



NEW PRODUCT INFORMATION

VHF/UHF DUAL BAND FM
TRANSCEIVERS

IC-T70A (for U.S.A./Export)
IC-T70E (for Europe)



IC-T70A (left) and IC-T70E (right)

Icom proudly announces the debut of a new VHF/UHF dual band handheld transceiver, IC-T70A and IC-T70E. The IC-T70A/E is the successor to the long-selling IC-T7H. The IC-T70A/E provides 700mW loud and intelligible audio with the BTL amplifier and IP54 dust and water resistant body at a competitive price. The IC-T70A/E is a simple, easy-to-use radio at great value. The IC-T70A/E is targeted at users of the IC-T7H series and also ham users who required a tough, but simple and inexpensive VHF/UHF dual band radio.

SELLING POINTS

- **5W RF output power (VHF/UHF)**
- **700mW of loud and intelligible audio with the BTL amplifier circuitry**
- **10–11.5 hours* of operating time with the BP-264 1400mAh Ni-MH battery pack**
(* Approx for 5:5:90 duty cycle with power save on)
- **IP54 Dust protection and water resistance**
- **Multitude of power sources (Ni-MH, Li-Ion battery, alkaline cells and external DC power)**
- **VOX function built-in**
(Optional headset and adapter cable required.)
- **6-character alphanumeric display**
- **A total 302 of memory channels**
- **CTCSS and DTCS tone squelch**
- **DTMF autodial memories**
- **Wall charger, BC-167S series supplied***
(* Depending on version)

FEATURES

5W of output power both VHF/UHF bands

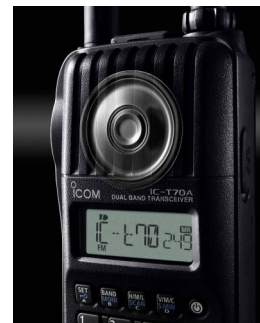
The IC-T70A/E employs a new low consumption current FET module and provides 5W of high power and long operating time for both VHF and UHF bands. For even longer operating time, 2.5W or 0.5W of reduced output power settings can be selected.

700mW loud audio

The IC-T70A/E uses the BTL (bridge-tied load) amplifier that doubles the audio output. The 36mm large speaker delivers 700mW* of loud and intelligible audio.
(* Internal speaker only)

IP54 rugged construction

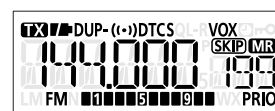
While the IC-T70A/E is a compact unit with a height of only 111mm, the dust protection and water-resistance equivalent to IP54 provides reliable operation in harsh environments.



36mm large speaker (image)

Alphanumeric display

The 6-character alphanumeric display clearly shows channel name, operating frequency and memory number with bright illumination.



▲ Display indication

Three types of batteries to choose from

The IC-T70A/E has three types of battery packs and case to choose from. Nickel metal hydride (Ni-MH) battery pack, BP-264, Lithium-Ion (Li-Ion) battery pack, BP-265, and battery case, BP-263 are selectable for your preference.

Battery pack	BP-264	BP-265	BP-263
Type	Ni-MH	Li-Ion	Alkaline cells
Voltage	7.2V	7.4V	AA (LR6) × 6
Capacity	1400mAh	1900mAh (min.) 2000mAh (typ.)	
Operating time	VHF 11.5 hours* ¹ UHF 10 hours* ¹	16 hours* ¹ 13.5 hours* ¹	14.5 hours* ² 12 hours* ²
Rapid charger	BC-191	BC-193	—
Regular charger	BC-192	—	—
Wall charger	BC-167S	—	—

*¹ Typical operation; 5:5:90 duty cycle with auto power save.

*² Reference value. The average operating life depends on the alkaline cells used.

External DC power source

An external DC power jack allows charging the BP-264 (Ni-MH battery) or operation with the BC-167S wall charger or external DC power supply cables (CP-19R, CP-12L or OPC-254L). The BC-167S* wall charger will be supplied depending on version and charges the BP-264 battery pack in 8 hours (approx).

* Please note BC-167S wall charger cannot charge BP-265 (Li-Ion battery).

A total of 302 memory channels

The IC-T70A/E has a total of 302 memory channels (including 250 regular channels, 50 scan edges and 2 call channels) with 26 memory banks. All memory channels, scan edges and memory banks can be named with 6-character channel comments.

Integrated VOX function

The IC-T70A/E has VOX (Voice Operated Transmit) function for convenient hands-free operation with a compatible optional headset and plug adapter cable. Also, the VOX level and VOX delay time are adjustable.

