



## VHF AND UHF TRANSCEIVERS

### IC-F3GT

(VHF transceiver with keypad)

### IC-F4GT

(UHF transceiver with keypad)

### IC-F3GS

(VHF transceiver without keypad)

### IC-F4GS

(UHF transceiver without keypad)



Rugged

MIL-STD 810





# Supports demanding com

DURABILITY, DEPENDABILITY, OPERATION SIMPLICITY, STYLE, RUGGEDNESS, ECONOMICAL USE, AND MORE ARE REQUIRED FOR COMMERCIAL TRANSCEIVERS. BUT ONLY A FEW SUCH TRANSCEIVERS ARE AVAILABLE, PARTICULARLY FOR PORTABLES. NOW FROM ICOM— THE IC-F3G SERIES OF PORTABLE TRANSCEIVERS AIM TO BECOME THE MOST HIGHLY REPUTABLE OF ALL COMMERCIALS. SUPERIOR PERFORMANCE AND FEATURES, EVERYTHING YOU REQUIRE IS INCLUDED. ICOM'S TECHNOLOGY GIVE YOU SATISFACTION YOU NEVER KNEW BEFORE.

## VHF AND UHF TRANSCEIVERS

### IC-F3GT

VHF transceiver with keypad

### IC-F3GS

VHF transceiver without keypad

### IC-F4GT

UHF transceiver with keypad

### IC-F4GS

UHF transceiver without keypad

### Supports multiple signalling and flexible selective calling

CTCSS/DTCS encoder/decoder, and DTMF, 2/5-tone encoder with user programmable CTCSS, DTCS capabilities, are built-in. The optional UT-96<sup>†</sup> (for 2/5-tone), or UT-108<sup>†</sup> (for DTMF) allows decode with ANI functions. In addition, special tone code, for group, and individual calls, and more features are available to support flexible, perfect selective calling operations.

- 7-digit code can be used as the 5-tone
- Direct individual station/group call with/without own ID transmission, or through repeater
- Selectable 5-tone format includes user tone format programming capability (Encode and Decode frequencies, Tone period, No-tone timer, and Tone length)
- Text or ID number indication
- Desired 5-tone code entering for both individual and group call
- Transceiver remote control—stun, kill, and scan start/stop functions
- Selectable comparing digit code for decoding
- Selective calling capability from a public telephone (UT-108 DTMF DECODER is required; base/repeater station must be connected to the public telephone network)

### Man down function\*

Automatically sending an emergency signal when the transceiver is left in the horizontal position for a pre-set time.

\*Optional UT-124<sup>†</sup> is required.

### Trunking capabilities\*

Compatible with the SmarTrunk II™, or the LTR® trunking systems.

\*Optional UT-105<sup>†</sup> for SmarTrunk II™, UT-111<sup>†</sup> for LTR® trunking is required.

### Operation security

Optional voice scrambler units, UT-109<sup>†</sup> and UT-110<sup>†</sup>, for secure communications are available.

### Programmable key assign

Up to 8 programmable keys are available to assign specific functions. In particular, the red key can be used for important function, such as emergency call, etc.

### Wide/narrow channel switchable depending on version



### MIL spec. durability

54(W)×132(H)×35(D) mm\* compact body with durable, dependable construction, has been tested to the MIL standard.

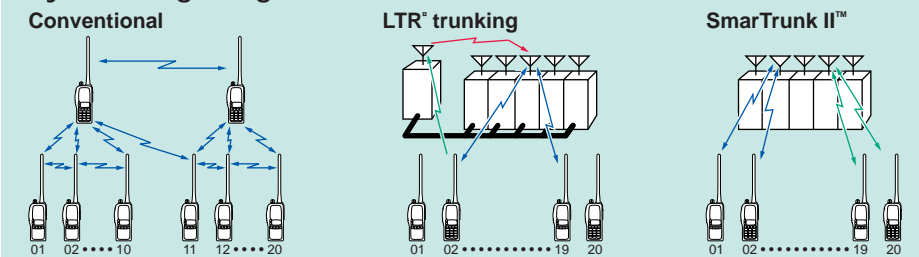
\*2½(W)×5⅜(H)×1⅞(D) in



### Simple operation

Enlarged 7-character alphanumeric automatic backlit LCD, and function keys make for easier operation.

