

ICOM®

INSTRUCTIONS

HF/50 MHz 5-BAND ANTENNA

AH-703

Thank you for purchasing the AH-703 HF/50 MHz 5-BAND ANTENNA. This antenna covers 7, 14, 21, 28 and 50 MHz bands, and is designed for portable operation of the IC-703 when carried in the LC-156.

Please read these instructions thoroughly before using the AH-703.

■ IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the AH-703.

SAVE THIS INSTRUCTION SHEET!— This instruction contains important safety and operating details for the AH-703.

■ PRECAUTION

⚠ WARNING: HIGH VOLTAGE!

NEVER touch the antenna element/wire while tuning or transmitting. This may result electrical shock or burn.

⚠ **WARNING SUSPEND** operation immediately or **NEVER** put up the antenna when thunder occurs or can be heard in the distance.

⚠ **WARNING NEVER** assemble or disassemble the antenna at any crowded area. A person may be injured.

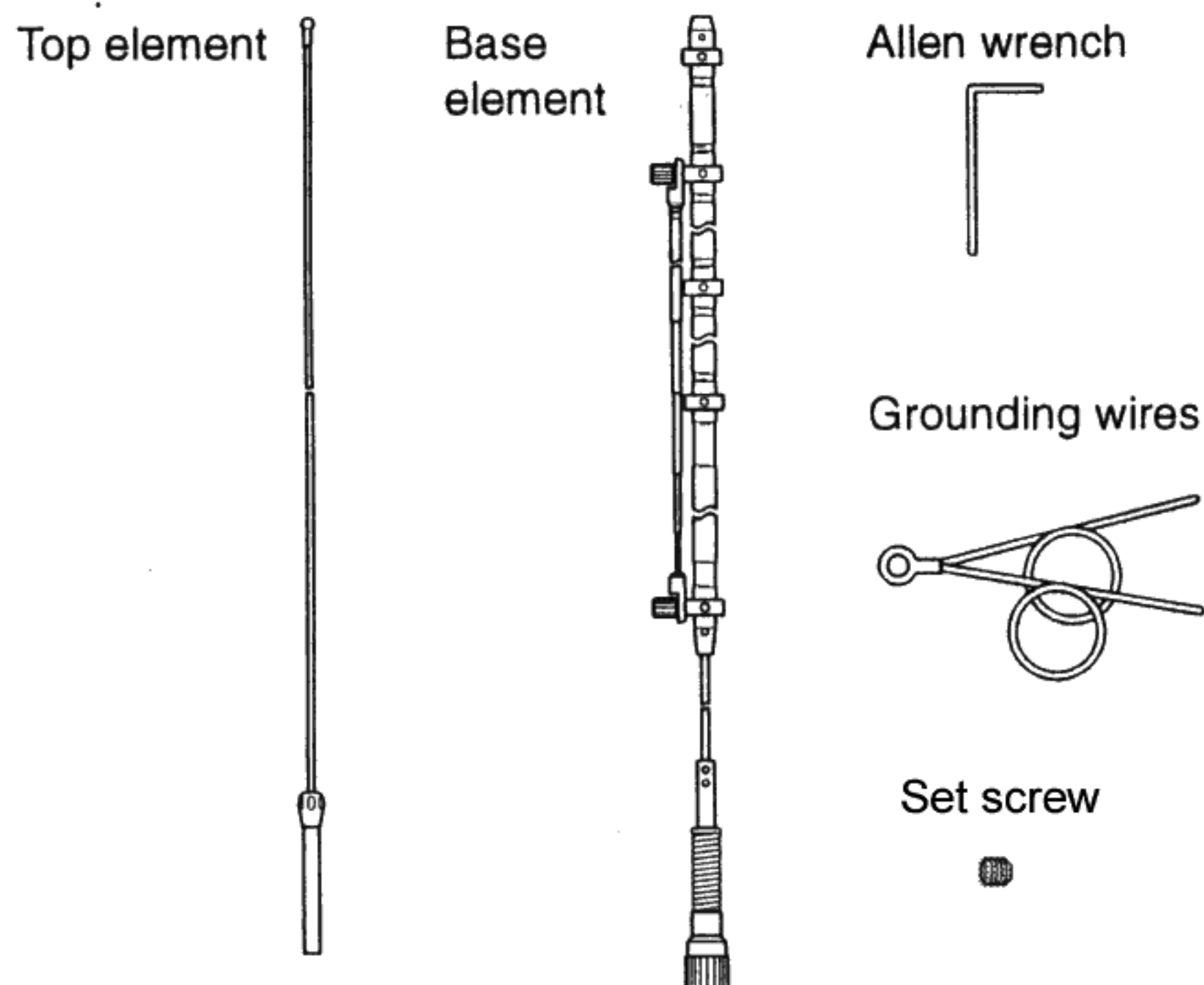
USE the AH-703 for portable operation with the IC-703 **ONLY**. **NEVER** install the antenna to a vehicle for mobile operation.

