

INSTALLATION INSTRUCTIONS
STL65, HTL65, and SPTL65 Series



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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.

LAYOUT CONSIDERATIONS

Pay close attention to the following maximum run lengths:

Series	Maximum run	Reel Length	Comments
STL65 Series	32.8 feet (71.83 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

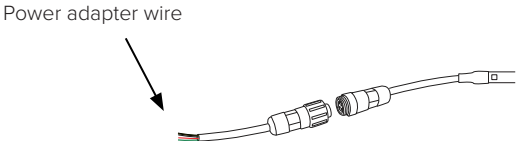
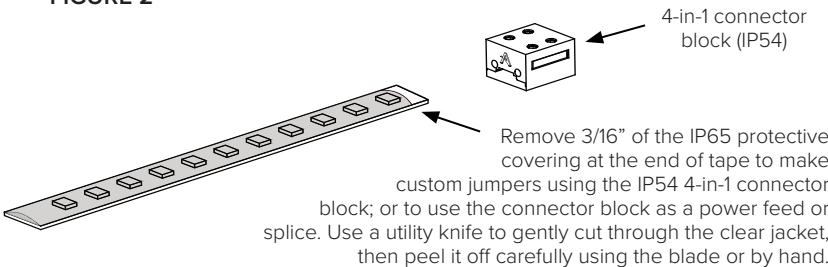


FIGURE 2



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.

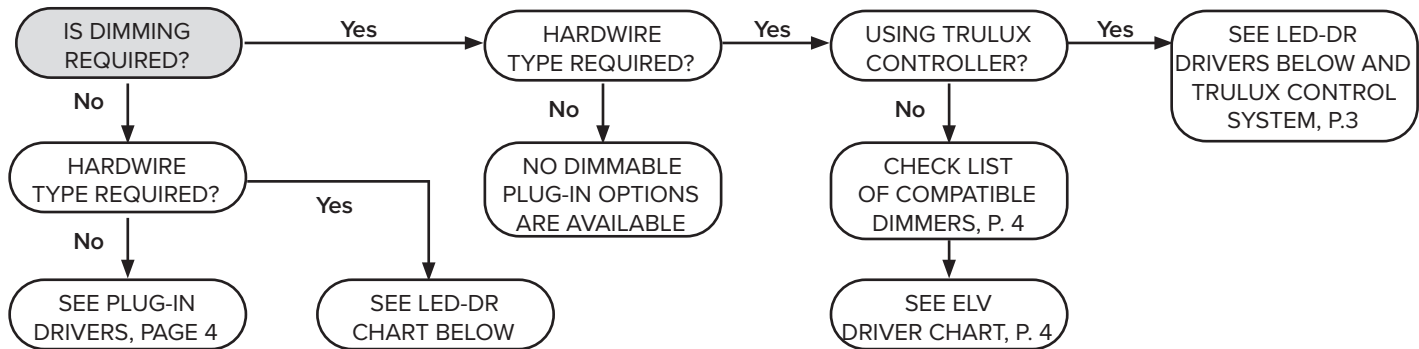
Trulux® controllers are available to dim and control power to single color Trulux®. They use Radio Frequency (RF) signals that are detected by a receiver. Each controller requires a receiver (REC-5A-4Z, sold separately). See controller instructions for more details.

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SELECTING POWER SUPPLY



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
STL Series (6.56" cut marks)	2.19W/ft	32.8'	1.1ft - 12.02ft (2.4 - 26.33 watts)	1.64ft - 24.6ft (3.6 - 53.87 watts)	2.73ft - 39.36ft* (5.98 - 86.19 watts)	3.83ft* - 61.23ft* (8.38 - 134.08 watts)
HTL Series (3.94" cut marks)	4.6W/ft	22'	0.33ft - 5.58ft (1.51 - 25.7 watts)	0.66ft - 11.5ft (3.02 - 52.8watts)	1.31ft - 19.4ft** (6.04 - 89.1 watts)	1.64ft** - 29.2ft** (7.55 - 134.3 watts)
SPTL Series (1.97" cut marks)	7.8W/ft	13.1'	0.33ft - 3.44ft (2.56 - 26.8 watts)	0.49ft - 6.89ft (3.84 - 53.78 watts)	0.65ft - 11.49ft (5.12 - 89.63 watts)	0.98ft - 17.2ft† (7.68 - 134.45 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 22', connect up to 22' from a full reel to one zone (see CAPACITY below), and the balance to another zone.

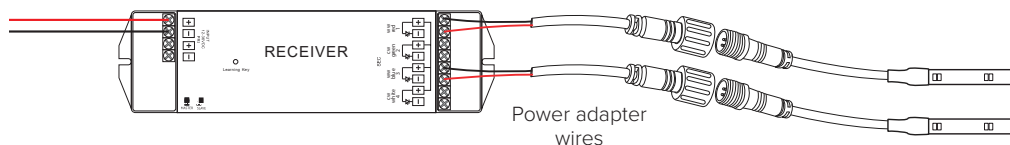
†When the length needed exceeds 13.1', connect up to 13.1' from a full reel to one zone (see CAPACITY below), and the balance to another zone.

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 = (-)





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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
STL Series (6.56" cut marks)	2.19W/ft	32.8'	8.75ft - 12.02ft (19.16 - 26.33 watts)	12.58ft - 18.04ft (27.54 - 39.5 watts)	16.95ft - 24.6ft (37.12 - 53.87 watts)	22.4ft - 32.8ft (49.08 - 71.83 watts)
HTL Series (3.94" cut marks)	4.6W/ft	22'	3.9ft - 5.58ft (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)
SPTL Series (1.97" cut marks)	7.8W/ft	13.1'	2.5ft - 3.44ft (19.2 - 26.8 watts)	3.61ft - 5.1ft (28.17 - 39.7 watts)	4.8ft - 6.89ft (37.1 - 53.78 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
STL Series (6.56" cut marks)	2.19W/ft	32.8'	1.09ft - 16.4ft (2.34 - 35.9 watts)	1.64ft - 24.6ft (3.6 - 53.87 watts)	2.19ft - 36.63ft* (4.78 - 80.2 watts)
HTL Series (3.94" cut marks)	4.6W/ft	22'	0.65ft - 7.55ft (3.02 - 34.73 watts)	0.66ft - 11.5ft (3.02 - 52.8 watts)	0.98ft - 17.4ft (4.5 - 80.04 watts)
SPTL Series (1.97" cut marks)	7.8W/ft	13.1'	0.32ft - 4.59ft (2.56 - 35.85 watts)	0.49ft - 6.89ft (3.84 - 53.78 watts)	0.65ft - 10.3ft (5.1 - 80.67 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.

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 damage is noted.