

iW DATA ENABLER

USER GUIDE



An IntelliWhite Product™

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PUB-000122-00 Rev 01

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GETTING STARTED

Color Kinetics® iW™ Data Enabler is a compact, indoor/outdoor data supply for use with all Color Kinetics IntelliWhite™ Powercore® lights.

This guide contains important information on installing and using your new iW Data Enabler. Please read it carefully and save it for future reference.

Included in This Box

- iW Data Enabler with cover, gasket, attaching cover screws, and NPT threaded seal plugs
- User Guide

Additional Items Needed

- iW Scene Controller (Item # 503-000001-00)
- #10 (M5) Mounting hardware and tools
- Wire nuts
- Various electrical conduit wire and accessories as required based on wiring method
- 3/4" NPT watertight conduit and fittings (As required per local codes)
- Electronic grade RTV Silicone (UL recognized) to seal conduit connections as required
- 5/16" hex wrench or adjustable wrench for seal plugs
- Phillips and flat head screw drivers

Scope of this User Guide

The goal of this user guide is to explain the steps necessary to install the iW Data Enabler 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 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 ANY WARRANTY.

DANGER: Ensure that main power supply is off before installing, wiring, or servicing the iW Data Enabler.

WARNING: The iW Data Enabler must be installed by a qualified professional in accordance with NEC and relevant local codes.

WARNING: Do not attempt to install or use the iW Data Enabler until you read and understand the installation instructions and safety labels.

WARNING: Do not use the iW Data Enabler 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: Ensure that the iW Data Enabler is securely attached, properly mounted, and free of excessive vibration.

CAUTION: When sealing the iW Data Enabler, ensure that the gasket is seated properly, that no wires are pinched, and that the housing is free of foreign material and debris.

CAUTION: Do not hot swap. Ensure the power to the iW Data Enabler is off before connecting or disconnecting fixtures.

CAUTION: Do not modify or alter the iW Data Enabler.

CAUTION: Do not exceed the specified voltage input.

CAUTION: Do not exceed the maximum number of specified lights attached to the iW Data Enabler.

CAUTION: For outdoor installations, use appropriate material and methods to ensure the iW Data Enabler is water resistant.

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 iW Data Enabler 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 iW DATA ENABLER

The iW Data Enabler shall be installed by a qualified electrician in accordance with NEC and relevant local codes for power supplies.

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.

Installation Considerations

- **Zones.** iW Data Enabler uses Color Kinetics iW Scene Controller to control Color Kinetics IntelliWhite lights. IntelliWhite Series lights are dimmable, color temperature adjustable fixtures that are controlled by zones. A zone is a grouping of lights attached to an iW power/data supply which has been set to a specified zone designation. This zone designation of the iW power/data supply defines the zone in which the lights reside. Using the iW Scene Controller, you can set the brightness level and color temperature, from cool to warm, for all lights within specified zones.

Zones are created by internally designating each iW Data Enabler as a specific alphanumeric zone, 1-9 or A-F. All fixtures attached to that iW Data Enabler reside within the designated zone. For example, in an installation with two iW Data Enablers where the first data enabler is set to Zone 1 and the second is set to Zone 2, the lights attached to the first are in Zone 1 and the lights attached to the second iW Data Enabler are in Zone 2.

For installations where all lights are controlled in unison, set each data enabler in the installation to the same zone designator. For installations where groups of lights are controlled individually, set unique zone designators for each data enabler.

- **Location of iW Data Enabler in relationship to lights.** Each data enabler supports one 50-foot Powercore product leader cable with Powercore fixtures run in series. The leader cable can be lengthened when the distance between the data enabler and the first fixture in the series is greater than 50 feet (15m). A junction box will be required for the leader extension connections.

NOTE: Adhere to all state and local wiring codes when making the leader extension connections.

- **Calculate the number of fixtures per iW Data Enabler.** Use the *Configuration Calculator* located at www.colorkinetics.com/ support to calculate the number of fixtures you can put on a data enabler. The fixtures to iW Data Enabler ratio is determined by the parameters of your installation. Installation parameters include all or part of the following: line voltage, fixture type, leader length, jumper lengths, and wire gauge.

