



## INSTRUCTION MANUAL

VHF MOBILE TRANSCEIVER

**IC-F5061**  
**IC-F5063**

UHF MOBILE TRANSCEIVER

**IC-F6061**  
**IC-F6063**



Icom Inc.

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## IMPORTANT

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

**SAVE THIS INSTRUCTION MANUAL** — This instruction manual contains important operating instructions for the **IC-F5061, IC-F5063, IC-F6061 and IC-F6063 VHF/UHF MOBILE TRANSCEIVERS**.

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## EXPLICIT DEFINITIONS

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WORD	DEFINITION
<b>⚠ WARNING</b>	Personal injury, fire hazard or electric shock may occur.
<b>CAUTION</b>	Equipment damage may occur.
<b>NOTE</b>	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

/// See the operating guide for details of BIIS, MDC and LTR® system operations. Ask your dealer for details.

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## PRECAUTIONS

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**⚠ WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

**NEVER** connect the transceiver to a power source of more than 16 V DC such as a 24 V battery. This connection will ruin the transceiver.

**NEVER** cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver might be damaged.

**NEVER** place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

**NEVER** allow children to touch the transceiver.

**NEVER** expose the transceiver to rain, snow or any liquids.

**USE** the specified microphone only. Other microphones have different pin assignments and may damage the transceiver.

**DO NOT** use or place the transceiver in areas with temperatures below  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ), or in areas subject to direct sunlight, such as the dashboard.

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**AVOID** operating the transceiver without running the vehicle's engine. The vehicle's battery will quickly run out if the transceiver transmits while the vehicle's engine OFF.

**AVOID** placing the transceiver in excessively dusty environments.

**AVOID** placing the transceiver against walls. Otherwise heat dissipation will be obstructed.

**AVOID** the use of chemical agents such as benzine or alcohol when cleaning, as they damage the transceiver surfaces.

**BE CAREFUL!** The transceiver will become hot when operating continuously for long periods.

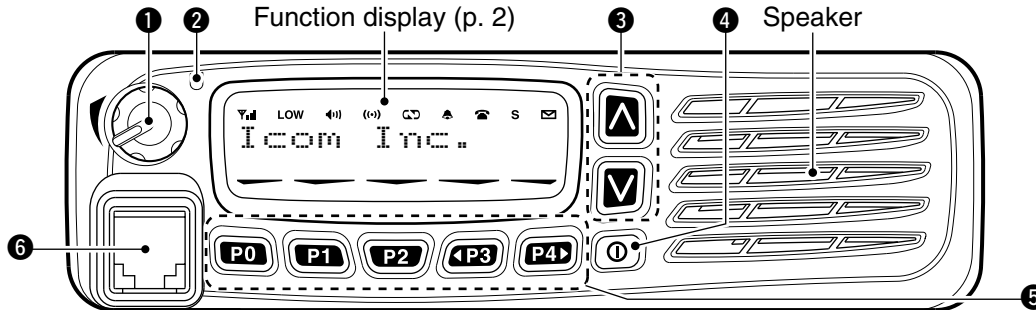
*For U.S.A. only*

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

# 1

## PANEL DESCRIPTION

### ■ Front panel



#### ① AF VOLUME CONTROL KNOB [VOL]

- Rotate the knob to adjust the audio output level.
- Minimum audio level is pre-programmed.

#### ② LED INDICATOR

- ➔ Lights red while transmitting a signal.
- ➔ Lights green while receiving a signal.

#### ③ UP/DOWN KEYS [CH Up]/[CH Down]

- Push to select an operating channel, etc.
- \*The desired function can be assigned by your dealer. (p. 3)

#### ④ POWER SWITCH [⏻]

- Push to turn the power ON and OFF.
- Automatic scan start, Password prompt and Set mode access are available at power ON.

#### ⑤ DEALER-PROGRAMMABLE KEYS

- Desired functions can be programmed independently by your dealer. (p. 3)

#### ⑥ MICROPHONE CONNECTOR

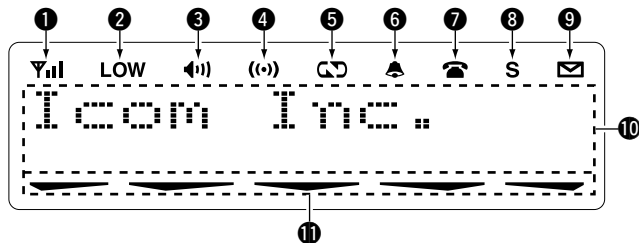
- Connect the supplied or optional microphone.

⚠ **NEVER** connect non-specified microphones. The pin assignments may be different and the transceiver may be damaged.

