ICOM

VHF/UHF DIGITAL TRANSCEIVER
ID-51E

The Digital Evolution Continues

Digital (D-STAR DV Mode)
Dualwatch
GPS
Waterproof
Broadcast Radio

Actual size

DIGITAL
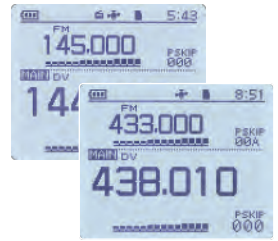
Compact & Versatile Multi-F

Compact Dual Bander

▶ Lightweight & Compact Body

The ID-51E has a compact 58×105.4×26.4 mm body, and weighs only 255g (approx.) with battery pack and antenna. In this slim body, the ID-51E contains 5W output power, VHF/UHF dual band, D-STAR and integrated GPS receiver.

95 mm

105.4 mm

ID-31E   **ID-51E**

▶ V/V, U/U, V/U Dualwatch

The dualwatch function monitors VHF/VHF, UHF/UHF and VHF/UHF bands simultaneously.* The audio and squelch levels can be set separately for the main and sub-bands.

*DV/DV, AM/AM, FM-N/FM-N and DV/FM-N modes dualwatch not available.
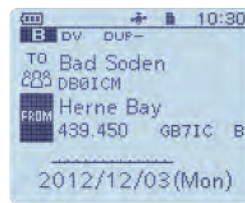
V/V, U/U Dualwatch example

D-STAR DV Mode

▶ D-STAR DV Mode (Digital Voice + Data)

The D-STAR (Digital Smart Technology for Amateur Radio) DV mode is the leading amateur radio digital format.

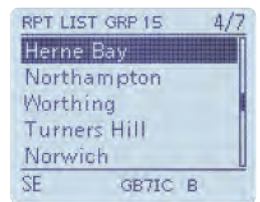### ▶ DR (D-STAR Repeater) Mode Operation

The DR (D-STAR repeater) mode operation allows you to connect to D-STAR repeaters and users more effortlessly. In this mode, just two simple steps are needed.

DR Mode example

▶ 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 quickly access the nearby D-STAR repeater.

Repeater list example

* To use the automatic repeater list-up function, the position data of the repeater is required. The ID-51E will be shipped with D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be available.

Convenient Functions

▶ Independent AM/FM Receiver

FM and AM broadcast stations can be listened to while using the dualwatch function for monitoring ham bands. When a ham band signal is received, the broadcast station is automatically muted.

Broadcast radio example

▶ Voice Memory Function*

The QSO recorder function records incoming and outgoing calls. The voice recorder function can record an off-line conversation. The recorded voice message can be transmitted repeatedly. (Up to 60 seconds × 1 channel) * microSD card required.
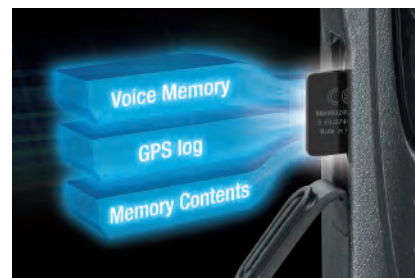
Voice recorder example

▶ microSD Card Slot

When used with a microSD card (Up to 32GB), the microSD card can store various contents including voice memory, DV auto reply message, TX voice message, QSO log, RX history log and GPS log data. Memory channels, D-STAR repeater memories and other personal settings can be saved to the microSD card and can be loaded to the ID-51E transceiver.

▶ SPEECH Function

The SPEECH function announces the received call sign (DV Mode), operating frequency, and/or mode. (Depends on users settings.)

