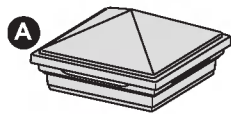


# LIGHTING

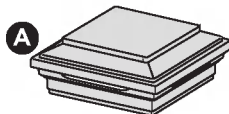


# HOW TO INSTALL TREX DECKLIGHTING™

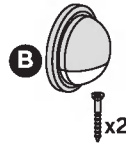
## PARTS



Pyramid Post Cap Light



Flat Post Cap Light



Deck Rail Light



Riser Light



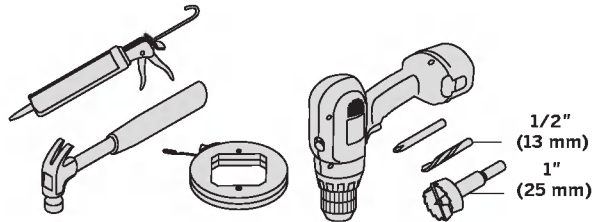
Recessed Deck Light



Splitter

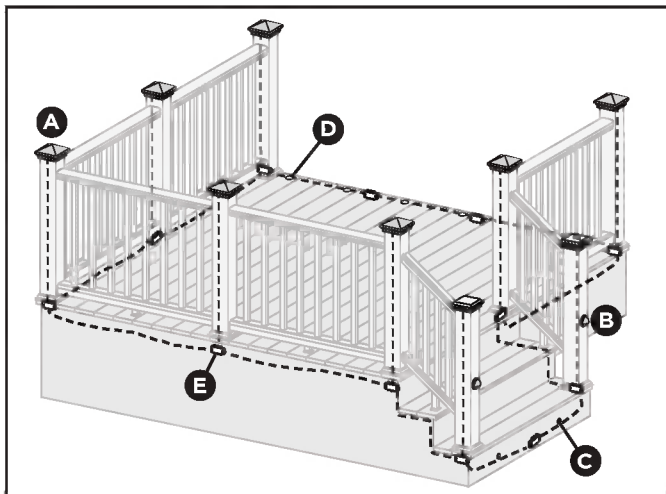
» 5ft, 10ft, 20ft, 40ft, and 60ft connection/extension wires sold separately (these are male-to-male connection wires).

## TOOLS NEEDED



**WARNING: DO NOT INSTALL DECKLIGHTING IN CLOSE PROXIMITY TO POOLS OR HOT TUBS AS CHEMICALS FROM THE WATER CAN DAMAGE LIGHTING FIXTURES.**

## Lighting and Wiring Overview



**NOTE:** All wiring and splitters are mounted to inside of framing, picture is just representation of where to place these in general.

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

**NOTE:** It is recommended to install wiring and splitters before decking and railing have been installed. **DO NOT** run wires between joists and deck boards.

## HELPFUL TIPS

- » Leave slack in wire to make fixture terminations.
- » Recessed lights work well spaced 4' (1.22 m) to 6' (1.83 m) on center around perimeter of deck.
- » Deck rail lights work well at changes in levels of a deck—at the top or the bottom of the stairs, or in conjunction with post cap lights.
- » Riser lights should be placed giving considerations to local codes. If codes do not exist, assess adequate number and placement via darkness evaluation prior to drilling.
- » Drill holes perpendicular to the surface, being careful to hold drill steady, to avoid producing an enlarged hole. If hole is enlarged, light fixture will have a loose fit. Use of a flexible outdoor semi-permanent adhesive (silicone caulk) may be required to anchor light in place.
- » Riser and deck rail holes can be through holes. However, recessed light holes should be drilled to a depth of 3/4" (19 mm). Over-drilled recessed light holes will require use of silicone caulk to anchor light in place.
- » Splitters should be used at each post that has lights and depending on spacing in between each riser and recessed light.
- » Cap all unused female connections with caps provided or weather resistant silicone to prevent water damage or corrosion.
- » The splitter is cross linked so there is no specified plug for lights versus lead wires.
- » Leads attached to each light are approx. 5' to 6' (1.5 m to 1.8 m) in length and have male terminals to plug into splitter.
- » Use a separate dimmer control for each light type for maximum control.
- » It is recommended to have power source attached when installing lights to ensure all components work.