#### ◇ MICROPHONE

- The supplied microphone has a PTT switch and a hanger hook.
- The following functions are available when the microphone is on or off hook (depending on the setting):
  - Automatic scan start when on hook.
  - Scan is cancelled when off hook.
  - Scan is paused when off hook.
  - Automatic priority channel selection is available when off hook.
  - Sets to 'Inaudible' condition (mute condition) when on hook.
  - Sets to 'Audible' condition (unmute condition) when off hook.

## Function display



### 1 SIGNAL STRENGTH INDICATOR

Indicates relative signal strength level as below.



Weak ← Receive Signal level ⇒ Strong

### 2 LOW POWER INDICATOR

Appears when low output power is selected.

### 3 AUDIBLE INDICATOR

➔ Appears when the channel is in the 'audible' (unmute) condition.

➔ Appears when the specified 2/5-tone/BIIS<sup>\*1</sup>/MDC<sup>\*2</sup> code is received.

### 4 COMPANDER INDICATOR

Appears when the compander function is activated.

### 5 SCRAMBLER INDICATOR

Appears when the voice scrambler function is activated.

### 6 BELL INDICATOR

Appears/blinks when the specific 2/5-tone/BIIS<sup>\*1</sup>/MDC<sup>\*2</sup> code is received, according to the pre-programming.

### 7 CALL CODE MEMORY INDICATOR

➔ Appears when the call code memory is selected.

➔ Appears when a phone call is received.<sup>\*3</sup>

### 8 SCROLL INDICATOR

Appears when the received SDM includes more than 12 characters.<sup>\*1</sup>

### 9 SDM INDICATOR

Appears when an SDM is received, or a transmit SDM is selected.<sup>\*1</sup>

### 10 ALPHANUMERIC DISPLAY

➔ Displays an operating channel number, channel name, Set mode contents, DTMF code, etc.

➔ The indication mode can be selected from 1 line or 2 lines. Ask your dealer for details.

• In this instruction manual, the LCD illustration is described using the 2 lines indication mode.

### 11 ACTIVATED KEY INDICATOR

Appears above the key assigned as [Scan A Start/Stop], [Scan B Start/Stop], [Scan Add/Del(Tag)], [Lock], [Talk Around], [Surveillance], [Talkgroup]<sup>\*4</sup> and [Digital]<sup>\*1</sup> keys during that key is activated.

<sup>\*1</sup> BIIS operation only

<sup>\*2</sup> MDC operation only

<sup>\*3</sup> LTR<sup>®</sup> operation only

<sup>\*4</sup> Digital operation only

/// See the operating guide for details of BIIS, MDC and LTR<sup>®</sup> system operations. Ask your dealer for details.

## ■ Programmable function keys

The following functions can be assigned to [UP], [DOWN], [P0], [P1], [P2], [P3] and [P4] programmable function keys. Consult your Icom dealer or system operator for details concerning your transceivers programming. If the programmable function names are bracketed in the following explanations, the specific key is used to activate the function depends on the programming.

### **CH UP AND DOWN KEYS**

- Push to select an operating channel.
- Push to select a transmit code channel after pushing [TX Code CH Select].
- Push to select a DTMF channel after pushing [DTMF Autodial].
- Push to select a scan group after pushing and holding [Scan A Start/Stop]/[Scan B Start/Stop] for 1 sec.

### **ZONE KEY**

Push this key, then select the desired zone using [CH Up]/[CH Down].

/// **What is “zone”?**—The desired channels are assigned into a zone according to the intended use for grouping. For example, ‘Staff A’ and ‘Staff B’ are assigned into a “Business” zone, and ‘John’ and ‘Cindy’ are assigned into a “Private” zone.

### **SCAN A START/STOP KEY**

- This key’s operation depends on the Power ON Scan setting.
  - When the power ON scan function is turned OFF;**  
Push to start and cancel scanning operation.
  - When the power ON scan function is turned ON;**  
Push to pause scanning, then resumes scanning after a specified time period has passed.
- Push and hold this key for 1 sec. to indicate the scan group, then select the desired group using [CH Up]/[CH Down].

### **SCAN B START/STOP KEY**

- Push to start and cancel scanning operation. Scan resumes after a specified time period has passed when scan is cancelled except for this key.
- Push and hold this key for 1 sec. to indicate the scan group, then select the desired group using [CH Up]/[CH Down].

### **SCAN ADD/DEL (TAG) KEY**

- Push to add or delete the selected channel to/from the scan group.
  1. Push to indicate the scan group, then push [CH Up] or [CH Down] to select the desired group.
  2. Push to add or delete the channel to/from the selected scan group.
  3. Push and hold for 1 sec. to exit the scan group selection mode.
- Push this key while scan is paused (a signal is detected) on a channel (except for priority channel,) the channel is cleared from the scan group.
  - /// Depending on the setting, the cleared channel is added to the scan group again after the scan is cancelled.