VHF/UHF DIGITAL TRANSCEIVER

ID-51E 5w

Function Digital Transceiver

Integrated GPS

▶Integrated GPS Receiver

The integrated GPS receiver provides fast start-up time and accurate position. Your current position and altitude are shown on the display and offers a position reporting function in DV mode. The GPS-A mode assists in easy D-PRS operation.
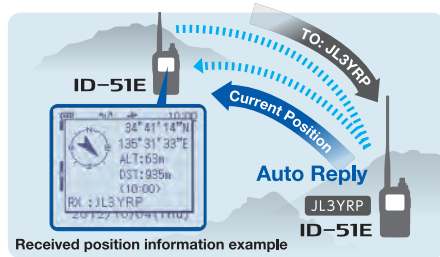
GPS receiver transparent image

▮ Automatic Reply Function (DV Mode)

When receiving a call addressed to your call sign, the ID-51E can automatically reply your current position information*. Between ID-51E's communication, replied position information can pop up on the caller's display.

* Function not available on all D-STAR networks.

TO: JL3YRP
Current Position
Auto Reply
JL3YRP
ID-51E

Received position information example

▮ GPS Log Function*

The GPS log function logs your position information at regular intervals (1 second–60 seconds, depending on the setting) and memorizes this in the microSD card to export to your PC. The GPS logger only mode turns on the GPS logger function with the radio in sleep mode.

* microSD card required.

Durability and Easy Operation

▶IPX7 Waterproof Construction

The ID-51E has superior IPX7 waterproof protection (1m depth of water for 30 minutes). It can be used in harsh outdoor environments, when hiking, mountain biking, touring and mountain sports.

▶Menu-Driven User Interface

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

Other Features

▶5W Output Power

Using a highly-efficient PA amplifier, the ID-51E generates 5W of RF output power from this compact body.

▶Direct Rapid Charging

Recharge the ID-51E by plugging the supplied wall charger directly in the radio. The BP-271 can be charged in 3 hours (approx.) when the power is OFF.

▶Long Lasting Battery Pack

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*.

* Typical operation with 1:1:8 duty cycle in DV mode. (Power save ON.)

▶CS-51 Cloning Software Supplied

The CS-51 cloning software is supplied with the ID-51E for editing various memory settings from a PC. (Supplied with the application CD)

• Total 1,304 memory channels including 700 D-STAR repeater memories
• Analog FM mode with CTCSS/DTCS code squelch
• 1750Hz tone signal
• 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
• External DC power jack
• Earphone code antenna for FM broadcast
• LCD and keypad backlighting
• VHF air band and other utility communication can be listened to*
  * See specifications page for receiver range details.

SPECIFICATIONS

GENERAL

• Frequency coverage (Unit: MHz)

Version	Transmit	Receiver	Broadcast
EUR	144-146, 430-440	(A) 144-146, 430-440	0.52-1.71
		(B) 144-146, 430-440	76.0-108.0
UK	144-146, 430-440	(A) 136-174, 380-479*¹	0.52-1.71
		(B) 108-174, 380-479*¹	76.0-108.0
ITR	144-146, 430-434, 435-438	(A) 144-146, 430-434, 435-438	0.52-1.71
		(B) 108-136.995, 144-146, 430-434, 435-438*²	76.0-108.0

(A) means A Band, (B) means B band.
Guaranteed range: *¹ 144-146, 430-440MHz. *² 144-146, 430-434, 435-438MHz.

• Type of emission	F2D, F3E, F7W
• Mode	DV, FM, FM-N
• Number of memory channels	1304 channels (including 500 regular channels, 700 D-STAR repeater, 100 program scan edges and 4 call)
• Frequency resolution	1*, 5, 6.25, 8.33*, 9*, 10, 12.5, 15, 20, 25, 30, 50, 100, 125 and 200kHz * Selectable depending on the operating band.
• Operating temperature 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 Alkaline cells External DC power	7.4V DC (with BP-271, BP-272) 5.5V DC (with BP-273) 10–16V DC
• Current drain (at 7.4V DC) Tx High Rx Internal SP (16Ω) External SP (8Ω)	 Less than 2.5A Less than 450mA/350mA (DV/FM, FM-N) Less than 300mA/200mA (DV/FM, FM-N)
• Antenna impedance	50Ω (SMA)
• Dimensions (W×H×D, projections not included)	58×105.4×26.4 mm; 2.28×4.15×1.04 in
• Weight (approx.)	170g; 6oz (without battery), 255g; 8.99oz (with BP-271 & antenna)

