



BASIC INSTRUCTIONS

VHF/UHF TRANSCEIVER

ID-51A

VHF/UHF TRANSCEIVER

ID-51E

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

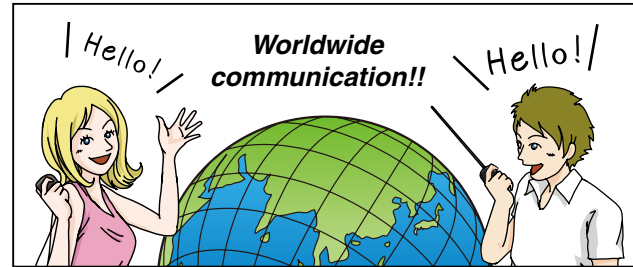
Icom Inc.



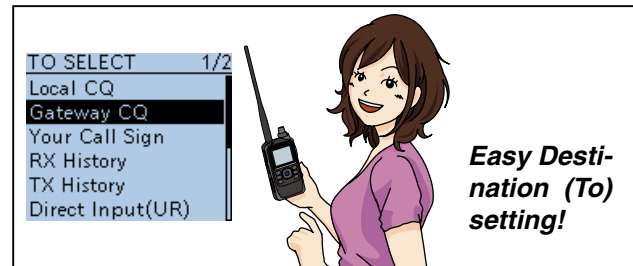
**You can easily begin using
D-STAR repeaters!**

UNIQUE FEATURES OF D-STAR

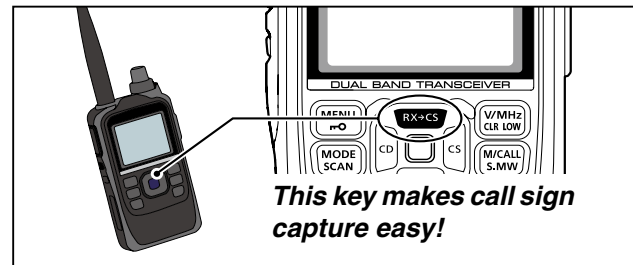
- Easy to QSO to the world



- Easy call sign entry with the Repeater list or TX/RX History



- Call Sign Capture key **RX→CS** makes call sign capture easy.



PREPARATION

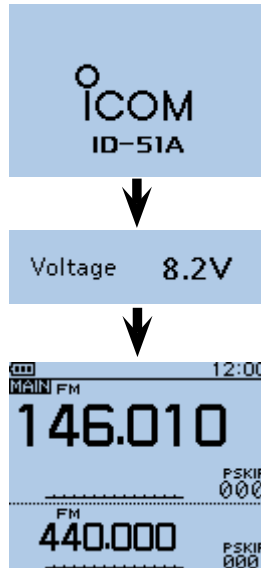
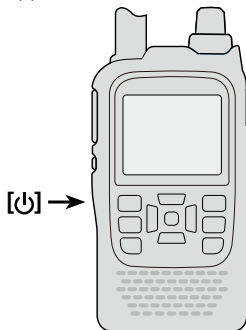
Before starting D-STAR, entering and registering your call sign (MY) are needed, as described below.

IMPORTANT! **STEP 1** Entering your call sign (MY) into the transceiver. → **STEP 2** Registering your call sign (MY) to a gateway repeater. → You have completed the steps!!

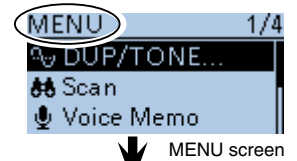
STEP 1 Enter your call sign into the transceiver

Example: Enter “JA3YUA” as your own call sign into the MY call sign memory [MY1].

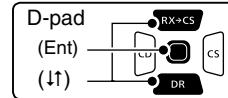
- ① Hold down [L] for 1 second to turn ON the power.
 - Hold down [P] for 1 second to turn OFF power.
 - After the opening message and power source voltage are displayed, the operating frequency appears.



- ② Push [MENU] [MENU].
 - The MENU screen is displayed.



- ③ Push D-pad (↑) to select the root item (“My Station”), and then push D-pad (Ent).



- ④ Push D-pad (↑) to select “My Call Sign,” and then push D-pad (Ent).
 - The MY CALL SIGN screen is displayed.



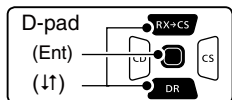
Go to step ⑤

Continued on the next page

This is page 2.

PREPARATION

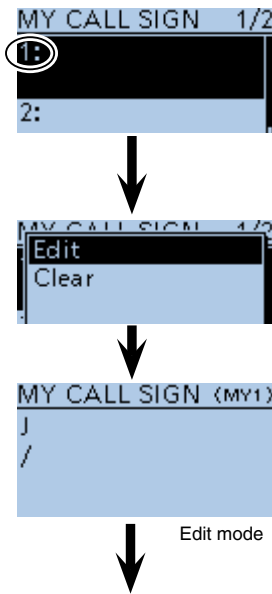
- ⑤ Push D-pad(↑) to select MY call sign memory channel “1” ([MY1]).



- ⑥ Push [QUICK SPCH], and then push D-pad(↑) to select “Edit.” Then, push D-pad(Ent) to enter the call sign edit mode.

- A cursor appears and blinks.

- ⑦ Rotate [DIAL] to select the first digit. (Example: J)
- A to Z, 0 to 9, / and (Space) are selectable.
 - Cursor move: Push D-pad(↔).
 - Delete: Push [CLR] V/MHz CLR LOW.
 - Insert: Move cursor, then rotate [DIAL].
 - Rotate [DIAL] counterclockwise to enter a space.



Go to step ⑨

- ⑧ Push D-pad(→) to move the cursor to the second digit.

NOTE: Your call sign must match the call sign registered to your gateway repeater. (p. 4)

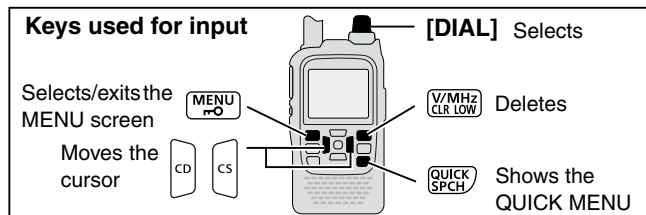
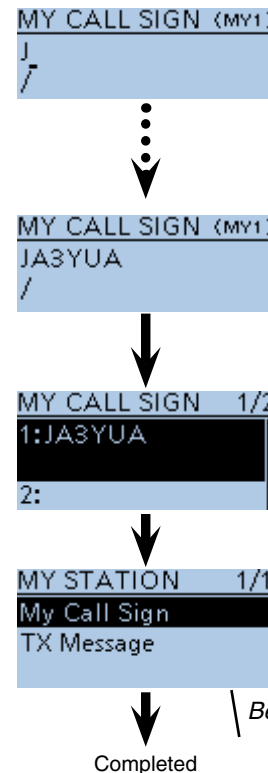
- ⑨ Repeat steps ⑦ and ⑧ to enter your own call sign of up to 8 characters, including spaces.

(For example: First J, then A, then 3, then Y, then U, then A)

- ⑩ Push D-pad(Ent) to set the call sign.
- See next page if you enter a note.

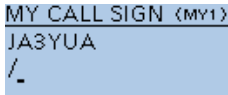
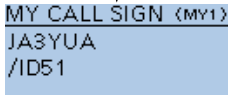
- ⑪ Push D-pad(Ent) again to save and return to the MY CALL SIGN screen.
- Two beeps sound.

- ⑫ Push [MENU] MENU MO to exit the MENU screen.



✓ **Convenient!**

If necessary, enter a note of up to 4 characters, such as the model of the transceiver, name, area name, and so on, after your call sign.

- ① Push D-pad(→) until the cursor moves to the right of the “/”.

- ② Repeat steps ⑦ and ⑧ to the left to enter a desired 4 character note.
 (Example: ID51)


In the next step, register your call sign to a gateway repeater.

STEP 2 Register your call sign to a gateway repeater

To use a repeater gateway, you must register your call sign with a gateway repeater, usually one near your home location.

If needed, ask the gateway repeater administrator for call sign registration instructions.

Completed!!

Now, you can begin using D-STAR!

New users start here!



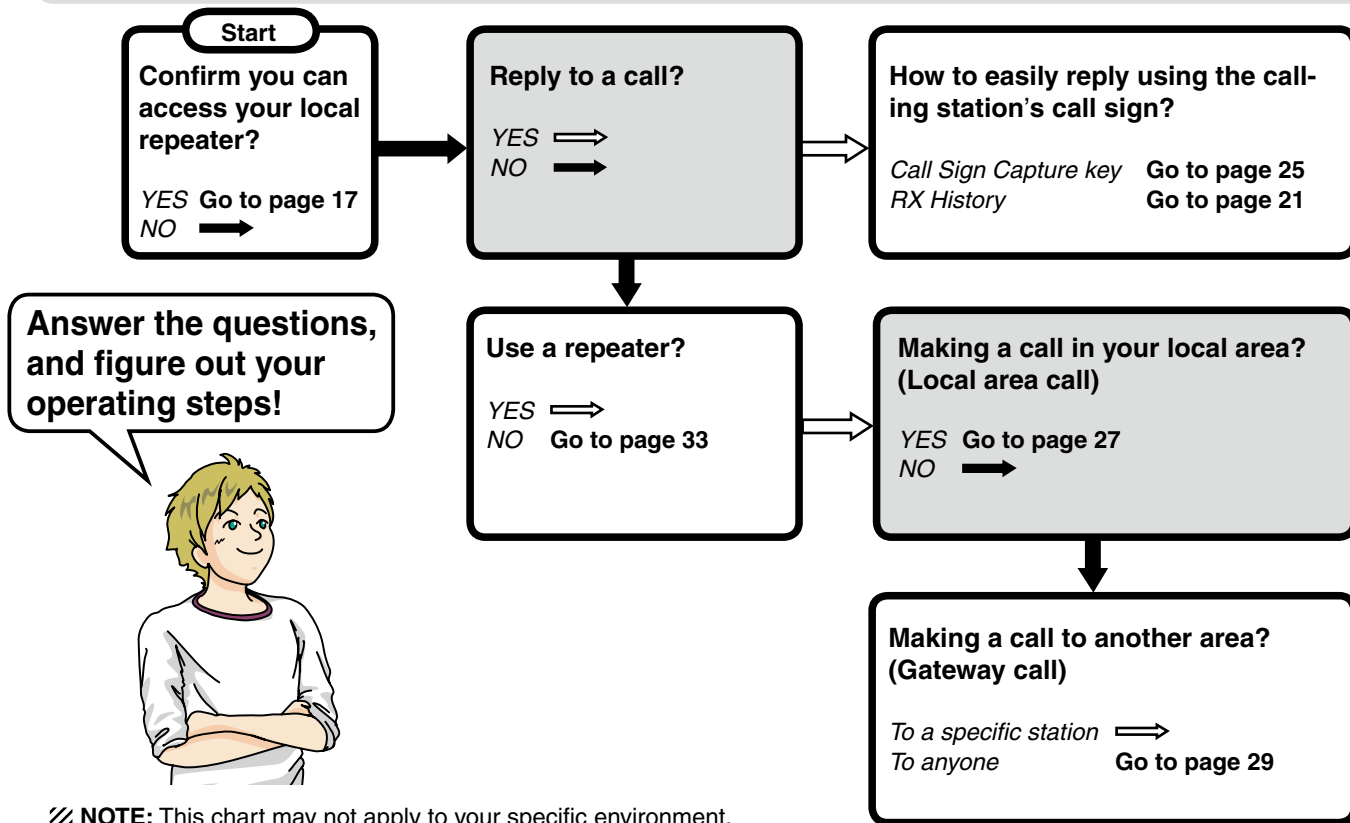
Access the repeater	p. 17
How to use the RX History	p. 21
Capturing a call sign	p. 25
Making a Local area call	p. 27
Making a Gateway call	p. 29
Calling a destination station	p. 31
Making a Simplex call	p. 33
Troubleshooting	p. 35



I can begin using D-STAR!!

TABLE OF CONTENTS

D-STAR Operation



⚡ **NOTE:** This chart may not apply to your specific environment.

D-STAR Operation

Other functions

Saving settings

Go to page 37

Recording a QSO conversation

Go to page 39

Troubleshooting

Go to page 35

Checking your position using GPS

Go to page 43

The destination call sign is already programmed?

YES Go to page 31

NO Go to section 9 of the CD Advanced Instruction PDF for call sign programming. Then, Go to page 31 of this manual.