# HOW TO INSTALL TREX DECKLIGHTING™/CONTINUED

## General Information

- » Refer to [www.trex.com](http://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

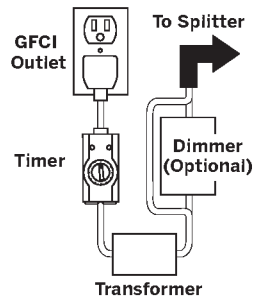
Type of Light	5A Transformer (DL TRANSFORMER)	2.5A Transformer (2.5 DL TRANSFORMER)	8.3A Transformer (83 DL TRANSFORMER)
Riser	180	90	285
Recessed	180	90	285
Post Cap	55	22	85
Deck Rail	180	90	285

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 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.

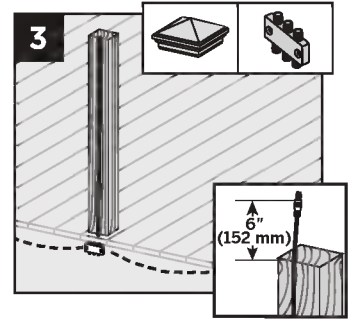
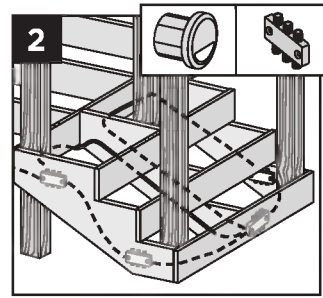
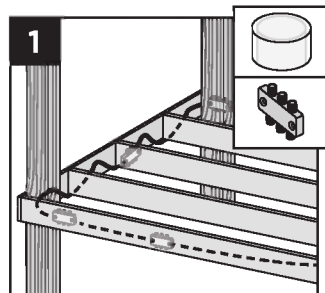


## Installing Wiring

**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.

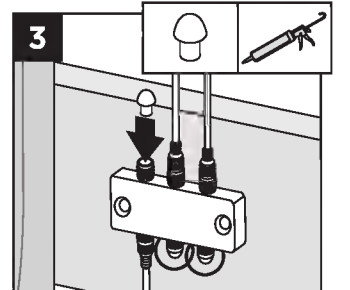
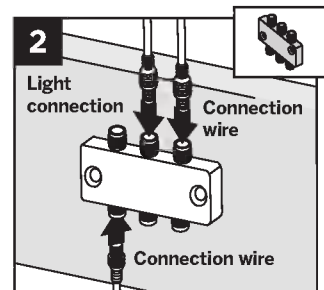
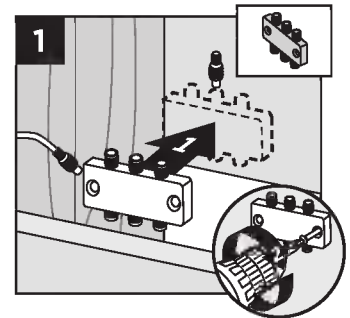
1. Wiring must be run under decking structure and behind stringers. **DO NOT** run wires between deck boards and joists. Staple to frame with cable staples at least 1/4" (6 mm) wide. **DO NOT** crush wire insulation with staple.



2. 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 staple.
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 staple.

## Making Connections

1. Install splitters 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.



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.



## HOW TO INSTALL TREX DECKLIGHTING™/CONTINUED

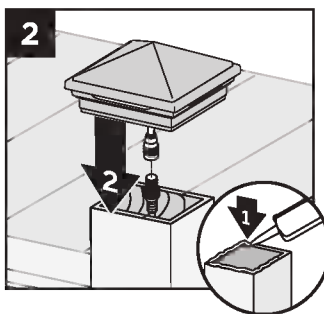
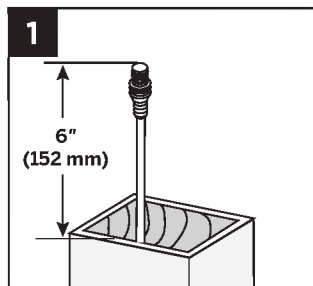
### Timer Operation Instructions

