○ICOM

BASIC MANUAL

VHF/UHF DUAL BAND
TRANSCEIVER

IC−T10

Icom Inc.

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.

■ **Important**

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.
SAVE THIS INSTRUCTION MANUAL — This instruction manual contains important
operating instructions for the transceiver.

For Advanced features and instructions, see the ADVANCED MANUAL on the Icom
website for details.
https://www.icomjapan.com/support/

■ **Features**

● IP67* requirements for dust tight and waterproof protection
● Large capacity battery pack
● Powerful Audio
  *Only when the battery pack, flexible antenna, and jack cover are attached.
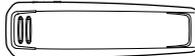
■ **Explicit definitions**

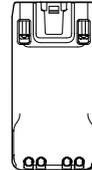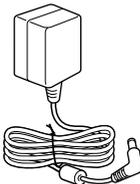| WORD	DEFINITION
⚠ **DANGER!**	Personal death, serious injury or an explosion may occur.
⚠ **WARNING!**	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

■ **Supplied accessories**
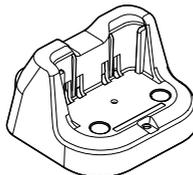
Antenna

Belt clip

Battery pack

Power adapter

Battery charger

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

■ Precautions

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

⚠ **DANGER! NEVER** use or charge Icom battery packs with non-Icom transceivers or non-Icom chargers. Only Icom battery packs are tested and approved for use with Icom transceivers or charged with Icom chargers. Using third-party or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery to burst.

⚠ **WARNING RF EXPOSURE!** This transceiver emits Radio Frequency (RF) energy. Extreme caution should be observed when operating this transceiver. If you have any questions regarding RF exposure and safety standards, please refer to the Federal Communications Commission Office of Engineering and Technology's report on Evaluating Compliance with FCC Guidelines for Human Radio Frequency Electromagnetic Fields (OET Bulletin 65).

⚠ **WARNING! NEVER** hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting.

⚠ **WARNING! NEVER** operate or touch the transceiver with wet hands. This could cause an electric shock or damage the transceiver.

⚠ **WARNING! NEVER** operate the transceiver with earphones, a headset, or other audio accessories at high volume levels. If you experience a ringing in your ears, reduce the volume or discontinue use.

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

CAUTION: DO NOT short the terminals of the battery pack. Shorting may occur if the terminals touch metal objects such as a key, so be careful when placing the battery packs (or the transceiver) in bags, and so on. Carry them so that shorting cannot occur with metal objects. Shorting may damage not only the battery pack but also the transceiver.

CAUTION: DO NOT operate the transceiver unless the flexible antenna, battery pack, and jack cover are securely attached to the transceiver and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to dust or water will result in serious damage to the transceiver. After exposure to water, clean the battery contacts thoroughly with fresh water and dry them completely to remove any water or salt residue.

CAUTION: DO NOT operate the transceiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

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.

CAUTION: DO NOT place or leave the transceiver in direct sunlight or in areas with temperatures below –20°C (–4˚F) or above +60°C (+140˚F).

CAUTION: DO NOT operate the transceiver if it becomes hot after continuously transmitting for long periods of time. This may damage the transceiver.

NEVER place in an insecure place to avoid inadvertent use by unauthorized persons.

DO NOT push PTT unless you actually intend to transmit.

■ Precautions (Continued)

BE CAREFUL! The transceiver meets IP67* requirements for dust tight and waterproof protection. However, once the transceiver has been dropped, waterproof protection cannot be guaranteed because of possible damage to the transceiver's case or waterproof seal.

* Only when the battery pack, flexible antenna, and jack cover are attached.

Even when the transceiver power is OFF, a slight current still flows in the circuits. Remove the battery pack from the transceiver when not using it for a long time. Otherwise, the installed battery pack will become exhausted and will need to be recharged or replaced.

■ **Battery cautions**
◇ **Battery caution**

Misuse of Li-ion batteries may result in the following hazards: smoke, fire, or the battery may rupture. Misuse can also cause damage to the battery or degradation of battery's performance.

⚠ **DANGER! NEVER** incinerate used battery packs. Internal battery gas may cause an explosion.

⚠ **DANGER! NEVER** strike or otherwise impact the battery pack. Do not use the battery pack if it has been severely impacted or dropped, or if the pack has been subjected to heavy pressure. Battery pack damage may not be visible on the outside of the case. Even if the surface of the battery does not show cracks or any other damage, the cells inside the battery may rupture or catch fire.

⚠ **DANGER! NEVER** leave the battery pack in places with temperatures above 60˚C (140˚F). A High-temperature buildup in the battery cells, such as could occur near fires or stoves, inside a sun-heated vehicle, or in direct sunlight for long periods of time, may cause the battery cells to rupture or catch fire. Excessive temperatures may also degrade the pack's performance or shorten the battery cell's life.

⚠ **DANGER! NEVER** place battery packs near a fire. Fire or heat may cause them to rupture or explode. Dispose of used battery packs in accordance with local regulations.

⚠ **DANGER! NEVER** solder the battery terminals, or **NEVER** modify the battery pack. This may cause heat generation, and the battery may burst, emit smoke or catch fire.

⚠ **DANGER! NEVER** let fluid from inside the battery get in your eyes. This can cause blindness. Rinse your eyes with clean water, without rubbing them, and immediately go to a doctor.

⚠ **WARNING! NEVER** use deteriorated battery packs. They could cause a fire.

⚠ **WARNING! NEVER** let fluid from inside the battery cells come in contact with your body. If it does, immediately wash with clean water.

⚠ **WARNING! NEVER** put the battery pack in a microwave oven, high-pressure container, or in an induction heating cooker. This could cause a fire, overheating, or cause the battery cells to rupture.

