

Sharing pictures

Linking with a map app

Easy FM repeater setting

## Enhanced Functions and Great Digital Features



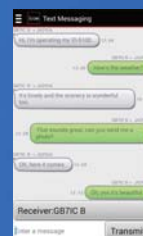
### RS-MS1A, Free Download Android™ Application

The RS-MS1A allows you to connect your Android™ device to the ID-51A\*. You can see the location of repeater sites on a map application and set them to the ID-51A. Text messages and pictures can be sent and received with your Android™ device.

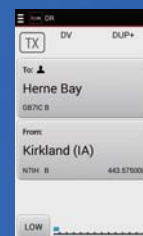


DV Fast Data Mode

\* The optional OPC-2350LU data cable is required to connect to an Android™ device.



Text messaging example



DR function setting example



Repeater map example

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### RS-MS1A Features

- Send and receive pictures
- Send and receive text messaging
- Set transceiver's DR functions from the RS-MS1A or a map application
- See the location of repeater sites or other D-PRS stations on a map application
- View and export received history of the transceiver
- View detailed data in the transceiver's Repeater list
- Import and export the Repeater list and the Callsign list from/to the transceiver

\* Please check the system requirements at the Google Play™ RS-MS1A page before installing the application.

### DV Fast Data Mode\*

By using data in place of voice frames, the ID-51A transfers data 3.5 times faster (3480 bps) than in the conventional DV mode (with voice). Pictures taken by an Android™ device can be quickly transmitted in the DV Fast Data mode.

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

### DV and FM Repeater Search Function

The repeater search function searches for nearby analog FM repeaters as well as DV repeaters using the repeater memories and the integrated GPS\*.

\* To use the repeater search function, the position data of the repeater is required.

### Additional Dplus Reflector Link Commands

Dplus reflector link commands are added to the DR function to allow easy multiple repeater connection through the reflector.

### Other New and Enhanced Functions (Compared to the ID-51A original version)

- GPS position data can be sent simultaneously with the serial data communication
- Enhanced D-PRS functions: receiving only Base/Object/Item/Weather formats
- Altitude data added to the GPS memories
- CI-V commands can be sent through DATA connector
- CI-V commands added such as GPS TX mode, DV data TX and GPS ON/OFF settings
- Callsign, repeater list and GPS memory import and export in the CSV format



**FEATURES: Retained from the Original ID-51A**

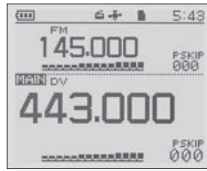
**D-STAR DV Mode (Digital Voice + Data)**

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

**V/V, U/U, V/U Dualwatch**

The dualwatch function simultaneously monitors VHF/VHF, UHF/UHF and VHF/UHF bands\*.

\* DV/DV, AM/AM, FM-N/FM-N and DV/FM-N mode dualwatch is not available.



VHF/UHF dualwatch

**IPX7 Waterproof Construction**

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



**Independent AM/FM Receiver**

FM and AM broadcast and VHF airband stations can be listened to while using the dualwatch function to monitor the ham bands.



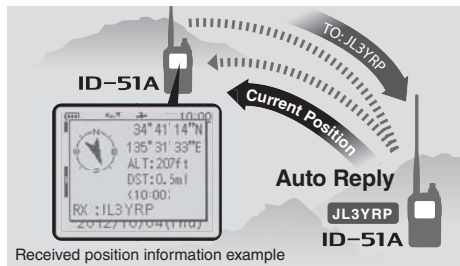
AM + dualwatch receive

**microSD Card Slot**

When used with a microSD card (Up to 32GB), various contents including voice memory, DV auto reply message, TX voice message, QSO log, RX history log and GPS log data can be stored. The microSD card can also be used to update firmware and edit memories.

**Integrated GPS Receiver**

Your current position and altitude are shown on the display and offers a position reporting function in DV mode. The GPS log function logs your position information at regular intervals on the microSD card.



Received position information example

**Other Features**

- TX voice memory (1 channel, 60 seconds)
- SPEECH function announces the received call sign (DV Mode), frequency, and mode
- QSO recorder function records incoming and outgoing calls. The voice recorder function can record an off-line conversation.
- 128 x 104 dot large full dot-matrix display
- CSV formatted communication log
- 10-step battery voltage indicator

**SPECIFICATIONS**

GENERAL			
Frequency coverage		(Unit: MHz)	
Version	Transmit	Receiver (working range)	Broadcast
ID-51A (USA)	144-148, 430-450*1	A Band: 137-174, 380-479 B Band: 108-174*2, 380-479	0.52-1.710, 88-108

\*1 Guaranteed range: 144-148, 440-450MHz.

\*2 AM mode only for 108-136.995MHz.

Type of emission	F2D, F3E, F7W
Number of memory channels	1304 channels (including repeater, program scan edges and call channels)
Operating Temp. range	-20°C to +60°C: -4°F to +140°F
Frequency stability	±2.5ppm (on the basis of 25°C)
Power supply requirement	7.4V DC (with BP-271, BP-272)
Alkaline cells	5.5V (with BP-273)
External DC power	10-16V DC
Current drain (at 7.4V DC)	
Tx High	Less than 2.5A
Rx Internal SP (16Ω)	Less than 450mA/350mA (DV/FM)
External SP (8Ω)	Less than 300mA/200mA (DV/FM)
Antenna impedance	50Ω (SMA)
Dimensions (WxHxD, projections not included)	58x105.4x26.4 mm; 2.28x4.15x1.04 in
Weight (approx.)	255g; 8.99oz (with BP-271 & standard antenna)

TRANSMITTER	
Modulation system	DV, FM 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-N More than 50dB More than 55dB
Spurious rejection	More than 60dB
Audio output power	(at 7.4V DC, 10% distortion) Internal SP (16Ω load) More than 400mW External SP (8Ω load) More than 200mW

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

**Applicable IP Rating**

Ingress Protection Standard (With battery pack and standard antenna)	
Water	IPX7 (Waterproof protection)

**Supplied accessories** (\* Depending on version)

- Battery pack, BP-271
- Standard antenna, FA-S270C
- Belt clip, MB-127
- Wall charger, BC-167SA/SD\*
- Programming software, CS-51PLUS
- Hand strap

**OPTIONS**

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

**BATTERY PACKS AND CASE**

- BP-271: 7.4V/1150mAh (min.), 1200mAh (typ.) Li-ion battery
- BP-272: 7.4V/1880mAh (min.), 2000mAh (typ.) Li-ion battery
- BP-273: LR6 (AA) x 3 battery case

**BATTERY CHARGERS**

- BC-167SA/SD: Wall charger (12V/500mA output)
- BC-202: Rapid desktop charger. Charges the BP-271/272 in 2/3.5 hours (approx.).

**CIGARETTE LIGHTER AND DC POWER CABLE**

- CP-19R: Cigarette lighter cable with DC-DC converter
- CP-12L: Cigarette lighter cable with noise filter
- OPC-254L/LR: DC power cable

**SPEAKER-MICROPHONES AND EARPHONE**

- HM-75LS: Remote control speaker microphone
- HM-183LS: Waterproof speaker microphone
- HM-186LS: Compact type speaker microphone
- HM-153LS: Durable type earphone microphone
- HM-166LS: Light type earphone microphone
- SP-13: Earphone (OPC-2144 required)
- OPC-2144: Slim L-type plug adapter cable (Regular 2-pin connectors to slim L-type 2-pin connectors)

**HEADSETS**

- HS-94: Earphone-headset (OPC-2006LS required)
- HS-95: Behind-the-head headset (OPC-2006LS required)
- HS-97: Throat microphone (OPC-2006LS required)
- OPC-2006LS: VOX plug adapter cable

**REMOTE CONTROL AND PC PROGRAMMING SOFTWARE**

- RS-MS1A: Free download Android™ app. from Google Play™
- CS-51PLUS: PC Programming software

**DATA CABLE**

- OPC-2350LU: USB cable to connect an Android™ device or a PC

**OTHER OPTIONS**

- AD-92SMA: BNC-type antenna connector adapter
- CT-17: CI-V level converter
- FA-S270C: VHF/UHF standard antenna
- LC-179: Carrying case
- MB-127: Alligator type belt clip
- SJ-1: Silicon jacket case (For use with BP-271)

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