



## OPERATING GUIDE

IP TRANSCEIVER

# IP510H

### INTRODUCTION

1 BEFORE USING

2 BASIC OPERATION

3 ADVANCED OPERATION

4 SET MODE

5 OPTIONS

6 FOR YOUR REFERENCE

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# INTRODUCTION

Thank you for choosing this Icom product.

This product is designed and built with Icom's state of the art technology and craftsmanship. With proper care, this product should provide you with years of trouble-free operation.

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## IMPORTANT

**FIRST, CAREFULLY READ INSTRUCTIONS** that is boxed with the transceiver.

**SAVE THIS OPERATING GUIDE—** This operating guide contains additional important operating instructions for the transceiver.

**NOTE:**

- This operating guide is based on the IP510H firmware version 1.03.
- The explanations in this guide assume that the registration to the system has been completed. Ask your system manager for details.

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## FEATURES

- Communication within the service area of the Cellular network (4G/3G)
- Automatic line switching between Cellular and WLAN
- Full-duplex communication<sup>\*1</sup>
- Ability to interrupt an ongoing call
- Bluetooth PTT<sup>\*2</sup>
- USB Type-C port for charging<sup>\*3</sup> and programming
- IP67 dust-tight and waterproof
- Highly secured connection for WLAN with WPA3
- Dual SIM functionality

<sup>\*1</sup> Usability of the Full-Duplex mode depends on the presetting. Ask your dealer for details.

<sup>\*2</sup> Only Serial Port Profile (SPP) is supported.

<sup>\*3</sup> The battery pack can be replaced while power is supplied.

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- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

# Section 1

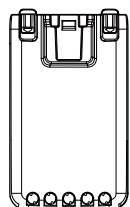
## BEFORE USING

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## Supplied accessories

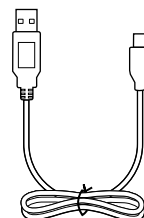
**NOTE:** Some accessories are not supplied or the shape is different, depending on the transceiver version.



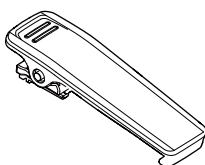
Battery pack



Antenna



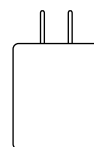
USB cable  
(Type-A/Type-C)



Belt clip



Hand strap

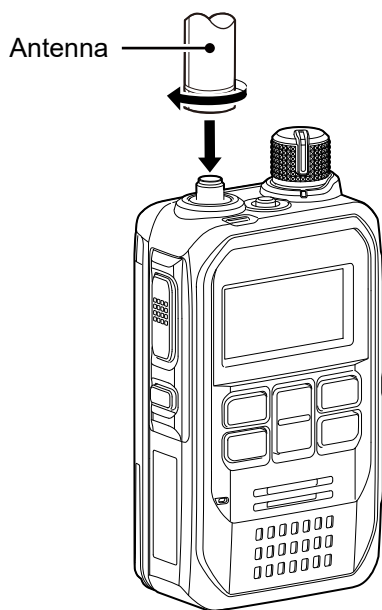


AC adapter

## Attaching the accessories

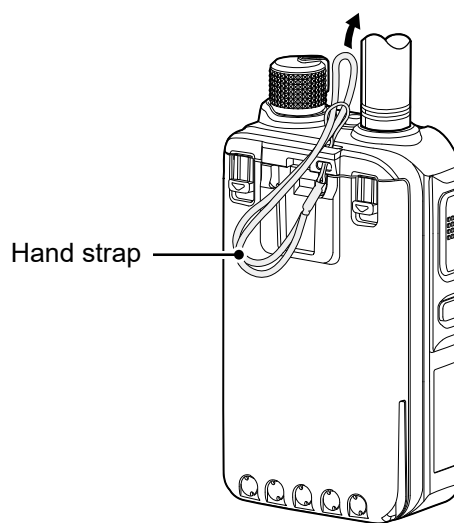
### ◇ Antenna

- Rotate the antenna clockwise until it is firmly connected.



### ◇ Hand strap

- Slide the hand strap through the loop on the top of the rear panel.



### CAUTION:

- **NEVER** carry the transceiver by holding only the antenna.
- **DO NOT** transmit without the antenna.

**NOTE:** You can use only the supplied antenna.

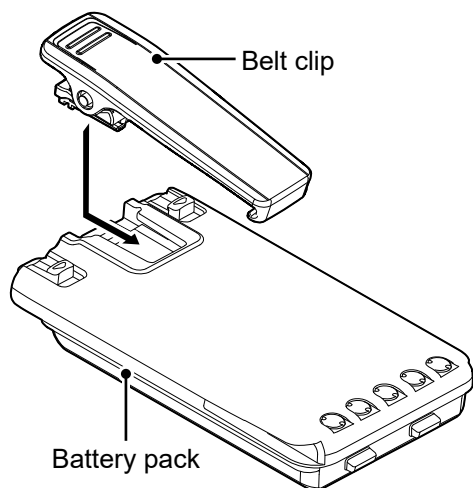
# 1 BEFORE USING

## Attaching the accessories

### ◇ Belt clip

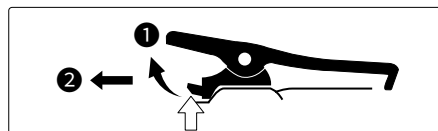
#### Attaching the belt clip:

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 is locked and makes a 'click' sound.



#### Detaching the belt clip:

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



# 1 BEFORE USING

## Attaching the accessories

### ◇ Battery pack

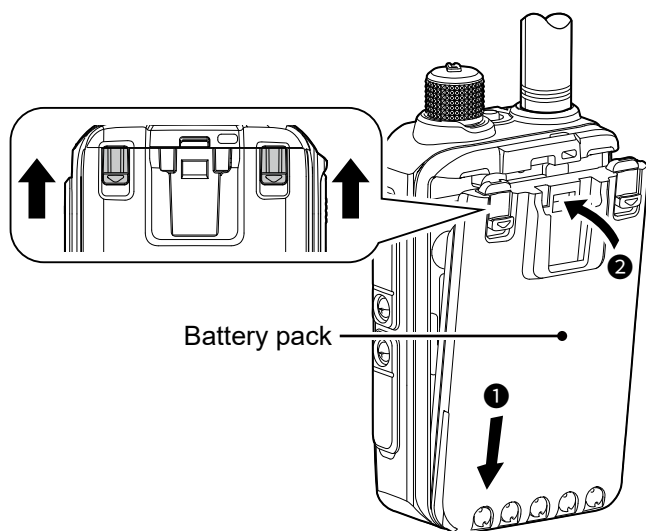
#### CAUTION:

- **BE SURE** to turn OFF the transceiver before attaching or detaching the battery pack.
- **DO NOT** attach or detach the battery pack when the transceiver is wet or soiled.  
This may result in water or dust getting into the transceiver or battery pack and may damage them.

**NOTE:** Keep the battery pack terminals clean. It's a good idea to occasionally clean them.

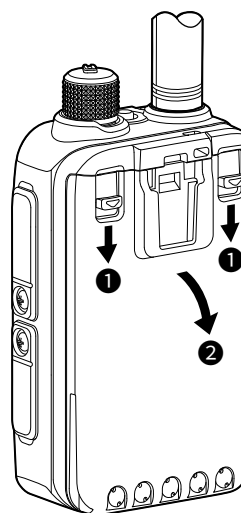
#### Attaching the battery pack:

1. Slide the battery pack in the direction of the arrow. (①)
2. Push the battery pack until the latches make a 'click' sound. (②)



#### Detaching the battery pack:

1. Pull both latches in the direction of the arrow. (①)
2. Push the battery pack until the latches make a 'click' sound. (②)

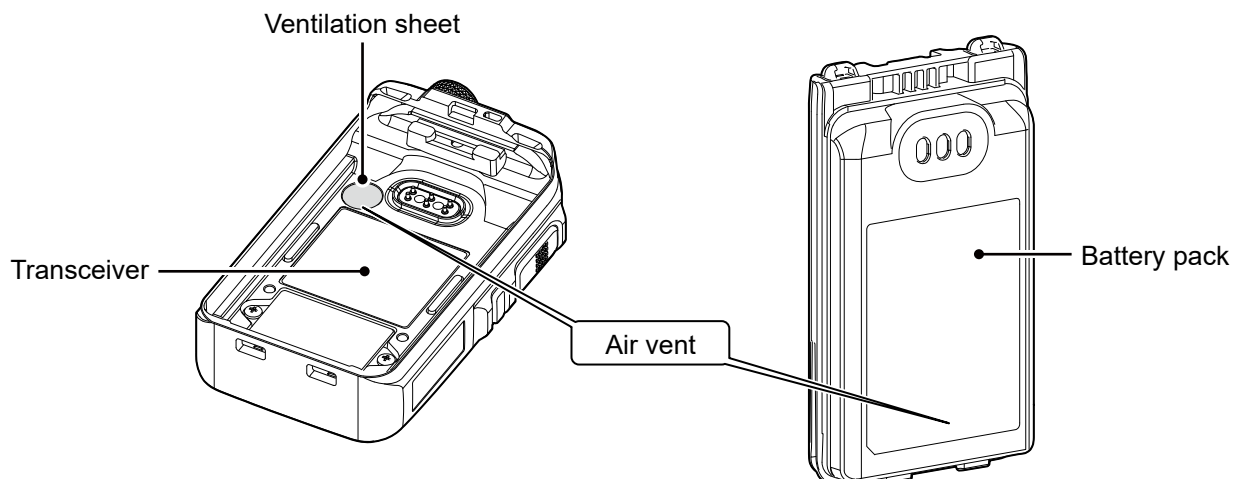


#### About the air vent:

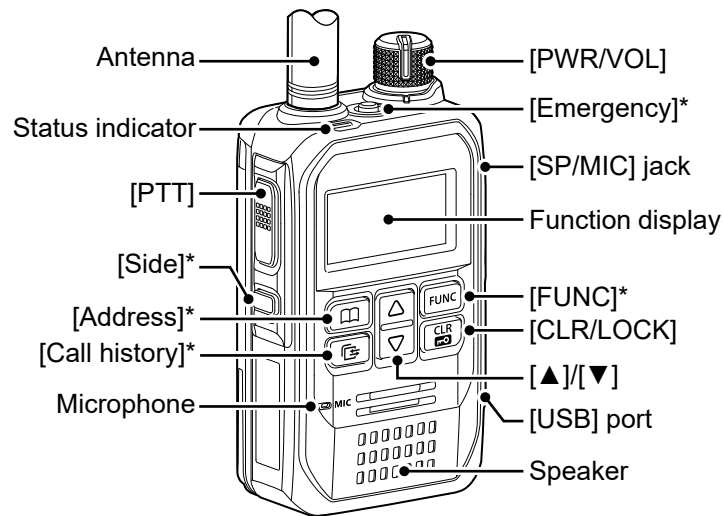
The air vent is located at the position shown in the figure below. The air pressure is adjusted by the ventilation sheet that allows air to pass through below the vent.

#### NOTE:

- If the vent is blocked by applying another sticker or seal, or the ventilation sheet is scratched or damaged:
- The volume from the internal speaker may become low after a while of operation.
  - The waterproof protection cannot be guaranteed.



## Panel description



\* May be usable, depending on the presetting.  
Ask your dealer for details on the assigned functions.

### Status indicator:

Lights red: Transmitting.  
Lights green: Receiving or squelch is open.  
Lights yellow: Transmitting and receiving in the Full-Duplex mode.

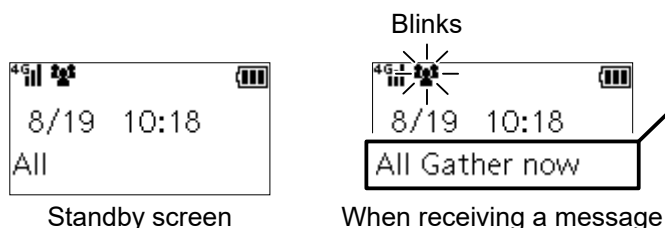
### ◇ Key operations

[Address]	Displays the Address book. You can select a call-to party from preset addresses. (p. 2-3)
[Call history]	<ul style="list-style-type: none"> <li>Displays the Call history. Push [Call history] to select the "TX log," "RX log," "TX MSG log," "RX MSG log," "TX TEL log," or "RX TEL log" screen.</li> <li>Hold down to play back the recordings while the "Recording log" screen is displayed.</li> </ul>
[FUNC]	Selects the Message, Status, or Talkgroup to send. You can also use other functions, if preset.
[CLR/LOCK]	<ul style="list-style-type: none"> <li>Push to return to the previous screen from a function screen.</li> <li>Hold down for 1 second to turn the Key Lock function ON or OFF.</li> </ul> <p>① [PTT], [PWR/VOL], and [Emergency] can be used even while the Key Lock function is ON. (p. 1-8)</p>
[▲]/[▼]	<ul style="list-style-type: none"> <li>On the Standby screen, push to display the Address book. (p. 2-3)</li> <li>Push to scroll the screen or move the cursor.</li> </ul>

### About the Key-Touch Beep:

A confirmation beep sounds each time any key is pushed.  
① Set "Key-Touch Beep" to "ON" in the Detailed SET mode. (p. 4-6)

## Function display

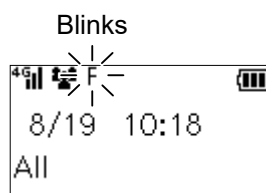


Call type and the message may scroll from right to left, depending on the message length.

	Displays the signal strength in 3 levels. ① "4G" or "3G" may not be displayed, depending on the presetting.
	Displayed when the transceiver is not connected to the IP transceiver controller or unregistered. ① "4G" or "3G" may not be displayed, depending on the presetting.
	Blinks when the transceiver is outside the Cellular service area.
	Displays the signal strength in 3 levels during wireless LAN connection.
	<ul style="list-style-type: none"> <li>Blinks when the transceiver is not connected to an access point.</li> <li>Displayed when the transceiver is not connected to the controller.</li> </ul>
	All Call
	Group Call
	Talkgroup Call ① May be usable, depending on the presetting. (p. 3-4)
	Individual Call
	Phone Call
	Displayed when the received audio is muted.
	Displayed when the Temporary Audio Level function is ON. (p. 3-7)

### When an "F" blinks or is displayed:

While the transceiver is downloading new firmware, an "F" blinks on the display.



- ① Downloading new firmware takes approximately 10 minutes. Do not turn OFF the transceiver, and place it in a place with good reception until it automatically restarts.
- ① If the "F" does not disappear, restart the transceiver.
- ① The firmware update will not begin when the battery is low () or exhausted (). Charge the battery pack first, and then restart the transceiver.

	Displayed when the Silent Mode is ON. (p. 2-2)
	<ul style="list-style-type: none"> <li>Blinks while recording or when there is a new recording. (p. 3-11)</li> <li>Displayed when the Recording function is ON.</li> </ul>
	Displayed when the Bluetooth function is ON. (p. 3-11)
	Displayed when a Bluetooth device is connected to the transceiver.
	Displayed when the Key lock function is ON. (p. 1-8)
	Displayed when the VOX function is ON. (p. 3-10)
	Displayed when the Emergency function is ON. (p. 3-17)
	<ul style="list-style-type: none"> <li>Displayed when valid GPS data is received.</li> <li>Blinks when no valid GPS data is received.</li> </ul>
	Displayed when the Pocket Beep function is ON. (p. 3-10)
	Displayed when the P-Bell function is ON. (p. 3-10)
	Displayed when the Surveillance function is ON. (p. 3-7)
	<ul style="list-style-type: none"> <li>Displays the remaining capacity in 4 steps.</li> <li>: Full</li> <li>: Mid</li> <li>: Low (Charge as soon as possible)</li> <li>: Exhausted (Charging required)</li> <li>The battery icon blinks and the low battery warning beep sounds every 30 seconds.</li> <li> is displayed while charging.</li> </ul>

### About the backlight:

The backlight behavior may differ as follows, depending on the presetting. (p. 4-6)

- OFF: The backlight does not light.
- ON: The backlight is always lit.
- Auto: The backlight lights for 5 seconds when a call or message is received or a key is pushed.

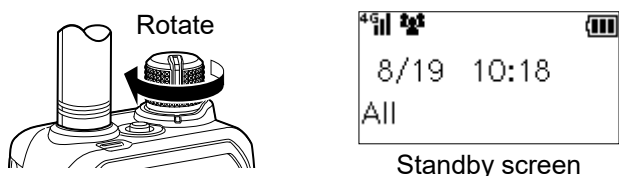


## Turning ON/OFF the transceiver

**NOTE:** Charge the battery before using the transceiver for the first time, or if it has not been used for more than 2 months. Refer to page 1-9 for more information on charging.

### ◇ Turning ON the transceiver

- Rotate [PWR/VOL] clockwise to the 12 o'clock position.
    - A beep sounds.
    - Once the transceiver has finished its startup, the Standby screen is displayed.
- ① The knob is built tightly to resist dust and water intrusion.

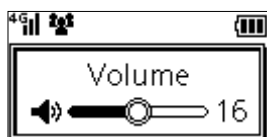


### ◇ Turning OFF the transceiver

- Rotate [PWR/VOL] counterclockwise until it makes a 'click' sound.
  - ① A small current still flows in the internal circuit, even when the transceiver is turned OFF. When not using the transceiver for a long time, remove the battery pack to prevent the batteries from becoming exhausted.
  - ① When attempting to replace the battery pack, do not remove it from the transceiver until "Power Off..." disappears.

## Adjusting the audio output level



- Rotate [PWR/VOL] to adjust the audio output level.
  - The Volume adjustment screen is displayed.

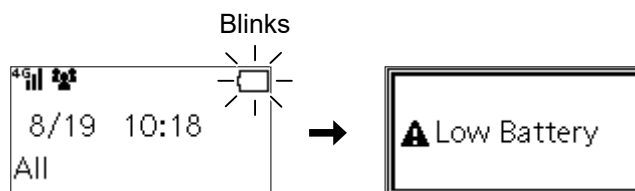


Volume adjustment screen

- ① The volume can be adjusted between 0 and 32. Set a comfortable level at which you can clearly hear the received audio.
- ① When the volume is set to "0," no audio can be heard.
- ① The volume may be unable to be adjusted, depending on the presetting. In that case, adjust the volume in the Detailed SET mode. (p. 4-8)


## Battery warning beep

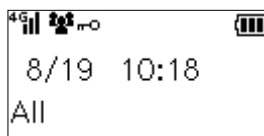
When the battery pack is almost running out, “” starts blinking, and the battery warning beep sounds every 30 seconds. Turn OFF the transceiver and charge the battery pack, or replace it with a charged one. (p. 1-9)  
If you continue to use the transceiver while “” is blinking, “Low Battery” will be displayed, and the transceiver will automatically turn OFF after 2 seconds of the battery warning beep.