CAUTION: DO NOT expose the battery pack to rain, snow, saltwater, or any other liquids. Do not charge or use a wet pack. If the pack gets wet, be sure to wipe it dry cloth before using.

CAUTION: DO NOT use the battery if it emits an abnormal odor, heats up, or is discolored or deformed. If any of these conditions occur, contact your Icom dealer or distributor.

CAUTION: **DO NOT** use the battery pack out of the specified temperature range –20˚C ~ +60˚C (–4˚F ~ +140˚F). Using the pack out of this range will reduce the pack's performance and battery cell life.

CAUTION: **DO NOT** leave the pack fully charged, completely discharged, or in an excessive temperature environment (above 50˚C, 122˚F) for an extended period of time. Otherwise, a shorter battery pack life could occur. If the battery pack must be left unused for a long time, it must be detached from the transceiver after discharging. You may use the pack until the remaining capacity is about half, then keep it safely in a cool, dry place in the following temperature range:

–20˚C (–4˚F) ~ +50˚C (+122˚F) (within a month).
–20˚C (–4˚F) ~ +40˚C (+104˚F) (within three months).
–20˚C (–4˚F) ~ +20˚C (+68˚F) (within a year).

BE SURE to replace the battery pack with a new one approximately five years after manufacturing, even if it still holds a charge. The material inside the battery cells will become weak after a period of time, even with little use. The estimated number of times you can charge the pack is between 300 and 500. Even when the pack appears to be fully charged, the operating time of the transceiver may become short when:
• Approximately five years have passed since the pack was manufactured.
• The pack has been repeatedly charged.

The battery cells may deteriorate and swell due to their characteristics if used in an environment and conditions such as: frequently charged, recharged immediately after full charge, used or saved in a hot place, or charged by methods other than the instructions. If the battery pack swells, it has reached the end of its life due to deterioration. Replace it with a brand new one.

◇ **Charging caution**

⚠ **DANGER! NEVER** charge the battery pack in areas with extremely high temperatures, such as near fires or stoves, inside a sun-heated vehicle, or in direct sunlight. In such environments, the safety/protection circuit in the pack will activate and stop the charging.

⚠ **DANGER! NEVER** charge the transceiver during a lightning storm. It may result in an electric shock, cause a fire, or damage the transceiver. Always disconnect the power adapter before a storm.

⚠ **WARNING! NEVER** charge or leave the battery in the battery charger beyond the specified time for charging. If the pack is not completely charged by the specified time, stop charging and remove it from the battery charger. Continuing to charge the pack beyond the specified time limit may cause a fire, overheating, or the battery may rupture.

⚠ **WARNING!** Occasionally observe the battery pack condition while charging. If any abnormal condition occurs, discontinue using the battery pack.

CAUTION: **DO NOT** insert the transceiver with the battery pack attached into the charger if it is wet or soiled. This could corrode the battery charger terminals or damage the charger. The charger is not waterproof.

CAUTION: **DO NOT** charge the battery pack outside of the specified temperature range: 10˚C ~ 40˚C (50˚F ~ 104˚F). Icom recommends charging the pack at 25˚C (77˚F). The pack may heat up or rupture if charged out of the specified temperature range. Additionally, battery performance or battery life may be reduced.

■ FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

For Canada:
This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

■ Recommendation

CLEAN THE TRANSCEIVER THOROUGHLY IN A BOWL OF FRESH WATER after exposure to saltwater, and dry it before operating. Otherwise, the transceiver's keys, switches, and controllers may become unusable, due to salt crystallization, and/or the charging terminals of the battery pack may corrode.

NOTE: If the transceiver's waterproof protection appears defective, carefully clean it with a soft, damp (fresh water) cloth, then dry it before operating. The transceiver may lose its waterproof protection if the case or the jack cover is cracked or broken, or the transceiver has been dropped. Contact your Icom distributor or your dealer for advice.

■ Trademarks

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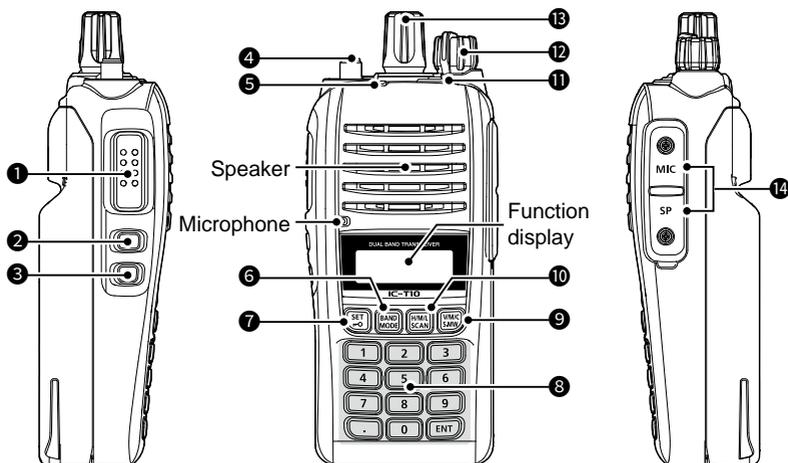
Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:
- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, or other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

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1 PANEL DESCRIPTION

■ Front, top, and side panels

Speaker

Microphone

Function display

DUAL BAND TRANSCEIVER

IC-T10

❶ PTT SWITCH [PTT] (p. 11)
Hold down to transmit, release to receive.

❷ MONITOR KEY [MONI]
- While holding down, rotate [DIAL] to adjust the squelch level. (p. 7)
- Hold down to temporarily open the squelch and monitor the operating frequency. (p. 8)

❸ PROGRAMMABLE KEY [P] (p. 10)
- Push to enter the 1 MHz Step Selection mode in VFO mode.
- Hold down to enter the Tuning Step item of the Set mode.

❹ ANTENNA CONNECTOR (p. 6)
Connect the supplied antenna.

❺ TX/RX INDICATOR
Lights red while transmitting.
Lights green while receiving a signal, or when the squelch is open.

❻ BAND • MODE KEY [BAND]/[MODE]
- Repeatedly push to select the operating band. (p. 9)
- Hold down to toggle the operating mode. (p. 9)

❼ SET MODE • LOCK KEY [SET]/[ ]
- Push to enter the Set mode. (p. 13)
- Hold down to turn the Lock function ON or OFF. (p. 12)

❽ Ten-keypad (pp. 10, 16)

❾ VFO/MEMORY/CALL CH • SELECT MEMORY WRITE KEY [V/M/C]/[S.MW]
- Repeatedly push to select the VFO mode, Memory mode, or the Call Channel mode. (p. 8)
- Used in Memory write mode. (p. 15)

❿ HIGH/MIDDLE/LOW • SCAN KEY [H/M/L]/[SCAN]
- Repeatedly push to select the output power. (p. 12)
- Hold down to start a scan. (p. 17)

⓫ HOME CHANNEL KEY [HOME] (p. 12)
- Push to directly select a Home channel.
- Hold down to set the selected frequency or channel as a Home Channel.

⑫ **VOLUME • POWER KNOB [VOL] (p. 6)**
- ● Rotate to turn the transceiver ON or OFF.
- ● Rotate to adjust the audio output level.

⑬ **CONTROL DIAL [DIAL]**
- ● In the VFO mode, rotate to select an operating frequency. (p. 10)
- ● In the Memory mode, rotate to select a Memory channel. (p. 16)
- ● In the Set mode, rotate to select an option. (p. 13)
- ● In the Character Entry mode, rotate to select alphanumeric characters.

⑭ **EXTERNAL MICROPHONE • SPEAKER JACK [MIC/SP]**
Connect an optional speaker microphone or headset.
(MIC: 2.5 mm, SP: 3.5 mm (1/8 inch))
ⓘ Confirm that the transceiver is OFF before connecting or disconnecting an optional equipment.
ⓘ The jack cover is attached using the M2 × 6 mm screws.

> **CAUTION: DO NOT** use the transceiver without the jack cover or the optional equipment attached. The transceiver meets IP67 requirements for dust-tight and waterproof protection only when the jack cover or the specified optional speaker microphone is attached.

■ **Function display**
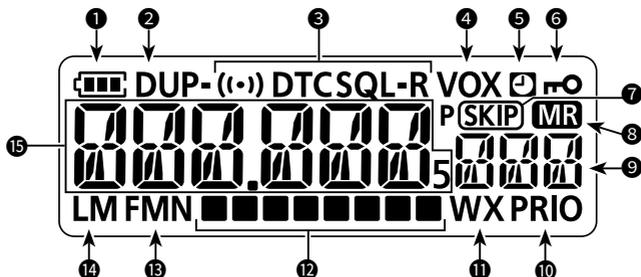
❶ **BATTERY ICON (p. 5)**
Displays the current capacity of the attached battery pack.

❷ **DUPLEX ICON**
- "DUP" is displayed when plus duplex is selected.
- "DUP–" is displayed when minus duplex is selected.
⒤ No icon is displayed when simplex is selected.

❸ **TONE ICONS**
Displayed when the Tone function is turned ON, and indicates which Tone function is in use.

❹ **VOX ICON**
Displayed when the VOX function is ON.

❺ **AUTO POWER OFF ICON (p. 13)**
Displayed when the Auto Power OFF function is ON.

❻ **KEY LOCK ICON (p. 12)**
Displayed when the Key Lock function is ON.

❼ **SKIP ICON**
Displayed when the selected memory channel is set as a skip channel.
- "SKIP": Displayed when Memory Skip is selected.
- "P SKIP": Displayed when Program Skip is selected.

❽ **MEMORY ICON (p. 8)**
Displayed when the Memory mode is selected.

❾ **MEMORY CHANNEL NUMBER**
- Displays the selected memory channel number. (p. 15)
- "C" is displayed when the Call channel is selected.

❿ **PRIORITY SCAN ICON (p. 17)**
Displayed while the Priority Scan function is ON.

⓫ **WEATHER ALERT ICON**
(For only the USA version)
Displayed when the Weather Alert function is ON.
⒤ Turn the Weather Alert function ON in the Set mode (p. 14)

⓬ **S/RF METER**
- Displays the relative signal strength of the received signal.
- Displays the output power level of the transmit signal.

⓭ **OPERATING MODE ICONS (p. 9)**
Displays the selected operating mode.

⓮ **POWER ICONS (p. 12)**
Displays the selected output power.
- "L": Low
- "M": Mid
⒤ No icon is displayed when the High power is selected.

⓯ **FREQUENCY READOUT**
Displays an operating frequency.

■ Attaching the battery pack

Attach or detach the battery pack, as illustrated below.

