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About California Proposition 65:

<https://fortressbp.com/about/californiaproposition65>

INTRODUCTION

READ INSTRUCTIONS COMPLETELY BEFORE STARTING INSTALLATION

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. Fortress Building Products and its distributors shall not be held liable for improper or unsafe installations.

WARNING – Risk of Electric Shock. Install power unit 10' [3048mm] or more from a pool, spa, or fountain. Where the power unit is installed outdoors, connect power unit to a receptacle protected by a GFCI.

A FortressAccents Transformer should always be used to operate FortressAccents LED lighting. FortressAccents Transformers are available wherever FortressAccents LED lighting is sold.

Use of a transformer that is not a FortressAccents transformer with FortressAccents LED Lighting will void the warranty.

- **READ INSTALLATION INSTRUCTIONS BEFORE WIRING.**
- **NOT FOR USE WITH DIMMERS.**
- **FOR OUTDOOR USE ONLY. MOUNT AT LEAST 12" [305mm] ABOVE GROUND.**
- **NOT FOR USE WITH SUBMERSIBLE FIXTURES.**
- **DO NOT CONNECT TWO OR MORE TRANSFORMERS IN PARALLEL.**

Required Materials



Goggles



Tape Measure



Phillips Head Screwdriver



Fish Tape



Cable Clip



Pencil



Drill



Drill Bits:

1/16" [2mm], 1/8" [3mm],
5/32" [4mm], 1/2" [13mm]



T-25 Driver Bit



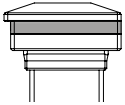
Forstner Bit:
1" [25mm]



Rubber Mallet

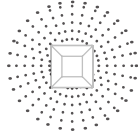
Lighting

Light Option



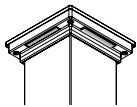
LED Glow Ring

Light Projection

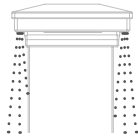


Recommended Install Position

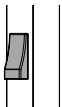
The LED Glow Ring is recommended to be installed between the Post Cap and Post Cap Base.



LED Cap Light



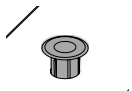
The LED Cap Light is recommended to be installed face down inside the slot holes in the Post Cap Base.



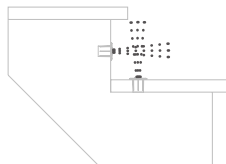
LED Vertical Post Light



The LED Vertical Post Light is recommended to be installed onto vertical surfaces.



LED Surface Mount Light

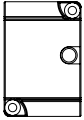


The LED Surface Mount Light is recommended to be installed on the deck surface, soffits, or stair risers.

Lighting Components

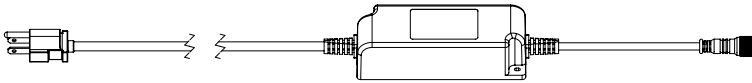


Remote Controller



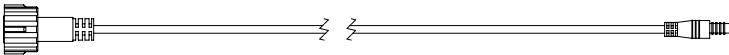
Smart Controller

3" [76mm] x 2" [51mm] x 1/2" [13mm]



60W Transformer

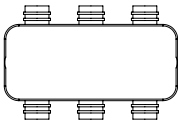
Output Wire 6" [152mm], Input Wire With Plug 5' [1524mm]



FA 60W 22-2GA PNP Adapter

20' [6096mm]

Plug and Play Components



FA - PNP Female
6-way Splitter



FA - PNP
Female T-Splice



FA - PNP
Female-To-Female Connector

Wire



FA - PNP 22 GA LED Light Wire - Male Ends

5' [1524mm], 10' [3048mm], 15' [4572mm], 20' [6096mm]

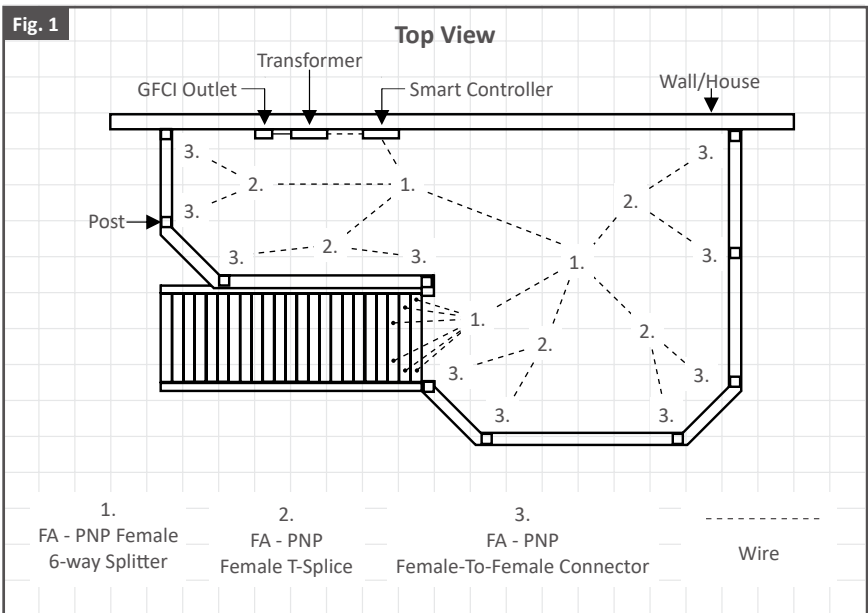
Word Abbreviations:

