

# DIAMOND ANTENNA

## SG7900NMO / SG7900A

### Instructions

#### Description

1. THE SUPER GAINER series antennas employ our new design concept for the mobile whip antenna which emphasizes to go along well with recent aerodynamic car design.
2. Since the antenna employs radialless structure on both 2m and 70cm bands, it works well at virtually any place on your car body. It can be located on trunk lid, roof, gutter or any place without effecting vswr characteristics.
3. High performance C-Load structure is used on both 2m and 70cm bands.
4. Both bands can be transmitted or received simultaneously, or one band can be transmitted while receiving another band or vice versa simultaneously by using a duplexer.
5. 24K gold plated center conductor is used in connector section of the antenna.
6. Omnidirectionally tiltable whip structure enables the antenna to be tilted for any direction by pulling the whip element section lightly. And it eliminates troublesome antenna detachment when your car is parked in the garage.

#### Assembly

The antenna is packaged in only the top element (NO.1 element) being detached. To assemble the antenna, put the top element into the top end of upper phase inductor and secure it with hexagonal wrench attached.

#### Adjustment

THE SUPER GAINER series antennas are all factory adjusted and do not require any adjustment. If center frequency of the antenna has to be altered, loosen two set screws at the top of tiltable whip section and put the element in and out to have best vswr at desired center frequency. Be sure to fasten the screws after the adjustment.

#### Note

1. The SG7900 employs DC ground structure, whip element and ground section (outer shell of the impedance matching section) are short-circuited, and center conductor of the feedpoint connector and whip element are isolated.
2. Since those set screws being used throughout the antenna may be loosened due to the vibration during driving, they have to be refastened from time to time after several drives especially the antenna is right off from the package.
3. Do not drive the car with the antenna tilted, since whip element moves freely when the antenna is tilted.
4. Be careful not to be bit your finger into the tiltable whip section when the antenna is being erected.

#### Specifications

Gain	5.0dB (144MHz) 7.6dB (430MHz)
Max.power rating	150W (Sum of both bands if operated simultaneously.)
Impedance	50ohms
VSWR	less than 1.5 : 1
Length	1.58m (62.2')
Weight	600g (1.32lbs.)
Connector	UHF Male / NMO
Type	7'8" wave double C-Load radialless gain whip antenna (144MHz) 5'8" wave three element C-Load radialless gain whip antenna (430MHz)

#### Part name (number)

17701	NO. 1 element
17702	NO. 1 Phase inductor
17703	NO. 2 element
17704	Phase capacitor
17705	NO. 3 element
17706	NO. 2 Phase inductor
17707	NO. 4 element
B-05	Set screw
B-03	Hexagonal wrench
17708	Omnidirectionally tiltable whip section
17709	Impedance matching section