- If you have received a call from the station before, the call sign may be in RX History. (p. 21)

Learn about the new built in functions

Go to page 47

Checking your route using the GPS logger function

Go to page 45

TABLE OF CONTENTS

UNIQUE FEATURES OF D-STAR	1	1 ACCESS THE REPEATER	17–20
PREPARATION	2–16	STEP1 Select the DR mode	17
Enter your call sign into the transceiver.....	2	STEP2 Select your Access repeater (“FROM”)	17
Register your call sign to a gateway repeater.....	4	STEP3 Select the Destination repeater (“TO”)	19
TABLE OF CONTENTS.....	5	STEP4 Check whether you can access the repeater ...	20
FOREWORD	9	2 HOW TO USE THE RX HISTORY	21–24
FEATURES.....	9	STEP1 View the received call sign	21
EXPLICIT DEFINITIONS.....	10	STEP2 Save the destination call sign into your call sign memory from the RX History	22
IMPORTANT	10	3 CAPTURING A CALL SIGN.....	25–26
SUPPLIED ACCESSORIES.....	10	STEP1 Set the received call sign to the destination	26
ABOUT THE SUPPLIED CD	11	STEP2 Hold down [PTT] to transmit	26
◇ Starting the CD	11	4 MAKING A LOCAL AREA CALL.....	27–28
PRECAUTIONS.....	12	STEP1 Set “FROM” (Access repeater)	27
BATTERY CAUTIONS	14	STEP2 Set “TO” (Destination).....	28
◇ Battery caution.....	14	STEP3 Hold down [PTT] to transmit	28
◇ Charging caution.....	15	5 MAKING A GATEWAY CALL.....	29–30
◇ Charging time.....	15	STEP1 Set “FROM” (Access repeater)	29
IMPORTANT NOTES.....	16	STEP2 Set “TO” (Destination).....	30
◇ When using the GPS receiver.....	16	STEP3 Hold down [PTT] to transmit	30
◇ Spurious signals.....	16		
◇ About charging at power ON.....	16		

6 CALLING A DESTINATION STATION .. 31–32	11 GPS OPERATION 43–44
STEP1 Set “FROM” (Access repeater)..... 31	STEP1 Receiving GPS data from the internal
STEP2 Set “TO” (Destination)..... 32	GPS receiver 43
STEP3 Hold down [PTT] to transmit..... 32	STEP2 Displaying your position..... 44
7 MAKING A SIMPLEX CALL 33–34	12 GPS LOGGER FUNCTION 45–46
STEP1 Set “FROM” (Simplex channel)..... 33	STEP1 Receiving GPS data from the internal
STEP2 Hold down [PTT] to transmit..... 34	GPS receiver 45
8 TROUBLESHOOTING..... 35–36	STEP2 Turning ON the GPS Logger function..... 46
9 SAVING SETTINGS 37–38	13 INTRODUCING NEW FUNCTIONS 47–48
STEP1 Saving settings into memory 37	Voice Recorder function..... 47
STEP2 View the saved contents..... 38	Two bands monitoring plus BC Radio..... 47
10 RECORDING A QSO ONTO A	Auto Position Reply function 48
MICROSD CARD..... 39–42	Voice TX function 48
■ About using a microSD card 39	Speech function 48
STEP1 Inserting the microSD card..... 39	Temporary Skip function 48
STEP2 Format the microSD card 40	14 RESETTING 49–50
STEP3 Recording a QSO audio 41	■ Resetting..... 49
STEP4 Playing back the recorded audio 42	15 INFORMATION 51
	COUNTRY CODE LIST 51
	FCC INFORMATION..... 51
	INDEX..... 52–54

FOREWORD

Thank you for purchasing this fine Icom product. The ID-51A or ID-51E VHF/UHF TRANSCEIVER is designed and built with Icom's superior technology and craftsmanship combining traditional analog technologies with the new digital technology, Digital Smart Technologies for Amateur Radio (D-STAR), for a balanced package.

With proper care, this product should provide you with years of trouble-free operation.

We thank you for making your ID-51A or ID-51E your radio of choice, and hope you agree with Icom's philosophy of "technology first." Many hours of research and development went into the design of your ID-51A or ID-51E.

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia and/or other countries.

Adobe and Adobe Reader are either registered trademarks or trademarks of Adobe Systems Incorporated, in the United States and/or other countries.

Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation in the United States and/or other countries.

FEATURES

- *Dual independent receivers in one radio; receives two bands simultaneously
Two band monitoring plus the Broadcast (BC) Radio*
 - Depending on the selected operating mode, Dual-watch or Triple-watch cannot be made.
- *Rapid charging is possible, and the charging time period is approximately 3 hours with the supplied battery pack. (Half periods of the ID-31A/E)*
- *Built-in GPS receiver allows you to check your current position, or automatically send a reply with your position to the called ID-51A/E*
- *Voice recorder records your QSO conversation, voice audio for TX and microphone voice audio*
- *microSD card slot that can accept different cards to backup settings, various memories, the GPS log and so on*

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠ DANGER!	Personal death, serious injury or an explosion may occur.
⚠ WARNING!	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	Recommended for optimum use. No risk of personal injury, fire or electric shock.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

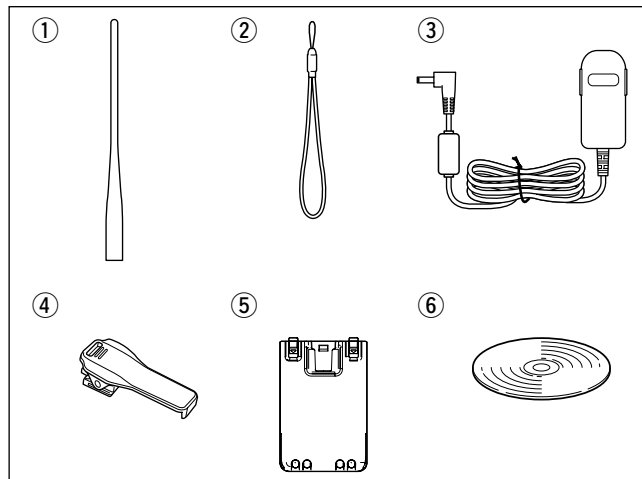
SAVE THIS INSTRUCTION MANUAL— This instruction manual contains basic operating instructions for the ID-51A/ID-51E.

SUPPLIED ACCESSORIES

The following accessories are supplied with the transceiver.

- ① Antenna 1
- ② Hand strap 1
- ③ Battery charger (BC-167SA/SD/SV)* 1
- ④ Belt clip 1
- ⑤ Battery pack (BP-271) 1
- ⑥ CD (Including the CS-51 CLONING SOFTWARE)..... 1

* Not supplied, or the shape is different, depending on the transceiver version.



ABOUT THE SUPPLIED CD

The following instructions and installers are included on the CD.

• Basic instructions

Instructions for the basic operations, the same as this manual

• Advanced Instructions

Instructions for the advanced operations and more details are described than in this manual

• HAM radio Terms

A glossary of HAM radio terms

• CS-51 Instruction manual

Instructions for the CS-51 cloning software installation and use

• CS-51 Installer

Installer for the CS-51 cloning software

• Adobe® Reader® Installer

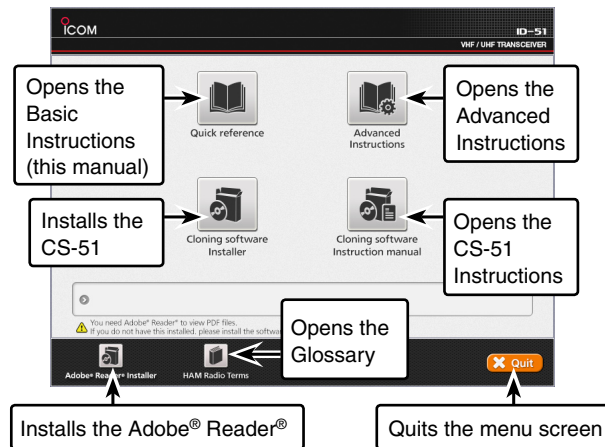
Installer for Adobe® Reader®

A PC with the following Operating System is required.

- Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista® or Microsoft® Windows® XP

◇ Starting the CD

- ① Insert the CD into the CD drive.
 - Double click “Autorun.exe” on the CD.
 - Depending on the PC setting, the Menu screen shown below is automatically displayed.
- ② Click the desired button to open the file.
 - To close the Menu screen, click [Quit].



To read the guide or instructions, Adobe® Reader® is required. If you have not installed it, please install the Adobe® Reader® on the CD or downloaded it from Adobe Systems Incorporated's website.

PRECAUTIONS

⚠ DANGER! NEVER short the terminals of the battery pack.

⚠ DANGER! Use and charge only specified Icom battery packs with Icom radios or Icom chargers. Only Icom battery packs are tested and approved for use with Icom radios or charged with Icom chargers. Using third-party or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery to burst.

⚠ WARNING RF EXPOSURE! This device emits Radio Frequency (RF) energy. Caution should be observed when operating this device. If you have any questions regarding RF exposure and safety standards, please refer to the Federal Communications Commission Office of Engineering and Technology's report on Evaluating Compliance with FCC Guidelines for Human Radio Frequency Electromagnetic Fields (OET Bulletin 65).

⚠ WARNING! NEVER hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the transceiver is vertical.

⚠ WARNING! NEVER operate or touch the transceiver with wet hands. This may result in an electric shock or may damage the transceiver.

⚠ WARNING! NEVER operate the transceiver with an earphone, headphones or other audio accessories at high volume levels. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, reduce the volume level or discontinue use.

⚠ WARNING! NEVER operate the transceiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

⚠ WARNING! NEVER connect the transceiver to a power source of more than 16 V DC or use reverse polarity. This could cause a fire or damage the transceiver.

CAUTION: MAKE SURE the flexible antenna and battery pack are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to water will result in serious damage to the transceiver.

After exposure to water, clean the battery contacts thoroughly with fresh water and dry them completely to remove any water or salt residue.

PRECAUTIONS

CAUTION: DO NOT use harsh solvents such as benzene or alcohol to clean the transceiver, because they can damage the transceiver's surfaces.

DO NOT push the PTT unless you actually intend to transmit.

DO NOT operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere.

DO NOT use or place the transceiver in direct sunlight or in areas with temperatures below -20°C (-4°F) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).

BE CAREFUL! The transceiver will become hot when operating it continuously for long periods of time.

BE CAREFUL! The transceiver meets IPX7* requirements for waterproof protection. However, once the transceiver has been dropped, waterproof protection cannot be guaranteed because of possible damage to the transceiver's case or waterproof seal.

* Only when the BP-271 or BP-272 (option), flexible antenna, [MIC/SP] cap, [DATA/DC IN] cap and [micro SD] slot cap are attached.

Place the unit in a secure place to avoid inadvertent use by children.

The BP-273 meets IPX4 requirements for splash resistance. When it is connected, the transceiver corresponds to IPX4. Even when the transceiver power is OFF, a slight current still flows in the circuits. Remove the battery pack or batteries from the transceiver when not using it for a long time. Otherwise, the installed battery pack or batteries will become exhausted, and will need to be recharged or replaced.

BATTERY CAUTIONS

⚠ **DANGER! NEVER** short the terminals (or charging terminals) of the battery pack. Also, current may flow into nearby metal objects such as a key, so be careful when placing battery packs (or the transceiver) in bags, etc.

Simply carrying with or placing near metal objects such as a necklace, etc. may cause shorting. This may damage not only the battery pack, but also the transceiver.

⚠ **DANGER!** Use and charge only specified Icom battery packs with Icom radios or Icom chargers. Only Icom battery packs are tested and approved for use with Icom radios or charged with Icom chargers. Using third-party or counterfeit battery packs may cause smoke, fire, or cause the battery to burst.

◇ Battery caution

⚠ **DANGER! DO NOT** hammer or otherwise impact the battery. Do not use the battery if it has been severely impacted or dropped, or if the battery has been subjected to heavy pressure. Battery damage may not be visible on the outside of the case. Even if the surface of the battery does not show cracks or any other damage, the cells inside the battery may rupture or catch fire.

⚠ **DANGER! NEVER** use or leave battery pack in areas with temperatures above +60°C (+140°F). High temperature build-up in the battery, such as could occur near fires or stoves, inside a sun heated car, or in direct sunlight may cause the battery to rupture or catch fire. Excessive temperatures may

also degrade battery performance or shorten battery life.

⚠ **DANGER! DO NOT** expose the battery to rain, snow, seawater, or any other liquids. Do not charge or use a wet battery. If the battery gets wet, be sure to wipe it dry before using.

⚠ **DANGER! NEVER** incinerate a used battery pack since internal battery gas may cause it to rupture, or may cause an explosion.

⚠ **DANGER! NEVER** solder the battery terminals, or **NEVER** modify the battery pack. This may cause heat generation, and the battery may burst, emit smoke or catch fire.

⚠ **DANGER!** Use the battery only with the transceiver for which it is specified. Never use a battery with any other equipment, or for any purpose that is not specified in this instruction manual.

⚠ **DANGER!** If fluid from inside the battery gets in your eyes, blindness can result. Rinse your eyes with clean water, without rubbing them, and see a doctor immediately.

⚠ **WARNING!** Immediately stop using the battery if it emits an abnormal odor, heats up, or is discolored or deformed. If any of these conditions occur, contact your Icom dealer or distributor.