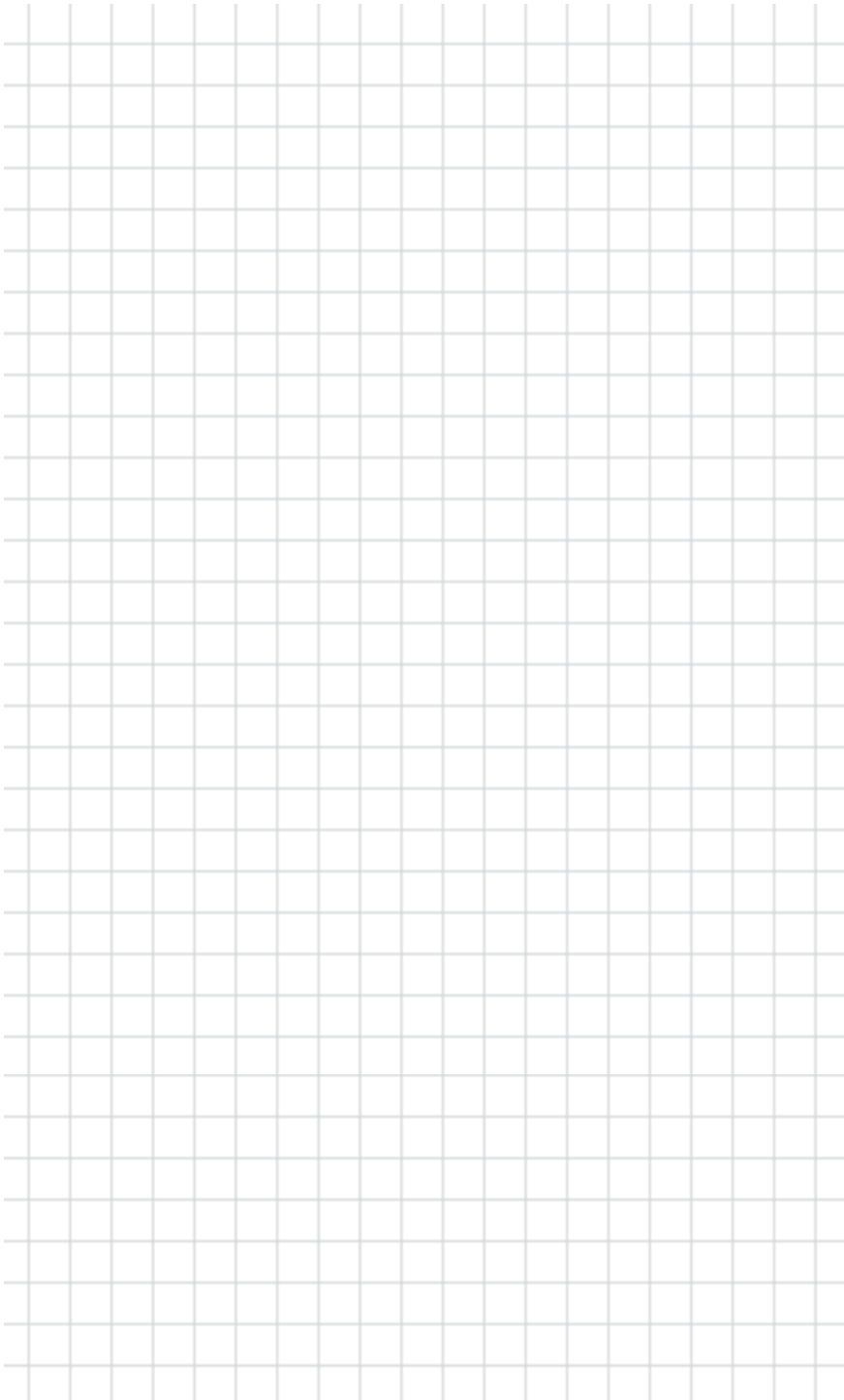
FA = FortressAccents PNP = Plug and Play LED = Light-Emitting Diode
GFCI = Ground Fault Circuit Interrupter GA = Gauge

INSTALLATION: PROJECT PLANNING

Step 1: Design Wire Layout

1. Sketch outline of deck.
2. Identify location of GFCI Outlet. **If no GFCI Outlet, one will need to be installed.**
3. Determine lighting to be used and layout/placement of lighting on deck. Reference light options on page 4.
4. Determine what wire connectors will be required for your project. Design wire layout so that a minimum amount of connectors will be required. Reference wire connectors on page 5.
5. Determine the best location for the transformer based on your lighting layout. The transformer should be located within 15' [4572mm] of the first LED Light.
6. Determine desired placement of the Smart Controller (if applicable). The Smart Controller should be positioned at a location that allows for the output wire to be easily fed underneath the decking.
7. Sketch desired wire layout, Lighting, Transformer and Smart Controller placement. As shown in Fig. 1.



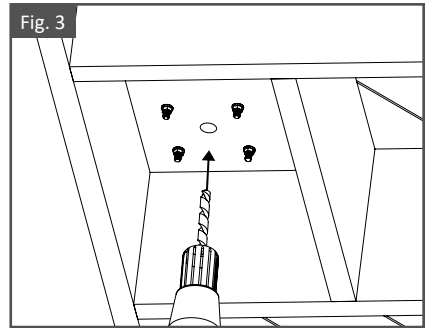
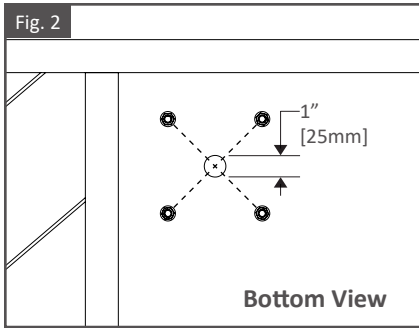


Step 2: Cut Out Post Hole In Deck

1. Identify posts that will have FA post Glow Ring, Cap Light or Vertical Post Lights installed.
2. Locate post blocking/bolt location underneath deck surface.
3. Determine center between four bolts.
4. Measure and mark a circle centered between the four bolts with a 1" [25mm] diameter. As shown in Fig. 2.
5. Using a 3/4" [19mm] drill Bit, drill hole through deck surface. As shown in Fig. 3.

Note:

- Railing should be installed prior to FortressAccents Plug and Play installation.



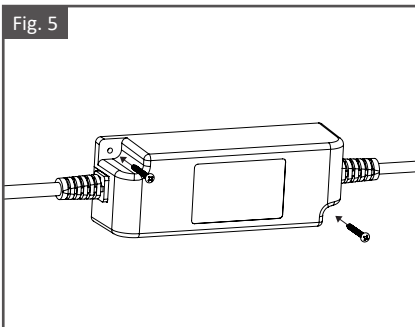
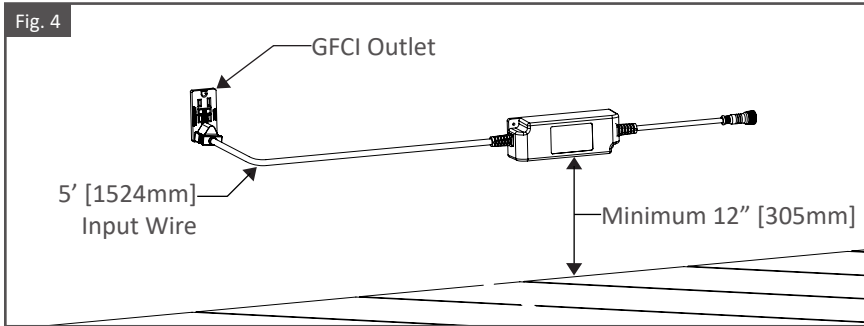
INSTALLATION: WIRE SETUP

Step 1: Install Transformer

1. The transformer must be installed at a minimum of 12" [305mm] above the ground and close to the GFCI Outlet (input wire is 5' [1524mm] long). As shown in Fig. 4.
2. Place transformer in desired location and use the provided screws to mount. As shown in Fig. 5.

Tip:

- The supplied input wire with plug must be connected to a GFCI protected outlet with a hooded flush type cover plate receptacle marked "Wet Location". **DO NOT** use an extension cord. If no GFCI protected outlet with a hooded flush type cover plate receptacle marked "Wet Location" is available, a licensed electrical contractor must install a GFCI outlet at the required location.