1. Select the mode of operation:
  - » Dusk to Dawn
  - » 1 - 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.

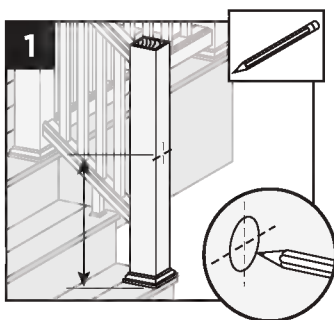


1. Connect male lead from wiring to female connector from cap. Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters as well as connector wires are attached in between splitters. (See *Making Connections* section for details.)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

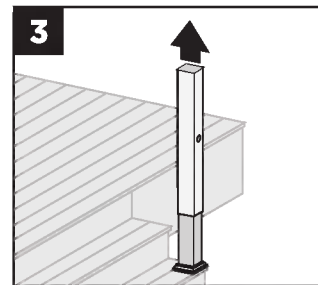
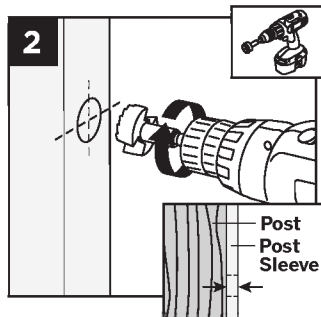
### Installing Deck Rail Lights

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

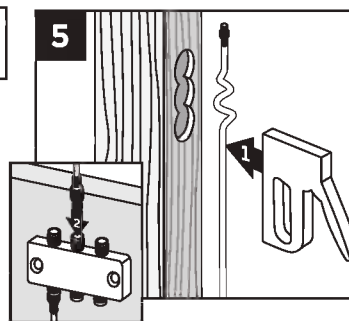
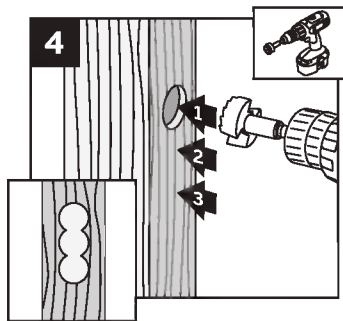
1. Place post sleeve over pressure-treated post and mark desired height, centered on post sleeve for deck rail light location.



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



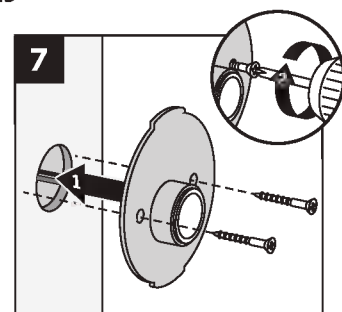
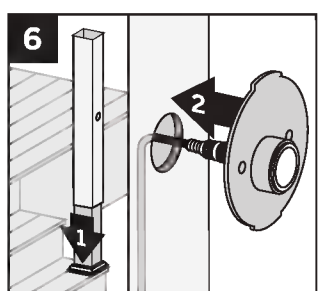
2. Drill a 1" (25 mm) hole through post sleeve. Drill deep enough to mark location on pressure-treated post.
3. Remove the post sleeve from the post.



4. 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.

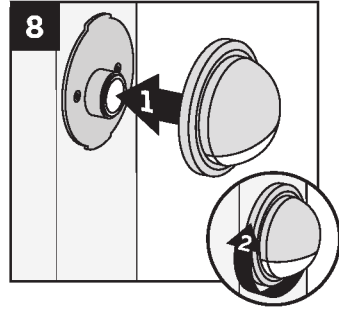
### Installing Deck Rail Lights



6. 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.

