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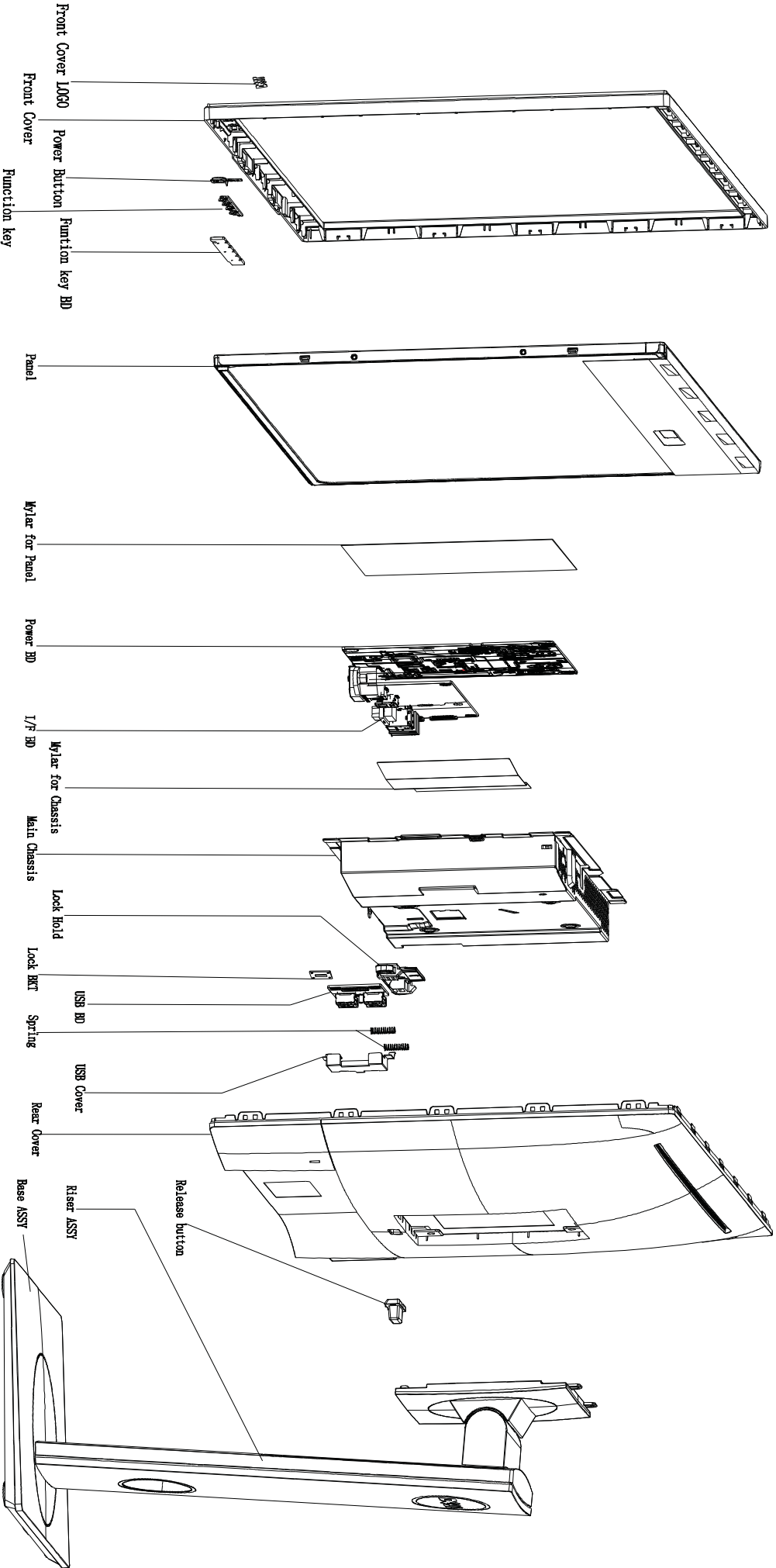
! To prevent the product away from water or expose in extremely high humility environment.