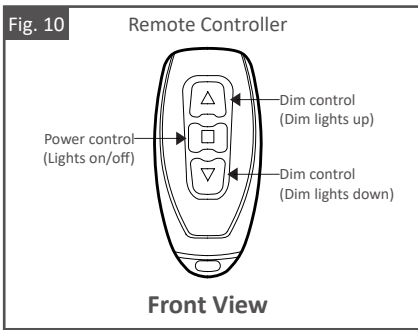
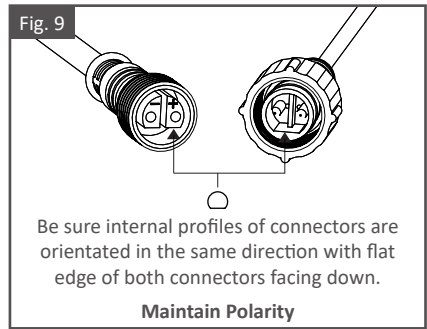
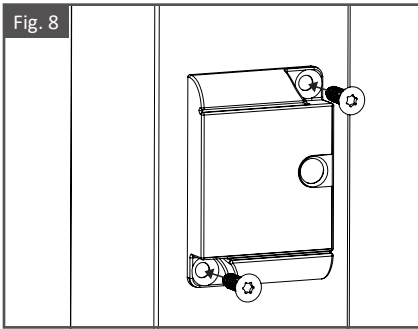
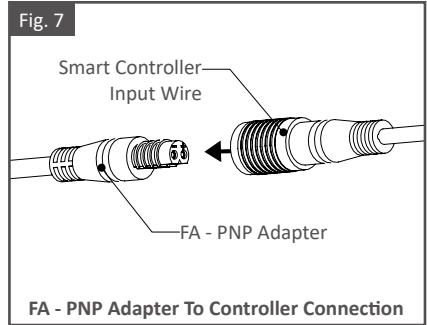
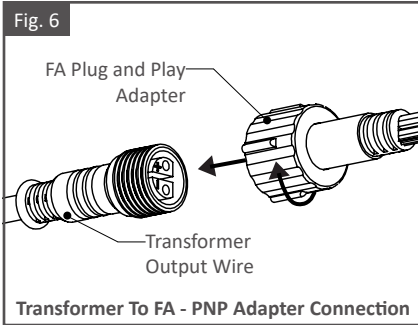
Step 2: Install Smart Controller (If Applicable)

1. Connect the FA-PNP Adapter to the transformer output wire with the threaded connector. As shown in Fig. 6.
2. Connect the FA-PNP Adapter to the Smart Controller input wire. As shown in Fig. 7.
3. Place Smart Controller in desired location and use the provided screws to mount. As shown in Fig. 8.

Tip:

- Place the Smart Controller in a location that allows for wires to be easily hidden and fed through to the under side of the deck.
- Controller is designed to be mounted onto multiple surfaces (Wall, Post etc).
- If mounted onto post, input and output wires can be fed and hidden inside post.
- It is critical to maintain polarity when making connections. As shown in Fig. 9.

- In addition to the Smart Controller, the FortressAccents PNP system also offers an additional Remote Controller. As shown in Fig. 10.

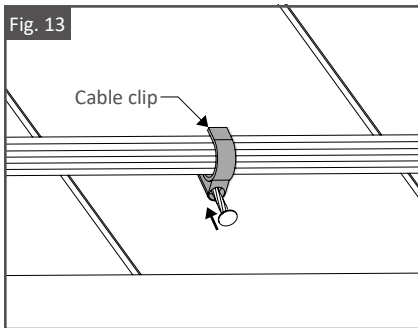
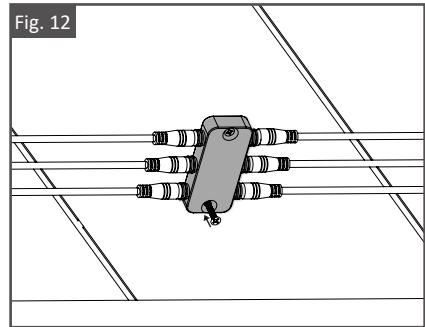
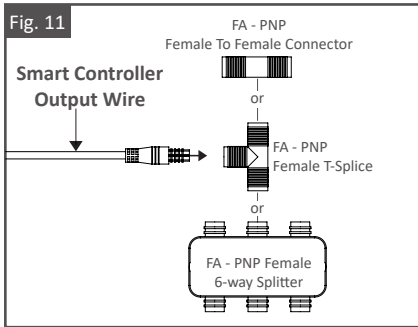


Step 3: Connect Wires

1. Feed the Smart Controller output wire to the underside of the deck.
2. Secure Smart Controller output wire to desired wire connector. As shown in Fig. 11.
3. Build out wire connections based on the wire layout designed in the project planning steps on pages 6 & 7.

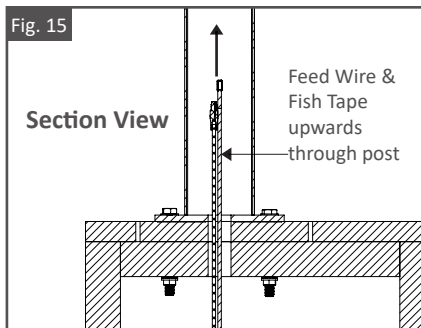
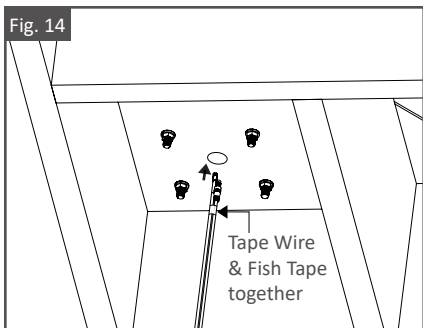
Tip:

- The FA - PNP Female 6-way Splitter can be mounted to the under side of the deck using the provided screws. As shown in Fig. 12.
- Organize and manage wires by using Cable Clips. As shown in Fig. 13.
- Before starting wire connections, survey underside of deck and determine best locations to mount the FA - PNP Female 6-way Splitter and Cable Clips.
- A male-to-male wire will be required if creating a connection between two connectors. Reference connector options on page 5.



Step 4: Feed Wires Through Post or deck cut out

1. Tape the Wire and the Fish Tape together.
2. Feed Fish Tape and Wire upward through the deck cutout and post. As shown in Fig. 14 & 15.



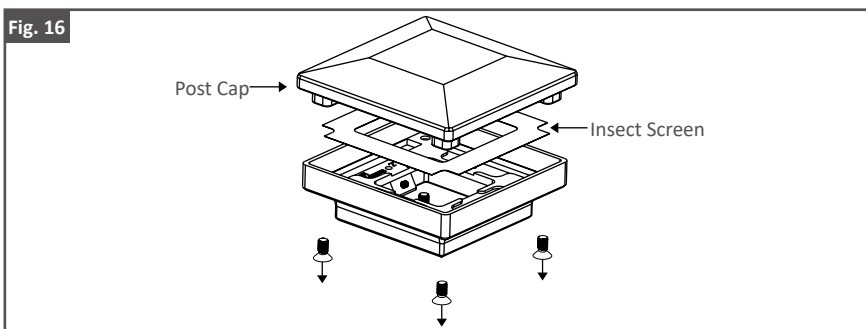
INSTALLATION (METAL POST): FLAT PYRAMID CAP - NO LIGHTS (2" [51mm] & 3" [76mm])

Step 1: Dis-assemble Flat Pyramid Cap

1. Remove the 4 machine screws, located at each corner. As shown in Fig. 16.
2. Remove the Post Cap and Insect Screen. **DO NOT** discard the screws.

Note:

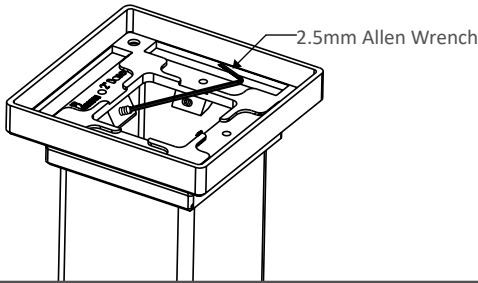
- The following components are included with the FortressAccents Flat Pyramid Caps: Post Cap, Post Cap Base, Insect Screen, 4 - Machine Screws, 4 - Hex Head Set Screws, and a 2.5mm Hex Wrench.



