



## VHF AND UHF TRANSCEIVERS

### IC-F33GT

(VHF transceiver with 10-keypad)

### IC-F43GT

(UHF transceiver with 10-keypad)

### IC-F33GS

(VHF transceiver without 10-keypad)

### IC-F43GS

(UHF transceiver without 10-keypad)

## *A new direction in Land Mobile radios*

- Large channel capacity
- Wide range frequency coverage
- Lithium-ion battery standard
- Multiple tone signaling capabilities
- Built-in MDC 1200 signaling
- Optional SmarTrunk 3G™, voice scrambler, man down and DTMF decoder units



**MDC 1200**  
Compatible

Icom Inc.

# A new direction in Land Mobile radios



*The IC-F33G series is suitable for a variety of needs — large or small, mobile or stationary. Whether you are a large-scale construction site, warehouse, hospital or hotel, or a small on the go messenger service, this radio provides the built-in flexibility to handle your communication needs.*

*Offering advanced features such as wide frequency range, multiple signaling and loud audio, the IC-F33G series is a rugged and reliable 2-way communications tool. This is the new direction in LMR communications.*

## Lithium-Ion battery pack

Supplied 2000mAh Li-Ion battery pack, BP-232N, provides 15/16 hours\* of operating time. Li-Ion technology has virtually no memory charging issues. A rugged dual-rail guide securely locks the battery to the radio. Optional battery case BP-240 provides a convenient back up and great reassurance in an emergency.

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

## Wide frequency range and large channel capacity

The IC-F33G series covers a wide frequency range in one version (VHF 136–174 MHz, UHF 400–470MHz or 450–512 (520) MHz). 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 with a simple rotation of the rotary channel knob.

## Small and lightweight body

The IC-F33G series sheds size and weight compared with previous models, weighing just 321g\* (including BP-232N) and measuring only 53(W)×120(H)×36.9(D) mm\*\*. The aluminum die-cast chassis and polycarbonate casing combination have been tested to MIL standard specifications.

\* 11.3oz, VHF version \*\* 2<sup>3</sup>/<sub>32</sub>(W)×4<sup>23</sup>/<sub>32</sub>(H)×1<sup>7</sup>/<sub>16</sub>(D) in

## VHF TRANSCEIVERS

### IC-F33GT

With 10-keypad

### IC-F33GS

Without 10-keypad

## UHF TRANSCEIVERS

### IC-F43GT

With 10-keypad

### IC-F43GS

Without 10-keypad

## Built-in multi-format tone signaling

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

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

## 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
- Emergency man down (with UT-124)
- Radio stun/revive
- 500 Aliases
- Status/message
- Call alert

## 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 channel names 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-F33G 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.

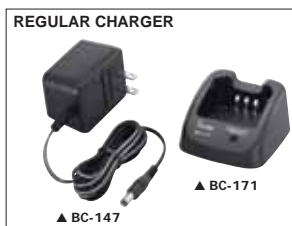
## Other features

- 8 DTMF autodial memories
- 2 step reduced power setting
- Power on password
- Busy, repeater lockout functions
- Optional SmarTrunk 3G™ unit, UT-117
- Programmable wide and narrow channel bandwidth (25/12.5kHz, 30/15kHz) and more...

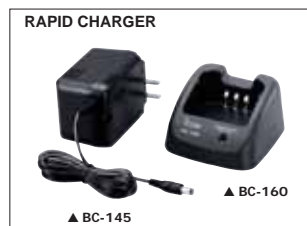


## OPTIONS

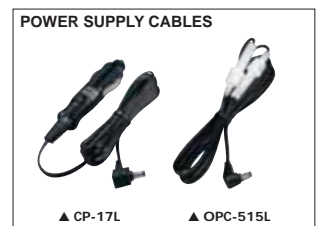
Some options may not be available in some countries. Please ask your dealer for details.



**BC-171 DESKTOP CHARGER + BC-147 AC ADAPTER**  
Charges the BP-232N in 10 hours (approx.).



**BC-160 DESKTOP CHARGER + BC-145 AC ADAPTER**  
Charges the BP-232N in 3 hours (approx.).  
**BC-119N + AD-106 + BC-145** is also available. : Charges the BP-232N in 3 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).

Battery packs	Type and capacity	Operating time* (VHF/UHF)	Output Power (VHF/UHF)
BP-230N	Li-Ion 7.4V/ 980mAh	7.35 hours	5W/4W
BP-232N	Li-Ion 7.4V/2000mAh	16/15 hours	5W/4W
BP-240	AAA (LR03) batteries × 6	–	1W

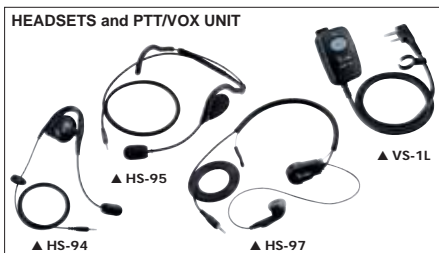
\* Operating time is approximate time (at 20°C). Tx: Rx: standby=5:5:90. Power save on.



**BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-157 AC ADAPTER**  
Rapidly charges up to 6 battery packs (Six AD-106s are required). Charging time: approx. 3 hours when BP-232N is attached.  
**OPC-656 DC POWER CABLE** : For use with the BC-121N. (12–20V DC required).



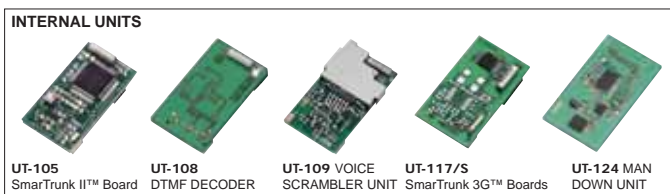
**MB-93** : Swivel type belt clip.  
**MB-94** : Alligator type. Same as supplied.  
**MB-96N** : Swivel type belt hanger.  
**MB-96F** : Fixed type belt hanger.



**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.



**HM-153L** : Durable earphone-microphone with revolving clip.  
**HM-158L** : Compact and durable body with screw-type connector.  
**HM-159L** : Full size durable speaker microphone.  
**HM-166L** : Light-weight earphone microphone with revolving clip.  
**SP-13** : EARPHONE. Provides clear audio in noisy environments.



**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-117/S** : Provides SmarTrunk 3G™ and SmarTrunk II™ capabilities. Enhanced calling features available. UT-117S has inversion type voice scrambler.  
**UT-124** : Automatically sends an emergency signal when the transceiver is left in a horizontal position for a preset time.

**STUBBY ANTENNAS**

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

**CUT ANTENNAS**

- FA-SC61VC : 136–174MHz
- FA-SC61UC : 380–520MHz

Cut the antenna element to tune to a specific center frequency.

**ANTENNAS**

- FA-SC25V : 136–150MHz
- FA-SC55V : 150–174MHz
- FA-SC25U : 400–430MHz
- FA-SC57U : 430–470MHz
- FA-SC72U : 470–520MHz

**SPECIFICATIONS**

**GENERAL**

- Frequency range :
  - IC-F33GT/GS 136–174MHz (U.S.A. and General)
  - IC-F43GT/GS 400–470MHz (U.S.A. and General)
  - 450–512MHz (U.S.A.)
  - 450–520MHz (General)
- Number of channels : 256 channels/16 banks
- Channel spacing : 12.5kHz/25kHz, 15kHz/30kHz
- PLL channel step : 2.5kHz, 3.125kHz (VHF)  
5kHz, 6.25kHz (UHF)
- Antenna impedance : 50Ω
- Usable temperature range : –30°C to +60°C; –22°F to +140°F
- Power supply requirement : 7.2V DC
- Current drain (at 7.2V DC; approx.):
  - Transmit VHF/UHF 1.5A/1.7A (at 5W/4W)
  - Receive stand-by 85mA
  - rated output 300mA
- Dimensions (with BP-232N) : 53 (W) ×120 (H) ×36.9 (D) mm;  
(projections are not included) 2<sup>3</sup>/<sub>32</sub> (W) ×4<sup>23</sup>/<sub>32</sub> (H)×1<sup>7</sup>/<sub>16</sub> (D) in
- Weight (approx.) : 340g; 12.0oz  
(with BP-232N and antenna)

**TRANSMITTER**

- Output power : 5W (VHF), 4W (UHF)
- Max. frequency deviation : ±5kHz (Wide)  
±2.5kHz (Narrow)
- Frequency error : ±2.0ppm
- Spurious emissions : 80dB typ. (VHF)  
70dB typ. (UHF)
- Adjacent channel power : 70dB (Wide), 60dB (Narrow)
- FM Hum and Noise : 46dB typ. (Wide)  
40dB typ. (Narrow)
- Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
- Modulation limiting : 60–100% of max. deviation
- External microphone connector :  
3-conductor 2.5 (d) mm (1/10")/2.2kΩ

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

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**RECEIVER**

- Intermediate frequency : 1st 46.35MHz  
2nd 450kHz
- 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 ratio : 45dB typ. (Wide)  
40dB typ. (Narrow)
- Audio output power : 500mW typ.  
(at 5% distortion with an 8Ω load)
- External speaker connector: 2-conductor 3.5 (d) mm (1/8")/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**

(May differ according to version)



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