

ICOM

IC-F3161DT
(IDAS digital VHF transceiver with 10-keypad)
IC-F3161T
(VHF transceiver with 10-keypad)
IC-F3161DS
(IDAS digital VHF transceiver without 10-keypad)
IC-F3161S

IC-F4161DT
(IDAS digital UHF transceiver with 10-keypad)
IC-F4161T
(UHF transceiver with 10-keypad)
IC-F4161DS
(IDAS digital UHF transceiver without 10-keypad)
IC-F4161S





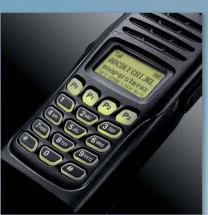


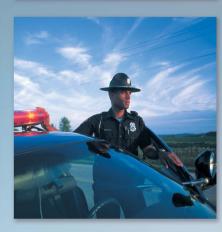














512 ch /
128 zones
128 zones

Conventional/
LTR™ mode

IDAS digital
(With UT-126H)
(With UT-126H)
(With UT-126H)

VHF 5W, ouput
UHF 5W Ouput
UHF 5W

LTR™/Conventional/Digital* – Multi-Mode

* With UT-126H installed. Already installed to the IC-F3161/F4161 "D" versions.



VHF TRANSCEIVERS

IC-F3161DT/T

IDAS digital/analog FM with 10-keypad

IC-F3161DS/S

IDAS digital/analog FM without 10-keypad

UHF TRANSCEIVERS

IC-F4161DT/T

IDAS digital/analog FM with 10-keypad

IC-F4161DS/S

IDAS digital/analog FM without 10-keypad

Basic LTR™/conventional mode operation

Both LTR™ trunking and conventional channels are programmable on a radio. Group, selective (DTMF), and phone call are available in LTR™ mode.

IP55 dust-protection and water jet resistance

The IC-F3161/D series meets IP55 requirements for dust-protection and water jet resistance. Its durable construction is backed up by the aluminum die-cast chassis and polycarbonate casing, allowing reliable operation under harsh weather and environmental conditions.

Lithium-Ion battery pack

The supplied 2000mAh Li-Ion battery pack, BP-232N, provides 14 hours* of operating time. The optional battery case BP-240 provides a convenient back up and great reassurance in an emergency.

* Typical operation Tx:Rx:Stand-by=5:5:90, power save on

Most popular signalings built-in

The 2-Tone, 5-Tone, CTCSS, DTCS and MDC signaling capabilities are built-in for group communication or selective calling. The radio can decode ten 2-Tone codes or eight 5-Tone codes on a channel. When a matched tone is received, the following actions are programmable for each code.

- Beep sound
- Bell icon
- Answer back call
- Auto TX
- Radio stun/kill/revive
- Scan

MDC 1200 Compatible

The following selective calling and ANI features are available with the built-in MDC signaling.

- PTT ID Sel0
- SelCall
 Radio check
- Radio stun/revive
- 500 Aliases
- Status message/request Call alert
- Emergency, emergency mic monitoring

Voting mode scanning

The voting mode scanning detects the signal strength level of repeater stations and automatically selects the strongest station, useful for roaming between 2 or more repeater sites. Once you program the voting mode to a memory zone, you can easily start voting mode operation by changing the zone setting.

Land Mobile!

Full dot-matrix LCD

Using a large full dot-matrix LCD (32 × 18 mm), the IC-F3161/D series shows upper and lower case characters clearly. The display setting is selectable from 1 line, 12 characters or 2 lines 24 characters via programming. The bottom row shows assigned functions to the [P0] to [P3] buttons.



Enhanced audio

The IC-F3161/D series employs a BTL amplifier that increases the audio output and the built-in audio compander provides clear, low noise communications.

Lone worker function

When the radio is not operated for a preset period, a beep sounds and a button push is required. If no button is pushed within that preset time, an emergency signal automatically transmits and alerts your co-worker or dispatcher to any potential trouble.

Built-in inversion-type voice scrambler

The built-in inversion type voice scrambler* provides secure conversation as standard. When a more secure system is required, the 32 code non-rolling-type voice scrambler UT-109R and 1020 code rolling type UT-110R are available as an option.

Inversion type voice scrambler is not compatible with UT-109/UT-110 voice scrambler.

Other features

- 512 memory channel with 128 zones
- 8 DTMF autodial memories
- 2 step reduced power setting
- Power on password
- · Busy, repeater lockout functions
- · Escalating alarm
- Mode dependent scan
- Surveillance function temporarily turns off the LED backlight and beep sound
- Powerful 5W output both in VHF and UHF
- Flash CPU for future upgrade and more...

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 |
|---------------|-----------------------------|-----------------|--------------|
| BP-230N | Li-Ion 7.4V/ 980mAh | 7.35 hours | 5W |
| BP-232N | Li-lon 7.4V/2000mAh | 14 hours | 5W |
| BP-240 | AAA (LR03) batteries × 6 | - | 1W |

* Operating time is approximate time (at 20°C), Tx; Rx; standby=5:5:90,



BC-171 DESKTOP CHARGER + BC-147A AC ADAPTER Charges the BP-232N in 10 hours, (ap-



BC-160 DESKTOP CHARGER + BC-145A AC ADAPTER Charges the BP-232N in 3 hrs. (approx.). BC-119N + AD-106 + BC-145A is also available.



