



VHF AND UHF TRANSCEIVERS

IC-F30GT

(VHF transceiver with keypad)

IC-F40GT

(UHF transceiver with keypad)

IC-F30GS

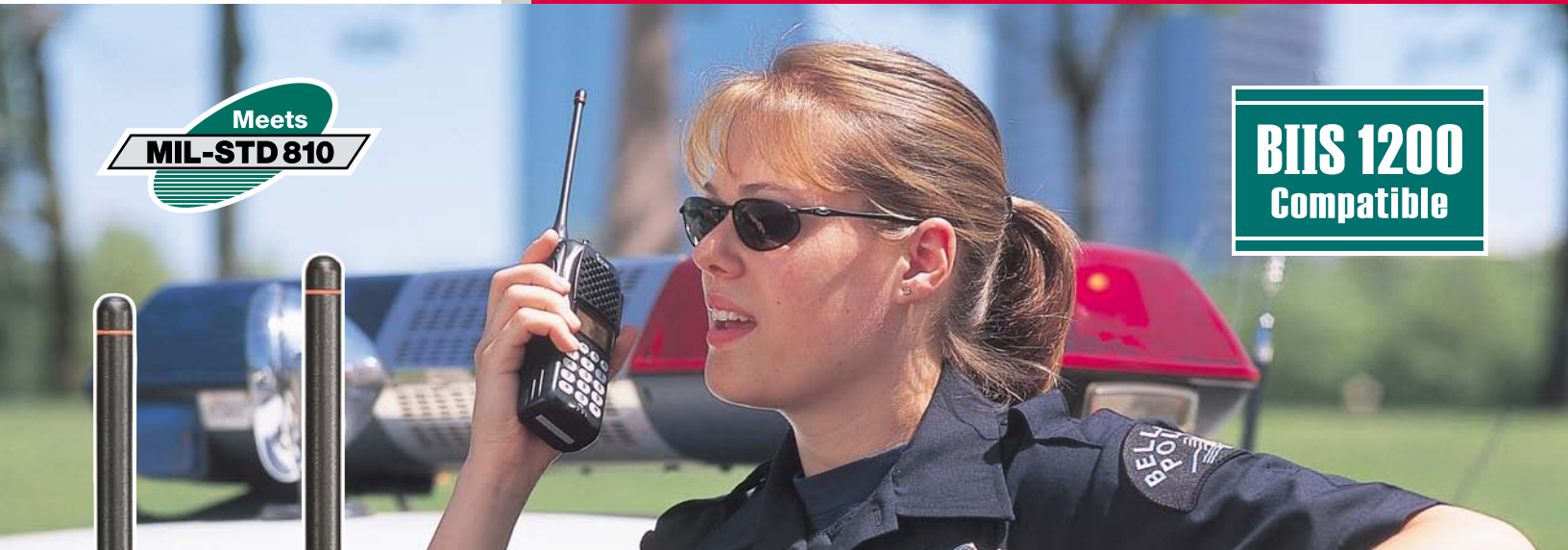
(VHF transceiver without keypad)

IC-F40GS

(UHF transceiver without keypad)

Meets
MIL-STD 810

BIIS 1200
Compatible



Icom Inc.

Leading busin

If you want a durable, versatile, reliable and easy-to-operate portable communications tool, the IC-F30G & IC-F40G series is designed for you. This series is designed for commercial communication or professional use with a host of built-in features, such as multiple tone-signalings, Flash-ROM, high speed PLL^{*1}, Componder function and more. Not only for conventional operation, but also compatible with Trunking systems^{*2}, this series is particularly useful for organizations that have large communications fleets. Icom's technologies guarantee to satisfy your needs.

^{*1} Except IC-F30GT-L/F30GS-L. ^{*2} Optional unit is required.



