ICOM

VHF AND UHF TRANSCEIVERS

IC-F1710
(VHF transceiver without 10-keypad)

IC-F2710
(UHF transceiver without 10-keypad)

IC-F1810
(VHF transceiver with 10-keypad)

IC-F2810
(UHF transceiver with 10-keypad)

32 ch-01
Icom Inc.

BIIS 1200 Compatible

Photo includes optional separation kit, RMK-2, separation cable, OPC-609 and hand microphone, HM-148.

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 BIIS 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-keypad 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, 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.

Radio stun/kill and Power-on password function

The radio stun/kill functions disable a lost or stolen radio over the air, eliminating security threats from undesired listeners. The power-on password prevents unauthorized people turning on the radio.

Other features

- Microphone hanger action programmable (Scan, monitor, priority channel)
- Optional OPC-617 D-SUB 9 pin connector for dimmer control, modem or printer connection
- Wide frequency coverage (136–174, 400–470 or 450–520MHz in one version)
- LTR® Trunking system capability with the optional UT-111 installed.
- Wide/middle/narrow (25/20/12.5kHz) channel spacing capability
- Built-in audio compander
- Optional heavy-duty microphone, HM-148
- 8 DTMF autodial channels
- Backlit LCD and keypad
- D-SUB 25-pin connector for future PC 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.

BIIS 1200 Compatible

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-100TN, allows you to input up to a 12-character message directly from the keypad.
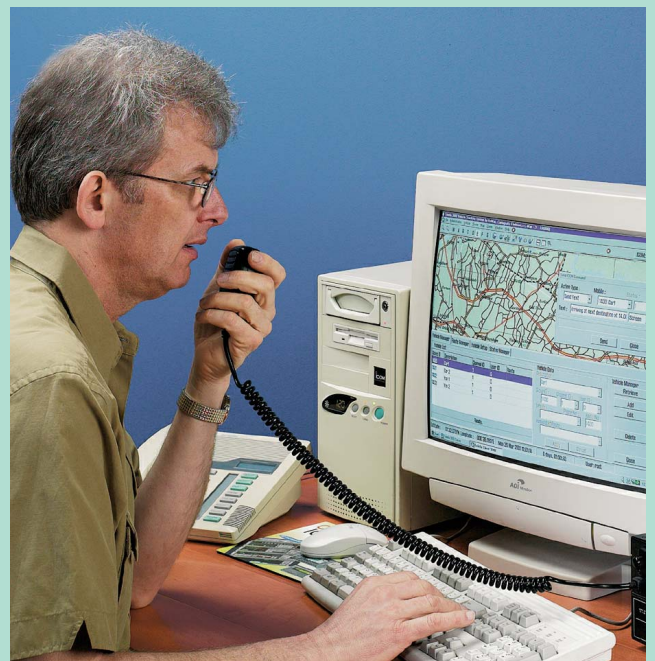* IC-F1810/F2810 only.

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.

SPECIFICATIONS

GENERAL

- Frequency range :
  - IC-F1710/F1810   136–174MHz
  - IC-F2710/F2810   400–470MHz, 450–520MHz
- 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 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 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)
  1µW (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. (at threshold)
- Adjacent channel selectivity : 80/80/75dB typ. (Wide/ middle/ narrow)
- Spurious response : 80dB typ.
- Intermodulation : 70dB (Narrow/middle/wide)
- 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 ($\frac{1}{8}''$)/4Ω

> **Supplied Accessories**
> **IC-F1710/F2710**
> • Hand microphone, HM-100N   • DC power cable   • Microphone hanger
> • Mounting bracket kit   • Key assign stickers
> **IC-F1810/F2810**
> • Hand microphone, HM-100N   • DC power cable   • Microphone hanger
> • External speaker, SP-22   • Mounting bracket kit   • Key assign stickers

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-100N   HM-100TN   HM-148

HM-100N : Regular microphone. Same as supplied.
HM-100TN : DTMF microphone.
HM-148 : Dynamic (moving coil) microphone for heavy duty use.
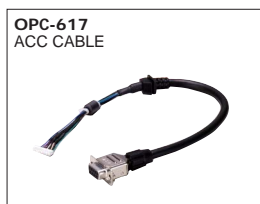   Not available in EU countries.

SM-25 DESKTOP MICROPHONE

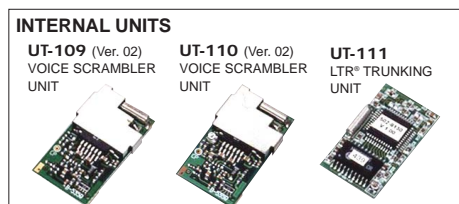Convenient for dispatching, equipped with monitor switch.

EXTERNAL SPEAKERS

SP-5   SP-22

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   **SEPARATION CABLES**

RMK-2

OPC-609 (1.9m)   OPC-607 (3m)   OPC-608 (8m)

RMK-2 : For front panel detachment installation.
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) VOICE SCRAMBLER UNIT   **UT-110** (Ver. 02) VOICE SCRAMBLER UNIT   **UT-111** LTR® TRUNKING UNIT

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

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