



## 29(FM)/50(FM)/144/430MHz Band High Gain Mobile Antenna

### CR8900



#### Instruction Manual

##### ● Features

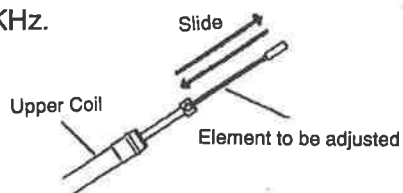
- ① Overall length is only 1.3m, even so, it covers the 4 bands.
- ② Equipped with rotary whip mechanism for all directions. Unnecessary for removing the antenna when you put your car into garage. Pulling up the rotary whip part and you can lay down to any directions.
- ③ The center pin of the connector is 24K gold-plated one with less loss construction.
- ④ The 29MHz band is available for frequency moving by the adjustment of element.
- ⑤ 29/430MHz band is available for the "Repeaters".(In Japan)

##### ● How to Mount

The 29/50MHz band of CR8900 activates under the car body as an earth-ground. The antenna base and car body must be completely in conduction to have the lower VSWR. When the antenna element close to the car body or other antenna, the VSWR may not be dropped. For 144/430MHz band, CR8900 is non-radial type and the earth-ground is not necessary.

##### ● How to Adjust

The 50/144/430MHz band of CR8900 can be used without any adjustment. Only 29MHz band, the desired frequency can be adjusted by the upper element length. With longer element size, the frequency will move to lower side and shorter length move the frequency to higher level. The frequency change per 1cm length is 400KHz.



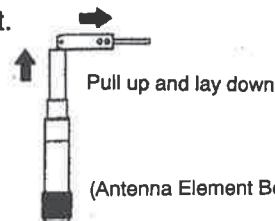
##### Warning

- ① The adjustment should be done at the place away from obstacle, power line without obstruction traffic of other cars and pedestrians.

- ② When transmitting the radio wave for antenna adjustment, be sure to transmit very small power instantly.

##### ● When Laying down the Antenna Element

Pull up the antenna vertically and bend at the joint.



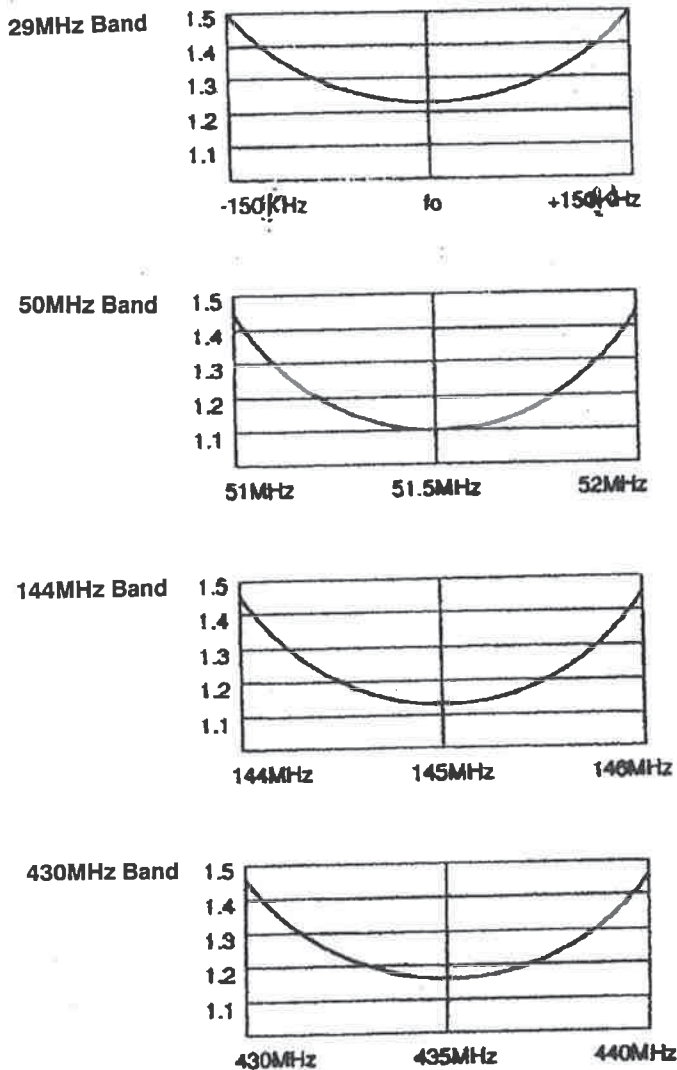
##### Warning

- ① The set screws may be loosened while driving the car. Please be sure not to lose the screws. (Fasten the screws tightly.)
- ② Do not drive the car with the antenna laid down.
- ③ 50MHz band is for exclusive use of FM, the frequency 51~52MHz.
- ④ 29MHz band is for exclusive use of FM, the frequency 29~29.7MHz.