## Key Lock function

You can use the Key Lock function to prevent accidental or unnecessary operations.

- Hold down [CLR/LOCK] for 1 second.
  - A beep sounds and “” is displayed.
- ① Hold down [CLR/LOCK] again for 1 second to release the function.



Key operations, except for the following, are electronically locked.

- [PTT]: Transmission
- [PWR/VOL]: Turning ON or OFF the transceiver, Adjusting the audio output level\*<sup>1</sup>
- [Emergency]: Emergency Call function\*<sup>2</sup> (p. 3-17)
- [CLR/LOCK]: Disabling the Key Lock function

\*<sup>1</sup> Adjusting the audio output level may be prohibited during the Key Lock function, depending on the presetting.  
In that case, the adjustment during the Key Lock function will be applied after the function is released. (p. 4-8)

\*<sup>2</sup> Only when the Emergency function is enabled by your dealer. Ask your dealer for more information.

## Battery charging

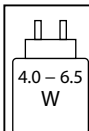
Charge the battery pack before using the transceiver for the first time, or if it has not been used for more than 2 months.

**CAUTION:** Before charging the battery pack, carefully read the “Battery caution” and “Charging caution” on INSTRUCTIONS that comes with the transceiver.

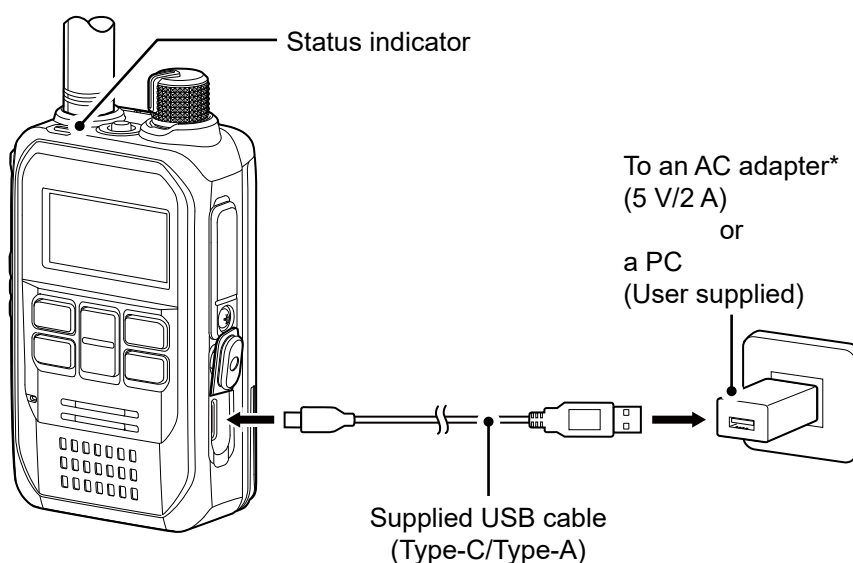
The battery pack can be replaced while power is supplied through the USB cable.

**NOTE:**

- Use the supplied or an AC adapter (User supplied, 5 V/2 A output).
- You may not be able to charge:
  - Depending on your USB cable or AC adapter.
  - When using a USB hub or connecting to a low output USB port.
- Charging time may differ, depending on the AC adapter or USB port.
- USB Power Delivery (USB PD) is not supported.
- If you use a user supplied AC adapter, thoroughly read its instructions before using.



The power delivered by the charger must be between min 4.0 Watts required by the radio equipment, and max 6.5 Watts in order to achieve the maximum charging speed.



\* May not be supplied, depending on the transceiver version.

**Status indicator:**

Lights blue: Charging.

Turns OFF: Not charging or charging completed.

Blinks blue: Charging failed. It may have some problems.

If the status indicator blinks blue, refer to the figure above and try the following remedies to confirm the connection.

- Detach the battery pack from the transceiver and reattach it.
- Reconnect the USB cable and the AC adapter.

## Connecting optional equipment

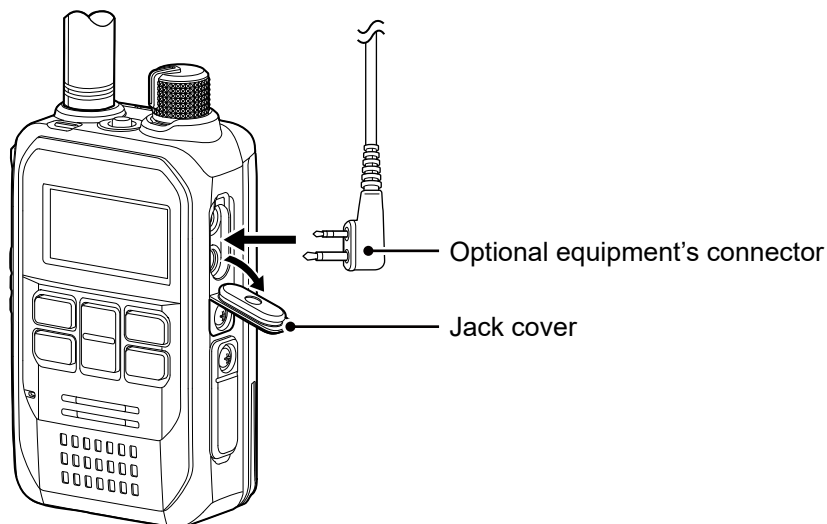
Connect optional equipment to the [SP/MIC] jack on the side of the transceiver.

① Some optional equipment may require additional cables for use with the transceiver.

Refer to Section 5 for more information on optional equipment.

### Connecting optional equipment:

1. Turn OFF the transceiver if it is turned ON.
2. Remove the jack cover and connect the optional equipment to the transceiver.



**CAUTION: DO NOT** use the transceiver without the jack cover or optional equipment attached. The transceiver meets IP67 requirements for dust-tight and waterproof protection only when the battery pack, antenna, connector cover, and jack cover or the specified optional speaker microphone are attached. See page 5-2 for the usable speaker microphones.

Section 2

BASIC OPERATION

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Transmitting and receiving .....2-2

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### Transmitting and receiving

#### Transmitting a call:

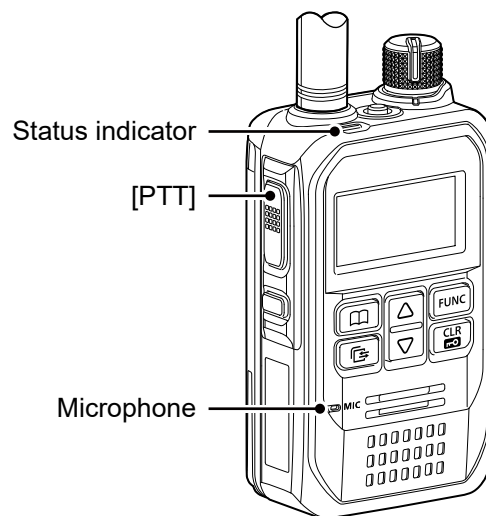
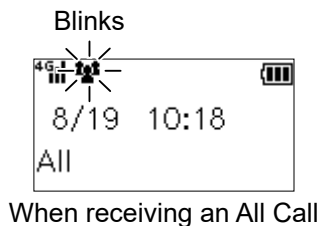
While holding down [PTT], speak at your normal voice level.

- ① The status indicator lights red during transmission.

#### Receiving a call:

When a call is received, the received audio can be heard.

- ① The status indicator lights green during reception.



#### Transmitting and receiving at the same time:

While receiving a call, hold down [PTT] to talk and listen simultaneously like a telephone.

- ① You can transmit while receiving a call only when the communication method is set to "Full-Duplex."  
While communicating in the Full-Duplex mode, the status indicator lights yellow.  
Usability of the Full-Duplex mode depends on the presetting. Ask your dealer for details.
- ① Rotate [PWR/VOL] to adjust the audio output level so that you can clearly hear the received audio.

#### NOTE:

- Rotate [PWR/VOL] to turn down the audio output level if howling or noise occurs.
- To maximize the readability of your signal:
  1. After pushing [PTT], pause briefly before you start speaking.
  2. Hold the microphone 5 ~ 10 cm (2 ~ 4 inches) from your mouth, then speak at your normal voice level.

#### About the call types:

- All Call: Transmit to all of the transceivers that belong to the network.
- Group Call: Transmit to the transceivers that belong to the same group.
- Talkgroup Call: Transmit to the transceivers that belong to the same Talkgroup.
- Individual Call: Transmit to an individual transceiver.
- Telephone Call: Transmit to an IP phone.  
(May be transmittable, depending on the presetting.)

#### About Simplex communication:

If the communication method is set to "Simplex" by your dealer, you have to take turns to communicate: Hold down [PTT] to transmit and release [PTT] to receive.

- ① Start transmitting after the other person finishes talking.
- ① Saying "Over" at the end of each transmission helps to smooth communications.

#### About the Time-Out Timer (TOT):

If continuous transmission lasts for a specified time, the TOT automatically cuts off the transmission.

Release and hold down [PTT] again to resume transmitting.

- ① You cannot configure the settings for the TOT. Ask your dealer for details.

#### About the notification tone:

A notification tone lets you know when a call or message is received or when the transceiver goes out or returns to the service area.

- ① Configure the notification tone settings in the Detailed SET mode. (p. 4-4)

#### About the vibration function:

The transceiver vibrates for a notification when a call or message is received.

- ① Configure the vibration settings in the Basic SET mode. (p. 4-4)

#### About the Silent mode:

When the Silent mode is enabled, notification tones do not sound, and the transceiver vibrates instead.

- ① You can enter the Silent mode from the [FUNC] menu, if set. (p. 4-9)

### Using the Address book

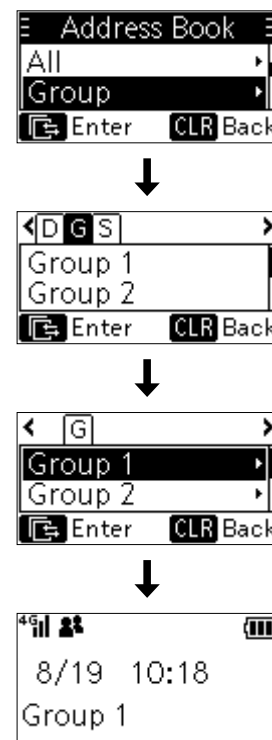
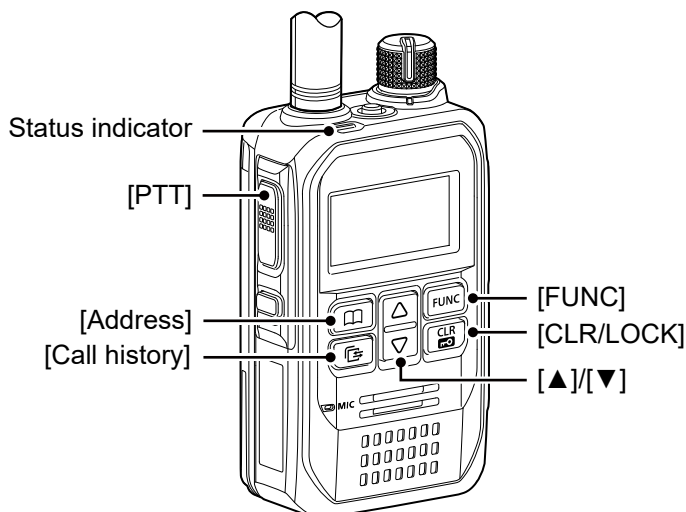
The IP510H has 2 types of Address books, a list-type and a tab-type, each with different operating methods and address displays. The explanations throughout this guide assume that the Tab-type Address book is assigned to [Address] by your dealer.

The Address book functionality depends on the presetting. Ask your dealer for details.

① You can quickly switch from the Address book to the Standby screen by holding down [CLR/LOCK].

#### Using the Tab-type Address book:

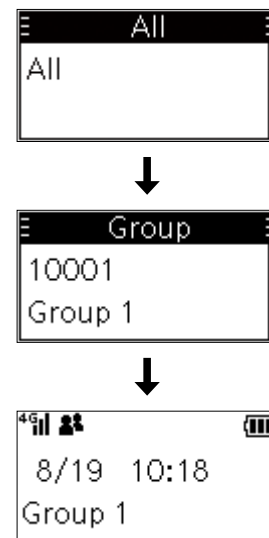
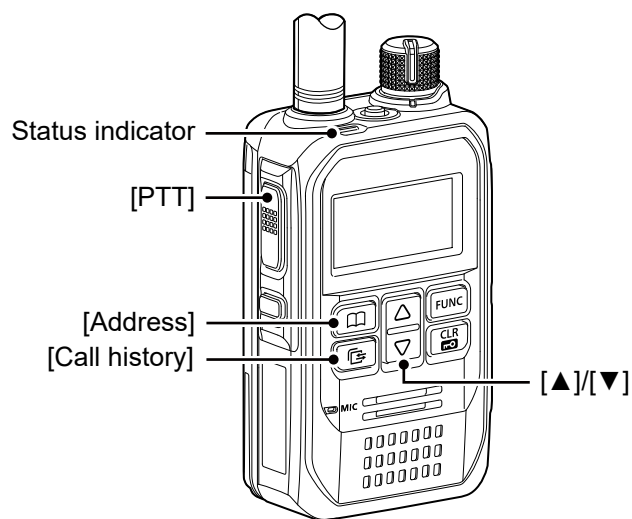
1. Push [Address].
  - The "Address Book" screen is displayed.
2. Push [▲]/[▼] to select a call type, and then push [Call history]. (Example: Group)
  - ① See page 3-4 for details on Talkgroup.
3. Push [FUNC] or [Address] to select a tab (Example: G) and then push [Call history].
4. Push [▲]/[▼] to select a call-to party (Example: Group 1) and then push [Call history].
5. While holding down [PTT], speak at your normal voice level.
  - ① The status indicator lights red during transmission.



### Using the Address book

#### Using the List-type Address book:

1. Push [Address].
  - A call-to party is displayed. (Example: All)
  - ① The displayed call-to party differs, depending on the presetting.
2. Push [Address] to select a call type. (Example: Group)
  - ① See page 3-4 for details on Talkgroup.
3. Push [ $\blacktriangle$ ]/[ $\blacktriangledown$ ] to select a call-to party. (Example: Group 1)
4. While holding down [PTT], speak at your normal voice level.
  - ① The status indicator lights red during transmission.





### Using the Call history

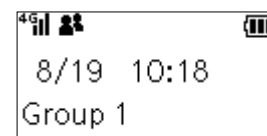
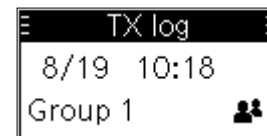
The Call history functionality depends on the presetting. Ask your dealer for details.

1. Push [Call history].
  - The Call history screen is displayed.
2. Repeatedly push [Call history] to select "TX log" or "RX log" screen. (Example: TX log)
  - ① Pushing [Call history] switches between "TX log," "RX log," "TX MSG log," "RX MSG log," "TX TEL log," "RX TEL log," and "Recording log" screens.
3. Push [▲]/[▼] to select a call-to party. (Example: Group 1)
4. While holding down [PTT], speak at your normal voice level.
  - ① The status indicator lights red during transmission.

#### Limitations on the number of histories:

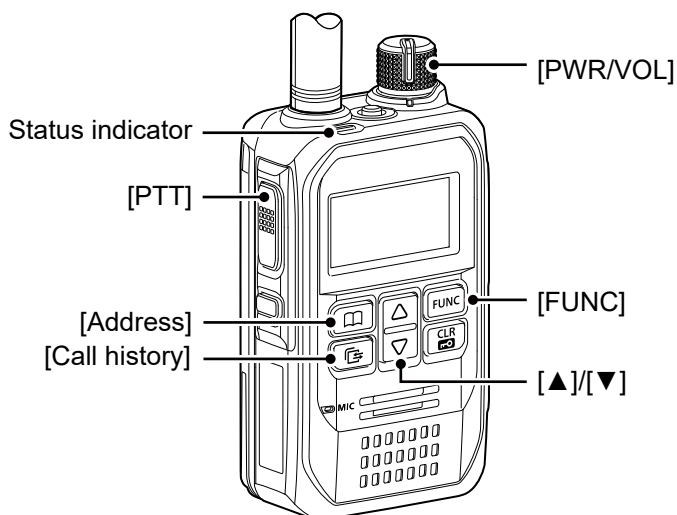
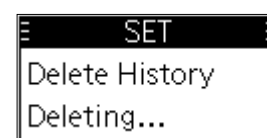
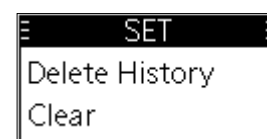
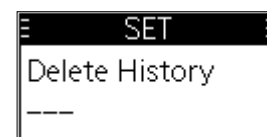
Up to 10 logs can be saved for each call history.

The oldest log will be automatically deleted when a new log is saved.



#### ◆ Deleting all histories

1. Turn OFF the transceiver,
2. While holding down [FUNC], turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Push [FUNC] or [Address] to select "Delete History."
4. Push [▲]/[▼] to select "Clear," and then push [Call history].
  - All the histories except for the "Recording log" are deleted.
  - ① See page 3-9 for deleting "Recording log."

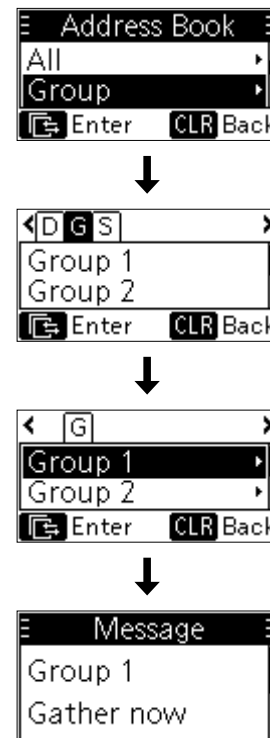
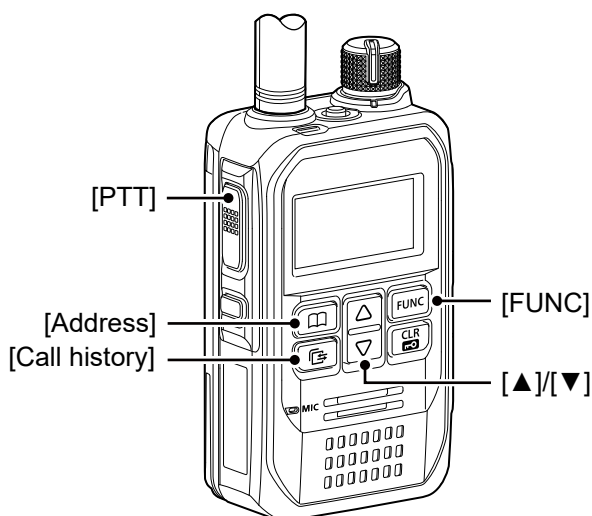


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## Sending a message (Message Call)

You may be able to send a message, depending on the presetting. Ask your dealer for details.

