

iCOLOR FLEX SLX

INSTALLATION GUIDE



COLOR KINETICS INCORPORATED
10 MILK STREET, SUITE 1100
BOSTON, MA 02108
TEL 888 FULL RGB
TEL 617 423 9999
FAX 617 423 9998
INFO@COLORKINETICS.COM
WWW.COLORKINETICS.COM



iColor Flex SLX	
ITEM# 101-000053-00	4" White Dome Lens
101-000053-01	4" Flat Clear Lens
101-000054-00	12" White Dome Lens
101-000054-01	12" White Flat Clear Lens
101-000055-00	4" Black Dome Lens
101-000055-01	4" Black Flat Clear Lens
101-000056-00	12" Black Dome Lens
101-000056-01	12" Black Flat Clear Lens

This product is protected by one or more of the following patents: U.S. Patent Nos. 6,016,038, 6,150,774 and other patents listed at <http://colorkinetics.com/patents/>. Other patents pending.

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Specifications subject to change without notice.



INTRODUCTION

Welcome to a more colorful world brought to you by Color Kinetics. This guide contains important information not only for operating your new iColor® Flex SLX, 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 Flex SLX light string (50 nodes)
- (1) Extra Termination cap (for field cutting, if needed)

Optional

- iColor Flex SLX Mounting Track ITEM # 101-000057-00
- iColor Flex SLX Spacers ITEM # 101-000059-00
- iColor Flex SLX Single Node Mounts ITEM # 101-000058-00

Additional Items Needed

- Node Mount Hardware: #6 flat head screw
- Track Hardware: Staples or flat head screws suitable for mounting surface.
- Electronic grade RTV Silicone (UL recognized)
- PDS-60ca 12V Power Supply, ITEM # 109-000020-00/01/02.
One PDS-60ca 12V power/data supply is needed for every single strand of iColor Flex SLX fixtures.
(Maximum nodes per PDS-60ca 12V: 50)
- Tools (screw gun, stapler, pliers, wire cutters, flat screw driver)

Scope of This User Guide

The goal of this user guide is to explain in an easily understood language the necessary steps to install iColor Flex SLX 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 Flex SLX and PDS-60ca 12V power/data supply. Failure to adhere to these instructions will result in death or serious injury.

WARNING: iColor Flex SLX and PDS-60ca 12V 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 Flex SLX or PDS-60ca 12V 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 Flex SLX if any cables are damaged. Doing so can result in death, serious injury, or property damage.

CAUTION: iColor Flex SLX has no serviceable parts. Do not attempt to open the nodes. Doing so will result in property damage and void the warranty.

CAUTION: Ensure that mounting track, node holders, and iColor Flex SLX are securely attached, properly mounted, and free of excessive vibration. Failure to do 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 hot swap. Ensure that the 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 Flex SLX 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 an iColor Flex SLX installation requires in-depth planning to ensure timely, successful installation and operation with minimal complications and down time.

Installation Configurations

- 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 supply locations for easy reference.
- Employ Color Kinetics Application Engineering Services.

CONFIGURING iCOLOR FLEX SLX

How iColor Flex SLX is addressed depends on the method of control and PDS-60ca 12V power/data supply that you choose.

PDS-60ca 12V DMX: The DMX version of PDS-60ca 12V lets you auto-configure the light number sequentially from one to 50 for each power/data supply. To assign unique base numbers for each sequential run or set all nodes to the same number, you must download PDS-60ca Configuration Tool from the Color Kinetics website. For complete instructions, refer to *PDS-60ca 12V User Guide* and to *PDS-60ca Configuration Tool User Guide* at www.colorkinetics.com/support.

PDS-60ca 12V Ethernet: The ethernet version of PDS-60ca 12V is used in conjunction with Color Kinetics Light System Manager and Video System Manager. The Light System Manager includes Light System Composer software and Light System Engine hardware. With Light System Manager, you can discover and map lights in your installation. No addressing is required.

PDS-60ca 12V Preprogrammed: When using preprogrammed PDS-60ca 12V, no addressing is required.