DISCONNECT the antenna when not using the antenna for long period of time.

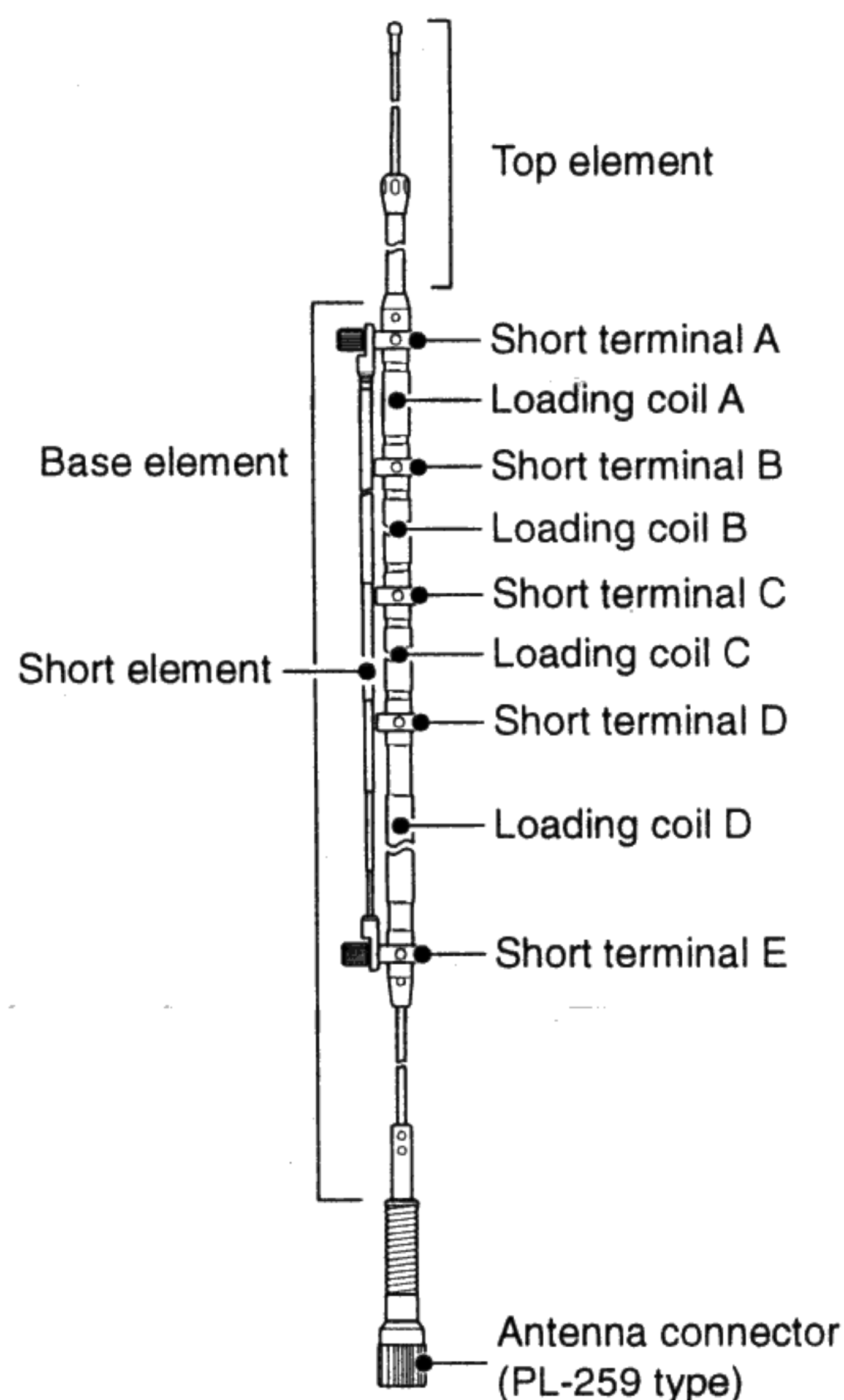
DO NOT use chemical agents such as benzine or alcohol when cleaning, as they can damage the AH-703.