**PRIO A/B KEYS**

- Push to select Priority A or Priority B channel.
- Push and hold [Prio A (Rewrite)] or [Prio B (Rewrite)] to set the operating channel as the Priority A or Priority B channel.

**MR-CH 1/2/3/4 KEYS**

Push to select the memory channel 1 to 4 directly.

**MONI (AUDI) KEY**

- Mute and release the CTCSS (DTCS) or 2-tone squelch mute. Open any squelch/deactivate any mute while pushing and holding this key. (LMR operation only)
- Activates one of (or two of) the following functions on each channel independently: (PMR or BIIS PMR operation only)
  - Push and hold to un-mute the channel (audio is emitted; 'Audible' condition).
  - Push to mute the channel (sets to 'Inaudible' only).
  - Push to un-mute the channel (sets to 'Audible' only).
  - Push after the communication is finished to send a 'reset code'. (BIIS PMR operation only)

**NOTE:** The un-mute condition ('Audible' condition) may automatically return to the mute condition ('Inaudible' condition) after a specified period depending on programming.

**PUBLIC ADDRESS KEY**

Push to activate the Public Address (PA) function for voice amplification. When the PA function is activated, the audio output can be controlled from the transceiver separately with the [VOL] control knob.

- This function is available when the external unit, such as a audio amplifier, speaker, etc. is additionally connected.
- Push this key, then speak into the microphone while pushing and holding [PTT].
- [CH Up]/[CH Down] also allow you to set the audio output level.

**RX SPEAKER KEY**

The received audio can be heard via the external speaker when this key is pushed.

- This function is available when the external speaker is additionally connected.
- This function is useful when you are out of the vehicle.
- The audio output level is linked to the transceiver's volume control.

**LIGHT KEY**

Push to turn the transceiver's backlight ON for about 5 sec. when the backlight function is turned OFF in user set mode.

**LOCK KEY**

Push and hold to electronically lock all programmable keys except the following:

[Moni(Audi)], [Light], [Lock], [Call] (incl. Call A and Call B), [Emergency Single]/[Emergency Repeat] (incl. Silent), [Surveillance] and [OPT 1/2/3].

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# 1 PANEL DESCRIPTION

## **HIGH/LOW KEY**

Push to select the transmit output power temporarily or permanently, depending on the pre-setting.

- Ask your dealer for the output power level for each selection.

## **C.TONE CHANNEL KEY**

Push to select the continuous tone channel using [CH Up]/[CH Down] to change the tone frequency/code setting after pushing this key. The selected channel remains set as the continuous tone channel until another channel is designated as such.

## **TALK AROUND KEY**

Push to turn the talk around function ON and OFF.

- The talk around function equalizes the transmit frequency to the receive frequency for transceiver-to-transceiver communication.

## **WIDE/NARROW KEY**

Push to toggle the IF bandwidth between wide and narrow.

- The wide passband width can be selected from 25.0 or 20.0 kHz using the CS-F5060 CLONING SOFTWARE. (PMR or BIIS PMR operation only) Ask your dealer for details.

## **DTMF AUTODIAL KEY**

Push to enter the DTMF channel selection mode. Then select the desired DTMF channel using [CH Up]/[CH Down].

After selecting the DTMF channel, push again to transmit the selected DTMF code.

## **RE-DIAL KEY**

Push to transmit the last-transmitted DTMF code.

- TX memories are cleared after turning the transceiver OFF.

## **SCRAMBLER FUNCTION**

Push to toggle the voice scrambler function ON and OFF.

## **CALL KEYS**

Push to transmit a 2/5-tone/BIIS ID code.

- Call transmission is necessary before calling another station depending on your signalling system.
- [Call A] and/or [Call B] may be available when your system employs selective 'Individual/Group' calls. Ask your dealer which call is assigned to each key.

## **EMERGENCY KEYS**

- Push and hold to transmit an emergency call.
- When [Emergency Single (Silent)] or [Emergency Repeat (Silent)] is pushed, an emergency call is transmitted with no beep emission and LCD indication change.
  - If you want to cancel the emergency call, push (or push and hold) the key again before transmitting the call.
  - The emergency call is transmitted one time only or repeatedly until receiving a control code depending on the pre-setting.

## **SURVEILLANCE KEY**

Push to turn the surveillance function ON or OFF.

When this function is turned ON, the beep is not emitted and the LCD backlight and the LED indicator do not light when a signal is received or a key is pushed.

## **COMPANDER KEY**

Push to toggle the compander function ON and OFF.

The compander function reduces noise components from the transmitted audio to provide clear communication.



