

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.

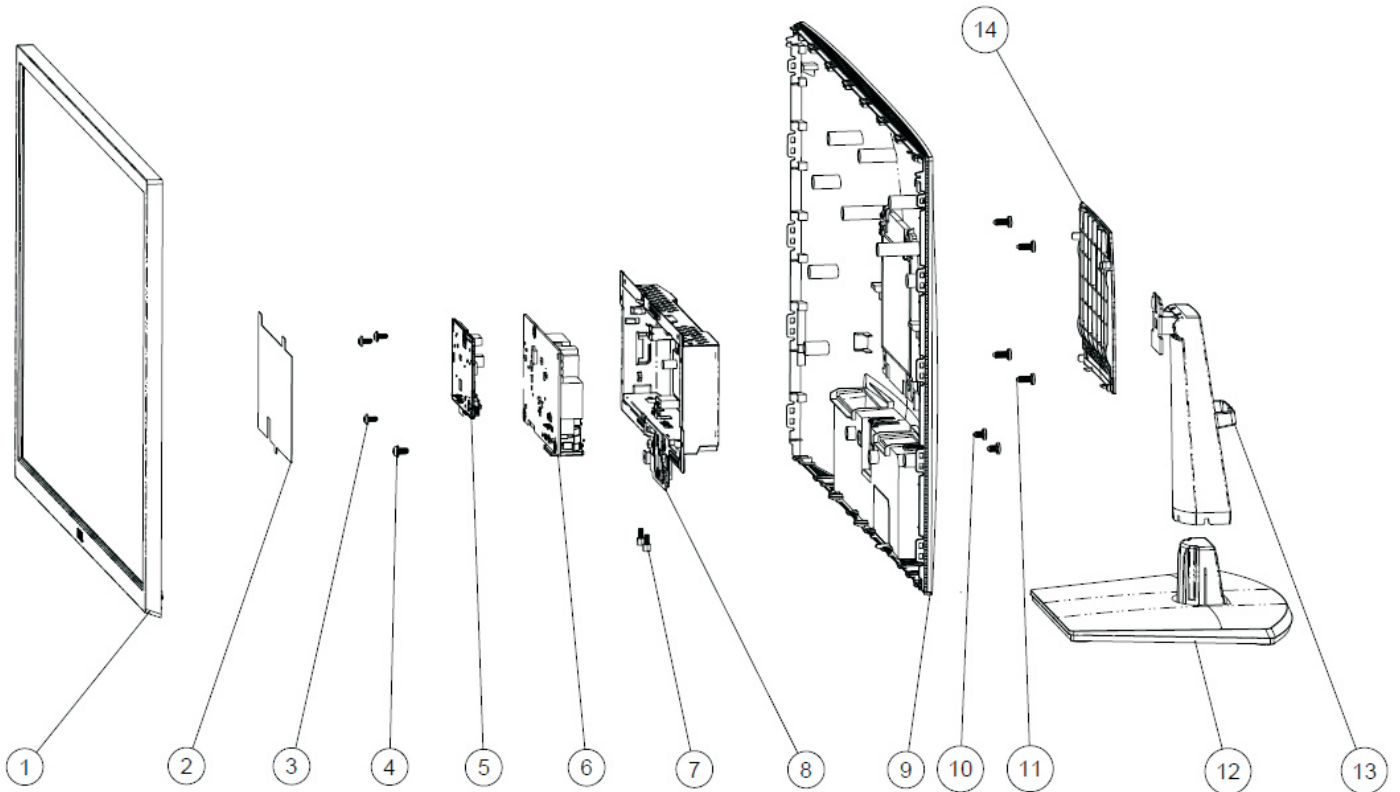
! To ensure following safety repairing behavior, put the replaced part on the components side of PWBA, not solder side.

! 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.

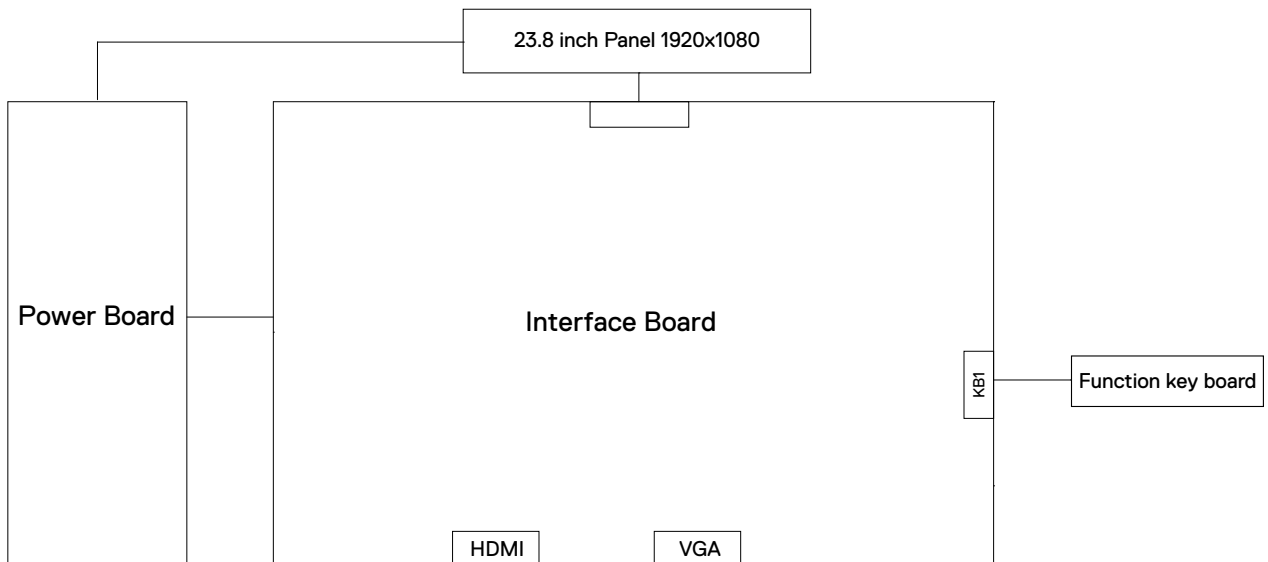
! The fusion point of Lead-Free solder requested in the degree of 220°C.

2. Exploded view diagram with list of items



Item	Part Name	Part number	Qty.
1	LCM module	7ZB.03P02.0007	1
2	Safety mylar	740.03P02.0001	1
3	Screws for PCBA	86.AR274.7R5	3
4	Screws for ground	86.7HJ26.8R0	1
5	Interface BD	7ZB.03P01.0008	1
6	Power BD	755.03P03.0001	1
7	Screws for VGA	86.2R534.8R0	2
8	Main chassis	760.03P05.0001	1
9	Rear cover	760.03P04.0001	1
10	Screws for Hinge BRKT	86.9A326.6R0	2
11	Screws for VESA mount	08A.00000.002B	4
12	Base	760.03P07.0001	1
13	Stand	760.03P06.0001	1
14	VESA cover	742.03P01.0001	1

3. Wiring Connectivity Diagram



4. Disassembly and Assembly Procedures

Necessary repair and test equipment:

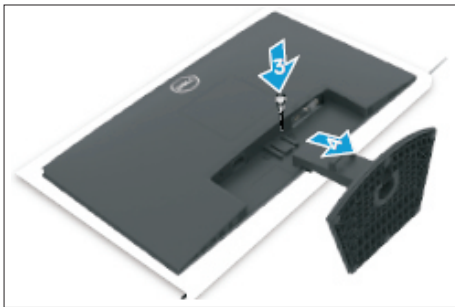
1. Philips-head screwdriver
2. Hex-head screwdriver

4.1 Disassembly Procedures:

Remove the monitor stand base:

1. Place the monitor on a soft cloth or cushion.
2. Press the stand down to access to the stand release button.
3. Use a long screwdriver to press the release latch.
4. While pressing the release latch, slide out the stand assembly from the monitor.

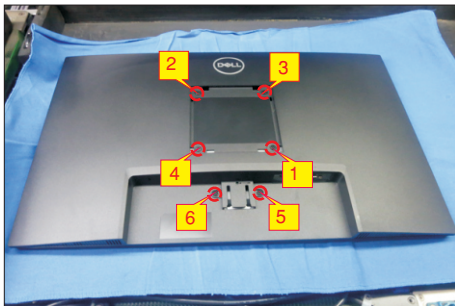
S1



Use a Philips-head screwdriver to remove 6pcs screws for unlocking mechanisms.

