

Dell Calibration Assistant

User's Guide

Model: Calibration Assistant
Regulatory model: Calibration Assistant



Notes, cautions, and warnings



NOTE: A NOTE indicates important information that helps you make better use of your computer.



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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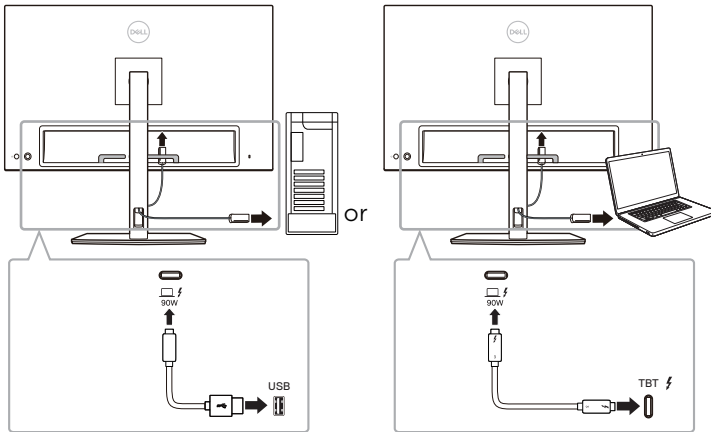


Overview

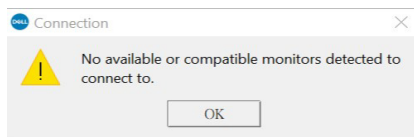
Dell Calibration Assistant is an application designed for scheduling internal calibration and validation, review calibration and validation results, and generate calibration and validation reports into HTML format for web posting.

Before you begin

- 1 You must have a Dell UP3221Q or UP2720Q monitor connected to your computer.
- 2 Download the Dell Calibration Assistant software from the following sites:
UP2720Q: <https://www.dell.com/UP2720Q>.
UP3221Q: <https://www.dell.com/UP3221Q>.
- 3 Ensure that the Thunderbolt™ 3 Active cable is connected from the Thunderbolt™ 3 Upstream Port of the monitor to the computer or the Notebook.
- 4 If you are connected using HDMI or DP connection, ensure that the USB Type-C to A cable is connected from the Thunderbolt™ 3 Upstream Port of the monitor to your computer.



NOTE: If you do not have the Thunderbolt™ 3 Active cable or USB Type-C to A cable connected when you launch the Dell Calibration Assistant, the following appears:



Using the Dell Calibration Assistant

- 1 Click on the Application icon to launch the Dell Calibration Assistant.



NOTE: For Ubuntu, Dell Calibration Assistant is only supported in 64-bit versions.

- 2 The application communicates with the monitor connected to the host and establishes a link to sync with the monitor OSD.



NOTE: This process may take a few minutes.



NOTE: Close Dell Calibration Assistant before conducting internal calibration or validation. Relaunch the software after internal calibration or validation is complete.



NOTE: Click on the search icon next to the monitor list to refresh the Dashboard and Report information. Alternatively, close and relaunch Dell Calibration Assistant.



NOTE: Open and use only one of the following software programs at any given time: Dell Calibration Assistant, Dell Color Management Software, or Calman Ready.



NOTE: When connecting for the first time, the report will not be downloaded if the monitor has not been calibrated or validated.



NOTE: The screenshots captured in this document are for the purpose of illustration only. The options listed may vary based on the model of your display.



Dashboard

The Dashboard page allows you to select the target Color Space to schedule task for calibration, validation, or calibration and validation.

To select Color Space for calibration and/or validation, do the following:

- 1 If multiple monitors are connected, select the target monitor from the monitor list.

