# OICOM



# OPERATING GUIDE

**VHF TRANSCEIVER** 

**IC-V10MR** 

Icom Inc.



# **IMPORTANT**

We appreciate you choosing Icom for your communication needs.

The MDC 1200 signaling system is built into your IC-V10MR transceiver.

**READ ALL INSTRUCTIONS** carefully and completely before using the transceiver.

 $\begin{tabular}{ll} \textbf{SAVE THIS OPERATING GUIDE} - \textbf{This operating} \\ \textbf{guide contains important operating instructions for:} \\ \end{tabular}$ 

• IC-V10MR TRANSCEIVER

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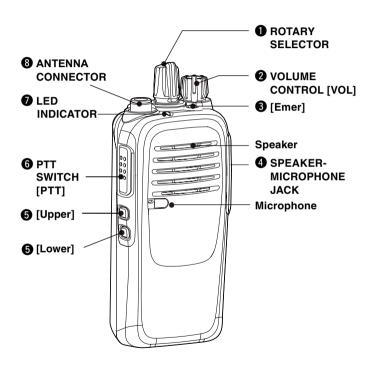
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PANEL DESCRIPTION

# **■** Front, top and side panels



#### **1** ROTARY SELECTOR

➤ Rotate to select the preset memory channels.

## **2** VOLUME CONTROL [VOL]

Rotate to turn the power ON or OFF and to adjust the audio level.

## 3 DEALER-ASSIGNABLE KEY [Emer]

➤ A desired function can be programmed by your dealer.

#### **4** SPEAKER-MICROPHONE JACK

⇒ Connect optional equipment.

**NOTE:** After turning OFF the transceiver, connect or disconnect the optional equipment.



#### Jack cover

**NOTE:** Attach the jack cover when optional equipment is not used.

#### **5** DEALER-ASSIGNABLE KEYS

## [Upper], [Lower]

→ Desired functions can be independently programmed by your dealer.

## **6** PTT SWITCH [PTT]

► Hold down to transmit, release to receive.

#### **1** LED INDICATOR

- Lights red while transmitting.
- ➡ Lights green while receiving a signal, or when the squelch is open.
- ⇒ Lights or blinks orange when the matched 2-Tone is received, depending on the presetting.
- You should charge the battery when the indicator slowly blinks.
- You must charge the battery when the indicator blinks fast.

#### **3** ANTENNA CONNECTOR

Connects the supplied antenna.

## PANEL DESCRIPTION

# ■ LED indicator

The LED indicator indicates the status of various parameters of the transceiver as follows: Receiving (Reference: R=Red, G=Green, O=Orange) • Low Battery 2 (You must charge the battery.) Cloning (reading or writing data) G G G G G G • Low Battery 1 (You should charge the battery.) . Cloning Error (if cloning fails) • When turning ON the power • Inh, Blank CH, Unlocked (when you cannot use the channel) ROG RORORORORORORO • TX Low Battery 2 (while transmitting) Calling О 0 О О R • TX Low Battery 1 (while transmitting) Audible • Lockout, TX Inh, TOT (when transmit is inhibited) Transmitting 0 0 R • Call LED=ON (when receiving a matched 2-Tone or 5-Tone) Successful G • Call LED=Blink (when receiving a matched 2-Tone or 5-Tone) • Failed, Error О 0 0 R Scanning • Emergency, Siren G G GOR GOR GOR GOR

G

G

न

G

0

# ■ Programmable function keys

The following functions can be assigned to [Emer], [Upper], [Lower], and [Ext. Emer].

Consult your Icom dealer or system operator for details concerning your transceiver's programming.

#### SCAN START/STOP

- ⇒ Push to start and cancel a scan.
  - When a scan is started with the Power ON Scan or Automatic scan function, push this key to cancel it. The cancelled scan resumes after a set time period.

#### PRIORITY A CHANNEL, PRIORITY B CHANNEL

⇒ Push to select the Priority A or Priority B channel.

## PRIORITY A CHANNEL (REWRITE), PRIORITY B CHANNEL (REWRITE)

- → Push to select the Priority A or Priority B channel.
- → Hold down [Prio A (Rewrite)] or [Prio B (Rewrite)] to assign the operating channel to Priority A or Priority B channel, respectively.