Step 2: Mount Post Cap Base

1. Mount the Post Cap Base onto the post.
2. Using the supplied 2.5mm Allen Wrench, tighten the four set screws. As shown in Fig. 17.
3. Adjust the screws to center and level the Post Cap on the post.

Fig. 17



Step 3: Install Post Cap

1. Place the Insect Screen back onto Post Cap Base. Position the Post Cap onto the Post Cap Base. As shown in Fig. 18.
2. Secure Post Cap with the 4 Machine Screws that were removed in step 1. As shown in Fig. 19.

Fig. 18

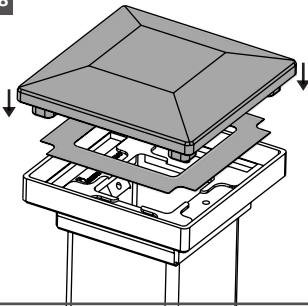
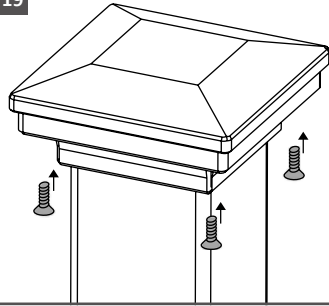


Fig. 19



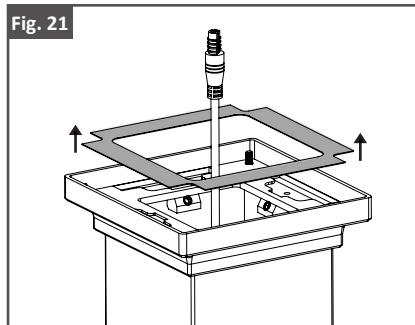
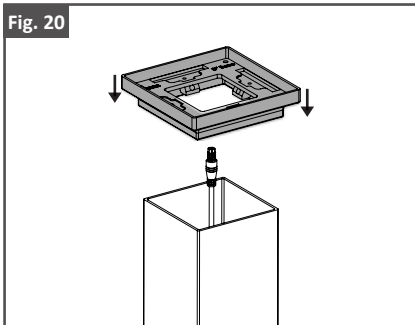
INSTALLATION (METAL POST): LED CAP LIGHT KIT

Step 1: Install Post Cap Base

1. Mount the Post Cap Base onto the post. As shown in Fig. 20.
2. Reference step 2 “Mount Post Cap Base” on pages 12 & 13 for instructions on how to secure the Post Cap Base to the Post.
3. Remove the Insect Screen from the FortressAccents Post Cap Base. As shown in Fig. 21.

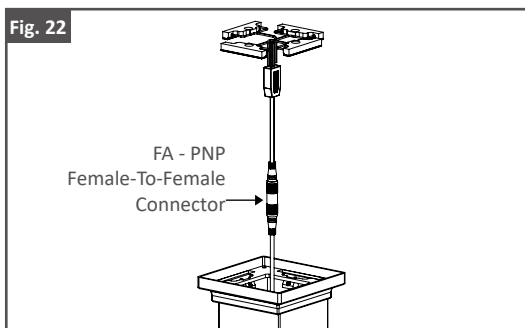
Note:

- An LED Cap Light Kit and LED Glow Ring can be installed together in the same FortressAccents Flat Pyramid Cap for cap sizes greater than 2” [51mm].



Step 2: Connect Light Wire To LED Cap Light Kit Wire

1. Connect wires by using a FA - PNP Female-To-Female Connector. As shown in Fig. 22. Wire connections can also be made below the deck surface.
2. Once connected, tuck excess wires into post.



Step 3: Mount LED Cap Light Kit

1. Insert each LED Cap Light into a slot hole on the Post Cap Base with the LED's facing down. As shown in Fig. 23.
2. Secure the LED Cap Light Kit with provided screw. As shown in Fig. 24.

Tip:

- If a slot hole in the Post Cap Base will not be used to emit light, mount the appropriate Cap Light flipped upside down with the light facing up. As shown in Fig. 25. This will allow the slot hole to be covered while also stop the Cap Light from emitting light.

Fig. 23

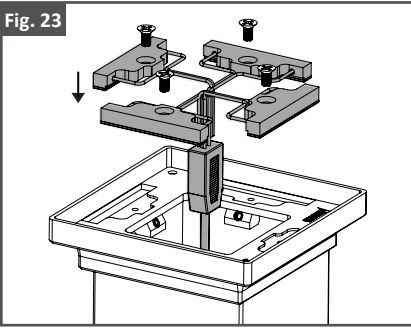


Fig. 24

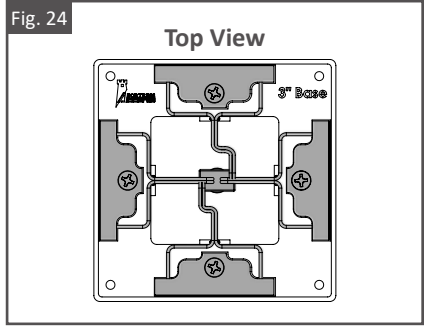
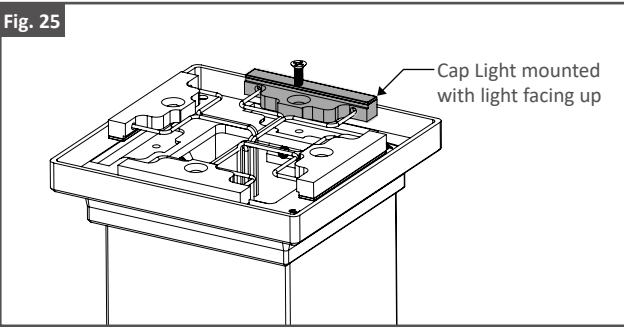


Fig. 25



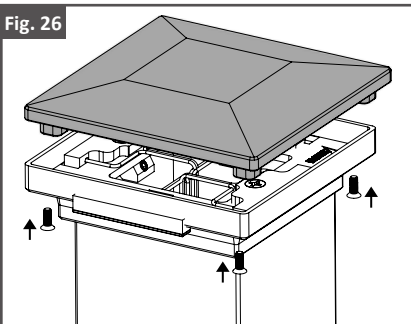
Step 4: Install Post Cap

1. Turn on the Smart Controller (if applicable) to turn on the lights and verify that the wiring is correct.
2. Position the Post Cap onto the Post Cap Base.
3. Secure the Post Cap onto the Post Base Cover with the provided 4 Machine Screws. As shown in Fig. 26.

Tip:

- If using Smart Controller, reference pages 27 - 30 for Tuya Smart app pairing process.
- If not using Smart Controller, lights can be turned on by plugging transformer plug into GFCI Outlet.

