

# **Simplified Service Manual**

**LCD Monitor**

**P1424H**



**Service Manual Versions and Revision**

<b>No.</b>	<b>Version</b>	<b>Release Date</b>	<b>Revision</b>
1	1.0	2023/01/12	Initial Release

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# Simplified Service Manual

## 1. Important Safety notice

### Connecting your monitor

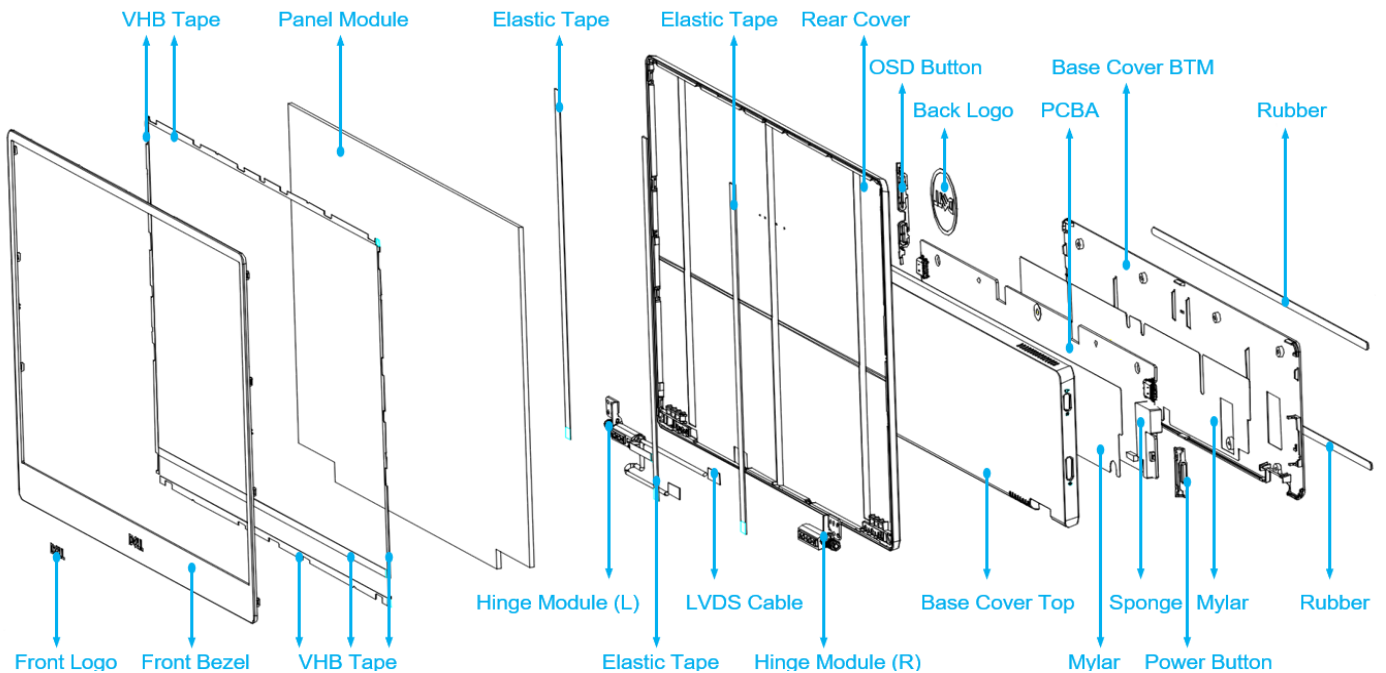
**⚠ WARNING:** Before you begin any of the procedures in this section, follow the [Safety instructions](#).

**✍ NOTE:** Dell monitors are designed to work optimally with the Dell- supplied cables inside the box. Dell does not guarantee the video quality and performance if non-Dell cables are used.

