

TRULUX TAPE LIGHT - TUNABLE WHITE

Installation Instructions for HTL65-TW-12V (IP65)

12V 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 **12V DC** power supply 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.

IMPORTANT SAFETY INSTRUCTIONS

1. This IP65 rated tape light is suitable for indoor or outdoor use, but not for direct contact with standing water.
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.

LAYOUT CONSIDERATIONS:

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

Note: *The maximum run length for HTL65-TW-12V is 22.0 feet (48.4 watts).* The reel length is 16.4ft. Each reel includes attached IP65 connectors (one male and one female); and one male adapter and one female adapter (IP65 connector to bare leads) so you can cut the 16.4ft reel and create two separate runs. See Figure 1.

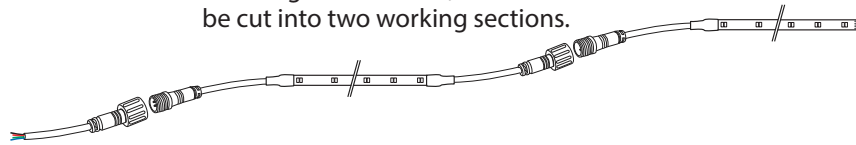
To make a maximum run length, order two reels and combine one full 16.4ft reel with 5.6 feet from the second reel by interconnecting mating IP65 connectors. See Figure 2.

To create a 44ft run using only one driver, you can use three reels as follows: cut 5.6 feet from one the end of a full reel and connect that to a second full reel, via mating IP65 connectors; then cut 5.6 feet from the other end of the first reel and connect that to a third full reel, via mating IP65 connectors. See next page for controller, receiver and driver considerations.

Figure 1

Bare leads from
adapter wire to
receiver

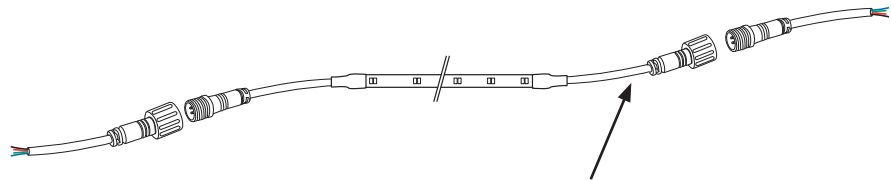
Reel length is 16.4 feet, which can
be cut into two working sections.



Each reel includes attached IP65 connectors (one male and one female)
and two IP65 adapter leads (one male and one female) with bare wires for connection to a Trulux receiver.

Figure 2

Bare leads from
adapter wire to
receiver



A full 16.4ft reel and 5.6 feet from a second reel can be combined
via attached IP65 connectors to build a 22.0ft max run.

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CONTROLLER, RECEIVER AND DRIVER CONSIDERATIONS

To “tune” HTL65-TW-12V, there are three controls available, listed below, all of which are for indoor use. They use Radio Frequency (RF) signals that are detected by a receiver. Each RF control type needs at least one receiver, (RF-5A-4Z, sold separately) which requires 12V DC input. For multiple zones, use TWRF-3AAA Handheld Remote for up to 4 zones. Each zone will require its own REC-5A-4Z receiver. See page 3, Figure 4 for a multiple zone example.

CONTROL TYPE	CONTROL ITEM NUMBER	RECEIVER ITEM NUMBER	CAPACITY
Wall Mount (White)	TWRF-BATT (CR2032 included)	REC-5A-4Z (12V DC input)	1 zone, 5A max each
Table Top (Black)	TWRF-BATT-TT (CR2032 included)	REC-5A-4Z (12V DC input)	1 zone, 5A max each
Handheld Remote (Black)	TWRF-3AAA (3xAAA, not incl)	REC-5A-4Z (12V DC input)	4 zones, 5A max each

For wireless control, visit www.americanlighting.com/truluxapp.html to download the control application for either Smartphone or I-Phone devices. Both RF and WIFI receivers must have a regulated 12V DC power input only. The LED-DR series is the recommended set of drivers for use with the Trulux receivers. Use the chart below to select the driver based on the overall length of HTL65-TW-12V used.

