



OPERATING GUIDE

VHF TRANSCEIVER **IC-G88**

INTRODUCTION

PREFACE

We appreciate you choosing Icom for your communication needs.
The MDC 1200 signaling system is built into your IC-G88 VHF TRANSCEIVER.

IMPORTANT

FIRST, CAREFULLY READ INSTRUCTIONS ① and ② that are provided with the transceiver.

SAVE THIS OPERATING GUIDE— This operating guide contains additional important operating instructions for the IC-G88 VHF TRANSCEIVER.

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Section 1 ACCESSORIES

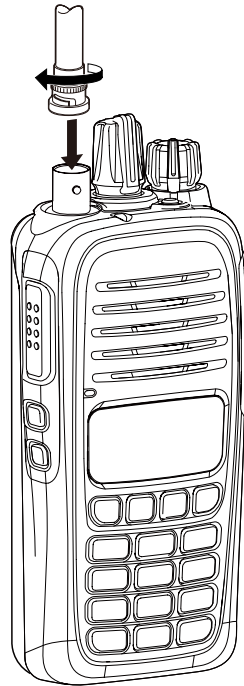
Accessory attachments

◇ Antenna

Connect the supplied antenna to the antenna connector.

CAUTION:

- **NEVER** carry the transceiver by holding only the antenna.
- **DO NOT** connect any antenna other than that is supplied with the transceiver.
- Transmitting without an antenna may damage the transceiver.

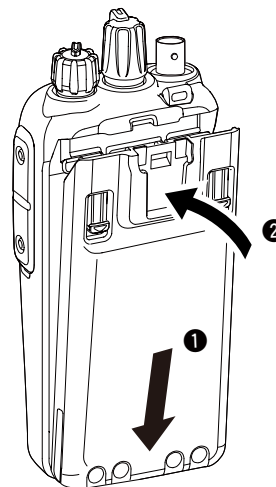


◇ Battery pack

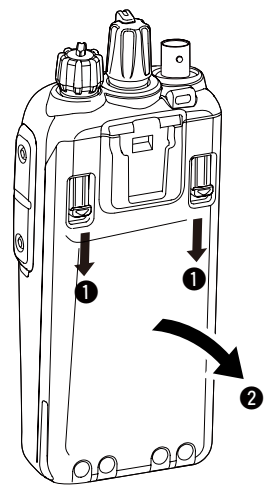
To attach or detach the battery pack:

Attach or detach the battery pack, as illustrated to the right.

To attach



To detach



◇ Belt clip

To attach the belt clip:

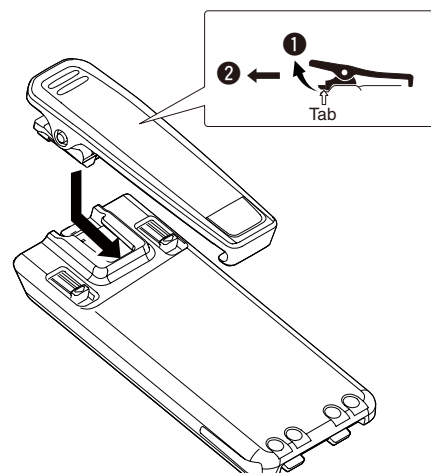
- ① Remove the battery pack from the transceiver, if it is attached.
- ② Slide the belt clip in the direction of the arrow until the belt clip locks in place, and makes a 'click' sound.

To detach the belt clip:

- ① Remove the battery pack from the transceiver, if it is attached.
- ② Lift the tab up (①), and slide the belt clip in the direction of the arrow (②).

To attach

To detach



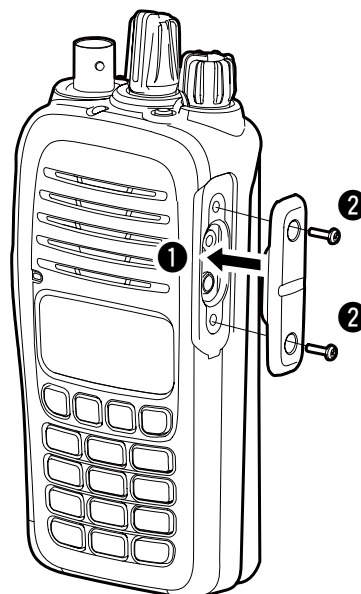
Accessory attachments (Continued)

◇ Jack cover

To attach the jack cover:

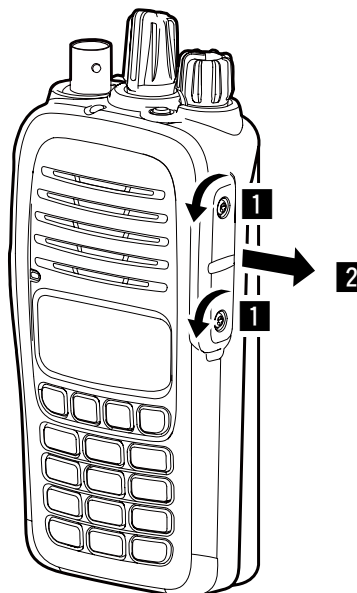
- 1 Place the jack cover over the speaker-microphone jack.
- 2 Insert and tighten the screws.

CAUTION: The transceiver meets IP67 requirements for dust-tight and waterproof protection, only when the jack cover or the optional HM-168LWP SPEAKER MICROPHONE is attached.



To detach the jack cover:

- 1 Unscrew the screws using a Phillips screwdriver.
- 2 Detach the jack cover to connect a speaker-microphone or a headset.



Programmable key functions

If you use the CS-G88 PROGRAMMING SOFTWARE (purchase separately), you can assign the functions described below to **[P0]**, **[P1]**, **[P2]**, **[P3]**, **[TOP]**, **[UP]**, and **[DOWN]**.

NOTE: About the default settings of these keys, See **PANEL DESCRIPTION** described in INSTRUCTIONS ②.

CH Up, CH Down (UP, DOWN)

- ➡ In the VFO mode, push to set the frequency.
- ➡ In the Memory mode, push to select a channel.
- ➡ In the Set mode, push to select an option for the item.

Moni / Favorite CH Rewrite

- ➡ Push to turn the Monitor function ON or OFF. (Open or close the squelch)
- ➡ In the Memory mode, hold down for 1 second to assign the selected Memory CH to the current selector position.

Scan

- ➡ Push to start or cancel a scan.
- ➡ In the Memory mode, hold down for 1 second to set the channel as the Scan-tagged or untagged channel.

Prio A, Prio B

- ➡ Push to select priority A/B channel.

Prio A (Rewrite), Prio B (Rewrite)

- ➡ Push to select the Priority A/B channel.
- ➡ Hold down to assign the selected channel to the Priority A/B channel.

MR-CH 1 ~ MR-CH 4 (MEMORY CHANNELS 1 ~ 4)

- ➡ Push to select memory channel 1, 2, 3, or 4, if set.

Lock

- ➡ Hold down for 1 second to turn the Key Lock function ON or OFF.
 - All assignable keys except the following are electronically locked: **[Shift]**, **[Lock]**, **[Surveillance]** and **[PTT]**.

High/Low

- ➡ Push to select the output power.

Wide/Narrow

- ➡ Push to temporarily switch the bandwidth to Wide, or Narrow.

DTMF Autodial

- ➡ Push to enter the DTMF channel selection mode. Then, select a DTMF channel using **[UP]** or **[DOWN]**. After selecting the channel, push this key again to transmit the selected DTMF code.

NOTE: Configure a DTMF code to transmit using the CS-G88 PROGRAMMING SOFTWARE.

Re-dial

- ➡ Push to transmit the last-transmitted DTMF code.

NOTE: The last-transmitted DTMF code will be cleared after turning OFF the transceiver.

