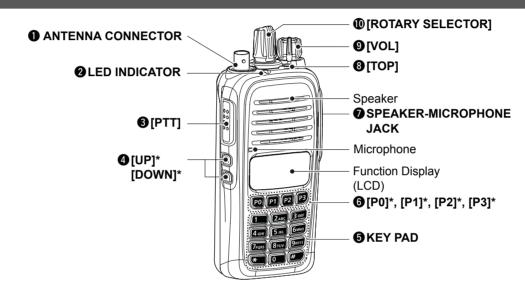


Thank you for choosing this Icom product. **READ ALL INSTRUCTIONS** carefully and completely before using the transceiver.

PANEL DESCRIPTION



• ANTENNA CONNECTOR

Connect the supplied antenna.

2 LED INDICATOR

- · Lights red while transmitting.
- Lights green while receiving a signal, or when the squelch is open.
- When the indicator slowly blinks green, you should charge the battery.
- When the indicator quickly blinks green, you must charge the battery.

[PTT]

Hold down to transmit, and release to receive.

[UP]*/[DOWN]*

• In the VFO mode

Set the operating frequency.

• In the Memory mode

Select a Memory channel.

In the Set mode

Select an option for the item.

• During a scan

Change the scanning direction.

6 KEY PAD

Push to enter the operating frequency or Memory channel number.

- 6 [P0]*: Push to enter or exit the VFO Set mode.
 - Hold down to enter or exit the User Set mode.
 - [P1]*: Push to toggle the Duplex and Simplex mode.
 - Hold down for 1 second to select the Sub Audible tone.
 - [P2]*: Push to start or cancel a VFO or Memory scan.
 - Hold down for 1 second to set or cancel the Scan tag to the selected channel.

6 [P3]*: • Push to select the VFO mode or Memory mode.

In the VFO mode:

• Hold down for 1 second to copy the VFO frequency to the selected Memory channel.

In the Memory mode:

 Hold down for 1 second to copy the selected Memory channel frequency to the VFO.

7 SPEAKER-MICROPHONE JACK

Connect an optional speaker-microphone.

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

(red button)

- Push to open or close the squelch.
- Hold down for 1 second to set the selected channel as the Favourite channel

(VOL)

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

(D) [ROTARY SELECTOR] (Favourite CH Selector)

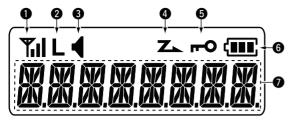
In the Memory mode, rotate to select the frequently used channels (Favourite channels: 1~16).

♦ Setting the favorite channel

You can assign the frequently used channels to the rotary selector.

- ① Set the rotary selector to the position where the favorite channel is assigned to.
- ② Push [CH Up] or [CH Down], or push the 10-key pad to select the desired channel.
- 3 Push [TOP] (red) to assign the selected channel to the rotary selector position.

FUNCTION DISPLAY



1 SIGNAL STRENGTH INDICATOR

Displays the relative receive signal strength.

2 LOW POWER ICON

Displayed when low output power (L1 or L2) is selected.

3 AUDIBLE ICON

Displayed while in the 'Audible' (unmuted) mode.

4 SCAN ICON

- Displayed when a Scan-tagged channel is selected.
- · Blinks while scanning.

6 KEY LOCK ICON

Displayed when the Key Lock function is ON.

6 BATTERY INDICATOR

- Displays the remaining battery charge.
- Blinks when the battery requires a charge.

1 ALPHANUMERIC READOUT

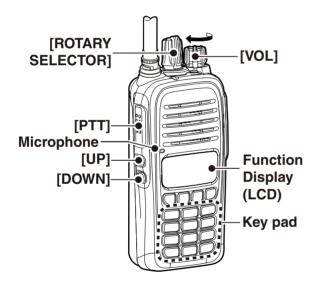
Displays messages such as the operating frequency, channel name, Set mode item and so on.

BASIC OPERATION

♦ Turning power ON

NOTE: Before using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation. See **BATTERY CHARGING** described in INSTRUCTIONS (1).

• Rotate [VOL] to turn ON the power.



♦ Receiving and Transmitting

CAUTION:

Transmitting without an antenna may damage the transceiver.

Receiving:

- 1. Set the operating frequency.
 - In the VFO mode:

Enter the operating frequency on the key pad, or push **[UP]/[DOWN]** to change the frequency.

- In the Memory mode:
- Enter the Memory channel number on the key pad, or push **[UP]/[DOWN]** to change the channel.
- ① You can select a Favorite channel (1~16) by rotating [ROTARY SELECTOR], if programmed.
- 2. When a call is received, rotate **[VOL]** to adjust the audio output level to a comfortable listening level.

Transmitting:

Wait until the frequency is clear to avoid interference.

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

TIP: To maximize the readability of your transmitted signal, pause for a second after pushing **[PTT]** and hold the microphone 5 to 10 cm (2 to 4 inches) from your mouth, and then speak at your normal voice level.

SETTING A FREQUENCY

- ♦ Using [CH Up] or [CH Down]
- (1) Push [P3] to select the VFO mode.
- (2) Push [CH Up] or [CH Down] to set a frequency.
 - The frequency changes according to the selected tuning step.
- Using the keypad
- (1) Push [P3] to select the VFO mode.
- (2) To enter the desired frequency, enter 6 digits, starting from the 100 MHz digit.

PROGRAMMING MEMORY CHANNEL

- (1) Push [P3] to select the memory mode.
 - · "MR" appears
- (2) Push **[CH Up]** or **[CH Down]** to select the memory channel to be programmed.
- (3) Push [P3] again to select the VFO mode.
- (4) Set the desired frequency in the VFO mode.
 - Push [CH Up] or [CH Down], or push the keys on keypad to set a frequency.
- (5) Push and hold [P3] to program.
 - "VF02 MR" appears briefly to confirm that the frequency is saved.