INSTALLING iCOLOR FLEX SLX

Step 1: Determine the Location of the Power Supply

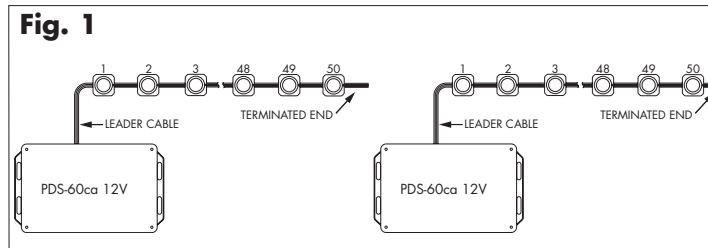
WARNING: iColor Flex SLX should be installed by a qualified electrician or technician in accordance with NEC and relevant local codes.

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

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

- One PDS-60ca 12V power/data supply is needed for every single strand of iColor Flex SLX fixtures (50 nodes max) .
- The power/data supply must be located within 50 feet (15 m) of the first node in the series, due to leader length.

Note: Nodes are sequentially addressed beginning with the first node on the leader cable going away from PDS-60ca 12V. Therefore, placement of the power/data supply in relation to the light nodes and desired effects is critical, especially when using the pre-programmed effects. See Fig. 1.



Step 2: Mark the Path

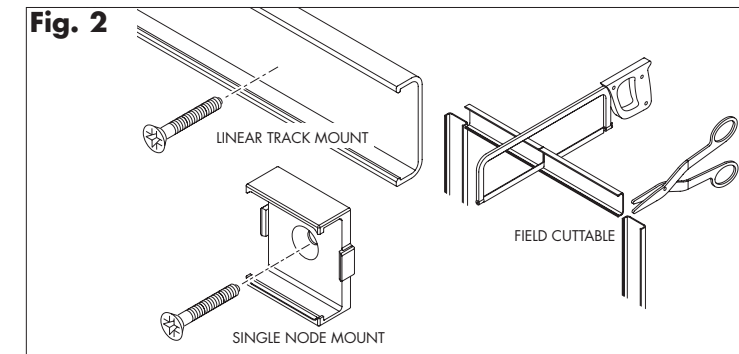
- Using a pencil or chalk line, mark a centerline path for the nodes to follow. For linear installations, iColor Flex SLX track is ideal for maintaining linear alignment and cable management. Single Node mounts work well with complex geometries. Install iColor Flex SLX on horizontal or vertical surfaces to accommodate your lighting environment.

Step 3: Install Tracks and/or Individual Mounts

Tracks: The plastic track can be cut to length in the field. Cut track to desired length. Using flat head screws suitable for the mounting surface, drive screws through the plastic track into the attaching surface. Recommended maximum spacing between screws is 16-inches (41 cm). See Fig. 2.

Single Node Mounts: Using double sided tape on base of mount, adhere single node mounts to the attaching surface. Reinforce installation with #6 flat head screws suitable for mounting surface. See Fig. 2.

Note: Ensure that the distance between single node mounts accommodates cable length from node to node and allows for cable bending when necessary.



Step 4: Install iColor Flex SLX

iColor Flex SLX can be cut to desired node length. After cutting, you must seal the cable end. When possible, cut and seal the cable prior to installation.

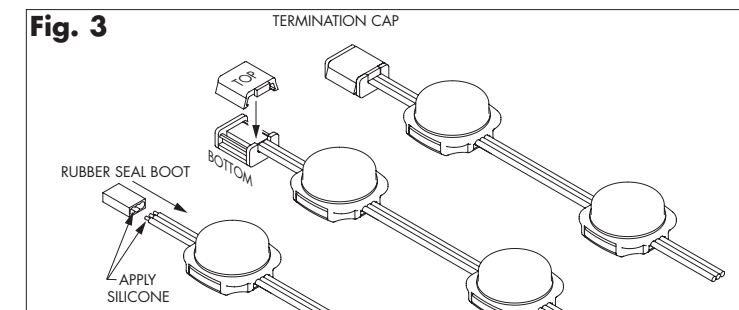
WARNING: Ensure the power is off before cutting iColor Flex SLX.

CAUTION: Do not cut leader cable. Doing so will void warranty.

- Using a wire cutter, cut the cable leaving as least one inch of cable after the last node.

Note: Ensure that the cut is clean and that there are no frayed wires touching other wires.

