



## INSTRUCTION MANUAL

COMMUNICATIONS RECEIVER

# IC-R2

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Icom Inc.**

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## FOREWORD

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**READ ALL INSTRUCTIONS** carefully and completely before using the receiver.


**SAVE THIS INSTRUCTION MANUAL** — This instruction manual contains important operating instructions for the IC-R2.

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## EXPLICIT DEFINITIONS

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The explicit definitions below apply to this instruction manual.

WORD	DEFINITION
 <b>WARNING</b>	Personal injury, fire hazard or electric shock may occur.
<b>CAUTION</b>	Equipment damage may occur.
<b>NOTE</b>	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.




Versions of the IC-R2 which display "CE" on the serial number seal, comply with the essential requirements of the 89/336/EEC directive for Electromagnetic Compatibility.

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## CAUTIONS

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 **WARNING! NEVER** operate the receiver with a head-set or other audio accessories at high volume levels. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, reduce the volume level or discontinue use.

**AVOID** using or placing the receiver in direct sunlight or in areas with temperatures below  $-10^{\circ}\text{C}$  ( $+14^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

Even when the receiver power is OFF, a slight current still flows in the circuits. Remove batteries from the receiver when not using it for a long time. Otherwise, the installed batteries will become exhausted.

*For U.S.A. only*

**CAUTION:** Changes or modifications to this device, not expressly approved by Icom Inc., could void your authority to operate this device under FCC regulations.

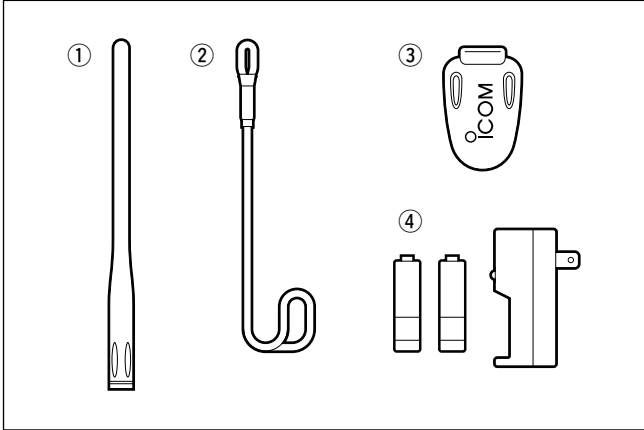
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# SUPPLIED ACCESSORIES

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Accessories included with the receiver:	Qty.
① Antenna (FA-S270C) .....	1
② Handstrap .....	1
③ Belt clip .....	1
④ Ni-Cd charger (BC-127A/D) and 2 Ni-Cd batteries ..	1 set*

\* Not supplied with some versions.



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# OPERATING THEORY

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Electromagnetic radiation which has frequencies of 20,000 Hz (20 kHz\*) and above is called radio frequency (RF) energy because it is useful in radio transmissions. The IC-R2 receives RF energy from 0.495 MHz\* to 1309.995 MHz and converts it into audio frequency (AF) energy which in turn actuates a loudspeaker to create sound waves. AF energy is in the range of 20 to 20,000 Hz.

\*kHz is an abbreviation of kilohertz or 1000 hertz, MHz is abbreviation of megahertz or 1,000,000 hertz, where hertz is a unit of frequency.

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# OPERATING NOTES

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The IC-R2 may receive its own oscillated frequency, resulting in no reception or only noise reception, on some frequencies.

The IC-R2 may receive interference from extremely strong signals on different frequencies or when using an external high-gain antenna.

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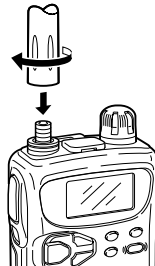
# ACCESSORY ATTACHMENT

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## ◇ Antenna

Insert the supplied antenna into the antenna connector and screw down the antenna as shown at right.

**Keep** the jack cover attached when jack is not in use to avoid bad contacts from dust and moisture.



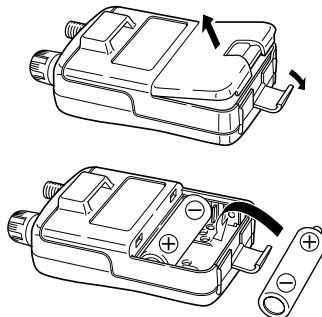
Commercially available antennas may increase receiver performance. An optional AD-92SMA ANTENNA CONNECTOR ADAPTER is available to connect an antenna with a BNC connector.

## ◇ Battery installation

① Remove the battery cover from the receiver.

② Install 2 R6 (AA) size alkaline, dry cell or Ni-Cd batteries.

- Be sure to observe the correct polarity.
- Charge Ni-Cd batteries before use. (See the separate BC-127A/D instruction sheet.)

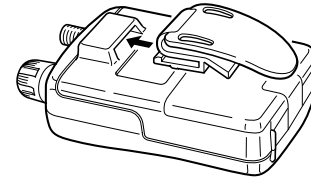


Keep battery contacts clean. It's a good idea to clean battery terminals once a week.

## ◇ Belt clip

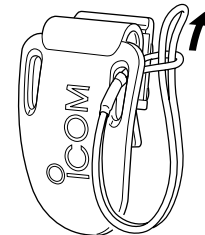
Conveniently attaches to your belt.

Slide the belt clip into the plastic loop on the back of the receiver.

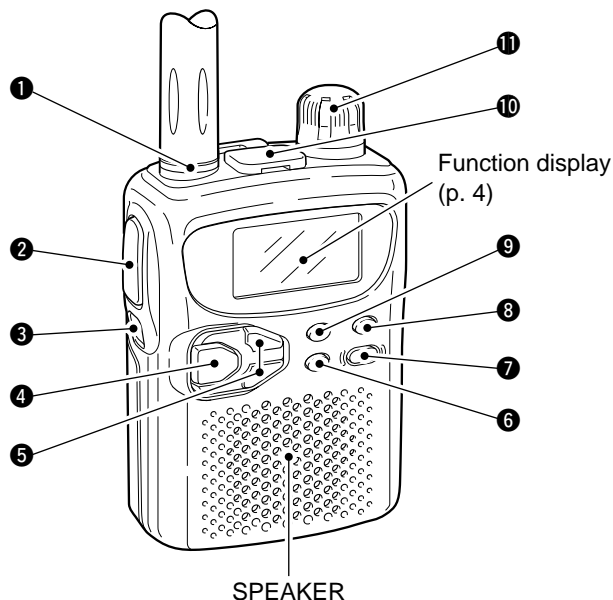


## ◇ Handstrap

Slide the handstrap through the loop on the side of the belt clip as illustrated at right. Facilitates carrying.



## ■ Panel description



### ① ANTENNA CONNECTOR (p. 1)

Connects the supplied antenna.

- An optional AD-92SMA is available for connecting an antenna with a BNC connector.

### ② MONITOR SWITCH [SQL] (pgs. 10, 27)

- ➔ Push and hold to temporarily open the squelch and monitor the operating frequency. (default behaviour)
- ➔ While pushing, rotate the tuning dial to set the squelch threshold level.
- ➔ Push [FUNC] + [SQL] to toggle the attenuator circuit ON and OFF.

### ③ FUNCTION SWITCH [FUNC]

While pushing this switch, other switches and tuning dial perform secondary functions.

- "Push [FUNC] + a switch" means "while pushing the [FUNC] switch, push the switch."

### ④ BAND SWITCH [BAND]

- ➔ Push to select the operating band (VHF, UHF, etc.). (p. 6)
  - Broadcast band, HF band, 50 MHz band, VHF avionics band, 144 MHz band, 300 MHz band, 400 MHz band, 800 MHz band and 1200 MHz band can be selected.
  - While pushing this switch, rotating [DIAL] also selects the operating band.
- ➔ Transfers the displayed frequency to the VFO in memory mode. (p. 6)
- ➔ Push [FUNC] + [BAND] to enter the scan edge set mode in VFO mode. (p. 17)
- ➔ Push [FUNC] + [BAND] to enter the bank scan set mode in memory mode. (p. 16)

## 5 VOLUME CONTROL SWITCHES [VOL ▲]/[VOL ▼]

- ➔ Push to adjust the audio level. (p. 10)
- ➔ Push [FUNC] + either switch to start a scan. (p. 16)
- ➔ Push [FUNC] + either switch for 2 sec. to start a tone scan. (p. 23)

## 6 VFO/MEMORY SWITCH [V/M (MW)]

- ➔ Toggles between VFO and memory modes. (p. 6)
- ➔ Enters set mode when pushed for 2 sec. (p. 25)
- ➔ Push [FUNC] + [(V/M) MW] to enter memory write mode. (p. 12)
- ➔ Push [FUNC] + [(V/M) MW] for 1 sec. to write the operating frequency into the selected memory channel in VFO mode. Keep pushing for 2 sec. or more to automatically select the next memory channel, if desired. (p. 12)
- ➔ Push [FUNC] + [(V/M) MW] for 1 sec. to write the displayed frequency into the VFO in memory mode. (p. 13)

## 7 POWER SWITCH [POWER]

Push for 2 sec. to toggle the receiver power ON and OFF.

## 8 TUNING STEP/MEMORY SKIP SWITCH [TS (SKIP)]

- ➔ Enters tuning step set mode. (p. 7)
- ➔ Push [FUNC] + [(TS) SKIP] to toggle the frequency skip function ON or OFF in VFO mode. (p. 19)
- ➔ Push [FUNC] + [(TS) SKIP] for 2 sec. to program the displayed frequency as a skip frequency during full, band or programmed scan. (p. 19)

- ➔ Push [FUNC] + [(TS) SKIP] to toggle the channel as skip, program skip or non-skip channel in memory mode. (p. 18)

## 9 MODE/LOCK SWITCH [MODE (LOCK)]

- ➔ Selects the receive mode. (p. 11)
- ➔ Push [FUNC] + [(MODE) LOCK] to toggle the lock function ON and OFF. (pgs. 8, 28)

## 10 EXTERNAL SPEAKER JACK [SP]

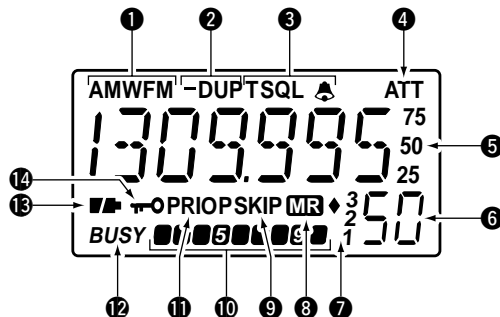
Connects an optional earphone or headphone. The internal speaker will not function when any external equipment is connected. (See p. 35 for a list of available options.)

## 11 TUNING DIAL [DIAL]

- ➔ Rotate [DIAL] to set operating frequencies, memory channels, set mode contents, etc. (p. 7)
- ➔ While scanning, changes the scanning direction. (p. 16)
- ➔ While pushing [SQL], sets the squelch level. (p. 10)
- ➔ While pushing [FUNC], sets the operating frequency in 100 kHz, 1 MHz or 10 MHz steps in VFO mode. (pgs. 7, 26)
- ➔ While pushing [FUNC], selects memory bank in memory mode. (p. 12)
- ➔ While pushing [BAND], selects the operating band in VFO mode. (p. 6)

## 2 PANEL DESCRIPTION

### ■ Function display



#### ① RECEIVE MODE INDICATORS (p. 11)

Show the receive mode.



- AM, FM and WFM are available.

#### ② DUPLEX INDICATORS (p. 24)

Appear when semi-duplex operation (repeater operation) is in use.

- “-DUP” appears when minus duplex is selected; “DUP” only, appears when plus duplex is selected.

#### ③ TONE INDICATORS (p. 22)

- ↳ “T SQL” appears when the tone squelch function is activated and “T SQL”  appears during pocket beep operation.
- ↳  flashes when the correct tone is received during pocket beep operation.

#### ④ ATTENUATOR INDICATOR

Appears when the attenuator function is in use. (p. 8)

#### ⑤ FREQUENCY READOUT

Shows the operating frequency, set mode contents, etc.

- The smaller “75,” “50” and “25” to the right of the readout indicate 7.5, 5.0 and 2.5 kHz, respectively.
- The decimal point of the frequency flashes during scan.

#### ⑥ MEMORY CHANNEL READOUT

Shows the memory channel number, etc.

#### ⑦ MEMORY BANK INDICATORS

Indicate 8 memory banks.

- “1” – “3” indicate memory banks 1 to 3; “♦” indicates memory bank 4; “♦1” – “♦3” indicate memory banks 5 to 7; no bank indicator indicates memory bank 0.

#### ⑧ MEMORY MODE INDICATOR

Appears when a memory channel is selected.



**Count on us!**