

PDS-60ca 7.5V

PDS-60ca 12V

PDS-60ca 24V

INSTALLATION INSTRUCTIONS

PRE-PROGRAMMED CONTROL

Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.Full.RGB
Tel 617.423.9999
Fax 617.423.9998
www.colorkinetics.com

ITEM # 109-000015-00 (7.5V)
109-000020-00 (12V)
109-000016-00 (24V)



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GETTING STARTED

PDS-60ca 7.5V, PDS-60ca 12V, and PDS-60ca 24V are compact, robust, power / data supplies for indoor and outdoor installations. The PDS-60ca 7.5V, PDS-60ca 12V, and PDS-60ca 24V provide power and data to Color Kinetics Chromasic® driven product lines. Each one is available with DMX, Ethernet, and pre-programmed control options.

This document contains important information on installing and using your new PDS-60ca. Please read it carefully and save it for future reference.

Included In This Box

- Power / data supply with cover, gasket attaching screws, and NPT threaded seal plugs
- 2 Spare fuses
- Installation Instructions

Additional Items Needed

- Mounting hardware and tools
- Standard strain relief cable clamps (indoor applications)
- Water-tight conduit and fittings (as required per local codes)
- Electronic grade RTV Silicone to seal conduit connections as required
- 5/16 in hex wrench or adjustable wrench for seal plugs
- Wire nuts



Scope of This Document

The scope of this document is to explain the steps necessary to install the PDS-60ca with pre-programmed control and assure peak performance. Its intended use is for reference only, by persons who are fully qualified. This document should never be considered a substitute for any provisions of a regulation or state and / or local code.

Identification and Warnings of Safety Hazards

In accordance with ANSI Z535.4-2002 the following system of identifying the severity of the hazards associated with the products is used:

- “**DANGER**” Imminently hazardous situation which, if not avoided, will result in death or serious injury.
- “**WARNING**” Potentially hazardous situation that, if not avoided, could result in death or serious injury.
- “**CAUTION**” Potentially hazardous situation that, if not avoided, may result in minor or moderate injury or property damage.

IGNORING A HAZARD WILL VOID ANY WARRANTY.

DANGER: Ensure that main power supply is off before installing, wiring, or servicing the PDS-60ca power supply. Failure to adhere to these instructions will result in death or serious injury.

WARNING: The PDS-60ca power supply must be installed by a qualified professional in accordance with NEC and relevant local codes. Failure to comply can result in death, serious injury, or property damage.

WARNING: Do not attempt to install or use the PDS-60ca until you read and understand the installation instructions and safety labels. Failure to adhere to these instructions could result in serious injury or property damage.

WARNING: Do not use the PDS-60ca if power cables are damaged. Doing so can result in death, serious injury, and property damage.

WARNING: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to take adequate measures.

CAUTION: Ensure that the PDS-60ca is securely attached, properly mounted, and free from excessive vibration. Failure to do so will result in property damage and void the warranty.

CAUTION: When sealing the PDS-60ca, ensure that the gasket is seated properly, that no wires are pinched, and that the housing is free of foreign material and debris. Failure to do so will cause seal failure resulting in property damage and voiding the warranty.

CAUTION: Do not hot swap. Ensure the power supply is off before connecting or disconnecting fixtures. Hot swapping will result in property damage and void the warranty.

CAUTION: Do not modify or alter the PDS-60ca. Doing so will void the warranty.

CAUTION: For outdoor installations, seal on points of entry and exit with Electronic Grade RTV Silicone. Failure to do so will result in property damage and void the warranty.

NOTE: The instructions and precautions set forth in this user guide are not necessarily all inclusive, all conceivable, or relevant to all applications as Color Kinetics cannot anticipate all conceivable or unique situations.

Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate the PDS-60ca in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standard Institute Safety Code.

INSTALLING THE PDS-60ca

The PDS-60ca must be installed by a qualified electrician in accordance with NEC and relevant local codes for power supplies. A power screwdriver is recommended for mounting the unit.

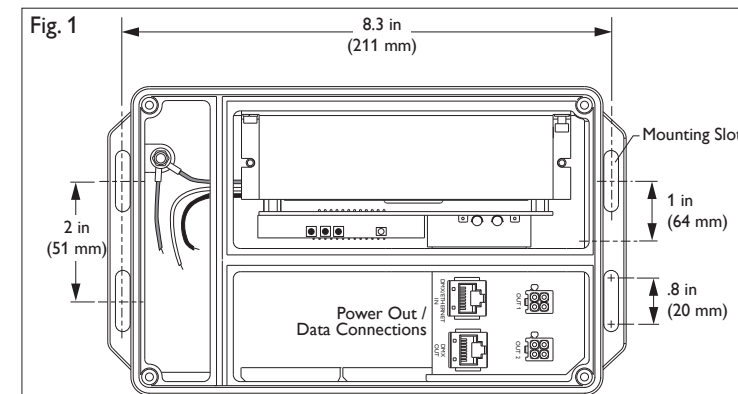
CAUTION: Ensure proper installation for outdoor applications to maintain NEMA 4 ratings. Failure to do so will result in property damage and void the warranty.

