MFJ-1740
INSTRUCTION MANUAL

Thank you for purchasing the MFJ-1740 1/4 wave antenna. The MFJ-1740 is designed for use on 144 to 148 MHz. However, simple trimming of the radiator and radials will yield a 1/4 wave antenna for 220 MHz band, or a 1/4 wave antenna for 440 MHz band.

The MFJ-1740 is shipped partially assembled; you should have received the following:

Item	Quan.	Description
A	3	Radials
B	I	Chassis
C	3	6-32x1/2 screw, lockwasher & nut
D	I	Clamp assembly

ASSEMBLY *INSTRUCTIONS*

Step 1: - Refer to figure-1. Insert the lockwashers over the 6-32 screws. Insert one of the three 6-32 x 1/2 screws through hole 1 and start a 6-32 nut on the screw. The screw should be installed so that the nut is on the inside. The three remaining screws and nuts should be installed in the chassis in a like manner, with one screw through hole 2, and the other screw through hole 3.

Step 2: Now you are ready to install the three radials. First position the chassis as shown in figure-2. Then insert a radial, straight end first, into hole A. All radials must be inserted through from the inside of the chassis. The hooked end of the radial can then be fastened using the screw in hole 1.

NOTE: When installed, the radials should emerge from the chassis at a downward angle away from the radiator. NO BENDING IS NECESSARY.

The two remaining radials can be installed similarly. One radial should be inserted through hole B and secured with the screw in hole 2, and the other radial should be inserted through hole C and secured with the screw in hole 3.

STEP 3: Assemble the clamp in the chassis as shown in figure-2.

MFJ-1740

INSTALLATION INSTRUCTIONS

The MFJ-1740 can be mounted *on* any 1" to 1-1/2" tubular mast. The mast may be a conductive (metal) or a non-conductive (pvc) material..

WARNING: DO NOT MOUNT ANTENNA NEAR POWER LINES.
Death or serious injury can result.

For optimum performance the antenna should be mounted as high as possible. However, if the mast itself is located on a high elevation, such as a hill or mountain, the need for a tall mast will not be as critical.

To mount the antenna on the mast, insert the mast into the clamp as shown in figure-2. Confirm that the mast is mounting on the front of the chassis, as shown in figure-2.

The coax from your radio may *now* be connected to the antenna. The connector is an SO-239; so the connection should be fast and easy.

TUNING INSTRUCTIONS

The antenna has been preset for low SWR through the 2 meter band. However, SWR can change from place to place; so some adjustment might be necessary.

After installing the antenna, check the SWR. For operation .throughout the 2 meter band, the SWR should be lowest at 146 MHz.

If the antenna needs to be adjusted, loosen the radiator retaining nut (see figure-2). If the SWR is lowest on a frequency above the desired operating frequency, lengthen the radiator. If the SWR is lowest on a frequency below the desired operating frequency, shorten the radiator.

Be careful when tightening the retaining nut on the radiator. If the retaining nut is too tight the ceramic insulator may be damaged.

CONVERSION INSTRUCTIONS

READ ENTIRE INSTRUCTIONS BEFORE ATTEMPTING TO CONVERT YOUR ANTENNA

To convert the MFJ-1740 to a 1/4 wave antenna for 220 MHz, the radiator should be trimmed to a length of 12 inches, and each radial should be trimmed to a length of 12 3/4 inches.

To convert the MFJ-1740 to a 1/4 wave antenna for 440 MHz, the radiator should be trimmed to a length of 6 3/16 inches, and each radial should be trimmed to a length of 7 1/16 inches'.

IMPORTANT NOTE:

To find radiator length, measure from the tip of the radiator to the top of the radiator retaining nut. Leave approximately one inch of threaded radiator below the retaining nut.

Measure the radial length from the tip of the radial to the center of its 6-32 screw.

