# OICOM

# **INSTRUCTION MANUAL**

# COMMUNICATIONS RECEIVER IC-R10

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.

# **IMPORTANT**

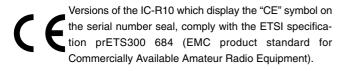
**READ ALL INSTRUCTIONS CAREFULLY** before attempting to operate the receiver.

**SAVE THIS INSTRUCTION MANUAL**— This instruction manual contains important safety and operating instructions for the **IC-R10**.

# **EXPLICIT DEFINITIONS**

The following explicit definitions apply to this manual.

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



# **CAUTIONS**

⚠ WARNING! NEVER connect the receiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

⚠ WARNING! NEVER operate the receiver with a headset 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.

**NEVER** connect the receiver to a power source of more than 16 V DC such as a 24 V battery. This connection will ruin the receiver.

**NEVER** cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the receiver might be damaged.

**NEVER** expose the receiver to rain, snow or any liquids.

**DO NOT** connect the receiver to a power source using reverse polarity. This connection will not only blow fuses but also may damage the receiver.

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**DO NOT** use or place the receiver in areas with temperatures below -10°C (+14°F) or above +50°C (+122°F) or, in areas subject to direct sunlight, such as the dashboard.

**AVOID** placing the receiver in excessively dusty environments.

**AVOID** the use of chemical agents such as benzine or alcohol when cleaning, as they damage the receiver surfaces.

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

### For U.S.A. only

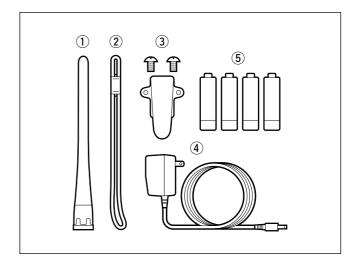
**Caution:** Changes or modifications to this receiver, not expressly approved by Icom Inc., could void your authority to operate this receiver under FCC regulations.

## UNPACKING

Accessories included with the receiver:

	Gty.
① Antenna	1
② Handstrap	1
3 Belt clip (with 2 screws)	1
4 Wall charger*	1
⑤ Ni-Cd batteries	4

\* Not supplied with some versions.



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# **OPERATING THEORY**

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-R10 receives RF energy from 0.5 MHz to 1300 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.

# **OPERATING NOTES**

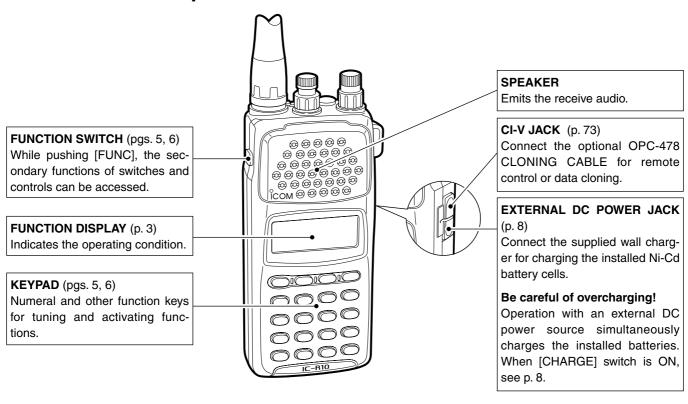
The IC-R10 may receives its own oscillated frequency, resulting in no reception or only noise reception, on some frequencies.

The IC-R10 may receive interference from extremely strong signals on different frequencies or when using an external high-gain antenna.

1 P

# PANEL DESCRIPTION

# **■** Front and side panels



1

### PANEL DESCRIPTION 1

# ■ Top panel

### **ANTENNA CONNECTOR** (p. 9)

Connects the supplied flexible antenna. Be careful when connecting an external antenna (See Operating Notes, p. iv).

### **VOLUME CONTROL [VOL]**

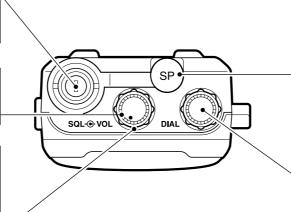
(p. 10)

Adjusts the audio output level.

## SQUELCH CONTROL [SQL]

(p. 11)

- ⇒ Varies the squelch threshold point for audio mute.
  - Pushing [MONI] opens the squelch momentarily.
- ⇒Varies the RF gain in LSB, USB and CW modes.



# EXTERNAL SPEAKER JACK [SP]

Connect an 8 ohm optional speaker or an earphone, if desired.

The internal speaker will not function when either option is connected.

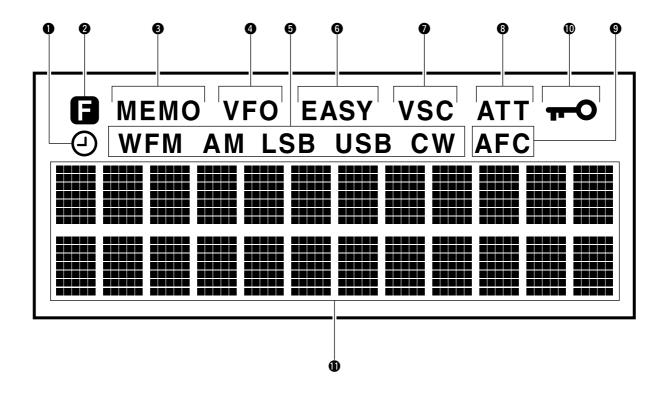
Connect the optional OPC-478/479 CLONING CABLE for cloning from a PC or another IC-R10 (p. 71).

### TUNING CONTROL [DIAL]

Used to set an operating frequency (p. 15), memory channel (p. 24), etc.

# 1 PANEL DESCRIPTION

# **■** Function display



### PANEL DESCRIPTION <sup>1</sup>

### **O**SLEEP TIMER INDICATOR

Appears while the sleep timer is activated (p. 66).

### **2** FUNCTION INDICATOR

Appears while the function ([FUNC]) switch is pushed.

### **3** MEMORY MODE INDICATOR

Appears while in memory mode (p. 23).

### **4** VFO MODE INDICATOR

Appears while in VFO mode (p. 11).

### **6** RECEIVE MODE INDICATOR

Indicates the selected receive mode (p. 12).

#### **G**EASY MODE INDICATOR

Appears while in easy mode (p. 50).

### **OVSC INDICATOR**

Appears while the VSC function is turned ON (p. 38).

### **3** ATTENUATOR INDICATOR

Appears while the attenuator is turned ON (p. 65).

### **9** AFC INDICATOR

Appears while the AFC function is turned ON (p. 63).

### **(D)** LOCK INDICATOR

Appears while the lock function is activated (p. 64).

### **MULTI-FUNCTION DOT MATRIX**

Indicates the following items:

Opening message (p. 10)

Receive frequency (p. 11)

Tuning steps (p. 13)

Band scope (p. 17)

Memory bank and channel number (p. 23)

Memory name (p. 31)

Memory bank name (p. 32)

Programmable scan edges and name (p. 40)

Priority frequency (p. 49)

SET mode contents (p. 59)

Signal strength indicator

# 1 PANEL DESCRIPTION

# ■ Keypad

KEY	PRIMARY FUNCTION	SECONDARY FUNCTION (while pushing [FUNC])
POWER	Push for 1 sec. to toggle power ON and OFF. Opening message appears for 1 sec. after power ON (p. 10).	Not available
MONI	Push and hold this switch to force the squelch open (p. 64).	Not available
TS	Selects a receive mode: FM, AM, USB, LSB, CW or WFM (p. 12).	Selects tuning step set mode (p. 13).
SET CLR	Clears numeric key input (p. 14). Stops scanning (p. 39).	Selects SET mode (p. 59).
MW V/M	Toggles VFO or MEMORY mode (pgs. 11, 23).	In VFO mode: writes to a memory channel (p. 29). In MEM-ORY mode: transfers memory contents to VFO mode (p. 33) or copies to another channel (p. 33).
DIAL SEL	Starts/stops scanning (p. 39).	In VFO mode: selects a dial select step (p. 16).
SEARCH	Selects EASY mode (p. 50).	Selects memory channel name search mode (p. 67).
LOCK	Selects memory edit mode. (except when in VFO mode; p. 51).	Locks all switches and controls electronically except [VOL], [SQL], [FUNC], [POWER] and [MONI] (p. 64).
NB/ANL ENT	In VFO mode: enters the selected receive frequency (p. 14). In MEMORY mode: enters the selected memory channel by the memory search function (p. 68).	Activates the noise blanker while in SSB and CW mode, or the ANL function while in AM mode (p. 65).



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