



## Calibration and Validation Techsheet

This document provides an overview of calibration and validation functions with the built-in colorimeter for UP3221Q monitor, as well as recommended applications for calibration and validation.

### Calibration and Validation Toolkits

Functions		Built-in	Software		
		Calman Powered	Calman Ready	Dell Color Management	Dell Calibration Assistant
Color Calibration	Calibration with matrix and 1D LUT	•	•		
	Calibration with 3D LUT	•	•		
	HDR Calibration	•	•		
	Calibrate presets as targets	•	•	•	
	Correlation of built-in colorimeter	•	•		
	Monitor match		•		
	Device ICC emulation		•		
	Validate calibration target	•	•		
	Save/export calibrated target		•		

Color Management	Switching of presets			•	
	Basic color control			•	
	Upload calibrated targets			•	
	Manage Calman and internal calibrated targets			•	
	Create ICC profiles			•	
	Apply ICC profiles			•	
	Quick access from tray icon			•	
	Presets personalization			•	•
Calibration Management	Target editing on PC				•
	Scheduling internal calibration and validation				•
	Dashboard for preset calibration status			•	•
	Report for calibration and validation results		•		•

Based on the purpose and timing of use, the following applications are recommended for color calibration and validation.

	Built-in	Software		
	Calman Powered	Calman Ready  <a href="http://www.portrait.com/displays/pdi">www.portrait.com/displays/pdi</a>	Dell Color Management  <a href="http://www.dell.com/UP3221Q">www.dell.com/UP3221Q</a>	Dell Calibration Assistant  <a href="http://www.dell.com/UP3221Q">www.dell.com/UP3221Q</a>
Target user	All UP3221Q users	UP3221Q users with Calman Studio or Calman Ready for Dell license	All UP3221Q users	All UP3221Q users
Purpose	Calibration and Validation with the built-in or external colorimeter	Calibration of user's target workflow with external or built-in colorimeter	Color management of daily work	Management of internal calibration and validation and print internal calibration and validation reports
Timing of Usage	When calibration and validation is needed	When calibration and validation is needed	Daily, Always on	When scheduling internal calibration and validation, or when printing internal calibration and validation reports

 **NOTE: You can only run one application at any time.**

The applications are supported by the operating systems listed below.

Operating System	Software		
	Calman Ready	Dell Color Management	Dell Calibration Assistant
OSX 10.10 to MacOS 10.15			•
Ubuntu 16.04 LTS onward			•
Windows 7/8.1/10	•	•	•

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

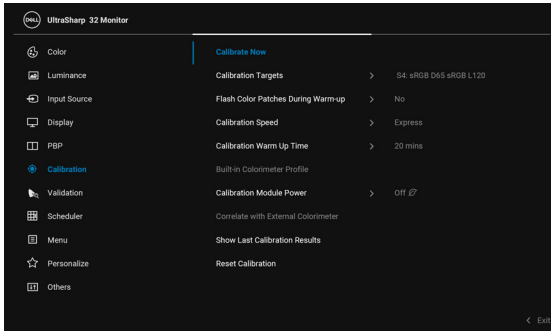
 **NOTE: Open and use only one software at any given time.**


## Performing Color Calibration

Perform **Calibration** with the built-in colorimeter to calibrate the color of your monitor.

