MODEL : VH-1213

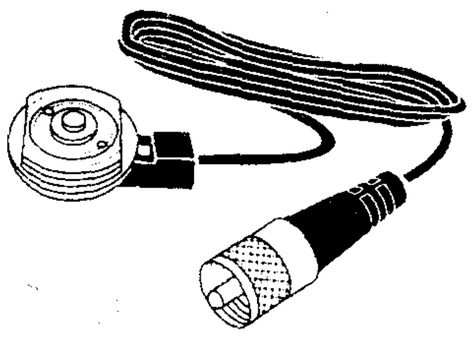
UNITY GAIN VHF MOBILE ANTENNA

- **FREQUENCY: 32 – 54 MHz (WITH CUTTING CHART)**
- **QUARTER WAVE , UNITY GAIN**
- **NMO TYPE CONNECTION**

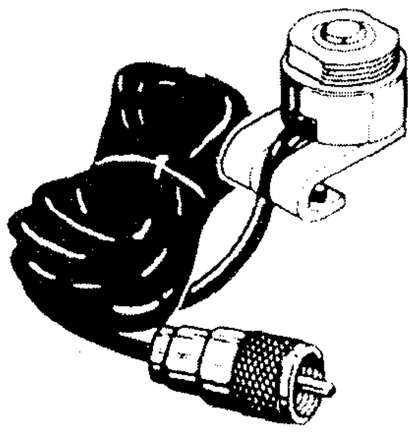
ASSEMBLE THE ANTENNA PER THE DIAGRAM ATTACHED. TO OBTAIN THE LOWEST S.W.R. (STANDING WAVE RATIO), THE ANTENNA MUST BE CUT TO THE SPECIFIC FREQUENCY OF OPERATION (SEE CUTTING CHART) . THE STAINLESS MATERIAL USED IN THE ANTENNA IS VERY STRONG AND IS NOT EASILY CUT. WE SUGGEST " SCORING " THE STAINLESS WHIP TO A 75% DEPTH THEN USING TWO PLIER TO SNAP OFF THE UNUSED PORTION. USE CARE TO AVOID AN ACCIDENT. FILE DOWN ANY " BURRS " ON THE CUT OFF PORTION. THE COIL ASSEMBLY IS FACTORY TUNED AND SEALED, NO ADJUSTMENT TO THE COIL IS NECESSARY.

NOTE: ALWAYS USE PROTECTIVE EYEGLASSES WHEN CUTTING OR FILING METAL RODS.

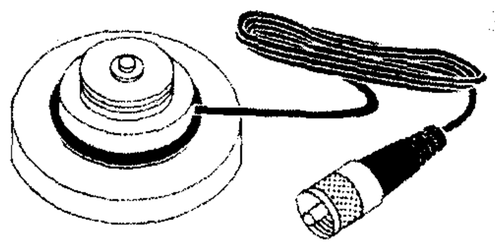
THE VH-1213 SERIES REQUIRE A " NMO " TYPE OF MOUNT. WE OFFERS THREE DIFFERENT NMO MOUNTS AS BELOW:



3/4" HOLE MOUNT



TRUNK LIP MOUNT

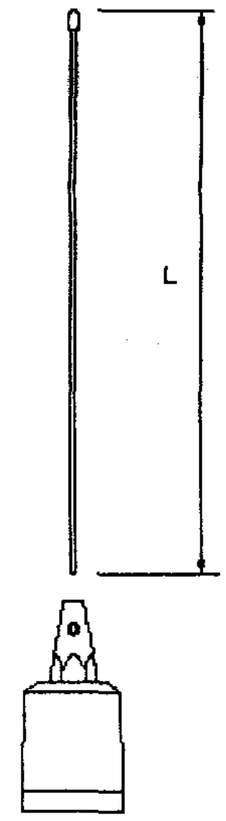


MAGNET MOUNT

CUTTING CHART

FREQUENCY (MHz)	WHIP LENGTH	
	mm	inch
32	1400	55.12
32.5	1355	53.35
33	1315	51.77
33.5	1280	50.39
34	1255	49.41
34.5	1210	47.64
35	1180	46.46
35.5	1150	45.28
36	1120	44.09
36.5	1105	43.50
37	1070	42.13
37.5	1045	41.14
38	1020	40.16
38.5	990	38.98
39	965	37.99
39.5	940	37.00
40	915	36.02
40.5	890	35.04
41	870	34.25
41.5	850	33.46
42	830	32.68
42.5	815	32.09
43	795	31.30
43.5	780	30.71
44	760	29.92
44.5	740	29.13
45	720	28.35
45.5	705	27.76
46	690	27.17
46.5	675	26.57
47	660	25.98
47.5	645	25.39
48	630	24.80
48.5	610	24.02
49	600	23.62
49.5	590	23.22
50	580	22.83
50.5	570	22.44
51	560	22.05
51.5	545	21.46
52	535	21.06
52.5	525	20.67
53	515	20.28
53.5	505	19.88
54	495	19.49

CUT FROM BOTTOM



INSTALLATION:

FOR GROUND PLANE DEPENDENT ANTENNA THE CENTER OF THE VEHICULAR ROOF IS CONSIDERED THE BEST LOCATION FOR YOUR INSTALLATION. SATISFACTORY RESULTS MAY BE OBTAINED ON OTHER LOCATION SUCH AS THE FENDER OR TRUNK DECK. WHEN MOUNTING ANY ANTENNA, ESPECIALLY A LOW BAND ANTENNA, CARE SHOULD BE TAKEN WHEN CHOOSING THE MOUNTING LOCATION SO AS TO PROVIDE AN ADEQUATE GROUND PLANE AND FREE SPACE FOR THE RADIATOR. IF THE RADIATOR IS MOUNTED TOO CLOSE TO THE METAL SIDE OF THE VEHICLE, A LOW V.S.W.R. MAY NOT BE ACHIEVED. USE THE TABLE BELOW AS A GUIDE:

OPERATION BAND	GROUND PLANE
LOW BAND	AS LARGE AS POSSIBLE
VHF	89 cm²
UHF	33 cm²
800/900	18 cm²

MADE IN TAIWAN