▲ IC-F40GT

▲ IC-F40GS

VHF AND UHF TRANSCEIVERS

VHF transceiver with keypad

IC-F30GT

VHF transceiver without keypad

IC-F30GS

UHF transceiver with keypad

IC-F40GT

UHF transceiver without keypad

IC-F40GS

BP-208 AA (R6) batteries × 6
BP-209 Ni-Cd 7.2V/1100mAh
BP-222 Ni-Cd 7.2V/600mAh
BP-210 Ni-MH 7.2V/1650mAh
BP-210FM Ni-MH (Intrinsically safe) 7.2V/1650mAh
BP-211 Li-Ion 7.4V/1800mAh



BATTERY PACKS AND CASE		BP-208	BP-209	BP-210	BP-210FM	BP-211	BP-222
Output	VHF	1W (typ.)	5W (typ.)	5W (typ.)	5W (typ.)	5W (typ.)	5W (typ.)
Power	UHF	1W (typ.)	4W (typ.)	4W (typ.)	4W (typ.)	4W (typ.)	4W (typ.)
Battery Life		-	6.5hours	10hours	10hours	12hours	3.5hours

Approx. output power and battery life (Tx (Hi): Rx: standby=5:5:90)

BATTERY CHARGER
BC-146 + BC-147A/E



BC-146 DESKTOP CHARGER + BC-147A/E AC ADAPTER
 Charges the battery pack, BP-209, BP-210/FM or BP-222 with/without transceiver in 12, 18.5, 6.5 hours (approx.), respectively. An AC adapter, BC-147, is additionally required.

RAPID CHARGER
BC-121N+AD-101 (×6 pcs.) + **BC-124**



BC-144 DESKTOP CHARGER + BC-145A/E/V AC ADAPTER
 For rapid charging of battery pack, BP-209, BP-210/FM or BP-222. An AC adapter, BC-145, is supplied with the charger depending on version. Charging time: 1.5 to 2 hours. Cannot charge Li-Ion battery pack, BP-211.
BC-119N+AD-101+BC-145A/E/V rapidly charges BP-211 as well as other battery packs.
BC-121N MULTI-CHARGER + AD-101 CHARGER ADAPTER + BC-124 AC ADAPTER
 For rapid charging of up to 6 battery packs (Six AD-101s are required), BP-209, BP-210/FM, BP-211 or BP-222. An AC adapter, BC-124, may be supplied, depending on version. Charging time: 1.5 to 2 hours.
OPC-656 DC POWER CABLE For use the BC-121N with a DC power supply (12-20V DC).

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



SPEAKER-MICROPHONES



HM-1315C: Compact and durable body, phone jack and a revolving microphone.
EM-80: Durable, full-sized microphone.
EM-89: Slim dimensions. Equipped with a...

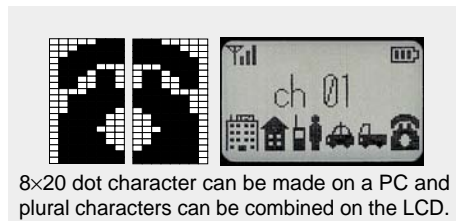
Business communication into the 21st Century

Full built-in tone-signalings

All tone-signalings are built-in such as CTCSS, DTCS, 2-tone/5-tone and DTMF encode/decode, so you don't need to install an optional tone-signaling board. And a wide variety of selective calling systems are available to call specific station(s) or control a repeater. In addition, ANI (Automatic Number Indication) function is available with 2-tone/5-tone and DTMF.

Largest LCD in its class

With the large LCD, a simple sentence of up to 24 full-dot matrix characters provides more smooth communication than previous one word indication. Operational icons, such as antenna (S-meter) or battery life, show various operating status at a glance. Further more, original characters can be made and indicated on the LCD.



8x20 dot character can be made on a PC and plural characters can be combined on the LCD.

Durable construction

The body is compact, yet the polycarbonate panel and one-piece aluminum chassis provides durable construction to meet MIL STD grade C, D and E for shock and vibration. You can count on the unit to operate in challenging environments.

BIIS 1200 compatible

The following selective calling and data message features are available with the BIIS* version.