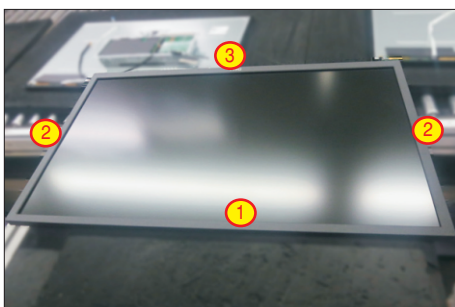
S2

(No.1~4 screw size=M4x11; Torque=11±1kgfxcn;
No.5~6 screw size=M4x6; Torque=11±1kgfxcn)



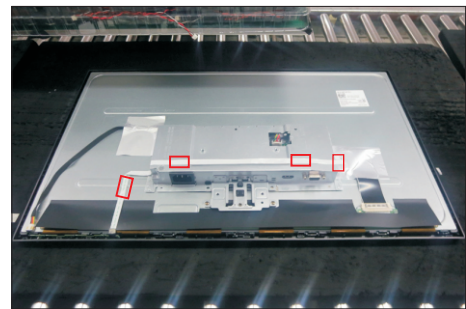
Turn over the LCD monitor to let the screen faced up, place a cloth on the panel where you are working on to protect the panel. Continually, wedge your fingers between the front bezel and the panel in order of arrow preference for unlocking mechanisms. Turn over the LCD monitor to let the screen faced down and then remove the rear cover.

S3



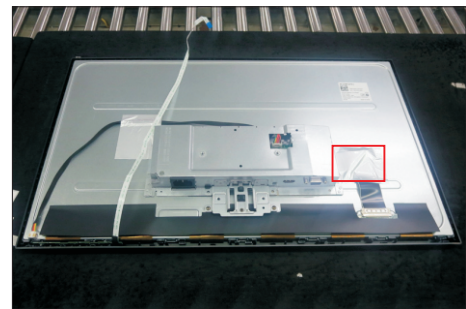
S4

Disconnect the function key cable away from the connector of the board, then tear off 3pcs adhesive tape for releasing the function key board.



S5

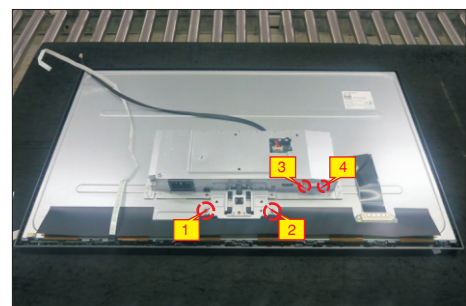
Tear off 2pcs aluminum foils for unlocking panel lamp cable and LVDS cable, and then disconnect the panel lamp cable away from the connector of panel module.



S6

Use a Philips-head screwdriver to remove 2pcs screws for unlocking the bracket with panel module. Use a Hex-head screwdriver to remove 2pcs screws for unlocking the VGA connector.

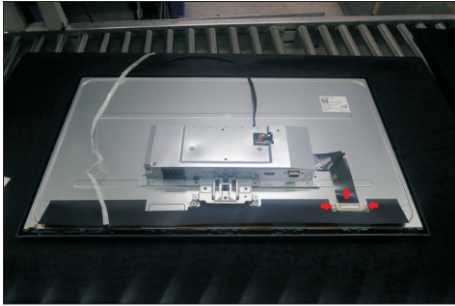
(No.1~2 screw size=M3x2.6, Torque=4±0.5kgfxcn;
No.3~4 screw size=M3x8, Torque=6±0.5kgfxcn)



4. Disassembly and Assembly Procedures

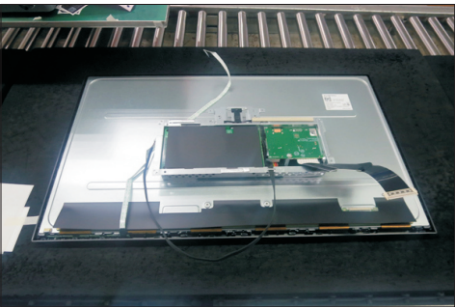
S7

Unplug the LVDS cable from the connector of the panel module by pushing the earing-locks.



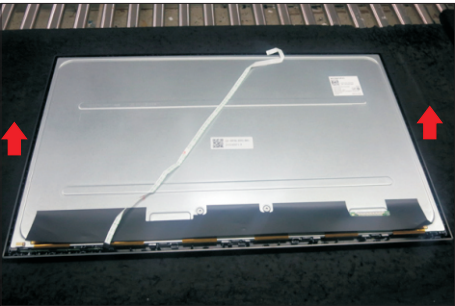
S8

Lift up the bracket chassis and put it on a protective cushion.