STEPS TO A SUCCESSFUL INSTALLATION

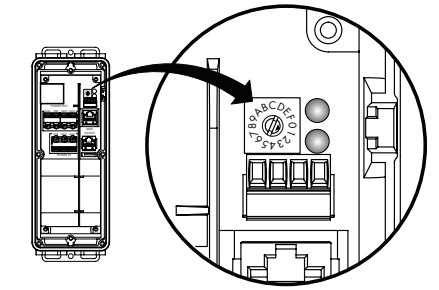
1. Set the zone(s) for the iW Data Enablers
2. Install the iW Data Enabler.
3. Wire the iW Data Enabler.
4. Connect the iW Scene Controller

Set the iW Data Enabler Zone

To minimize installation time and effort, set the zone for each iW Data Enabler prior to installation. Zones can be set or changed after installing the iW Data Enabler; however, any settings or changes made after power is engaged requires a power cycle to recognize the change.

Using a small, flat-head screw driver, set the zone for the iW Data Enabler by rotating the zone switch, located next to the LED indicators, to a specific designator—1 to 9 or A to F. The designator zero (0) is reserved for future features. (See Fig. 1.)

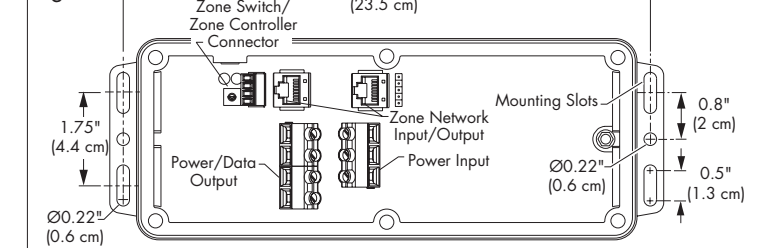
Fig. 1



Install the iW Data Enabler

- Select the location to mount the housing, keeping the iW Data Enabler within the maximum distance specified for your fixture. Refer to your fixture installation guide for the cable run information.
- Using the seal plugs and gaskets provided, seal all conduit holes not needed for the installation. Tighten the plugs until gaskets are slightly compressed. Do not over tighten.
- Mount the housing to a flat surface using four #10 screws suitable for the mounting surface. Mounting slots are located on the flanges at each end of the housing. (See mounting details, Fig. 2.)

Fig. 2



CAUTION: The iW Data Enabler must be installed in a location that allows air to move freely around it. Packing insulation around the housing or mounting it in a sealed location that raises the ambient temperature above 122°F (50°C) may result in property damage and void the warranty.

Wire the iW Data Enabler

After mounting the iW Data Enabler, you are ready to connect power, lights, and iW Scene Controller.

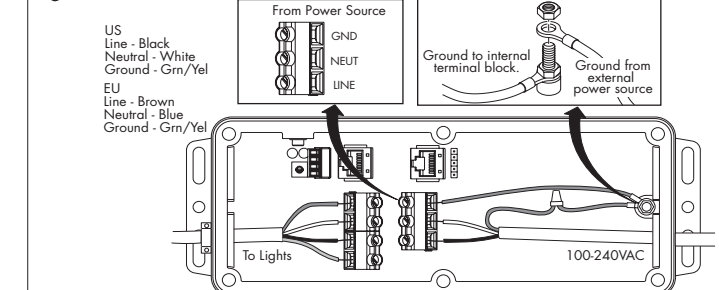
DANGER: Turn off main power supply before wiring the iW Data Enabler. Failure to do so will result in death or serious injury.

Connect Power to the iW Data Enabler

Indoor Installation

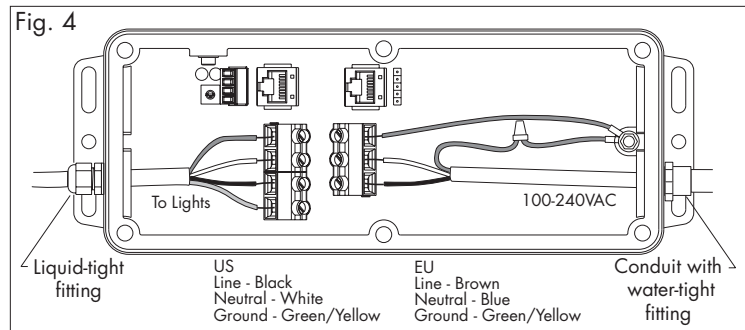
- Pull power cable into the iW Data Enabler.
- Using a wire nut, connect the ground wire to the chassis ground wire.
- Insert Line and Neutral wires into the proper terminals of the power input terminal block and tighten with a small flat head screw driver. Follow local electrical codes for internal wire bending. (See Fig. 3.)

