

OPERATING MANUAL

D130J/D130NJ Super Discone Antenna for Wideband Reception

DIAMOND
ANTENNA

The D130J/D130NJ Super Discone Antenna is the first ultra-wideband antenna in the market which can cover amateur radio, air traffic control and other various utility frequency bands and, in addition, even some amateur radio frequency bands within the covering frequency range can be transmitted with this antenna alone. The D130J/D130NJ is designed to be able to assemble very easily and can be built in a couple of hours by beginners. Rust free stainless steel is employed in major component parts to have the antenna rust resistant and durable. And its very compact and lightweight design enables it to be installed at any convenient place.

Description

1. Ultra-wideband design to be able to cover 25-1300MHz.
2. Very compact and lightweight design enables the antenna to be installed on balcony railing at an apartment or condominium.
3. 6m, 2m 70cm and 23cm amateur frequency bands and 33cm band (900MHz) can be transmitted.
4. Since all radial rods are designed to have the same length, the D130J/D130NJ is perfectly omnidirectional as original discone antenna and can receive radio propagation from any direction evenly.
5. The D130J/D130NJ can be made further compact and lightweight by removing the top element assembly, if it doesn't require to receive lower end frequency range.

Specifications

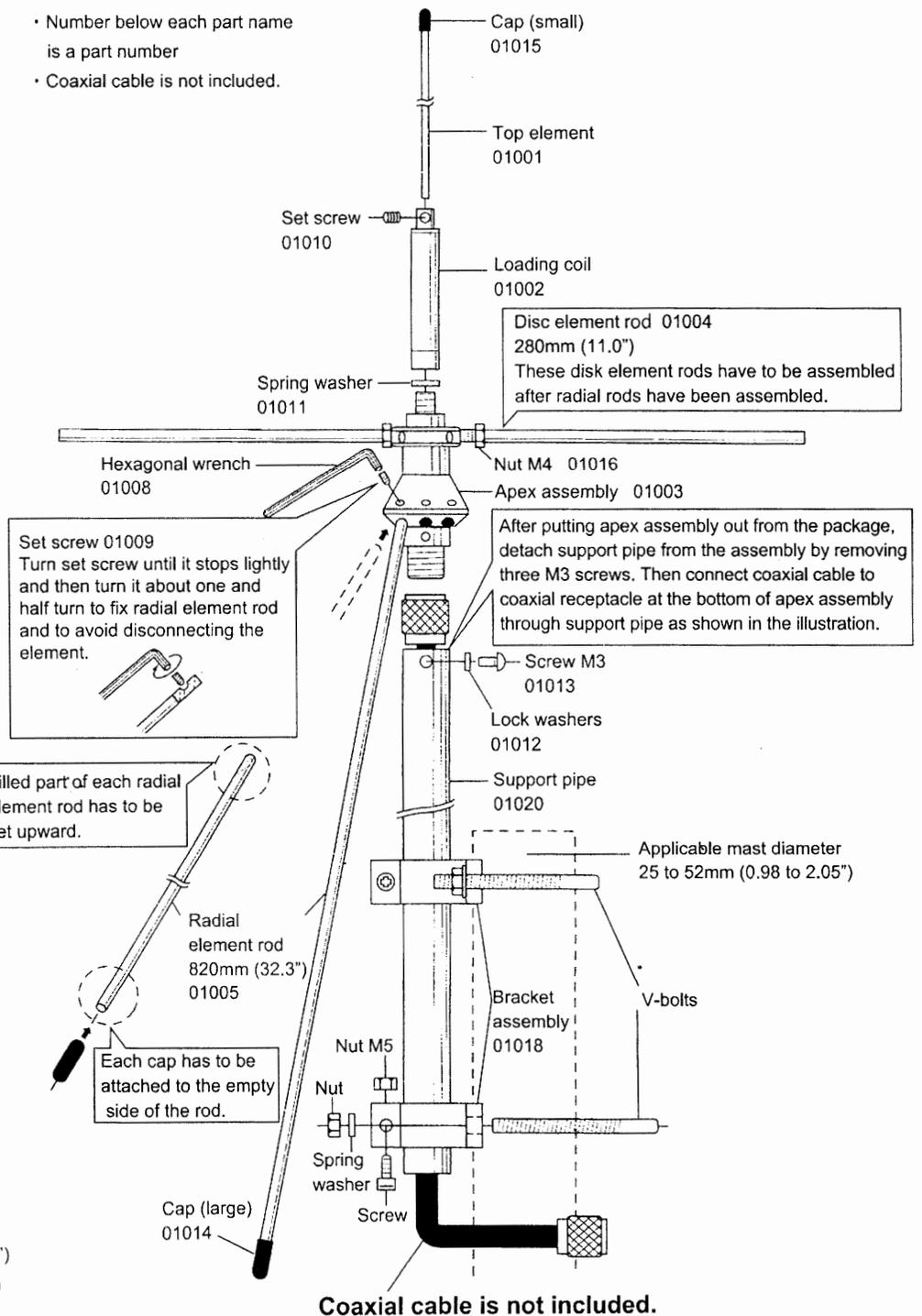
Frequency range: 25-1300MHz for receiving only (Amateur frequency bands and personal radio frequency band for transmitting)

Length : 1.7m (66.9")
 Weight : 1kg (2.2lbs.)
 Max. Diameter : 0.84m (33")
 Mast diameter accepted: 25-50mm (0.98" to 2.05")
 Max. Power rating: 20W FM (6m), 50W PEP (6m) 200W FM (except for 2m)

Type : Wideband Omnidirectional discone antenna

Assembling the D130J/D130NJ Super Discone Antenna

- Number below each part name is a part number
- Coaxial cable is not included.



Disc element rod 01004
280mm (11.0")
These disk element rods have to be assembled after radial rods have been assembled.

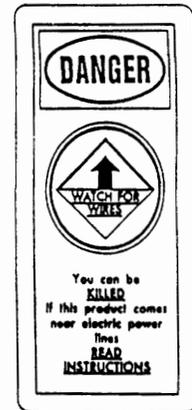
After putting apex assembly out from the package, detach support pipe from the assembly by removing three M3 screws. Then connect coaxial cable to coaxial receptacle at the bottom of apex assembly through support pipe as shown in the illustration.

Set screw 01009
Turn set screw until it stops lightly and then turn it about one and half turn to fix radial element rod and to avoid disconnecting the element.

Filled part of each radial element rod has to be set upward.

Applicable mast diameter
25 to 52mm (0.98 to 2.05")

Coaxial cable is not included.



FOR YOUR SAFETY

Read the following safety precautions before start 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 install the antenna on a rainy or windy day.
- 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

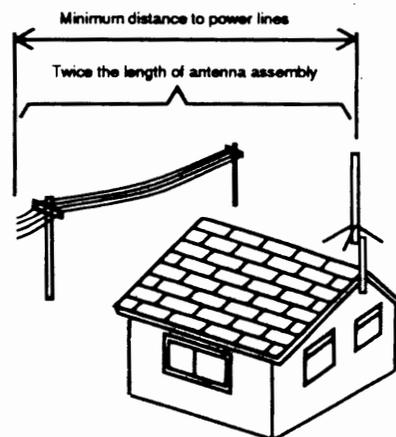
- Do not attempt to sustain the antenna, or any part of support structure if it begins to fall down. Let it fall by itself.
- Do not attempt to remove or restore the antenna or any part of support structure if it touches a electric power line by chance. Let it be as it is, do not touch it, and call your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

DIAMOND ANTENNA CORPORATION

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