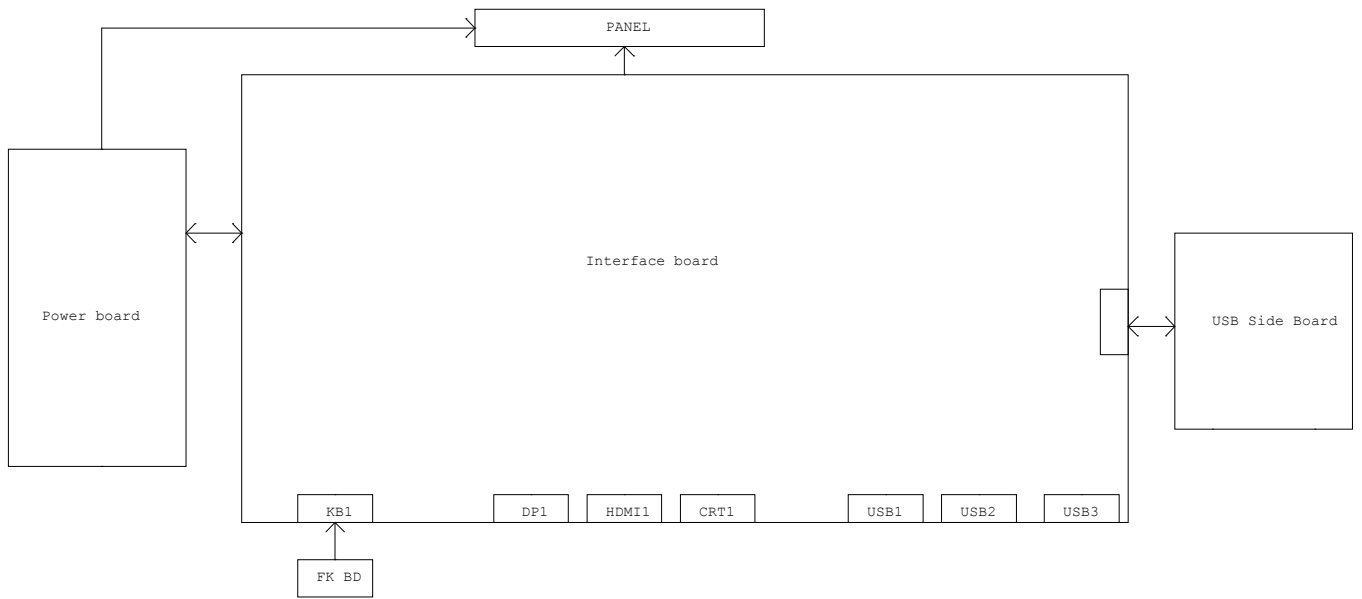! To ensure the continued reliability of this product, use only original manufacturer's specified parts.

! 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 220ºC.

2. Exploded view diagram with list of items

Front Cover LOGO

Front Cover

Function key

Front Cover LOGO

Power Button

Funtion key BD

Panel

Mylar for Panel

Power BD

I/F BD

Mylar for Chassis

Main Chassis

Lock Hold

Lock BKT

USB BD

Spring

USB Cover

Rear Cover

Release button

Riser ASSY

Base ASSY

3. Wiring Connectivity Diagram

PANEL	

Power board

Interface board

USB Side Board

| KB1 | | DP1 | HDMI1 | CRT1 | | USB1 | USB2 | USB3 |

FK BD

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.
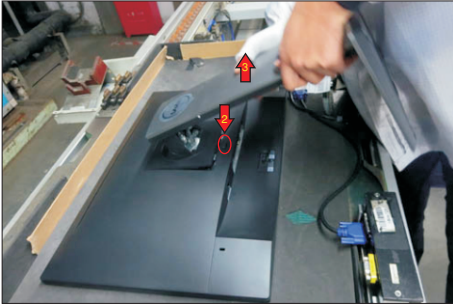
S2 Use a Philips-head screwdriver to remove 4pcs screws for unlocking mechanisms. Remove DP cap.
(No.1~4 screw size=M4x10; Torque=12±0.5kgfxcm)
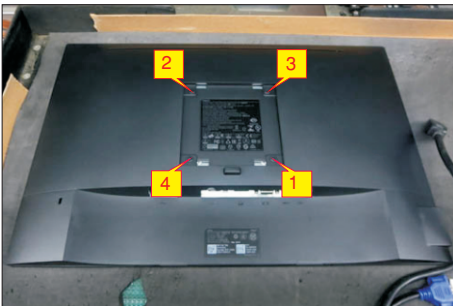
S3 Turn over the LCD monitor to let the screen faced up, place a cloth on the panel where you are working on to protect the panel. Continually, then wedge your fingers between the front bezel and the panel for unlocking mechanisms.
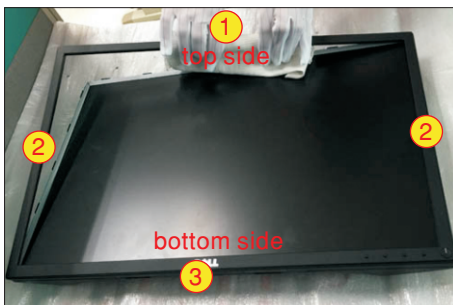