- 32 abbr. memories • 7 Group IDs
 - 12-character SDM (Short Data Message)
 - 24-status messages • RS-232C interface
 - Position data transmission with a GPS
- * Except IC-F30GT-L/F30GS-L.

Up to 8 dealer-programmable key assignments

The following functions can be programmed in conventional mode or SmarTrunk mode.

- Channel up/down • Bank up • Call • Beep
- Scan A/B start/stop • Scan Tag add/delete
- Priority A/B • Key lock • Monitor • Scrambler
- C. Tone CH enter • MR-CH 1/2/3/4 • High/Low
- Talk around • ID-MR select • Null (Light)
- Trunking group SW • Tx code enter • Re-dial
- Tx code CH select • Emergency single/repeat
- DTMF autodial • Turbo Speedial A/B/C/D
- Special function 1/2 • OPT 1/2/3 momentary
- Compand • Wide/Narrow • Digital button

Advanced PC programming for Microsoft® Windows® 95/98

256 memory Channels

Up to 256 memory Channels with 12 character channel names can be stored with up to 16 banks. The rotary selector allows you to select each bank or memory Channel.

Simultaneously work 2 optional internal units

2 optional units can be installed and will work simultaneously. You can select optional units to suit your needs and to provide versatile usage.

Combination of available internal units

Option Slot 1	With BIIS channel	Option Slot 2		
		UT-109 Voice Scrambler Unit	UT-110 Voice Scrambler Unit	UT-113 Man Down Unit
UT-105**	- **	✓	✓	✓**
SmarTrunk II™ Board	- **	✓	✓	✓**
UT-111**	- **	✓	✓	✓**
LTR® Trunking Board	- **	✓	✓	✓**
UT-109 Voice Scrambler Unit	✓	- **	✓	✓
UT-110 Voice Scrambler Unit	✓	- **	✓	✓
UT-113 Man Down Unit	✓	✓	✓	- **

- ✓ Available simultaneously
- Not available

** UT-105 and the UT-111 have to be installed in slot 1.
 ** Trunking channels have to be set in a separate bank from a BIIS channel bank.
 ** UT-113 is available in conventional (includes BIIS channel) mode.
 ** UT-109 and UT-110 can not be installed simultaneously.

Low band VHF (66-88MHz) version

Optional antenna (FA-SC12L/13L) is required.

Intrinsically safe version approved by Factory Mutual Research Corp.

Built-in Comander function

Built-in Comander function provides clear audio quality under noisy environments.
 * Receiving party must have same function.

Smart design with easy operation

The rounded, compact* design fits comfortably in your palm, and is easy to carry around. The large keypad makes one-hand operation easy.
 * Size (WxHxD): 54x139x38mm ; 2 1/8x5 1/2x1 1/2 in

Multi connector for accessories

The 9-pin multi connector, which use the spring action for close contact, allows you reliable operation with accessories, such as a speaker-microphone or earphone.



Other features

- The red key on the top panel can be an emergency trigger
- Normal and priority scan functions
- Time out timer capability
- Narrow/wide multi-band width and 2-step power save are supported
- Talk around function changes duplex channel to simplex
- VOX capability and more...



EM-89



HS-94: Earhook headset with flexible boom microphone.
 HS-95: Behind-the-head headset with flexible boom microphone.
 HS-97: Throat microphone that fits comfortably around your neck.
 VS-15C: PTT/VOX unit. Required when using these headsets with the transceiver.



ANTENNAS	Freq. Range	Ring Color
① FA-SC56VS	146-162MHz	Red
② FA-SC57VS	160-174MHz	Green
③ FA-SC73US	450-490MHz	Red
④ FA-SC12L	66-76MHz	White
⑤ FA-SC13L	76-88MHz	Red

ANTENNAS (Standard type)
 FA-SC25V for 136-155MHz
 FA-SC55V for 146-174MHz
 FA-SC25U for 400-430MHz
 FA-SC57U for 440-470MHz
 FA-SC72U for 470-520MHz

ANTENNA ADAPTER CONNECTOR
 AD-98FSC : BNC-type antenna connector. (For maintenance use only)

BELT CLIPS
 MB-68: Standard flat type clip. MB-74N: Alligator type clip.
 MB-87: Swivel belt clip.

