



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)



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, Compander function and more. Not only for conventional operation, but also compatible with Trunking systems*, this series is particularly useful for organizations that have large communications fleets. Icom's technologies guarantee to satisfy your needs.

* 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	BP-209 Ni-Cd	BP-210 Ni-MH	BP-211 Li-Ion
AA (LR6) batteries × 6	7.2V/1100mAh	7.2V/1650mAh	7.4V/1800mAh
	BP-222 Ni-Cd 7.2V/600mAh	BP-210FM Ni-MH (Intrinsically safe) 7.2V/1650mAh	



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-131SC

EM-80

HM-131SC: Compact and durable body, phone jack and a revolving microphone.
EM-80: Durable, full-sized microphone.
EM-89: Slim dimensions. Equipped with a

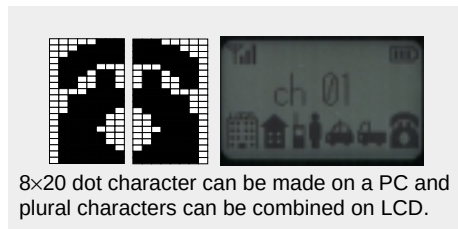
Business communication into the 21st Century

Full built-in tone-signalings

All tone-signalings are builtin 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. What is more, original characters can be made and indicated 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.

Icom's advanced technology

A newly designed ultra high speed PLL, with a Fractional-N system, offers faster acquisition times for efficient trunking use. Flash ROM allows future system upgrades and future compatibility with other protocol.

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

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 2	UT-109 Voice Scrambler Unit	UT-110 Voice Scrambler Unit	UT-113 Man Down Unit
Option slot 1			
UT-109 Voice Scrambler Unit			✓
UT-110 Voice Scrambler Unit			✓
UT-113 Man Down Unit	✓	✓	
UT-105 (2) SmarTrunk II™ Logic Board	✓	✓	①
UT-111 (2) LTR™ Trunking Board	✓	✓	①

✓ Available simultaneously

- ① UT-113 is available in conventional mode.
② UT-105 and the UT-111 have to be installed in slot 1.

* Same optional types, such as 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 Compander function

Built-in Compander 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 (W×H×D): 54×139×38mm ; 2½×5½×1½ 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 speaker-microphone or earphone.



Other features

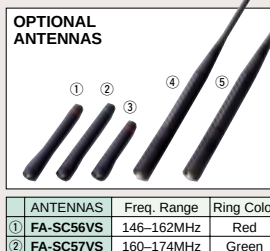
- The red key on the top panel can be an emergency trigger
- Normal and priority scan functions
- Time out timer capability
- Narrow/wide multi-band width and 2-step power save are supported
- Talk around function changes duplex channels to simplex channel
- VOX capability and more...



EM-89



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



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

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

BELT CLIPS

MB-68: Same as that supplied.

MB-74: Alligator type Clip.

EARPHONE

SP-13 EARPHONE +AD-52 EARPHONE ADAPTER

Provides clear audio even in noisy environments.

INTERNAL UNITS

UT-105: SmarTrunk II™ LOGIC BOARD:

Provides SmarTrunk II™ capabilities.

UT-109: VOICE SCRAMBLER UNIT:

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 × 4 groups) scrambling codes are available. The scrambling system is not compatible with the UT-109.

UT-111: LTR™ TRUNKING UNIT:

Provides LTR™ trunking capabilities.

UT-113: MAN DOWN UNIT:

Allows man down function

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.
Receive	AF max.	300mA	300mA	300mA
	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
 - 2½(W)×5½(H)×1½(D)in
- Weight (with BP-210) : 420g; 14.8 oz

TRANSMITTER

- Modulation system : Variable reactance frequency modulation
- Output power :
 - 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

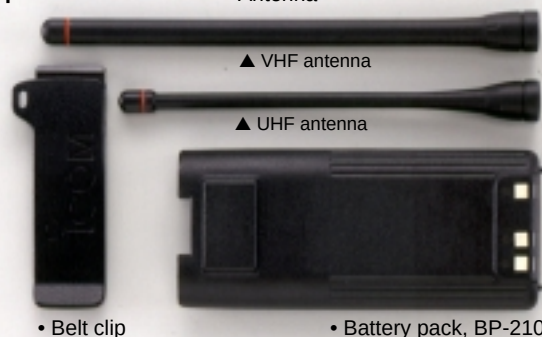
Applicable U.S. Military Specifications

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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Certificate Number Q14190

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

Your local distributor/dealer: