ICOM

BASIC MANUAL

UHF CB TRANSCEIVER

IC-410PRO

Icom Inc.

IMPORTANT

READ ALL INSTRUCTIONS carefully before using the IC-410PRO UHF CB TRANSCEIVER.

KEEP THIS BASIC MANUAL, as it contains important operating information that may be useful in the future.

You can download the **ADVANCED MANUAL** for more information from the Icom website.
https://www.icomjapan.com/support/

GENERAL INFORMATION

i. The use of the citizen band radio service is licenced in Australia by the ACMA Radiocommunications (Citizens Band Radio Stations) Class Licence and in New Zealand by the Ministry of Economic Development (MED) General User Radio Licence for Citizen Band Radio and operation is subject to conditions contained within these licences.

ii. Always listen on a channel (or observe the channel busy indicator) to ensure it is not already being used before transmitting.

iii. In Australia, channel 11 is the customary calling channel for establishing communication. Channel 40 is the customary road vehicle channel.

iv. In Australia, except in an emergency, a CB transmitter shall not be operated on UHF emergency channels 5 and 35.

v. No voice transmissions are permitted on data channels 22 and 23 (voice operation is inhibited on these channels).

vi. The user of this UHF CB communications device shall not transmit Selcall tones for longer than 3 seconds during any 60 second period.

vii. UHF CB repeaters extend the operational range of your radio. Repeaters operate utilising two channels (repeater input/repeater output). It is important to avoid operation on locally used repeater input channels (in the channel range of 31 to 38 and 71 to 78) or locally used repeater output channels (in the channel range of 1 to 8 and 41 to 48), unless long distance communication via the repeater is specifically required. See the section on repeater operation (ADVANCED MANUAL) for more information.

viii Please be aware that the UHF CB network may experience possible operational issues during the changeover to narrowband. This transceiver operates on 12.5 kHz channel spacing. During the changeover period from 25 kHz to 12.5 kHz spacing, there may be some loss of quality when 12.5 kHz (narrowband, 2.5 kHz deviation) transmissions are received on 25 kHz (wide band, 5.0 kHz deviation) equipment, and vice-versa. There may also be interference due to older equipment being operated on channels adjacent to new narrowband channels, as the channel setting on these may cause some ‘overlap’. A list of currently authorised channels can be found on the ACMA website (Australia) and on the MED website in New Zealand.

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EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠DANGER!	Personal death, serious injury or an explosion may occur.
⚠WARNING!	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	Recommended for optimum use. No risk of personal injury, fire or electric shock.

PRECAUTIONS

⚠ **DANGER HIGH RF VOLTAGE!! NEVER** touch an antenna or antenna connector while transmitting. This could cause an electrical shock or burn.

⚠ **DANGER! NEVER** operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere. This could cause an explosion and death.

⚠ **DANGER! NEVER** place the transceiver where air bag deployment may be obstructed during mobile operations.

⚠ **WARNING! NEVER** operate the transceiver during a lightning storm. It may result in an electric shock, cause a fire or damage the transceiver. Always disconnect the power source and antenna before a storm.

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

⚠ **WARNING! NEVER** operate or touch the transceiver and microphone with wet hands. This may result in an electric shock or damage the transceiver and microphone.

⚠ **WARNING! NEVER** connect the transceiver to a power source of more than 16 V DC. This could cause a fire or damage the transceiver.

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

CAUTION: DO NOT reverse the DC power cable polarity. This could damage the transceiver.

CAUTION: DO NOT cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver may be damaged.

CAUTION: DO NOT expose the transceiver and microphone to rain, snow or any liquids. The transceiver and microphone may be damaged.

CAUTION: DO NOT set the transceiver in a place without adequate ventilation. Heat dissipation may be affected, and the transceiver may be damaged.

CAUTION: DO NOT use harsh solvents such as Benzine or alcohol when cleaning. This could damage the equipment surfaces. If the surface becomes dusty or dirty, wipe it clean with a soft, dry cloth.

PRECAUTIONS (Continued)

CAUTION: DO NOT use the transceiver in areas with temperatures below –30°C or above +60°C, or in areas subject to direct sunlight, such as the dashboard.

CAUTION: DO NOT place or leave the transceiver in excessively dusty environments. This could damage the transceiver.

CAUTION: DO NOT use the non-specified microphone. Other microphones have different pin assignments and may damage the transceiver.

DO NOT push the PTT when not actually intending to transmit.

DO NOT allow children to play with any transceiver equipment containing a transmitter.

DO NOT operate the transceiver for extended periods without running the vehicle's engine. The transceiver's power consumption may soon exhaust the vehicles battery.

DO NOT modify the transceiver. The transceiver warranty does not cover any problems caused by unauthorized modification.

DO NOT place the transceiver against walls or putting anything on top of the transceiver. This will obstruct heat dissipation.

BE CAREFUL! The transceiver will become hot when operating it continuously for long periods of time.

MAKE SURE to turn OFF the transceiver power before connecting any supplied/optional equipment.

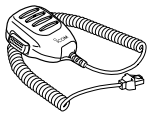
This device complies with Standard Australia Specification No. AS/NZS 4365-2011.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:

- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

SUPPLIED ACCESSORIES

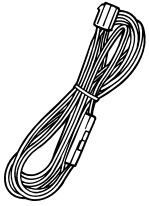
Microphone



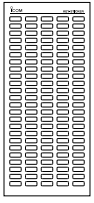
Microphone hanger and screw set

Microphone hanger cable

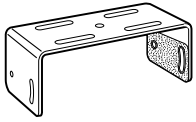
DC power cable



Function name stickers*



Mounting bracket



Flat washers

Nuts

Mounting screws

Spring washers

Bracket bolts

Self-tapping screws

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

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

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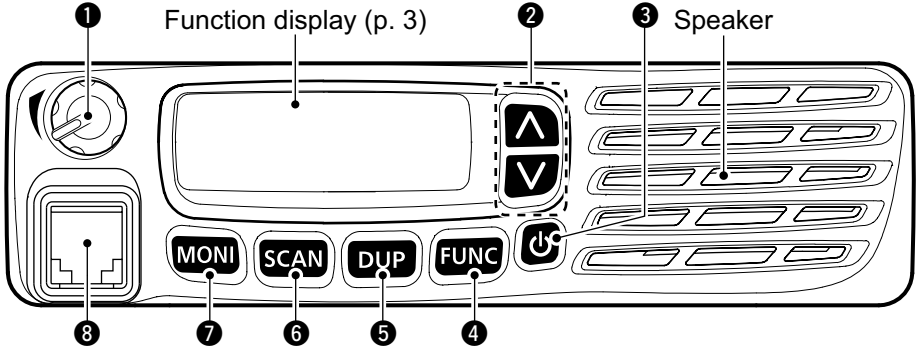
1 PANEL DESCRIPTION

■ Front panel



❶ VOLUME CONTROL KNOB
Adjusts the audio output level.

❷ UP/DOWN KEYS [UP]/[DOWN]*
* Different functions may be assigned by your dealer.
Push to select an operating channel, select an option in the Set mode items, and so on.

❸ POWER KEY [⏻]
Push to turn the transceiver ON or OFF.

❹ [FUNC] KEY*
* Different functions may be assigned by your dealer.
Push to change between ***Normal mode*** and ***Function mode***.

Normal mode
➥ Hold down for 2 seconds to enter the Set mode (p. 5).

Function mode
➥ Hold down for 2 seconds to enter the Zone Selection mode.

❺ [DUP] KEY*

* Different functions may be assigned by your dealer.

Normal mode

- ➥ Push to select the Duplex (repeater access) and Simplex (no repeater access) mode.
- ➥ Hold down for 2 seconds to electronically lock all keys except [DUP], [FUNC], and [MONI].
- ➥ Hold down for 2 seconds again to unlock all keys.

