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FOR USE UNDER U.S. PATENTS 6,016,038, 6,150,774 AND 6,340,868
OTHER PATENTS PENDING

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GETTING STARTED

Color Kinetics® PDS 500e is a robust 500W intelligent power/data supply specifically designed for Color Kinetics iColor Accent fixtures.

This guide contains important information on installing and using your new PDS-500e. 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-500e is rated for installation in environments where the temperature does not exceed 122°F (50°C). To ensure product performance, a volume of 8 cubic feet of air is required around the unit. Do not obstruct the vent holes on the housing.

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 - Module-to-housing mounting screws and lock washers
- Housing
- Cover
- 8 - Cover screws and lock washers
- Chassis ground ring terminal
- Installation Guide
- Warranty and Registration cards

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 necessary steps to install the PDS-500e 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 MH29.1 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.

DANGER: Ensure that main power supply is off before installing, wiring, or servicing the PDS-500e power supply. Failure to adhere to these instructions will result in death or serious injury.

WARNING: The PDS-500e 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-500e 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-500e if power cables are damaged. Doing so can result in death, serious injury, and property damage.

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: Ensure that there are 4 inches of open space on all vented sides of power supply. Failure to do so will result in property damage and void the warranty.

CAUTION: Do not use with dimmers. Doing so will result in property damage and void the warranty.

CAUTION: Do not modify or alter the PDS-500e. Doing so will 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-500e 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-500e

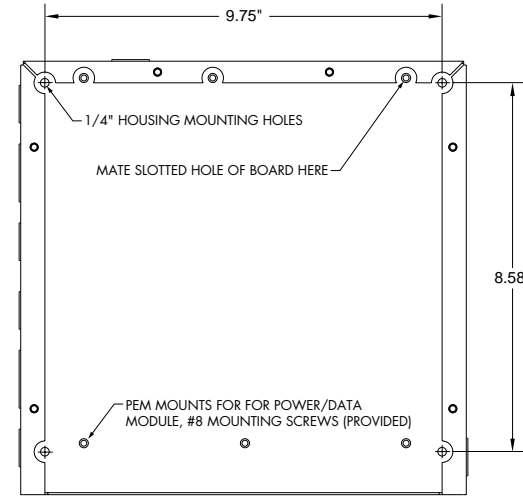
The PDS-500e shall be installed by a qualified electrician in accordance with NEC and relevant local codes for power supplies with Class 1 outputs. A power screwdriver is recommended for mounting the unit.

Mounting the Housing

- Select the location to mount the housing, keeping in mind that the maximum cable run from PDS-500e to any iColor Accent fixture is 50 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.)

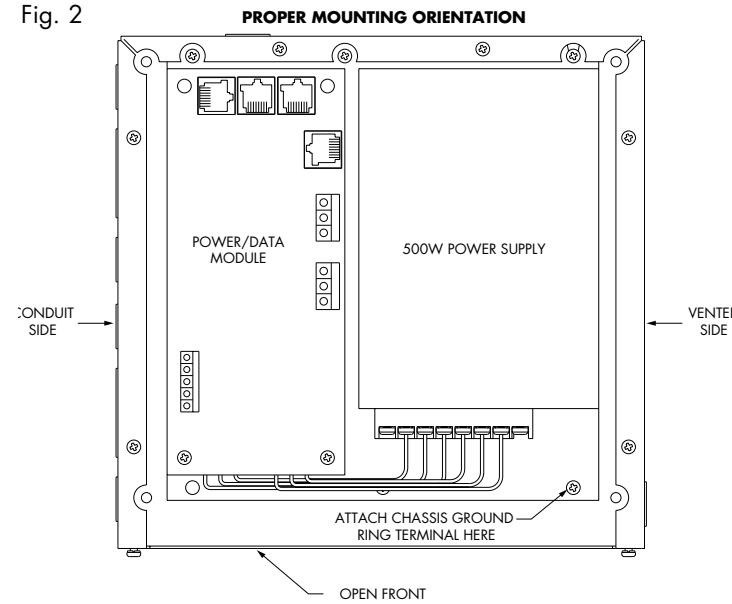
Fig. 1



Mounting the Power/Data Module in the Housing

- To protect the Power/Data module, pull the wiring into the housing before mounting the module.
- Mount the the power/data module to the stand-off holes in the bottom of the housing using the provided mounting screws and lock washers. (Refer to Fig. 2 for correct orientation.)

Fig. 2



- Attach the chassis ground ring terminal to the screw indicated in Fig. 2.

WIRING PDS-500e

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

Connecting iColor Accent to the PDS-500e

There are two main output terminals on the power supply, labeled OUTPUT 1 and OUTPUT 2. Each output can support a maximum light run of 24 feet. (See Table 1.)

