



COMMUNICATIONS RECEIVER

IC-R2500

Rugged
MIL-STD 810



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)

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

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.

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*1, 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; 5¾×1½×8½ in
Controller : 140×50×39 mm; 5½×1¾×1½ in
- Weight (approx.) :
Main unit : 1350g; 3lb
Controller : 250g; 8.8oz (including cable)

RECEIVER

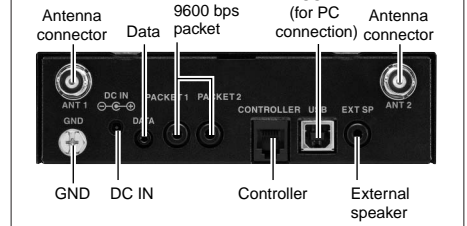
- Receiver system : Triple-conversion super-heterodyne + Down converter
- Intermediate frequencies : 1st 266.70MHz
2nd 10.70MHz
3rd 450kHz (Except WFM)
- Sensitivity (Less than) :

	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 (1/8")/8Ω

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

Rear view



PC requirements (For use with PC control software)

- Microsoft® Windows Vista™, 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

Supplied accessories (* Depending on version)



Applicable U.S. Military Specifications

Standard	MIL 810 C		MIL 810 D		MIL 810 E		MIL 810 F	
	Method	Proc.	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II	501.4	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II	502.4-3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	–
Dust Blowing	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

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)



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Icom Inc.

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

Count on us!

Icom America Inc.

2380 116th Avenue NE,
Bellevue, WA 98004, U.S.A.
Phone : +1 (425) 454-8155
Fax : +1 (425) 454-1509
E-mail : sales@icomamerica.com
URL : <http://www.icomamerica.com>

Icom New Zealand

146A Harris Road, East Tamaki,
Auckland, New Zealand
Phone : +64 (09) 274 4062
Fax : +64 (09) 274 4708
E-mail : inquiries@icom.co.nz
URL : <http://www.icom.co.nz>

Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay,
Kent, CT6 8LD, U.K.
Phone : +44 (0)1227 741741
Fax : +44 (0)1227 741742
E-mail : info@icomuk.co.uk
URL : <http://www.icomuk.co.uk>

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road,
Taipei, Taiwan, R.O.C.
Phone : +886 (02) 2559 1899
Fax : +886 (02) 2559 1874
E-mail : sales@asia-icom.com
URL : <http://www.asia-icom.com>

Your local distributor/dealer:

Icom Canada

Greenwood Centre #150-6165 Highway 17,
Delta, B.C. V4K 5B8, Canada
Phone : +1 (604) 952-4266
Fax : +1 (604) 952-0090
E-mail : info@icomcanada.com
URL : <http://www.icomcanada.com>

Icom (Europe) GmbH

Communication Equipment
Himmelgeister Str. 100,
D-40225 Düsseldorf, Germany
Phone : +49 (0)211 346047
Fax : +49 (0)211 333639
E-mail : info@icomeurope.com
URL : <http://www.icomeurope.com>

Icom France s.a.s.

Zac de la Plaine,
1 Rue Brindejonn des Moulinais, BP 45804,
31505 Toulouse Cedex 5, France
Phone : +33 (5) 61 36 03 03
Fax : +33 (5) 61 36 03 00
E-mail : icom@icom-france.com
URL : <http://www.icom-france.com>

Beijing Icom Ltd.

10C07, Long Silver Mansion, No.88, Yong Ding
Road, Haidian District, Beijing, 100039, China
Phone : +86 (010) 5889 5391/5392/5393
Fax : +86 (010) 5889 5395
E-mail : bjicom@bjicom.com
URL : <http://www.bjicom.com>

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road,
Clayton, VIC 3168 Australia
Phone : +61 (03) 9549 7500
Fax : +61 (03) 9549 7505
E-mail : sales@icom.net.au
URL : <http://www.icom.net.au>

Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer"
08190, Sant Cugat del Valles, Barçelona, Spain
Phone : +34 (93) 590 26 70
Fax : +34 (93) 589 04 46
E-mail : icom@icomspain.com
URL : <http://www.icomspain.com>

Icom Polska

Sopot, 3 maja 54, Poland
Phone : +48 (58) 550 7135
Fax : +48 (58) 551 0484
E-mail : icompolkska@icompolkska.com.pl
URL : <http://www.icompolkska.com.pl>