⚠ **WARNING!** Immediately wash, using clean water, any part of the body that comes into contact with fluid from inside the battery.

BATTERY CAUTIONS

⚠ **WARNING! NEVER** put the battery in a microwave oven, high-pressure container, or in an induction heating cooker. This could cause a fire, overheating, or cause the battery to rupture.

CAUTION: Always use the battery within the specified temperature range, -20°C to $+60^{\circ}\text{C}$ (-4°F to $+140^{\circ}\text{F}$). Using the battery out of its specified temperature range will reduce the battery's performance and battery life.

CAUTION: Shorter battery life could occur if the battery is left fully charged, completely discharged, or in an excessive temperature environment (above $+50^{\circ}\text{C}$; $+122^{\circ}\text{F}$) for an extended period of time. If the battery must be left unused for a long time, it must be detached from the radio after discharging. You may use the battery until the battery indicator shows half-capacity, then keep it safely in a cool dry place at the following temperature range:

- -20°C (-4°F) to $+50^{\circ}\text{C}$ ($+122^{\circ}\text{F}$) (within a month).
- -20°C (-4°F) to $+35^{\circ}\text{C}$ ($+95^{\circ}\text{F}$) (within three months).
- -20°C (-4°F) to $+20^{\circ}\text{C}$ ($+68^{\circ}\text{F}$) (within a year).

◇ Charging caution

⚠ **DANGER! NEVER** charge the battery pack in areas with extremely high temperatures, such as near fires or stoves, inside a sun-heated vehicle, or in direct sunlight. In such environments, the safety/protection circuit in the battery will activate, causing the battery to stop charging.

⚠ **WARNING! DO NOT** charge or leave the battery in the battery charger beyond the specified time for charging. If the battery is not completely charged by the specified time, stop charging and remove the battery from the battery charger. Continuing to charge the battery beyond the specified time limit may cause a fire, overheating, or the battery may rupture.

⚠ **WARNING! NEVER** insert the transceiver (battery attached to the transceiver) into the charger if it is wet or soiled. This could corrode the battery charger terminals or damage the charger. The charger is not waterproof.

CAUTION: DO NOT charge the battery outside of the specified temperature range: 0°C to $+40^{\circ}\text{C}$ ($+32^{\circ}\text{F}$ to $+104^{\circ}\text{F}$). Icom recommends charging the battery at $+25^{\circ}\text{C}$ ($+77^{\circ}\text{F}$). The battery may heat up or rupture if charged out of the specified temperature range. Additionally, battery performance or battery life may be reduced.

BE SURE to turn the transceiver power OFF while charging with the supplied BC-167S BATTERY CHARGER. The battery pack cannot be charged with the supplied BC-167S when the transceiver's power is ON.

◇ Charging time

Charger Battery pack	BC-167S (Supplied)	BC-202 (Optional)
BP-271 (Supplied)	Approx. 3 hours	Approx. 2 hours
BP-272 (Optional)	Approx. 4.5 hours	Approx. 3.5 hours

IMPORTANT NOTES

◇ When using the GPS receiver

- GPS signals cannot pass through metal objects. When using the ID-51A or ID-51E inside a vehicle, you may not receive GPS signals. We recommend you use it near a window. Please avoid the areas shown in the following:
 1. DO NOT use where it will block the driver's view.
 2. DO NOT use where the air bags could deploy.
 3. DO NOT use where it becomes a driving obstacle.
- The Global Positioning System (GPS) is built and operated by the U.S. Department of Defence. The Department is responsible for accuracy and maintenance of the system. Any changes by the Department may affect the accuracy and function of the GPS system.
- When the GPS receiver is activated, please do not cover the ID-51A or ID-51E with anything that will block the satellite signals.
- The GPS receiver may not work if used in the following locations:
 1. Tunnels or high-rise buildings
 2. Underground parking lots
 3. Under a bridge or viaduct
 4. In remote forested areas
 5. Under bad weather conditions (rainy or cloudy day)
- The GPS receiver may not work if the transceiver operates near the 440.205 MHz. This is due to signals made in the internal circuit and does not indicate a transceiver malfunction.

◇ Spurious signals

Depending on the combination of the operating band and mode, the Dualwatch or Triple-watch operation may generate certain spurious signals, or noise may be heard. These do not indicate a transceiver malfunction.

◇ About charging at power ON

ID-51A/E's charging circuit charges the supplied battery pack in approximately 3 hours. But with this rapid circuit, the battery pack cannot be charged at power ON, by default. So, be sure to turn OFF the power before charging.

When "Charging (Power ON)"* is set to ON in the MENU screen, the battery pack can be charged even if the power is ON. (Only when the battery pack is attached, and the optional CP-12L, CP-19R or OPC-254L external DC power cable is connected to [DC IN].) But this operation may generate certain spurious signals; the S-meter appears, or noise may be heard.

*MENU > Function > **Charging (Power ON)** (Default: OFF)

- Charging time period at power ON may differ, depending on the operating condition.
- The external DC power supply voltage must be between 10–16 V, and the current capacity must be more than 2.5 A to charge the battery pack when operating.
- When you operate the transceiver while charging, and if you cannot receive signals correctly, set "Charging (Power ON)"* to OFF, and disconnect the external DC power cable from [DC IN].

1

ACCESS THE REPEATER

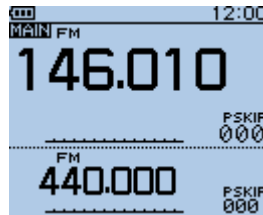
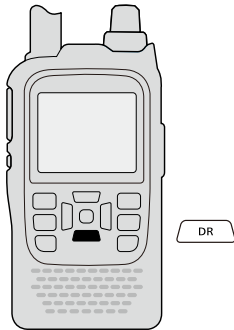
This section describes how to check whether or not you can access your local area repeater (Access repeater), and if your signal is successfully sent to a destination repeater.

▨ If your call sign (MY) has not been set, or your call sign has not been registered on a D-STAR repeater, see page 2.

STEP 1 Select the DR mode

Hold down **DR** for 1 second.

- The DR mode is selected.
- The repeater list, described in this manual, may differ from your transceiver's preloaded list.



VFO mode



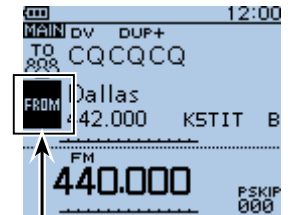
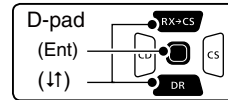
DR mode

If you want to return to the VFO mode, hold down **DR** again for 1 second.

STEP 2 Select your Access repeater ("FROM")

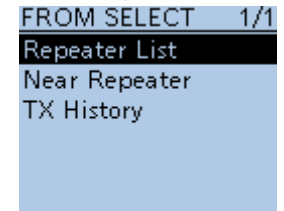
Example: Your Access repeater is Hirano/Japan in the Repeater list.

- ① Push D-pad(↓) to select "FROM" (Access repeater), and then push D-pad(Ent).



"FROM" is selected.

- ② Push D-pad(↑) to select "Repeater List," and then push D-pad(Ent).



Go to step ③

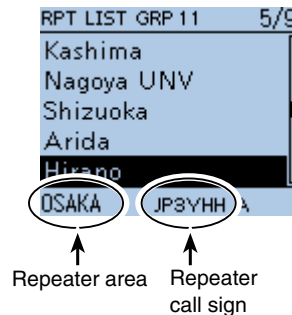
▨ You have four other ways to select your access repeater, other than selecting it from repeater list. See the Advanced Instructions for more details.

- Rotating [DIAL]
- Searching for the nearest repeaters
- Selecting from the TX History
- Searching for a repeater using the DR mode scan

- ③ Push D-pad(↑) to select the repeater group where your access repeater is listed, and then push D-pad(Ent).
• Example: “11: Japan”



- ④ Push D-pad(↑) to select your access repeater, and then push D-pad(Ent).
• Example: “Hirano”



Go to step ⑤

- ⑤ If the selected repeater name is displayed in “FROM” on the DR mode screen, the access repeater setting is completed.



Completed

- When you select just the repeater name, the repeater call sign, its frequency, duplex setting, frequency offset and Gateway call sign are automatically set.
- The repeater list, described in this manual, may differ from your transceiver's preprogrammed list.

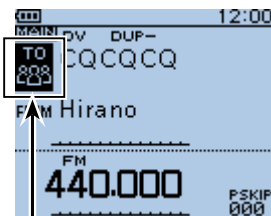
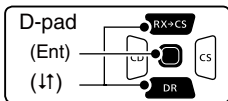
➡ Continued on the next page

1 ACCESS THE REPEATER

STEP 3 Select the Destination repeater ("TO")

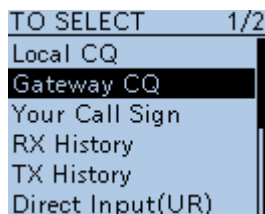
Example: Your destination repeater is Hamacho/Japan in the repeater list.

- ① Push D-pad(↑) to select "TO" (Destination repeater), and then push D-pad(Ent).



"TO" is selected.

- ② Push D-pad(↓) to select "Gateway CQ," and then push D-pad(Ent).

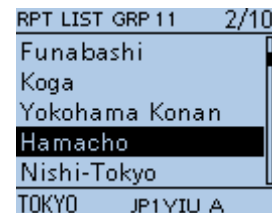


Go to step ③

- ③ Push D-pad(↓) to select the repeater group where your destination repeater is listed, and then push D-pad(Ent).
• Example: "11: Japan"

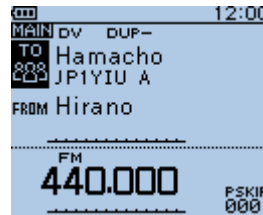


- ④ Push D-pad(↓) to select your destination repeater, and then push D-pad(Ent).
• Example: "Hamacho"



Go to step ⑤

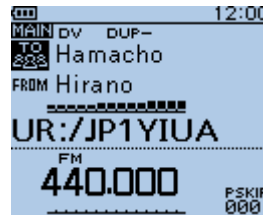
- ⑤ If the selected repeater name in step ④ is displayed in “TO” on the DR mode screen, the destination repeater setting is completed.



Completed

STEP 4 Check whether you can access the repeater

- ① Hold down [PTT] for approximately 1 second to access the repeater.

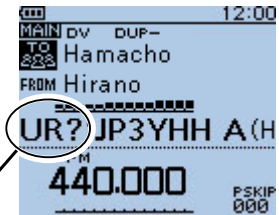


Transmitting



Go to step ②

- ② If you get a reply call, or “UR?” appears on the LCD within 3 seconds, your signal reached your access repeater and your call was successfully sent from your destination repeater.



UR?:JP3YHH A(H)

Successfully sent!

Now, you can make calls to various repeaters by changing the “TO” setting!



NOTE: See page 35 for status indications after a reply is received.

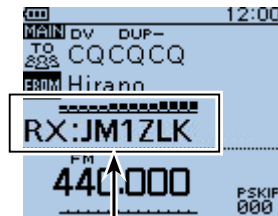
HOW TO USE THE RX HISTORY

When a DV call is received, the call signs of the caller, the called station and the called station's access repeater are stored in the RX history file.
Up to 50 calls can be stored.

This section describes how to view the RX history screen and how to save the displayed call signs to memory.



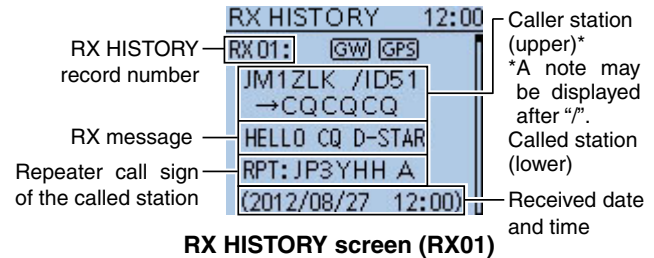
When receiving a call from "JM1ZLK."



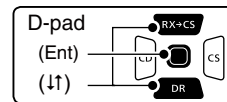
The S-meter appears and the caller's call sign is displayed.

STEP 1 View the received call sign

- Hold down **[CD]** for 1 second.
 - The RX HISTORY screen is displayed.



- Push D-pad(**↑**) to view other RX history.

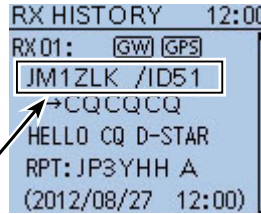


RX HISTORY screen (RX02)

NOTE: If you push D-pad(Ent) while in the RX HISTORY screen, the detailed contents of the RX history are displayed.

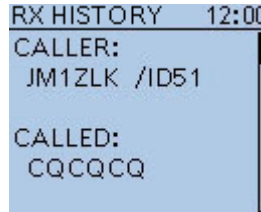
STEP 2 Save the destination call sign into your call sign memory from the RX History

① While in the RX HISTORY screen, push D-pad(↑) to select the RX HISTORY record with the call sign that you want to save to memory.



