

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

## **Innovation** and **Mobility** Taken to the Next Level

45.500



### Touch Screen Operation DV/DV Dualwatch Integrated GPS Receiver

DV/FM Repeater List D-STAR DV Mode Bluetooth® Android™



# **Innovation** and **Mobility** Taken to the Next Level



### **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.

<b>■ REFLECTOR</b>	1/2
Link to Reflector	
Unlink Reflector	
Echo Test	t)

### 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<sup>®</sup> Headset

The optional Bluetooth<sup>®</sup> 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.



### 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.

I DIRI	ЕСТ	INP	UT(	UR)	-				-	I
Œ	← <u>.</u>								$\rightarrow$	
QV	N.	E	R	Т	Υ	J	1 0	) F	٦ I	CLR
A	S	D	F	G	H	Ĵ	ĸ	L		
	Z	X	С	V	в	N	м		ſ	ENT
ab⇔	12		1	S	PAC	ΞE	Τ		] [	5

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

MAIN DV

Herne Bay 145.662mo GB7IC C

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





19:40 + DV SUB

FROM Herne Bay 439.450 GB7IC B

TO 285 CQCQCQ

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.



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

The RS-MS1A allows you wirelessly connect 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<sup>™</sup> device can be transmitted over the 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

#### TX To: 1 Herne Bay GB7IC E Kirkland (IA) N7IH B LOW Repeater map exa © Ge

### Steps to send a picture over the DV mode



an Android<sup>1</sup>

		145500 Parlie and a second
		ID-5100E
Transfer the photo to	⇒	Transmit the pho

devio via Bluetooth

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, cloning software supplied
- 50W output power on both VHF and UHF bands



5100

#### **SPECIFICATIONS**

		GENERAL				
Frequency coverage		(unit:MHz)				
	Version	Transmit	Receiver			
	EUR	144-146, 430-440	118-174, 375-550"			
	ITR	144-146.	118-136.9916, 144-146,			
		430-434, 435-438	430-434, 435-438'2			
	Guar	anteed range: "144-146, 430-4	440MHz. <sup>12</sup> 144-146, 430-434, 435-438MH			
Type of emission		F2D, F3E, F7W				
Mode		DV, FM, FM-N, AM AM (RX only), AM-N (RX only)* Depending on versio				
Operating temperature r	ange	-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 cha	nnels	1000 regular channel scan edges and 1200	s, 4 call channels, 50 prograr repeater memories			
Power supply requireme	ents	13.8C DC ±15%				
Current drain	RX Stand-by	1.2A				
	Max. audio	1.8A (Dualwatch, with Ext. SP 8Ω load)				
	TX	13.0A				
Dimensions	Main unit	150×40×172.6 mm: 5.91 × 1.57 × 6.8 in				
W×H×D, projections not included)	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				
		RANSMITTER				
Output power		50W, 15W, 5W				
Modulation system	FM, FM-N					
would for system	DV	FM reactance modulation				
Max fraguanay daviatia		GMSK reactance modulation				
Max. frequency deviatio	n	±5.0kHz/±2.5kHz (FM/FM-N) Less than -60dBc				
Spurious emissions						
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 (am	ateur bands only)			
	DV (1% BER)	Less than 0.28µV				
Receiver sensitivity	FM/FM-N	137-159.995MHz Less than 0.32µV				
(Not guaranteed, for your reference only. Except	(12dB SINAD)	160-174.000MHz Less than 0.56µV				
amateur bands.)		375-399.995MHz L				
		400-499.995MHz L				
		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					
Spurious and image		More than 50dB More than 60/55dB (VHF/UHF)				
rejections	A band					
Audio output power	B band	More than 60/60dB (VHF/UHF)				
		More than 2.0W (with $8\Omega$ load, 10% distortion) 2-condcutor 3.5 (d) mm ( $\frac{1}{8}$ )/8 $\Omega$				
External speaker conne						

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

Supplied accessories (\* May differ, depending on version)

• Hand microphone, HM-207

URL : http://www.icomcanada.com

Rua Itorof, 444 Padre Eustáquio Belo Horizonte MG, CEP: 30130-150, Brazil Phone: +55 (31) 3582 8847 Fax: +55 (31) 3582 8987 E-mail: sales@icombrazil.com

