WHIP CUTTING INSTRUCTIONS

EM-M10007-LS (445-470 MHz)
5 dB UHF ROOF MOUNT ANTENNA

Congratulations on your selection of another quality antenna product from E/M Wave.
E/M Wave is committed to continually provide the greatest antenna VALUE for your wireless applications.

PLEASE CAREFULLY READ ALL INSTRUCTIONS BEFORE CUTTING THE ANTENNA WHIP.

1. **IMPORTANT: Before Cutting.**
It is recommended to cut whip longer than the required dimension to verify actual performance. Then trim the whip in 1/16" (1.5mm) increments to fine tune the desired VSWR response.

CUTTING NOTE: The whip can be cut using a grinding wheel or shearing tool designed for this purpose.

FREQUENCY	TUNED WHIP LENGTH "W"	
(MHz)	(inches)	(mm)
445.0	15-5/16	390
450.0	15	380
455.0	14-9/16	370
460.0	14	355
465.0	13-5/16	338
470.0	13	330

Table 1

2. **NOTE:** Ensure the whip is located and completely seated inside the antenna whip adapter. The Tuned Length "W" is determined by measuring the distance between the top of the antenna adapter and the bottom of the antenna phasing coil as shown in **Figure 1.** With the whip removed from the adapter, the cut length dimension will be approximately 1 3/8" (35mm) longer than the Tuned Length "W".

3. Identify the desired frequency of operation in the left column of **Table 1**.

4. **TUNING NOTE:** For frequencies not listed in **Table 1**, interpolation of Tuned Length "W" is permitted. When interpolating intermediate frequencies, the antenna frequency response increases by approximately 1 MHz for every 0.04" (1 mm) of cut length.

5. Cut the antenna whip as required to establish the specified Tuned Length "W" as shown in **Figure 1**. Imperial and Metric units included for convenience.

6. Verify VSWR. Secure set screws (2 ea.).

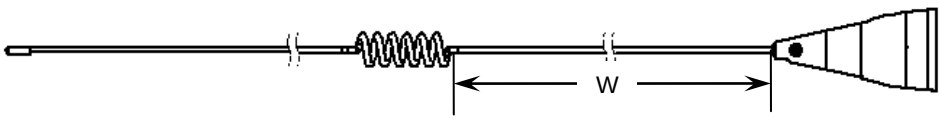

Figure 1

[**Note:** Add 1 3/8" (35mm) to Tuned Length "W" when cutting whip.]