



VHF AND UHF TRANSCEIVERS

IC-F50 (VHF Transceiver)

IC-F60 (UHF Transceiver)

Submersible

1m depth for 30 minutes

**Intrinsically safe
versions available**



Rugged

MIL-STD 810

**MDC 1200
Compatible**

Photo includes optional speaker-microphone, HM-133.

Icom Inc.



Superior Water Supports De

Firefighters, Police, Security, own unique challenges, but a munications. Icom's IC-F50/F easy to use. Rain or shine, th

IPX7 waterproof protection

The gasket sealed waterproof housing provides superior waterproof protection, equivalent to IPX7*. Reliable and dependable use in harsh conditions such as rain, snow, sudden change in temperature, make the IC-F50/F60 the radio for all situations.



* According to the international standard IEC 529 (1989). 1m depth for 30 minutes.

Built-in Tone signaling

Use the built-in CTCSS, DTCS, 2-Tone and 5-Tone capability to set up your own talk groups and quiet stand-by when others are talking. You can also set up selective calls to individuals or control a repeater.

Multiple 2-Tone, Multiple 5-Tone

Up to 10 2-Tone codes can be decoded on a single memory channel. This is perfect for professionals who require multiple district paging on one channel. When a matched tone is received, the following items are programmable for each code.

- Bell icon
- Answer back
- Stun
- Beep sound
- Auto transmit
- Scan



▼ IC-F50

▼ IC-F60



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Waterproof Protection Demanding Communication

Oil industry and Public utilities. Each profession has its own special requirements. All have one thing in common: the need for reliable communication. The IC-F50/F60 offers a compact waterproof, MIL STD package, that's built for the job. This radio keeps you in contact in nearly any environment.



Li-Ion battery pack

The large capacity 1950mAh (typ.) Lithium-Ion (Li-Ion) battery pack, BP-227 provides a practical 10 hours* of operating time. Li-Ion batteries allow flexible charging and have almost no memory effect.

* Typical operation Tx:Rx: Stand-by=5:5:90

Up to 7 programmable buttons

The [P0]-[P3], [Red] and [Up], [Down] buttons are programmable to meet specific needs. The [Red] button on the top panel can be assigned as an emergency trigger.

Alphanumeric display

The 8-character alphanumeric display shows channel, bank, tone code and scanning channel names on the display. 7 operational icons on the sub-line show various status at a glance.



Upper and lower case characters available.

Wide range coverage and large channel capacity

The IC-F50/F60 covers a wide frequency range in one version. The large capacity of 128 memory channels with 8 memory zones allows you to divide and store a variety of channels from local to wide area network channels. Both wide and narrow (25/12.5kHz) channel bandwidth is programmable to each channel.

Compact body

56(W)×97(H)×36.4(D) mm* compact body with durable, dependable construction, has been tested to MIL standard specifications. * 2⁷/₃₂(W)×3¹³/₁₆(H)×1⁷/₁₆(D) in

Built-in voice scrambler

The IC-F50/F60 has a built-in inversion type voice scrambler in all versions. When a more secure system is required, versions with a rolling type voice scrambler* equivalent to the UT-110 are available.

* Built-in, optional unit not required.

MDC 1200 Compatible

The following selective calling and ANI features are available with the built-in MDC signaling.

- PTT ID
- Radio check
- Caller ID
- Selective call
- Emergency, emergency mic monitoring
- Radio stun/revive
- 500 Aliases
- Status/message
- Call alert

Intrinsically safe version

Intrinsically safe version approved by the FMRC, is suitable for use in hazardous areas where flammable gasses or liquids are used. See specification page for applied classes.

Other features

- Built-in audio compander
- 8 DTMF auto-dial memories
- BISS 1200 mode programmable
- Normal and priority scans
- 2 step power saver
- Optional AA alkaline battery case, BP-226 for battery back up
- Busy, repeater lockout functions
- Power ON password, and more...

OPTIONS

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



BP-226 BATTERY CASE: AA (LR6)×5 alkaline cells. BP-226 is water-resistant, equivalent to IPX4.
BP-227/FM Li-Ion BATTERY PACK: 7.2V, 1850mAh (min.), 1950mAh (typ.). Provides 10 hours operating time* (approx.). Operating temp. range: -20°C to +60°C; -4°F to +140°F. * Tx: Rx: standby=5:5:90. BP-227FM is intrinsically safe version.



BC-152 DESKTOP CHARGER + BC-147 AC ADAPTER**
Regularly charges the BP-227 in 9-10 hours.



BC-190 DESKTOP CHARGER + BC-145 AC ADAPTER**
Rapidly charges the BP-227. Charge the radio, even when the radio power is on.



BC-119N DESKTOP CHARGER + AD-100 CHARGER ADAPTER + BC-145 AC ADAPTER**
Rapidly charges the BP-227 in 2-2.5 hrs.



BC-121N MULTI-CHARGER + AD-100 CHARGER ADAPTER + BC-157 AC ADAPTER
Rapidly charges up to 6 battery packs (Six AD-100s are required) in 2-2.5 hours.



HM-168: Compact type speaker-microphone. Equivalent to IPX7.
HM-169: Rugged type speaker-microphone. Equivalent to IP57.
HM-170GP: GPS speaker-microphone for BISS mode. Equivalent to IP57.
HM-138: Full sized speaker-microphone. Equivalent to IPX7.



MB-86: Swivel type belt clip.
MB-98: Alligator type. Same as supplied.
MB-96N: Swivel type belt hanger.
MB-96F: Fixed type belt hanger.



CP-17L: Cigarette lighter cable for use with BC-152/BC-119N.
OPC-515L: DC power cable for use with BC-152/BC-119N.
OPC-656: DC power cable for use with the BC-121N.



OPC-966: RS-232C interface cable for connecting with a PC.

ANTENNAS
FA-S24V : 136-150MHz
FA-S59V : 150-174MHz
FA-S27U : 400-470MHz
FA-S56U : 450-520MHz
FA-S74U : 490-520MHz

STUBBY ANTENNAS
FA-S62VS : 150-162MHz
FA-S63VS : 160-174MHz
FA-S57US : 450-490MHz

SPECIFICATIONS

GENERAL

- Frequency range :
 - IC-F50 136–174MHz
 - IC-F60 400–470MHz
 - 450–512MHz (U.S.A.)
 - 450–520MHz (General)
- Number of Channels : Max. 128 channels/ 8 zones
- Channel spacing : 12.5/25kHz, 15/30kHz
- Antenna impedance : 50Ω (SMA Type)
- Frequency error : ±2.5ppm
- PLL channel step :
 - IC-F50 2.5/3.125kHz
 - IC-F60 5/6.25kHz
- Power supply requirement : 7.2V DC
- Current drain (approx) :
 - Transmit IC-F50 1.5A/0.7A (5W/1W)
 - IC-F60 1.5A/0.8A (4W/1W)
 - Receive AF max. 300mA
 - Stand-by 85mA
- Operating temperature range : -30°C to +60°C; -22°F to +140°F
- Dimensions (W × H × D) : 56 × 97 × 36.4 mm ;
(projections not included) 2^{7/32} × 3^{13/16} × 1^{7/16} in.
- Weight (approx.; With BP-227) : 280g; 9.9oz

TRANSMITTER

- Output power : IC-F50 5.0W
IC-F60 4.0W
- Modulation system : Variable reactance frequency modulation
- Max. frequency deviation : ±5kHz (wide)
±2.5kHz (narrow)
- Modulation limiting : 60–100% of Max. deviation
- Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
- Spurious emissions : 70dB Min.
- Adjacent channel power : 70dB Min. (wide)
60dB Min. (narrow)
- FM Hum and Noise : 46dB typ. (wide)
40dB typ. (narrow)
- External MIC impedance : 9-pin multi connector/2.2kΩ

INTRINSICALLY SAFE TYPE APPROVAL



There are versions that conform to intrinsically safe rating of the FMRC (Factory Mutual Research Corporation). Ask your dealer for details.
 Intrinsically safe : Class I, II and III, Division 1, Groups C, D, E, F, and G ;
 Nonincendive : Class I, Division 2, Groups A, B, C and D hazardous locations
 when used with Icom BP-227FM battery pack. *Max. Temp. T3C at 40°C*
 Approved accessories: Speaker-microphone, HM-138

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RECEIVER

- Sensitivity : 0.25μV typ. (at 12dB SINAD)
- Squelch sensitivity : 0.25μV typ. (at threshold)
- Adjacent channel selectivity : 75dB typ. (wide)
65dB typ. (narrow)
- Spurious response : 70dB
- Intermodulation : 74dB typ.
- Hum and noise : 45dB typ. (wide)
40dB typ. (narrow)
- Audio output power : 0.5W typ. at 5% distortion with an 8Ω load
- External SP connector : 9-pin multi connector/8Ω

Measurements made in accordance with EIA-152C/204D, TIA-603.
 All stated specifications are subject to change without notice or obligation.

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 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4-3	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Rain Blowing/Drip	506.4	I, III
Humidity	507.4	-
Salt Fog	509.4	-
Dust Blowing	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

Also meets equivalent MIL-STD-810-C, -D and -E.

Supplied accessories:

- Antenna (Length may differ according to version)



- Alligator-type belt clip, MB-98
- Battery pack, BP-227

Your local distributor/dealer:

AUTHORIZED DEALER

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