To attach:
1. Slide the battery pack in the direction of the arrow. (❶)
2. Push the battery pack until the latches make a 'click' sound. (❷)
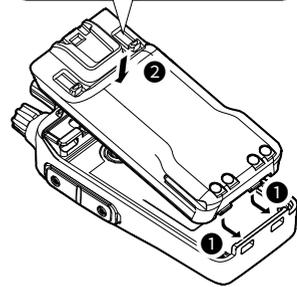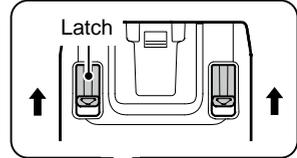
To detach:
1. Push latches in the direction of the arrow. (❶)
2. Lift up to detach the battery pack. (❷)
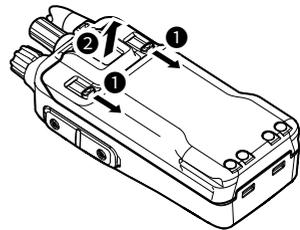
NOTE: Even when the transceiver is OFF, a slight current still flows in the circuits. Remove the battery pack or case from the transceiver when not using it for a long time. Otherwise, the attached battery pack or case will become exhausted, and will need to be recharged or replaced.

■ **Charging the battery pack**

Prior to using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation.

NOTE: BE SURE to turn OFF the transceiver while charging with the supplied battery charger. Otherwise, the attached battery pack cannot be charged.

Charging time:
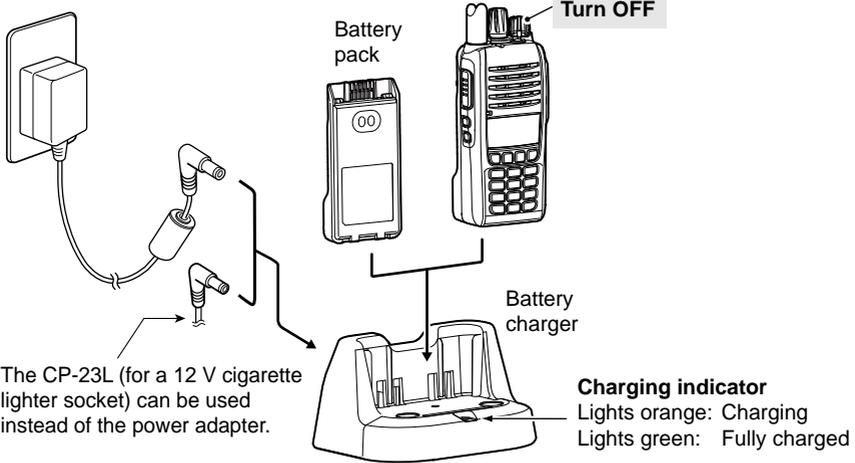Approximately 4 hours for the BP-280

Power adapter*

Turn OFF

Battery pack

Battery charger

The CP-23L (for a 12 V cigarette lighter socket) can be used instead of the power adapter.

Charging indicator
Lights orange: Charging
Lights green: Fully charged

* May not be supplied, or the shape may be different, depending on the transceiver version.

ICON	BATTERY STATUS
▥	The battery has sufficient capacity.
▥	The battery is exhausted a little.
▥	The battery is nearing exhaustion.
▭	The battery is almost fully exhausted. Immediately charge the battery pack. ⓘ After a while, the icon blinks and the transceiver will be turned OFF.

■ **Belt clip**

To attach:
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.
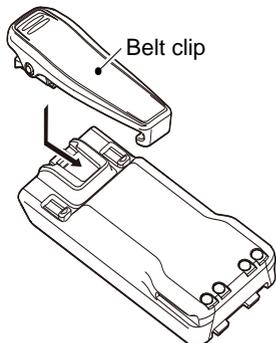
To detach:
● Lift the tab up (❶), and slide the belt clip in the direction of the arrow (❷).

Belt clip
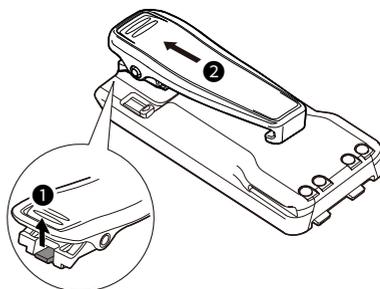
■ **Antenna**

Attach the supplied antenna to the antenna connector. The transceiver has an SMA-type connector.

CAUTION: DO NOT carry the transceiver by holding only the antenna.
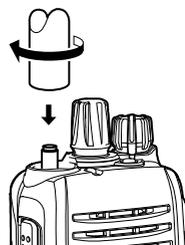
■ **Turning ON the transceiver**

● Rotate [VOL] clockwise to turn ON the transceiver.
  • A beep sounds.
  • "Icom" and the voltage are displayed, and then the operating frequency is displayed.
  ⓘ Rotate [VOL] fully counter-clockwise to turn OFF the transceiver.
  ⓘ Be sure to turn OFF the transceiver when it is not used, to reduce the battery consumption.

■ **Adjusting the audio level**

● Rotate [VOL] to adjust the audio level.
  ⓘ Rotate clockwise to increase, rotate counter-clockwise to reduce.

3 **BASIC OPERATION**
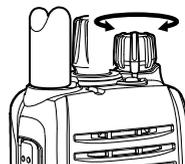
■ **Receiving**

The following are basic settings for receiving.

• Adjusting the squelch level (p. 9)
• Selecting the Frequency selecting mode (p. 10)
• Selecting the operating band (p. 11)
• Selecting the operating mode (p. 11)
• Setting a frequency (p. 12)

■ **Adjusting the squelch level**

Noise squelch enables the audio to be heard only while receiving a signal that is stronger than the set level. A higher level blocks weak signals, which enables you to receive only stronger signals. A lower level enables you to hear weak signals.

L Throughout this document, "Noise squelch" is simply called "Squelch."

