PDS-150e
USER GUIDE

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PDS-150e
ColorBlast 6
ColorBlast 12
ColorBurst 6
ColorBurst 4
iColor Cove NXT

カラーキネティクス・ジャパン株式会社

AC 100-240V

0.475-0.270 A (2.8-1.4 A with 6 fixtures connected) ColorBlast 6
0.810-0.354 A (2.8-1.4 A with 3 fixtures connected) ColorBlast 12
0.273-0.192 A (2.8-1.4 A with 12 fixtures connected) ColorBurst 4
0.478-0.273 A (2.8-1.4 with 6 fixtures connected) ColorBurst 6
0.200-0.161 A (2.8-1.4 with 36 fixtures connected) iColor Cove NXT 6 in.
0.228-0.170 A (2.8-1.4 with 24 fixtures connected) iColor Cove NXT 12 in.

CHROMACORE® BY COLOR KINETICS

ITEM# 109-000008-01

PUB-000083-00 Rev 02

Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent version.

GETTING STARTED

Color Kinetics® PDS-150e is a robust 150W power source and intelligent data drive circuitry specifically designed for Color Kinetics bColor Series and iColor Series fixtures.

This guide contains important information on installing and using your new PDS-150e. Please read it carefully and save it for future reference. There are few rules, but those that exist are there for your safety.

WARNING: PDS-150e is rated for installation in environments where the temperature does not exceed 122°F (50°C). To ensure product performance, 4 inches of open space is required around all vented sides of the unit. Do not obstruct the vent holes on the housing cover.

This power supply is not suited for outdoor locations and must be shielded from water spray.

Included In This Box

- Power supply/data circuit module
- 6 3-pin connectors and 1 5-pin connector
- 6 Module-to-housing mounting screws and lock washers
- Housing
- Cover
- 8 Cover screws and lock washers
- Spare fuses
- User Guide

Additional Items Needed

- Mounting hardware
- Power screwdriver
- Small screwdriver
- Wire nuts

Scope of This User Guide

The goal of this user guide is to explain in an easily understood language the steps necessary to install the PDS-150e 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 2004 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 which, if not avoided, could result in death or serious injury.

"**CAUTION**" Potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage. Also used to alert against unsafe practices.

IGNORING A HAZARD WILL VOID THE WARRANTY.

DANGER: Ensure that main power supply is off before installing, wiring, or servicing the PDS-150e power supply.

WARNING: The PDS-150e power supply must be installed by a qualified professional in accordance with NEC and relevant local codes.

WARNING: Do not attempt to install or use the PDS-150e until you read and understand the installation instructions and safety labels.

WARNING: Do not use the PDS-150e if power cables are damaged.

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: Do not hot swap. Ensure the power supply is off before connecting or disconnecting fixtures.

CAUTION: Ensure that there are 4 inches of open space on all vented sides of power supply.

CAUTION: Do not use with dimmers.

CAUTION: Do not modify or alter the PDS-150e.

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-150e 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-150e

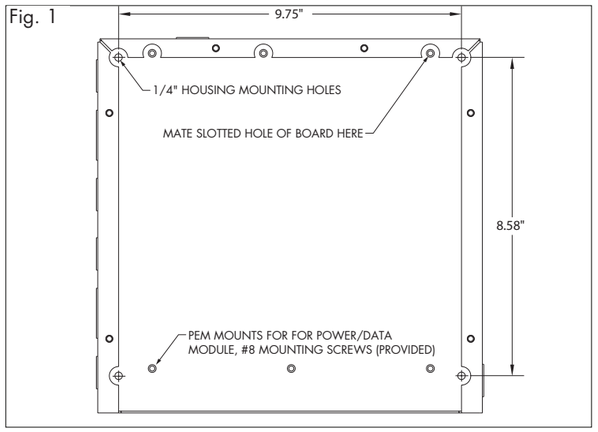
The PDS-150e shall be installed by a qualified electrician in accordance with NEC and relevant local codes for power supplies with Class 2 outputs. A power screwdriver is recommended for mounting the unit.

Mounting the Housing

- Select the location to mount the housing, keeping the PDS-150e within the maximum distance specified for your fixture. Refer to your fixture user guide for the cable run information.

  NOTE: Specifications for specific fixtures supersede this information. In certain conditions the maximum cable run is less than 60 feet.
- Prior to mounting, punch out the appropriate number of pre-formed conduit holes.
- Mount the housing to a flat surface using four screws suitable for the mounting surface. Mounting holes are located at each corner of the bottom of the housing. (See mounting details, Fig. 1.)

