



INSTRUCTION MANUAL

COMMUNICATIONS RECEIVER

IC-R1500



Icom Inc.

FOREWORD

Thank you for purchasing this Icom receiver. The IC-R1500 COMMUNICATIONS RECEIVER is designed and built with Icom's state of the art technology and craftsmanship. With proper care, this receiver should provide you with years of trouble-free operation.

We want to take a couple of moments of your time to thank you for making the IC-R1500 your radio of choice, and hope you agree with Icom's philosophy of "technology first." Many hours of research and development went into the design of your IC-R1500.

◆ FEATURES


- *Wide frequency coverage with all-mode receive*
- *Both Remote controller operation and PC control application are available*
- *ANF and NR functions are available (Only when the optional DSP unit is installed.)*
- *IF shift function*

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the receiver.

SAVE THIS INSTRUCTION MANUAL— This instruction manual contains important operating instructions for the IC-R1500.

EXPLICIT DEFINITIONS

WORD	DEFINITION
 WARNING!	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	Recommended for optimum use. No risk of personal injury, fire or electric shock.

Icom, Icom Inc. and the ICOM logo are registered trademarks of Icom Incorporated (Japan) in the United States, the United Kingdom, Germany, France, Spain, Russia and/or other countries.

PRECAUTIONS

⚠ WARNING! NEVER connect the receiver via the OPC-254L to an AC outlet. This may pose a fire hazard or result in an electric shock.

⚠ WARNING! NEVER operate the receiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

NEVER connect the receiver to a power source of more than 14 V DC. This will damage the receiver.

NEVER connect the receiver to a power source using reverse polarity. This will damage 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 may be damaged.

DO NOT leave the main unit powered ON and connected to a vehicle's electrical system. The main unit draws approx. 550 mA. This will eventually drain the vehicle's battery.

NEVER expose the receiver to rain, snow or any liquids. The receiver may be damaged.

NEVER operate or touch the receiver with wet hands. This may result in an electric shock or damage the receiver.

NEVER place the receiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

NEVER let objects impede the operation of the cooling fan on the rear panel.

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

BE CAREFUL! The receiver will become hot when operating it continuously for long periods.

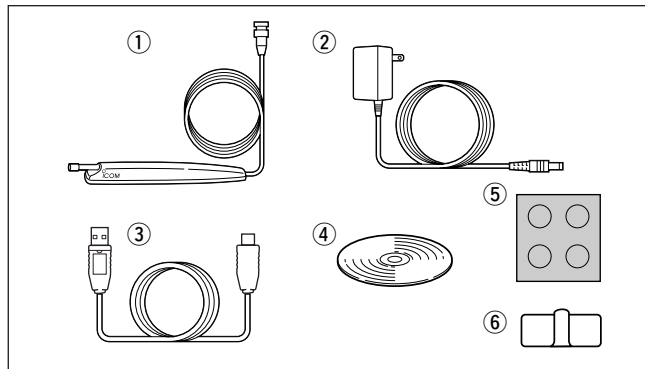
AVOID setting the receiver in a place without adequate ventilation. Heat dissipation may be affected, and the receiver may be damaged.

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

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.

SUPPLIED ACCESSORIES



① Antenna	1
② AC adapter*	1
③ USB cable	1
④ CD	1
⑤ Foot pad sheet.....	1
⑥ Cable hanger	1

*Not supplied with some versions.

SPECIFICATIONS

Specifications are provided in the IC-PCR1500/IC-PCR2500's Instruction manual.

