



Mast Installation – Internal Mounting

WARNING: Proper installation is critical to safe operation and must be performed by qualified technicians.

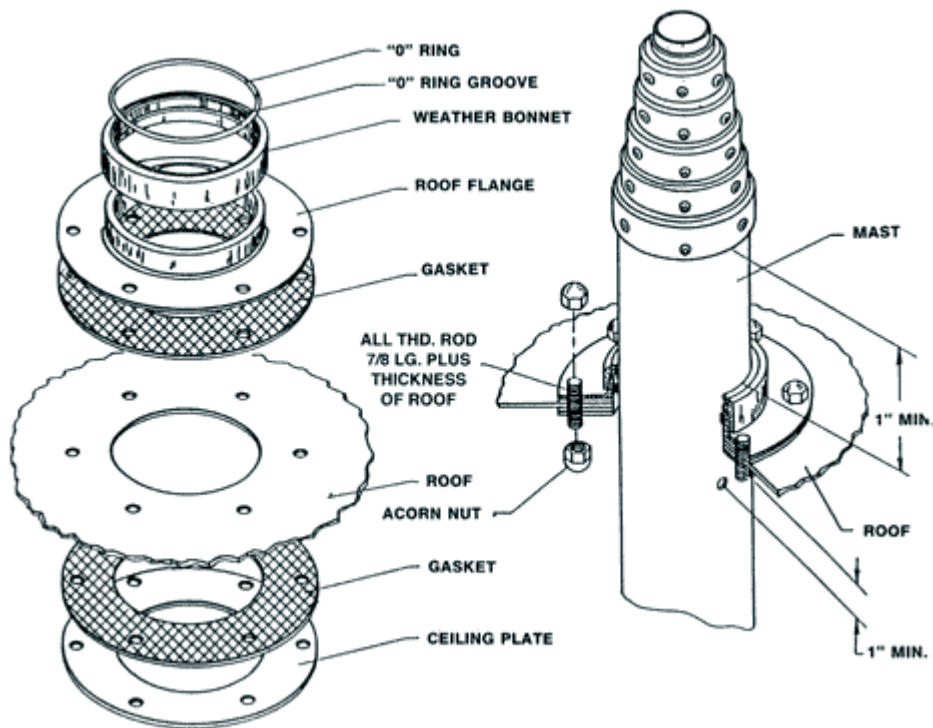
1. To select a suitable location for the mast in a vehicle consider the following.
 - A. Roof must be as flat as possible at the location of the mast.
 - B. The floor must be level and solid. If not, it must be reinforced.
 - C. The area underneath the floor must be free of obstructions to allow for accessibility to base plate fasteners and the bottom air inlet port, if used.
 - D. For manually rotatable models only, the location of the mast must allow enough clearance from the wall to accommodate both the turning handles and the air hose.

NOTE: Refer to [Service Sheet #401](#) for mast installation dimensions. Note that swivel fittings for the bottom air inlet are available.

2. Remove any roof line or ceiling panels. Cut a hole in the roof 1/4" larger than the diameter of the mast base section. Cut the same size hole in the roof liner or ceiling panel. Center the roof flange over the hole. Use it as a template to drill holes for attachment.
3. If irregularities exist in the roof, washers or short spacers made of 1/4" pipe can be used. Cut the 1/4" threaded rod supplied with the mast to length allowing for the thickness of the roof flange, ceiling plate, rubber gaskets, roof, spacers (if used) and the acorn nuts for each end. Refer to the illustration below.
4. To assemble the roof mounting hardware, apply a bead of silicone sealant to both sides of one rubber gasket. This gasket is to be fitted between the roof flange and the roof. The other gasket needs no sealant and fits against the inside of the roof. It is held in place by the ceiling plate. Line up all holes and fasten this assembly together using the threaded rods and acorn nuts. Securely tighten all acorn nuts. Clean off any silicone sealant which may have squeezed out into the hole cut for the mast. Replace the roof liner or ceiling panel before installing the mast.
5. To locate the base plate for the mast, first make sure the floor of the vehicle is level. Find the base plate location by using a plumb bob supported from the center of the roof flange or by using a carpenter's level held against the base tube of the mast. In the latter case, lower the mast partially through the roof and attach the base plate before lowering the mast to the floor. It is necessary to check the mast in two places 90 degrees apart when using a level. Once located, the base plate may be used as a template to drill holes through the floor. Secure the base plate to the floor.
6. Slide the weather bonnet down the mast and over the roof flange. If the weather bonnet is difficult to maneuver, put soapy water on the mast to allow it to slide more freely.
7. Air to operate the mast may be provided by an air compressor or other source of clean dry air. The air system should be regulated to not exceed the maximum operating

pressure of the mast being used. Refer to [Service Sheet #413](#) for installation instructions of the pneumatic system.

8. Install the weep hole drain kit provided with the mast. Refer to [Service Sheet #414](#) for instructions.
9. For rotatable masts, locate the turning handles at the desired height. Tighten the turning handle bolts just enough to allow the turning handles to rotate the mast without slipping. Tightening the turning bolts too much can deform the base tube and impede the movement of the next internal mast section. Lock the mast in place by tightening the locking screws located on the mast at all times unless the mast is to be rotated. If the mast is to be rotated, loosen the locking screws so they do not contact the mast. Rotate the mast to the desired position. Retighten the locking screws.



SHEET 411

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