

# DIAMOND ANTENNA

## M685S/M685SNMO

### 50-54 MHz Mobile Antenna

#### Instruction Sheet

The M685S is a 50-54 MHz tunable mono-band, 1/4 wavelength mobile antenna, optimized for 6m amateur band. 4 MHz tuning range.

#### Specifications

FREQUENCY:	50-54 MHz
GAIN:	2.15 dBi
POWER:	100 Watts P.E.P.
IMPEDANCE:	50 Ohms
VSWR (nominal):	1.5:1
ELEMENT PHASING:	1/4 Wave
GROUNDING:	Required for optimum performance
LENGTH:	50"
WEIGHT:	0.4-lbs.-(170 g)
MOUNT:	UHF MALE (PL259)/NMO
WARRANTY:	1 Year against defects in material or workmanship.

**RECOMMENDED MOUNTS M685S:** K400C, K400S, K412C, K412S, K600M or K600S Trunk Mounts.  
Also Larsen "PO" mounting group for 3/4" hole mounting.

**M685SNMO:** K400SNMO, K400CNMO, K412SNMO & K412CNMO.

#### Installation Instructions

**NOTE: THIS ANTENNA REQUIRES TUNING TO DESIRED FREQUENCY. USE QUALITY VSWR METER TO INSURE PROPER ADJUSTMENT. THE M685S REQUIRES PROPER VEHICLE GROUND. MOUNTING LOCATION WILL AFFECT VSWR AND BANDWIDTH. NOT RECOMMENDED FOR MAGNET MOUNTS.**

- (1) Remove antenna from package and inspect contents to insure it is complete.
- (2) Choose desired mounting location to insure maximum strength of mount, and proper vehicle ground to yield best performance of antenna.

#### Tuning of Antenna

- (3) Install antenna on vehicle. Check VSWR at your lowest and highest operating frequency to determine bandwidth. (Mounting location and mounting structures will effect RF grounding, resonant frequency and bandwidth.) If necessary to raise frequency, trim whip in 1/4" increments. Tighten set screws. Recommend using removable Loctite Threadlocker #242 or similar product to insure proper fastening of set screws.

