

# BB7V

## Operation Instructions

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

### Warning

- ① The places where the antenna is installed are restricted by local state and federal law. Install the antenna at the specified and safe places.
- ② Don't touch the antenna during transmitting. It may cause to have a fire or electrify.
- ③ The thunder seems to rumble in the vicinity, don't touch the antenna and coaxial cable. It may cause to electrify.
- ④ The antenna may be struck by lightning. 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.
- ⑤ 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.
- ⑥ Don't work in order to install the antenna at unstable or high place.
- ⑦ Don't drop the antenna, tools and attachments, when installing the antenna in height. Install the antenna before assembling it on the ground.
- ⑧ Don't install the antenna on a rainy day or windy day since it is dangerous.

### Attention

- ① SWR of the BB7V is less than 2.0 because BB7V is designed as wide band. When transmitting, use the antenna tuner and adjust the SWR less than 1.5. SWR could be changed depending on the installation situation.
- ② Ham radio wave inflicts wave obstacle on the home electric appliances or telephone equipment. Beforehand, confirm if the electronic obstacles aren't inflicted on home of your own or neighborhood. It may cause to the trouble.
- ③ Installation is restricted depending on mansion or apartment. Beforehand, confirm installation restricted to administration office.

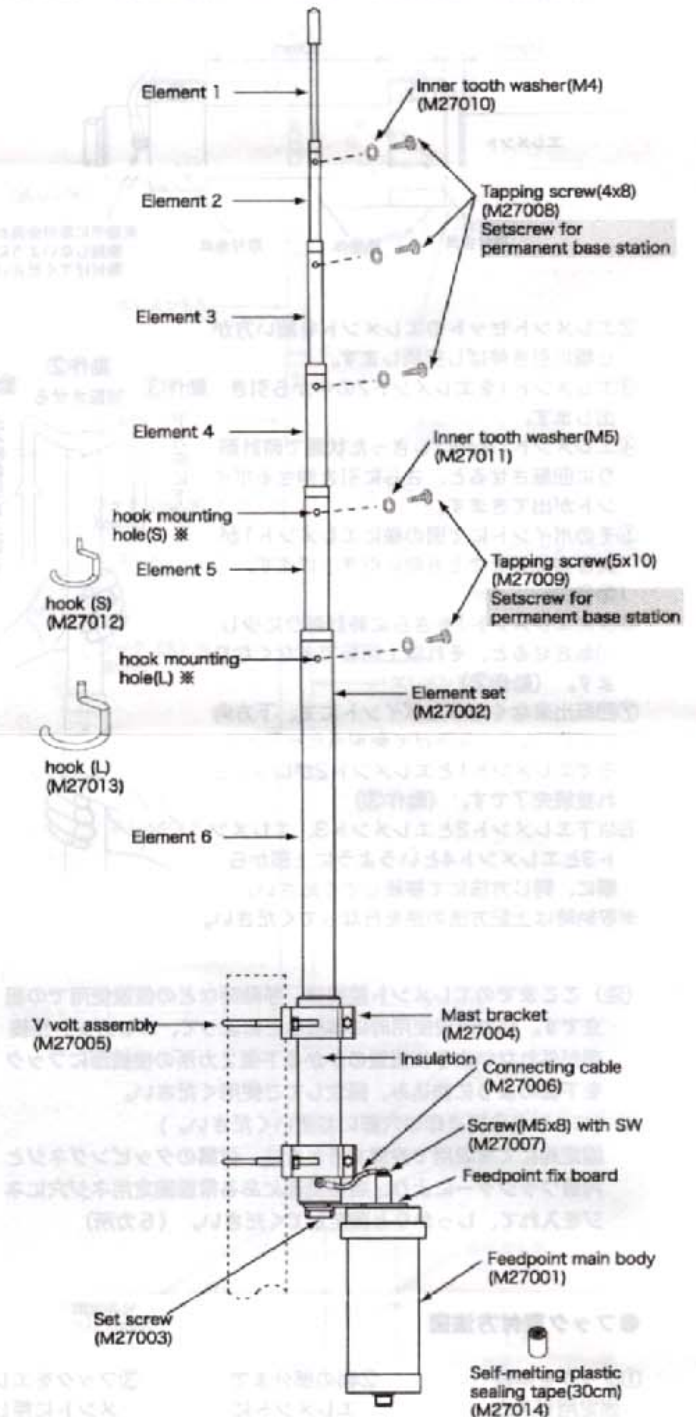
### Description

- ① BB7V is designed as wide band (2-30MHz). Cumbersome adjustment the frequency is not necessary.
- ② Since simple connect structure that any tool is not needed is employed, making portable operation is convenient. Antenna can be assembled for a short time.
- ③ Total length is 1.3m when containing the antenna element. Carrying the antenna is easy.

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### Parts name (number)



### Parts list (number)

The unit is consisted of the following parts.

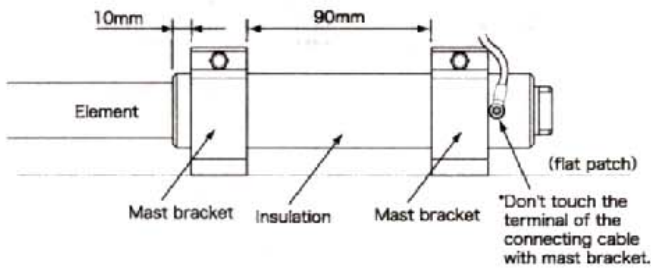
- Feedpoint main body (M27001) ..... 1
- Element set (M27002) ..... 1
- Set screw (M27003) ..... 1
- Mast bracket (M27004) ..... 2
- V volt assembly (M27005) ..... 2
- Connecting cable (M27006) ..... 1
- Screw (M5 x 8) with SW (M27007) ..... 1
- Tapping screw (4x8) (M27008) ..... 3



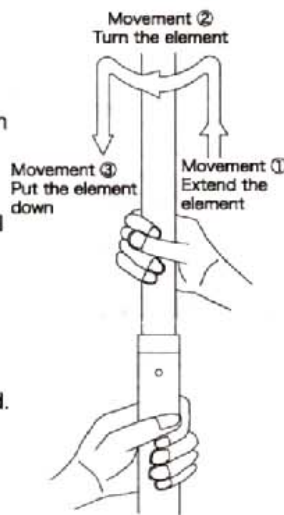
- Tapping screw(5x10)(M27009) ..... 2
- Inner tooth washer(M4)(M27010) ..... 3
- Inner tooth washer(M5)(M27011) ..... 2
- hook(S)(M27012) ..... 1
- hook(L)(M27013) ..... 1
- Self-melting plastic sealing tape(30cm)(M27014) ..... 1

• How to assembly and install the antenna.

- ① Fix the mast bracket to the insulation of the element base as shown in the following figure.  
(Place the mast bracket on the flat patch to fix it easily.)



- ② Extend each element from narrow section and fix them.
  - ③ Pull the element 1 out from element 2.
  - ④ While extending element 1 fully, turn it clockwise then a point where the element can be extended further appears.
  - ⑤ At that point, pull element 1 up until it reaches the end as shown in the figure. (Movement①)
  - ⑥ Next, turn the element 1 clockwise until it reaches the end. (Movement②)
  - ⑦ At that point, put element 1 down. Element 1 and element 2 are locked. (Movement③)
  - ⑧ Repeat this procedure from element 2, element 3 and so on.
- \*When containing the antenna, do the counter procedure.



**(Note)**

The above procedure is only for temporary installation at portable operation. Put hooks in two lower places of the connecting sections(\*on parts list) and fix them to avoid falling down the antenna due to strong wind when using the antenna for temporary installation at portable operation. If the antenna is used for permanent base station, fix each element with tapping screw and inner tooth washer supplied firmly. (5 places)

• How to fix hook

- ① Put hook in hook mounting hole.
- ② Put hook in the element.
- ③ Push the element. (Completed)



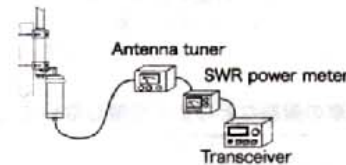
- ⑨ Loosen the set screw of the lower section of the insulation and remove it.
- ⑩ Put the set screw in the hole of the feedpoint fix board and return the set screw to the lower section of the insulation and fix the board to feedpoint main body with set screw. When the antenna is used for permanent base station, fasten it with spanner firmly.
- ⑪ Fix the connecting cable from the insulation to the terminal on the upper of the feedpoint main body with screws (M5 x 8) and spring washers.
- ⑫ Fix the V volt assembly to the mast pope firmly.
- ⑬ At last, connect the coaxial cable to the feedpoint main body. To make connector section waterproof, wrap around self-melting plastic sealing tape supplied by stretching it about 1.5 times. Then wrap around conventional plastic tape to ensure it.

**Don't install the antenna horizontally or aslope. Install the antenna vertically.**

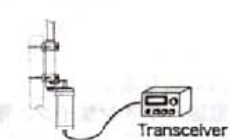
• Confirming SWR

- ① BB6W is a non-adjustable antenna but SWR is higher depending on the surround situation. Use the antenna tuner to make SWR less than 1.5.
- ② Practice test transmission for the adjustment as short time and least RF power as possible.
- ③ Prepare a VSWR power meter for applicable frequencies and RF power, and set the meter as shown in the following figure.

Example 1  
(Transceiver without the antenna tuner)



Example 2  
(Transceiver with internal automatic antenna tuner)

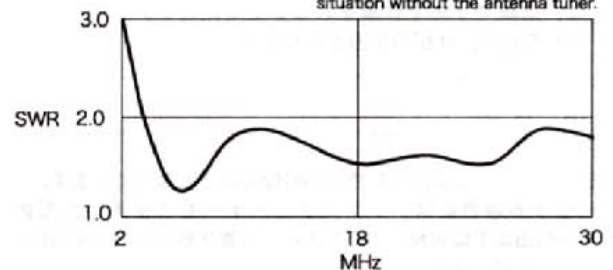


• When SWR is too high

Since the antenna is affected by building or the ground, change the installation place or height.

• VSWR

\*The characters of the antenna may be changed depending on the installing situation without the antenna tuner.



• Specification

Frequency	2-30MHz (with antenna tuner)
Impedance	50Ω
VSWR	Less than 2.0 (3-30MHz)
Max Power Rating	250W (PEP)
Connector	M-J
Length	Approx. 6.7m
Weight	0.8Kg

- 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.

**DIAMOND ANTENNA CORPORATION**