Function mode

- ➥ Push to select the Priority channel, if set.
- ➥ Hold down for 2 seconds to set the selected channel as the Priority channel.
- ➥ Hold down for 2 seconds again to return the Priority channel to a Normal channel.

❻ [SCAN] KEY*

* Different functions may be assigned by your dealer.

Normal mode

- ➥ Push to start or stop a scan.
- ➥ Hold down for 2 seconds to tag or untag the displayed channel.
  The tagged channels will be scanned.

Function mode

- ➥ Push to enter the Selcall Code Channel Selection mode.
- ➥ Hold down for 2 seconds to transmit the selected Selcall code, when a CB channel is selected.

❼ [MONI] KEY*

* Different functions may be assigned by your dealer.

Normal mode

- ➥ Push to turn the Monitor (open squelch) function ON or OFF.
- ➥ Hold down for 2 seconds to activate the following functions in sequential order.

TSQL (Tone squelch)	Only receives calls with the same tone squelch code.
↓	
TSQL 🔔 (Pocket beep)	Pocket beep function is ON.
↓	
(No tone operation)	"TSQL 🔔" disappears.

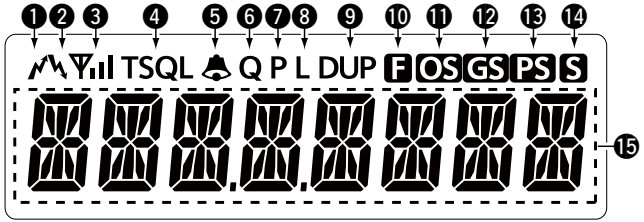
Function mode

- ➥ Push to turn the ATS (Automatic Transponder System) function ON or OFF.
- ➥ Hold down for 2 seconds to transmit a Smart ring signal.

❽ MICROPHONE CONNECTOR

Connects the supplied or an optional microphone.

■ Function Display



❶ TX ICON
Displayed while transmitting.

❷ BUSY ICON
Displayed while receiving.

❸ SIGNAL STRENGTH INDICATOR
- ➥ "▂▄▆" displays the relative signal strength level.
- ➥ "▼" blinks when ATS is used.

❹ TONE
- ➥ "T" is displayed while using the subaudible tone encoder.
- ➥ "TSQL" is displayed while in the Tone squelch mode.

❺ BELL ICON
- ➥ Displayed when using the Pocket Beep function.
- ➥ Blinks when the transceiver has received a specified Selcall or Smart ring call.

❻ QUIET MODE ICON
Displayed when the Selcall Quiet mode is ON.

❼ PRIORITY CHANNEL ICON
Displayed when the Priority channel is set.

❽ LOW POWER ICON
Displayed when low output power is selected.

❾ DUPLEX ICON
Displayed when a Duplex channel is selected.

❿ FUNCTION ICON
Displayed when the Function mode is ON.

⓫ OPEN SCAN ICON
Displayed when Open scan is selected.

⓬ GROUP SCAN ICON
Displayed when Group scan is selected.

⓭ PRIORITY SCAN ICON
Displayed when Priority scan is selected.

⓮ SCAN CHANNEL ICON
- ➥ Displayed when the displayed channel is a tagged channel.
- ➥ Blinks while scanning.

⓯ CHANNEL READOUT
Displays the operating channel number, channel name, Set mode items, and so on.

■ Receiving and transmitting

CAUTION: DO NOT transmit without an antenna.

1. Receiving

If "TSQL" or "TSQL 🔔" is displayed, you can only receive calls from others with the same tone squelch code.

Select the desired operating channel.

➥ Push [UP]/[DOWN].

• Push [MONI] to turn the Monitor function ON or OFF.

2. Transmitting

1) Check for a clear channel, or wait until a conversation is completed before transmitting.
2) While holding down [PTT], speak into the microphone at your normal voice level.

Information

To maximise the clarity of the signal:

• Pause briefly after pushing [PTT]. This ensures that the first part of your message is transmitted.
• Hold the microphone about 5 to 10 cm from your mouth.

Transmit inhibit function

The transceiver will not transmit under the following conditions.

• The channel is busy.
• The displayed channel is a receive only channel.
(Example: CB22, CB23)

Output power level

Depending on the operating environment, it is useful to reduce or increase the transceiver output power level of the transceiver.

1) Enter the Set mode.
➥ Hold down [FUNC] for 2 seconds.
2) Select the "RFPOW" menu.
➥ Push [FUNC] until the "RFPOW" menu is displayed.
3) Select "HI" or "Lo."
➥ Push [UP]/[DOWN].
4) Exit the Set mode.
➥ Hold down [FUNC] for 2 seconds.

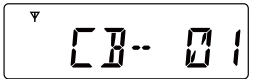
3 SET MODE

■ Using the Set mode

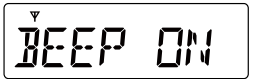
You can set seldom changed settings in the Set mode. You can customize the transceiver settings to suit your preference and operating style.

Example: Turning OFF the key beep

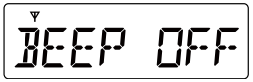
1) Enter the Set mode.
   ➥ Hold down [FUNC] for 2 seconds.



2) Select the “BEEP” menu.
   ➥ Push [FUNC] until the “BEEP” menu as shown to the right is displayed.



3) Turn OFF the key beep.
   ➥ Push [DOWN].



4) Exit the Set mode.
   ➥ Hold down [FUNC] for 2 seconds.

■ Set mode item list

The list on this basic manual shows the transceiver’s Set mode items.
See the ADVANCED MANUAL for each item’s details. You can download the ADVANCED MANUAL from the Icom website, shown below.

https://www.icomjapan.com/support/

The transceiver’s Set mode items may differ, depending on the transceiver’s setting. Ask your authorized Icom dealer or transceiver administrator for details.

• Set mode items

Squelch Level “SQL”	Auto Power OFF “AP-OFF”
Scan Mode “SCAN-M”	Signal Moni “SMON”
CTCSS/DTCS*1	Horn “HORN”
Backlight “LIGT”	RX VFO “RX VFO”
Beep “BEEP”	Scan Stop Timer “S-TIME”
Beep Level “BEPV”	Scan Restart “SCAN-R”
RF Power “RFPOW”	Mic Gain “MIC”
Quiet Mode “QUIET”	Lone Worker “LONE”
Lockout “LOCK-O”	AF Minimum Level “AFMIN”
Roger Beep “RGR-B”	Own ID*2
Battery Voltage “BATT”	

*1Selected CTCSS or DTCS code is displayed.
*25 digit Own ID is displayed.

◇ MICROPHONES

- **HM-152** HAND MICROPHONE
- **HM-152T** DTMF MICROPHONE
  Hand microphone with a DTMF keypad.

- **SM-26** DESKTOP MICROPHONE
  Desktop microphone with a monitor switch.

◇ SPEAKERS

- **SP-35** EXTERNAL SPEAKER
  External speaker with a 2 meter cable.
- **SP-35L** EXTERNAL SPEAKER
  External speaker with a 6 meter cable.

◇OTHERS

- **OPC-1939** ACC CABLE
- **CS-410PRO** CLONING SOFTWARE + **OPC-1122U** CLONING CABLE
  Enables quick and easy entry of settings such as RX frequencies and Set mode contents.

5 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cannot receive, but others can hear my transmissions.	Squelch is set too high.	(N) Reduce the squelch level in the Set mode. (p. 5)
	Tone squelch (quiet reception mode) is ON. (“TSQL” is displayed)	(N) Hold down [MONI] for 2 seconds several times until “TSQL” disappears. (p. 2)
	Selcall Quiet Mode is ON. (“Q” is displayed)	(N) Turn OFF the Quiet mode in the Set mode. (p. 5)
Can receive, but others cannot hear my transmissions.	Output power level is set to “Lo.” (“L” is displayed)	(N) Change the output power level to “HI” in the Set mode. (p. 5)
	Other stations are operating in the Tone squelch or Selcall modes.	Set the correct Tone squelch setting for the user group.
The transceiver transmits regularly, the signal strength indicator blinks, and beeps.	The ATS (Automatic Transponder System) function is ON.	(F) Push [MONI] to turn the ATS function OFF. (p. 2)
Continuous noise is heard from the speaker.	The Monitor (Open squelch) function is ON.	(N) Push [MONI] to turn the Monitor function OFF. (p. 2)
	Squelch level set too low.	(N) Increase the squelch level in the Set mode. (p. 5)
	Activity on the channel	Check if the noise is also heard on other channels. If not, another station may be transmitting on that channel, or you may be receiving interference from other devices.
Buttons have no effect or do not work as expected	The Keylock function is ON.	(N) Hold down [DUP] for 2 seconds to unlock the keys. (p. 2)
	The keys may have been reassigned.	Contact your authorized Icom dealer or transceiver administrator for details.

(N) : Stands for Normal mode.
(F) : Stands for Function mode.

This Warranty applies to Icom products purchased in Australia.

WARRANTY TERMS & CONDITIONS

This warranty against defects is given by ICOM (Australia) Pty Ltd (ABN 88 006 092 575). Our contact details are set out in clause 2.6. This warranty statement only applies to products purchased from our registered dealers or through ICOM Australia.

1.0 Consumer guarantees

1.1 Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

1.2 To the extent we are able, we exclude all other conditions, warranties and obligations which would otherwise be implied.

2.0 Warranty Terms

2.1 This Warranty is in addition to and does not limit, exclude or restrict your rights under the Competition and Consumer Act 2010 (Australia) or any other mandatory protection laws that may apply.
We warrant our goods to be free from defects in materials and workmanship for the warranty period (see 5.2 Warranty table) from the date of original sale. Subject to our obligations under clause 1.2, we will at our option, either repair or replace goods which we are satisfied are defective. We warrant any replacement parts for the remainder of the period of warranty for the goods into which they are incorporated.

2.2 To the extent permitted by law, our sole liability for breach of a condition, warranty or other obligation implied by law is limited.
(a) In the case of goods we supply, to any one of the following as we decide –
i. The replacement of the goods or the supply of equivalent goods;
ii. The repair of the goods;
iii. The cost of repairing the goods or of acquiring equivalent goods;
(b) In the case of services we supply, to any one of the following as we decide –
i. The supplying of the services again;
ii. The cost of having the services supplied again.

2.3 For repairs outside the warranty period, we warrant our repairs to be free from defects in materials and workmanship for three (3) months from the date of the original repair. We agree to re-repair or replace (at our option) any materials or workmanship which we are satisfied are defective.

2.4 We warrant that we will perform services with reasonable care and skill and agree to investigate any complaint regarding our services made in good faith. If we are satisfied that the complaint is justified, and as our sole liability to you under this warranty (to the extent permitted at law), we agree to supply those services again at no extra charge to you.

2.5 To make a warranty claim you must before the end of the applicable warranty period (see 5.2 Warranty table), at your own cost, return the goods you allege are defective, provide written details of the defect, and give us an original or copy of the sales invoice or some other evidence showing details of the transaction.

2.6 Send your claim to:
ICOM (Australia),
Unit 1/ 103 Garden Road
Clayton VIC 3168
Telephone: (03) 9549 7500 Fax: (03) 9549 7505.
Email: warranty@icom.net.au

2.7 If we determine that your goods are defective, we will pay for the cost of returning the repaired or replaced goods to you, and reimburse you for your reasonable expenses of sending your warranty claim to us.

