ICOM

VHF AND UHF TRANSCEIVERS

IC-F3022T (VHF transceiver with 10-keypad)

IC-F4022T (UHF transceiver with 10-keypad)

IC-F3022S (VHF transceiver without 10-keypad)

IC-F4022S (UHF transceiver without 10-keypad)

F3022 F4022 Series

- 128ch/ 8 zones
- 2-Tone, 5-Tone, CTCSS, DTCS
- VHF 5W UHF 4W
- IP54 rugged construction
- 8-character LCD display
- Optional voice scrambler

Icom Inc.

SIMPLE, RUGGED, VERSATILE FOR T

▲ IC-F3022T ▲ IC-F4022S

Only Icom quality can offer this featured radio. In this compact tive features such as multip Lithium-Ion battery and wide fre This rugged handheld easily e reliable performance and comm

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)×32.5(D) mm

** 260g including BP-231

IP54 dust-protection and splash resistance

The IC-F3022 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-F3022 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 and quiet standby 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

The IC-F3022 series comes with the BP-231 Li-Ion battery pack as standard. Li-Ion batteries have virtually no memory issues and allow you flexible charging. The optional BP-232 provides a high capacity 2000mAh for longer operating time.

VHF TRANSCEIVERS

IC-F3022T
With 10-keypad

IC-F3022S
Without 10-keypad

UHF TRANSCEIVERS

IC-F4022T
With 10-keypad

IC-F4022S
Without 10-keypad

HE EVERYDAY USER

simple to use but versatile rich light weight body, many attrac-le signalings, large capacity equency coverage are standard. xceeds your expectations with nunication quality.

8 programmable buttons

The [P0]–[P3], [▲], [▼], [Monitor] and [Red] buttons are programmable to meet specific needs. The [Red] button on the top panel can be assigned as an emergency trigger.

Alphanumeric display

The 8-character alphanumeric display shows channel, zone, tone code and scanning channel names on the display. A separate row of operational icons indicate battery, signal strength, RX/TX and other radio conditions.

Wide frequency coverage

The IC-F3022 series covers a wide frequency range with one version (136–174, 400–470 MHz). Wide, middle and narrow channel spacing (25, 20, 12.5kHz) is programmable per channel.

Optional board

The IC-F3022 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.

Optional VOX headset

With one of Icom's optional headsets and PTT/VOX unit, the IC-F3022 series offers hands-free operation.

Other features

- New regular charger, BC-171
- TOT (Time-Out-Timer) function and lock out penalty timer
- 8 DTMF autodial memories
- 2 step power saver
- 2 step low battery beep
- Surveillance function temporarily turns off the LED backlight and beep sound
- Normal and priority scan
- 500mW loud and clear audio

OPTIONS

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

BATTERY PACKS AND CASE

▲ BP-230 ▲ BP-231 ▲ BP-232 ▲ BP-240

Battery packs	Type and capacity	Operating time* (VHF/UHF)	Output power (VHF/UHF)
BP-230	Li-Ion 7.4V/ 800mAh	6 hours	5W/4W
BP-231	Li-Ion 7.4V/1150mAh	9 hours	5W/4W
BP-232	Li-Ion 7.4V/2000mAh	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.

REGULAR CHARGER

▲ BC-147 ▲ BC-171

BC-171 DESKTOP CHARGER + **BC-147** AC ADAPTER
Charges the battery pack in 8–10 hours (approx.).

RAPID CHARGER

▲ BC-145 ▲ BC-160

BC-160 DESKTOP CHARGER + **BC-145** AC ADAPTER
Charges the BP-231 in 2 hours (approx.).
BC-119N + **AD-106** + **BC-145** is also available. : Charges the BP-231 in 2 hours (approx.).

POWER SUPPLY CABLES

▲ CP-17L ▲ OPC-515L

CP-17L CIGARETTE LIGHTER CABLE, **OPC-515L** DC POWER CABLE
For use with the BC-160 or BC-119N. (12–16V DC required).

MULTI-CHARGER

▲ BC-121N+AD-106 (6 pcs.) ▲ OPC-656 ▲ BC-157

BC-121N MULTI-CHARGER + **AD-106** CHARGER ADAPTER + **BC-157** AC ADAPTER
Rapidly charges up to 6 battery packs (Six AD-106s are required).
Charges the BP-231 in 2 hours (approx.).
OPC-656 DC POWER CABLE :For use with the BC-121N. (12–20V DC required).

BELT CLIPS AND LEATHER BELT HANGERS

▲ MB-93 ▲ MB-96F

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.

HEADSETS and PTT/VOX UNIT

▲ HS-94 ▲ HS-95 ▲ HS-97 ▲ VS-1L

HS-94: Earhook headset with flexible boom microphone.
HS-95: Behind-the-head headset with flexible boom microphone.
HS-97: Throat microphone fits around your neck and picks up speech vibration.
VS-1L: PTT/VOX unit. Required when using these headsets with the transceiver.

SPEAKER-MICROPHONES

▲ HM-153L ▲ HM-158L ▲ HM-159L

HM-153L: Durable earphone-microphone with revolving clip.
HM-158L: Compact and durable body with screw-type connector.
HM-159L: Full size durable speaker microphone.

INTERNAL UNITS

UT-109R VOICE SCRAMBLER UNIT
UT-110R VOICE SCRAMBLER UNIT
UT-108R DTMF DECODER

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. 40-pin type.

SP-13 EARPHONE

Provides clear audio in noisy environments.

STUBBY ANTENNAS

STUBBY ANTENNAS
- **FA-SC56VS**: 150–162MHz, 80mm
- **FA-SC57VS**: 160–174MHz, 80mm
- **FA-SC73US**: 450–490MHz, 60mm

ANTENNAS
- **FA-SC25V**: 136–150MHz
- **FA-SC55V**: 150–174MHz
- **FA-SC25U**: 400–430MHz
- **FA-SC57U**: 430–470MHz

SPECIFICATIONS

GENERAL

- Frequency range :
  IC-F3022T/S 136–174MHz
  IC-F4022T/S 400–470MHz
- Number of channels : 128 channels/8 zones
- Channel spacing : 12.5/20/25kHz
- PLL channel step : 2.5kHz, 3.125kHz
- Antenna impedance : 50Ω
- Usable temperature range : –25˚C to +55˚C
- Power supply requirement : 7.2V DC
- Current drain (at 7.2V DC; approx.):
  Transmit VHF/UHF 1.5A/1.5A (at 5W/4W)
  Receive Stand-by 72mA
  Rated output 250mA
- Dimensions (with BP-231) : 53 (W) ×120 (H) ×32.5 (D) mm
  (projections are not included)
- Weight (approx.) : 260g (with BP-231)

TRANSMITTER

- Output power : 5W (VHF), 4W (UHF)
- Max. frequency deviation : ±5.0/±4.0/±2.5kHz (Wide/mid/narrow)
- Frequency error : ±2.5ppm
- Spurious emissions : 0.25μW (≤ 1GHz)
  1.0μW (> 1GHz)
- Adjacent channel power VHF : 80/80/70dB typ. (Wide/mid/narrow)
  UHF 76/74/68dB typ. (Wide/mid/narrow)
- Audio harmonic distortion : 1.5% typ. (AF 1kHz, 40% deviation)
- Modulation limiting : 60–100% of max. deviation
- Ext. microphone connector : 3-conductor 2.5 (d) mm/2.2kΩ

RECEIVER

- Intermediate frequency : 1st 46.35MHz
  2nd 450kHz
- Sensitivity : –4dBμV typ. (emf; at 20dB SINAD)
- Squelch sensitivity : –4dBμV typ. (emf; at threshold)
- Adjacent channel selectivity VHF : 76/75/66dB typ. (Wide/mid/narrow)
  UHF 74/73/64dB typ. (Wide/mid/narrow)
- Spurious response : 70dB min.
- Intermodulation : 67dB typ.
- Hum and noise ratio VHF : 60/58/55dB typ. (Wide/mid/narrow)
  UHF 57/55/51dB typ. (Wide/mid/narrow)
- Audio output power : 500mW typ.
  (at 5% distortion with an 8Ω load)
- External speaker connector: 2-conductor 3.5 (d) mm/8Ω

Measurements made in accordance with EN 300-086.
All stated specifications are subject to change without notice or obligation.

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SUPPLIED ACCESSORIES (May differ according to version)

• Belt clip, MB-94 • Option plate • Battery pack, BP-231

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