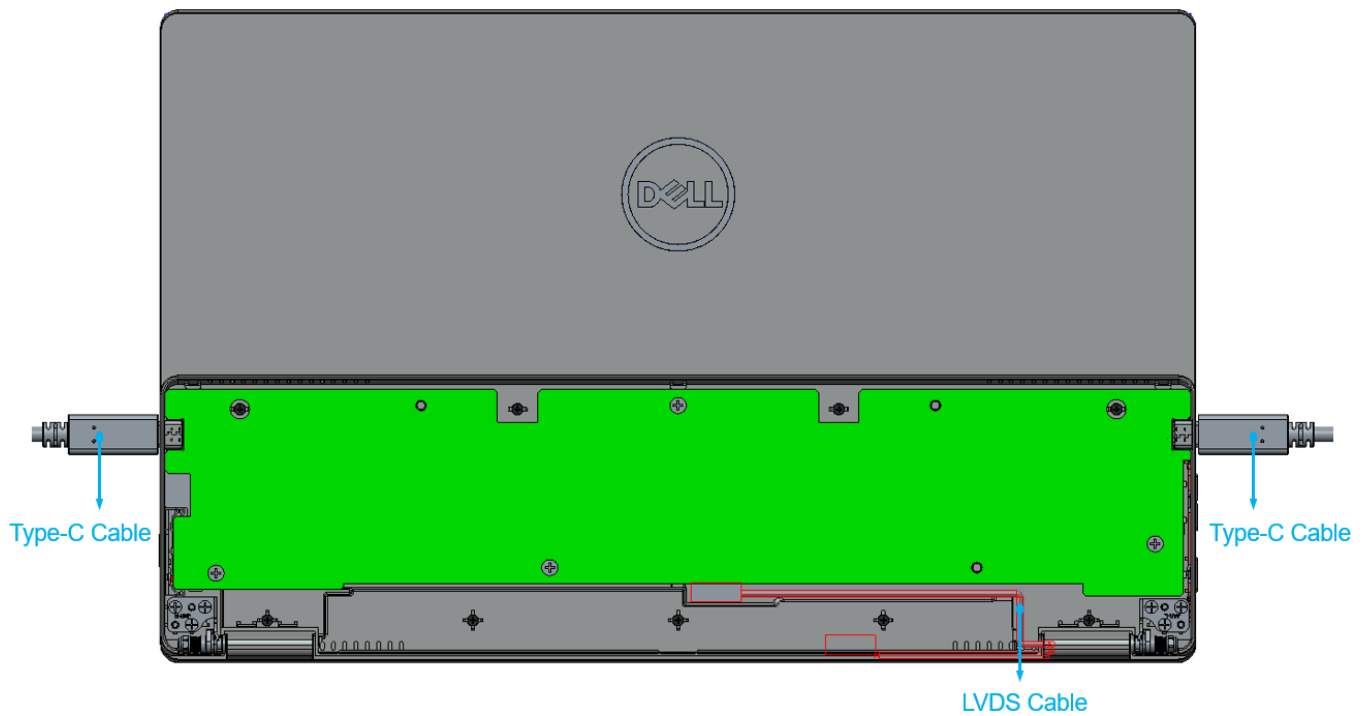
**✍ NOTE:** Do not connect all cables to the computer at the same time.

