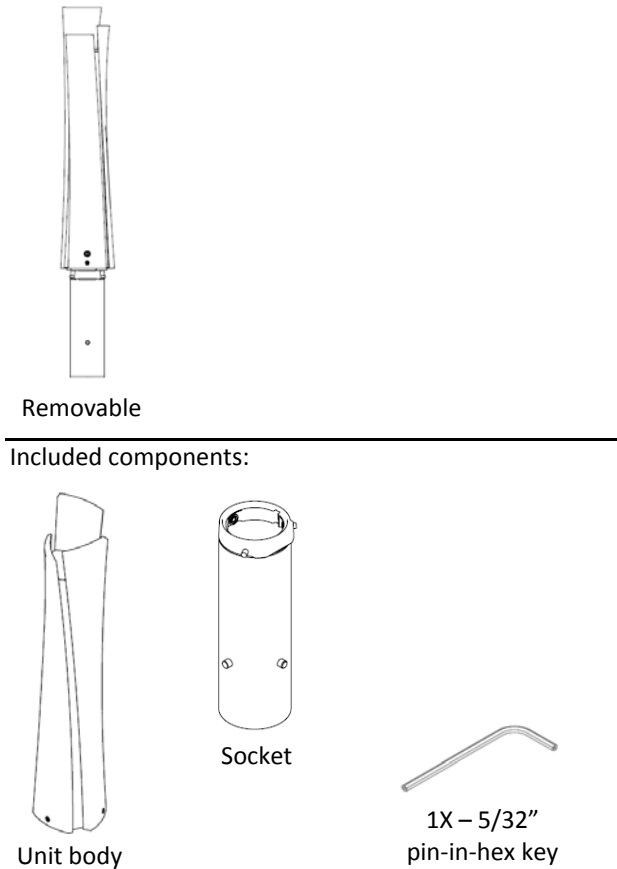


CAUTION! Fixtures and wiring must be installed in accordance with local codes and ordinances.

NOTES:

- Landscape Forms is not responsible for site preparation or footings.
- Failure to allow for proper drainage may void the standard Landscape Forms warranty.