#### MEMORY CHANNELS 1, 2, 3, 4

➡ Push to directly select memory channel 1, 2, 3 or 4, if programmed.

#### MONI

- ⇒Hold down to cancel the CTCSS (DTCS) or 2-Tone mute. The transceiver enters "Audible" mode.
- ⇒ Push to turn OFF the function.

#### LOCK

→ Hold down this key to lock all programmable keys except the followings:

[Moni], [Lock], [Emer], [Surveillance], [Siren], [Lone Worker], and [Shift].

#### LONE WORKER

→ Hold down to turn ON the Lone WorkerFunction. → Push to turn OFF the Function.

#### HIGH/LOW

Push to select the transmit output power temporarily or permanently, depending on the presetting.

## 1 PANEL DESCRIPTION

#### TALK AROUND

- Push to turn the Talk Around function ON or OFF.
  - The Talk Around function equalizes the transmit frequency cy to the receive frequency for transceiver-to-transceiver communication.

#### **DTMF AUTODIAL**

→ Push to transmit the preprogrammed DTMF code.

#### CALL

⇒ Push to transmit a 2-Tone in the operating channel.

#### CALL A (CODE 1)/CODE B (CODE 2)

→ Push to transmit a 2-Tone, that is programmed in channel 1 (Code A) or channel 2 (Code B).

#### **EMERGENCY**

- ➡ Hold down during the Emer SW ON timer period to turn ON the Emergency function.
  - After the Start or Repeat timer period ends, an Emergency call is automatically transmitted once, or repeatedly, depending on the presetting.
- ➡ Hold down during the Emer SW OFF timer period to cancel the Emergency function, before transmitting an Emergency call.

#### SURVEILLANCE

- → Hold down to turn ON the Surveillance function.
- ⇒ Push to turn OFF the function.
  - When this function is ON and a signal is received, a beep does not sound and the LED does not light, even if you push any key.

#### SIREN

- → Hold down to emit a siren sound.
  - This function may use for situations other than an emergency alert, such as a security alarm.
- ➡ Turning OFF the transceiver power to stop the siren sound.

#### **COMPANDER**

- → Hold down to turn ON the Compander function.
- ⇒ Push to turn OFF the function.
  - The Compander function reduces noise components from the transmitted audio to provide clear communication.

#### **ANNOUNCE**

⇒ Push to turn the Channel Announce function ON or OFF.

# Channel selection

There are several types of channel selections. Methods may differ, depending on the presetting. Consult your dealer for details.

To select the desired operating channel:

- **⇒** Rotate [ROTARY SELECTOR].
- ⇒ Push one of [MR-CH 1] to [MR-CH 4].
- → Push [Prio A], [Prio B], [Prio A (Rewrite)] or [Prio B (Rewrite)].

#### **AUTOMATIC SCANTYPE:**

Channel setting is not necessary for this scan type. When turning ON the power, the transceiver automatically starts scanning. Scanning stops when a signal is received.

# ■ Receiving and transmitting

CAUTION:
Attach an antenna before transmitting.
Transmitting without an antenna may ceiver. Transmitting without an antenna may damage the trans-

#### Receiving:

- 1) Rotate [VOL] to turn ON the power.
- 2 Rotate [ROTARY SELECTOR], or push one of the memory channel keys, [MR-CH1] to [MR-CH4], to select a channel.
- 3 When receiving a call, adjust the audio output level to a comfortable listening level.

#### Transmittina:

Wait until the channel is clear to avoid interference.

- 1) While holding down [PTT], speak at a normal voice level.
- 2 Release [PTT] to receive.

**IMPORTANT:** To maximize the readability of your signal:

- 1. After pushing [PTT], pause briefly before you start speaking.
- 2. Hold the microphone 5 to 10 cm (2 to 4 inches) from your mouth, then speak at a normal voice level.

## **♦** Transmitting notes

#### • Transmit inhibit function

The transceiver has several inhibit functions which restrict transmission under the following conditions:

- The channel is busy.
  - However, depending on the presettings, you can transmit when the call includes an unmatched (or matched) CTC-SS (DTCS) tone.
- The selected channel is a 'receive only' channel.