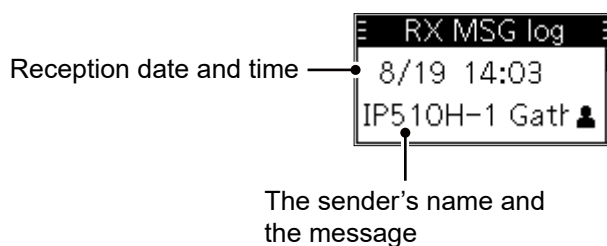
1. Push [Address].
  - The "Address Book" screen is displayed.
2. Push [▲]/[▼] to select a call type (Example: Group), and then push [Call history].
  - ① See page 3-4 for details on Talkgroup.
3. Push [FUNC] or [Address] to select a tab (Example: G), and then push [Call history].
4. Push [▲]/[▼] to select a call-to party. (Example: Group 1)
5. Push [FUNC].
  - The "Message" screen is displayed.
6. Push [▲]/[▼] to select a message to send.
7. Push [PTT] to send the selected message.



## ◇ Browsing received messages

The Call history function may be usable, depending on the presetting. Ask your dealer for details.

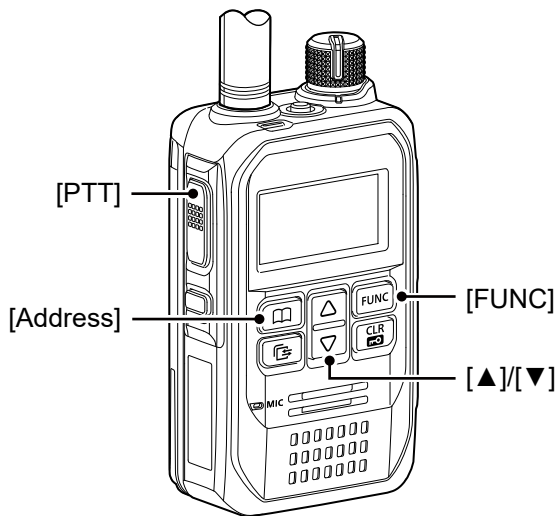
1. Push [Call history].
  - The Call history screen is displayed.
  - ① Pushing [Call history] switches between "TX log," "RX log," "TX MSG log," "RX MSG log," "TX TEL log," "RX TEL log," and "Recording log" screens.
2. Repeatedly push [Call history] to select "RX MSG log" screen.
3. Push [▲]/[▼] to browse received messages.
  - ① The sender's name and the message may scroll from right to left, depending on the message length.



### Sending a status (Status Call)

You may be able to transmit a Status Call to inform the selected destination of your present status, depending on the presetting. Ask your dealer for details.

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the “Status” screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select a status to transmit.
4. Push [PTT] to transmit the selected status.

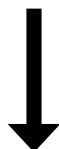
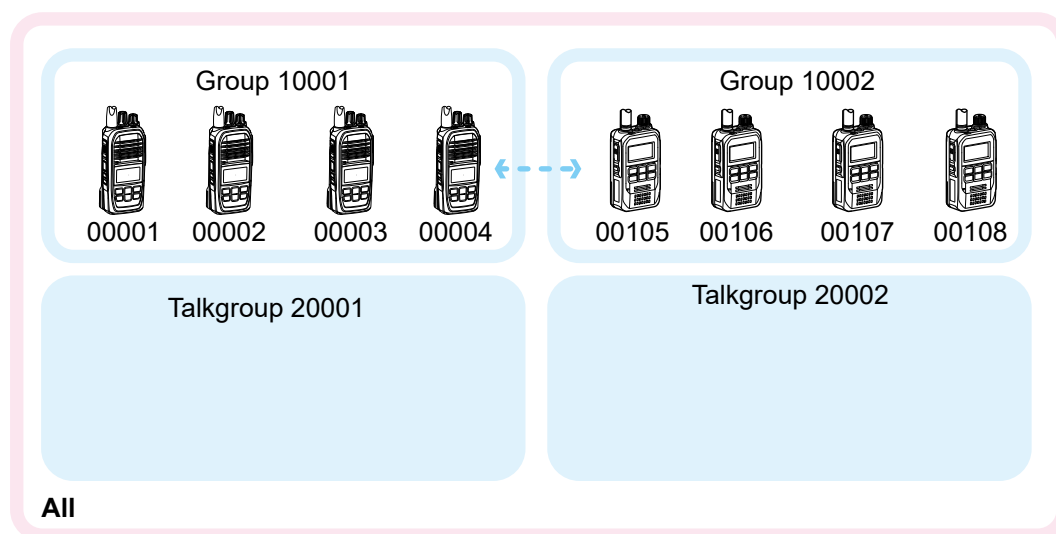


## About the Talkgroup Call

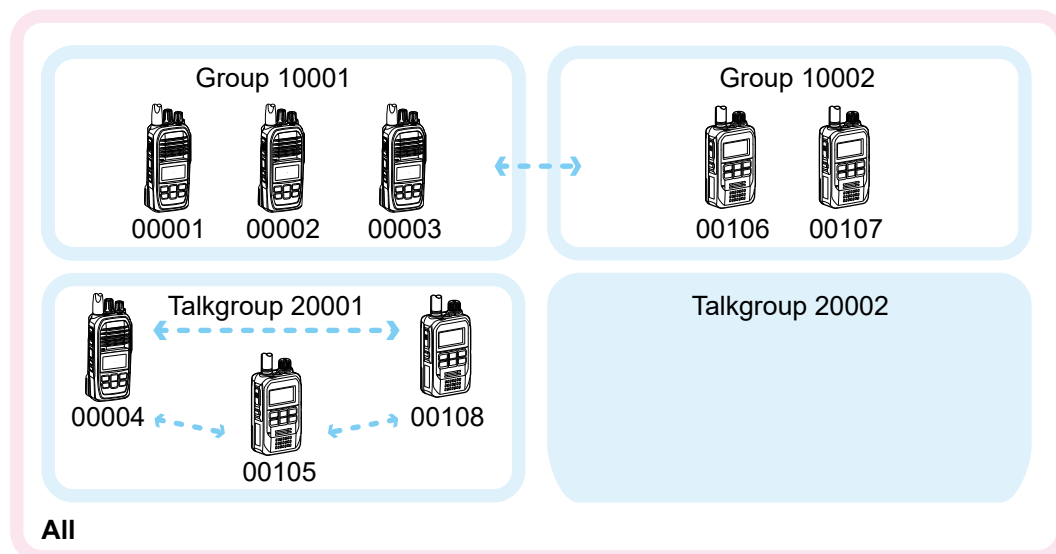
The Talkgroup Call function enables you to communicate with call-to parties in the same Talkgroup. For example, in the illustration below, when transceiver "00105" in its normal group "10002" selects Talkgroup "20001," it is excluded from group "10002," and can communicate with only the transceivers "00004" and "00108" that belong to Talkgroup "20001."

- ① This function can be used for only when the Talkgroup number is registered, and the Talkgroup Call function is assigned to a key by your dealer. (p. 3-5)
- ① Ask your dealer about whether the Talkgroup is included in Group Call or All Call.

### When the Talkgroup is ON.



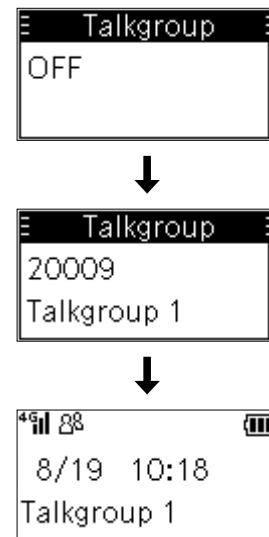
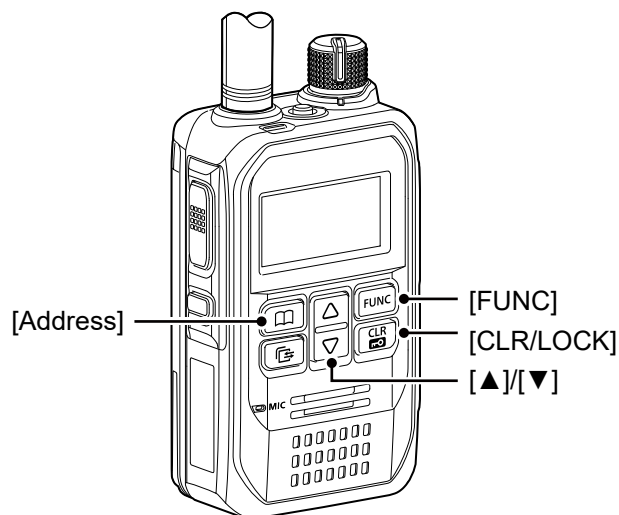
### When the Talkgroup is selected.



## Selecting a Talkgroup number with [FUNC]

If the Talkgroup Call function is assigned to [FUNC] and the Talkgroup number is registered by your dealer, you can select a Talkgroup number to belong to. Ask your dealer for details.

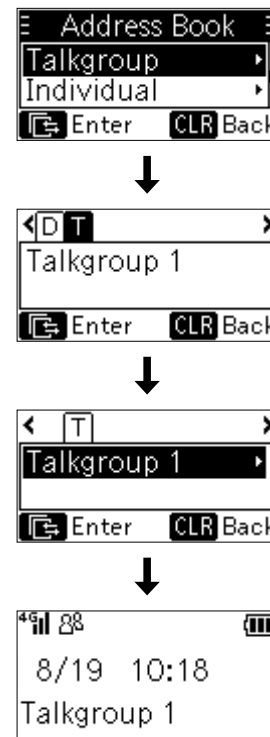
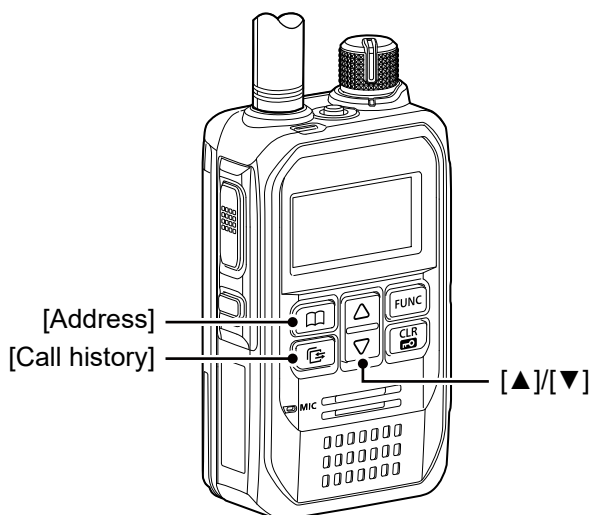
1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the "Talkgroup" screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select a Talkgroup number that you want to belong to, and then push [CLR/LOCK].
  - The transceiver is ready to talk to only the transceivers that belong to the same Talkgroup.
  - ① While the Talkgroup number is selected, you cannot make a normal Group Call. (p. 2-3)
  - ① You can leave the Talkgroup and return to the normal Group by selecting "OFF" in Step 3 on the "Talkgroup" screen.



## Selecting a Talkgroup number with [Address]

If the Talkgroup Call function is assigned to [Address] and the Talkgroup number is registered by your dealer, you can select a Talkgroup number to belong to. Ask your dealer for details.

1. Push [Address].
  - The "Address Book" screen is displayed.
2. Push [▲]/[▼] to select "Talkgroup," and then push [Call history].
3. Push [FUNC] or [Address] to select a tab, and then push [Call history]. (Example: T)
4. Push [▲]/[▼] to select a call-to party, and then push [Call history].  
(Example: Talkgroup 1)
  - The transceiver is ready to talk to only the transceivers that belong to the same Talkgroup.
  - ① While the Talkgroup number is selected, you cannot make a normal Group Call. (p. 2-3)
  - ① You can leave the Talkgroup by selecting a call-to party from "Group" in Step 2 on the "Address Book" screen.



## Key assignment

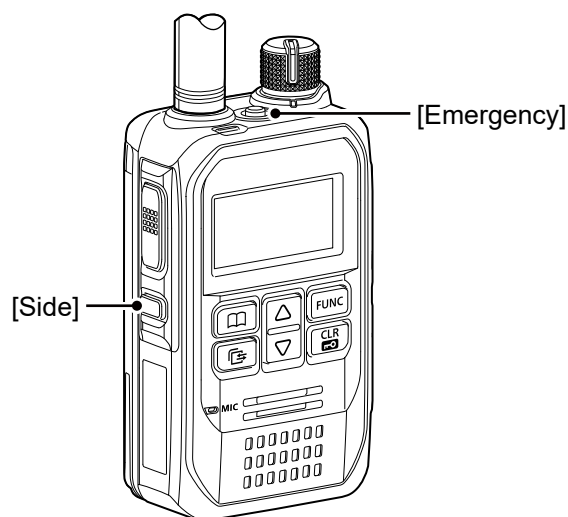
Functions described below can be activated with [Side] or [Emergency] if functions are assigned to the keys by your dealer, or in the Detailed SET mode.

① Hold down or push these keys to use assigned functions.

① You can also assign these functions in the Detailed Set mode. (p. 4-2)

Message	Push [Side] or [Emergency] to select a message to transmit. ① The message that is displayed on the first push of the key may differ, depending on the presetting.
One Touch	Push [Side] or [Emergency] to switch to the preset call type or call-to party.
Mute	Push [Side] or [Emergency] to mute or unmute the received audio by holding down the key for 1 second. ① You can also unmute the received audio by pushing [PTT].
Surveillance	Push [Side] or [Emergency] to turn the Surveillance function ON or OFF. When this function is turned ON, the beep is not heard, and the backlight and the status indicator do not light, even when a signal is received, or a key is pushed.
Temp Vol. Sw	Push [Side] or [Emergency] to temporarily switch to the audio output level set by your dealer.
Emergency*	Hold down [Emergency] to transmit an Emergency Call. (p. 3-17) ① Ask your dealer about the destination.
Remote Moni (Emer)	Push [Side] or [Emergency] to open the "Remote Monitor" screen. (p. 3-21) When an Individual is selected, you can send them a request for automatic transmission.

\* Only assignable to [Emergency].





## Using the Voice Recorder function

The transceiver can record and play back up to 10 received calls when the Voice Recorder function is enabled by your dealer. With the function enabled, an incoming call is automatically recorded.

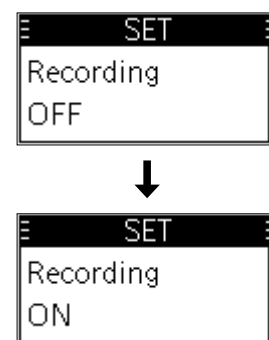
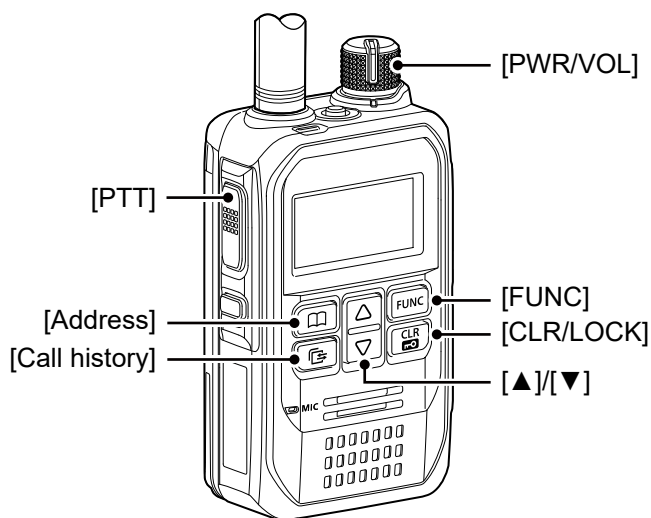
Each reception is counted as 1 recording, and the duration is up to 4 minutes per recording.

- ① The oldest recording will be automatically overwritten each time the number of recording exceeds 10 or a recording lasts for more than 4 minutes.
- ① You can set whether the function is applied only to Individual Calls or to all call types in the Basic SET mode. (p. 4-8)
- ① The received audio will not be recorded when you start communicating.
- ① The recording cannot be exported from the transceiver.

### ◇ Using the Voice Recorder function

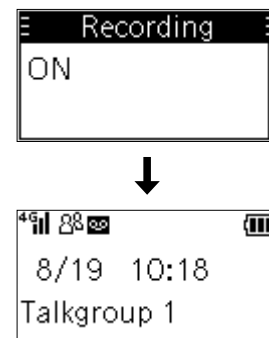
#### Enabling the Voice Recorder function:

1. Turn OFF the transceiver if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "Recording."
4. Push [▲]/[▼] to select "ON."
5. Push [PTT] or [CLR/LOCK] to exit the Basic SET mode.



#### Turning ON the Recording mode:

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the "Recording" screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select "ON."
4. Push [PTT] or [CLR/LOCK] to exit the [FUNC] menu.
  - "4G" is displayed.
  - "4G" blinks if there is an unplayed recording.



