

ION-8000 & ION 5000 - RGB COLOR CHANGING FIBER OPTIC LIGHTSOURCES

PRODUCT OVERVIEW 1

The ION Series is a commercial grade fiber optic LED illuminators. The ION RGB illuminators can be installed in residential or commercial applications.

LED Illuminator Overview

AI Technologies' ION series are LED based fiber optic illuminators that can come in tuneable RGB dynamic color changing capabilities with a manual, Serial, DMX512 and RF interfaces are few options that are available.

The LED illuminator line is designed for use with side-emitting and end-emitting fibers. Side-emitting fibers extract light along the length of the fiber to provide the look of neon while being passive and flexible. End-emitting fibers transport light from one end of the fiber to the other with minimal loss to create many point sources with one illuminator.

MODELS

This manual is intended for use on the following LED Illuminators models:

ION-8000-RGB

ION-5000-RGB

The **ION Series illuminators** are UL Listed for outdoor locations.

Please reference the label at the bottom of the unit to confirm that you are using one of these models. If not, contact the manufacturer for the proper user manual.

ION-8000-RGB

PARAMETER	MAX RATING
Input voltage	100-240 VAC
Amps	4 Amps
Wattage	100 W Max
Power supply	24V DC Class 2
Hz	50/60
Fiber capacity	1000
Operating temperature	-10°C to 80° C
Weight	7 lbs
Outdoor rating	IP67
Housing	Aluminum

ION-5000-RGB

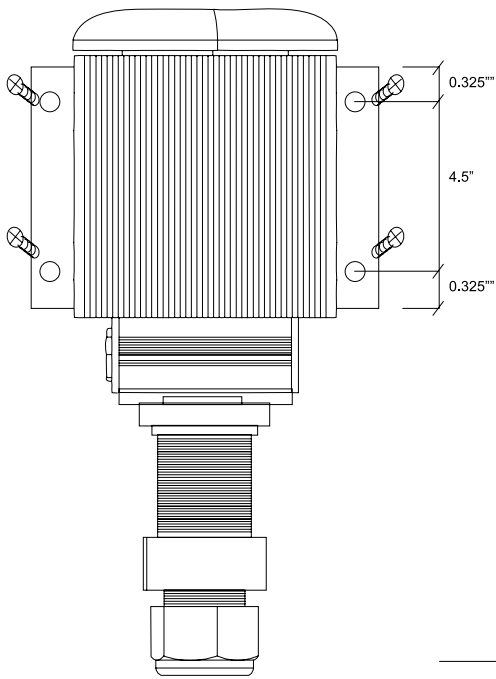
RGB PARAMETER	MAX RATING
Input voltage	100-240 VAC
Amps	4 Amps
Wattage	60W Max (on White)
Power supply	24V DC Class 2
Hz	50/60
Fiber capacity	1000
Operating temperature	-10°C to 80°C
Weight	7 lbs
Outdoor rating	IP67
Housing	Aluminum

ION-8000-RGBW

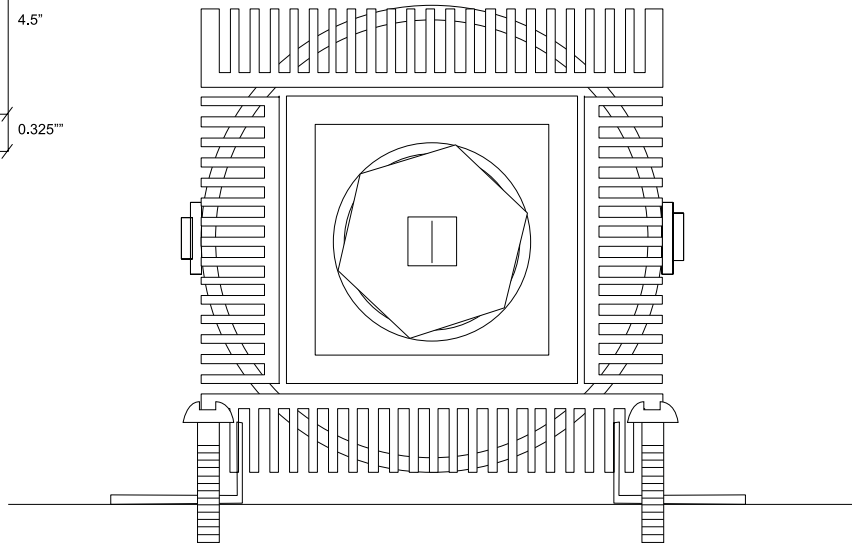
WHITE PARAMETER	MAX RATING
Input voltage	100-240 VAC
Amps	4 Amps
Wattage	100 W Max (on White)
Power supply	24V DC Class 2
Hz	50/60
Fiber capacity	1000
Operating temperature	-10°C to 80°C
Weight	7 lbs
Outdoor rating	IP67
Housing	Aluminum