Tools Required

- safety glasses
- 1/2" wrench for removable
- Drain

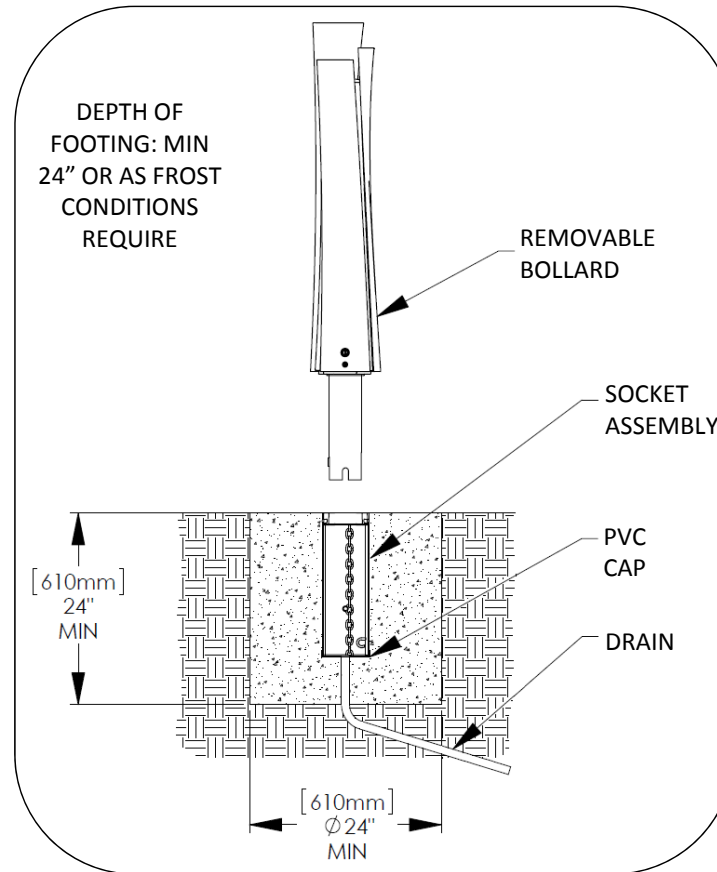


FIG. 1 - FOOTING DETAIL FOR REMOVABLE BOLLARD

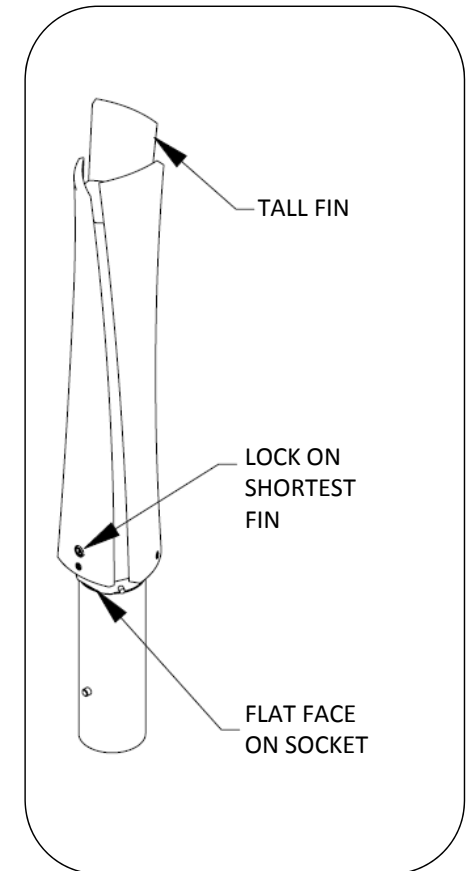


FIG. 2 - ORIENTATION OF BOLLARD

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.

WARNING! TO AVOID INJURY TO PERSONS HANDLING BOLLARD, USE TWO PEOPLE TO TEAM LIFT AND CARRY BOLLARD. Weight of bollard is 85lbs.

PROCEDURE FOR EMBEDDING THE REMOVABLE BOLLARD SOCKET:

1. Excavate for socket footing and install drain (see Figure 1). Depth of socket is 1'-6". Footing depth is the responsibility of the installer and should comply with local and national building codes. Frost depth should be taken into consideration. Landscape Forms recommends 24" minimum depth to fully retain the socket.
Failure to allow for proper drainage may void the standard Landscape Forms warranty.
2. Before pouring concrete, make sure the socket is plumb and in the correct orientation. The top of the socket should be flush with the top of the concrete after installation. NOTE: An alignment guide is built into the assembly. The alignment guide consists of a flat edge on one of the components. This flat edge aligns with the Front of the bollard. See Fig. 3.
3. Make sure lower end of socket is sealed to prevent concrete from entering. PVC cap may be cut to fit drain connection.
4. Cover top of socket to prevent concrete from entering.
5. Once the concrete has cured, the bollard tube cannot be moved. Plumb the bollard before pouring concrete. After pouring concrete around the bollard tube, re-check plumb.
6. Gently clean all concrete splatter off of the bollard tube. Allow concrete to fully cure.