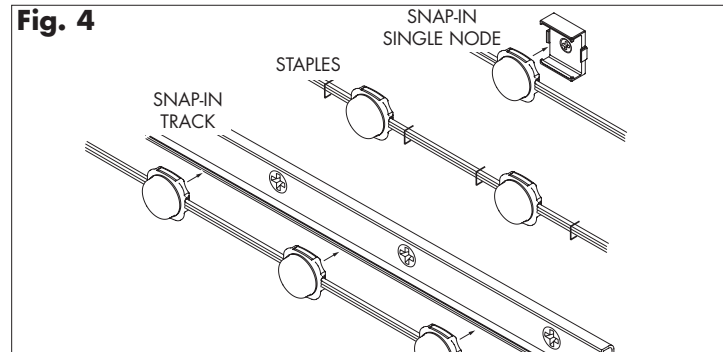
- Apply a liberal amount of RTV silicone to the cable ends and to the opening of the rubber seal boot. Insert the boot onto the cable.
- Sit the sealed cable boot into the base of the termination cap provided with iColor Flex SLX. Never try to reuse a termination cap.
- Firmly press the termination cap top onto the base until the top snaps into place. If using pliers, use caution not to crack the housing. See Fig. 3.



- When using the track or single node mounts, simply push the light nodes into the mounts. See Fig. 4.

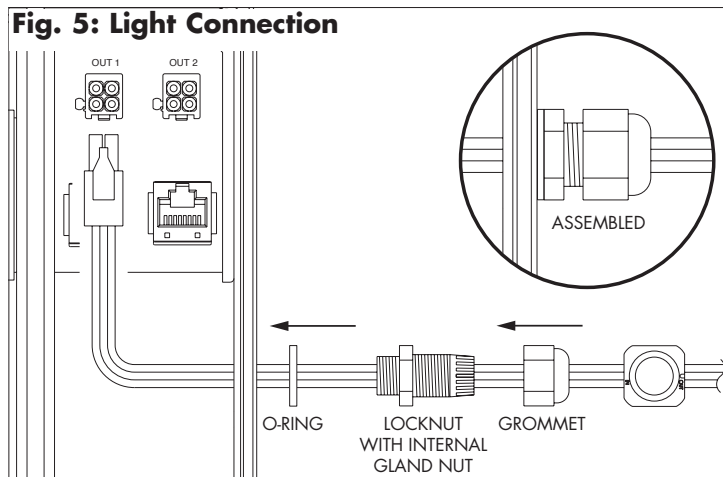
•When not using the optional node and track mounts, iColor Flex SLX can be installed using 1/2" insulated electrical staples. See Fig. 4.

Caution: When using staples to install iColor Flex SLX, ensure that the staple does not pierce or damage the cable. Cable damage will result in unsafe operation and void the warranty.



Step 5: Connect Lights to PDS-60ca 12V

- Thread the connector end of iColor Flex SLX through a conduit hole on PDS-60ca 12V power/data supply. Snap into the 4-pin connector labeled "Out 1." Only Output 1 is used with iColor Flex SLX.
- To make the watertight connection, separate the watertight grommet and locknut.
 - Insert the locknut through O-ring and into the conduit hole and tighten. Tighten until O-ring is engaged.
 - Ensure that the cable inside of PDS-60ca 2V has slack, then tighten grommet over the locknut. Tighten until cable is held secure and functioning in strain relief capacity. O-ring and internal gland nut must be engaged to create a water-tight seal. See Fig. 5.



Step 6: Connect Data

- Data is connected to iColor Flex SLX via PDS-60ca 12V power/data supply.
- Data connections vary depending on the type of PDS-60ca 12V power/data supply. Refer to the following figures:
 - Fig. 6: Preprogrammed control
 - Fig. 7: DMX control
 - Fig. 8: Ethernet control

For complete instructions and wiring diagrams for your power/data supply, refer to the PDS-60ca 12V User Guide and wiring diagrams located at www.colorkinetics.com/support.

