

UHF DIGITAL TRANSCEIVERS

ID-31A (U.S.A.)

ID-31E (Europe)


The photo shows ID-31A (left) and ID-31E (right).

Icom proudly announces the debut of a new 5W UHF digital transceivers, ID-31A and ID-31E. The ID-31A/E has a completely new mechanical, electronic and software design packed into 25.4mm (1 inch) depth slim, compact chassis protected with IPX7 submersible construction.

The built-in GPS receiver shows your current position and altitude for GPS position reporting function and the GPS log function tracks your movement. The ID-31A/E has a micro SD card slot which can be used for storing GPS log, voice memory and memory contents to a connected micro SD card.

The large full dot-matrix display, directional keypad and quick menu button also ease the usability. Accessing D-STAR (Digital Smart Technology for Amateur Radio) repeater has been made even easier.

SELLING POINTS

- 25.4mm (1 inch) depth slim and compact body
- IPX7 submersible construction
- Built-in GPS shows current position and altitude for GPS position reporting
- GPS log function tracks your movement
- Micro SD card slot for recording voice of incoming and outgoing calls, GPS log, memory contents to a connected micro SD card
(Micro SD card is not supplied from Icom)
- Large dot-matrix display and directional keypad
- Total 1252 memory channels including 500 regular, 700 D-STAR repeater memories, 50 scan edges and 2 call channels
- Cloning software CS-31 is supplied with the ID-31A/E

FEATURES

Lightweight & compact body

The ID-31A/E has a compact 58×95×25.4 mm body, and weighs only 225g (approx.) with battery pack and antenna. It's a truly palm-size, 5W radio.

IPX7 submersible construction

The ID-31A/E provides superior waterproof protection equivalent to IPX7 (1m depth of water for 30 minutes). It can be used in harsh outdoor environments, when hiking, mountain biking, touring and mountain sports.

D-STAR DV mode (Digital Voice + data)

The ID-31A/E is compatible with the JARL D-STAR format. The D-STAR DV mode has lots of advantages over the analog FM mode: digitally modulated clear voice, quiet stand-by, individual calling using a call sign and access to the world wide repeater network linked with the Internet.

Built-in GPS receiver

The built-in GPS receiver shows your current position and altitude on the display and offers a position reporting function in DV mode. The GPS log function logs your position information at regular intervals (1 second–60 seconds, depending on the setting) and memorizes this in the micro SD card to export to your PC. In addition, the GPS-A mode assists in easy D-PRS mode operation.



Own (My) position information



Built-in GPS
(Photo shows transparent image)

Micro SD card slot

When used with a micro SD card (Up to 32GB), the micro SD card can record and play incoming and outgoing calls, and can store various contents including GPS log data, memory channels, D-STAR repeater memories and other personal settings. Used with the supplied software, CS-31, memory channels, D-STAR repeater memories and personal settings can be customised.

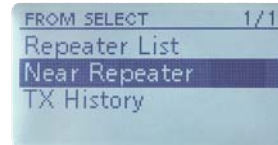


micro SD slot

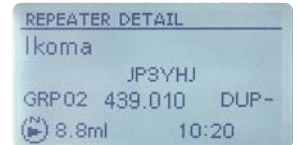
Automatic repeater list-up function

Using the GPS position information, the automatic repeater list-up function shows the list of nearby D-STAR repeaters from the memory* and helps you to access the nearby D-STAR repeater.

* To use the automatic repeater list-up function, the position data of the repeater is required. The ID-31A/E will be shipped with D-STAR repeater memories pre-programmed, but the position data of some D-STAR repeaters may not be available.



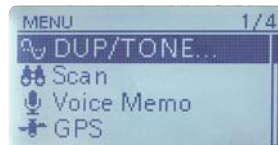
Nearest Repeater function shows the repeaters around the area.



Repeater detail shows the distance and direction to the repeater.

Full dot-matrix display and directional keypad

The large full dot-matrix display with easy-to-read characters increases the amount of information available to you. The directional keypad and quick menu button help you with quick and intuitive access to many settings and speeds up the operation. The LCD and keypad backlighting give you handy for night time operation.



Icons are used in functions menu



Directional Keypad
Quick Menu

Total 1252 memory channels

The ID-31A/E has a total 1252 memory channels (including 500 regular channels, 700 D-STAR repeater (DR) memories, 50 scan edges and 2 call channels) with 26 memory banks. All memory channels, program scan can edges and memory banks can be named with 8-character channel comments.

