

Installation & Maintenance

For Metal Poles

This information is required distribution to all installation and maintenance personnel. The durability of these products is dependent upon competent installation and regularly scheduled maintenance reviews. Only those products provided by the factory may be utilized for assembly.

Acuity Brands Lighting cannot be held responsible for any damage that occurs during or after installation, or for any structure that has been modified or utilized in a way other than that for which it was originally designed and intended. If questions arise concerning the installation or maintenance thereof for these products the factory must be consulted.

Surface Protection:

Structures that are to be stored prior to installation must be protected from moisture retention. Any wrapping materials must be removed prior to storage. Adequate space between the ground and the structures are required to ensure safe storage. It is recommended that a minimum of 12" be maintained between the ground and pole during storage. Structures placed in direct contact with the ground presents a high risk of surface finish violation that may lead to corrosion. It is recommended that the supports (dunage) used to elevate the product from the ground be of wood or otherwise padded materials to ensure that the finish is not damaged during placement and storage.

During the unloading procedures only competent personnel and equipment should be utilized. For crane type of unloading methods only nylon straps should be utilized. For forklift unloading either side-lift or spear techniques should be employed. On side-lift operations it is vital that the forks do not come in direct contact with the pole shaft surface. On spear operations only the base end of the structure should be lifted. The operator should take extra precautions not to damage the hand hole frame or grounding lug that is approximately 18" inside the shaft. In either the side-lift or spear methods only competent and previously qualified and trained fork lift operators should be utilized.

During the installation (erection) process cranes must utilize nylon straps to insure that the protective finish is not violated. Chains or wire may cause damage to the finish. Prior to, and then again after erection onto the anchor bolt foundation, the structures should be reviewed for finish damage. For painted structures, damaged areas should be lightly sanded and a coat of factory provided touch-up paint should be applied to the effected area (outside temperature of 50° Fahrenheit is required).

Anchor Bolt Foundations:

Anchor bolts should be placed in an adequate foundation of concrete and reinforcing materials. Bolts should protrude from the concrete in a vertical (90°) orientation to the

top of the footing. Bolts should be equally spaced from one another and from the center point of the foundation. The base plate of the pole structures should easily accommodate the anchor bolt pattern. Forcing bolts to accept the base plate may cause a violation in the surface protection material that may in turn lead to corrosion.

One leveling (bottom) and one top (hold-down) nut should be utilized per anchor bolt. One flat washer (bottom) and one top (hold-down) washer should be utilized per anchor bolt. Space between the top of the foundation and bottom of the pole base plate is required to ensure ventilation. Grout pack may be used at the discretion of the installing contractor but must be thoroughly vented with applicable weep/drainage outlets.

General Maintenance:

An ongoing maintenance program must include periodic inspection for deterioration of the surface protection barrier and review of the general structural appearance. A maintenance interval on a semi annual (6-month) basis is recommended to ensure timely resolution to minor problems that may occur.

Each maintenance cycle should include a visual inspection of all lighting structures on a given project or venue. It is recommended that binoculars, tape measures, and a log book be utilized during these reviews. Any suspicious findings should be appropriately communicated. This would include clear violations in the protective coating such as, but not limited to, scratches, gouges, peeling, dents, or chips. Minor violations should also be communicated such as, but not limited to severe or uneven fading, or applications of foreign substances (i.e. glue, tar, tape, graffiti, etc.).

During the inspection process, the weld connecting the base plate to the pole shaft should be visually inspected for apparent cracks and corrosion. Binoculars should be used to review the attachments of light fixtures or other appurtenances. Any suspected abnormality should be duly recorded and communicated to responsible party(ies).

Hand hole covers should be securely fastened; anchor base covers (shrouds) or anchor bolt nut covers should be attached. If anchor bolt nuts are visible then a visual inspection of the nuts should be made to ensure all are in place and tightened.

The original installer must provide proper electrical grounding and warnings about any electrical hazards in accordance with applicable local codes. General maintenance should include a review of the display for these warnings (if so required). Failure for proper warning display as dictated by local code must be communicated immediately.

Effects of Vibration:

Although very rare, vibrations severe enough to cause damage can occasionally occur in any type of pole structure. The conditions that induce vibration are the result of random phenomenon. This unpredictable course of nature requires that structures be inspected weekly for the first three months of operation. Communication of pole vibrations is imperative. Please keep in mind that pole structures will “sway” in the wind. There is a

difference between vibrations and pole sway. Second mode vibrations typically manifest themselves in the middle of the pole structure instead of the top. A second mode vibration problem is detected when the middle of the pole structure is moving while the top and bottom are stationary. Some people have referred to this action as a “hula-dance” type motion.

First mode vibration is harder to detect as this is movement at the top of the pole and can be confused with simple pole sway. Vibration is a cycle that repeats itself. Such as a back and forth movement that is of the same exact distance and direction from center without variation for an extended period of time. Any movement that does not repeat itself in an opposing direction from the center point is simple pole sway.

Vibration is more likely to occur when structures are installed without attaching the intended equipment (i.e. light fixtures, arms, signs, etc). Also, vibrations tend to appear more often in square non-tapered structures more so than any other structural cross-section. Regardless of tendencies to product type, materials, heights, or cross-section type, vibration occurs as a random act and is an unpredictable phenomenon.