

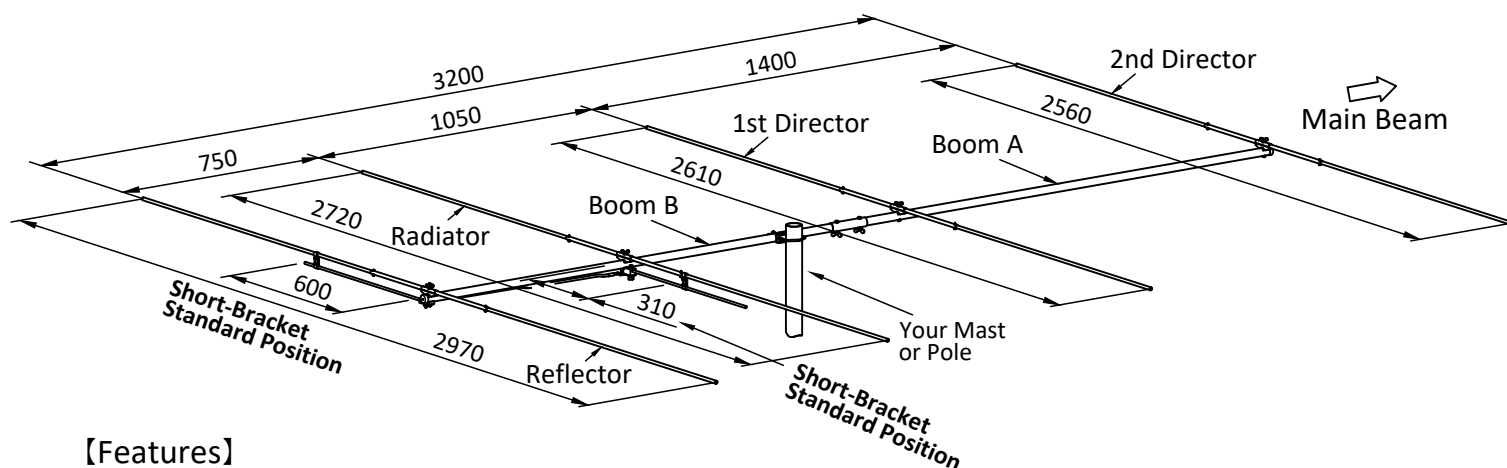
MODEL CA-52HB4

HB9CV type 4element Beam antenna for 50~53.5MHz

Instruction Manual

Thank you for purchasing our product.

For your safety :
Read this manual carefully for proper handling and operation before using.
Keep this manual in a safe place for future reference.



【Features】

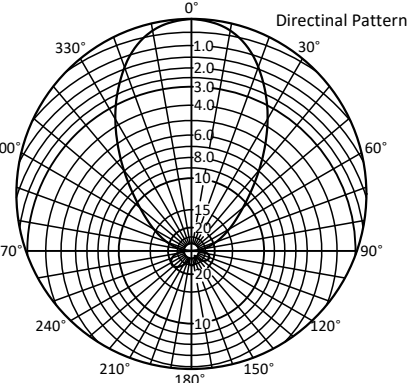
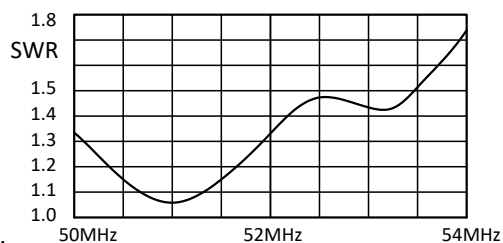
1. Compact and lightweight design for DX transmitting use
2. HB9CV extended 2 Element Beam Antenna with high gain
3. Heavy-duty with stainless steel screws

⚠ Precautions for assembling

- Wearing a safety hat and a life line during installing on a roof top or any high places is highly recommended.
- Do not erect this antenna near any electrical power lines and/or street lights.

【Specifications】

- Frequency : 50 – 53.5MHz
- Gain : 10.4 dBi
- F/B : 19dB or more
- Half-power angle : approx 54°
- Input Power : 200W(FM)
- Impedance : 50Ω
- V.SWR : 1.5 or less at 50 – 53.5MHz
- Connector : SO-239 (M-J) type
- Turning Radius : approx 2.22m
- Mounting Mast Diameter : φ25 – 62mm
- Max Wind Survival : 30m/sec
- Wind Load : approx 0.054m²
- Boom Length : approx 3.25m
- Length : approx 2.97m
- Weight : approx 2.1kg (antenna body)



⚠ Precautions for Installation

- Choose a safe place to erect this antenna, complying with the laws and regulations in your country.
- Be sure to tighten and waterproof all screws, nuts and bolts.
- Do not erect this antenna near any overhead wires, steel towers, buildings or any other obstacles.

Check all parts are included, according to the parts list.

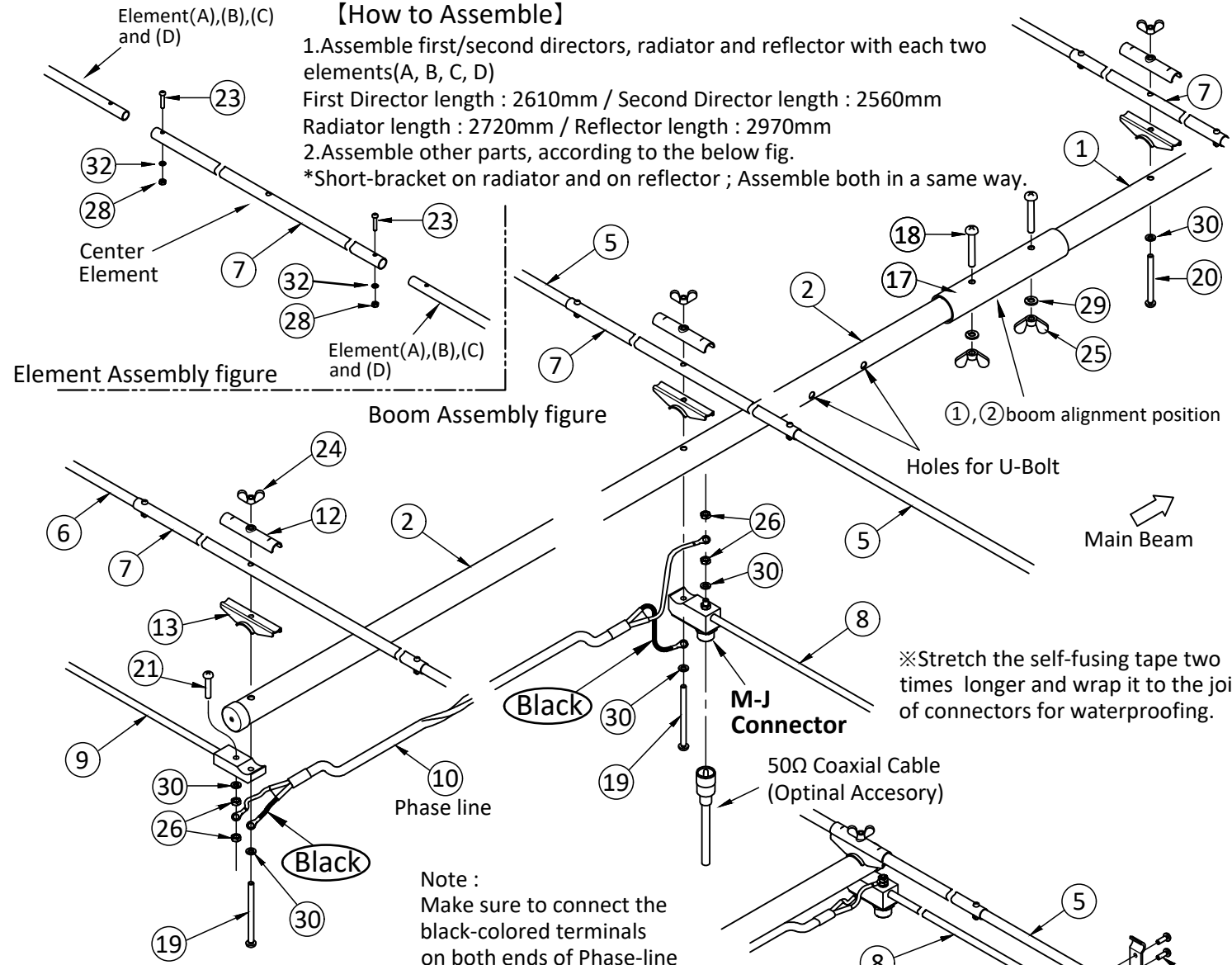
【Parts List】

No.	Parts Name	Spec.	Qty.
1	Boom A	φ25 × 1625 mm	1
2	Boom B	φ25 × 1625 mm (with a hole for U-Bolt)	1
3	Element(A)	φ9.5 × 1010 mm	2
4	Element(B)	φ9.5 × 1035 mm	2
5	Element(C)	φ9.5 × 1090 mm	2
6	Element(D)	φ9.5 × 1215 mm	2
7	Center Element	φ11 × 600 mm	4
8	Regulating Rod (1)	with SO-239 Connector	1
9	Regulating Rod (2)	Rod without Connector	1
10	Phase Line	with terminal	1
11	Short-bracket	aluminum	4
12	Element-holder A	aluminum	4
13	Element-holder B	aluminum	4
14	Backing plate	stainless	1
15	Fixing bracket	stainless	1
16	U-Bolt	M6	1
17	Boom Joint	Zinc Plating	1
18	Pan-head Screw	M6×40	2
19		M5×70	2
20	Spring washer	M5×55	2
21		M5×25 (preinstalled with Regulating Rod(2))	1
22	Wing Nut	M4×12	4
23		M3×16	8
24	Hex. Nut	for M5	4
25		for M6	4
26	Hex. Nut	for M5 (4 preinstalled with Regulating Rod)	4
27		for M4	4
28	Spring washer	for M3	8
29		for M6	4
30	Spring washer	for M5 (2 preinstalled with Regulating Rod)	6
31		for M4	4
32	Self-fusing tape	for M3	8
33			1

*appearance and/or specification are subject to change.

【How to Assemble】

1. Assemble first/second directors, radiator and reflector with each two elements(A, B, C, D)
First Director length : 2610mm / Second Director length : 2560mm
Radiator length : 2720mm / Reflector length : 2970mm
2. Assemble other parts, according to the below fig.
*Short-bracket on radiator and on reflector ; Assemble both in a same way.



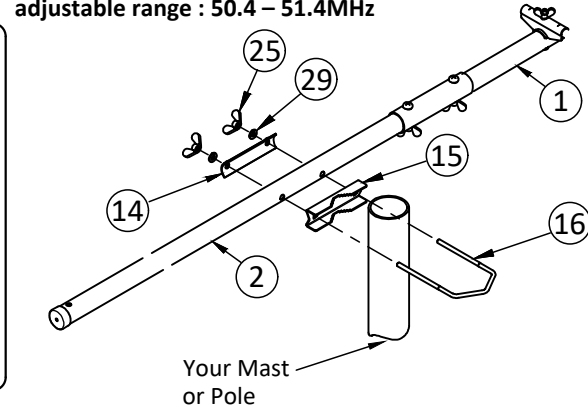
【How to adjust】

1. Put your 50Ω coax cable into CA-52HB4 SO-239 Connector, and check SWR. With a high SWR reading, you have to re-adjust this antenna
2. When adjusting center frequency, move a short-bracket on the radiator. fo becomes lower when moving short-bracket inward. (see the right fig.) If not SWR becomes lower, try to adjust a short-bracket on the reflector.
*Move the antenna to a different mounting location when SWR stays high.
3. Tighten each screw and bolt to lock the antenna into its newly adjusted position.
*Use backing plate, brackets and/or U-bolts etc when mounting this antenna to your mast etc.

⚠ 【Precautions for operating】

- Check if the Cable Connector fits into the Antenna Connector.
- Keep children away from this antenna, especially while transmitting.
- Stop the use of this antenna immediately if you see the slightest trouble.
- DO NOT use this antenna out of spec.
- DO NOT use this antenna without element or with extra element.
- Never attempt to perform modification by yourself.
- While lightening, DO NOT touch this antenna.
Remove the radio, antenna and/or cable etc from devices.
Also check SWR after lightening.

Changes in the Frequency
Approx 50kHz /cm
Center Frequency adjustable range : 50.4 – 51.4MHz



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