

**VHF AND UHF TRANSCEIVERS** 

## IC-F3021T

(VHF transceiver with 10-keypad)

## IC-F3021S IC-F4021S

(VHF transceiver without 10-keypad)

(UHF transceiver without 10-keypad)

IC-F4021T

(UHF transceiver with 10-keypad)





















# SIMPLE, RUGGED, VERSATILE FOR THE EVERY



Only Icom quality can offer this featured radio. In this compact lifeatures such as multiple signal battery and wide frequency companded easily exceeds your emance and communication quality.

#### **Compact lightweight body**

The rounded compact\* design fits comfortably in your palm and is light-weight\*\* for carrying around all day. The large size programmable buttons have ample button-pitch to allow blind touch operation.

\* 53(W)×120(H)×36.9(D) mm; 2<sup>3</sup>/<sub>32</sub>× 4<sup>23</sup>/<sub>32</sub>×1<sup>7</sup>/<sub>16</sub> in \*\* 296g; 10.4oz including BP-232N

## IP54 dust-protection and splash resistance

The IC-F3021 series meets IP54 requirements for dust-protection and splash resistance. The aluminum die-cast chassis is the basis for this rugged construction, allowing long-life usage in various environments.

## 128 memory channels and button control memory channel

The IC-F3021 series has 128 memory channels with 8 zones. Memory channel selection can be made easily with the up/down buttons laid out below the PTT button.

#### Most popular signalings built-in

Use the built-in 2-Tone, 5-Tone, CTCSS and DTCS capabilities as standard to set up your own talk groups, PTT ID and quiet stand-by when others are talking.

#### **Multiple 2-Tone, Multiple 5-Tone**

Up to ten 2-Tone and eight 5-Tone codes can be decoded on a channel. When a matched tone is received, the following items are programmable for each code.

- Beep sound Answer back Scan
- Bell icon
   Radio stun/kill

#### Lithium-Ion battery standard

Supplied 2000mAh (typ.) Li-Ion battery pack, BP-232N, provides 15.5 hours\* of operating time. Li-Ion batteries have virtually no memory issues and allows you flexible charging. \* Typical operation; Tx:Rx:Standby=5:5:90, power save on

# VHF TRANSCEIVERS IC-F3021T With 10-keypad

C-F3021S

Without 10-keypad

UHF TRANSCEIVERS
IC-F4021T
With 10-keypad
IC-F4021S
Without 10-keypad

# 'DAY LMR USER

simple to use but versatile rich ght weight body, many attractive lings, large capacity Lithium-lon erage are built-in. This rugged xpectations with reliable perfor-

#### Lone worker function

When the radio is not operated for a preset period, the radio sounds a beep and requires you to push any button. If the radio is not operated for a preset time, an emergency signal automatically transmits and informs your co-worker that something may have happened to the individual worker.

#### Mode dependent scan

In the mode dependent setting, the scanning setting is dependent on the operating channel. When you change the operating channel, the scanning list automatically changes to the list set for that channel. It is convenient when you move to a different operating area and change an operating channel, you don't have to change the scanning setting.

#### MDC 1200 compatible

The following MDC features are available with the built-in MDC signaling.

- PTT ID (Tx/Rx)
- Radio check (Rx)
- Emergency\* (Tx/Rx) Stun/revive (Rx)
- 5 alias table (Max.) (\* No ACK)

#### **Optional internal units**

The IC-F3021 series has a 40-pin expansion socket for adding an optional board. A voice scrambler provides secure conversation and the DTMF decoder features has ANI (Automatic Number Identification) capability, depending on the installed board.

#### Other features

- 2 step power saver
- Wide frequency coverage
- 8 DTMF autodial memories
- Surveillance function temporarily turns off the LED backlight and beep sound
- Optional man down unit, UT-124R
- · Normal and priority scan
- Nuisance delete function temporarily deletes a channel from the scanning list
- TOT (Time-Out-Timer) function and lock out penalty timer
- · Low battery beep function

#### **OPTIONS**

Some options may not be available in some countries. Please ask your dealer for details.



Battery packs	Type and capacity	Operating time*	Output power (VHF/UHF)
BP-230N	Li-Ion, 7.4V 950mAh (min.) 980mAh (typ.)	7.35 hours	5W/4W
BP-232N	Li-Ion, 7.4V 1900mAh (min.) 2000mAh (typ.)	15.5 hours	5W/4W
BP-240	AAA (LR03) batteries × 6	-	1W

\* Operating time is approximate time (at 20°C). Tx: Rx: standby=5:5:90. Power save on.



BC-171 DESKTOP CHARGER + BC-147\*1 AC ADAPTER Charges the BP-232N in 10 hours (ap-

BC-145/BC-147SA for 120V AC. SE for 230V AC. SV for 240V AC. BC-145SUK for 230V AC.



BC-160 DESKTOP CHARGER + BC-145\*1 AC ADAPTER Charges the BP-232N in 3 hours (approx.). BC-119N + AD-106 + BC-145\*1 is also available.: Charges the BP-232N in 3 hours (approx.)