2.8 This warranty to the original retail purchaser is only valid from the date of the original sale for a product purchased in Australia. It will have no further effect after the applicable and relevant warranty time period has elapsed.

3.0 What this warranty does not cover

3.1 This warranty will not apply in relation to:

i. Goods modified or altered in any way;
ii. Defects and damage caused by use with non-Standard Communications products;
iii. Repairs performed other than by our authorised representative;
iv. Defects or damage resulting from misuse, accident, impact or neglect;
v. Goods improperly installed or used in a manner contrary to the relevant instruction manual; or
vi. Goods where the serial number has been removed or made eligible; or
vii. Any configurations not sold by ICOM Australia (i.e. Imported U.S or European ICOM versions).

4.0 User-generated Data

This warranty does not cover any claimed loss of or damage to user-generated data (including but without limitation phone numbers, addresses and images) that may be stored on your product.

5.0 Warranty period

5.1 We provide the following warranty on ICOM (Australia) products. No repair or replacement during the warranty period will renew or extend the warranty period past the period from original date of purchase.

5.2 Warranty Period Table

Product & Category	Period (Years)
Radios: Air Band	2
IC-A220 TSO	1
UHF CB	
IC-41W	2
IC-440N, IC-400PRO	3
IC-450, IC-41PRO, IC-410PRO	5
Land Mobile	2
Marine & Receivers	2
Amateur Radios*	3
* Amateur Radios purchased after November 11th 2009 will receive a 5 year warranty provided Icom (Australia) receives a completed and legible warranty card for the related purchase. Extended warranty is not transferable.	5
Networking	
IP100H	2
LTE Transceiver	
IP501H	2
Accessories	1

Please fold and tape closed

ICOM

REGISTRATION CARD

PLACE
POSTAGE
HERE

Icom (Australia) Pty. Ltd.

Unit 1/103 Garden Road
Clayton VIC 3168

Cut here

YOU CAN ALSO REGISTER ONLINE AT- www.icom.net.au

CUSTOMER INFORMATION FOR REGISTRATION

Purchaser's Name: _____

Address: _____ _____

Suburb: _____ State:

Postcode: _____

Email: _____

Contact No (M): _____

Contact No (H): _____

Contact No (O): _____

Purchased From: _____

Date of Purchase: _____

1. Radio Model: _____ Serial Number: _____
2. Radio Model: _____ Serial Number: _____
3. Radio Model: _____ Serial Number: _____

Answering the following questions will help us to meet with your needs:

Age Group:

☐ Under 18 ☐ 18-24 ☐ 25-34
☐ 35-44 ☐ 45-54 ☐ Over 55

Which of the following best describes the primary reason for purchasing this Icom product:

☐ Stylish Design ☐ Price ☐ Warranty Term & Services
☐ Featues ☐ Easy to use ☐ Friend's recommendation
☐ Quality ☐ Brand Reputation

How would your rate the Icom Brand overall?

Very Good Average Not good at all

☐ ☐ ☐ ☐ ☐ ☐ ☐

How did you first become aware of this Icom product?

☐ Magazine ☐ Newspaper ☐ TV
☐ Internet ☐ Exhibition ☐ Store Display
☐ Sales Person ☐ Social Media ☐ Others (_____)

Which catalogue/s have you seen our product advertised?

_____

☐ Thank you for your registration. All of your information will remain strictly confidential. To serve you better, Icom (Australia) Pty. Ltd. will send information about products you may be interested in. If for any reason, you do not want to receive information from Icom (Australia)Pty. Ltd. Please check this box. When you complete and return this warranty card to us, we collect your personal information for the purposes set out in our Privacy Policy, which is available at www.icom.net.au. Our Privacy Policy also explains how we collect, use, store and disclose your personal information (including our disclosure to overseas recipients), the consequences for you if we do not collect this information and the way in which you can access and seek the correction of your personal information or complain about a breach of privacy law.

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MEMO

MEMO

How the World Communicates

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