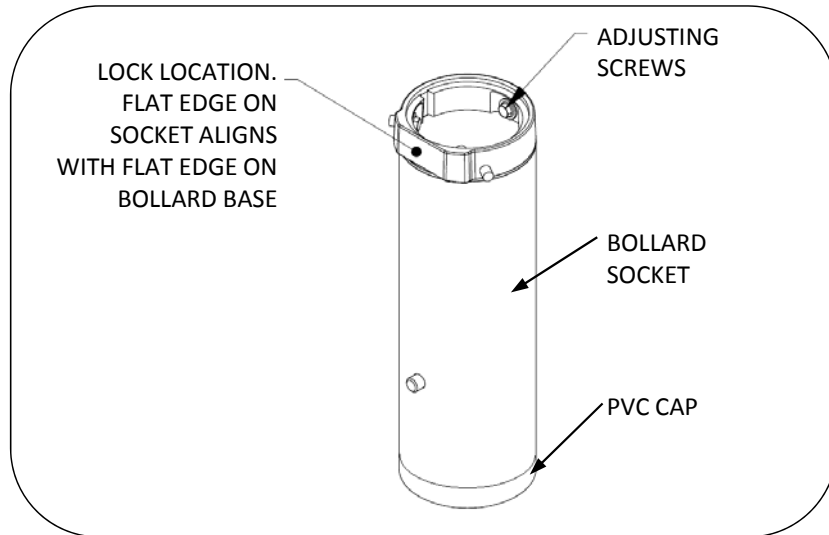


FIG. 3 - REMOVABLE BOLLARD ASSEMBLY

PROCEDURE FOR INSTALLING REMOVABLE BOLLARD:

1. Remove socket cover plate. (*Hint: use a flat blade screwdriver to pry up edge*)
2. Store socket cover plate below cross bar inside socket.
3. Use key to open bollard latch (key horizontal). Remove key.
4. Position bollard near socket and align 2 slots in bollard with bar in socket. The lock should be oriented on the same side as the flat alignment guide of the socket.
5. The bollard has a bottom bracket with a flat edge that should align with the flat edge on the socket. This is considered the front of the bollard.
6. Ease bollard into socket. Twist until bars fit into slots.

CAUTION! Dropping bollard into socket may damage bollard or socket.

7. Check bollard for level.
8. If the bollard is not level, carefully lift the bollard out of the socket.
9. Using the 1/2" wrench, adjust the 3 screws inside the socket to adjust bollard alignment and to improve the fit of the bollard inside the socket. The bolts have nylon patches to resist movement after installation. See Fig. 3.
10. Ease bollard into socket. Twist until bars fit into slots. Recheck level. Repeat steps 8 and 9 as necessary.
11. Use key to close latch (key will be vertical). Remove key.
12. Pull up on bollard tube assembly to insure latch is engaged.

PROCEDURE FOR REMOVING REMOVABLE BOLLARD:

1. Use key to open latch (key will be horizontal). Remove key.

WARNING! TO AVOID INJURY TO PERSONS HANDLING BOLLARD, USE TWO PERSONS TO TEAM LIFT AND CARRY BOLLARD. Weight of bollard is 85 lbs.

2. Carefully lift bollard out of socket and store on non-marring surface.
3. Retrieve socket cover plate from bottom of socket.
4. Place cover plate onto socket making sure it is sitting flat and below the socket surface.

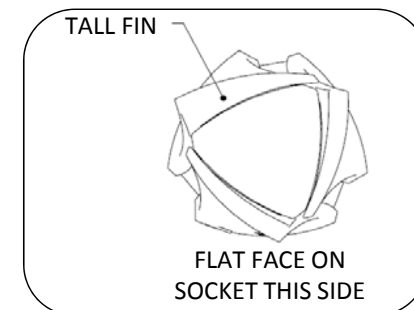


FIG. 4 – PLAN VIEW



Non-lit

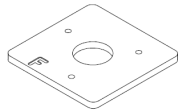


Lighted

Included components:



Unit body



Template, surface mount



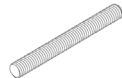
9X - 3/8-16 washer



9X - 3/8-16 hex nut



1X - 5/32" pin-in-hex key



3X - 3/8-16 x 3-1/2" threaded rod



3X - 3/8-16 concrete anchor

Tools Required

- safety glasses
- masonry drill with 5/8" dia bit
- compressed air and wire brush
- 9/16" wrenches
- Epoxy anchoring system for concrete
- 3/32 hex key for lighted option

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.

CAUTION! Fixtures and wiring must be installed in accordance with local codes and ordinances.

NOTES:

- Landscape Forms is not responsible for site preparation, footings, or electrical wiring.
- Failure to allow for proper drainage may void the standard Landscape Forms warranty.

