# O ICOM

**UHF TRANSCEIVERS** 

IC-F43GT (With 10-keypad) IC-F43GS (Without 10-keypad)











Icom Inc.

4 GHI

7 PORS

\*

P0 P1 P2 P3

2 ABC 3 DEF

5 JKL

8 TUV

0

6 MNO

9 WXYZ

#

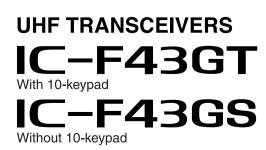




Icom Inc.









3 DEF

6<sub>MNO</sub>

9wxyz

#

5<sub>JKL</sub>

8 TUV

0

7PORS

# **Advanced function**

The IC-F43G series is suitable for a variety of needs — large or small, mobile or stationary. Whether you are a large-scale construction site, warehouse, hospital or hotel, or a small on the go messenger service, this radio provides the built-in flexibility to handle your communication needs.

Offering advanced features such as wide frequency range, multiple signaling and loud audio, the IC-F43G series is a rugged and reliable 2-way communications tool. This is the new direction in LMR communications.

# Lithium-Ion battery pack

The large capacity 1150mAh Li-Ion battery pack, BP-231, provides 8 hours\* of operating time. For longer operating time, use the BP-232 which is rated for a full 15 hours\*. Li-Ion technology has virtually no memory charging issues. A rugged dual-rail guide securely locks the battery to the radio.

\* Typical operation Tx:Rx: Stand-by=5:5:90

# Wide frequency range and large channel capacity

The IC-F43G series covers a wide frequency range in one version (Two versions available, 400–470MHz or 450–512 (520) MHz). The 256 memory channel capacity with 16 memory banks allows you to divide and store a variety of flexible channel groupings. Easy memory channel selection with a simple rotation of the rotary channel knob.

# Small and lightweight body

The IC-F43G series sheds size and weight compared with previous models, weighing just 300g (including BP-231) and measuring only  $53(W) \times 120(H) \times 32.5(D)$  mm\*. The aluminum die-cast chassis and polycarbonate casing combination meets MIL standard specifications.

\* 10.6 oz, 23/32(W)x 423/32(H)x19/32(D) in

# Built-in multi-format tone signaling

Use the built-in CTCSS, DTCS, 2-Tone, 5-Tone or BIIS capability to set up your own talk groups and quiet stand-by when others are talking. You can also set up selective calls to individuals or control a repeater.

# is packed in a tough, lightweight body

# Multiple 2-Tone, Multiple 5-Tone

Encode or decode up to 10 2-Tone codes on a single memory channel. This is perfect for professionals who require multiple district paging on one channel. When a matched tone is received, the following items are programmable for each code.

- Bell icon Answer back • Stun
- Beep sound 
   Auto transmit
   Scan

# 8 programmable buttons

The [P0]–[P3], [▲], [▼], [Red] and [Monitor] buttons are programmable to meet specific needs. The [Red] button on the top panel can be assigned as an emergency trigger.

# Alphanumeric display

The 8-character alphanumeric display shows channel, bank, tone code and scanning channel names on the display. A separate row of operational icons indicate battery, signal strength, RX/TX and other radio conditions.

# Audio compander

The built-in audio compander reduces noise components and provides clear reception even in narrow band use.

# Built-in voice scrambler

The IC-F43G series includes a built-in inversion type voice scrambler in all models. When a more secure system is required, the optional voice scrambler unit UT-109 or UT-110 is available.

# **BIIS 1200 compatible**

The following selective calling and data features are available with the built-in BIIS system.

- 32 abbreviated call memories
- 7 group IDs 24-status Messages
- Send 8-character SDM (Short Data Message)
- Receive up to 95 characters of free text

# Other features

- 8 DTMF autodial memories
- 2 step reduced power setting
- Power saver
- · Power on password
- Busy, repeater lockout functions
- SmarTrunk 3G<sup>™</sup> ready (Coming soon)
- Flash ROM CPU
- · Programmable wide and narrow channel bandwidth (25/12.5kHz) and more ...

# **OPTIONS**



# RAPID CHARGER

▲ BC-145 BC-119N DESKTOP CHARGER + AD-106 CHARGER ADAPTER + BC-145 AC ADAPTER

Rapidly charges the battery pack.

Charging time: approx. 2 hours when BP-231 is attached. CP-17L : CIGARETTE LIGHTER CABLE, OPC-515L : DC POWER CABLE For use with the BC-119N. (12-16V DC required)



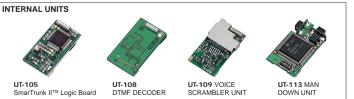


▲ BC-121N+AD-106 (6 pcs.) ▲ OPC-656 A BC-124 BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-124 AC ADAPTER

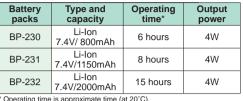
Rapidly charges up to 6 battery packs (Six AD-106s are required). Charging time: approx. 2 hours when BP-231 is attached. OPC-656 DC POWER CABLE : For use with the BC-121N. (12-20V DC required).



- 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.



- UT-105 : Provides SmarTrunk II™ capabilities.
- UT-108 : Provides DTMF Selective call and ANI capabilities.
- UT-109 : Provides operating security. Up to 32 scrambling codes are available. Version 02 is required.
- UT-110 : Provides higher operating security. Up to 1020 scrambling codes are available. Version 02 is required.
- UT-113 : Automatically sends an emergency signal when the transceiver is left in a horizontal position for a preset time



Operating time is approximate time (at 20°C). Tx: Rx: standby=5:5:90.



