

### About an external antenna tuner

The optional AH-4 ANTENNA TUNER matches the IC-7300 to a long wire antenna more than 7 m/23 ft long (3.5 MHz and above).

The optional AH-740 AUTOMATIC TUNING ANTENNA covers 2.5 to 30 MHz range with a supplied whip antenna.

During mobile operation, the optional AH-2b ANTENNA ELEMENT matches the IC-7300 to a whip antenna more than 2.5 m/8.2 ft long (7 ~ 50 MHz).

#### ⚠ DANGER HIGH VOLTAGE!

**NEVER** touch the antenna element while tuning or transmitting. Always install it in a secure place.

**NEVER** operate the AH-4 or AH-740 without an antenna connected. The tuner and transceiver will be damaged.

#### ◇ Using the AH-4 or AH-740

1. Turn ON the transceiver.
  - "TUNE" is displayed.
  - ① Each time you push **TUNER**, "TUNE" is displayed or goes out, and the AH-4 or AH-740 is turned ON or OFF (bypassed).
2. Hold down **TUNER** for 1 second to start manual tuning.
  - The tuner reduces the SWR to less than 1.5:1 after 2~3 seconds of tuning.
  - ① While tuning, a side tone is heard and "TUNE" blinks red.
  - ① If the tuner cannot reduce the SWR to less than 1.5:1 after 20 seconds of tuning, "TUNE" goes out.
3. After tuning, "TUNE" is displayed.
  - ① When the long wire antenna cannot be tuned, "TUNE" goes out. In that case, the AH-4 is bypassed and the wire is directly connected.

**NOTE:** When the wire antenna cannot be tuned, confirm wire length and connection.

Note that the AH-4 cannot tune a wire that is a  $\frac{1}{2}\lambda$  long or on a multiple of that frequency.

#### ◇ Using an external antenna tuner

When you use a non-Icom external antenna tuner, be sure to turn OFF the internal antenna tuner before connecting the external antenna tuner.

Otherwise, the tuning may fail because both antenna tuners (internal and external) will simultaneously start tuning.

See the antenna tuner's instruction manual for details.

**NOTE:** Be sure not to connect the antenna tuner without an antenna connected. This could damage the transceiver or external antenna tuner.

#### TIP:

- When the tuner cannot tune the antenna, be sure to confirm the SWR is less than 3:1 (2.5:1 for 50 MHz), and then start to tune again.
- If the SWR is not reduced to 1.5:1 after retuning, see "If the tuner cannot tune the antenna" (p. 13-2) for details.