

INSTRUCTION MANUAL



CM300 Series Mounting Poles

1/08



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CM300 Series Mounting Poles

1. General

The CM300 Series Mounting Poles provide a stainless steel 1.5 IPS vertical pole for mounting sensors, enclosures, or other instrumentation. Pole length is 23", 47", or 56" for the CM300, CM305, and CM310 models respectively.

Mounting poles can be placed directly into a concrete foundation, attached to a concrete foundation with the Pedestal J-Bolt Kit option, or can be self-supporting with the Pedestal Leg options (Figures 1-4). A vinyl cap prevents precipitation from entering through the top of the pole.

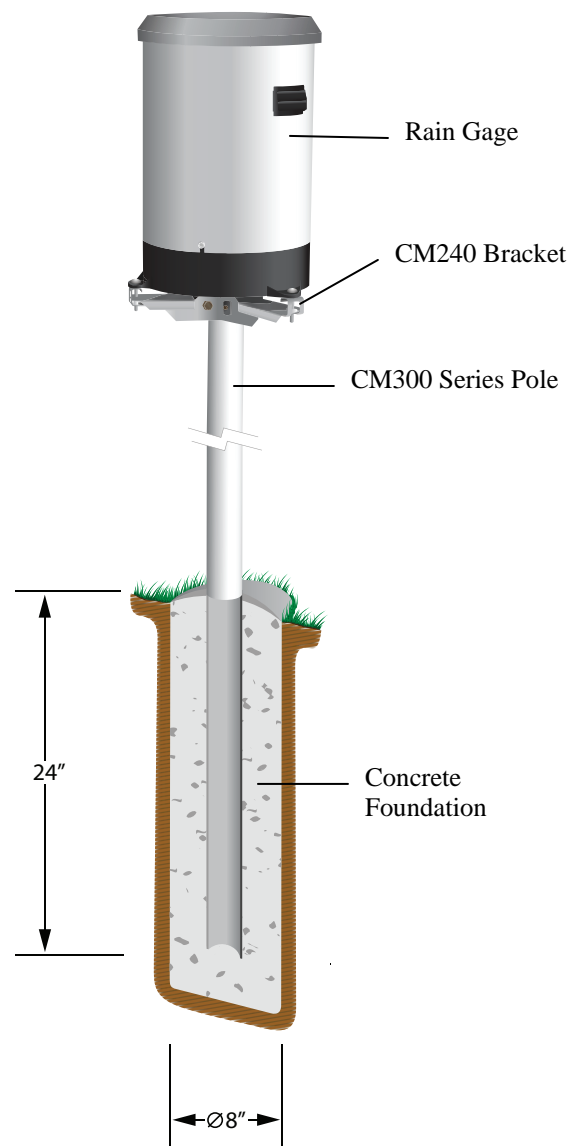


FIGURE 1. CS700 Rain Gage with CM240 Bracket and CM310 Mounting Pole

2. Specifications

Stainless Steel 1.5 IPS Pipe

1.9" (48mm) outside diameter

Length: CM300 23" (58 cm), CM305 47" (119 cm), CM310 56" (142 cm)

J-Bolts: 1/2" x 12" SS with triple-nuts and washers (Pedestal J-Bolt Kit option)

CM300 Series Options (Figures 1-4):

- NP No Pedestal Base
- PJ Pedestal J-Bolt Kit
- PS Pedestal Short Legs
- PL Pedestal Long Legs

There are three sets of holes (a, b, c) in the Pedestal Leg base that determine the leg angle and pedestal height as shown in the table below.