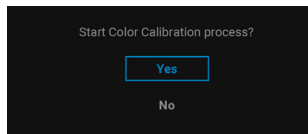
### Using the OSD menu

1. Using the OSD menu, set the calibration criteria based on your preference. Then select **Calibrate Now**.

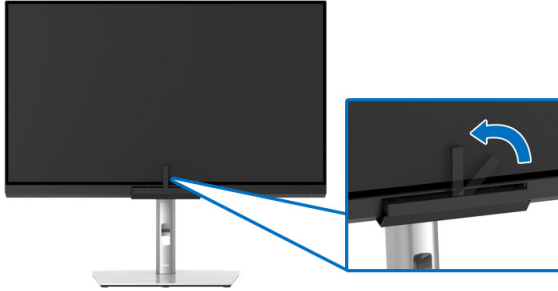


 **NOTE: Calibration Module Power must be On to enable Calibration function.**


2. The following message appears, select **Yes** to continue the process.



3. Calibration will start automatically.

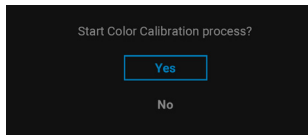


### Using the Shortcut Key with video signal

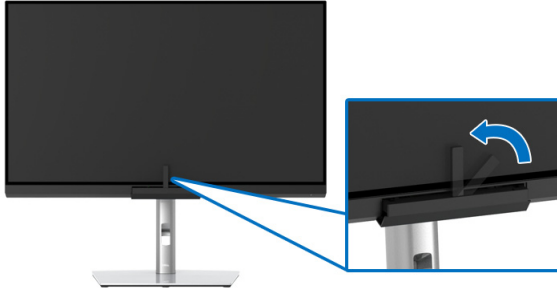
1. Press the **Joystick** to display the shortcut keys.
2. Select the  icon.



3. The following message appears, select **Yes** to continue the process.



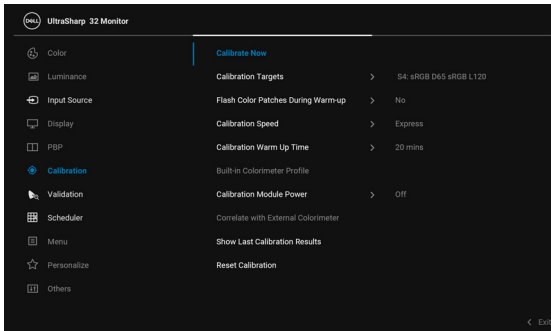
4. Calibration will start automatically.



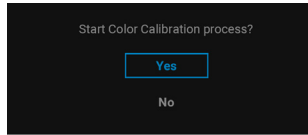
### Using the Shortcut Key without video signal

You can perform calibration for the monitor without acquiring an input signal from the computer.

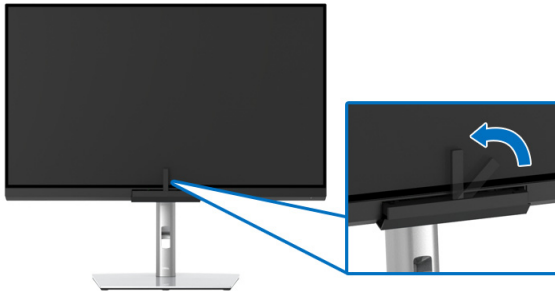
1. Press the **Joystick** to display the OSD menu.
2. Toggle to the **Calibration** menu and set the calibration criteria based on your preference. Then select **Calibrate Now**.



3. The following message appears, select **Yes** to continue the process.



4. Calibration will start automatically.

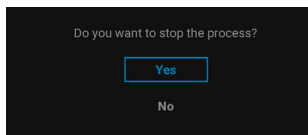


 **NOTE: Calibration at Portrait Mode is not recommended.**

## Stopping the Calibration Process

You can stop the calibration process at any time.

1. During calibration process, press the **Joystick**, the following message appears.



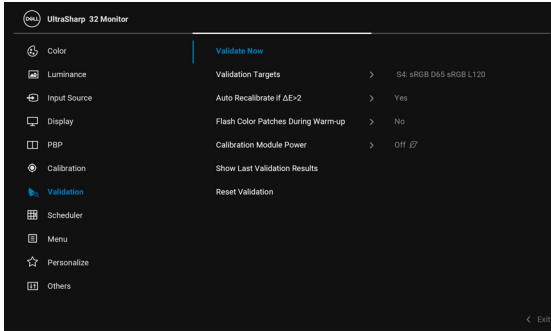
2. Select **Yes** to stop the process.

# Performing Color Validation

Perform **Validation** on color calibration with the built-in colorimeter.

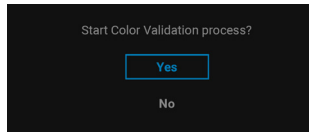
## Using the OSD menu

1. Using the OSD menu, set the validation criteria based on your preference. Then select **Validate Now** to start the validation process.



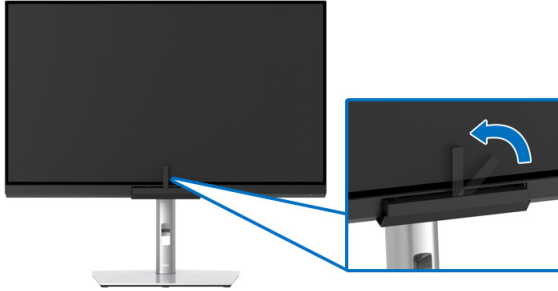
**NOTE:** Calibration Module Power must be **On** to enable **Validation** function.

2. The following message appears, select **Yes** to continue the process.






3. Validation will start automatically.

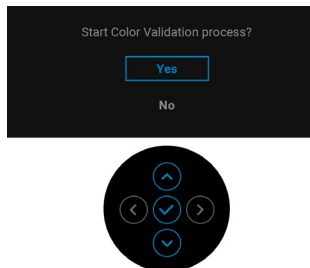


### Using the Shortcut Key with video signal

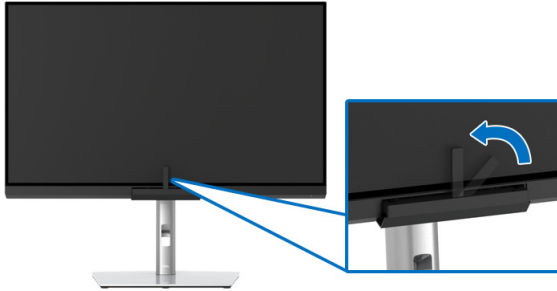
1. Press the **Joystick** to display the shortcut keys.
2. Select the  icon.



3. The following message appears, select **Yes** to continue the process.



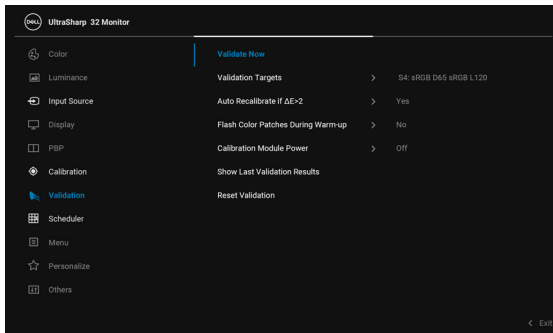
4. Validation will start automatically.



### Using the shortcut key without video signal

You can perform validation for the monitor without acquiring an input signal from the computer.

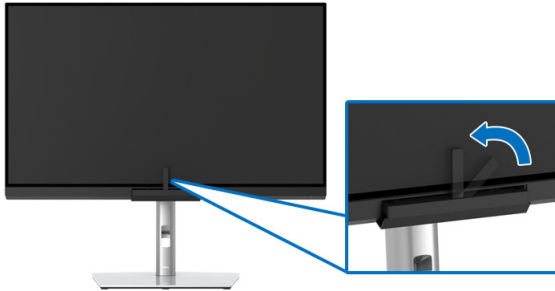
1. Press the **Joystick** to display the OSD menu.
2. Toggle to the **Validation** menu and set the validation criteria based on your preference. Then select **Validate Now**.



3. The following message appears, select **Yes** to continue the process.



4. Validation will start automatically.

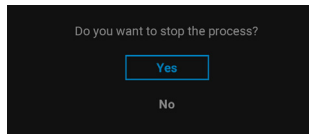


**NOTE: Validation at Portrait Mode is not recommended.**

## Stopping the Validation Process

You can stop the validation process at any time.

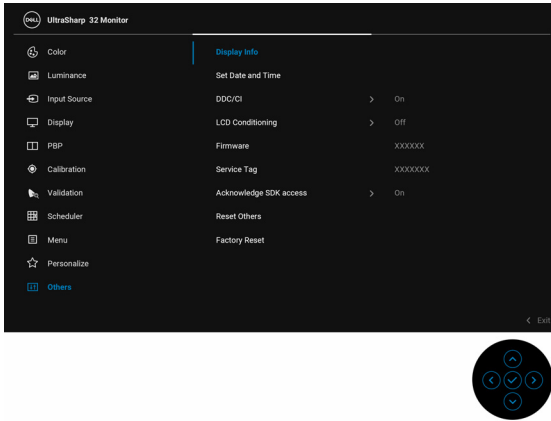
1. During validation process, press the **Joystick**, the following message appears.



2. Select **Yes** to stop the process.

# Re-sync date and time

In order for calibration and validation to start at the scheduled time, use the **Set Date and Time** function on the monitor OSD to sync the date and time for your monitor and your computer.



Sync the date and time when:

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



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