

INSTALLATION INSTRUCTIONS FOR SELF-SUPPORTING DMX, DMXMD, DMXHD CONCRETE BASE TOWERS

WARNING
Survey your installation site NOW to prevent your antenna or support from coming in contact with overhead powerlines.
FAILURE TO EXERCISE THIS CAUTION CAN CAUSE ELECTROCUTION



BREAKING DOWN BUNDLE

CAUTION: SHARP EDGES—WEAR GLOVES

1. Remove the 8 ft. mast, the three 4 ft. base stubs and the package of nuts, bolts and washers.
2. Lay the bundle on its side and remove tower sections. Start with DMX1 section (smallest section) and remove by pulling out with quick, firm jerks. It is not necessary nor desirable to pry sections out with tools.
3. Inspect all tower sections on delivery to make sure there are no loose or broken rivets caused by transport mishandling. If a rivet is broken or loose, it should be replaced by a snug-fitting machine screw and nut securely tightened.

SETTING THE BASE IN CONCRETE

1. We recommend that a square hole be dug 1.2 m deep and 1.67 m square.
2. Fasten the 4 ft. base stubs to the outside of the tower base section. Insert a 1/2 inch bolt or rod about 1 inch long (not supplied) through each hole in the bottom of the base stubs to prevent the stubs from pulling out the concrete.
3. Place the bottom tower section with base stubs attached into the hole and hold in a vertical position while concrete is poured in. Level the concrete even with the bottom of the base section.

NOTE: Since the three legs taper in about 1 degree, check each leg so they are all the same angle using a long level as shown at right.

The recommended concrete base for installers who use "Ready Mix" concrete:

3.34 cubic m	Width: 1.67 m	Depth: 1.2 m
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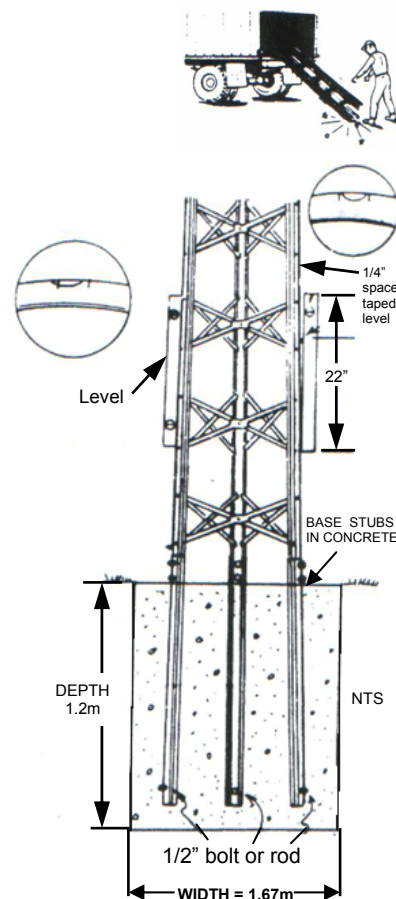
NOTE: If the tower is being placed in loose soil, be sure to check with a local building contractor for advice on installing a deeper or larger base. This tower is no stronger than the base itself. (Assumed soil 190 KPA or 4000 PSF.)

ERECTING TOWER

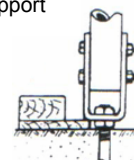
After the concrete is hard the tower is ready to be erected. We recommend the use of a "gin-pole" similar to the drawing on page two. The gin-pole is 15' long and hooks into the "X" braces and straddles the tower leg. The rope which runs through the pulley is attached to the next tower section a bit above the centre of the section. A man on the ground can pull the section up and the man on the tower guides it into the top of the lower tower section. Special stop rivets prevent the upper section dropping too far inside. After the bolts and nuts are securely tightened the gin-pole can be unhooked and raised to the top of the next section and so on until the tower sections are all installed. The gin-pole is handy for installing the antenna and mast. A strong safety-belt should be worn when climbing the tower for assembly or antenna adjustments. Gin-pole will fit from DMX1 to DMX6 sections.

HUB HINGE-UP BASE FOR DMX TOWERS

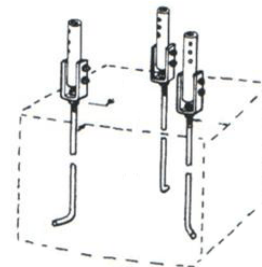
1. Assemble the 3 legs of HUB and tighten all bolts and nuts securely. The threaded end of each long rod should not protrude more than 1/8" beyond nut or hinge — tube may catch on it when hinging.
2. Bolt HUB tubes on the INSIDE of each leg of bottom tower section. Make sure hinges all face the same direction.
3. Bent ends of legs are positioned away from each other.
4. Dig base holes as outlined on this sheet above.
5. Place tower section, with HUB attached, into hole and hold it in a vertical position while concrete is poured in. Level concrete even with bottom of the lower nuts. Check all three legs with a level to make sure they all tilt the same (about 1 degree).
6. Wooden tower supports can be placed under the legs to hold them in position. Shims made from thin metal can be driven under legs until tower section is absolutely level on all three legs.
7. Make sure two legs are away from the building or the tower will not hinge up.
8. A block and tackle can be used to pull tower up.
9. We recommend installing a safety anchor to prevent the tower from toppling.