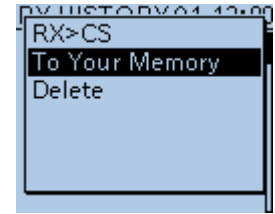
Call sign to be saved

② Push D-pad(Ent), and then push [QUICK] ^(QUICK) _(SPEECH).



Go to step ③

③ Push D-pad(↓) to select “To Your Memory,” and then push D-pad(Ent).



④ Push D-pad(↓) to select the call sign that you want to save, and then push D-pad(Ent).
• Example: “JM1ZLK”



Go to step ⑤

▨ The display changes to the YOUR CALL SIGN EDIT screen, and then the call sign is automatically saved.

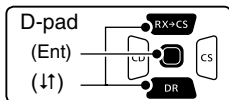
☞ Continued on the next page

2 HOW TO USE THE RX HISTORY

STEP 2

Save the destination call sign into your call sign memory from the RX History (Continued)

- ⑤ Push D-pad(⬇) to select "NAME," and then push D-pad(Enter).
• A cursor appears and blinks.



```
YOUR CALL SIGN EDIT 1/1
NAME:
CALL SIGN:
JM1ZLK
<<Add Write>>
```



- ⑥ Rotate [DIAL] to select a desired character to enter a name of up to 16 characters, including spaces.

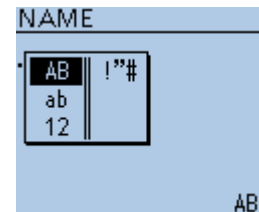
```
NAME
-
AB
```



Go to step ⑦

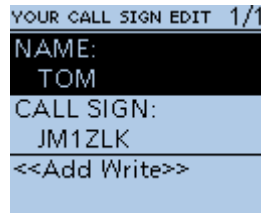
About text entry

- Push D-pad(↔) to move the cursor backward or forward.
- While selecting a character, push [QUICK][^{QUICK}SPCH] to change the character to an upper case or lower case letter.
- While selecting a digit, push [QUICK][^{QUICK}SPCH] to open the input mode selection window.
 - Push D-pad(⬆↔) to select the desired Upper case letters, Lower case letters, Numbers or Symbols.
 - To enter symbols, select "!"#, and then push D-pad(Enter) to open the symbol character selection window. And rotate [DIAL] to select the desired symbol character, and then push D-pad(Enter).
- A space can be selected, in any input mode selected.
- Move the cursor, then rotate [DIAL] to insert a character.
- Rotate [DIAL] counterclockwise to enter a space.
- If you make a mistake, push [CLR][^{VMHz}CLR LOW] to delete the selected character, symbol or number, or hold down [CLR] to continuously erase the characters, first to the right, and then to the left of the cursor.

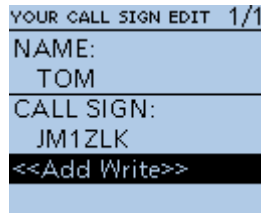


Input mode selection window

- ⑦ After entering the name, push D-pad(Ent).
 • Example: "TOM"

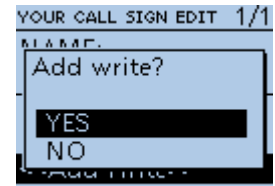


- ⑧ Push D-pad(↑) to select "<<Add Write>>," and then push D-pad(Ent).



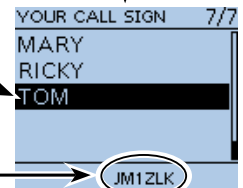
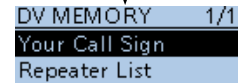
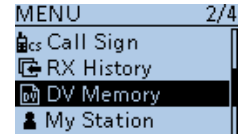
Go to step ⑨

- ⑨ Push D-pad(↓) to select "YES," and then push D-pad(Ent).



Completed

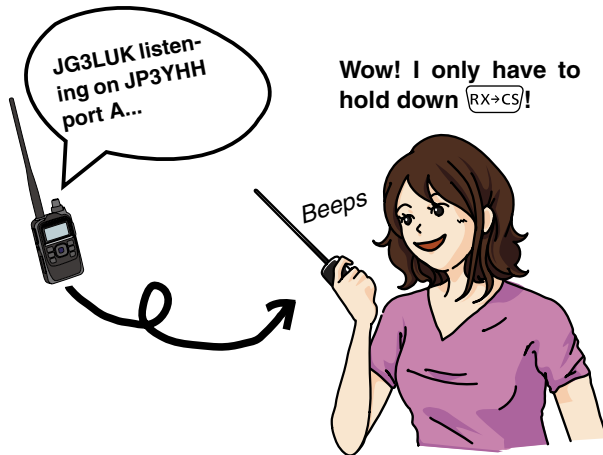
The saved call sign is displayed on the YOUR CALL SIGN screen as a selectable destination.



3

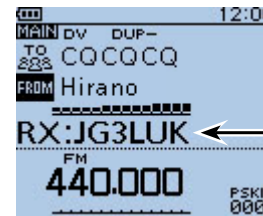
CAPTURING A CALL SIGN

After you receive the repeater's signal, the calling station's call sign can be captured by holding down the Call Sign Capture key (RX→CS), and you can quickly and easily reply to a received call.



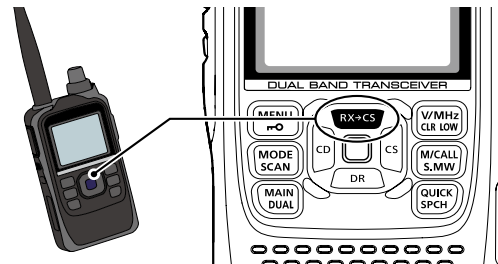
✓ What is the Call Sign Capture key??

Holding down the Call Sign Capture key for 1 second sets the last received station call sign as a temporary destination, and makes replying quick and easy.



While receiving

The Call Sign Capture key is here!

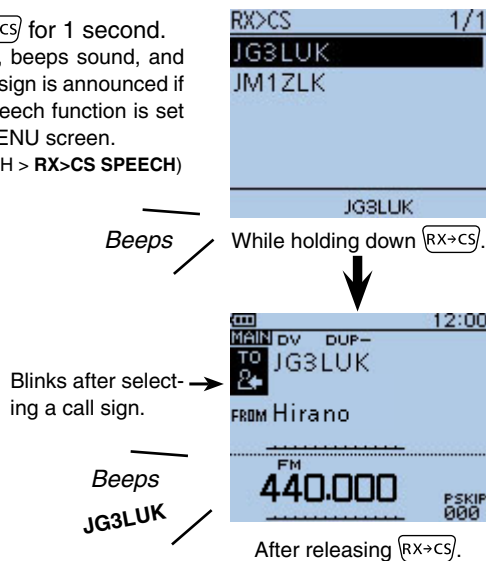


STEP 1 Set the received call sign to the destination

Hold down $\overline{\text{RX}\rightarrow\text{CS}}$ for 1 second.

- After releasing, beeps sound, and the station call sign is announced if the RX->CS Speech function is set to ON in the MENU screen.

(MENU > SPEECH > RX->CS SPEECH)

**STEP 2 Hold down [PTT] to transmit**

- ① While holding down [PTT], speak at your normal voice level.



- ② Push $\overline{\text{RX}\rightarrow\text{CS}}$ or $\overline{\text{CLR}} \overline{\text{V/MHZ}} \overline{\text{CLR LOW}}$ to return to the previous call sign setting.

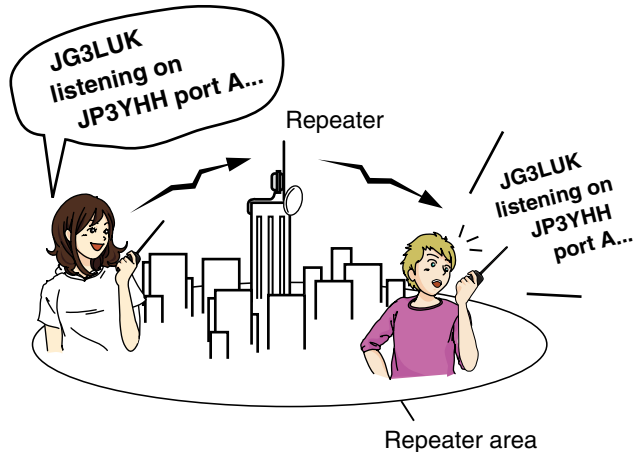
**NOTE:**

- If you want to select another call sign in the RX history, rotate [DIAL] while holding down $\overline{\text{RX}\rightarrow\text{CS}}$.
- When a received signal is weak, DR mode scanning or the power save is ON, the call sign may not be received correctly. In that case, "-----" appears, an error beep sounds, and a quick reply call cannot be made.

4

MAKING A LOCAL AREA CALL

A Local area call can be made when “Local CQ” is used to set “CQCQCQ” in “TO” (Destination).

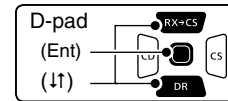


✓ What is a Local Area Call??

To call through your local area (access) repeater.

STEP 1 Set “FROM” (Access repeater)

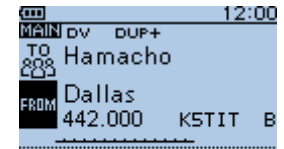
- ① Push D-pad(↑) to select “FROM,” and then push D-pad(Ent).



- ② Push D-pad(↑) to select “Repeater List,” and then push D-pad(Ent).

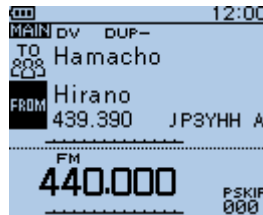
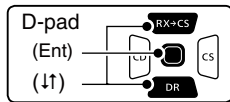
- ③ Push D-pad(↑) to select the repeater group where your access repeater is listed, and then push D-pad(Ent).
 - Example: “11: Japan”

- ④ Push D-pad(↑) to select your access repeater, and then push D-pad(Ent).
 - Example: “Hirano”

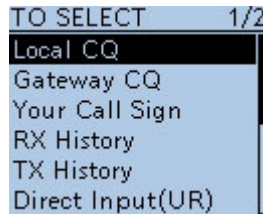


STEP 2 Set "TO" (Destination)

- ① Push D-pad(↑) to select "TO," and then push D-pad(Ent).



- ② Push D-pad(↓) to select "Local CQ," and then push D-pad(Ent).
 • "CQCQCQ" is set in "TO."

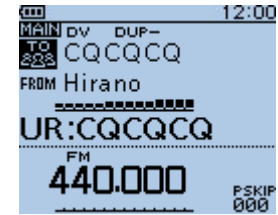


✓ **Convenient!**

The Local CQ call is used to call anyone, but you can call a specific station by simply saying their call sign.

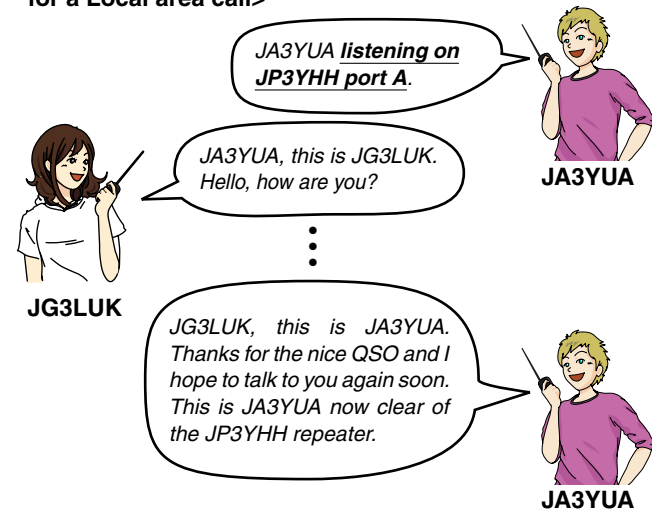
STEP 3 Hold down [PTT] to transmit

While holding down [PTT], speak at your normal voice level.



Transmitting

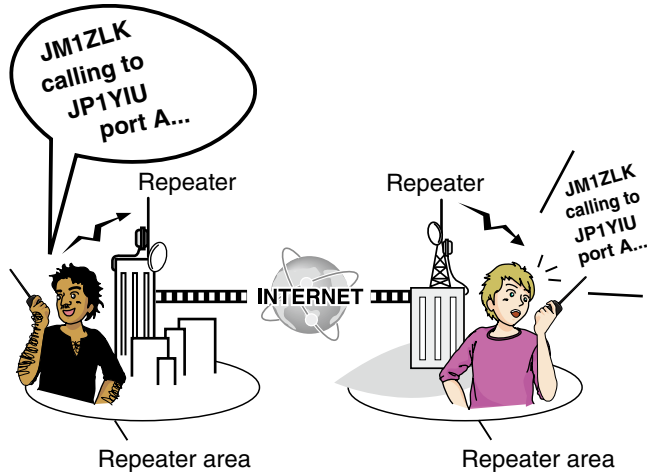
<Communication example for a Local area call>



5

MAKING A GATEWAY CALL

A Gateway call can be made when a destination repeater is selected in "TO" (Destination).

