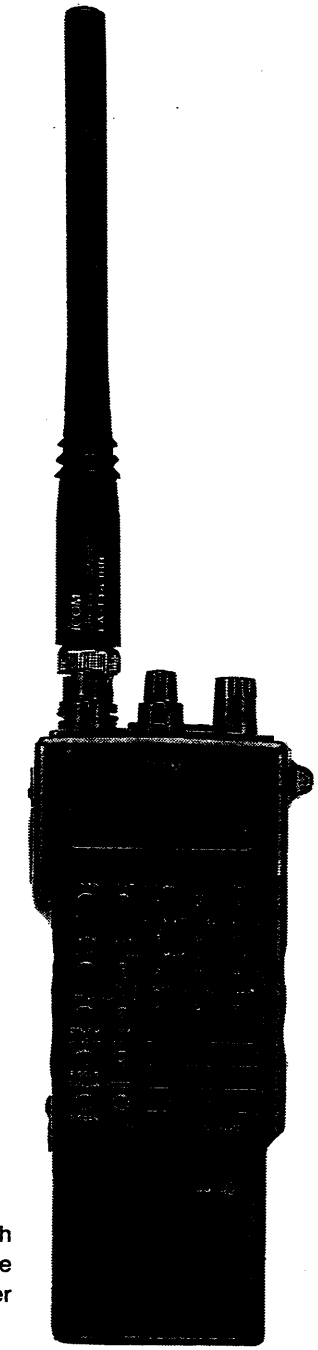
ICOM

INSTRUCTION MANUAL

DUAL BAND FM TRANSCEIVER

IC-W2A
IC-W2E

Icom Inc.



The photo shows IC-W2E with BP-82 BATTERY PACK. The battery pack and antenna differ according to versions.

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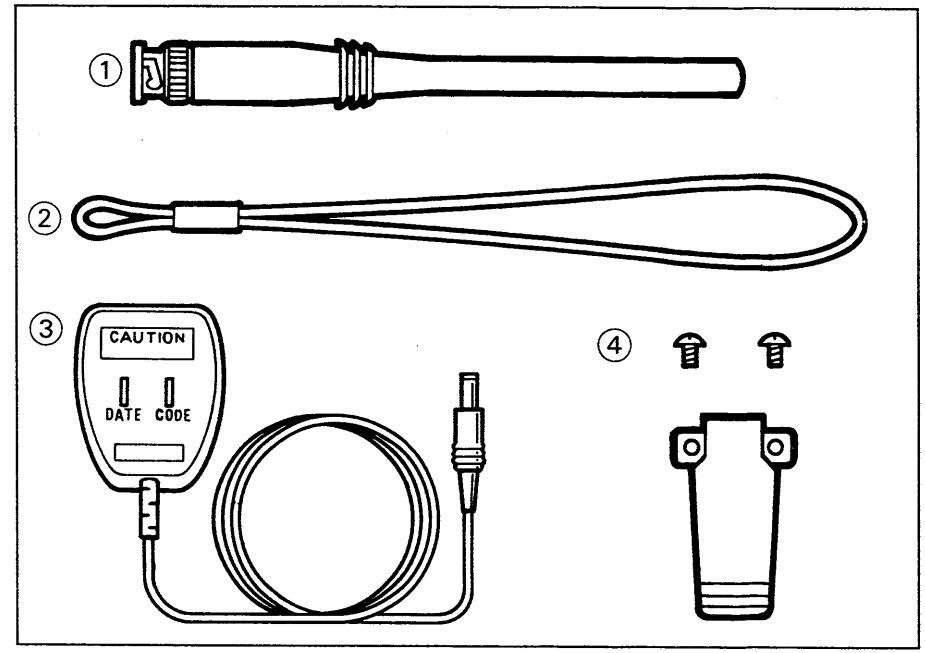
UNPACKING



① Flexible antenna*1 1
② Handstrap 1
③ Wall charger*2 1
④ Belt clip and screws 1set
Battery pack or battery case*3 1

*1 The diagram differs from the antenna attached with the U.S.A. version.
*2 Not included in some versions which are attached to battery cases.
*3 Either BP-82, BP-83, BP-84 or BP-90 will be attached to the transceiver depending on your version.