## HOW TO INSTALL TREX DECKLIGHTING™/CONTINUED

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

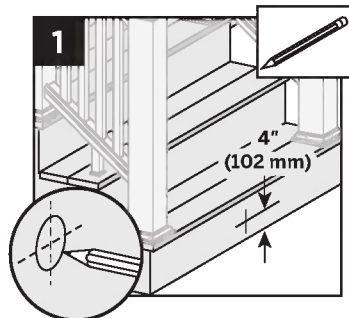


**NOTE:** If railing has already been installed, lead wires will need to be fished through the post sleeve to reach the desired location for the deck rail light. In some cases if the provided lead wire does not fit (due to connector size), the wire connectors can be cut off and wire nuts can be used.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

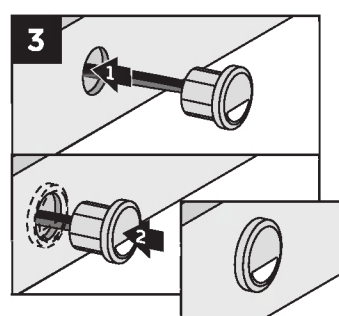
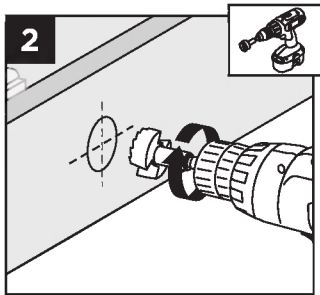
### Installing Riser Lights

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

1. 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.



2. 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.
3. 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 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. (See *Making Connections* section for details.)

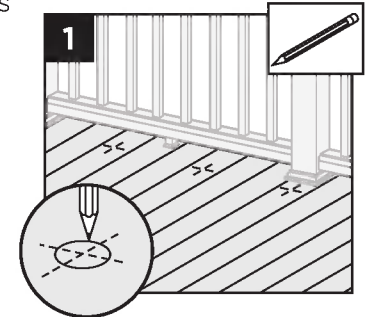
**NOTE: DO NOT** install riser light or deck rail light into top or bottom rails or balusters.

### Installing Recessed Deck Lights

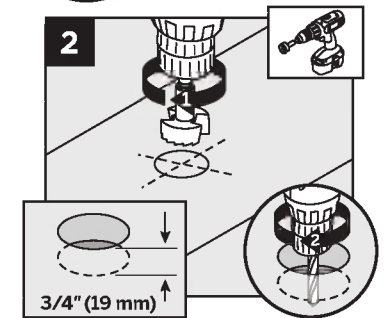
**NOTE:** Install recessed deck lights after installing decking.

1. Mark locations for lights in deck boards.

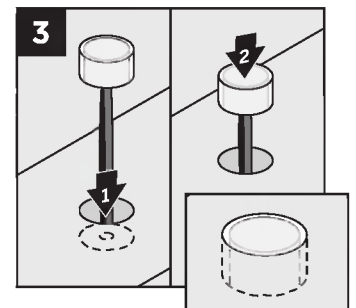
**NOTE:** If possible, avoid locations over joists as holes will be more difficult to create.



2. 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.



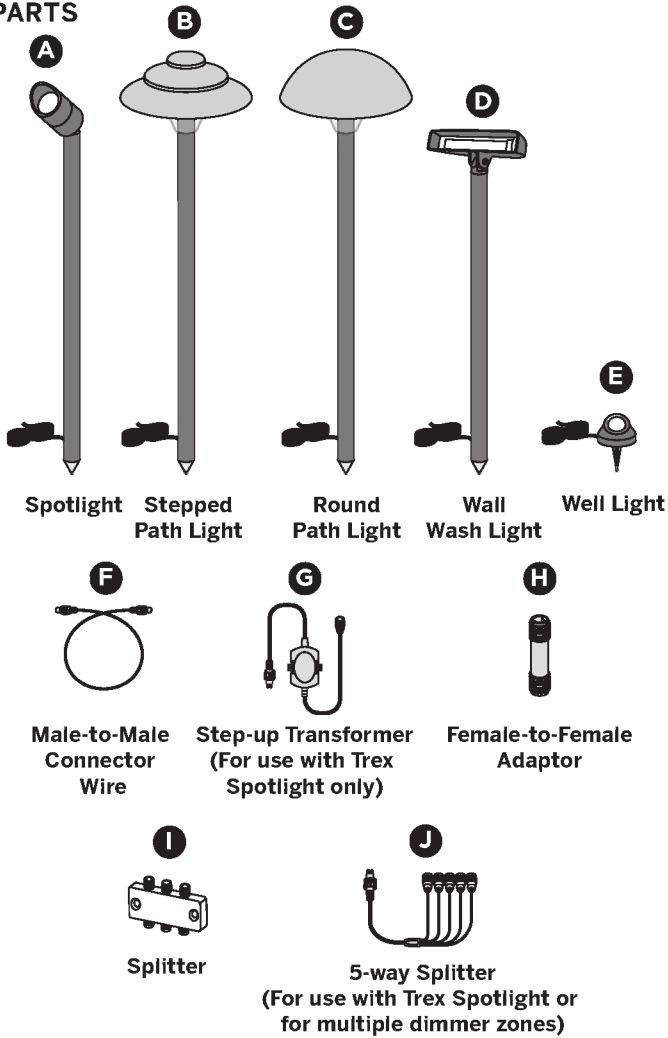
3. Thread wires through hole. **DO NOT pull LED into hole by pulling on wires. This may damage wires or LED.** Press light into hole until flush with surface. Make connections under deck from male lead wire from riser light into female connection on splitter.



