



## VHF AND UHF TRANSCEIVERS

### IC-F5023

10W VHF TRANSCEIVER

### IC-F5023

30W VHF TRANSCEIVER

### IC-F5023H

60W VHF TRANSCEIVER

### IC-F6023

30W UHF TRANSCEIVER

### IC-F6023H

50W UHF TRANSCEIVER



Limited Functions only.



128 ch. (Max.)/  
8 zones

2-Tone, 5-Tone  
CTCSS, DTCS

MDC PTT ID &  
MDC emergency call

8-character  
LCD display

Optional voice  
scrambler

## Features, Performance, Value For the Everyday LMR User

### ■ 128 channels (Max.) separated into 8 memory zones.

### ■ 4 watts front mounted speaker

### ■ 6 function programmable buttons

### ■ MIL standard 810F grade rugged construction

### ■ Built-in 2-Tone, 5-Tone, CTCSS, and DTCS

### ■ MDC 1200 compatible

- PTT ID (TX/RX)
- Radio check (RX)
- Emergency TX/RX (No ACK)
- Radio stun (RX)
- Radio revive (RX)
- 5 alias table (Max.)

### ■ Up to ten 2-Tone and eight 5-Tone codes

Can be decoded on a channel. When a matched tone is received, the following items are programmable for each code.

- Beep sound
- Answer back
- Scan
- Bell icon
- Radio stun/kill/revive

### ■ Radio kill, stun and revive

The radio kill/stun functions disable a lost or stolen radio over the air, eliminating security threats from undesired listeners. When the stun command is received, all functions will be temporary locked out until the revive command is received or the unlock password is entered.

### ■ Lone worker function

When the radio is not operated for a preset period, the radio sounds a beep and requires you to push any button. If the radio is still not operated for a specified wait period, an emergency signal automatically transmits and informs co-workers that something may have happened to the individual worker.

### ■ Dependent scan

In the mode dependent setting, the scanning setting is dependent on the operating channel. When you change the operating channel, the scanning list automatically changes to the list set for that channel. It is convenient when you move to a different operating area and change operating channel, you don't have to change the scanning setting.

### ■ Tx channel setting and Talk back function

The Tx channel setting allows you to program a transmission channel while scanning. Start channel, last detected channel, priority and preprogrammed channel are selectable. Prior to the Tx channel setting, the talk back function allows you to talk on the last detected channel, while scanning resumes after a preset time. The user can easily make a quick response with this function.

### ■ Wide frequency coverage in one version

- IC-F5023/H 136-174MHz.
- IC-F6023/H 400-470MHz.

### ■ Optional internal units

- UT-109R/UT-110R Voice scrambler
- UT-108R DTMF Decoder unit

### ■ External memory channel control with optional ACC cable

With the optional OPC-1939 D-SUB 15-pin ACC cable, the IC-F5023/H series can be programmed to control an operating channel from an external device (up to 16 preprogrammed channels). The ACC connector also provides an ignition sensing function, external PTT, PC command, horn honk, audio output and modulated signal input depending on programming.

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**Other features**

- Wide and narrow channel spacing (25/12.5kHz) simplex and semi-duplex is programmable per channel
- Microphone hanger action programmable
- Optional DTMF microphone (HM-152T)
- 8 DTMF autodial memories
- Time-out-timer, Lock-out penalty timer and more
- BIIS 1200 PTT ID transmission
- Power-on password function
- Nuisance delete function

**SPECIFICATIONS**

**GENERAL**

- Frequency range : IC-F5023/F5023H 136–174MHz  
IC-F6023/F6023H 400–470MHz
- Number of Channels : Max. 128 Ch/ 8 zones
- Channel spacing : 12.5/25kHz
- PLL channel step : 2.5kHz, 3.125 kHz
- Frequency Stability : ±2.5ppm
- Antenna impedance : 50Ω (SO-239)
- Operating temp. range : -30°C to +60°C
- Power supply requirement: 13.6V DC
- Current drain (approx.) :  
Tx 60W/50W 15.0/12.0A (VHF/UHF)  
30W 8.0/8.0A (VHF/UHF)  
10W 5.5A (VHF)  
Rx Max. audio 0.7A  
Stand-by 250mA
- Dimensions (W×H×D) :  
60W/50W versions 150×40×167.5 mm  
30W versions 150×40×117.5 mm  
(Projections not included)
- Weight :  
60W/50W versions 1.1kg (approx.)  
30W versions 0.8kg (approx.)

**TRANSMITTER**

- Output power (at 13.6V DC):  
IC-F5023 (10W) 10W/5W/1W  
IC-F5023 30W/10W/2.5W  
IC-F5023H 60W/30W/5W  
IC-F6023 30W/10W/2.5W  
IC-F6023H 50W/25W/5W
- Max. frequency deviation: ±5kHz/±2.5kHz (W/N)
- Frequency error : ±2.5ppm
- Spurious emissions : 80dB typ.
- Adjacent channel power : 70dB/60dB min. (W/N)
- Audio frequency response :  
+1dB to -3dB of +6dB/octave with 300-3000Hz
- FM Hum and Noise : 50dB/45dB typ. (W/N)
- Residual modulation : 55dB, 50dB (W/N) (With CCICF filter)
- Audio harmonic distortion : 3% typ. (40% deviation)
- Modulation limiting : 70–100% of Max. deviation
- External Mic. impedance : 600Ω (8-pin modular)

**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 810 C		MIL 810 D		MIL 810 E		MIL 810 F	
	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	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
Rain Blowing/Drip	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, II
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	514.5	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

**RECEIVER**

- Sensitivity : 0.25µV typ. (at 12 dB SINAD)
- Squelch sensitivity : 0.25µV typ. (at threshold)
- Adjacent Ch. selectivity : 75dB/65dB typ. (W/N)
- Spurious response : 80dB typ.
- Intermodulation : 75dB typ.
- Hum and noise ratio : 50dB/45dB typ. (W/N)
- Audio output power : 4W typ. at 3% distortion
- External SP connector : 2-conductor 3.5 (d) mm (1/8")/4Ω

**Supplied Accessories**

- Hand mic. (HM-152)
- DC power cable
- Mounting bracket kit
- Microphone hanger
- Key assign stickers

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 hand microphone. Same as supplied.
- HM-152T** : DTMF microphone.
- HM-148G** : Heavy duty microphone. Self-grounding type.
- HM-148T** : Heavy duty microphone with DTMF keypad. Self-grounding type.

**DESKTOP MICROPHONE SM-25**



Convenient for dispatching, equipped with monitor switch.

**ACC CABLE OPC-1939**



15-pin ACC cable. For connecting with a PC, external speaker, external channel control, ignition sense line or vehicle's horn.

**INTERNAL UNITS**



- UT-108R** : Provides DTMF decode capability.
- UT-109R** : Up to 32 scrambling codes are available.
- UT-110R** : Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available.

**EXTERNAL SPEAKERS**



- SP-5** : Large external speaker.
- SP-10** : Mid sized external speaker.
- SP-22** : Compact and easy-to-install external speaker.

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