Service
Service
Service

Simplified

Service Manual

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all DELL Company Equipment. The service procedures recommended by DELL and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. DELL could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, DELL has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by DELL must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.
Hereafter throughout this manual, DELL Company will be referred to as DELL.

WARNING

Use of substitute replacement parts, which do not have the same, specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from DELL. DELL assumes no liability, express or implied, arising out of any unauthorized modification of design.

Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:
DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
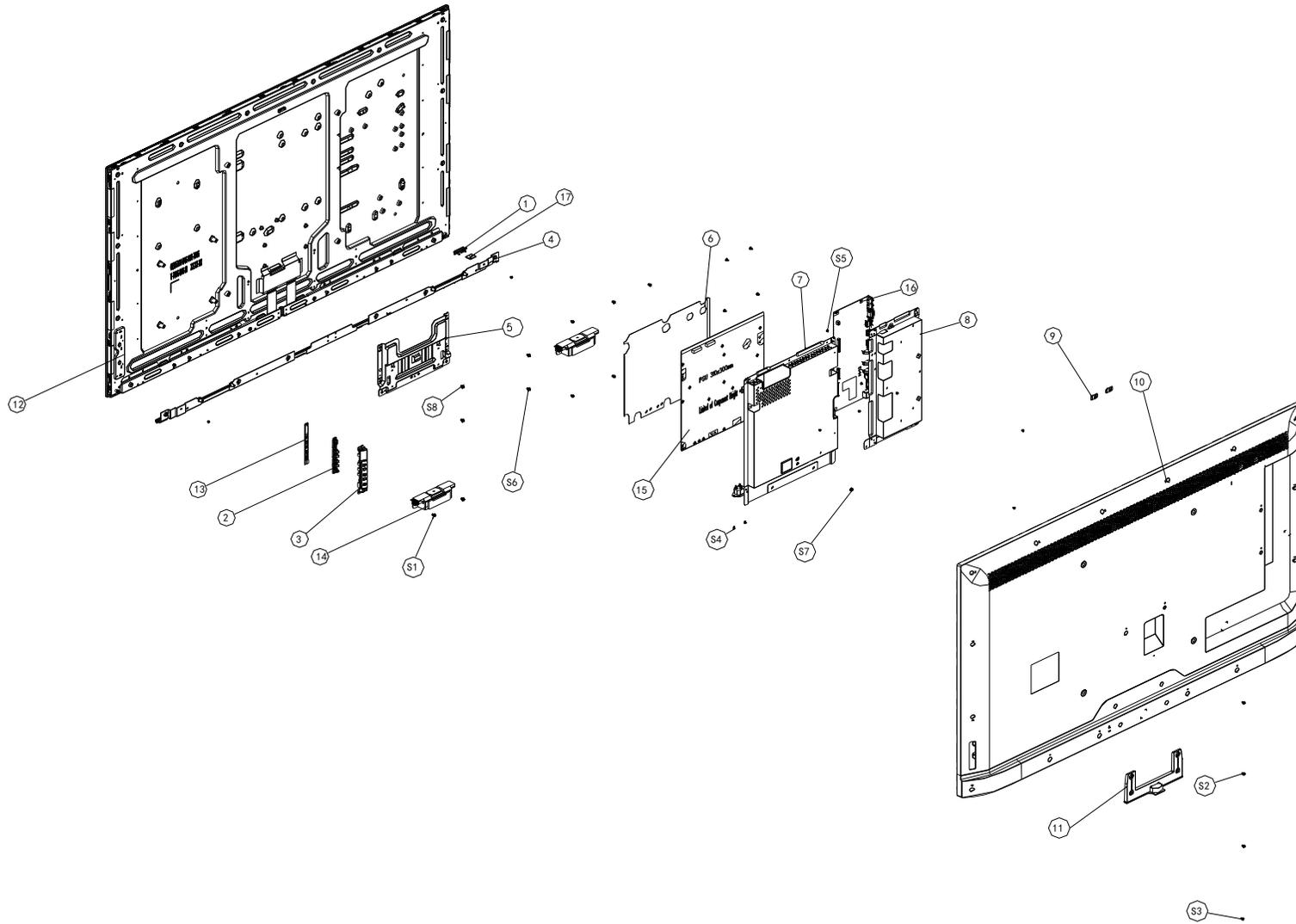CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

