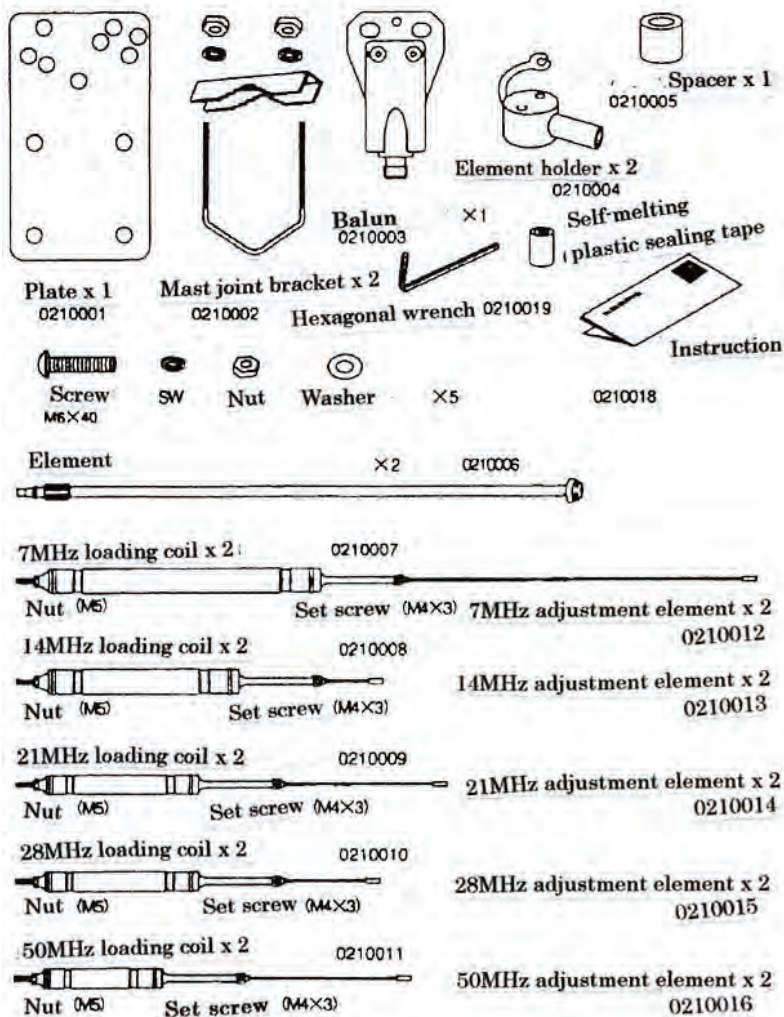


HF/VHF (7/14/21/28/50MHz) Loading V type Dipole Antenna HFV5

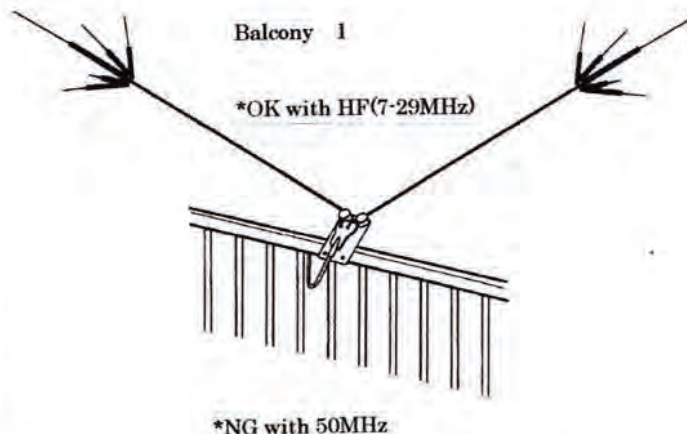
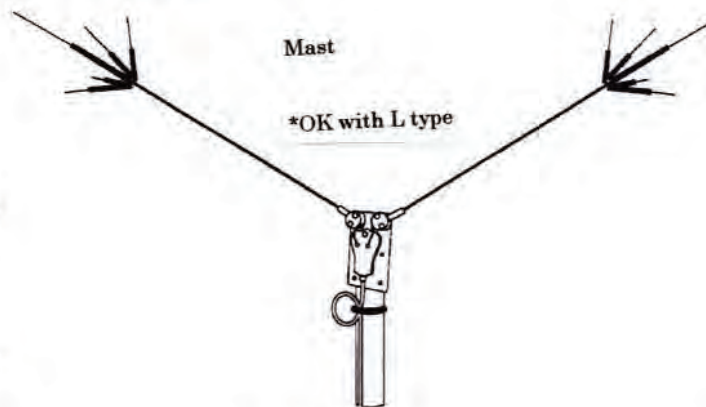
Operation Instructions

