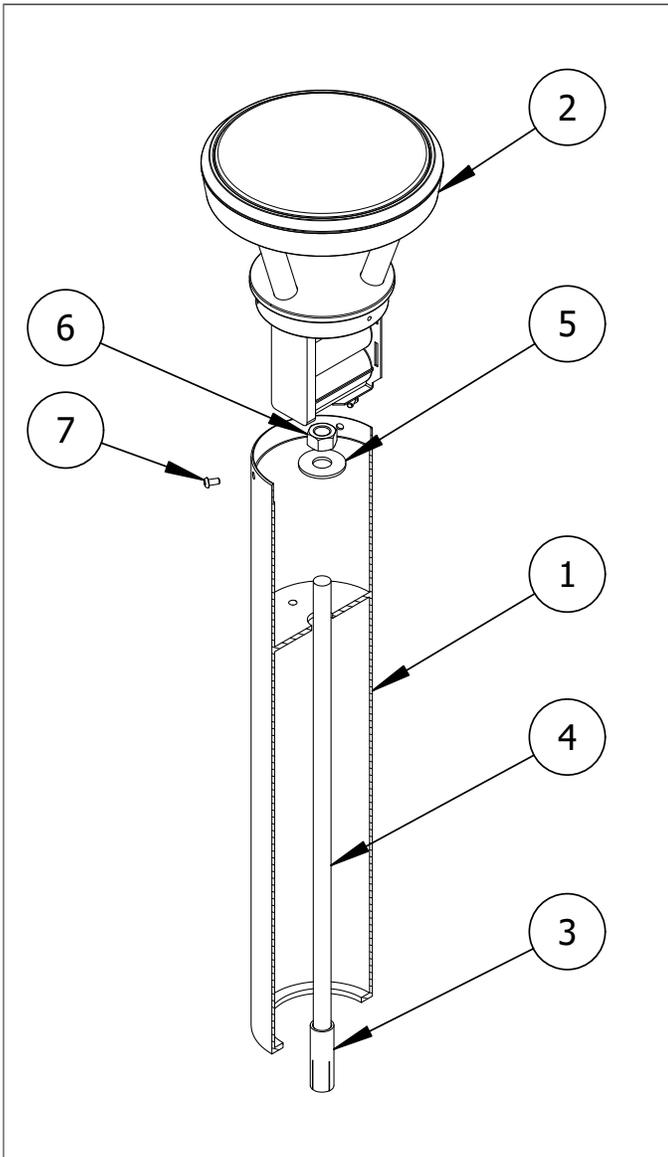


# Solar Bollard Installation

## Drop-In Concrete Insert

Bollards shown in the diagrams may not be the same model as the bollards shipped in this order. This does not affect the integrity of the installation.



### Parts List

#	PART	QTY
1	Bollard Base	1
2	Bollard Solar Light Cap	1
3	Drop-In Concrete Insert 3/4"	1
4	Threaded Rod 3/4"	1
5	Washer 3/4"	1
6	Hex Nut 3/4"	1
7	Tamper Resistant Button Head Bolt 1/4"	3

### Installation Equipment

Special Hex Key	Chalk
Broom/Pressure Washer	Hammer
1-1/8" Socket Wrench	Level
1" Masonry Drill Bit	Vacuum
3/4" Insert Setting Tool (or equivalent)	Measuring Tape
Hammer Drill or Rotary Hammer	

- 
 To protect the finish, keep bollards in original packaging until exact moment of installation.
- 
 Handle with care to avoid scratching or damaging bollard surfaces.
- 
 Once scratched, bollards cannot be repaired to original form without re-finishing the entire surface.

### Before Installation

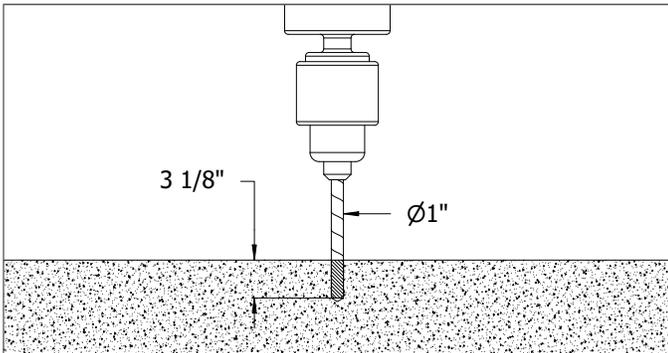
**STEP 1:** Always check for hazards such as water pipes, gas lines, and underground wiring before drilling.

**STEP 2:** Use a broom or pressure washer to clean the concrete surface prior to bollard installation.

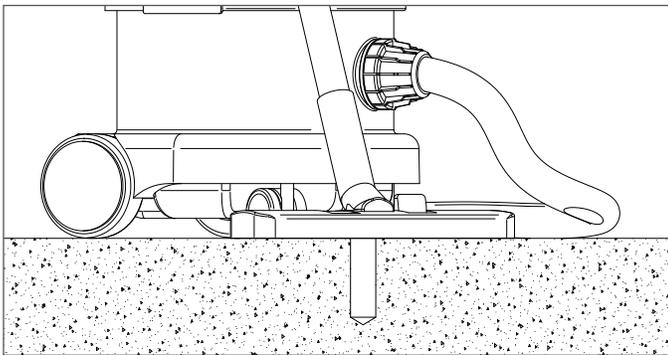
**STEP 3:** Study the site plans to locate and mark the precise center point of each bollard. For secure installation, ensure there is a minimum radius\* of solid concrete around each mark.