#### • Time-out timer

If continuous transmission exceeds the preprogrammed time-out timer limit, transmission is cut off.

## Penalty timer

The time-out timer cuts off transmission, further transmission is inhibited for the preprogrammed penalty timer period.

## Receiving a Stun, Kill and Revive call

The dispatcher can send a 2-Tone that will stun, kill or revive your transceiver.

When the Stun call is received, beeps sound\*, and you cannot receive or transmit. Receiving a Revive call, or entering a password\*, is necessary to operate the transceiver again.

When the Kill call is received, beeps sound\*, and the transceiver becomes unusable. Cloning the transceiver is necessary to operate the transceiver again, in this case.

\* Depending on the presetting. Ask your dealer for details.

# ■ Emergency call

When pushing [Emergency] for the set time period\*, the transceiver transmits an emergency signal once, or repeatedly, on the specified emergency channel.

The transceiver automatically transmits a repeat emergency signal until it receives an acknowledgement signal, or you turn OFF the transceiver power.

When no emergency channel is specified, it transmits the signal on the previously selected channel.

If you want to cancel the emergency call, hold down [Emergency] again before transmitting the call.

If your transceiver is programmed for Silent operation, you can transmit an Emergency call without the beep sounding and the LED indicator lighting.

**IMPORTANT:** It is recommended to set an emergency channel individually to provide the certain emergency call operation.

## **∥** NOTE:

Depending on the presetting, the following functions are automatically activated. Ask your dealer for details.

#### Auto TX function

After an emergency call transmission, the transceiver transmits the audio from the microphone for a set time period.\*

#### Auto RX function

After the emergency call transmission, the transceiver stands by in the audible mode for the set time period.\*

\* Depending on the presetting. Ask your dealer for details.

# ■ Lone Worker Emergency Call

When the Lone Worker function is ON, and if no operation occurs for a set time period\*, the transceiver automatically enters the emergency mode. Then the countdown for the emergency call transmission starts.

After a set time period\* has passed, an emergency call is automatically transmitted once, or repeatedly\*.

If the user operates the transceiver before the call is transmitted, the transceiver exits the emergency mode, and the emergency call is cancelled.

To turn ON the function, see page 4.

# ■ Man Down Emergency Call

This function may or may not be available, depending on the presetting.

When the transceiver has been left in a horizontal position for a set time period\*, the transceiver enters the emergency mode, and then a countdown starts.

After a set time period\* has passed, an emergency call is automatically transmitted once, or repeatedly\*.

If the transceiver is placed in a vertical position before the first transmission, the transceiver exits the emergency mode, and the emergency call is cancelled.

# **■** Motion Detection Emergency Call

This function may or may not be available, depending on the presetting.

If the acceleration sensor detects the user continuously moves for the set timer period and at the set speed, the transceiver enters the emergency mode, and then the countdown starts.

After a set time period\* has passed, an emergency call is automatically transmitted once, or repeatedly\*.

Once the countdown starts, you cannot cancel the emergency call.

<sup>\*</sup> Depending on the presetting. Ask your dealer for details.

# ■ User set mode

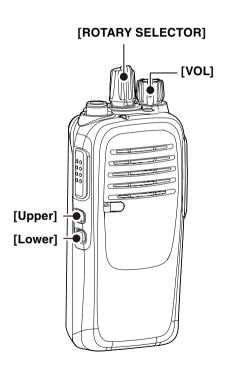
The User Set mode enables you to change various settings. You can "customize" the transceiver operation to suit your preferences and operating style.

# ■ Setting the microphone gain

- 1) Rotate [VOL] to turn the transceiver power OFF.
- 2 Set [ROTARY SELECTOR] to Channel 16.
- ③While holding down [Upper], rotate [VOL] to turn ON the power and enter the microphone gain adjustment mode.
- 4 Push [Upper] or to increase, or push [Lower] to decrease the microphone gain.
  - The adjustable range is 1 (minimum) to 4 (maximum).
  - A beep sounds after pushing [Upper] or [Lower]. An error beep sounds if you try to exceed the adjustable range. Therefore, you can determine the current level setting by the increasing loudness of the beep that sounds.
- ⑤ Rotate [VOL] to turn OFF the power, then ON again to exit the microphone gain adjustment mode.

