INSTALLATION INSTRUCTIONS
STL65, HTL65, and SPTL65 Series

c(UL)us LISTED   FC   RoHS

⚠ 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

Use only with 24V DC drivers with a wattage capacity that can handle the total load; see page 2 for more details. Factory warranty will be void if used with a non-recommended power supply, transformer or driver.

⚠ WARNING

To reduce the risk of fire, electric shock or injury to persons, make sure that the electrical power to the system is disconnected at the source prior to installation or any servicing.

⚠ WARNING

Never fold Trulux® or bend past the minimum bending radius of 1" whether lighted or unlighted.
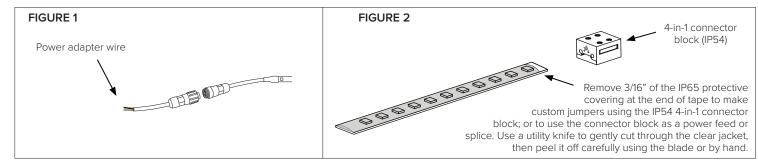
SAFETY INFORMATION

- Read all installation instructions before beginning; if not qualified, do not attempt installation. Contact a qualified electrician.
- To reduce the risk of fire, electric shock, or injury to persons, pay close attention to this manual and stay within its guidelines when using this product. Save these instructions for future use.
- Do not cover this product with paper surface coverings, fabrics, streamers, or other similar combustible materials.
- Do not operate Trulux on the reel, nor while it is coiled.
- This IP65 rated tape light is suitable for indoor or outdoor use, and for direct contact with rain. Do not submerge flexible light in liquids, or use the product in the vicinity of standing water or other liquids, or where water can accumulate. Using the IP54 connector will void the IP65 rating.
- Do not route the cord or tape light through walls, ceilings, doors, windows, or any similar part of the building structure.
- Secure tape light using only the adhesive provided with the tape and/or factory recommended mounting clips, mounting track, and aluminum channel (sold separately).
- Do not secure this product or its cord with staples, nails, or like means that may damage the outer jacket or cord insulation.
- Do not use if there is any damage to the tape light, diodes or power cord insulation; inspect periodically.
- Do not install on gates or doors, or where subject to continuous flexing.
- Do not install in airtight tanks or enclosures of any kinds.
- Size your 24V DC driver appropriately for your run distance. Be sure not to load a driver to 100% as this will reduce its efficiency; a 90% maximum load is recommended. See SELECTING POWER SUPPLY on page 2 and use driver chart as directed.

LAYOUT CONSIDERATIONS

Pay close attention to the following maximum run lengths:

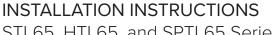| Series	Maximum run	Reel Length	Comments
STL65 Series	32.8 feet (88.6 watts)	16.4 feet	Two reels can be interconnected using mating IP65 connectors (See Figure 1)
HTL65 Series	22 feet (101.2 watts)	16.4 feet	A full reel + 5.6 feet from a second reel can be interconnected (See Figure 1)
SPTL65 Series	13.1 feet (102.2 watts)	13.1 feet	No additional SPTL65 can be added

Jumpers in 6", 12", and 24" lengths (TL-2JUMP65-.5, TL-2JUMP65-1, AND TL-2JUMP65-2 respectively, sold separately) can be used between interconnected reels and/or between the first section of tape light and the power adapter wire. See Figure 1. If you remove 3/16" of the IP65 protective covering at each end of tape you plan to connect (See Figure 2), you can build your own custom length jumpers using IP54 4-in-1 connector blocks (TL-BLKS, sold separately as bags of 10 connectors). Three TL-CONKITs (3ft lead wire attached to a 4-in-1 connector block) are included with each reel.

FIGURE 1

Power adapter wire

FIGURE 2

4-in-1 connector block (IP54)

Remove 3/16" of the IP65 protective covering at the end of tape to make custom jumpers using the IP54 4-in-1 connector block; or to use the connector block as a power feed or splice. Use a utility knife to gently cut through the clear jacket, then peel it off carefully using the blade or by hand.
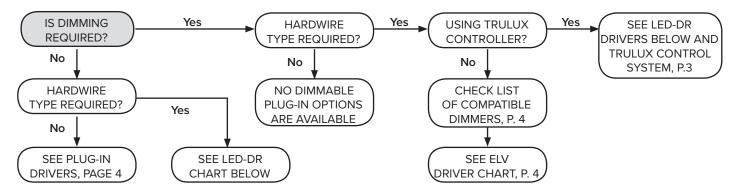

PRODUCT INFORMATION

IP65 reels include one IP65 male and one IP65 female power adapter wire. These can be used when the tape light reel is cut because each end of the reel has an attached male or female connection (pre-attached). If a reel is cut more than one time, you can use the 4-in-1 connectors that are included with the reel. See Figure 2. Mount using the 3M® VHB adhesive. Once the VHB protective backing is removed, the tape should be placed on the prepared mounting surface and not be repositioned, removed, or re-used. Let adhesive cure 24 hours prior to first use.

Trulux® controllers are available to dim and control power to single color Trulux®. They use Radio Frequency (RF) signals that are detected by a receiver. Each controller requires a receiver (REC-5A-4Z, sold separately). See controller instructions for more details.

24V | TRULUX® SINGLE COLOR (IP65)

AMERICAN LIGHTING
BRIGHT IDEAS • INNOVATIVE SOLUTIONS

INSTALLATION INSTRUCTIONS
STL65, HTL65, and SPTL65 Series

SELECTING POWER SUPPLY

IS DIMMING REQUIRED? → **Yes** → HARDWIRE TYPE REQUIRED? → **Yes** → USING TRULUX CONTROLLER? → **Yes** → SEE LED-DR DRIVERS BELOW AND TRULUX CONTROL SYSTEM, P.3

IS DIMMING REQUIRED? → **No** → HARDWIRE TYPE REQUIRED?

HARDWIRE TYPE REQUIRED? → **No** → SEE PLUG-IN DRIVERS, PAGE 4

HARDWIRE TYPE REQUIRED? → **Yes** → SEE LED-DR CHART BELOW

HARDWIRE TYPE REQUIRED? (2nd) → **No** → NO DIMMABLE PLUG-IN OPTIONS ARE AVAILABLE

USING TRULUX CONTROLLER? → **No** → CHECK LIST OF COMPATIBLE DIMMERS, P. 4 → SEE ELV DRIVER CHART, P. 4
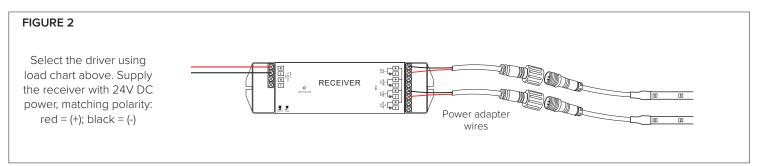
LED-DR DRIVERS FOR TRULUX® CONTROLLERS
Calculate the load and make sure to select a driver that can handle the total load. Use the chart below to select the driver.

Distances for LED-DR power supplies in Trulux Control System Applications - 5% MINIMUM load and 90% MAXIMUM load						
Trulux Series	*Watts Per Foot*	*Max Run*	*LED-DR30-24*	*LED-DR60-24*	*LED-DR100-24*	*LED-DR150-24*
STL65 Series (6.56" cut marks)	2.7W/ft	32.8'	1.09ft - 9.86ft (2.96 - 26.6 watts)	10.4ft - 19.7ft (28.1 - 53.3 watts)	20.3ft - 32.8ft (54.7 - 88.8watts)	33.4ft* - 49.9ft* (90.2 - 134.6 watts)
HTL65 Series (3.94" cut marks)	4.6W/ft	22.0'	0.98ft - 5.58ft (4.5 - 25.7 watts)	5.91ft - 11.5ft (27.2 - 52.8watts)	11.8ft - 19.4ft** (54.3 - 89 watts)	19.7ft** - 29.2ft** (90.6 - 134.3 watts)
SPTL65 Series (1.97" cut marks)	7.8W/ft	13.1'	0.8ft - 3.8ft (4.8 - 26.5 watts)	3.8ft - 7.7ft (26.5 - 52.9 watts)	7.7ft - 12.8ft (53 - 89 watts)	12.8ft - 19.2ft† (89 - 134 watts)

*When the length needed exceeds 32.8', connect up to 32.8' from a full reel to one zone (see CAPACITY below), and the balance to another zone.

**When the length needed exceeds 16.4', use 16.4' from one reel and up to 5.58' from a second reel, connecting the two pieces with mating power adapter wires.

†When the length needed exceeds 13.1', connect up to 13.1' from a full reel to one zone (see CAPACITY below), and the balance to another zone.

CUTTING AND CONNECTING IP65 TRULUX TO THE RECEIVER
1. Cut squarely and only at cutting marks indicated on the tape.
2. Determine which receiver and controller you need for the application. See CONTROLLER OVERVIEW on page 3.
3. Attach power adapter wires to terminals of RECEIVER, following polarity markings. See Figure 2. Note that the 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.
5. See page 3 for CONTROLLER OVERVIEW.

FIGURE 2

Select the driver using load chart above. Supply the receiver with 24V DC power, matching polarity: red = (+); black = (-)

RECEIVER

Power adapter wires

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CONTROLLER OVERVIEW

NOTE: The following controllers are compatible with the single color IP65 tape light. Alternatively, use the Trulux application with one or more WIFI receivers (REC-5A-4Z-WIFI); one receiver is needed for each 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.