Fig. 26



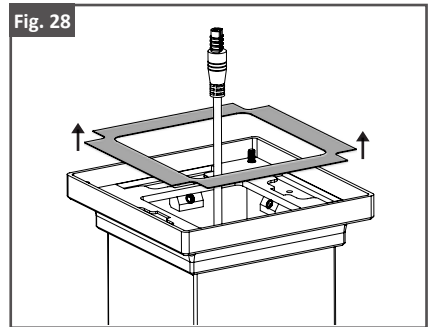
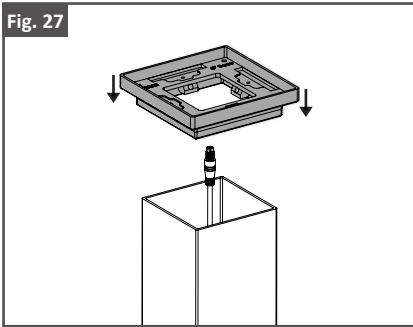
INSTALLATION (METAL POST): LED GLOW RING

Step 1: Install Post Cap Base

1. Mount the Post Cap Base onto the post. As shown in Fig. 27.
2. Reference step 2 “Mount Post Cap Base” on pages 12 & 13 for instructions on how to secure the Post Cap Base to the Post.
3. Remove the Insect Screen from the FortressAccents Post Cap Base. As shown in Fig. 28.

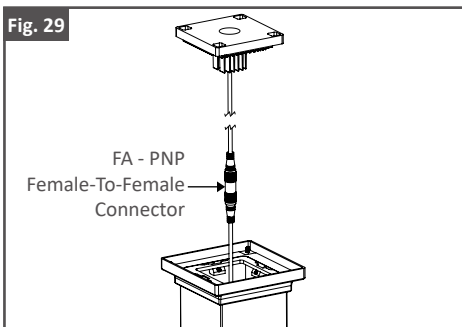
Note:

- An LED Glow Ring and LED Cap Light Kit can be installed together in the same FortressAccents Flat Pyramid Cap for cap sizes greater than 2” [51mm].



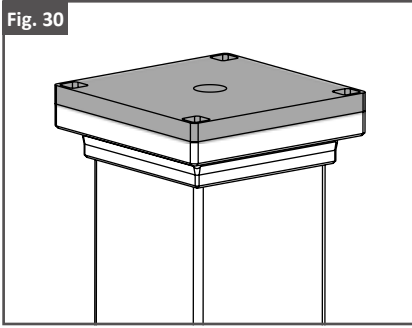
Step 2: Connect Light Wire To LED Glow Ring Wire

1. Connect wires by using a FA - PNP Female-To-Female Connector. As shown in Fig. 29. Wire connections can also be made below the deck surface.
2. Once connected, tuck excess wires into post.



Step 3: Test Fit LED Glow Ring

2. Bottom edge of LED Glow Ring lens will sit flat on the top edge of Post Cap Base. If there is a gap, adjust the screws to allow for proper fit of LED Glow Ring lens. Protect edges of LED Glow Ring lens from scratching during installation.

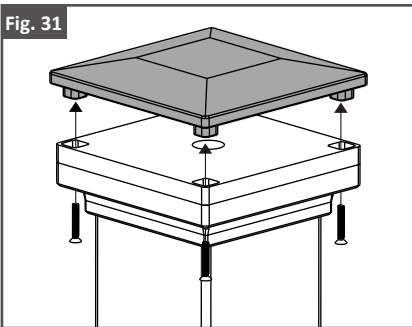


Step 4: Install Post Cap

1. Before installing the post cap, recheck the fit of the LED Glow Ring on to the Post Cap Base.
2. Turn on the Smart Controller (if applicable) to turn on the lights and verify that the wiring is correct.
3. Align the Post Cap screw bosses with the holes located at each corner of the LED Glow Ring.
4. Install the Post Cap Cover with the fasteners provided with the LED Glow Ring. As shown in Fig. 31.

Tip:

- If using Smart Controller, reference pages 27 - 30 for Tuya Smart app pairing process.
- If not using Smart Controller, lights can be turned on by plugging transformer plug into GFCI Outlet.



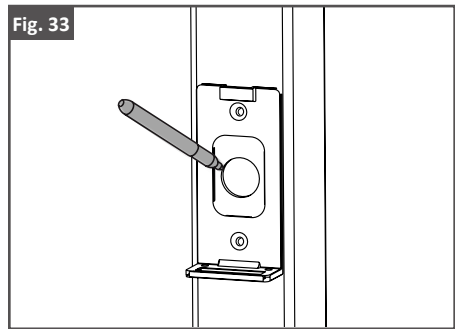
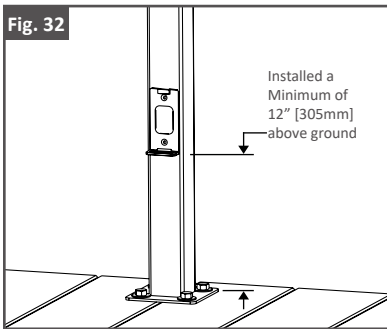
INSTALLATION (METAL POST): LED VERTICAL POST LIGHT

Step 1: Drill LED Vertical Post Light Wire Hole

1. Place the LED Vertical Post Light Base on the post at the desired location. The LED Vertical Post Light should be installed a minimum of 12" [305mm] above ground level. As shown in Fig. 32.
2. Using a pencil, trace the hole pattern onto the post. As shown in Fig. 33.
3. Mark the center point of the hole pattern and drill a 1/2" [13mm] diameter hole in post.

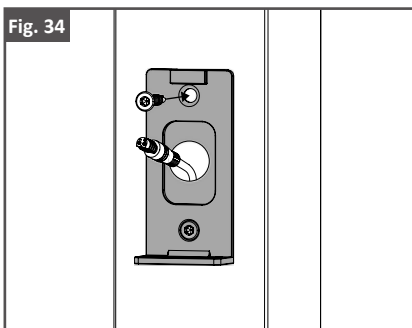
Tip:

- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.



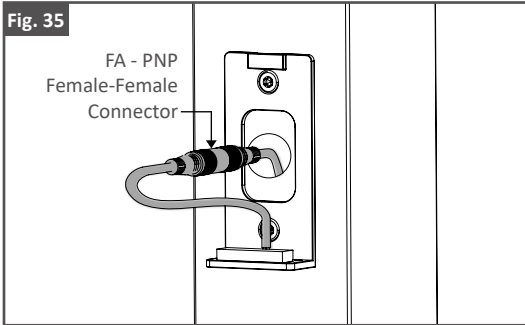
Step 2: Mount LED Vertical Post Light Base

1. Pre-drill screw holes using a 5/32" [4mm] drill bit.
2. Attach LED Vertical Post Light Base to post with supplied screws then feed wire through post cutout. As shown in Fig. 34.



Step 3: Connect Light Wire To LED Vertical Post Light Wire

1. Connect wires by using a FA - PNP Female-To-Female Connector. As shown in Fig. 35. Wire connections can also be made below the deck surface.

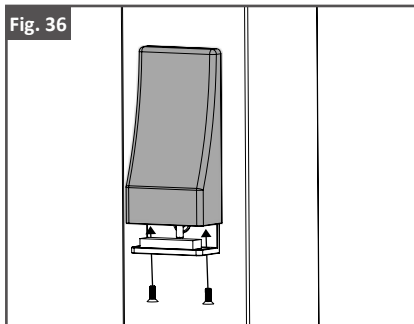


Step 4: Install LED Post Vertical Post Light Cover

1. Tuck wires inside post cutout.
2. Place LED Vertical Post Light Cover over the installed LED Vertical Post Light Base and slide downward until cover is fully in place.
3. Turn on the Smart Controller (if applicable) to turn on the lights and verify that the wiring is correct.
4. Using the two supplied machine screws, secure the cover to the base. As shown in Fig. 36.

Tip:

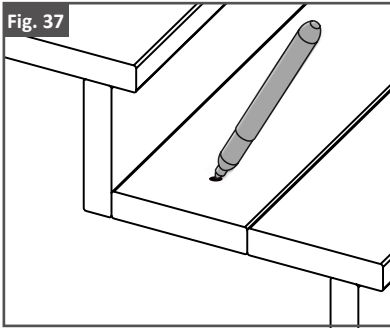
- If using Smart Controller, reference pages 27 - 30 for Tuya Smart app pairing process.
- If not using Smart Controller, lights can be turned on by plugging transformer plug into GFCI Outlet.



INSTALLATION (METAL POST): LED SURFACE MOUNT LIGHT

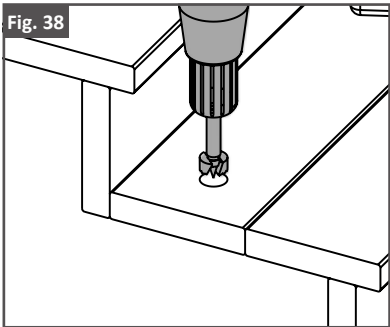
Step 1: Mark Desired LED Surface Mount Light location

1. Place the LED Surface Mount Light in the desired location.
2. Using a pencil, mark the center point. As shown in Fig. 37.



Step 2: Drill LED Surface Mount Light Hole

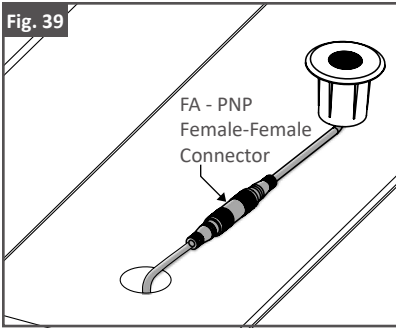
1. Using a Forstner Bit, drill a 1" [25mm] hole on the previously marked center point. As shown in Fig. 38.



Step 3: Connect Light Wire To LED Surface Mount Light Wire

1. Connect wires by using a FA - PNP Female-To-Female Connector. As shown in Fig. 39. Wire connections can also be made below the deck surface.

Fig. 39



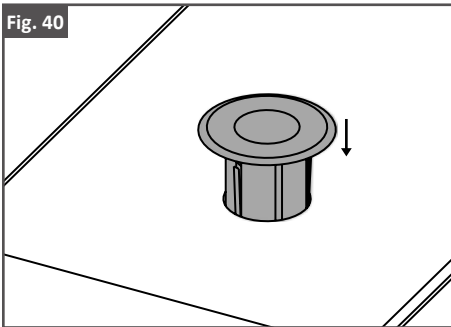
Step 4: Install LED Surface Mount Light

1. Feed excess wires through the 1" [25mm] hole then insert LED Surface Mount Light into hole. As shown in Fig. 40.
2. Turn on the Smart Controller (if applicable) to turn on the lights and verify that the wiring is correct.
3. Using a rubber mallet tap the light into the hole until the LED Surface Mount Light flange is flush with the deck surface.

Tip:

- If using Smart Controller, reference pages 27 - 30 for Tuya Smart app pairing process.
- If not using Smart Controller, lights can be turned on by plugging transformer plug into GFCI Outlet.

Fig. 40



INSTALLATION (WOOD POST): FLAT PYRAMID CAP - NO LIGHTS

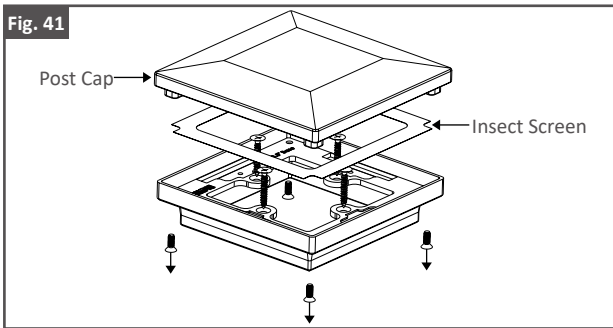
3-1/2" [89mm], 4" [102mm], 5" [127mm] & 6" [152mm]

Step 1: Disassemble Flat Pyramid Cap

1. Remove the 4 Machine Screws, located at each corner. As shown in Fig. 41.
2. Remove the Post Cap and Insect Screen. **DO NOT** discard the screws.

Note:

- The following components are included with the FortressAccents 3-1/2" [89mm], 4" [102mm], 5" [127mm], and 6" [152mm] Flat Pyramid Caps: Post Cap, Post Cap Base, Insect Screen, 4 - Machine Screws, and 4 - #10 X 3/4" [19mm] Wood Screws. Note: 5" [127mm] and 6" [152mm] Flat Pyramid Caps include a Composite Adapter with 4 - Pan Head Machine Screws.



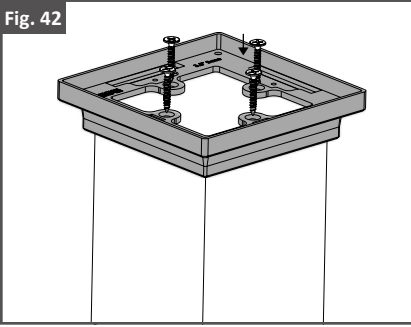
Step 2: Mount Post Cap Base

1. Mount the Post Cap Base onto the post.
2. Using a pencil, mark hole locations.
3. Pre-drill holes with a 1/8" [3mm] drill bit.
4. Using the 4 supplied #10 X 3/4" [19mm] Wood Screws, attach the Post Cap Base to post. As shown in Fig. 42.

Note:

- If the Flat Pyramid Cap is being installed on a vinyl post without a wood post insert, use a silicone adhesive to secure the Post Cap Base.

Fig. 42



Step 3: Install Post Cap

1. Place the Inset Screen back onto Post Cap Base. Position the Post Cap onto the Post Cap Base. As shown in Fig. 43.
2. Secure Post Cap with the 4 Machine Screws that were removed in step 1. As shown in Fig. 44.

Note:

- If installing FortressAccents 5" [127mm] or 6" [152mm] Flat Pyramid Caps, the adapter can be removed. As shown in Fig. 45. This allows the cap to fit composite posts up to 5" [127mm] and rough cut wood posts up to 6-1/8" [156mm].