#### **// NOTE:**

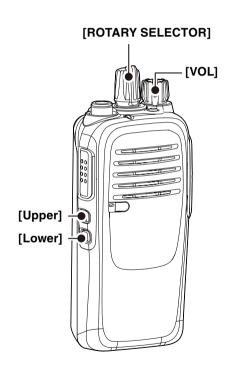
- This operation may not be selectable, depending on the presetting. Ask your dealer for details.
- When using the VOX function, we recommend setting the microphone gain to 3. However, you can adjust it to suit your operating environment (including your headset performance).



# ■ Setting the squelch level

The squelch circuit mutes the received audio signal, depending on the signal strength.

- 1 Rotate [VOL] to turn the transceiver power OFF.
- ②Set [ROTARY SELECTOR] to any channel other than Channel 16.
- ③While holding down [Upper], rotate [VOL] to turn ON the power and enter the squelch level adjustment mode.
- 4 Push [Upper] to increase the squelch level (tight squelch), or push [Lower] to decrease the squelch level (loose squelch).
  - The adjustable range is 0 (loose squelch) to 9 (tight squelch).
  - A beep sounds after pushing [Upper] or [Lower]. An error beep sounds if you try to exceed the adjustable range. Therefore, you can determine the current level setting by the increasing loudness of the beep that sounds.
- ⑤ Rotate [VOL] to turn OFF the power, then ON again to exit the squelch level adjustment mode.
- **NOTE:** This operation may not be selectable, depending on the presetting. Ask your dealer for details.



# ■ Setting the Beep function and level

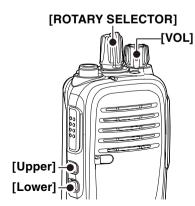
The beep function can be ON or OFF, and its level can be adjusted between 1 and 5, or 1 (linked) and 5 (linked). When a Linked option is selected, the beep level is adjustable by **[VOL]**.

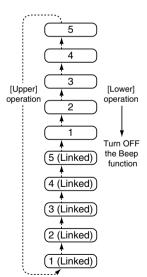
- ① Rotate **[VOL]** to turn the transceiver power OFF.
- ②Set [ROTARY SELECTOR] to any channel other than Channel 16.
- ③ While holding down [Lower], rotate [VOL] to turn ON the power and enter the beep level adjustment mode.
- 4 Turn the beep function ON or OFF by pushing [Lower]. When a beep sounds after pushing [Lower], the beep function is ON. When no beep sounds after pushing [Lower], the beep function is OFF.
- ⑤ Push [Upper] to change the beep level. Repeatedly pushing [Upper] first selects 1(lowest) to 5 (highest), and then selects the lowest linked level, 1(Linked) to the highest, 5 (Linked).
  - The adjustable range is 1 to 5 or 1 (Linked) to 5 (Linked).
  - If the level is set at 1 to 4, pushing [Upper] increases the level. If the level is at 5, pushing [Upper] selects the linked levels, starting with 1 (Linked). If the level is at 1 (Linked) to 4 (Linked), pushing [Upper] increases the level. If the level is at 5 (Linked), pushing [Upper] returns the level to 1. Repeatedly pushing [Upper] repeats the cycle.
  - A beep sounds after pushing [Upper]. Therefore, you can determine the current level setting by the increasing loudness of the beep that sounds.

- To determine if you have selected a linked level, set **[VOL]** to minimum, then push **[Upper]** up to 10 times, listening for the loudest beep (level 5). Pushing **[Upper]** once after the loudest beep will select 1 (Linked). Repeatedly push **[Upper]** to select the desired linked level. You can easily hear a level you have set by repeatedly pushing **[Lower]**.
- (6) Rotate [VOL] to turn the power OFF, then ON again to exit the beep level adjustment mode.

## **∥** NOTE:

This operation may not be selectable, depending on the presetting. Ask your dealer for details.