**✍ NOTE:** The images are for the purpose of illustration only. The appearance of the computer may vary.

## 2. Exploded view diagram with list of items



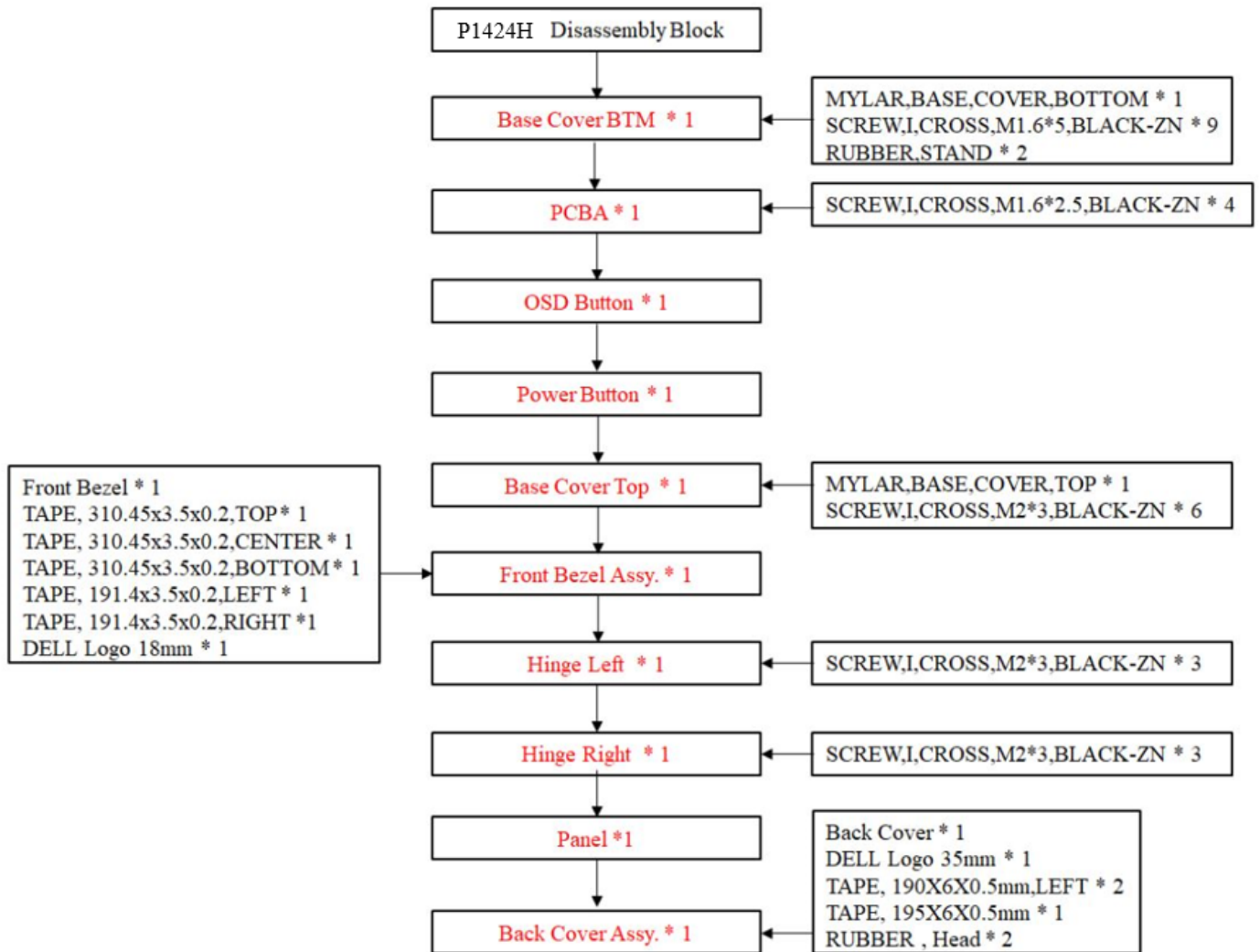
### 3. Wiring connectivity diagram

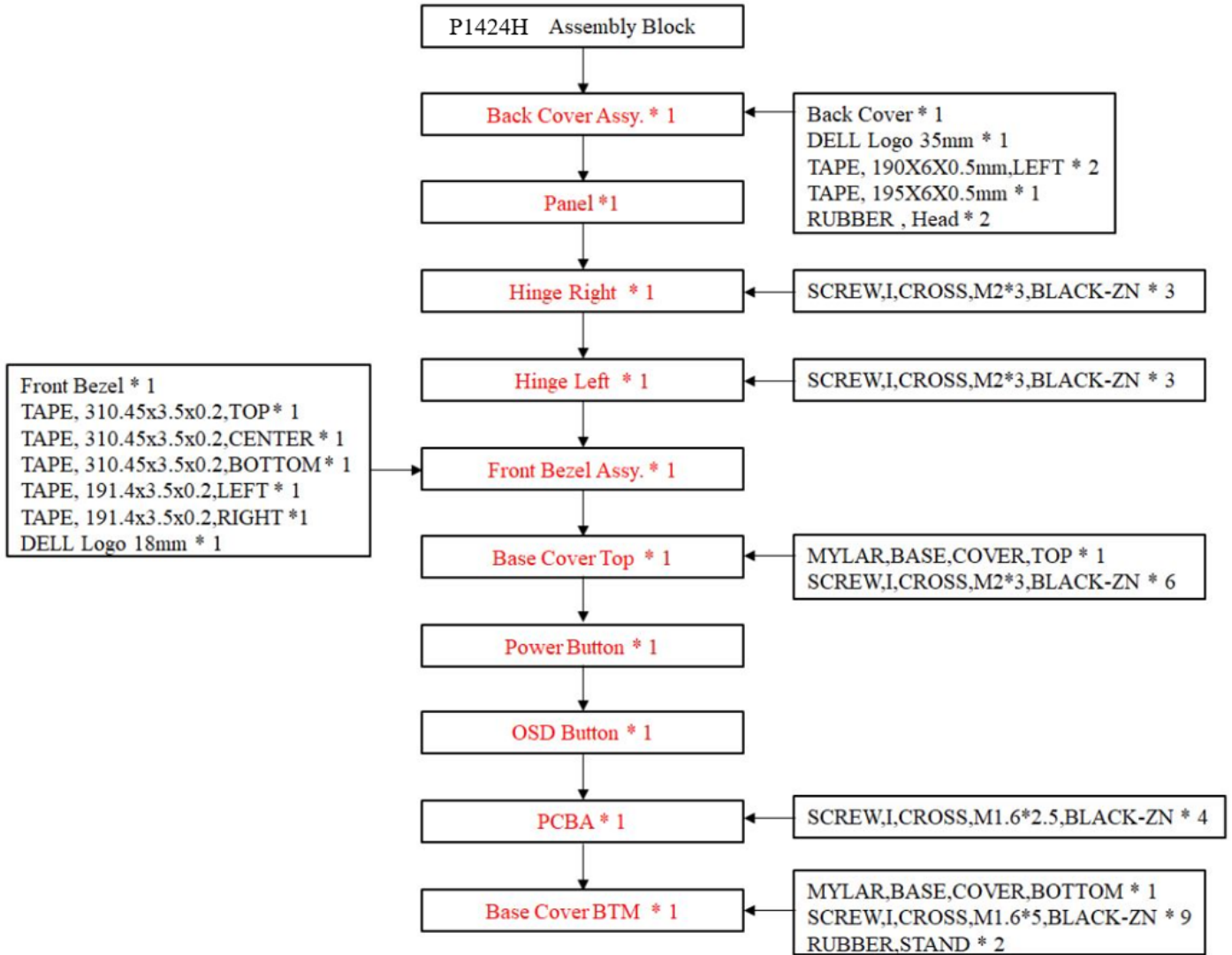


### 4. List of tools / equipment

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

## 5. Disassembly and Assembly Procedures





## 6. Trouble shooting instructions

### Troubleshooting

**⚠ WARNING:** Before you begin any of the procedures in this section, follow the [Safety instructions](#).

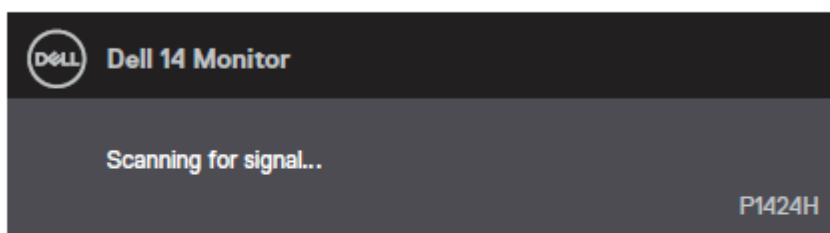
#### Self-test

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 your computer.
2. Disconnect Type-C power adapter cable, computer USB Type-C cable from the monitor.



3. Connect Type-C power adapter cable to the monitor. This way, the computer does not have to be involved.
4. If the monitor is working correctly, it scans for signal and detects that there is no signal and the following message appears. While in self-test mode, the power LED remains white.






5. Reconnect the computer USB Type-C cable, then turn on your computer wait for computer boot up is complete.

If your monitor remains dark after step 5, check your video controller and computer.

## **Built-in diagnostics**

### **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  for about 3 seconds and wait for a pop up diagnostic pattern.
3. Use button Up/[+] to switch pattern.  
A gray test pattern appears at the beginning of the diagnostic program.
4. Carefully inspect the screen for abnormalities.
5. Press button Up/[+] 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. When in White color test screen, check for white color uniformity and if there white color appears greenish/reddish, etc.
8. Press button Up/[+] to end the diagnostic program.

## Common problems

The following table provides 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>• Verify if the device required more than 65W power charging.</li> <li>• Ensure that the power button is pressed.</li> <li>• Ensure that the USB Type-C cable is not damage.</li> </ul>
