Installing In-Deck Light

- **In-deck light** should be installed in a low-foot-traffic area.
- **In-deck light** can only be used when there is room under the deck to access the wires to make all of the connections.

1. Locate and mark the centerline of the deck plank where the in-deck-light will be mounted.
2. On the desired point of the center line, use a 1” spade bit to create a through hole (be sure not to drill into the substructure.)
3. Use the back plate as a template to locate the center of the 1” hole for the wire.
4. Locate and mark vertical and horizontal centerlines for Stair Riser Light location. Level the back plate and secure using #6 x 1” wood screws.
5. Drill a 3/8” hole to feed the wire through the RadianceRail Support Rail.
6. Feed the wire and mount the light to the recessed RadianceRail Support Rail making sure the light is tilted in (light comes with a 15˚ tilt which is usually facing the deck). Use the center alignment beam for a guide for the 2 screws. Use 8-3/4” screw size.
7. Guide the light’s wire into the through hole.
8. Push the lighting fixture into the through hole until the flange touches the deck surface.
9. Use the back plate as a template to locate the center of the 1” hole for the wire.
10. Secure housing to back plate using the set screw with a 2.5mm Allen wrench.

| Spade Bits: |
| 5/8” |
| 3/4” |
| 1” |

| Drill Bits: |
| 3/8” |
| 7/64” |
| 1/8” |
| 3/16” |

| Tools Required: |
| Spade Bits |
| Allen Wrench |

**Important Safety Precautions**

**INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR INJURY TO PERSONS**

**WARNING** – To reduce the risk of FIRE OR INJURY TO PERSONS:

- **Turn off/plug before servicing fixtures.** Contact only switch/plug when turning on.
- **Keep lamp away from materials that may burn.**
- **Do not operate the luminaires with a missing or damaged cover.**

Lighting Layout Overview

The AZEK and TimberTech system is designed for use with AZEK Railing and TimberTech Railing products.

Below is a sample lighting layout showing fixture placement and wiring routes. When laying out the wiring for your deck, keep the following in mind:

- **Building codes vary by locale, please consult all applicable codes before beginning project.**
- **Modifications must be made to railing components during assembly to accommodate wiring and fixtures.** Do not begin deck construction until you have read the lighting instructions.
- **This unit’s secondary wiring shall be protected by routing in close proximity to the luminary or fitting, or next to a building structure such as a house or deck. The wiring shall not be buried except for a maximum 6 inches (15.2cm) in order to connect to the main secondary wire.**
- **A maximum of 40W can be applied to a single circuit, and no more than 90W should be applied to the transformer.** Please refer to the chart below to determine the wattage of each fixture.
- **Luminaires shall not be installed within 10 feet (1.52m) of pool, spa or fountain.**
- **Trim post covers to correct length – see Post and Rail Prep page.**

![Lighting Layout Overview](image)

**Fixture Wattage**

<table>
<thead>
<tr>
<th>Fixture</th>
<th>Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Cap Light</td>
<td>4W</td>
</tr>
<tr>
<td>Lighted Island Cap</td>
<td>2W</td>
</tr>
<tr>
<td>Accent Light</td>
<td>1W</td>
</tr>
<tr>
<td>Under Rail Light</td>
<td>2W</td>
</tr>
<tr>
<td>Stair Riser Light</td>
<td>2W</td>
</tr>
<tr>
<td>In-Deck Light</td>
<td>1W</td>
</tr>
<tr>
<td>Mini Accent Light</td>
<td>1W</td>
</tr>
</tbody>
</table>
Installing In-Deck Light

In-Deck light should be installed in a low foot-traffic area.

1. Locate and mark the centerline of the deck plaque where the in-deck light will be mounted.
2. On the desired point of the center line, use a 1" spade bit to create a through hole. (Be sure not to drill into the substructure.)
3. Guide the light's wire into the through hole.
4. Push the lighting fixture into the through hole and the flange touches the deck surface.
5. The wire connections can then be made under the deck's surface.

Wiring Instructions

Wire Connections

Connections between the main 16/2AWG cable and the lighting fixtures are made using the space between the post and the Post Cap Light as a junction box.

When routing the main wire around the deck, leave a loop of extra wire at the top of each post to allow for splicing connections.

Use silicone filled wire nuts with corrosion protection and intended for outdoor use to make all connections. They shall be copper, copper alloy, or steel.

When making splices, do not pre-twist wires. Pre-twisting can lead to an electrical fire.

Wire Nut Instructions

Use the following guidelines for correct usage of wire nuts.

1. Strip wires 5/8".
2. Align frayed strands of conductors.
3. Do not pre-twist. Place stripped wires together with ends even, but lead smaller stranded wires slightly ahead of larger solid or stranded wire.
4. Use the following guidelines for correct usage of wire nuts.
5. Wipe excess sealant in and around conductors. DO NOT REUSE.

Transformer Settings

Consult the instructions provided with the transformer for additional information.

100 Watt Transformer

<table>
<thead>
<tr>
<th>Input</th>
<th>Voltage 120 VAC</th>
<th>Output</th>
<th>Voltage 120 VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>120 VAC</td>
<td>Output</td>
<td>120 VAC</td>
</tr>
</tbody>
</table>

Transformer Connections

Consult the instructions provided with the transformer for additional information.

Power Pack

Refer to instructions provided with the Power Pack.

Post & Rail Preparation

Post and Rail Preparation

Install Support Rails and Railcaps as normal; DO NOT install Top Rail yet.

Install the Support Rails and Railcaps as normal; DO NOT install Top Rail yet.

5" Post Cap Light RadianceRail

5'-1/2" Post Cap Light AZEK Railing

Lighted Island Cap

4 x 4: RadianceRail Express

Installing Post Cap Light

Post Lamps must be installed after the rail assembly has been completed.

1. Install the Lens onto the Post Sleeve as shown.
2. Remove the Post Lamp Cover from the Post Lamp Bottom Housing.
3. Remove excess wire length and make wiring connections to 1/6"G wire cable and other luminary wires. Check to confirm polarity of main cable connections.
4. Guide the connected wires inside the Post Sleeve and insert the Post Lamp Bottom Housing into the Lens. Check to make sure no wires are exposed or pinched between Lens and Bottom Housing.
5. Install the manager wires and fasteners as shown. Watch as screws are installed to secure wire channel prior to driving them into the main post. Tighten only until the washer begins to compress. Over tightening could cause a fire and damage the Bottom Housing causing permanent damage.

Installing Lighted Island Cap

This Lighted Island Cap is pre-assembled. Installation simply requires the screws to be properly connected and the unit placed onto the post.

4 x 4: RadianceRail Express

Post & Post Sleeves

(All wiring instructions are for a rail height of 36")

1. Strip wire ends at 2-1/2" shorter than the finished post sleeve length.
2. Feed main 16/2AWG cable between post and Post Sleeve. (See Wire Connections section for more info.)
3. Fasten main 16/2AWG cable between post and Post Sleeve. (See Wire Connections section for more info.)
4. For best results, use a wire cutter with a fine toothed blade to make Post Sleeve cuts. Check cuts for square.
5. Feed main 16/2AWG cable between post and Post Sleeve. (See Wire Connections section for more info.)