1. Determine which controller is best suited for your application. See list below.
2. Select a receiver for each zone. For RF controllers, use one REC-5A-4Z for each zone. For the Trulux app, use one REC-5A-4Z-WIFI for each zone. For WIFI setups with 2-8 zones, you will need a WIFI hub (WIFI-RF-8, sold separately). You can use a REC-5A-4Z-WIFI in conjunction with wall mount and/or handheld controllers; in addition to using the App.

CONTROLLER	POWER TO CONTROL	RECEIVER ITEM #	CAPACITY	POWER TO RECEIVER
SRF-BATT (White, dial)	3V Battery (CR203, included)	REC-5A-4Z	1 zones, 5A max	24V DC input
SRF-4Z-3P (White, touch)	24V DC input (not 120V!)	REC-5A-4Z	4 zones, 5A max	24V DC input

See Figure 3 for an example of a multiple zone system. However, note that you can have receivers "learn" which zone they control, so if you teach them all to respond to one zone, then Figure 3 represents a single zone system that has multiple runs of Trulux.

FIGURE 3

Connect this receiver to your driver, such as LED-DR150-24

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ALTERNATE CONTROL SYSTEMS

CONTROLLING TRULUX VIA NON-TRULUX BRAND WALL DIMMER
1. Confirm which wall dimmer is to be used and check its level of compatibility below.

Brand	Dimmer Type	Dimmer Model #	Dimming Range
Lutron Diva	Electronic	DVCL-153P	10-100%
Lutron Diva	Electronic low voltage	DVELV-300P-LA	15-100%
Legrand	Multi	ADTP700MMTU	6-100%
Leviton Sureslide	Incandescent	6613	20-100%

2. Select driver per maximum run distances and allowable loads specified on the chart below.
3. Follow markings on the LED-DR driver to locate input and secondary sides. Follow marks for connecting 120V AC supply power and 24V DC output to red/black lead wires on power connector, matching polarity: Red = positive and Black = negative.

MAXIMUM RUN DISTANCES CONNECTED TO ONE HARDWIRE POWER SUPPLY - TRULUX SINGLE COLOR (IP65)

Distances for ELV power supplies in dimming applications with other brands of wall dimmers: ~60% minimum load and ~90% maximum load

Trulux Series	Watt/Ft	Max Run	ELV-30-24	ELV-45-24	ELV-60J-24	ELV-80J-24
STL65 Series (6.56" cut marks)	2.7W/ft	32.8'	7.1ft - 9.8ft (19.2 - 26.6 watts)	9.8ft - 14.8ft (26.6 - 39.9 watts)	13.1ft - 19.7ft (35.5 - 53.3 watts)	17.5ft - 26.3ft (47.3 - 71.0 watts)
HTL65 Series (3.94" cut marks)	4.6W/ft	22.0'	3.9ft - 5.6ft (18.1- 25.7 watts)	5.6ft - 8.5ft (25.7 - 39.2 watts)	7.9ft - 11.5ft (36.2 - 52.8 watts)	10.5ft - 15.4ft (48.3 - 70.9 watts)
SPTL65 Series (1.97" cut marks)	7.8W/ft	13.1'	2.5ft - 3.4ft (19.2 - 26.9 watts)	3.4ft - 5.1ft (19.2 - 39.7 watts)	4.8ft - 6.9ft (37.1 - 53.7 watts)	6.2ft - 9.2ft (48.6 - 71.6 watts)

USING PLUG-IN POWER SUPPLY FOR TRULUX (NON-DIMMING)
1. See plug-in driver selection chart below.
2. Attach the DC power lead adapter (not included with 100ft reels) to the existing lead matching polarity. Attach DC jack from this power cord to DC jack of plug-in power supply (sold separately). Plug power supply into 120V AC power source.

Distances for plug-in power supplies: 5% minimum load and 90% maximum load (NOT DIMMABLE)

Trulux Series	Watts Per Foot	Max Run	PS-40-24VPI	PS-60-24VPI	PS-90-24VPI
STL65 Series (6.56" cut marks)	2.7W/ft	32.8'	1.09ft - 13.1ft (2.9 - 35.5 watts)	1.6ft - 19.7ft (4.4 - 53.3 watts)	1.6ft - 29.6ft (4.4- 79.9 watts)
HTL65 Series (3.94" cut marks)	4.6W/ft	21.5'	0.66ft - 8.2ft (2.9 - 36 watts)	8.2ft - 12.0ft (36 - 52.8 watts)	12.0ft - 18.4ft (52.8 - 80.9 watts)
SPTL65 Series (1.97" cut marks)	7.8W/ft	13.1'	0.66ft - 7.55ft (3- 34.7 watts)	0.66ft - 11.5ft (3 - 52.8 watts)	0.98ft - 17.4ft (4.5 - 80.0 watts)

ADDITIONAL SAFETY MEASURES
1. Route and secure cords so that they will not be pinched or damaged in any way.
2. LEDs are bright. Do not look directly at lighted tape light.

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.