# o ICOM

0 ICOM

Icom Inc.

P0 P1 P2 P3

2ABC

5 JKL

8 TUV

0

3 DEF

6MNO

9wxyz

#

1

1

4 GHI

7PORS

\*

**VHF AND UHF TRANSCEIVERS** 

**IC-F34GT** (VHF transceiver with 10-keypad)

IC-F34GS (VHF transceiver without 10-keypad)



(UHF transceiver without 10-keypad)

# A New Direction in Private Mobile Radios

- Large channel capacity
- Wide range frequency coverage
- Lithium-ion battery standard
- Multiple tone signaling capabilities
- Built-in audio compander
- Optional SmarTrunk 3G<sup>™</sup>, voice scrambler, man down and DTMF decoder units







# Advanced functions packed in a tough, lightweight body



VHF TRANSCEIVERS IC-F34GT With 10-keypad IC-F34GS Without 10-keypad UHF TRANSCEIVERS

The IC-F34G series is suitable for a variety of needs — large or small, mobile or stationary. Whether you are on a large-scale construction site, warehouse, hospital or hotel, or operating a small on the go messenger service, this radio provides the built-in flexibility to handle all your communication needs. Offering advanced features such as wide frequency range, multiple signaling and loud audio, the IC-F34G series is a rugged and reliable 2-way communications tool. This is the new direction in PMR communications.

# Lithium-Ion battery pack

The large capacity 1150mAh Li-Ion battery pack, BP-231, provides 8/9 hours\* of operating time. For longer operating time, use the BP-232 which is rated for a full 15/16 hours\*. Li-Ion technology has virtually no memory charging issues. A rugged dual-rail guide securely locks the battery to the radio.

\* UHF/VHF, typical operation Tx:Rx: Standby=5:5:90, power save on.

# Wide frequency range and large channel capacity

The IC-F34G series covers a wide frequency range in one version (136–174, 400–470MHz). Wide, middle and narrow channel bandwidth\* is programmable to each channel. 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 is possible with a simple rotation of the rotary channel knob. (\* Programmable 25/12.5kHz or 20/12.5kHz)

# Small and lightweight body

The IC-F34G series sheds size and weight compared with previous models, weighing just  $285g^*$  (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 has been tested to MIL standard specifications.

# 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.



Multiple 5-Tone, Multiple 2-Tone

Encode or decode up to 8 5-Tone, 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-character text

# 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 list name 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-F34G 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 svstem.

- 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
- Optional SmarTrunk 3G<sup>™</sup> unit, UT-117
- Flash ROM CPU
- · Optional headset and speaker microphone available and more...





Output power (VHF/UHF)

# **OPTIONS**

Some options may not be available in some countries. Please ask your dealer for details

BATTERY PA	ACKS AND CA	SE		Battery packs	Type and capacity	Operating time* (VHF/UHF)	Output powe (VHF/UHF)		
Room interference Boom The Boo Boom The Boom Boom The Boom Boom Boom The Boom Boo			Sour	BP-230	Li-Ion 7.4V/ 800mAh	6/6 hours	5W/4W		
				BP-231	Li-Ion 7.4V/1150mAh	9/8 hours	5W/4W		
di Senger 19 40 not vlora al: 19 40 not vlora al:	di Diange In dear ann Robert ann ann an Robert ann ann an Threas Robert ann ann ann an Robert ann ann ann	Bar Bardyan Borwar Andre Andre Andre Borwar Andre Andre Andre Borwar Handler (1992) - Borger Borwar Handler (1992) - Borger		BP-232	Li-Ion 7.4V/2000mAh	16/15 hours	5W/4W		
				BP-240	AAA (LR03) batteries × 6	-	1W		
▲ BP-230	▲ BP-231	▲ BP-232	▲ BP-240	* Operating time is approximate time (at 20°C). Tx: Rx: standby=5:5:90. Power save on.					

#### REGULAR CHARGER



**BC-171 DESKTOP CHARGER** + BC-147 AC ADAPTER Charges the battery pack in 8–10 hours (approx.). Coming soon.



BC-160 DESKTOP CHARGER + BC-145 AC ADAPTER Charges the BP-231 in 2 hours (approx.). BC-119N + AD-106 + BC-145 is also available. : Charges the BP-231 in 2 hours (approx.).



CP-17L CIGARETTE LIGHTER CABLE, OPC-515L DC POWER CABLE For use with the BC-160 or BC-119N. (12-16V DC required).

▲ MB-96

BELT CLIPS AND

▲ MB-93

LEATHER BELT HANGERS

MB-93 : Swivel type belt clip.

MB-96N : Swivel type belt hanger.

MB-96F : Fixed type belt hanger.

MB-94 : Alligator type. Same as supplied.



BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-157 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 radio



UT-105 UT-108 SmarTrunk II™ Board DTMF DECODER UT-109 VOICE SCRAMBLER UNIT UT-113 MAN DOWN UNIT UT-117/S SmarTrunk 3G<sup>™</sup> Boards

- UT-105 : Provides SmarTrunk II<sup>™</sup> capabilities.
- UT-108 : Provides DTMF, Selective call and ANI capabilities.
- UT-109 : Up to 32 scrambling codes are available. Version 02 is required. UT-110 : 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.
- UT-117/S : Provides SmarTrunk 3G™ and SmarTrunk II™ capabilities. Enhanced calling features available. UT-117S has inversion type voice scrambler.



HM-159L : Full size durable speaker microphone HM-153L : Durable earphone-microphone with revolving clip

> SP-13 : EARPHONE Provides clear audio in noisv environments.