Mounting the Housing

- Select the location to mount the housing, keeping the PDS-60ca within the maximum distance specified for your fixture. Refer to your fixture user guide for the cable run information.

CAUTION: PDS-60ca must be installed in a location that allows air to move freely. Packing insulation around the housing or mounting in a sealed location that raises ambient temperature above 104° F (40° C) will result in property damage and void the warranty.

- Using the seal plugs and gaskets provided, seal all conduit holes not needed for the installation. Tighten plugs until gaskets are slightly compressed. Do not over tighten.
- Mount the housing to a flat surface using four screws suitable for the mounting surface. Mounting slots are located on the flanges at each end of the housing. (See mounting details, Fig. 1.)



WIRING THE PDS-60ca

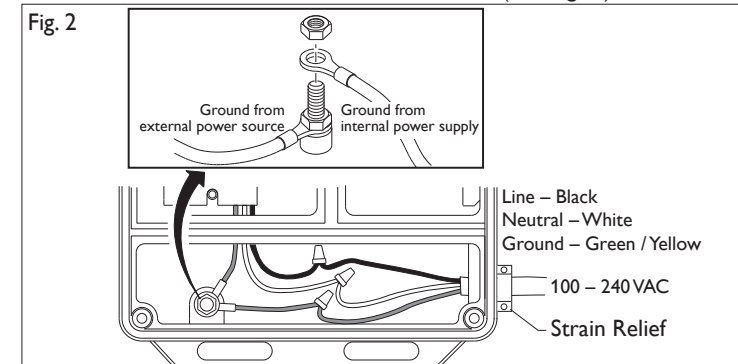
After mounting the power / data module, you are ready to connect power, lights, and data to the PDS-60ca.

Connecting Power to the PDS-60ca

DANGER: Turn off main power supply before wiring the PDS-60ca. Failure to do so will result in death or serious injury.

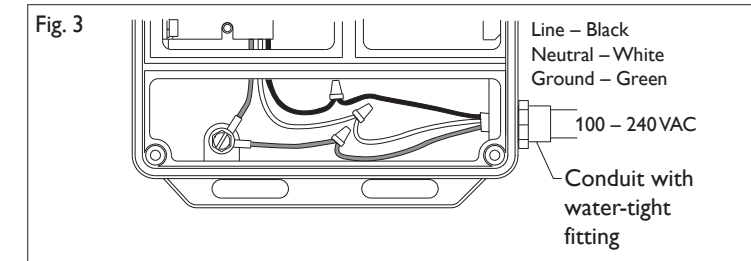
Indoor Installation

- Insert power cable into the power connection chamber of the PDS-60ca.
- Using pig tails and wire nuts, connect Line (black), Neutral (white), and Ground (green / yellow). Follow local electrical codes for internal wire bending.
- Use a standard strain relief to hold the cable. (See Fig. 2.)



Outdoor Installation

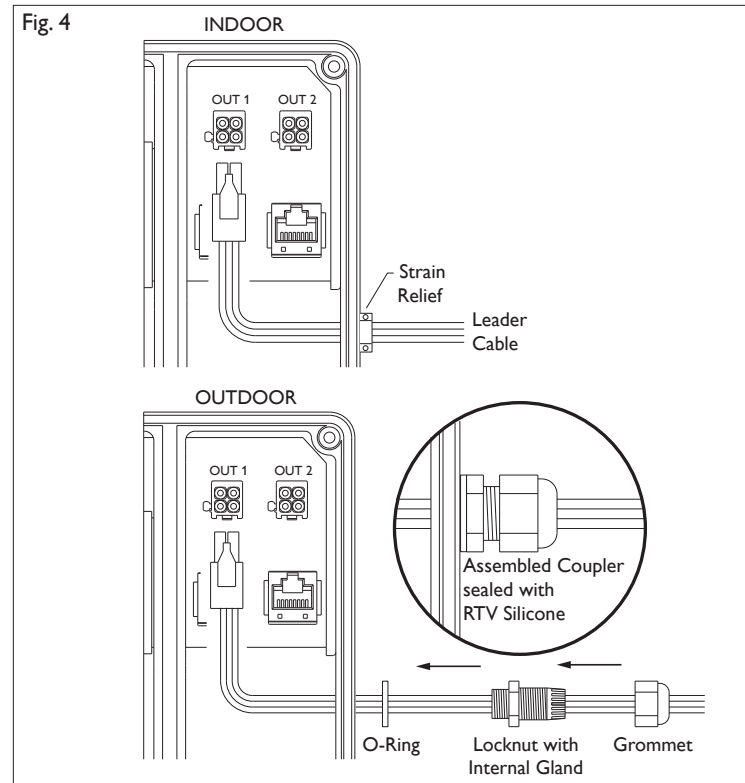
- Pull power cable through outdoor rated conduit and into the power connection chamber of the PDS-60ca. Use Electronics-Grade RTV Silicone on the conduit coupler and ensure that conduit connection to the PDS-60ca is water-tight.
- Using wire nuts, connect Line (black), Neutral (white), and Ground (green / yellow). Follow local electrical codes for internal wire bending. (See Fig. 3.)