**TX CODE ENTER KEY** (PMR or BIIS PMR operation only)

Push to enter the ID code edit mode directly, for both 5-tone and MSK. Then set the desired digit using [CH Up]/[CH Down]. (p. 11)

**TX CODE CHANNEL SELECT KEY**

- Push to enter the ID code channel selection mode directly. Then set the desired channel using [CH Up]/[CH Down]. (p. 10)
- During ID code channel selection mode, push for 1 sec. to enter the ID code edit mode for 5-tone and MSK. Then set the desired digit using [CH Up]/[CH Down]. (p. 11)

**TX CODE CHANNEL UP/DOWN KEYS**

- Push to select a TX code channel directly.
- Push to set the desired digit during the ID code edit mode.

**ID-MR SELECT KEY** (PMR or BIIS PMR operation only)

- Recalls detected ID codes.
  - Push this key, then select the ID code using [CH Up]/[CH Down].
  - Up to 5 ID's are memorized.
- Push and hold for 1 sec. to erase the selected ID's.

**HOOK SCAN KEY**

When the on hook scan function is activated, push this key to disables on hook scan function (stop scanning) temporarily. Push this key again to re-start scanning.

**USER SET MODE KEY**

- Push and hold to enter user set mode.
    - During user set mode, push this key to select an item, and change the value or condition using push [CH Up]/[CH Down].
  - Push and hold this key again to exit user set mode.
- User set mode is also available via the 'Power ON function.' Refer to p. 14 also.

**MR-CH ENT KEYS**

Push to enter the memory channel selection mode, then enter the desired channel number using the 10-keypad of the connected microphone.

**OPT 1/2/3 KEYS**

Push to control the output signal level from the optional unit connector.

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# 1 PANEL DESCRIPTION

## ◇ For Digital mode operation only

### **TALKGROUP KEY**

Push to enter the talkgroup ID code selection mode. Then select the desired talkgroup ID code using [CH Up]/[CH Down]. (p. 12)

### **TX STATUS KEY**

Push to enter the Status message selection mode. Then select the desired Status message using [CH Up]/[CH Down]. (p. 12)

### **TONE/RAN CH SELECT KEY**

- While in the analog mode operation, push to select the continuous tone channel using [CH Up] or [CH Down] to change the tone frequency/code setting.
- While in the digital mode operation, push to select the RAN channel using [CH Up] or [CH Down] to change the RAN code setting.
- While in the mixed (digital and analog) mode operation, push to select the continuous tone channel using [CH Up] or [CH Down] to change the tone frequency/code setting. Then push this key to enter the setting. After that, the RAN channel selection screen appears. Select the RAN channel using [CH Up] or [CH Down] to change the RAN code setting. Then push this key to enter the setting.

## ■ Turning power ON

- ① Push [**⓪**] to turn the power ON.
- ② If the transceiver is programmed for a start up password, input the digit codes as directed by your dealer.
  - The keys as below can be used for password input:  
The transceiver detects numbers in the same block as identical. Therefore “01234” and “56789” are the same.

KEY	<b>P0</b>	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P4</b>
<b>NUMBER</b>	0	1	2	3	4
	5	6	7	8	9

- ③ When the “PASSWORD” indication does not clear after inputting 6 digits, the input code number may be incorrect. Turn the power off and start over in this case.

## ■ Channel selection

Several types of channel selections are available. Methods may differ according to your system set up.

### **NON-ZONE TYPE:**

Push [CH Up] or [CH Down] to select the desired operating channel, in sequence; or, push one of [MR-CH 1] to [MR-CH 4] keys to select a channel directly.

### **ZONE TYPE:**

Push [Zone] then push [CH Up] or [CH Down] to select the desired zone.

### **AUTOMATIC SCAN TYPE:**

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

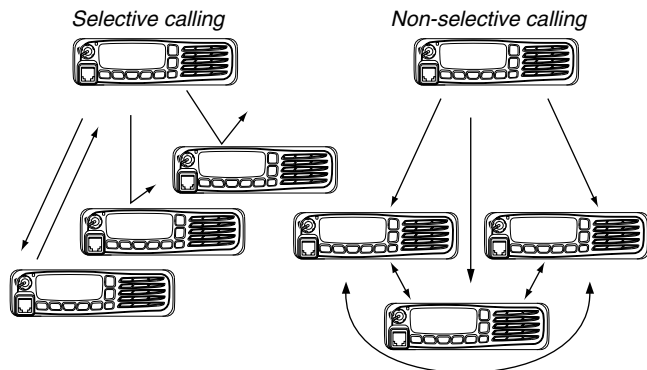
## 2 BASIC OPERATION

### ■ Call procedure

When your system employs tone signaling (excluding CTCSS and DTCS), the call procedure may be necessary prior to voice transmission. The tone signalling employed may be a selective calling system which allows you to call specific station(s) only and prevent unwanted stations from contacting you.