### • System image diagram



# Communication with simple operation



## OPTIONS

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

### BATTERY PACKS AND CASE

BP-208N    BP-209N/BP-222N    BP-210N    BP-211N

BATTERY PACKS & CASE	TYPE & CAPACITY	OUTPUT POWER		BATTERY LIFE
		IC-F3GT/GS	IC-F4GT/GS	
BP-208N	AA (LR6) batteries × 6	1 W typ.	1 W typ.	—
BP-209N	Ni-Cd 7.2 V/1100 mAh	5 W typ.	4 W typ.	8 hours
BP-210N	Ni-MH 7.2 V/1650 mAh	5 W typ.	4 W typ.	11 hours
BP-211N	Li-Ion 7.4 V/1800 mAh	5 W typ.	4 W typ.	12 hours
BP-222N	Ni-Cd 7.2 V/600 mAh	5 W typ.	4 W typ.	4.5 hours

Approx.; (Tx) (Hi): Rx: standby=5:5:90

### MULTI-CHARGER

▲ BC-121N+AD-101 (6 pcs.)    ▲ BC-157

**BC-121N MULTI-CHARGER + AD-101 CHARGER ADAPTER + BC-157 AC ADAPTER**  
For rapid charging of up to 6 battery packs (six AD-101s are required.); BP-209N, BP-210N, BP-211N or BP-222N. Charging time: 1.5 to 2 hours.

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

### BC-144N + BC-145

**BC-144N DESKTOP CHARGER + BC-145 AC ADAPTER**  
For rapid charging of battery packs (except for BP-211N). Charging time: 1.5 to 2 hours.  
**BC-119N + AD-101 + BC-145** rapidly charges BP-211N as well as other battery packs.

### BC-146 + BC-147

**BC-146 DESKTOP CHARGER + BC-147 AC ADAPTER**  
Charges the battery pack, BP-209N, BP-210N or BP-222N with/without transceiver in 12, 18.5, 6.5 hours (approx.), respectively. An AC adapter, BC-147, is additionally required. Cannot charge Li-Ion battery, BP-211N.

### HEADSETS and PTT/VOX UNIT

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

**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-MICROPHONES

▲ HM-153L    ▲ HM-158L    ▲ HM-159L

**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 with revolving clip.

### HS-51 HEADSET

For hands-free operation. Includes VOX, PTT and "one-touch" PTT with a time-out timer. (UHF only in USA and Canada)

### BELT CLIPS

MB-86    MB-103

**MB-86** : Swivel type belt clip. Provide a fast and easy way to remove the radio from your belt.  
**MB-103** : Alligator type clip. Same as supplied.

### LEATHER BELT HANGERS

MB-96F    ▲ MMB-96N

**MB-96F** : Fixed type belt hanger for use with MB-103.  
**MMB-96N** : Swivel belt hanger.

UT-96 5-TONE UNIT    UT-105 SmarTrunk II™ Logic Board    UT-108 DTMF DECODER    UT-109 (#02) VOICE SCRAMBLER UNIT    UT-110 (#02) VOICE SCRAMBLER UNIT    UT-111 TRUNKING UNIT    UT-124 MAN DOWN UNIT

**UT-96** : Provides either the 2/5-tone encode/decode and ANI capabilities.  
**UT-105** : Provides SmarTrunk II™ capabilities. SmarTrunk is a trademark of SmarTrunk System Inc.  
**UT-108** : Provides DTMF decode and ANI capabilities.  
**UT-109** : Provides operating security. Up to 32 scrambling codes are available.  
**UT-110** : Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available.  
**UT-111** : Provides LTR™ trunking capabilities.  
**UT-124** : Automatically sends an emergency signal when the transceiver is left in a horizontal position for a preset time.

### SP-13 EARPHONE

Provides clear audio in noisy environments.

### AD-98FSC ANTENNA CONNECTOR ADAPTER

Allows you to connect a BNC-type antenna. (For maintenance use only)

### STUBBY ANTENNAS

FA-SC56VS    FA-SC57VS    FA-SC73US

	Freq. range	Length	Ring Color
FA-SC56VS	150-162 MHz	80mm	Red
FA-SC57VS	160-174 MHz	80mm	Green
FA-SC73US	450-490 MHz	60mm	Red

### ANTENNAS (Standard type)

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

## Long life batteries

The standard Ni-Cd battery pack, allows 8 hours\* operation. Optional battery pack for extended operation, and a battery case for use while charging the battery, or for emergency operation, etc., are available.

\*approx.; Tx:Rx:Standby ratio = 5:5:90

## Other features

- 100 or 40 memory channels are available
- Powerful 5 W output for IC-F3GT/GS, 4 W output for IC-F4GT/GS
- Selectable channel attribute from emergency, priority A/B, and normal
- Normal and priority scans
- Auto LCD contrast
- 2 step power saver
- 5 autodialing memories for DTMF
- Busy, repeater lockout functions
- Power ON password
- Mic. remote control function, and more...

