

# DIRECT BURIAL POLES

## INSTALLATION INSTRUCTIONS



**TECHLIGHT**  
INNOVATION IN ILLUMINATION

**WARNING: ALWAYS INSTALL FIXTURES ACCORDING TO NATIONAL ELECTRICAL CODE (NEC) AND LOCAL CODES. FAILURE TO DO SO WILL VOID THE WARRANTY AND COULD CAUSE DAMAGE TO THE FIXTURE OR MAY RESULT IN PERSONAL INJURY.**

**IMPORTANT: TURN ELECTRICITY OFF AT THE CIRCUIT BREAKER BEFORE INSTALLING OR PERFORMING MAINTENANCE ON FIXTURE.**

This information deals with structures supplied by Techlight along with certain safety issues. It is **NOT** a comprehensive description of how to install these structures. Installation contractors must be relied upon for equipment and practices that meet the conditions of each job location.

Techlight cannot be responsible for any damage that may occur during or after installation, or for any structure that has been modified by the purchaser or that is used in some way other than our application recommendations.

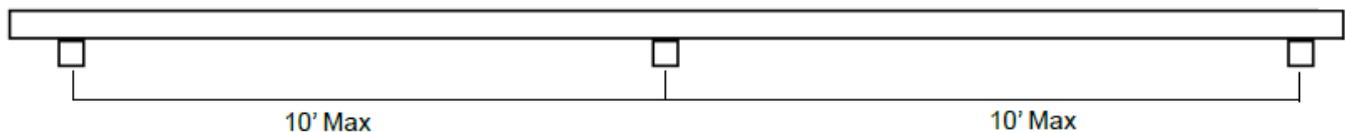
### HANDLING:

**SHIPMENT** - The Bill of Lading should be checked carefully to verify a complete delivery of all required material. Quantities of all material including boxes, cartons, crates, pallets, and poles should be verified. Shipment shortages and damages should be communicated immediately to the factory and must be clearly noted on the Bill of Lading by the person in charge of receiving the shipment; this will protect your right to file a claim. Techlight is not responsible for filing the claim or contacting the carrier on the behalf of the customer. All quantities as well as the condition of all material must be verified and noted on the Bill of Lading, including possible concealed damage. Failure to follow these

**UNLOADING** - During unloading, only qualified personnel and equipment should be used. Forklifts and cranes are most commonly used for unloading and handling poles and related materials. When unloading with a crane, only use nylon straps to prevent damage to the poles surface and finish. When using a forklift for unloading and moving poles, either lift from the sides or use the spear technique. When side lifting insure that the forks do not come into contact with the pole surface otherwise the pole surface or finish will be damaged. When lifting a pole by the spear method, only do so from the base end of the pole ensuring that the hand hole frame and ground lug are not damaged as both are approximately 18" from the base plate. Also be careful not to damage the pole walls as this can be visible from the outside surface and can reduce the structural integrity of the pole. The spear method should only be done by experienced and qualified operators.

**STORAGE** - Poles which need to be stored prior to installation must be protected from moisture. All packing material should be removed prior to storage (see warning label attached to the poles). Adequate space between the ground and the poles is required to ensure safe storage. It is recommended that a minimum of 6" be maintained between the ground and poles during storage. Pole placed in direct contact with the ground presents a high risk of surface finish violation which will lead to the deterioration of the finish and void the warranty. It is also recommended that the supporting blocking (dunage) used to elevate the poles from the ground be made of wood, padded with foam or other padded material to ensure that the finish is not damaged during placement and storage. Poles stored on a hard surface will create impact damage to the finish and void the warranty. Excessive moisture will also attack the finish and void the warranty so the stored poles should not be subjects to prolonged moisture or water. The pole should be supported in multiple locations as level as possible and should be supported with no larger spacing than 10' to prevent the poles from bowing while stored. (FIGURE 1)

FIGURE 1



**(EXAMPLE OF STORED POLE WITH PROPER SUPPORT)**

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### CHECK SOIL CONDITIONS:

Pole foundation need to designed per local code and soil conditions. The type of backfill to be used depends on the soil conditions at your site. Check the soil conditions to determine the type of backfill that will be required.

#### A. GOOD SOIL CONDITIONS:

The site is well drained and water does not stand during wet periods. Good soil for mounting is made up of sand and gravel, hard clay, compacted loam or compacted coarse sand. If the soil type of the mounting site is good, use the soil removed from the hole for backfilling and tamp thoroughly.

#### B. BAD SOIL CONDITIONS:

Water stands during wet periods; the soil is soft clay, poorly compacted, or contains large amounts of silt. If the soil is poor, use concrete or a premixed cement mixture to fill the top third (minimum) of the embedded depth. The lower portion should be filled with well tamped good soil (See A, above). Several inches of a sand and gravel mixture may be added at the base of the shaft to provide additional stability and resistance to rotation.

### INSTALLATIONS:

1. Remove the protective wrapping from the pole, being careful not to cut or scratch the pole surface.
2. While the pole is easily accessible, install fixture(s) and any accessories, and thread the wiring between the luminaire and the hand hole.
3. Dig or auger a hole of correct size and depth. The hole should be several inches larger in diameter than the pole shaft. In poor soil, the diameter of the hole should be a minimum of double the diameter of the pole.

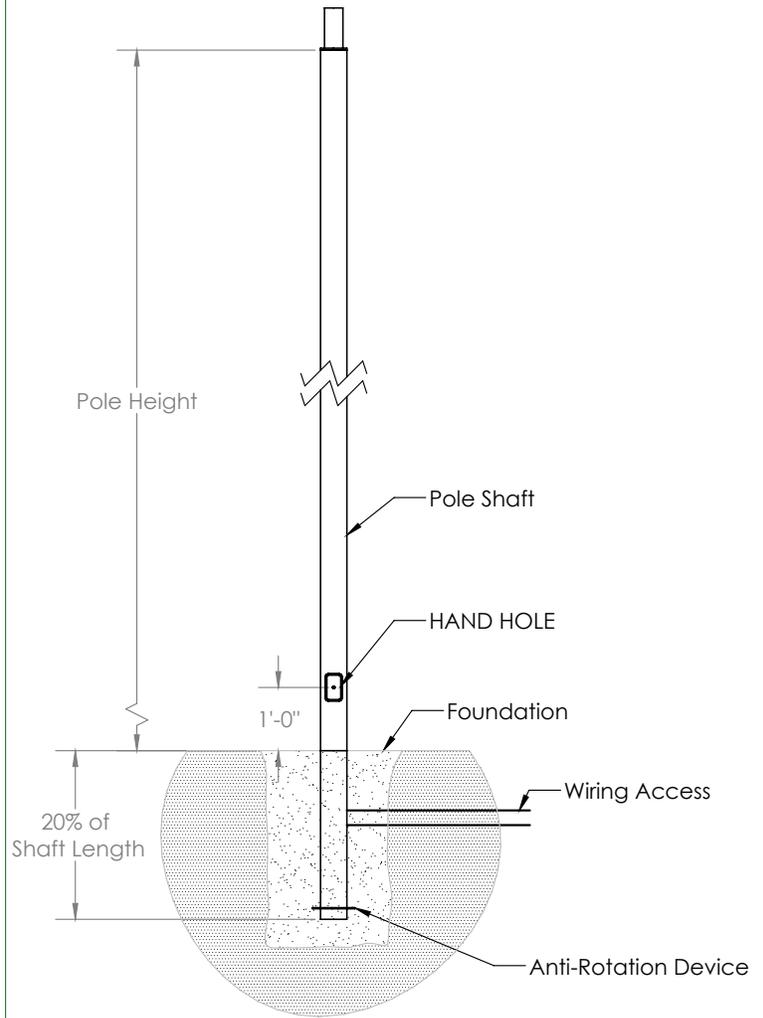
#### SUGGESTED BURIAL DEPTHS:

MOUNTING HEIGHT	BURIAL DEPTH
20'	4'
24'	6'
others	20% of the shaft length

4. Check the hole depth carefully, and tamp in backfill if necessary to assure the correct pole setting depth.
5. Lift and set the pole in the center of the hole, either by hand or with a nylon sling attached to a lifting device. Nylon is recommended, so as not to scratch the pole's surface. The sling should be attached at a point approximately one third down from the top. As the pole is being lowered into the hole, feed the underground cable through the conductor entrance hole and up toward the hand hole.
6. Add 6" to 9" of backfill and plumb the pole. Sight the plumb bob from two locations approximately 90° to each other to the pole from a convenient distance. Straighten the pole as needed, and tamp backfill around the base. Continue to backfill and thoroughly tamp at no more than 9" intervals to the bottom of the cable entrance. Frequent, firm tamping of the backfill during installation is very important to insure a successful installation. To ensure plumbness, the pole should be checked with a plumb bob while tamping.

**NOTES - POLES must be installed by a licensed electrician. These instructions do not cover all details or variations in equipment, nor do the provide for every uncertainty related to installation, operation, maintenance, or mounting contingency. Should specific problems occur that are not covered sufficiently for the purchaser's purpose, contact Techlight for additional product or application information. Improper installation and/or utilization may void manufacturer's warranty. Techlight assumes no responsibility for claims arising out of improper or careless installation or handling of this product.**

**FIGURE 2** INSTALL ROUGH-IN HOUSING IN SOIL



7. If not performed previously, install underground cables and pull the wiring out through the hand hole. Connect the feed cable to the luminaries' wires; fuse if required. Push the wiring into the pole and install the hand hole cover. Finish backfilling and tamping to a point 2" above the final ground line.