	Hole Position	Pedestal Height (")	Radius (")	Leg Length (")
Pedestal, Short Legs	a	3	27	23
	b	8	25	
	c	13	22	
Pedestal, Long Legs	a	5	43	39
	b	15	40	
	c	23	34	

3. Installation

3.1 Tools List

- (2) 1/2" combination wrench
- (2) 3/4" combination wrench
- Large Phillips screwdriver
- Torpedo level
- Small sledge hammer (for Pedestal Leg option, to drive optional Ground Spikes)
- Form materials (for J-bolt pedestal option, Section 3.3)

Optional items (must be ordered separately):

- PN 19238 Grounding Kit
- PN 17049 Ground Spike

3.2 CM300 Series Mounting Pole in Concrete Foundation

For permanent installations, CM300 series poles can be installed in a concrete foundation. Dig a hole 6-8" diameter x 24" deep (or below frost level). Place the pole in the center of the hole. Fill the hole with concrete, and plumb the pole with a level.

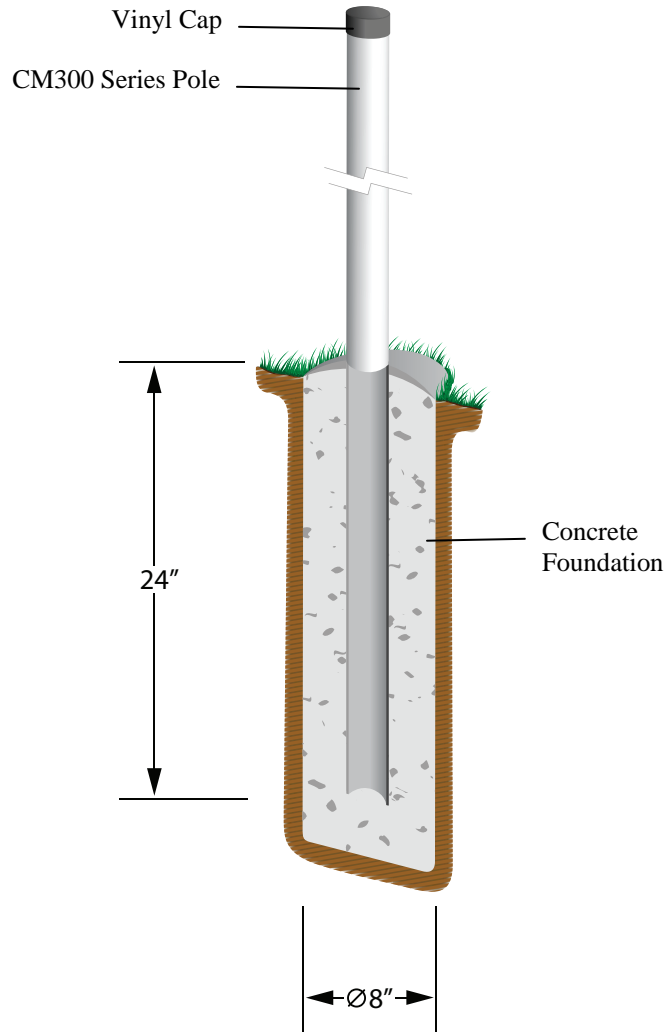


FIGURE 2. CM310 Mounting Pole in Concrete Foundation

3.3 CM300 Series Mounting Pole with Pedestal J-Bolt Kit

A CM300 series pole with the Pedestal J-Bolt Kit option can be used for permanent installations where there is a need to periodically plumb the pole. J-bolts are installed in a concrete foundation using the template provided with the kit.

Construct a form 14" square (inside dimensions) from 2" x 4" lumber. Cut two pieces of 2" x 4" lumber 18" long.

Dig a hole 14" x 14" x 24" deep (depth should exceed typical frost level). Center, and level the form over the hole.

Install the J-bolts to the template using two nuts below the template, and one nut above. Fill the hole and form with concrete, and place the two 18" 2" x 4"s on top of the form. Insert the J-bolts into the concrete, with the bottom of the template resting on top of the spacers (template should be 2" above the concrete).

Remove the template after the concrete has cured. Insert the pole into the pedestal, and tighten the six bolts evenly.