1 Before operation

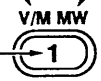
Some keys on the front panel have 3 or 4 different functions. The function depends on the following procedures:

Digits (1 ~ 0)	Activated for frequency setting after pushing [# ENT].
Functions written in gray	Activated by simply pushing the key.
Functions written in blue	Activated by pushing the key while pushing [F] on the side panel.
Digits and letters (1 ~ 0 and A ~ D)	Activated for DTMF transmission while [PTT] is being pushed.

[EXAMPLE]:

Push this key:
Switches VFO and MEMORY mode.

Push this key after pushing [# ENT]:
Inputs "1" for frequency entry.



Push this key while pushing [F]:
Writes the displayed data into a memory channel.

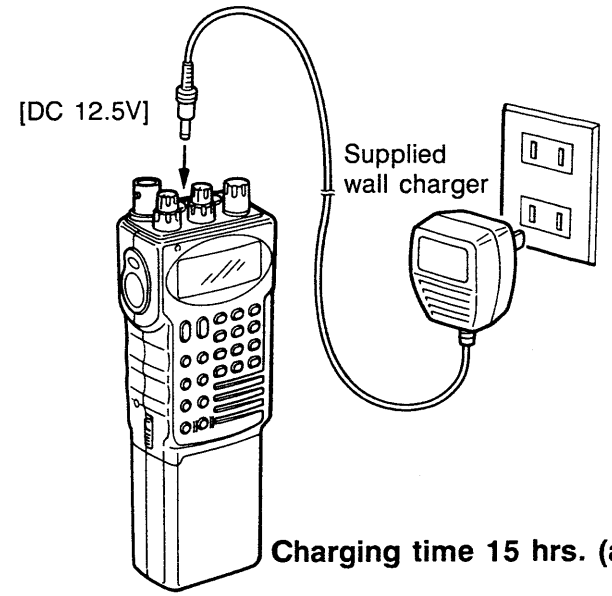
[① V/M] and [① MW] are used here as examples.

2 Charge the battery pack

The supplied battery pack may require a full charge prior to operation.

Turn the transceiver power OFF and then connect the supplied wall charger as described in the diagram below.

- The CPU back-up battery will also be fully charged.
- See p. 12 or p. 14 for details on safety and use of a desktop charger or battery case.



Charging time 15 hrs. (approx.)

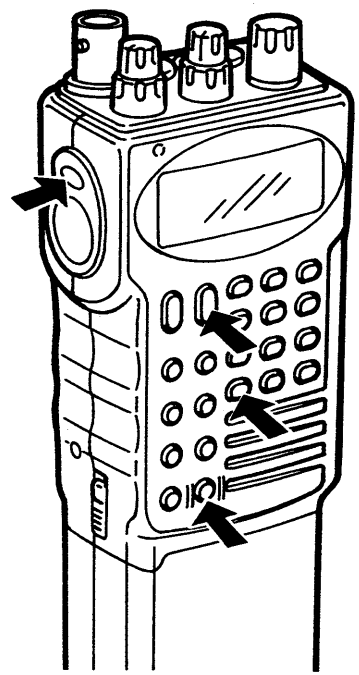
CAUTION: DO NOT forget to attach the jack cap after battery charging is finished. The jack cap prevents bad contact caused by dust.

3 Reset the transceiver

If the display shows erroneous information when first applying power, the transceiver may require CPU resetting.

1) While pushing the [F], [U MAIN] and [⊛ CLR] keys, push [POWER] for 1 sec. to turn power ON.

2) The CPU is reset and the function display shows as follows:
   - U.S.A. version
     146.01, 440.00 MHz
   - Asia version
     146.01, 430.00 MHz
   - Other versions
     145.00, 430.00 MHz



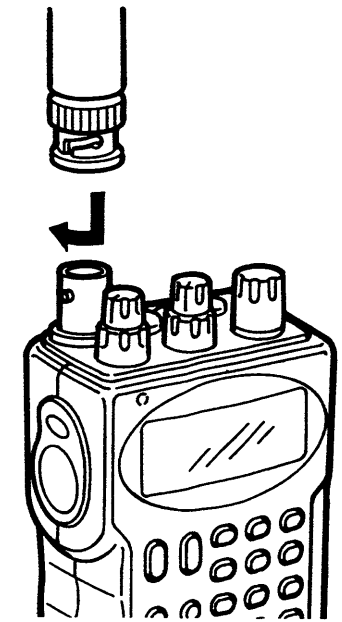
When the internal CPU backup battery is not charged, keep the battery pack or battery case attached for at least 2 hours. If, however, you have followed the charging instructions on p. 1, the backup battery is already fully charged.

