



INSTALLATION GUIDE

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iColor Module FX ITEM# 101-000045-00 (6:9) 101-000045-01 (6:36)

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PUB-000107-00 Rev 00

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GETTING STARTED

This guide contains important information not only for operating your new Color Kinetics[©] iColor Module FX[™], but also for using it safely. For your protection, read it carefully before embarking on your colorful adventure. There are very few rules, but those that exist are there for your safety. This guide will show you how to get the most out of your Color Kinetics lighting.

Included In This Box

- (1) iColor Module FX
- Installation Guide
- Warranty Card

Additional Items Needed

- iColor Module FX leader cable, ITEM # 108-000018-00
- PDS-60ca 7.5V Power Supply, ITEM # 109-000015-01/02
- (4) #6 Fasteners (suitable for mounting surface)
- iColor Module FX jumper cable, ITEM # 108-000019-00
- Standard strain relief cable clip

SCOPE OF THIS USER GUIDE

The goal of this user guide is to explain in an easily understandable language the necessary steps to install iColor Module FX and assure peak performance. Its intended use is for reference only, by a fully qualified electrician or technician. This document should never be considered a substitute for any provision 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.

DANGER: Ensure that main power supply is off before installing or wiring iColor Module FX and PDS-60ca 7.5V power/data supply. Failure to adhere to these instructions will result in death or serious injury.

WARNING: iColor Module FX and PDS-60ca 7.5V power/data supply must be installed by a qualified electrician or technician in accordance with NEC and relevant local codes. Failure to comply could result in death, serious injury, or property damage.

WARNING: Do not attempt to install or use iColor Module FX or PDS-60ca 7.5V until you read and understand the installation instructions. Failure to adhere to these instructions could result in serious injury or property damage.

WARNING: Do not use iColor Module FX if any cables are damaged. Doing so can result in death, serious injury, or property damage.

CAUTION: iColor Module FX has no serviceable parts. Do not attempt to open the nodes and/or housing. Doing so will result in property damage and void the warranty.

CAUTION: Do not use sharp tools near or on the fixture lens or cable. Doing so will result in property damage and void the warranty.

CAUTION: Do not clean the fixture lens with harsh chemicals or abrasive materials. Doing so will result in property damage and void the warranty.

CAUTION: Do not hot swap. Ensure that power supply is off before connecting or disconnecting fixtures. Hot swapping 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 iColor Module FX in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standards Institute Safety Code.

PLAN THE INSTALLATION

The nature of iColor Module FX installation requires in-depth planning to ensure timely, successful installation and operation with minimal complications and down time.

INSTALLATION CONSIDERATIONS

- Consult an Electrical Inspector to approve all wiring plans.
- Refer to local and state codes for installation compliance.
- Create a Mapping Grid. Use this grid to record light addresses and power supplies locations for easy reference.
- Employ Color Kinetics Application Engineering Services.

CONFIGURING ICOLOR MODULE FX

How the iColor Module FX is addressed depends on the method of control and the PDS-60ca 7.5V power/data supply that you choose.

PDS-60ca 7.5V DMX: The DMX version of the PDS-60ca 7.5V lets you auto-configure the light numbers sequentially starting at one, up to 144 for each power/data supply. To assign unique base numbers for each sequential output run on multiple power/data supply or set all nodes to the same number, you must download the PDS-60 Configuration Tool from the Color Kinetics website. For complete instructions, refer PDS-60ca 7.5V User Guide and to the PDS-60ca-DMX Tool User Guide at www.colorkinetics.com/support.

PDS-60ca 7.5V Ethernet: The ethernet version of the PDS-60ca 7.5V is used in conjunction with Color Kinetics Light System Manager. The Light System Manager includes Light System Composer software and Light System Engine hardware. With Light System Manager (LSM), you can discover and map the module light nodes. No addressing is required. Refer to the LSM User Guide for complete instructions.

INSTALLING ICOLOR MODULE FX

WARNING: Ensure the power is off before installing iColor Module FX. Failure to do so can result in serious personal injury and major property damage.

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

DETERMINE THE LOCATION OF THE POWER SUPPLY

- Determine a location out of direct view for the power supply(s).
- One PDS-60ca 7.5V power/data supply is needed for every 144 light nodes: 4 iColor Module FX 6:36 fixtures or 16 iColor Module FX 6:9 fixtures.
- The power/data supply can be located up to 30 feet (9 m) from the iColor Module FX fixture.
- Install the power/data supply according to the instructions in the PDS-60ca 7.5V Installation Guide.

INSTALL ICOLOR MODULE FX

iColor Module FX is a direct view, surface mounted fixture, designed for use on an interior wall or other indoor flat surface.

iColor Module FX is designed with four through-hole mounting standoffs for easy installation with minimal tools.

Using 12-inch jumper cables, all fixtures in a series can be connected prior to mounting, or you can use a connect-as-you-go approach. It is important to make to data connections before mounting each fixture. Once a fixture is installed, the fixture must be removed to make or change a connection.

FIXTURE-TO-FIXTURE CONNECTIONS

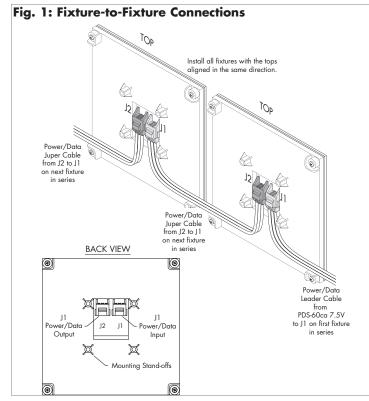
- Using the 1-foot jumper cables, connect all fixtures in a single series. Snap one end of the jumper cable into the Data Out (J2) connector on the back of the first fixture in the series.
- Snap the other end of the jumper cable into the Data In (J1) connector on the next fixture in the series. See. Fig. 1.
- Continue connecting fixtures, Data Out (J2) to Data In (J1) until all fixtures for an output are connected. See Table 1 for maximum series runs per power/data supply, per output.
- Connect the 3-pin connector end of the leader cable to the Data In (J1) connector on the back of the first fixture in the series.

Table 1 Maximum Series Runs

	Per PDS-60ca 7.5V	Per Output
TOTAL NODES	144	72
36-NODE FIXTURES	4	2
9-NODE FIXTURES	16	8

CONNECT AS YOU GO METHOD

• Alternately, you can connect the leader cable to the Input



connector (J1) on the back of the fixture. Connect a jumper cable to the Output connector (J2). Mount the first fixture

- Connect the jumper cable for the first fixture to the Input connector (J1) on the back of the next fixture and connect another jumper cable to the Output connector (J2). Mount this fixture.
- Continue making power/data connections and mounting the fixtures until all fixtures in a series are mounted.

WARNING: Do not connect the leader cable to the PDS-60ca 7.5V until after mounting the fixtures. Doing so can result in serious personal injury and major property damage.

MOUNT THE FIXTURES

• Use a level to make pencil or chalk lines for each row of fixtures. Marking a level, horizontal line to use as a path for the modules ensures proper alignment. This is especially important to ensure that multiple tiles, installed in a grid, are square.

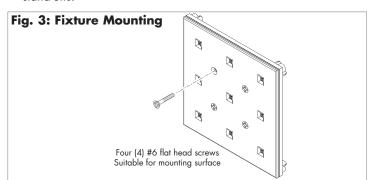
NOTE: If pre-drilled pilot holes are required, use a fixture as a template or mark the surface using the dimensions provided. See

Fig. 2: Vertical and Horizontal Mounting Dimensions

	1. 2" .		1. 2" .		l- 4" -I						
	(51 mm)		(51 mm)		(102 mm)		•				
2" (51 mm)											
)					Đ) (
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• Position the fixture along the level line, with the top up, and mount to the surface using four #6 flat head screws suitable for the mounting surface. See Fig. 3.

Ensure that the jumper cables are firmly connected and run freely behind the fixtures and that they do not obstruct the mounting stand-offs.



CONNECT LIGHTS TO THE PDS-60cg 7.5V

- Insert the 4-pin connector end of the leader cable attached to the first light series run into the data connection chamber of the PDS-60ca 7.5V power/data supply. Snap it into the 4-pin connector labeled Output 1.
- Connect the leader cable from the second light run into the connector labeled Output 2.

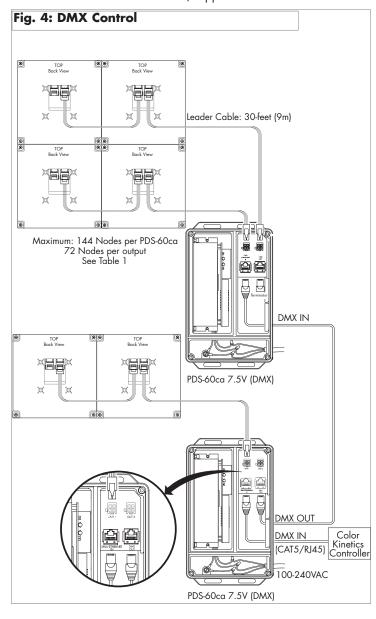
NOTE: If there is only one light run per PDS-60ca, then you must use Output 1.