TABLE OF CONTENTS

FOREWORD	i
IMPORTANT	i
EXPLICIT DEFINITIONS	i
PRECAUTIONS	ii
SUPPLIED ACCESSORIES	iii
SPECIFICATIONS	iii
TABLE OF CONTENTS	iii
OPTIONS	iv

1 CONNECTION	1-2
■ Rear panel connection	1
■ Antenna installation	2
2 PANEL DESCRIPTION	3-7
■ Front panel—controller	3
■ Function display—controller	5
■ Rear panel—main unit	7
3 SETTING A FREQUENCY	8-10
■ Turning power ON/OFF	8
■ Mode selection	8
■ Tuning step selection	9
■ Setting a frequency	9
■ Receive mode selection	10
4 BASIC OPERATION	11-15
■ Receiving	11
■ Monitor function	11
■ Lock function	11
■ Attenuator function.....	12
■ NB function	12
■ AGC function	12

■ AFC function	13
■ VSC function	13
■ IF filter selection	14
■ IF shift function	14
■ Duplex operation	15
5 MEMORY OPERATION	16–24
■ General description	16
■ Memory channel selection	16
■ Programming a memory channel	17
■ Programming channel names	18
■ Copying memory contents	19
■ Memory clearing	21
■ Memory bank setting	22
■ Memory bank selection	23
■ Transferring bank contents	23
6 SCAN OPERATION	25–29
■ Scan types	25
■ Scan start/stop	26
■ Scan edges programming	27
■ Skip scan	28
■ Scan resume condition	29
7 PRIORITY WATCH	30
■ Priority watch types	30
■ Priority watch operation	30
8 POCKET BEEP AND TONE SQUELCH	31–34
■ Pocket beep operation	31
■ Tone/DTCS squelch operation	33
■ Tone scan	34
9 SET MODE	35–43
■ General	35
■ Set mode items	35

10 OTHER FUNCTIONS	44–48
■ Weather channel operation	44
■ DSP operation	45
■ DATA cloning	46
■ Partial reset	47
■ All reset	47
■ Internal audio switch	48
11 TROUBLESHOOTING	49
12 DOC	50

OPTIONS

UT-106* DSP UNIT

Provides AF DSP functions such as noise reduction and auto notch.

CP-12L CIGARETTE LIGHTER CABLES

For operation and charging via a 12 V cigarette lighter socket.

OPC-254L DC POWER CABLES

For operation and charging via an external power supply.

SP-10 EXTERNAL SPEAKER

For all-round mobile operation. Cable length: 1.5 m; 4.9 ft

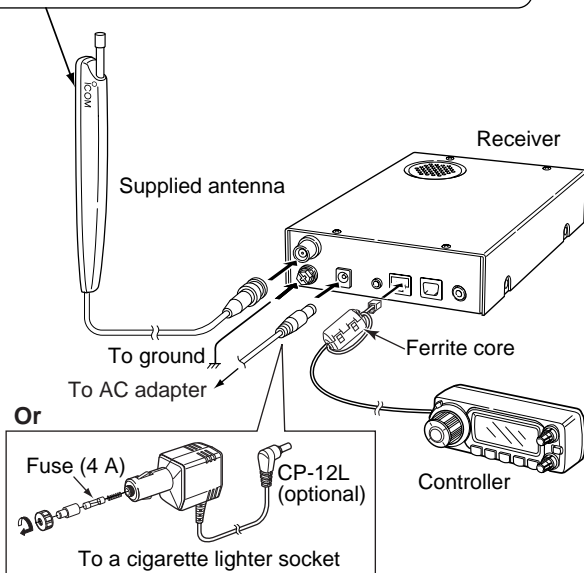
OPC-1156 SEPARATION CABLE

For extended separate installation. 3.5 m; 11.5 ft

*: UT-106 installation is described in the IC-PCR1500/IC-PCR2500's Instruction manual.

■ Rear panel connection

The antenna holder is backed with double-sided tape. Remove the protective paper when the antenna is fixed to any place.

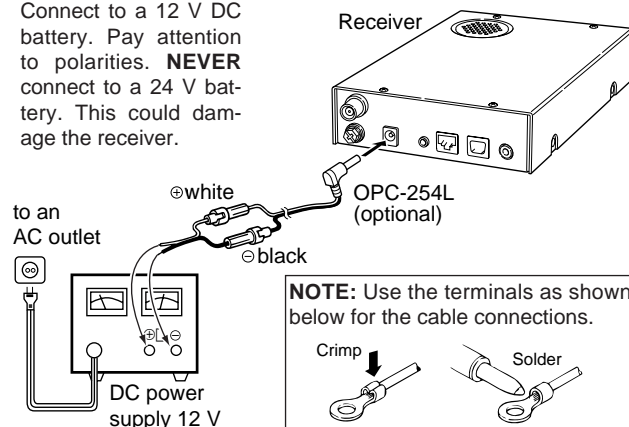


◇ DC power supply connection

Use a 12 V DC power supply with at least 4 A capacity. Make sure the ground terminal of the DC power supply is grounded.

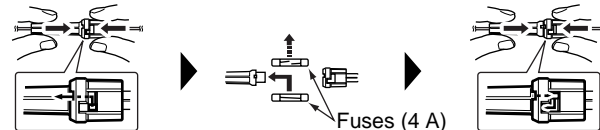
• CONNECTING TO A DC POWER SUPPLY

Connect to a 12 V DC battery. Pay attention to polarities. **NEVER** connect to a 24 V battery. This could damage the receiver.



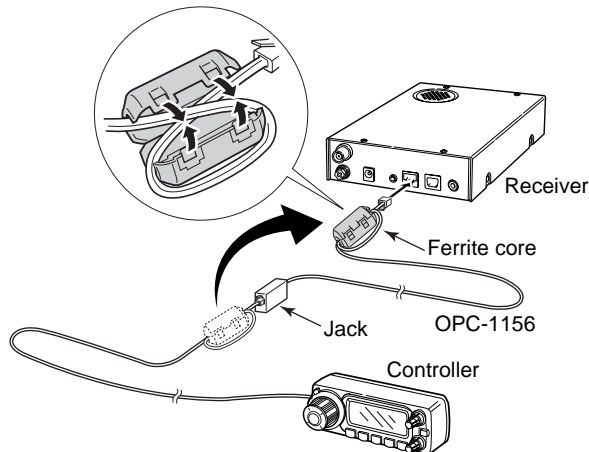
⚠ CAUTION! NEVER remove the fuse-holders from the DC power cable.

◇ Fuse replacement



◆ OPC-1156 connection

- ① Connect the controller plug to the OPC-1156 jack.
- ② Detach the ferrite core from the controller cable, then attach it to the OPC-1156 as shown below.
 - Make sure to wind the cable on the ferrite core.
- ③ Connect the OPC-1156 plug to the [CONTROLLER] connector of the receiver.

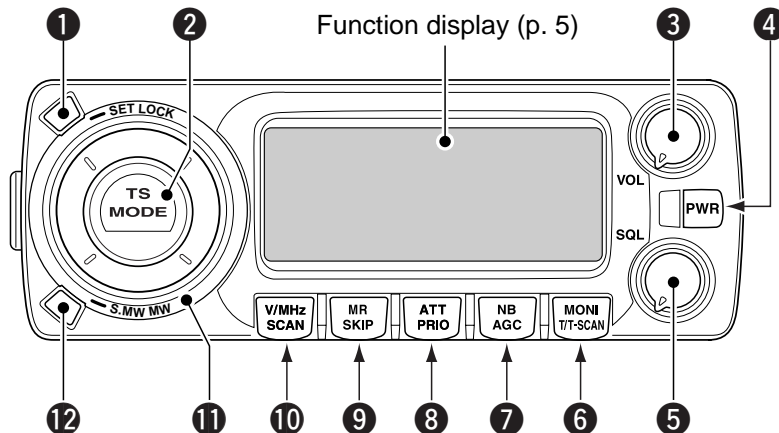


■ Antenna installation

◆ Antenna location

To obtain maximum performance from the receiver, select a high-quality antenna and mount it in a good location. It is not necessary to use radials on a magnetic mount ("mag mount") antenna.