GENERAL MOUNTING

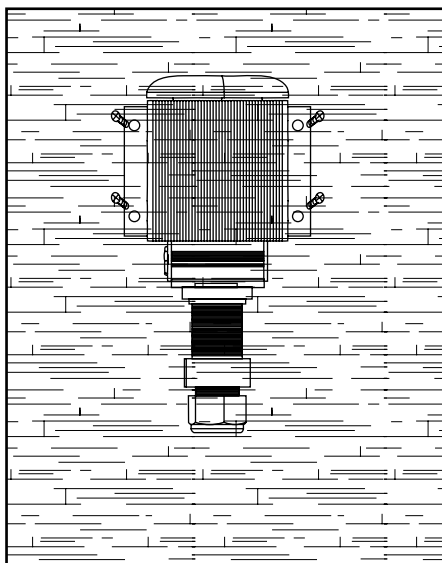


VERTICAL MOUNTING

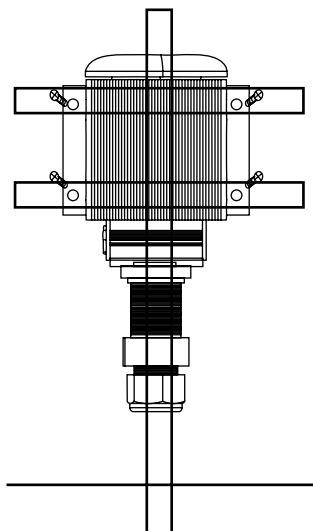


HORIZONTAL MOUNTING

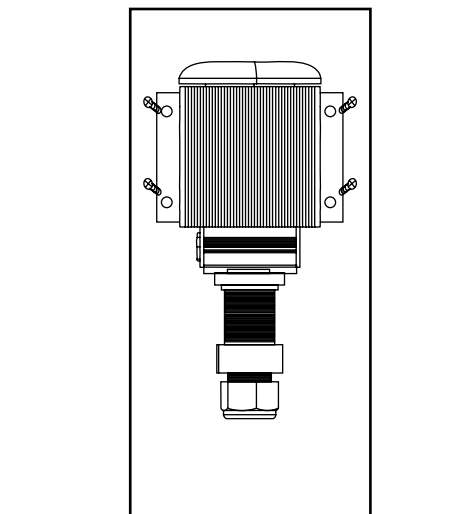
WALL MOUNT



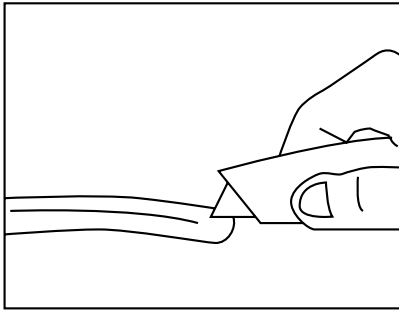
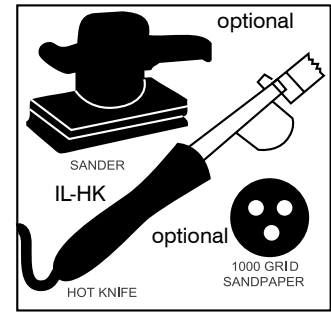
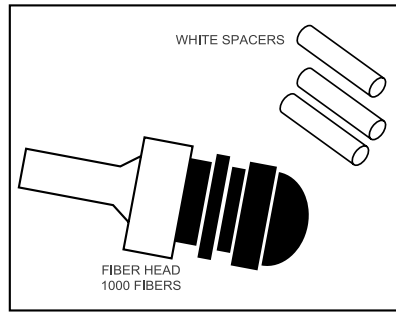
**DIN RAILS
MOUNTING BRACKETS**



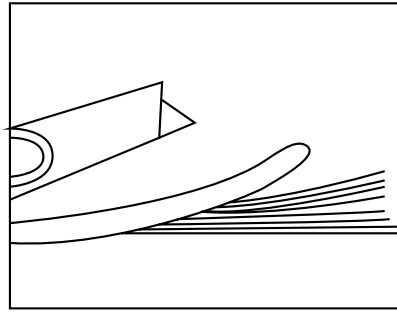
WOOD POST



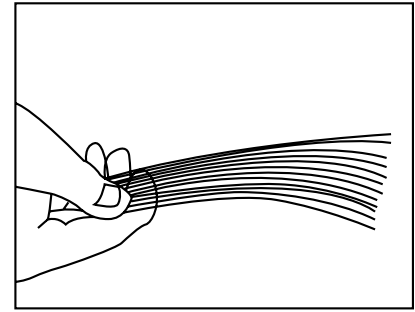
**PREPARATION OF FIBER:
FIBER HEAD CAPACITY: 1000 FIBERS**



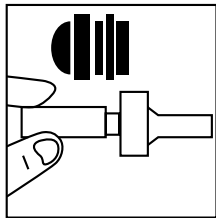
CUT PROTECTIVE BLACK JACKET LENGTHWISE APPROXIMATELY 6 INCHES. CAREFUL NOT TO DAMAGE FIBERS.



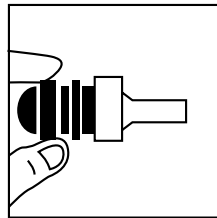
REMOVE CUT AREA OF PROTECTIVE BLACK JACKET FROM FIBER CABLE, CUT AND REMOVE WHITE CENTER CORE OF SIDEGLOW CABLE.



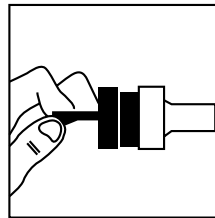
INSPECT FIBERS TO INSURE FIBERS ARE NOT CUT OR DAMAGED. RE-CUT IF NECESSARY.



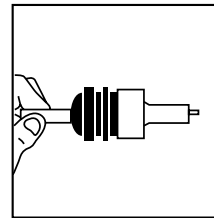
INSTALL REDUCE INTO FIBER HEAD TO REDUCE FIBER QUANTITY.



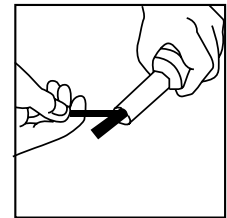
INSTALL FIBER CONNECTOR IN FIBER HEAD.



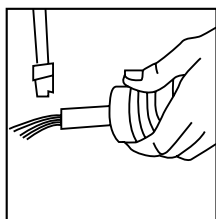
PUSH FIBER THROUGH FIBER HEAD AND EXTEND 1/2 INCH PAST FIBER HEAD TIP.



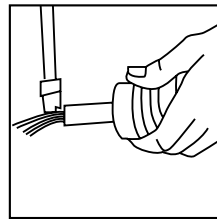
TIGHTEN FIBER CONNECTOR TO FIBER HEAD, INSTALL WHITE SPACERS IN REAR OF CONNECTOR IF FIBER IS LOOSE.



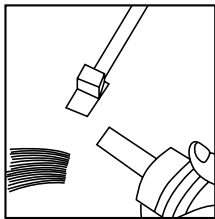
ADD EXTRA FIBER TO FIBER HEAD TIP UNTIL FIBER IS TIGHT.



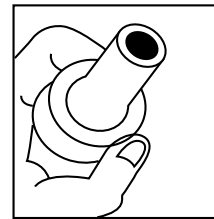
WITH HOT KNIFE FULLY HEATED.



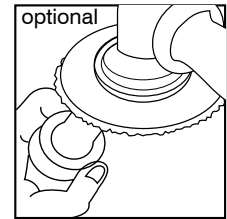
APPLY EVEN FIRM PRESSURE.



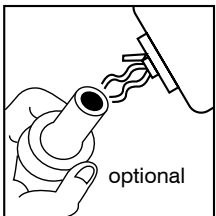
NO ROCKING OR SAWING MOTION.



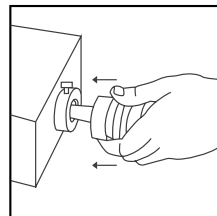
CHECK FOR A SMOOTH CUT. RE-CUT IF NECESSARY.



USE A 250-500 GRID SAND PAPER AND SAND CUT FIBER AREA FOR SMOOTHER FINISH.



