



VHF/UHF MULTIBAND FM TRANSCEIVER

IC-T90A

**Surprisingly compact, full featured tri-bander
with wideband receiver**

**5 Watts on 50MHz, 144MHz,
and 440MHz**

**Wideband receiver —
495kHz-999.990MHz!**

**555 alphanumeric memory
channels with Icom's
NEW DMS (Dynamic Memory Scan)
technology!**



Rugged
MIL-STD 810

Wideband receiver — 495kHz to 999.990MHz

The commercial grade IC-T90A transceiver offers a wideband AM, FM, and WFM scanning receiver. Not only you can hear your favorite TV programs with the pre-programmed TV memories, but also you can listen to shortwave, AM and FM broadcast radio stations with good sound quality. Police, fire, military, aircraft and various amateur bands also can be tuned.

DMS (Dynamic Memory Scan) bank scanning

With 555 alphanumeric memory channels, including 50 band edges and 5 call channels, Icom's DMS technology gives you flexible scanning lists. With a maximum of 18 banks or 100 channels per bank, you can pick and choose the desired channel for scanning from the 500 memories.

Lithium-Ion technology

Enjoy a full 5 watts from the supplied 1300mAh Lithium-Ion battery pack, BP-217. Along with the energy conserving settings, the BP-217 provides up to 5 to 6 hours*1 of operating time and greatly reduces both the size and weight needed to get full output power. Just recharge and go!

*1 Tx high: Rx: Stand-by duty ratio= 1: 1: 8

Rugged palm sized*2, splash resistant construction

This compact radio is comfortable in the smallest of hands, and offers full radio control for large fingers. The aluminum die-cast case and chassis is designed for the most rugged environments with splash resistance equivalent to JIS 4 specifications.

*2 See back for actual dimensions.

DTCS and CTCSS tone squelch

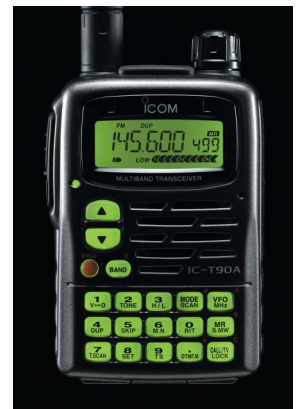
A standard feature of the IC-T90A is both DTCS and CTCSS encode and decode capability. Choose from either 104 DTCS or 50 CTCSS codes for receive and transmit, individually. In addition, a pocket beep function gives you an audio alert when a matched tone signal is received — a great feature for quiet, group operations.

Simple operation

Simple, one-handed operation is the most valuable feature of the IC-T90A. The backlit ten-key pad allows you to enter frequency, memory number and set various other features. The tuning knob can be customized for either channel selection, or volume control.

Wait! There's more...

- DTMF encoder with 10 DTMF memories
- Auto squelch • Morse code synthesizer indicates the frequency in morse code
- Backlit LCD and keypad • High speed scanning • 13 scanning modes
- Antenna tip replaceable • PC Programmable
- 5.5–11V DC operation • Split operation
- Weather alert scan* (* U.S.A. version only)
- Wide/narrow transmit capability



Icom Inc.

SPECIFICATIONS

GENERAL

• Frequency coverage : (Unit: MHz)

Version	50MHz	144MHz	440MHz	Receive
U.S.A.	50-53.995	144-148	430-450**	0.495-999.990*2
Asia	50-53.995	144-148	430-440	0.495-999.990
General	50-53.995	144-148	430-440	0.495-999.990

*1 Guaranteed range 440-450. *2 Cellular blocked.

- Mode : FM, AM (Rx. only), WFM (Rx. only)
- No. of memory Ch. : 555 (500 reg., 50 scan edges, 5 call)
- Useable temp. range: -10°C to +60°C; +14°F to +140°F
- Frequency stability : ±6ppm (-10°C to +60°C)
- Power supply : 5.5 to 11V DC or specified battery pack
- Current drain (at 8.0V DC):
 - Tx High 2.0A typ.
 - Low 0.8A typ. (50/144MHz)
 - 1.2A typ. (430MHz)
 - Rx Rated audio 220mA typ.
 - Power save 65mA typ. (duty=1:4)
- Tuning steps (kHz) : 5, 6.25, 8.33, 9, 10, 12.5, 15, 20, 25, 30, 50, 100, 200
- Antenna impedance : 50Ω (SMA)
- Dimensions : 58(W)×87(H)×29(D) mm ; (projections not included) 2⁹/₃₂(W)×3⁷/₁₆×1⁹/₃₂(D) in.
- Weight (approx.) : 280g; 9.9oz (w/antenna and BP-217)

TRANSMITTER

- Output power (8.0V DC): High 5W typ. Low 0.5W typ.
- Spurious emissions : Less than -60dB
- Max. freq. deviation : ±5.0kHz
- Ext. MIC connector : 3-conductor 2.5(d) mm (1/16")/2kΩ