NOTE: It is the end user's responsibility to use the proper conductors to permanently connect the incoming facility power, and to provide means for disconnecting the system.

Connecting Lights to the PDS-60ca

- Insert the fixture leader cable into the power out / data connection chamber of the PDS-60ca.
NOTE: Outdoor rated lights have water-tight couplers on the cables. Ensure that the water-tight coupling is properly installed and sealed with Electronics-Grade RTV Silicone to ensure NEMA 4 protection. Refer to the user guide for your lights for instructions. These couplers also provide strain relief. (See Fig. 4.)
- Plug connector into a power output receptacle. Power outputs are labeled Out 1 and Out 2. (See Fig. 4.)
- For indoor rated lights, use a standard screw connector strain relief to hold the cable. (See Fig. 4.)

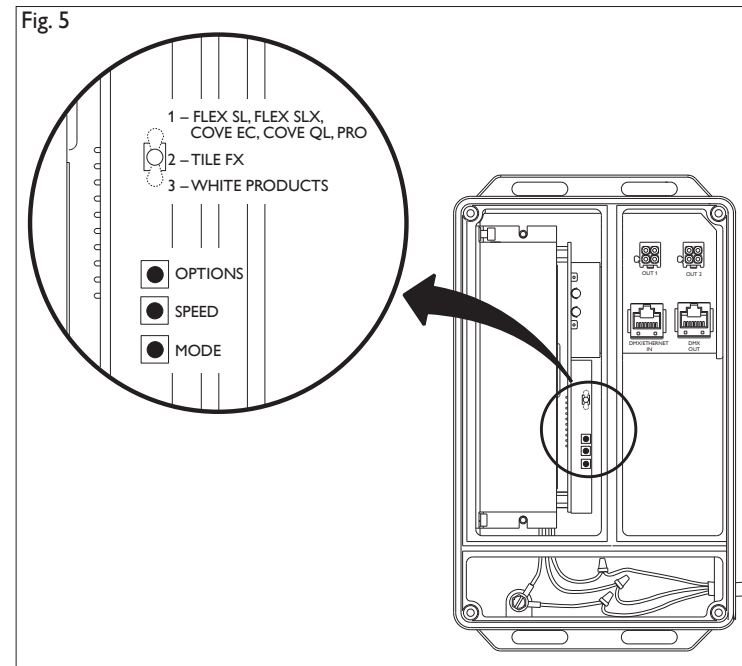


- Refer to Table 1 to determine maximum number of fixtures supported. Refer to the Installation Instructions of the fixture for specific wiring requirements.

Setting Pre-programmed Effects

WARNING: Ensure that the power supply is off before connecting or disconnecting fuses.

- Light Type:** Using the toggle switch, select the type of lights that are attached to the PDS-60ca. (See Fig. 5.)



POSITION 1 for iColor Flex SL, iColor Flex SLX, iColor Cove EC, iColor Cove QL or Pro products.
POSITION 2 for iColor Tile FX.
POSITION 3 for Essential White (eWhite) products.
NOTE: Before engaging power, set the light type using the toggle switch. If Light Type is changed after power is engaged, the power supply must be recycled in order to recognize the change.