Fig. 3



Outdoor Installation

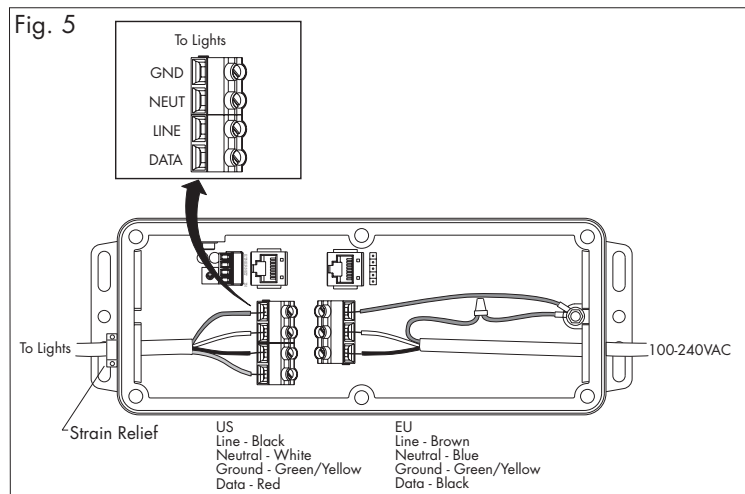
- Pull power cable through outdoor rated conduit and into the iW Data Enabler. Use liquid-tight fittings, sealed with RTV Silicone, to ensure iW Data Enabler is water-tight. (See Fig. 4.)
- Using a wire nut, connect the ground wire to the chassis ground wire as shown in Fig. 4.



- Insert the Line and Neutral into the proper terminals of the power input terminal block and tighten with a small flat head screw driver. Follow local electrical codes for internal wire bending.
NOTE: It is the installer's responsibility to use the proper conductors to permanently connect the incoming facility power, and to provide means for disconnecting the system.

Connect Lights to the iW Data Enabler

- Insert the fixture leader cable into the iW Data Enabler.
NOTE: Outdoor rated lights require water-tight, strain-relief couplers, sealed with RTV Silicone, on the cable to ensure NEMA 4 protection. Refer to the user guide for your lights for instructions. The couplers also provide strain relief.
- The iW Data Enabler is designed to drive data for a single run of lights. Insert the Line (black), Neutral (white), Ground (green), and Data (red) into the proper terminals of the data output terminal block and tighten with a small flat head screw driver. Follow local electrical codes for internal wire bending.
- For indoor rated lights, use a standard screw connector strain relief to hold the cable. (See Fig. 5.)