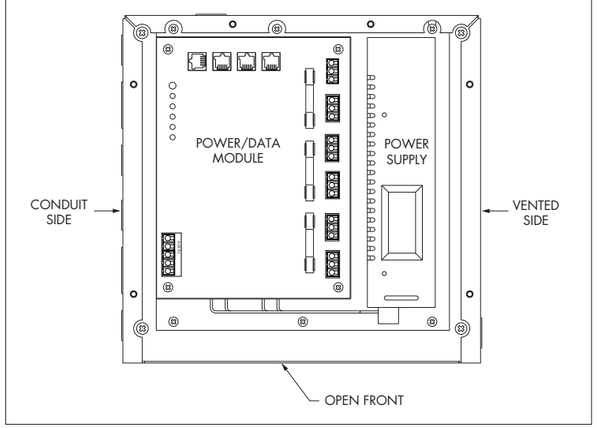
Fig. 1



Mounting the Power/Data Module in the Housing

- Mount the Power/Data module prior to pulling the wiring into the housing.
- Mount the power/data module to the stand-off holes in the bottom of the housing using the provided mounting screws and lock washers. Mate the slotted hole of the board to the PEM mount referenced in Fig. 1. (Refer to Fig. 2 for correct orientation.)

Fig. 2



WIRING THE PDS-150e

After mounting the power/data module, you are ready to connect the fixtures.

Connecting Fixtures to the Power Supply

There are three fuse groups, each having two output terminals on the power supply. Refer to Table 1 for maximum output per fuse group.

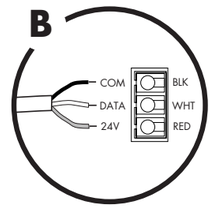
Table 1: Maximum Output per Fuse Group

Fixture	Max. per PDS-150e	Max per fuse group
ColorBlast 12	3	1
ColorBlast 6	6	2
ColorBurst 6	6	2
ColorBurst 4	12	4
iColor Cove	2 runs of 12 ft.	1 run

WARNING: Make sure the power supply is off before connecting or disconnecting fixtures. Otherwise, damage to the fixture will result.

- Connect the fixture cables to the output terminals.
- Ensure that the red, white and black wires correspond to the 3-pin terminal block notations. (See Fig. 3.)

Fig. 3



NOTE: For iColor Cove, match blue wire to white.

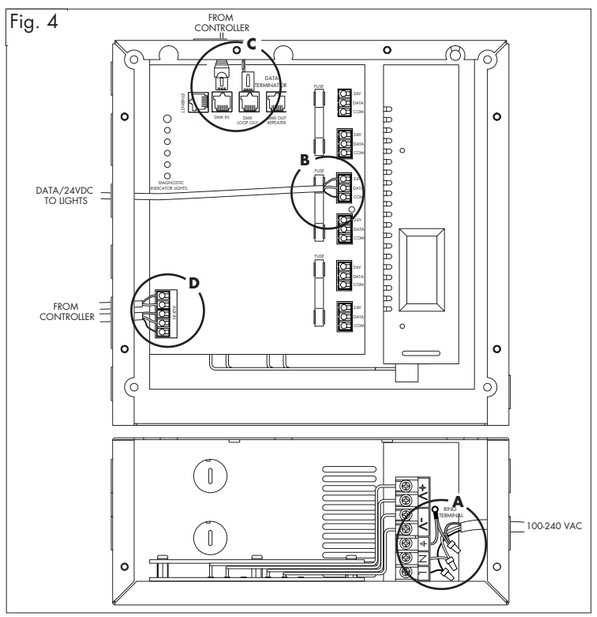
IMPORTANT: In any wiring configuration, do not exceed the maximum fixtures per group recommended in Table 1.

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.

DANGER: Turn off main power supply before wiring the PDS-150e. Failure to adhere to these instructions will result in death or serious injury.

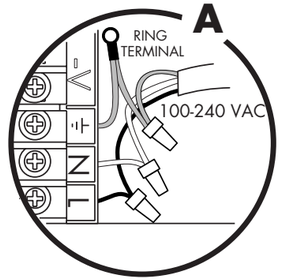
- Connect the incoming power lines to the terminal block located on the power supply. (See Figure 4.)

Fig. 4



- Using pig tails and wire nuts, connect the incoming line to the terminal labeled L, neutral to N, and ground to ⏚. (See Figure 5.)

Fig. 5



Connecting Data to the Power Supply

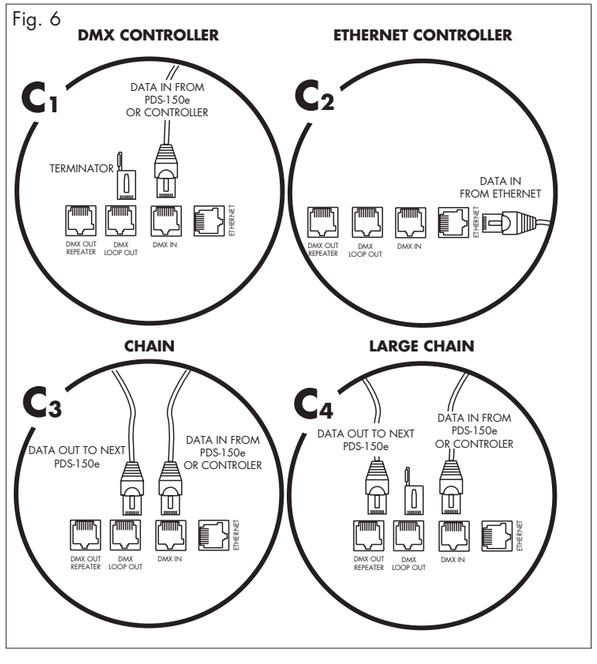
The PDS-150e receives data from a DMX controller.

DMX Controller

- Connect the DMX controller to the DMX IN RJ45 with CAT 5 cable available from Color Kinetics. (See Fig. 6, Detail C1.)

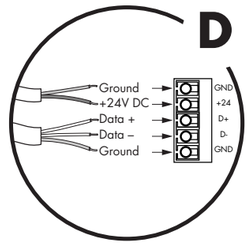
  NOTE: When the controller is connected to the RJ45 port it must be powered by another source.
- To send data to another PDS-150e or other Color Kinetics product with direct DMX input, connect a CAT5 cable between the LOOP OUT port of the sending unit and the DMX IN port of the receiving unit. (See Fig. 6, Detail C3.)
- Make sure a terminator is installed in the LOOP OUT port of the last unit in the chain. (See Fig. 6, Detail 1.) Single units should also be terminated. (Data terminators are available from Color Kinetics.)
- The DMX OUT REPEATER port boosts the data signal for longer chains. Use the DMX OUT REPEATER port instead of LOOP OUT on every 32nd PDS-150e unit in a chain, or when the cable run between two power/data supplies is more than 400 feet. Make sure a terminator is installed in the LOOP OUT port if the REPEATER port is used. (See Fig. 6, Detail C4.) DMX OUT REPEATER port is used as the data out port when using ethernet.

Fig. 6



NOTE: Alternatively, you can connect a DMX controller to the output terminal labeled AUXILIARY. (See Fig 7.) This terminal supplies power to the controller and also receives data, which it sends to each fixture.

Fig. 7



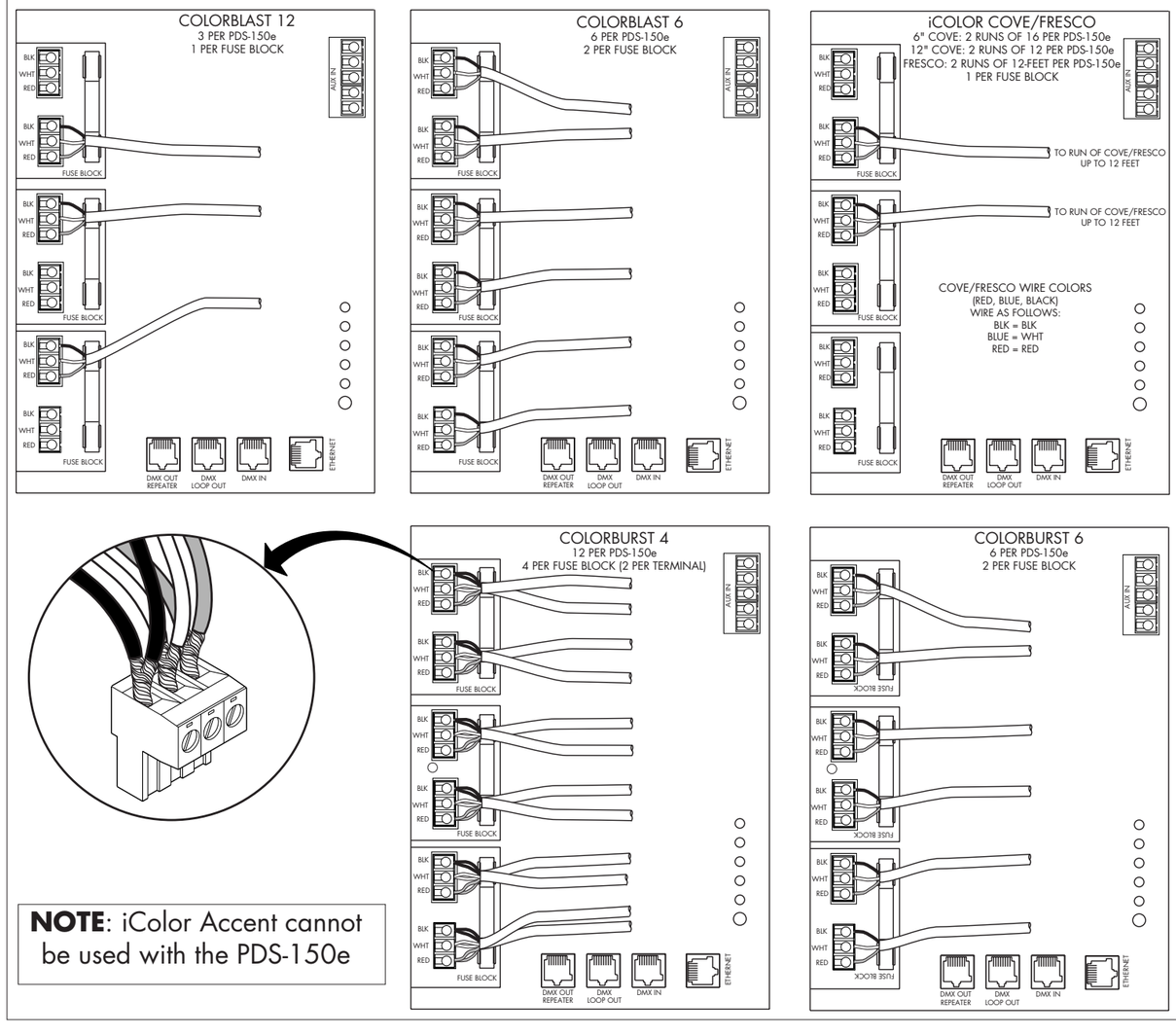
Ethernet Controller

The PDS-150e is outfitted for advanced ethernet options using a Color Kinetics proprietary protocol. These options are ideal for large installations. Contact Color Kinetics for more information using ethernet options.

- When using ethernet, connect the data to the ETHERNET port. Since Ethernet cannot be chained, each PDS-500 will receive an individual ethernet connection. (See Fig. 6, Detail C2.)

WARNING: The AUXILIARY terminal is designed for use only with Color Kinetics controllers, such as Synchronizer, Multi Synchronizer, and iPlayer® 2. **Do not use the AUXILIARY terminal to power lights**.

Fig. 8: Fixture Wiring Guide



NOTE: iColor Accent cannot be used with the PDS-150e

REPLACING FUSES

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

Each of the main output terminals is equipped with a fuse. If an output terminal is not functioning, replace the fuse as follows:

- Remove the protective fuse cover from the malfunctioning fuse.
- Remove the fuse from the malfunctioning fuse terminal.
- Insert the replacement fuse into the fuse terminal. Use only 4 amp, 3AG fuses. Additional replacement fuses are available from Color Kinetics.
- Replace the protective fuse cover.

PDS-150e SPECIFICATIONS

POWER INPUT	100VAC to 240VAC auto ranging (50Hz–60Hz) Power factor correction (PFC) 2.8A (115V)/1.4A (230V)
POWER OUTPUT	24VDC (150W Max.)
HEAT DISSIPATION	25 percent of total power output
AMBIENT OPERATING TEMP	14°F to 122°F (-10°C to 50°C)
HOUSING	NEMA-style indoor rated enclosure; housing dimensions: 10.38" (26.37 cm) x 10.10" (25.65 cm) x 4.38" (11.13 cm)
CONNECTORS	Data: Screw terminal or RJ45 input and output connectors Power: Screw terminal output connectors
DATA INTERFACE	Color Kinetics full line of controllers or DMX512 (RS485) compatible, Color Kinetics Ethernet compatible
CLASSIFICATION	Class 2 power supply
LISTINGS	UL/cUL, CE listed

CAUTION: Refer to Fig. 8 Fixture Wiring Guide for number of allowed fixtures per fuse block.

CAUTION: Refer to the user guide of your fixture for maximum cable lengths and detailed wiring diagrams.

WARRANTY

This product is sold pursuant to CK's Standard Terms and Conditions (the "T&Cs") which may be found at http://colorkinetics.com/howtobuy/buy/terms and which contain important provisions, including, among others, Limited Warranty, exclusions and limitations on CK's liability for damages, and restrictions on the remedies that are available to you.