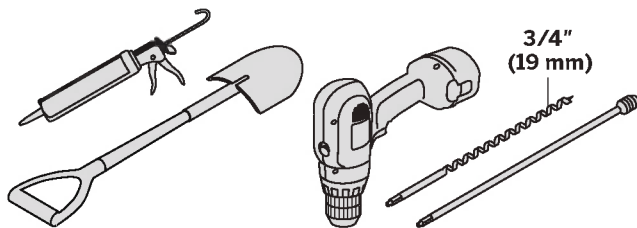
Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters and connector wires are attached in between splitters. (See *Making Connections* section for details.)

# HOW TO INSTALL TREX LANDSCAPE LIGHTING™

## PARTS



## TOOLS NEEDED



**WARNING: BEFORE ANY TREX LANDSCAPE LIGHTING IS INSTALLED, IT IS THE INSTALLER'S RESPONSIBILITY TO ENSURE THAT ALL UNDERGROUND UTILITIES/LINES ARE LOCATED (GAS LINES, ELECTRICAL LINES, DATA LINES, WATER LINES, ETC.) PRIOR TO ANY WORK BEING DONE.**

## HELPFUL TIPS

- » Location of Trex Landscape Lighting is up to customer as to where they would like lighting components placed. Different length of lead wires can be purchased depending on the distances between lights.
- » Leave slack in wire to make fixture terminations. Keep in mind slack will also be required to properly bury wire.
- » Trex Landscape wires are approved for underground use. Wire is made from silver-coated copper.
- » All landscape lights EXCEPT for Trex Spotlight have female connectors.
- » Trex Spotlight will require the use of a female-to-female adaptor to connect light to male connector wire (this adaptor is sold with Trex Spotlight but is also sold separately if needed for other areas).
- » All Trex landscape lights use male-to-male connector wires, sold in lengths of 5', 10', 20', 40', and 60' (*sold separately*).
- » All lights EXCEPT the spotlight can be wired together on a circuit. Optional 6-way splitters are available (*sold separately*) to make installation easier.
- » Trex Spotlights require different wiring configurations; *refer to detailed instructions on following pages for specifics*.
- » Only use a standard household AC GFCI protected outlet to help prevent damage from power surges or lightning.
- » When using timer, ensure this is in full view of the sun if using the dusk/dawn feature.
- » It is recommended to have power source attached when installing lights to ensure all components work.
- » When burying wire in live sod, use spade shovel to make a slit in the soil. Bury the wire 1"-3" (25 mm-76 mm) deep and tamp down the soil. Water heavily to allow the soil to resettle and minimize impact on the installation site.



