



Embedded bollard

Tools Required

- safety glasses
- blanket or protective padding
- level
- 5/32" hex key

NOTES:

- Landscape Forms is not responsible for site preparation or footings.

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 EMBEDDED INSTALLATION: Unit ships fully assembled.

1. Remove embedded tube from unit body by removing the four set screws at the bottom of the unit, see Fig. 1.
2. Set embedded tube in position. Brace tube and plumb before pouring concrete. Bottom of base flange should be flush with top of concrete. Place a section of rebar (not included) through hole in bottom of embedded tube, see Fig. 2.
3. Pour concrete footing around embedded tube. Recheck plumb. Adjust as necessary before concrete cures. Clean off any concrete from base flange. Allow concrete to fully cure.
4. Set unit body over base flange. Reinstall four set screws to secure body to embedded tube. Do not overtighten – head of set screw should be flush or just below face of bollard body.
5. Adjust button head screw at the base of the unit to reduce any movement in unit body, see Fig. 1.

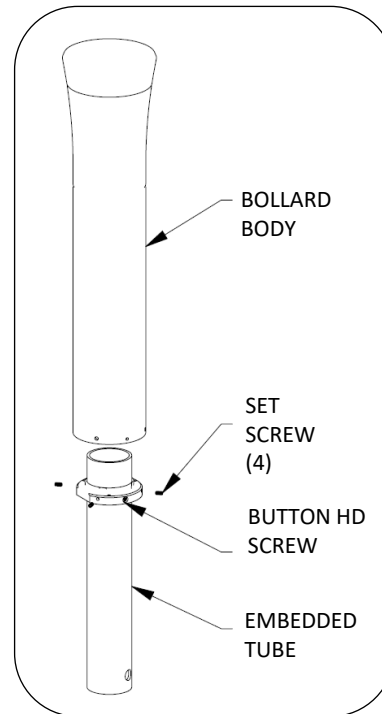


FIG. 1 – REMOVE BASE PLATE

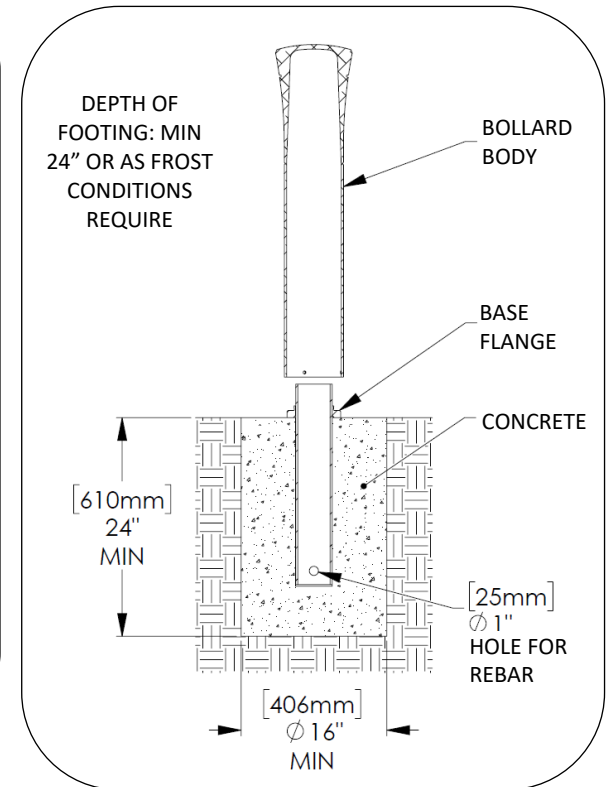


FIG. 2 – EMBEDDED FOOTING DETAIL



Included components:



Unit body



Socket

Tools Required

- safety glasses
- 1/2" wrench
- Drain

NOTES:

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- Failure to allow for proper drainage may void the standard Landscape Forms warranty.

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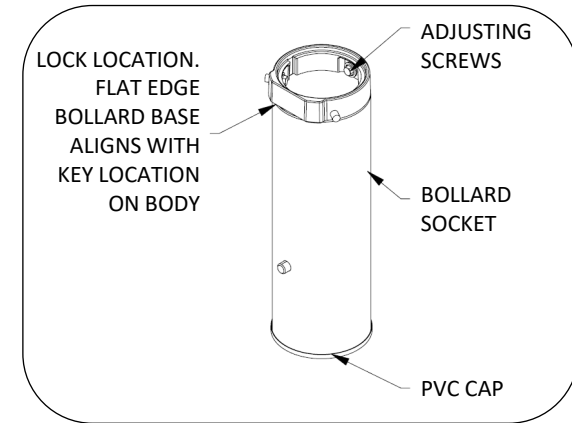


FIG. 1 - REMOVABLE BOLLARD SOCKET DETAIL

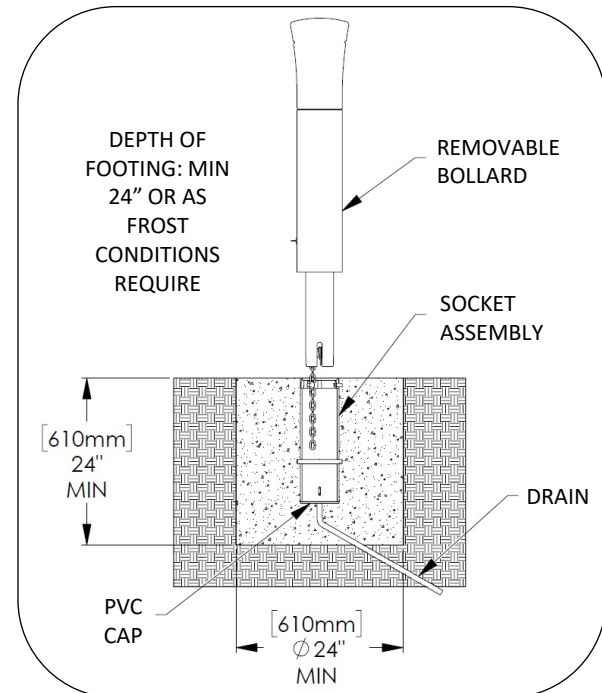


FIG. 2 - FOOTING DETAIL FOR REMOVABLE BOLLARD

WARNING! TO AVOID INJURY TO PERSONS HANDLING BOLLARD, USE TWO PEOPLE TO TEAM LIFT AND CARRY BOLLARD. Weight of bollard is 49lbs.

PROCEDURE FOR EMBEDDING THE REMOVABLE BOLLARD SOCKET:

1. Excavate for socket footing and install drain (see Figure 2). 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 lock on the bollard body. See Fig. 1.
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 the bollard tube. Allow concrete to fully cure.

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. Ease bollard into socket. Twist until bars fit into slots.

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

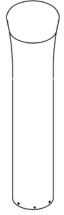
7. Check bollard for level.
8. If the bollard is not level, carefully lift the bollard out of the socket.
9. Using the 1/2" wrench, adjust the 3 screws inside the socket to adjust bollard alignment and to improve the fit of the bollard inside the socket. The bolts have nylon patches to resist movement after installation. See Fig. 1.
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 ensure latch is engaged.

PROCEDURE FOR REMOVING BOLLARD BODY:

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

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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.



Surface mount bollard

Tools Required

- safety glasses
- (3) Max $\text{Ø}3/8''$ non-corrosive anchors
- masonry drill and bits
- compressed air and wire brush
- $5/32''$ and $3/16''$ hex keys

NOTES:

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PROCEDURE FOR SURFACE MOUNT INSTALLATION:

1. Unit ships fully assembled.
2. Remove base plate from unit body by removing the four set screws at the bottom of the unit, see Fig. 1.
3. Set base plate in position. Mark hole locations.
4. Move base plate. Drill holes according to anchor manufacturer's recommendations. Clear holes of debris.
5. Set base plate in position and install anchors. Adjust leveling glides as necessary, see Fig. 2.
6. Set unit body over base plate. Reinstall four set screws to secure body to base plate. Do not overtighten – head of set screw should be flush or just below face of bollard body.
7. Adjust button head screw at the base of the unit to reduce any movement in unit body.

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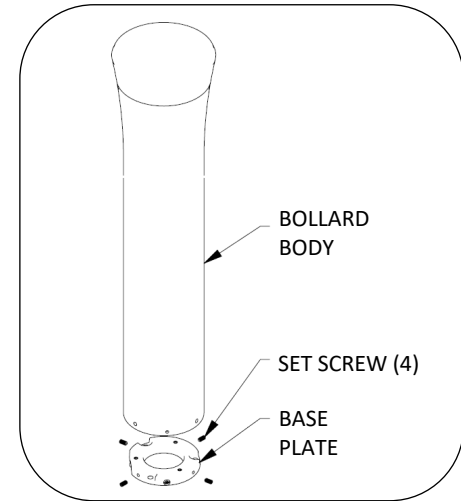


FIG. 1 – REMOVE BASE PLATE

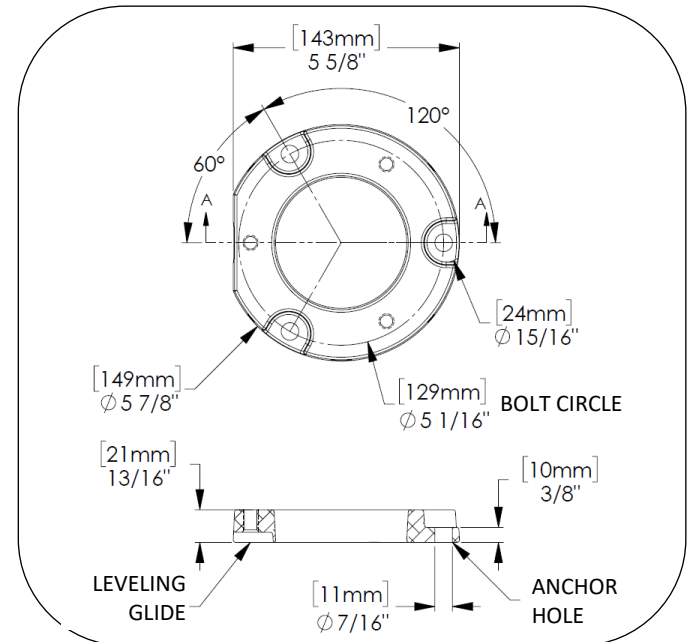


FIG. 2 – BASE PLATE DETAIL