ICOM

IC−F4TR

Phase Ⅱ — Compliant with NTS Release 2.4

Meets
MIL-STD 810

**LTR
PassPort**

Icom Inc.

IC-F4TR – critical component for your complete SMR/PMR system solution

Icom's TR family of radios offers a total solution in an integrated system of portables, mobiles and repeaters for PMR, SMR and Public Safety. Take advantage of Icom's integrated design that offers a value alternative for trunking systems. The IC-F621TR and IC-FR4000 are designed companions to our hand held radio. Or, integrate the IC-F4TR with existing PassPort/LTR systems. Either way, Icom offers the most value and reliability to fit your requirements.

Conventional operation, basic LTR and PassPort are all built-in offering you a complete upgrade path as your system grows. Flash memory will enable the easy addition of future system enhancements as they are developed. Icom radios are known for their rugged MIL spec. reliability and solid performance, and so is the IC-F4TR, a strict requirement for a problem-free fleet radio. All the most popular system features are included but unnecessary and complicated features have been eliminated to keep the operation simple. The Icom IC-F4TR is a cost effective, rugged and reliable subscriber unit with a built-in upgrade path to increase an SMR owner's loading factor and Revenue Per Unit (RPU), or makes operations easier to control for PMR owners.

▲ IC-FR4000

Take advantage of Icom's integrated design that offers a value alternative for trunking systems. The IC-F621TR and IC-FR4000* are designed companions to our handheld radio.

(* External trunking controller is required for LTR and PassPort trunking.)

■ Phase II — PassPort features

The IC-F4TR is now compliant with NTS Release 2.4.
- Individual Selective Call (MIN call) – Allows private call between individual members within a fleet.
- Display MIN Text – While in group conversation, you can see the name of the calling party in the display, instead of the MIN number.
- Primary Talk Group – "All Call" allows individual users to call all groups in the fleet.
- Site Lock – Allows the user to lock the radio onto the current site to avoid roaming.

▲ IC-F621TR

UHF TRUNKED RADIO
IC−F4TR

Multiple modes
Conventional, basic LTR and PassPort are built-in. Conventional operation and talk-around are both available from the front panel during LTR and PassPort operation. Flash memory enables future system upgrades and future compatibility with other protocols.

Conventional features
250 channels either 12.5kHz or 25kHz, CTCSS, DTCS and alpha names.

LTR features
50 systems with up to 250 groups per system. All basic LTR system features.

PassPort features
65,219 usable ID's, individual mobile ID's and roamer ID's, wide area dispatch, selective calling (MIN Call), ESN (Electrical Serial Number) check and Display ASID Text.

Advanced trunking performance
Our Fractional-N system for ultra high-speed PLL lock-up provides faster acquisition times and efficient trunking performance. The built-in receive signal strength indicator (RSSI) enables seamless roaming under the PassPort protocol, as the IC-F4TR automatically registers with the nearest site (does not rely on BER calculations which slow down the registration process).

PTT over tone
PTT over tone sends a beep sound when you release the PTT, instead of saying "Over".

Entire UHF bandwidth usable
Three bandwidth versions (400–430MHz, 450–490MHz, and 480–512MHz) all have switchable 12.5/25kHz width by channel, and 5/6.25kHz frequency pitch making all the new UHF channels available for trunking, even if your channels aren't right next to each other.

Alphanumeric display
The 8-digit LCD display has 18 icons that indicate system status and operational selections, including battery condition. The new 11-segment character set may be toggled from the control panel between system/group numbers or PC pre-programmed alpha names.

▲ IC-F4TR

OPTIONS

BATTERY PACKS AND CASE

BP-194   **BP-195**   **BP-196**

BATTERY PACKS & CASE	TYPE & CAPACITY	OUTPUT POWER	BATTERY LIFE
BP-194	AA (R6) batteries × 8*	4W typ.	4.5 hours
BP-195	Ni-Cd 9.6V/700mAh	4W typ.	4.5 hours
BP-196	Ni-Cd 9.6V/1050mAh	4W typ.	6.5 hours

*Ni-Cd cells in the BP-194 BATTERY CASE must be purchased separately. Approx. output power and operating times (Tx (Hi): Rx: standby=5:5:90)

BC-121N+AD-81 (6 pcs.)

BC-124

BC-121N MULTI-CHARGER + **AD-81** CHARGER ADAPTER + **BC-124** AC ADAPTER
For rapid charging of up to 6 battery packs (six AD-81s are required.), BP-195 or BP-196. The BC-124 outputs 12 V DC and has 7 A capacity for the BC-121N. Charging time: 1.5 to 2 hours. **OPC-656** DC POWER CABLE For use with the BC-121N with a DC power supply. (12–20V DC)

BC-143 DESKTOP CHARGER

BC-143 DESKTOP CHARGER
For rapid charging of battery packs. An AC adapter is supplied with the charger. Charging time: 1 to 1.5 hours. **BC-119N** DESKTOP CHARGER is also available for rapid charging with **AD-81** CHARGER ADAPTER.

BC-133 BATTERY CHARGER

BC-133 BATTERY CHARGER
Regularly charges a battery pack, BP-195 or BP-196, with/without transceiver. The AC adapter, BC-122, is additionally required.

SPEAKER MICROPHONES

HM-46   **HM-75A**   **HM-131**

HS-51 HEADSET

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

For hands-free operation. Includes VOX, PTT and "one-touch" PTT with a time-out timer.

HM-128 EARPHONE-MICROPHONE

The light weight earphone-mic. has a compact microphone that clips to your lapel.

HEADSETS and PTT/VOX UNIT

HS-94   **HS-95**   **HS-97**   **VS-1**

HS-94: Earhook headset with flexible boom microphone.
HS-95: Behind-the-head headset with flexible boom microphone.
HS-97: Throat microphone that fits comfortably around your neck and picks up a speech vibration.
VS-1: PTT/VOX unit. Required when using these headsets with the transceiver.

FA-SC73US STUBBY ANTENNA

60 mm stubby antenna. Frequency range: 450–490MHz

CP-12L CIGARETTE LIGHTER CABLE WITH NOISE FILTER

OPC-254L DC POWER CABLE

Allows you to charge a battery pack connected to the transceiver via a DC power source (12–16V DC). For charging ONLY— the transceiver cannot be simultaneously operated.

AD-98FSC ANTENNA CONNECTOR ADAPTER
Allows you to connect a BNC-type antenna. (For maintenance use only)

BC-110A/C/D/V WALL CHARGER
Use for charging the connected battery pack.

MB-68/MB-74N/MB-87 BELT CLIPS
MB-68: Flat standard type.
MB-74N: Alligator type.
MB-87: Swivel belt clip.

SP-13 EARPHONE
Provides clear audio even in noisy environments.

Programmable keys

Each version has 7 PC programmable keys, which may be assigned functions to customize operations for end users. System/Group, Home System, Scan/Scan clear, Talk around, Auto dialler, and keypad lock are some assignment examples.

Advanced PC programming

You may assign mode (conventional, LTR or PassPort) by system, default talk group for home button, power-ON home or previous group, over the air programming for PassPort, network roaming, 5⁄3MHz offset by channel, LTR polarity by system, home channel and area bit by system, Tx and Rx ID, and UID for PassPort.

MIL grade durability

Durable design features a one-piece aluminum die-cast chassis, polycarbonate front panel and screw type antenna. The IC-F4TR meets MIL spec. C, D and E.

Multiple scan mode

Conventional, system and group scan enable continuous contact under multi system operation without any action by the end-user.

Other features

• Powerful 4W output with the standard battery • CTCSS, DTCS and DTMF encoder/decoder built-in • Scanning, Time-out timer functions available • Windows® PC programming capabilities • DTMF encoder/decoder, Black list, Forced roaming and stun/kill and more...

SPECIFICATIONS

GENERAL

- Frequency range : 400–430MHz, 450–490MHz, 480–512MHz
- Type of emission : 16K0F3E (25kHz)
  11K0F3E (12.5kHz)
- PLL channel step : 5kHz, 6.25kHz
- Antenna impedance : 50Ω
- Usable temperature range:
  −30˚C to +60˚C; −22°F to +140°F
- Frequency error : ±2.5ppm
- Power supply requirement:
  9.6V DC (Icom battery pack)
- Current drain (approx.) :

Transmit	at 4W	1.4A
	at 1W	0.7A
Receive	stand-by	110mA
	rated output	280mA

- Dimensions : 57(W)×140(H)×37(D) mm
  (projections not included) ; 2¼(W)×5½(H)×1¹⁵⁄₃₂(D) in
- Weight (with BP-196) : 390g; 13.8oz

TRANSMITTER

- Modulation system : Variable reactance frequency modu-lation
- Output power : 4W
- Max. freq. deviation : ±5kHz (25kHz)
  ±2.5kHz (12.5kHz)
- Spurious emissions : 70dB typical
- Adjacent Ch. power : 75dB typical (25kHz)
  70dB typical (12.5kHz)
- Audio harmonic distortion:
  5% max.
- Residual modulation : 40dB (25kHz)
  34dB (12.5kHz)
- Limiting character of modulation:
  60–100%
- External MIC connector : 3-conductor 2.5 (d) mm (¹⁄₁₀″)/2.2kΩ

RECEIVER

- Intermediate freq. : 1st 47.25MHz
  2nd 450kHz
- Sensitivity : 0.3µV (at 12dB SINAD)
- Squelch sensitivity : 0.3µV (typical; at threshold)
- Adjacent Ch. selectivity : 70dB typical (25kHz)
  65dB typical (12.5kHz)
- Spurious response : 70dB typical
- Intermodulation rejection ratio:
  75dB typical
- Hum and noise ratio : 48dB typical (25kHz)
  43dB typical (12.5kHz)
- Audio output power : 500mW (at 5% distortion with an 8Ω load)
- External SP connector : 2-conductor 3.5 (d) mm (⅛″)/8Ω
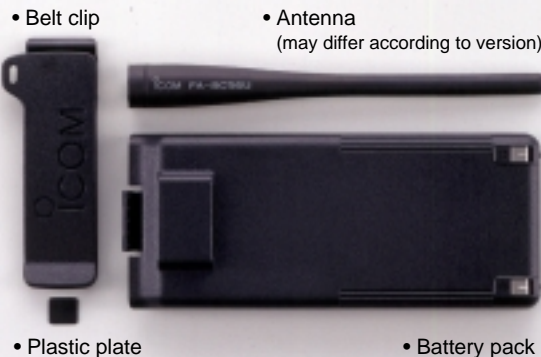
Applicable U.S. Military Specifications

Icom makes rugged products that meet MIL-STD requirements and strict environ-mental standards as follows.

Standard	MIL 810C		MIL 810D		MIL 810E	
	Method	Procedure	Method	Procedure	Method	Procedure
Low Pressure	500.1	I	500.2	I, II	500.3	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	510.1	I	510.2	I	510.3	I
Vibration	514.2	VIII, X	514.3	I	514.4	I
Shock	516.2	I, II, V	516.3	I	516.4	I, IV

Measurements made in accordance with EIA/TIA-603. All stated specifications are typical and subject to change without notice or obligation.

Supplied accessories:
- Belt clip
- Antenna
  (may differ according to version)

- Plastic plate
- Battery pack