LEATHER BELT HANGERS
 MB-96: Swivel type belt hanger.
 MB-96F: Fixed type belt hanger. For use with MB-68 or MB-74N.

EARPHONE
 SP-13 EARPHONE +AD-52 EARPHONE ADAPTER

INTERFACE CABLE
 OPC-966: RS-232C interface cable for connecting with a PC.

INTERNAL UNITS
 UT-105: SmarTrunk II™ BOARD: Provides SmarTrunk II™ capabilities. Provides operating security. Up to 32 scrambling codes are available. The scrambling system is not compatible with the UT-110.
 UT-110: VOICE SCRAMBLER UNIT:
 Up to 1020 (255 codes x 4 groups) scrambling codes are available. The scrambling system is not compatible with the UT-109.
 UT-111: LTR® TRUNKING BOARD: Provides LTR® trunking capabilities.
 UT-113: MAN DOWN UNIT: Automatically sends an emergency signal when the transceiver is left in horizontal position.

SPECIFICATIONS

GENERAL

- Frequency range :
 - IC-F30GT-L/GS-L : 66– 88MHz
 - IC-F30GT/GS : 136–174MHz
 - IC-F40GT/GS : 400–430MHz 440–480MHz
 - 450–490MHz (U.S.A.) 480–512MHz (U.S.A.)
 - 480–520MHz (others)
- Number of Channels : Max. 256 Ch/ 16 banks
- Channel spacing :
 - IC-F30GT-L/GS-L : 25kHz/12.5kHz
 - IC-F30GT/GS : 25/30kHz/12.5/15kHz
 - IC-F40GT/GS : 20kHz/12.5kHz
 - 25kHz/12.5kHz
 - 20kHz/12.5kHz
- Antenna impedance : 50Ω
- Frequency error :
 - ±2.5ppm (EIA), ±1.5kHz (ETS)
 - IC-F30GT-L/GS-L : ±10ppm (EIA), ±1.0kHz (ETS)
- PLL channel step* : 2.5kHz, 3.125kHz, 5kHz, 6.25kHz, 7.5kHz
- IC-F30GT-L/GS-L : 5kHz, 6.25kHz (*Depending on version)
- Power supply requirement : 7.2V DC (Icom battery pack)
- Current drain (at 7.2V DC; approx):

		IC-F30GT-L/GS-L	IC-F30GT/GS	IC-F40GT/GS
Transmit	High	2.0A	1.7A typ.	1.7A typ.
	AF max.	300mA	300mA	300mA
Receive	stand-by	90mA	95mA	95mA

- Operating temp. range : -30°C to +60°C; -22°F to +140°F (EIA)
- 25°C to +55°C (ETS)
- Dimensions : 54(W)×139(H)×38(D)mm
- (projections not included) 2½(W)×5½(H)×1½(D)in
- Weight (with BP-210) : 420g; 14.8 oz

TRANSMITTER

- Modulation system : Variable reactance frequency modulation
- Output power (nominal) : 5.0W (IC-F30GT-L/GS-L)
- 5.0W (IC-F30GT/GS)
- 4.0W (IC-F40GT/GS)
- Max. freq. deviation : ± 2.5kHz, ± 5kHz, ± 4kHz
- Modulation limiting : 60–100%
- Audio harmonic distortion : 3% typ. (1 kHz/40% dev.)
- Spurious emissions : -73dB (EIA)
- Less than 0.25µW (ETS)
- Adjacent Ch. power : 60dB (ETS; 12.5 kHz)
- 70dB (ETS; 25/20 kHz)
- Residual modulation : 43dB/45 dB typ. (ETS; 12.5kHz/25/20kHz)
- IC-F30GT-L/GS-L : 50dB/50 dB typ. (ETS; 12.5kHz/25kHz)
- External MIC connector : 9-pin multi connector/ 2.2KΩ

INTRINSICALLY SAFE TYPE APPROVAL



There are versions that conform to intrinsically safe rating of the FMRC (Factory Mutual Research Corporation). Ask your dealer for details.

