

ICOM

VHF AND UHF MOBILE TRANSCEIVERS

**IC-F1020** (45 W 136-174 MHz)

**IC-F2020** (35 W 400-512 MHz)



The photo shows actual size.

● **Rugged construction**

The diecast aluminum chassis and polycarbonate front panel are resistant to impact.

● **45 W\* of stable output power**

The one-piece aluminum chassis and heat sink provide effective heat dissipation, even at high duty cycles.

\*45 W for the IC-F1020 (VHF) and 35 W for the IC-F2020 (UHF).

● **Detachable front panel\***

A detachable front panel provides numerous mounting possibilities and is simple to install in almost any vehicle.

\*Optional remote kit and cable lengths available.

● **Programmable assign function**

Six switches provide simple operation yet their functions can be changed during programming, providing flexibility to suit your specific needs. (Limited front panel programming available.)

● **9600 baud data compatible**

● **CTCSS and DTCSS are standard**

● **Large, alphanumeric display**

● **32 channels standard; up to 160 optional**



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## ADDITIONAL FEATURES

- Selectable channel spacing (channel independent)
- Memo banks
- Emergency call (DTMF code) with single or repeat function
- Tones + group code channels for 2-tone decode (optional)
- Automatic DTMF transmission linked to PTT
- Standard CTCSS with 51 frequencies (plus 1 programmable)
- Standard DTCS with selectable polarity
- 7 DTMF channels for auto-dialing
- Up to 8 alphanumeric characters for memory name display
- 5 scan channel groups
- 2 priority channels
- Scan start and/or tone squelch as the microphone on hook function
- Priority channel selection and/or receive monitor as the microphone off hook function

- Normal scan and priority scan
  - Power ON scan start
  - Reverse burst equivalent
  - Transpond capability (optional 2-tone decoder unit necessary)
  - Programmable password security
  - Programmable minimum level for audio volume
  - Talk around function
  - Time-out timer with penalty time
  - Transmit lockout (CTCSS/channel busy)
  - 2 selectable 'stun' functions (optional 2-tone decoder unit necessary)
  - External I/O terminal socket (optional OPC-617 required) for PA, horn honk, dimmer, 9600 baud packet and PTT
  - Advanced programming package for IBM<sup>®</sup>PC or compatible
- \*IBM is a registered trademark of International Business Machines.

## SPECIFICATIONS

GENERAL	
• Frequency coverage (VHF/UHF)	
IC-F1020	135-155 146-174
IC-F2020	430-433 436-470
	473-480 490-512
• Mode	15K0F3E (wide) 8K50F3E (narrow)
• Number of channels	32 (standard) 163 (optional)
• Channel spacing	25 kHz, 30 kHz or 12.5 kHz
• PLL channel step	5 kHz, 0.25 kHz and 7.5 kHz*
*Wide channel switchable on air only	
• Power supply (nominal)	13.6 V DC ±15% (negative ground)
• Current drain (at 13.6 V DC typical)	
High 15 A (0-Peak)	11 A (0-Peak)
Squelch	700 mA
Max. audio output	1.2 A
• Usable temp. range	-37°C to +80°C; -22°F to +180°F
• Frequency stability	±0.5 ppm
• Dimensions	160(W) × 50(H) × 190(D) mm
(incl. not included)	57(w) × 17(h) × 75(d) in
• Weight	1.5 kg/3.3 lb (net)

TRANSMITTER	
• Output power	
IC-F1020	High 45 W Low 4.5 W
IC-F2020	High 36 W Low 2 W
• Max. frequency deviation	±5.0 kHz (wide) ±2.5 kHz (narrow)
• Modulation distortion	15%
• Spurious emissions	70 dB min.
• Harmonic emissions	70 dB min.

RECEIVER	
• Sensitivity for 12 dB S/N (typical)	
IC-F1020	0.21 µV
IC-F2020	0.20 µV
• Squelch sensitivity	
IC-F1020	0.21 µV
IC-F2020	0.20 µV

• Adj. channel selectivity	75 dB typ. (wide) 85 dB typ. (narrow)
• Intermodulation rejection	85 dB
• Spurious response rejection	70 dB min.
• Audio output power	4 W typ. at 10% distortion with 5.0 Ω load

Applicable U.S. Military Specifications  
com make rugged products that meet MIL-STD requirements and strict environmental standards as follows:

Standard	MIL 810C	MIL 810D	MIL 810E
Method	314.2	314.3	314.4
Shock	314.2	314.3	314.4

Measurements made in accordance with EIA/TIA-240D, EIA/TIA-316C.  
All stated specifications are subject to change without notice or obligation.

## OPTIONS

- **EX-1761 MEMORY EXPANSION UNIT**  
Expands memory channels to 160 from 32.
- **OPC-617 ACC. CABLE**  
For external terminal connection.
- **RMK-1 SEPARATION KIT**  
For front panel detachment installation—use with one of the following cables: OPC-607 (3 m), OPC-636 (3 m), OPC-636 (1.9 m) or OPC-725 (5 m).

- **SP-5/SP-10/SP-22 EXTERNAL SPEAKERS**  
Input impedance: 4 Ω; Max. input power: 5 W.
- **UT-80 2-TONE UNIT**  
Provides 2-tone decoder capability.
- **UT-96 5-TONE UNIT**  
Provides 5-tone decoder capabilities as well as 2-tone decoder capabilities via PD programming.

- **UT-105 SmartTrunk II™ Logic Board**  
Provides SmartTrunk II™ capabilities.  
SmartTrunk II™ is a trademark of SmartTrunk Systems, Inc.
- **UT-109/UT-110 VOICE SCRAMBLER UNITS**  
Provides operating security. Ask your local dealer for details about usable version, etc.
- **UT-103 Non-ringing type-UT-110 Ringing type**



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Count on us!

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Certificate Number: 2 4190

Icom Inc. (Japan) is an ISO9001 certification acquired company.

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