Wood leg support

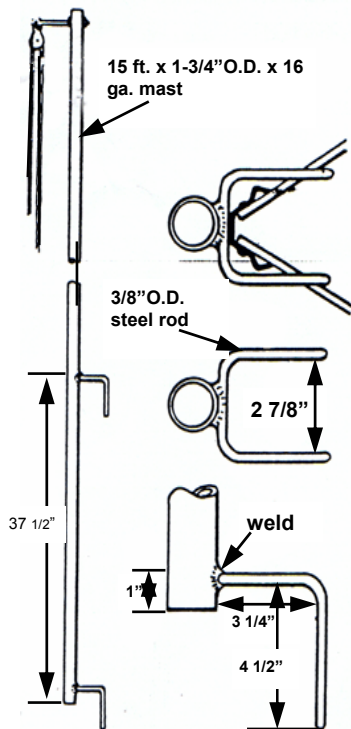


Top view of base



HUB Hinge-Up Base

TOWER HARDWARE



Gin-Pole Construction

WARNING

Do not replace hardware with common off the shelf product.
Please contact the factory for replacement hardware.



IMPORTANT NOTE: The following procedure should be used when bolting tower sections together. Insert bolt through holes of the two sections. Place a lockwasher on the bolts and run the nut on. Only one lockwasher is required on each bolt and it is placed under the nut. These special heat treated bolts have solid shoulders in order to prevent the tower sections from shifting. Tighten the nut securely, but be careful not to strip the threads.

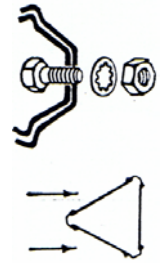
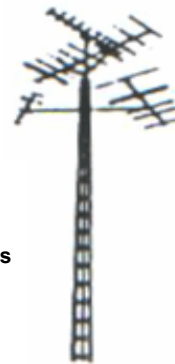
NOTE: 3/8" dia. X 5/8" bolts are used on DMX1, DMX2 and the top of DMX3 sections. 1/2" dia. 3/4" bolts are used on the bottom of QDMX3 and on all sections (DMX4 to DMX8—DMX8 is the largest section). All bolts and nuts are specially heat treated.

TORQUE SPECIFICATIONS:

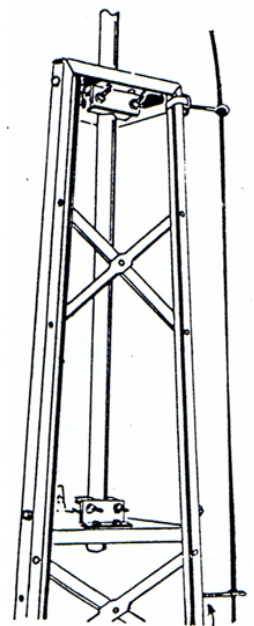
3/8 inch dia.	25 ft-lbs.
1/2 inch dia.	60 ft-lbs.

Delhi Towers are designed and built to stand up for years against severe wind and ice conditions. Although all towers are carefully made and inspected before they leave our factory, they are not guaranteed against failure due to shipping damage, over-loading or improper installation. Please read instructions carefully.

Do not overload towers with cross bar mounted antennas



Install like this against strong prevailing winds



LOAD LIMITS

DMX TV towers are designed to support a large TV-FM antenna or a separate TV and FM antenna of medium size.

Guy wires must be used if larger loads are required or if greater height using straight section is needed.

DMXMD Medium Duty towers can support two large TV or FM antennas or a small amateur beam or GRS antenna.

INSTALLING MAST

- Two U-Bolt assemblies with "L" brackets are supplied for installing the mast. These "L" brackets are bolted through the slotted holes on each plate with the short leg of the "L" bracket toward the outside of the tower.
- Adjustments to make the mast vertical may be made by moving the "L" bracket in the slotted holes.
- DM-Mast should be no more than 4 feet above the top of the tower.
- A horizontal step is included in the top section to make it more comfortable for the installer when working on mast, rotator or antennas.

INSTALLING ROTORS

Any make of rotor can be installed on the rotor plate provided, inside the top section of a DMX tower for a neat appearance and also to make use of the mast thrust bearing on the top plate, which increases rotor life considerably.

