

ICOLOR MR g2

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iColor MR g2 ITEM# 101-000049-02 (Chrome)

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GETTING STARTED

Welcome to a more colorful world brought to you by Color Kinetics. This guide contains important information not only for operating your new iColor[®] MR g2, but also for using it safely. For your protection, read it carefully before embarking on your colorful adventure. This guide will show you how to get the most out of your Color Kinetics lighting.

iColor MR g2 color changing lamp fits most standard, low voltage MR16 lighting fixtures, including: track, cable, rail, and pendent styles. Color Kinetics PDS-70mr 24V power/data supply provides power and data to the iColor MR g2.

Included In This Box

- (1) iColor MR g2
- Installation Guide and Warranty Card

Additional Items Needed

- PDS-70mr 24V Power/Data Supply, (109-000018-00 Series)
- MR16 fixture-track, cable, rail, pendent, etc. (No Transformer)

Optional Items

• iColor MR g2 Accessory/Adapter ring (101-000050-00)

SCOPE OF THIS USER GUIDE

The goal of this user guide is to explain in easily understandable language the necessary steps to install iColor MR g2 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.

OWNER/USER RESPONSIBILITIES

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate iColor MR g2 in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standards Institute Safety 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 source (AC line) is off before installing or wiring iColor MR g2 and PDS-70mr 24V power/data supply. Failure to adhere to these instructions will result in death or serious injury.

WARNING: iColor MR g2 and PDS-70mr 24V 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 MR g2 or PDS-70mr 24V 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 MR g2 if any fixture cables are damaged. Doing so can result in death, serious injury, or property damage.

CAUTION: iColor MR g2 works only with PDS-70mr 24V. Using the iColor MR g2 without the PDS-70mr, or using the PDS-70mr along with another transformer will result in product failure.

CAUTION: Use appropriate low voltage, MR16 lighting fixture, without transformer, and follow manufacturers installation instructions and safety precautions. Failure to do so will result in product damage and void the warranty.

CAUTION: iColor MR g2 has no serviceable parts. Do not attempt to open the lights. Doing so will result in property damage and void the warranty.

CAUTION: Ensure that fixture tracks, cables, rails, etc. 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 cables. 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.

CAUTION: iColor MR g2 may not fit all MR16 lighting fixtures. Verify fit prior to installation. Optional adapter rings are available to reduce the overall dimension of the lamp.

CAUTION: Do not install any other type of MR16 lamp onto the same light fixture–track, rail, cable–with the iColor MR g2. Doing so will damgage the PDS-70mr and void the warranty.

CAUTION: iColor MR g2 is not suitable for wet locations. Installing in wet locations 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.

PLAN THE INSTALLATION

The nature of iColor MR g2 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.
- Select an appropriate low voltage, MR16 lighting fixture and follow the manufacturers instructions for installation and wiring. iColor MR g2 will not work on fixtures with transformers.
- Create a Mapping Grid. Use this grid to record light addresses and power supply locations for easy reference.
- Not intended for use in with inclosed or consticted air flow fixtures, see temperature specifications on page 2.
- Environmental temperatures. Refer to specifications on page 2.
- Employ Color Kinetics Application Engineering Services.

INSTALLING ICOLOR MR g2

WARNING: iColor MR g2 light systems should be installed by a qualified electrician or technician in accordance with NEC and relevant local codes.

CAUTION: Ensure the power is off before installing iColor MR g2 lights. Failure to do so can result in property damage.

STEP 1: DETERMINE THE LOCATION OF THE POWER SUPPLY

- Determine a location out of direct view for the power supply(s).
- One PDS-70mr 24V power/data supply is needed for every 14 iColor MR g2 lights.
- The power/data supply can be located up to 50 feet (15 m) from the farthest light.
- Refer to the PDS-70mr 24V User Guide for complete installation instructions.

