LIGHTING
**DECK LIGHTING**

**Pyramid or Flat Post Cap Light**
- 4" x 4" LED Post Cap Light
  - [4.55 in x 4.55 in (115 mm x 115 mm)] actual internal dimensions
  - Use with Trex 4 in Composite Railing Posts
- 5.5 ft (1.67 m) Male LightHub® Lead
- **PYRAMID CAPS**
  - BKPYLEDCA4X4C
  - WTPYLEDCA4X4C
  - FFPYLEDCA4X4C
  - THPYLEDCA4X4C
  - VLPYLEDCA4X4C
  - RSPYLEDCA4X4C
- **FLAT CAPS**
  - BKSQLEDCA4X4C
  - WTSQLEDCA4X4C
  - FPSQLEDCA4X4C
  - THSQLEDCA4X4C
  - VLSQLEDCA4X4C
  - GPSQLEDCA4X4C
  - RSSQLEDCA4X4C
  - TEXTURED CHARCOAL BLACK: BKALCA4X4C
  - TEXTURED BRONZE: BZALCA4X4C
  - TEXTURED CLASSIC WHITE: WTALCA4X4C

**Aluminum Post Cap Light**
- 2.5" x 2.5" LED Aluminum Post Cap Light
  - [2.6 in x 2.6 in (66 mm x 66 mm)] actual internal dimensions
  - Use with Trex 2.5 in Aluminum Railing Posts
- 5.5 ft (1.67 m) Male LightHub® Lead

**Deck Rail Light**
- LED Deck Rail Light
  - [2.75 in (69 mm) OD]
- 5.5 ft (1.67 m) Male LightHub® Lead

**Wedge Deck Rail Light**
- LED Wedge Deck Rail Light
  - [1.875 in wide x 3 in high (47 mm x 76 mm)] actual dimensions
  - Compatible with all Trex Railing Posts
- 5.5 ft (1.67 m) Male LightHub® Lead

**LED Riser Lights**
- 4 LED Riser Lights
  - [1.25 in (31 mm) OD]
- 5.5 ft (1.67 m) Male LightHub® Lead

**Recessed Deck Lights**
- 4 LED Recessed Lights
  - [1 in (25 mm) OD]
- 5.5 ft (1.67 m) Male LightHub® Lead

**ACCESSORIES**

**Transformer with Timer**
- Output Voltage: 12VDC
- Output Power: 100W or 30W
- Output Current: 8.3A or 2.5A
- Photo-Activated Timer
- 20 ft (6.09 m) LightHub Wire Extension Cable
- **Multi-zone Transformer Adapter**
- 8.3A, 100W: DIMMABLE 83DLTRANSFORMERCC
- 2.5A, 30W: 25DLTRANSFORMER

**Motion Controller And Dimmer**
- 1 Remote
- 1 Motion Sensor
- 2 AAA Batteries
- 2 Screws
- 5 ft. Male/Male Wire Extension Cable
- **Dimmer**
- Single Channel with Remote

**1 in (25 mm) Forstner Bit—Pack of 6**

**LightHub Accessories**
- 3-Way Splitter
- 6-Way Splitter
- 5 ft (1.52 m) Wire Extension Cable
- 10 ft (3.04 m) Wire Extension Cable
- 20 ft (6.09 m) Wire Extension Cable
- 40 ft (12.19 m) Wire Extension Cable
- 60 ft (18.28 m) Wire Extension Cable
- Female to Female Adapter
HOW TO INSTALL TREX DECKLIGHTING

PARTS

A Pyramid Post Cap Light

A Flat Post Cap Light

B Deck Rail Light

C Riser Light

D Recessed Deck Light

E Splitter

x2

» 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

1/2" (13 mm)

1" (25 mm)

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.

NOTE: Avoid trailing 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.
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

<table>
<thead>
<tr>
<th>Type of Light</th>
<th>8.3A Transformer (83 DL TRANSFORMER)</th>
<th>2.5A Transformer (2.5 DL TRANSFORMER)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riser</td>
<td>285</td>
<td>90</td>
</tr>
<tr>
<td>Recessed</td>
<td>285</td>
<td>90</td>
</tr>
<tr>
<td>Post Cap</td>
<td>85</td>
<td>22</td>
</tr>
<tr>
<td>Deck Rail</td>
<td>285</td>
<td>90</td>
</tr>
</tbody>
</table>

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

**NOTES:**

» 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 staples.

### Making Connections

1. 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.

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
» 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.

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 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.

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.

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.

NOTE: Construction methods are always improving. Please refer to www.trex.com for the most up-to-date installation requirements.
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.

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. 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 is attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)

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. 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. (See Making Connections section for details.)
HOW TO PROGRAM DIMMER REMOTE

A. ALWAYS keep antenna fully extended for maximum range.

B. Up/Down arrows gradually dim or brighten lighting.

C. On/Off button cycles lights ON/OFF.

D. Mode button cycles through 3 preset dimming levels: High, Medium, Low, and Off.

NOTE: First, make sure the red light is illuminated on the remote. If there is no red light and the product is new, contact 1-800 BUY-TREX for a replacement. If the product is not new, the A27 battery is replaceable.

1. Install dimmer per instructions and make sure lights are ON and working properly.
2. Unplug the transformer to turn lights OFF.
3. Press and hold both the up and down arrow on the dimmer remote simultaneously.
4. With the dimmer arrow buttons held down, plug the transformer back in. The lights should blink once to confirm programming.
5. Release the up and down arrows on the remote and test remote to confirm proper operation.

HOW TO INSTALL TREX® SIGNATURE™ CAP LIGHT
(CAN ONLY BE USED ON TREX® SIGNATURE™ POSTS)

PARTS

- Post Cap Light (includes 5ft male-to-male wire)

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

TOOLS NEEDED

- 9/16" x 6" or Longer (14 mm x 152 mm)

NOTE: Construction methods are always improving. Please refer to www.trex.com for the most up-to-date installation requirements.
HELPFUL TIPS

» Leave slack in wire to make fixture terminations.
» Post lamps 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.
» 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. 5.5’ (1.67 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 on when installing lights to ensure all components work.

Installing Post Cap Lights

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

1. Before attaching post to deck, locate placement of post and mark desired bolt locations.
2. Using a straight edge, mark an “X” between the four bolt locations.
3. Using a 9/16” (14 mm) x 6” (152 mm [or longer]) drill bit, drill a diagonal hole through the decking and blocking. Ensure that the angle will allow wire to not be pinched by support plate under blocking (if using Trex ALPOSTHWDECK mounting kit). (See Making Connections section for details.)
4. Turn post upside down and fish 5’ male-to-male wire (provided) through hole in baseplate.
5. Connect the female connector on the post cap light to this wire and, using a rubber mallet, gently tap the cap onto top of post until it is secure.
6. Turn post over and carefully fish wire through hole created in Step 3 to underside of the deck. Ensure exit point of wire under blocking will not be pinched by ALPOSTHWDECK plate.
7. Mount post per instructions.

NOTE: If connecting a Trex Wedge Deck Rail Light as well, a 3-way adapter and extra 5’ male-to-male wire (not provided) can be used inside the post so that only one wire must be run through the hole in the base of the post (and post blocking). This is optional.
HOW TO INSTALL TREX WEDGE DECK RAIL LIGHT
(CAN ONLY BE USED ON TREX® SIGNATURE™ POSTS)

PARTS

Wedge Deck Rail Light
(includes 5ft male-to-male wire)

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

TOOLS NEEDED

- 9/16” x 6” or Longer (14 mm x 152 mm)

HELPFUL TIPS

- Leave slack in wire to make fixture terminations.
- 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.
- 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. 5.5’ (1.67 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 on when installing lights to ensure all components work.

Installing Post Lamps

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

1. Before attaching post to deck, locate placement of post and mark desired bolt locations.
2. Using a straight edge, mark an “X” between the four bolt locations.
3. Using a 9/16” (14 mm) x 6” (152 mm [or longer]) drill bit, drill a diagonal hole through the decking and blocking. Ensure that the angle will allow wire to not be pinched by support plate under blocking (if using Trex ALPOSTHWDECK mounting kit).
4. Locate placement of post lamp. Mark entry point of the wire.
5. Drill 9/16” (14 mm) hole where wire will enter post.

NOTE: Construction methods are always improving. Please refer to www.trex.com for the most up-to-date installation requirements.
HOW TO INSTALL TREX WEDGE DECK RAIL LIGHT
(CAN ONLY BE USED ON TREX® SIGNATURE™ POSTS)

6. Turn post upside down and fish 5’ male-to-male wire (provided) through hole in baseplate.
7a. If connecting a Wedge Deck Rail Light only, pull wire through hole.

TIP: Insert a zip-tie loop (or small grabber tool) through 9/16” (14 mm) hole. Fish wire through loop in zip-tie. Pull wire through hole with zip-tie.

7b. If connecting a Trex® Signature™ post cap light as well, and using the 3-way splitter (see note after Step 12), simply run one wire through the hole created in Step 5 to the top of the post.

8. Connect male connector to female connector on light housing.
9. Place light and attach backing plate to post with three screws (provided).

10. Slide light cover down over backing plate, adjusting mounting screws as necessary to achieve a tight fit.
11. Turn post over and carefully fish wire through hole created in Step 3 to underside of the deck. Ensure exit point of wire under blocking will not be pinched by ALPOSTHWDECK plate.
12. Mount post per instructions.