MB-93: Swivel type. A fast and easy way to remove the transceiver from your belt. MB-94: Alligator type. Same as supplied.



BC-121N MULTI-CHARGER + AD-106 CHARGER ADAPTER + BC-157 AC ADAPTER Rapidly charges up to 6 battery packs (Six AD-106s are required). Charging time: 3 hours (approx.) when BP-232N is attached.

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



MB-96N: Swivel type belt hanger. Swivel joint of the MB-93 supplied.

MB-96F : Fixed type belt hanger. For use with MB-94



HM-168: Compact type speaker-microphone. Equivalent to IPX7. HM-169 : Rugged type speaker-microphone. Equivalent to IP57. HM-170GP: GPS speaker-microphone. Equivalent to IP57.

HM-159SC: Full size durable speaker microphone with revolving clip.

HM-131SC: Compact type speaker microphone.

INTERNAL UNITS UT-109R UT-110R UT-124R UT-126H UT-109R: Non-rolling type voice scrambler.

UT-110R: Rolling type voice scrambler.

UT-124R: Man down unit. Automatically sends an emergency signal when the transceiver is left in a

norizontal position for a preset time UT-126H: Digital unit. Provides IDAS digital capability.



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-1SC: PTT/VOX unit. Required when using these headsets.



SP-13: EARPHONE. AD-52: EARPHONE ADAPTER Provides clear audio even in noisy environments.

OSTUBBY 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

IDAS system digital mode ready



The IDAS (Icom Digital Advanced System) is Icom's digital land mobile radio system using the NXDN™ common air interface. It has useful calling features including selective calling, status message, radio stun/kill/revive, etc.

The IC-F3161 series provides 2 optional slots: one optional slot for the UT-126H digital unit and one for an additional option board. See the IDAS brochure for details.



SPECIFICATIONS

GENERAL • Frequency range IC-F3161T/S 136-174MHz IC-F4161T/S 400-470MHz 450-520MHz Number of channels : 512 channels/128 zones

· Channel spacing : 12.5kHz/25kHz. 15kHz/30kHz.

6.25kHz (option)

• PLL channel step : 2.5kHz, 3.125kHz

• Antenna impedance : 50Ω

• 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/1.8A (at 5W/5W)

Receive stand-by 100mA

150mA (With UT-126H)

rated output 600mA

• Dimensions (with BP-232N): 53 (W) ×136 (H) ×38.9 (D) mm; (projections are not included) $2\frac{3}{32}$ (W) $\times 5^{11}\frac{3}{32}$ (H) $\times 1^{17}\frac{3}{32}$ (D) in · Weight (approx.) : 338g; 11.9oz (with BP-232N)

TRANSMITTER

: 5W (VHF), 5W (UHF) Output power

• Max. frequency deviation: ±5kHz (Wide)

±2.5kHz (Narrow)

• Frequency error : ±1.0ppm • Spurious emissions : 75dB typ.

• Adjacent channel power : 80dB typ. (Wide), 70dB typ.(Narrow) FM Hum and Noise : 46dB typ. (Wide), 40dB typ. (Narrow) • Audio harmonic distortion: 3% typ. (AF 1kHz, 40% deviation) Modulation limiting : 60-100% of max. deviation

External microphone connector :

9-pin multi connector/ 2.2kΩ

Measurements made in accordance with EIA-152C/204D, TIA-603 for analog. All stated specifications are subject to change without notice or obligation.

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RECEIVER • Intermediate frequency : 46.35MHz/450kHz (1st/2nd)

FM (W, N) Sensitivity : 0.25µV typ. (at 12dB SINAD)

Digital : 0.20µV typ. (at 5% BER) Squelch sensitivity : 0.25µV typ. (at threshold)

• Adjacent channel selectivity: 75dB typ. (Wide), 68dB typ. (Narrow)

 Spurious response : 70dB min. Intermodulation : 74dB tvp.

· Hum and noise ratio : 46dB typ. (Wide), 40dB typ. (Narrow)

 Audio output power : 500mW typ.

(at 5% distortion with an 8Ω load)

External speaker connector: 9-pin multi connector/ 8Ω

Applicable U.S. Military Specifications & IP Rating

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

| Standard | MIL 810F | | | |
|-------------------|----------|-----------|--|--|
| Standard | Method | Procedure | | |
| Low Pressure | 500.4 | I, II | | |
| High Temperature | 501.4 | I, II | | |
| Low Temperature | 502.4-3 | 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 | I | | |
| Shock | 516.5 | I, IV | | |
| 11 | | | | |

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

Ingress Protection Standard Dust & Water IP55 (Dust-protection and water iet resistance)



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