



## VHF AND UHF TRANSCEIVERS

# IC-F1710 IC-F2710

(VHF transceiver without 10-keypad)

(UHF transceiver without 10-keypad)

# IC-F1810 IC-F2810

(VHF transceiver with 10-keypad)

(UHF transceiver with 10-keypad)



**BIIS 1200**  
Compatible



\*Photo includes optional separation kit, RMK-2 and separation cable, OPC-609.

icom inc.

# Versatile Multi-function Mobile Radio Supports Demanding Communication

*The IC-F1710/F1810 series offers advanced features, superior performance and flexible installation, including:*

- *Built-in multiple tone signalings — CTCSS, DTCS, 2-Tone, 5-Tone, DTMF autodial and BLS functions*
- *Built-in/optional voice scramblers for secure conversation*
- *Large dot-matrix display with user-friendly icons helps you to grasp information immediately*
- *Five programmable buttons and supplied function name stickers for quick access*
- *The optional separation kit and separation cable allow you flexible installation*
- *Durable construction resists shock and vibration*

*The IC-F1710/F1810 series is ideal for public safety, business and industrial users' requirements.*



VHF AND UHF TRANSCEIVERS without 10-keypad

## IC-F1710 IC-F2710



VHF AND UHF TRANSCEIVERS with 10-keypad

## IC-F1810 IC-F2810

### Detachable front panel

With the optional remote control kit, RMK-2 and separation cable, OPC-609, the front panel of the radio can be detached from the main unit. It allows you flexible installation even in limited installation space.

### Dot matrix, multi-function LCD

The IC-F1710/F1810 series has a large dot matrix display to show information with high resolution characters. The dot matrix font allows upper and lower case characters to be easily distinguished. The display setting is programmable to show one line and 12 characters, or two lines and 24 characters.



Two line setting display example

### Rugged construction

The IC-F1710/F1810 series has a durable construction resistant to shock and vibration and provides reliable operation under harsh conditions. The IC-F1710/F2710 incorporates a front mounted speaker, while the IC-F1810/F2810 has a backlit 10-key pad and external speaker for extended operation.

### Built-in versatile tone signaling

Use the built-in CTCSS, DTCS, 2-Tone, 5-Tone or BIIS capability to set up your own talk groups, and have your radio standby quietly when other groups are talking. You can also set up selective calls to individuals or control a repeater.

### Multiple 2-Tone, Multiple 5-Tone

The IC-F1710/F1810 series can decode up to 10 2-Tone, and 8 5-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
- Radio stun
- Beep sound
- Auto transmit
- Scan
- External out

### 256 memory channels, 32 zones

Up to 256 memory channels can be divided into 32 memory zones, and allows you quick access to the intended channel.

### Tactical group function

The tactical group function allows you to copy memory channels into a new memory zone (using Zone 32) without using PC programming. This function allows you to construct a temporary work group on site for working with interorganization groups, such as in case of a large scale disaster.

### Built-in inversion type voice scrambler

The IC-F1710/F1810 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.

### Public address (PA) and RX speaker functions

When an external loud speaker is connected with the radio, you can speak through the radio's microphone. The RX speaker function allows you to relay the received audio over the loud speaker.

### Other features

- Microphone hanger action programmable (Scan, monitor, priority channel)
- Radio stun/kill and Power-on password function
- 8 DTMF autodial channels
- Built-in audio compander
- LTR® Trunking system capability with the optional UT-111 installed.
- Wide/middle/narrow (25/20/12.5kHz) channel spacing capability
- Optional heavy-duty microphone, HM-148
- Backlit LCD and keypad
- D-SUB 25-pin connector for PC connection
- Optional OPC-617 D-SUB 9 pin connector for dimmer control, modem or printer connection

# BIIS 1200 system

The BIIS function uses MSK signaling to add selective calling and data communication features to your existing conventional system cost effectively. It uses a 4-digit ID number like a telephone number for calling. Also free text short data messages, preprogrammed status messages and GPS\* position information can be sent and received with the radio.