- ① Select the desired TX code channel, 2/5-tone code or Talkgroup ID code\* according to your System Operator's instructions.
  - This may not be necessary depending on programming.
  - Refer to pgs. 10–12 for selection.

\*Digital mode operation only.
- ② Push the call key (assigned to one of the dealer programmable keys; except for the Digital mode operation) or [PTT].
- ③ After transmitting, the remainder of your communication can be carried out in the normal fashion.



### ■ Receiving and transmitting

#### **Receiving:**

- ① Push [⏻] to turn the power ON.
- ② Push [CH Up] or [CH Down] to select a channel, in sequence.
- ③ When receiving a call, adjust the audio output level to a comfortable listening level.

#### **Transmitting:**

Wait for the channel to become clear to avoid interference.

- ① Take the microphone off hook.
  - 2/5-tone mute may be released. (The 'audible' condition is selected and BUSY indicator lights green.)
  - A priority channel may be selected automatically.
- ② Wait for the channel to become clear.
  - The channel is busy when BUSY indicator lights green.
- ③ Push [CALL] when initiating a call from your side.
  - Coded audio may be heard from the transceiver, then "◀||" appears.
  - This operation may not be necessary depending on your signaling system. Ask your dealer for details.
- ④ While pushing and holding [PTT], speak into the microphone at your normal voice level.
- ⑤ Release [PTT] to receive.

- IMPORTANT:** To maximize the readability of your signal;
1. Pause briefly after pushing [PTT].
  2. Hold the microphone 5 to 10 cm (2 to 4 inches) from your mouth, then speak into the microphone at a normal voice level.

## ◇ Transmitting notes

### • Transmit inhibit function

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

- The channel is in mute condition ('Inaudible' condition; "🔇" does not appear.)
  - The channel is busy.
  - Un-matched (or matched) CTCSS is received.  
(Depending on the pre-setting)
  - Un-matched (or matched) RAN is received.\*  
(Depending on the pre-setting)
  - The selected channel is a 'receive only' channel.
- \*Digital mode operation only.

### • Time-out timer

After continuous transmission for the pre-programmed time period, the time-out timer is activated, causing the transceiver to stop transmitting.

### • Penalty timer

Once the time-out timer is activated, transmission is further inhibited for a period determined by the penalty timer.

## ◇ TX code channel selection

If the transceiver has [TX Code CH Select] assigned to it, the indication can be toggled between the operating channel number (or name) and TX code channel number (or name). When the TX code channel number (or name) is displayed, [CH Up]/[CH Down] selects the TX code channel.

### **USING [TX CODE CH SELECT] KEY:**

- ① Push [TX Code CH Select]— a TX code channel number (or name) appears.
- ② Push [CH Up] or [CH Down] to select the desired TX code channel.
- ③ Push [Call] to transmit the selected TX code.

### **USING [TX CODE CH UP]/[TX CODE CH DOWN] KEY:**

If the transceiver has a [TX Code CH Up] or [TX Code CH Down] key assignment, the programmed TX code channel can be selected directly when pushed.

### **NOTE for PMR or BIIS PMR operation:**

- The LCD indication does not change when the operating channel number (or name) is displayed.
- To check the selected TX code, push [TX Code CH Select].

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## 2 BASIC OPERATION

### ◇ TX code number edit

(PMR or BIIS PMR operation only)

If the transceiver has [TX Code CH Select] or [TX Code Enter] assigned to it, TX code contents can be edited within the allowable digits.

#### **USING [TX CODE CH SELECT] KEY:**

- ① Push [TX Code CH Select] to enter the TX code channel selection mode.
  - Select the desired channel before entering the TX code channel selection mode if necessary.
- ② Push [TX Code CH Select] for 1 sec. to enter the TX code edit mode.
- ③ Push [TX Code CH Select] to select the desired digit to be edited.
  - The digit to be edited blinks.
- ④ Push [CH Up] or [CH Down] to set the desired digit.
- ⑤ Push [TX Code CH Select] to set the digit. The digit to the right will blink automatically.
- ⑥ Repeat ④ and ⑤ to input all allowable digits.
- ⑦ Push [Call] to transmit the edited TX code.

#### **USING [TX CODE ENTER] KEY:**

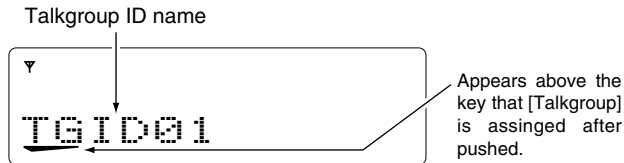
- ① After pushing [TX Code CH Select], push [CH Up] or [CH Down], or push [TX Code CH Up] or [TX Code CH Down] to select the desired TX code channel.
- ② Push [TX Code Enter] to enter the TX code edit mode.
  - The digit to be edited blinks.
- ③ Push [TX Code Enter] to select the desired digit to be edited.
- ④ Push [CH Up] or [CH Down] to set the desired digit.
- ⑤ Push [TX Code Enter] to set the digit. The digit to the right will blink automatically.
- ⑥ Repeat ④ and ⑤ to input all allowable digits.
- ⑦ Push [Call] to transmit the edited TX code.