Surveillance

- ➡ Hold down for 1 second to turn ON the Surveillance function.
 - When the Surveillance function is ON, beeps do not sound and the LED indicator does not light, even when receiving a signal, or pushing a key.
- ➡ Push to turn OFF the Surveillance function.

Siren

- ➡ Hold down for 1 second to emit a siren.
 - This function can be used for situations other than an emergency alert, such as a security alarm. The transceiver emits the siren until the power is turned OFF.

Scrambler

- ➡ Push to turn the Voice Scrambler function ON or OFF.

Compander

- ➡ Push to turn the Compander function ON or OFF.
 - The Compander function reduces noise components from the transmitted audio to provide clear communication.

Programmable key functions (Continued)

VFO / User Set Mode

- Push to enter the VFO Set mode.
 - The VFO Set mode is used to change settings for the operation in the VFO mode.
- Hold down for 1 second to enter the User Set mode.
 - The User Set mode is used to set infrequently changed values or status of functions without using a PC.
- In the User/VFO mode, push this key to select an item, and then push [UP] or [DOWN] to change the value or setting.
- In the User/VFO mode, hold down for 1 second to exit the User/VFO Set mode.

Sp. Func 1/2

- Reserved for future function.

Announce

- Push to turn the Channel Announce function ON or OFF.
 - In the Memory mode, the transceiver announces the selected channel number.

Shift

- Push to switch the key functions, assigned into the Normal mode and the Shift mode. The Shift mode enables a programmable function key to have two functions.
 1. Push to turn ON the Shift mode key functions.
 - "SHIFT ON" is briefly displayed.
 2. Push another key to activate its secondary function.
 3. Push [**Shift**] again to turn OFF the function.
 - "SHIFT OFF" is briefly displayed, and then the transceiver returns to the Normal mode.

VFO / Memory Mode

- Push to toggle between VFO and Memory modes.
- In the VFO mode, hold down for 1 second to write the VFO data to the selected Memory channel.
- In the Memory mode, hold down for 1 second to copy the Memory channel data to the VFO.

Duplex / Sub Audible Tone

- Push to select the Duplex mode from DUP-, DUP+ and OFF.
- Hold down for 1 second to select a Sub Audible tone from Repeater tone, TSQL (Tone Squelch), TSQL with Pocket Beep, DTCS-TX, DTCS, DTCS with Pocket Beep and tone OFF.

About the MDC 1200 system

The MDC 1200 signaling system enhances your transceiver's capabilities. You can receive or transmit a PTT ID. PTT ID is a calling station ID that is sent by pushing or releasing **[PTT]**.

An additional feature of the MDC 1200 system included in Icom transceivers is called aliasing. Each transceiver on the system has a unique ID number. Aliasing is a substitute for this ID number and you can give an alphanumeric name for each station ID. In transmit, you can use this alias to select a transceiver to call. In receive, the alias of the calling station is displayed instead of the ID.

NOTE:

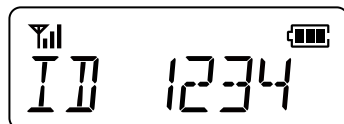
To use the MDC 1200 system, set the related settings by using the CS-G88 PROGRAMMING SOFTWARE (purchase separately).
The factory default is not set to allow the system operation.

Receiving

◇ Receiving a PTT ID

- When a PTT ID is received:
 - Beeps sound.
 - The calling station ID (or alias) is displayed.

< Calling station ID >



< Alias >



- Hold down **[PTT]** and speak into the microphone.
- Release **[PTT]** to receive a response.

Transmitting

◇ Transmitting a PTT ID

Another person can view your station ID. If the same alias is set at the receiving side, the alias is displayed instead of the station ID.

- Push **[PTT]** to make a call.
- Beeps sound.
- Your station ID will be transmitted when you push **[PTT]** (at the beginning of transmission) or release it (at the end of transmission), depending on the setting in the CS-G88.