\* External GPS receiver and connection cable required.

### Selective calling

Up to 32 individual and group IDs can be stored in the memory and the caller's name can be displayed on the display.

### Free text short data messages (SDM)

When connected to a PC, maximum 95-character short data messages can be sent from the radio. The DTMF keypad on the front panel\* or optional DTMF microphone, HM-152T, allows you to input up to a 12-character message directly from the keypad.

\* IC-F1810/F2810 only.

### 24 status messages

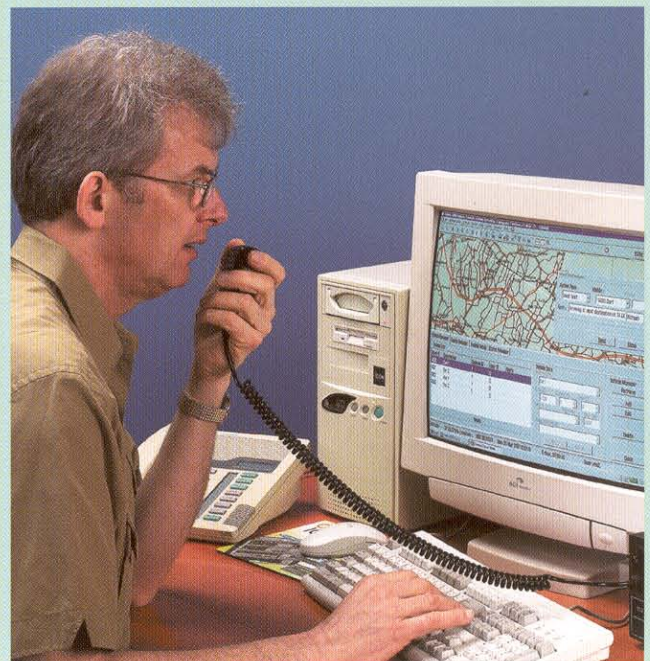
Status messages are simplified SDM's. Choose a message from 24 pre-programmed status messages and send it. The emergency signal, status 22 can be sent when in an emergency.

### GPS position exchange\*

When connected to a GPS receiver, position information can be sent with PTT button or at preprogrammed intervals. If a base station is connected to a PC with mapping software, a vehicle management system can allow you to manage a vehicle fleet efficiently\*.

\* Ask your dealer for details.

**BIIS 1200  
Compatible**



**SPECIFICATIONS**

**GENERAL**

- Frequency range : 136–174MHz (IC-F1710/F1810) 400–470MHz, 450–520MHz (IC-F2710/F2810)
- Number of channels : Max. 256 channels/ 32 zones
- Channel spacing : 12.5/20/25kHz, 12.5/25kHz
- Antenna impedance : 50Ω nominal
- PLL channel step : 2.5, 3.125kHz (VHF) 5.0, 6.25kHz (UHF)
- Power supply requirement : 13.2V DC
- Current drain (approx) :
  - Tx at 25W : 7.0A
  - Rx Max. audio : 1200mA
  - Stand-by : 600mA
- Operating temperature range : -25°C to +55°C
- Dimensions (W×H×D) : 175×45×170 mm (Projections are not included)
- Weight (approx.) : 1.5kg

**TRANSMITTER**

- Output power (approx) : 25W
- Max. frequency deviation : ±5.0/4.0/2.5kHz (Wide/ middle/ narrow)
- Frequency error : ±0.85kHz (VHF) ±1.5kHz (UHF)
- Spurious emissions : 0.25μW (below 1GHz) 1.0μW (above 1GHz)
- Adjacent channel power : 70/70/60dB (Wide/ middle/ narrow)
- Audio harmonic distortion : 3% typ. (40% deviation)
- Residual modulation : 55/53/50dB typ. (Wide/ middle/ narrow) (with CCITT filter)
- Modulation limiting : 70–100%
- Ext. microphone impedance : 600Ω (8-pin modular)

