ColorDial Pro

User Guide

PHILIPS

Getting Started with ColorDial Pro

ColorDial™ Pro is a simple-to-operate lighting controller designed for use with intelligent RGB and intelligent white (iW) LED lighting fixtures from Philips Color Kinetics. With ColorDial Pro, you can play back and modify a set of 16 *scenes*, eight for RGB fixtures and eight for iW fixtures. A scene consists of a built-in effect and user-editable effect settings.

RGB Effects				iW Effect
Fixed Color		Custom Wash		Fixed White
Variable Color		Random Color		
Color Wash		RGB White		
Rainbow Wash				

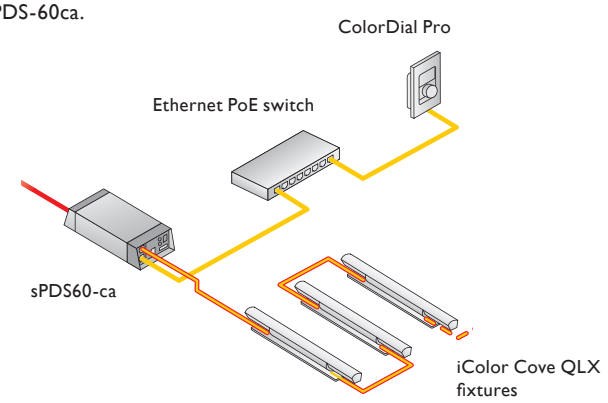
Effect settings differ depending on the selected effect. For example, you can change the speed and direction of the Color Wash effect, or the color temperature of the Fixed White effect.

A System Settings menu lets you perform such actions as switching between RGB Mode and iW Mode, locking the menus, changing the display language from English to another available language (such as French, Spanish, or Italian), setting backlight and menu timeouts, performing basic light setup, and so on.

Typical ColorDial Pro Installations

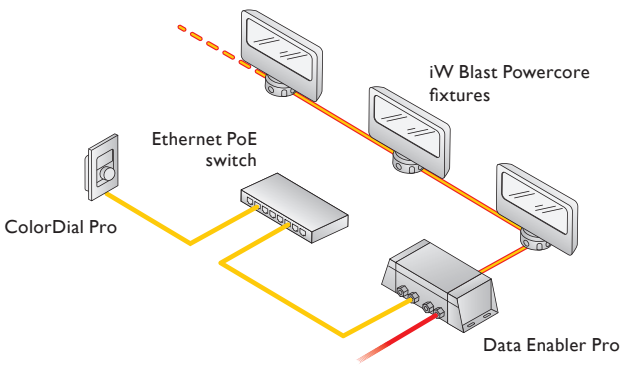
An installation using ColorDial Pro as a lighting controller typically includes one ColorDial Pro, an Ethernet switch with one or more Power over Ethernet (PoE) ports, an Ethernet-enabled power / data supply, and Philips Color Kinetics intelligent RGB or iW LED lighting fixtures connected to one or more power / data supply ports.

The example on the left shows a typical low-voltage installation. ColorDial Pro is connected to one of the four PoE ports on a D-Link DES-1008PA PoE Ethernet switch (available from Philips Color Kinetics). An sPDS-60ca power / data supply is connected to a non-PoE port on the Ethernet switch, and a run of iColor Cove QLX fixtures is connected to one of the 4-pin output ports on the sPDS-60ca.

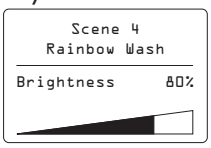


The example on the right shows a typical line-voltage installation. As in the low-voltage example, ColorDial Pro is connected to a PoE port on the Ethernet switch. In this case, however, an Ethernet Data Enabler is connected to the switch, and a run of ColorBlast Powercore fixtures are connected to the Data Enabler.

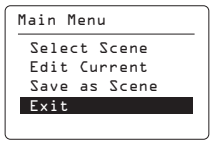
See the ColorDial Pro Installation Instructions and Product Guide for complete installation and configuration details. Visit www.colorkinetics/ls/controllers/colordialpro/ for downloads.