†only one of either unit can be installed.

**SPECIFICATIONS**

**GENERAL**

- Frequency range :
  - IC-F3GT/GS : 136–150 MHz    146–174 MHz
  - IC-F4GT/GS : 400–430 MHz    440–470 MHz
  - 470–500 MHz
  - 490–512 MHz (USA)
  - 490–520 MHz (others)
- Number of channel : 100Ch or 40Ch (Varies according to version)
- Channel spacing : 12.5 kHz, 20 kHz, 25kHz  
12.5/25kHz
- Antenna impedance : 50 Ω
- Frequency error : ±0.0005% (EIA; IC-F3GT)  
±0.00025% (EIA; IC-F4GT)  
±1.5 kHz (ETS; 12.5 kHz)  
±2 kHz (ETS; 25/20 kHz)
- PLL channel step : 5 kHz, 6.25 kHz, 7.5 kHz
- Power supply requirement : 7.2 V DC (Icom battery pack)
- Current drain (at 7.2 V DC) :
  - Transmit at 5 W : 1.6 A (IC-F3GT/GS)
  - at 4 W : 1.55 A (IC-F4GT/GS)
  - at 1 W : 0.7 A (IC-F3GT/GS)
  - 0.8 A (IC-F4GT/GS)
  - Receive at AF max. : 250 mA
  - at stand-by : 70 mA
- Operating temp. range : –30°C to +60°C; –22°F to +140°F (EIA)  
–25°C to +55°C (ETS)
- Dimensions : 54(W)×132(H)×35(D) mm  
(projections not included) ; 2 1/8(W)×5 3/16(H)×1 7/16(D) in
- Weight (with BP-209) : 370 g; 13.1 oz

**TRANSMITTER**

- Output power : IC-F3GT/GS 5.0 W  
IC-F4GT/GS 4.0 W
- Max. freq. deviation : ±2.5 kHz, ± 5 kHz, ±4 kHz
- Modulation limiting : 80–100%
- Audio harmonic distortion : 3% max. (1 kHz/40% dev.)  
5% max. (1 kHz/60% dev.)
- Spurious emissions : 73 dBc (EIA)  
Less than 0.25 μW (ETS)
- Adjacent ch. power : 60 dB typ. (EIA; 12.5 kHz)  
70 dB typ. (EIA; 25 kHz)  
60 dB (ETS; 12.5 kHz)  
70 dB (ETS; 25/20 kHz)
- Residual modulation : 40 dB typ. (EIA; 12.5 kHz)  
45 dB typ. (EIA; 25 kHz)  
43 dB (ETS; 12.5 kHz)  
45 dB (ETS; 25/20 kHz)
- External MIC connector : 3-conductor 2.5 (d) mm (1/16")/2.2 kΩ

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**RECEIVER**

- Sensitivity :
  - IC-F3GT/GS : 0.25 μV (at 12 dB SINAD)
  - 0.63 μV (at 20 dB SINAD)
  - IC-F4GT/GS : 0.3 μV (at 12 dB SINAD)
  - 0.79 μV emf (at 20 dB SINAD)
- Squelch sensitivity (at threshold):
  - IC-F3GT/GS : 0.25 μV
  - IC-F4GT/GS : 0.3 μV
- Adjacent Ch. selectivity : 65 dB typ. (EIA; 12.5 kHz)  
75 dB typ. (EIA; 25 kHz)  
60 dB (ETS; 12.5 kHz)  
70 dB (ETS; 25/20 kHz)
- Spurious response : 70 dB (EIA)  
70 dB (ETS)
- Intermodulation : 70 dB (EIA)  
65 dB (ETS)
- Hum and noise ratio : 40 dB typ. (EIA; 12.5 kHz)  
45 dB typ. (EIA; 25 kHz)  
43 dB (ETS; 12.5 kHz)  
45 dB (ETS; 25/20 kHz)
- Audio output power : 0.5 W at 5% distortion with an 8 Ω load
- External SP connector : 2-conductor 3.5 (d) mm (1/8")/8 Ω

**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	
	Method	Procedure	Method	Procedure	Method	Procedure
Low Pressure	500.1	I	500.2	I, II	500.3	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	510.1	I	510.2	I	510.3	I
Vibration	514.2	VIII, X	514.3	I	514.4	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV

Measurements made in accordance with EIA/TIA-152C/204D, or ETS 300-086. All stated specifications are typical and subject to change without notice or obligation.



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