TRULUX RGB & TRULUX RGBW

Installation Instructions for HTL-RGB and HTL-RGBW (IP54)
24V DC operation

WARNING: These products may represent a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with these instructions, current electrical codes and/or the current National Electric Code (NEC).

WARNING: To avoid electrical shock, disconnect or disable power at the source prior to installation or maintenance.
Use only with a **24V DC** power supply with a wattage capacity that can handle the total load. See driver chart for more details. Factory warranty will be void if used with a non-recommended power supply, transformer, or driver.

IMPORTANT SAFETY INSTRUCTIONS

1. This IP54 rated tape light is suitable for indoor or outdoor use, in damp locations.
2. Do not use if there is any damage to the tape light, diodes, or conductors.
3. Do not route cords or tape light through walls, doors, windows or any similar part of a building structure.
4. Secure units using clips and/or extrusions designed for this product. Do not secure unit or its power connector with staples, nails, or any other sharp object/s that may damage product.

LED-DR DRIVERS AND TRULUX CONTROL SYSTEM:

Calculate the load and make sure to select a driver that can handle the total load. Use the chart below to select the driver.

MAXIMUM RUN DISTANCES FOR TRULUX RGBW (HTL-RGBW), CONNECTED TO ONE POWER SUPPLY							
Distances for LED-DR power supplies (showing recommended 10% minimum and 90% maximum load)							
Item #	Watts/ft	Reel length	Max run length	LED-DR30-24	LED-DR60-24	LED-DR100-24	LED-DR150-24
HTL-RGB & HTL-RGBW	4.4W/ft	16.4ft	22.0ft	1ft - 6.2ft (4.3 - 27.4 watts)	6.2ft - 12.1ft (27.4 - 54.3 watts)	12.1ft - 20.4ft (54.3-89.6 watts)	20.4ft - 30.5ft* (89.6-134 watts)

*For distances greater than 22.0 feet, order multiple receivers and do not attach more than 22.0ft in a single run.

Never fold Trulux or bend past the minimum bending radius of 1" whether lighted or unlighted.
Note: *The maximum run length for HTL-RGB and HTL-RGBW is 22.0 feet (96.8 watts total).* The reel length is 16.4ft.
1. The reel will have a pre-attached lead wire connector, ready for hardwire power supply connection. Go to step 3 if you're working with a full reel with an attached power connector.
2. For a cut end, prepare the cut end by removing the first 1/4" of the 3M® adhesive backing on the underside of the Trulux strip. Snap the power cord with bare leads (two are included with each reel) onto the prepared end.
3. Attach bare leads of power cord to leads (or terminals) of driver, following driver instructions and matching polarity (black lead wire on Trulux power feed is negative, red lead wire is positive).
4. The non-powered end of the Trulux does not require an end cap.

Trulux controllers are needed for operating Trulux RGB and Trulux RGBW. The following controllers use Radio Frequency (RF) signals that are detected by a receiver. Each controller requires a receiver (REC-5A-4Z, sold separately). The RF controllers can control up to eight zones when used in conjunction with eight receivers (each powered by their own LED-DR100-24).

CONTROL ITEM #	POWER TO CONTROL	RECEIVER ITEM #	CAPACITY	POWER TO RECEIVER
RF-RGBW-3AAA(Handheld)	3x AAA batteries (not incl.)	REC-5A-4Z (up to 8) or REC-5A-4Z-WIFI	8 zones, 5A max	24V DC input
RF-RGBW-USB (Handheld)	rechargeable via USB	REC-5A-4Z (up to 8) or REC-5A-4Z-WIFI	8 zones, 5A max	24V DC input

Alternatively, use the Trulux application with multiple WIFI receivers (one per zone). Visit www.americanlighting.com/truluxapp.html for a direct access link or visit the App Store or Google play marketplace to download the Trulux application. Wireless control needs one **REC-5A-4Z-WIFI** per control zone. Each REC-5A-4Z-WIFI needs an LED-DR100-24 for its 24V DC power input.

Important Note: The National Electrical Code (NEC) does not permit cords to be concealed where damage to insulation may go unnoticed. To prevent fire danger, do not run cord behind walls, ceilings, soffits, or cabinets where it may be inaccessible for examination. Cords should be visually examined periodically and immediately replaced when and damage is noted.

