2m/70cm Dual Band High Performance Gain Vertical Base station Antenna

X510HDM UHF/SO239 Connector

X510HDN N Female Connector

SHENGDA

OPERATION INSTRUCTIONS

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

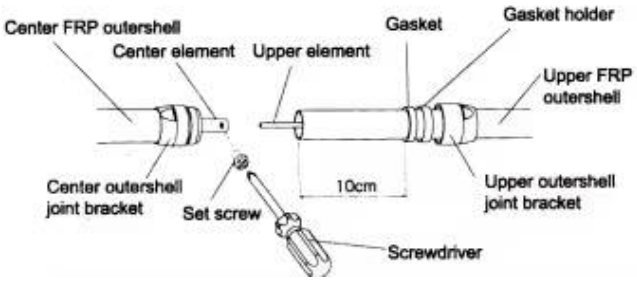
Warning

- The places where the antenna is installed are restricted by local state and federal law. Install the antenna at the specified and safe places.
- Don't touch the antenna during transmitting. It may cause to have a fire or electrify.
- The thunder seems to rumble in the vicinity, don't touch the antenna and coaxial cable. It may cause to electrify
- The antenna may be struck by lighting. When you don't use the transceiver, take off the cable from the transceiver and leave the antenna under the eaves where is not easily reachable by people. It may cause to have a fire or electrify.
- Don't install the antenna too close to electric wire, neon sign or overhead wire of trains. Don't install the antenna too close to telephone wire. When the antenna falls down, it may cause broken wire.
- Don't work in order to install the antenna at unstable or high place.
- Don't drop the antenna, tools and attachments, when installing the antenna in height. Install the antenna before assembling it on the ground.
- Don't install on a rainy day or windy day since it is dangerous.

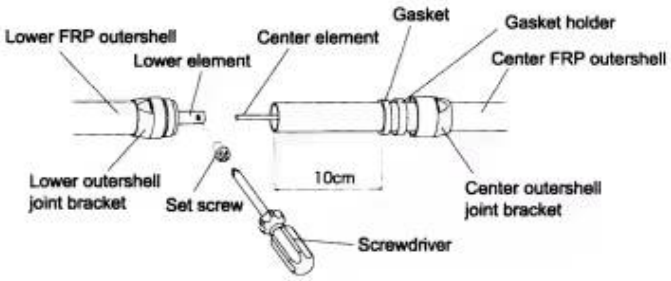
Assembly

To begin with, put the upper element out about 10cm (3.9") from the upper element FRP outershell and put the center element out about 10cm (3.9") from the center element FRP outershell.

1. Connect the upper and center elements by securing set screws firmly. To pull out the elements connected at 10cm from the edge of the center FRP outershell.
2. Put the upper FRP outershell into the gasket of the center FRP outershell and fix the upper and center FRP outershell with the upper and center joint brackets.



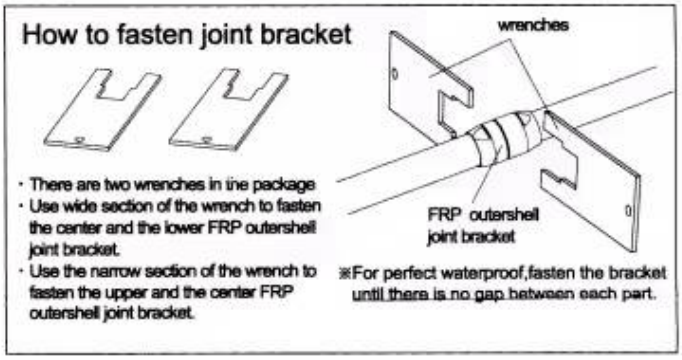
3. Connect the center and lower elements by securing set screws firmly.
4. Put the center FRP outershell into the gasket of the lower FRP outershell and fix the center and lower FRP outershell with the center and lower joint brackets.



※ Warning

Though the gasket is placed on aligned location in the factory, be sure to confirm its location before assembling. The gasket may be moved during transportation.

5. Fasten each joint bracket with a special wrench attached.



6. Attach three radial elements.
7. Fix the mast brackets on the bracket pipe and fix it on support pipe with v-volt assemblies firmly.
8. Connect a coaxial cable with an **N** connector to the feedpoint section through the support pipe and prepare the connecting section to water tight by taping. Fix the support pope and feedpoint section with the set screws by aligning the holes.
9. Turn the coaxial cable once to make a loop and fix it on the support pipe.

Adjustment

The X510HDN antenna completely adjustment free. If VSWR of the antenna is extraordinary high, most likely, it is due to coaxial cable and connector contacting or connector soldering problem. And be sure to use 50Ω coaxial cable to feed the antenna.

Note

Though the antenna employs DC ground structure circuit across center conductor section and ground section of the connector is open (not conducted), if it is measured by a volt ohm meter. If it is closed (conducted), check to see coaxial cable and/or connector thoroughly. Be sure to install the antenna vertically. Full performance of the antenna can not be guaranteed if the antenna is not installed vertically.
Since N connector is relatively complicated compared with conventional UHF type connetor,utmost care has to be taken to handle connetor to coaxial cable connection.
It is recommended to practice test transmission fro adjustment as short and least power as possible.

Specifications

Frequency	:	144-148MHz / 440-450MHz
Gain	:	8.3dB (2m) / 11.7dB (70cm)
Impedance	:	50Ω
VSWR	:	Less than 1.5
Max. power rating	:	330W (2m) / 250W (70cm) FM
Rated wind velocity	:	40 m/sec (90MPH)
Mast diameter accepted	:	30-62mm (1-1/5" to 2-2/5")
Length	:	5.2 m (204.7")
Weight	:	2.0Kg (4.4lbs)
Connector	:	X510HDM Type: UHF X510HDN Type: N
Type	:	5/8 wave three element C-Load (2m)/ 5/8 wave eight element C-Load (70cm)

■Though the product being purchased is manufactured under strict quality control, if damage is caused by transporting, ask your dealer promptly.
■Design and specification of these products will be changed for future improvement without advance notice.

Part name

