ICOM

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

ID-4100A

Enjoy D-STAR Communication

More Actively and More Comfortably

Terminal Mode and Access Point Mode

Flexible Installation

Intuitive User Interface

Full dot-matrix LCD Bluetooth® GPS iOS™/Android™ Apps

Terminal Mode DV Gateway Access Point Mode

Bluetooth®

D-STAR

Compact, User-Friendly VHF/UHF Dual Bander Offers a Variety of Operating Styles

DV GATEWAY FUNCTIONS

Terminal Mode and Access Point Mode Expand Communication Coverage and Fun

Terminal and Access Point modes* enable you to enjoy long-distance D-STAR (Digital Smart Technology for Amateur Radio) communication through the Internet. You can access the D-STAR repeater network through the Internet, regardless of locations and conditions of nearby repeaters.

* An optional free download software, RS-MS3W is required to be installed in the PC. An optional free download application, RS-MS3A is required to be installed, in the Android™ device.

Terminal Mode

By connecting the ID-4100A to the Internet through a Windows® PC or Android™ device, the Terminal mode enables you to use a D-STAR repeater to make D-STAR gateway calls.

Access Point Mode

The Access Point mode enables another D-STAR transceiver to make D-STAR gateway calls through the ID-4100A connected to the Internet. 50 watts of output power can be used for a D-STAR access point.

Flexible Installation

Compact, Detachable Controller for Flexible Installation

The controller can be attached or detached from the main unit for flexible installation. By using the supplied OPC-837 controller cable, you can install the controller up to 3.5 meters (11.5 ft) away from the main unit.

* Vehicle installation example (Using the optional MBF-1 mount base and MBA-8 controller bracket)

User Friendly

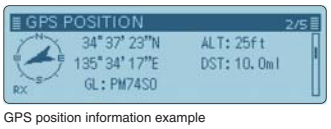
DR Function with the Latest Icom User Interface

DR (D-STAR Repeater) Function

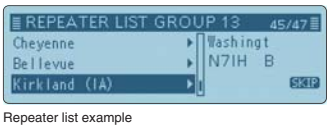
The DR function makes D-STAR communications simple. By simply selecting a destination call sign in “To”, and your access repeater in “From”, you can talk with other D-STAR users. In addition, using the reflector function, you can talk through several repeaters at once.

Easy-to-Read Full Dot-Matrix Display

To increase the amount of display information, a full dot-matrix display is used in the ID-4100A. For example, Repeater list or GPS position information are clearly arranged and easy to read.



GPS position information example



Repeater list example

DV/FM Near Repeater Search Function

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

* To use the near repeater search function, the position data of the repeater is required. The ID-4100A will be shipped with the D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be entered or exact.

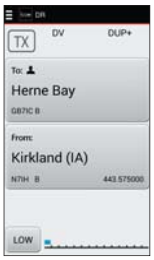
Smart Operation

Advanced Operation with a Smart device and Bluetooth®

Applications for iOS™ and Android™ devices*

The RS-MS1I (for iOS™ devices) and RS-MS1A (for Android™ devices) enable you to wirelessly connect to the ID-4100A and remotely set the DR functions, link with a map application and send/receive messages over the DV mode. In addition, pictures taken by a smart device can be transmitted via the DV Fast Data mode or DV mode.

* The optional UT-137 Bluetooth® unit must be installed in the ID-4100A. Some functions may not work properly, depending on smart devices used.



DR function setting example

Text messaging example


Sending picture example


Repeater map example

DV Fast Data Mode*

By using the data place in voice frames, the ID-4100A transfers data 3.5 times faster (3480 bps) than in the conventional DV mode (with voice).

Conventional low-speed data mode
950 bps

DV Fast data mode
3480 bps

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

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

ID-4100A

Actual size

* Installation example (Using the optional OPC-2350LU data cable and RS-MS3W software for Windows® PC)

Wireless Operation with VS-3 Bluetooth® Headset*

The optional VS-3 Bluetooth® headset provides convenient wireless communication away from the transceiver. The VS-3 remotely controls the ID-4100A with three programmable buttons.

* The optional UT-137 Bluetooth® unit must be installed in the ID-4100A.

And More

microSD Card Slot for Voice and Data Storage*

When used with a microSD card, you can store various information including voice memory, TX voice message, QSO log, RX history log and GPS log data. Memory channels and other settings can be saved and loaded into the transceiver.

* A microSD card is required separately.


microSD card slot

Integrated GPS Receiver

The integrated GPS receiver shows your own position, course, speed and altitude on the display and can be used for exchanging position reports, D-PRS and searching for nearby repeaters.

Wideband Receiver

The ID-4100A receives 118–174 and 230–550 MHz*1. You can listen to air band, marine, weather channels*2 and other VHF and UHF utility communications.

*1 Working range not guaranteed. *2 USA version only.

