



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)



Meets  
**MIL-STD 810**



Icom Inc.

# 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-113<sup>†</sup> is required.

#### Trunking capabilities\*

Compatible with the SmarTrunk II<sup>™</sup>, or the LTR<sup>®</sup> trunking systems.

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

#### Operation security

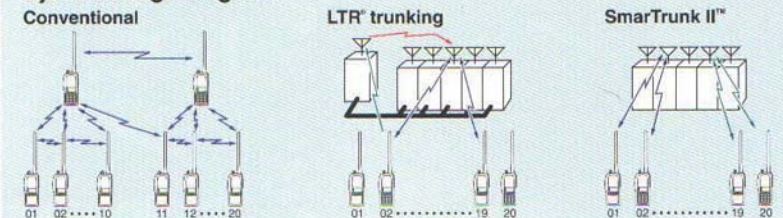
Optional voice scrambler units, UT-109<sup>†</sup> and UT-110<sup>†</sup>, for secure communications are available.

#### 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

#### • System image diagram



#### MIL spec. durability

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

\*2<sup>1</sup>/<sub>8</sub>(W)×5<sup>3</sup>/<sub>16</sub>(H)×1<sup>7</sup>/<sub>16</sub>(D) in



#### Simple operation

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

# munication with simple operation



## OPTIONS

### BATTERY PACKS AND CASE



BATTERY PACKS & CASE	TYPE & CAPACITY	OUTPUT POWER		BATTERY LIFE
		IC-F3GT/GS	IC-F4GT/GS	
BP-208	AA (R6) batteries x 6	1 W typ.	1 W typ.	—
BP-209	Ni-Cd 7.2 V/1100 mAh	5 W typ.	4 W typ.	8 hours
BP-210	Ni-MH 7.2 V/1650 mAh	5 W typ.	4 W typ.	11 hours
BP-222	Ni-Cd 7.2 V/800 mAh	5 W typ.	4 W typ.	4.5 hours

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

### BC-121+AD-94 (6 pcs.)



### BC-144 +BC-145A/E/V



### BC-146 +BC-147



### BC-144 DESKTOP CHARGER + BC-145A/E/V AC ADAPTER

For rapid charging of battery packs. The BC-145A/E/V may be supplied depending on version. Charging time: 1.5 to 2 hours. BC-119 DESKTOP CHARGER is also available with AD-94 CHARGER ADAPTER. BC-121 MULTI-CHARGER + AD-94 CHARGER ADAPTER + BC-124 AC ADAPTER. For rapid charging of up to 6 battery packs (six AD-94s are required), BP-209, BP-210 or BP-222. The BC-124 outputs 12 V DC and has 7 A capacity for the BC-121. Charging time: 1.5 to 2 hours.

### BC-146 DESKTOP CHARGER

+ BC-147A/E AC ADAPTER  
Charges the battery pack, BP-209, BP-210 or BP-222 with/without transceiver in 12, 18.5, 6.5 hours (approx.), respectively. An AC adapter, BC-147, is additionally required.



### 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)

### SPEAKER-MICROPHONES



HM-46L : Slim dimensions. Equipped with an earphone jack and a transmit indicator.  
HM-75A : Allows you remote control capabilities. The [▼], [▲], [A] and [B] switches, act as the [▼], [▲], [P+] and [P-] switches of the transceiver, respectively.  
HM-131L: Compact and durable body. Equipped with an earphone jack and a revolving clip.

### HM-128L EARPHONE- MICROPHONE



The light weight earphone-mic. has a compact microphone that clips to your lapel.

### HS-94 EARHOOK-HEADSET + VS-1L VOX SWITCH CASE

Flexible boom microphone and rotating earbud with a spring earhook.

### AD-98FSC ANTENNA CONNECTOR ADAPTER



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

### MB-74 BELT CLIP



MB-74 : Alligator type clip.  
MB-68 : Same as that supplied.

### SP-13 EARPHONE



Provides clear audio in noisy environments.

### STUBBY ANTENNAS



	Freq. range	Length	Ring Color
FA-SC56VS	146-162 MHz	80mm	Red
FA-SC57VS	160-174 MHz	80mm	Green
FA-SC73US	450-490 MHz	60mm	Red

## 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 with optional HM-75A, and more...

\*only one of either unit can be installed.

