# 28MHz Band Compact High Performance Mobil Antenna

# HF10FX

Operation Instructions





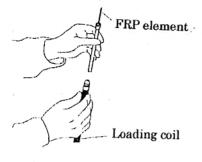
To use this antenna properly, read this instructions thoroughly before using the antenna. Keep this manual carefully at hand for later use.

### Description

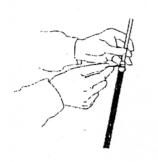
- This is designed a light weight, compact and slim with high performance though it is a trapped antenna.
- Loading coil section employs dual section distributed system to dissipate extra heat on transmission.
   High-power rating specification allow the antenna to be 250W(SSB) Max. Power rating.
- Antenna element section employs a tapered FRP element to prevent damage being caused by obstacles.
- It is easy to adjust sliding to an adjustment element support without cut element.

### Assembling

1. Fix the loading coil and FRP element.



- Loosen locked nut of an upper loading coil and insert an adjustment element support.
- FRP element can slide about 20cm.. Start from adjusting 10cm from the shortest point.
- 4. Fasten with the hexagonal wrench after adjustment.

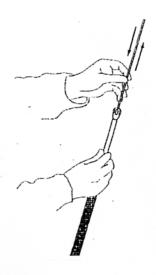


# Adjustment

 Loosen locked nut of an upper loading coil and slide the FRP antenna.



 The desired frequency can be adjusted by the FRP 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 110kHz.

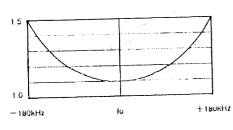


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#### Note

- Do not touch the antenna during transmission to avoid electrocuted..
- Since the VSWR of HF antenna varies depending on the installation location, be sure to adjust the antenna after fixing on the actual installation location.
- Adjust the antenna where there is no obstacles or power line, other cars and pedestrians.
- Due to insufficient earth capacity, correct adjustment cannot be performed at the place where has vast space under the car such as on a bridge or in the multi-level parking lot.
- To avoid interfering other station, adjustment has to be performed with least RF power and shortest time as possible.
- This is an earthling antenna using car body to earth.
   Performance will worth if it is not good earth. Also adjustment.
- Do not remove rubber tube covering loading coil.
- 8. Wipe off dirt regularly. Do not use thinner or benzine.

### **VSWR**



# Specifications Frequency: 28MHz

Impedance: 50ohms VSWR: Less than 1.5

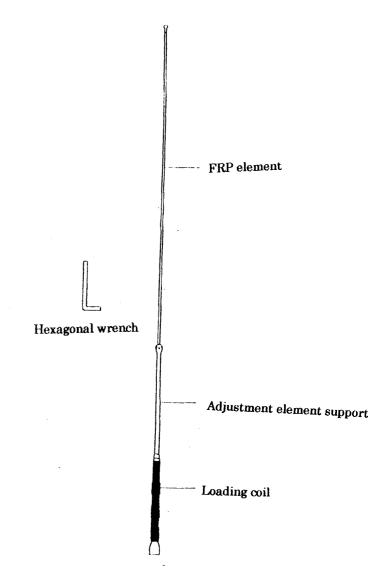
Max power rating: 250W (SSB)

Length: 1.1m
Weight: 180g.
Connector: M

Type: 1/4 wave bottom loading

### Part name (number)







### 28MHz Band Compact High Performance Mobil Antenna

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### FOR YOUR SAFETY

Read the following safety precautions before starting assembling the antenna.

- Assemble the antenna on the ground or wide and flat place such as on balcony before installation.
- Do not assemble or install the antenna on a place where you can not have enough distance from any electric power lines.
- Do not attempt to install the antenna only by yourself.
   Installing the antenna alone on the roof may lead you dangerous accident. Always ask your friends for help installing the antenna.
- Do not use iron or aluminum ladder at a reachable distance from any electric power lines.
- Do not install the antenna on a mast which is not grounded properly.
- Do not have your family members or friends touch or come close to the antenna, unless they have realized its potential danger.

### TO AVOID FATAL ACCIDENT

- Do not attempt to sustain the antenna, or any part of support structure if it begins to fall down. Let it fall by itself.
- Do not attempt to remove or restore the antenna or any part of support structure if it touches a electric power line by chance. Let it be as it is, do not touch it, and call your local electric power company immediately.

### IN CASE OF AN ACCIDENT

- Do not touch a person or an animal who is or seems to be in contact with the antenna or any support structure which is fallen on a live electric power line. Touching one may lead you to be electrocuted.
- Do not attempt to separate a person or an animal who is or seems to be in contact with the antenna or any support structure which is fallen on a live electric power line by yourself. Call or have someone call a police officer, ambulance, doctor immediately.



### ANTENNA INSTALLATION PRECAUTIONS

To determine antenna installation location, there are several factors to be taken into account. First thing is antenna propagation direction to specific target stations. As to whether there is any obstacles such as tall buildings on the line of sight.

Next is specific installation location. As to whether specific

Next is specific installation location. As to whether specific location is adequate in terms of antenna support and surrounding safety.



- Do not attempt to install the antenna by yourself if you do not have any experience in installing base station antenna.
   Ask your experienced friends or professional for help.
- Do not attempt to install the antenna at a location where does not have enough distance from nearby electric power lines. It is advised to install the antenna at least twice of total antenna height from nearby electric power lines.
- Do not install the antenna on any type of tower pole or telescopic mast which exceeds 30 feet high, if you do not have enough experience in installing the antenna on that kind of location. Ask your experienced friends or professional for help.
- Do not use more than 1/10 section if you install the antenna on iron plumber's pipe. Attach guy wire if multiple pipes are used to install the antenna.