Selectable LCD and Key Backlight Color

The backlight color of the LCD and keys is selectable from white, green, amber or blue. Using the backlight night time setting function, the display backlight brightness can automatically be changed when the designated time comes.


Green

Amber

Blue

Other Features

- The QUICK key allows instant access to menus listing dedicated functions depending on mode
- Multiple scan functions for Memory/Bank scan, Full scan, Band scan, Program scan, Program link scan, Duplex scan Tone scan and DR scan
- 16 channels of DTMF memory (24-digit)
- CTCSS/DTCS signaling with the split tone functions (analog mode)
- 8.33 kHz air band channel reception
- Auto repeater function (USA version only)
- HM-207S remote-control hand microphone (supplied as standard)

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

ID-4100A

SPECIFICATIONS

GENERAL		
Frequency coverage		
Version	Transmit	Receive
USA	144–148, 430–450 MHz	118–174, 230–550 MHz*1
Export	137–174, 400–470 MHz*2	118–174, 230–550 MHz*2
Guaranteed range *1 144–148, 430–450 MHz, *2 144–148, 430–440 MHz.		
Type of emission	F2D, F3E, F7W	
Mode	DV, FM, FM-N, AM (RX only), AM-N (RX only)	
Operating temperature range	–10°C to +60°C; 14°F to +140°F	
Frequency stability	±2.5 ppm (–10°C to +60°C on the basis of 25°C)	
Antenna impedance	50 Ω (SO-239)	
Number of memory channels	1000 regular channels, 4 call channels, 50 program scan edges, 1500 repeater memories and 300 GPS memory	
Power supply requirement	13.8 V DC ±15%	
Current drain (approximate)	Tx	13.0 A
	Rx	1.2 A/0.9 A (Max. audio/Stand-by)
Dimensions	Main unit + Controller	150 × 40 × 171.9 mm; 5.9 × 1.6 × 6.8 in
	Controller	122 × 40 × 29.9 mm; 4.8 × 1.6 × 1.2 in
		(W×H×D, Projections are not included.)
Weight (approximate)	Main unit	1.1 kg; 2.4 lb
	Controller	100 g; 3.5 oz

TRANSMITTER	
Output power (at 13.8 V DC)	50 W, 15 W, 5 W (Hi, Mid, Low)
Max. frequency deviation	±5.0 kHz/±2.5 kHz (W/N)
Spurious emissions	Less than –60 dBc
Microphone impedance	600 Ω (8-pin modular)

RECEIVER		
Intermediate frequencies		46.35 MHz/450 kHz (1st/2nd)
Sensitivity	FM, FM-N	Less than 0.18 μV (amateur bands at 12 dB SINAD)
	DV	Less than 0.22 μV (at 1% BER)
Squelch sensitivity		Less than 0.13 μV (threshold)
Selectivity	FM/FM-N	More than 60 dB/55 dB
	DV	More than 50 dB
Spurious and image rejections		More than 60 dB
Audio output power		More than 2.0 W (10% distortion, 8 Ω load)
External speaker connector		2 conductor 3.5 (d) mm (⅛")/8 Ω
Receiver sensitivity		(Except amateur bands.)

FM/FM-N (12 dB SINAD)			
137–159.995 MHz	Less than 0.32 μV	160–174.000 MHz	Less than 0.32 μV
230–259.995 MHz	Less than 1.8 μV	260–321.995 MHz	Less than 0.56 μV
322–374.995 MHz	Less than 0.56 μV	375–399.995 MHz	Less than 0.56 μV
400–499.995 MHz	Less than 0.32 μV	500–550.000 MHz	Less than 0.56 μV
AM/AM-N (10dB S/N)			
118–136.991 MHz	Less than 1.0 μV	230–259.995 MHz*	Less than 5.6 μV
260–321.995 MHz*	Less than 1.8 μV	322–374.995 MHz*	Less than 1.8 μV

* Only AM mode.

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

Supplied Accessories

- Hand microphone, HM-207S
- Controller cable, OPC-837 (3.5 m; 11.4 ft)
- DC power cable, OPC-345B
- Microphone hanger
- Spare fuse

Note for the Terminal mode and Access point mode:
• An Internet IP connection is necessary for a PC (Windows®) or Android™ device. (Either a dynamic or static IP address can be used.) • Before you set up the Access point, check any regulations or laws in your country.
• Only one D-STAR transceiver can transmit through an Access point at a time. • For the Access point or Terminal mode operation, you must register your MY and Access point call signs with a Gateway repeater/server that has the RS-RP3C installed.