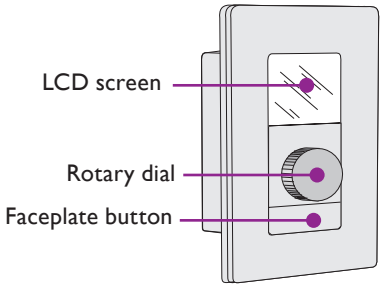
Playback Mode



Menu Mode



When using the Variable Color effect, Playback Mode adjusts the RGB value of the effect rather than the brightness.



Playback Mode and Menu Mode

Playback Mode lets you toggle between stored scenes, adjust the brightness level of the current scene, and turn connected lights on and off. Menu Mode lets you switch between RGB Mode and iW Mode, change other ColorDial Pro settings, edit the current scene (change the effect and its related settings), and save your edits to a scene.

Navigation and Selection

ColorDial Pro starts up in Playback Mode. When ColorDial Pro initially powers on, the Philips logo appears briefly on the LCD screen, and the scene currently stored as Scene 1 begins playing back on all connected lights.

- **To select the next stored scene** in order, press the faceplate button.
- **To enter Menu Mode** from Playback Mode, press and hold the rotary dial.
- **To make selections in Menu Mode,** turn the rotary dial to highlight a menu selection then press the rotary dial to confirm the selection.
- **To access the System Settings menu,** simultaneously press and hold the rotary dial and the faceplate button, turn the rotary dial to highlight System Settings, and press the rotary dial to confirm.

When ColorDial Pro is idle, it automatically returns to Playback Mode by exiting one menu level at a time. (You can adjust the menu idle timeout using the System Settings menu.)

Locking and Unlocking Menu Mode

To prevent accidental interruption of scene playback, you might want to lock the menus available in Menu Mode. For convenience, you can temporarily access menus without unlocking them.

To lock Menu Mode:

1. In Menu Mode, select System Settings > Setup UI > Lock Menus.
2. Select ON.
3. Press the rotary dial to confirm.
4. Select Exit until you return to Playback Mode.

To access menus without unlocking Menu Mode:

1. Press and hold the rotary dial to display the Locked message.
2. Press the rotary dial three times to enter Menu Mode. (To display the System Settings menu option, press and hold the faceplate button while pressing the rotary dial three times.)

To unlock Menu Mode:

1. Press and hold the rotary dial to display the Locked message.
2. Press and hold the faceplate button while pressing the rotary dial three times.
3. Select System Settings > Setup UI > Lock Menus.
4. Select OFF.
5. Press the rotary dial to confirm.
6. Select Exit until you return to Playback Mode.

Switching Between RGB Mode and iW Mode

RGB Mode offers seven configurable effects and eight storable scenes for controlling intelligent RGB fixtures. iW Mode offers a Fixed White effect and eight storable scenes for controlling intelligent white (iW) fixtures.

The Fixed White effect lets you control the brightness and color temperature of all two-channel iW fixtures. You can also use the Fixed White effect to control three-channel iW fixtures, such as iW Cove MX Powercore, by configuring the fixtures to operate in two-channel mode. The effect maps two-channel input to three-channel iW output for consistent operation with two-channel fixtures.

You can control the LED channels of three-channel iW fixtures independently using the Fixed Color or Variable Color effect in RGB Mode. See "Controlling Three-Channel iW Fixtures" on page 5 for details.

► **To switch between RGB Mode and iW Mode:**

1. Simultaneously press and hold the rotary dial and the faceplate button to display the Main Menu with the System Settings menu option included.
2. Select System Settings, then Setup Dial.
3. Select RGB Mode or iW Mode. ColorDial Pro displays menu mode with Scene 1 selected.

Working with Scenes

A *scene* consists of a built-in effect and user-editable effect settings. RGB Mode and iW Mode each have eight scenes, 1 – 8. When you select a scene, it automatically displays on all connected lighting fixtures.

You can edit the currently playing scene by changing its assigned effect and associated effect settings. You can preserve your changes by saving them as a scene.