S4 Turn over the LCD monitor to let the screen faced down and then turn on the rear cover carefully. Disconnect the USB FFC cable from the connector of the interface board, and then remove the rear cover.
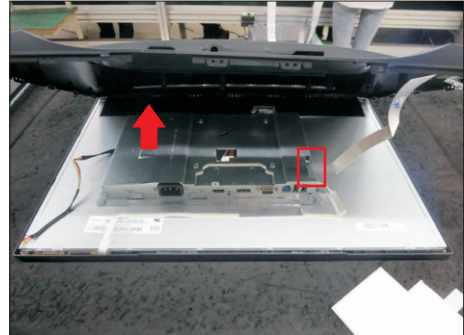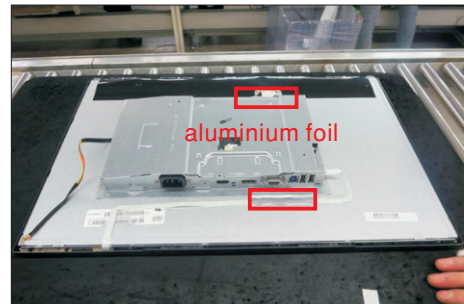

S5 Use a Philips-head screwdriver to remove one screw for unlocking the USB board unit, then release the USB board unit and put it aside.
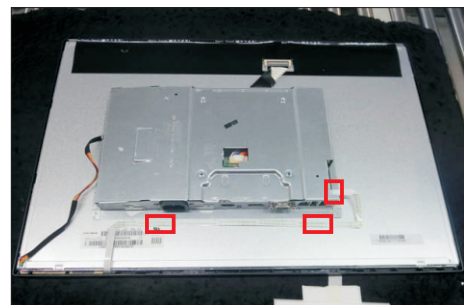(No.1 screw size=M3x6, Torque=4±0.5kgfxcm)
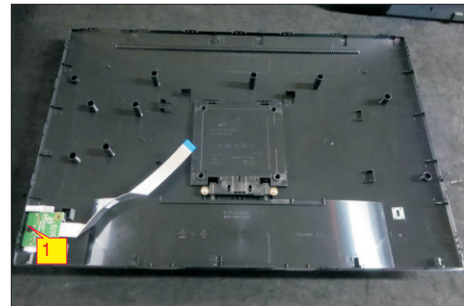
S6 Tear off two pieces of the aluminium foils and PVC tape for unfixing the bracket chassis base.


aluminium foil

S7 Use a proper tool to release the function key cable from the connector, then pull the function key cable high for unsticking two positions with glue and release the function key cable.

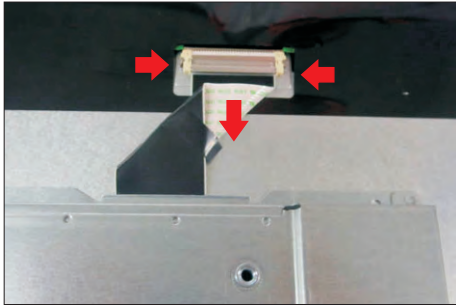# 4. Disassembly and Assembly Procedures

S8 Unplug the panel power cable from the connector of the panel module, then release the cable from the panel by tearing off the adhesive tape.
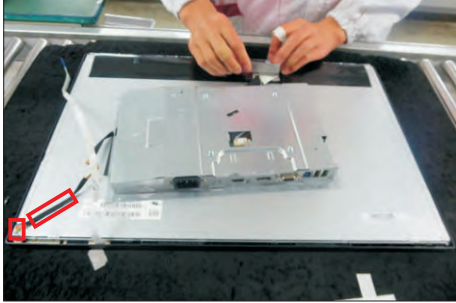

S9 Move up the bracket chassis module , tear off the adhesive tape for release the LVDS cable, then push the ear lock, and remove the LVDS cables from the connectors of LCD panel module.

S10 Lift up the panel module with the bracket for removing the front bezel with function key board, and then release the function key board from the hooks of the front bezel. Put the panel with bracket chassis on a protect cushion.
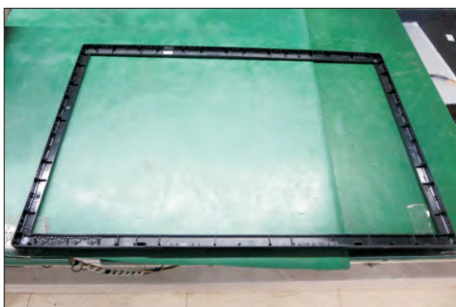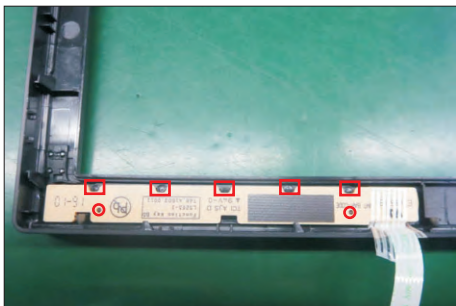
S11 Take away the bracket chassis module and then put the bracket chassis module on a protective cushion. (Note: you must stick a piece of mylar when you change a new panel.)
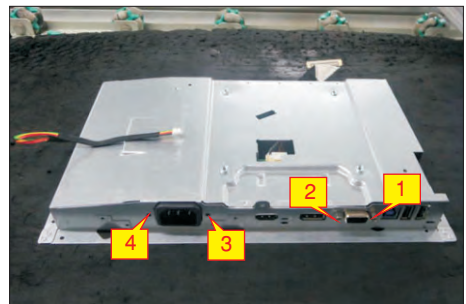

S12 Use a Hex-head screwdriver to remove two screws for unlocking the D-Sub connector.
(No.1~2 screws size=M3x8, Torque=6±0.5kgfxcm)
Use a Philips-head screwdriver to remove two screws for unlocking the AC power outlet.
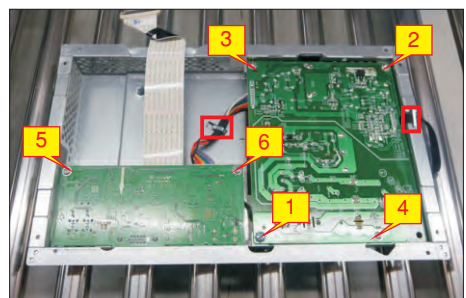(No.3~4 screw size=M3x8, Torque=6~7kgfxcm)

S13 Turn over the bracket chassis. Use a Philips-head screwdriver to remove six screws for unlocking the circuit board, release all the cables from the hooks.
(No.1 screw size=M4x8, Torque=6±0.5kgfxcm;
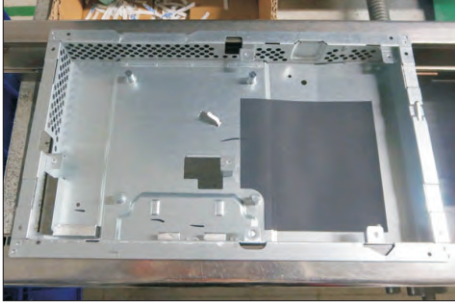No.2~6 screw size=M3x7.5, Torque=6±0.5kgfxcm)

4. Disassembly and Assembly Procedures

S14 Remove the interface board and power board from the bracket chassis module carefully, and disconnect all the cables.
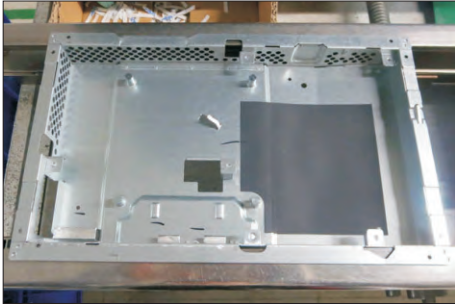
4. Disassembly and Assembly Procedures
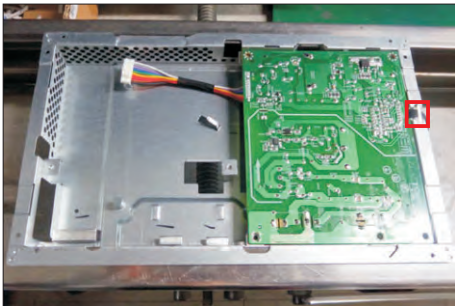
4.2 Assembly Procedures:

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 CN2202 of the interface board. Turn over the interface board and locate it into the bracket. Use a Philips-head screwdriver to tighten six screws for locking the power board and interface board.