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

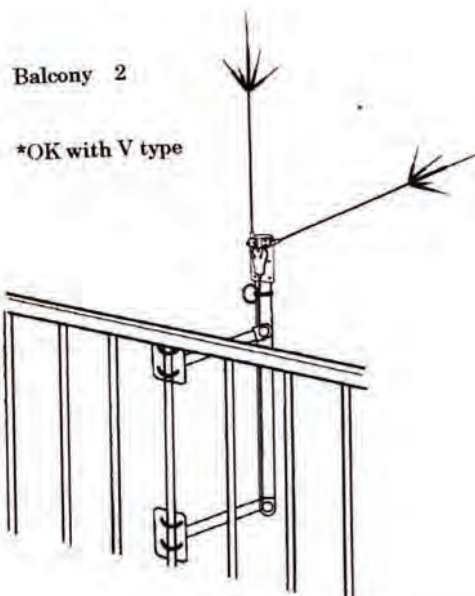
Parts List



Assembly images



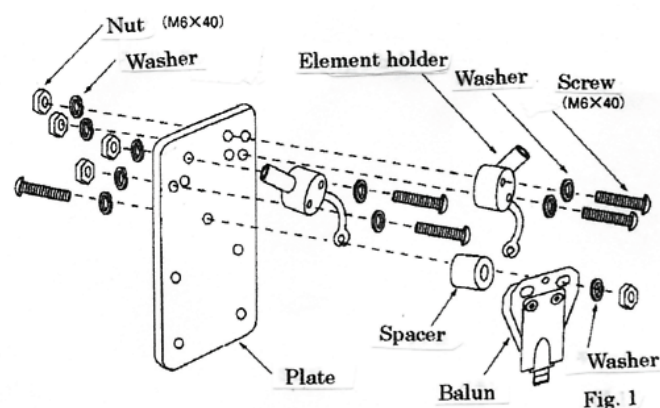
*NG with 50MHz



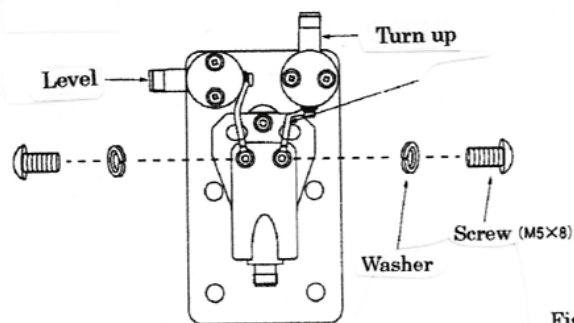
HF/VHF (7/14/21/28/50MHz) Loading V type Dipole Antenna HFV5

Assembly 1 (V type)

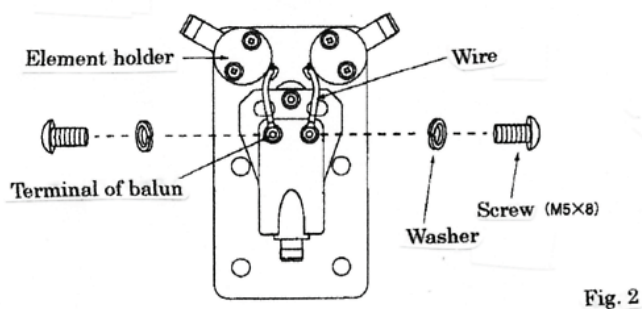
1. Assemble feedpoint section (Fig. 1)



