ICOM

ID−5100E

Innovation and Mobility
Taken to the Next Level

Touch Screen Operation
DV/DV Dualwatch
Integrated GPS Receiver

DV/FM Repeater List

D-STAR DV Mode

Bluetooth®

Android™

DIGITAL

Innovation and Mobility
Taken to the Next Level

* Above photo shown with optional MBF-1 mount base and MBA-2 controller bracket. Some photos (screen shots) shown with optional UT-133 Bluetooth® unit installed.

Intuitive Touch Screen Operation

The intuitive touch screen interface provides quick and smooth operation. The large 5.5 inch display (320 × 128 pixels) responds naturally to the touch allowing you to change settings, enter frequencies, edit memory channels with ease.
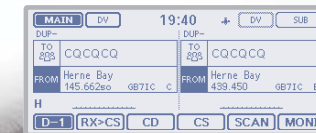
Qwerty keyboard example

Vehicle installation example
(Using optional MBF-1 mount base and MBA-2 controller bracket)

DV/DV Dualwatch

The ID-5100E can receive both FM/FM and FM/DV mode signals simultaneously. Two DV mode signals can be monitored for receive on either channel. You can check other repeaters or other channel activities while waiting for the main repeater.

* Main band audio has priority, if two DV signals come in at the same time.

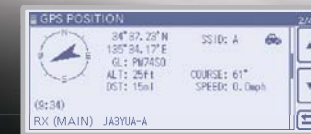DV/DV dualwatch (DR function) example

FM/DV dualwatch (DR function) example

FM/DV dualwatch example

Integrated GPS Receiver

The ID-5100E has an integrated GPS receiver in the controller and shows own position, course, speed and altitude on the display. The GPS position information can be used for exchanging position reports, tracing the GPS log and searching for nearby repeater sites.
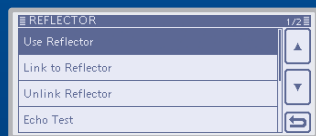
Received position information example

DV/FM Repeater List Function

The DV/FM repeater list function assists you in accessing nearby repeaters, even when you are visiting an area for the first time. The function searches for a nearby repeater using the repeater memories and GPS position information.

* To use the automatic repeater list function, the position data of the repeater is required. The ID-5100E will be shipped with a limited number of repeater memories preprogrammed.

Dplus Reflector Linking

Dplus reflector link commands are added to the DR function to allow easy reflector operation. Use Reflector, link/unlink to Reflector, echo test and repeater information commands are selectable.

Reflector commands example

SD Card Slot for Voice and Data Storage

When used with an SD card, the SD 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, repeater memories and other personal settings can be saved to the SD card and can be loaded to the transceiver.

VS-3 Bluetooth® Headset

The optional Bluetooth® headset, VS-3 provides hands-free communication and can remotely control the ID-5100E with three programmable buttons.

* Optional UT-133 Bluetooth® unit must be installed in the ID-5100E.

Bluetooth® application image

VS-3

Android™ device

Volume UP
Volume DOWN

PTT switch

Programmable buttons
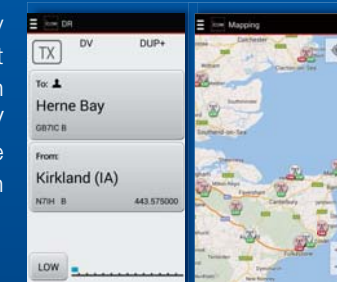
Bluetooth® unit,
UT-133 (option)

Bluetooth® headset, VS-3 (option)

RS-MS1A Android™ Application
(Free download application from Google Play™)

The RS-MS1A allows you wirelessly connect to the ID-5100E and remotely set DR functions, link with a map application and send/receive messages over the DV mode. In addition, pictures taken by the Android™ device can be transmitted in the DV Fast Data mode or DV mode.

*Optional UT-133 Bluetooth® unit must be installed in the ID-5100E.
*Some functions may not work properly, depending on Android™ phones and devices used.

DR function setting example

Repeater map example
© Google

DV Fast Data Mode*

By using data in place of voice frames, the ID-5100E can transfer data 3.5 times faster (3480 bps) than in the conventional DV mode (with voice).

* The DV Fast Data mode is not compatible with the DV mode low-speed data communication.

Steps to send a picture over the DV Fast Data mode

Take a picture using an Android™ device

Transfer the photo to the ID-5100E via Bluetooth®

ID-5100E
Transmit the photo over the DV Fast Data mode

ID-5100E
Receive the photo at the ID-5100E

View the photo on an Android™ device

Other Features

• Enhanced D-PRS functions with object, position, items and weather formats
• Convenient memory contents management using CSV format
• Speech function announces operating frequency, mode and received callsign (DV mode)
• Independent main dial, volume and SQL knobs for A/B bands
• AM airband dualwatch
• CS-5100, programming software supplied
• 50W output power on both VHF and UHF bands

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER
ID-5100E
50W VHF/UHF

SPECIFICATIONS

GENERAL

Frequency coverage		(Unit: MHz)	
	Version	Transmit	Receiver
	EUR	144−146, 430−440	118−174, 375−550*1
	ITR	144−146, 430−434, 435−438	118−136.9916, 144−146, 430−434, 435−438*2