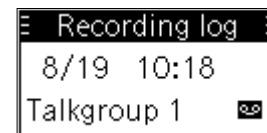
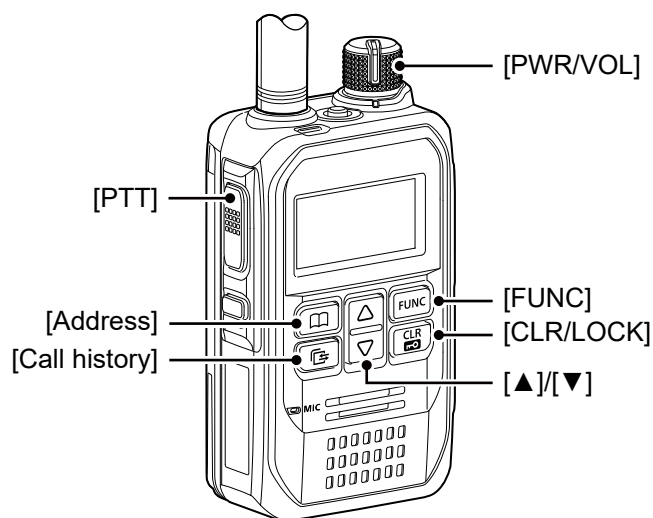
## Using the Voice Recorder function

### ◇ Using the Voice Recorder function

#### Playing back the recordings:

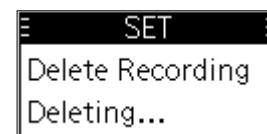
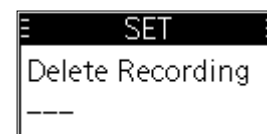
① To play back the recordings, "Playbacks on the Recording History screen" must be turned ON by your dealer.

1. Push [Call history].
  - The Call history screen is displayed.
  - ① Pushing [Call history] switches between the "TX log," "RX log," "TX MSG log," "RX MSG log," "TX TEL log," "RX TEL log," and "Recording log" screens.
2. Repeatedly push [Call history] to select the "Recording log" screen.
3. Push [▲]/[▼] to select a recording to play back.
4. Hold down [Call history] to play back the selected recording.



### ◇ Deleting all the Recordings

1. Turn OFF the transceiver if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "Delete Recording."
4. Push [▲]/[▼] to select "Clear," and then push [Call history].
5. Push [PTT] or [CLR/LOCK] to exit the Basic SET mode.
  - All the recordings will be deleted.

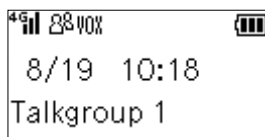


## VOX function

The VOX function automatically switches between transmit and receive by detecting your voice, enabling hands-free operations.

① This function can be set by your dealer, or in the Detailed Set mode. (pp. 4-2, 4-5)

① “VOX” is displayed when the function is ON.



## Pocket Beep function

When the transceiver receives a call of a call type that the Pocket Beep function is set to, the function gives you a notification with a beep and the blinking “🔔”.

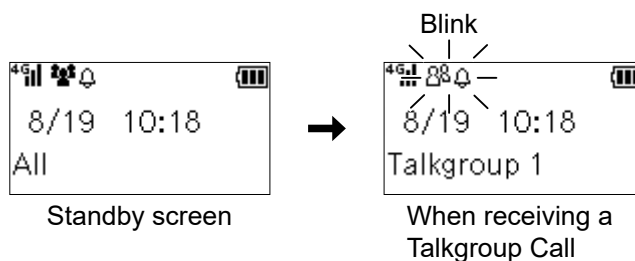
The Pocket Beep function sounds a notification tone and displays an indication when a call is received.

① This function can be set by your dealer, or in the Detailed Set mode. (pp. 4-2, 4-4)

① “🔔” is displayed when the function is ON.

① “🔔” keeps blinking until the transceiver returns to the Standby mode after the received signal disappears.

**Example: When the Pocket Beep function is set for Talkgroup Calls.**



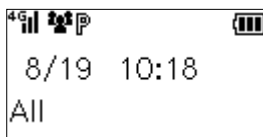
## P-Bell function

The P-Bell function sounds the notification tone when a call is received.

The received audio is muted until you reply. Push [PTT] to unmute the received audio.

① This function can be set by your dealer, or in the Detailed Set mode. (pp. 4-2, 4-4)

① “P” is displayed when the function is ON.



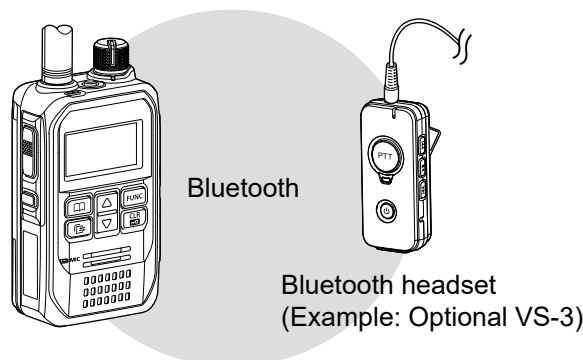
## Using a Bluetooth® device

**NOTE:** Connect with a device that complies with the standards set by Bluetooth SIG and has been certified. Even if the device complies with the Bluetooth standard, it may not be able to connect to the transceiver, depending on the specifications and settings of the device, and not all operations are guaranteed.

The transceiver can operate with Bluetooth headsets.

① Only the VS-3 Bluetooth headset performance is guaranteed as of February 2025.

- This function can be set by your dealer, or in the Basic Set mode. (pp. 4-2, 4-7)
- The communication range of Bluetooth is approximately 10 m (33 ft).
- ① The range may vary, depending on the environment in which the device operates.
- Although you can pair with up to 5 Bluetooth devices\*, it is recommended that you pair only 1 device at a time.
  - \* 1~4 headsets and 1~4 data devices.



### Electromagnetic Interference:

When you use a Bluetooth device, pay attention to the following:

- Bluetooth devices operate in the 2.4 GHz band that is also used by other appliances, such as Wireless LAN products, microwave ovens, RFID systems, amateur radio stations, and so on.
- When using a Bluetooth device near such devices, interference may occur, causing a decrease in communication speed, and an unstable connection.

In such case, keep the Bluetooth devices away from the other appliances, or stop using those devices. Bringing the Bluetooth device and the transceiver closer together also improves communication.

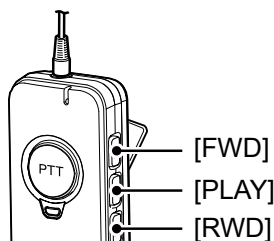
## Using a Bluetooth® device

### ◆ About the VS-3 Bluetooth headset

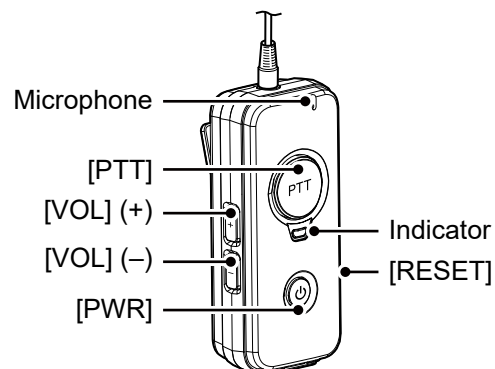
When you connect an optional VS-3 Bluetooth headset to the transceiver, you can wirelessly transmit and receive the headset audio.

The VS-3 has a [PTT] switch, so you can transmit in the same way as using the transceiver's [PTT] switch.

- The [FWD], [RWD], and [PLAY] keys on the VS-3 are disabled while using the headset with the IP510H.



- If the headset does not work correctly, even if the power is ON, push [RESET] with a pin to force power OFF.



Function		Operation	Beep tone	Indicator
Bluetooth function	ON	Hold down [PWR] for 3 seconds	Melody (up)	Blinks blue
	OFF		Melody (down)	OFF
Pairing mode	Searching	While the Bluetooth function is OFF, hold down [PWR] for 6 seconds	PiPa- (ready to connect)	Quickly blinks red then blue, every 3 seconds
	Connected		PiRo	Blinks blue twice, every 3 seconds
Transmit		Push [PTT]	Pi*2	Blinks red once, then blue twice, every 3 seconds
Audio volume	Up*1	Push [VOL] (+)	Pi	—
	Down*1	Push [VOL] (-)	Boo	—

\*1 Functional only when a Bluetooth device is connected.

\*2 Depends on the Call Tone settings in the Detailed Set mode or “BT PTT Beep” setting in the Basic Set mode. (pp. 4-4, 4-7)

## Using a Bluetooth® device

### ◆ Pairing with a Bluetooth device

Pairing the transceiver with a Bluetooth device means they register and allow each one to communicate. You do not have to pair with the device that has already been paired with the transceiver.

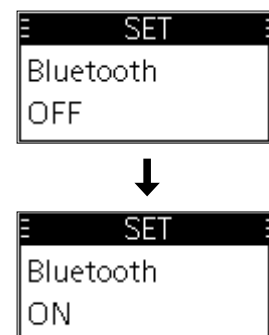
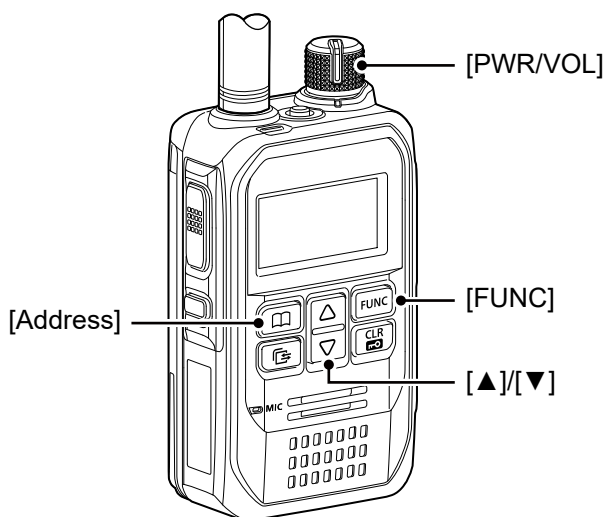
- ① The transceiver may not be able to find the Bluetooth device that you want to pair with it if there are multiple Bluetooth devices nearby. In such cases, turn OFF unnecessary devices or keep distance from that place until there is only one device that you want to pair with the transceiver,
- ① Once the Bluetooth connection is lost, audio will be input from the transceiver's internal speaker. Be careful not to turn up the volume too much.
- ① The VS-3 is used as an example Bluetooth device in this guide.

#### Entering the VS-3 Pairing mode:

1. Confirm the VS-3 is turned OFF.
2. Hold down [PWR] for 6 seconds.
  - The indicator quickly blinks red then blue, and the headset enters the Pairing mode.
  - ① At the first time of use, the VS-3 automatically enters the Pairing mode.
  - ① If there is no device to pair with for 5 minutes, the Pairing mode is deactivated. After another 5 minutes, the VS-3 will automatically turn OFF.

#### Enabling the transceiver's Bluetooth function in the Basic SET mode:

1. Turn OFF the transceiver if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "Bluetooth."
4. Push [▲]/[▼] to select "ON."

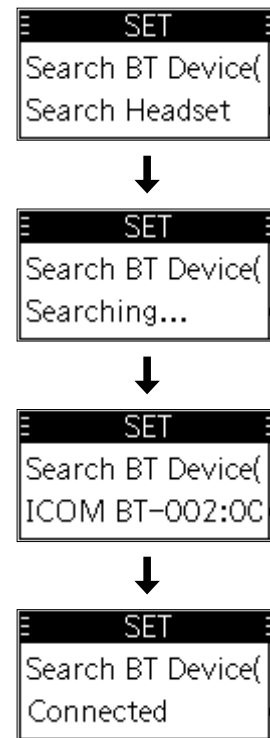
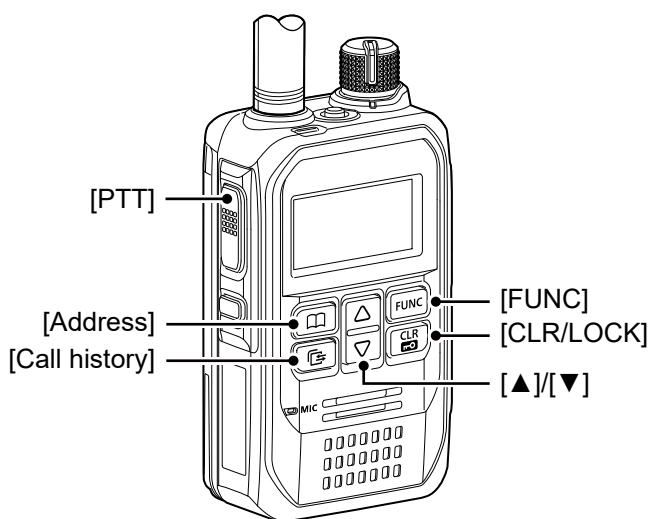


## Using a Bluetooth® device

### ◇ Pairing with a Bluetooth device

#### Pairing the transceiver with the VS-3:

1. While in the Basic SET mode, repeatedly push [FUNC] or [Address] to select "Search BT Device(Headset)," and then push [Call history].
  - "Searching..." is displayed.
  - Once a Bluetooth device is found, its name and BD address are displayed.
  - ① Push [CLR/LOCK] to cancel searching for Bluetooth devices.
2. Push [▲]/[▼] to select a device to pair and connect, and then push [Call history].
  - Once the connection is established, "Connected" is displayed.
3. Push [PTT] or [CLR/LOCK] to exit the Basic SET mode.



#### After pairing is done:

You do not have to pair with the device that has already been paired with the transceiver. The transceiver will automatically connect to the paired Bluetooth device when the following conditions are met.

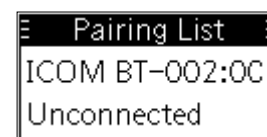
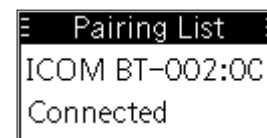
- The transceiver's Bluetooth is ON.
  - The transceiver is in the Standby mode.
  - The Bluetooth device is turned ON.
- ① "📶" blinks while the transceiver is connecting to the Bluetooth device,
  - ① "📶" is displayed once the connection is established.
  - ① You can also manually connect the transceiver to the Bluetooth device from the "Pairing List" screen in the [FUNC] menu.
  - ① Only the VS-3 Bluetooth headset performance is guaranteed as of February 2025.

## Using a Bluetooth® device

### ◇ Disconnecting a paired Bluetooth device

You can disconnect a paired Bluetooth device when not using it.

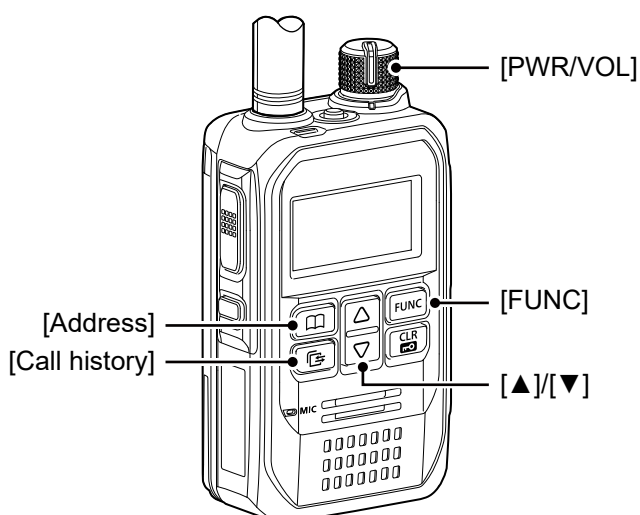
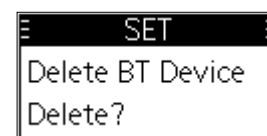
1. In the Standby screen, push [FUNC].
    - The [FUNC] menu screen is displayed.
  2. Repeatedly push [FUNC] or [Address] to select the “Pairing List” screen.
  3. Push [▲]/[▼] to select the device to disconnect, and then push [Call History].
    - “Unconnected” is displayed if the device is correctly disconnected.
- ① You can reconnect the device to the transceiver by repeating the steps above.



### ◇ Deleting a Bluetooth device from the Pairing list

You can delete Bluetooth devices from the Pairing list in the Basic SET mode.

- ① Disconnect the Bluetooth device before deleting, if connected.
1. Turn OFF the transceiver if it is turned ON.
  2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
    - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the “SET” screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
  3. Repeatedly push [FUNC] or [Address] to select “Delete BT Device.”
  4. Push [▲]/[▼] to select a device to delete from the Pairing list, and then push [Call history].
    - “Delete?” is displayed.
  - ① Push any key other than [Call history] to cancel deleting the device from the Pairing list.
  5. Push [Call history] to delete the device.
    - “Completed to delete” is displayed when the device is deleted from the Pairing list.





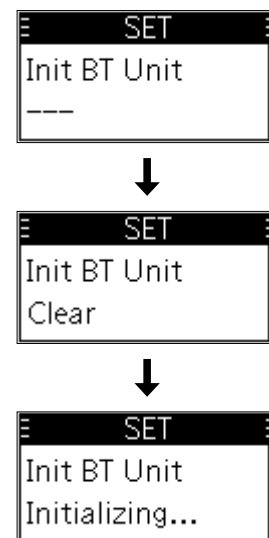
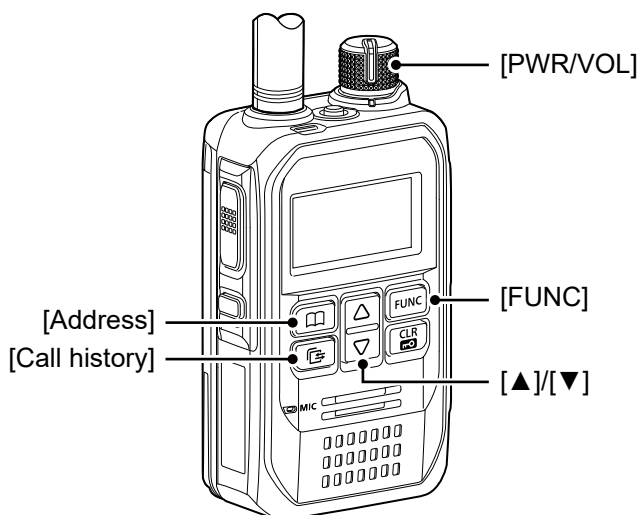
## Using a Bluetooth® device

### ◆ Initializing the Pairing lists

If you have problems with Bluetooth operation, initialize the Pairing lists, as described below.

#### Initializing the Pairing list of the transceiver:

- ① Initializing the Pairing list will delete all the paired Bluetooth devices from the list.  
The Pairing list is not initialized by the RESET function in the Detailed Set mode.
1. Turn OFF the transceiver if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
- ② Release [FUNC] when the “SET” screen is displayed.
3. Repeatedly push [FUNC] or [Address] to select “Init BT Unit.”
4. Push [▲]/[▼] to select “Clear,” and then push [Call history].
  - Once the Pairing list is initialized, the transceiver automatically restarts.



