



## VHF AND UHF TRANSCEIVERS

### IC-F34GT

(VHF transceiver with 10-keypad)

### IC-F44GT

(UHF transceiver with 10-keypad)

### IC-F34GS

(VHF transceiver without 10-keypad)

### IC-F44GS

(UHF transceiver without 10-keypad)

## *A New Direction in Private Mobile Radios*

- Large channel capacity
- Wide range frequency coverage
- Lithium-ion battery standard
- Multiple tone signaling capabilities
- Built-in audio compander
- Optional SmarTrunk 3G™, voice scrambler, man down and DTMF decoder units



**BIIS 1200  
Compatible**



icom Inc.

# Advanced functions packed in a tough, lightweight body

*The IC-F34G series is suitable for a variety of needs — large or small, mobile or stationary. Whether you are on a large-scale construction site, warehouse, hospital or hotel, or operating a small on the go messenger service, this radio provides the built-in flexibility to handle all your communication needs. Offering advanced features such as wide frequency range, multiple signaling and loud audio, the IC-F34G series is a rugged and reliable 2-way communications tool. This is the new direction in PMR communications.*



## Lithium-ion battery pack

The large capacity 1150mAh Li-Ion battery pack, BP-231, provides 8/9 hours\* of operating time. For longer operating time, use the BP-232 which is rated for a full 15/16 hours\*. Li-Ion technology has virtually no memory charging issues. A rugged dual-rail guide securely locks the battery to the radio.

\* UHF/VHF, typical operation Tx:Rx: Stand-by=5:5:90, power save on.

## Wide frequency range and large channel capacity

The IC-F34G series covers a wide frequency range in one version (136–174, 400–470MHz). Wide, middle and narrow channel bandwidth\* is programmable to each channel. The 256 memory channel capacity with 16 memory banks allows you to divide and store a variety of flexible channel groupings. Easy memory channel selection is possible with a simple rotation of the rotary channel knob.

(\* Programmable 25/12.5kHz or 20/12.5kHz)

## Small and lightweight body

The IC-F34G series sheds size and weight compared with previous models, weighing just 285g\* (including BP-231) and measuring only 53(W)×120(H)×32.5(D) mm. The aluminum die-cast chassis and polycarbonate casing combination meets MIL standard specifications.

\* VHF version.

## Built-in multi-format tone signaling

Use the built-in CTCSS, DTCS, 2-Tone, 5-Tone or BIIS 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.

## VHF TRANSCEIVERS

### IC-F34GT

With 10-keypad

### IC-F34GS

Without 10-keypad

## UHF TRANSCEIVERS

### IC-F44GT

With 10-keypad

### IC-F44GS

Without 10-keypad



## Multiple 5-Tone, Multiple 2-Tone

Encode or decode up to 8 5-Tone, 10 2-Tone codes 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
- 8-character text

## 8 programmable buttons

The [P0]–[P3], [▲], [▼], [Red] and [Monitor] 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 list name on the display. A separate row of operational icons indicate battery, signal strength, RX/TX and other radio conditions.

## Audio compander

The built-in audio compander reduces noise components and provides clear reception even in narrow band use.

## Built-in voice scrambler

The IC-F34G series includes a built-in inversion type voice scrambler in all models. When a more secure system is required, the optional voice scrambler unit UT-109 or UT-110 is available.

## BIIS 1200 compatible

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

- 32 abbreviated call memories
- 7 group IDs
- 24-status Messages
- Send 8-character SDM (Short Data Message)
- Receive up to 95 characters of free text

## Other features

- 8 DTMF autodial memories
- 2 step reduced power setting
- Power saver
- Power on password
- Busy, repeater lockout functions
- Optional SmarTrunk 3G™ unit, UT-117
- Flash ROM CPU
- Optional headset and speaker microphone available and more...

## OPTIONS

### BATTERY PACKS



▲ BP-230      ▲ BP-231      ▲ BP-232

Battery packs	Type and capacity	Operating time* (VHF/UHF)	Output power (VHF/UHF)
BP-230	Li-Ion 7.4V/ 800mAh	6/6 hours	5W/4W
BP-231	Li-Ion 7.4V/1150mAh	9/8 hours	5W/4W
BP-232	Li-Ion 7.4V/2000mAh	16/15 hours	5W/4W

\* Operating time is approximate time (at 20°C).  
Tx: Rx: standby=5:5:90. Power save on.

### RAPID CHARGER



▲ BC-145      ▲ BC-160      ▲ CP-17L      ▲ OPC-515L

**BC-160 DESKTOP CHARGER + BC-145 AC ADAPTER**  
Charges the BP-231 in 2 hours (approx.).

**BC-119N DESKTOP CHARGER + AD-106 CHARGER ADAPTER + BC-145 AC ADAPTER** : Charges the BP-231 in 2 hours (approx.).

**CP-17L** : CIGARETTE LIGHTER CABLE, **OPC-515L** : DC POWER CABLE  
For use with the BC-160 or BC-119N. (12–16V DC required).

### BELT CLIPS



▲ MB-93      ▲ MB-94

**MB-93** : Swivel type. A fast and easy way to remove the transceiver from your belt.

**MB-94** : Alligator type. Same as supplied.

### MULTI-CHARGER



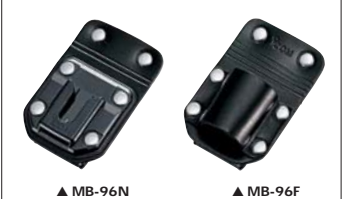
▲ BC-121N+AD-106 (6 pcs.)      ▲ OPC-656      ▲ BC-124

**BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-124 AC ADAPTER**

Rapidly charges up to 6 battery packs (Six AD-106s are required).  
Charging time: approx. 2 hours when BP-231 is attached.