RECEIVER

- Intermediate freq. : 1st 69.45MHz (FM/AM), 13.35MHz (WFM) 2nd 450kHz
- Sensitivity* (typ., except spurious points):
 - FM (at 12dB SINAD)
 - 1.625- 4.995MHz 0.4μV
 - 50.000- 54.000MHz 0.16μV
 - 144.000-148.000MHz 0.16μV
 - 210.000-225.000MHz 1.0μV
 - 430.000-450.000MHz 0.16μV
 - 833.000-999.990MHz 1.0μV
 - WFM (at 12dB SINAD)
 - 40.000-108.000MHz 1μV
 - 175.000-221.995MHz 1.8μV
 - AM (at 10dB S/N)
 - 4.95- 4.995MHz 1.3μV
 - 5.000- 29.995MHz 0.56μV
 - 222.000-229.995MHz 0.79μV
- Selectivity : More than 15kHz/-9dB (except WFM) Less than 30kHz/-60dB

- Spurious and image rejection ratio:
 - 50MHz More than 60dB (half IF: 50dB, IF: 40dB)
 - 144MHz More than 60dB (half IF: 50dB)
 - 440MHz More than 50dB (IF: 60dB)
- Audio output power : 200mW typ. at 10% distortion/8Ω load (at 25°C)
- Ext. speaker connector : 2-conductor 3.5(d) mm (1/8")/8Ω

Applicable U.S. Military Specifications

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 C	MIL 810 D	MIL 810 E	MIL 810 F
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 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
Rain	506.1 I	506.2 I	506.3 I	506.4 I
Humidity	507.1 I, II	507.2 II, III	507.3 II, III	507.4 -
Salt Fog	509.1 I	509.2 I	509.3 I	509.4 -
Dust	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

Supplied accessories (*depending on version)

- Battery pack (BP-217)
- Wall charger* (BC-110AR/DR)
- Antenna (FA-S6270D)
- Swivel belt clip (MB-83)

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

OPTIONS

BATTERY PACK AND CASE

BP-216
AA (LR6)
batteries × 2



BP-217
Li-Ion
7.4V/1300mAh



BATTERY PACK/CASE	OUTPUT POWER	BATTERY LIFE
BP-216	0.1W typ.	-
BP-217	5W typ.	5 hrs. on 144/440MHz band 6 hrs. on 50MHz band

Battery life is approx. time; (Tx high: Rx: Stand-by=1: 1: 8)

BC-139 DESKTOP CHARGER



Rapidly charges battery pack BP-217. Charging time (approx.): 2.5 hours.

CP-19R CIGARETTE LIGHTER CABLE WITH NOISE FILTER



Allows you to operate the transceiver with 11V DC output through a cigarette lighter socket (12V). The connected battery pack is charged simultaneously.

LC-152A CARRYING CASE



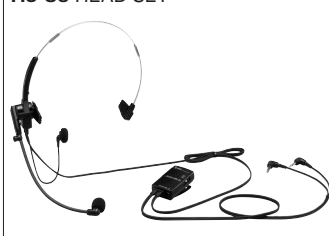
Helps protect the transceiver from scratches, etc. Fits any battery pack.

SPEAKER-MICROPHONES



- HM-46 : Slim dimensions. Equipped with an earphone jack and transmit indicator.
- HM-75A: Allows you to remotely select operating channels, etc., according to cloning.
- HM-131: Compact and durable body. Equipped with an earphone jack and a revolving clip.

HS-85 HEAD SET



Allows you hands-free operation. Includes VOX, PTT, "one-touch PTT" (TOT).

MB-83 SWIVEL BELT CLIP



Prevents accidental dropping from your belt. The same as supplied.

AD-92SMA ANTENNA CONNECTOR ADAPTER

Allows you to connect a BNC-type antenna.

BC-110AR/DR WALL CHARGER

Regularly charges battery packs. The same as supplied with some versions.

CS-T90A CLONING SOFTWARE + OPC-478 CLONING CABLE

Provides quick and easy editing of memory channels, memory names and set mode contents, for local repeater frequencies, etc.

MB-96 LEATHER BELT HANGER

Swivel type belt hanger for use with MB-83.

OPC-474 CLONING CABLE

Used for handheld-to-handheld data cloning.

SP-13 EARPHONE

Provides clear audio in noisy environments.

Icom Inc.

1-1-32, Kamiminami, 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

Glenwood 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 (0211) 346047
Fax : +49 (0211) 333639
E-mail : info@icomeurope.com
URL : <http://www.icomeurope.com>

Icom France Sa

Zac de la Plaine, 1,
Rue Brindejonc des Moulinais BP 5804,
F-31505 Toulouse Cedex, 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.

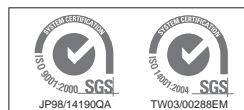
A.B.N. 88 006 092 575
Unit 1 / 103 Garden Road,
Clayton VIC 3168 Australia
Phone : +61 (03) 9549 7500
Fax : +61 (03) 9549 7505
E-mail : sales@icom.net.au
URL : <http://www.icom.net.au>

Icom Spain S.L.

Ctra. de Gracia a Manresa Km. 14,750
08190 Sant Cugat del Valles Barcelona, 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

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



Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certification acquired company.