1. While holding down [MONI], rotate [DIAL] for a single click to enter the Squelch adjustment mode.
2. While holding down [MONI], rotate [DIAL] to adjust the squelch level.
   • "LEV 1" is loose squelch (for weak signals) and "LEV 9" is tight squelch (for strong signals).
   • "Auto" is an automatic level adjustment using a noise pulse counting system.
   • "OPEn" is the continuously open setting.
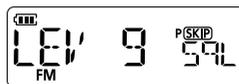
■ **Selecting the Frequency selecting mode**

The transceiver has Frequency selecting modes, as shown below.

1. Repeatedly push [V/M/C] to select the selecting mode, as shown to the right.
2. Rotate [DIAL] to select a frequency or channel.
   ① In Call Channel mode, repeatedly push [BAND] to select a Call Channel.

VFO mode:
Rotate [DIAL] to set an operating frequency.

Memory mode:
Select a Memory channel where an operating frequency and other parameters are saved.
① In the Memory mode, "MR" and the Memory Channel number are displayed.

Call Channel mode:
Select a Call Channel to quickly recall your most often used frequencies.
① In the Call Channel mode, the Call Channel number is displayed.

Weather Channel mode (For only the USA version):
Weather Channels are used for monitoring Weather Channels from the National Oceanographic and Atmospheric Administration (NOAA) broadcasts.

VFO mode

Memory mode

Call Channel mode

Weather Channel mode
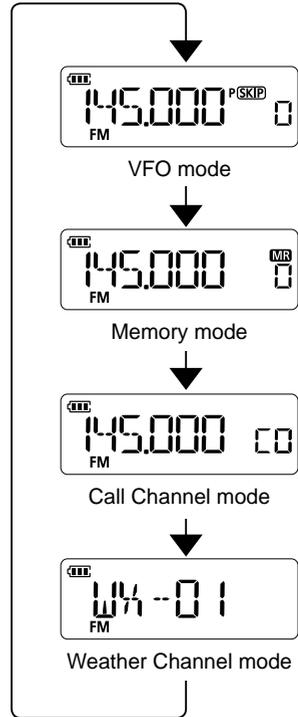
■ **Monitor function**

The Monitor function is used to listen to weak signals without changing the squelch setting.

● While holding down [MONI], you can hear weak signals on the frequency.

TIP: You can set the Monitor Hold function in the Initial Set mode (p. 13) . The transceiver opens or closes the squelch each time you push [MONI].

Blinks while using the function

3 BASIC OPERATION

■ **Selecting the operating band**

Select the operating band in the VFO mode, as shown below.
1. Repeatedly push [V/M/C] to select the VFO mode.
   • The selected frequency is displayed.
2. Repeatedly push [BAND] to select the operating band, as shown below.

| VHF | UHF | FM radio |

■ **Selecting the operating mode**

The transceiver has two operating modes, FM and FM-N.

● Hold down [MODE] until a beep sound to toggle the
  operating mode.
  ⓘ In the FM-N mode, the TX modulation is automatically
    set to narrow (approximately ±2.5 kHz.)
  ⓘ The FM audio received while in FM-N mode may distort
    or chop.

■ **Using the FM radio function**

The transceiver has a function to receive FM radio
broadcasts.
ⓘ The receiving frequency can be set in 50 kHz, 100 kHz,
  and 200 kHz steps.
ⓘ Other functions related to transmitting are disabled while
  using the FM radio function.

Example: Receiving 90.5 MHz
ⓘ The bands used for FM radio broadcasting differ,
  depending on the country or region.
1. Repeatedly push [V/M/C] to select the VFO mode.
2. Repeatedly push [BAND] to select the FM radio.
3. Push [0], [9], [0], [5], [0], [0], and then push [ENT].
   • The S/RF meter displays the received signal strength.

■ Setting a frequency

◇ Selecting a tuning step

When you select the frequency by rotating [DIAL] in the VFO mode, it changes in the selected tuning step.

1. Hold down [P] to enter the Tuning Step item of the Set mode.
   • "tS" is displayed.

2. Rotate [DIAL] to select a tuning step.

   Selectable tuning steps (kHz):

5.0	10.0	12.5	15.0	20.0	25.0
30.0	50.0	100.0	125.0	200.0	

   ⓘ The selected tuning step will also be applied to the VFO scan function.
3. Push [V/M/C] to exit the Set mode.

◇ Setting a frequency

Set a frequency using the keys [0] to [9], [.], and [ENT] on the Ten-Keypad.
ⓘ The frequency display is reset if you enter a frequency outside the operating range.

1. Repeatedly push [V/M/C] to select the VFO mode.
2. Set the frequency using the Ten-Keypad.

Setting example:

Setting 433.580 MHz:
● Push [4], [3], [3], [5], [8], [0].
   ⓘ The beep sounds after setting the 1 kHz digit.

Changing 433.580 MHz to 440.000 MHz:
(Setting the frequency under 10 MHz)
● Push [4], [4], and then push [ENT], or push [4], [4], [0], [0], [0], [0].
   ⓘ "0" is set for the digits after the digit where [ENT] is pushed.

Changing 433.580 MHz to 433.140 MHz:
(Setting the frequency under 100 kHz)
● Push [.], [1], [4], [0].

NOTE: The 1 kHz digit may not be settable using the Ten-keypad, depending on the Tuning Step settings. Set [0] to the 1kHz step, and then rotate [DIAL] to set.

3 BASIC OPERATION

■ **Transmitting**

◇ **Making a simplex call**

⚠ **WARNING! NEVER** transmit for long periods of time. During prolonged transmissions at high power or mid-power, the transceiver radiates heat to protect itself from overheating. The transceiver's chassis will become hot and may cause a burn. To prevent the transceiver's overheating, the default setting of the time-out timer function is set to 5 minutes. Be careful when the time-out timer function is turned OFF or set to a long time period, and you transmit for long periods.