Fig. 43

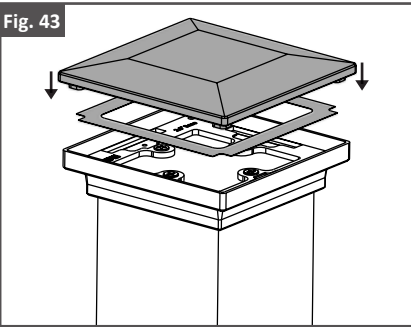


Fig. 44

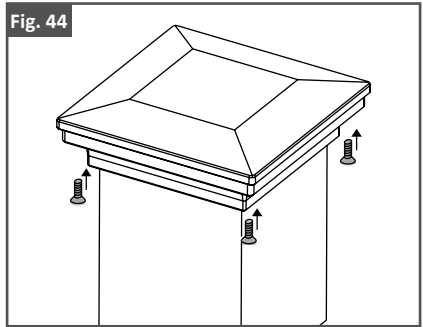
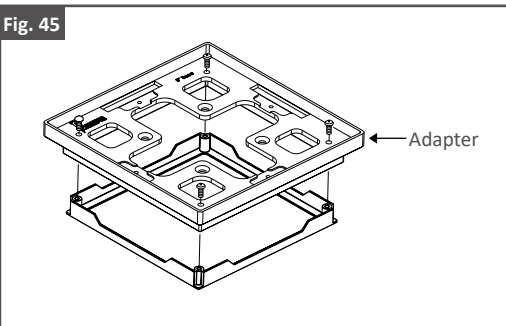


Fig. 45



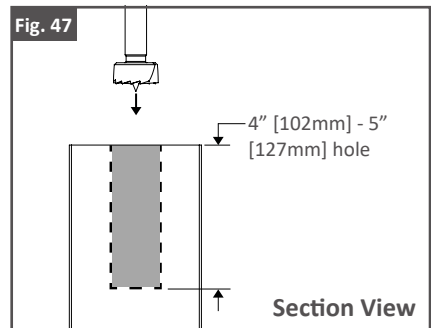
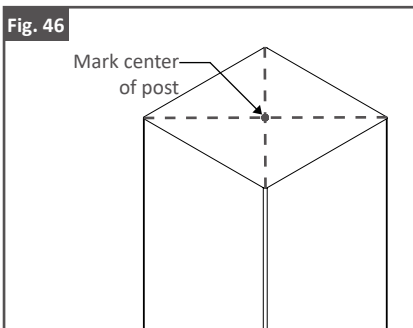
INSTALLATION (WOOD POST): LED LIGHTING

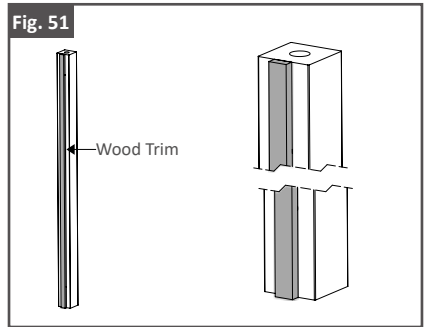
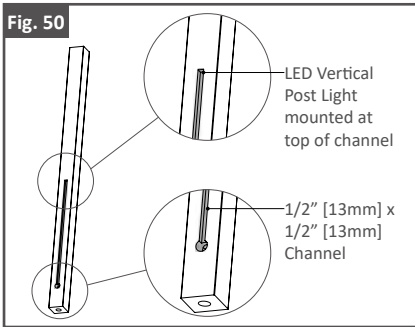
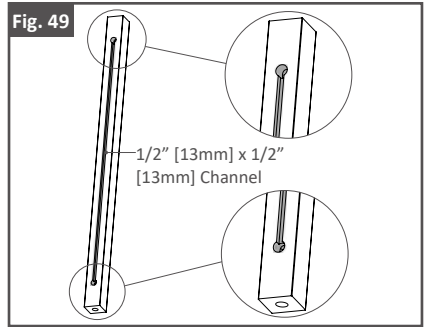
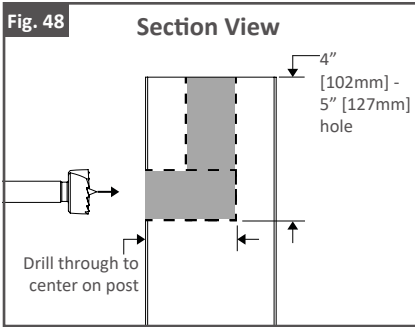
Step 1: LED Glow Ring, LED Cap Light & LED Vertical Post Light

1. Mark center of top face of post. As shown in Fig. 46.
2. Using a Forstner Bit, drill a 4" [102mm] - 5" [127mm] hole on previously marked center point. As shown in Fig. 47.
3. On a desired side face, measure and mark 4" [102mm] - 5" [127mm] from the top edge of post.
4. Using a Forstner Bit, drill a hole to the center of the post. As shown in Fig. 48.
5. Repeat process for bottom half of wood post. This would allow wire to be fed underneath the deck.
6. Cut a 1/2" [13mm] x 1/2" [13mm] channel between drilled holes on side face of post. As shown in Fig. 49.
7. If installing an LED Vertical Post Light, **DO NOT** drill the top of the post. Drill bottom of post and create a channel along a desired side face of post. Light will be mounted at the top of channel. As shown in Fig. 50.
8. Once wire is fed through post and lighting is installed, use wood trim to cover channel and hide exposed wire. As shown in Fig. 51.

Note:

- Reference LED Glow Ring instructions on pages 13 - 15.
- Reference LED Cap Light Kit instructions on pages 15 - 17.
- Reference LED Vertical Post Light instructions on pages 18 & 19.
- When installing LED Vertical Post Light Base on wood surfaces, pre-drill screw holes using a 1/16" [2mm] drill bit

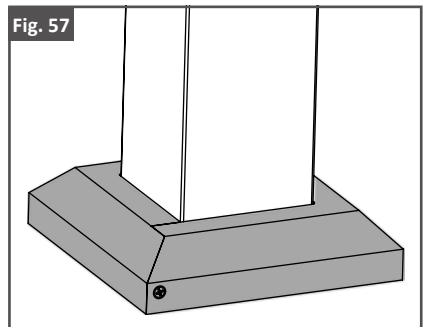
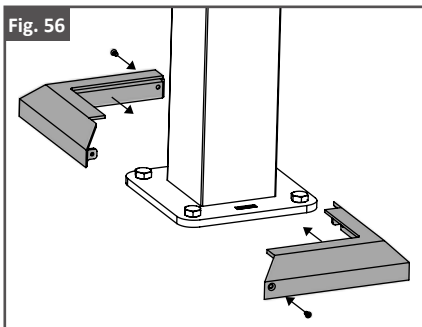




INSTALLATION: POST BASE COVER (3-1/2" [89mm], 4" [102mm], 5" [127mm] & 6" [152mm] POSTS)

Step 1: Install Post Base Cover

1. Dis-assemble Post Base Cover.
2. Assemble and mount Post Base Cover to the posts with supplied screws. As shown in Fig. 56 & 57. Use low speed setting on drill.



INSTALLATION: SCREW-LESS POST BASE COVER (2" [51mm] & 3" [76mm] POSTS)

Step 1: Install Post Base Cover

1. Separate the two-piece base plate cover. Hold one side parallel to the post base plate. As shown in Fig. 58.
2. Place 2nd half of the post base cover on the opposite side of the post. Hold 2nd piece slightly under the 1st piece. As shown in Fig. 59.
3. Twist the 2nd cover ¼ turn and move piece until both half's touch. As shown in Fig. 60.
4. Make sure one of the locking pins on the 2nd cover engage with the proper slot on the 1st cover piece. As shown in Fig. 61.
5. Once the first locking pin is started, turn the 2nd cover piece back parallel to the post base plate. One you have confirmed both locking pins have engaged with the opposing slots lower both half's over the post base plate. As shown in Fig. 62.