### ◇ Talkgroup ID code selection

(Digital mode operation only)

If the transceiver has [Talkgroup] assigned to it, the indication can be toggled between the operating channel name (and the channel number)\* and the Talkgroup ID name (or ID code if the ID name is not programmed.) When the Talkgroup ID name (or ID code) is displayed, [CH Up] or [CH Down] selects the desired Talkgroup ID name (or ID code).

- ① Push [Talkgroup]— Talkgroup ID name (or ID code) appears.



When the 2 lines indication mode is selected and [Talkgroup] is assigned to [P0].

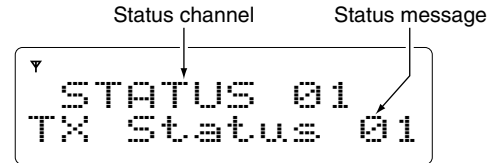
- ② Push [CH Up] or [CH Down] to select the desired Talkgroup ID name (or ID code).
- ③ Push [PTT] to transmit the selected Talkgroup ID.

### ◇ TX Status message selection

(Digital mode operation only)

If the transceiver has [TX Status] assigned to it, the indication can be toggled between the operating channel name (and the channel number)\* and the Status message (and the Status channel.\* When the Status message (and the Status channel)\* is displayed, [CH Up] or [CH Down] selects the desired Status message.

- ① Push [TX Status]— Status message (and Status channel)\* appears.



When the 2 lines indication mode is selected.

- ② Push [CH Up] or [CH Down] to select the desired Status message.
- ③ Push [PTT] to transmit the selected Status message.

\* Only when the 2 lines indication mode is selected.

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## 2 BASIC OPERATION



### ◇ DTMF transmission

If the transceiver has [DTMF Autodial] assigned to it, the automatic DTMF transmission function is available. Up to 8 DTMF channels are available.

- ① Push [DTMF Autodial]— a DTMF channel appears.
- ② Push [CH Up] or [CH Down] to select the desired DTMF channel.
- ③ Push [DTMF Autodial] to transmit the DTMF code in the selected DTMF channel.

### ■ Scrambler function

The voice scrambler function provides private communication between stations. The frequency inversion type is equipped to all versions, moreover, the optional Rolling or Non-rolling type can be available.

- ① Push [Scrambler] to turn the scrambler function ON.
  - “” appears.
- ② Push [Scrambler] again to turn the scrambler function OFF.
  - “” disappears.

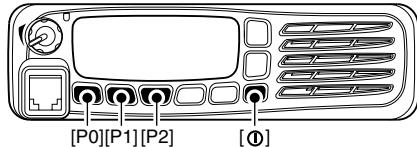


## ■ User set mode

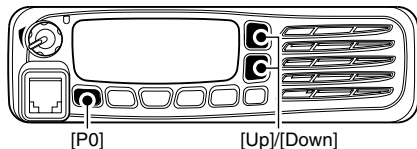
User set mode is accessed with [User Set Mode] and allows you to set seldom-changed settings. In this case you can “customize” the transceiver operation to suit your preferences and operating style.

### Entering the user set mode:

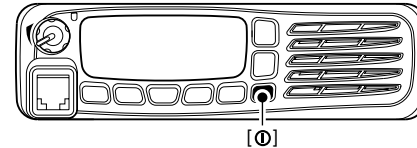
- ① While pushing and holding [P1] and [P2], push [⏻] to turn the power ON. Then, push and hold [P0] for 1 sec. to enter user set mode.
  - You should hold [P1] and [P2] until “SET MODE” appears.



- ② Push [P0] several times to select the appropriate item. Then, push [Up] or [Down] to set the desired level/condition.
  - Available set mode functions are **Backlight**, **LCD Contrast**, **Beep**, **Beep Level**, **Ringer Level**, **SQL Level**, **AF Min Level**, **Mic Gain**, **Horn** and **Signal Moni**.