CAUTION: DO NOT operate the transceiver where heat dissipation will be obstructed if the transceiver is also being charged with an external power supply. Poor heat dissipation may cause a burn, warp the casing, or damage the transceiver.

CAUTION: DO NOT transmit without an antenna.

NOTE: When the transceiver becomes hot, the transceiver's heat protection function gradually reduces the output power to approximately 2.5 watts, then it stops transmission after that. This is done to protect the transceiver itself until it can cool down.

NOTE: You can transmit on only the amateur frequency bands.

IMPORTANT: Before transmitting, monitor the operating frequency to make sure transmitting won't cause interference to other stations on the same frequency.

1. Rotate [DIAL] to set the operating frequency.
2. Repeatedly push [H/M/L] to select an output power.
   ➀ Select a level to suit your operating requirements.
   ➀ "M" or "L" is displayed when a Mid or Low power is selected.
   ➀ When you select High power, the power icon disappears.
3. Hold down [PTT] to transmit, and speak into the microphone at your normal voice level.
   • The TX/RX indicator lights red.
   • The S/RF meter displays the output power level.
4. Release [PTT] to receive.

TIP: To maximize the readability of your signal
1. After pushing [PTT], pause briefly before you start speaking.
2. Hold the microphone 5 to 10 cm (2 to 4 inches) from your mouth, then speak at your normal voice level.

TX/RX indiacator [DIAL]

[PTT]

Microphone
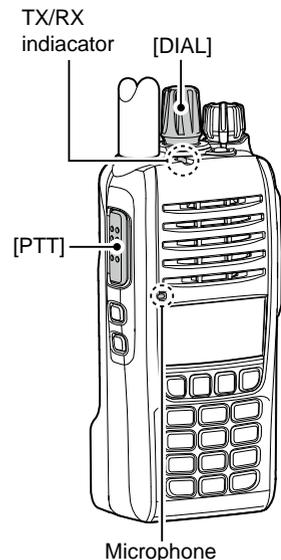
◇ **About the transmit power levels**

Lower output power during short-range communications may reduce the possibility of interference to other stations.
• When the BP-280 is attached:
  Approximately 5 W (High) /2.5 W (Mid) /0.5 W (Low)

Low   Mid   High

■ **Using the Lock function**

The lock function prevents accidental frequency changes and unnecessary function access.

● Hold down [🔒🔓] until the beep sounds to turn ON or OFF the Key Lock function.
  • "🔒🔓" is displayed while the function is ON.
  ⓘ [PTT], [MONI], [VOL], and the Squelch Adjustment ([MONI] + [DIAL]) can be used even if the Key Lock function is ON.
  ⓘ Lock [PTT] in the Initial Set mode, if necessary (p. 13) .

■ **Using the Home Channel**
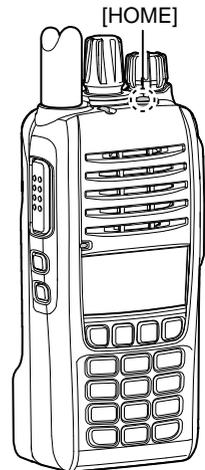
The Home Channel function enables selecting an often-used frequency or Memory channel by single push.
You can set one Home Channel for each of VFO mode and Memory mode.
ⓘ Only VHF or UHF frequencies are settable.

[HOME]

◇ **Setting a Home Channel**

1. Select the frequency or Memory channel in VFO mode or Memory mode.
2. Hold down [HOME] until a beep sounds to set a Home Channel.

■ **Using the Set mode**

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

◇ **Using the Basic Set mode**

Example: Selecting a 20 kHz tuning step
1. Push [SET] to enter the Set mode.
   • A Set mode item is displayed.
2. Push [SET] several times to select "tS."

3. Rotate [DIAL] to select "20.0."

4. Push [V/M/C] or [ENT] to exit the Set mode.

◇ **Using the Initial Set mode**

Example: Setting the Auto Power OFF Timer to 30 minutes
1. Rotate [VOL] counter-clockwise to turn OFF the transceiver.
2. While holding down [SET], rotate [VOL] clockwise to turn ON the transceiver.
   • An Initial Set mode item is displayed.
3. Push [SET] several times to select "AP OFF."

4. Rotate [DIAL] to select "30."

5. Push [V/M/C] or [ENT] to exit the Initial Set mode.

■ **Set mode items**

◇ **Set mode**

ITEM	FUNCTION
tOnE	Tone/DTCS*¹
R tOnE	Repeater Tone*¹
C tOnE	CTCSS*¹
codE	DTCS*¹
dtCS P	DTCS Polarity*¹
dUP	Duplex*¹
OFFSEt	Offset Frequency*¹
dUP.REV	Duplex Reverse*¹
tS	Tuning Step*¹*²
PRIO	Priority Scan*²
T SCAn	Tone Scan
PAUSE	Pause Timer*²
P SkIP	Program Skip Scan*²
LIGHt	Backlight*²
Ptt Lk	PTT Lock
WX.ALt	Weather Alert*³
mic G	MIC Gain
VOX	VOX function
VOX LV	VOX Level
VOX.dLy	VOX Delay
VOX.tot	VOX Time-Out Timer
dtmF-t	DTMF Transmission
dtmF	DTMF memory
modE	Operating mode*¹

◇ **Initial Set mode**

ITEM	FUNCTION
bEEPLV	Beep Level
tot	Time-Out Timer
AutoRP	Auto Repeater*³
AP OFF	Auto Power OFF
Lk Out	Lockout
SqL dL	Squelch Delay
dtmF-S	DTMF Speed
dISP m	Display Mode
P SAVE	Power Save
dIAL S	Dial Speed Up
mic S	MIC Simple Mode
VOLt	Voltage Indication
AutoLP	Auto Low Power
SqbSt	Tone Burst
EARAnt	Earphone Antenna
moni	Monitor

*¹ Individually settable for every band or memory channel.
*² These items are settable even while using the FM Radio.
*³ For only the USA version.