STEP 2: INSTALL LOW VOLTAGE LIGHT FIXTURES

CAUTION: At 3.4 ounces, iColor MR g2 weights more than traditional MR16 lamps and could loosen with use and vibration. Use fixtures and lamp holders that have locking devices. Failure to do so can result in property damage and personal injury.

- iColor MR g2 lamps plug into standard, low voltage, MR16 lighting fixtures-track, cable, rail, pendent, etc.
- Following the manufacturer's installation instructions, install the low voltage, MR16 fixture, adhering to all safety precautions.
- Use only with light fixture without step-down transformer. The PDS-70mr is the step-down transformer in low voltage MR16 light systems.
- iColor MR g2 will not work with low voltage, MR16 fixtures that have individually attached transformers.

STEP 3: WIRE LOW VOLTAGE LIGHT FIXTURE TO PDS-70MR

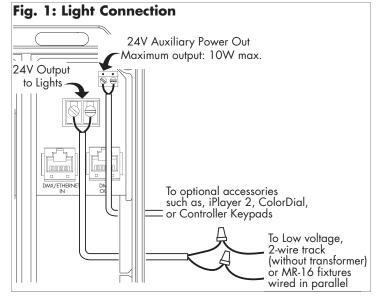
- Using wire nuts, attach 14-18 AWG, 2-conductor, jacketed cable, or hook-up wire in conduit applications, to the fixture wires.
- Pull the attached cable, wires, into the PDS-70mr.
- Connect the wires to the large 2-pin terminal block connector.

NOTE: The PDS-70mr connector circuitry is non-polar; therefore, either wire can be connected to either terminal.

 Provide strain relief for the cable by using a cord grip, Romex cable clamp, or threaded conduit attached directly to the box or to a threaded hub. See Fig. 1

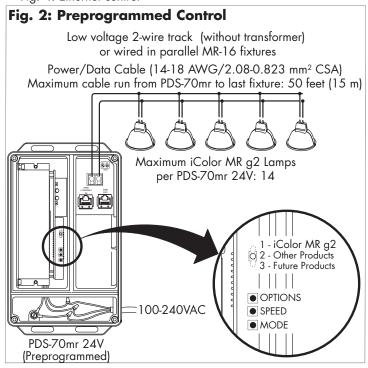
STEP 4: WIRE OPTIONAL ACCESSORIES FROM 24V AUX

 The 24V Auxiliary Power Out connector can be used to power certain Color Kinetics accessories such as, iPlayer 2, ColorDial, Controller Keypad, and Ethernet Controller Keypad. The maximum load on the auxiliary output is 10 watts. Refer to the accessory user guide for wiring instructions. See Fig 1.



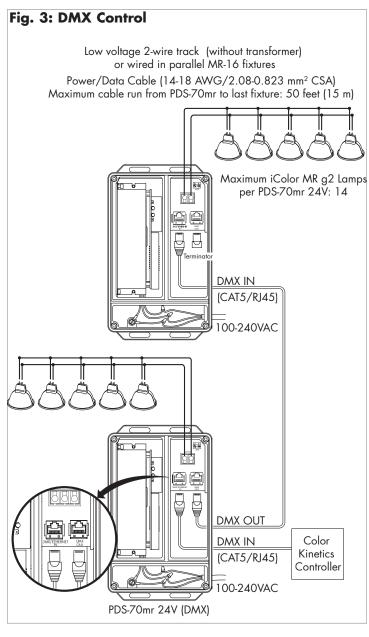
STEP 5: CONNECT DATA

- Data is connected to the iColor MR g2 via the PDS-70mr 24V power/data supply.
- Data connections vary depending on the type data used with the appropriate PDS-70mr 24V. Refer the figures below.
- Fig. 2: Preprogrammed control
- Fig. 3: DMX control
- Fig. 4: Ethernet control