5W output power

Using a highly-efficient PA amplifier, the ID-31A/E generates 5W of RF output power from this compact body. The supplied BP-271 provides up to 4.5 hours* of operating time, and the optional large capacity battery pack, BP-272 provides up to 7.5 hours* of operating time. When you don't need full power operation, you can reduce output power to 2.5/0.5/0.1W for saving battery consumption. * Typical operation with 1:1:8 duty cycle in DV mode. (Power save ON.)

FEATURES

Multiple scan functions

The ID-31A/E supports various scan types for maximum reception and ease of use.

- Full scan
- Programmed scan
- Duplex scan
- Memory scan
- Mode memory scan
- All bank scan
- Selected bank scan
- Tone scan
- Bank link scan (DMS)
- Program scan link
- Skip scan

CS-31 cloning software supplied with ID-31A/E

The CS-31 cloning software* is supplied with the ID-31A/E (supplied with the application CD). Used with this software, various settings including the memory channels, D-STAR repeater memories and other settings can be made from a PC. The latest version of the CS-31 will be available from the Icom web site.

* Either optional OPC-2218LU USB cloning cable or a micro SD card is required for transferring the data.

External DC power jack

An external DC power jack allows for operation with an external DC power supply (10–16V DC). When used with the CP-19R, CP-12L or OPC-254L/LR, simultaneous operation during charging is possible.

* When more than 14V volts is applied, the power protection function reduces the output power to Mid level (2.5W).

Other digital features

- One touch reply function
- Digital squelch functions: digital code squelch and digital call sign squelch
- DR (D-STAR Repeater) mode
- Automatic speech function announces the received call sign

Other features

- Analog FM mode
- Built-in CTCSS/DTCS encoder and decoder (for analog FM)
- Automatic repeater function* automatically turns on/off duplex operation and tone encoder (* USA, Korea and Export versions only)
- 16 DTMF memory channels (24 digits)
- Auto power save
- Auto power off
- Clock function
- Priority watch
- Key lock function
- CI-V level converter for remote radio control
- Squelch release function to monitor a weak signal.

SPECIFICATIONS

Specifications described below are target values. They may be subject to change.

■ GENERAL

- Frequency coverage : (Unit: MHz)

Version	Transmit	Receiver
EUR	430–440	430–440
UK	430–440	430–479*1
ITR	430–434, 435–438	430–434, 435–438
USA	420–450*2	400–479*2
EXP	400–479*1	400–479*1
EXP-01	430–440	400–479*1
AUS	420–450*1	400–479*1
KOR	430–440	430–440

*1 Guaranteed range 430–440MHz

*2 Guaranteed range 440–450MHz

- Type of emission : F2D, F3E, F7W
- Mode : DV, FM, FM-N
- No. of memory channels: 1252 channels (including 500 regular channels, 700 D-STAR repeater memories, 50 program scan edges and 2 call)
- Frequency resolution : 5, 6.25, 10, 12.5, 15, 20, 25, 30, 50, 100, 125 and 200kHz
- Operating temp. range : –20°C to +60°C;
–4°F to +140°F
- Frequency stability : ±2.5ppm (–20°C to +60°C on the basis of 25°C)
- Power supply requirement : 7.4V DC (with BP-271)
External DC power 10–16V DC
Alkaline cells 5.5V (with BP-273)
- Current drain (at 7.4V DC):
Tx High Less than 2.5A
Rx Internal SP (16Ω) Less than 450mA (DV)
Less than 350mA (FM, FM-N)
External SP (8Ω) Less than 300mA (DV)
Less than 200mA (FM, FM-N)
- Antenna impedance : 50Ω (SMA)
- Dimensions (W×H×D) : 58×95×25.4 mm
(projections not included) 2.28×3.74×1 in
- Weight (approx.) : 140g; 4.94oz (without battery pack)
225g; 7.94oz (with BP-271 & antenna)

■ TRANSMITTER

- Modulation system :
DV GMSK reactance modulation
FM, FM-N FM reactance modulation
- Output power : 5W, 2.5W, 0.5W, 0.1W
(at 7.4V DC) (High, Mid, Low, S-low)
- Spurious emissions : Less than –60dBc (High, Mid)
Less than –13dBm (Low, S-low)
- Max. freq. deviation : ±5.0/2.5kHz (FM/FM-N)
- Ext. Mic impedance : 2.2kΩ