**OPC-656 DC POWER CABLE** :  
For use with the BC-121N. (12–20V DC required).

### LEATHER BELT HANGERS



▲ MB-96N      ▲ MB-96F

**MB-96N** : Swivel type belt hanger. Swivel joint of the MB-93 supplied.

**MB-96F** : Fixed type belt hanger. For use with MB-94.

### HEADSETS and PTT/VOX UNIT



▲ HS-94      ▲ HS-95      ▲ HS-97      ▲ VS-1L

**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-1L** : PTT/VOX unit. Required when using these headsets with the transceiver.

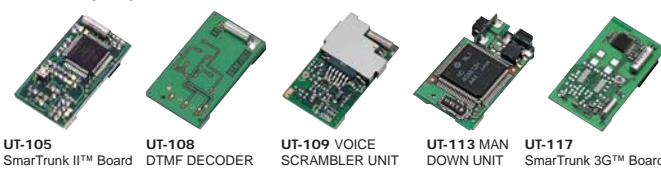
### SPEAKER-MICROPHONE



**HM-131L** : Durable body. Equipped with an earphone jack and revolving clip.

**SP-13** : EARPHONE  
Provides clear audio in noisy environments.

### INTERNAL UNITS



UT-105 SmarTrunk II™ Board      UT-108 DTMF DECODER      UT-109 VOICE SCRAMBLER UNIT      UT-113 MAN DOWN UNIT      UT-117 SmarTrunk 3G™ Board

**UT-105** : Provides SmarTrunk II™ capabilities.

**UT-108** : Provides DTMF, Selective call and ANI capabilities.

**UT-109** : Up to 32 scrambling codes are available. Version 02 is required.

**UT-110** : Up to 1020 scrambling codes are available. Version 02 is required.

**UT-113** : Automatically sends an emergency signal when the transceiver is left in a horizontal position for a preset time.

**UT-117** : Provides SmarTrunk 3G™ and SmarTrunk II™ capabilities. Enhanced calling features available.

### STUBBY ANTENNA



FA-SC73US

**STUBBY ANTENNAS**  
**FA-SC56VS** : 150–162MHz  
**FA-SC57VS** : 160–174MHz  
**FA-SC73US** : 450–490MHz

**ANTENNAS**  
**FA-SC25V** : 136–150MHz  
**FA-SC55V** : 150–174MHz  
**FA-SC25U** : 400–430MHz  
**FA-SC57U** : 430–470MHz

## SPECIFICATIONS

## GENERAL

- Frequency range :
  - IC-F34GT/GS 136–174MHz
  - IC-F44GT/GS 400–470MHz
- Number of channels : 256 channels/16 banks
- Channel spacing : 12.5kHz/20kHz/25kHz
- PLL channel step : 2.5kHz, 3.125kHz (VHF)  
5kHz, 6.25kHz (UHF)
- Antenna impedance : 50Ω
- Usable temperature range : –25°C to +55°C
- Power supply requirement : 7.2V DC nominal
- Current drain (at 7.2V DC; approx.):
  - Transmit at 5W/4W 1.5A/1.7A (VHF/UHF)  
at 1W 0.7A/0.8A (VHF/UHF)
  - Receive stand-by 85mA  
rated output 300mA
- Dimensions : 53 (W) × 120 (H) × 32.5 (D) mm  
(projections are not included)
- Weight (with BP-231 and ANT): 285g (VHF)  
300g (UHF)

## TRANSMITTER

- Output power : 5W (VHF), 4W (UHF)
- Max. frequency deviation : ±5.0/4.0/2.5kHz (Wide/middle/narrow)
- Frequency error : ±1.5kHz
- Spurious emissions : 0.25μW (below 1GHz)  
1.0μW (above 1GHz)
- Adjacent channel power : 70dB (Wide, middle)  
60dB (Narrow)
- Residual modulation (With CCITT filter) :
  - VHF 55/53/50dB typ. (Wide/middle/narrow)
  - UHF 48/46/43dB typ. (Wide/middle/narrow)
- Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
- Modulation limiting : 60–100% of max. deviation
- Ext. microphone connector: 3-conductor 2.5 (d) mm/2.2kΩ

Measurements made in accordance with EN 300-086.

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

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## RECEIVER

- Intermediate frequency : 1st 46.35MHz  
2nd 450kHz
- Sensitivity : –4dBμV typ. (emf, at 20dB SINAD)
- Squelch sensitivity : –4dBμV typ. (emf, at threshold)
- Adjacent channel selectivity :
  - VHF 75/75/65dB typ. (Wide/middle/narrow)
  - UHF 73/73/63dB typ. (Wide/middle/narrow)
- Spurious response : 70dB
- Intermodulation : 67dB typ.
- Hum and noise ratio (with CCITT filter) :
  - VHF 55/53/50dB typ. (Wide/middle/narrow)
  - UHF 45/44/40dB typ. (Wide/middle/narrow)
- Audio output power : 500mW typ.  
(at 5% distortion with an 8Ω load)
- External speaker connector: 2-conductor 3.5 (d) mm /8Ω

## Applicable U.S. Military Specifications

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

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	506.1	II	506.2	II	506.3	II	506.4	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	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.4	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

## SUPPLIED ACCESSORIES

(May differ according to version)



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