Cal.	Val.	Color Space	Last Calibration Date	Last Validation Date
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S1: DCI P3 D65 G2.4 L100	2020.06.05	2020.06.05
<input type="checkbox"/>	<input type="checkbox"/>	S2: BT.709 D65 BT.1886 L100	--	--
<input type="checkbox"/>	<input type="checkbox"/>	S3: BT.2020 D65 BT.1886 L100	--	--
<input type="checkbox"/>	<input type="checkbox"/>	S4: sRGB D65 sRGB L120	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5: Adobe RGB D65 G2.2 L160	--	--
<input type="checkbox"/>	<input type="checkbox"/>	S6: Adobe RGB D50 G2.2 L160	--	--
<input type="checkbox"/>	<input type="checkbox"/>	H1: HDR 10 D65 ST2084 L1000	--	--
<input type="checkbox"/>	<input type="checkbox"/>	H2: HDR D65 HLG L1000	--	--
<input type="checkbox"/>	<input type="checkbox"/>	CAL1	--	--
<input type="checkbox"/>	<input type="checkbox"/>	CAL2	--	--

Device Name: UP3221Q
Service Tag: QFM0631
Status: Device connected
Software Version: 1.0.6.4

Send to Display

- 2 Select the Color Space you wish to schedule for internal calibration, validation, or calibration and validation.

Cal.	Val.	Color Space	Last Calibration Date	Last Validation Date
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S1: DCI P3 D65 G2.4 L100	2020.06.05	2020.06.05
<input checked="" type="checkbox"/>	<input type="checkbox"/>	S2: BT.709 D65 BT.1886 L100	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S3: BT.2020 D65 BT.1886 L100	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	S4: sRGB D65 sRGB L120	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5: Adobe RGB D65 G2.2 L160	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S6: Adobe RGB D50 G2.2 L160	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H1: HDR 10 D65 ST2084 L1000	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H2: HDR D65 HLG L1000	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAL1	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAL2	--	--

Device Name: UP3221Q
Service Tag: QFM0631
Status: Device connected
Software Version: 1.0.6.4

Send to Display



- You can edit color space parameters or edit name information (UP3221Q only) for **CAL 1** or **CAL 2** by clicking on the hyperlink.

Dell Calibration Assistant | Monitor1-UP3221Q

DASHBOARD | REPORT | SCHEDULER

Select Color Space for Calibration and/or Validation

Cal.	Val.	Color Space	Last Calibration Date	Last Validation Date
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S1: DCI P3 D65 G2.4 L100	2020.06.05	2020.06.05
<input checked="" type="checkbox"/>	<input type="checkbox"/>	S2: BT.709 D65 BT.1886 L100	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S3: BT.2020 D65 BT.1886 L100	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	S4: sRGB D65 sRGB L120	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5: Adobe RGB D65 G2.2 L160	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S6: Adobe RGB D50 G2.2 L160	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H1: HDR 10 D65 ST.2084 L1000	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H2: HDR D65 HLG L1000	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAL1: Studio 1	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAL2	--	--

Next Cal. Time: Scheduler Disabled

CAL1: Studio 1

Color Space: Custom | White Point: Custom | Gamma: 2.4

RED x,y: 0.6800 | 0.3200 | WHITE x,y: 0.3127 | 0.3291 | Luminescence: 100

GREEN x,y: 0.2649 | 0.6900 | BLUE x,y: 0.1500 | 0.0600 | Uniformity Compensation: 3D LUT:

IMPORT | SAVE | CANCEL

Send to Display

- Click **Send to Display** to update the OSD.

Dell Calibration Assistant | Monitor1-UP3221Q

DASHBOARD | REPORT | SCHEDULER

Select Color Space for Calibration and/or Validation

Cal.	Val.	Color Space	Last Calibration Date	Last Validation Date
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S1: DCI P3 D65 G2.4 L100	2020.06.05	2020.06.05
<input type="checkbox"/>	<input type="checkbox"/>	S2: BT.709 D65 BT.1886 L100	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S3: BT.2020 D65 BT.1886 L100	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	S4: sRGB D65 sRGB L120	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5: Adobe RGB D65 G2.2 L160	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	S6: Adobe RGB D50 G2.2 L160	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H1: HDR 10 D65 ST.2084 L1000	--	--
<input checked="" type="checkbox"/>	<input type="checkbox"/>	H2: HDR D65 HLG L1000	--	--
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAL1: Studio 1	--	--
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAL2	--	--

Device Name: UP3221Q
Service Tag: QFM0631
Status: Device connected
Software Version: 1.0.6.4

Send to Display

- Click on the Date and Time hyperlink on the upper right corner to go to the **Scheduler** page to set calibration, validation, or calibration and validation schedule.

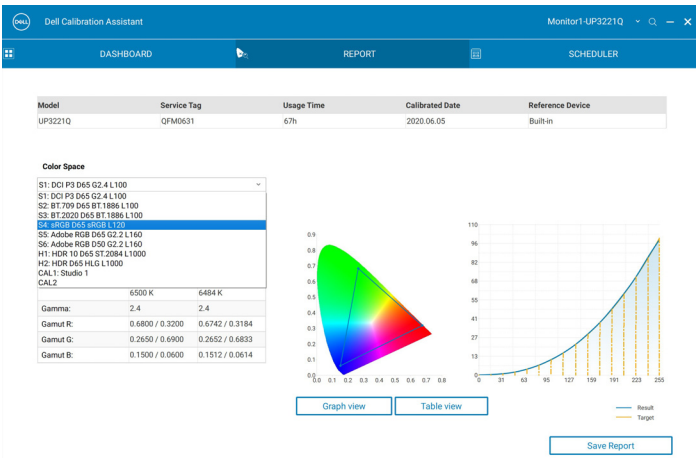
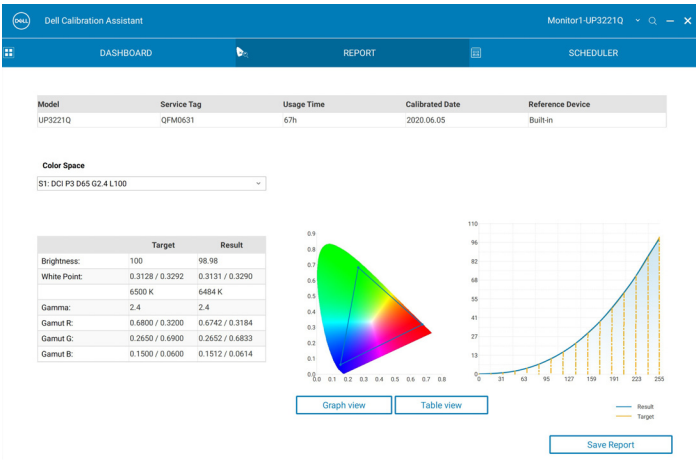


NOTE: The Service Tag and Software Version numbers in this guide are illustrations only, and may differ from what are shown on your display. Please refer to your display for the correct Service Tag and Software Version numbers to your software.



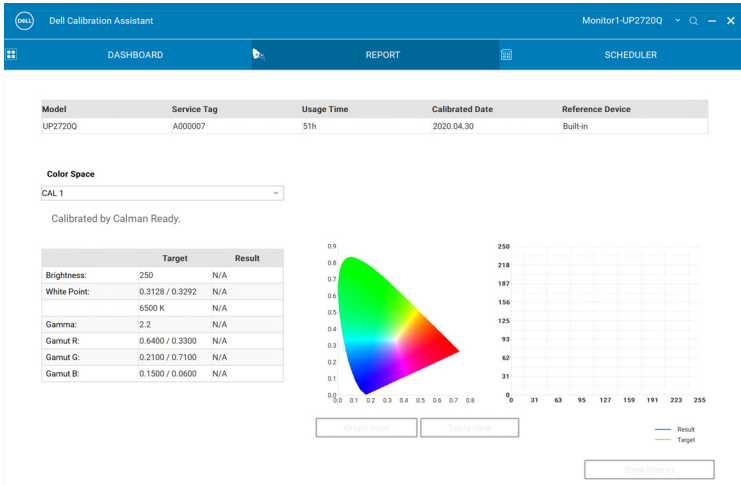
Report

The Report page shows the most recent calibration and/or validation results.



