

IC-F320S IC-F420S

Meets
MIL-STD 810



The photo shows actual size.

- **Simple operation with up to 4 channels**

Up/down switches for volume and channel selection with LED's that indicate the selected operating channel.

- **Flexible setup**

Four programmable switches give access to a variety of functions and can be assigned functions for specific applications.

- **Durable construction**

Meets demanding MIL-810C, D and E specifications for shock and vibration.

- **45 W output power**

Up to 45 W (35 W for the IC-F420S) of RF output for long distance communications and penetration of foliage, obstacles, etc.

- **Multiple signalling systems**

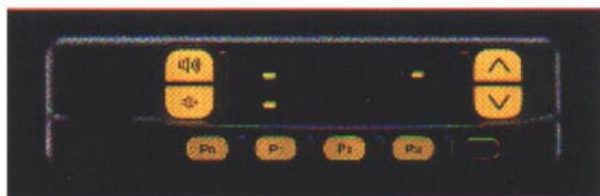
CTCSS and DTCS encoder/decoder are standard; 2-tone/5-tone encoder (decoder optional) and SmarTrunk II™ capability*. *Optional UT-105 SmarTrunk II™ Logic Board is required; SmarTrunk II is a trademark of SmarTrunk Systems Inc.

- **Optional voice scrambler**

Provides communication privacy.

- **Selectable channel spacing**

Wide and narrow switching is available for each channel independently (12.5/25 kHz).



ADDITIONAL FEATURES

- Up to 1020 scrambling codes (4 groups × 255 codes) with divided frequency rolling system are available with UT-110 for higher communication privacy
- 32 scrambling codes available with UT-109
- Voice scrambler on/off (optional UT-109/UT-110 required)
- Backlit keys for night operation
- Emergency call with single and repeat function
- Automatic ID transmission linked to PTT
- 51 frequencies for CTCSS (plus 1 programmable)
- Polarity selectable for DTCS
- Autodialing memory for DTMF
- Emergency and logID memories available
- 2 priority channels
- Normal and priority scan
- Scan start at power on

- 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
- CTCSS reverse burst
- 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 Corporation

SPECIFICATIONS

GENERAL

- Frequency coverage* :
 - IC-F320S 136-156 MHz 149-174 MHz
 - IC-F420S 400-430 MHz 450-470 MHz
 - 470-490 MHz 480-512 MHz
- Number of channels* : 4 ch
- Type of emission : 1) 8K0F3E (25 kHz) 4K0 4K0 4K0
2) 8K0F3E (12.5 kHz) 4K0 4K0 4K0
- PLL channel step : 0.5 kHz, 0.25 kHz and 7.5 kHz
- Frequency stability : ±0.0005%
- Operating temp. range : -22°F to +140°F
- Power supply voltage : 13.5 V DC (negative ground)
- Current drain :
 - Tx at 45 W 13 A (IC-F320S)
 - at 35 W 8 A (IC-F420S)
 - Rx max. audio 700 mA
 - standby 200 mA
- Antenna connector : SO-238 (50 Ω)
- Dimensions : 54.5(W) × 112(H) × 57.5(D) mm
- Weight : 2.10 kg oz.

TRANSMITTER

- Output power : 45 W (IC-F320S)
(at 13.5 V DC)
- 35 W (IC-F420S)
- Modulator 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 (500 Ω)

RECEIVER

- Intermediate freq. : 1st 31.05 MHz (IC-F320S)
46.35 MHz (IC-F420S)
- 2nd 450 kHz
- Sensitivity : 0.22 μV (IC-F320S)
0.25 μV (IC-F420S)
- S/N ratio (S/NAD) : 0.25 μV (IC-F320S)
0.25 μV (IC-F420S)
- Squelch sensitivity : 0.25 μV (IC-F320S)
0.25 μV (IC-F420S)
- Adj. ch. selectivity : 70 dB (wide) 60 dB (narrow)
- Spurious response : 70 dB
- Intermodulation : 65 dB
- Audio output power : 0.5 W at 10% distortion (4 Ω load)
- Ext. SP connector : 2-conductor 8.5 (di. max 15) × 4.2

Applicable U.S. Military Specifications

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

Standard	MIL-810 C		MIL-810 D		MIL-810 E	
	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	503.1	I	503.2	I, II	503.2	I, II
High Temp.	503.1	I	503.2	I, II	503.2	I, II
Low Temp.	503.1	I	503.2	I, II	503.2	I, II
Temp. Shock	503.1	I	503.2	I	503.2	I
Shock	503.1	I	503.2	I	503.2	I
Fatigue	503.1	I	503.2	II	503.2	II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	513.1	I	513.2	I	513.3	I
Vibration	514.2	MIL-X	514.3	I	514.4	I
Shock	515.2	I, II, V	515.3	I, IV	515.4	I, IV

Supplied Accessories

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

* varies according to version.

Measurements made in accordance with EIA/TIA-182C/204D. All stated specifications are typical and subject to change without notice or obligation.

OPTIONS

- **UT-96 5-TONE LINIT**
Provides 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.
- **UT-109/UT-110 VOICE SCRAMBLER UNITS**
Provides operating security. Ask your dealer for details about usable version and
UT-109: Non-coding type. UT-110: Coding type.
- **OPC-617 ADC CABLE**
For external terminal connection.

- **SP-5/SP-10/SP-22 EXTERNAL SPEAKERS**
Compact and easy-to-install.
Input impedance: 4 Ω; Max. input power: 5 W
- **HM-100N/TN HAND-HELD MICROPHONE**
Supplied microphone. Varies with version.

UT-96



SP-10



SP-22



OPC-617



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