4 Connect the supplied antenna

Insert the supplied antenna into the antenna connector and twist the antenna as shown in the diagram.

CAUTION:
Transmitting without an antenna may damage the transceiver.

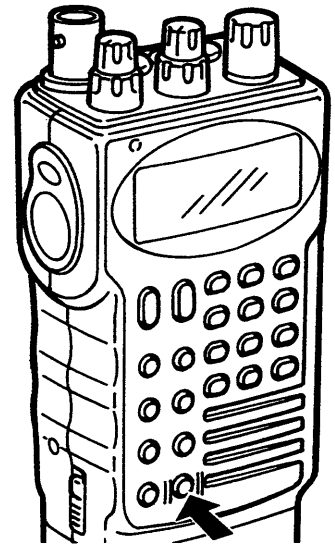
To attach other accessories such as a belt clip, hand-strap etc., see p. 13.



5 Turn power ON

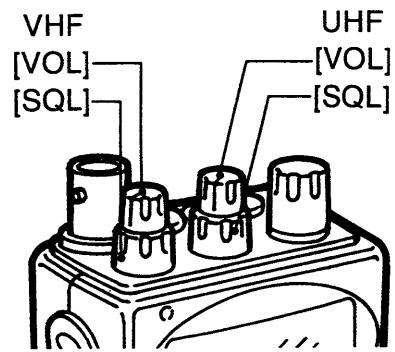
Push and hold the [POWER] key for 1 sec. to turn power ON.

• A beep sounds at power ON.



6 Set the audio level

1) Set the VHF audio level:
   - Rotate the VHF [SQL] max. counterclockwise.
   - Set VHF [VOL] to the desired level.
   - Set VHF [SQL] to mute audio noise while no signal is being received.



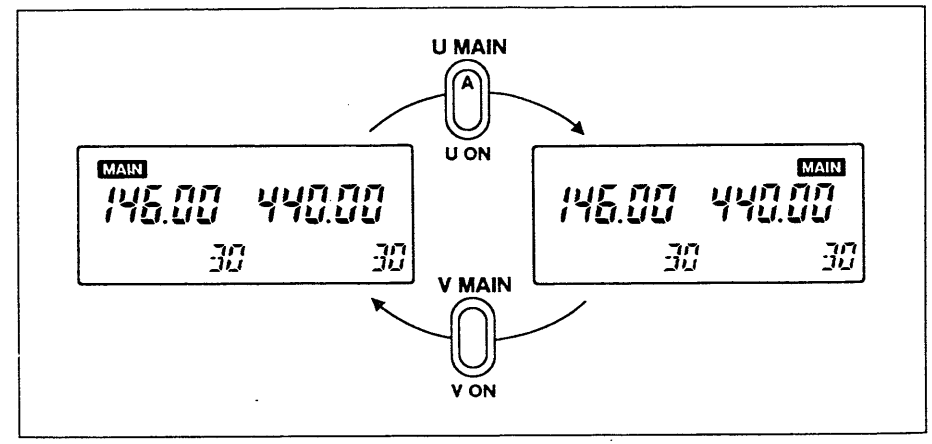
2) Set the UHF audio level:
   - Rotate UHF [SQL] max. counterclockwise.
   - Set UHF [VOL] to the desired level.
   - Set UHF [SQL] to mute audio noise while no signal is being received.

7 Set the frequency

• Using the main dial

1) To set the VHF frequency, push [V MAIN] then rotate the main dial.

2) To set the UHF frequency, push [U MAIN] then rotate the main dial.



• Using the keyboard

Push [# ENT], then push 4 digit keys.

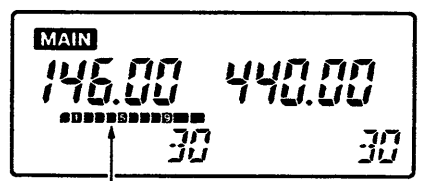
• Others

Advanced frequency setting methods are possible via the keyboard, main dial, etc. See pgs. 15 ~ 17 for details.

8 When receiving a signal

The transceiver can receive a VHF and a UHF signal simultaneously. When receiving, the transceiver functions as follows:

1. Emits the received signal(s) from the speaker.
2. Indicates the relative signal strength on the received band S-indicator on the function display.