Built-in CTCSS and DTCS

The CTCSS and DTCS tones are built-in for quiet stand-by and repeater access. Pocket beep and tone scan are also possible. The tone scan allows the operator to detect the subaudible tone that is used for repeater access.

Multiple scan function

The IC-T70A/E supports various scan types for maximum reception and ease of use.

- Full scan
- Programmed scan
- Program link scan
- Band scan
- Memory scan
- Bank scan
- Bank link scan
- Skip scan
- Duplex scan
- Tone scan
- Priority scan

Other Features

- WX channel receive and weather alert function (USA version only)
- Power save function
- SMA type antenna connector
- Key lock function
- Automatic repeater function (USA version only)
- TOT (time out timer) setting
- Repeater lockout and busy channel lockout
- 1750Hz tone for European tone access
- PC cloning capability and transceiver-to-transceiver cloning (Optional)
- Direct keypad frequency entry
- 16 DTMF autodial memories
- Auto power off
- Wide/narrow channel spacing

SPECIFICATIONS

Specifications described below are target values. They may be subject to change.

■ GENERAL

- Frequency coverage : (Unit: MHz)

Version	Tx working range	Rx working range	TX/RX Guaranteed
USA	144-148, 420-450	136-174, 400-479	144-148, 440-450
Australia	144-148, 420-450	136-174, 400-479	144-148, 430-440
Europe	144-146, 430-440	144-146, 430-440	144-146, 430-440
UK	144-146, 430-440	136-174, 400-479	144-146, 430-440
Export, China	136-174, 400-479	136-174, 400-479	144-148, 430-440

- Type of emission : F2D, F3E (FM)
- No. of memory Ch. : 302 channels (incl. 50 scan edges and 2 call channels)
- Tuning steps : 5, 10, 12.5, 15, 20, 25, 30, 50, 100, 125, 200 kHz
- Operating temp. range : -20°C to +60°C; -4°F to +140°F (Radio only)
- Frequency stability : ±2.5ppm (-20°C to +60°C on the basis of 25°C)
- Power supply requirement: 7.2V DC (with BP-264)
 - External DC power 10-16V DC
 - Battery cells 6-10V DC
- Current drain (at 7.2V (BP-264) or 13.5V DC):
 - Tx High (VHF/UHF) 1.7/2.1A typ.
 - Mid (VHF/UHF) 1.2/1.5A typ.
 - Low (VHF/UHF) 0.6/0.8A typ.
 - Rx AF max.
 - Internal SP Less than 450mA (16Ω load)
 - External SP Less than 300mA (8Ω load)
 - Stand-by Less than 90mA
 - Power save Less than 40mA (1:8 duty)
- Antenna impedance : 50Ω nominal (SMA)
- Dimensions (W×H×D) : 58×111×30 mm (projections not included) 2⁹/₃₂×4³/₈×1³/₁₆ in
- Weight (approx.) : 380g; 13.4oz (w/ant. and BP-264)

■ TRANSMITTER

- Modulation system : FM reactance
- Output power : 5W, 2.5W, 0.5W (High, mid, low) (at 7.2V (BP-264)/13.5V DC)
- Spurious emissions : Less than -60dBc (High, Mid) Less than -13dBm (Low)
- Max. frequency deviation : ±5.0kHz/2.5kHz (Wide/narrow)
- Ext. microphone connector : 3-conductor 2.5 (d) mm (1/10")/2.2kΩ

■ RECEIVER

- Receiving system : Double conversion superheterodyne
- Intermediate frequency: 1st 46.35MHz 2nd 450kHz
- Sensitivity (at 12dB SINAD, except spurious points) :
 - Guaranteed range 0.18μV typ.
 - Working range 0.32μV typ.
- Squelch sensitivity (at threshold) :
 - Guaranteed range 0.18μV typ.
 - Working range 0.32μV typ.
- Selectivity (20kHz spacing, ham band only) :
 - FM More than 60dB
 - FM Narrow More than 60dB
- Spurious and image rejection : More than 60dB
- Spurious radiation : Less than -57dBm
- Audio output power : More than 700mW (Internal SP, 16Ω) (10% distortion, 7.2V DC) More than 400mW (External SP, 8Ω)
- Ext. speaker connector : 3-conductor 3.5 (d) mm (1/8")/8Ω

Applicable IP Rating

Ingress Protection Standard	
Dust & Water	IP54 (Dust-protection and water resistant)

Comparison with Icom dual band radios

Model Name	IC-T70A IC-T70E	IC-80AD IC-E80	IC-T7H
Output Power	5W	5W	6W (at 13.5V)
Size (W×H×D)	58×111×30mm	58.4×103×34.2mm	57×122×29mm (with BP-180)
Weight (approx.)	380g (with BP-264 and ANT)	290g (with BP-217 and ANT)	320g (with BP-180 and ANT)
Frequency coverage	Tx 144-148, 420-450MHz*1	144-148, 420-450MHz*1	144-148, 430-450MHz*1
	Rx 144-148, 420-450MHz	0.495-999.99MHz	118-174, 400-470MHz
Mode	FM	FM, DV, WFM*2, AM*2	FM, AM*2
No of memory channels	302	1052	70
External DC power supply	Yes	Yes	Yes
IP rating	IP54	IPX4	-
CTCSS/DTCS tone	Yes	Yes	CTCSS only
DTMF autodial memories	Yes	Yes	Yes
Operating time	10-11.5 hours with BP-264	6 hours with BP-217	4.2 hours with BP-180
Operating Temp. range	-20°C to +60°C	-20°C to +60°C	-10°C to +60°C
LCD Backlight	Yes	Yes	Yes
VOX capability	Yes (built-in)*3	Option HS-85	Option HS-85
AF output power	700mW	300mW	500mW typ.

*1 Depending on version. *2 Receive only *3 HS-94/HS-95/HS-97 and OPC-2006 required.

OPTIONS

■ BATTERY PACKS AND CASE

- BP-263 : AA (LR6) × 6 cells
 BP-264 : 7.2V/1400mAh Ni-MH battery. Same as supplied.
 BP-265 : 7.4V/1900mAh (min.), 2000mAh (typ.) Li-Ion battery.

■ BATTERY CHARGERS

- BC-167S : Wall charger (BC-167SA/SD/SV versions available). Charges the BP-264 in 8 hours (approx.). Same as supplied.
 BC-191 : Rapid desktop charger for Ni-MH battery pack BP-264. Charges the BP-264 in 2 hours (approx.).
 + BC-123S : AC adapter (BC-123SA/SE/SV versions available)
 BC-192 : Regular desktop charger for Ni-MH battery pack BP-264. Charges the BP-264 in 16 hours (approx.).
 + BC-147S : AC adapter (BC-147SA/SE versions available)
 BC-193 : Rapid desktop charger for Li-Ion battery pack BP-265. Charges the BP-265 in 2.5 hours (approx.).
 + BC-123S : AC adapter (BC-123SA/SE/SV versions available)

■ POWER SUPPLY CABLES

- CP-19R : Cigarette lighter cable with DC-DC converter.
 CP-12L : Cigarette lighter cable with noise filter.
 OPC-254L : DC power cable. For use of the transceiver with an external power supply.
 CP-23L : Cigarette lighter cable for use with the BC-191 or BC-193.
 OPC-515L : DC power cable for use with the BC-191, BC-192 or BC-193.

■ CLONING SOFTWARE AND CABLES

- CS-T70 : Cloning software. **(New item)**
 OPC-478/UC : Cloning cable (RS-232C type/USB type)
 OPC-474 : Cloning cable for transceiver-to-transceiver cloning.

■ SPEAKER-MICROPHONES & EARPHONE-MICROPHONES

- HM-153 : Durable earphone microphone.
 HM-131 : Compact type speaker microphone.

■ HEADSETS

- HS-94 : Earphone-headset (Use with OPC-2006)
 HS-95 : Behind-the-head headset (Use with OPC-2006)
 HS-97 : Throat microphone (Use with OPC-2006)
 OPC-2006 : Plug adapter cable. OPC-2006 is required when using the HS-94, HS-95 and HS-97. **(New item)**

■ BELT CLIP

- MB-124 : Alligator type. Same as supplied.

■ ANTENNAS

- FA-S270C : VHF/UHF antenna. Same as supplied.
 AD-92SMA : Antenna connector adaptor. Allows you to connect a BNC-type antenna.

■ CARRYING CASE

- LC-174 : Helps protect the transceiver from scratches, etc. Can be used with all battery packs and case. **(New item)**

■ SUPPLIED ACCESSORIES (Differs depending on version)

- Battery pack, BP-264 • Wall charger, BC-167S • Belt clip, MB-124 • Antenna, FA-S270C

Some options may not be available in some countries.

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