(No.1 screw size=M4x8, Torque=6±0.5kgfxcm;
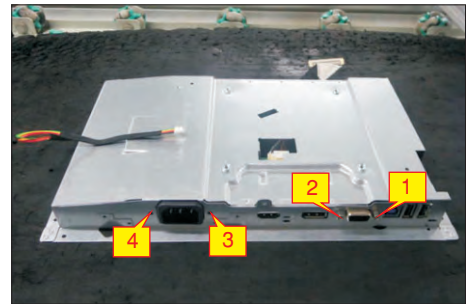No.2~6 screw size=M3x7.5, Torque=6±0.5kgfxcm)
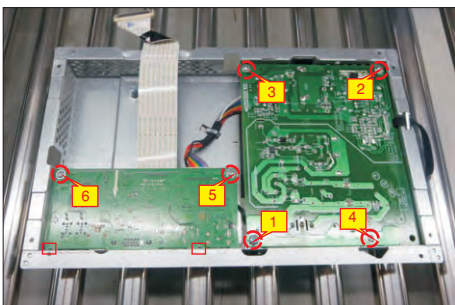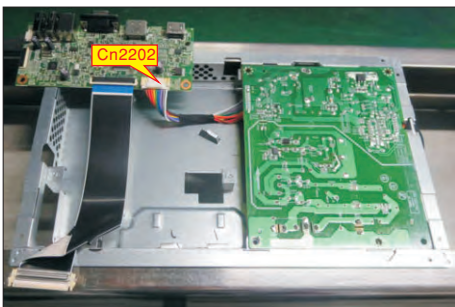
S5 Turn over the bracket chassis moduleUse a Hex-head screwdriver to tighten two Hex Nuts for locking the D-Sub connector.
(No.1~2 screw size=M3x8, Torque=6±0.5kgfxcm)
Use a Philips-head screwdriver to tighten two screws for locking the AC power outlet.
(No.3~4 screw size=M3x8, Torque=6~7kgfxcm;

S6 Panel preparation: Examine the panel surface according to inspection criteria. Turn over the panel to place the screen faced down, then Use a Jp to stick a piece of mylar on the specific position as the picture below shown.(Note: you must stick a piece of mylar when you change a new panel.)
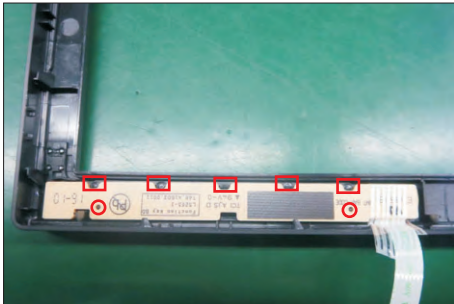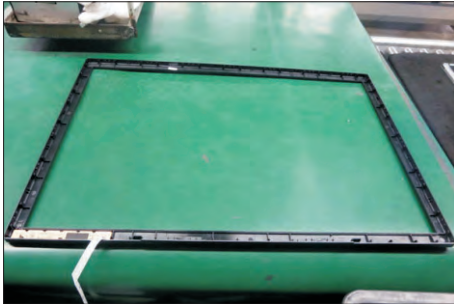

S7 Put the bracket chassis module on the back of LCD module.
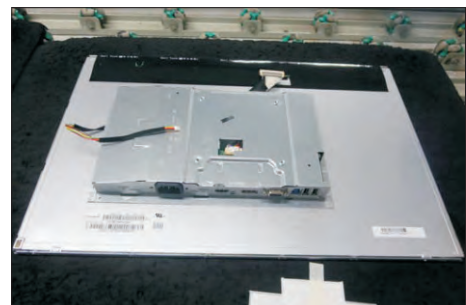
4. Disassembly and Assembly Procedures

S8 Take a function key board and a front bezel, then locate the function keyboard into the hooks of the front bezel for the two parts firmly attached as the picture below shown. Put the front bezel on a protect cushion for later assembling.
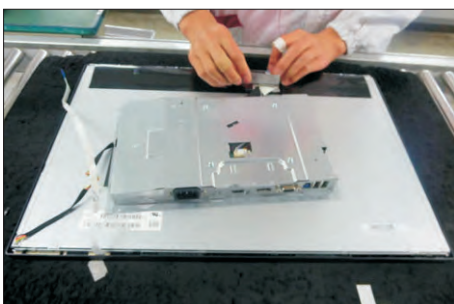

S9 Connect the panel power cable to the connector of the panel module, then tear off the adhesive tape which sticked on the back of cable, fix the cable to the panel.
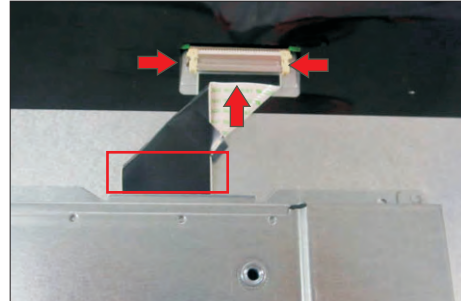

