Simplified Service Manual

LCD Monitor

C7017T

DELL™ Simplified Service Manual

Service Manual Versions and Revision

No.	Version	Release Date	Revision
1	1.0	2016/04/19	Initial Release
2	2.0	2021/02/26	ErP lot 5 additional requirements

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1. Important Safety notice

Connecting Your Monitor

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

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. Connect the VGA / DP / HDMI / MHL cable to the corresponding video port on the back of your computer.

## 2. Exploded view diagram with list of items

Item	P/N	Item name	Qty	Note
57	50111LP70L00R09	BADGE,DELL,30mm,C7016H	1	
56	50921660790H01	SCREW,F,CROSS,M4*7,BLACK Zn	24	
55	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	4	
54	50210LP70N02H21	FRONT_BEZEL,AL_FRAME_R,C7017T	1	
53	790LR140010R00	POWER BOARD	1	
52	50204LP70L00R01	Shielding For Power,T=0.7mm,C7016H	1	
51	5011SLP70L01H28	FOIL,AL,L120xV30xT0.07mm,	2	
50	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	10	
49	70100LP70L03H01	ASSY,Bracket,VESA_Mount,T=2.0mm,C7016H	2	
48	71404LP70L00H04	ASSY,XP_BUTTON,C7016H	1	
47	790KZ15000100R00	KEY PAD,C7016H	1	
46	70100LP70L02H01	ASSY,BRACKET,XP_SHEET,T=1.2mm,C7016H	1	
45	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	4	
44	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	16	
43	70100LP70L01H01	ASSY,BRACKET,SPK_SHEET,T=1.2mm,C7016H	2	
42	6180100012IR00		2	
41	50914630590R00	SCREW,PV,CROSS V/VAS,M3x5,BLACK Zn	4	
40	50916307700H01	SCREW_P,CROSS M3x6,ZN-CC	6	
39	TBD	REMOTE_HOLDER_TOP_CASING,C7016H	1	
38	TBD	REMOTE	1	
37	4401990030G0R09	AC INPUT	1	
36	50916305200R00	SCREW,I,CROSS,M3x5,Zn-Cc	2	
35	50921660790H00	SCREW,F,CROSS,M4*7,BLACK Zn	46	
34	71405LP70N00H5	ASSY,BACK_COVER,C7017T	1	
33	50104PP65000R16	FLAT CABLE CLAMP,PP6501	3	
32	50914630602R01	SCREW,P,CROSS V/W-SPR,M3x6,Zn,ROHS	1	
31	N/A	CABLES	2	
30	TBD	MAGNET	4	
29	TBD	STYLUS+HOIDER	1	
28	TBD	STYLUS	2	
27	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	2	
26	50112LP70L00H05	IR_LENS,C7016H	1	
25	790KE160010R00	IR_board,C7016H	1	
24	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	13	
23	50916305200R00	SCREW,I,CROSS,M3x5,Zn-Cc	3	
22	50900002500H02	BOLT,#4-40x11.8,Ni FOR D-SUB/DVI CONN,RO	4	
21	5111LP70N04H08	GASKET,EMI,L26xW8x10.3MM	1	
20	5111LP70N09H28	GASKET,EMI,L110xW5x12MM	2	
19	5111LP70N08H28	GASKET,EMI,L117xW6x12MM	2	
18	50204LP70N00H11	Shielding For IF,T=0.7mm,C7017T	1	
17	790LR2500100R00	RJ45-board,C7017T	1	
16	790LR130010R00	IF-board,C7017T	1	
15	70100LP70N00H00	ASSY,CHASSIS,Video_SHEET,T=0.7mm,C7017T	1	
14	50921660790H00	SCREW,F,CROSS,M4*7,BLACK Zn	16	
13	50916307700H00	SCREW_P,CROSS M3x6,ZN-CC	16	
12	50202LP70L03H01	BRACKET,SHEET FOR PANEL,T=2.0mm,C7016H	16	
11	63100270003R07	LCP 69.5'L0695B3LG02YAXSHARP,ROHS	1	
10	5111LP70N00H28	FOAM,297X5X4mm	6	
9	5111LP70N00H08	FOAM,360X5X4mm	8	
8	5010ILP70N00H00	TOUCH_GLASS_CV1,C7017T	1	
7	5105PP65007R08	double side,TAPE,100*20*0.3mm	20	
6				
5	50210LP70N00H01	FRONT_BEZEL,AL_FRAME_B,C7017T	1	
4	50202LP70N00H11	U_BEAM,C7017T	2	
3	50210LP70N00H01	FRONT_BEZEL,AL_FRAME_L,C7017T	1	
2	50217LP70N00H01	CORNER_PLATE_TOP,C7017T	4	
1	50210LP70N03H21	FRONT_BEZEL,AL_FRAME_T,C7017T	1	
Item	Item name	P/N	Qty	Note

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	drawing release	2016.03.01	

MODEL NO. LP70N7 — FOXCONN CORP. (NEW PCEBG)

TITLE: Explode drawing C7017T

DRAWN. Aaron 2016.03.01
CHK. rory 2016.03.01
APPROVAL. BILL 2016.03.01

PART NO. N/A — REV. A

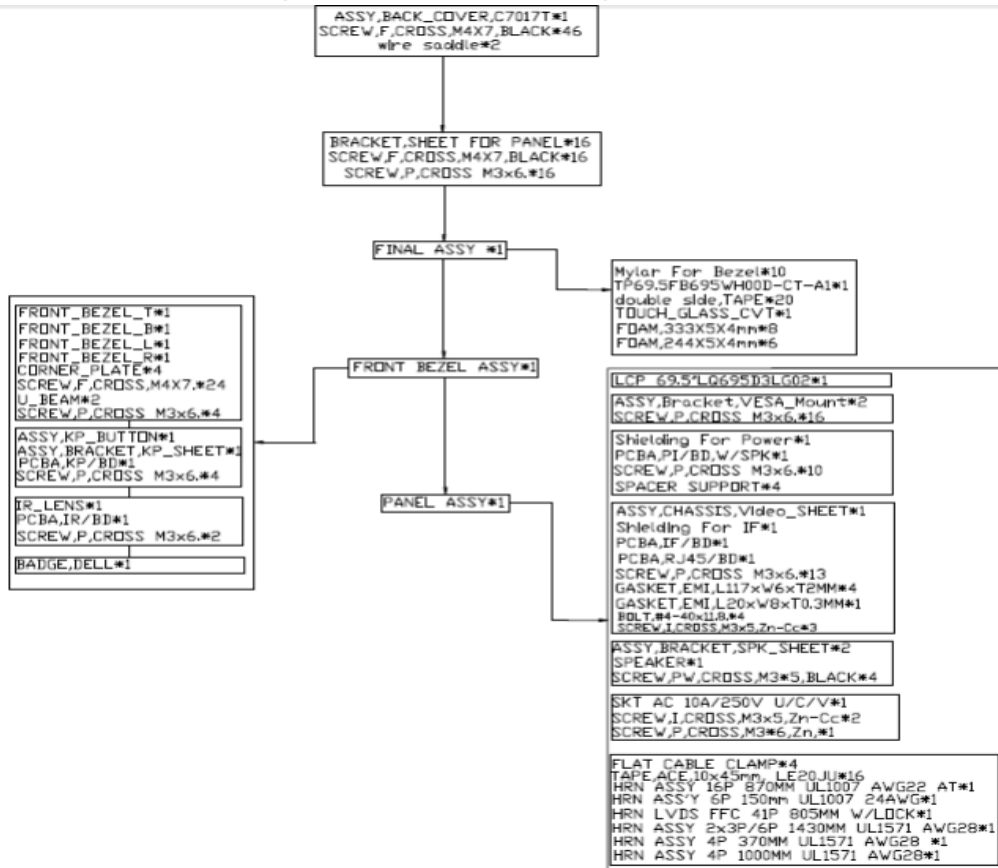SCALE: 1:1 DWG NO. N/A SHEET: 1

THIRD ANGLE PROJECTION

3. Wiring connectivity diagram
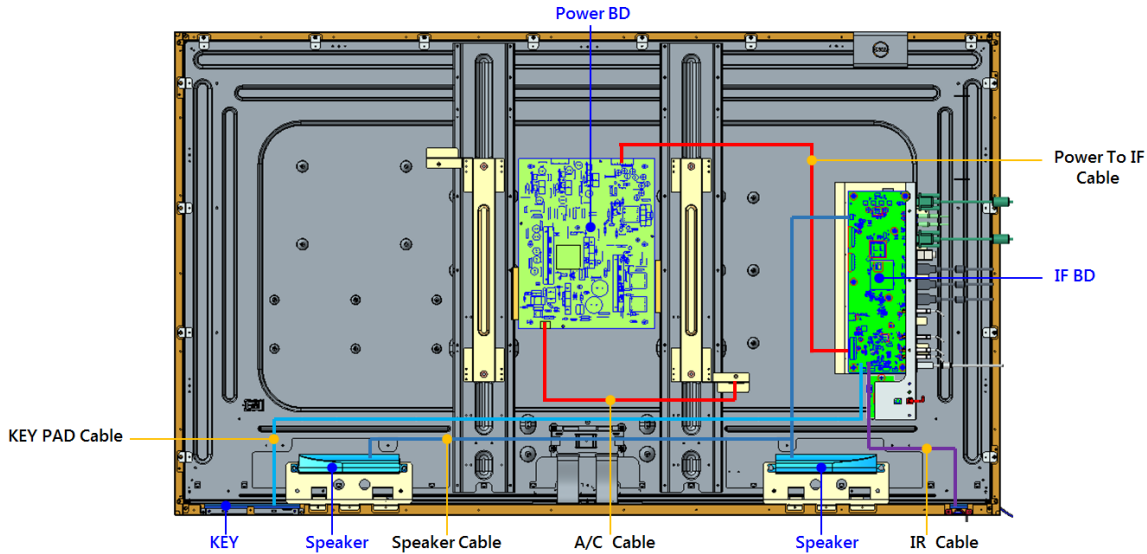
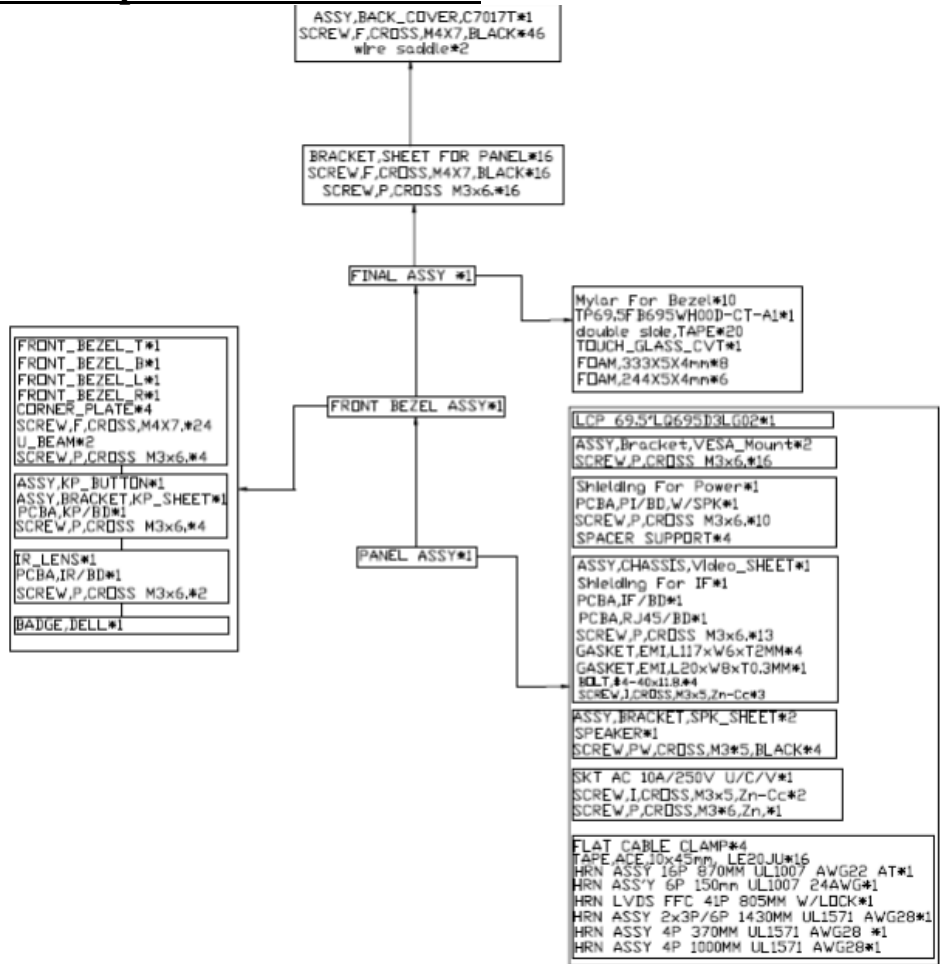## 4. List of tools / equipment

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

5. Disassembly and Assembly Procedures

```
                    ASSY,BACK_COVER,C7017T*1
                    SCREW,F,CROSS,M4X7,BLACK*46
                          wire saddle*2


                    BRACKET,SHEET FOR PANEL*16
                    SCREW,F,CROSS,M4X7,BLACK*16
                       SCREW,P,CROSS M3x6.*16


                          FINAL ASSY *1
                                                        Mylar For Bezel*10
                                                        TP69.5FB695WH00D-CT-A1*1
                                                        double side,TAPE*20
  FRONT_BEZEL_T*1                                        TOUCH_GLASS_CVT*1
  FRONT_BEZEL_B*1                                        FOAM,333X5X4mm*8
  FRONT_BEZEL_L*1                                        FOAM,244X5X4mm*6
  FRONT_BEZEL_R*1
  CORNER_PLATE*4          FRONT BEZEL ASSY*1
  SCREW,F,CROSS,M4X7.*24                                 LCP 69.5"LQ695D3LG02*1
  U_BEAM*2
  SCREW,P,CROSS M3x6.*4                                  ASSY,Bracket,VESA_Mount*2
                                                         SCREW,P,CROSS M3x6.*16
  ASSY,KP_BUTTON*1
  ASSY,BRACKET,KP_SHEET*1                                Shielding For Power*1
  PCBA,KP/BD*1                                           PCBA,PI/BD,W/SPK*1
  SCREW,P,CROSS M3x6.*4                                  SCREW,P,CROSS M3x6.*10
                                                         SPACER SUPPORT*4
  IR_LENS*1                      PANEL ASSY*1
  PCBA,IR/BD*1                                           ASSY,CHASSIS,Video_SHEET*1
  SCREW,P,CROSS M3x6.*2                                  Shielding For IF*1
                                                         PCBA,IF/BD*1
  BADGE,DELL*1                                           PCBA,RJ45/BD*1
                                                         SCREW,P,CROSS M3x6.*13
                                                         GASKET,EMI,L117xW6xT2MM*4
                                                         GASKET,EMI,L20xW8xT0.3MM*1
                                                         BOLT,#4-40x11.8.*4
                                                         SCREW,I,CROSS,M3x5,Zn-Cc*3

                                                         ASSY,BRACKET,SPK_SHEET*2
                                                         SPEAKER*1
                                                         SCREW,PW,CROSS,M3*5,BLACK*4

                                                         SKT AC 10A/250V U/C/V*1
                                                         SCREW,I,CROSS,M3x5,Zn-Cc*2
                                                         SCREW,P,CROSS,M3*6,Zn,*1

                                                         FLAT CABLE CLAMP*4
                                                         TAPE,ACE,30x45mm, LE20JU*16
                                                         HRN ASSY 16P 870MM UL1007 AWG22 AT*1
                                                         HRN ASS'Y 6P 150mm UL1007 24AWG*1
                                                         HRN LVDS FFC 41P 805MM W/LOCK*1
                                                         HRN ASSY 2x3P/6P 1430MM UL1571 AWG28*1
                                                         HRN ASSY 4P 370MM UL1571 AWG28 *1
                                                         HRN ASSY 4P 1000MM UL1571 AWG28*1
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6. Trouble shooting instructions

Troubleshooting

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

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 cables from the back of the computer. To ensure proper Self-Test operation, remove all VGA, DP, HDMI1 /MHL, HDMI2, HDMI3 cables from the back of computer.

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.
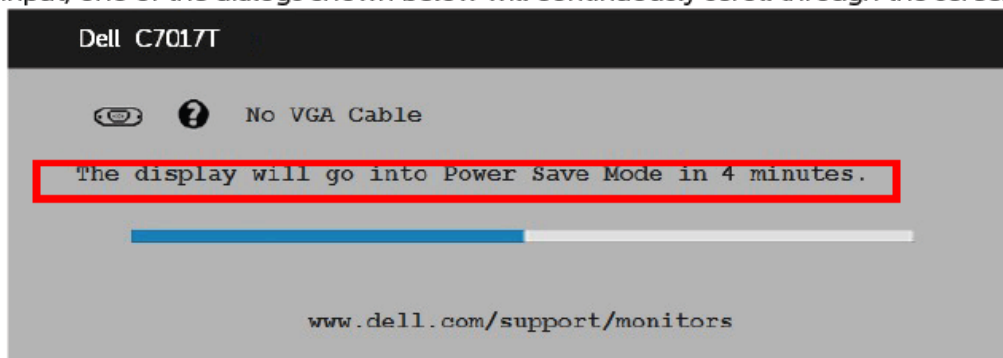
4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged. The monitor will enter **Power Save Mode after 4 minutes** if left at this state.

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.

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.

1   2   3   4   5

📝 **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 **Button 1** on the front panel for 5 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the **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 screens.

The test is complete when the Text screen appears. To exit, press the **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	What You Experience	Possible Solutions
No Video/Power LED off	No picture	• 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 via the **Input Source** Select button. • Check the "Power LED Button" option under Energy in OSD Menu.
No Video/Power LED on	No picture or no brightness	• Increase brightness & contrast controls via OSD. • Perform monitor self-test feature check. • Check for bent or broken pins in the video cable connector. • Ensure that the correct input source is selected via the **Input Source** Select menu. • Run the built-in diagnostics.
Poor Focus	Picture is fuzzy, blurry, or ghosting	• 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 (16:9).