(2) Assemble wire to a terminal of balun (Fig. 4)

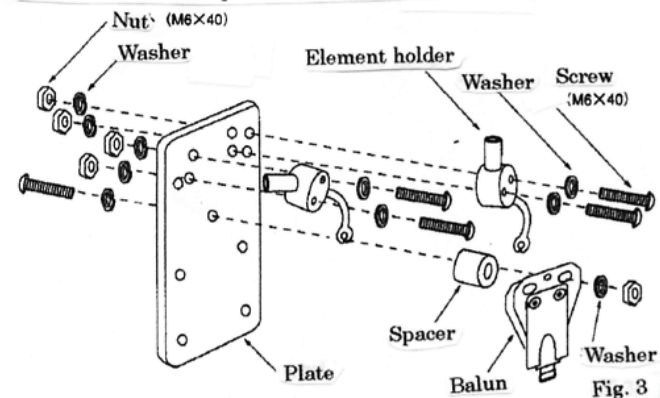


2. Assemble wire to a terminal of balun (Fig. 2)

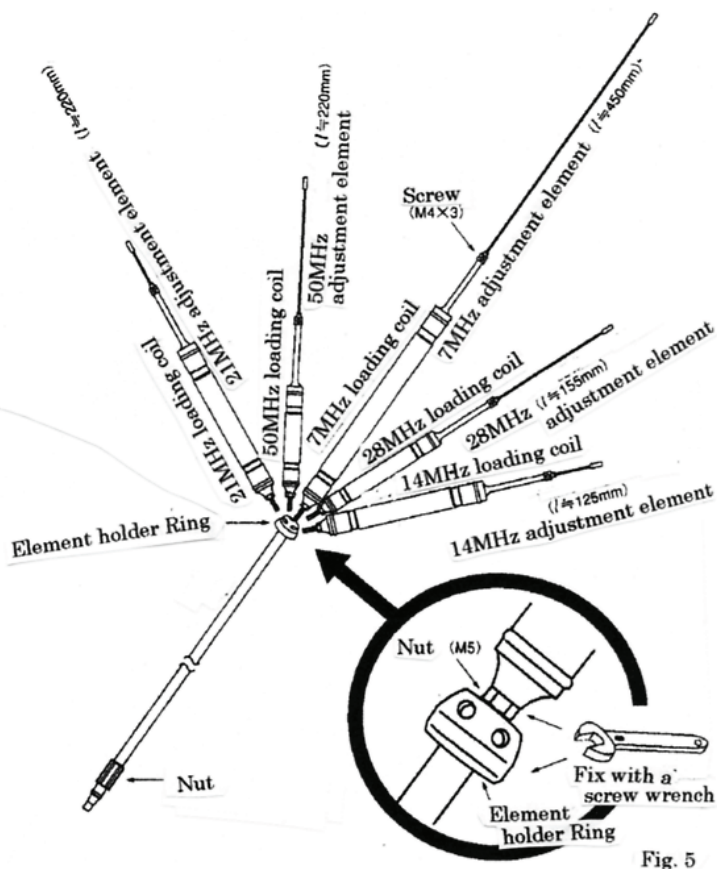


Assembly 2 (L type)

1. Assemble feed point section (Fig. 3)



The antennas are assembled as shown figures. (Fig. 5)



HF/VHF (7/14/21/28/50MHz) Loading V type Dipole Antenna HFV5

Assemble to a feedpoint section

1. Insert assembled element thoroughly into the element holder.

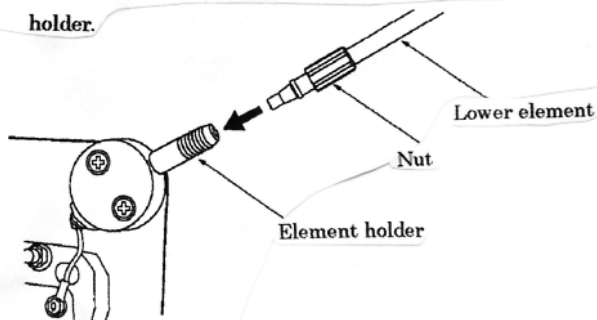
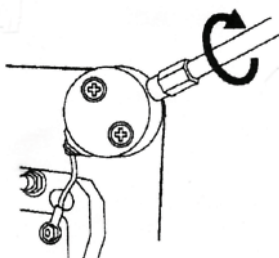