THE FINAL STEP IS TO POLISH FIBER HEAD WITH PLASTIC POLISHER.



ALIGN FIBER HEAD WITH FIBER PORT AND PUSH FORWARD UNTIL FIBER HEAD LOCKS INTO PLACE.

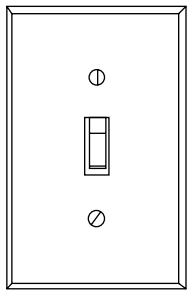
DO NOT ALLOW THE PROTECTIVE BLACK JACKET PORTION OF THE CABLE TO ENTER THE FIBER HEAD. OVER HEATING AND MELTING OF THE FIBERS WILL OCCUR.

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MANUAL OPERATION

TOGGLE SWITCH

A toggle switch is to be wired to the AC input. This switch is used to scroll through all the modes on the Illuminator.



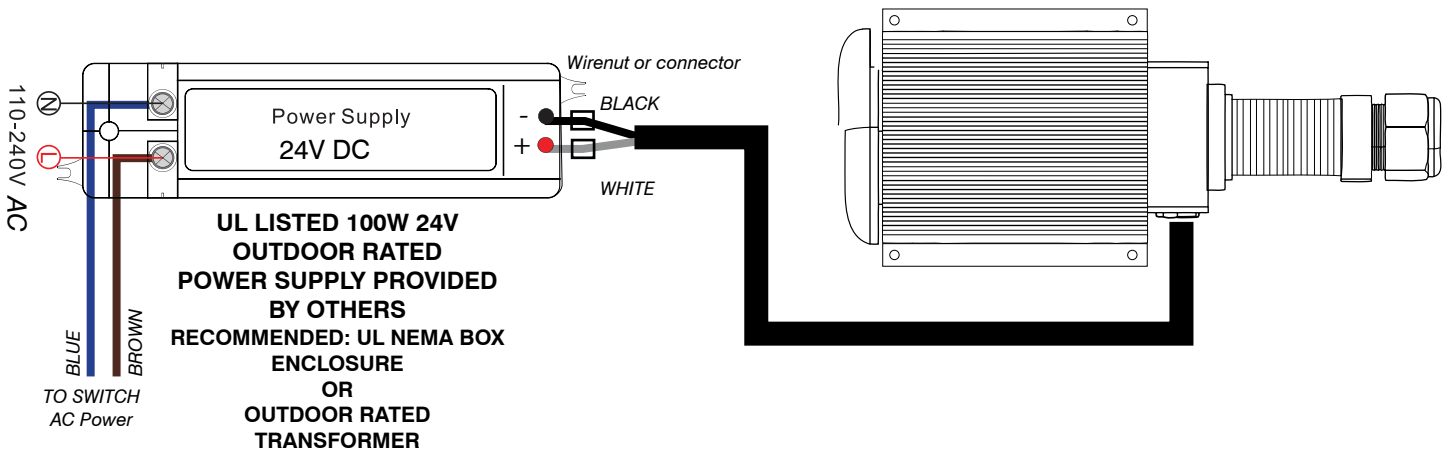
Typical toggle switch

1. Mode – Advance to next color toggle 1-2 seconds

Blue, white, cyan, green, majenta, red, gold, slow color changing, party mode

Reset mode toggle 5-7 seconds (resets all units back to blue if multiple lightsources applied)

Memory will be saved after 8 seconds - last color mode memory

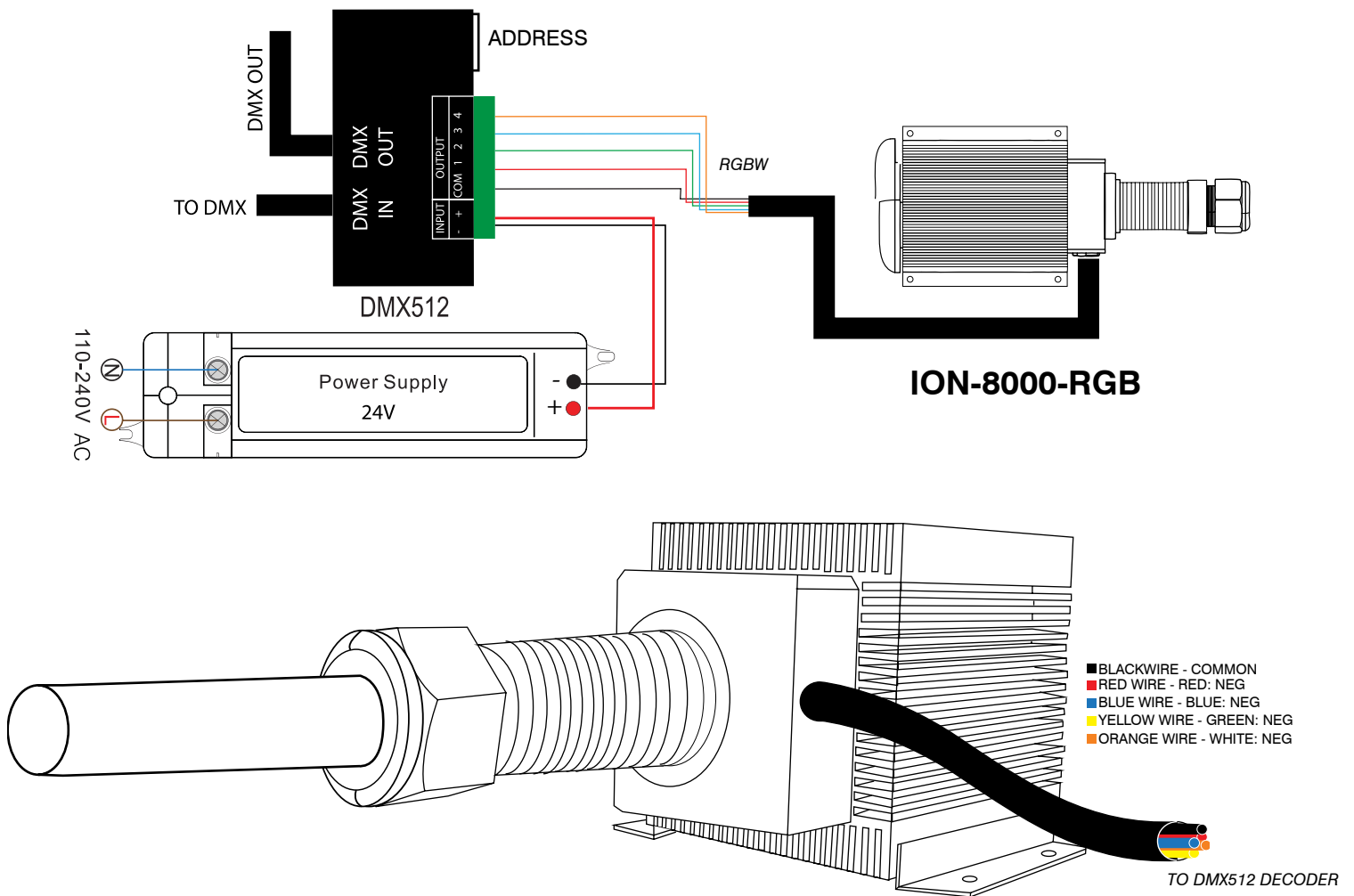


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DMX OPERATION

ION-8000-RGB DMX OVERVIEW

DMX is an industry standard abbreviation for “digital multiplex”. It is an RS-485 based protocol that has become the industry standard for digital lighting control interfaces. DMX allows users to synchronize fixtures to a centralized lighting controller. It supplies a constant flow of data to the fixture so that the unit knows what it should be doing at all times.