Fig. 6: Preprogrammed Control

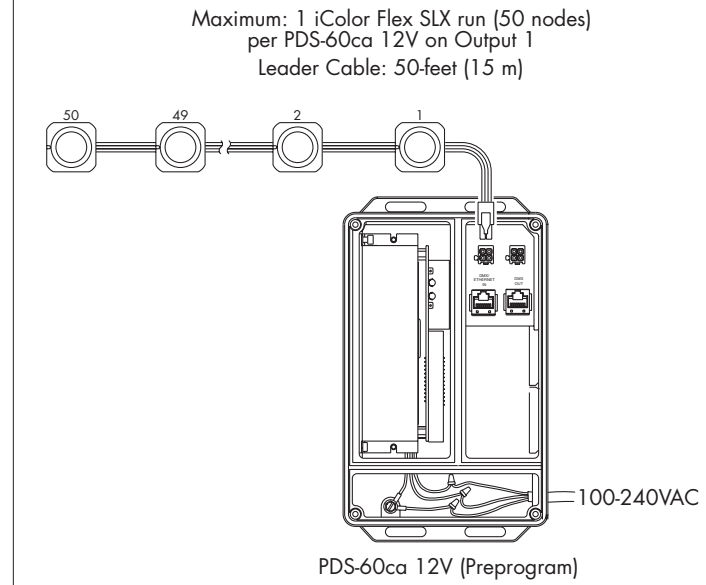


Fig. 7: DMX Control

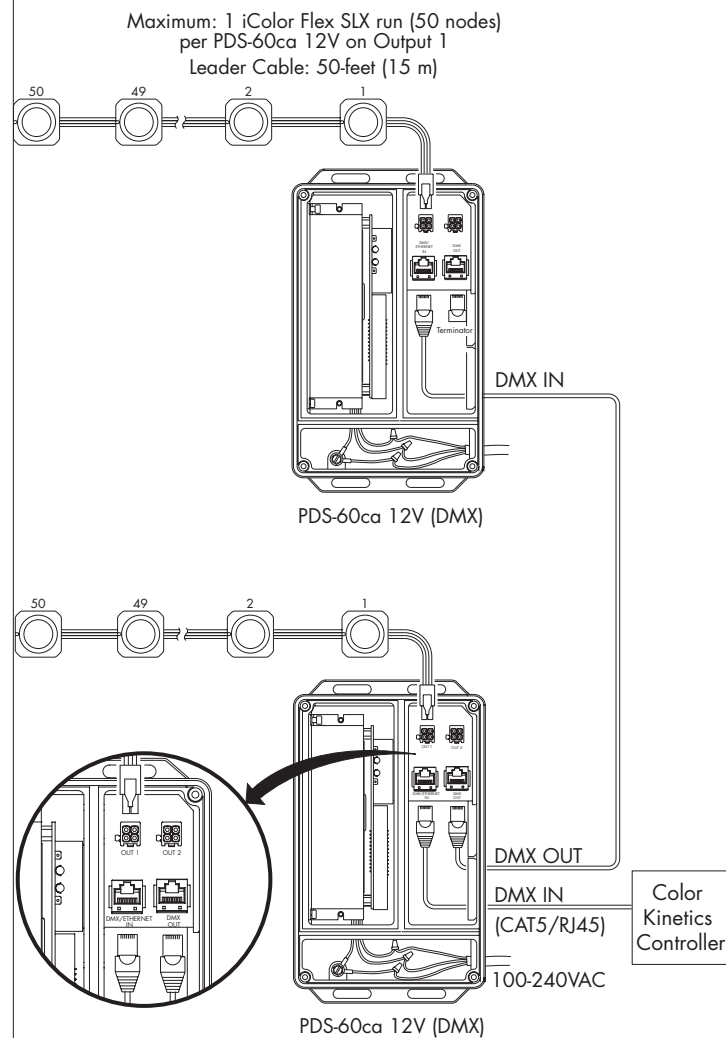
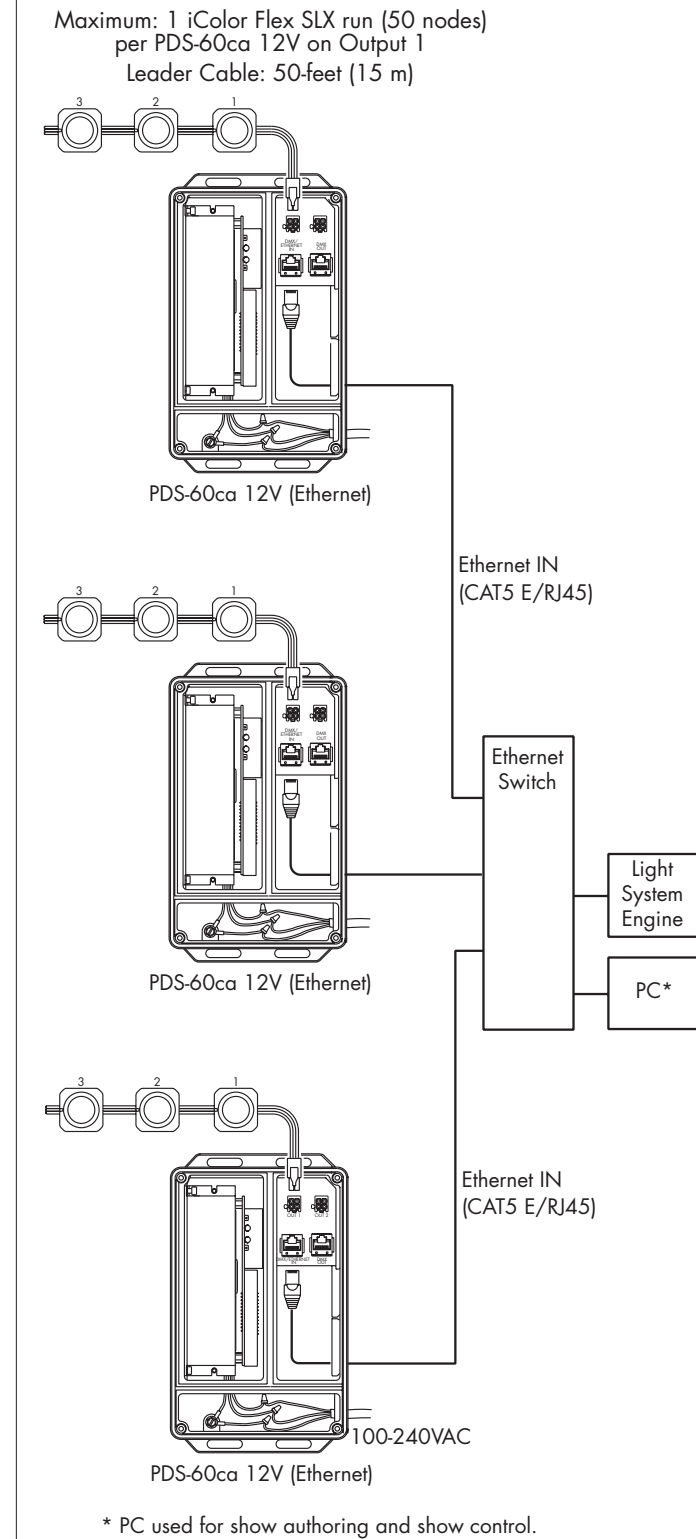


