ICOM

VHF AND UHF TRANSCEIVERS

IC-F51V (VHF Transceiver)
IC-F61V (UHF Transceiver)





Never miss in

with loud audio, vibration

Vibration alert function

When a pre-programmed 2-tone/5-tone code or call from a specific group user (BIIS mode) or a status message (BIIS mode) is received, the radio vibrates powerfully enough to be felt through heavy clothing.

8 minute voice recorder

When a pre-programmed 2-tone/5-tone code or a call from a specific group user (BIIS mode) is received, the voice recorder automatically starts recording the incoming message. You will not miss an important call even when you are temporarily away from the radio. You can manually start recording incoming calls and also your own message. It records up to a maximum of 8 minutes (Or up to 48 calls of 10 sec. recording time).



" ✱ " icon on the display shows you have a new message.

700mW audio output

The IC-F51V series delivers a loud 700mW* audio output with the built-in BTL amp. The built-in audio compander provides clear, low noise communications. Improved bass characteristics also betters the audio quality. * Typical with internal speaker.

Lone worker function for remote check in

When the radio is not operated for a preset period (1 to 255 min.), the radio sounds a beep and requires you to push any button. If the radio is not operated for a preset time (1 to 255 sec.), an emergency signal automatically transmits and informs your co-worker or dispatcher that something may have happened to the individual worker.

IP67, dust-tight and waterproof protection



The IC-F51V series has outstanding protection against dust and water that is equivalent to IP67. The IC-F51V series can withstand submersion in 1m depth of water for up to 30 minutes and has dust-tight construction that prevents the ingress of dust.

Most popular signalings built-in

Use the built-in CTCSS, DTCS, 2-Tone, 5-Tone and BIIS signaling capabilities to set up your talk group or selective calling. The IC-F51V series can decode ten 2-Tone codes or eight 5-Tone codes on a channel. When a matched tone is received, the following actions are programmable for each code.

- Bell icon
- Answer back call
- Beep sound
- Auto transmit
- Radio Stun/Kill/Revive
- Voice recorder
- Vibration alert

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portant calls

alert and voice recorder!

BIIS 1200 Compatible

The following selective calling and ANI features are available with the built-in BIIS signaling.
The following selective calling and data communication features are available with the BIIS system.

- 32 abbreviated call memories
- RS-232C interface
- 7 group IDs
- 24-status Messages
- Radio stun
- 8-character SDM (Short Data Message)
- Position data transmission with optional HM-170GP

Mode dependent scan

In the mode dependent setting, the scanning setting is dependent on the operating channel. When you change the operating channel, the scanning list automatically changes to the operating channel setting. It is convenient when you move to a different operating area and change an operating channel, you don't have to change the scanning setting.

Enhanced scanning

The Tx channel while scanning can be programmed per scanning list. The talk back function allows you to transmit on the channel detected after scanning resumes after a preset time, prior to the Tx channel setting. The nuisance delete function temporarily deletes a busy channel from the scanning list. Backlight at stop scan automatically turns on the LCD backlight when the scan stops.

Compact body

56(W)×97(H)×36.4(D) mm compact body with durable, dependable construction, has been tested to MIL standard specifications.

Li-Ion battery pack

The large capacity 1700mAh Lithium-Ion (Li-Ion) battery pack, BP-227 provides a practical 9–10 hours* of operating time. With the new BC-190 charger, catch calls even during the night while charging the battery with the radio power on.
* Typical operation Tx:Rx: Stand-by=5:5:90

Other features

- 128 memory channels with 8 zones
- Inversion type*1 voice scrambler built-in
- Optional VOX headsets available
- Optional GPS speaker-microphone
- Power ON password
- 8 DTMF autodial
- Normal and priority scans
- 2-step power saver and 2-step low battery beep
- MDC 1200 mode programmable
- BTL only version (no vibration alert and no voice recorder) and BTL/Vibration alert version (no voice recorder) available*2 and more...

*1 Inversion type voice scrambler is not compatible with UT-109/UT-110 voice scrambler. UT-109/UT-110 cannot be physically installed into the radio.
*2 Not available in some countries.

OPTIONS

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

BATTERY PACK & CASE



BP-226 : AA (LR6)×5 BATTERY CASE
BP-226 is water-resistant, equivalent to IPX4.
BP-227 : 7.2V/1700mAh Li-Ion BATTERY PACK
Provides 9–10 hours operating time* (approx.).
Operating temp. range: –20°C to +60°C; –4°F to +140°F.
* Tx: Rx: standby=5:5:90.

MULTI-CHARGER



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 hrs.

RAPID CHARGER



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

RAPID CHARGER



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

BATTERY CHARGER



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

HEADSETS & VOX/PTT CASE



HS-94 : Earhook headset with flexible boom microphone.
HS-95 : Behind-the-head headset with flexible boom microphone.
HS-97 : Throat microphone fits around your neck and picks up speech vibration.
VS-1SC : VOX/PTT CASE. Required when using these headsets with the transceiver.
These headsets and VS-1SC are water-resistant, equivalent to IPX4.

SPEAKER-MICROPHONES



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

BELT CLIPS & LEATHER BELT HANGERS



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.

ANTENNAS



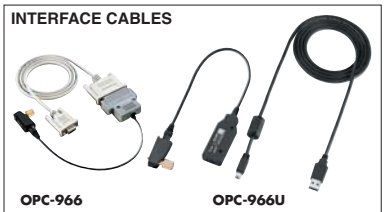
FA-S24V : 136–150MHz (Blue ring)
FA-S59V : 150–174MHz (Red ring)
FA-S62VS: 150–162MHz (90mm stubby type, red)
FA-S63VS: 160–174MHz (90mm stubby type. green)

POWER SUPPLY CABLES



CP-17L : 12V cigarette lighter cable for BC-119N or BC-152.
OPC-515L: DC power cable for BC-119N or BC-152.
OPC-656 : DC power cable for BC-121N.

INTERFACE CABLES



OPC-966 : RS-232C interface cable for connection with a PC.
OPC-966U: USB interface cable for connection with a PC.

IC-F51V • IC-F61V

SPECIFICATIONS

GENERAL

- Frequency range :
  - IC-F51V 136–174MHz
  - IC-F61V 400–470MHz
- Number of Channels : Max. 128 channels/ 8 zones
- Channel spacing : 12.5/20/25kHz
- PLL channel step : 2.5/3.125kHz
- Antenna impedance : 50Ω (SMA Type)
- Power supply requirement : 7.2V DC
- Current drain (approx.) :
  - Transmit High 1.8A (5W/4W)
  - Receive AF max. 500mA (Internal speaker)
  - 300mA typ. (External speaker)
  - Stand-by 85mA
- Operating temperature range : –25˚C to +55˚C
- Dimensions (W×H×D) : 56 × 97 × 36.4mm
  (projections not included)
- Weight (approx.) VHF : 280g (With BP-227)
  UHF 284g (With BP-227)

TRANSMITTER

- Output power IC-F51V : 5.0W
  IC-F61V : 4.0W
- Modulation system : Variable reactance frequency modulation
- Max. frequency deviation : ±5kHz (wide)
  ±4kHz (middle)
  ±2.5kHz (narrow)
- Frequency error : ±2.5ppm
- Spurious emissions : 0.25µW (≤ 1GHz)
  1.0µW (> 1GHz)
- Modulation limiting : 60–100% of Max. deviation
- Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
- Adjacent channel power : 70dB Min. (wide, middle)
  60dB Min. (narrow)
- External MIC impedance : 9-pin multi connector/2.2kΩ

Measurements made in accordance with ETS 300-086.
All stated specifications are subject to change without notice or obligation.

RECEIVER

- Sensitivity : –4dBµV typ. (emf, at 20dB SINAD)
- Squelch sensitivity : –4dBµV typ. (emf, at threshold)
- Adjacent channel selectivity : 75dB typ. (wide, middle)
  65dB typ. (narrow)
- Spurious response : 70dB
- Intermodulation : 67dB typ.
- Hum and noise (With CCITT filter) : 55dB typ. (wide)
  53dB typ. (middle)
  50dB typ. (narrow)
- Audio output power : 0.7W typ. (Internal speaker)
  0.5W typ. (External speaker)
  at 5% distortion with an 8Ω load
- External SP connector : 9-pin multi connector/8Ω

Applicable U.S. Military Specifications & IP Rating

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

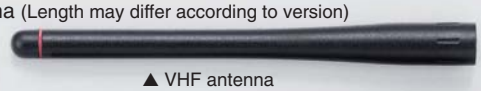
Standard	MIL 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4-3	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Rain	506.4	I, III
Humidity	507.4	–
Salt Fog	509.4	–
Dust Blowing	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

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

Ingress Protection Standard	
Dust & Water	IP67 (Dust-tight and waterproof protection)

Supplied accessories:

- Antenna (Length may differ according to version)



▲ VHF antenna



▲ UHF antenna





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

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