For model(s) listed below, if your monitor is calibrated using Calman Ready software, the Report page will show that the monitor is “Calibrated by Calman Ready”

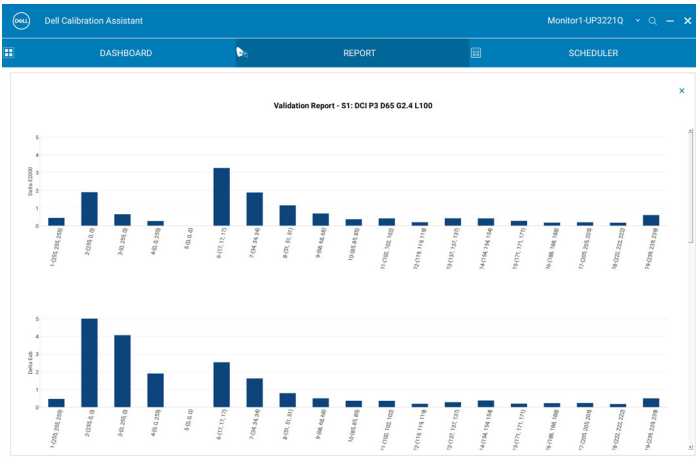
- UP2720Q



NOTE: For models listed above, this software will not display reports generated by Calman Ready. Please use Calman Ready software to view these reports.



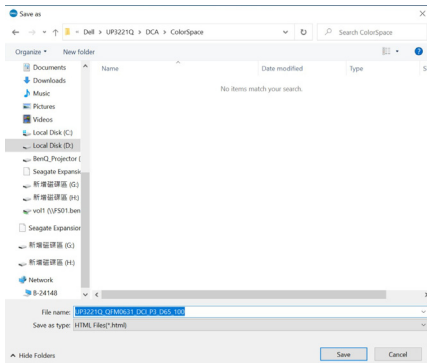
You can choose to review the report in different forms by clicking on **Graph View** or **Table View**.



No.	Color Patch	Target (Lab)	Measured (Lab)	Δ E2000	Δ Eab	Δ E94	Δ Hab	Δ ETP
1	(255, 255, 255)	(100.00, 0.00, 0.00)	(99.60, 0.26, -0.03)	0.45	0.48	0.48	0.00	0.78
2	(255, 0, 0)	(55.02, 93.99, 93.19)	(54.92, 93.99, 87.04)	1.90	6.16	1.58	4.16	5.82
3	(0, 255, 0)	(86.61, -115.27, 107.66)	(86.27, -113.77, 103.89)	0.66	4.07	0.78	1.75	3.30
4	(0, 0, 255)	(33.95, 81.93, -111.83)	(34.06, 80.86, -110.20)	0.28	1.91	0.30	0.17	2.78
5	(0, 0, 0)	(0.66, 0.22, -0.55)	(0.66, 0.22, -0.55)	0.00	0.00	0.00	0.00	0.00
6	(17, 17, 17)	(2.01, 0.00, 0.00)	(3.09, 2.30, 0.19)	3.27	2.55	2.35	0.00	16.38
7	(34, 34, 34)	(7.82, 0.00, 0.00)	(8.87, 1.21, -0.33)	1.89	1.63	1.58	0.00	5.43
8	(51, 51, 51)	(16.37, 0.00, 0.00)	(16.46, 0.78, -0.10)	1.16	0.80	0.78	0.00	1.91
9	(68, 68, 68)	(24.52, 0.00, 0.00)	(24.71, 0.46, -0.12)	0.70	0.51	0.50	0.00	1.11
10	(85, 85, 85)	(32.32, 0.00, 0.00)	(32.49, 0.11, -0.32)	0.38	0.38	0.37	0.00	0.75
11	(102, 102, 102)	(39.84, 0.00, 0.00)	(40.05, -0.21, -0.24)	0.42	0.37	0.37	0.00	0.87
12	(119, 119, 119)	(47.13, 0.00, 0.00)	(47.18, 0.05, -0.19)	0.21	0.20	0.20	0.00	0.30
13	(137, 137, 137)	(54.63, 0.00, 0.00)	(54.64, 0.28, 0.07)	0.43	0.29	0.29	0.00	0.48
14	(154, 154, 154)	(61.53, 0.00, 0.00)	(61.71, 0.18, -0.30)	0.43	0.39	0.39	0.00	0.58
15	(171, 171, 171)	(68.29, 0.00, 0.00)	(68.37, 0.18, -0.07)	0.39	0.21	0.21	0.00	0.29
16	(188, 188, 188)	(74.92, 0.00, 0.00)	(75.15, 0.02, 0.08)	0.18	0.24	0.24	0.00	0.52
17	(205, 205, 205)	(81.43, 0.00, 0.00)	(81.64, 0.05, 0.12)	0.20	0.25	0.25	0.00	0.48
18	(222, 222, 222)	(87.84, 0.00, 0.00)	(87.92, -0.04, 0.16)	0.18	0.19	0.19	0.00	0.23
19	(239, 239, 239)	(94.14, 0.00, 0.00)	(94.44, -0.38, 0.18)	0.61	0.51	0.51	0.00	0.65