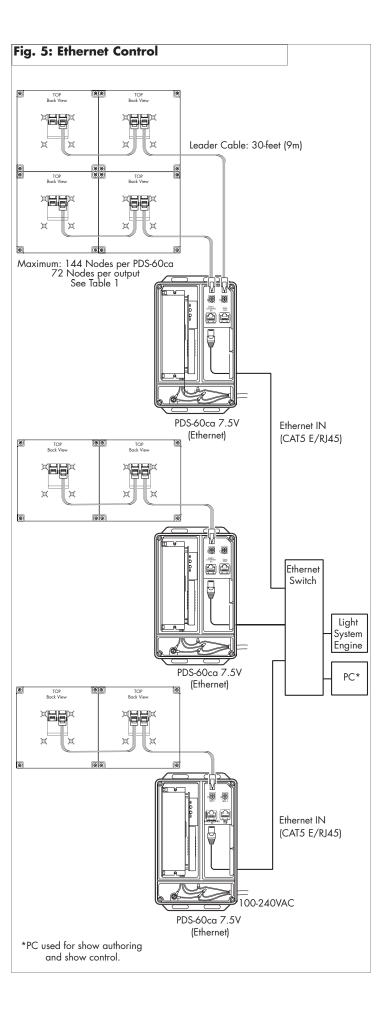
• Use a standard strain relief cable clip to hold the cable. Follow local electrical codes for internal wire bending. See Fig. 4.

CONNECT DATA

- Data is connected to the iColor Module FX via the PDS-60ca 7.5V power/data supply.
- Data connections vary depending on the type data used with the appropriate PDS-60ca 7.5V. Refer the figures below.
- Fig. 4: DMX control
- Fig. 5: Ethernet control

For complete instructions and wiring diagrams for your power/data supply, refer to the PDS-60ca User Guide and wiring diagrams located at www.colorkinetics.com/support.





If any problems occur during usage, unplug the product immediately and call or email:

Color Kinetics Technical Support Group: 1-888-FULL RGB or 617-423-9999 or www.colorkinetics.com/support

iCOLOR MODULE FX SPECIFICATIONS

High brightness LEDs SOURCE

Clear Polycarbonate, 6"(15 cm) x 6"(15 cm) x 0.75"(2 cm) HOUSING

8.5 oz (0.24 kg) WEIGHT

4-pin connectorized for Color Kinetics PDS-60ca 7.5V CONNECTORS

C-UL US listed, CE certified LISTINGS

Ethernet, DMX DATA INTERFACE

6:9: 4W Max., 6:36 12W Max. at full intensity (full RGB)

POWER REQUIREMENT 7.5VDC

PDS-60ca 7.5V (ITEM# 109-000015-00/01/02) POWER SUPPLY

SOURCE LIFE

Color Kinetics illumination products utilize high brightness LEDs as the illumination source. LED manufacturers predict LED life of up to 100,000 hours MTBF (mean time between failure), the standard used by conventional lamp manufacturers to measure source life. However, like all basic light sources, LEDs also experience lumen depreciation over time So while LEDs can emit light for an extremely long period of time, MTBF is not the only consideration in determining useful life. LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity and ventilation. Lumen depreciation is also affected by thermal management, current levels, and a host of other electrical design considerations.

Color Kinetics systems are expertly engineered to optimize LED life when used under normal operating conditions [ambient temperature: -4° F to 104° F (-20° C to 40° C), humidity: 0-95% non-condensing humidity, adequate ventilation and air volume.] Longterm operation outside of these ranges or conditions, or at the upper limits of these ranges or conditions, may subject the product to further degradation of the LED source life, or in extreme cases, failure of internal components. Source life information is based on LED manufacturers' data, as well as other third party testing.

Do not open, alter or tamper with the product case. This will void the manufacturer's warranty. To avoid electrical shock, never open the iColor Module FX case. Do not attempt to service the electronic components yourself. Non-expert handling may damage the product and cause injury to the user.

One Year Limited Hardware Warranty

Color Kinetics Incorporated warrants its products, if properly used and installed, will be free from defects in materials and workmanship and will substantially conform to Color Kinetics' publicly available specifications for a period of one (1) year after the date the product was purchased by the end user.

If the product fails during the warranty period, purchaser's remedy under this limited warranty shall be at Color Kinetics sole election:

- Repair the product by means of hardware and/or software or
- Replace the product with another product or
- If Color Kinetics is unable to repair or replace the particular product. refund the then current value of the product.

This limited warranty does not cover damages due to external causes, including, but not limited to, accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, modification, repair, improper installation, or improper testing. Color Kinetics is not responsible for indirect, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including, but not limited to, lost profits, downtime, goodwill, damage to or replacement of equipment and property.

To obtain warranty service, you may contact your distributor in accordance with its instructions, or you may contact Color Kinetics. To request warranty service you should call Color Kinetics during the warranty period. Proof of purchase or registration is required. When calling within

warranty, please provide:

- 1) Your name, shipping address, and telephone number 2) A description of the model and serial number
- 3) An explanation of the problem

A Return Authorization (RA) number & ship-to address will be provided to send the

The warranty and remedies set forth above are exclusive and in lieu of all others, whether oral or written, express or implied. Color Kinetics specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. No Color Kinetics distributor, dealer, agent or employee is authorized to make any modification, extension, or addition to this warranty. This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.