READ THE IC-703 INSTRUCTION MANUAL FIRST before attempting to operate the transceiver.

■ Supplied items



■ Antenna description



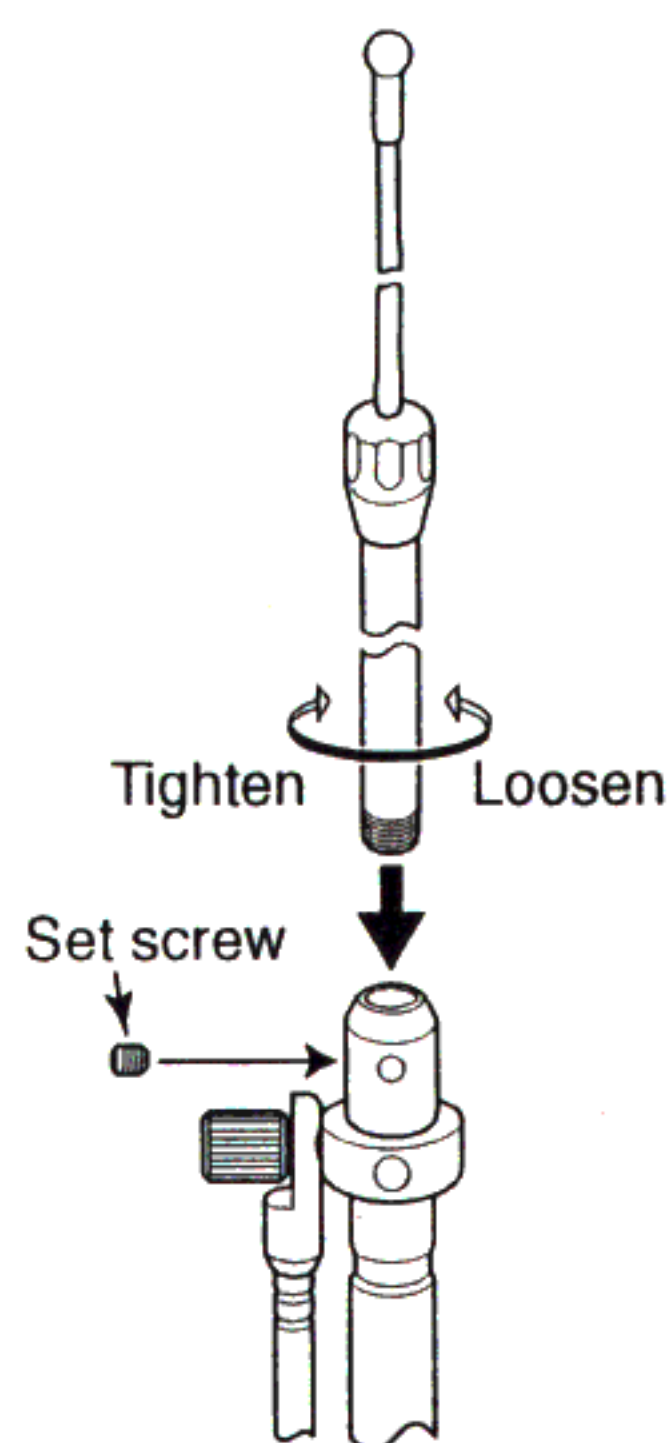
■ Antenna specifications

- Frequency coverage : 7, 14, 21, 28 and 50 MHz bands
- Type of antenna : $\frac{1}{4}\lambda$ type whip antenna
- Antenna connector : PL-259 (50 Ω : nominal)
- Max. input power : 20 W
- Total antenna length : Approx. 1,390 mm; 4.6 ft
(at the longest element length)
- Weight : Approx. 330 g; 11.6 oz
(without grounding wires)

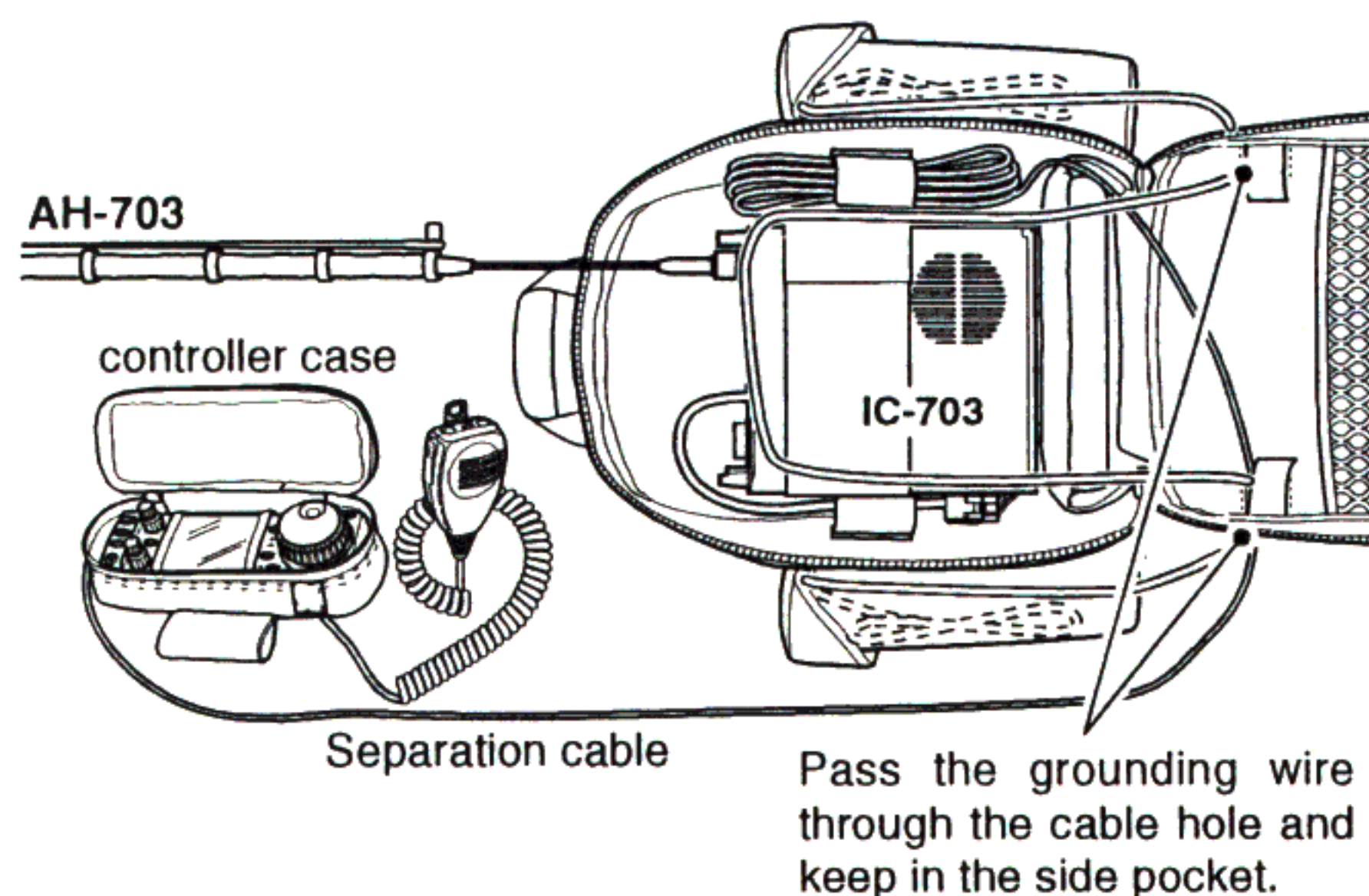
All stated specifications are subject to change without notice or obligation.

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■ Assembling the antenna



- ① Loosen the set screw.
- ② Attach the top element to the base element, then tighten the top element.
- ③ Tighten the set screw.
- ④ Attach the grounding wires to the [GND] terminal of the IC-703 rear panel as illustrated below.
 - Keep the grounding wires in the LC-156 side pockets via the cable hole.



The above illustration is example only.

When SWR cannot be reduced, abnormal functioning of the transceiver may occur, etc., change the cables (grounding, separation, DC power and microphone cables) wiring, as described in the "■ Operation hints".

■ Adjusting the antenna

- ① Set the desired operating frequency on the IC-703.
- ② Connect the short element between the short terminals to suits the set operating frequency as follows.

Freq. Band	Short element connection	Using loading coil
7 MHz	Remove the element	All loading coils (A-D)
14 MHz	D-E	A-C
21 MHz	C-E	A-B
28 MHz	B-E	A only
50 MHz	A-E	No loading coil

- ③ Push [TUNER] on the IC-703 controller, then measure the VSWR.
 - See the IC-703 instruction manual for the VSWR measurement procedure.

- ④ When the VSWR is not good enough (VSWR>1.5:1) or not tuned, adjust the following.

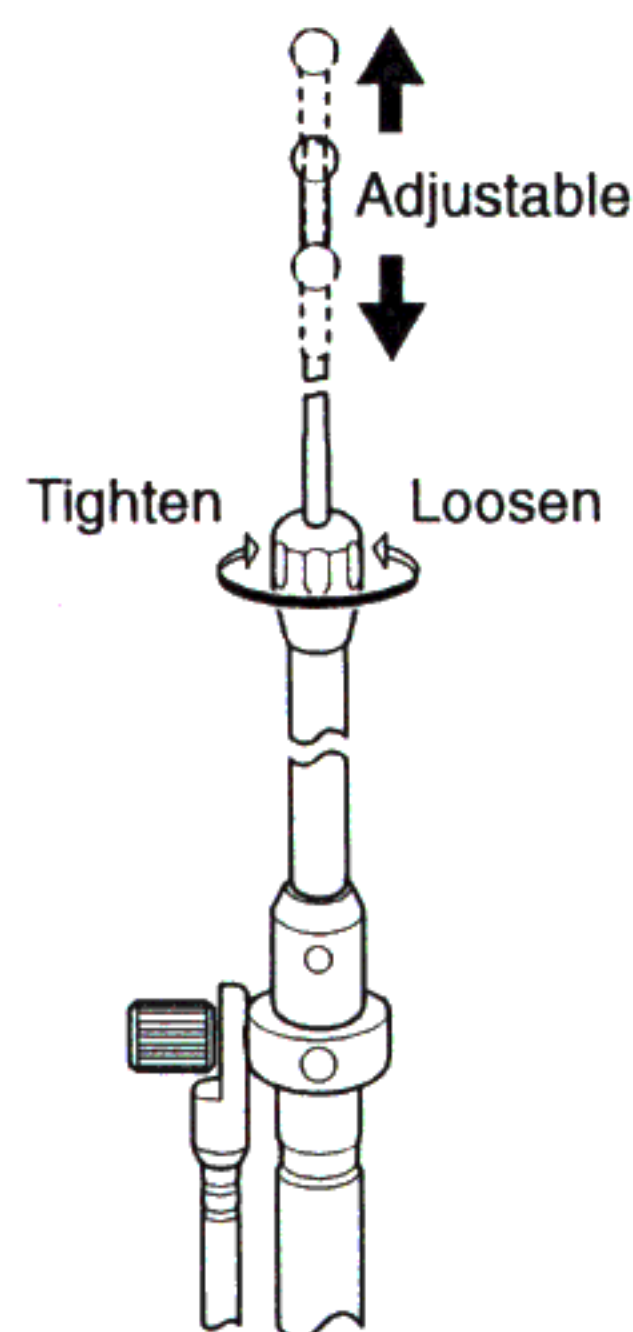
• Top element length:

Loosen the nut of the top element, then adjust the element length as illustrated below.

- To improve VSWR on a higher or lower frequency in the selected frequency band, adjust the top element by lengthening or shortening it, respectively.
- After the element length adjustment, tighten the nut.

• Grounding wires:

Adjust or change the wires angle, holding position, etc.



- ⑤ Repeat the steps ③ and ④ until the VSWR becomes better than 1.5:1.

■ Operation hints

- The IC-703 separation cable may work as the grounding cable (counterpoise). Changing the cable wiring may also provide better VSWR.
- The quality of communication during portable operation depends on the operating frequency, field condition, etc. When the operating condition is not good, changing the place of operation may help improve operating performance.
- When changing the operating frequency, manual tuning is helpful for good operation. Even changing the frequency 10 kHz, you should start with manual tuning.