TRANSMITTER

• Modulation system DV, FM, FM-N	GMSK reactance modulation, FM reactance modulation
• Output power (at 7.4V DC)	5W, 2.5W, 1.0W, 0.5W, 0.1W (High, Mid, Low2, Low1, S-low)
• Spurious emissions	Less than –60dBc (High, Mid), Less than –13dBm (Low2, Low1, S-low)
• Max. frequency deviation	±5.0/2.5kHz (FM/FM-N)
• Ext. Mic impedance	2.2kΩ

RECEIVER

• Sensitivity DV, FM, FM-N	Less than 0.28μV (at 1% BER) Less than 0.18μV (at 12dB SINAD)

• Selectivity DV
   FM
   FM-N
	More than 50dB
	More than 55dB
	More than 50dB

• Spurious rejection	More than 60dB
• Audio output power Internal SP (16Ω load) External SP (8Ω load)	(at 7.4V DC, 10% distortion) More than 400mW More than 200mW

Supplied accessories (*Depending on version)
• Battery pack, BP-271   • Wall charger, BC-167SA/SD/SV*
• Antenna, FA-S270C   • Belt clip, MB-127
• Cloning software, CS-51 • Hand strap

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

BATTERY PACKS AND CASE

BP-271   BP-272   BP-273

Battery packs	Type	Capacity	Operating time* (Approx.)
BP-271	Li-ion, 7.4V	1150mAh (min.), 1200mAh (typ.)	4.5hours (DV/FM)
BP-272	Li-ion, 7.4V	1880mAh (min.), 2000mAh (typ.)	7.5hours (DV/FM)
BP-273	LR6 (AA) batteries×3		–

* Tx: Rx: standby = 1:1:8. Power save function ON. GPS OFF.

WALL CHARGER

BC-167S *¹

RAPID CHARGER

BC-202
Charges BP-271/BP-272
in 2/3.5 hours.   BC-123S *¹

DC POWER CABLE

OPC-254L/LR

CIGARETTE LIGHTER CABLES

CP-12L

CP-19R

*¹ BC-167SA for 120V AC, SD for 230V AC, SV for 240V AC.
*² BC-123SA for 120V AC, SE for 230V AC.

SPEAKER-MICROPHONES

HM-75LS   HM-186LS

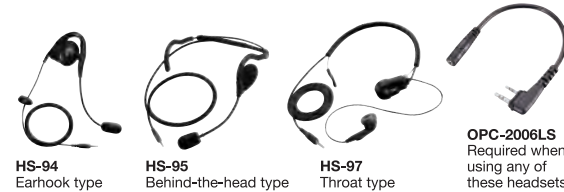### EARPHONE-MICROPHONES

HM-153LS   HM-166LS

SLIM L-TYPE PLUG ADAPTER CABLE

OPC-2144
Required when using either
HM-75A, HM-153,
HM-166 or SP-13.

HEADSETS and PLUG ADAPTER CABLE

HS-94
Earhook type

HS-95
Behind-the-head type

HS-97
Throat type

OPC-2006LS
Required when using any of these headsets

DATA CABLE

OPC-2218LU
USB cable

CI-V LEVEL CONVERTER

CT-17

CARRYING CASE

LC-179

SILICONE JACKET CASE

SJ-1

FA-S270C VHF/UHF ANTENNA
Same as supplied.

AD-92SMA ANTENNA ADAPTER
SMA-BNC antenna adapter.

SP-13 EARPHONE
OPC-2144 is required.

CS-51 CLONING SOFTWARE
Same as supplied.

MB-127 BELT CLIP
Same as supplied.

All stated specifications are subject to change without notice or obligation.
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