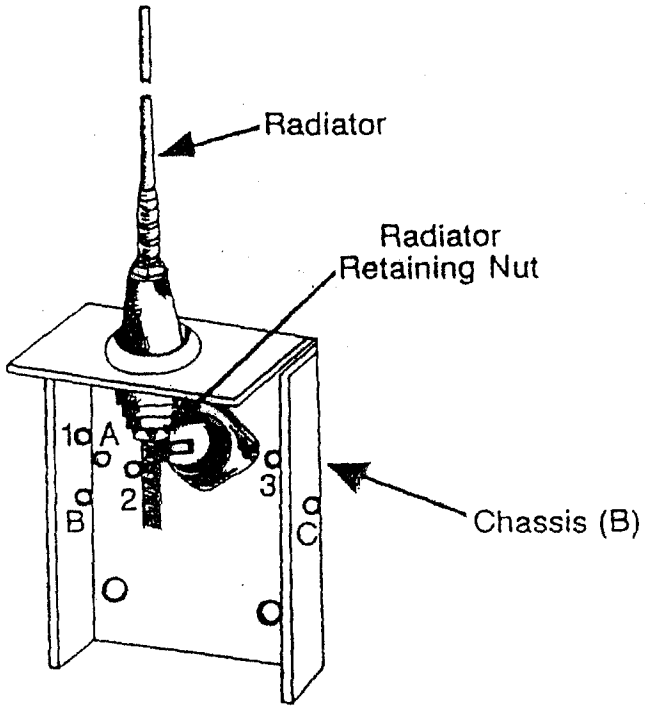

FIGURE - 1

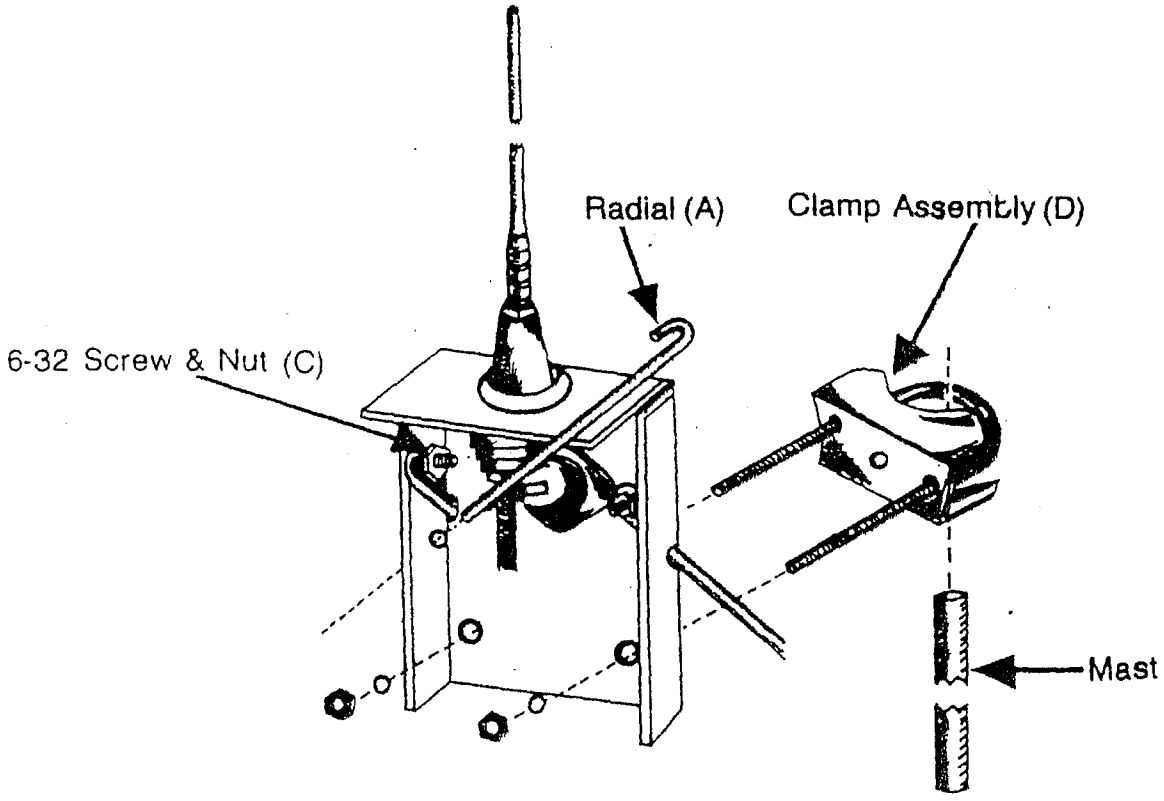

FIGURE - 2