#### STUBBY ANTENNAS

- FA-SC56VS : 150–162MHz FA-SC57VS : 160–174MHz
- FA-SC73US : 450-490MHz
- ANTENNAS
- FA-SC25V : 136–150MHz FA-SC55V : 150–174MHz FA-SC25U : 400–430MHz
- FA-SC57U : 430-470MHz

#### **SPECIFICATIONS**

	GENERAL				
<ul> <li>Frequency range IC-F34GT/GS IC-F44GT/GS</li> </ul>	: 136–174MHz 400–470MHz				
<ul> <li>Number of channels</li> </ul>	: 256 channels/16 banks				
<ul> <li>Channel spacing</li> </ul>	: 12.5kHz/20kHz/25kHz				
PLL channel step	: 2.5kHz, 3.125kHz (VHF) 5kHz, 6.25kHz (UHF)				
<ul> <li>Antenna impedance</li> </ul>	: 50Ω				
Usable temperature range	: –25°C to +55°C				
<ul> <li>Power supply requirement : 7.2V DC nominal</li> </ul>					
• Current drain (at 7.2V DC; Transmit at 5W/4W at 1W Receive stand-by	approx.): 1.5A/1.7A (VHF/UHF) 0.7A/0.8A (VHF/UHF) 85mA				
rated output					

- Dimensions : 53 (W) ×120 (H) ×32.5 (D) mm (projections are not included)
- Weight (with BP-231 and ANT): 285g (VHF) 300g (UHF)

#### TRANSMITTER

- Output power
- : 5W (VHF), 4W (UHF) Max. frequency deviation : ±5.0/4.0/2.5kHz (Wide/middle/narrow) • Frequency error : ±1.5kHz
- Spurious emissions : 0.25µW (below 1GHz) 1.0µW (above 1GHz)
- Adjacent channel power : 70dB (Wide, middle) 60dB (Narrow)
- Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
- : 60-100% of max. deviation Modulation limiting
- Ext. microphone connector: 3-conductor 2.5 (d) mm/2.2kΩ

Measurements made in accordance with EN 300-086. All stated specifications are subject to change without notice or obligation.

SmarTrunk II and SmarTrunk 3G are trademarks of SmarTrunk Systems, Inc. All other trademarks are the properties of their respective holders.

#### RECEIVER Intermediate frequency : 1st 46.35MHz 2nd 450kHz Sensitivity : -4dBuV tvp. (emf. at 20dB SINAD) Squelch sensitivity : -4dBµV typ. (emf, at threshold) · Adjacent channel selectivity : VHF 75/75/65dB typ. (Wide/middle/narrow) UHE 73/73/63dB typ. (Wide/middle/narrow) Spurious response : 70dB Intermodulation : 67dB typ. • Hum and noise ratio (with CCITT filter) : VHF 55/53/50dB typ. (Wide/middle/narrow) UHF 45/44/40dB typ. (Wide/middle/narrow) Audio output power : 500mW typ. (at 5% distortion with an $8\Omega$ load) • External speaker connector: 2-conductor 3.5 (d) mm $/8\Omega$

#### **Applicable U.S. Military Specifications**

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810C		MIL 810D		MIL 810E		MIL 810F	
Stanuaru	Method	Proc.	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II	501.4	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II	502.4-3	I, II
Temp. Shock	503.1	I	503.2	Ι	503.3	I	503.4	Ι
Solar Radiation	505.1	Ι	505.2	I	505.3	Ι	505.4	Ι
Rain	506.1	II	506.2	II	506.3	II	506.4	III
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	-
Salt Fog	509.1	Ι	509.2	I	509.3	I	509.4	-
Dust	510.1	I	510.2	I	510.3	I	510.4	Ι
Vibration	514.2	VIII, X	514.3	Ι	514.4	I	514.4	Ι
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV



Icom Inc. 1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

Icom America Inc.

2380 116th Avenue NE, Bellevue, WA 98004, U.S.A. Phone: +1 (425) 454-8155 Fax :+1 (425) 454-1509 E-mail :sales@icomamerica.com URL :http://www.icomamerica.com

#### Icom Canada

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

Icom (Australia) Pty. Ltd. A.B.N. 88 006 092 575 Unit 1 / 103 Garden Road, Clayton VIC 3168 Australia Phone: +61 (03) 9549 7500 Fax : +61 (03) 9549 7505 E-mail: sales@icom.net.au 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 E-mail : inquiries@icom.co.nz 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 E-mail : info@icomeurope.com URL : http://www.icomeurope.com

#### Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer" 08190, Sant Cugat del Valles, Barcelona, Spain Phone : +34 (93) 590 26 70 Fax : +34 (93) 589 04 46 E-mail : icom@icomspain.com 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 E-mail : info@icomuk.co.uk 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 E-mail : icom@icom-france.com URL : http://www.icom-france.com

#### Icom Polska

Sopot, 3 maja 54, Poland Phone : +48 (58) 550 7135 Fax : +48 (58) 551 0484 E-mail : icompolska@icompolska.com.pl URL : http://www.icompolska.com.p

#### Asia Icom Inc

Find technics, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C. Phone: +886 (02) 2559 1899 Fax : +886 (02) 2559 1874 E-mail : sales@asia-icom.com URL : http://www.asia-icom.com

#### Beijing Icom Ltd.

10C07, Long Silver Mansion, No.88, Yong Ding Road, Haidian District, Beijing, 100039, China Phone : +86 (010) 5889 5391/5392/5393 Fax : +86 (010) 5889 5395 Fax : +86 (010) 5005 5555 E-mail : bjicom@bjicom.com URL : http://www.bjicom.com

### Your local distributor/dealer:

**Count on us!** 

URL: http://www.icom.co.jp/world/index.html