Table 1

iColor Accent	1-ft	4-ft	8-ft
OUT 1	24	6	3
OUT 2	24	6	3
Total	48	12	6

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

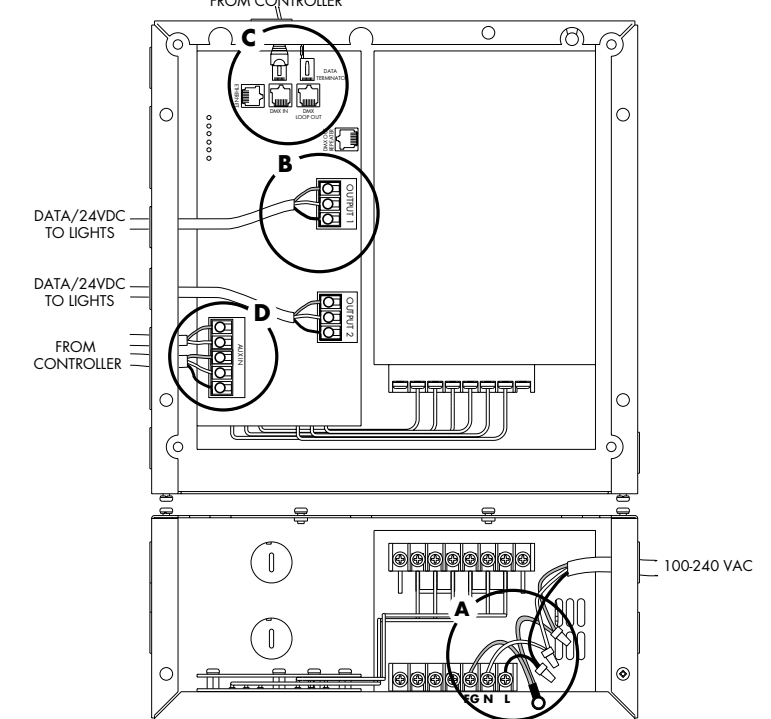
- Connect the iColor Accent cables to the OUTPUT 1 and OUTPUT 2 terminals.

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

IMPORTANT: In any wiring configuration, the cable runs must not exceed fifty feet per output terminal.

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.

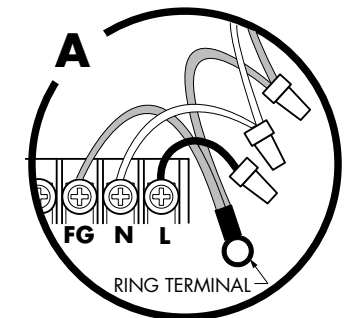
Fig. 3



DANGER: Ensure that main power supply is off before installing, wiring, or servicing the PDS-500e power supply. 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. Using pig tails and wire nuts, connect the incoming line to the terminal labeled L, neutral to N, and ground to the chassis ground ring terminal. (See Figure 5.)

Fig. 5



Connecting Data to the Power Supply

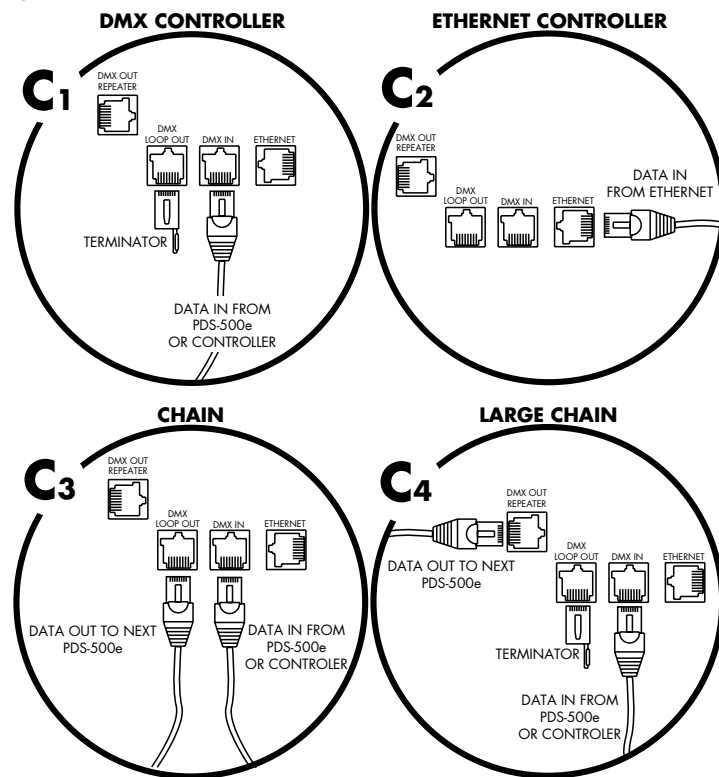
The PDS-500e can receive data from either DMX controller or Ethernet via RJ45 ports.

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-500e 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 C1.) 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-500e 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.

NOTE: Alternatively, you can connect the 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 iColor Accent fixture.

Fig. 6

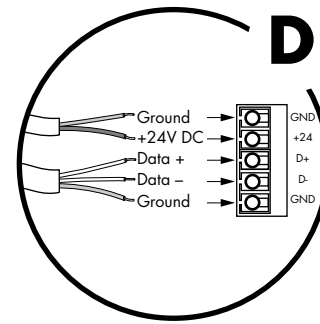


ETHERNET CONTROLLER

The PDS-500e 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. Ethernet cannot be chained. Each PDS-500e will receive an individual ethernet connection. (See Fig. 6, Detail 2.)

Fig. 7



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.**

PDS-500e Specifications

Power Output	24VDC (480W)
Power Input	100VAC to 240VAC (50Hz-60Hz) auto ranging Power factor correction (PFC) 7A (115)/3.5A (230V)
Ambient Temp	14°F to 122°F (-10°C to 50°C)
Packaging	NEMA-style enclosure for installation with power supply and transformer
Dimensions	10.38" (26.3 cm) X 10.10" (25.65 cm) X 4.38" (11.13 cm)
Connectors	Screw terminal or RJ45 data input and output connectors; screw terminal power output connectors
Listings	UL listed, CE certified
Data Interface	DMX512 (RS485) compatible Color Kinetics Ethernet compatible

Sample Lighting Layout