When receiving a signal on the VHF band.

NOTE: When a [SQL] control is set too "tight" (extremely clockwise), squelch may not open for weak signals. At this time, set the squelch to a "loose" (less clockwise) position, or push and hold the [MONI] key.

9 Transmit a signal

The transceiver cannot transmit on both bands simultaneously.

NOTE: To prevent howling, AVOID setting the UHF frequency near the 3rd multiple of the VHF frequency, example, setting for 145.00 MHz and 435.00 MHz.

1) Push [V MAIN] or [U MAIN] to select the desired band for transmitting.

2) Push [⑨ HI/LOW] to select high or low output.
   - "Low" conserves battery power and "high" ensures long distance communications.
   - "LOW" appears when low power is selected.

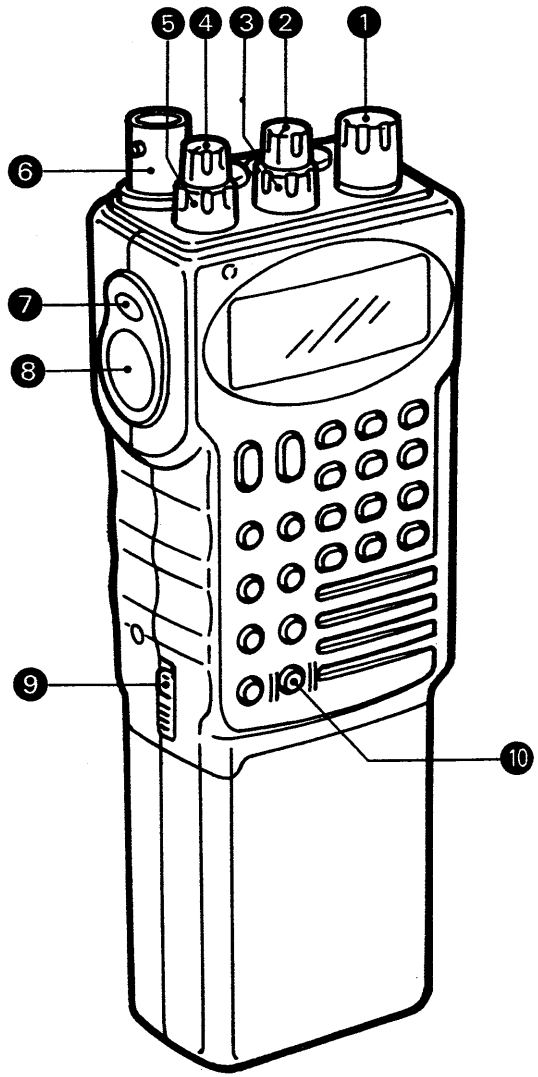
3) Push and hold [PTT] to transmit.
   - The LED indicator on the front panel lights up to red when transmitting. (The indicator is orange if the other band is in receive.)

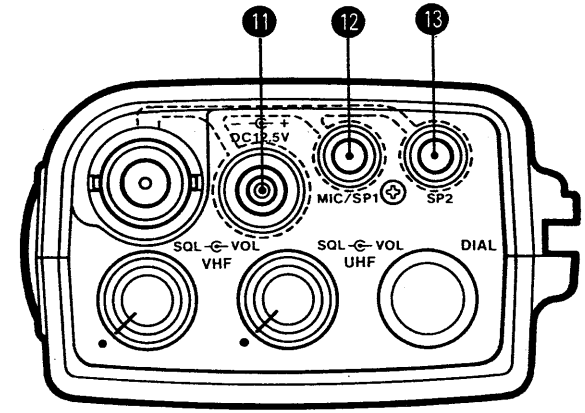
4) Speak into the microphone.
   - DO NOT hold the transceiver too closely to your mouth or speak too loudly. This may distort the signal.

5) Release [PTT] to receive.
   - To use the repeater for long distance communications, see p. 19 for details.

2 PANEL DESCRIPTION

■ Top and side panels





❶ MAIN DIAL [DIAL]
Sets an operating frequency, a memory channel, contents in SET mode, etc.

❷ UHF VOLUME CONTROL [VOL] (p. 3)
Adjusts the UHF band audio level.

❸ UHF SQUELCH CONTROL [SQL] (p. 3)
Varies the squelch threshold point for UHF band noise mute.

