• Perform monitor self-test feature check.</li><li>• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.</li><li>• Check for bent or broken pins in the video cable connector.</li></ul>
Wrong Color	<ul style="list-style-type: none"><li>• Change the <b>Color Setting Mode</b> in the <b>Color Settings</b> OSD to <b>Graphics</b> or <b>Video</b> depending on the application.</li><li>• Try different <b>Preset Modes</b> in <b>Color</b> settings OSD. Adjust <b>R/G/B</b> value in <b>Custom Color</b> in <b>Color</b> settings OSD.</li><li>• Change the <b>Input Color Format</b> to <b>RGB</b> or <b>YCbCr(digital)/YPbPr(analog)</b> in the <b>Color settings</b> OSD.</li><li>• Run the built-in diagnostics.</li></ul>
Image retention from a static image left on the monitor for a long period of time	<ul style="list-style-type: none"><li>• 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.</li><li>• Alternatively, use a dynamically changing screensaver.</li></ul>
Video Ghosting or Overshooting	<ul style="list-style-type: none"><li>• Change the <b>Response Time</b> in the <b>Display</b> OSD to <b>Normal</b>, or <b>Fast</b> depending on your application and usage.</li></ul>

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## 5. Trouble Shooting Instructions

### Product-specific problems

Specific Symptoms	Possible Solutions
Screen image is too small	<ul style="list-style-type: none"><li>• Check the <b>Aspect Ratio</b> setting in the <b>Display</b> settings OSD.</li><li>• Reset the monitor to Factory Settings (<b>Factory Reset</b>).</li></ul>
Cannot adjust the monitor with the joystick	<ul style="list-style-type: none"><li>• Turn Off the monitor, unplug the power cord, plug it back, and then turn On the monitor.</li><li>• 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 <a href="#">Menu and Power button lock</a>).</li></ul>
No Input Signal when user controls are pressed	<ul style="list-style-type: none"><li>• Check the signal source. Ensure the computer is not in Standby Mode by moving the mouse or pressing any key on the keyboard.</li><li>• Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary.</li><li>• Reset the computer or video player.</li></ul>
The picture does not fill the entire screen	<ul style="list-style-type: none"><li>• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen.</li><li>• Run the built-in diagnostics.</li></ul>

### Universal Serial Bus (USB) specific problems

Specific Symptoms	Possible Solutions
USB interface is not working	<ul style="list-style-type: none"><li>• Check that your monitor is turned On.</li><li>• Reconnect the upstream cable to your computer.</li><li>• Reconnect the USB peripherals (downstream connector).</li><li>• Turn off the monitor and turn it on again.</li><li>• Reboot the computer.</li><li>• Certain USB devices such as portable hard drive require higher power source; connect the drive to the computer directly.</li></ul>
SuperSpeed USB 5 Gbps (USB 3.2 Gen1) interface is slow	<ul style="list-style-type: none"><li>• Check that your computer is SuperSpeed USB 5 Gbps (USB 3.2 Gen1)-compatible.</li><li>• Some computers have USB 3.2, USB 2.0, and USB 1.1 ports. Ensure that the correct USB port is used.</li><li>• Reconnect the upstream cable to your computer.</li><li>• Reconnect the USB peripherals (downstream connector).</li><li>• Reboot the computer.</li></ul>
Wireless USB peripherals stop working when a USB 3.2 device is plugged in	<ul style="list-style-type: none"><li>• Increase the distance between the USB 3.2 peripherals and the wireless USB receiver.</li><li>• Position your wireless USB receiver as close as possible to the wireless USB peripherals.</li><li>• Use a USB-extender cable to position the wireless USB receiver as far away as possible from the USB 3.2 port.</li></ul>