2m/1-1/4m/70cm Tri-Band Mobile Gain whip Antenna
Fold Over Whip Structure

CR320A
OPERATING INSTRUCTIONS

Description
1. Fold over whip structure permits the antenna to be tilted for any direction.
2. The antenna is designed to go well with contemporary car design.
3. High performance on 2m with 1/4 wavelength, 1-1/4m with 1/2 wavelength C-Load radialless and 70cm with two 5/8 wavelength phased element radialless structures.
4. The antenna can be used to operate on all three bands simultaneously by using optional antenna tripler.

Adjustment
The CR320A antenna is factory adjusted on all three bands. Due to its rather complicated triband structure, the antenna is not allowed to readjust by users.

Assembling
Be sure to confirm the package before assembling the antenna.

To tilt the antenna
If the antenna has to be tilted in order to park the car in a garage, pull the antenna up at fold over whip section and incline it for desired direction. Be sure not to drive the car with the antenna tilted.

Note
1. Since the antenna is not radialless structure on 2m band, an antenna bracket is required to be grounded.
2. Since set screws in the antenna may be loosened due to the vibration during driving, be sure to fasten those screws from time to time after several drives especially if the antenna is right off from the package.
3. Since the antenna is DC ground structure, lower whip element and ground section of impedance matching section are conducted and lower whip element and custom conductor of impedance matching section are isolated.

VSWR charts

Part name

No.1 element
Phase capacitor
No.2 element
Phase inductor
No.3 element
Set screw
Fold over whip structure section
Impedance matching section

Specifications
Frequency: 146-148MHz, 222-225MHz
440-450MHz
Gain: 2.15dB(2m), 3.8dB(1-1/4m), 5.5dB(70cm)
Max. power rating: 200W(2m), 100W(1-1/4m), 200W(70cm)
Impedance: 50ohms
VSWR: Less than 1.5:1
Length: 0.95m(37.4")
Weight: 270g(0.59lbs.)
Connector: UHF
Type: 1/4-wavelength(2m), 1/2-wavelength C-Load radialless(1-1/4m), Two 5/8-wavelength phased element radialless(70cm)