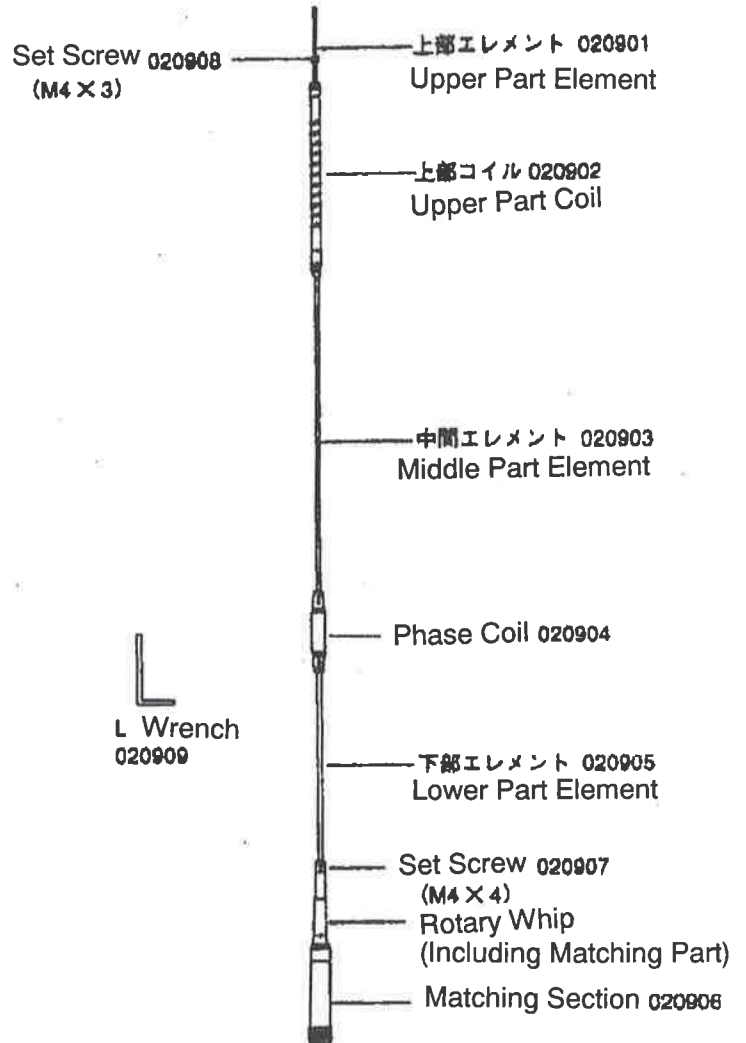
##### Warning to Mount the Antenna Bracket (option)

- ① The place mounted with antenna bracket may get the rusty and make the rust-proof on it. But the 29/50MHz band of this antenna must use the car body as an earth-ground and the antenna bracket and car body must be in conduction by the set screws.
- ② Be careful not to have the waters into the car from the entrance of coaxial cable to the car.
- ③ Do not transmit while keeping the adhesion of antifreeze including the salty materials to the joint of rotary whip and plastic part. The performance of antenna deteriorates and it will be cause of trouble of transceivers.
- ④ Wipe out the stains regularly. But do not use benzine and alcohol. The neutral detergent with water is recommendable to use.

● VSWR table



● Parts Number



● Specifications:

Gain: 2.15dBi (144MHz), 5.5dBi(430MHz)

Max. Input Power: 60W(FM)

Impedance: 50 Ω

VSWR: Less than 1.5

Overall Length: 1.26m

Weight: 490g

Connector: M type

Type:  $1/4 \lambda$  (29/50MHz),  $1/2 \lambda$  (144MHz),  $5/8 \lambda$  2 step(430MHz)

※144/430MHz band is non-radial.



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