Each J-bolt should have two nuts and one washer installed, with the bottom nuts about 1/4" above the bottom of the threads. Place the pedestal over the J-bolts and install a flat washer, split washer, and nut on each bolt – do not tighten the nuts at this time.

Adjust the lower nuts on each J-bolt to plumb the pole. "Lock" the lower nuts together using two wrenches. Tighten the upper nuts to secure the pedestal to the J-bolts.

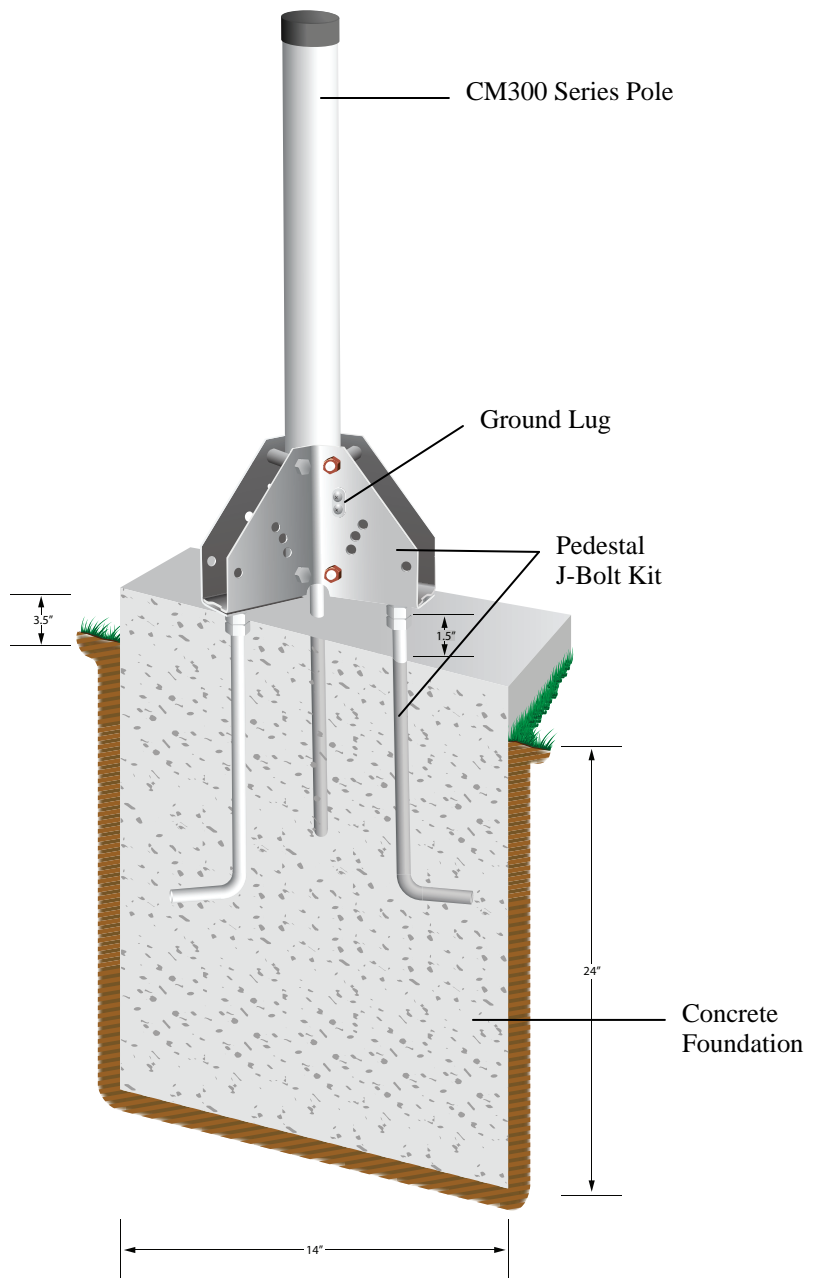


FIGURE 3. CM305 Mounting Pole with Pedestal J-Bolt Kit

3.4 CM300 Series Mounting Pole with Pedestal Legs

A CM300 series pole with a Pedestal Leg option can be used for temporary installations or for applications where a concrete foundation is not an option. The “Short” Pedestal Legs are adequate for most applications. The “Long” Pedestal Legs provide additional stability for applications where the feet cannot be secured (e.g. to the surface of a roof), for extended poles, or for locations with high winds.

Each leg attaches to the pedestal base with two bolts. The pedestal base has a set of three holes for each leg. The angle of the legs, and resultant pedestal height, is determined by which hole the end bolt is placed through (see table in Section 2).

Attach the legs to the pedestal base, and tighten the bolts (do not over-tighten). Place the pole into the base and tighten the six bolts evenly. For additional stability, the feet can be spiked to the ground using (3) PN 17049 Ground Spikes, or secured with user-supplied anchors through the holes in the feet.

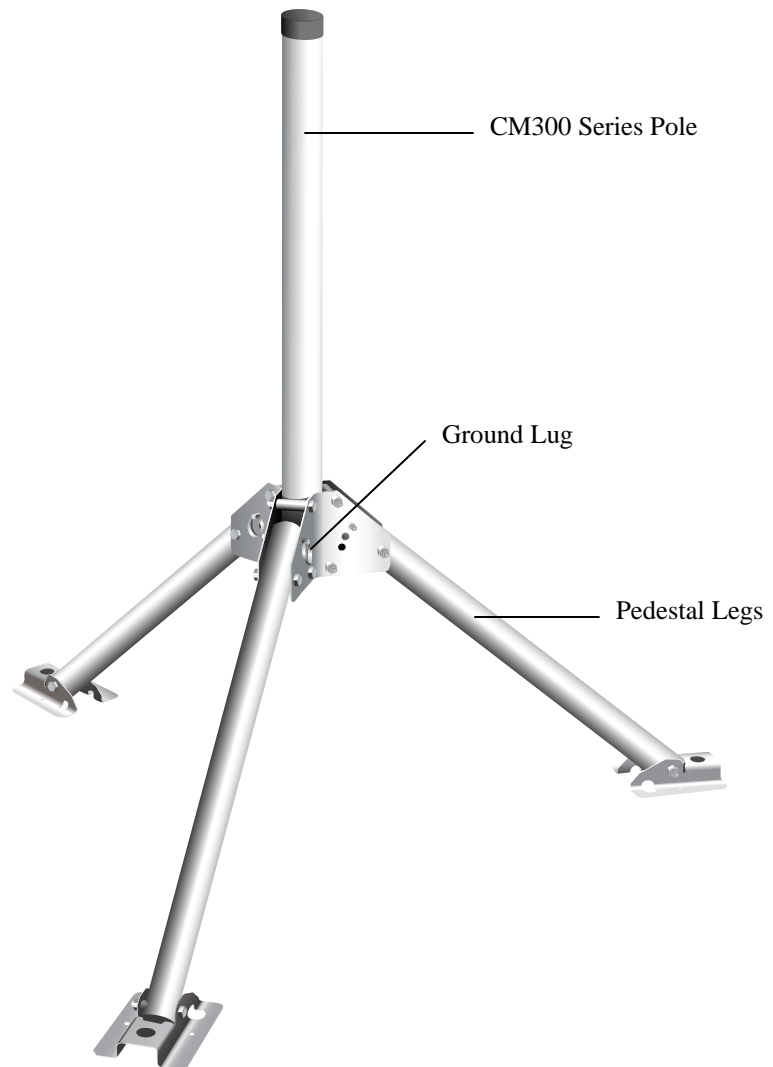


FIGURE 4. CM300 Mounting Pole with Pedestal Legs

3.5 Grounding

PN 19238 grounding kit may be used to provide an earth ground for the pedestal and associated instrumentation. Attach the earth and enclosure ground wires to the lug on the pedestal base as shown in Figure 4.

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