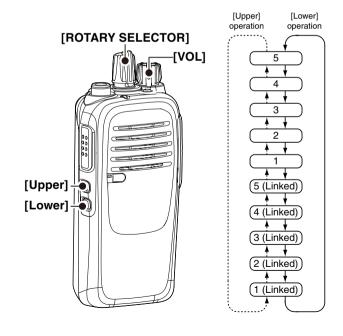


# ■ Setting the Ringer level

The Ringer level can be adjusted between 1 and 5, or 1 (Linked) and 5 (Linked). When a Linked option is selected, the Ringer level is adjustable by **[VOL]**.

- 1) Rotate [VOL] to turn the transceiver power OFF.
- 2 Set [ROTARY SELECTOR] to Channel 16.
- ③While holding down [Lower], rotate [VOL] to turn ON the power and enter the Ringer level adjustment mode.
- ④ Push [Upper] to increase, or push [Lower] to decrease the Ringer level.
  - The adjustable range is 1 to 5 or 1 (Linked) to 5 (Linked).
  - If the level is set at 1 to 4, pushing [Upper] increases the level and pushing [Lower] decreases the level. If the level is at 5, pushing [Upper] selects the linked levels, starting with 1 (Linked). If the level is at 1 (Linked) to 4 (Linked), pushing [Upper] increases the level and pushing [Lower] decreases the level. If the level is at 5 (Linked), pushing [Upper] returns the level to 1. Repeatedly pushing [Upper] or [Lower] repeats the cycle.
  - A beep sounds after pushing [Upper]. Therefore, you can determine the current level setting by the increasing loudness of the beep that sounds.
  - To determine if you have selected a linked level, set [VOL] to minimum, then push [Upper] up to 10 times, listening for the loudest beep (level 5). Pushing [Upper] once after the loudest beep will select 1 (Linked). Repeatedly push [Upper] or [Lower] to select the desired linked level.

- ⑤ Rotate [VOL] to turn the power OFF, then ON again to exit the beep level adjustment mode.
- **NOTE:** This operation may not be selectable, depending on the presetting. Ask your dealer for details.



# ■ MDC 1200 system operation

The MDC 1200 signaling system enhances your transceiver's capabilities. You can receive or transmit PTT ID and Emergency calls. You can also receive Radio Check, Stun, and Revive calls.

An additional feature of the MDC 1200 system included in lcom 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 set a ringer for each station ID. When you receive a call from the specific transceiver, you can distinguish it by its ringer type.

Please confirm that your dealer has set one of the programmable keys for MDC 1200 system operation. See page 4 for more information about the programmable function keys.

# ■ Receiving a call

## ♦ Receiving a PTT ID

- 1) When a PTT ID is received:
  - Beeps sound.
- 2) Hold down [PTT] and speak into the microphone.
- 3 Release [PTT] to receive a response.

## ♦ Receiving an Emergency Call

- 1) When an emergency call is received:
  - Beeps sound.
- ② When the Send Ack function is turned ON, the transceiver automatically transmits an acknowledgement to the calling station.
- ③ Turn power OFF or change the channel to stop the beep and the display indication.

# ♦ Receiving a Stun or Revive Call

If a Stun call is received that matches your station ID, you can not receive or transmit. If a Revive call that matches your station ID is received, the transceiver will be revived.

# 3 MDC 1200 SYSTEM OPERATION

# ■ Transmitting a call

## ♦ Transmitting a PTT ID

You can notify another person of your station ID.

- ① Push [PTT] to make a call.
- 2 Beeps sound, depending on the presetting.
- ③ 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 presetting.

## ♦ Transmitting an Emergency Call

When holding down [Emergency] for a set time period, the emergency signal is transmitted once or repeatedly\* on the emergency channel. When no emergency channel is specified, the signal is transmitted on the operating channel.

\* When the Repeat Cancel function is ON, the transceiver cancels repeating after receiving an acknowledgement.

When the Repeat Cancel function is OFF, the transceiver repeats calling according to the number of repeat cycles, even after receiving an acknowledgement.

If you want to cancel the emergency call, hold down the key again before transmitting the call.

You can transmit an emergency call without a beep emission, and the LED indication, depending on the presetting. (Silent operation)

The transceiver can also be programmed to keep the microphone open during an emergency call, allowing monitoring the situation. Ask your dealer for details.

**IMPORTANT:** It is recommended to set an emergency channel individually to provide the certain emergency call operation.



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