5 **MEMORY OPERATION**

■ **Entering Memory channels**

The transceiver has a total of 200 Memory channels to save often-used frequencies.
In the Memory mode, you can quickly select the saved memories. This section describes the basic channel content entry.

Example: Entering 145.800 MHz into Channel 11

1. Repeatedly push [V/M/C] to select the VFO mode.
2. Repeatedly push [BAND] to select the VHF band.
3. Set the frequency to 145.800 MHz.

4. Push [S.MW] until two short beeps sounds.
   • "MR" and the channel number blinks.
   Ⓛ Holding down even after two short beeps are sound writes the set frequency to the currently selected channel.

5. Roate [DIAL] to select Channel 11.
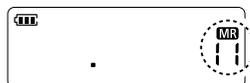
6. Push [S.MW] until two short beeps sounds to enter 145.800 MHz to Channel 11.
   • The transceiver returns to the VFO mode.

■ Selecting a Memory channel

◇ Using [DIAL]

1. Repeatedly push [V/M/C] to select the Memory mode.
2. Roate [DIAL] to select a Memory channel.
   ➲ Vacant Memory channels are not selectable.

◇ Using the Ten-Keypad

1. Repeatedly push [V/M/C] to select the Memory mode.
2. Enter the channel number.
   ➲ Vacant memory channels are selectable.

Example:

Selecting Channel 25:
● Push [0], [2], [5], or push [2], [5], and then push [ENT].

Selecting Channel 8:
● Push [0], [0], [8], or push [8], and then push [ENT].

■ Clearing Memory channel contents

Clear Memory channel content that is no longer in use, as shown below.

1. Push [S.MW] until two short beeps sounds.
   • "**MR**" and the Memory channel number blinks.
2. Roate [DIAL] to select the channel.

3. Push [SET].
4. Push [MONI] or [P] to display "CLEAR."

5. Push [S.MW] until two short beeps sounds to clear the Memory channel content.

6. Push [V/M/C] to return to the Standby mode.

   **NOTE:** The cleared contents cannot be restored.

6 **SCAN OPERATION**

■ **Using the Scan function**

Scanning is a versatile function that can automatically search for signals. A scan makes it easier to locate stations to contact or listen to, or to skip unwanted channels or frequencies.
This section describes the basic scan operation. See the Advanced manual for details.

Example: Scanning in the VFO mode
1. Repeatedly push [V/M/C] to select the VFO mode.

2. Hold down [SCAN] until the beep sounds to start the scan.
   • "AL" is displayed while scanning.
   • While receiving a signal, the S-meter displays the received signal strength.
3. Push [SCAN] or [V/M/C] to cancel the scan.
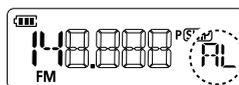
While receiving

■ **Using the Priority Scan function**

The Priority Scan function searches for a signal on the selected Memory channel or Call channel*, while receiving a signal in the VFO mode.

* Searches by receiving the selected channel about once every 5 seconds.

1. Set the frequency to receive in VFO mode.
2. Repeatedly push [V/M/C] to select the Memory Channel mode or Call Channel mode.
3. Rotate [DIAL] to select a channel.
4. Push [SET] to enter the Set mode.
   • A Set mode item is displayed.
5. Repeatedly push [SET] to select "PRIO."
6. Rotate [DIAL] to select "On" or "bELL."
7. Push [V/M/C] to start the Priority Scan.
   • "PRIO" is displayed while scanning.
   • While receiving, displayed as shown to the right depending on the option selected in step 6.
8. Push [V/M/C] to cancel the Priority Scan.

If "On" is selected:
"PRIO" blinks, and the Scan stops.

If "bELL" is selected:
The beep sounds and "(())" blinks.
ⓘ The Scan continues.

■ Resetting

If the transceiver has a malfunction caused by an external factor such as static electricity, reset it using the Partial Reset or All Reset function.

BE CAREFUL! An All Reset clears all programming and returns all settings to the factory defaults.
See the ADVANCED MANUAL for details.

◇ Partial Reset

1. Rotate [VOL] counter-clockwise to turn OFF the transceiver.
2. While holding down [H/M/L], rotate [VOL] clockwise to turn ON the transceiver.
   • "Icom" and the voltage are displayed, and then the operating frequency is displayed.

TIP: A Partial Reset resets the operating settings to their defaults without clearing the following:
• Memory Channel contents
• Scan Edge contents
• Call Channel contents
• DTMF memory contents
• Home Channel settings

6

7

Icom

8.0V

145.000 ᴾSKIP 0
FM

7 MAINTENANCE
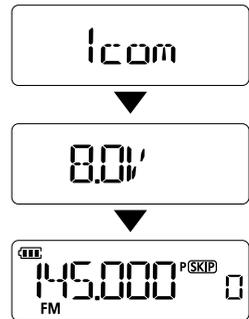
■ **Troubleshooting**

The following chart is designed to help you correct problems that are not equipment malfunctions. If you are unable to locate the cause of a problem or solve it through the use of this chart, contact your nearest Icom Dealer or Service Center.
"AM" indicates the PDF type Advanced Manual.

The transceiver does not turn ON.

● The battery is exhausted.
  → Charge the battery pack. (p. 5)
● Loose the connection of a battery pack.
  → Clean the battery terminals.

No sound comes from the speaker.