Fig. 6

2. Let both elements symmetrically and fasten the screws.



Assemble to a mast, balcony rail

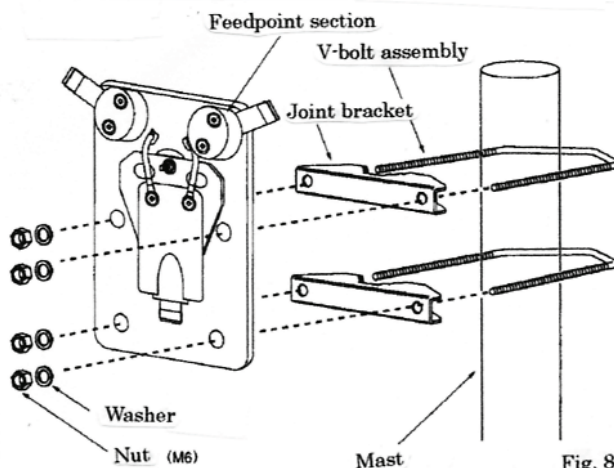


Fig. 8

Assemble to a balcony rail

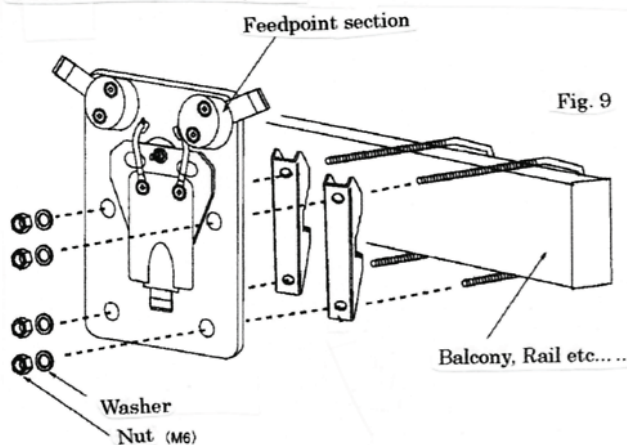


Fig. 9

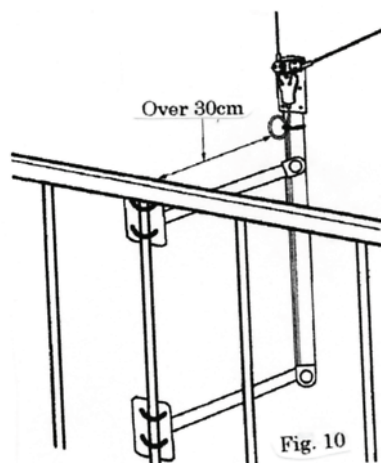


Fig. 10

Fix over 30cm

*VSWR can not be lowered if the antenna is too close to the balcony rail, building etc.

HF/VHF (7/14/21/28/50MHz) Loading V type Dipole Antenna HFV5

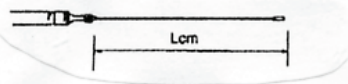
Connect a coaxial cable to the balun. To make connector section waterproof, wrap around self-melting adhesive plastic tape supplied by stretching it about two times. Then wrap around conventional plastic tape to ensure it.

Standard adjustment element length

Frequency	V type	L type	
		Vertical	Flat
7 MHz	37 cm	37 cm	37 cm
14 MHz	5 cm	5 cm	5 cm
21 MHz	15 cm	16 cm	14 cm
28 MHz	9 cm	10.5 cm	7.5 cm
50 MHz	17 cm	18.5 cm	15.5 cm

- The length in the list are as shown length.