#### Initializing the Pairing list of the VS-3:

1. Hold down [PWR] on the VS-3 for 3 seconds, to turn the Bluetooth function ON.
  - The indicator blinks blue.
2. Hold down [PWR] on the VS-3 for 3 seconds again, to turn OFF the Bluetooth function.
  - The indicator turns OFF.
3. Within 10 seconds, while holding down both [VOL] (+) and [VOL] (–), hold down [PWR] for 10 seconds.
  - The indicator lights violet, then turns OFF after the pairing list is initialized.

## Using the Emergency Call function

You can transmit or receive an Emergency Call if the function is enabled by your dealer.

① An "E" is displayed when the Emergency Call function is enabled.

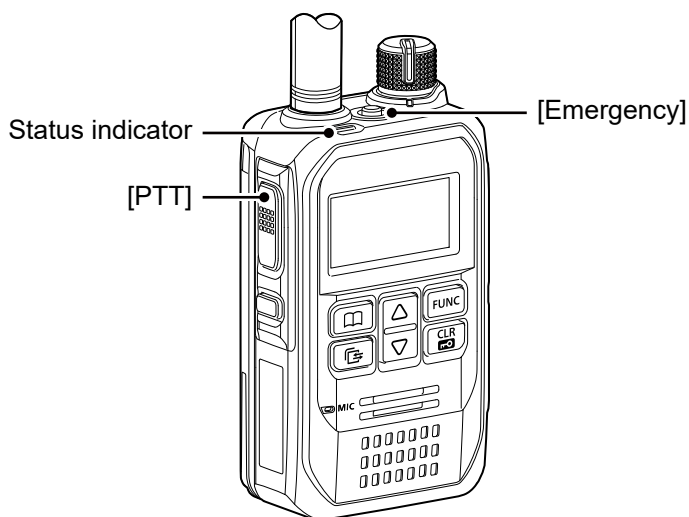
### Transmitting an Emergency Call:

1. Hold down [Emergency] until "Emergency" is displayed.
  - An alarm periodically sounds.
  - ① If the Surveillance function is enabled, no alarm sounds. (p. 3-7)
  - ① The displayed text may differ from "Emergency," depending on the presetting and the type of Emergency Call the transceiver is transmitting. Ask your dealer for details.
2. Wait for an answer-back.
  - When the transceiver receives an answer-back, the alarm stops, and the Status indicator lights green.
  - ① Turn OFF the transceiver to cancel the Emergency Call.
  - ① The transceiver automatically transmits a repeat Emergency Call until it receives an acknowledgment, or until a user turns OFF the transceiver.

### Receiving an Emergency Call:

1. "Emergency" is displayed and the alarm periodically sounds.
  - ① If the Surveillance function is enabled, no alarm sounds.
  - ① The displayed text may differ from "Emergency," depending on the presetting and the type of Emergency Call the transceiver is receiving. Ask your dealer for details.
2. While holding down [PTT], talk into the microphone.
  - While holding down [PTT], the Status indicator lights red.
  - The alarm stops.
  - Returns to the Standby screen when you release [PTT].

**NOTE:** The Emergency Call function may not properly work, depending on the surrounding environment such as obstructions, weather condition, and so on.  
Icom is not responsible for the destruction or damage caused by using the Emergency Call function.



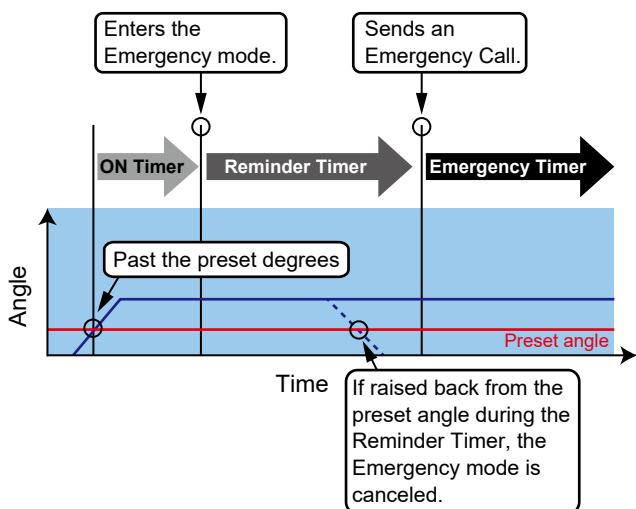
## Using the Emergency Call function

The transceiver enters the Emergency mode through the following functions, depending on the presetting.

### ◇ The Man Down function

When the transceiver is tilted past the preset angle for the ON Timer preset time, the transceiver enters the Emergency mode.

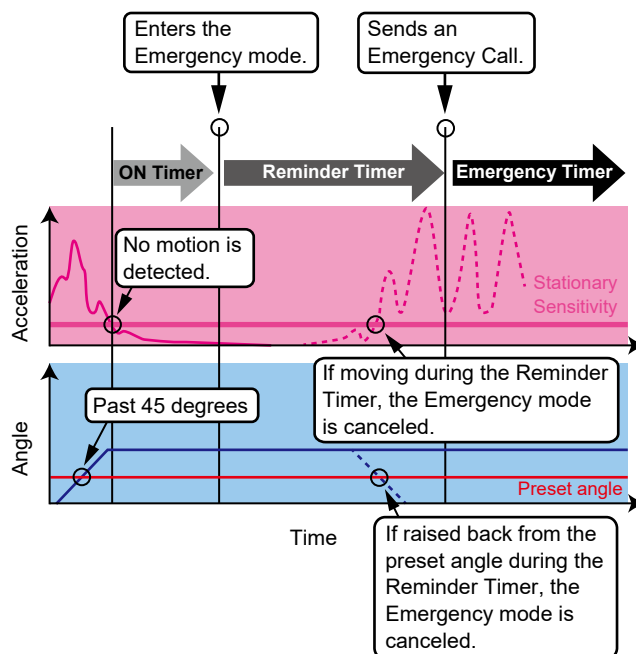
- ① If a user raises the transceiver back from the preset angle towards the vertical position before the Reminder Timer set time expires, the Emergency mode is canceled.



### Man Down With Stationary:

- The transceiver leans past the preset angle for the ON Timer preset time.
- AND
- The transceiver is detected as stationary (no motion) for the ON Timer set time.

- ① If a user raises the transceiver back from the preset angle towards the vertical position, or when the user moves the transceiver before the Reminder Timer set time expires, the Emergency mode is canceled.



**NOTE:** Even when the Man Down function activates the Emergency mode, the transceiver may be unable to transmit an Emergency Call, depending on the surrounding environment, such as obstructions, weather conditions, and so on.

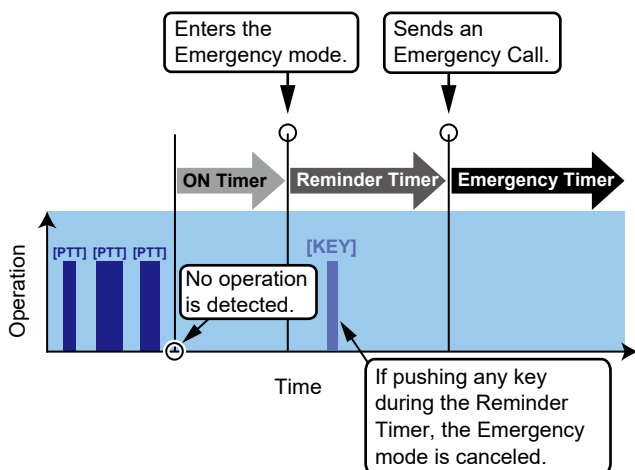
Icom is not responsible for the destruction or damage caused by using the Man Down function.

## Using the Emergency Call function

### ◇ The Lone Worker function

When no operation occurs for the ON Timer preset time, the transceiver enters the Emergency mode.

- ① If a user pushes any key before the Reminder Timer set time expires, the Emergency mode is canceled.

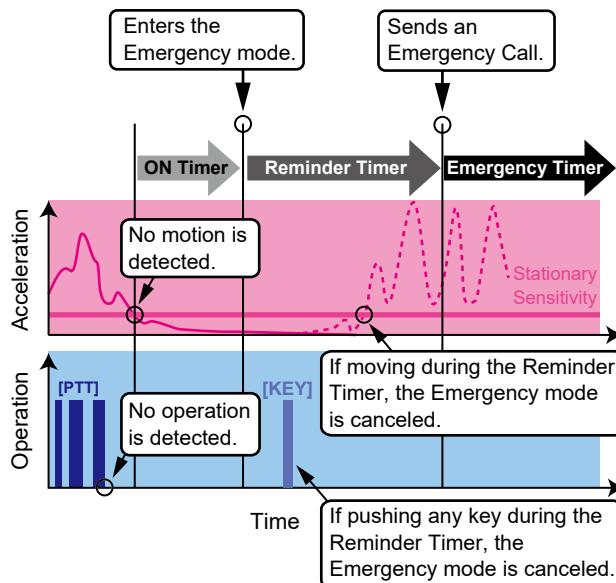


### Lone Worker With Stationary:

- When no operation occurs for the ON Timer preset time.
- AND
- The transceiver is detected as stationary (no motion) for the ON Timer set time.
- ① If a user pushes any key, or moves the transceiver before the Reminder Timer set time expires, the Emergency mode is canceled.

### Example:

- ON Timer: 60 minutes
- Reminder Timer: 60 seconds



**NOTE:** Even when the Lone Worker function activates the Emergency mode, the transceiver may be unable to transmit an Emergency Call, depending on the surrounding environment, such as obstructions, weather conditions, and so on.

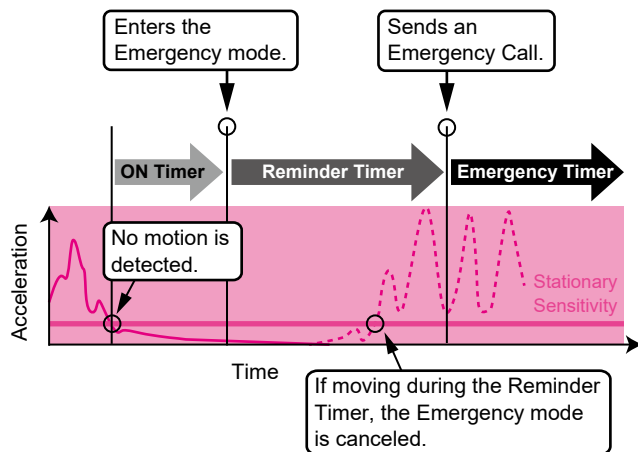
Icom is not responsible for the destruction or damage caused by using the Lone Worker function.

## Using the Emergency Call function

### ◇ The Stationary Detection function

When the transceiver is detected as being stationary (no motion) for the ON Timer preset time, the transceiver enters the Emergency mode.

- ① If a user moves the transceiver during the Reminder Timer set time, the Emergency mode is canceled.

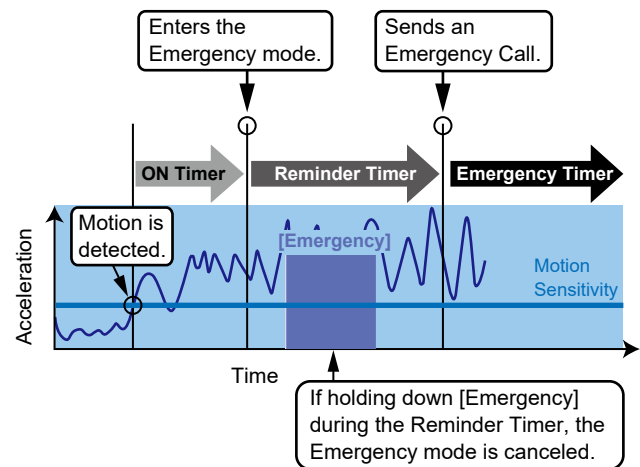


**NOTE:** Even when the Stationary Detection function activates the Emergency mode, the transceiver may be unable to transmit an Emergency Call, depending on the surrounding environment, such as obstructions, weather conditions, and so on.  
Icom is not responsible for the destruction or damage caused by using the Stationary Detection function.

### ◇ The Motion Detection function

When the transceiver continuously moves for the ON Timer preset time, the transceiver enters the Emergency mode.

- ① If a user holds down [Emergency] for the “Emer SW OFF Timer (Sec)” set time, before the Reminder Timer set time expires, the Emergency mode is canceled.



**NOTE:** Even when the Motion Detection function activates the Emergency mode, the transceiver may be unable to transmit an Emergency Call, depending on the surrounding environment, such as obstructions, weather conditions, and so on.  
Icom is not responsible for the destruction or damage caused by using the Motion Detection function.

## Remote Monitor function

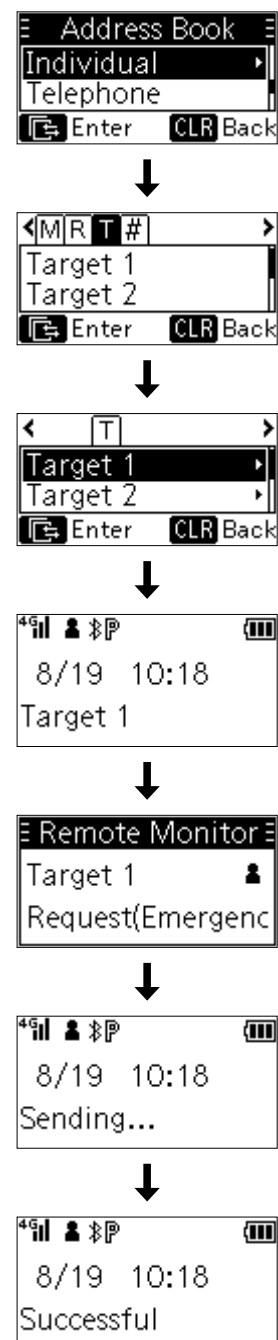
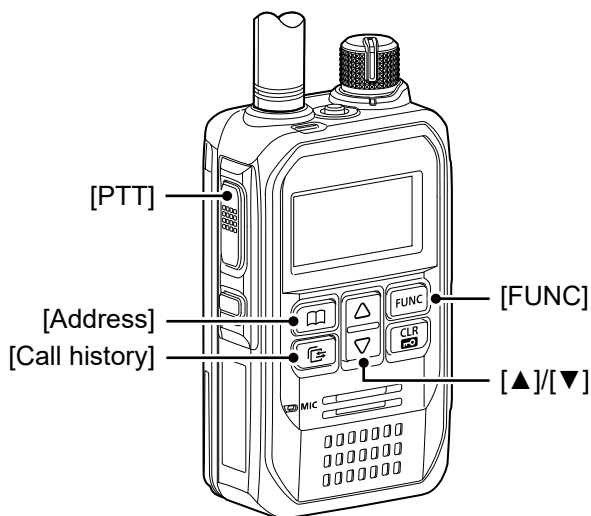
You can use the Remote Monitor function to request the target transceiver to transmit a call with or without its surrounding audio through its microphone.

**NOTE:** To fully utilize this function, the settings for the Emergency Call and Remote Monitor functions must be configured correctly. Ask your dealer for details.

There are 3 types of Remote Monitor Calls, as described on the next page. In this explanation, each type of Remote Monitor Call is described as “Request,” “Request (Emergency Silent Mode),” and “Stop (Emergency Silent Mode),” respectively.

### Transmitting a Remote Monitor Call:

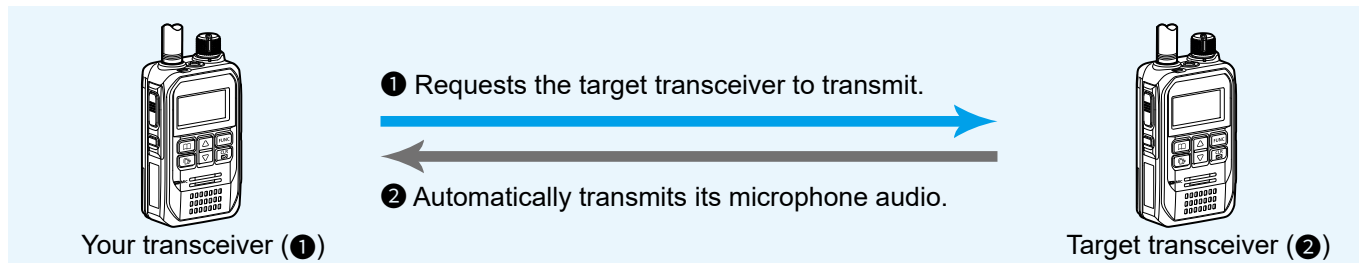
1. Push [Address].
  - The “Address Book” screen is displayed.
2. Repeatedly push [▲]/[▼] to select “Individual,” and then push [Call history].
3. Push [FUNC] or [Address] to select a tab (Example: T), and then push [Call history].
4. Push [▲]/[▼] to select a call-to party. (Example: Target 1)
5. Push [FUNC].
  - The [FUNC] menu screen is displayed.
6. Repeatedly push [FUNC] or [Address] to select the “Remote Monitor” screen.
7. Push [▲]/[▼] to select a type of Remote Monitor Call, and then push [PTT] to transmit.
  - ① Push [Side] or [Emergency] to select a type of Remote Monitor Call, if “Remote Moni (Emer)” is assigned to the keys. (p. 3-7)
  - “Successful” is displayed when a Remote Monitor Call is successfully transmitted.



## Remote Monitor function

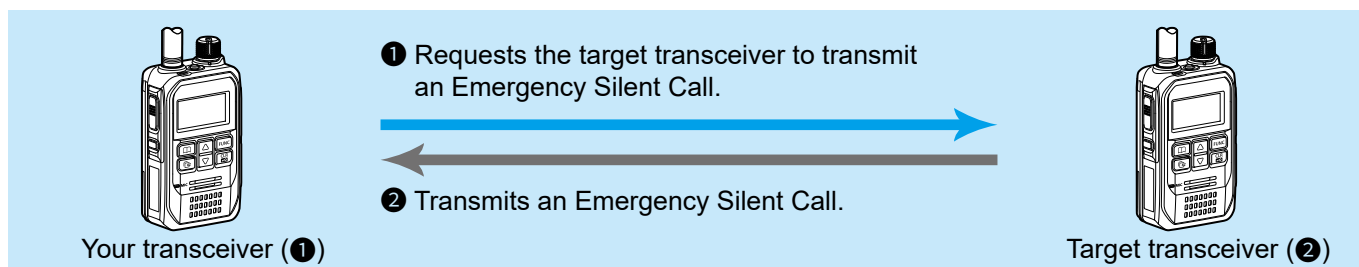
### Remote Monitor Call - Request:

- The target transceiver automatically starts transmitting its surrounding audio after receiving a “Request.”
  - ① A beep sounds, and the status indicator lights red.
- The transmission continues for the specified time that is set in your transceiver’s presetting.