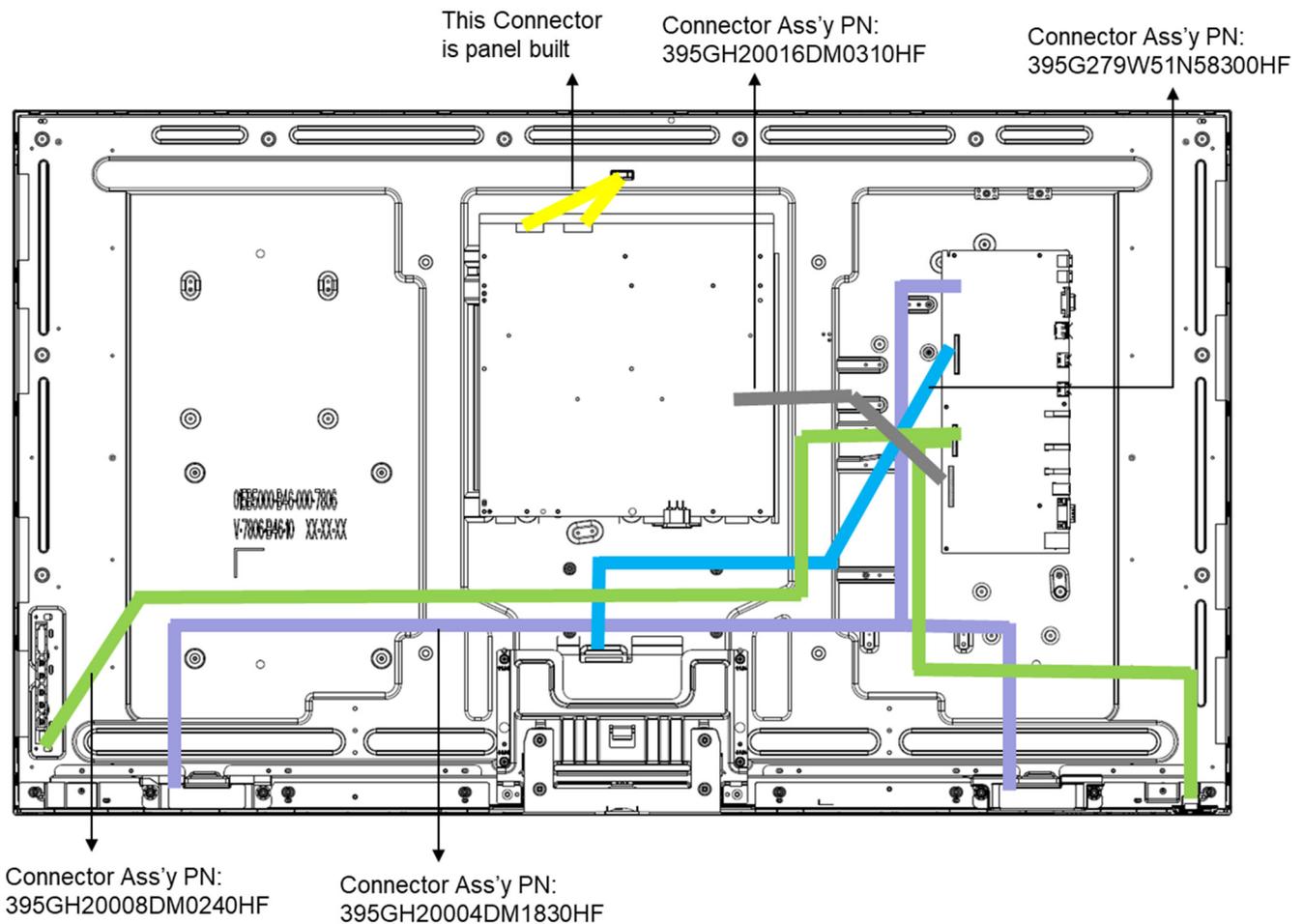Take care during handling the LCD module with backlight unit
-Must mount the module using mounting holes arranged in four corners.
-Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
-Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
-Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
-Make certain that treatment person's body is grounded through wristband.
-Do not leave the module in high temperature and in areas of high humidity for a long time.
-Avoid contact with water as it may a short circuit within the module.
-If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

1. Exploded view diagram with list of items

No.	Description	Q'ty
1	LENS	1
2	KEY	1
3	COVER_KEY	1
4	DECO_BEZEL	1
5	BKT_STAND	1
6	INSULATING SHEET	1
7	BKT_POWER_TOP	1
8	MAINFRAME	1
9	BKT_VESA	2
10	REAR_COVER	1
11	COVER_HINGE	1
12	PANEL	1
13	KEY BOARD	1
14	SPEAKER	2
15	ADAPTER BOARD	1
16	MAIN BOARD	1
17	IR BOARD	1

No.	Part No.	Description	Q'ty
S1	001G6021 1	SCREW Q4 10(SPEAKER/PANEL)	4
S2	0M1G1740 14225 CR3	SCREW M4 14(COVER_HINGE/REAR COVER)	4
S3	0M1G1030 6 47 CR3	SCREW M3 6(REAR COVER/PANEL)	20
S4	0M1G 130 6 47 CR3	SCREW M3 6(AC SOCKET ASS'Y/BKT_POWER_TOP)	2
S5	0M1G3030 4 47 CR3	SCREW P3 4(MAIN BOARD/POWER BOARD/MAINFRAME)	15
S6	0D1G1030 6120	SCREW D3 6(MAIN BOARD/MAINFRAME)	6
S7	0M1G1140 6120	SCREW M4 6(MAINFRAME)	1
S8	0M1G1740 8 47 CR3	SCREW M4 8(BKT_STAND/PANEL)	4