- Options:** The Options button lets you modify certain effects as follows:
RANDOM: Toggles between snap and fade changes.
RAINBOW: Each cycle increases through four width settings then reverses direction and decreases widths.
COLOR WASH, BURST, and SPIRAL: Reverses direction.
WHITE ON / OFF: Each cycle increases through four width settings
WHITE CHASING COMET: Each cycle increases through five distinct comet width settings.
WHITE RANDOM SPARKLE: Toggles between straight On / Off and dimmed sparkle
WHITE FIXED COLOR: Reverses direction
- Speed:** Press and release to cycle through four speeds.
NOTE: When in Fixed Color mode, press and hold the Speed button to change colors.
- Mode:** After selecting the light type, use the Mode button to select the effect. Press and release the Mode button to cycle through each effect. These effects are available these light types:
FLEX SL, COVE EC, PRO: Rainbow, Random, Color Wash, Fixed Color.
TILE FX: Burst, Spiral, Vertical Rainbow, Horizontal Rainbow, Random, Color Wash, Fixed Color.
EWHITE: Alternating On / Off, White Chasing Comet, Dark Chasing Comet, Random Sparkle, White Fixed Color.
NOTE: For chasing comet shows, hold down the MODE button during power up to run a blinkscan of attached nodes that determines the run length.

NOTE: Once mode, speed, and options are set, the PDS-60ca stores the settings and recalls them after each power cycle.

Sealing the Power Supply

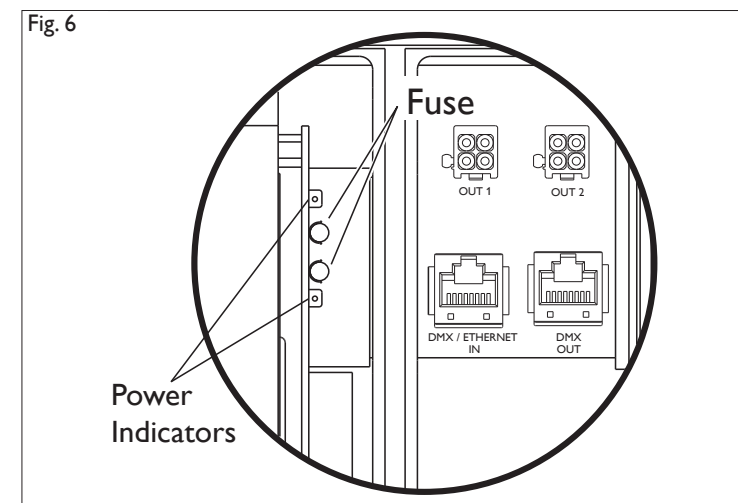
- After all the power and data connections have been made, and all through holes are water-tight, replace the cover and attach with provided screws. Tighten screws to 8 to 10 in-lbs (1 in-lb = 11.2985 N-cm).

NOTE: Before attaching cover, ensure gasket is seated properly and that no wires are pinched.

Replacing Fuses

Each power output terminal of the PDS-60ca is equipped with a fuse. Red LEDs are located next to each fuse to indicate that power is present at the output connector. If an output is not functioning, replace the fuse:

- Turn off power.
- Remove the fuse from the malfunctioning fuse terminal.
- Insert the replacement fuse into the fuse terminal. Use only correct fuse size as noted on the power supply. (See Fig. 6.)



PDS-60ca SPECIFICATIONS

POWER OUTPUT	7.5 VDC, 12 VDC, 24 VDC; 62 W
POWER INPUT	100 – 240 VAC (auto ranging) 50 – 60Hz 1.7 A Power factor correction (PFC)
HEAT DISSIPATION	25 percent of total power input
AMBIENT OPERATING TEMP	14° – 104°F (-10° – 40°C)
HOUSING	NEMA 4 enclosure
DIMENSIONS	8.8 x 5.5 x 3.6 in (224 x 140 x 91 mm)
WEIGHT	4.5 lb (2 kg)
CONNECTORS	Data: RJ-45 input and output connectors Power: 4-pin output connectors
DATA INPUT	Pre-programmed; No external data input
DATA OUTPUT	Chromatic at 7.5, 12, or 24V
PROTECTION RATING	Dry / Damp / Wet Location, IP66
FUSED PROTECTION CLASSIFICATION	Two 4 Amp, 3AG fuses Class 2
LISTINGS	UL / cUL, CE, PSE

Table 1: Maximum Fixtures Supported per PDS-60ca 7.5V

Fixture	Maximum per PDS-60ca 7.5V	Maximum per Power Port
iColor Flex SL	2	1
iColor Module Fx 6:9	16	8
iColor Module Fx 6:36	4	2
iColor Tile Fx 2:2	1	1/2

Maximum Fixtures Supported per PDS-60ca 12V

Fixture	Maximum per PDS-60ca 12V	Maximum per Power Port
iColor Flex SLX	1	1

Maximum Fixtures Supported per PDS-60ca 24V

Fixture	Maximum per PDS-60ca 24V	Maximum per Power Port
iColor Cove EC, 12 in	30	15
iColor Cove EC, 6 in	30	15
iColor Cove QLX, 12 in	20	10
iColor Cove QLX, 6 in	30	15
eW Flex SLX (50 nodes)	1 run / string	1