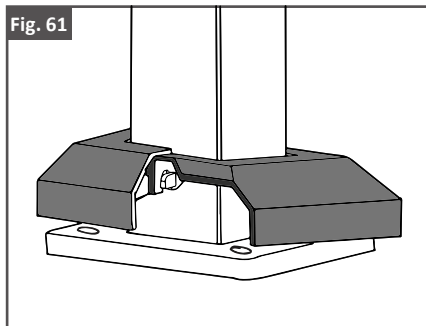
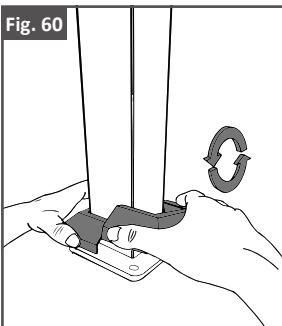
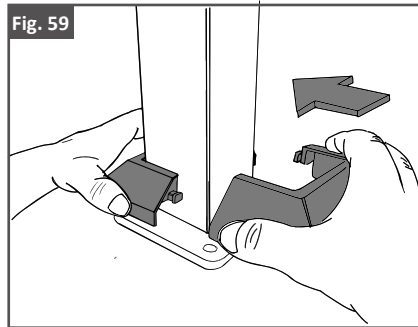
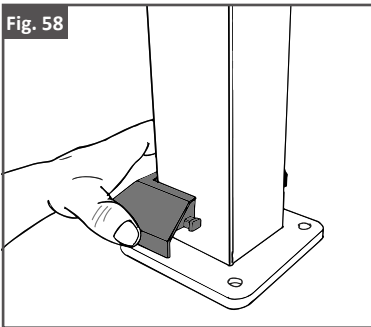
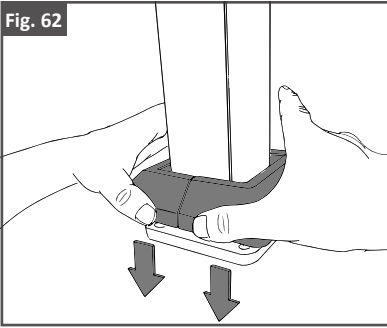


Fig. 62



INSTALLATION: TUYA SMART APP FOR SMART CONTROLLER **(If applicable)**

Step 1: Pair Tuya Smart App to Smart Controller

1. Scan QR code in Fig. 63, or on Smart Controller packaging, then Sign up/Log into Tuya Smart app.
2. Hold down power button on Smart Controller until the wired FortressAccents lighting start flashing; this will signal the Smart Controller is in pairing mode.
3. On the Tuya Smart app, go to the home page and click “Add device” or “+” in top right corner. As shown in Fig. 64.
4. The Tuya Smart app allows you to manually add your device or auto scan. To add the Smart Controller, it is recommended to use the “Auto scan” tab.
5. Before starting the auto scan, be sure to enable permissions for scanning devices - turn on location, Bluetooth and WiFi. As shown in Fig. 65 & 66.
6. While lighting is flashing, auto scan and select available device. As shown in Fig. 67.

Tip:

- It is recommended to have at least one LED light wired when pairing the Smart Controller to Tuya Smart app.

Fig. 63



Fig. 64

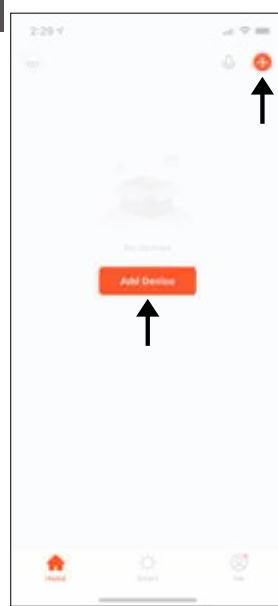


Fig. 65



Fig. 66



Fig. 67



Step 2: Tuya Smart App Navigation

- **Home Screen:** This screen allows you to manage your devices as well as add new devices. As shown in Fig. 68.
- **Smart Screen:** This screen allows you to create automated routine tasks for your lighting system. As shown in Fig. 69.
- **Profile Screen:** This screen allows you to manage your profile. As shown in Fig. 70.

Note:

- For complete Tuya Smart app navigation instructions please go to: <https://fortressbp.com/installation-guides> Tuya Smart app navigation instructions will be under “Lighting” Tab.

Fig. 68

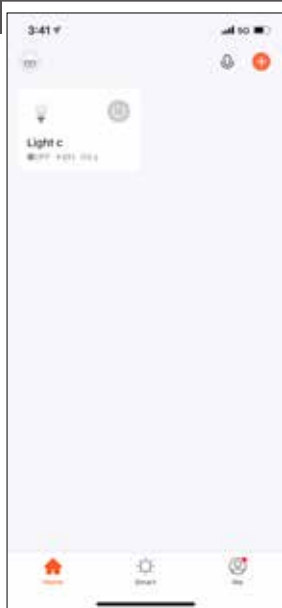


Fig. 69

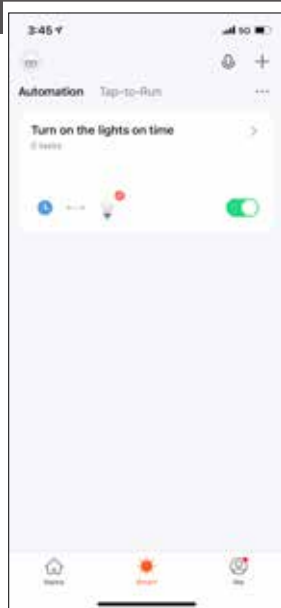
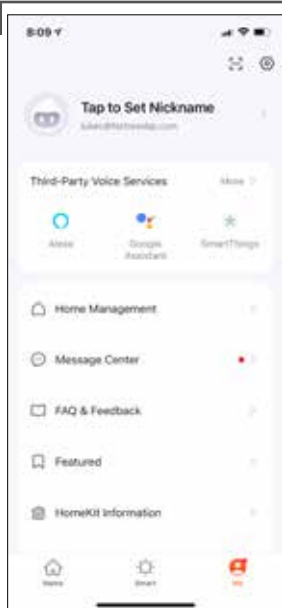


Fig. 70



CARE & MAINTENANCE

Care And Maintenance of Fortress Building Products Powder-Coated Products and Surfaces:

- Immediately after installation of your Fortress Building Products, clean powder-coated products and surfaces with a solution of warm water and non-abrasive, pH neutral detergent solution. Surfaces should be thoroughly rinsed after cleaning to remove all residues. All surfaces should be cleaned using a soft cloth or sponge.
- Ensure construction materials such as concrete, plaster, and paint splashes are removed immediately before they have a chance to dry. Failure to remove these materials may cause damage to the powder-coated surfaces.
- The frequency of cleaning depends in part on the standard of appearance and also the requirements to remove deposits that may cause damage to the powder coating after prolonged exposure. Fortress recommends cleaning in three to four monthly intervals all products and powder-coated surfaces. In areas where higher traffic, increased atmospheric substances, or other effects may occur, the time period between cleanings should be increased to monthly intervals.
- **WARNING: Do not use strong solvents such as thinners, or solutions containing chlorinated hydrocarbons, esters, or ketones. Abrasive cleaners or cutting compounds should not be used.**

WARRANTY

To obtain and review a copy of the warranty, please go to: <https://Fortressbp.com/warranties>. You can also contact: (844) 909-1999 or write to: Fortress Building Products Warranty, 1720 N 1st St, Garland, TX 75040 to obtain a copy of the warranty.



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