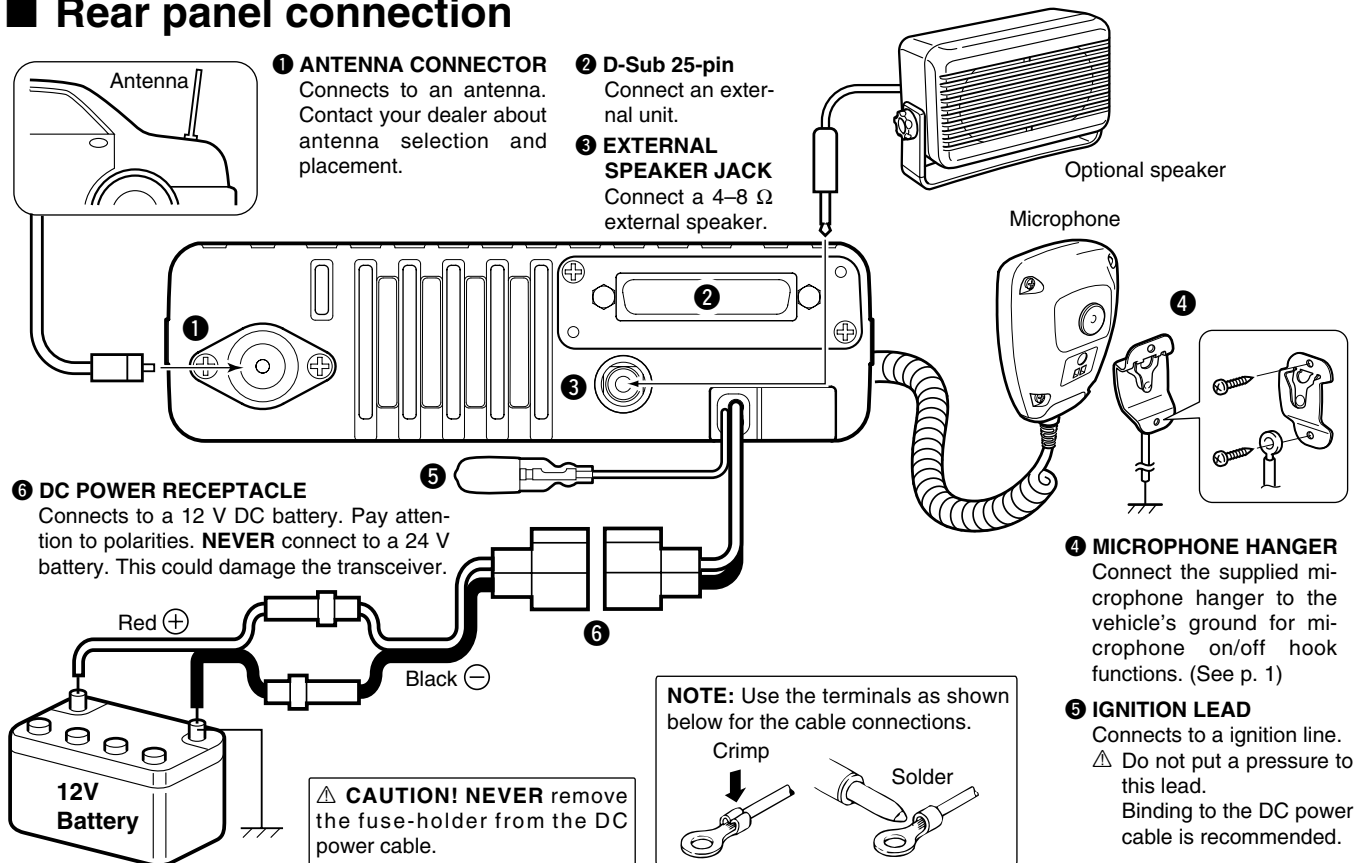


- ③ Push and hold [⏻] for 1 sec. to turn power OFF, then ON again to exit set mode.

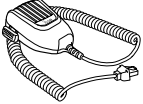



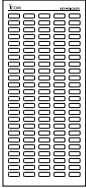

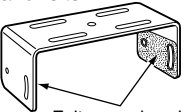








User set mode is also available via a programmable key. Please refer to p. 6 [User Set Mode] section.

## ■ Rear panel connection



## ■ Supplied Accessories

<p>Microphone</p> 	<p>Microphone hanger and screw set</p> 	<p>Microphone hanger cable</p> 
<p>DC power cable</p> 	<p>Function name stickers*1</p> 	<p>Sponges*2</p> 
<p>Mounting bracket and felts</p>  <p>Felts are already attached.</p>	<p>Flat washers</p>  <p>Spring washers</p>  <p>Nuts</p> 	<p>Bracket bolts</p>  <p>Mounting screws (M5×12)</p>  <p>Self-tapping screws (M5×16)</p> 