S10 Put the panel module with the bracket into the front bezel carefully to avoid pressing the function key cable, then adjust position of the bracket chassis module till the both parts firmly attached.
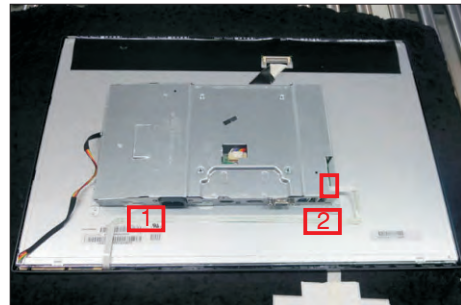

S11 Push the earing-lock, connect LVDS cable to the connector of panel module, then fix the cable with the double-faced tape which sticked on the back of the cable.


S12 Use a proper tool to connect the function key cable to the connector of the board. Fix the function key cable by two adhesive tapes which taped on the back of the cable as the positions of No.1~2.
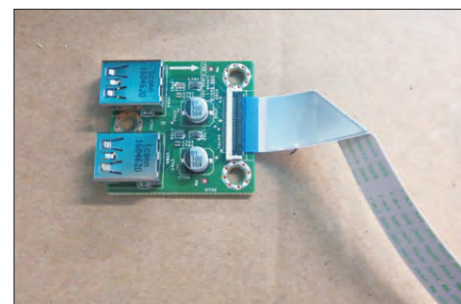

S13 Use a Jip to fix the bracket chassis base module and panel module, then stick two pieces of aluminium foil to fix the bracket chassis base on the positions of the panel as the picture below shown.
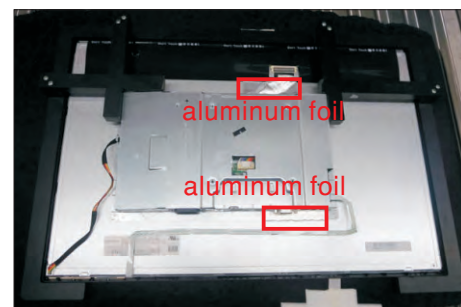
S14 Take a USB board, a USB hub and a connect cable. Connect the cable to the USB board, then locate the USB board into the USB hub.
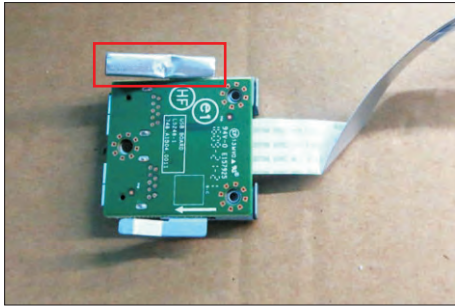
4. Disassembly and Assembly Procedures

S15 Put down a rear cover on a protect cushion. Stick a piece of aluminum foil on one side of the USB hub, then locate the USB unit into the hook of the rear cover, then use a Philips-head screwdriver to tighten one screw for locking the USB board with the USB hub with the middle bezel.
(No.1 screw size=M3x6, Torque=4±0.5kgfxcm)