MB-93 : Swivel type. A fast and easy way to remove the transceiver from your belt. MB-94 : Alligator type. Same as supplied.



MB-96: Swivel type belt hanger. Swivel joint of the MB-93 required. MB-96F : Fixed type belt hanger. For use with MB-94



HM-131L : Durable body Equipped with an earphone jack and revolving clip.

SP-13 : EARPHONE Provides clear audio in noisy environments





FA-SC73US : 60 mm stubby an-

tenna Frequency range: 450-490MHz

# ANTENNAS

- FA-SC25U: 400-430MHz
  - FA-SC57U: 430-470MHz
  - FA-SC72U: 470–520MHz

▲ BC-119N+AD-106 ▲ CP-17

# **UHF TRANSCEIVERS**

# IC-F43GT/GS

# SPECIFICATIONS

|  |                                   | GENERAL  |  |  |  |
|--|-----------------------------------|--|--|--|--|
| Frequency  | range                             | : 400–470MHz (U.S.A. and General)<br>450–512MHz (U.S.A.)<br>450–520MHz (General) |  |  |  |
| Number of a  | channels                          | : 256 channels/16 banks  |  |  |  |
| <ul> <li>Channel spacing</li> </ul>  |                                   | : 12.5kHz/25kHz  |  |  |  |
| <ul> <li>PLL channel step</li> </ul>   |                                   | : 5kHz, 6.25kHz  |  |  |  |
| <ul> <li>Antenna impedance</li> </ul>  |                                   | : 50Ω  |  |  |  |
| - Usable temperature range : –30 $^\circ\text{C}$ to +60 $^\circ\text{C};$ –22 $^\circ\text{F}$ to +140 $^\circ\text{F}$ |                                   |  |  |  |  |
| Power supp   | ly requirement                    | : 7.2V DC  |  |  |  |
| • Current drain (at 7.2V DC; approx.):   |                                   |  |  |  |  |
| Transmit   | at 4W                             | 1.7A   |  |  |  |
| Receive  | at 1W<br>stand-by<br>rated output |  |  |  |  |

- Dimensions (with BP-231) : 53 (W)  $\times 120$  (H)  $\times 32.5$  (D) mm; (projections are not included)  $2^{3}$ /<sub>32</sub> (W)  $\times 4^{23}$ /<sub>32</sub> (H) $\times 1^{9}$ /<sub>32</sub> (D) in
- Weight (with BP-231) : 300g; 10.6oz

# TRANSMITTER

| <ul> <li>Output power</li> </ul>       | : 4W                                     |  |  |  |
|--|--|--|--|--|
| Max. frequency deviation               | : ±5kHz (Wide)<br>±2.5kHz (Narrow)       |  |  |  |
| <ul> <li>Frequency error</li> </ul>    | : ±2.5ppm                                |  |  |  |
| <ul> <li>Spurious emissions</li> </ul> | : 70dB typ.                              |  |  |  |
| Adjacent channel power                 | : 70dB (Wide)<br>60dB (Narrow)           |  |  |  |
| • FM Hum and Noise                     | : 46dB typ. (Wide)<br>40dB typ. (Narrow) |  |  |  |
| Audio harmonic distortion              | : 3% typ. (AF 1kHz, 40% deviation)       |  |  |  |

- Modulation limiting : 60–100% of max. deviation
- External microphone connector :

3-conductor 2.5 (d) mm (1/10")/2.2kΩ

Measurements made in accordance with EIA/TIA-603. All stated specifications are subject to change without notice or obligation.

SmarTrunk II is a trademark of SmarTrunk Systems, Inc. All other trademarks are the properties of their respective holders.

|  | RECEIVER                                   |  |  |  |
|--|--|--|--|--|
| <ul> <li>Intermediate frequency</li> </ul>       | : 1st 46.35MHz                             |  |  |  |
|  | 2nd 450kHz                                 |  |  |  |
| <ul> <li>Sensitivity</li> </ul>                  | : 0.25µV typ. (at 12dB SINAD)              |  |  |  |
| <ul> <li>Squelch sensitivity</li> </ul>          | : $0.25\mu V$ typ. (at threshold)          |  |  |  |
| <ul> <li>Adjacent channel selectivity</li> </ul> | ent channel selectivity : 75dB typ. (Wide) |  |  |  |
|  | 65dB typ. (Narrow)                         |  |  |  |
| <ul> <li>Spurious response</li> </ul>            | : 70dB                                     |  |  |  |
| <ul> <li>Intermodulation</li> </ul>              | : 74dB typ.                                |  |  |  |
| <ul> <li>Hum and noise ratio</li> </ul>          | : 45dB typ. (Wide)                         |  |  |  |
|  | 40dB typ. (Narrow)                         |  |  |  |
| <ul> <li>Audio output power</li> </ul>           | : 500mW typ.                               |  |  |  |
|  | (at 5% distortion with an $8\Omega$ load)  |  |  |  |
| • External speaker connector                     | r: 2-conductor 3.5 (d) mm (1/8")/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 |       | MIL 810F |       |
|-----------|----------|-----------|----------|-------|----------|-------|----------|-------|
|           | Method   | Proc.     | Method   | Proc. | Method   | Proc. | Method   | Proc. |
| Vibration | 514.2    | Х         | 514.3    | Ι     | 514.4    | Ι     | 514.5    | Ι     |
| Shock     | 516.2    | I, II, IV | 516.3    | I, IV | 516.4    | I, IV | 516.5    | I, IV |



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