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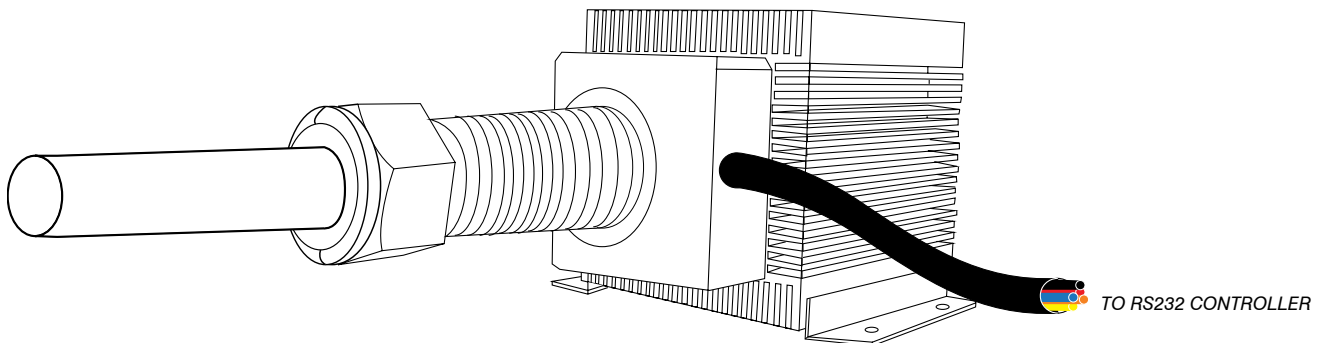
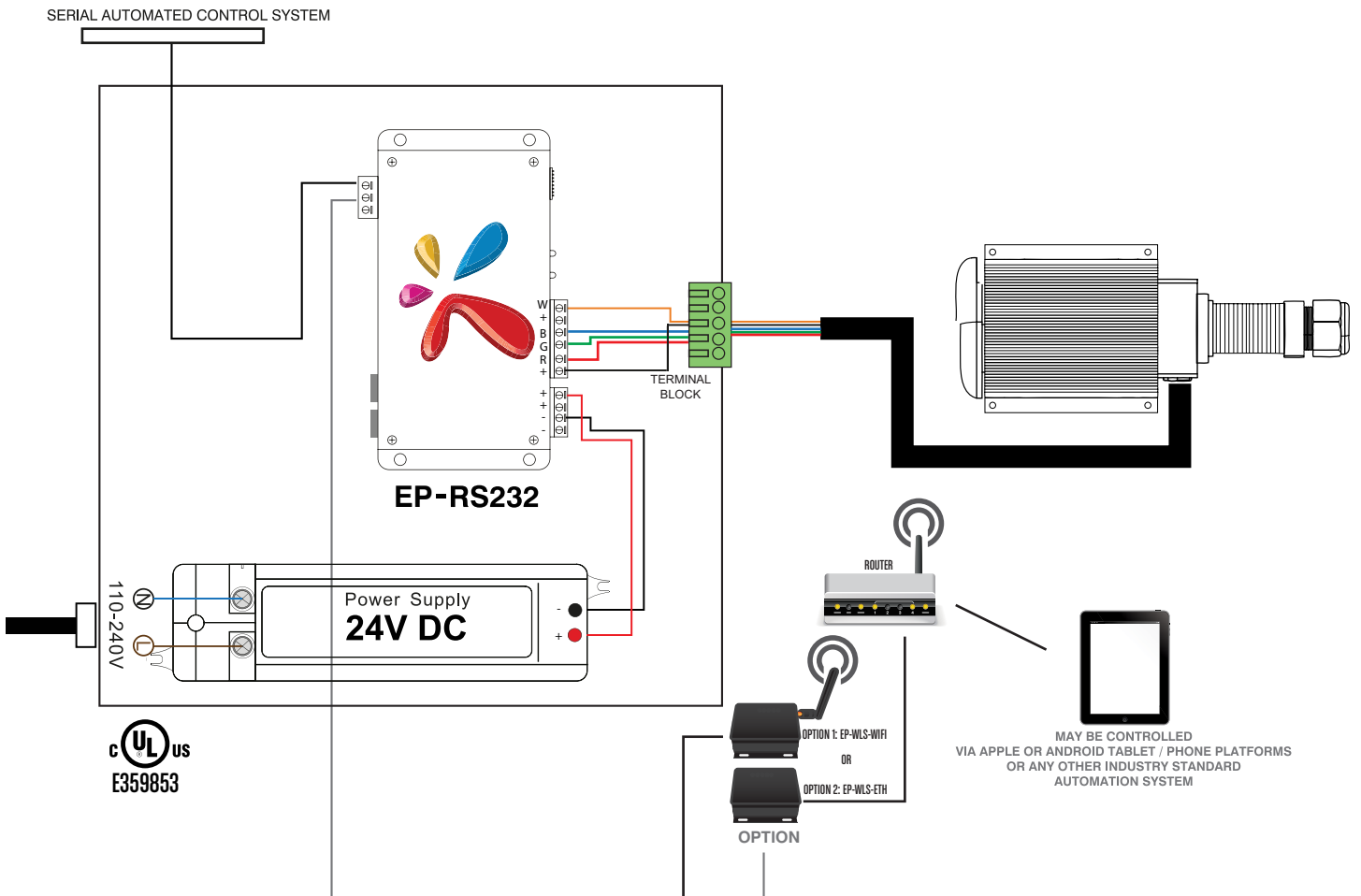
SERIAL OPERATION

SERIAL OVERVIEW

INSTALLATIONS WITH ONE ILLUMINATOR

RS-232 commands can be used to control an ION illuminator using the following method below.