Section 4 SET MODES

There are 2 Set modes: User Set mode and VFO Set mode.

User Set mode

The User Set mode enables you to change various settings. You can “customize” the transceiver operation to suit your preferences and operating style.

Entering the User Set mode:

- ➔ Hold down **[VFO / User Set Mode]** for 1 second to enter the User Set mode.
 - While in the User Set mode, push **[VFO / User Set Mode]** again to select an item, and then change the value or setting by pushing **[UP]** or **[DOWN]**.

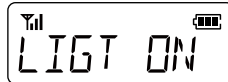
Exiting the User Set mode:

- ➔ Hold down **[VFO / User Set Mode]** again to exit the User Set mode.

Backlight

Select a state of the backlight.

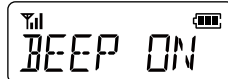
- ON: The backlight turns ON all the time.
- AUT: When pushing any key (except [PTT]), the backlight automatically turns ON for 5 seconds.
- AU2: When changing the displayed contents of the LCD, the backlight automatically turns ON for 5 seconds.
- OFF: Turns OFF the backlight.



Beep ON/OFF

Turn the key-touch beeps ON or OFF.

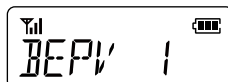
- ON: When you push a key, the beep sounds.
- OFF: The function is OFF, for a silent operation.



Beep Level

Set the beep and announce output level. When you select a Linked option, the beep level can be adjusted by **[VOL]**.

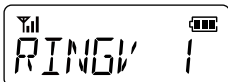
- 1 (minimum) – 5 (maximum)
- 1* (minimum) – 5* (maximum)
 - *: Linked with the audio level. Rotate **[VOL]** to adjust the beep level.



Ringer Level

Set the ringer level. When you select a Linked option, the ringer level can be adjusted by rotating **[VOL]**.

- 1 (minimum) – 5 (maximum)
- 1* (minimum) – 5* (maximum)
 - *: Linked with the audio level. Rotate **[VOL]** to adjust the ringer level.



NOTE:

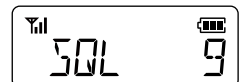
Beep: Any sound except ringers.

Ringer: Sounds when receiving a call.

SQL (Squelch) Level

Sets the SQL level. The squelch function suppresses the noise output from a speaker when no signal is received.

- 0: SQL Open
- 2: SQL Threshold
- 9: SQL Tight



AF Min Level (Minimum audio output level)

Sets the minimum audio output level. This function determines the minimum audio output level not to let the audio level become lower than the set level.

- 0 (minimum) ~ 255 (maximum)



Mic Gain

Sets the microphone sensitivity. Higher values make the microphone more sensitive to the user's voice.

- 1 (minimum) ~ 4 (maximum)



Battery Voltage Display

Select whether or not to display the battery voltage, when turning ON the transceiver.

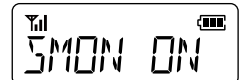
- ON: Displays the battery voltage for 2 seconds.
- OFF: Does not display the battery voltage.



Signal Moni

Select whether or not to release the mute while using a DTMF code signaling.

- ON: The mute is released while transmitting a DTMF Code.
- OFF: The mute is not released while transmitting a DTMF Code.



VFO Set mode

The VFO Set mode enables you to change various settings for the operation in the VFO mode. You can change the operating condition in this mode.

Entering the VFO Set mode:

- ➔ Push **[VFO / User Set Mode]** to enter the VFO Set mode.
 - While in the VFO Set mode, push **[VFO / User Set Mode]** again to select an item, and then change the value or setting by pushing **[UP]** or **[DOWN]**.

Exiting the VFO Set mode:

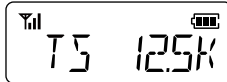
- ➔ Hold down **[VFO / User Set Mode]** again to exit the VFO Set mode.