S9

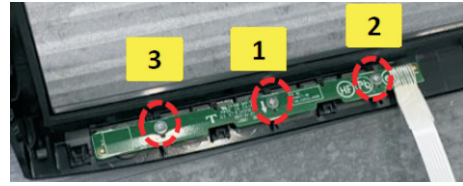
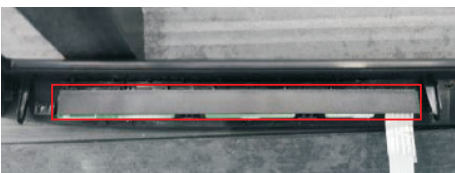
Release the panel module away from the hooks of the front bezel, then lift up the panel module and take away the front bezel with key board.



S10

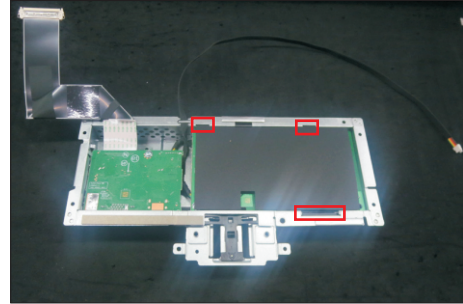
Tear off the mylar tape, then put the front bezel into a fixture, then use a Philips-head screwdriver to remove 3pcs screws for unlocking the function key board with the front bezel.

(No.1~3 screw size=M2x2.4, Torque=0.8±0.2kgfxcmm)



S11

Remove the Mylar from the hooks of the bracket chassis module.

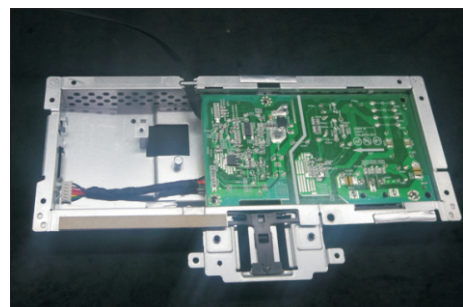
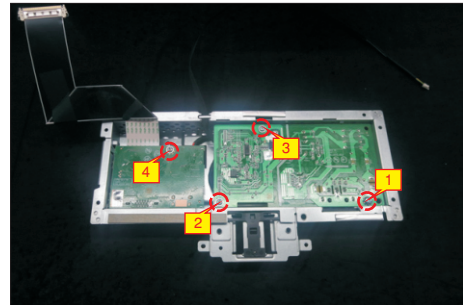


S12

Use a Philips-head screwdriver to remove 4pcs screws for unlocking the circuit board, release all the cables from the hooks.

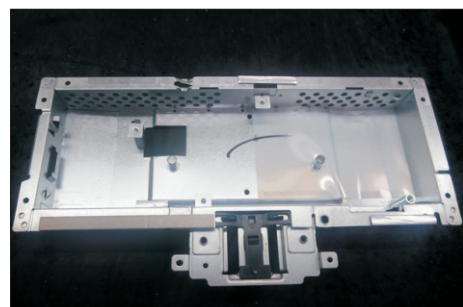
(No.1 screw size=M4x8, Torque=6±0.5kgfxcmm;

No. 2~4 screw size=M3x7.5, Torque=6±0.5kgfxcmm)



S13

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

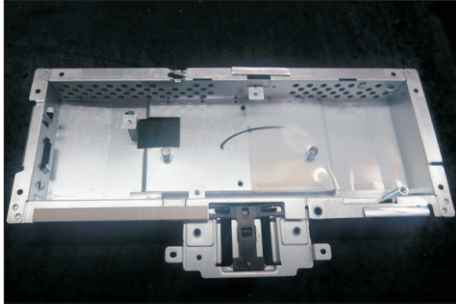


4. Disassembly and Assembly Procedures

4.2 Assembly Procedures:

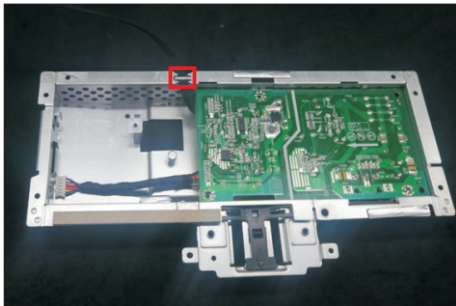
S1

Place a bracket chassis base on a protective cushion.