### INTERNAL UNITS

#### UT-96 5-TONE UNIT



#### UT-105 SmarTrunk II™ Logic Board



#### UT-108 DTMF DECODER



#### UT-109 VOICE SCRAMBLER UNIT



#### UT-110 VOICE SCRAMBLER UNIT



#### UT-111 TRUNKING UNIT



#### UT-113 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. The scrambling system is not compatible with the UT-110, therefore, cannot operate with the scrambled signals by UT-110.  
UT-110 : Provides higher operating security. Up to 1020 (255 codes x 4 groups) scrambling codes are available. The scrambling system is not compatible with the UT-109, therefore, cannot operate with the scrambled signals by UT-109.  
UT-111 : Provides LTR™ trunking capabilities.  
UT-113 : Allows man down function

## 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)
- Type of emission : 16K0F3E (25 kHz)  
8K50F3E (12.5 kHz)  
14K0F3E (20 kHz)
- Antenna impedance : 50  $\Omega$
- Frequency error :  $\pm 0.0005\%$  (EIA; IC-F3GT)  
 $\pm 0.00025\%$  (EIA; IC-F4GT)  
 $\pm 1.5$  kHz (ETS; 12.5 kHz)  
 $\pm 2$  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) $\times$ 132(H) $\times$ 35(D) mm  
(projections not included) : 2 $\frac{1}{8}$ (W) $\times$ 5 $\frac{3}{16}$ (H) $\times$ 1 $\frac{7}{16}$ (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 :  $\pm 2.5$  kHz,  $\pm 5$  kHz,  $\pm 4$  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  $\mu$ W (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 ( $\frac{1}{8}$ " )/2.2 k $\Omega$

Microsoft and Windows are registered trademarks of Microsoft Corporation in the U.S.A. and other countries. SmarTrunk II is a trademark of the SmarTrunk System Corporation. LTR is a registered trademark of the EFJohnson Radio Systems.

## RECEIVER

- Sensitivity :  
IC-F3GT/GS : 0.25  $\mu$ V (at 12 dB SINAD)  
0.63  $\mu$ V (at 20 dB SINAD)  
IC-F4GT/GS : 0.3  $\mu$ V (at 12 dB SINAD)  
0.79  $\mu$ V emf (at 20 dB SINAD)
- Squelch sensitivity (at threshold):  
IC-F3GT/GS : 0.25  $\mu$ V  
IC-F4GT/GS : 0.3  $\mu$ V
- 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  $\Omega$  load
- External SP connector : 2-conductor 3.5 (d) mm ( $\frac{1}{8}$ " )/8  $\Omega$

## 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	
	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, IV	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.

## Supplied accessories:



## Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan Phone: 06 6793 5302 Fax: 06 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

Count on us!

## Icom America Inc.

<Corporate Headquarters>  
2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.  
Phone: (425) 454-8155 Fax: (425) 454-1509  
URL: <http://www.icomamerica.com>  
<Customer Service> Phone: (425) 454-7619

## Icom Canada

Glenwood Centre #150-6165 Highway 17,  
Delta, B.C., V4K 5B8, Canada  
Phone: (604) 952-4266 Fax: (604) 952-0090  
URL: <http://www.icomcanada.com>

## Icom (Australia) Pty. Ltd.

A.B.N. 88 006 032 575  
290-294 Albert Street, Brunswick, Victoria, 3056, Australia  
Phone: 03 9387 0650 Fax: 03 9387 0022  
URL: <http://www.icom.net.au>

## Icom New Zealand

146A Harris Road, East Tamaki, Auckland, New Zealand  
Phone: 09 274 4062 Fax: 09 274 4708  
URL: <http://www.icom.co.nz>

## Icom (Europe) GmbH

Communication Equipment  
Himmelgeister Str. 130, D-42225 Düsseldorf, Germany  
Phone: (0211) 346047 Fax: (0211) 333639  
URL: <http://www.icomeurope.com>

## Icom Spain S.L.

Ctra. de Gracia a Manresa Km. 14.750  
06190 Sant Cugat del Valles Barcelona, SPAIN  
Phone: (93) 593 26 70 Fax: (93) 589 04 46  
URL: <http://www.icomspain.com>

## Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K.  
Phone: 01227 741741 Fax: 01227 741742  
URL: <http://www.icomuk.co.uk>

## Icom France S.a

Zac de la Plaine, Rue Brindejoncs des Moulinais  
BP 5804, 31505 Toulouse Cedex, France  
Phone: 561 36 03 03 Fax: 561 36 03 00  
URL: <http://www.icom-france.com>

## Asia Icom Inc.

6F No. 68, Sec. 1 Chang Teh Road,  
Taipei, Taiwan, R.O.C.  
Phone: (02) 2559 1899 Fax: (02) 2559 1874  
URL: <http://www.asia-icom.com>

Your local distributor/dealer:



Certificate Number Q14190

Icom Inc. (Japan), is an ISO9001 certification acquired company.