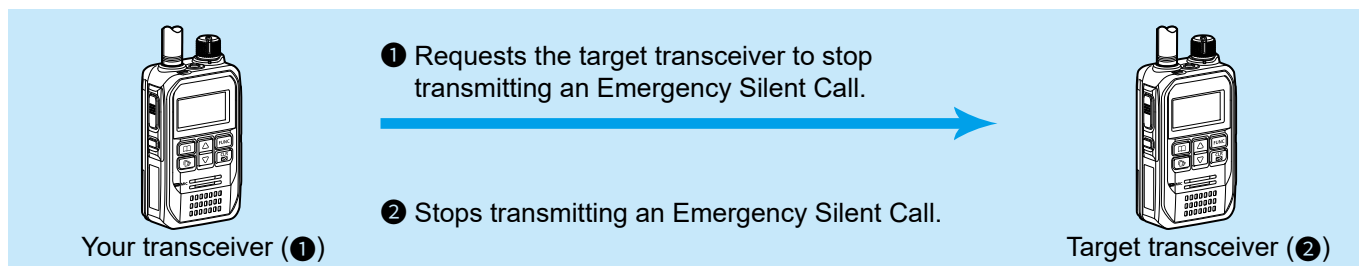
### Remote Monitor Call - Request (Emergency Silent Mode):

- The target transceiver automatically transmits an Emergency Silent Call, after receiving a “Request (Emergency Silent Mode).”
  - ① No beep sounds and the status indicator does not light, regardless of the Emergency Call function settings.
  - ① Whether the target transceiver automatically transmits its surrounding audio depends on its presetting.
- The target transceiver keeps transmitting an Emergency Silent Call until:
  - The call may be automatically canceled by the specified time, depending on its presetting.
  - It receives a “Stop (Emergency Silent Mode),” or an answer-back from your transceiver.
  - The target transceiver’s [Emergency] is held down for the specified time that is set in its presetting.



### Remote Monitor Call - Stop (Emergency Silent Mode):

- The target transceiver automatically stops transmitting an Emergency Silent Call after receiving a “Stop (Emergency Silent Mode).”

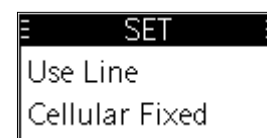


## Switching the line for system connection

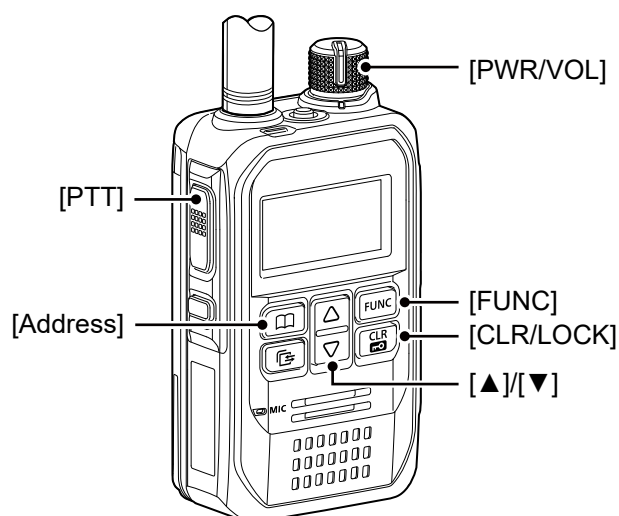
The transceiver can communicate through the Cellular and WLAN lines. You can switch the line to be used in order to connect to the system and set priority in the Basic Set mode.

### ◇ Switching the line for system connection in the Basic SET mode

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① This item is not displayed when you enter the Basic SET mode from the [FUNC] menu, even if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "Use Line."
4. Push [▲]/[▼] to select your preferred combination of the line and priority (Example: WLAN Priority), and then push [PTT] or [CLR/LOCK] to exit the Basic SET mode.
  - The Standby screen is displayed, and the transceiver starts connecting to the system.



Cellular Fixed	The transceiver only uses the Cellular line for the system connection and does not automatically switch to the WLAN line, even if the communication condition deteriorates.
WLAN Fixed	The transceiver only uses the WLAN line for the system connection and does not automatically switch to the Cellular line, even if the communication condition deteriorates.
Cellular Prior	The transceiver preferentially uses the Cellular line for system connection and automatically switches to the WLAN line when the communication condition deteriorates. ① Automatic line switching between Cellular and WLAN works, depending on the presetting. Ask your dealer for details.
WLAN Prior	The transceiver preferentially uses the WLAN line for system connection and automatically switches to the Cellular line when the communication condition deteriorates. ① Automatic line switching between Cellular and WLAN works, depending on the presetting. Ask your dealer for details.



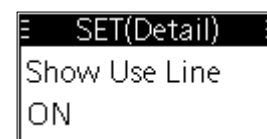
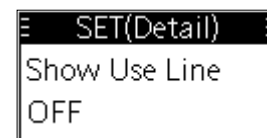


## Switching the line for system connection

### ◇ Switching the line for system connection with [FUNC]

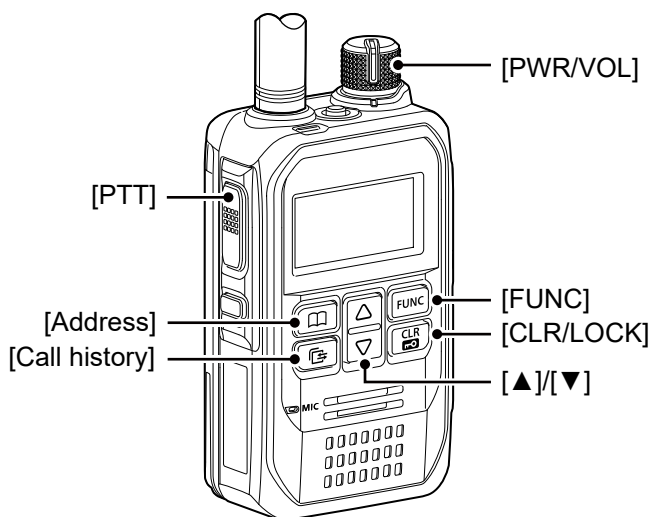
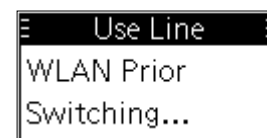
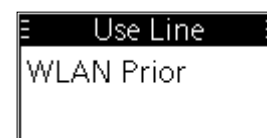
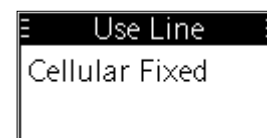
#### Assigning “Show Use Line” to [FUNC] in the Detailed SET mode:

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC] and [Address], rotate [PWR/VOL] to turn ON the transceiver.
  - The Detailed SET mode screen is displayed.
  - ① Release [FUNC] and [Address] when the “SET (Detail)” screen is displayed.
3. Repeatedly push [FUNC] or [Address] to select “Show Use Line.”
4. Push [▲]/[▼] to select “ON.”
5. Push [PTT] or [CLR/LOCK] to exit the Detailed SET mode.



#### Switching the line for system connection with [FUNC]:

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the “Use Line” screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select your preferred combination of the line and priority (Example: WLAN Priority), and then push [Call history].
  - “Switching...” is displayed.
  - After the line has been switched, the transceiver starts connecting to the system.



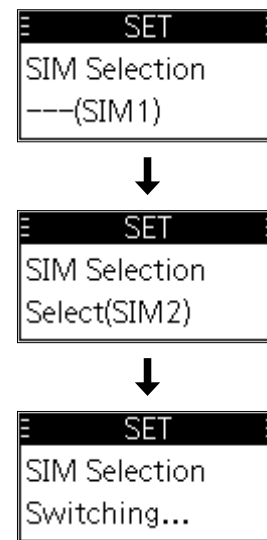
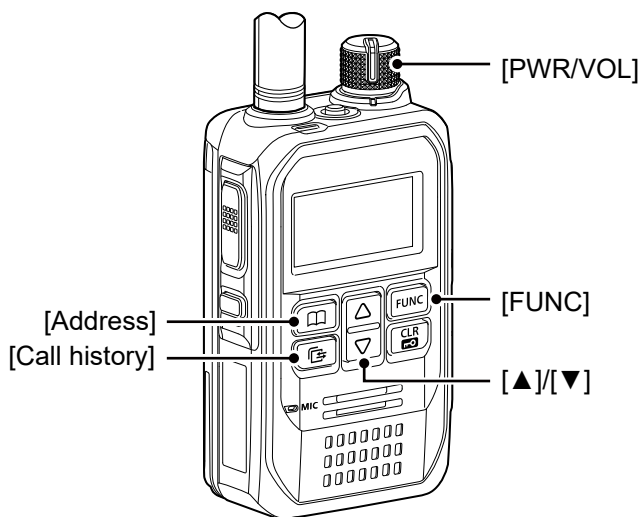
## Switching the SIM card selection

The transceiver has two SIM card slots, SIM 1 and SIM 2. You can switch the SIM card to be used in order to connect to the system in the Basic Set mode.

**CAUTION: DO NOT** switch the SIM card to one that is actually not installed in the transceiver since this may result in data loss.

### ◇ Switching the SIM card selection in the Basic SET mode

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "SIM Selection."
4. Push [▲]/[▼] to select "Select(SIM2)," and then push [Call history].
  - "Switching..." is displayed.
  - The transceiver automatically restarts after a while.
  - ① The SIM card name may be displayed, if preset by your dealer.

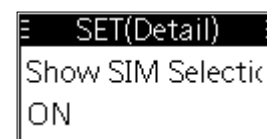
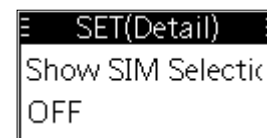


## Switching the SIM card

### ◇ Switching the SIM card selection with [FUNC]

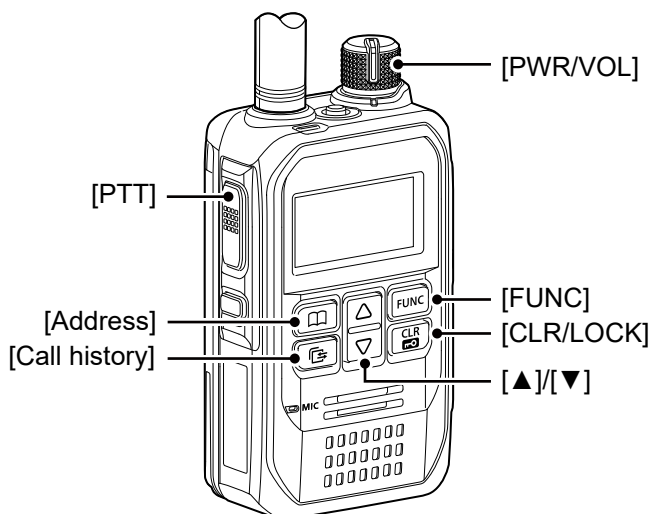
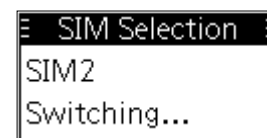
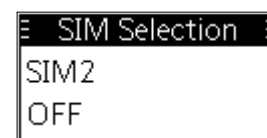
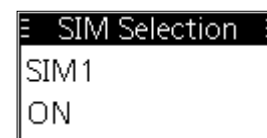
#### Assigning “Show SIM Selection” to [FUNC] in the Detailed SET mode:

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC] and [Address], rotate [PWR/VOL] to turn ON the transceiver.
  - The Detailed SET mode screen is displayed.
  - ① Release [FUNC] and [Address] when the “SET (Detail)” screen is displayed.
3. Repeatedly push [FUNC] or [Address] to select “Show SIM Selection.”
4. Push [▲]/[▼] to select “ON.”
5. Push [PTT] or [CLR/LOCK] to exit the Detailed SET mode.



#### Switching the SIM card selection with [FUNC]:

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the “SIM Selection” screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select “SIM2,” and then push [Call history].
  - “Switching...” is displayed.
  - The transceiver automatically restarts after a while.
  - ① The SIM card name may be displayed, if it is set by your dealer.



## Searching for network operators

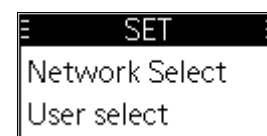
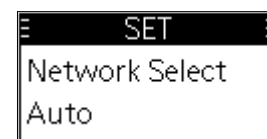
You can select whether the transceiver automatically selects a network operator when it is turned ON. You can also manually search for available network operators and select the desired one.

### NOTE:

- This function may not work properly, depending on the country of use or service provider settings.
- The transceiver may not be able to connect to the network by selecting a network operator, depending on the communication service contracts.

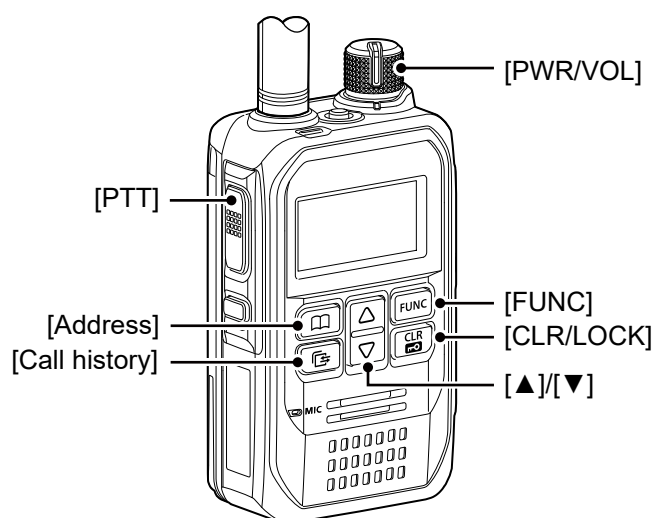
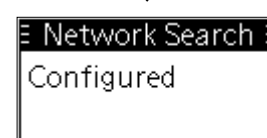
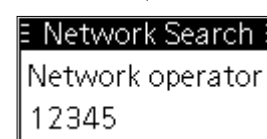
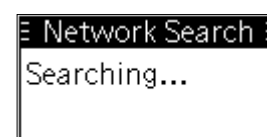
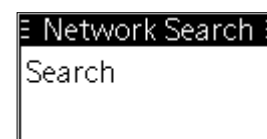
### Setting how the network operator is selected:

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
  - The Basic SET mode screen is displayed.
  - ① Release [FUNC] when the "SET" screen is displayed.
  - ① You can also enter the Basic SET mode from the [FUNC] menu, if set. (pp. 4-2, 4-9)
3. Repeatedly push [FUNC] or [Address] to select "Network Select."
4. Push [▲]/[▼] to select "User select."
5. Push [PTT] or [CLR/LOCK] to exit the Basic SET mode.
  - You can now search for network operators and select the desired one in the [FUNC] menu.



### Searching for network operators:

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the "Network Search" screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [Call history].
  - The transceiver starts searching for available network operators.
  - ① This may take a few minutes, depending on the network conditions.
4. Push [▲]/[▼] to select a network operator, and then push [Call history].
  - (Example: Network operator 12345)
  - "Configured" is displayed.
  - ① Depending on the operator, you can select whether to connect only to a 3G network.



Section 4

SET MODE

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Using the SET mode .....4-2

◇ Basic SET mode .....4-2

◇ Detailed SET mode.....4-2

◇ Using the SET mode.....4-3

SET mode items .....4-4

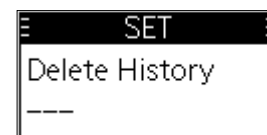
## Using the SET mode

You can use the SET mode to set infrequently changed values or function settings. The transceiver has 2 types of SET modes, as shown below.

① You cannot transmit or receive while the transceiver is in the SET mode.

### ◆ Basic SET mode

1. Turn OFF the transceiver, if it is turned ON.
  2. While holding down [FUNC], rotate [PWR/VOL] to turn ON the transceiver.
    - The Basic SET mode screen is displayed.
- ① Release [FUNC] when the "SET" screen is displayed.



### Entering the Basic SET mode from the [FUNC] menu:

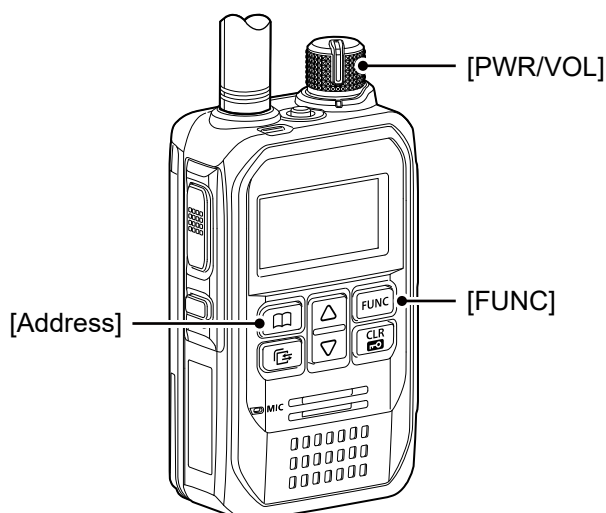
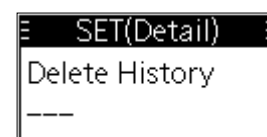
**NOTE:** Some items are not displayed when you enter the Basic SET mode from the [FUNC] menu, even though they are set to be displayed in the Basic SET mode.

1. Push [FUNC].
  - The [FUNC] menu screen is displayed.
2. Repeatedly push [FUNC] or [Address] to select the "SET Mode Select" screen.
  - ① Pushing [FUNC] or [Address] switches between functions assigned by your dealer.
3. Push [▲]/[▼] to select "YES," and then push [Call history].



### ◆ Detailed SET mode

1. Turn OFF the transceiver, if it is turned ON.
  2. While holding down [FUNC] and [Address], rotate [PWR/VOL] to turn ON the transceiver.
    - The Detailed SET mode screen is displayed.
- ① Release [FUNC] and [Address] when the "SET (Detail)" screen is displayed.