NOTE: If connecting a Trex® Signature™ post cap light as well, a 3-way adapter and extra 5’ male-to-male wire (not provided) can be used inside the post so that only one wire must be run through the hole in the base of the post (and post blocking). This is optional.
HOW TO INSTALL TREX® PHOTOCCELL MOTION CONTROLLER

OVERVIEW

Install the Motion Controller in a location that is exposed to some ambient sunlight. If you plan to use the motion sensor capabilities of this unit, place it in a location that allows the center of the unit to face the location of the motion. For example, the door leading onto the deck, or at the bottom or top of stairs are common locations. However, the most important consideration of Motion Controller location is how you will install it into your lighting circuit. See illustrations on next page for some basic examples.

NOTE: Construction methods are always improving. Please refer to www.trex.com for the most up-to-date installation requirements.
HOW TO INSTALL TREQ® PHOTOCCELL MOTION CONTROLLER/CONTINUED

Making A Post Pocket

Aluminum Post Install

One Sensor Install

Note: Make sure the sensor is installed after the transformer, but before the first light. Any lights that are installed before the sensor will not be controlled.

Two Sensor Install

To install two sensors, place a motion sensor at each end of the circuit, making sure you connect the wire with the red tab to the transformer side of each circuit.
To install multiple circuits, use the 5-Way Transformer Splitter and (1) additional 20’ Transformer wire (available on shoptrex.com) for each circuit you’re setting up. Then simply follow the instructions for the one-sensor installation above.

**Multiple Zone Install**
To run multiple zones, you simply create multiple one-sensor circuits. For example, we recommend running your recessed lights on one dimmer circuit and your post lamps, post lights and riser lights on another. Once installed, you can program each sensor for the appropriate motion sensitivity and light output for that circuit. Ensure that all sensors are on the same time setting if you want all of the lights to come on/go off at the same time.

**ADJUSTMENTS**

**Motion Sensor**
The motion sensor is set to maximum range at the factory. If you want to prevent the motion sensor from controlling the lights, adjust it to the lowest setting.

**Step 1**
Install and mount controller per previous instructions. Plug in lights.

**Step 2**
Press and hold Program button on the remote for 4 seconds. The blue light on the motion controller will light up solid.

**Step 3**
Use the +/- buttons to adjust the sensitivity of the motion sensor. There are 9 steps between maximum range and minimum range. The indicator light will blink twice when either limit is reached. The lowest limit will deactivate the motion sensor.

*Tip: The motion controller senses heat. Therefore, ambient temperatures can affect sensitivity. The cooler the ambient temperature the greater the detection range. Max Setting = 25 feet at 72 °F.*

**Step 4**
Press Program button once to save. Press Program button again to exit programming mode.

**Photocell Sensor**
Adjustment of the photocell is usually not necessary. (It is factory pre-set to 3.) However, if you place the receiver in an area that gets very little ambient light, you might need to turn the sensitivity up for it to function properly. Alternatively, if you want to use the receiver as a motion controller-activated device only, you may set the photocell sensitivity to 0. In that setting, the only time your lights will illuminate is when the motion sensor is activated.

**Step 1**
Install and mount controller per instructions above. Plug in lights.

**Step 2**
Press and hold Program button on the remote for 4 seconds. The blue light on the receiver will light up solid.

**Step 3**
Press the Day/Light button on the remote. The receiver will blink once. Enter a number on the keypad 0-9.

1 = Complete darkness required to activate photocell.
9 = Photocell operates in full sunlight.
0 = Photocell will no longer control lighting system.

**Step 4**
Press Program button once to save. Press Program button again to exit programming mode.

*NOTE: Construction methods are always improving. Please refer to www.trex.com for the most up-to-date installation requirements.*
ADJUSTMENTS/CONTINUED

Time Duration
Adjustment of the timer controls how long the lights stay on once activated by the photocell or motion sensor.

Step 1
Install and mount controller per instructions above. Plug in lights.

Step 2
Press and hold Program button on the remote for 4 seconds. The blue light on the receiver will light up solid.

Step 3
Press the Timer button, then enter the desired number of minutes desired (1-999).

Step 4
Press Program button once to save. Press Program button again to exit programming mode.

TIP: When installing multiple motion controllers on the same circuit they both must be set to the same time duration.

OTHER BUTTONS/FUNCTIONS/ZONES

Backlight
Press the Backlight button to illuminate the remote in low light conditions.

Hashtag (Reset)
Step 1
Press and hold the hashtag button for 6+ seconds until the receiver indicator light blinks twice.

Step 2
Press the On/Off button to turn the system off, then press the On/Off button again to complete the factory setting reset process.

Zone
Assign/select zones for each receiver.

Step 1
To assign or change zone press and hold the Program button until receiver indicator lights up.

Step 2
Press Zone button; enter zone number (1-9).

Step 3
Press Program button once to save. Press Program again to exit programming.