



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 DTCSS 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 DTCSS
- 7 autodialing 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	136-155 MHz	146-174 MHz
IC-F420	400-430 MHz	450-470 MHz
	470-490 MHz	490-512 MHz

 *Varies according to versions.
- Number of channels : 32 (16 ch × 2 banks)
- Type of emission : 8K50F3E (12.5 kHz/15 kHz; narrow)
16K0F3E (25 kHz/30 kHz; wide)
- Frequency stability : ±0.0005%
- Operating temp. range : -22°F to +140°F
- Power supply voltage : 13.6 V DC (negative ground)
- Current drain (approx.) :

Tx at 45 W	10 A (IC-F320)
at 35 W	8 A (IC-F420)
Rx max. audio	700 mA
standby	200 mA
- Antenna connector : SO-239 (50 Ω)

- Dimensions : 5 1/2(W) × 1 13/16(H) × 6 1/4(D) in
- Weight : 2 lb 10 oz

TRANSMITTER

- Output power : 45 W (IC-F320)
35 W (IC-F420)
(at 13.6 V DC)
- Modulation system : Variable reactance-freq. mod.
- Max. freq. deviation : ±5.0 kHz (wide)
±2.5 kHz (narrow)
- Spurious emissions : 70 dB
- Adjacent ch. power : 70 dB (wide)
60 dB (narrow)
- Mic. connector : 8-pin modular (600 Ω)

RECEIVER

- Intermediate freq. : 1st 31.06 MHz (IC-F320)
48.35 MHz (IC-F420)
- 2nd 450 kHz

- Sensitivity : 0.22 μV (typ.; IC-F320)
(at 12 dB SINAD) 0.25 μV (typ.; IC-F420)
- 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 : 65 dB
- Audio output power : 3 W typical at 5% distortion with
a 4 Ω load
- Ext. SP connector : 2-conductor 3.5 (d) mm (1/8")
4 Ω

Supplied Accessories

- Hand mic. DC power cable Fuses
- Mounting bracket kit Key assign stickers

Measurement made in accordance with EMI/TIA-152C/D24D.
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 II™ Logic Board**
Provides SmartTrunk II™ capabilities.
*SmartTrunk II™ is a trademark of SmartTrunk Systems Inc.
- **SP-5 EXTERNAL SPEAKER**
Large speaker provides good audio quality.
Input impedance: 4 Ω; Max. input power: 5 W
- **SP-10 EXTERNAL SPEAKER**
Compact and easy-to-install.
Input impedance: 4 Ω; Max. input power: 5 W

UT-96



SP-5



SP-10



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