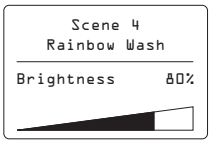
► **To select a scene:**

- In Playback Mode, press the faceplate button to step through the stored scenes 1 – 8, in order.
- In Menu Mode, select Select Scene, and select the desired scene.

Selecting a scene automatically begins scene playback.

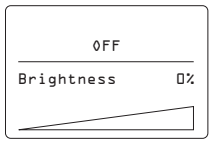
► **To change the current scene's brightness (0% – 100%):**

- In Playback Mode, turn the rotary dial.



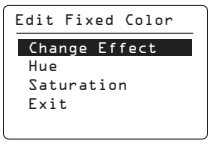
► **To turn off lights and to resume playback of the current scene:**

- In Playback Mode, press and quickly release the rotary dial to pause current scene playback. The screen displays OFF and the brightness is set to 0%.
- Press and quickly release the rotary dial again to resume current scene playback at the previous brightness level, or turn the rotary dial clockwise to increase the brightness from 0%.



► **To edit a scene:**

1. Select the scene you want to edit.
2. In Menu Mode, select Edit Current.
3. To change the scene's effect, select Change Effect, then select the effect type.
4. To change an effect setting, select the setting and use the rotary dial to modify the setting as desired. Press the rotary dial to confirm your changes.
5. See "Changing Effect Settings" below for specific instructions for each setting.
6. Repeat step 4 for each effect setting you want to change.
7. Select Exit until you return to Playback Mode.



Editing a scene changes the properties of the currently playing scene. Changes are not preserved until you save the scene.

Keep in mind that saving the current scene replaces the scene previously assigned to that location.

► **To save the current scene:**

1. Make any desired changes to the current scene's effect and effect settings.
2. In Menu Mode, select Save As Scene.
3. Select a scene location, 1 through 8, to which to save the current scene. The LCD screen displays a Stored message to confirm.

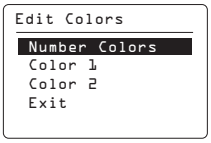
Changing Effect Settings

Effect settings differ depending on the selected effect. For example, you can change the speed and direction of the Color Wash effect, or the temperature of the White effect.

► **To edit an effect setting:**

1. In Menu Mode, select Edit Current. Change the effect type, if desired.
2. Select the setting you want to change from the effect type's Edit menu
3. Turn the rotary dial to modify the setting as desired, then press the rotary dial to confirm your selection.

See the table on the next page for descriptions of the six built-in ColorDial effects and their related settings.



► **To edit Custom Wash colors:**

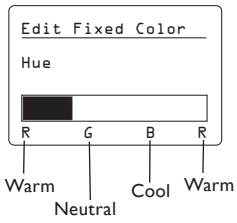
1. From the Edit Custom Wash menu, select Edit Colors > Number Colors.
2. Turn the rotary dial to select from 2 to 6 colors for the Custom Wash effect.
3. Press the rotary dial to confirm your selection.
4. From the Edit Colors menu, select a color (for instance, Color 1).
5. Select Red, Green, or Blue, and turn the rotary dial to set the intensity from 0% to 100%. Press the rotary dial to confirm your selection. Repeat as needed until you've set the RGB value you want, then select Done.
6. Repeat steps 4 and 5, as needed, for each color in the Custom Wash effect.
7. Select Exit.

Controlling Three-Channel iW Fixtures

Two-channel iW fixtures, such as iW Graze Powercore and iW Blast Powercore, use one channel of warm white LEDs and one channel of cool white LEDs to produce a range of color temperatures. Three-channel fixtures, such as iW Cove MX Powercore, add a channel of neutral white LEDs for greater precision in color temperature and color mixing.

You set three-channel iW fixtures to two-channel or three-channel mode using QuickPlay Pro addressing and configuration software.You can download QuickPlay Pro from www.colorkinetics.com/support/addressing.

