

Tools Required

- 3/16" hex key (for non-solar bollard without sleeve)
- 1/4" hex key (for non-solar bollard with sleeve)

CAUTION! Fixtures and wiring must be installed in accordance with local codes and ordinances. Do not install lighted bollards within 10 feet of a pool, spa, or fountain.

NOTES:

- Locate bollard where solar light receives an average of 4 hours of direct sunlight per day. Avoid locations that would become shaded as the path of the sun changes with the seasons. Solar powered light is not suitable for installation at latitudes greater than 50 degrees.
- Landscape Forms is not responsible for site preparation, footings, or electrical wiring.
- The solar light should not be activated until the bollard is ready to be installed in a location where it will receive required exposure to sunlight.
- Failure to allow for proper drainage may void the standard Landscape Forms warranty.
- **COMPATIBILITY:** The solar retrofit top can replace the top casting on any 6" Annapolis bollard, except embedded bollards filled with concrete. Annapolis bollards with low-voltage lighting must be modified to accept the retrofit top, see Fig. 1.

PROCEDURE FOR INSTALLING SOLAR LIGHT RETROFIT TOP:

1. Remove the two top retaining screws.
2. Lift top casting out of bollard tube. This aluminum item should be recycled, if possible.
3. Connect red battery wire to red (positive) battery terminal, see Fig. 2.
4. Place retrofit top with solar light and battery on the bollard tube.
5. Align holes in top casting and optional sleeve with threaded holes for retaining screws. Use security screws provided with retrofit top and special pin-in-hex key to fasten top casting to bollard tube. Retaining screws should pass through holes in top casting.

ASSEMBLE WITH CARE! Pangard II® Polyester Powdercoat is a strong, long-lasting finish. To protect this finish during assembly, place unwrapped powdercoated parts on packaging foam or other non-marring surface. Do not place or slide powdercoated parts on concrete or other hard or textured surface – this will damage the finish causing rust to occur. Use touch-up paint on any gouges in the finish caused by assembly tools.

**PROCEDURE FOR MODIFYING BOLLARDS WITH HALOGEN LOW-VOLTAGE LIGHTING:
(SOLD PRIOR TO 5/2009)**

WARNING! TO REDUCE THE RISK OF FIRE OR INJURY TO PERSONS, **TURN OFF POWER** AND ALLOW FIXTURE TO COOL BEFORE PROCEEDING.

WIRING OPTIONS: Bollards selected for conversion to solar lighting can be modified without disconnecting power to other bollards on a low-voltage circuit.

1. Remove the two top retaining screws.
2. Lift top casting out of bollard tube. This aluminum item should be recycled, if possible.
3. Cut the fixture wire and seal the end of the wire on the supply side with a suitable insulating product, see Fig. 1.
4. Remove the light fixture sleeve by cutting two steel straps that support the sleeve. Bend remaining parts of the steel straps downward so they are close to the bollard wall.

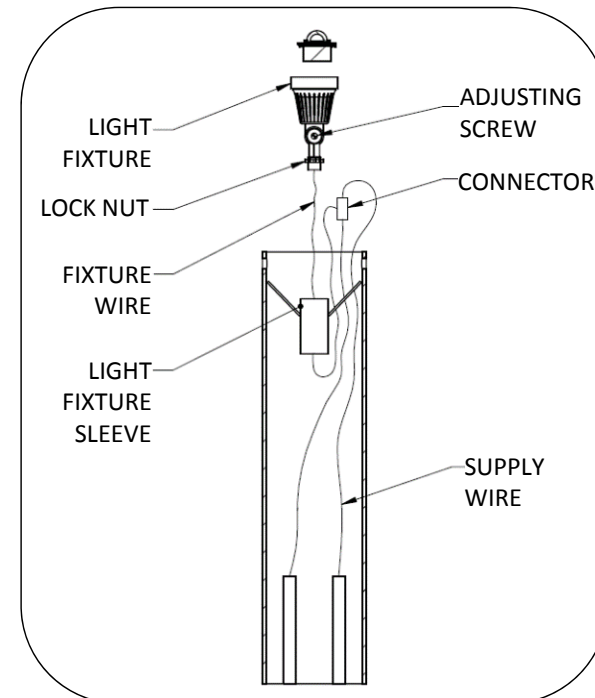


FIG.1 - MODIFYING LOW-VOLTAGE LIGHTING

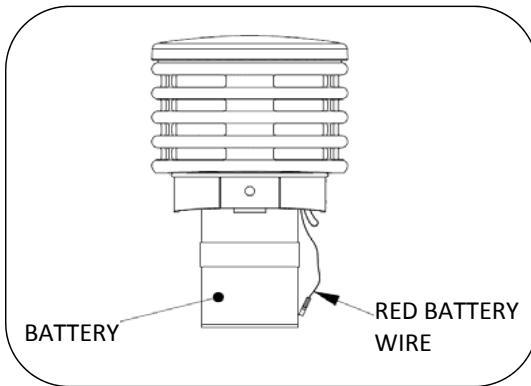


FIG.2 - BATTERY CONNECTION

WARNING! TO REDUCE THE RISK OF FIRE OR INJURY TO PERSONS, **TURN OFF POWER** AND ALLOW FIXTURE TO COOL BEFORE REPLACING LAMP. DO NOT TOUCH HOT LAMP, LENS OR ENCLOSURE.

PROCEDURE FOR REPLACING LED LIGHTS:

1. Remove the two top retaining screws and top casting, see Fig. 3.
2. Unscrew LED light fixture from the light bracket. Grasp LED light and wires, pull out sufficient wire to expose wiring connections. Disconnect wiring connections and set LED light aside.
3. Reconnect new LED light fixture to the wiring leads and tuck excess wires into bollard tube.
4. Reinstall LED light fixture to mounting bracket with two #8-32 x 1/2" button head cap screws.
5. Replace fixture cap and lower fixture into light fixture sleeve. Replace bollard top casting and top retaining screws. Top retaining screws should pass through holes in cast top.

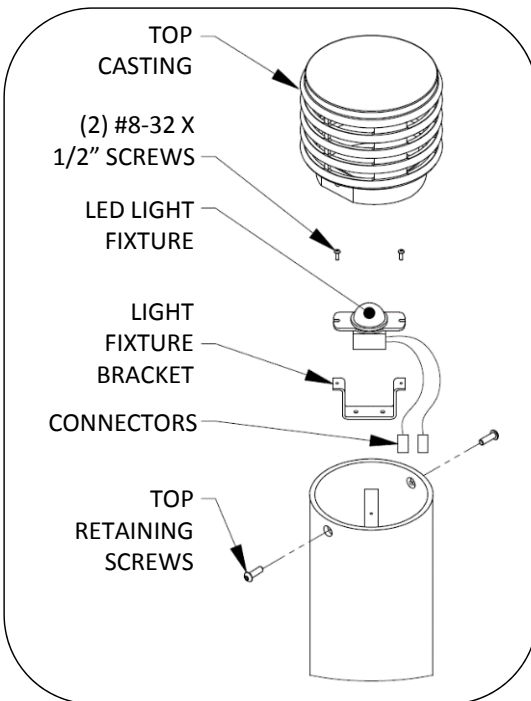


FIG.3 – REPLACING LED LIGHT DETAIL