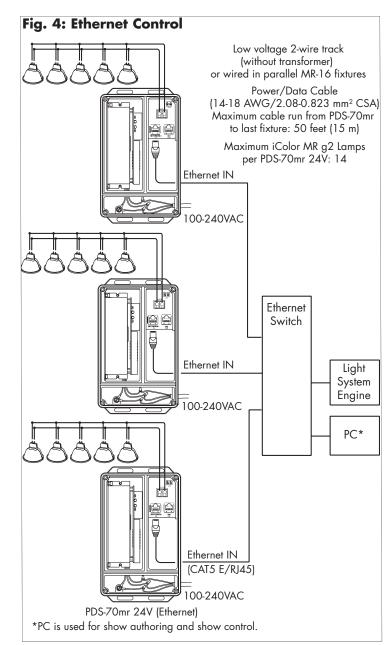
The PDS-70mr with Preprogrammed control does not require external data input. Lighting effects are selected using the on-board controls.

The preprogrammed PDS-70mr can be used to synchronize preprogramed shows in large, multiple PDS-70mr installations by daisy chaining data from the DMX OUT port to the DATA IN port on a PDS-70mr with DMX control. For complete instructions, list of effects, and wiring diagrams for the Preprogrammed power/data supply, refer to the PDS-70mr User Guide and wiring diagrams located at www.colorkinetics.com/support.



The PDS-70mr with DMX control receives data from and external DMX controller. Color Kinetics offers a full line of DMX controllers including the ColorDial preprogrammed controller or the iPlayer 2 storage and playback control. Custom effects and light shows can be created using one of Color Kinetics light show authoring softwares–Light System Composer or ColorPlay.

For the full line of Color Kinetics controllers and software visit www. colorkinetics.com. For complete instructions and wiring diagrams for the DMX power/data supply, refer to the PDS-70mr User Guide and wiring diagrams located at www.colorkinetics.com/support.



The PDS-70mr with Ethernet control receives data from Color Kinetics Light System Manager. Light System Manager combines the Light System Engine storage and playback device with Light System Composer show authoring software. For more information on the Light System Manager, visit www.colorkinetics.com.

For complete instructions and wiring diagrams for the Ethernet power/data supply, refer to the PDS-70mr User Guide and wiring diagrams located at www.colorkinetics.com/support.

ADDRESSING iCOLOR MR g2

How the iColor MR g2 is addressed depends on the method of control and the PDS-70mr 24V power/data supply that you choose.

PDS-70mr 24V DMX: Using the serial number recorded on the iColor MR g2 light, set a DMX address for each light via the PDS-70mr with one of the following Color Kinetics addressing tools: Serial Addressing Software (SAS) or ZAPI 1.5.

Recording the serial number prior to installation, lets you address the lights after installation. Follow the user guide for the tool you choose for complete instructions. SAS is available for download from www.colorkinetics.com/support.

PDS-70mr 24V Ethernet: The Ethernet version of the PDS-70mr 24V 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, you can discover and address the lights after installation.

PDS-70mr 24V Preprogrammed: With the exception of the Chasing Rainbow, when using the preprogrammed PDS-70mr 24V no addressing is required.

Temperature Monitoring

For protection from extreme temperatures, the iColor MR g2 has been designed with a temperature monitoring feature. If operating temperatures rise to an unsafe level, a compensation circuit is triggered and the iColor MR g2 operation is interrupted causing the lights to turn dull red. Allow lights to cool, at least 30 minutes, then power-cycle to return to full intensity.

To prevent additional power shut-downs, determine the cause of the overheating and correct the problem before power-cycling.

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 MR g2 SPECIFICATIONS

SOURCE 10 half watt colored LEDs

HOUSING Die-cast zinc, approx. 1.8" (4.6 cm) MOL, 2" (5 cm) DIA.

BASE GX5

CONNECTORS 2-pin terminal for use with Color Kinetics PDS-70mr 24V

POWER CONSUMPTION 5W Max. at full intensity (full RGB)

POWER REQUIREMENT 24VDC

POWER SUPPLY PDS-70mr 24V (ITEM# 109-000018-00 Series)

TEMPERATURE

AMBIENT -4°F to 104°F (-20°C to 40°C)

LAMP SURFACE 167°F (75°C)