For compatibility with two-channel iW fixtures, three-channel fixtures can be configured to accept two channels of data input. When a fixture is in two-channel mode, you can use ColorDial Pro in iW Mode to adjust the fixture's color temperature (relative warmth or coolness) and brightness. The two channels of data input are automatically mapped to the fixture's three LED channels.



In three-channel mode, you can use the Fixed Color or Variable Color effect in RGB Mode for more precise control over the fixture's color temperature. In three-channel mode, the warm channel maps to Red, the neutral channel to Green, and the cool channel to Blue.

Effects and Their Settings

RGB Effects

Fixed Color Displays a single color on all fixtures. ColorDial Pro dial adjusts effect brightness.

Hue Select a hue from around the color wheel (red > green > blue > red)
Saturation Set a color saturation from 0% to 100%

Variable Color Displays a single color on all fixtures. ColorDial Pro dial adjusts RGB value.

Hue Select a hue from around the color wheel (red > green > blue > red)
Saturation Set a color saturation from 0% to 100%
Brightness Set a brightness from 0% to 100%

Color Wash Produces a smooth hue transition on all fixtures simultaneously, progressing through the color spectrum.

Speed Set effect transition time, from 5 seconds to 10 minutes
Direction Set how effects appear to move — left > right or right > left

Rainbow Wash Produces a smooth transition through the color spectrum. Colors appear to follow each other from fixture to fixture.

Speed Set effect transition time, from 5 seconds to 10 minutes
Direction Set how effects appear to move — left > right or right > left
Width Set the width of the rainbow, from 4 – 36 nodes

Custom Wash Produces a marching color transition across all fixtures, progressing through two to six selected colors.

Speed Set effect transition time, from 5 seconds to 10 minutes
Direction Set how effects appear to move — left > right or right > left
Width Set the width of each of block of color, from 1 – 32 nodes
Edit Colors Select the number of colors and their RGB values

Random Color Displays a sequence of random colors on all fixtures, either fading or snapping from color to color.

Speed Set effect transition time, from 5 seconds to 10 minutes
Fade Determine whether color transitions fade or snap

RGB White Displays RGB white light on all fixtures, with user-specified color temperature.

Temperature Select cooler or warmer white light

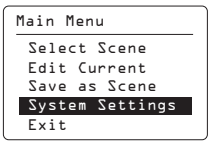
iW Effect

Fixed White Displays white light on all fixtures, with user-specified color temperature.

Temperature Select cooler or warmer white light

Changing System Settings

The System Settings menu lets you perform maintenance and administrative actions such as switching between RGB Mode and iW Mode, changing the display language from English to another available language, setting backlight and menu timeouts, performing basic light setup, and so on. Because you typically access system settings only occasionally, the System Settings menu is hidden during normal operation.

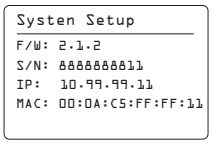


► **To access the System Settings menu from Playback Mode:**

1. Simultaneously press and hold the rotary dial and the faceplate button. The Main Menu appears with the System Settings menu option included.
2. Select System Settings.

Displaying System Information

The Information screen displays the currently installed firmware release number, and the device's serial number, IP address, and MAC address.

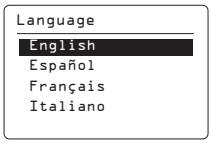


► **To display system information:**

1. In Menu Mode, select System Settings > Information.
2. Press the rotary dial to return to the System Settings menu.

Setting the Display Language

By default, ColorDial Pro menus appear in English. You can set the menus to appear in other available languages. (Additional languages may become available with future firmware updates. Visit www.colorkinetics.com/support/downloads/ for information on firmware updates.)

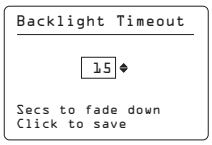


► **To set the display language:**

1. In Menu Mode, select System Settings > Language.
2. Select the desired language.

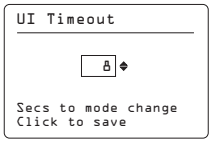
Setting Backlight and Display Timeouts

The *backlight timeout* determines how long the LCD display backlight remains on when ColorDial Pro is idle (after the last user action with the rotary dial or faceplate button). The *display timeout* determines how long the current screen continues to display when ColorDial Pro is idle. When idle, ColorDial Pro automatically returns to Playback Mode by exiting one menu level at a time, according to the display timeout. By default, the backlight timeout is 15 seconds, and the display timeout is 8 seconds.



► **To set the backlight timeout:**

1. In Menu Mode, select System Settings > Setup UI > Backlight Timeout.
2. Turn the rotary dial to select the desired backlight timeout, from 0 to 255 seconds, then press the rotary dial to confirm your selection. (When set to 0, the backlight always stays off.)



► **To set the display timeout:**

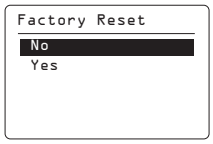
1. In Menu Mode, select System Settings > Setup UI > UI Timeout.
2. Turn the rotary dial to select the desired display timeout, from 3 to 255 seconds, then press the rotary dial to confirm your selection.

Restoring Factory Default Settings

You may want to restore the factory default settings for ColorDial Pro. When you do so, all saved changes to scenes and system settings are overwritten with the default settings.

► **To restore the factory default settings:**

1. In Menu Mode, select System Settings > Setup UI > Factory Reset.
2. Select Yes. ColorDial Pro returns to Playback Mode and starts playing back scene 1 with the default effect and settings



Setting Up Lights

The Setup Lights menu lets you adjust configuration settings, such as the DMX universe that ColorDial Pro controls and the number of lights per power / data supply port. Most installations function properly with the default settings, so usually no changes are needed. In certain instances, however, you may need to adjust these settings.

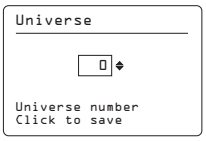
Setting the DMX Universe

By default, ColorDial Pro is set to control DMX universe 0 (zero). All Philips Color Kinetics power / data supplies also come factory-set to DMX universe 0. If the DMX universe of a connected power / data supply has been changed — for example, in a complex installation spanning multiple DMX universes — you must change the Universe setting in ColorDial Pro to match it.

An installation may contain power / data supplies with different DMX universe settings. ColorDial Pro will control only those power / data supplies with a matching DMX universe setting.

► **To set the DMX universe that ColorDial Pro controls:**

1. In Menu Mode, select System Settings > Setup Lights > Universe.
2. Turn the rotary dial to select a DMX universe (0 – 255), then press the rotary dial to confirm your selection.

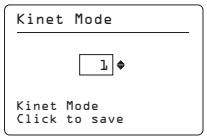


Setting KiNET Mode

KiNET™ is a high-performance Ethernet protocol engineered by Philips Color Kinetics for LED lighting control. Most Philips Color Kinetics power / data supplies support KiNET version 1 (the default in ColorDial Pro). However, Data Enabler Pro and sPDS-480ca power / data supplies require KiNET version 2.

► **To set KiNET mode:**

1. In Menu Mode, select System Settings > Setup Lights > Universe.
2. Turn the rotary dial to select version 1 or 2, then press the rotary dial to confirm your selection.

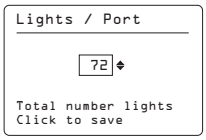


Most fixtures have one node, but some fixtures have multiple nodes. For example, an iColor Flex SLX string has 50 nodes, while a 4 ft ColorGraze Powercore fixture has four nodes.

Setting the Number of Lights Per Power / Data Supply Port

For KiNET version 1, the Lights / Port setting in ColorDial Pro should equal or exceed the number of sequentially addressed nodes connected to the power / data supply. By default, ColorDial Pro is set to 72 nodes per power / data supply port, which is sufficient for most installations.

For KiNET version 2 (Data Enabler EO or sPDS-480ca), set the lights per port to equal the maximum number of nodes connected to a power / data supply port.

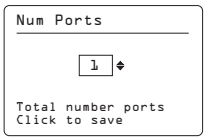


► **To set the number of lights per power / data supply:**

1. In Menu Mode, select System Settings > Setup Lights > Lights / Port.
2. Turn the rotary dial to select the total number of nodes you want, then press the rotary dial to confirm your selection.