\*Concrete insert manufacturers such as [www.ucanfast.com](http://www.ucanfast.com) recommend a radius of 9"

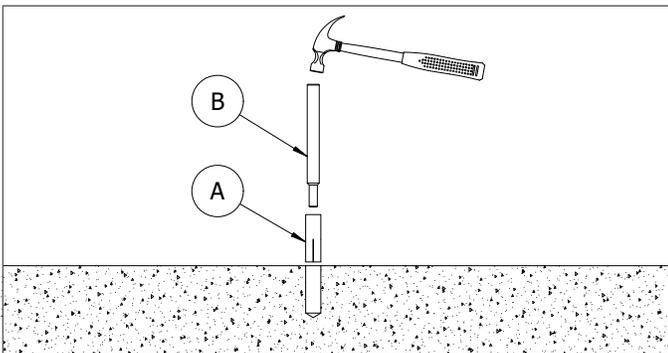
### STEP 6



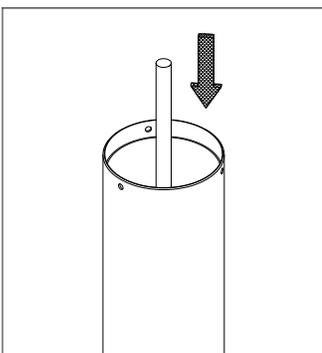
### STEP 7



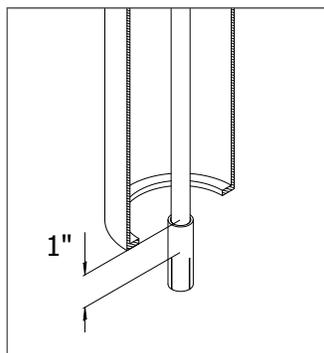
### STEP 8



### STEP 11



### STEP 12



### Drill the Hole

**STEP 4:** Tap a pilot divot hole in the center of each mark.

**STEP 5:** Set the depth control on the hammer drill (or rotary hammer) to 3-1/8". If depth control is not available, mark 3-1/8" on the masonry bit.

**STEP 6:** Drill a hole that has a 1" diameter and 3-1/8" depth. Drill on high speed, using the hammer function if available.

### Secure the Bollard

**STEP 7:** Clear the hole of all debris and/or standing water using the vacuum.

**STEP 8:** Tap the drop-in insert **(A)** into the hole with the slotted end facing down, and tap it down until its top sits flush with the concrete surface. Insert a setting tool **(B)** into the threaded hole, then hammer down. This will cause the internal expansion plug to set the concrete insert in place. *Note: If a proper setting tool is not available, an equivalent flat-end punch can be used.*

**STEP 9:** Keep the bollard in its protective packaging. Carefully place the bollard base near the installation position. When ready to install, remove the protective packaging.

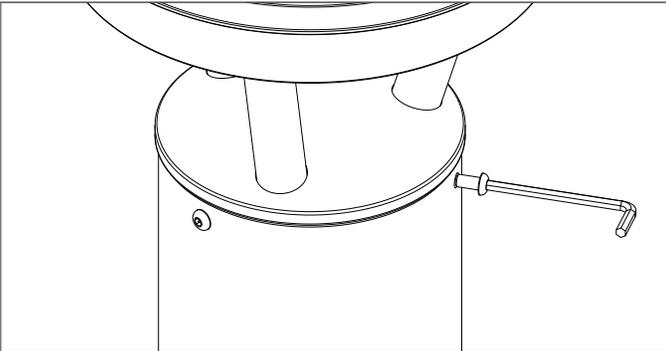
**STEP 10:** Set the bollard base upright and maneuver it so the center lines up with the threaded hole in the concrete insert.

**STEP 11:** Lower the threaded rod through the bollard base.

**STEP 12:** Continue to thread the rod into the concrete insert. Tighten\*\* the threaded rod by hand until it is secure in the concrete insert.

\*\* The manufacturer recommends tightening the threaded rod to a depth of approximately 1" into the concrete insert.

### STEP 17



**STEP 13:** Place the washer over the threaded rod so that it rests on top of the bollard. Apply the 3/4" hex nut to the threaded rod and tighten until the bollard is secure.

### Install the Solar Light Cap

**STEP 14:** Keep the lighting assembly still in its packaging and locate the battery's wire plug and connect to the 2-pin socket attached to the light fixture.

**STEP 15:** Once connected, the lighting fixture will run a test pattern and will flash for 3–5 seconds. *Note: If the light does not flash, please stop installation and contact Reliance Foundry's sales department for assistance.*

**STEP 16:** Remove solar light cap from its packaging. Place the solar light cap on top of the shaft of the bollard.

**STEP 17:** Secure the solar light cap to the bollard base with the three bolts and tighten equally. *Note: For asymmetrical lighting, consider the lighting pattern. When attaching the solar light cap, twist it to the desired lighting pattern before bolting down.*



**Inspect the installation.** Abrasions should be covered as soon as possible. For damage repair or other servicing needs, please contact Reliance Foundry's sales department.