■ Front panel—controller



❶ SET•LOCK KEY [SET•LOCK]

- Push to enter *set mode*. (p. 35)
- Push and hold for 1 sec. to turn the lock function ON and OFF. (p. 11)

❷ TUNING STEP/MODE KEY [TS•MODE]

- Push to enter *tuning step selection mode*. (p. 9)
 - Rotate [DIAL] to select the desired tuning step.
- Push and hold for 1 sec. to enter *receive mode selection mode*. (p. 10)
 - Rotate [DIAL] to select the desired operating mode.

❸ VOLUME CONTROL [VOL] (p. 11)

Adjusts the audio level.

❹ POWER KEY FOR CONTROLLER [PWR]

- Push to turn the controller power ON when it's OFF.
- Push and hold for 1 sec. to turn the controller power OFF when it's ON.

❺ SQUELCH CONTROL [SQL]

Varies the squelch level. (p. 11)

6 MONITOR•TONE•TONE SCAN KEY [MONI•T/T-SCAN]

- ➔ Push to turn the monitor function ON and OFF. (p. 11)
- ➔ Push and hold for 1 sec. to enter tone squelch selection mode. (pgs. 31, 33)
 - Tone squelch, pocket beep (CTCSS), tone squelch reverse action, DTCS squelch, pocket beep (DTCS), DTCS squelch reverse action or tone function OFF can be selected.
- ➔ Push and hold for 1 sec. during tone squelch selection mode to start the tone scan. (p. 34)

7 NOISE BLANKER/AUTOMATIC GAIN CONTROL KEY [NB•AGC]

- ➔ Push to turn the NB (Noise Blanker) function ON and OFF. (p. 12)
 - The noise blanker function cannot be used in FM/WFM modes.
- ➔ Push and hold for 1 sec. to select the AGC (Automatic Gain Control) function Slow and Fast. (p. 12)
 - ▨ While in FM or WFM mode, the AGC function is fixed as Fast and AGC Slow cannot be selected.

8 ATTENUATOR/PRIORITY KEY [ATT•PRIO]

- ➔ Push to turn the ATT (Attenuator) function ON and OFF. (p. 12)
- ➔ Starts priority watch when pushed and held for 1 sec. (p. 30)

9 MEMORY/SKIP KEY [MR•SKIP]

- ➔ Push to select the memory channel, memory bank or weather channel* modes. (pgs. 16, 23, 44)
 - *Weather channels are available for USA/CANADA versions only.

- ➔ Push and hold for 1 sec. to turn the channel skip setting ON and OFF for memory/frequency skip scan operation. (p. 28)

10 VFO/MHz TUNING•SCAN KEY [V/MHz•SCAN]

- ➔ Selects and toggles VFO mode and band selection, 1 MHz or 10 MHz tuning when pushed. (p. 9)
- ➔ Starts scan when pushed and held for 1 sec. (p. 26)
 - Cancels a scan when pushed during scan.

11 TUNING DIAL [DIAL]

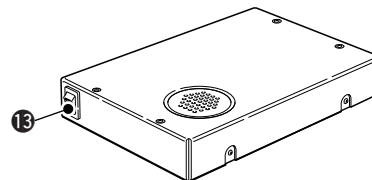
- Selects the operating frequency (p. 9), memory channel (p. 16), the setting of the set mode item (p. 35) and the scanning direction (p. 26).

12 MEMORY WRITE KEY [S.MW•MW] (pgs. 17, 18, 21)

- ➔ Selects a memory channel for programming when pushed.
- ➔ Programs the selected memory channel when pushed and held for 1 sec.

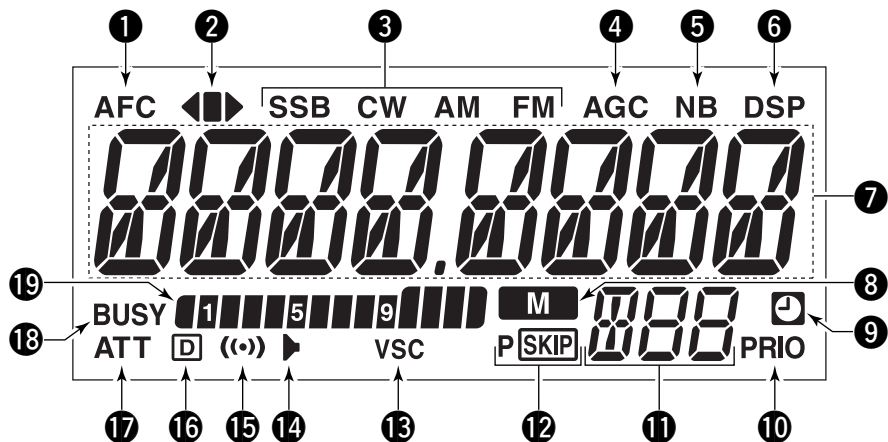
13 POWER SWITCH FOR RECEIVER [POWER]

- Turns the receiver power ON and OFF.



2 PANEL DESCRIPTION

■ Function display—controller



① AFC INDICATOR

Appears when the AFC function is in use. (p. 13)

② FM CENTER INDICATORS

- “◀” or “▶” appears when the received signal is not tuned to its center frequency; or the squelch is closed.
- “■” appears when the received signal is tuned to its center frequency.

③ RECEIVE MODE INDICATORS

Shows the selected receive mode.

- SSB (LSB/USB), CW, AM and FM (FM/WFM) are available.

④ AGC INDICATOR (p. 12)

Appears when the AGC fast is selected in SSB, CW or AM mode.

⑤ NB INDICATOR (p. 12)

Appears when the NB function is in use.

Count on us!

#02 Europe

<Intended Country of Use>			
<input checked="" type="checkbox"/> GER	<input type="checkbox"/> FRA	<input checked="" type="checkbox"/> ESP	<input checked="" type="checkbox"/> SWE
<input checked="" type="checkbox"/> AUT	<input checked="" type="checkbox"/> NED	<input checked="" type="checkbox"/> POR	<input checked="" type="checkbox"/> DEN
<input type="checkbox"/> GBR	<input checked="" type="checkbox"/> BEL	<input checked="" type="checkbox"/> ITA	<input checked="" type="checkbox"/> FIN
<input checked="" type="checkbox"/> IRL	<input checked="" type="checkbox"/> LUX	<input checked="" type="checkbox"/> GRE	<input checked="" type="checkbox"/> SUI
<input checked="" type="checkbox"/> NOR			

#03 U.K.

<Intended Country of Use>			
<input type="checkbox"/> GER	<input type="checkbox"/> FRA	<input type="checkbox"/> ESP	<input type="checkbox"/> SWE
<input type="checkbox"/> AUT	<input type="checkbox"/> NED	<input type="checkbox"/> POR	<input type="checkbox"/> DEN
<input checked="" type="checkbox"/> GBR	<input type="checkbox"/> BEL	<input type="checkbox"/> ITA	<input type="checkbox"/> FIN
<input type="checkbox"/> IRL	<input type="checkbox"/> LUX	<input type="checkbox"/> GRE	<input type="checkbox"/> SUI
<input type="checkbox"/> NOR			

#06 France

<Intended Country of Use>			
<input type="checkbox"/> GER	<input checked="" type="checkbox"/> FRA	<input type="checkbox"/> ESP	<input type="checkbox"/> SWE
<input type="checkbox"/> AUT	<input type="checkbox"/> NED	<input type="checkbox"/> POR	<input type="checkbox"/> DEN
<input type="checkbox"/> GBR	<input type="checkbox"/> BEL	<input type="checkbox"/> ITA	<input type="checkbox"/> FIN
<input type="checkbox"/> IRL	<input type="checkbox"/> LUX	<input type="checkbox"/> GRE	<input type="checkbox"/> SUI
<input type="checkbox"/> NOR			