Setting the Number of Power / Data Supply Ports

For KiNET version 2 only, the Num Ports setting in ColorDial Pro should equal the number of power / data supply ports with connected lights. (To ensure optimal operation, lights should be connected to power / data supply ports in sequence, starting with port 1 — ports 1 through 5 on an sPDS480ca, for example.)



► **To set the number of power / data supply ports:**

1. In Menu Mode, select System Settings > Setup Lights > Num Ports.
2. Turn the rotary dial to select the total number of ports you want, then press the rotary dial to confirm your selection.

Updating ColorDial Pro Firmware

ColorDial Pro firmware is periodically updated to improve device performance and functionality. To maximize system performance, make sure your ColorDial Pro devices are running the most recent version of the firmware.

Download ColorDial Pro Firmware

If a more recent version of the ColorDial Pro firmware is available, download the firmware file (.hex extension):

1. Visit the Firmware Updates page at www.colorkinetics.com/support/downloads/firmware/ to check for the latest firmware version.
2. If a newer firmware image is available, click the link on the Firmware Updates page to download the firmware file to an accessible location on your computer.

Download CK Firmware Updater

To update the firmware image on a ColorDial Pro device, you must download and install the CK Firmware Updater application on your computer.

1. Visit the Firmware Updates page at www.colorkinetics.com/support/downloads/firmware/
2. Download the Firmware Updater Utility.
3. Decompress the file to an accessible location on your computer and open it.
4. Run the installer, and follow the on-screen instructions.

Running a ColorDial Pro Firmware Update

You can update ColorDial Pro firmware using a computer running CK Firmware Updater software.

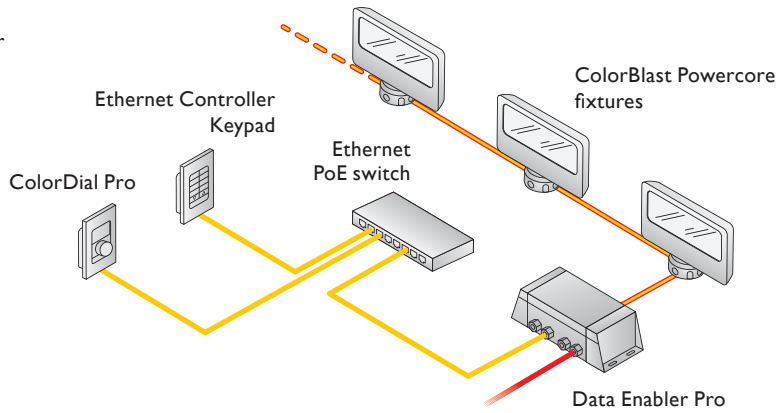
1. Connect a computer to your lighting network using a standard Ethernet cable.
2. Run CK Firmware Updater.
3. From the Interface Select drop-down list, select Ethernet Controllers.
4. From Device Select drop-down list, select ColorDial Pro.
5. Click File Select, navigate to the folder to which you downloaded the firmware file (.hex extension), and click Open.
6. Click Discover. CK Firmware Updater discovers the ColorDial Pro devices installed in the lighting network.
7. Select the ColorDial Pro device you want to update.
8. Click PROGRAM.
9. Repeat steps 7 and 8 for each ColorDial Pro device you want to update.

Your computer must have a static IP address, and the same subnet mask as the fixture (255.0.0.0).

ColorDial Pro and Ethernet Controller Keypad

You can install ColorDial Pro in a secure area to limit access and avoid accidental interruption of scene playback by connecting a Philips Color Kinetics Ethernet Controller Keypad to a PoE port on your Ethernet switch. You can use the Ethernet Controller Keypad to trigger stored ColorDial Pro scenes, adjust fixture brightness and turn connected fixtures off and on. Ethernet Controller Keypad must have the latest firmware installed.

For more details, download the ColorDial Pro Product Guide from www.colorkinetics/ls/controllers/colordialpro/



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