❹ VHF VOLUME CONTROL [VOL] (p. 3)
Adjusts the VHF band audio level.

❺ VHF SQUELCH CONTROL [SQL] (p. 3)
Varies the squelch threshold point for VHF band noise mute.

❻ ANTENNA CONNECTOR (p. 2)
Connects the supplied flexible antenna.

❼ FUNCTION SWITCH [F] (pgs. 7, 8)
While pushing [F], all switches are set for secondary function use. (Functions written in blue are secondary functions.)
- In VFO mode, the dial select function is activated. The dial select function changes the memory channel or changes the frequency in 100 kHz or 1 MHz steps by rotating the main dial.

❽ PTT SWITCH [PTT] (p. 4)
Push and hold to transmit on the MAIN band frequency; release to receive.

❾ BATTERY PACK RELEASE BUTTON (p. 14)
Opens the latch for battery pack removal when pushed upwards. Slide battery pack to the right for removal.

❿ POWER KEY [POWER] (p. 2)
Turns power ON and OFF when pushed for 1 sec.

⓫ EXTERNAL DC POWER JACK [DC12.5V] (p. 11)
Connects the supplied wall charger for charging the battery pack.
- Some versions which have a battery case do not come with a wall charger.

Allows operation with a 12.5 V DC power source using the optional cables, CP-13 or OPC-288 (see separate "List of options" for details).

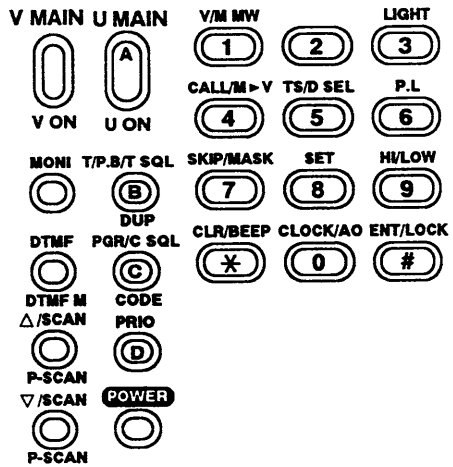
⓬ EXTERNAL SPEAKER/MICROPHONE JACK [MIC/SP1]
Connect an optional speaker-microphone or headset, if desired (see separate "List of options" for details).

See the description of the [SP2] for detailed use of this jack.

⓭ EXTERNAL SPEAKER JACK [SP2]
Connect an optional earphone or external speaker, if desired.

	Internal speaker	SP1 output	SP2 output
With no external jacks	VHF/UHF (mixed)	—	—
With SP1 jack	—	VHF/UHF (mixed)	—
SP2 only	VHF	—	UHF
With both SP1 and SP2 jacks	—	VHF	UHF

■ Front panel



KEY	FUNCTION	WHILE PUSHING [F]
V MAIN / V ON	Selects the VHF band as the MAIN band. (p. 3)	Activates the transceiver for the VHF band only. (p. 18)
U MAIN / U ON	Selects the UHF band as the MAIN band. (p. 3)	Activates the transceiver for the UHF band only. (p. 18)
MONI	Opens the squelch and the optional tone squelch of the main band. (p. 4)	Opens the squelch and optional tone squelch of the sub band.
T/P.B/T SQL / DUP	Turns ON the following optional functions* in this sequence: subaudible tone encoder → pocket beep → tone squelch → non-tone operation. (pgs. 20, 46)	Selects the following in this sequence: —duplex → +duplex → simplex. (Pgs. 19, 20)
DTMF / DTMF M	Emits the programmed DTMF memory code. (p. 33)	Enters DTMF MEMORY mode to program the DTMF memory. (p. 33)
PGR/C SQL / CODE	Turns ON the following optional functions in this sequence: Pager function → code squelch → non-selective call operation. (pgs. 41～44)	Used for programming the code memory for pager and code squelch. (p. 42)
△/SCAN P-SCAN ▽/SCAN P-SCAN	Changes the frequency. (p. 15) Starts the full scan or memory scan when pushed and held. (pgs. 27, 28)	Starts the programmed scan or memory skip scan. (pgs 27, 28)
PRIO	Starts the priority function. (p. 32)	No secondary function.
POWER	Turns power ON and OFF when pushed for 1 sec. (p. 2)	The same function as at left.

*Built-in to the U.S.A. version

Count on us!

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