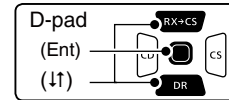


✓ What is a Gateway Call??

To call through your local area (access) repeater, repeater gateway, and the Internet to your destination repeater.

STEP 1 Set "FROM" (Access repeater)

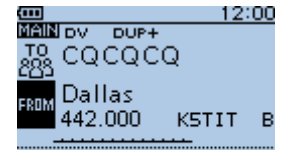
- ① Push D-pad(↑) to select "FROM," and then push D-pad(Ent).



- ② Push D-pad(↑) to select "Repeater List," and then push D-pad(Ent).

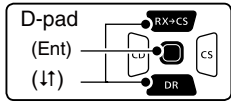
- ③ Push D-pad(↑) to select the repeater group where your access repeater is listed, and then push D-pad(Ent).
 - Example: "11: Japan"

- ④ Push D-pad(↑) to select your access repeater, and then push D-pad(Ent).
 - Example: "Hirano430"

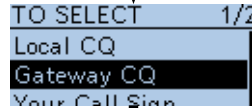


STEP 2 Set "TO" (Destination)

- ① Push D-pad(↑) to select "TO," and then push D-pad(Ent).



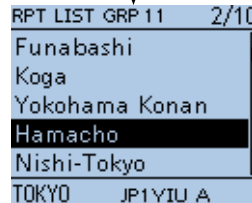
- ② Push D-pad(↓) to select "Gateway CQ," and then push D-pad(Ent).



- ③ Push D-pad(↓) to select the repeater group where your destination repeater is listed, and then push D-pad(Ent).
• Example: "11: Japan"



- ④ Push D-pad(↓) to select the destination repeater, and then push D-pad(Ent).
• Example: "Hamacho430"



STEP 3 Hold down [PTT] to transmit

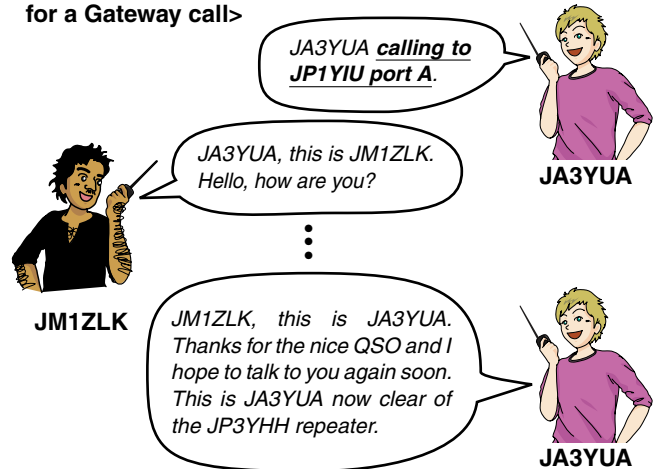
While holding down [PTT], speak at your normal voice level.

- "/" is automatically inserted to show it is a repeater call sign.



Transmitting

<Communication example for a Gateway call>



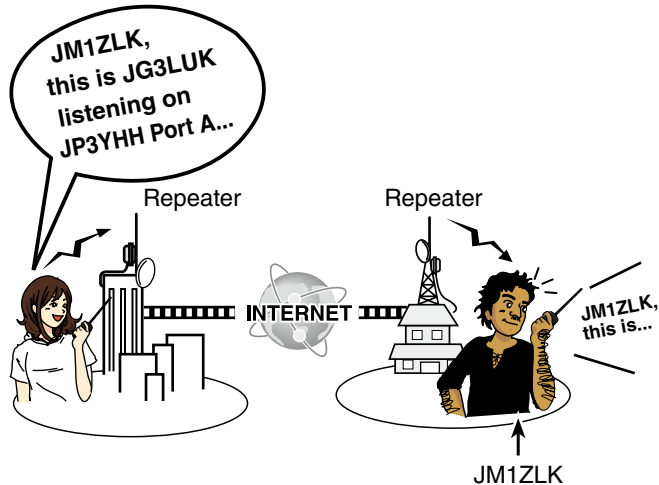
✓ Convenient!

The Gateway CQ call is used to call any repeater, but you can call a specific station by simply saying their call sign.

6

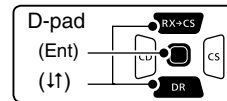
CALLING A DESTINATION STATION

You can make a call to a destination station when the destination station call sign is selected in "TO" (Destination). When you call an individual station call sign through a gateway, the signal is automatically sent to the last repeater that the station accessed. So, even if you don't know where the station is, you can make a call using call sign routing.



STEP 1 Set "FROM" (Access repeater)

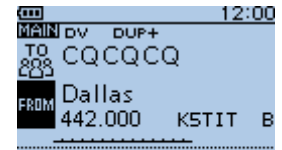
- ① Push D-pad(↑) to select "FROM," and then push D-pad(Ent).



- ② Push D-pad(↑) to select "Repeater List," and then push D-pad(Ent).

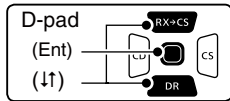
- ③ Push D-pad(↑) to select the repeater group where your access repeater is listed, and then push D-pad(Ent).
 - Example: "11: Japan"

- ④ Push D-pad(↑) to select your access repeater, and then push D-pad(Ent).
 - Example: "Hirano430"

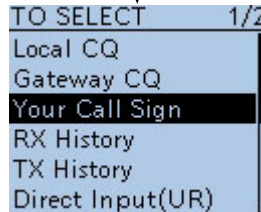


STEP 2 Set "TO" (Destination)

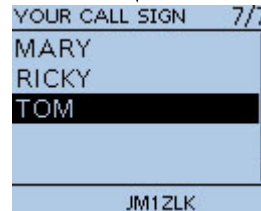
- ① Push D-pad(↑) to select "TO," and then push D-pad(Ent).



- ② Push D-pad(↓) to select "Your Call Sign," and then push D-pad(Ent).

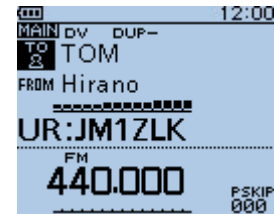


- ③ Push D-pad(↓) to select the destination station, and then push D-pad(Ent).
• Example: "TOM"



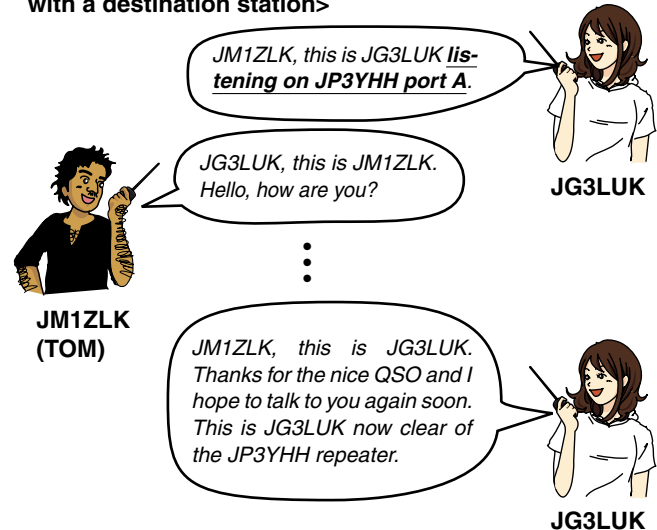
STEP 3 Hold down [PTT] to transmit

While holding down [PTT], speak into the microphone at your normal voice level.



Transmitting

<Communication example with a destination station>

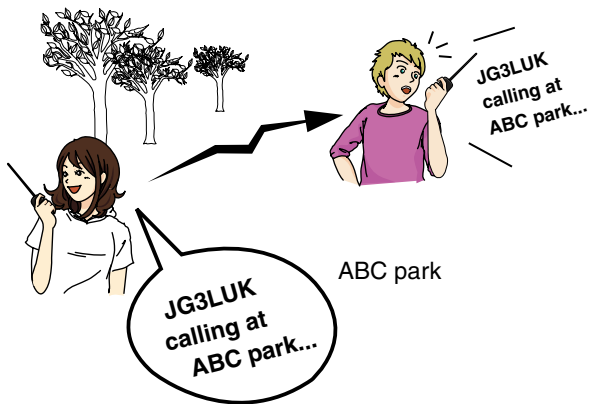


7

MAKING A SIMPLEX CALL

You can make a transceiver to transceiver call (through no repeater) in the DR mode.

NOTE: Depending on the transceiver's version, the frequencies may be different. Check for acceptable frequencies for your operating area.



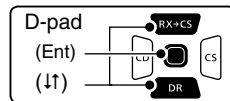
✓ What is a Simplex Call??

A simplex call is a direct call to another station, not using a repeater.

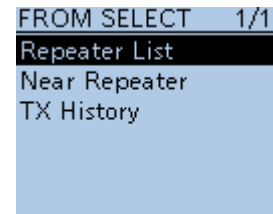
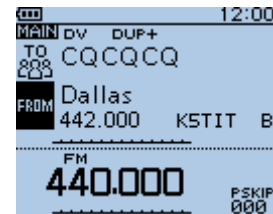
STEP 1 Set "FROM" (Simplex channel)

Example: Making a simplex call on 433.450 MHz.

- ① Push D-pad(↓) to select "FROM," and then push D-pad(Ent).

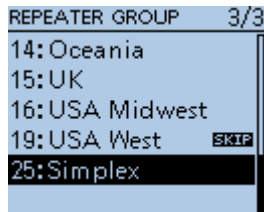


- ② Push D-pad(↓) to select "Repeater List," and then push D-pad(Ent).



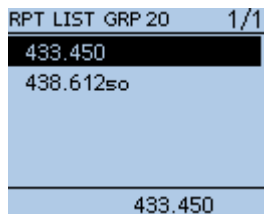
Go to step ③

③ Push D-pad(⬆) to select “25: Simplex,” and then push D-pad(Ent).



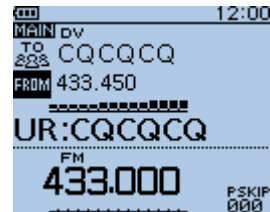
④ Push D-pad(⬆) to select “433.450,” and then push D-pad(Ent).

- “433.450” is displayed in “FROM.”
- “CQCQCQ” is displayed in “TO.”
- If a station call sign is set in “TO”, select “Local CQ” in the TO SELECT screen to set “TO” to “CQCQCQ.”



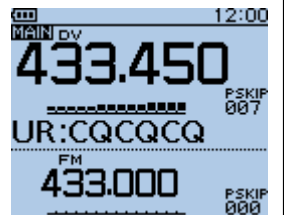
STEP 2 Hold down [PTT] to transmit

- ① While holding down [PTT], speak at your normal voice level.
 - The TX/RX indicator lights red.
 - The S/RF meter shows the transmit output power level.
- ② Release [PTT] to receive.



Transmitting

When you make a simplex call in the VFO mode, the LCD changes as shown to the right.

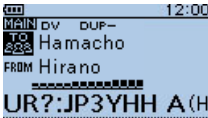





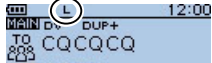

NOTE: The simplex frequencies can be changed in the MENU screen. See the PDF type Advanced Instruction section 9 for more details.
 (MENU > DV memory > **Repeater List**)

8

TROUBLESHOOTING

To communicate through the repeater, your signal must access to the repeater. When your signal accesses your local repeater, but it is not sent to the destination repeater, the repeater replies with a status message.

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
<p>After your call, the repeater does not return a status reply.</p>	<ul style="list-style-type: none"> The repeater setting is wrong. Your transmission did not reach the repeater. 	<ul style="list-style-type: none"> Select the correct repeater. Correct the repeater frequency, frequency offset, or duplex setting. Wait until you are closer to the repeater and try again. Try to access another repeater. 	<p>p. 17 — —</p>
<p>After your call, the repeater replies 'UR?' and its call sign.</p> 	<ul style="list-style-type: none"> The call was successfully sent, but no station immediately replied. 	<ul style="list-style-type: none"> Wait for a while, and try again. 	<p>—</p>
<p>After your call, the repeater replies 'RX' or 'RPT?' and the access repeater's call sign.</p> 	<ul style="list-style-type: none"> Your own call sign (MY) has not been set. Your own call sign (MY) has not been registered on a gateway repeater, or the registered contents do not match your transceiver's setting. 	<ul style="list-style-type: none"> Set your own call sign (MY). Register your own call sign (MY) on a gateway repeater, or confirm the registration of the call sign. 	<p>p. 2 p. 4</p>
<p>After your call, the repeater replies 'RPT?' and call sign of the destination repeater.</p>	<ul style="list-style-type: none"> The repeater cannot connect to the destination repeater. The repeater is busy. 	<ul style="list-style-type: none"> Check the repeater setting. Wait for a while, and try it again. 	<p>p. 17 —</p>
<p>After your call, the access repeater replies 'RPT?' and its call sign.</p>	<ul style="list-style-type: none"> The call sign of the destination repeater is wrong. 	<ul style="list-style-type: none"> Correctly set the destination repeater call sign. 	<p>—</p>

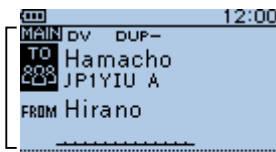
PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
Even holding down  , the DR mode will not appear.	<ul style="list-style-type: none"> • There is no repeater list in your radio. 	<ul style="list-style-type: none"> • Reload the repeater list using the CS-51 CLONING SOFTWARE on the CD. • Enter the Repeater list data directly into the transceiver. 	Sec. 17 of the Advanced Instruction PDF Sec. 9 of the Advanced Instruction PDF
Even holding down  , the received call sign will not set to the destination call sign.	<ul style="list-style-type: none"> • The call sign has not been correctly received. • When a received signal is weak, or a signal is received during scanning, the call sign may not be received correctly. In that case, “-----” appears and error beeps sound, and a reply call cannot be made. 	<ul style="list-style-type: none"> • Try it again, after the transceiver has correctly received the call sign. 	—
A Local area call can be made, but the Gateway call or destination station call cannot be made.	<ul style="list-style-type: none"> • MY call sign has not been registered on a D-STAR repeater. 	<ul style="list-style-type: none"> • Register your own call sign (MY) on a gateway repeater, or confirm the registration of the call sign. 	p. 4
Position data cannot be received.	<ul style="list-style-type: none"> • “External GPS” is selected in the GPS Set item on the Menu screen, but an external GPS receiver is not connected. • “OFF” or “Manual” is selected in the GPS Set item on the Menu screen. • A GPS signal was not received. 	<ul style="list-style-type: none"> • Connect an external GPS receiver. • Select either “Internal GPS” or “External GPS” in the GPS Set item on the Menu screen. • Move until the GPS signal is received. 	
After transmitting, “L” appears on the LCD. 	<ul style="list-style-type: none"> • While receiving through the internet, some packets may be lost due to network error (poor data throughput performance). 	<ul style="list-style-type: none"> • Wait a while, and try it again. •  When the transceiver receives corrupted data, and misidentifies it as Packet Loss, “L” is displayed, even if it is a Local area call. 	—
“DV” and “FM” icons alternately blink.	<ul style="list-style-type: none"> • While in the DV mode, an FM signal is received. 	<ul style="list-style-type: none"> • Use a different operating frequency until there are no FM signals on the original frequency. 	—

When “FROM” (Access repeater) and “TO” (Destination) settings are saved, the settings can be selected by rotating [DIAL].

STEP 1 Saving settings into memory

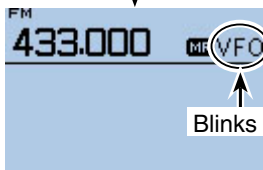
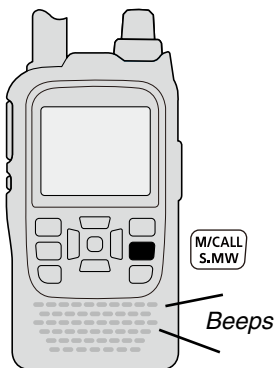
In the DR mode, select the settings to be saved into memory.

Shows the settings to be saved.



DR mode screen

- ① Hold down [S.MW] ^(M/CALL)_(S.MW) for 1 second to enter the Select Memory write mode.



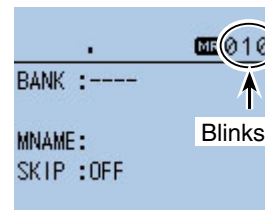
Select Memory write mode

Go to step ②

NOTE: DO NOT hold down [S.MW] ^(M/CALL)_(S.MW) for more than 2 seconds. Otherwise the setting contents will be copied to the VFO.

- ② Rotate [DIAL] to select a blank channel.

- When a channel that is already programmed is selected, the memory name will not be programmed.



- ③ Hold down [S.MW] ^(M/CALL)_(S.MW) for 1 second to save the settings into the channel.

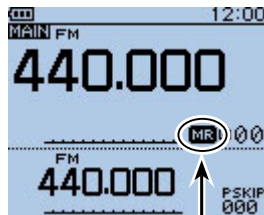
- 3 beeps sound.
- Before returning to the DR mode, the saved memory contents are briefly displayed.
- “FROM” and “TO” names are automatically programmed as the Memory name.

Up to 16 alphanumeric characters can be programmed for the memory name.



STEP 2 View the saved contents

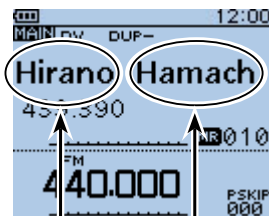
- ① Push [M/CALL] ^[M/CALL]_[S,MV] to select the Memory mode.
 - “MR” appears.



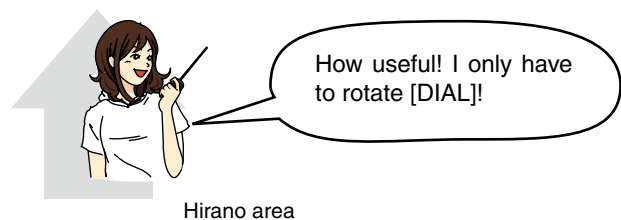
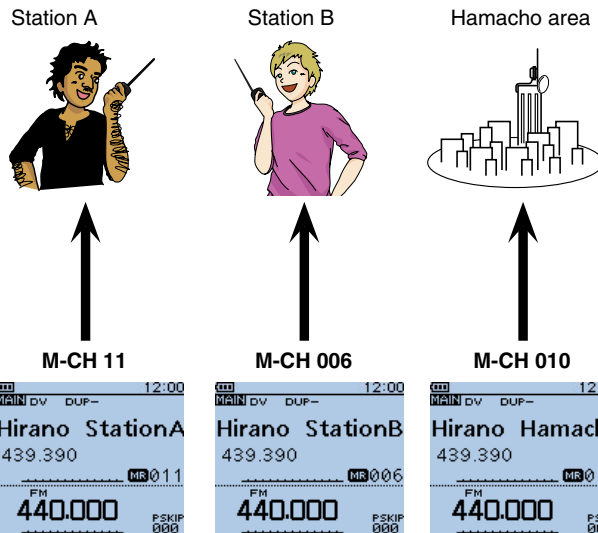
Memory mode screen

Stored channel is selected

- ② Rotate [DIAL] to select the stored channel.
 - Example: “010”



“FROM” and “TO” names are automatically programmed as the Memory name.



Hirano area

10 RECORDING A QSO ONTO A microSD CARD

About using a microSD card

◇ Usable microSD cards

- ▨ A microSD or microSDHC card is not supplied with the transceiver. Please purchase a card to use.
- ▨ Read the instructions of the microSD card thoroughly before use.

Icom has checked the compatibility of the following microSD and microSDHC cards:

- Icom does not guarantee the card's performance.

(As of December 2012)

Maker	Kind of the card	Capacity
SanDisk®	microSD	2 GB
	microSDHC	4 GB
		8 GB
		16 GB
		32 GB

▨ **BE CAREFUL!** While reading or writing data from or to the card; **NEVER** turn OFF the transceiver. It will corrupt the data or damage the card.

Also be careful in the following cases:

- When using the transceiver with the BP-273 battery case, and the batteries are near exhaustion.
- When using the transceiver with an external DC power source and the battery pack is not attached, then the external power is turned OFF.

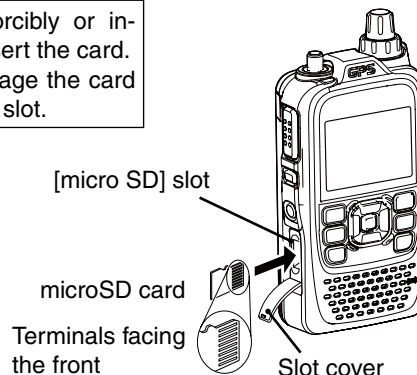
STEP 1 Inserting the microSD card

- ① Turn OFF the transceiver.
- ② Lift OFF the [micro SD] slot cover on the side panel.
- ③ With the terminals facing the front, insert the card into the slot until it locks in place, and makes a 'click' sound.

▨ BE CAREFUL!

- **DO NOT** touch the terminals.
 - To remove the card, push in to release it, then carefully pull out the card.
 - While reading or writing data from and to the card, **NEVER** remove the card. It will corrupt the data or damage the card.
- ④ Firmly close the [micro SD] slot cover.

NEVER forcibly or inversely insert the card. It will damage the card and/or the slot.




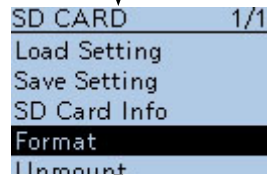
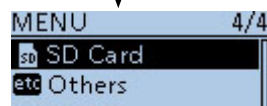
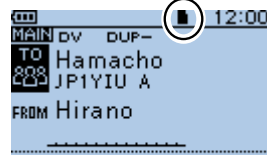
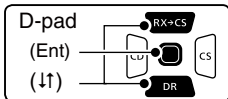
STEP 2 Format the microSD card

When using a preformatted brand new microSD card, formatting is not necessary. However, we still recommend you format it in the following way to get the card's best performance.

IMPORTANT!

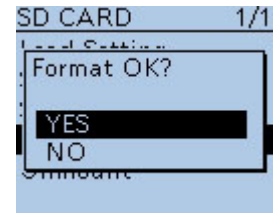
Formatting a card erases all its data. Before formatting any programmed card, make a backup file onto your PC.

- ① Turn ON the transceiver.
 - “ to enter the Menu screen.
 - ③ Push D-pad(↑) to select “SD Card,” then push D-pad(Ent).
 - ④ Push D-pad(↓) to select “Format,” then push D-pad(Ent).

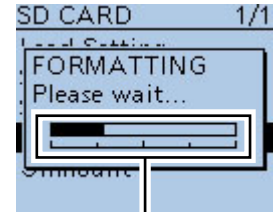


Go to step ⑤


- ⑤ The confirmation screen “Format OK?” appears.

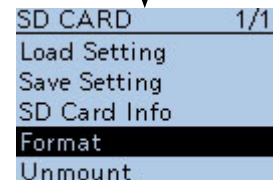


- ⑥ Push D-pad(↓) to select “YES,” then push D-pad(Ent) to format.
 - The formatting starts and the display shows the formatting progress.



Shows the formatting progress

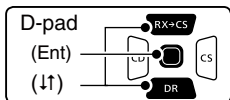
- ⑦ After formatting, the display automatically returns to the SD CARD menu. Push [MENU]  to return to the frequency display.





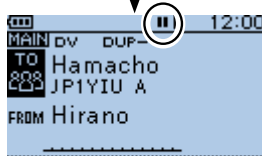
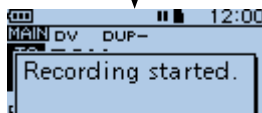
10 RECORDING A QSO ONTO A microSD CARD

STEP 3 Recording a QSO audio

- 1 Push [QUICK]^{QUICK SPCH} to enter the Quick Menu screen.
- 2 Push D-pad(↑) to select “<<REC Start>>.”



- 3 Push D-pad(Ent) to start voice recording.
 - The transceiver displays “Recording started” and automatically exits the Quick Menu screen.
 - “” appears while the transceiver is recording.
 - “” appears while the recording is paused.
 - Recording is continuous until you manually stop recording, or the card becomes full.
 - If the recording file's content reaches 2GB, the transceiver automatically creates a new file, and continues recording.



While pausing



While recording

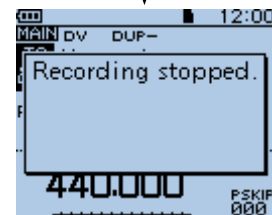
NOTE: BC Radio audio cannot be recorded.

◇ To stop recording

- 1 Push [QUICK]^{QUICK SPCH} to enter the Quick Menu screen.
- 2 Push D-pad(↓) to select “<<REC Stop>>.”




- 3 Push D-pad(Ent) to stop voice recording.
 - The transceiver displays “Recording stopped,” and automatically exits the Quick Menu screen.

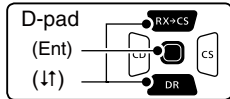


✓ Convenient!

When the PTT Automatic Recording function is set to ON in the MENU screen, the recording automatically starts when [PTT] is pushed.
(MENU > Voice Memo > QSO Recorder > Recorder Set > PTT Auto REC)

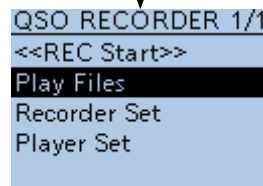
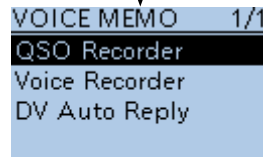
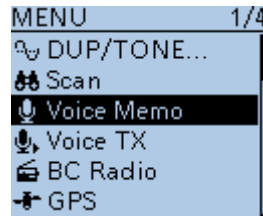
STEP 4 Playing back the recorded audio

- ① Push [MENU]  to enter the Menu screen.
- ② Push D-pad(↑) to select the root item (Voice Memo), and then push D-pad(Ent) to go to the next level.



