

## HOW TO INSTALL TREX<sup>®</sup> DECKLIGHTING<sup>™</sup>



» 5ft, 10ft, 20ft, 40ft, and 60ft connection/ extension wires sold separately (these are male-to-male connection wires).

## Lighting and Wiring Overview



**NOTE:** All wiring and splitters are mounted to the inside of framing. Picture above is a general representation of where to place them.

TOOLS NEEDED



#### WARNING:

- » DO NOT INSTALL DECKLIGHTING IN CLOSE PROXIMITY TO POOLS OR HOT TUBS, AS CHEMICALS FROM THE WATER CAN DAMAGE LIGHTING FIXTURES.
- » DO NOT INSTALL WIRING UNDER HEAVY WEIGHT OR LOAD AS THIS CAN DAMAGE WIRING.

**NOTE:** Avoid railing brackets and locations for deck rail lights when running wires up posts.

**NOTE:** Install wiring and splitters before decking and railing have been installed. **DO NOT** run wires between joists and deck boards.

## HELPFUL TIPS

- » Please note that Trex lighting operates on DC power. NEVER mix AC and DC fixtures on the same circuit. Doing so will result in extremely premature fixture failure and is not covered by the Trex limited warranty. You must use a Trex transformer on all Trex lighting installations.
- » Never fully drive staples when securing wire. Wire should move under staple.
- » ALWAYS protect any wire that is close to the ground with conduit or wire loom to prevent rodent damage.
- » Cap all unused female connections with caps (provided) or weather-resistant silicone to prevent water damage or corrosion.
- » Each dimmer operates on a separate remote.
- » It is recommended to have power source installed and turned on when installing lights to ensure all components work.
- » When installing wiring, avoid extreme angles, pressure, or tension on the wiring, as this can cause pinching of the wiring and create a lighting failure.

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## Installation Instructions

## HOW TO INSTALL TREX DECKLIGHTING/continued

#### **General Information**

- » Refer to www.trex.com for instructional videos on how to install Trex DeckLighting.
- » USE TREX TRANSFORMER ONLY. Use of any other transformer voids warranty.

TRANSFORMER CAPACITY BY TYPE		
Type of Light	8.3A Transformer (83 DL TRANSFORMER)	2.5A Transformer (2.5 DL TRANSFORMER)
Riser	285	90
Recessed	285	90
Post Cap	85	22
Deck Rail	285	90

Above listing is for maximum number of each individual types of lights. If mixing and matching lighting, contact Trex to determine if more than one transformer is required.

## Planning

**NOTE:** When designing your deck, plan locations of lights, power supply, timer, and dimmer. These should be accessible for service. Installing a GFCI outlet is REQUIRED to help prevent damage to lighting from electrical surges.

- 1. The dimmer remote will work in GFCI a 30' (9 m) radius of the unit.
- 2. Dimmer should be installed in a dry location.
- 3. Timer must be installed vertically with receptacle facing downwards. Timer must be at least 1' (.305 m) from ground level when installed as per



federal safety code height regulations. Timer must be in view of the sun to use the dusk/dawn feature.

### Installing Wiring

**NOTE:** It is recommended to install wiring and splitters before decking and railing have been installed.

- » Use male-to-male connection wire (lengths vary) that will connect to each required splitter.
- Wiring must be run under decking structure and behind stringers. DO NOT run wires between deck boards and joists. Staple to frame with cable staples at least 1/4" (6 mm) wide. DO NOT crush wire insulation with staples.





- Wiring can be run under deck and behind risers. Staple to frame with cable staples at least 1/4" (6 mm) wide. DO NOT crush wire insulation with staples.
- 3. Remove 5' (1.52 m) lead wire that is connected to post cap and attach wire to post with male connection at top of post (female connection would be at bottom of post and connect into splitter). Avoid running wire on side of post where railing brackets or deck rail lights will be installed. Leave approximately 6" (152 mm) of lead at top to make connections. Staple to frame and posts with cable staples at least 1/4" (6 mm) wide. DO NOT crush wire insulation with staples.

### **Making Connections**

 Install splitters to inside of framing using hardware provided. Install at every post base where lighting is present and depending on spacing in between each riser and recessed light.