WARNING!: LED cartridge and driver are not rated for connection or disconnection while energized. Doing so may damage LEDs and will void the warranty. Disconnect incoming power before making or breaking any electrical connections.

PROCEDURE FOR SURFACE MOUNT INSTALLATION, WITHOUT LIGHT:

2. Set the drill template in the desired position and mark hole locations. See Fig. 1 for orienting the template in the proper position.
3. Drill holes according to Fig. 2.
4. Using compressed air and wire brush, clear holes of debris.
5. Assemble the template, concrete anchor, hex nut and threaded rod as shown in Fig. 3.
6. Test fit anchors into holes. Make any adjustments to the holes as necessary to allow anchors to freely install. Anchors should sit centered in hole and not rest against the sides or bottom of the drilled holes.
7. Fill anchor holes with epoxy per epoxy manufacturer's recommendation.
8. Slowly set anchor template assembly into the holes. Wipe away any excess adhesive. Allow epoxy to cure.
9. Remove hex nuts from threaded rods. Remove template.
10. Install washer, two hex nuts and washer onto each threaded rod, see Fig. 5.
11. Using the pin-in-hex key provided, remove the three outer panels from the bollard. See Fig. 4. Once the screw is removed, gently lift up and out to remove the panel. Set aside on a protective surface.
12. Set bollard core over threaded rods. Install hex nut and washer, see Fig. 5.
13. Adjust the top two hex nuts as necessary to level unit.
14. Reattach the three outer panels.

PROCEDURE FOR INSTALLATION WITH LED LIGHT:

1. Complete steps 1-12 above.
2. Using 3/32" standard hex key, remove three screws as shown in Fig. 7.
3. Carefully lift cap up. Make wiring connections as required.
4. Gently set cap back into position and reattach the three screws.
5. Continue with step 13 above.