Shaky/Jittery Video	Wavy picture or fine movement	• Perform Auto Adjust via OSD. • Adjust the Phase and Pixel Clock controls via OSD. • Reset the monitor to **Factory Settings**. • Check environmental factors. • Relocate the monitor and test in another room.

Remote control no working	Cannot control LCD Monitor	• Check remote control batteries have been installed property. • Ensure the remote control sensor is toward to monitor's remote control sensor on left bottom side.
Missing Pixels	LCD screen has spots	• 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: **http://www.dell.com/support/monitors**.
Stuck-on Pixels	LCD screen has bright spots	• 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: **http://www.dell.com/support/monitors**.
Brightness Problems	Picture too dim or too bright	• Reset the monitor to **Factory Settings**. • Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD.
Geometric Distortion	Screen not centered correctly	• Reset the monitor to **Factory Settings**. • Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD.
Horizontal/Vertical Lines	Screen has one or more lines	• 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.

Synchronization Problems	Screen is scrambled or appears torn	• 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 the safe mode.
Safety-Related Issues	Visible signs of smoke or sparks	• Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	• 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	• 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	Picture color not good	• Change the Color Mode in the Color OSD to Graphics or Video depending on the application. • Try different Color Preset Settings in Color OSD. Adjust R/G/B value in Color OSD if the Color Management is turned off. • Change the Input Color Format to PC RGB or YPbPr in the **Color** OSD.
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	• 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.

🖉 **NOTE:** When choosing DP , HDMI1/MHL , HDMI2, HDMI3 mode, the Auto Adjust
function is not available.

Product-Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	• Check the **Aspect Ratio** setting in the **Display** 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	• Turn off the monitor, unplug the power cord, plug back, and then turn on the monitor. • Check whether the OSD menu and Power button is locked. If yes, press and hold the button beside the Power button for 6 seconds to unlock (for more information, see Lock). Or pressing the menu key of remote control takes you directly to the OSD settings menu, with OSD 'Lock' pre-selected on entry, use the ⬆ and ⬇ keys of remote control to select 'Unlock', press ✅ of remote control to unlock. (for more information, see **Lock**)
No Input Signal when user controls are pressed	No picture, the LED light is white. When you press "up", "down" or "Menu" key, the message " No input signal" will appear.	• 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. Re-plug the signal cable 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	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.

Universal Serial Bus (USB) Specific Problems

Common Symptoms	What You Experience	Possible Solutions
USB interface is not working	USB peripherals are 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. • Re-start the computer. • Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system.
High Speed USB 3.0 interface is slow.	High Speed USB 3.0 peripherals working slowly or not working at all	• Check that your computer is USB 3.0-capable. • Some computers have both USB 3.0 and USB 2.0 and USB 1.1 ports. Ensure that the correct USB port is used. • Reconnect the upstream cable to your computer. • Reconnect the USB peripherals (downstream connector). • Re-start the computer.

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Mobile High-Definition Link (MHL) Specific Problems

Common Symptoms	What You Experience	Possible Solutions
MHL interface is not working.	Cannot see MHL device image shown on monitor.	• Re-connect the upstream cable Ensure your MHL cable and MHL device are MHL certified. • Check your MHL device is turned On. • Check your MHL device is not in Standby mode. • Check physical MHL cable connection is corresponding to input source selected on OSD Menu i.e., HDMI (MHL) . • Wait for 30 seconds after connecting MHL cable as some MHL devices require longer recovery time.

Touch Problems

Common Symptoms	What You Experience	Possible Solutions
No touchscreen response in saving mode	Could not wake up monitor and computer by touching the screen in saving mode	• Ensure that the USB cable connecting to PC and the monitor properly secured. • Access Device Manager and choose HID Interface Device under Human Device. • Select HID- compliant device Properties. • Allow the device to wake the computer.

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Ethernet Problems

Common Symptoms	What You Experience	Possible Solutions
Ethernet not working	Dell Web Management for Monitors Webpage control is not working	• Ensure that the Network cable connecting the Monitor is properly secured. • Press and hold the Button 1 and Button 3 on the front panel for 3 seconds to turn on , A network icon 🖧 appears and is shown on Top - left corner for 5 seconds . • Press and hold the Button 1 and Button 3 on the front panel for 3 seconds to turn off , A network icon 🖧 appears and is shown on Top - left corner for 5 seconds . 1 2 3 4 5