ICOM

IC-R2500

With optional UT-122

Dualwatch, Digital Mode, Diversity Receiver

Dualwatch capability

The IC-R2500 has dualwatch receive capability*[1], allowing you to receive two bands simultaneously. It covers 0.01–3299.999 MHz in AM, FM, WFM, SSB, CW, DV*[2] and P25*[3] modes on the main receiver, while the sub-receiver covers 50–1300MHz in AM, FM and WFM modes*[4].

*[1] Two antennas are required for dualwatch receive. *[2] Optional UT-118 required. *[3] Optional UT-122 required. Already installed with some versions. *[4] Frequency range differs depending on version.

Diversity receive capability

The diversity receive* mode is useful for mobile operation where the received signal changes continuously. It compares the signal strength and chooses the antenna with the better signal to maintain good sound and receive quality.

* Two antennas are required. Available in FM/DV/P25 mode between 50–1300MHz only. Diversity reception is not available while using dualwatch.

Wide LCD display for independent band control

The wide LCD display shows both main/sub receiver settings in an easy-to-read symmetric side-by-side layout. The controller provides separate tuning, volume, squelch knobs and function buttons for the left (Main) and right (Sub) receivers. The LCD backlit color is selectable between amber and green for your preference.

Digital mode reception

The optional UT-118 D-STAR digital unit and UT-122* P25 digital unit provide the latest digital mode reception. Catch the action in digital communications!

* Already installed with some versions.

1000 alphanumeric memory channels

With Icom's Dynamic Memory Scan, DMS, you have a versatile memory channel management system at your command. The 1000 memory channels can be arranged by service or personal preference in the 21 memory banks. Selectively link the channels together to scan depending on your needs. Programming the memory channels and 6 character memory names is simple with your PC.

Other features

- Weather alert function (U.S.A. and Canada versions only)
- Optional DSP capability with UT-106
- VSC (Voice Squelch Control) ignores unmodulated signals or heterodynes
- IF filter selection for changing IF filter width
- Noise blanker eliminates pulse type noise (SSB, CW, AM mode only)
- AFC function automatically follows an FM signal when the signal's frequency drifts (BW: 6kHz or 15kHz)
- IF shift function (SSB, CW mode only)

Icom Inc.

COMMUNICATIONS RECEIVER

IC–R2500

- 30 min – 2 hour auto power off timer
- Fast/slow AGC setting
- Short/long squelch delay
- CTCSS/DTCS tones and duplex mode operation for monitoring a repeater
- RF attenuator attenuates 20dB (approx.) (below 1300MHz)

- All IC-PCR2500 functions are available when connected to a PC
- Cloning function allows you to read/write memory contents from your PC. Sharing data with IC-PCR2500 is also possible.
- U.S.A. Customers check out **www.icomreceivers.com** for frequency lists in your neighborhood and region. (Based on FCC licensee database.)

SPECIFICATIONS

GENERAL

- Frequency coverage and mode :

	Frequency coverage	Mode
Main receiver	0.010–3299.999MHz*1 (Guaranteed 0.495–3000MHz)	AM, FM, WFM, DV*2, P25*3
	0.495–1300MHz*1	USB, LSB, CW
Sub-receiver	50–1300MHz*1	AM, FM, WFM

*1 Some frequency bands are blocked in the U.S.A. version.
*2 Optional UT-118 required. *3 Optional UT-122 required.
France   0.010–29.999*4, 50.200–51.200, 87.500–107.999, 144–146, 430–440, 1240–1300MHz
*4 Main receiver only. Guaranteed range 0.495–29.999MHz.

- Usable temperature range   : –10˚C to +60˚C; +14˚F to +140˚F
  When using with a PC   0˚C to +60˚C; +32˚F to +140˚F
- Frequency stability   : Less than ±3ppm on the basis of 25˚C (–10˚C to +60˚C)
- Tuning steps   : 10Hz (minimum with controller)
  1Hz (minimum with PC)
- Power supply   : 12.0V DC ±15%
- Current drain (at 12.0V DC) :
  Max. audio   Less than 1.5A (Dual mode)
  Stand-by   0.85A typ. (Dual mode)
- Antenna Impedance   : 50Ω (BNC)
- Dimensions (W×H×D; projections are not included) :
  Main unit   146×41×206 mm; 5¾×1⅝×8⅛ in
  Controller   140×50×39 mm; 5½×1³¹⁄₃₂×1³⁄₃₂ in
- Weight (approx:)   :
  Main unit   1350g; 3lb
  Controller   250g; 8.8oz (including cable)

RECEIVER

- Receiver system   : Triple-conversion super-heterodyne + Down converter
- Intermediate frequencies : 1st   266.70MHz
  2nd   10.70MHz
  3rd   450kHz (Except WFM)
- Sensitivity (Less than)   :