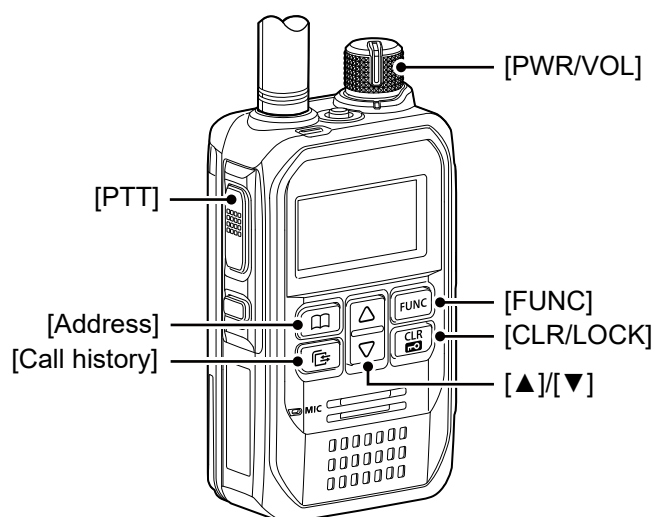
## Using the SET mode

### ◇ Using the SET mode

1. While in the SET mode, push [Address] or [FUNC] to select an item.
2. Push [▲]/[▼] to change the settings of the selected item.  
① Repeat steps 1 and 2 for each item that you want to change.
3. Push [PTT] or [CLR/LOCK] to exit the SET mode.

#### Example: Changing the Key-Touch Beep setting. (Detailed SET Mode) (p. 4-6)

1. Turn OFF the transceiver, if it is turned ON.
2. While holding down [FUNC] and [Address], rotate [PWR/VOL] to turn ON the transceiver.  
• The Detailed SET mode screen is displayed.  
① Release [FUNC] and [Address] when the “SET (Detail)” screen is displayed.
3. Repeatedly push [FUNC] or [Address] to select “Key-Touch Beep.”
4. Push [▲]/[▼] to select “OFF.”
5. Push [PTT] or [CLR/LOCK] to exit the Detailed SET mode.  
① Pushing [Call history] can perform some items, such as “Delete History” and “Delete Recording.”



## SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
Delete History	Deletes logs. ① Select "Clear," and then push [Call history] to delete.	---, Clear	---
FIRM UP	Updates the transceiver's firmware. ① Select "YES," and then push [Call history] to update the firmware. ① The transceiver automatically restarts. ① Updating the firmware takes approximately 10 minutes.	NO, YES	NO
Success Tone	Select whether to enable the tone upon successfully transmitting an Individual Call. ① "Connected" is also displayed on the screen, regardless of this setting.	ON, OFF	ON
Failure Tone	Select whether to enable the tone that indicates an Individual Call has failed. ① "No Response" is displayed.	ON, OFF	ON
Call Tone (IND/ GRP/ALL/TEL)	Set a notification tone at the beginning of a transmission.	OFF, Tone1 ~ Tone8	Tone1 (Pi)
Crtsy Beep (IND/ GRP/ALL/TEL)	Set a notification tone at the end of a reception.	OFF, Tone1 ~ Tone8	Tone1 (Pi)
RX Tone (IND/ GRP/ALL/TEL/ MSG)	Set a notification tone to indicate an incoming call or message.	OFF, Tone1 ~ Tone8	OFF
Notify Type (IND/ GRP/ALL/TEL)	Set a type of notification for an incoming call.	P-Bell, Pocket Beep	P-Bell
Notify No. (IND/ GRP/ALL/TEL/ MSG)	Set the number of times the notification tone sounds, and the transceiver vibrates, for an incoming call or message.	Continuous (except for "MSG"), 1, 3, 10, 20 (times)	3
RX Notify Actn.	Set the notification behavior for an incoming call and message.	Tone, Vibration, Tone + Vibration	Tone
RX Notify Vol.	Set the volume of the notification tone for an incoming call and message.	0 ~ 32	10
RX Notify Vol. Link	Select whether the volume of the Key-Touch Beep function is linked to that of the transceiver.	OFF, ON	ON
Notify Beep Vol.	Set the volume of the notification tone for operations other than reception.	0 ~ 32	10
Notify Beep Vol. Link	Select whether the volume of the notification tone for operations, other than reception, is linked to that of the transceiver.	OFF, ON	ON



## 4 SET MODE

### SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
Out of Rng Tone	Select whether to enable the tone to inform you when you are out of the service area.	OFF, ON	OFF
Range Side Tone	Select whether the Side Tone is muted during a transmission when you are out of the service area.	OFF, ON	OFF
Sidetone	Select whether your voice is output to the connected headset. ① "Echo Cancellor" is automatically set to "OFF," when this item is set to "ON."	OFF, ON	OFF
Sidetone Volume* <sup>1</sup>	Set the Sidetone output level.	0 ~ 32	10
VOX	Select which microphone or headset to be used with the VOX function. ① Voice detections automatically switch transmit and receive.	OFF, Internal Mic, Earphone Mic, Headset, BT Mic with BT-PTT, Bluetooth Mic	OFF
VOX Threshold* <sup>2</sup>	Set the threshold to detect audio input from the headset to activate the VOX function. ① The lower the value is set, the more the VOX function becomes sensitive to your voice.	1 ~ 100	40
Man Down* <sup>3</sup>	Select whether or not to enable the Man Down function. The transceiver enters the Emergency mode when it is tilted past the preset angle for a specified time.	OFF, ON	OFF
Lone Worker* <sup>3</sup>	Select whether or not to enable the Lone Worker function. The transceiver enters the Emergency mode when no operation occurs for a specified time.	OFF, ON	OFF
Stationary Detection* <sup>3</sup>	Selects whether or not to enable the Stationary Detection function. The transceiver enters the Emergency mode when it is detected as being stationary (no motion) for a specified time.	OFF, ON	OFF
Motion Detection* <sup>3</sup>	Selects whether or not to enable the Motion Detection function. The transceiver enters the Emergency mode when it is continuously moves for a specified time.	OFF, ON	OFF
Echo Cancellor	Select whether to enable the Echo Cancellor function. ① This function is automatically set to "OFF," when "Sidetone" is set to "ON."	OFF, ON	ON
Noise Cancellor	Select whether to enable the Noise Cancellor function.	OFF, ON	ON

\*<sup>1</sup> Displayed only when "Sidetone" is set to "ON."

\*<sup>2</sup> Displayed only when "VOX" is set to a value other than "OFF."

\*<sup>3</sup> Displayed only when the Emergency Call function is enabled by your dealer.

## 4 SET MODE

### SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
Backlight	Select a backlight behavior.	OFF, Auto, ON	Auto
Brightness	Select a backlight brightness.	Light, Dark	Light
Contrast	Set the display contrast.	1 ~ 16	8
Internal Mic Gain	Set the internal microphone sensitivity.	-12 dB ~ 12 dB	0 dB
External Mic Gain	Set the external microphone sensitivity.	-12 dB ~ 12 dB	0 dB
Key-Touch Beep	Select whether a confirmation beep sounds when a key on the transceiver is pushed.	OFF, ON	ON
Key-Touch Beep Vol.	Set the beep level when a key on the transceiver is pushed.	0 ~ 32	10
Key-Touch Beep Linked	Select whether the Key-Touch Beep level is linked to the transceiver's volume.	OFF, ON	ON
RX Buffer Type	Set the Jitter buffer size. ① Jitter buffer reduces audio interruptions.	Dynamic, 40 ~ 480 milliseconds (in 40 milliseconds steps)	Dynamic
TX Inhibit	Select whether to inhibit all the transmissions and use the transceiver exclusively for reception. ① The transceiver cannot transmit by any [PTT] or VOX function.	OFF, ON	OFF
Operation Inhibit	Select whether to inhibit all the operations except for [PWR/VOL]. ① With this item "ON," the transceiver can be used as a receiver.	OFF, ON	OFF
PTT Lock	Select whether to inhibit transmission using [PTT] on the transceiver. ① The transceiver can still transmit when an external [PTT] is pushed.	OFF, ON	OFF
Call Type Stnby	Select whether the selected Destination ID or call type is displayed on the Standby screen. ① When [PTT] is pushed, the transceiver transmits a call to the displayed destination.	OFF, ON	ON
One Touch PTT	Select whether to enable the One Touch PTT function. ① Each push of [PTT] switches between transmit and receive. ① When this item is set to "ON," you do not have to hold down [PTT] while transmitting.	OFF, ON	OFF
Destination ID	Set whether the target transceiver's destination ID is displayed after operations.	OFF, Transmit, Transmit and Receive, All Operations	OFF
GPS	Select whether to enable the GPS function.	OFF, ON	ON

## 4 SET MODE

### SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
Bluetooth	Select whether to enable the Bluetooth function.	OFF, ON	OFF
BT Auto Connect* <sup>4</sup>	Select whether the transceiver automatically connects to a paired Bluetooth device.	OFF, ON	ON
BT Sync Vol.* <sup>4</sup>	Select whether the volume level of the Bluetooth device is linked to that of the transceiver.	OFF, ON	OFF
BT Connect Type* <sup>4</sup>	Select whether the transceiver automatically disconnects the Synchronous Connection-Oriented (SCO) link to a Bluetooth headset.	Always Connect, Auto Disconnect	Always Connect
BT PTT & Mic Switch* <sup>4</sup>	Select which microphone to be used when a Bluetooth device is connected.	Auto, Radio Mic, Bluetooth Mic	Auto
BT Mic Gain* <sup>4</sup>	Set the Bluetooth microphone sensitivity.	0 dB ~ 20 dB	10 dB
BT AF Level Offset* <sup>4</sup>	Set the volume level offset for a Bluetooth device if the audio output from the device is much higher or lower than that from the transceiver's internal or external speaker.	0 dB ~ 22 dB	15 dB
BT Echo Canceller* <sup>4</sup>	Select whether to use the Echo Canceller function while using a Bluetooth microphone.	OFF, ON	ON
BT Noise Cancel* <sup>4</sup>	Select whether to use the Noise Cancel function while using a Bluetooth microphone.	OFF, ON	ON
BT Power Save* <sup>4</sup>	Select whether to use the Power Save function for the connected Bluetooth device. ① When this item is set to "ON," the function activates after no communication has been made for 2 minutes. ① When the transceiver receives a call, the function is automatically deactivated. ① When attempting to transmit, push [PTT] once to deactivate the function, and then push [PTT] once again to transmit.	OFF, ON	OFF
BT One Touch PTT* <sup>4</sup>	Select whether to enable the One Touch PTT function for the connected Bluetooth device. ① Each push of [PTT] switches between transmit and receive.	OFF, ON	OFF
Show BT One Touch PTT* <sup>4</sup>	Select whether the "BT 1 Touch PTT" screen is displayed in the [FUNC] menu.	OFF, ON	OFF
BT PTT Beep* <sup>4</sup>	Select whether a beep sounds when the connected Bluetooth device's [PTT] is pushed.	OFF, ON	OFF

\*<sup>4</sup> Displayed only when "Bluetooth" is set to "ON."

## 4 SET MODE

### SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
Search BT Device (Headset)* <sup>4</sup>	You can search for Bluetooth headsets. ① Push [Call history] to start searching.	Search Headset	-
Search BT Device (Data)* <sup>4</sup>	You can search for Bluetooth PTT switches. ① Push [Call history] to start searching. ① The PTT switch does not automatically connect to the transceiver, even if it has already been paired. In the following cases, you have to manually turn it ON and connect to the transceiver within 20 seconds after the transceiver has completed its startup. • Immediately after it has been paired. • When the transceiver is turned OFF. • When connecting it from the Pairing list.	Search Data Device	-
Delete BT Device* <sup>4</sup>	Select a paired Bluetooth device to delete from the pairing list.	-	No Device
Init BT Unit* <sup>4</sup>	You can initialize the Bluetooth unit. ① All the Bluetooth-related settings will be restored to default settings.	---, Clear	---
BT Unit Version	The Bluetooth unit version is displayed.	-	-
Show Use Line	Select whether the "Use Line" screen is displayed in the [FUNC] menu.	OFF, ON	OFF
Use Line	Select the Cellular line or WLAN line for system connection, and then set the priority.	Cellular Fixed, WLAN Fixed, Cellular Prior, WLAN Prior	Cellular Fixed
Recording	Turn the Recording function ON or OFF.	OFF, ON	OFF
Record Call Type* <sup>5</sup>	Select whether the Recording function is applied only to Individual Calls.	Individual Call, All	Individual Call
Delete Recording* <sup>5</sup>	You can delete all of the recordings. ① Select "Clear," and then push [Call history] to delete all of the recordings. ① You cannot select a specific recording to delete.	---, Clear	---
[Side] key Function	Select which function to be activated when [Side] is pushed.	OFF, Message, One Touch, Mute, Surveillance, Temp Vol. SW, Remote Moni (Emer)	OFF
[Emer] key Function	Select which function to be activated when [Emergency] is pushed.	OFF, Message, One Touch, Mute, Surveillance, Temp Vol. Sw, Emergency, Remote Moni (Emer)	OFF

\*<sup>4</sup> Displayed only when "Bluetooth" is set to "ON."

\*<sup>5</sup> Displayed only when "Recording" is set to "ON."

## 4 SET MODE

### SET mode items

By default, the shaded items are also displayed in the Basic SET mode.

① Items or default values may differ, depending on the transceiver's version or presetting. Ask your dealer for details.

Item	Description	Option/range	Default
VOL Set(KeyLock)	Select whether the audio output level can be adjusted while the Key Lock function is ON.	OFF, ON	ON
AF Min Level	Set the minimum audio output level. ① The "AF Min Level" setting must be less than or equal to the "AF Max Level" setting.	0 ~ 32	0
AF Max Level	Set the maximum audio output level. ① The "AF Max Level" setting must be greater than or equal to the "AF Min Level" setting.	0 ~ 32	32
UTC Offset* <sup>6</sup>	Set the time difference between UTC (Universal Time Coordinated) and the local time.	-14:00 ~ +14:00 (in 1 minute steps)	00:00
Daylight Sav Time* <sup>6</sup>	Select whether or not to use Daylight Saving Time (DST).	OFF, ON	OFF
Show SIM Selection	Select whether the "SIM Selection" screen is displayed in the [FUNC] menu.	OFF, ON	OFF
SIM Selection	Select the SIM card to use. ① The currently used SIM card should be displayed as "---(SIM1)."	---(SIM1)* <sup>7</sup> , Select(SIM2)* <sup>7</sup>	---(SIM1)
Show Network Select	Select whether the "Network Select" screen is displayed in the [FUNC] menu.	OFF, ON	OFF
Network Select	Select how the network operator is selected.	Auto, Last accessed, User select	Auto
Show Silent Mode	Select whether the "Silent Mode" screen is displayed in the [FUNC] menu. ① In the [FUNC] menu, select the "Silent Mode" screen and "ON" to enable the Silent mode.	OFF, ON	OFF
Show SET Mode	Select whether the "SET Mode Select" screen is displayed in the [FUNC] menu. ① In the [FUNC] menu, select the "SET Mode Select" screen and "Yes," and then push [Call history] to enter the Basic SET mode.	OFF, ON	OFF
Cellular Unit Version* <sup>8</sup>	The Cellular unit version is displayed.	-	-
IMEI* <sup>8</sup>	The IMEI number of the Cellular unit is displayed.	-	-
Phone Number* <sup>8</sup>	The phone number assigned to the SIM card currently in use is displayed.	-	-
ICCID* <sup>8</sup>	The ICCID number of the SIM card currently in use is displayed.	-	-
RESET	Selecting "YES" enables you to reset the transceiver to its factory settings. ① Push [Call History] to start resetting the transceiver.	NO, YES	NO

\*<sup>6</sup> Displayed only when SNTP (Simple Network Time Protocol) is enabled for clock synchronization by your dealer.

\*<sup>7</sup> The name for each SIM card is displayed, if preset by your dealer.

\*<sup>8</sup> When "Not acquired" is displayed immediately after the transceiver is turned ON, wait a few seconds for the acquired values to be displayed.

Section 5

OPTIONS

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## Options

Battery packs		Earphone	
<b>BP-314</b> <sup>*1</sup>	Li-ion BATTERY PACK (Minimum: 1910 mAh, Typical: 2010 mAh)	<b>SP-29</b>	EARPHONE (Ear-hook type)
<b>BP-315</b> <sup>*1</sup>	Li-ion BATTERY PACK (Minimum: 3050 mAh, Typical: 3150 mAh)		
Chargers		Microphones/Headsets	
<b>BC-269</b>	DESKTOP CHARGER	<b>HM-153</b> <sup>*2*3</sup>	EARPHONE MICROPHONE
<b>BC-123S</b>	AC ADAPTER (straight plug type) (For use with 1 unit of the BC-269)	<b>HM-153LS</b> <sup>*3</sup>	EARPHONE MICROPHONE
<b>BC-228</b>	AC ADAPTER (For use with 2 ~ 6 units of the BC-269)	<b>HM-166</b> <sup>*2*3</sup>	EARPHONE MICROPHONE
<b>BC-258</b>	AC ADAPTER	<b>HM-166LS</b> <sup>*3</sup>	EARPHONE MICROPHONE
		<b>HM-183LS</b> <sup>*1</sup>	SPEAKER MICROPHONE
		<b>HM-186</b> <sup>*2</sup>	SPEAKER MICROPHONE
		<b>HM-186LS</b>	SPEAKER MICROPHONE
		<b>HM-222HLS</b> <sup>*1</sup>	SPEAKER MICROPHONE
		<b>HM-257LS</b>	TIEPIN TYPE MICROPHONE
		<b>HS-94</b> <sup>*4</sup>	HEADSET (Ear-hook type)
		<b>HS-95</b> <sup>*4</sup>	HEADSET (Neck-arm type)
		<b>HS-97</b> <sup>*4</sup>	THROAT MICROPHONE
		<b>HS-102</b> <sup>*3*5</sup>	HEADSET (Earphone type)
		<b>VS-3</b> <sup>*3</sup>	Bluetooth® HEADSET
Belt clip			
<b>MBB-3</b>	BELT CLIP		
Carrying case		Cables	
<b>LC-204</b>	CARRYING CASE (For use with the BP-314)	<b>OPC-2006LS</b>	PLUG ADAPTER CABLE (For the HS-94/HS-95/HS-97)
		<b>OPC-2144</b>	PLUG ADAPTER CABLE (For the HM-153/HM-166/HM-186)
		<b>OPC-2328</b>	PTT SWITCH CABLE (For the HS-94/HS-95/HS-97)
		<b>OPC-2359</b> <sup>*3</sup>	PTT SWITCH CABLE (For the HS-102)
		<b>OPC-478UD</b>	PROGRAMMING CABLE
		<b>OPC-2480</b>	USB CABLE (Type-C/Type-A)

<sup>\*1</sup> Meets IP67 dust-tight and waterproof protection.

① The optional HM-222HLS itself meets IP68 requirements for dust-tight and waterproof protection. However, when it is attached to the transceiver, the combination only meets IP67 requirements.

