

TRULUX TAPE LIGHT - TUNABLE CCT

Installation Instructions for HTL-TW-12V (IP54)

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. Factory warranty will be void if used with a non-recommended power supply, transformer, or driver. See also Maximum Run chart below.

IMPORTANT SAFETY INSTRUCTIONS

1. This IP54 tape light is intended for indoor use in dry/damp locations only.
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 fixture.

LAYOUT CONSIDERATIONS:

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

This product has one end already prepared with soldered wire and white shrink tube for hardwire connection.

Note: See chart below for wattage per foot, max run length, and allowable connected feet/watts of connected load for the recommended LED-DR series drivers. These drivers are for use with Tuning Controllers. See also page 2 "CONTROLLER, RECEIVER AND DRIVER CONSIDERATIONS". To double the coverage, consider placing a driver in a central location that can power two runs. Calculate the load(s) and make sure to select a driver that can handle the total load.

1. Determine the location of the Trulux and length needed for the installation.
2. If an intersection is involved, plan ahead by starting the layout there. ("L", "T", and "X" connectors are sold separately, TL-4L, TL-4T, and TL-4X respectively). See also page 4 for examples of using these various connectors. Prepare the mounting surface by dusting and/or cleaning it, so that the adhesive tape can adhere to the surface, and so that any marks will be easy to locate. Jumpers are also available in 6", 12" and 24" lengths, sold separately (TL-4JUMP5, TL-4JUMP1, and TL-4JUMP2, respectively).
3. Mark the location(s) of any jumpers, L, T, or X connector(s), then determine the best length for all sections, keeping in mind the cut marks and max runs of each type of Trulux (See also Figures 1, 2, and 3).
4. Determine the type and best location for the power supply in relation to the Trulux installation to determine routing of the power cord(s). See also reverse side "CONNECTING A SYSTEM" on page 3 for details regarding hardwire versus plug-in power supply connection.
5. Mark the location of the beginning of the run where the power connector will be attached.

CUTTING TRULUX:

HTL-TW-12V can be cut every 3.94" as marked on the tape light.

1. Determine nearest cut mark that is best suited for the specific installation.
2. Using a good pair of scissors, making sure the cut is square, make appropriate cuts.
3. The 3M® protective strip on the back side of the Trulux can be left in place to ease connection of snap connectors (See Figure 3).

DRIVER SELECTION - Use the chart below for recommended drivers for use with Trulux controllers.

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
HTL-TW-12V	3.5W/ft	16.4ft	22.0ft	0.98ft - 7.6ft (3.4 - 26.4 watts)	1.97ft - 15.2ft (6.9 - 54.0 watts)	10.3ft - 25.6ft* (13.6-89.6 watts)	4.6ft - 38.4ft* (16.1-134 watts)

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

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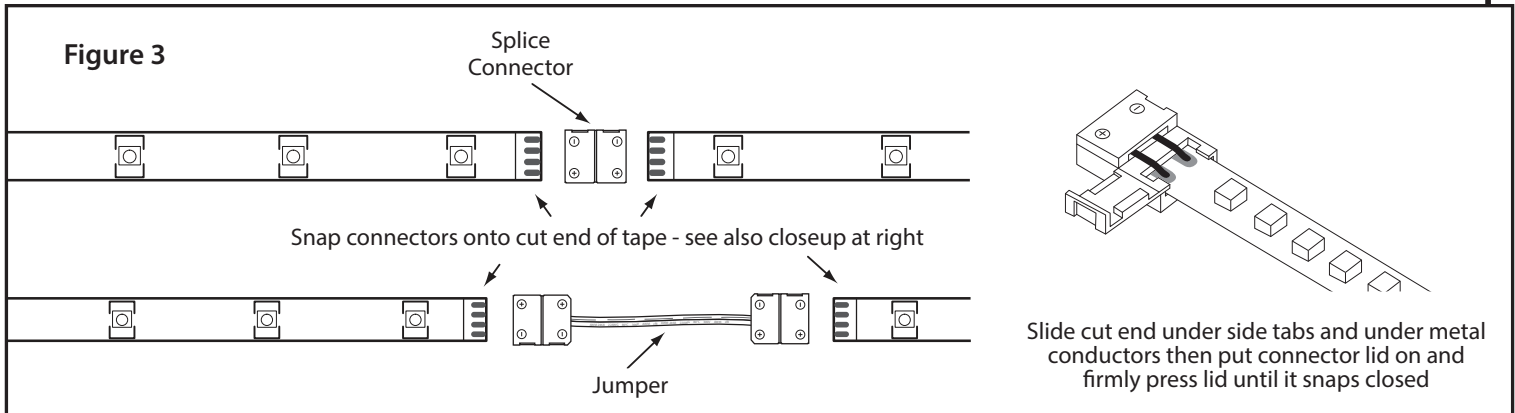


CONNECTING AND MOUNTING TRULUX SECTIONS:

This product has one end already prepared with soldered wire and white shrink tube for hardwire connection.

This product is designed to be mounted to a smooth, clean, non-moving surface.

1. Review any marks made indicating placement of connectors prior to continuing. For best adhesion to surface, once Trulux backing is removed, it should be placed on mounting surface and not be repositioned or removed.
2. Peel the protective backing from the adhesive tape and press the first piece of Trulux into place. If there is an "L", "T", or "X" connection, this will be the first piece to be placed (then work back towards the piece where power will attach).
3. For extending any piece, connect a clip connector or jumper wire to the preceding piece by sliding the tape light end completely into the connector, ensuring the tape light is underneath the metal conductors, and closing the clip securely over the tape light (See Figures 3 and 4). The clip connectors have two pointed pins inside to help secure the tape light once closed. Additional inline connectors (TL-4SPL, TL-4L, TL-4T, and TL-4X) and jumpers (TL-4JUMP-.5, TL-4JUMP-1, and TL-4JUMP-2) are sold separately. All clip connectors come already open.
4. Attach the next Trulux section to the clip connector/jumper in a similar manner.
5. For best results, allow 24 hours for the adhesive to "cure" to the mounting surface before using lights.
6. Mounting clips with screws are also available (TL-CLIPS-15 sold separately) to secure tape light in place.



CONTROLLER, RECEIVER AND DRIVER CONSIDERATIONS

To "tune" HTL-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, (REC-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 and the system will require a router hub (WIFI-RF-8, sold separately).

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 for a direct access link to download the control application for either Smartphone or I-Phone devices; 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. If you have more than one zone, then use **REC-5A-4Z** instead in conjunction with the router hub **WIFI-RF-8**, which plugs into a 120V receptacle (power cord is included). 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 on page 1 to select the driver based on the overall length of HTL65-TW-12V used.

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CONNECTING A SYSTEM

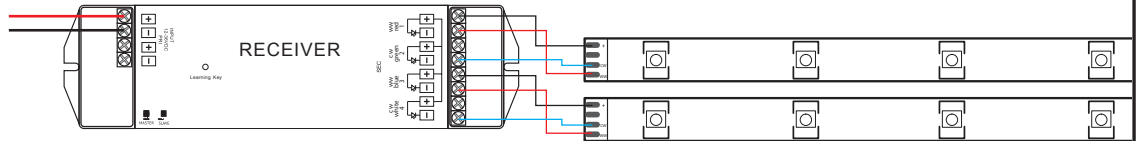
Note: The LED-DR series drivers, the controllers and the receivers are suitable for dry, indoor locations only.

1. Select the driver based on total load (3.5 watts/foot x length) using the chart on page 1 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-DR150-12. See wiring below. As shown, this setup will be all one zone.

Supply the receiver with 12V DC power, matching polarity, using load chart on page 1



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.

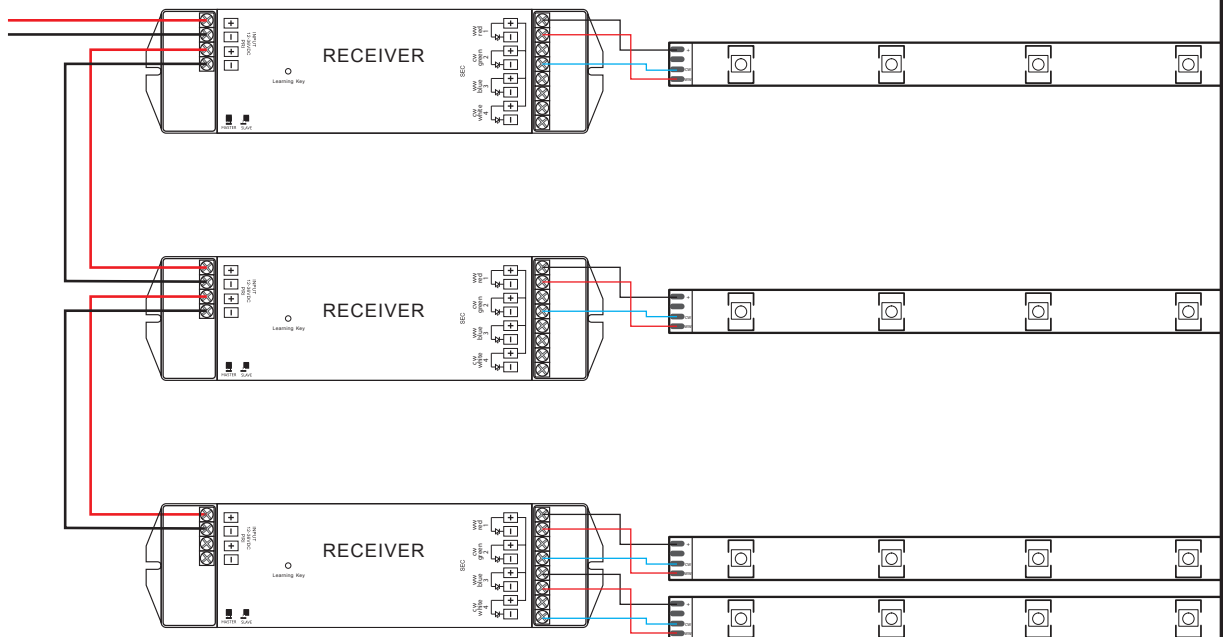
4. Wire the tape light leads to the receiver (+ to black, WW to WW and W to CW).
5. Choose which controller to use based on required number of zones and preference.
6. Follow instructions included with the controller for wiring and programming information.

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). To create a multiple zone system, you can use multiple drivers, sized for each zone's load; or use a single driver if the location of various runs permit. See Figure 4 for an example of how to wire LED-DR150-12 to 3 receivers for 3 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 38.4 feet of HTL65-TW-12.
However make sure no single run exceeds 22.0 feet.

To LED driver

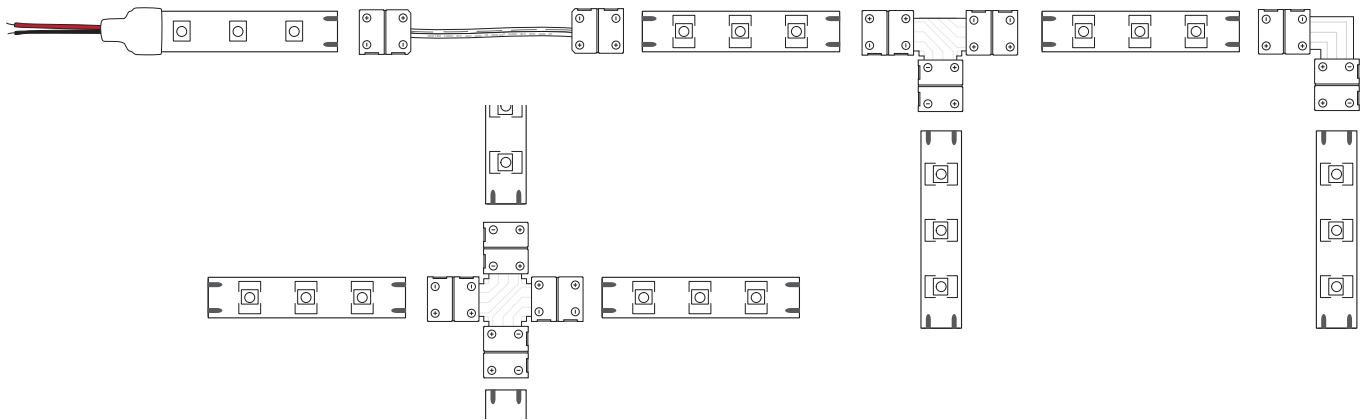


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Figure 5



EXAMPLES OF SNAP CONNECTORS IN USE

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.