S16 Move the assembled rear cover close to the panel unit, then connect the USB FFC cable to the connector 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.
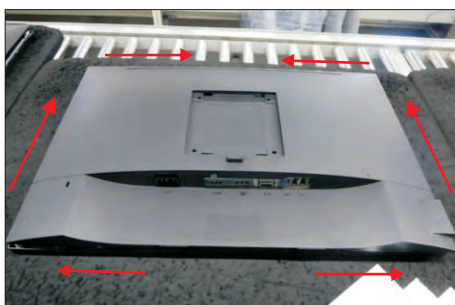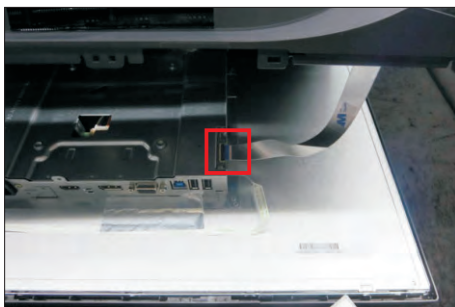
S17 Use a Philips-head screwdriver to tighten four screws for locking mechanisms, then stick one piece of label on the specific positions as the picture below shown.
(No.1~4 screw size=M4x10; Torque=12±0.5kgfxcm)
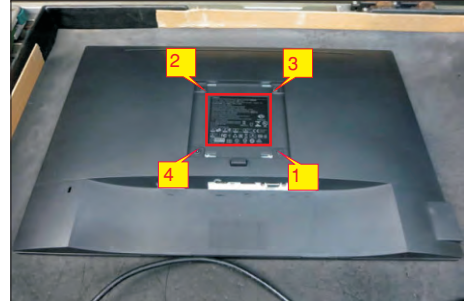
S18 Stick one piece of label on the specific positions as the picture below shown. Fit the two tabs on the upper part of the stand into the grooves on the back of the monitor, and then press the stand so that the monitor mounting area snaps onto the stand.
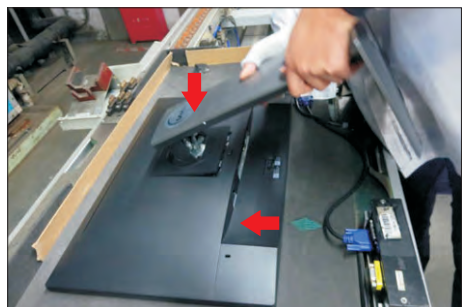
S19 Lift up the monitor, check the DELL logo if it is firmly attached to the front bezel. Provide power supply and a video signal to the monitor, then turn on the monitor for functionality check.

⚠️ **WARNING:** Before you begin any of the procedures in this section, follow the Safety instructions.

Self-test

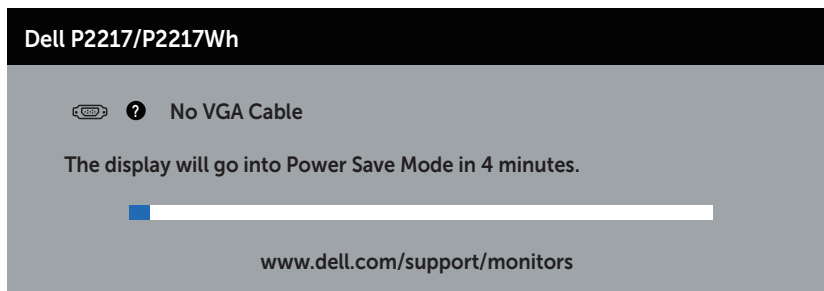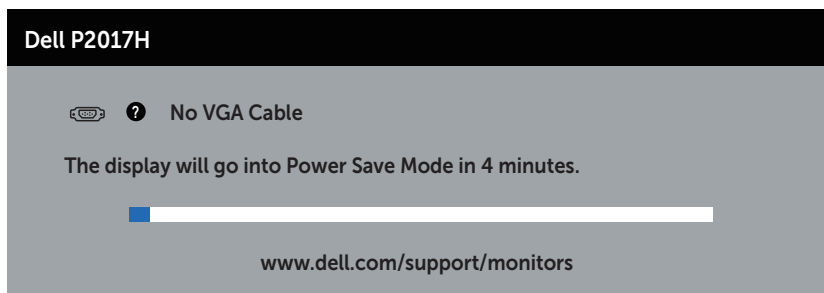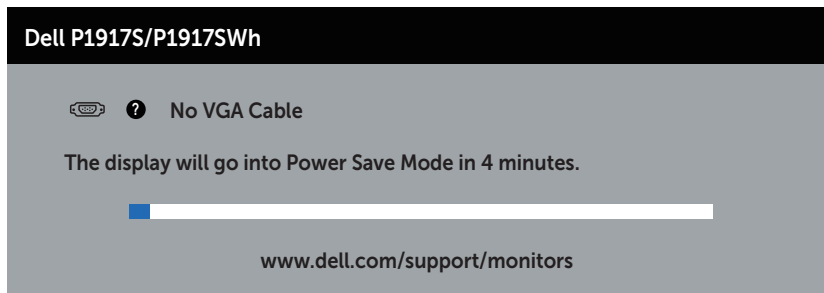Your monitor provides a self-test feature that allows you to check if your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

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.

If the monitor is working correctly, it detects that there is no signal and one of the following message appears. While in self-test mode, the power LED remains white.