You can also **Save Report** in HTML format for web posting.



Scheduler

The Scheduler page allows you to set calibration, validation, or calibration and validation schedule.

To set calibration and/or validation schedule, do the following:

1. Select the schedule:
 - **Based on Usage Hours**—Sessions based on usage time.
 - **Periodic**—Sessions based at a set interval.

The screenshot shows the Dell Calibration Assistant Scheduler interface. At the top, there is a navigation bar with 'DASHBOARD', 'REPORT', and 'SCHEDULER' tabs. Below the navigation bar, the 'Schedule Sessions' section has two radio buttons: 'Based on Usage Hours' (which is selected) and 'Periodic'. The 'Start Time' is set to '12:00 AM'. The 'Periodic Pattern' section is currently disabled. At the bottom, the 'Operation Mode' has two radio buttons: 'Prompt before starting session' (selected) and 'Carry out in sleep mode'. There are two buttons at the bottom right: 'Resync Display Clock' and 'Send to Display'. A small asterisk note at the bottom left reads: '*Scheduler will not proceed while the execution of Dell Calibration Assistant.'

- 2 For **Periodic** calibration, validation, or calibration and validation, set your preferred periodic pattern and start time.

The screenshot shows the Dell Calibration Assistant Scheduler interface with the 'Periodic' radio button selected. The 'Start Time' is set to '12:00 AM'. The 'Periodic Pattern' section is now active, showing three dropdown menus: 'Quarterly' (set to 'Jan - Apr - Jul - Oct'), 'Week' (set to '1'), and 'Day' (set to 'Mon'). The 'Operation Mode' remains 'Prompt before starting session'. The 'Resync Display Clock' and 'Send to Display' buttons are still present at the bottom right. The asterisk note at the bottom left is also present.



3 Select the Operation Mode:

- **Prompt before starting session**—prompts the user for approval to start the process.
- **Carry out in sleep mode**—starts the process automatically when the monitor is in sleep mode.

4 Click **Send to Display** to update the schedule of the OSD.

Resync Display Clock

Resync Display Clock allows you to sync the date and time of the computer to your monitor. You are advised to **Resync Display Clock** when one of the following occur:

- Setting up the monitor for the first time
- Monitor has been disconnected from power for more than 10 days.