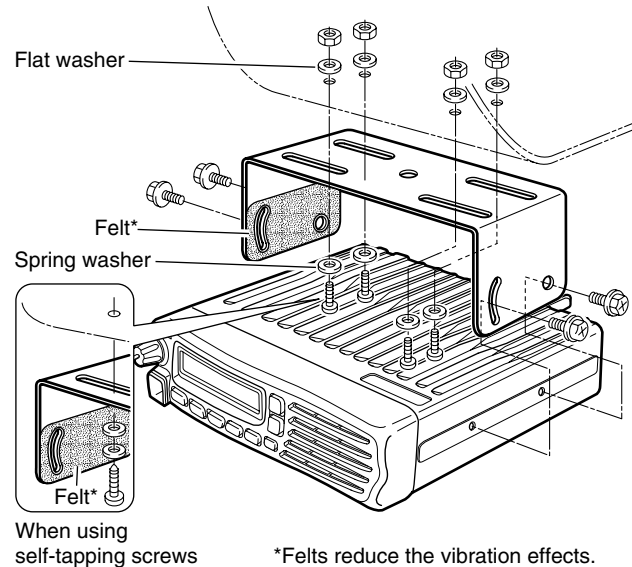
\*1 Used for labelling the programmable function keys according to their assigned functions.

\*2 Used for the optional unit installation. Ask your dealer for details.

## ■ Mounting the transceiver

The universal mounting bracket supplied with your transceiver allows overhead mounting.

- Mount the transceiver securely with the 4 supplied screws to a thick surface which can support more than 1.5 kg.



## 3 CONNECTION AND MAINTENANCE

### ■ Antenna

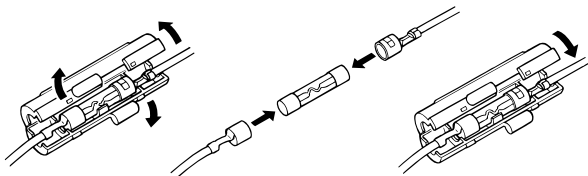
A key element in the performance of any communication system is an antenna. Contact your dealer about antennas and the best places to mount them.

### ■ Fuse replacement

A fuse is installed in the supplied DC power cable. If a fuse blows or the transceiver stops functioning, track down the source of the problem if possible, and replace the damaged fuse with a new rated one.

□ Fuse rating: 20 A

**USE** the 20 A fuse only.



### ■ Cleaning

If the transceiver becomes dusty or dirty, wipe it clean with a soft, dry cloth.



**AVOID** the use of solvents such as benzene or alcohol, as they may damage the transceiver surfaces.

### ■ Options

- **RMK-3** SEPARATION KIT + **OPC-607/OPC-608/OPC-609** SEPARATION CABLE  
Allows you to install the transceiver main unit separately from the front panel for operating convenience.
- **SP-5/SP-10/SP-22** EXTERNAL SPEAKER  
Input impedance : 4  $\Omega$   
Max. input power : 5 W  
SP-5 : Large speaker for good audio quality.  
SP-10 : For all-round mobile operation.  
SP-22 : Compact and easy-to-install. The same as supplied with the transceiver (depending on version.)
- **HM-152/HM-152T/HM-148** HAND MICROPHONE  
HM-152 : Hand microphone  
HM-152T : DTMF microphone  
HM-148 : Heavy duty microphone
- **SM-25** DESKTOP MICROPHONE
- **UT-109R/UT-110R** SCRAMBLER UNITS  
Non-rolling type (UT-109R)/Rolling type (UT-110R) voice scrambler unit provides higher communication security.
- **UT-96R** STONE UNIT
- **UT-119H** DIGITAL MODULATOR/DEMODULATOR UNIT  
Provides 6.25/12.5 kHz narrow bandwidth digital mode operation.



WARNING

Your Icom radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is **NOT** intended for use by the “General Population” in an uncontrolled environment.



CAUTION

To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- For compliance with FCC and Industry Canada RF Exposure Requirements, the transmitter antenna installation shall comply with the following two conditions:

1. The transmitter antenna gain shall not exceed 0 dBi.
2. IC-F5061:

The antenna is required to be located outside of a vehicle and kept at a distance of 48 centimeters or more between the transmitting antenna of this device and any persons during operation. For small vehicle as worst case, the antenna shall be located on the roof top at any place on the centre line along the vehicle in order to achieve 48 centimeters separation distance. In order to ensure this distance is met, the installation of the antenna must be mounted at least 48 centimeters away from the nearest edge of the vehicle in order to protect against exposure to bystanders.

2. IC-F6061:

The antenna is required to be located outside of a vehicle and kept at a distance of 38 centimeters or more between the transmitting antenna of this device and any persons during operation. For small vehicle as worst case, the antenna shall be located on the roof top at any place on the centre line along the vehicle in order to achieve 38 centimeters separation distance. In order to ensure this distance is met, the installation of the antenna must be mounted at least 38 centimeters away from the nearest edge of the vehicle in order to protect against exposure to bystanders.

- **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.
- **DO NOT** transmit for more than 50% of total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pressing the “PTT” switch.

## Electromagnetic Interference/Compatibility

During transmissions, your Icom radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.





**Count on us!**

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