Dell P1917S/P1917SWh
⌨️ ❔ No VGA Cable
The display will go into Power Save Mode in 4 minutes.
▮▬▬▬▬▬▬▬▬▬▬
www.dell.com/support/monitors

Dell P2017H
⌨️ ❔ No VGA Cable
The display will go into Power Save Mode in 4 minutes.
▮▬▬▬▬▬▬▬▬▬▬
www.dell.com/support/monitors

Dell P2217/P2217Wh
⌨️ ❔ No VGA Cable
The display will go into Power Save Mode in 4 minutes.
▮▬▬▬▬▬▬▬▬▬▬
www.dell.com/support/monitors

5. Trouble Shooting Instructions

or

Dell P1917S/P1917SWh

▭ ❓ **No HDMI Cable**

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

Dell P2017H

▭ ❓ **No HDMI Cable**

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

Dell P2217/P2217Wh

▭ ❓ **No HDMI Cable**

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

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or

Dell P1917S/P1917SWh

▭ ❓ **No DP Cable**

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

Dell P2017H

▭ ❓ **No DP Cable**

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

Dell P2217/P2217Wh

No DP Cable

The display will go into Power Save Mode in 4 minutes.

www.dell.com/support/monitors

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 remains dark after you reconnect the cables, check your video controller and computer.

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.

NOTE: You can run the built-in diagnostics only when the video cable is unplugged and the monitor is in *self-test mode*.

1   2   3   4   5
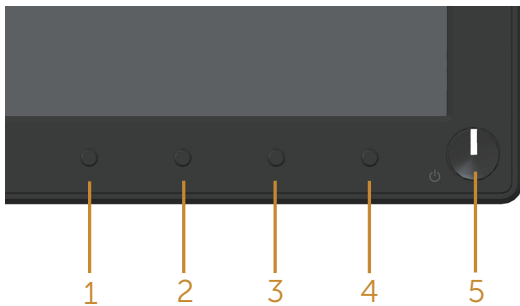
To run the built-in diagnostics:
1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold button 1 for 5 seconds. A gray screen appears.
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 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 1 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	Possible Solutions
No video/power LED off	• 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 correct input source is selected via the Input source menu.
No video/power LED on	• Increase brightness and contrast controls using the 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 via the Input source menu.
Poor focus	• Eliminate video extension cables. • Reset the monitor to Factory Settings (**Factory Reset**). • Change the video resolution to the correct aspect ratio.
Shaky/jittery video	• Reset the monitor to Factory Settings (**Factory Reset**). • Check environmental factors. • Relocate the monitor and test in another room.
Missing pixels	• 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/support/monitors**.
Stuck-on pixels	• 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/support/monitors**.
Brightness problems	• Reset the monitor to Factory Settings (**Factory Reset**). • Adjust brightness & contrast controls via OSD.
Geometric distortion	• Reset the monitor to Factory Settings (**Factory Reset**). • Adjust horizontal & vertical controls via OSD.
Horizontal/vertical lines	• Reset the monitor to Factory Settings (**Factory Reset**). • 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	• Reset the monitor to Factory Settings (**Factory Reset**). • 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	• Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent problems	• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to Factory Settings (**Factory Reset**). • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing color	• 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	• Change the **Color Setting Mode** in the **Color Settings** OSD to **Graphics** or **Video** depending on the application. • 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 **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	• Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power management modes). • Alternatively, use a dynamically changing screensaver.
Video ghosting or overshooting	• Change the **Response Time** in the **Display** OSD to **Fast** or **Normal** depending on your application and usage.

Product-specific problems

Specific Symptoms	Possible Solutions
Screen image is too small	• Check the **Aspect Ratio** setting in the **Display** settings OSD. • Reset the monitor to Factory Settings (**Factory Reset**) .
Cannot adjust the monitor with the buttons on the side panel	• Turn off the monitor, unplug the power cord, plug it back, and then turn on the monitor. • Check if the OSD menu is locked. If yes, press and hold the button above the power button for 6 seconds to unlock. (For more information, see Lock).
No input signal when user controls are pressed	• Check the signal source. Ensure the computer is not in standby or sleep mode by moving the mouse or pressing any key on the keyboard. • Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary. • Reset the computer or video player.
The picture does not fill the entire screen	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.

5. Trouble Shooting Instructions

Universal serial bus (USB) specific problems

Specific Symptoms	Possible Solutions
USB interface is not working	• Check that your monitor is turned On. • Reconnect the upstream cable to your computer. • Reconnect the USB peripherals (downstream connector). • Switch Off and then turn On the monitor again. • Reboot the computer. • Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system.
Supre Speed USB 3.0 interface is slow	• Check that your computer is USB 3.0-capable.. • Some computers have USB 3.0, USB 2.0, and USB 1.1 ports. Ensure that the correct USB port is used. • 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 3.0 device is plugged in	• Increase the distance between the USB 3.0 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 3.0 port.