# HOW TO INSTALL TREX LANDSCAPE LIGHTING™/CONTINUED

## TREX WELL LIGHT, PATH LIGHTS, AND WALL WASH LIGHT

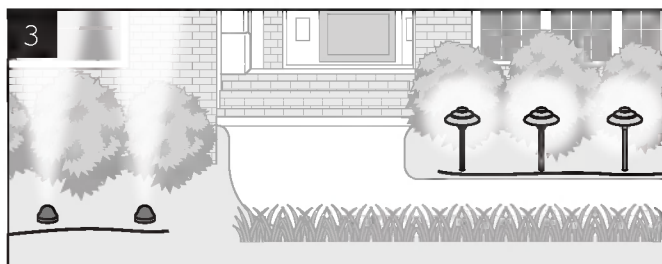
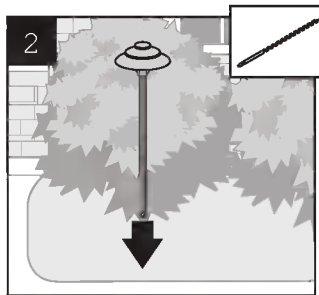
TRANSFORMER CAPACITY BY TYPE			
Type of Light	5A Transformer (DL TRANSFORMER)	2.5A Transformer (2.5 DL TRANSFORMER)	8.3A Transformer (83 DL TRANSFORMER)
Well Light	46	23	74
Path Light	31	16	52
Wall Wash Light	31	16	52

**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.**

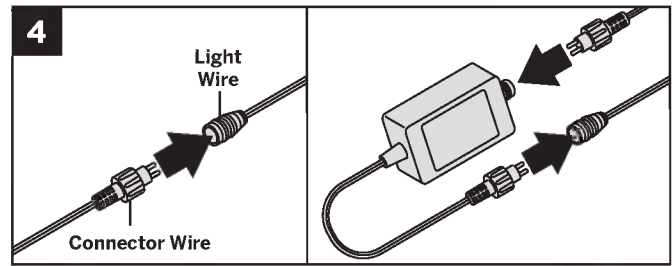


1. Locate placement of lights and lead wiring. Plan accordingly if you choose to bury wire under concrete or other permanent structures.

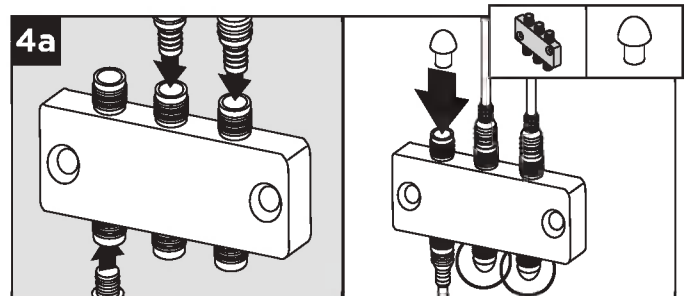
2. Place all lights in desired location. If necessary use 3/4" (19 mm) auger with optional extension in a drill to penetrate the surface enough to ensure the fixture is firmly implanted. **(SEE WARNING ON PREVIOUS PAGE)**



3. Run all wires from the power source locations to the lights on top of the soil, being mindful to leave slack. Pay special attention if using separate circuits with independent dimmers (grouping lights by type is recommended).



4. Connect all lights. Wire the optional dimmer (recommended) between the main 20' (6.1 m) transformer to male lead and the transformer for each circuit. Ensure connections (including splitters), fixtures, and power sources all work properly.

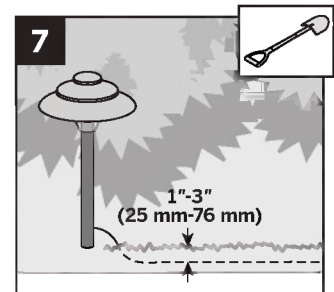


4a. Use male-to-male extension cables to make connections to splitters (*all sold separately*). Cap off all unused female connections on splitters using caps provided or weather resistant silicone.

5. You can mix and combine all lights except the spotlight on the same circuit but make sure you **DO NOT** exceed the maximum number of lights per transformer. If running separate circuits with dimmers on each circuit, using a separate transformer for each circuit can simplify installation. However, use of a 5-way splitter will allow for separate circuits on the same transformer.

6. It is recommended the installer preview light placement in the dark to ensure desired effect is achieved.

7. Once the light, wire, and splitter placement is finalized, work from the light fixtures towards the power source to bury the wire to the desired depth. No more than 1"-3" (25 mm-76 mm) is required.



# HOW TO INSTALL TREX LANDSCAPE LIGHTING™/CONTINUED

## TREX SPOTLIGHT

### TRANSFORMER CAPACITY BY TYPE

Type of Light	5A Transformer (DL TRANSFORMER)	8.3A Transformer (83 DL TRANSFORMER)
Spotlight	7	12

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.

