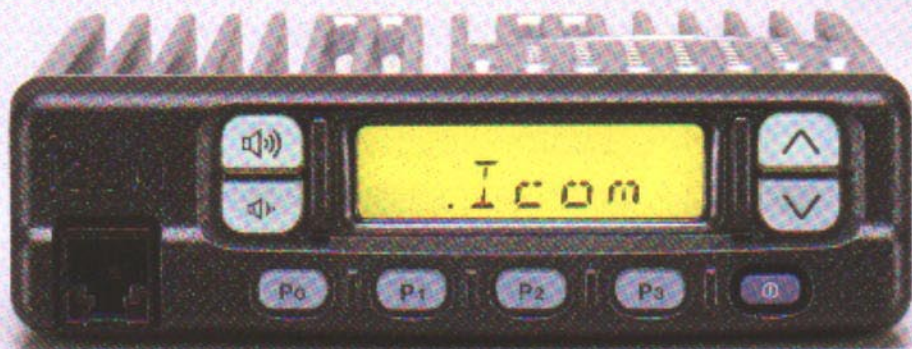




VHF AND UHF TRANSCEIVERS

IC-F320 IC-F420



The photo shows actual size.

● Tough rugged construction

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

● Powerful 45 W of output power

A powerful 45 W (35 W for the IC-F420) of output power provides reliable long distance communications when you need it.

● SmarTrunk II™ compatible*

These transceivers allow you to take advantage of all the benefits of SmarTrunk II™ trunking systems*. In addition, CTCSS and DTCS encoder/decoder and DTMF, 2-tone and 5-tone encoder are standard. And, 2-tone and 5-tone decoder functions are optionally available to suite a wide variety of signalling requirements.

*Optional UT-105 SmarTrunk II™ Logic Board is required; SmarTrunk II™ is a trademark of SmarTrunk Systems Inc.

● Selectable channel spacing

Versions are available that allow wide/narrow switching independently for each channel.

● Programmable key assign function

4 switches provide simple operation yet their functions can be changed during programming, providing flexibility to suit your specific needs.

● Alphanumeric display



Icom Inc.

ADDITIONAL FEATURES

- Backlit keys help night operation
- 32 channels for 5-tone encoder
- Emergency call with single and repeat function
- 8 identities + group code for 5-tone decode (optional)
- Selectable digits for 5-tone decode indication
- Automatic ID transmission linked to PTT
- 51 frequencies for CTCSS (plus 1 programmable)
- Polarity selectable for DTCS
- 7 auto-calling memories for DTMF
- Up to 5 character channel display
- Bank separation capability
- 5 scan channel groups
- 2 priority channels
- Automatic scan start and/or receive mute when mic. is on hook
- Automatic priority channel selection and/or mute release when mic. is off hook

- Normal and priority scan
 - Scan start at power on
 - CTCSS reverse burst
 - Remote monitoring capability (optional UT-96 required)
 - Optional PIN code input to prevent operation by unauthorised persons
 - Programmable minimum level for audio output
 - Talk around function (temporary simplex operation on a duplex channel)
 - Time-out timer
 - Time-out ID transmission
 - Penalty timer
 - Transmit lockout (channel busy / repeater / reverse repeater)
 - 2 selectable 'stun' functions (optional UT-96 required)
 - Compact body provides easy installation
 - Advanced programming package for IBM[®] compatible PC's
- IBM is a registered trademark of International Business Machines

SPECIFICATIONS

GENERAL

- Frequency coverage:
 - IC-F320 138-155 MHz 148-174 MHz
 - IC-F420 400-430 MHz 450-470 MHz
 - 470-490 MHz 490-512 MHz
 - (Voice according to version)
- Number of channels: 32 (16 ch x 2 banks)
- Type of emission:
 - 6K3F3E (12.5 kHz to 15 kHz narrow)
 - 16K0F3E (25 kHz to 30 kHz wide)
- PLL channel step: 1.5 kHz, 6.25 kHz and 7.5 kHz
- Frequency stability: $\pm 0.0005\%$
- Operating temp. range: -22°F to $+140^{\circ}\text{F}$
- Power supply voltage: 13.8 V DC (negative ground)
- Current drain (approx.):
 - Tx at 45 W 1.0 A (IC-F320)
 - at 35 W 0.8 A (IC-F420)
 - Rx (max. audio) 200 mA
 - standby 200 mA
- Antenna connector: SO-239 (50 Ω)
- Dimensions: 5 9/16" W x 1 1/2" H x 5 1/8" D (in)
- Weight: 2 lb 13 oz

TRANSMITTER

- Output power: 45 W (IC-F320)
- 35 W (IC-F420)
- (at 13.8 V DC)
- Max. freq. deviation: ± 5.0 kHz (wide) ± 2.5 kHz (narrow)
- Spurious emissions: 70 dB
- Adjacent ch. power: 70 dB (wide) 60 dB (narrow)
- Mod. connector: 8-pin modular (600 Ω)

RECEIVER

- Sensitivity: 0.22 μV (typ.) (IC-F320)
- 0.25 μV (typ.) (IC-F420)
- (at 12 dB S/N ratio)
- Squelch sensitivity: 0.22 μV (typ.) (IC-F320)
- 0.25 μV (typ.) (IC-F420)
- Adj. ch. selectivity: 70 dB (wide) 60 dB (narrow)
- Spurious response: 70 dB
- Intermodulation: 66 dB
- Audio output power: 3 W (typical at 5% distortion with a 4 Ω load)
- Ext. SP connector: 2-pin connector 3.5 (5) mm (1 1/2) (5) Ω

Applicable U.S. Military Specifications

Icom makes rugged products that meet MIL-STD requirements and strict environmental standards as follows:

| Standard | MIL-STD-883C | | MIL-STD-883D | | MIL-STD-883E | |
|--------------|--------------|----------|--------------|-------|--------------|-------|
| | Method | Proc. | Method | Proc. | Method | Proc. |
| Low Temp. | 200 | I | 200 | I, II | 200 | I, II |
| High Temp. | 201 | I | 201 | I, II | 201 | I, II |
| Low Temp. | 202 | I | 202 | I, II | 202 | I, II |
| Temp. Shock | 203 | I | 203 | I | 203 | I |
| Shock Random | 204 | I | 204 | I | 204 | I |
| Shock | 205 | I | 205 | I | 205 | I |
| Vibration | 207 | I, II | 207 | I, II | 207 | I, II |
| Salt Fog | 209 | I | 209 | I | 209 | I |
| Dust | 210 | I | 210 | I | 210 | I |
| Wetness | 214.2 | VIII, X | 214.1 | I | 214.1 | I |
| Storage | 219.2 | I, II, V | 219.1 | I, II | 219.1 | I, II |

Supplied Accessories

- Hand mic *
- DC power cable
- Fuses
- Mounting bracket (H)
- Key assign stickers

*Measurement made in accordance with EIA/TIA-152-D204D. All stated specifications are subject to change without notice or obligation.

OPTIONS

- **UT-96 5-TONE UNIT**
Provides the transceiver with 2-tone and 5-tone decoder capabilities
- **UT-105 SmartTrunk III[™] Logic Board**
Provides SmartTrunk III[™] capabilities.
[™]SmartTrunk III is a trademark of SmartTrunk Systems Inc.

- **UT-109/UT-110 VOICE SCRAMBLER UNITS**
Provides operating privacy. Ask your local dealer for details about usage restriction, etc.
UT-109: Non rolling type UT-110: Rolling type
- **SP-5/SP-10/SP-22 EXTERNAL SPEAKERS**
Input impedance: 4 Ω ; Max. input power: 5 W

- **OPC-617 ACC CABLE**
For external terminal connection.
- **HM-100TH DTMF MICROPHONE**
- **UT-111 TRUNKING UNIT**
Provides trunking capabilities for IC-F420. Ask your local dealer for details about usage.

UT-96



SP-22



SP-10



OPC-617



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Certification Number: Q-1190

Icom Inc., Japan, is an ISO9001
certification awarded company

Your local distributor/dealer: