ICOM

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

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.

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

▲ IC-F40GT

▲ IC-F40GS

OPTIONS

BATTERY PACKS AND CASE

BP-208
AA (R6)
batteries × 6

BP-209
Ni-Cd
7.2 V/1100 mAh

BP-210
Ni-MH
7.2 V/1650 mAh

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

BATTERY PACK	OUTPUT POWER		BATTERY LIFE (approx.)
	IC-F30GT/GS	IC-F40GT/GS	
BP-208	1 W typ.	1 W typ.	—
BP-209	5 W typ.	4 W typ.	6.5 hours
BP-210	5 W typ.	4 W typ.	10 hours

BATTERY CHARGER
BC-137 (#02)+**BC-122**

BC-137 (#02) BATTERY CHARGER
+ **BC-122** AC ADAPTER
Regularly charges a battery pack, BP-209 or BP-210, with/without transceiver. The AC adapter, BC-122, is additionally required.

BC-121+AD-94 (#02)×(6 pcs.)
+**BC-124**

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

BC-144 DESKTOP CHARGER + **BC-145A/E/V** AC ADAPTER
For rapid charging of battery pack. 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 for rapid charging with **AD-94**(#02) CHARGER ADAPTER.
BC-121 MULTI-CHARGER +**AD-94** (#02) CHARGER ADAPTER + **BC-124** AC ADAPTER
For rapid charging of up to 6 battery packs (six AD-94s are required.), BP-209 or BP-210. The BC-124 outputs 12 V DC and has 7 A capacity for the BC-121. Charging time: 1.5 to 2 hours.

MB-74 BELT CLIP

MB-74 BELT CLIP
Alligator type. Clips onto almost anything in a variety of convenient places.
MB-68 BELT CLIP
Same as that supplied is also available.

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.

8×20 dot character can be made on a PC and plural characters can be combined on 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 1 \ Option slot 2	UT-109 Voice Scrambler Unit	UT-110 Voice Scrambler Unit	UT-113 Man Down Unit
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.

Prolonged Ni-MH battery

The Ni-MH battery is designed for 10 hours operation. A battery case is optionally available for using a set of alkaline batteries (six AA (R6) cells) during charging.

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: 54(W)×139(H)×38(D) mm
; 2⅛(W)×5¹⁵⁄₃₂(H)×1½(D) 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...

SPEAKER-MICROPHONES

EM-80
EM-89

EM-80 : Durable, full-sized microphone with internal speaker.
EM-89 : Slim dimensions. Equipped with an earphone jack and a transmit indicator.

AD-52 EARPHONE JACK ADAPTER

AD-52 EARPHONE JACK ADAPTER
Transforms 9-pin multi connector to φ 3.5 mm (1/8") earphone connector.

INTERNAL UNITS

UT-105 SmarTrunk II™ Logic Board
UT-109 VOICE SCRAMBLER UNIT
UT-110 VOICE SCRAMBLER UNIT
UT-111 TRUNKING UNIT
UT-113 MAN DOWN UNIT

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

ANTENNA

FA-SC25V VHF ANTENNA FOR 136–155 MHz
FA-SC55V VHF ANTENNA FOR 146–174 MHz
FA-SC25U UHF ANTENNA FOR 400–430 MHz
FA-SC57U UHF ANTENNA FOR 440–470 MHz
FA-SC72U UHF ANTENNA FOR 470–520 MHz

ANTENNA ADAPTER CONNECTOR
AD-98FSC
Allows you to connect a BNC-type antenna. (For maintenace use only)

SPECIFICATIONS

GENERAL

- Frequency range :
  - IC-F30GT/GS 136–174 MHz
  - IC-F40GT/GS 400–430 MHz 440–480 MHz
    - 450–490 MHz (U.S.A.)
    - 480–512 MHz (U.S.A.)
    - 480–520 MHz (others)
- Number of Channels : Max. 256 Ch/ 16 banks
- Type of emission : 16K0F3E (25/30 kHz)
  - 8K50F3E (12.5/15 kHz)
  - 14K0F3E (20 kHz)
- Channel spacing : 30/15 kHz (25/12.5 kHz)
  - 20/12.5 kHz
- Antenna impedance : 50 Ω
- Frequency error : ±2.5 ppm (EIA)
  - ±1.5 kHz (ETS)
- 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; approx):
  - Transmit at 5 W 1.7 A typ. (IC-F30GT/GS)
  - at 4 W 1.7 A typ. (IC-F40GT/GS)
  - Receive at AF max. 300 mA
  - at stand-by 95 mA
- 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) 2⅛(W)×5¹⁵⁄₃₂(H)×1½(D) in
- Weight (with BP-210) : 420 g; 14.8 oz

TRANSMITTER

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

RECEIVER

- Intermediate freq. : 1st 31.65 MHz (IC-F30GT/GS)
  - 47.25 MHz (IC-F40GT/GS)
  - 2nd 450 kHz
- Sensitivity : 0.25 µV typ. (at 12 dB SINAD)
  - 0.63 µV typ. (at 20 dB SINAD) e.m.f.
- Squelch sensitivity : 0.25 µV (at threshold)
- Adjacent Ch. selectivity : 63 dB typ. (ETS; 12.5 kHz)
  - 73 dB typ. (ETS; 25 kHz)
- Spurious response : 70 dB (EIA)
  - 70 dB (ETS)
- Intermodulation : 74 dB typ. (EIA)
  - 70 dB typ. (ETS)
- Hum and noise ratio : 40 dB typ. (EIA; 12.5 kHz)
  - 43 dB typ. (EIA; 25/20 kHz)
  - 43 dB typ. (ETS; 12.5 kHz)
  - 45 dB typ. (ETS; 25/20 kHz)
- Audio output power : 0.5 W typ. at 5% distortion with an 8 Ω load
- External SP connector : 9-pin multi connector/ 8 Ω

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
Vibration	514.2	X	514.3	I	514.4	I
Shock	516.2	I	516.3	I	516.4	I

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.
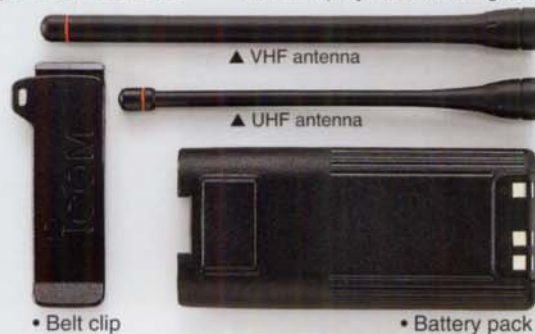
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Supplied accessories:
- Antenna (may differ according to version)
▲ VHF antenna
▲ UHF antenna
- Belt clip
- Battery pack