



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

BIIS 1200
Compatible



Photo includes optional speaker-microphone, HM-138.

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 demands. But 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 1700mAh 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 banks 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.

BIIS 1200 Compatible

The following selective calling and data features are available with the BIIS system.

- 32 abbreviated call memories
- 7 group IDs
- 24-status Messages
- 8-character SDM (Short Data Message)
- RS-232C interface
- Position data transmission with a GPS

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
- Powerful 5W/4W (VHF/UHF) output
- 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/BP-227FM Li-Ion BATTERY PACK, 7.2V/1700mAh 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-147A/E AC ADAPTER Regularly charges the BP-227 in 9–10 hours.



BC-119N DESKTOP CHARGER + AD-100 CHARGER ADAPTER + BC-145A/E/V AC ADAPTER Rapidly charges the BP-227 in 2.5–3 hrs.



BC-121N MULTI-CHARGER + AD-100 CHARGER ADAPTER + BC-157 AC ADAPTER Rapid charges up to 6 battery packs (Six AD-100s are required) in 2.5–3 hours. **OPC-656 DC POWER CABLE;** For use with the BC-121. (12–20V DC required).



HM-138: Full sized, waterproof construction equivalent to IPX7. (1 m/30 min.).



MB-86: Swivel type. Prevents accidental dropping from your belt. **MB-98:** Alligator type. Same as supplied.



MB-96F: Fixed type belt hanger for use with MB-98. **MB-96N:** Swivel type belt hanger.



CP-17L: CIGARETTE LIGHTER CABLE **OPC-515L:** DC POWER CABLE For use with the BC-152 or BC-119N. (12–16V DC required)



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

ANTENNAS
FA-S24V: 136–150MHz (Blue ring)
FA-S59V: 150–174MHz (Red ring)
FA-S27U: 400–470MHz (Green ring)
FA-S56U: 450–520MHz (Red ring)
FA-S74U: 490–520MHz (Blue ring)

STUBBY ANTENNAS
FA-S62VS: 150–162MHz (Red ring)
FA-S63VS: 160–174MHz (Green ring)
FA-S57US: 450–490MHz (Red ring)

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 banks	
• 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	

Measurements made in accordance with EIA-152C/204D, TIA-603.

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

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

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

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 810C		MIL 810D		MIL 810E		MIL 810F	
	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
Rain Blowing/Drip	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III
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 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

Supplied accessories:

- Antenna (Length may differ according to version)



- Alligator-type belt clip, MB-98

- Battery pack, BP-227

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