Fig. 8: Ethernet Control



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 FLEX SLX SPECIFICATIONS

SOURCE	High brightness surface mount colored LEDs
HOUSING	Rigid plastic housing, approx. 1-1/4" x 1-1/4" x 9/16" (32x32x15mm)
CONNECTORS	4-pin connectorized for use with Color Kinetics PDS-60ca 12V
LISTINGS	UL/cUL, CE
DATA INTERFACE	Color Kinetics Chromasic data interface system
POWER CONSUMPTION	50W Max. at full intensity (full RGB), per 50 node strand
POWER REQUIREMENT	12VDC
POWER SUPPLY	PDS-60ca 12V (ITEM# 109-000020-00/01/02)

LED SOURCE LIFE

In traditional lamp sources, lifetime is defined as the point at which 50% of the lamps fail. This is also termed Mean Time Between Failure [MTBF]. LEDs are semiconductor devices and have a much longer MTBF than conventional sources. However, MTBF is not the only consideration in determining useful life. Color Kinetics uses the concept of useful light output for rating source lifetimes. Like traditional sources, LED output degrades over time (lumen depreciation) and this is the metric for SSL lifetime.

LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity, and ventilation. Lumen depreciation is also affected by means of control, 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. Lumen depreciation information is based on LED manufacturers' source life data as well as other third party testing. Low temperatures and controlled effects have a beneficial effect on lumen depreciation. Overall system lifetime could vary substantially based on usage and the environment in which the system is installed.

Temperature and effects will affect lifetime. Color Kinetics rates product lifetime using lumen depreciation to 50% of original light output. When the fixture is running at room temperature using a color wash effect, the range of lifetime is in the range of 30,000-50,000 hours. This is LED manufacturers' test data. For more detailed information on source life, please see www.colorkinetics.com/lifetime.

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