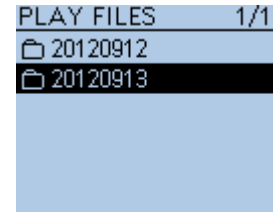
(MENU > Voice Memo > QSO Recorder > **Play Files**)

- ③ Refer to the menu sequence shown directly above and push D-pad(↑) to select, and then push D-pad(Ent) to enter, one or more times until the last screen is displayed.

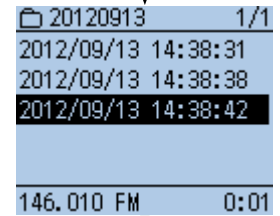



Go to step ④

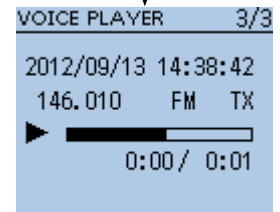
- ④ Push D-pad(↓) to select the folder that contains the file you want to play, and then push D-pad(Ent).
 - The folder name is composed of the year (4 digits), the month and the day (2 digits each).



- ⑤ Push D-pad(↓) to select the file that you want to play, then push D-pad(Ent) to play it back.
 - The VOICE PLAYER screen is displayed, and the file starts to play back.




- ⑥ Push [MENU]  or [CLR] to stop the playback.
 - The file list is automatically displayed.

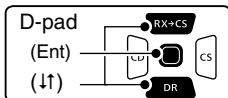


11 GPS OPERATION

The ID-51A/E has a built-in internal GPS receiver. You can check your current position, or transmit GPS data in the DV mode.

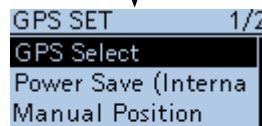
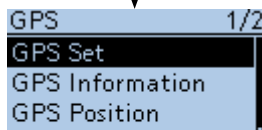
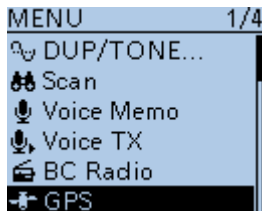
STEP 1 Receiving GPS data from the internal GPS receiver

- ① Push [MENU]  to enter the Menu screen.
- ② Push D-pad(↑) to select the root item (GPS), and then push D-pad(Ent) to go to the next level.



(MENU > GPS > GPS Set > **GPS Select**)

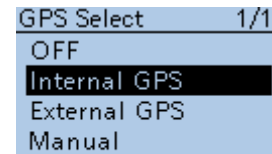
- ③ Refer to the menu sequence shown directly above and push D-pad(↑) to select, and then push D-pad(Ent) to enter, one or more times until the last screen is displayed.




Go to step ④

See the PDF type Advanced Instruction for more details of the GPS operation.

- ④ Push D-pad(↑) to select “Internal GPS.”



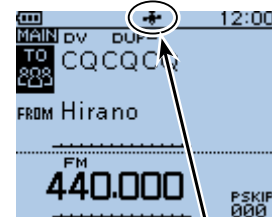
GPS Select screen

- ⑤ Push [MENU]  to exit the Menu screen.

- The GPS icon blinks when receiving data, as illustrated below, and stops blinking when valid data is received.



- If “Manual” was selected, the icon does not appear.
- It may take only a few seconds to receive, but depending on the environment, it may take a few minutes. If you have difficulties receiving, we recommend that you try a different location.



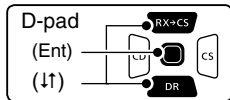
Blinks

STEP 2 Displaying your position

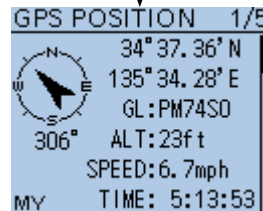
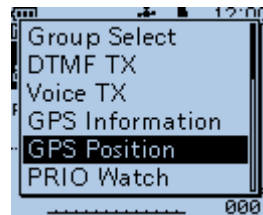
Confirm the GPS icon is displayed on the LCD.



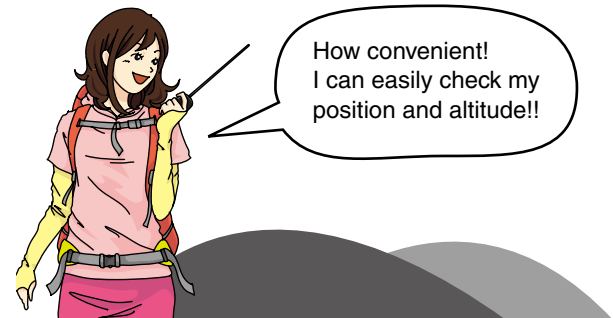
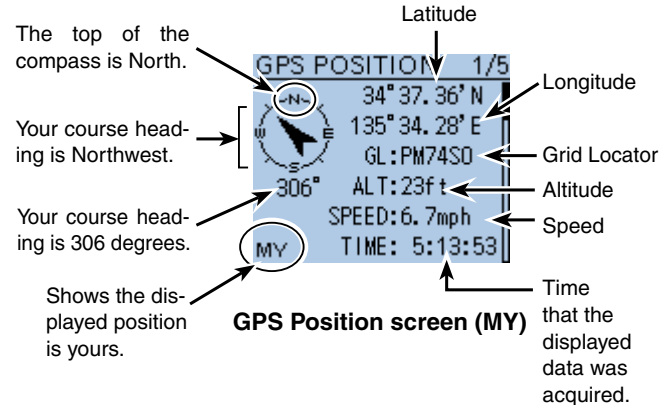
- 1 Push [QUICK] to enter the Quick Menu screen.
- 2 Push D-pad (↑) to select the "GPS position" item, and then push D-pad (Ent).



- 3 The first MY GPS position screen appears. (1/5)



<Contents of the GPS Position screen>




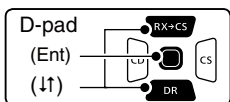
12 GPS LOGGER FUNCTION

The GPS Logger function allows you to store the GPS position data (Latitude, Longitude, Altitude, Positioning state, Course, Speed and Date) onto a microSD card, as your route.

If you use this function while driving, you can check your driving course on a mapping software.

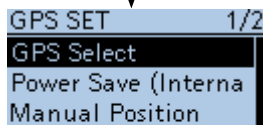
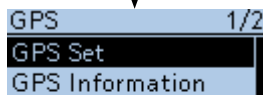
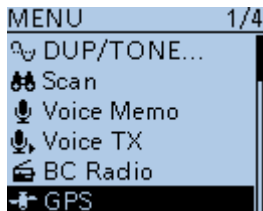
STEP 1 Receiving GPS data from the internal GPS receiver

- ① Push [MENU]  to enter the Menu screen.
- ② Push D-pad(↑) to select the root item (GPS), and then push D-pad(Ent) to go to the next level.



(MENU > GPS > GPS Set > GPS Select)

- ③ Refer to the menu sequence shown directly above and push D-pad(↑) to select, and then push D-pad(Ent) to enter, one or more times until the last screen is displayed.

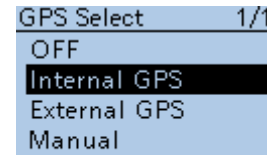



Go to step ④

NOTE:

- The GPS logger function requires a microSD card.
- See p. 39 for more details.

- ④ Push D-pad(↓) to select “Internal GPS.”

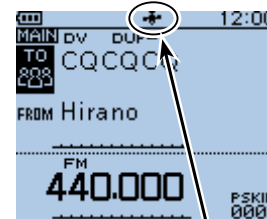


- ⑤ Push [MENU]  to exit the Menu screen.

- The GPS icon blinks when receiving data, as illustrated below, and stops blinking when valid data is received.




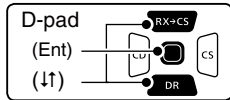
- If “Manual” is selected, the icon does not appear.
- It may take only a few seconds to receive, but depending on the environment, it may take a few minutes. If you have difficulties receiving, we recommend that you try a different location.



Blinks

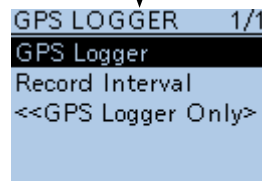
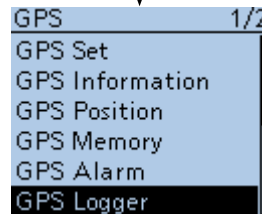
STEP 2 Turning ON the GPS Logger function

- ① Push [MENU]  to enter the Menu screen.
- ② Push D-pad(↑) to select the root item (GPS), and then push D-pad(Ent) to go to the next level.




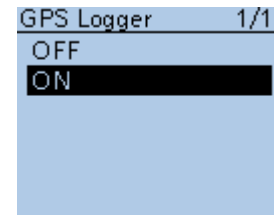
(MENU > GPS > GPS Logger > **GPS Logger**)

- ③ Refer to the menu sequence shown directly above and push D-pad(↑) to select, and then push D-pad(Ent) to enter, one or more times until the last screen is displayed.



Go to step ④

- ④ Push D-pad(↓) to select “ON.”
- ⑤ Push [MENU]  to exit the Menu screen.
 - The GPS Logger starts.

**<About log file>**

You can display your route as you move, if you import the log file into a mapping software.

- You can see your route on the software map. The files may not be compatible with all mapping software.
- See the PDF type Advanced Instruction for copying the log file to your PC.

NOTE:

- Once the GPS logger function is turned ON, the transceiver continuously stores the position data from the GPS receiver, even if the transceiver is rebooted. To cancel this function, turn the function OFF. While this function is ON, and when the transceiver is turned OFF, the log file will be closed. Then the transceiver is turned ON and positioning is carried out by the GPS receiver, a new log file will be created.
- When the microSD card is full, this function will be automatically paused.

13 INTRODUCING NEW FUNCTIONS

This section introduces new functions built into the ID-51A/E.

- See the PDF type Advanced Instruction's for more details.

NEW! Voice Recorder function

The microphone audio can be recorded.

Audio from an external microphone can also be recorded.

- Depending on the microSD card capacity, you may continuously record up to a maximum of about 37 hours. If the file size exceeds 2 GB, a new file is automatically created in the same folder, and the recorded voice audio is saved there.
- See the PDF type Advanced Instruction's Section 11 for details.



/// **NOTE:** This function requires a microSD card.

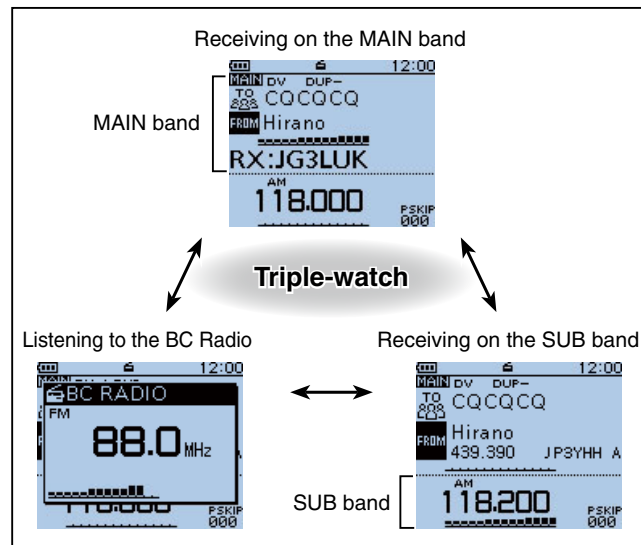
NEW! Two band monitoring plus BC Radio

When the transceiver receives 2 amateur bands on the MAIN band and SUB band, you can still listen to the Broadcast (BC) Radio.

You can comfortably standby listening to the BC Radio.

Also, the transceiver can be used as just a BC Radio. In this case, the other modes are in a sleep state.

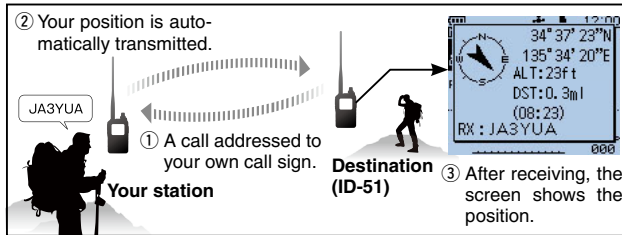
- See the PDF type Advanced Instruction's Section 6 for details.



NEW! Auto Position Reply function

When you receive a call addressed to your own call sign, but are in a situation that makes it difficult to operate the transceiver, this function automatically replies with your own call sign and transmits your position.

