



VHF AND UHF DIGITAL TRANSCEIVERS

IC-F3230DT

VHF Transceiver with Full Keypad

IC-F4230DT

UHF Transceiver with Full Keypad

IC-F3230DS

VHF Transceiver with Simple Keypad

IC-F4230DS

UHF Transceiver with Simple Keypad

IDAS™ Multi-site Trunking Radio with Superior Waterproof Protection



IDAS™ digital mode operation

The IC-F3230D series provides NXDN™ CAI-based IDAS digital mode operation. It is compatible with IDAS multi-site and single-site trunking and IDAS multi-site conventional.

IP67 waterproof and dust-tight protection

The IC-F3230D series provides outstanding protection against water and dust equivalent to IP67. The IC-F3230D series can withstand 1 m depth of water for 30 minutes and its dust-tight construction prevents the ingress of powder dust, sand, mud and other objects.

Easy to hear in noisy areas

The built-in bridge-tied load (BTL) amplifier delivers a powerful 1000 mW* audio output from the large speaker. In addition, the digital modulation provides distinct clarity even at the fringes of the communication range.

* Typical with internal speaker

Channel announcement

When you change the operating channel, the radio announces the channel number. Convenient for making radio adjustments without having to look at the radio.

8-character LCD

An 8-character alphanumeric LCD with user-friendly icons shows a variety of information and operating status such as caller's name, received message, etc.

Roaming scan

In the multi-site trunking mode, if the signal condition worsens as the radio user moves, the roaming scan automatically finds a new site to retain the communication link and quality.

IDAS™ digital mode features

- Up to 500 individual and up to 500 group ID aliases (Each for single-site/multi-site/conventional)
- PTT ID and ANI
- Status
- Radio check (RX)
- Call alert
- Emergency
- ATB (All Trunks Busy) ring back
- SDM (Short Data Message)
- RAN (Radio Access Number)
- Stun/kill/revive (RX)
- Remote monitor (RX)
- Digital voice scrambler

* TX: Transmit, RX: Receive

Other features

- CTCSS/DTCS encoder/decoder*
- Up to 128 memory channel with 8 zones
- Optional HM-168LWP, waterproof speaker-mic
- Low battery alert
- Voting scan
- Talk around function
- Surveillance function
- 2-step power save
- Time out timer
- Lone worker function
- Forced narrow function*

* Analog mode only.

Note: IC-F3230DT/F4230DT is NOT available in some countries. (Not available in the USA.)



IC-F3230DS

IC-F4230DT



SPECIFICATIONS

	IC-F3230DT/DS	IC-F4230DT/DS
GENERAL		
Frequency coverage (MHz)	136-174	350-400, 400-470 450-512, 450-520
Number of channels	128 channels/8 zones	
Type of emission	16K0F3E*/11K0F3E/8K50F3E/4K00F1E/F1D	
Channel spacing	25*/12.5/6.25 kHz	
Power supply requirement	7.5 V DC nominal	
Current drain TX (approx.)	1.3 A (High)	
RX (approx.)	400 mA/100 mA (Max. audio/Standby)	
Antenna impedance	50 Ω	
Operating temperature range	-30 °C to +60 °C; -22 °F to +140 °F (Radio specifications)	
Dimensions (W × H × D)	53 × 120 × 37 mm; 2.1 × 4.7 × 1.5 in (With BP-232WP)	
(Projections not included)		
Weight (approx.)	340 g; 12 oz (With MB-94R, BP-232WP & antenna)	
TRANSMITTER		
Output power (at 7.5 V DC)	5 W, 2 W, 1 W (Hi, L2, L1)	4 W, 2 W, 1 W (Hi, L2, L1)
Max. frequency deviation	±5.0/±2.5 kHz (Wide/Narrow)	
Frequency stability	±1.0 ppm	
Spurious emissions	75 dB typ.	
FM Hum and Noise	52/46 dB typ. (W/N)	46/40 dB typ. (W/N)
Audio harmonic distortion	1.0/2.0% typ. (AF 1 kHz 40% deviation, W/N)	
FSK error	2% typ.	
Ext. microphone connector	3-conductor 2.5 (d) mm (1/10")/2.2 kΩ	
RECEIVER		
Sensitivity (Analog 12 dB SINAD)	0.23 μV typ.	0.24 μV typ.
(Digital 5% BER)	0.18 μV typ.	0.18 μV typ.
Adjacent channel selectivity	77/71/58 dB typ. (W/N/D)	74/67/58 dB typ. (W/N/D)
Spurious response rejection	90 dB typ.	80 dB typ.
Intermodulation rejection	75/75/70 dB typ. (W/N/D)	76/76/72 dB typ. (W/N/D)
Hum and noise	48/42 dB typ. (W/N)	46/40 dB typ. (W/N)
Audio output power	1000 mW typ. (Internal speaker)	
(at 5% distortion, 8 Ω load)	400 mW typ. (External speaker)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/8 Ω	

Measurements made in accordance with EIA/TIA-603.