S2

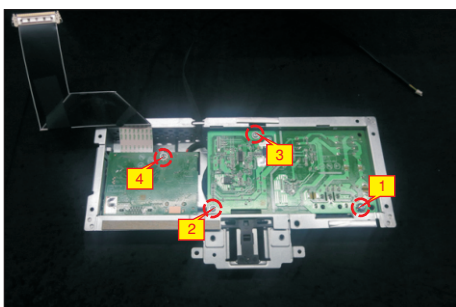
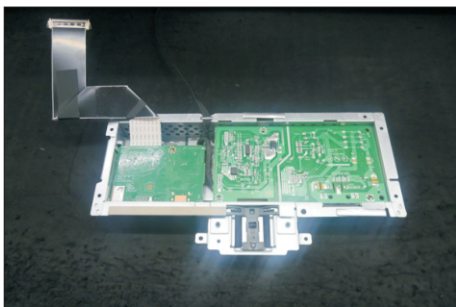
Turn over a power board and put the power board into the bracket chassis, locate the panel power cable into the hook of the bracket chassis.



S3

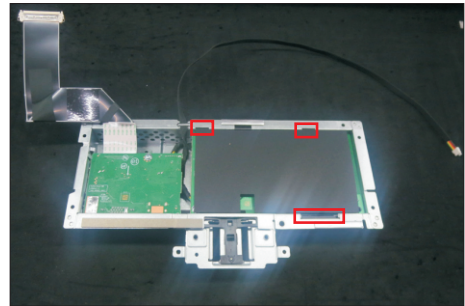
Take a interface board, connect a LVDS cable to the connector of the interface board, then connect the cable of the power board to the connector of the interface board. Turn over the interface board and locate it into the bracket. Use a Philips-head screwdriver to tighten 4pcs screws for locking the power board and interface board.

(No.1 screw size=M4x8, Torque=5±0.5kgfxcm;
No.2~4 screw size=M3x7.5, Torque=5±0.5kgfxcm)



S5

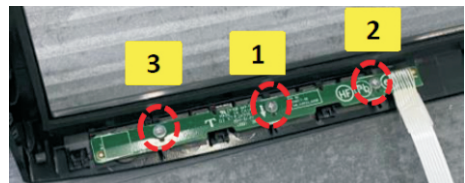
Take a mylar to insert the hooks of the bracket to cover the power board.



S6

The following two steps (S6 and S7) is processed in LCM assemble line. Take 1pcs function key board and 1pcs front bezel from the carton, then put the middle bezel into a fixture, and locate the function keyboard into the hooks of the front bezel. Use a Philips-head screwdriver to tighten 3pcs screws for locking the function key board with the front bezel, then paste 1pcs black mylar tape to cover the function key board.

(No.1~3 screw size=M2x2.4, Torque=0.8±0.2kgfxcm)



S7

Take 1pcs panel module, then put the panel into the front bezel and locate the panel into the hooks of the front bezel for the two parts firmly attached.



4. Disassembly and Assembly Procedures

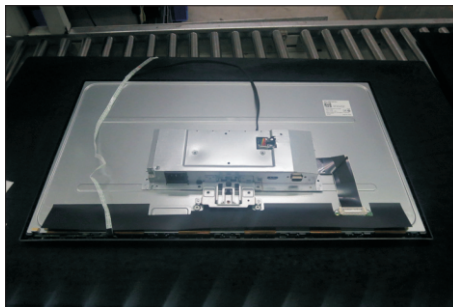
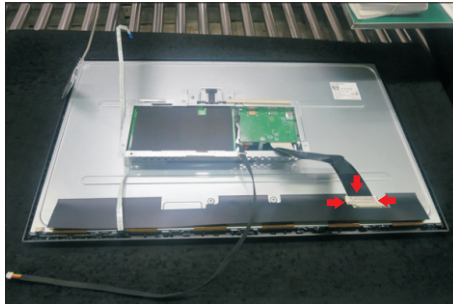
S8

Take out 1pcs panel assembled module with front bezel and function key board from the carton, and then examine the panel surface according to inspection criteria. Turn over the panel, and then place screen faced down for later assembling.



S9

Move the bracket close to the panel, then connect LVDS cable to the connector of the panel. Turn over the bracket and put it on the back of panel.



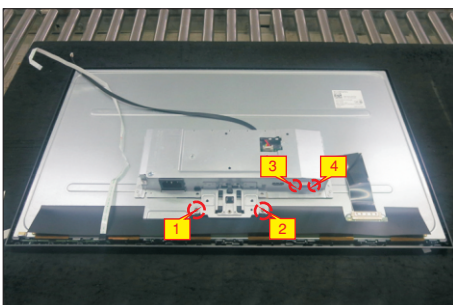
S10

Adjust the bracket chassis to the correct position, then use a Philips-head screwdriver to tighten 2pcs screws for locking the bracket with panel module.

Use a Hex-head screwdriver to lock 2pcs screws for locking the VGA connector.

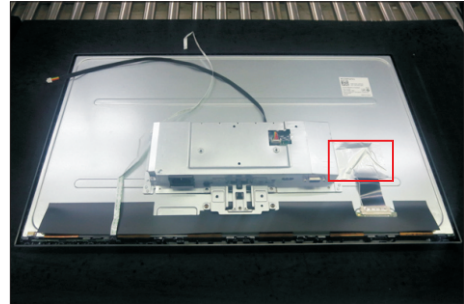
(No.1~2 screw size=M3x2.6, Torque=4±0.5kgfxcM;

No.3~4 screw size=M3x8, Torque=6±0.5kgfxcM)



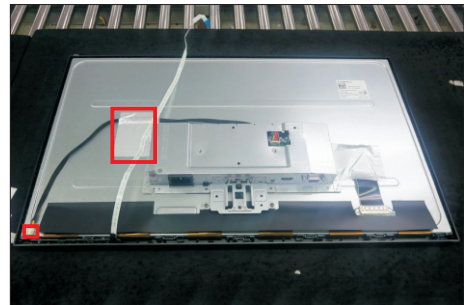
S11

Paste 1pcs aluminum foil on the specific position to fix the LVDS cable as the picture below shown.



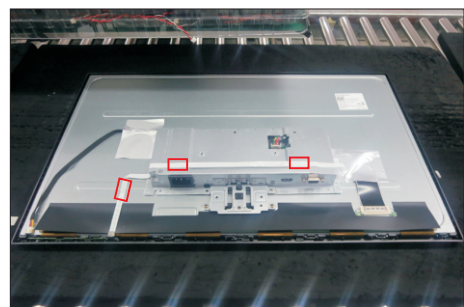
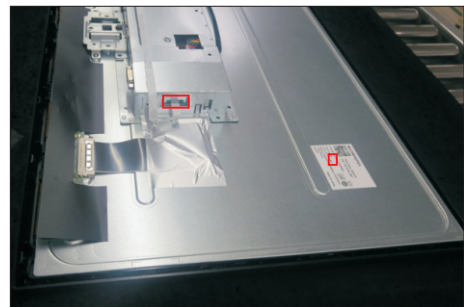
S12

Connect the panel lamp cable to the connector of the panel module, then paste 1pcs aluminum foil to fix the panel lamp cable as the picture below shown.



S13

Connect the function key cable to the connector of board, then tear off the 3pcs double-faced tape on the back of the back and fix the cable on the bracket as the picture below shown.



4. Disassembly and Assembly Procedures

S14

Take 1pcs rear cover, put down the rear cover and push the rear cover on the positions marked as the picture below shown for mechanisms engagement.



Use a Philips-head screwdriver to tighten 4pcs screws for locking rear cover with the assembled unit, to tighten 2pcs screws for locking the rear cover with bracket chassis module.

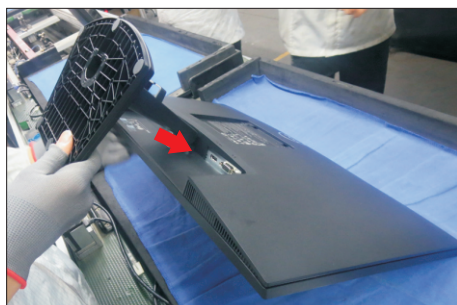
S15

(No.1~4 screw size=M4x11; Torque=10~12kgfxcm;
No.5~6 screw size=M4x6; Torque=10~12kgfxcm)



Stick 2pcs labels on the specific positions as the picture below shown. Take 1pcs stand riser and 1pcs stand base, assemble the stand base with stand riser. Insert the stand-riser into monitor groove until it snaps into its place.

