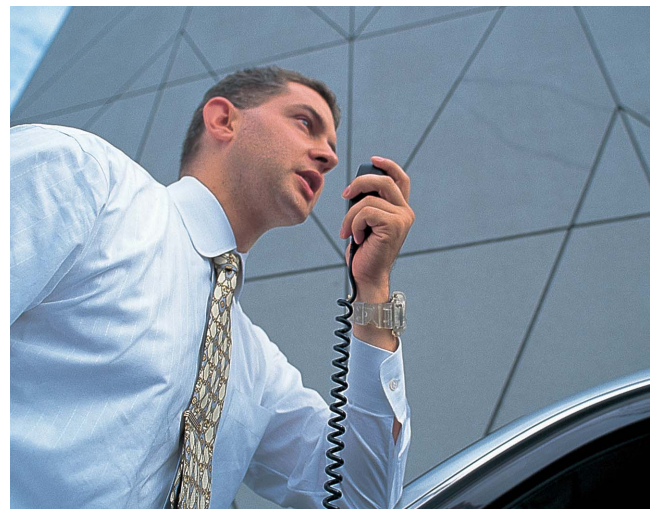
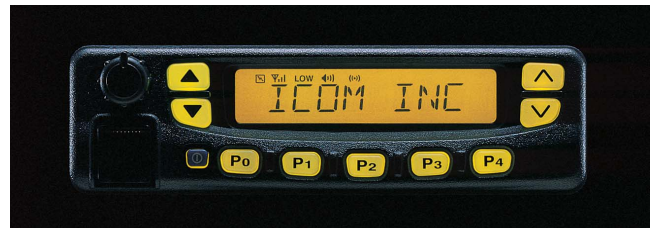


# IC-F510 IC-F610

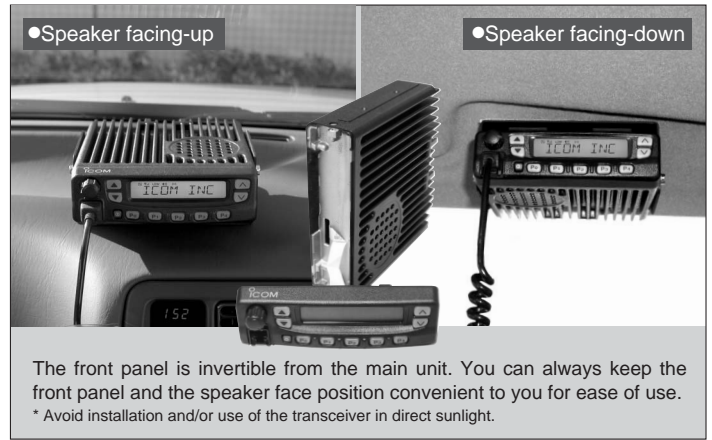


- **9 programmable switches**  
Independent AF volume knob
- **256 channels with 16 banks**  
Up to 256 channels with 10-character channel names can be stored and classified into 16 banks.
- **Invertible front panel for flexible setup**
- **Built-in 5-tone, CTCSS and DTCS encoder/decoder plus DTMF encoder**  
Multiple signalling systems are equipped as standard. 8 DTMF dialing memories are available. The optional UT-108 decodes DTMF with ANI functions.
- **Audio compander**  
The audio compander provides clear, low noise communications.
- **Rugged construction**  
The tough aluminum die-cast chassis and polycarbonate front panel have been tested to the MIL standards specifications.
- **BIIS 1200 compatible**  
The following selective calling and data messaging features are available with the BIIS version.
  - 32 abbreviated memories
  - 7 Group IDs registration
  - Digital ANI
  - Up to 10-character SDM (Short Data Message)
  - 24-status messages
  - Position data transmission with a GPS receiver
  - PC/Printer interface with the optional OPC-822, RS-232C interface cable



**ADDITIONAL FEATURES**

- Large, alphanumeric display and backlit keys
- Flash CPU advantage for future upgrades and future compatibility with other protocols
- Selectable channel spacing (25/12.5kHz, 20/12.5kHz)
- Power on password and 'Stun' functions
- Microphone hanger function
- 10 scanning lists and normal/priority scan
- Optional voice scrambler unit, UT-109 or UT-110
- SmarTrunk3G™ or LTR® Trunking capability with optional UT-117 or UT-111, respectively



**SPECIFICATIONS**

- GENERAL**
- Frequency coverage :
    - IC-F510 136-174MHz
    - IC-F610 400-430MHz 440-490MHz
    - 480-520MHz
  - Number of channels : Max. 256 channels/16 banks
  - Type of emission : 12.5/25kHz
  - 12.5/20kHz
  - PLL channel step : 2.5kHz, 5kHz and 6.25kHz
  - Frequency stability : ±1.5kHz
  - Operating temp. range : -25°C to +55°C
  - Power supply voltage : 13.2V DC
  - Current drain :
    - Tx at 25W 7A
    - Rx max. audio 1.2A
    - standby 300mA
  - Antenna impedance : 50Ω (SO-239)
  - Dimensions : 140(W)×40(H)×170(D)mm
  - Weight : 1.2kg

- TRANSMITTER**
- Output power : 25W (at 13.2V DC)
  - Max. freq. deviation : ±5.0kHz (wide), ±4.0kHz (middle) ±2.5kHz (narrow)
  - Spurious emissions : 0.25μW (below 1GHz)
  - Adjacent channel power : 70dB (wide, middle) 60dB (narrow)
  - Mic. impedance : 600Ω (8-pin modular)

- RECEIVER**
- Sensitivity : -4dBμV typ. (emf) (at 20dB SINAD)
  - Squelch sensitivity : -4dBμV typ. (threshold)
  - Adjacent channel selectivity : 75dB typ. (wide, middle) 65dB typ. (narrow)
  - Spurious response : 75dB
  - Intermodulation : 67dB typ.
  - Audio output power : 4.0W at 10% distortion/4Ω load
  - Ext. SP connector : 2-conductor 3.5(d)mm/4Ω

**Applicable U.S. Military Specifications**

The IC-F510/F610 has 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	502.4-3	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
Rain	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	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

**Supplied Accessories**

- Hand mic. (HM-152)
- DC power cable
- Mounting bracket kit
- Fuses
- 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.

- **HM-152T DTMF MICROPHONE**
- **OPC-617 ACC CABLE**  
For external terminal connection.
- **OPC-822 INTERFACE CABLE**  
Allows you to connect with a PC through an RS-232C serial port for data communications.
- **SM-25 DESKTOP MICROPHONE**
- **SP-10/SP-22 EXTERNAL SPEAKERS**  
Input impedance: 4Ω; Max. input power: 5W
- **UT-105 SmarTrunk II™ Logic Board**
- **UT-108 DTMF DECODER UNIT**  
Provides DTMF decode and ANI capabilities.
- **UT-109 VOICE SCRAMBLER UNIT (Version 02)**  
Up to 32 scrambling codes are available.
- **UT-110 VOICE SCRAMBLER UNIT (Version 02)**  
Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available.
- **UT-111 LTR® Trunking UNIT**
- **UT-117/S SmarTrunk 3G™ Boards**  
Provides SmarTrunk 3G™ and SmarTrunk II™ capabilities. UT-117S has inversion type voice scrambler.



SmarTrunk II and 3G are trademarks of the SmarTrunk Systems, Inc. LTR is a registered trademark of the E.F.Johnson Company.

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