The screenshot shows the 'Dell Calibration Assistant' window with the 'SCHEDULER' tab selected. The window title is 'Monitor1-UP3221Q'. The interface includes a navigation bar with 'DASHBOARD', 'REPORT', and 'SCHEDULER' tabs. Below the navigation bar, there are two radio buttons for 'Schedule Sessions': 'Based on Usage Hours' (unselected) and 'Periodic' (selected). Under 'Periodic', there are four radio buttons: 'Quarterly' (selected), 'Monthly', 'Weekly', and 'Daily'. A 'Start Time' dropdown is set to '12:00 AM'. A 'Periodic Pattern' box contains three dropdowns: 'Quarterly' (set to 'Jan - Apr - Jul - Oct'), 'Week' (set to '1'), and 'Day' (set to 'Mon'). At the bottom, there are two radio buttons for 'Operation Mode': 'Prompt before starting session' (selected) and 'Carry out in sleep mode' (unselected). At the bottom right, there are two buttons: 'Resync Display Clock' and 'Send to Display'. A small note at the bottom left states: '*Scheduler will not proceed while the execution of Dell Calibration Assistant.'



Troubleshooting

Common Symptoms	What You Experience	Possible Solutions
Monitor not detected	Application cannot detect monitor, and a connection error message appears.	<ul style="list-style-type: none">• Ensure you are using Dell UP3221Q/UP2720Q monitor with built-in colorimeter.• Follow Before you begin to check if a Thunderbolt™ 3 Active cable or USB Type-C to A cable is properly connected between the UP3221Q/UP2720Q monitor and the computer.• For Linux, ensure you have the following steps completed:<ol style="list-style-type: none">1 Create a new file <code>/etc/udev/rules.d/99-dellmonitor-up2720q.rules</code> with the following statement (case sensitive):<pre>SUBSYSTEM=="usb", ATTR{idVendor}=="0424", ATTR{idProduct}=="274c", MODE="0666" SUBSYSTEM=="usb", ATTR{idVendor}=="413c", ATTR{idProduct}=="b072", MODE="0666"</pre>2 Create a new file <code>/etc/udev/rules.d/99-dellmonitor-up3221q.rules</code> with the following statement (case sensitive):<pre>SUBSYSTEM=="usb", ATTR{idVendor}=="0424", ATTR{idProduct}=="274c", MODE="0666" SUBSYSTEM=="usb", ATTR{idVendor}=="413c", ATTR{idProduct}=="b089", MODE="0666"</pre>



Unable to launch Dell Calibration Assistant	A warning message appears: "Failed to execute script DellCalibration Assistant"	<ul style="list-style-type: none"> For Windows, download and install "Microsoft Visual C++ Redistributable for Visual Studio 2015-2019 (x86)" and "Microsoft Visual C++ Redistributable Packages for Visual Studio 2013 (x86)" from following link: https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads.
Cannot select Color Space	No response when trying to select Color Space	<ul style="list-style-type: none"> Ensure a Thunderbolt™ 3 Active cable or USB Type-C to A cable is properly connected between the UP3221Q/ UP2720Q monitor and the computer. Close and restart the application.
Cannot edit the Scheduler	Scheduler is grayed out and cannot be edited	<ul style="list-style-type: none"> Ensure a Thunderbolt™ 3 Active cable or USB Type-C to A cable is properly connected between the UP3221Q/ UP2720Q monitor and the computer. Select Periodic to enable the Start Time and Periodic pattern options on the Scheduler tab. Close and restart the application.
Calibration and/or validation did not start at scheduled time	Colorimeter did not start at scheduled time	<ul style="list-style-type: none"> If you have selected Carry out in sleep mode and your monitor is active at the scheduled time, the calibration and/or validation will not start until your monitor is in sleep mode. Resync the monitor clock with your computer clock. See Resync Display Clock.



Connection lost between Dell Calibration Assistant and the monitor after the monitor is activated from Standby or Off mode

Connection between the Dell Calibration Assistant and the monitor is lost or interrupted

- Close and relaunch Dell Calibration Assistant software.
-