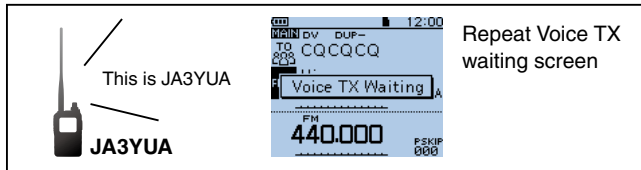
• See the PDF type Advanced Instruction's Section 9 for details.



NEW! Voice TX function

You can transmit recorded audio once or repeatedly, which is useful for D-STAR events.

• See the PDF type Advanced Instruction's Section 17 for details.



/// **NOTE:** This function requires a microSD card.

NEW! Speech function

Hold down [SPCH]^{QUICK} for 1 second to audibly announce the displayed frequency and operating mode, or call sign.

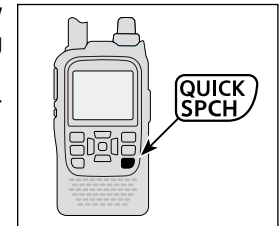
You will know it without looking at the display.

• See the PDF type Advanced Instruction's Section 17 for details.

Also, other functions help you know the current setting without looking at the display.

See the PDF type Advanced Instruction for details.

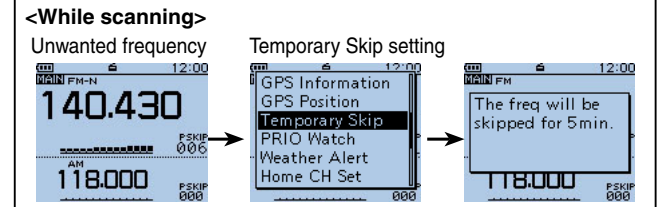
- Home CH beep function
- [DIAL] speech function
- Mode speech function



NEW! Temporary Skip function

This function temporarily skips unwanted frequencies during a scan, for a set period.

• See the PDF type Advanced Instruction's Section 13 for details.



14 RESETTING

■ Resetting

The display may occasionally display erroneous information (for example when first applying power). This may be caused externally by static electricity or by other factors.

If this problem occurs, turn OFF power.


After waiting a few seconds, turn ON power again. If the problem persists, perform a Partial reset or an All reset.

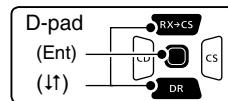
A Partial reset resets operating settings to their default values (VFO frequency, VFO settings, menu contents) without clearing the items below:

- Memory channel contents
- Call channel contents
- Message data
- GPS Memory contents
- BC Radio Memory
- Scan Edge contents
- Call sign memories
- DTMF memory contents
- Repeater list

BE CAREFUL! An All reset clears all programming and returns all settings to their factory defaults. See the PDF type Advanced Instruction for more details.

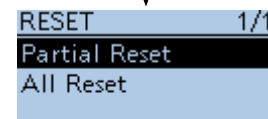
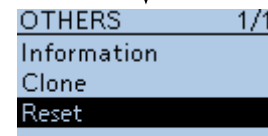
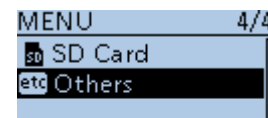
◇ Partial reset

- ① Push [MENU]  to enter the Menu screen.
- ② Push D-pad(↑) to select the root item (Others), and then push D-pad(Ent) to go to the next level.



(MENU > Others > Reset > **Partial Reset**)

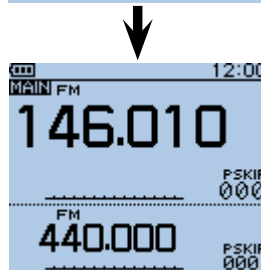
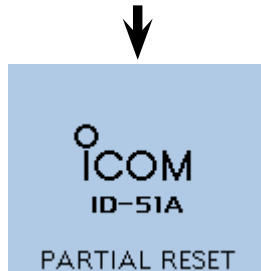
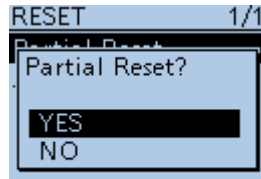
- ③ Refer to the menu sequence shown directly above and push D-pad(↑) to select, and then push D-pad(Ent) to enter, one or more times until the last screen is displayed.



Go to step ④

- ④ The “Partial Reset?” dialog appears.
- ⑤ Push D-pad(↓) to select “Yes,” and then push D-pad(Ent).
 - The transceiver displays “PARTIAL RESET,” then the partial reset is completed.

Shows “PARTIAL RESET” →



Default screen

COUNTRY CODE LIST

• ISO 3166-1

	Country	Codes		Country	Codes
1	Austria	AT	18	Liechtenstein	LI
2	Belgium	BE	19	Lithuania	LT
3	Bulgaria	BG	20	Luxembourg	LU
4	Croatia	HR	21	Malta	MT
5	Czech Republic	CZ	22	Netherlands	NL
6	Cyprus	CY	23	Norway	NO
7	Denmark	DK	24	Poland	PL
8	Estonia	EE	25	Portugal	PT
9	Finland	FI	26	Romania	RO
10	France	FR	27	Slovakia	SK
11	Germany	DE	28	Slovenia	SI
12	Greece	GR	29	Spain	ES
13	Hungary	HU	30	Sweden	SE
14	Iceland	IS	31	Switzerland	CH
15	Ireland	IE	32	Turkey	TR
16	Italy	IT	33	United Kingdom	GB
17	Latvia	LV			

FCC INFORMATION

• **FOR CLASS B UNINTENTIONAL RADIATORS:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this device, not expressly approved by Icom Inc., could void your authority to operate this device under FCC regulations.

A	
Access repeater	
Access repeater (“FROM”) setting	17
Access the repeater	17
Check whether you can access the repeater	20
Auto Position Reply function	48
B	
Battery	
Cautions	14
C	
Call	
Gateway call	29
Gateway call to a destination station	31
Local area call	27
Simplex call	33
Call sign	
Call sign Capture	25
Call Sign Capture key	25
Entering your own call sign into the transceiver	2
Charging	
Caution	15
Charging at power ON	16
Charging time	15
Communication example	
For Gateway call	30
For Local area call	28
With a destination station	32
Country code list	51

D	
Destination repeater (“TO”) setting	19
DR mode	
Selection	17
E	
Explicit definitions	10
Entering your own call sign into the transceiver	2
F	
FCC information	51
Features	9
Unique features of D-STAR	1
Foreword	9
Format the microSD card	40
G	
Gateway call	29
Communication example	30
What is a Gateway Call??	29
Gateway call to a destination station	31
Communication example	32
GPS	
Displaying your position	44
GPS Logger function	45
GPS operation	43
GPS Position screen	44
When using the GPS receiver	16
Receiving GPS data from the internal GPS receiver	43

INDEX

I	
IMPORTANT NOTES.....	16
About charging at power ON.....	16
When using the GPS receiver.....	16
Spurious signals.....	16
Inserting the microSD card.....	39

L	
Local area call	27
Log file.....	46
Local area call	
Communication example.....	28
What is a Local Area Call??.....	27

M	
MENU screen	2
microSD card	
Format.....	40
Inserting.....	39
Recording a QSO audio.....	41
Recording a QSO onto a microSD card.....	39
Playing back the recorded audio.....	42
Stop recording.....	41
Using.....	39
Voice Recorder function.....	47
Voice TX function	48

N	
New functions	47
Speech function	48
Voice Recorder function.....	47
Voice TX function	48
Temporary Skip function	48
Two band monitoring plus BC Radio.....	47

P	
Partial reset	49
Playing back the recorded audio	42
Power.....	2
Precautions.....	12
Preparation	2
Enter your call sign into the transceiver	2
Register your call sign to a gateway repeater	4

R	
Receiving GPS data from the internal GPS receiver.....	43
Record	
Recording a QSO audio.....	41
Recording a QSO onto a microSD card.....	39
Stop recording.....	41
Resetting	49
Partial reset.....	49
RX history	
How to use the RX history	21
Save the destination call sign from the RX History	22
View the received call sign.....	21

S

Save
 Save the destination call sign from the RX History 22
 Saving settings..... 37
 View the saved contents 38

Simplex call 33
 Simplex channel setting 33
 What is a Simplex Call?? 33

Speech function..... 48

Spurious signals 16

Stop recording 41

Supplied accessories..... 10
 Supplied CD..... 11
 Starting the CD 11

T

Table of contents 7

Temporary Skip function 48

Text entry 23
 Keys used for input..... 3

Two band monitoring plus BC Radio 47

Troubleshooting 35

U

Unique features of D-STAR 1

Using a microSD card..... 39

V

View the received call sign 21

View the saved contents..... 38

Voice Recorder function 47

Voice TX function..... 48

Y

Your position 44

Count on us!

#02 Europe

<Intended Country of Use>											
<input checked="" type="checkbox"/>	AT	<input checked="" type="checkbox"/>	BE	<input checked="" type="checkbox"/>	CY	<input checked="" type="checkbox"/>	CZ	<input checked="" type="checkbox"/>	DK	<input checked="" type="checkbox"/>	EE
<input checked="" type="checkbox"/>	FI	<input checked="" type="checkbox"/>	FR	<input checked="" type="checkbox"/>	DE	<input checked="" type="checkbox"/>	GR	<input checked="" type="checkbox"/>	HU	<input type="checkbox"/>	IE
<input type="checkbox"/>	IT	<input checked="" type="checkbox"/>	LV	<input checked="" type="checkbox"/>	LT	<input checked="" type="checkbox"/>	LU	<input checked="" type="checkbox"/>	MT	<input checked="" type="checkbox"/>	NL
<input checked="" type="checkbox"/>	PL	<input checked="" type="checkbox"/>	PT	<input checked="" type="checkbox"/>	SK	<input checked="" type="checkbox"/>	SI	<input checked="" type="checkbox"/>	ES	<input checked="" type="checkbox"/>	SE
<input type="checkbox"/>	GB	<input checked="" type="checkbox"/>	IS	<input checked="" type="checkbox"/>	LI	<input checked="" type="checkbox"/>	NO	<input checked="" type="checkbox"/>	CH	<input checked="" type="checkbox"/>	BG
<input checked="" type="checkbox"/>	RO	<input checked="" type="checkbox"/>	TR	<input checked="" type="checkbox"/>	HR						

#03 U.K.

<Intended Country of Use>											
<input type="checkbox"/>	AT	<input type="checkbox"/>	BE	<input type="checkbox"/>	CY	<input type="checkbox"/>	CZ	<input type="checkbox"/>	DK	<input type="checkbox"/>	EE
<input type="checkbox"/>	FI	<input type="checkbox"/>	FR	<input type="checkbox"/>	DE	<input type="checkbox"/>	GR	<input type="checkbox"/>	HU	<input checked="" type="checkbox"/>	IE
<input type="checkbox"/>	IT	<input type="checkbox"/>	LV	<input type="checkbox"/>	LT	<input type="checkbox"/>	LU	<input type="checkbox"/>	MT	<input type="checkbox"/>	NL
<input type="checkbox"/>	PL	<input type="checkbox"/>	PT	<input type="checkbox"/>	SK	<input type="checkbox"/>	SI	<input type="checkbox"/>	ES	<input type="checkbox"/>	SE
<input checked="" type="checkbox"/>	GB	<input type="checkbox"/>	IS	<input type="checkbox"/>	LI	<input type="checkbox"/>	NO	<input type="checkbox"/>	CH	<input type="checkbox"/>	BG
<input type="checkbox"/>	RO	<input type="checkbox"/>	TR	<input type="checkbox"/>	HR						

#04 Italy

<Intended Country of Use>											
<input type="checkbox"/>	AT	<input type="checkbox"/>	BE	<input type="checkbox"/>	CY	<input type="checkbox"/>	CZ	<input type="checkbox"/>	DK	<input type="checkbox"/>	EE
<input type="checkbox"/>	FI	<input type="checkbox"/>	FR	<input type="checkbox"/>	DE	<input type="checkbox"/>	GR	<input type="checkbox"/>	HU	<input type="checkbox"/>	IE
<input checked="" type="checkbox"/>	IT	<input type="checkbox"/>	LV	<input type="checkbox"/>	LT	<input type="checkbox"/>	LU	<input type="checkbox"/>	MT	<input type="checkbox"/>	NL
<input type="checkbox"/>	PL	<input type="checkbox"/>	PT	<input type="checkbox"/>	SK	<input type="checkbox"/>	SI	<input type="checkbox"/>	ES	<input type="checkbox"/>	SE
<input type="checkbox"/>	GB	<input type="checkbox"/>	IS	<input type="checkbox"/>	LI	<input type="checkbox"/>	NO	<input type="checkbox"/>	CH	<input type="checkbox"/>	BG
<input type="checkbox"/>	RO	<input type="checkbox"/>	TR	<input type="checkbox"/>	HR						

A-7056H-1EX
Printed in Japan
© 2012 Icom Inc.

Printed on recycled paper with soy ink.

Icom Inc.
1-1-32 Kamiminami, Hirano-ku, Osaka 547-0003, Japan