All stated specifications are subject to change without notice or obligation.
 * 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25 kHz bandwidth.

Applicable U.S. Military Specifications & IP Rating

Standard	MIL 810G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-C
Solar Radiation	505.5	I
Rain Blowing/Drip	506.5	I, III
Humidity	507.5	II
Salt Fog	509.5	-
Dust Blowing	510.5	I
Immersion	512.5	I
Vibration	514.6	I
Shock	516.6	I, IV

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

Ingress Protection Standard (IC-F3230DT/DS, F4230DT/DS with BP-232WP)	
Dust & Water	IP67 (Dust-tight and waterproof protection)

Supplied accessories: (* May differ or not supplied according to version)		
• Battery pack, BP-232WP	• Belt clip, MB-94R	• Antenna
• Desktop charger, BC-160*	• AC adapter, BC-145SA/SE*	

OPTIONS

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

BATTERY PACK AND CASES

IP67




BP-232WP BP-240 BP-261

Battery packs and cases	Type	Capacity	Operating time*
BP-232WP	Rechargeable Li-ion battery	2250 mAh (min.) 2300 mAh (typ.)	19/17 hours (VHF/UHF)
BP-240	LR03 (AAA) batteries × 6		-
BP-261	LR6 (AA) batteries × 6		-

* Approx. Tx: Rx: standby = 5:5:90. Power save function ON.

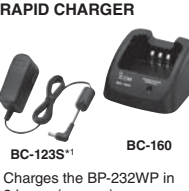
REGULAR CHARGER



BC-147S*1 BC-171

Charges the BP-232WP in 8-10 hours (approx.).

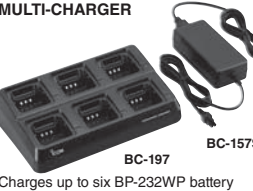
RAPID CHARGER



BC-123S*1 BC-160

Charges the BP-232WP in 3 hours (approx.).

MULTI-CHARGER



BC-197

Charges up to six BP-232WP battery packs in 3.5 hours (approx.).

*1 BC-123/BC-147SA for USA plug. SE for Europe plug. SV for Australia plug.

SPEAKER-MICROPHONES

IP67



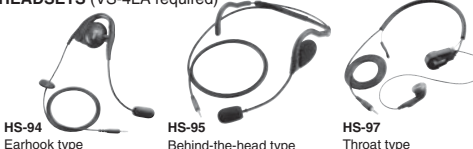
HM-168LWP HM-158LA HM-159LA

EARPHONE-MICROPHONE



HM-166LA

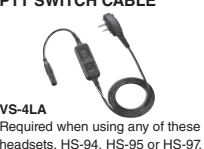
HEADSETS (VS-4LA required)



HS-94 HS-95 HS-97

Earhook type Behind-the-head type Throat type

PTT SWITCH CABLE



VS-4LA

Required when using any of these headsets, HS-94, HS-95 or HS-97.

BELT CLIPS



MB-93 MB-94R

Swivel type Alligator type
Same as supplied.


LEATHER BELT HANGERS



MB-96N MB-96F MB-96FL

Swivel type Fixed type Long type

CHARGER BRACKET



MB-130

For use with BC-160

CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLE



CP-23L OPC-656

For use with BC-160 For use with BC-197

STUBBY ANTENNAS

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

CUT ANTENNAS

- FA-SC61VC: 136-174 MHz
- FA-SC61UC: 380-520 MHz

HIGH GAIN ANTENNAS

- FA-SC62V: 150-160 MHz
- FA-SC63V: 155-165 MHz

ANTENNAS

- FA-SC25V: 136-150 MHz
- FA-SC55V: 150-174 MHz
- FA-SC25U: 400-430 MHz
- FA-SC57U: 430-470 MHz
- FA-SC72U: 470-520 MHz
- FA-SC01U: 350-400 MHz
- FA-SC03U: 380-430 MHz

CHARGER ADAPTER

- AD-122

AD-122 charger adapter is supplied with the BC-197, depending on BC-197's version.

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