Adjustment element length

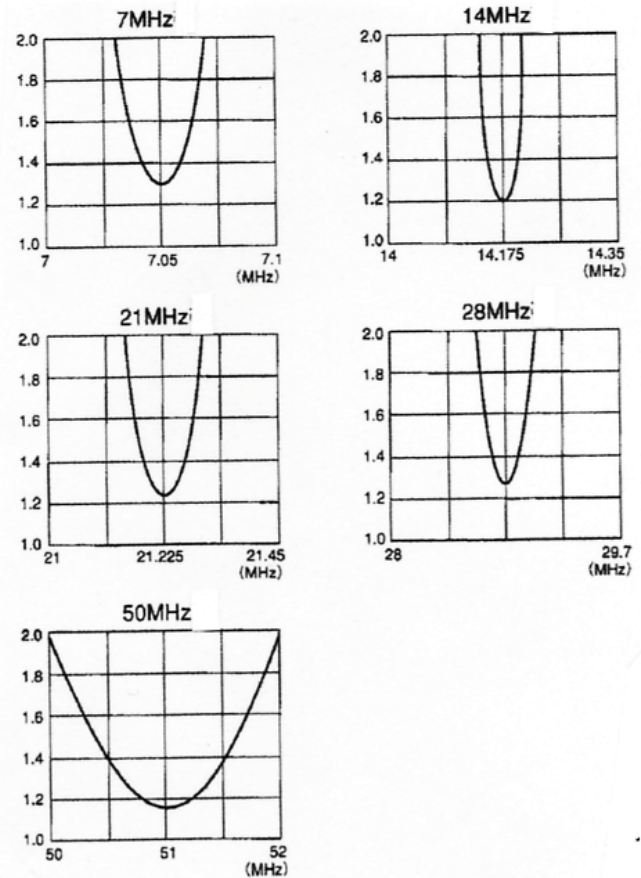


The frequency change per 1cm length is as follows;

Frequency	Change
7 MHz	About 40 KHz
14 MHz	About 160 KHz
21 MHz	About 200 KHz
28 MHz	About 340 KHz
50 MHz	About 300 KHz

- With longer element size, the frequency will move to lower side and shorter length move the frequency to higher level.

VSWR



Specifications

Frequency	: 7/14/21/28/50MHz
Max power rating	: 150W SSB(7/14MHz) 220W SSB(21/28/50MHz)
VSWR	: Less than 1.5
Impedance	: 50 Ω
Length	: About 4 m
Weight	: 1.95 Kgs.
Mast diameter accepted:	: φ 25 – 62mm
Connector	: M (M-J)
Type	: Loading dipole antenna

HF/VHF (7/14/21/28/50MHz) Loading V type Dipole Antenna HFV5

FOR YOUR SAFETY

Read the following safety precautions before starting assembling the antenna.

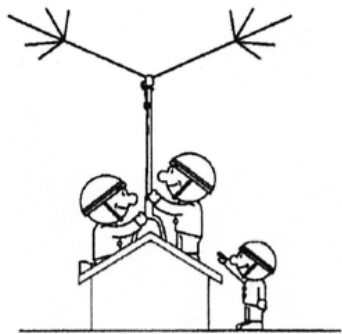
- Assemble the antenna on the ground or wide and flat place such as on balcony before installation.
- Do not assemble or install the antenna on a place where you can not have enough distance from any electric power lines.
- Do not attempt to install the antenna only by yourself. Installing the antenna 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

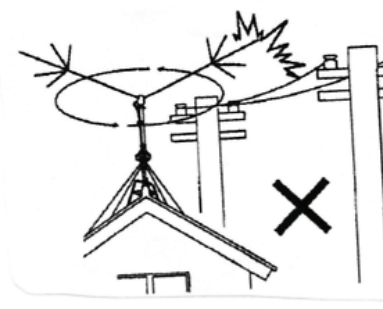
- Do not touch a person or an animal who is or seems to be in contact with the antenna or any support structure which is fallen on a live electric power line. Touching one may lead you to be electrocuted.
- Do not attempt to separate a person or an animal who is or seems to be in contact with the antenna 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 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.