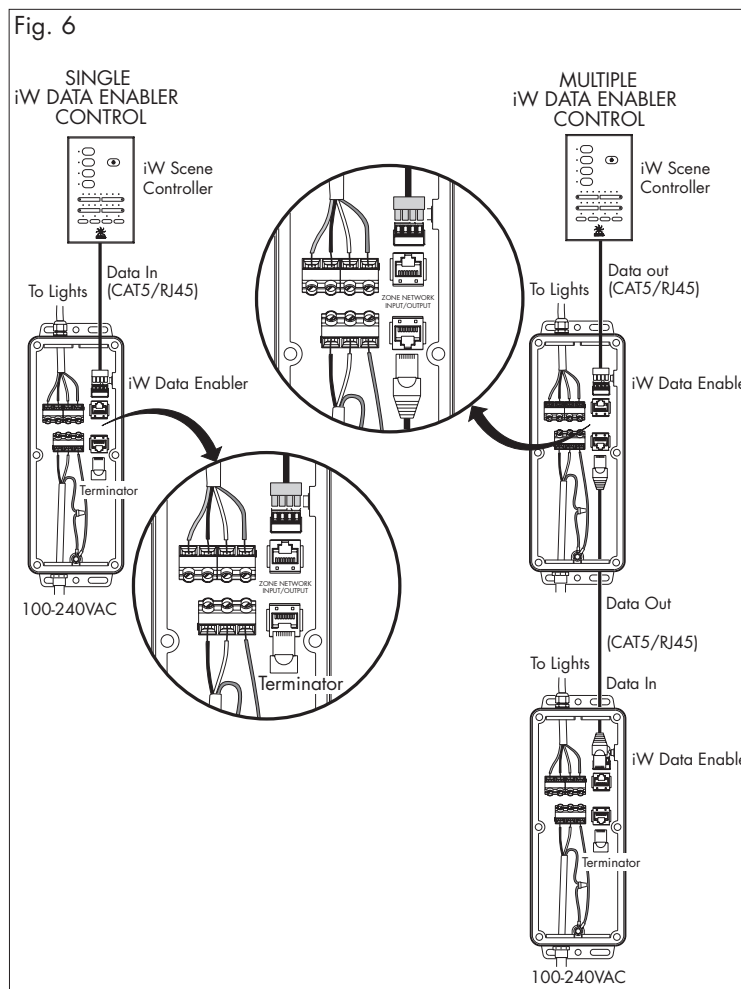


- For outdoor installations, use a liquid-tight fitting on the leader cable to the lights. (See Fig. 4.)
- Refer to the user guide and wiring diagrams for your lights to determine maximum number of lights per power/data supply and specific wiring requirements.
NOTE: For outdoor installations, use provided plugs to seal all unused conduit holes.

Connect the iW Scene Controller to the iW Data Enabler

To control Color Kinetics IntelliWhite fixtures with the iW Data Enabler, the iW Scene Controller is required. Depending on the installation parameters and configuration, an iW Scene Controller can control one or multiple iW Data Enablers. Refer to the iW Scene Controller Installation Guide for complete instructions.

- Install the iW Scene Controller in a single gang wall box within 50 feet (15m) of the iW Data Enabler.
- Pull the provided iW Scene Controller leader cable into the iW Data Enabler.
NOTE: For applications where the iW Data Enabler is located outdoors, pull the cable through outdoor rated conduit and ensure that the conduit connection is water-tight.
- Plug the 4-pin connector into the controller connector located near the Zone Control Switch in the iW Data Enabler.
NOTE: The iW Scene Controller provides data to, and receives power from, the iW Data Enabler; therefore, no external power supply is needed for the iW Scene Controller.
- For installations that have one iW Scene Controller controlling multiple iW Data Enablers, connect the iW Scene Controller to the first iW Data Enabler in the installation then daisy chain CAT5 cables with RJ45 connectors to the other iW Data Enablers using the Data IN/OUT ports. (See Fig. 6.)



- Install the provided terminator in one of the RJ45 connectors in the iW Data Enabler farthest from the keypad. There should be no more than one terminator for the entire installation, no matter how many iW Data Enablers are used.
NOTE: The data ports are not direction specific. Both ports function as either input or output.

Seal the iW Data Enabler

After all the power, lights, and data connections have been made, and all conduit holes are water-tight, replace the cover and attach with provided screws. Tighten screws to 8 to 10 in-lbs.

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

iW DATA ENABLER SPECIFICATIONS

| | |
|-------------------------------|--|
| POWER INPUT | 100-240VAC, 50-60 Hz |
| | Max. connected load should not exceed 20 Amps |
| INTERNAL LOAD | 10 Watts |
| HEAT DISSIPATION | 10 Watts Max. |
| AMBIENT OPERATING TEMP | -4°F to 122°F (-20°C to 50°C) |
| HOUSING | NEMA 4 enclosure: 9.7" (24.6 cm) X 3.5" (8.9 cm) X 3.2" (8.1 cm) |
| CONNECTORS | Power In: 3-wire terminal block connector Power/Data Out: 4-wire terminal block connector |
| DATA INPUT INTERFACE | Color Kinetics line of iW controllers |
| PROTECTION RATING | IP66 |
| CLASSIFICATION | Class 1 |
| LISTINGS | UL/cUL, CE |

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.