S16



S17

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.



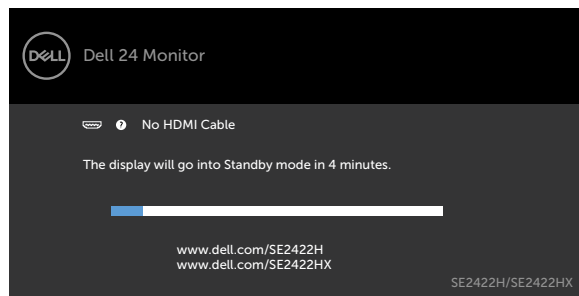
5. Trouble Shooting Instructions

Self-test

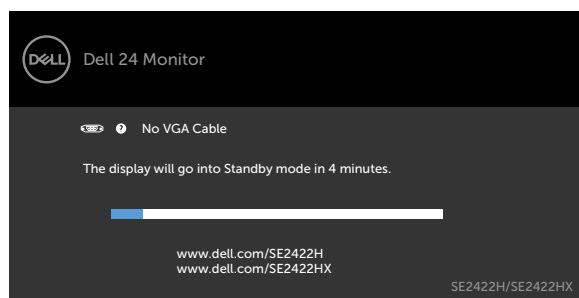
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:


1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer. To ensure proper Self-Test operation, remove all video cables from the back of computer.
3. Turn on the monitor.

If the monitor is working correctly and detects no input signal, depending on the connectivity, one of the following dialog appears. While in self-test mode, the power LED remains white.



OR



 **NOTE:** This box also appears during normal system operation if the video cable is disconnected or damaged.

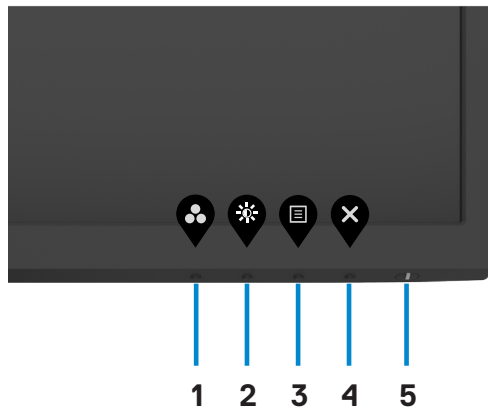
4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after performing the previous step, check your video controller and computer for any possible issues.


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. Press and hold **button 4** for four seconds and a menu appears on the screen.
3. Select the built-in diagnostics  option. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press Button 1 on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 to 6 to inspect the display when it changes to green, blue, black, white, and text screens.

The test is complete when the text screen appears. To exit, press button 1 again.

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

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 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	<ul style="list-style-type: none">• Increase brightness and contrast controls through 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">• Perform Auto adjust via OSD.• Adjust the Phase and Pixel Clock controls via OSD.• 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">• Perform Auto adjust via OSD.• Adjust the Phase and Pixel Clock controls via OSD.• Reset the monitor to factory settings.• Check environmental factors.• Move the monitor to another location or room and check again.

5. Trouble Shooting Instructions

Common symptoms	What you experience	Possible solutions
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, https://www.dell.com/pixelguidelines.
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 PixelPolicy, see, https://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 and contrast controls through OSD.
Geometric Distortion	Screen not centered correctly	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Auto adjust via OSD.• Adjust horizontal & vertical controls via OSD.
Horizontal/Vertical Lines	Screen has one or more lines	<ul style="list-style-type: none">• Reset the monitor to factory settings.• Perform Auto adjust via OSD.• Adjust Phase and Pixel Clock controls via OSD.• 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 Auto adjust via OSD.• Adjust Phase and Pixel Clock controls via OSD.• 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 safe mode.

5. Trouble Shooting Instructions

Common symptoms	What you experience	Possible solutions
Safety related issues.	Visible signs of smoke or sparks	<ul style="list-style-type: none">· Do not perform any troubleshooting steps.· For more information on contacting Dell, see 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.
Missing color	Picture missing color	<ul style="list-style-type: none">· 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	<ul style="list-style-type: none">· Try different Preset Modes in Color settings OSD. Adjust R/G/B value in Custom Color in Color settings OSD.· Adjust R/G/B value under Custom Color in Color menu 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

Problem	What you experience	Possible solutions
Screen image is too small	Image is centered on screen, but does not cover the entire viewing area	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<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. 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	<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.