

Installation Procedure for KW Industries, Inc. Vibration Damping Pads

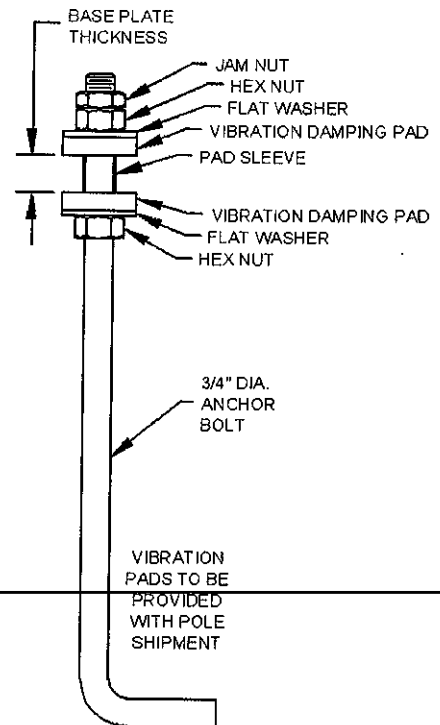
1. Prior to the installation process, the size, bolt circle and projection of the anchor bolts must be verified to ensure correct installation.
2. Remove all nuts and washers from the exposed bolts and clean the threads with a wire brush to remove excess concrete or contaminants. Lubricate the thread with a light oil (WD40).
3. Place the bottom leveling hex nuts on all four bolts with the steel flat washer on top. Place the damping pad on top of the flat washers. See diagram
4. Install lighting standard on the foundation on the damping pads.
5. Install the pad sleeves on all of the anchor bolts in the base plate bolt hole openings after the pole has been placed on the foundation. To facilitate inserting sleeves, they can be lubricated with a soap solution.
6. Add top damping pads to all anchor bolts in contact with the top side of the base plate. Place steel flat washer on each pad and add top hex nut. Tighten the hex nut until the damping pad begins to slightly bulge on the edge of the pad. Place the jam nut on top of the hex nut and tighten against the hex nut to lock both nuts in place to prevent them from backing off.

The above information is only a guide; consequently there will be instances where less or more torque is required. See chart for the proper torque values for the appropriate bolt diameter.

Note: Steel to steel torque values must never be used with damping pad because they would severely overstress the material.

***Three months after installation, recheck and tighten anchor bolts if necessary. Periodically check bolts on a continuous maintenance schedule to observe for excessive vibration and examine for any structural damage or bolt loosening.

KW's vibration pads are added to the lighting standards to help reduce harmonic vibration. The pads are designed to absorb energy as it is transferred down the pole shaft. Although these damping pads can reduce the harmonic effects in most cases, however KW Industries, Inc. cannot guarantee that these devices eliminate the problem in all cases.



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Bolt Dia (in)	Washer OD (in)	Washer ID (in)	Washer Thk (in)	Net Area (in ²)	Recommended (in-lbs)	Torque (ft-lbs)	Bolt Torque (lbs)
3/4	2	3/4	11/32	2.70	406	34.00	2,700
1	2	1	1/2	4.12	840	70.00	4,120
1-1/4	3	1-1/4	1/2	5.84	1,500	125.00	5,840
1-1/2	3-1/2	1-1/2	5/8	7.85	2,370	200.00	7,850
1-3/4	4	1-3/4	5/8	10.16	3,560	297.00	10,160
2	4-1/2	2	3/4	12.76	5,080	425.00	12,760
2-1/4	4-3/4	2-1/4	3/4	13.74	6,200	517.00	13,740
2-1/2	5	2-1/2	3/4	14.72	7,400	615.00	14,720