Tuning Step

When you select the operating frequency by pushing **[UP]** or **[DOWN]**, the frequency changes in this selected tuning step.

The set tuning step is also used for a VFO scan.

- Select 5, 10, 12.5, 15.0, 20.0, 25.0, 30.0 or 50.0. (in kHz)



Frequency offset

Sets the frequency offset for the duplex operation.

In the duplex mode, the transmit frequency shifts up or down from the receive frequency by the offset amount. When the Reverse Duplex is set to OFF, the transmit frequency shifts from the operating frequency. When the Reverse Duplex is set to ON, the receive frequency shifts from the operating frequency.

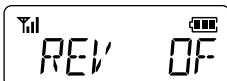
- Set between 0 ~ 20 (in MHz)



Reverse Duplex

Selects "ON" when reversing the duplex frequency.

- Select "OF" (OFF) for Normal Duplex communications.

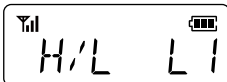


Output Power

Selects the default output power of each channel.

- Select L1 (Low1: 1 W), L2 (Low2: 2 W) or H (High: 5.5 W).

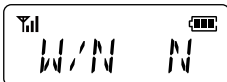
TIP: Lower output power during short-range communications may reduce the possibility of interference to other stations.



Bandwidth

Sets the bandwidth (channel spacing).

- Select N (Narrow: 12.5 kHz) or W (Wide: 25 kHz).

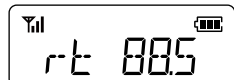


Repeater Tone Frequency

Sets the subaudible tone frequency that is needed to access the repeater.

Settable frequencies:

67.0	79.7	97.4	118.8	146.2	167.9	186.2	206.5	241.8
69.3	82.5	100.0	123.0	151.4	171.3	189.9	210.7	250.3
71.0	85.4	103.5	127.3	156.7	173.8	192.8	218.1	254.1
71.9	88.5	107.2	131.8	159.8	177.3	196.6	225.7	
74.4	91.5	110.9	136.5	162.2	179.9	199.5	229.1	
77.0	94.8	114.8	141.3	165.5	183.5	203.5	233.6	



Tone Squelch Frequency

Sets the CTCSS tone frequency for the tone squelch operation.

Settable frequencies:

67.0	79.7	97.4	118.8	146.2	167.9	186.2	206.5	241.8
69.3	82.5	100.0	123.0	151.4	171.3	189.9	210.7	250.3
71.0	85.4	103.5	127.3	156.7	173.8	192.8	218.1	254.1
71.9	88.5	107.2	131.8	159.8	177.3	196.6	225.7	
74.4	91.5	110.9	136.5	162.2	179.9	199.5	229.1	
77.0	94.8	114.8	141.3	165.5	183.5	203.5	233.6	

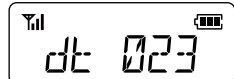


DTCS Code

Selects the DTCS code for the DTCS squelch operation.

Settable DTCS codes:

023	054	125	165	251	343	423	516	632	734
025	065	131	172	261	346	431	532	654	743
026	071	132	174	263	351	432	546	662	754
031	072	134	205	265	364	445	565	664	
032	073	143	223	271	365	464	606	703	
036	074	152	226	306	371	465	612	712	
043	114	155	243	311	411	466	624	723	
047	115	156	244	315	412	503	627	731	
051	116	162	245	331	413	506	631	732	

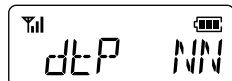


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VFO Set mode (Continued)

DTCS Polarity

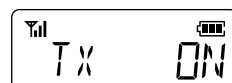
Sets the DTCS polarity for transmit and receive.



- Select “RR” (TX/RX Reverse), “RN” (TX Reverse, RX Normal), “NR” (TX Normal, RX Reverse) or “NN” (TX/RX Normal).

TX Inhibit

Selects whether or not to inhibit transmitting on the channel.



- Select “OF” (OFF) to inhibit transmitting.

Count on us!