RS232 CONTROLLER

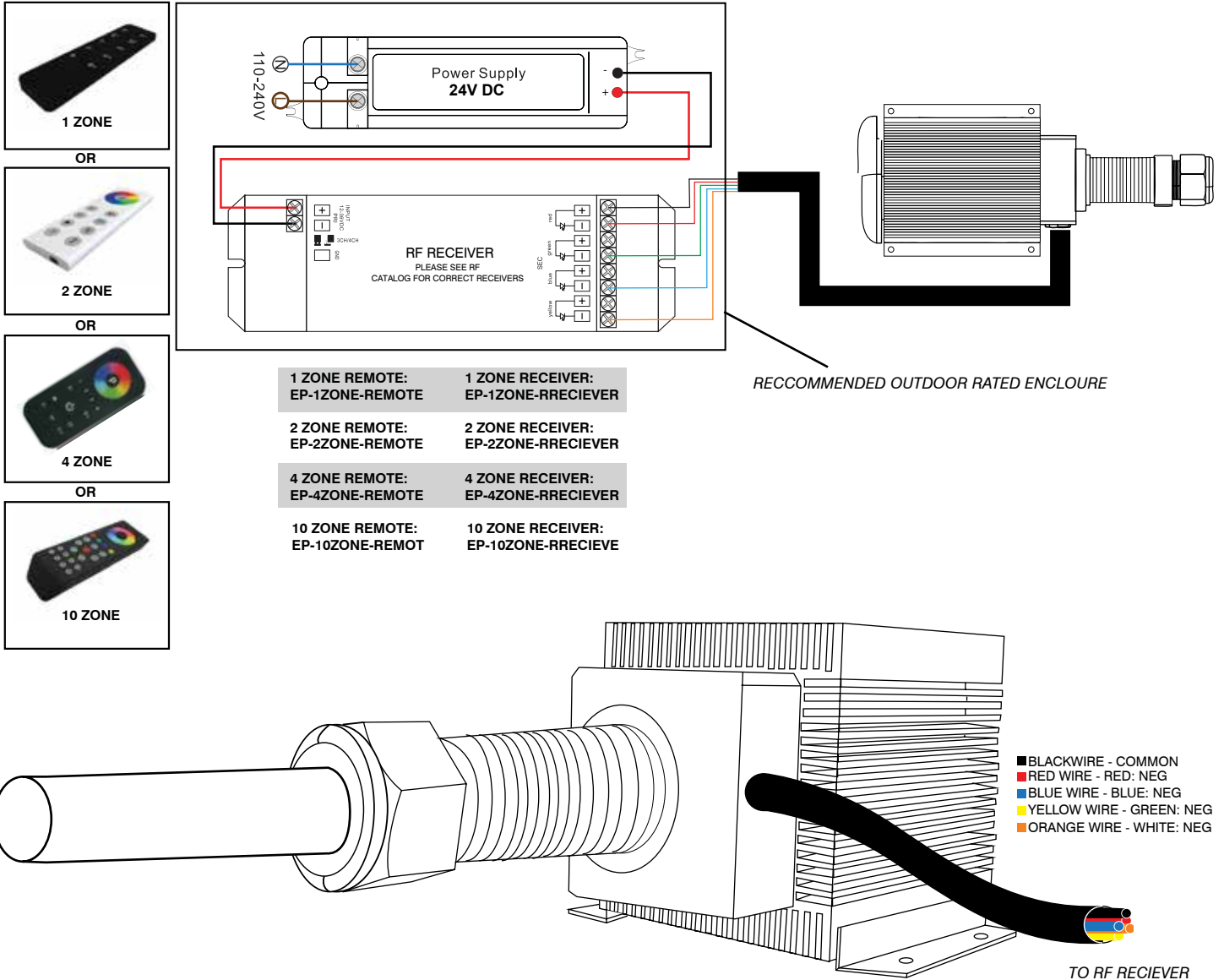


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RF OPERATION

RF OVERVIEW

SIMPLE INSTALLATION WITH ILLUMINATOR



MECHANICAL DRAWINGS

ION SERIES