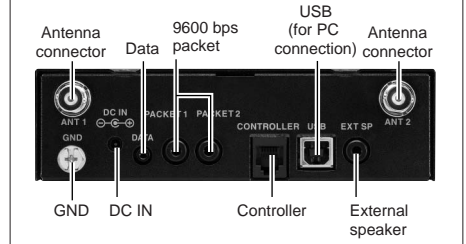|	SSB, CW	AM	FM	WFM
0.495–1.799MHz	5.0μV	25μV	–	–
1.8–49.999MHz	0.5μV	2.5μV	0.63μV*2	–
50–699.999MHz	0.4μV	2μV	0.5μV	1.4μV
700–1300.000MHz	0.5μV	2.5μV	0.63μV	1.8μV
1300*1–2299.999MHz	–	–	5.6μV	18μV
2300–3000.000MHz	–	–	18μV	56μV

*1 1300.000001MHz   *2 28–49.999MHz
SSB, CW BW=2.8kHz, AM BW=6.0kHz at 10dB S/N
FM BW=15kHz, WFM BW=230kHz at 12dB SINAD

- Selectivity (typical)   :
  SSB, CW, AM   More than 2.8kHz/–6dB
  SSB, CW, AM, FM   More than 6.0kHz/–6dB
  FM, AM   More than 15kHz/–6dB
  FM, AM, WFM   More than 50kHz/–6dB
  WFM   More than 230kHz/–6dB
- Audio output power   : More than 500mW at 10% distortion with an 8Ω load
- External SP connector   : 2-conductor 3.5 (d) mm (⅛″)/8Ω

All stated specifications are subject to change without notice or obligation.

Turn off the Main unit power switch when not using the IC-R2500 while installed in a vehicle. The IC-R2500 has standby power consumption that will drain the vehicle battery over a period of time.

Rear view

Antenna connector   Data   9600 bps packet   USB (for PC connection)   Antenna connector

ANT 1   DC IN   PACKET 1   PACKET 2   CONTROLLER   USB   EXT SP   ANT 2
GND   DATA

GND   DC IN   Controller   External speaker

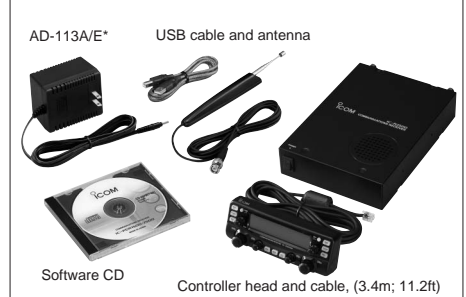**PC requirements** (For use with PC control software)
- Microsoft® Windows® XP/2000/ME/98SE   • USB 1.1 or 2.0
- Intel® Pentium® III 450MHz or faster (Pentium® 4 recommended)
- Hard disk with at least 50 MB of free disk space
- At least 128 MB of memory (256MB or more recommended)
- Display with 1024 × 768 pixel resolution, high color

- CD-ROM or DVD drive is required for software installation
- USB audio dropouts or gaps may occur because of a lack of PC power
- Additional hard disk space is required for recording sound or storing scope data

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

- **UT-106** DSP UNIT
  Provides noise reduction and auto notch functions.
- **UT-108** DTMF DECODER UNIT
  DTMF decode function for Sub-receiver. Either UT-108 or UT-118 can be installed in the receiver.
- **UT-118** D-STAR DIGITAL UNIT
  Provides D-STAR DV mode reception. Either UT-108 or UT-118 can be installed in the receiver.
- **UT-122** P25 DIGITAL UNIT
  Provides APCO P25 digital mode reception.
- **OPC-1156** CONTROLLER EXTENSION CABLE
  Extends the supplied separation cable by 3.5 m (11.5 ft). A modular connector is supplied with the cable.

- **SP-10** EXTERNAL SPEAKER
  To better direct the audio where you want it.
- **MB-84** REMOTE CONTROL BRACKET
  Mounts the controller in a convenient location.
- **MB-65** MOUNT BASE
  Mounts the controller with the MB-84. Adjustable angle and direction for optimum positioning.
- **CP-12L** CIGARETTE LIGHTER CABLE
  12V DC, 2A output from 12V cigarette lighter socket.
- **AD-113A/E** AC ADAPTOR
  10.5V DC, 1.8A/1.5A (A/E) output. Same as supplied.
- **OPC-254L** DC POWER CABLE
  For use with an external power supply. (12V DC required)

Supplied accessories (* Depending on version)

AD-113A/E*   USB cable and antenna

Software CD   Controller head and cable, (3.4m; 11.2ft)

| UT-106 | UT-108 | UT-118 | UT-122 | OPC-1156 | SP-10 | MB-84 | MB-65 | CP-12L |