CP-23L CIGARETTE LIGHTER CABLE, OPC-515L DC POWER CABLE For use with the BC-119N. (12-16V DC required).



BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-157S AC ADAPTER

Rapidly charges up to 6 battery packs (Six AD-106s are required). Charges the BP-232N in 3 hours (approx.).

OPC-656 DC POWER CABLE : For use with the BC-121N. (12-20V DC required).



MB-93 : Swivel type belt clip.
MB-94 : Alligator type. Same as supplied. MB-96N : Swivel type belt hanger. MB-96F: Fixed type belt hanger.



HS-94: Earhook headset with flexible boom microphone HS-97: Throat microphone fits around your neck and picks up

VS-1L : PTT/VOX unit. Required when using these headsets with the transceiver



**HM-153L**: Durable earphone-microphone with revolving clip. **HM-158L**: Compact and durable body with plug screw connector.

HM-159L: Full size durable speaker microphone.
HM-166L: Light-weight earphone microphone with revolving clip.



UT-109R: Up to 32 scrambling codes are available.40-pin type. UT-110R: Up to 1020 scrambling codes are available. 40-pin type. UT-108R: Provides DTMF selective call and ANI capabilities.

UT-124R: Automatically sends an emergency signal when the transceiver is left in a horizontal position for a preset



Provides clear audio in noisy environments.

#### STUBBY ANTENNAS

FA-SC56VS: 150-162MHz • FA-SC57VS: 160-174MHz FA-SC73US: 450–490MHz

#### **CUT ANTENNAS**

FA-SC61VC: 136-174MHz FA-SC61UC: 380-520MHz Cut the antenna element to tune to a specific center frequency.

#### **ANTENNAS**

• FA-SC25V: 136–150MHz • FA-SC55V: 150-174MHz

• FA-SC25U: 400-430MHz

 FA-SC57U: 430–470MHz • FA-SC72U: 470-520MHz

time. 40-pin type.

#### **SPECIFICATIONS**

• Frequency range :

IC-F3021T/S 136–174MHz IC-F4021T/S 400–470MHz 450–512MHz 450–520MHz

• Number of channels : 128 channels/8 zones

Channel spacing : 12.5kHz/25kHz, 15kHz/30kHz

• Type of emission : 11K0F3E, 16K0F3E

• Antenna impedance :  $50\Omega$ 

• Usable temperature range : -30°C to +60°C; -22°F to +140°F

Power supply requirement: 7.2V DC
Current drain (at 7.2V DC; approx.):

Transmit VHF/UHF 1.5A/1.6A (at 5W/4W)

Receive Stand-by 75mA Rated output 250mA

Dimensions (with BP-232N): 53 (W) ×120 (H) ×36.9 (D) mm; (projections are not included) 2<sup>3</sup>/<sub>32</sub> (W) ×4<sup>23</sup>/<sub>32</sub> (H)×1<sup>7</sup>/<sub>16</sub> (D) in
 Weight (approx.) VHF : 300g; 10.6oz (with BP-232N)

UHF : 320g; 11.3oz (with BP-232N)

**TRANSMITTER** 

Output power VHF : 5W, 2W, 1W (Hi, Low2, Low1),

UHF 4W, 2W, 1W (Hi, Low2, Low1)

Max. frequency deviation: ±5.0/±2.5kHz (Wide/narrow)

Frequency stability : ±2.5ppmSpurious emissions : 80dB typ.

FM Hum and Noise : 46/40dB typ. (Wide/narrow)
Audio harmonic distortion : 3% typ. (AF 1kHz, 40% deviation)
Modulation limiting : 60–100% of max. deviation

• External microphone connector :

3-conductor 2.5 (d) mm  $(\frac{1}{10}")/2.2k\Omega$ 

Measurements made in accordance with EIA/TIA-603. All stated specifications are subject to change without notice or obligation.

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RECEIVER

Sensitivity : 0.25µV typ. (at 12dB SINAD)
 Adjacent channel selectivity : 75/65dB typ. (Wide/narrow)

• Spurious response : 70dB min.

Intermodulation : 75/74dB typ. (VHF/UHF)
 Hum and noise ratio VHF : 55/50dB typ. (Wide/narrow)
 UHF 45/40dB typ. (Wide/narrow)

• Audio output power : 500mW typ.

(at 5% distortion with an  $8\Omega$  load)

External speaker connector: 2-conductor 3.5 (d) mm (½")/8Ω

#### **Applicable U.S. Military Specifications**

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810F		
Standard	Method	Procedure	
Low Pressure	500.4	I, II	
High Temperature	501.4	I, II	
Low Temperature	502.4	I, II	
Temperature Shock	503.4	I	
Solar Radiation	505.4	I	
Rain Blowing/Drip	506.4	I, III	
Humidity	507.4	_	
Salt Fog	509.4	_	
Dust Blowing	510.4	I	
Vibration	514.5	Ī	
Shock	516.5	I, IV	

Also meets equivalent MIL-STD-810-C, -D and -E.



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