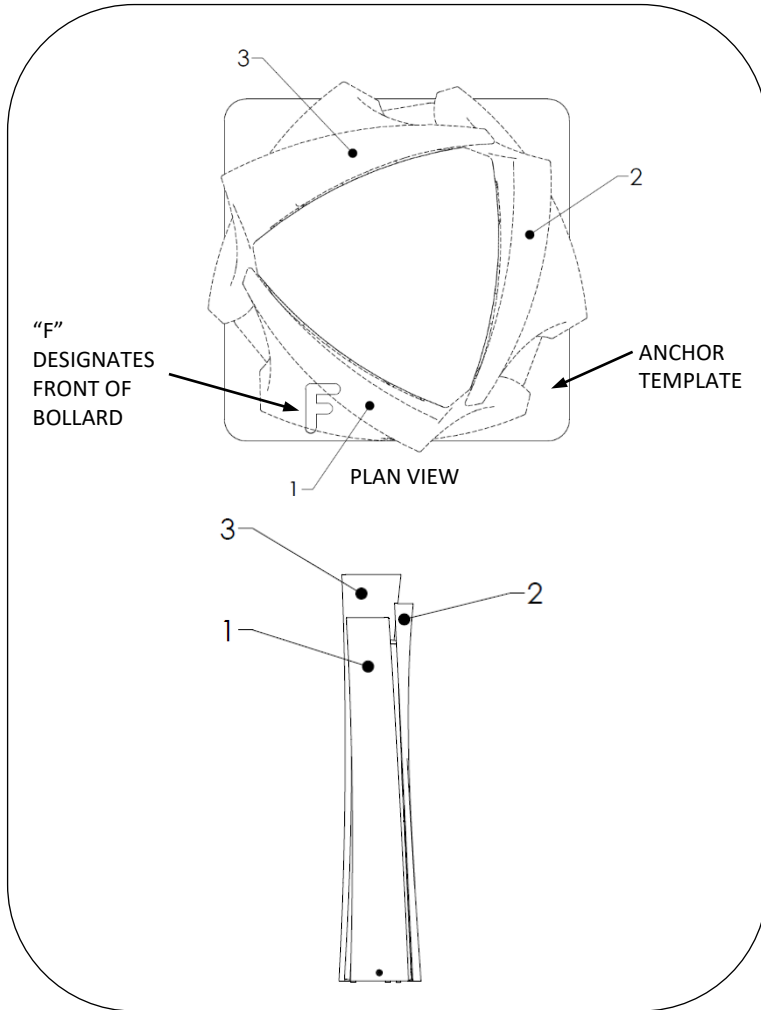


FIG. 1 – ORIENTATION OF BOLLARD AND DRILL TEMPLATE

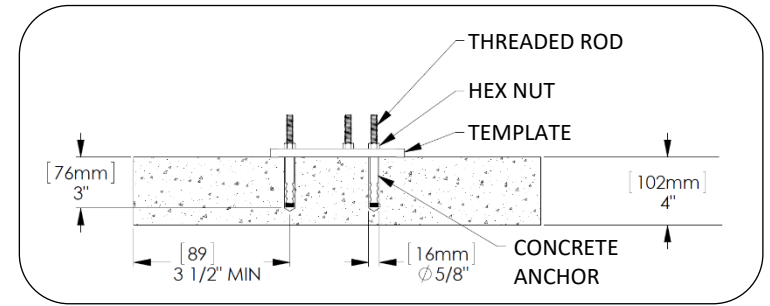


FIG. 2 – HOLE SIZE FOR SURFACE MOUNT BOLLARD

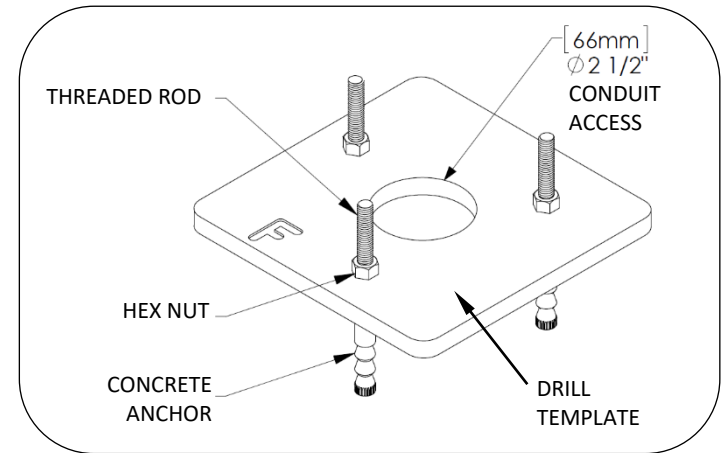


FIG. 3 – DRILL TEMPLATE ASSEMBLY

PROCEDURE FOR WIRING GUIDE:

The lighted version is assembled at the factory. The light cartridges are mounted to an inner core and will not need to be removed during installation. The LED cartridge is wired to the driver (located in the core) at the factory.

The following schematic is to be used to connect the unit to line voltage. It is the responsibility of the installer to make sure that all connections are made in accordance with the NEC and local building codes. Connection hardware not included.

WARNING! LED cartridge and driver are not rated for connection or disconnection while energized. Doing so may damage LEDs and will void the warranty. Disconnect incoming power before making or breaking any electrical connections.

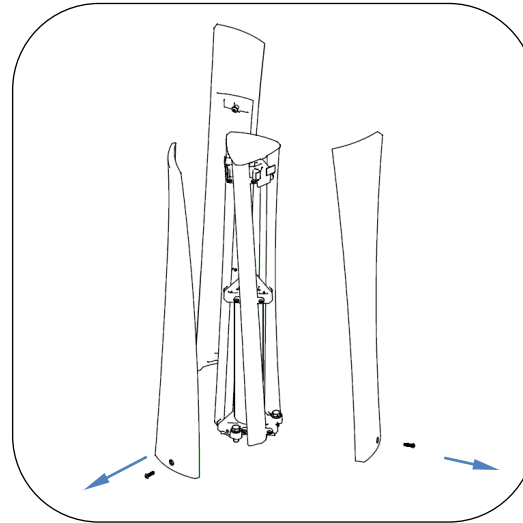


FIG. 4 – REMOVE OUTER PANELS

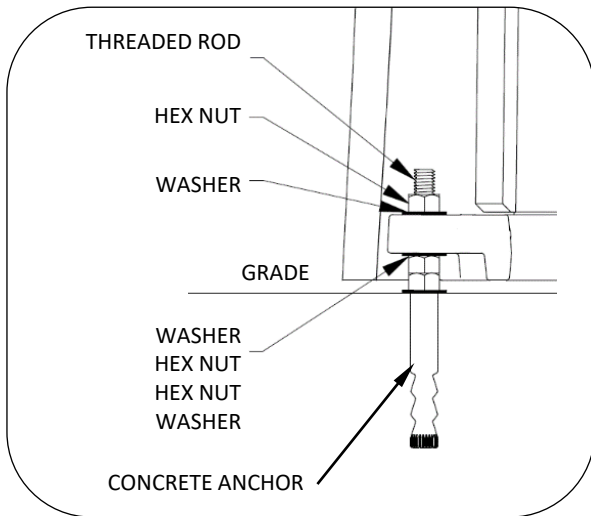


FIG. 5 – ANCHOR ASSEMBLY

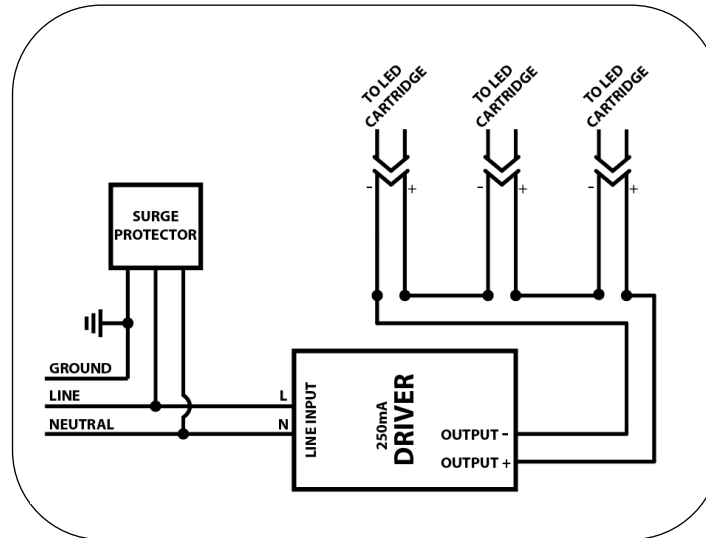


FIG. 6 – GUIDE WIRING DIAGRAM

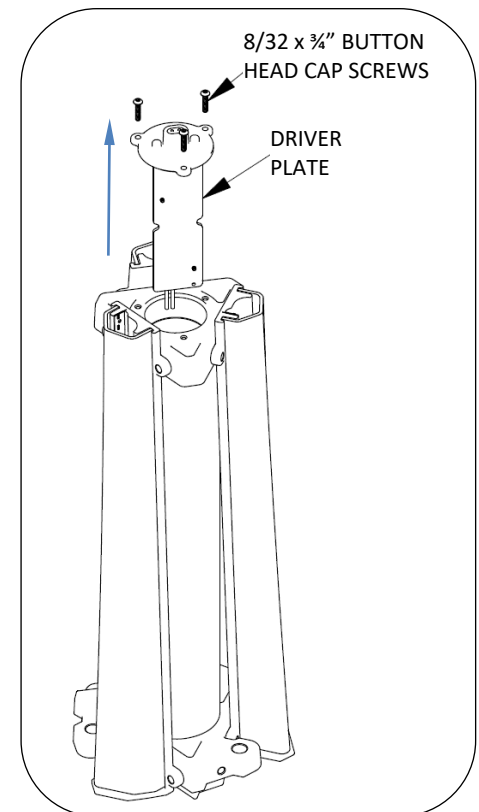


FIG. 7 – WIRING CONNECTION LOCATION