● The volume level is too low.
  → Rotate [VOL] to adjust the level. (p. 6)
● The squelch level is too high.
  → Adjust the squelch level. (p. 7)
● The tone function is turned ON.
  → Turn OFF the tone function. (AM)
● An external speaker is connected to the [SP] jack.
  → Check the external speaker connection.

Sensitivity is too low, and only strong signals are heard.

● The coaxial cable is not connected or shorted (External antenna is used).
  → Check the coaxial cable connection or replace it with a new one.

No reply is received after a call.

● The duplex function is set, the receive and transmit frequencies are different.
  → Set for simplex operation. (AM)

After a certain period of time, the transmission automatically stops even if you holding down [PTT].

● The Time-Out Timer activated.
  → Turn OFF the function in the Initial Set mode. (p. 14)

Frequency cannot be set.

● The Key Lock function is activated.
  → Turn OFF the Key Lock function. (p. 12)
● The VFO mode is not selected.
  → Repeatedly push [V/M/C] to select the VFO mode. (p. 8)

The displayed frequency is erroneous.

● The transceiver has malfunctioned.
  → Reset the transceiver. (p. 18)
● External factors have caused a fault.
  → Remove and reattach the battery pack. (p. 4)

Unable to transmit.

● The transmit power level is set to Low or Mid.
  → Set the transmit power level to High. (p. 12)
● The PTT Lock function is activated.
  → Turn OFF the function in the Set mode. (p. 14)
● The Lockout function is activated.
  → Turn OFF the function in the Initial Set mode. (p. 14)
● The transmit frequency is out of the amateur radio band.
  → Set the transmit frequency within the amateur radio band. (p. 10)

A Program Scan does not start.

● The VFO mode is not selected.
  → Repeatedly push [V/M/C] to select the VFO mode. (p. 8)
● The same frequencies are entered into the scan edges.
  → Enter different frequencies into the scan edges. (AM)

A Memory Scan does not start.
● The Memory mode is not selected.
  → Repeatedly push [V/M/C] to select the
    Memory mode. (p. 8)
● Only one or no memory channel is
  entered.
  → Enter two or more memory channels.
    (p. 15)

8 INFORMATION

■ Specifications

- ⓘ Measurements made without an antenna.
- ⓘ All stated specifications are subject to change without notice or obligation.

◇ General

• Frequency coverage (unit: MHz):

USA version

FM Radio		88.00 ~ 108.00
FM (VHF/UHF)	Receive:	136.000 ~ 174.000 (Guaranteed only 144 ~ 148 MHz)
		400.000 ~ 479.000 (Guaranteed only 440 ~ 450 MHz)
	Transmit:	144.000 ~ 148.000
		430.000 ~ 450.000 (Guaranteed only 440 ~ 450 MHz)

EXP version

FM Radio		76.00 ~ 108.00
FM (VHF/UHF)	Receive:	136.000 ~ 174.000 (Guaranteed only 144 ~ 148 MHz)
		400.000 ~ 479.000 (Guaranteed only 430 ~ 440 MHz)
	Transmit:	136.000 ~ 174.000 (Guaranteed only 144 ~ 148 MHz)
		400.000 ~ 479.000 (Guaranteed only 430 ~ 440 MHz)

EUR version

FM Radio		76.00 ~ 108.00
FM (VHF/UHF)	Receive:	136.000 ~ 174.000 (Guaranteed only 144 ~ 146 MHz)
		400.000 ~ 479.000 (Guaranteed only 430 ~ 440 MHz)
	Transmit:	144.000 ~ 146.000
		430.000 ~ 440.000

• Modes:	FM/FM-N (F2D/F3E)
• The number of Memory channels:	200 channels
• Usable temperature range:	–20°C ~ +60°C, –4°F ~ +140°F
• Tuning steps:	5, 10, 12.5, 15, 20, 25, 30, 50, 100, 125, and 200 kHz
• Frequency stability:	±2.5 ppm (–20°C ~ +60°C, –4°F ~ +140°F)
• Power supply:	7.2 V DC nominal
• Current drain:	
Transmit	2.5 A or less
Receive (Maximum output)	600 mA or less
• Antenna connector:	SMA (50 Ω)
• Dimensions:	52.2 (W) × 111.8 (H) × 30.3 (D) mm,
(projections not included)	2.1 (W) × 4.4 (H) × 1.2 (D) inches
• Weight (approximate):	275 g, 9.7 oz (with BP-280)

◇ **Transmitter**
• Modulation system: Frequency shift keying modulation
• Output power (at 7.2 V DC): High: 5.0 W, Mid: 2.5 W, Low: 0.5 W
• SAR 10g: 2.20 W/kg
• Maximum frequency deviation:
                            ±5.0 kHz (FM), ±2.5 kHz (FM-N)
• Spurious emissions: –60 dBc or less at High/Mid
                            –13 dBm or less at Low
• Microphone impedance: 2.2 kΩ

◇ **Receiver**
• Receive system: Direct Conversion
• Sensitivity: –15 dBμ V or less (at 12 dB SINAD)
• Audio output power:
  Internal speaker   1.5 W or more at 10% distortion into an 8 Ω load
  External speaker   0.45 W or more at 10% distortion into an 8 Ω load
• Selectivity: 55 dB or more (FM: 25 kHz)
                            50 dB or more (FM-N: 12.5 kHz)
• Spurious and image rejection ratio:
                            60 dB or more
• Squelch Sensitivity: –15 dBμV or less (threshold)

8 INFORMATION

■ About CE and DOC

Hereby, Icom Inc. declares that the versions of IC-T10 which have the "CE" symbol on the product, comply with the essential requirements of the Radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.icomjapan.com/support/

■ Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

How the World Communicates