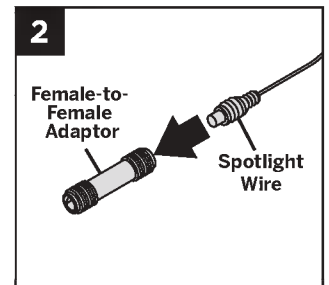
### NOTES:

- » Each Trex Spotlight requires use of a dedicated 36V Step-up Transformer (included with each Trex Spotlight). **WARNING:** Step-up Transformer **DOES NOT** have fault protection, thus care must be taken if testing.
- » Spotlights must use a dedicated line running directly from the included 36V step-up transformer. **Maximum** of seven spotlights are allowed per one 5-amp transformer. (**NOTE:** Must use two 5-way splitters if installing six or seven spotlights to single 5A transformer as 5-way splitter is designed for up to five spotlights.) Spotlights have a male lead and require the use of a female-to-female adaptor to connect spotlight to connector wire. The spotlight fixture has a male lead. Install the extension cable accordingly. **DO NOT mix** any other lights on the spotlight circuit. Applying 36V to any other fixture types will result in very short diode life and will void warranty.
- » **DO NOT LOOK DIRECTLY INTO SPOTLIGHT WHEN ON—THIS LIGHT IS VERY STRONG.**

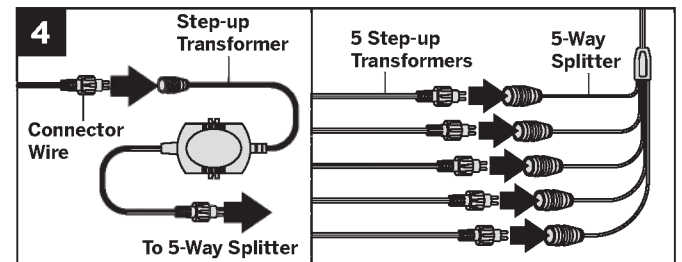


1. Locate placement of spotlights and lead wiring. Plan accordingly if you choose to bury wire under concrete or other permanent structures.

2. Connect male lead from light to female to one end of female adaptor.



3. Connect opposite end of female adaptor to male connector wire. Choose appropriate length wire based on your needs. Run all wire on the surface back to the location of the power supply.



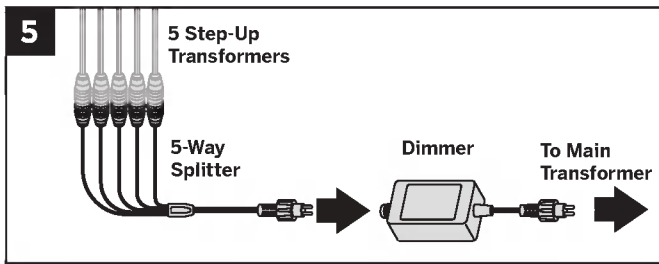
4. Connect opposite end of male connector wire cable to female end on Step-up Transformer. If using more than one spotlight, use 5-way splitter on Step-up Transformer, making sure that each spotlight is utilizing its own 36V Step-up Transformer. Wire the Step-up Transformer or 5-way splitter to the 5A main transformer.



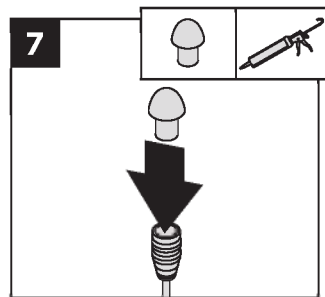


# HOW TO INSTALL TREX LANDSCAPE LIGHTING™/CONTINUED

## TREX SPOTLIGHT



5. If using an optional dimmer (recommended), simply place the dimmer between the 5-way splitter and main transformer.
6. Test lights to ensure power supply, connections, and light fixtures all work properly and placement is appropriate.
7. Ensure that all unused connections on 5-way splitter are covered using weather resistant silicone.



8. Ensure that lights are all working with all wiring attached prior to burying any wire. No more than 1"-3" (25 mm-76 mm) is required.