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- 2. Attach male lead from lights to female connections on splitter. Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters and connector wires are attached in between splitters.
- 3. Cap off all unused female connections on splitters using caps provided or weather-resistant silicone.

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#### Have Questions? 1-800-BUY-TREX

**NOTE:** Construction methods are always improving. Please ensure you have the most up-to-date installation instructions by visiting: **trex.com** 



## HOW TO INSTALL TREX DECKLIGHTING/continued

#### **Timer Operation Instructions**

- 1. Select the mode of operation:
  - » Dusk to Dawn
  - » 2-8 hours
  - » Always "ON"
  - » "OFF"

Program repeats daily. When power is flowing to lights, green light above POWER is on.

### Installing Post Cap Lights

**NOTE:** Install post cap lights after the railing system, post sleeve skirt, and post sleeve have been installed.





- Connect male lead from wiring to female connector from cap. Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights is attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)
- 2. After verifying wiring is correct by turning lights on, attach cap to top of post with silicone caulk.

### Installing Deck Rail Lights

**NOTE:** Instructions shown below are for new deck installation and are shown **BEFORE** railing system has been installed.

 Place post sleeve over pressure-treated post and mark desired height, centered on post sleeve for deck rail light location.

**NOTE:** If deck boards are not installed yet, place a deck board on framing to ensure post sleeve is at correct height.





- 2. Drill a 1" (25 mm) hole through post sleeve. Drill deep enough to mark location on pressure-treated post.
- 3. Remove the post sleeve from the post.



- Drill out existing hole on pressure-treated post 3/4" (19 mm) deep. Drill two additional holes vertically below main hole—this will allow space for wiring after post sleeve is attached.
- 5. Leave enough slack at top of lead wire and attach lead wire to post using staples. Attach lead wire to splitter under decking.

**TIP:** To hold lead wire in place at drilled-out location, use painters tape.

#### **Installing Lights**





- Slide post sleeve back over post. If using a post sleeve skirt, make sure to install the skirt first. Connect plug on deck rail light to lead wire and tuck wiring into previously drilled-out pockets on post.
- 7. Align holes for screws horizontally and attach fixture base to post with provided screws.

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Installation Instructions



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8. Line up polycarbonate lens with fixture housing. Twist onto fixture base. Continue until all wiring from lights is attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)



**NOTE:** If railing has already been installed, lead wires will need to be fished through the post sleeve to reach the desired location for the deck rail light. In some cases, if the provided lead wire does not fit (due to connector size), the wire connectors can be cut off and wire nuts can be used. Test lights with the power on. If lights that are wired with this method do not function, then switch the connector wires.

### **Installing Riser Lights**

**NOTE:** Install riser lights after stairs and risers have been installed.

 Mark locations for each light, generally 4" (102 mm) above tread. Consult local codes for lighting requirements.

**NOTE:** If possible, avoid locations over stringers as holes will be more difficult to create.





\_ 4"\_\_\_\_ (102 mm)

- Drill a 1" (25 mm) diameter hole at least 1" (25 mm) deep into riser. If riser material is thicker than 1" (25 mm), use a 1/2" (13 mm) drill bit to create a passage for wires.
- Thread wires through hole. Press light into hole, ensuring lens is horizontal. Make connections behind stairs from male lead wire from recessed light into

female connection on splitter. Also attach maleto-male connection wires in between each splitter. Continue until all wiring from lights is attached to splitters and connector wires are attached in between splitters.

(See Making Connections section for details.)

**NOTE: DO NOT** install riser light or deck rail light into top or bottom rails or balusters.

Installing Recessed Deck Lights

*NOTE:* Install recessed deck lights after installing decking.

1. Mark locations for lights in deck boards.

## NOTE: If possible, avoid

locations over joists, as holes will be more difficult to create.

 Drill a 1" (25 mm) diameter hole 3/4" (19 mm) deep into deck board. Hole cannot go all the way through deckboard or light will fall through. Make sure drill bit is perpendicular to board. Drill a 1/2" (13 mm)



diameter hole in base of the first hole through deck board.

3. Thread wires through hole. DO NOT pull LED into hole by pulling on wires. This may damage wires or LED. Press light into hole until flush with surface. Make connections under deck from male lead wire from riser light into



female connection on splitter. Also attach maleto-male connection wires in between each splitter. Continue until all wiring from lights is attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)

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