Intrinsically safe Class I, II and III, Division 1, Groups C, D, E, F, and G ; Nonincendive Class I, Division 2, Groups A, B, C and D hazardous locations when used with Icom BP-210FM battery pack "Max. Temp. T3C at 60°C"

RECEIVER

- Sensitivity : 0.25µV typ. (at 12dB SINAD)
- 0.63µV typ. (at 20dB SINAD; emf)
- Squelch sensitivity : 0.25µV (at threshold)
- Adjacent Ch. selectivity : 63dB typ. (ETS; 12.5kHz)
- 73dB typ. (ETS; 25kHz)
- Spurious response : 70dB (EIA, ETS)
- Intermodulation : 74dB typ. (EIA)
- 70dB typ. (ETS)
- Hum and noise ratio : 40dB/43dB typ. (EIA; 12.5kHz/25/20kHz)
- 43dB/45dB typ. (ETS; 12.5kHz/25/20kHz)
- IC-F30GT-L/GS-L : 48dB/54dB typ. (EIA; 12.5kHz/25kHz)
- 50dB/55dB typ. (ETS; 12.5kHz/25kHz)
- Audio output power : 0.5W typ. at 5% distortion with an 8Ω load
- External SP connector : 9-pin multi connector/ 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	
	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

Supplied accessories:

- Antenna*



* May differ according to version.
Not supplied for the IC-F30GT-L/GS-L.

Measurements made in accordance with EIA-152C/204D, TIA-603 or ETS 300-086. All stated specifications are typical and subject to change without notice or obligation.

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Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (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: +1 (425) 454-8155 Fax: +1 (425) 454-1509
URL : <http://www.icomamerica.com>
<Customer Service> Phone: +1 (425) 454-7619

Icom Canada

Glenwood Centre #150-6165 Highway 17,
Delta, B.C., V4K 5B8, Canada
Phone: +1 (604) 952-4266 Fax: +1 (604) 952-0090
URL : <http://www.icomcanada.com>

Icom (Australia) Pty. Ltd.

A.B.N. 88 006 092 575
290-294 Albert Street, Brunswick, Victoria, 3056, Australia
Phone: +61 (03) 9387 0666 Fax: +61 (03) 9387 0022
URL : <http://www.icom.net.au>

Icom New Zealand

146A Harris Road, East Tamaki, Auckland, New Zealand
Phone: +64 (09) 274 4062 Fax: +64 (09) 274 4708
URL : <http://www.icom.co.nz>

Icom (Europe) GmbH

Communication Equipment
Himmelgeister Str. 100, D-40225 Düsseldorf, Germany
Phone: +49 (0211) 346047 Fax: +49 (0211) 333639
URL : <http://www.icomeurope.com>

Icom Spain S.L.

Ctra. de Gracia a Manresa Km. 14,750
08190 Sant Cugat del Valles Barcelona, Spain
Phone: +34 (93) 590 26 70 Fax: +34 (93) 589 04 46
URL : <http://www.icomspain.com>

Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K.
Phone: +44 (01227) 741741 Fax: +44 (01227) 741742
URL : <http://www.icomuk.co.uk>

Icom France S.a

Zac de la Plaine, 1, Rue Brindejonc des Moulinais
BP 5804, 31505 Toulouse Cedex, France
Phone: +33 (5) 61 36 03 03 Fax: +33 (5) 61 36 03 00
URL : <http://www.icom-france.com>

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.
Phone: +886 (02) 2559 1899 Fax: +886 (02) 2559 1874
URL : <http://www.asia-icom.com>

Beijing Icom Ltd.

1305, Wanshang Plaza, Shijingshan Road, Beijing, China
Phone: +86 (010) 6866 6337 Fax: +86 (010) 6866 3553
URL : <http://www.bjicom.com>



Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certification acquired company.

Your local distributor/dealer: