



VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

ID-5100A

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™

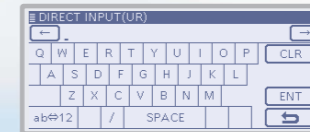
D-STAR

Innovation and Mobility Taken to the Next Level



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-5100A 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-5100A 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

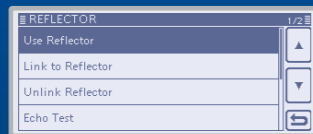
DV/FM Repeater List Function

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

* To use the automatic repeater list function, the position data of the repeater is required. The ID-5100A 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-5100A with three programmable buttons. Providing you with convenient communication in a vehicle.

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

Bluetooth® application image



Bluetooth® headset, VS-3 (option)

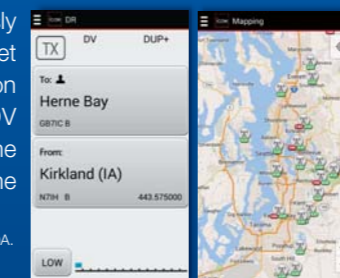


Bluetooth® unit, UT-133/A (option)

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

The RS-MS1A allows you wirelessly connect to the ID-5100A 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/A Bluetooth® unit must be installed in the ID-5100A.
* 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-5100A 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



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 call sign (DV mode)
- Independent main, 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
- Weather channel with weather alert function (USA version only)
- Auto repeater function (USA version only)
- 1500 (50 groups) repeater list entries, 300 call sign memories and 300 GPS memories
- Split tone functions in the analog mode



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

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

SPECIFICATIONS

GENERAL												
Frequency coverage	<table border="1"> <thead> <tr> <th>Version</th> <th>Transmit</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>USA</td> <td>144-148, 430-450MHz¹</td> <td>118-174, 375-550MHz¹</td> </tr> <tr> <td>EXP</td> <td>137-174, 400-470MHz²</td> <td>118-174, 375-550MHz²</td> </tr> </tbody> </table> <p><small>Guaranteed range: ¹ 144-148, 440-450MHz. ² 144-148, 430-440MHz.</small></p>			Version	Transmit	Receiver	USA	144-148, 430-450MHz ¹	118-174, 375-550MHz ¹	EXP	137-174, 400-470MHz ²	118-174, 375-550MHz ²
Version	Transmit	Receiver										
USA	144-148, 430-450MHz ¹	118-174, 375-550MHz ¹										
EXP	137-174, 400-470MHz ²	118-174, 375-550MHz ²										
Type of emission	F2D, F3E, F7W											
Mode	DV, FM, FM-N AM (RX only), AM-N (RX only)* ¹ 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 1500 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-conductor 3.5 (d) mm (1/8")/8Ω											

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

Supplied accessories (* Not supplied or may differ, depending on version)	
• Hand microphone, HM-207	• DC power cable, OPC-1132
• Controller cable, OPC-837 (3.5 m; 11.4 ft)	• Controller bracket, MBA-2*
• CD (CS-5100 and instruction handbook PDF)	• Microphone hanger • Spare fuse

For ID-5100A owners, the latest firmware and CS-5100 software can be download free from:

<http://www.icom.co.jp/world/support/index.html>

D-STAR (Digital Smart Technology for Amateur Radio) is a digital radio protocol developed by JARL (Japan Amateur Radio League).

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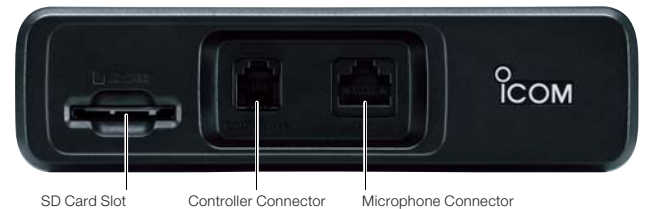
OPTIONS

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

HAND MICROPHONES  HM-209 Active noise canceling. 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/A Use with UT-133/A in a pair VS-3 Use with UT-133/A 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

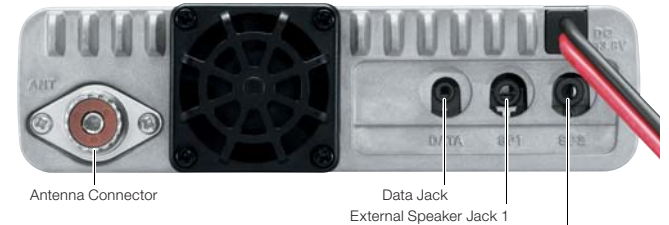
- **RS-MS1A** Android™ APPLICATION Free download software. Download from Google Play™
- **CS-5100** PROGRAMMING SOFTWARE Same as supplied.
- **OPC-1529R** DATA COMMUNICATION CABLE RS-232C cable for connection with a PC.

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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