

34 RADIO ARCHIPIÉLAGO CANARIO 00

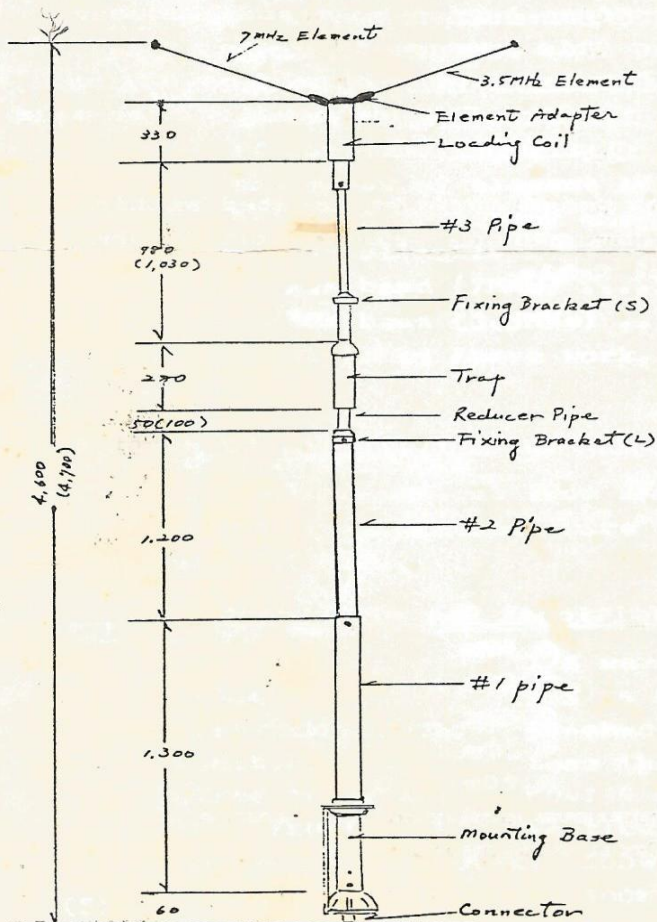
HOKUSHIN HS-HF-5 5-BAND TRAP VERTICAL ANTENNA

*FEATURES

1. This Antenna is very easy to install, because this Antenna is self-stand type and light in weight.
2. Trap & Loading part of this antenna is completely water proofed.
3. All of bolts and nuts are made by stainless steel.

*STANDARD DIMENTIONS

Note: Dimintions in () for Ground-plane Antenna.



*PARTS LIST

Mounting Base	1 set
#1 pipe 31.8 ϕ x1,300 mm	1 pce.
#2 pipe 28.5 ϕ x1,300 mm	1 pce.
#3 pipe 19.0 ϕ x950 mm	1 pce.
Reducer 25.5 ϕ x100 mm	1 pce.
Trap (21 & 28MHz)	1 pce.
Loading Coil (3.5 & 7MHz) ...	1 pce.
Stainless Element	2 pcs.
Element Adaptor	2 pcs.
Fixing Bracket (L) & (S)	1 pce/ea
Bolt 6 ϕ x15 mm	2 pcs.
Square Nut 6 ϕ	2 pcs.
Tapping Screw 4 ϕ x10 mm	2 pcs.
Washer 4 ϕ	2 pcs.
Spring Washer 5 ϕ	6 pcs.
Spring Washer 6 ϕ	4 pcs.
Nut 5 ϕ	4 pcs.
Nut 6 ϕ	4 pcs.
U Bolt 6 ϕ	2 pcs.
Wrench	1 pce.

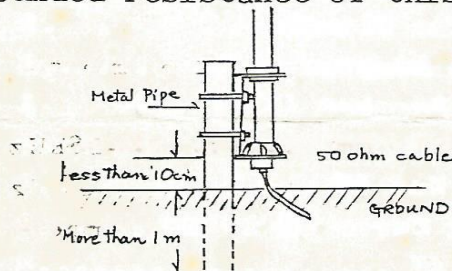
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*ASSEMBLING

1. Please check all parts by parts list.
2. Insert the #2 Pipe to #1 Pipe and fixing by tapping screw. Set the Fixing Bracket (L) to top of #2 Pipe, having 6 mm hole, temporary.
Set the Fixing Bracket (S) between #3 Pipe and upper part of Trap.
3. #3 Pipe and Loading Coil was fixed by factory, but please confirm whether jointing is complete or not.
4. Mount the 7MHz and 3.5MHz Element adaptors to top of Loading Coil.
5. Indication of Frequency for 7MHz and 3.5MHz by wave length as 40M and 80M.

*INSTALLATION (AS GROUNDED TYPE ANTENNA)

Please set up the antenna at good location having no obstacles near around. In general, Mounting Pole for this antenna is to be metal made (3-4.5 cm dia, 1.5 m length). This metal pipe should be driven into the ground more than 1m as shown below. In this case, please make grounded resistance of this pole as low as possible.



Feeding point must be located within 10cm from ground. Please use 50-ohm Coaxial Cable.

*INSTALLATION (AS GROUND PLANE ANTENNA)

You can use this antenna as ground plane antenna easily, by setting HOKUSHIN HF-5R radial kit additionally. If you want to use wires as radial for this antenna, please make radials length as follows.

<u>Frequency</u>	<u>Radial length</u>	<u>Additional for adjustment</u>
3.5MHz	21.5m	0.60m
7MHz	10.7m	0.50m
14MHz	5.3m	0.40m
21MHz	3.6m	0.30m
28MHz	2.7m	0.20m

You need 1 wire for 1 frequency in minimum, and radial angle must be 120-degrees \pm 20-degrees from radiator.

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ADJUSTMENT

Please set S.W.R. Bridge between Antenna and Transmitter. Setting point of S.W.R. meter must be within 1 meter from the antenna.

(28MHz) This band is pre-fixed. Approximately center frequency is 28.8MHz.

(21MHz) Please check a resonanced frequency by S.W.R. Bridge on transmitting. In case resonanced frequency is too high, Please extend the length between #2 Pipe and Trap Coil. In case resonanced frequency is too low, please reduce the length between #2 Pipe and Trap Coil.

(14MHz) Please adjust the length of #3 Pipe to find out minimum V.S.W. on desire frequency.

(7MHz/3.5MHz) Firstly, adjustment is done for 7MHz, but please attach both element. Insert the element to bottom of element adaptor.

Then, cut the element by plier until you can find out disired resonanced frequency, by checking V.S.W.R. meter. If cutted too short, please extend the element, loosing the screw of element adaptor. Same job for 3.5MHz.

Ratio of frequency change per 1cm of stainless element is as follows:-

40M band (7MHz)approximately 15-18KHz
80M band (3.5MHz)approximately 11-13KHz

When you finished above work, please tighten all screws once again.

*ADJUSTMENT OF RADIALS

Please start adjustment from high 28MHz, down to low 3.5MHz. Please cut the additional wire to find desired frequency by checking V.S.W.R..

*SPECIFICATIONS

TYPE:	1/4 wave length Vertical
FREQUENCY:	3.5 to 28MHz
INPUT IMPEDANCE:	50-ohms
V.S.W.R.:	less than 1.5
INPUT TERMINAL:	S0-239 Coaxial Socket
WAVE FROM:	Vertical
MAXIMUM INPUT POWER:	200W PEP for 3.5MHz & 7MHz 500W PEP for 14MHz, 21MHz & 28MHz
WEIGHT:	2.9Kgs.
TOTAL LENGTH:	4.8 meters