No video/Power LED on	<ul style="list-style-type: none"> <li>• Increase brightness 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>• Verify if the USB Type-C interface of the device can support DP alternate mode.</li> <li>• Set Windows to Projection mode.</li> </ul>
Poor focus	<ul style="list-style-type: none"> <li>• Eliminate video extension cables.</li> <li>• Change the video resolution to the correct aspect ratio.</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 about Dell Monitor Quality and Pixel Policy, see Dell Support site at <a href="https://www.dell.com/support/monitors">https://www.dell.com/support/monitors</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 about Dell Monitor Quality and Pixel Policy, see Dell Support site at: <a href="https://www.dell.com/support/monitors">https://www.dell.com/support/monitors</a>.</li> </ul>
Brightness problems	<ul style="list-style-type: none"> <li>• Adjust brightness controls using OSD.</li> </ul>
Synchronization problems	<ul style="list-style-type: none"> <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 safe mode.</li> </ul>
Safety related issues	<ul style="list-style-type: none"> <li>• Do not perform any troubleshooting step.</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>• Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.</li> </ul>

Common symptoms	Possible solutions
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>
Intermittent charging when using USB Type-C connection to computer, laptop, and so on	<ul style="list-style-type: none"><li>• Check if the maximum power consumption device is over 65 W.</li><li>• Ensure that you use only Dell approved adapter or the adapter that comes with the product.</li><li>• Ensure that you use Dell-approved USB Type-C cable provided with the monitor.</li><li>• Ensure that the USB Type-C cable is not damaged.</li></ul>