Icom Brazil

- DC power cable, OPC-1132 • Controller cable, OPC-837 (3.5 m; 11.4 ft) Microphone hanger
- CD (CS-5100 and instruction handbook PDF) Spare fuse





#### Main unit (Front panel)



SD Card Slot Controller Connector



Microphone Connector

External Speaker Jack 2

D-STAR (Digital Smart Technology for Amateur Radio) is a digital radio protocol developed by JARL (Japan Amateur Radio League). Icom, Icom Inc. and the Icom Iogo are registered trademarks of Icom Incorporated (Japan) in the United States, the United Kingdom, Germany, France, Spain, Russia, Japan and/or other countries. Android and Google Play are registered trademarks of trademarks of Google Inc. The Bluetooth word mark and Iogos are registered trademark owned by Bluetooth SIG, Inc. and any use of such marks by Icom Inc. is under license. All other trademarks are the properties of their respective holders. NEVER operate the transceiver while driving a vehicle. Safe driving requires your full attention-anything less may result in an accident.

Icom Inc. 1-1-32, Kam	i-minami, Hirano-ku, Osaka 547-0003, Jap	oan Phone: +81 (06) 6793 5302 F	ax: +81 (06) 6793 0013 <b>www.ic</b>	om.co.jp/world	Count on us!	
Icom America Inc.	Icom (Europe) GmbH	Icom (UK) Ltd.	Icom New Zealand			
12421 Willows Road NE,	Communication Equipment	Blacksole House, Altira Park,	146A Harris Road, East Tamaki,	Your local distributor/dealer:		
Kirkland, WA 98034, U.S.A.	Auf der Krautweide 24	Herne Bay, Kent, CT6 6GZ, U.K.	Auckland, New Zealand			
Phone : +1 (425) 454-8155	65812 Bad Soden am Taunus, Germany	Phone : +44 (0) 1227 741741	Phone : +64 (09) 274 4062			
Fax : +1 (425) 454-1509	Phone : +49 (6196) 76685-0	Fax : +44 (0) 1227 741742	Fax : +64 (09) 274 4708			
E-mail : sales@icomamerica.com	Fax : +49 (6196) 76685-50	E-mail : info@icomuk.co.uk	E-mail : inquiries@icom.co.nz			
URL : http://www.icomamerica.com	E-mail : info@icomeurope.com URL : http://www.icomeurope.com	URL : http://www.icomuk.co.uk	URL : http://www.icom.co.nz			
Icom Canada		Icom France s.a.s.	Asia Icom Inc.			
Glenwood Centre #150-6165 Highway 17A,	Icom Spain S.L.	Zac de la Plaine,	6F No. 68, Sec. 1 Cheng-Teh Road,			
Delta, B.C., V4K 5B8, Canada	Ctra. Rubi, No. 88 "Edificio Can Castanyer"	1 Rue Brindejonc des Moulinais, BP 45804	1. Taipei, Taiwan, R.O.C.			
Phone: +1 (604) 952-4266	Bajos A 08174, Sant Cugat del Valles,	31505 Toulouse Cedex 5, France	Phone : +886 (02) 2559 1899			
Fax :+1 (604) 952-0090	Barcelona. Spain	Phone : +33 (5) 61 36 03 03	Fax : +886 (02) 2559 1874			
E-mail : info@icomcanada.com	Phone : +34 (93) 590 26 70	Fax : +33 (5) 61 36 03 00	E-mail : sales@asia-icom.com			

### Phone: +34 (93) 590 26 70 Fax: :+34 (93) 589 26 70 Fax: :+34 (93) 589 04 46 E-mail: icom@icomspain.com URL: http://www.icomspain.com Icom Polska Sp. Z o.o.

80-286 Gdansk, Jaskowa Dolina St. 75, Poland Phone : +48 (58) 551 0484 Fax : +48 (58) 551 0470 E-mail : icompolska @icompolska.com.pl URL : http://www.icompolska.com.pl

: +33 (5) 61 36 03 00 Fax E-mail : icom@icom-france.com UBL : http://www.icom-france.com

## Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road, Clayton, VIC 3168 Australia Phone: +61 (03) 9549 7500 Fax: :+61 (03) 9549 7505 E-mail: sales@icom.net.au URL: http://www.icom.net.au

E-mail : sales@asia-icom.com URL : http://www.asia-icom.com

14GS0120 ©2014 Icom Inc.

Printed in Japan