**RECEIVER**

- Sensitivity : -4dBμV typ. (emf, at 20dB SINAD)
- Squelch sensitivity : -4dBμV typ. (emf, at threshold)
- Adjacent channel selectivity : 80/80/75dB typ. (Wide/ middle/ narrow)
- Spurious response : 80dB typ.
- Intermodulation : 70dB
- Hum and noise ratio : 55/53/50dB typ. (Wide/ middle/ narrow) (with CCITT filter)
- Audio output power : 4W typ. at 10% distortion with a 4Ω load  
External audio (D-sub) : 22W typ. at 10% distortion with a 4Ω load
- External speaker connector : 2-conductor 3.5 (d) mm (1/8")/4C

**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	
	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	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	—
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	—
Dust Blowing	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.4	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

**Supplied Accessories**

- Hand microphone, HM-152
  - DC power cable
  - Microphone hanger
  - External speaker, SP-22\*
  - Mounting bracket kit
  - Key assign stickers
- \* IC-F1810/F2810 only.

Measurements made in accordance with EN 300 086.

All stated specifications are subject to change without notice or obligation.

**OPTIONS**

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

**HAND MICROPHONES**



- HM-152** : Regular microphone. Same as supplied.
- HM-152T** : DTMF microphone.
- HM-148** : Dynamic (moving coil) microphone for heavy duty use.

**SM-25 DESKTOP MICROPHONE**



Convenient for dispatching, equipped with monitor switch.

**EXTERNAL SPEAKERS**



- SP-5** : Large speaker for good audio quality.
- SP-22** : Compact and easy-to-install. Same as supplied with the IC-F1810/F2810.

**SEPARATION KIT**



**RMK-2** : For front panel detachment installation.

**SEPARATION CABLES**



- OPC-609** : 1.9m Separation cable for use with the RMK-2.
- OPC-607** (3m) and **OPC-608** (8m) cables are EMC non-compliant. Not available in EU countries.

**OPC-617 ACC CABLE**



For external connection such as dimmer control, PTT control, horn drive, etc.

**INTERNAL UNITS**



- UT-109** (Ver. 02) : Non-rolling type voice scrambler.
- UT-110** (Ver. 02) : Rolling type voice scrambler.
- UT-111** : Provides LTR® trunking capabilities.

**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.com.jp/world/index.html>

**Count on us!**

**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](mailto:sales@icomamerica.com) URL: <http://www.icomamerica.com>

**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](mailto:inquiries@icom.co.nz) URL: <http://www.icom.co.nz>

**Icom (UK) Ltd.**

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K. Phone: +44 (0)1227 741741 Fax: +44 (0)1227 741742 E-mail: [info@icomuk.co.uk](mailto:info@icomuk.co.uk) URL: <http://www.icomuk.co.uk>

**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 E-mail: [sales@asia-icom.com](mailto:sales@asia-icom.com) URL: <http://www.asia-icom.com>

Your local distributor/dealer:

**Icom Canada**

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

**Icom (Europe) GmbH**

Communication Equipment Himmelgeister Str. 100, D-40225 Düsseldorf, Germany Phone: +49 (0211) 346047 Fax: +49 (0211) 333639 E-mail: [info@icom-europe.com](mailto:info@icom-europe.com) URL: <http://www.icomeurope.com>

**Icom France Sa**

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](mailto:icom@icom-france.com) URL: <http://www.icom-france.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) 5888 5395 E-mail: [bjicom@bjicom.com](mailto:bjicom@bjicom.com) URL: <http://www.bjicom.com>

**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](mailto:sales@icom.net.au) URL: <http://www.icom.net.au>

**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 E-mail: [icom@icomspain.com](mailto:icom@icomspain.com) URL: <http://www.icomspain.com>

**Icom Polska**

Spot, 3 maja 54, Poland Phone: +48 (58) 550 7135 Fax: +48 (58) 551 0484 E-mail: [icompolska@icompolska.com.pl](mailto:icompolska@icompolska.com.pl) URL: <http://www.icompolska.com.pl>



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