INITIAL SET MODE

■ Entering the Initial Set mode:

- → Push [P0] to enter the Initial Set mode.
 - While in the Initial Set mode, push [P0]again to select an item, and then change the value or setting by pushing [CH Up] or [CH Down].
- → Push [PTT] to exit the Initial Set mode.

Initial Set mode items:

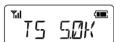
♦ Tuning step (TS)

Set the VFO tuning step to 5, 10, 12.5, 15, 20, 25, 30 or 50 kHz.

(1) Push [P0]

• "TS" appears

(2) Push [CH Up] or [CH Down] to select the desired tuning step.



♦ Frequency offset (+-)

Set the duplex frequency offset, the transmit frequency shifts up or down from the receive frequency by the offset amount.

(1) Push [P0]

• "+ -" appears

(2) Push [CH Up] or [CH Down] to select the desired frequency offset.

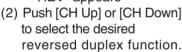


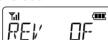
♦ Reversed Duplex function (REV)

Turn the Reversed Duplex function ON or OFF When the Reversed Duplex function is ON, the receive and transmit frequencies are reversed.

(1) Push [P0]

• "REV" appears





Output power (H/L)

Set the desired output power to H, L2, or L1 The transceiver has 3 output power levels to suit your operating requirements. Lower output powers during short-distance communications may reduce the possibility of interference to other stations and will reduce current consumption.

(1) Push [P0]

• "H/L" appears



N/N/N

(2) Push [CH Up] or [CH Down] to select the desired output power.

◇ Passband width (W/N)

Set both the transmission and reception passband width to wide or narrow.

(1) Push [P0]

• "W/N" appears

(2) Push [CH Up] or [CH Down] to select the desired passband width.

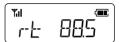
◇ Repeater tone frequency (rt)

Select the subaudible tone needed to access the repeater. A total of 51 tone frequencies (67.0 254.1 Hz) are selectable. (default: 88.5 Hz)

(1) Push [P0]

• "rt" appears

(2) Push [CH Up] or [CH Down] to select the desired tuning step.



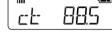
Tone squelch frequency (ct)

Select the CTCSS tone frequency to use for the Tone Squelch function. A total of 51 tone frequencies (67.0–254.1 Hz) are selectable. (default: 88.5 Hz)

(1) Push [P0]

"ct" appears

(2) Push [CH Up] or [CH Down] to select the desired tone squelch frequency.



♦ DTCS Code (dt)

Set the DTCS code (both encoder and decoder) for DTCS squelch operation. (default: 023)

(1) Push [P0]

• "dt" appears

9F 053

(2) Push [CH Up] or [CH Down] to select the desired DTCS code.

♦ DTCS Polarity (dtP)

Set the Transmit and Receive DTCS polarity to "NN," "NR," "RN" or "RR." (default: dtP.nn)

NN (TX/RX: normal)

NR (TX: normal, RX: reverse)

RN (TX: reverse, RX: normal)

RR (TX/RX: reverse)

(1) Push [P0]

• "dtP" appears

dep nn

(2) Push [CH Up] or [CH Down] to select the desired DTCS polarity.

♦ TX permission (TX)

Select "OFF" to inhibit transmitting on the channel.

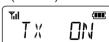
• tX .OF : Transmit is inhibited. (Receive only)

• tX .ON: Transmit is permitted. (default)

(1) Push [P0]

• "TX" appears

(2) Push [CH Up] or [CH Down] to select the desired TX permission.



USER SET MODE

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

Entering the User Set mode:

- → Push hold 1 sec. [P0] to enter the User Set mode.
 - While in the User Set mode, push [P0] again to select an item, and then change the value or setting by pushing [CH Up] or [CH Down].
- → Push hold 1 sec. [P0] again to exit the User Set mode.

Backlight

The LCD and key backlight lights according to this setting.



- ON: Always lights.
- AUT: Lights for 5 seconds when pushing any key except [PTT].
- AU2: Lights for 5 seconds every time the display changes the contents.
- OFF: Does not light.

Beep ON/OFF

- ON: Beeps sound.
- OFF: No beeps sound.



BEPL'

Beep Level

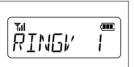
- 1 (minimum) 5 (maximum)
- 1* (minimum) 5* (maximum) Linked with the audio level.

Rotate [VOL] to adjust the beep audio level.

Ringer Level

- 1 (minimum) 5 (maximum)
- 1* (minimum) 5* (maximum) Linked with the audio level.

Rotate [VOL] to adjust the ringer audio level.



Beep: Any sound except ringers. Ringer: Sounds when receiving a call.

SQL (Squelch) Level

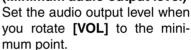
Set the SQL level to between 0 to 9. The squelch function suppresses the noise output from a speaker when no signal is received.



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

AF Min Level

(Minimum audio output level) Set the audio output level when



• 0 (minimum) - 255 (maximum)



Mic Gain

Higher levels make the microphone more sensitive to the user's voice.

MIL

• 1 (minimum) – 4 (maximum)

Battery Voltage Display

• ON: Battery voltage is displayed when turning ON the transceiver.



 OFF: Battery voltage is not displayed when turning ON the transceiver.

Signal Moni

While using a DTMF code signaling, select whether or not to sound DTMF tones.



- ON: DTMF tones sound. • OFF: No DTMF tones sound.
- * You can assign other functions to these keys if you use CS-G88-T PROGRAMMING SOFTWARE (purchase separately). For more information about functions, see the operating guide for the IC-G88-T on the Icom website.