2. Wiring connectivity diagram

This Connector is panel built

Connector Ass'y PN: 395GH20016DM0310HF

Connector Ass'y PN: 395G279W51N58300HF

Connector Ass'y PN: 395GH20008DM0240HF

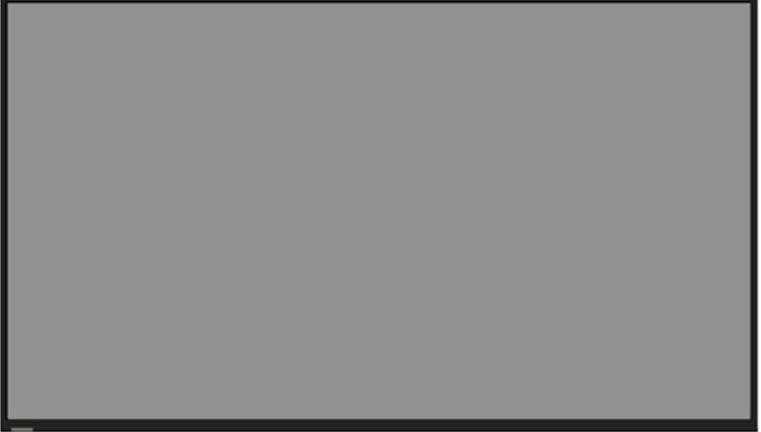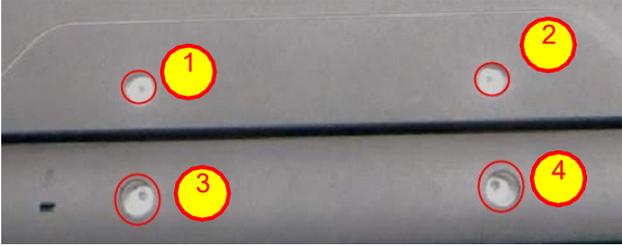Connector Ass'y PN: 395GH20004DM1830HF

3. Mechanical Instruction
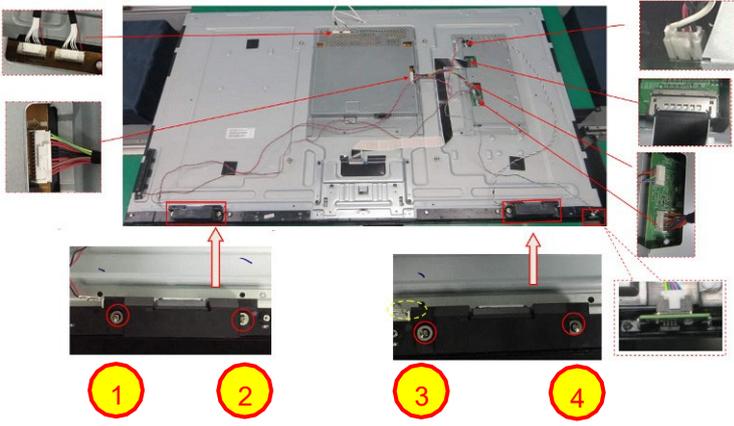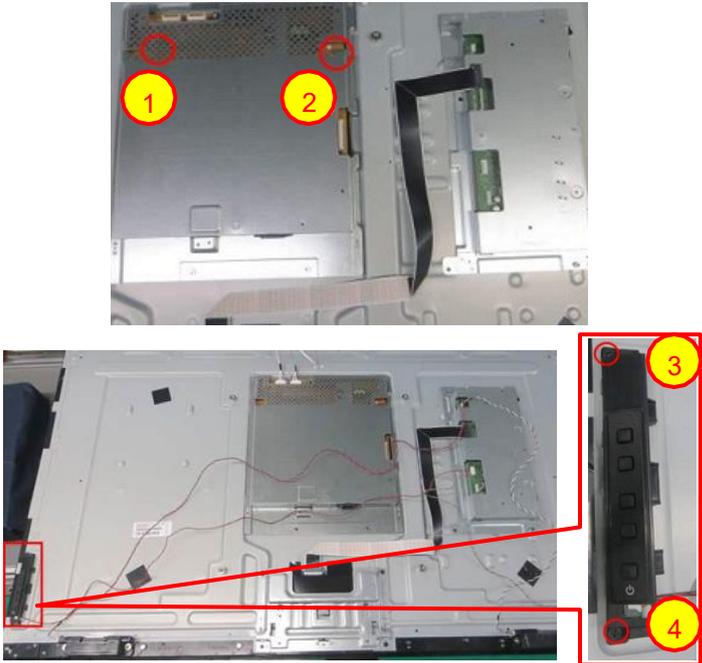
Tools Required

List the type and size of the tools that would typically can be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.
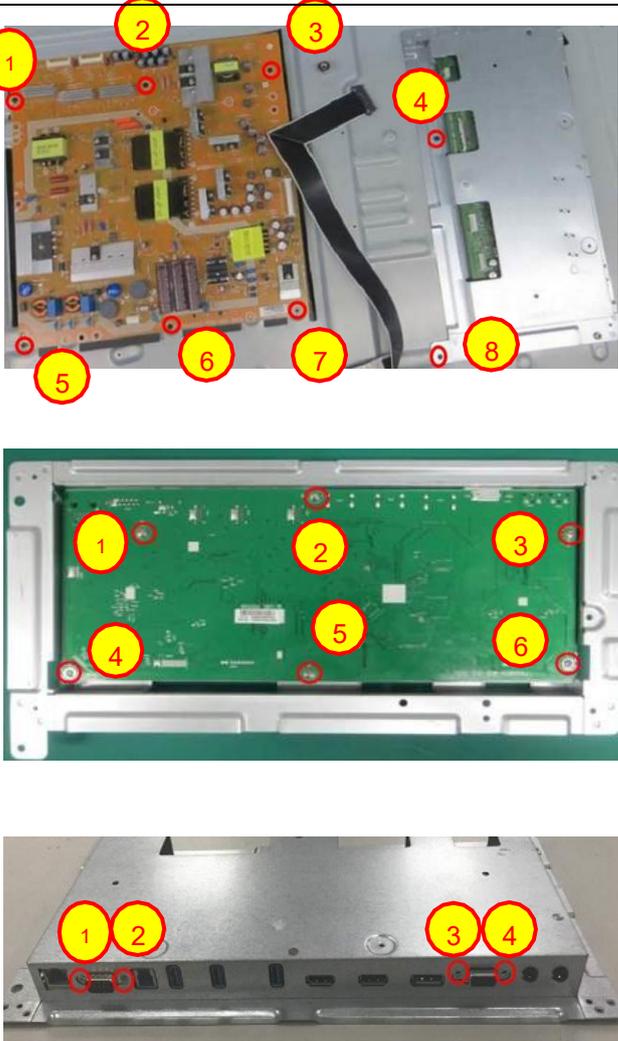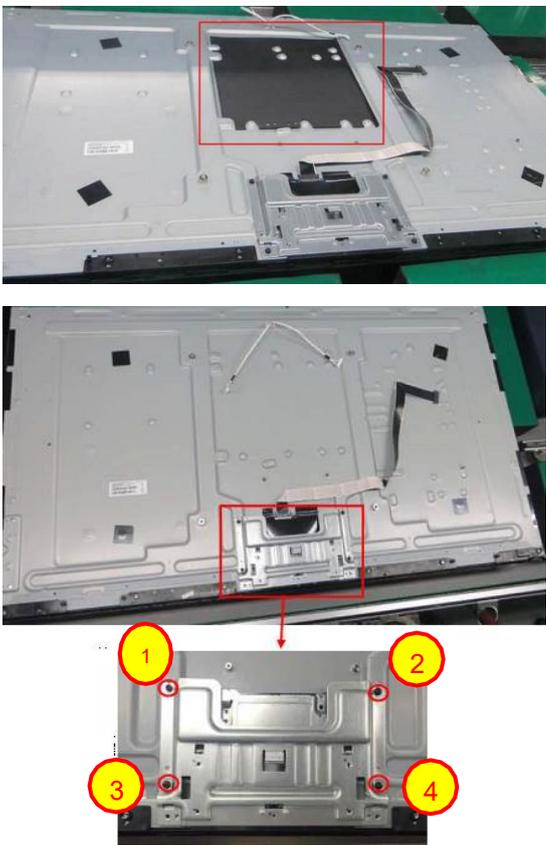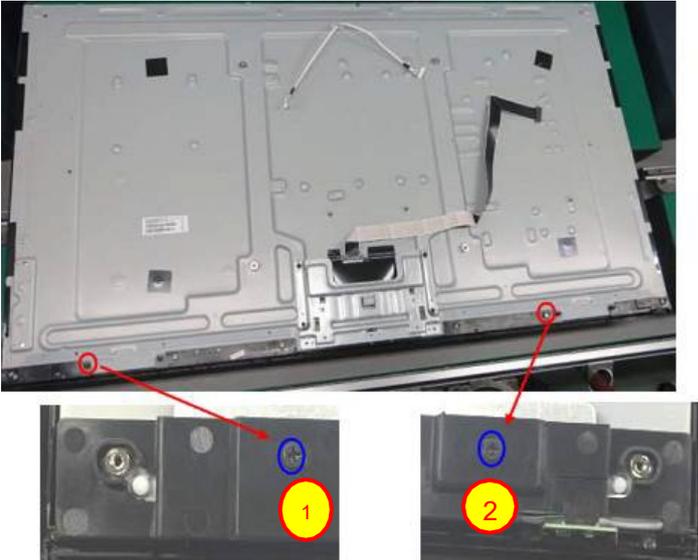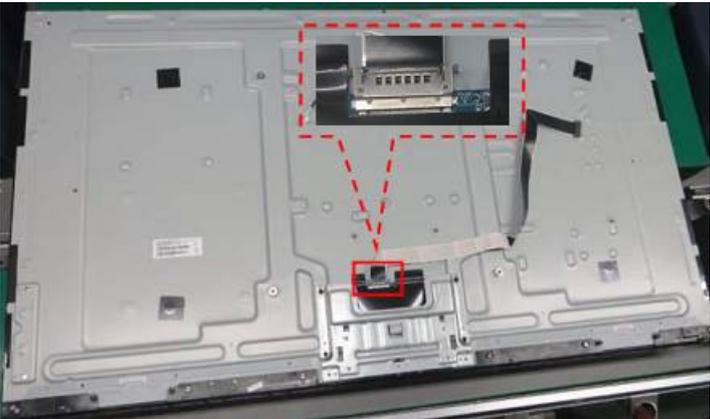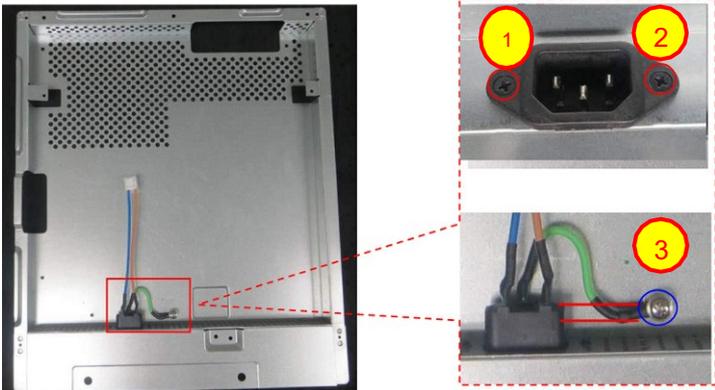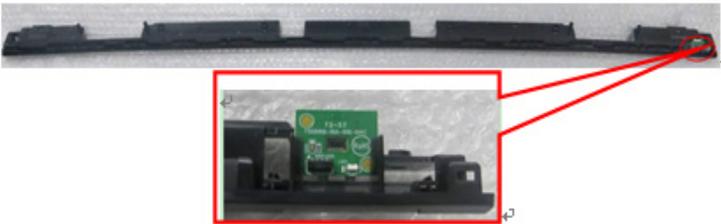
Tool Description:

- Screwdriver (Phillip-head, Hexagonal head)
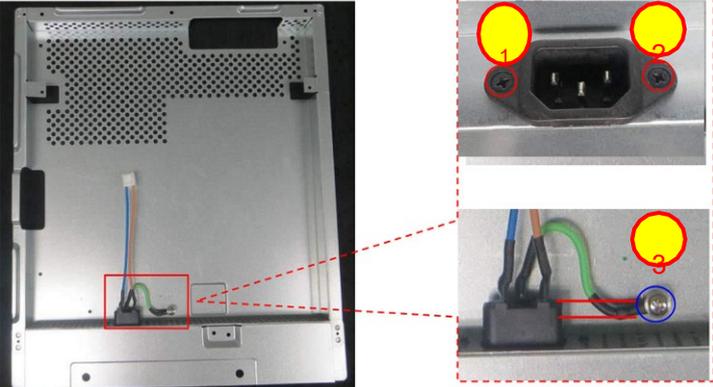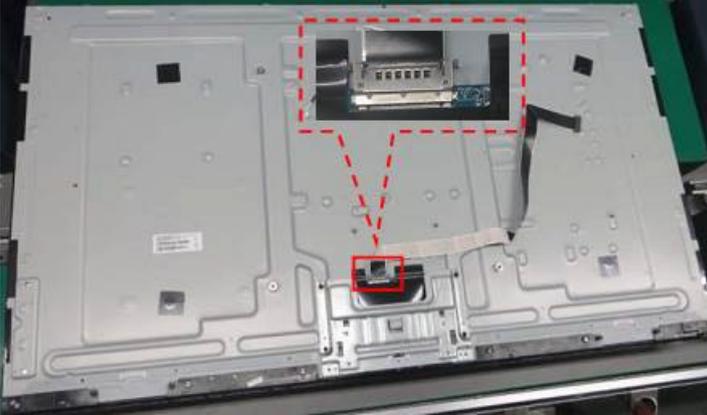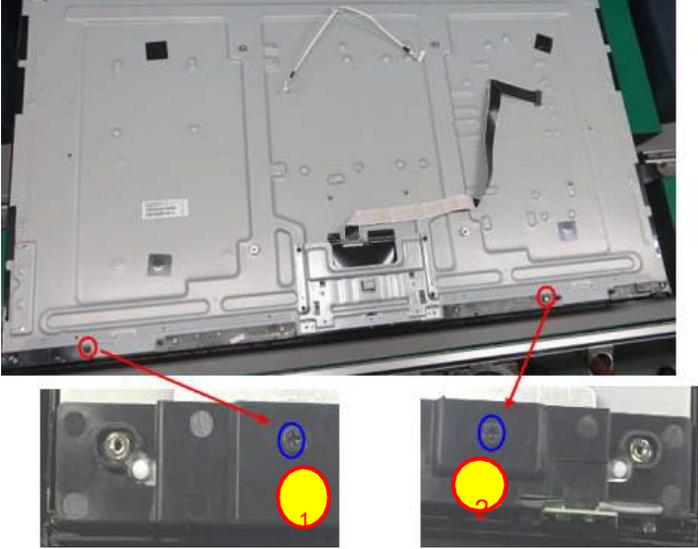
- Penknife

3.1 Disassembly Procedures:

Step	Figure	Remark
S1. Before disassemble		Turn off power, Unplug external cables from product
S2. Remove the cover hinge		Use a Philips-head screwdriver to remove 4 screws for remove the cover hinge. (No.1~4 screw size=M4x14; Torque=12±2kgf.cm)
S3. Remove the REAR COVER	 	Use a Philips-head screwdriver to remove 20 screws for remove the Rear Cover. (No.1~20 screw size=M3x6; Torque=4±1kgf.cm) Use Penknife to separate the bezel and rear cove follow the arrows in sequence, then you can take out rear cover.

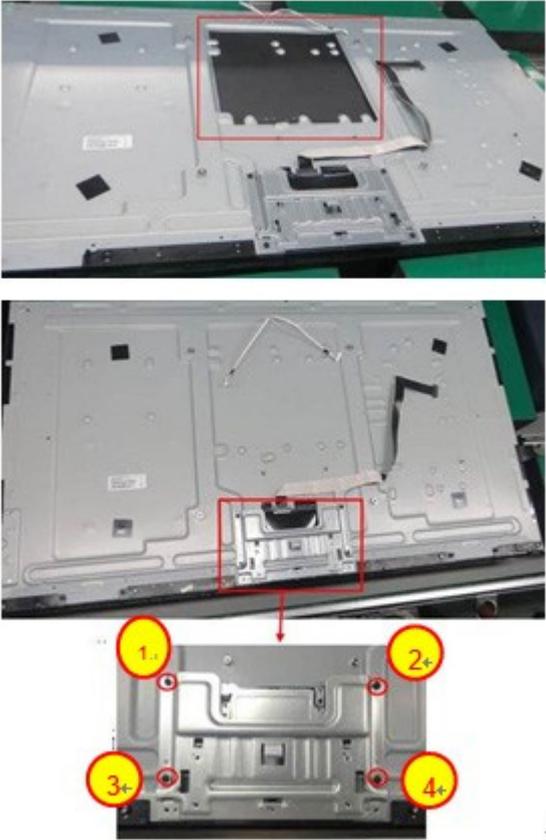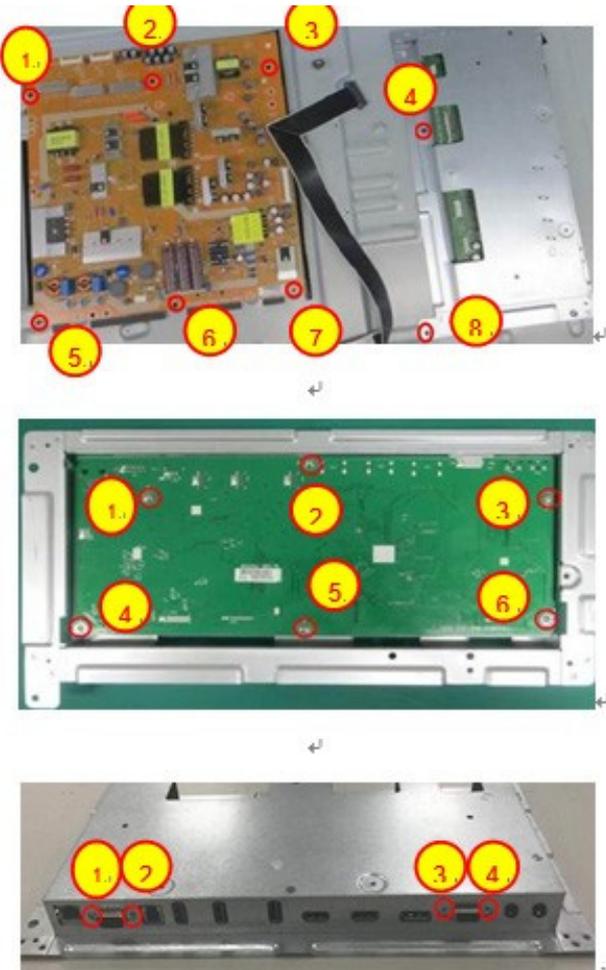|		
S4. Disconnect all of the cable and remove the speakers		1. Disconnect all of the pins and remove the speakers. 2. Use a Philips-head screwdriver to remove 4 screws for remove the Speakers (No.1~4 screw size=Q4x10; Torque=8±1kgf.cm)
S5. Remove the BKT and the key board		Use a Philips-head screwdriver to remove 4 screws for remove the BKT and Key board (No.1~4 screw size=Q4x10 Torque= 4±1kgf.cm)

S6. Remove the Main &Power Board		Use a Philips-head screwdriver to remove 8 screws for remove the Power board. (No.1~8 screw size=P3x4; Torque=4±1kgf.cm)
		Use a Philips-head screwdriver to remove 6 screws for remove the Main board. (No.1~6 screw size=D3x6 Torque=6±1kgf.cm)
		Use a hex screwdriver to remove 4 screws for remove the Main board. (No.1~4 Hex-screw Torque=4.5±0.5kgf.cm)
S7. Remove the Mylar and remove the screws to remove the BKT stand		Use finger to Remove the Mylar
		Use a Philips-head screwdriver to remove 4 screws for remove the BKT stand (No.1~4 screw size=M4x8 Torque=6±1kgf.cm)

S8. Remove the DECO bezel		Use a Philips-head screwdriver to remove 2 screws for remove DECO Bezel (No.1~2 screw size=P3x4; Torque=4±1kgf.cm)
S9. Disconnect the FFC cable		Disconnect the pin
S10. Remove the screw to remove the AC SOCKET ASS'Y		Use a Philips-head screwdriver to remove 3 screws for remove the BKT stand (No.1~2 screw size=M3x6 Torque=4±1kgf.cm No.3 screw size=M4x6 Torque=12±2kgf.cm)
S11. The Deco bezel and the IR board		The IR board

3.2 Assembly Procedures:

Step	Figure	Remark
S1. Assembly t**he Deco bezel and the IR board**		The IR board
S2. Tighten **the AC SOCKET ASS'Y**		Use a Philips-head screwdriver to tighten 3 screws for the BKT stand (No.1~2 screw size=M3x6 Torque=4±1kgf.cm No.3 screw size=M4x6 Torque=12±2kgf.cm)
S3. Connect the **FFC** cable		Connect the pin
S4. Tighten **the DECO bezel**		Use a Philips-head screwdriver to screw 2 screws for tighten DECO Bezel (No.1~2 screw size=P3x4; Torque=4±1kgf.cm)

