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

**BREAKING DOWN BUNDLE**
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.

**SETTING THE BASE IN CONCRETE**
1. Refer to page 3 for concrete recommendations.
   - 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.
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 of 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.

**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. The proper safety equipment and considerations as outlined in the servicing section of these instructions should be adhered to 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. Create base as outlined on page 3.
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. Installing a safety anchor to prevent the tower from toppling is recommended.

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**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**

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**CAUTION: SHARP EDGES—WEAR GLOVES**

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**HUB Hinge-Up Base**
TOWER 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.

LOAD LIMITS

DMX Standard Duty Towers are designed to support up to 3 ft² (0.28m²) projected wind area.

DMXMD Medium Duty towers are designed to support up to 6 ft² (0.56m²) projected wind area.

DMXHD Heavy Duty towers are designed to support up to 9 ft² (0.84m²) projected wind area.

Note: Guy wires must be used for larger loads or if straight sections are added for additional height. However, the towers have not been tested to CSA standards CSA-S16-09 and CSA-S37-13 for loadings larger than what is indicated above.

INSTALLING MAST

1. 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.
2. Adjustments to make the mast vertical may be made by moving the “L” bracket in the slotted holes.
3. DM-Mast should be no more than 4 feet above the top of the tower.
4. 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.
CONCRETE BASE FOR DMX TOWERS

1. The DMX tower should be centered in a concrete base of dimensions 1676mm deep by 1676mm square.
2. The base must be reinforced with 10M rebar equally spaced at 305mm O/C as shown below.
3. The rebar must be covered by 76mm of concrete.
4. The base stubs must be submerged 1016mm into the concrete.
5. The concrete must meet the following criteria: strength = 30mpa — 28 Days, 6% entrained air in base, compacted backfill to 95% PDD.

Note: Tower Foundation designed for DMX 68 tower to CAN/CSA-S37-01 for winds of 450Pa with 25mm of ice. With assumed soil 190 KPA or 4000 PSF.