■ RECEIVER

- Intermediate frequency: 46.35MHz, 450kHz (1st, 2nd)
- Sensitivity :
DV (at 1% BER, 4.8kbps) Less than 0.28μV
FM (at 12dB SINAD, 3.5kHz DEV) Less than 0.18μV
FM-N (at 12dB SINAD, 1.75kHz DEV) Less than 0.18μV
- Selectivity :
DV More than 50dB
FM More than 55dB
FM-N More than 50dB
- Spurious rejection : More than 60dB
- Audio output power (at 7.4V DC, 10% distortion):
Internal SP (16Ω load) More than 400mW
External SP (8Ω load) More than 200mW
- AF output impedance :
Internal SP 16Ω load
External SP 8Ω load

OPTIONS

■ BATTERY PACKS AND CASE

- BP-271 : 7.4V/1150mAh (min.), 1200mAh (typ.) Li-Ion battery. Operating time: 4.5 hours in FM and DV mode. (Typical operation in 1:1:8 duty cycle) Same as supplied. **(New item)**
- BP-272 : 7.4V/1880mAh (min.), 2000mAh (typ.) Li-ion battery. Operating time: 8 hours in FM mode and 7.5 hours in DV mode. (Typical operation in 1:1:8 duty cycle) **(New item)**
- BP-273 : Battery case (LR6 (AA) × 3). **(New item)**



■ BATTERY CHARGERS

- BC-167S : Wall charger (BC-167SA/SD/SV versions available) Provides 12V/500mA output. Charges the BP-271 in 6 hours (approx.). Same as supplied.
- BC-202 : Rapid desktop charger. Charges the BP-271 in 2 hours (approx.). **(New item)**
- + BC-123S : AC adapter (BC-123SA/SE versions available). AC adapter is supplied with the BC-202, depending on version.



■ POWER SUPPLY CABLES

- CP-19R : Cigarette lighter cable with DC-DC converter.
- CP-12L : Cigarette lighter cable with noise filter.
- OPC-254L/LR: DC power cable. For use of the transceiver with an external power supply. (12V DC required)

■ CLONING SOFTWARE AND CABLE

- CS-31 : Cloning software for ID-31A/E. (Supplied with ID-31A/E) Allows memory channels and other settings from a PC. **(New item)**
- OPC-2218LU : Cloning cable (USB type). **(New item)**



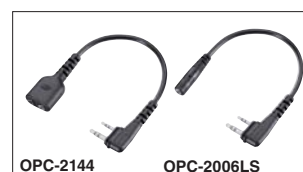
■ SPEAKER-MICROPHONES & EARPHONE

- HM-75LS : Remote control speaker microphone with slim L-type connector. Allows you to remotely select operating channel according to programming. **(New item)**
- HM-186LS : Compact type speaker microphone with slim L-type connector. **(New item)**
- HM-153LS : Durable type earphone microphone with slim L-type connector. **(New item)**
- HM-166LS : Light type earphone microphone with slim L-type connector. **(New item)**
- SP-13 : Earphone. OPC-2144 is required.
- OPC-2144 : Slim L-type plug adapter cable (Regular 2-pin connectors to slim L-type 2-pin connectors) **(New item)**



■ HEADSETS

- HS-94 : Earphone-headset (Use with OPC-2006LS)
- HS-95 : Behind-the-head headset (Use with OPC-2006LS)
- HS-97 : Throat microphone (Use with OPC-2006LS)
- OPC-2006LS : Plug adapter cable. OPC-2006LS is required when using the HS-94, HS-95 and HS-97. **(New item)**



■ BELT CLIP

- MB-127 : Alligator type. Same as supplied.

■ CARRYING CASE

- LC-178 : Helps protect the transceiver from scratches. **(New item)**



■ ANTENNAS & ANTENNA ADAPTER

- FA-S270C : UHF antenna. Same as supplied.
- AD-92SMA : SMA-BNC antenna connector adapter.

■ CI-V LEVEL CONVERTER

- CT-17 : For remote transceiver control from a PC equipped with an RS-232C port.

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