S5. Paste the Mylar and screw the screws to tighten the BKT stand		Use finger to paste the Mylar
		Use a Philips-head screwdriver to screw 4 screws for tighten the BKT stand (No.1~4 screw size=M4x8 Torque=6±1kgf.cm)
S6. Remove the Main &Power Board		Use a Philips-head screwdriver to screw 8 screws for tiighten the Power board. (No.1~8 screw size=P3x4; Torque=4±1kgf.cm)
		Use a Philips-head screwdriver to screew 6 screws for tighten the Main board. (No.1~6 screw size=D3x6 Torque=6±1kgf.cm)
		Use a hex screwdriver to screw4 screws for tighten the Main board. (No.1~4 Hex-screw Torque=4.5±0.5kgf.cm)

S7. Tighten **the BKT and the key board**		Use a Philips-head screwdriver to screw 4 screws for tighten the BKT and Key board (No.1~4 screw size=Q4x10 Torque= 4±1kgf.cm)
S8. Connect all of the cable and assembly the speakers		1. Connect all of the pins and assembly the speakers. 2. Use a Philips-head screwdriver to screw 4 screws for tighten the Speakers (No.1~4 screw size=Q4x10; Torque=8±1kgf.cm)
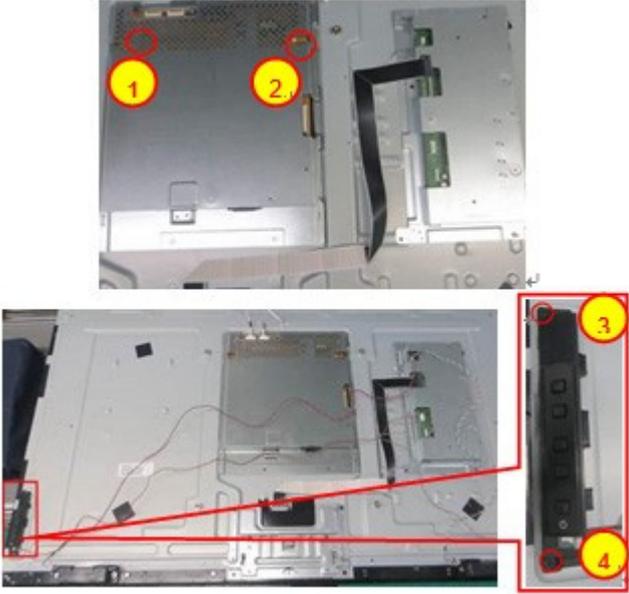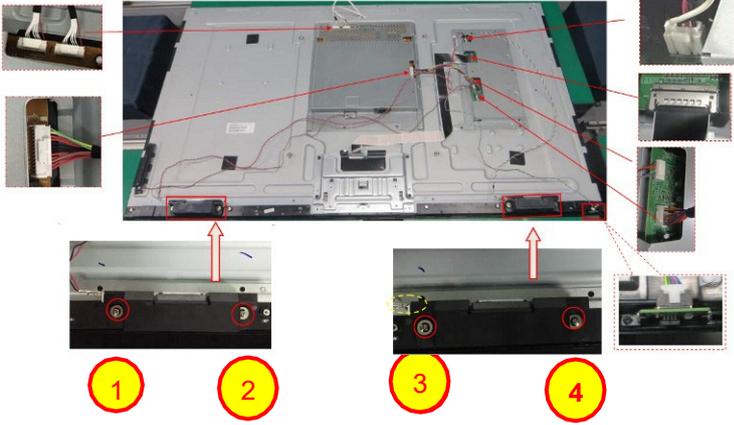
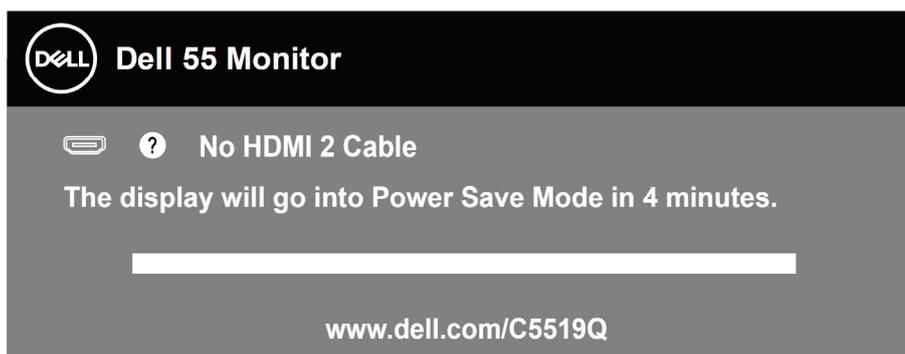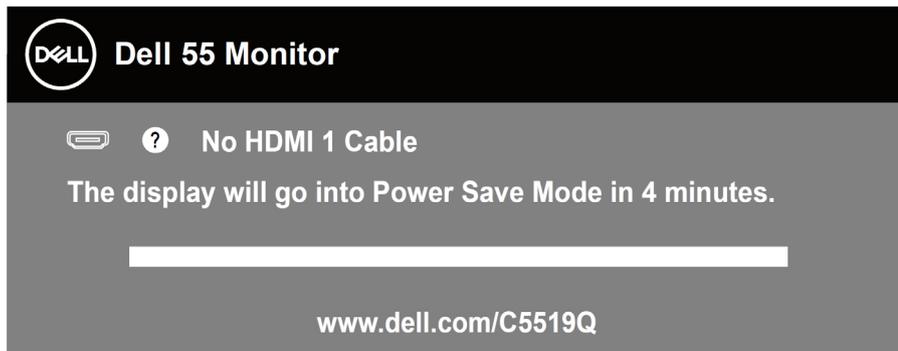|		
S9. Assembly the REAR COVER		Use a Philips-head screwdriver to screw 20 screws for tighten the Rear Cover. (No.1~20 screw size=M3x6; Torque=4±1kgf.cm)
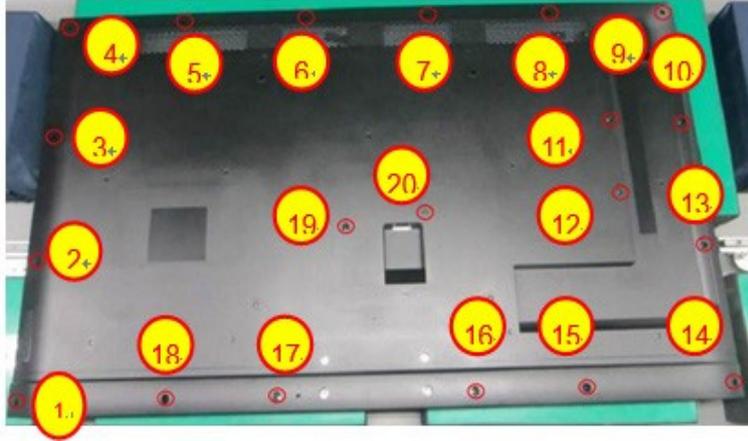
4.Trouble shooting instructions

⚠ **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) Dell 55 Monitor

⌨ ❓ **No HDMI 1 Cable**

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

www.dell.com/C5519Q

(DELL) Dell 55 Monitor

⌨ ❓ **No HDMI 2 Cable**

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

www.dell.com/C5519Q

14

Dell 55 Monitor

No VGA Cable

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

www.dell.com/C5519Q

Dell 55 Monitor

No DP Cable

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

www.dell.com/C5519Q

✎ 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 your computer and the monitor.

If your monitor remains dark after you reconnect the cables, check your video controller and computer.
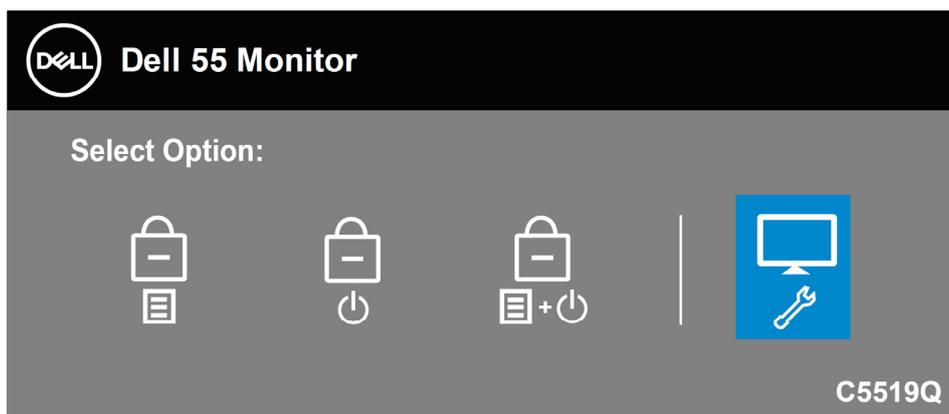
Built-in diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing 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.**
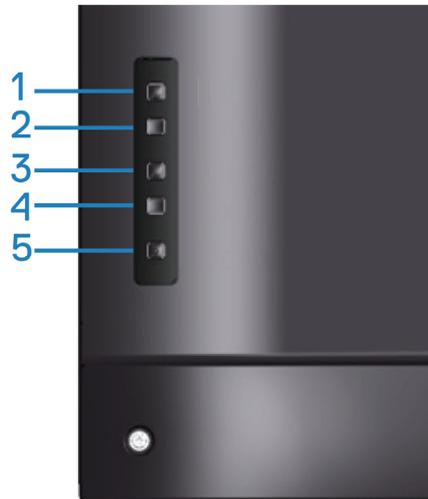
To run the built-in diagnostics:

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 the Exit key (button 4) for 4 seconds to enter the OSD lock/unlock menu.

4. Select the 🖥 icon to enable the built-in diagnostics.

5. Carefully inspect the screen for abnormalities.

6. Press the Up key (button 1) on the back cover again. The color of the screen changes to grey.

7. Inspect the display for any abnormalties.

8. Repeat step 6 and 7 to inspect the display in red, green, blue, black, white and text pattern screens.

The test is complete when the text pattern screen appears. To exit, press the Up key (button 1) again.

If you do not detect any screen abnormalties 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 power button is pressed. • 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.