OPTIONS

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

HAND MICROPHONES

HM-232 | **HM-209** Active noise canceling | **HM-207S** | **HM-154**

Bluetooth® UNIT & Bluetooth® HEADSET

UT-137 | **VS-3** Use with UT-137 in a pair

EXTERNAL SPEAKERS

SP-35: 2 m (6.5 ft) cable
SP-35L: 6 m (19.6 ft) cable

SP-30 102.5 mm (4 inch) diameter speaker

CONTROLLER EXTENSION CABLE

OPC-1156 3.5 m (11.4 ft) cable with a modular connector

MICROPHONE EXTENSION CABLES

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

MOUNTING BASE & CONTROLLER BRACKET

MBF-1 Suction cup mounting base. MBA-8 is required.

MBA-8

MOUNTING BRACKET

MBF-4 For mounting the main unit.

DATA COMMUNICATION CABLE

OPC-2350LU USB cable for connection with an Android™ device or a PC.

SOFTWARES FOR Android/PC*

- **RS-MS1A**: Remote control application for Android.™
- **RS-MS1I**: Remote control application for iOS.™
- **RS-MS3A**: Terminal/AP mode application for Android.™
- **RS-MS3W**: Terminal/AP mode software for Windows® PC.
- **CS-4100**: Programming software for Windows® PC.

* Applications for Android™ can be freely download from Google Play.
* Application for iOS™ can be freely download from App Store℠.
* Software for Windows® PC can be freely download from the Icom website.

OTHER OPTIONS

- **OPC-478UC:** USB programming cable for PC.
- **OPC-1529R:** RS-232 data communication cable for PC.
- **OPC-589:** Microphone adapter cable for use with a 8-pin microphone.

Software/Application Comparison Chart

Software/App	OS	Function	Required option
RS-MS1A	Android™ 4.0 or later	Remote control operation	UT-137
RS-MS1I	iOS™ 8.0.1 or later	Remote control operation	UT-137
RS-MS3A	Android™ 4.0 or later	Terminal/Access Point mode	OPC-2350LU
RS-MS3W	Windows® 7 or later	Terminal/Access Point mode	OPC-2350LU
CS-4100	Windows® 7 or later	Programming	microSD card/OPC-2350LU/ OPC-1529R/OPC-478UL

Main unit (Front panel)

(Rear panel)

Icom Inc. 1-1-32, Kamiminami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 **www.icom.co.jp/world**

Count on us!

Icom America Inc.
12421 Willows Road NE,
Kirkland, WA 98034, U.S.A.
Phone: +1 (425) 454-8155
Fax: +1 (425) 454-1509
E-mail: sales@icomamerica.com
URL: http://www.icomamerica.com

Icom (Europe) GmbH
Communication Equipment
Auf der Krautweide 24
65812 Bad Soden am Taunus, Germany
Phone: +49 (6196) 76685-0
Fax: +49 (6196) 76685-50
E-mail: info@icomeurope.com
URL: http://www.icomeurope.com

Icom France s.a.s.
Zac de la Plaine,
1 Rue Brindejonc des Moulinais, BP 45804,
31505 Toulouse Cedex 5, France
Phone: +33 (5) 61 36 03 03
Fax: +33 (5) 61 36 03 00
E-mail: icom@icom-france.com
URL: http://www.icom-france.com

Shanghai Icom Ltd.
No.101, Building 9, Caifuxingyuan Park,
No.188 Maoting Road, Chedun Town,
Songjiang District, Shanghai, 201611, China
Phone: +86 (021) 6153 2768
Fax: +86 (021) 5765 9987
E-mail: bjicom@bjicom.com
URL: http://www.bjicom.com

Icom Canada
Glenwood Centre #150-6165
Highway 17A, Delta, B.C.,
V4K 5B8, Canada
Phone: +1 (604) 952-4266
Fax: +1 (604) 952-0090
E-mail: info@icomcanada.com
URL: http://www.icomcanada.com

Icom Spain S.L.
Ctra. Rubi, No. 88 "Edificio Can Castanyer"
Bajos A 08174, Sant Cugat del Valles,
Barcelona, Spain
Phone: +34 (93) 590 26 70
Fax: +34 (93) 589 04 46
E-mail: icom@icomspain.com
URL: http://www.icomspain.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

Icom Brazil
Rua Itororó, 444 Padre Eustáquio
Belo Horizonte MG,
CEP: 30720-450, Brazil
Phone: +55 (31) 3582 8847
Fax: +55 (31) 3582 8987
E-mail: sales@icombrazil.com

Icom (UK) Ltd.
Blacksole House, Altira Park,
Herne Bay, Kent, CT6 6GZ, U.K.
Phone: +44 (0) 1227 741741
Fax: +44 (0) 1227 741742
E-mail: info@icomuk.co.uk
URL: http://www.icomuk.co.uk

Asia Icom Inc.
6F No. 68, Sec. 1 Cheng-Teh Road,
Taipei, Taiwan, R.O.C.
Phone: +886 (02) 2559 1899
Fax: +886 (02) 2559 1874
E-mail: sales@asia-icom.com
URL: http://www.asia-icom.com

Your local distributor/dealer:

LT 17HS0100 Printed in Japan