MAXIMUM RUN DISTANCES FOR IP65 TUNABLE WHITE (HTL65-TW-12V), 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-DR30-12	LED-DR60-12	LED-DR100-12	LED-DR150-12
HTL65-TW-12V	2.2W/ft	16.4ft	22.0ft	1.6ft - 12.0ft (3.6 - 26.5 watts)	12.0ft - 24.6ft* (26.5 - 54.1 watts)	24.6ft* - 41.0ft* (54.1-90.2 watts)	41.0ft* - 61.2ft* (90.2-135 watts)

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

CONNECTING A SYSTEM

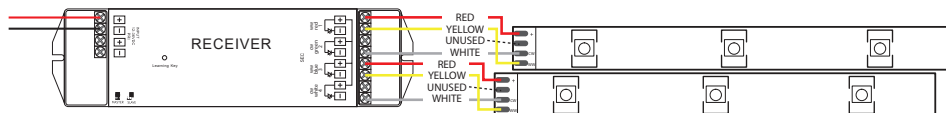
Note: The LED-DR series drivers, the controllers and the receivers are suitable for dry, indoor locations only.

1. Select the driver based on total load (2.2 watts/feet x length) using the chart above to meet minimum and maximum loads.
2. Select the RF or WIFI receiver(s), depending upon control preferences.
3. Locate the receiver(s) and driver in a protected dry location. Using 16-gauge wire or better, bring 12V DC power from the driver to the receiver, matching polarity: red = positive (+) and black = negative (-). See Figure 3 for an example using one receiver (therefore one zone) and two reels of HTL65-TW-12V.

Figure 3

Two reels (32.8 feet total) can attach to one controller when that controller is fed by an LED-DR100-12. See wiring below. This setup will be all one zone.

Supply the receiver with 12V DC power, matching polarity, using load chart above



Use wall mount, table top or handheld controls for this setup.
Wall mount (TWRF-BATT) and table top (TWRF-BATT-TT) are single zone controllers only.

4. Choose which controller to use based on required number of zones and preference for type.
5. Wire the tape light leads to the receiver (+ to black, WW to WW and W to CW). See Figure 3.

For multiple zones, you'll need one RF receiver per zone and the handheld remote; or the Trulux application with multiple WIFI receivers (one per zone). See page 3 for an example.

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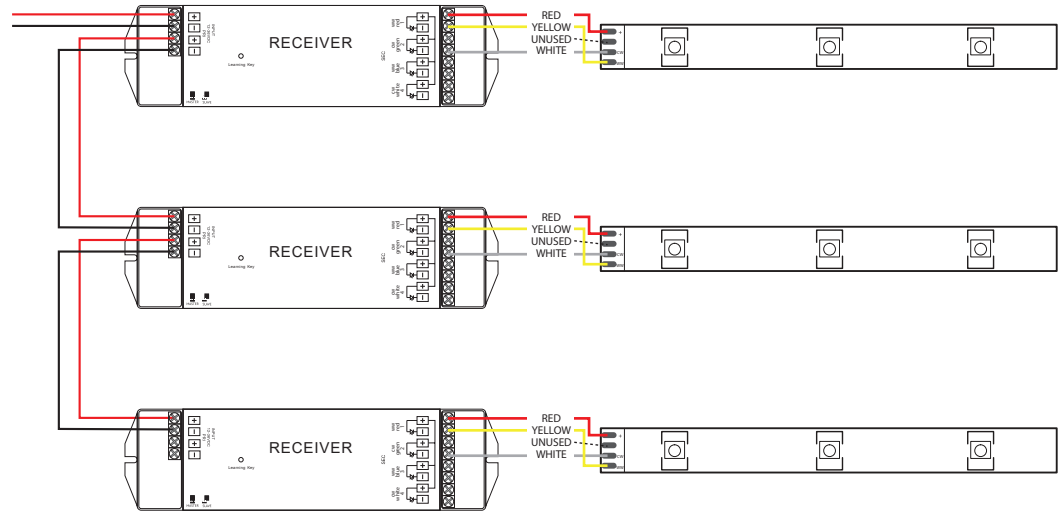


To create a multiple zone system, you can use multiple drivers, sized for each zone's load; or use a single driver if the locations of the various runs permit. See Figure 4 for an example of how to wire LED-DR150-12 to three receivers for three zones located near each other. In any case, do not exceed the capacity of the driver, nor the maximum single run length of the tape light.

Figure 4

LED-DR150-12 can power up to 61.2 feet of HTL65-TW-12.
However make sure no single run exceeds 22.0 feet.

To LED driver



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.