<sup>\*2</sup> The OPC-2144 PLUG ADAPTER CABLE is necessary.

<sup>\*3</sup> Supports Full-Duplex communication.

<sup>\*4</sup> To use the VOX function, the OPC-2006LS PLUG ADAPTER CABLE is necessary.

To use the talk switch, the OPC-2328 PTT SWITCH CABLE is necessary.

<sup>\*5</sup> The OPC-2359 PTT SWITCH CABLE is necessary.

## Battery pack operating time

The following operating times are estimates. They may vary, depending on the operating mode, battery pack, and charger.

### BP-314

Battery type		Li-ion
Capacity		1910 mAh (Minimum), 2010 mAh (Typical)
Output voltage		7.2 V
Operating time* (Approximate)	Cellular	18 hours
	WLAN	36 hours

### BP-315

Battery type		Li-ion
Capacity		3050 mAh (Minimum), 3150 mAh (Typical)
Output voltage		7.2 V
Operating time* (Approximate)	Cellular	26 hours
	WLAN	58 hours

\* Calculated under the following conditions:

- TX : RX : Standby = 5 : 5 : 90
- Backlight, Bluetooth, and GPS are disabled.
- Automatic line switching between Cellular and WLAN is disabled.

Operating time may be shorter, depending on:

- The operating conditions, such as Bluetooth, GPS, and so on.
- The distance to the cellular station or a wireless access point.
- The signal strength.



## Charging with the desktop charger

The BC-269 DESKTOP CHARGER is designed to charge the battery pack by itself or attached to the transceiver.

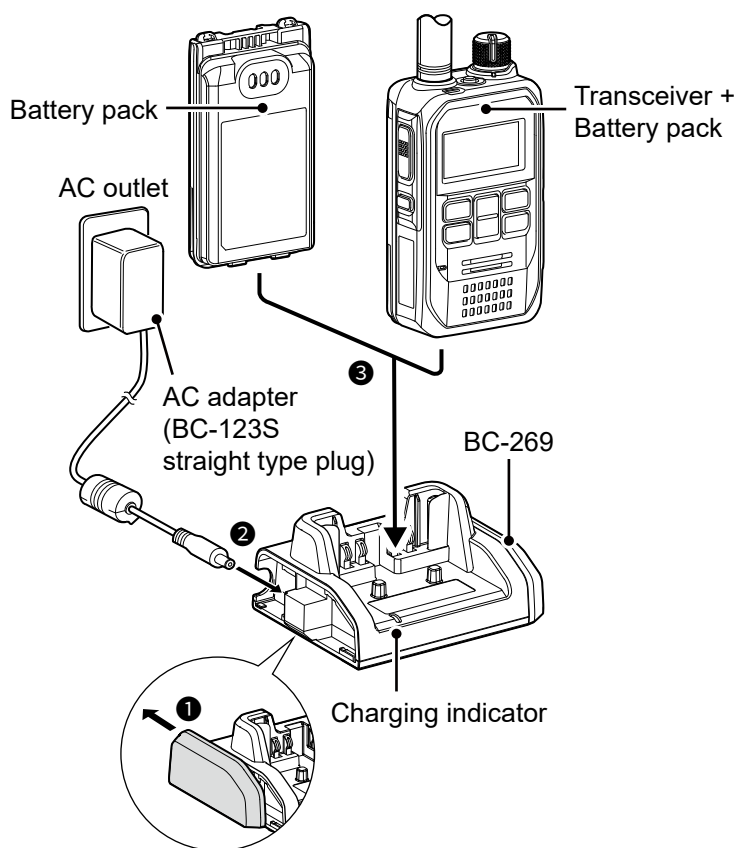
**DANGER! NEVER** charge other battery packs than the specified Icom battery packs. (BP-314/BP-315)

- Before turning ON or OFF the transceiver, remove it from the charger.
- The battery pack will be recharged automatically as its voltage goes low, even if it is left fully charged.
- ① Resuming charging immediately after the battery pack is fully charged does not indicate a charger malfunction.
- ① Disconnect the AC adapter from the outlet when the charger is not in use.

### Charging time:

For the BP-314: Approximately 2.5 hours

For the BP-315: Approximately 4 hours



### Charging indicator:

Lights orange: Charging.

Lights green: Charging is completed.

Blinks orange: Charging failed. It may have some problems.

If the indicator blinks orange, refer to the figure above and try the following remedies to confirm the connection.

- Remove the transceiver or the battery pack from the charger and reinsert it.
- Reconnect the AC adapter.

### Specifications of the BC-269:

- Power supply voltage: 12 V ~ 15 V DC
- Operating temperature range: 15°C ~ 40°C, 59°F ~ 104°F
- Dimensions: 106.0 (W) × 47.4 (H) × 77.8 (D) mm, 4.2 (W) × 1.9 (H) × 3.1 (D) inch (Projections not included)
- Weight: Approximately 117 g, 4.1 oz (Without the AC adapter)

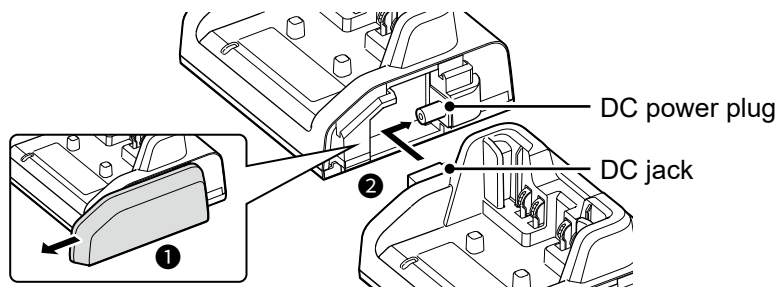
## Charging with the desktop charger

### ◇ Charging multiple battery packs with multiple desktop chargers

You can charge multiple battery packs simultaneously by connecting up to 6 BC-269.

#### Connecting the BC-269:

1. Remove the cover on the right side of the charger. (❶)
2. Snap the DC power plug to another charger's DC power jack. (❷)

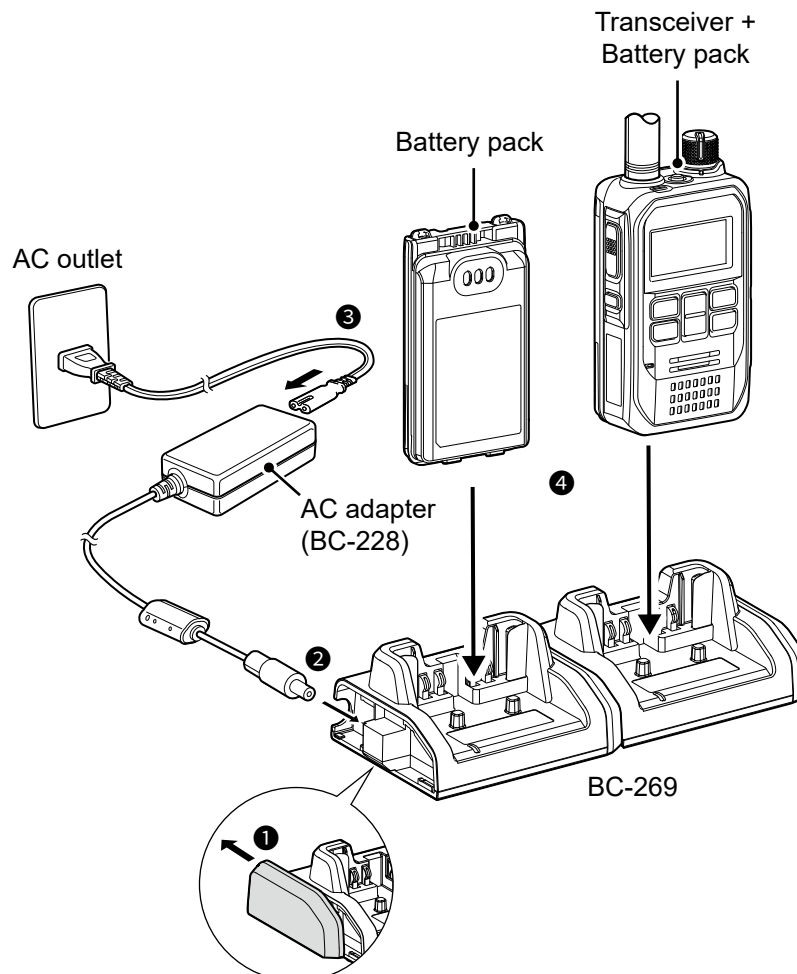


#### ⚠ **WARNING!** When charging multiple battery packs:

- **NEVER** connect more than 6 BC-269.
- **BE SURE** to use the specified Icom AC adapter (BC-228).

Failure to do so may result in an electric shock, or could cause fire or overheating.

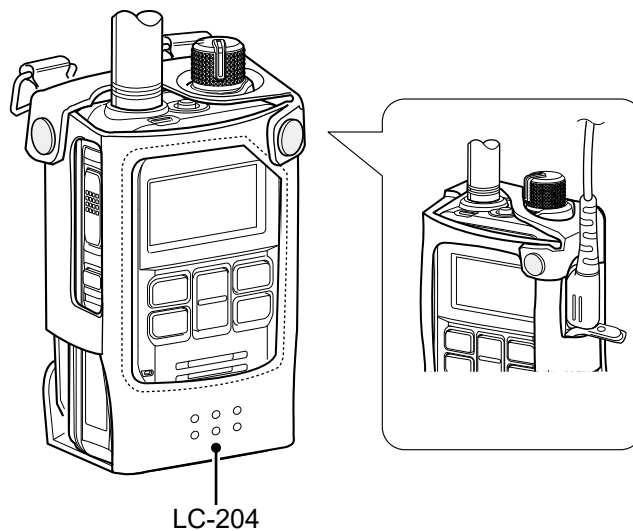
**Example:** When 2 BC-269 are connected.



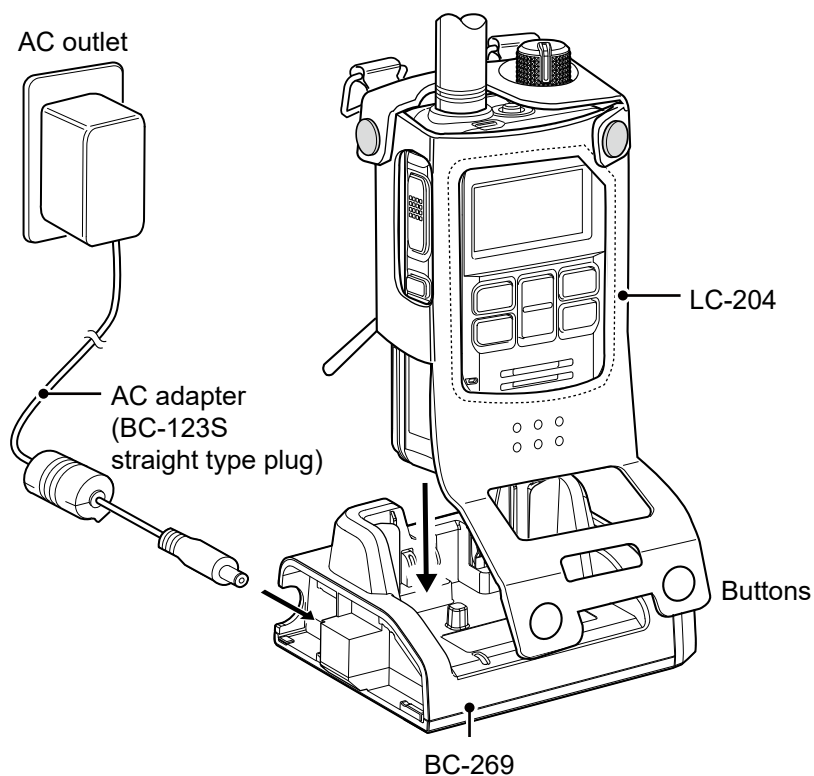
## Using the carrying case

The LC-204 CARRYING CASE is designed to carry the transceiver with the BP-314 attached.

① When the BP-315 is attached to the transceiver, the LC-204 cannot be used.



Before inserting the transceiver with the LC-204 into the charger, unsnap the buttons on the back of the LC-204.



Section 6

FOR YOUR REFERENCE

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## Specifications

① All stated specifications are subject to change without notice or obligation.

### ◆ General

- Operating temperature range:  $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ ,  $14^{\circ}\text{F} \sim 140^{\circ}\text{F}$
- Humidity: Less than 90% (Without condensation)
- Dimensions:  $56.0\text{ (W)} \times 92.3\text{ (H)} \times 31.2\text{ (D) mm}$ ,  $2.2\text{ (W)} \times 3.6\text{ (H)} \times 1.2\text{ (D) inch}$   
(Projections not included, without the antenna, and with the BP-314)
- Weight: Approximately 212 g, 7.5 oz (Without the antenna and with the BP-314)
- Power supply voltage: 7.4 V DC (With the BP-314 or BP-315)
- Current drain: Less than 1.5 A
- Antenna impedance:  $50\ \Omega$
- IP code: IP67

① The transceiver meets IP67 requirements for dust-tight and waterproof protection only when the battery pack, antenna, connector cover, and jack cover or optional equipment are attached.

### ◆ Audio

- Codec: G.726-32 (32 kbps)
- Audio output power: More than 1.0 W (Internal speaker at 5% distortion into an  $8\ \Omega$  load)  
More than 0.25 W (External speaker at 5% distortion into an  $8\ \Omega$  load)  
More than 1.0 W (HM-222HLS at 5% distortion into an  $8\ \Omega$  load)
- AF output impedance:  $8\ \Omega$  (Internal and external speaker)

### ◆ 4G (LTE)/3G (W-CDMA)

- Frequency band:
 

USA version	4G (LTE) B2, B4, B5, B12, B13, B14, B25, B26, B66, B71
EXP/AUS version	4G (LTE) B1, B3, B7, B8, B20, B28
	3G (W-CDMA) B1, B8
- Output power: 23 dBm (Typical)

### ◆ WLAN

- Wireless LAN standard: IEEE802.11a/b/g/n/ac
- Channels:
 

USA version	2.4 GHz band	2412 ~ 2462 MHz	11 channels
	5 GHz band	5180 ~ 5825 MHz	25 channels
EXP/AUS version	2.4 GHz band	2412 ~ 2472 MHz	13 channels
	5 GHz band	5180 ~ 5700 MHz	19 channels

① Usable channels may differ, depending on the country of use.

- Output power: Less than 10 mW/MHz
- Authentication and encryption: WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES),  
WPA3-Personal, WPA3-Enterprise
- Protocol: TCP/IP

### ◆ Bluetooth

- Version: Bluetooth Ver.5.3
- Frequency range: 2402 ~ 2480 MHz
- Output power: Class 1, 9.07 dBm (Bluetooth BR/EDR), 8.99 dBm (Bluetooth LE)
- Profile: HFP, HSP

## Troubleshooting

The following problems are not due to a malfunction. Find the cause and try remedies before sending a repair request.

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### The transceiver does not turn ON.

- The battery pack has a poor connection.
  - Remove the battery pack, clean its terminals, and reattach it to the transceiver.
- The battery is exhausted.
  - Charge the battery pack. (p. 1-8)
- The battery pack's over-discharge protection circuitry is activated.
  - Remove the battery pack from the transceiver and charge it for a while.
  - Reattach the battery pack to the transceiver and then turn ON the power.

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### No audio comes from the speaker, headset, or earphone.

- The audio output level is set too low.
  - Rotate [PWR/VOL] to turn up the audio output level. (p. 1-7)

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### Calls cannot be made.

- The call-to party number or group number is wrong.
  - Check the call-to party number or group number. (pp. 2-3, 2-5)

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### No reply is received.

- The transceiver is outside the service area of the Cellular network. ("📶" blinks.)
  - Move your location and try again.
- The transceiver has not been registered to the system through the Cellular line. ("4G📶" is displayed.)
  - Push [PTT] to reregister the transceiver to the system.
  - Wait for a while, or change your location.
  - Check if the Cellular line is established and ready to use.
- The transceiver is out of the coverage area of the wireless access point. ("📶x" blinks.)
  - Move your location until you are within the coverage area of the wireless access point.
- The transceiver is not registered to the system through the wireless access point. ("📶x" is displayed.)
  - Push [PTT] to reregister the transceiver to the system.
  - Wait for a while, or move your location.

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### "Key Lock" is displayed when a key is pushed.

- The Key Lock function is enabled.
  - Release the function by holding down [CLR/LOCK] for 1 second. (p. 1-9)

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### The charger's charging indicator blinks orange during charging.

- The battery pack is not properly inserted.
  - Properly insert the battery pack. (p. 5-5)
- The charger is being used outside of its specified temperature range.
  - Use the charger in an environment between 15°C ~ 40°C (59°F ~ 104°F).
- The charging terminals and power terminals have poor connections.
  - Make sure that no dust or dirt is adhering to each terminal.
- The transceiver is turned OFF and ON.
  - Remove the transceiver from the charger and reinsert it.

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### The transceiver's status indicator turns OFF during charging.

- The battery pack is not properly attached to the transceiver.
  - Properly attach the battery pack to the transceiver. (p. 1-8)

### Troubleshooting

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#### **The deleted recorded audio still exists, or the recorded audio is lost.**

- The battery pack was removed before the recorded audio was deleted/saved from/to memory. (p. 3-9)
  - Remove the battery pack after “Power OFF...” is displayed.

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#### **A Bluetooth device cannot be paired with the transceiver.**

- The Bluetooth device is not in the Pairing mode. (p. 3-13)
  - Confirm the Bluetooth device is in the Pairing mode, and then try again.
- There are other active Bluetooth devices nearby.
  - Stop using other Bluetooth devices.
  - Use the transceiver away from other Bluetooth devices.
- There are other devices that are operating in the 2.4 GHz band.
  - Use the transceiver away from the other devices, or stop using those devices.

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#### **“Pairing list is full” is displayed.**

- The number of paired devices exceeds the maximum number possible.
  - Delete at least one Bluetooth device from the Pairing list. (p. 3-15)

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#### **The call was suddenly cut off /Noise is heard.**

- The Bluetooth device that you are using is too far away from the transceiver.
  - Use them in Bluetooth's communication range. (Approximately 10 m, 33 ft) (p. 3-11)
- Electromagnetic interference from other electronic devices.
  - Use the transceiver and the Bluetooth device away from the other devices, or stop using those devices. (p. 3-11)



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