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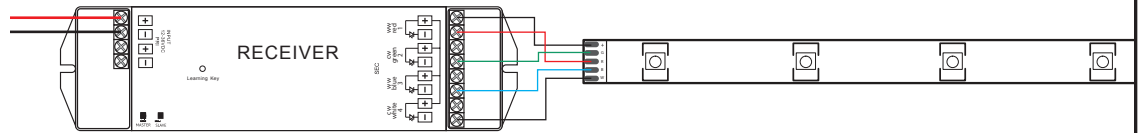
CONNECTING A SYSTEM

Note: The LED-DR series drivers, the controllers and the receivers are suitable for dry, indoor locations only.

1. Select the driver based on total load (4.4 watts/ft x length) using the chart on page 2 to meet minimum and maximum loads.
2. Select the RF or WIFI receiver(s), depending upon control preferences. Refer to page 2 for a list of receivers.
3. Locate the receiver(s) and driver in a protected dry location. Using 16-gauge wire or better, bring 24V DC power from the driver to the receiver, matching polarity: red = positive (+) and black = negative (-). See Figure 1 for an example using one receiver (therefore one zone) with HTL-RGBW. For HTL-RGB, disregard the White lead to W(-), as it will not apply.

Figure 1

Connect tape light lead wires to the SEC side of the receiver matching polairity: Black lead to any (+), Green lead to G(-), Red lead to R(-), Blue lead to B(-), and White lead to W(-).

Supply the receiver with 24V DC power, matching polarity, using the maximum distance chart on page 1

To control color, use RF-RGBW-3AAA or RF-RGBW-USB controller with REC-5A-4Z receiver (one receiver per zone); or use the Trulux RGBW application with REC-5A-4Z-WIFI (one per zone); or a DMX control with REC-DMX-5A-4Z or REC-DMX-5A-4Z-PLUS* receiver.

*REC-DMX-5A-4Z-PLUS can be used as a standalone device, in which case it won't need a controller.
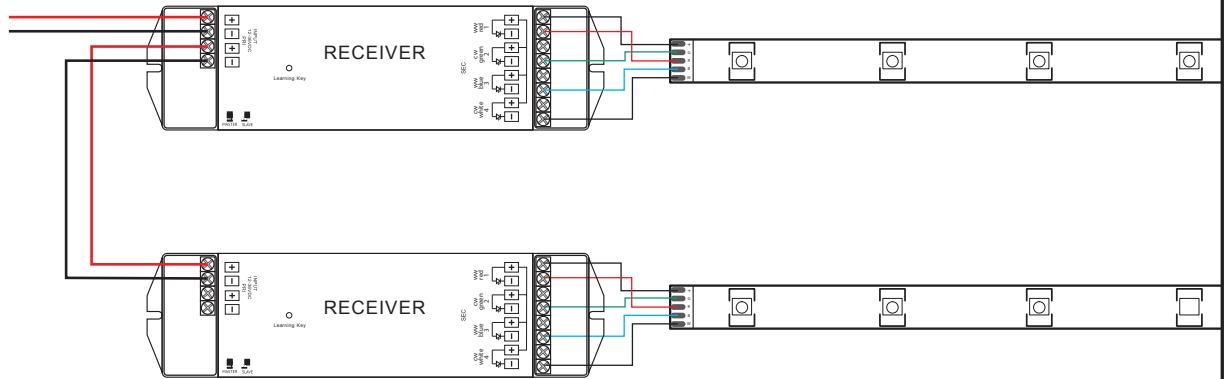
4. Choose which controller to use based on required number of zones and preference for type.

For multiple zones, you'll need one RF receiver per zone in conjunctions with one of the RF controllers; or the Trulux application with multiple WIFI receivers (one per zone). To create a multiple zone system, you can use multiple drivers, sized for each zone's load; or use a single driver if the locations of the various runs permit. See Figure 2 for an example of how to wire LED-DR150-24 to two receivers for two zones located near each other. In any case, do not exceed the capacity of the driver, nor the maximum single run length of the tape light.

Figure 2

LED-DR150-24 can power up to 30.5 feet of HTL-RGBW.
However make sure no single run exceeds 22.0 feet.

To LED driver

ACCESSORIES

Trulux RGB is compatible with the following 4-wire items: TL-4JUMP.5, TL-4JUMP-1, TL-4JUMP-2, TL-4PWR (three are included with each reel), TL-4SPL, TL-4L, TL-4T and TL-4X.

Trulux RGBW is compatible with the following 5-wire items: TL-5JUMP.5, TL-5JUMP-1, TL-5JUMP-2, TL-5PWR (three are included with each reel) and TL-5SPL.

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