DIAMOND ANTENNA

902-928MHz Base Repeater Antenna

BC920

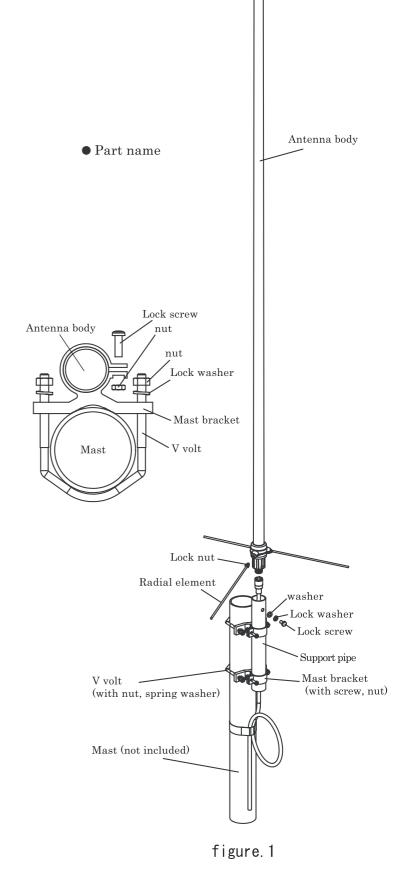
Operation Instructions

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

Warning

Please follow the below notes to avoid the serious accidents.

- Don't 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.
- Don't install on a rainy or windy day since it is dangerous.
- Don't drop the antenna, tools and attachment when installing the antenna in the height. Install the antenna before assembling it on the ground.
- If the BC920 is located on the roof of a house or top of a building, look around the roof to see if there are any obstacles such as an electronic wire or TV antenna. The BC920 has to be located as far awayas possible from those things to obtain its maximum performance. Installing the antenna too close to the building wall may cause bad effect for electrical characteristics of the antenna.
- Don't install the antenna where is easily reachable by people.
- Install the antenna firmly not to fall down due to the strong wind. Even if falling down the antenna, locate the antenna at the safe place where people and building are not inflicted injures.



Assembly Instruction

- 1. Attach three radial elements as shown in the figure.1.
- 2. Attach the mast brackets on the support pipe and fix them.
- 3. Then connect the coaxial cable with an N connector to the feedpoint section through the support pipe.
- 4. Attach the antenna on the mast by whole balance into account as shown in figure. 1.

Note: Do not place the mast above the radial elements.

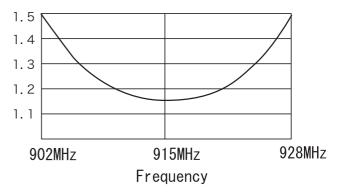
Adjustment

The BC920 antenna is empletely adjustment free. If VSWR of the antenna is extraordinary high, confirm each contacting sections. Most likely, it is due to the coaxial cable and connector contact or connector soldering problem. And be sure to use $50\,\Omega$ coaxial able to feed the antenna.

Note

- 1. N type connector is being used in the feedpoint connection of the antenna. Since N connector is relatively complicated compare with conventional UHF type connector, utmost care has to be taken to handle connector cable connection.
- 2. In installing the antenna, turn the coaxial cable once at right below the antenna to escape load from the cable. This is to avoid disconnecting center conductor of N connector and especially important when thick diameter coaxial cable is being used to feed the antenna.
- 3. Though the antenna is DC ground structure, the circuit across the inner conductor and outer conductor is open-circuit when measured by a volt-ohm meter. If it is close-circuit, confim the coaxial cable connections well.

VSWR charts



Specifications

Frequency 902-928MHz Gain 9.3 dBi VSWR Less than 1.5

Maximum power rating 100W

 $\begin{array}{ll} \text{Length} & 1.8\text{m} \\ \text{Weight} & 0.9 \text{ kg} \\ \text{Impedance} & 50 \Omega \end{array}$

Maximum wind resistance 60m/sec Mast diameter accepted ϕ 30-62mm

Connector N-type

Type Five 5/8 wavelength

Though these products purchased are manufactured under strict quality control, if damage is caused by transporting, ask your dealer promptly.

Design and specifications of these products will be changed for future improvement without advance notice.