



## VHF AND UHF TRANSCEIVERS

# IC-F51V

(VHF Transceiver)

# IC-F61V

(UHF Transceiver)



128 ch/  
8 zones

2-Tone, 5-Tone  
BIIS-1200 compatible

5W RF  
700mW AF

IP67 Dust-tight  
and Waterproof

8-character  
LCD display

Voice  
recorder

Vibration  
alert

Radio

Pager



**VIBRATION ALERT**



**700 mW (typ.) AUDIO OUTPUT**



**VOICE STORAGE**



# Never miss im 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.

## 700 mW audio output

The IC-F51V series delivers a loud 700 mW\* 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 1 m 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

## VHF AND UHF TRANSCEIVERS

**IC-F51V** (VHF transceiver)

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# Important 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) × 35.2 (D) mm compact body with durable, dependable construction, has been tested to MIL standard specifications.

## Li-Ion battery pack

The large capacity 1900 mAh (typ.) Lithium-ion battery pack, BP-274 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\*<sup>1</sup> 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\*<sup>2</sup> and more...

\*<sup>1</sup> 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.

\*<sup>2</sup> 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-274: Rechargeable Li-ion battery, 1800 mAh (min.), 1900 mAh (typ.). 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-197 MULTI-CHARGER + BC-157S AC ADAPTER  
Rapidly charges up to 6 battery packs in 2.5–3 hours. AD-128 is supplied with the BC-197, depending on version.



**RAPID CHARGER**  
BC-190 DESKTOP CHARGER + BC-123S\*<sup>1</sup> AC ADAPTER  
Rapidly charges the BP-274. Charge the radio, even when the radio power is on.



**BATTERY CHARGER**  
BC-152N DESKTOP CHARGER + BC-147S\*<sup>1</sup> AC ADAPTER  
Regularly charges the BP-274 in 9–10 hours.



**CHARGER BRACKET**  
MB-130 CHARGER BRACKET  
For use with BC-190.

\*<sup>1</sup> BC-123/BC-147SA for USA. SE for Europe. SV for Australia. BC-123SUK for UK.



**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. VS-1SC is required when using any of headsets.



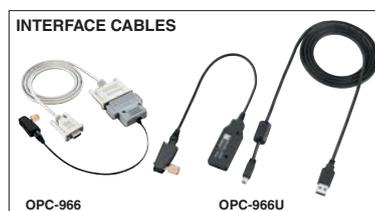
**SPEAKER-MICROPHONES**  
HM-138: Full sized speaker-microphone. Equivalent to IPX7.  
HM-168: Compact type speaker-microphone. Equivalent to IPX7.  
HM-169: Rugged type speaker-microphone. Equivalent to IP57.  
HM-170GP: GPS speaker-microphone for BIIS mode. Equivalent to IP57.



**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.



**POWER SUPPLY CABLES**  
CP-23L: 12 V cigarette lighter cable for use with BC-152N.  
OPC-515L: DC power cable for use with BC-152N.  
OPC-656: DC power cable for use with BC-197.



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

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

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

**SPECIFICATIONS**

**GENERAL**

- Frequency range :
  - IC-F51V 136–174 MHz
  - IC-F61V 400–470 MHz
- Number of Channels : Max. 128 channels/ 8 zones
- Channel spacing : 12.5/20/25 kHz
- Type of emission VHF : 11K0F3E, 14K0F3E, 16K0F3E  
UHF 8K50F3E, 14K0F3E, 16K0F3E
- Antenna impedance : 50 Ω (SMA Type)
- Power supply requirement : 7.2 V DC
- Current drain (approximate) :
  - Transmit High 1.8 A (5 W/4 W)
  - Receive AF max. 500 mA (Internal speaker)
  - 300 mA typ. (External speaker)
  - Stand-by 85 mA
- Operating temperature range : –25 °C to +55 °C
- Dimensions (W × H × D) : 56 × 97 × 35.2 mm (with BP-274) (projections not included)
- Weight (approx.) VHF : 274 g (With BP-274)  
UHF 278 g (With BP-274)

**TRANSMITTER**

- Output power IC-F51V : 5 W, 2 W, 1 W (Hi, Low2, Low1)  
IC-F61V : 4 W, 2 W, 1 W (Hi, Low2, Low1)
- Max. frequency deviation : ±5 kHz (wide)  
±4 kHz (middle)  
±2.5 kHz (narrow)
- Frequency stability : ±2.5 ppm
- Spurious emissions : 0.25 μW (≤ 1 GHz)  
1.0 μW (> 1 GHz)
- Modulation limiting : 60–100% of Max. deviation
- Audio harmonic distortion : 3% typ. (AF 1 kHz, 40% deviation)
- External MIC impedance : 9-pin multi connector/2.2 kΩ

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

**RECEIVER**

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

**Applicable U.S. Military Specifications & IP Rating**

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

Standard	MIL 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4	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)
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**Supplied accessories:**

- Antenna (Length may differ according to version)
  - ▲ VHF antenna
  - ▲ UHF antenna
- Alligator-type belt clip, MB-98
- Battery pack, BP-274

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