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, AM AM (RX only), AM-N (RX only)* · Depending on version
Operating temperature range		−10°C to +60°C; +14°F to +140°F
Frequency stability		±2.5ppm (−10°C to +60°C on the basis of 25°C)
Digital TX speed		4.8kbps
Voice coding speed		2.4kbps
Antenna impedance		50Ω (SO−239)
Number of memory channels		1000 regular channels, 4 call channels, 50 program scan edges and 1200 repeater memories
Power supply requirements		13.8V DC ±15%
Current drain	RX Stand-by	1.2A
	Max. audio	1.8A (Dualwatch, with Ext. SP 8Ω load)
	TX	13.0A
Dimensions (WxHxD, projections not included)	Main unit	150×40×172.6 mm; 5.91 × 1.57 × 6.8 in
	Controller	182.2×81.5×24.7 mm; 7.17 × 3.21 × 0.97 in
Weight (approx.)	Main unit	1.3kg; 2.87 lb
	Controller	260g; 9.17 oz

TRANSMITTER

Output power		50W, 15W, 5W
Modulation system	FM, FM-N	FM reactance modulation
	DV	GMSK reactance modulation
Max. frequency deviation		±5.0kHz/±2.5kHz (FM/FM-N)
Spurious emissions		Less than −60dBc
Microphone impedance		600Ω (8−pin modular jack)

RECEIVER

Intermediate frequencies	A band	38.85MHz/450kHz (1st /2nd)
	B band	46.35MHz/450kHz (1st/2nd)
Sensitivity	FM/FM-N (12dB SINAD)	Less than 0.18µV (amateur bands only)
	DV (1% BER)	Less than 0.28µV
Receiver sensitivity (Not guaranteed, for your reference only. Except amateur bands.)	FM/FM-N (12dB SINAD)	137−159.995MHz Less than 0.32µV
		160−174.000MHz Less than 0.56µV
		375−399.995MHz Less than 0.56µV
		400−499.995MHz Less than 0.32µV
		500−550.000MHz Less than 0.56µV
	AM (10dB S/N)	118−136.9916MHz Less than 1µV
Squelch sensitivity		Less than 0.13µV (at threshold)
Selectivity	FM	More than 60dB
	FM-N	More than 55dB
	DV	More than 50dB
Spurious and image rejections	A band	More than 60/55dB (VHF/UHF)
	B band	More than 60/60dB (VHF/UHF)
Audio output power		More than 2.0W (with 8Ω load, 10% distortion)
External speaker connector		2−condcutor 3.5 (d) mm (¹/₈")/8Ω

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

Supplied accessories (* May differ, depending on version)
- Hand microphone, HM-207
- Controller cable, OPC-837 (3.5 m; 11.4 ft)
- CD (CS-5100 and instruction handbook PDF)
- DC power cable, OPC-1132
- Microphone hanger
- Spare fuse

For ID-5100E owners, the latest firmware is available for free download from:
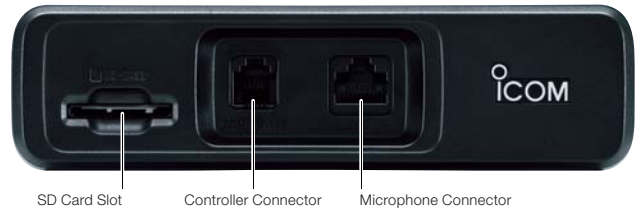**http://www.icom.co.jp/world/support/index.html**

OPTIONS

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

HAND MICROPHONES
HM-207 Same as supplied.
HM-154

EXTERNAL SPEAKERS
SP-35: 2m (6.5ft) cable,
SP-35L: 6m (19.6ft) cable
SP-30 4 inch (102.5mm) diameter speaker

MOUNTING BASE & CONTROLLER BRACKET
MBF-1 Suction cup mounting base. MBA-2 is required.
MBA-2

MOUNTING BRACKET
MBF-4 For mounting the main unit.

Bluetooth® UNIT & Bluetooth® HEADSET
UT-133
VS-3 Use with UT-133 in a pair

CI-V LEVEL CONVERTER
CT-17

CONTROLLER EXTENSION CABLE
OPC-1156 3.5m (11.4ft) cable. A modular connector is supplied.

MICROPHONE ADAPTER CABLE
OPC-589 For use with an 8-pin microphone

MICROPHONE EXTENSION CABLES
OPC-440: 5m (16.4ft)
OPC-647: 2.5m (8.2ft)

DATA COMMUNICATION CABLES
OPC-2350LU: USB cable for connection with an Android™ device or a PC.
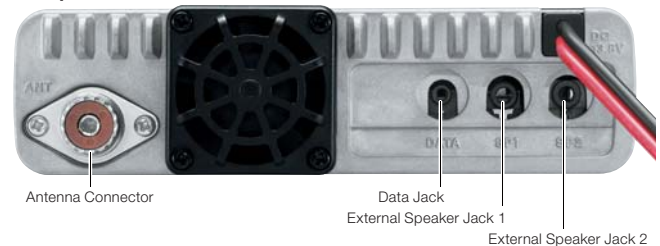
PROGRAMMING CABLE
OPC-478UC: USB type

- **RS-MS1A** Android™ APPLICATION
  Free download software. Download from Google Play™
- **OPC-1529R** DATA COMMUNICATION CABLE
  RS-232C cable for connection with a PC.
- **CS-5100** PROGRAMMING SOFTWARE
  Same as supplied.

Main unit (Front panel)

SD Card Slot   Controller Connector   Microphone Connector

(Rear panel)

Antenna Connector   Data Jack
External Speaker Jack 1
External Speaker Jack 2

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