

This sheet describes only basic operations. For more detailed instructions, go to our web site (URL: <http://www.icom.co.jp/world/index.html>) to view or download the full instruction manual. In the instruction manual, some options or some functions may not be available for your version. Please ask your dealer for details.

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

## ■ Precautions

**⚠ DANGER! NEVER** short terminals (or charging terminals) of the battery pack. Also, current may flow into nearby metal objects such as a key, so be careful when placing the battery packs (or the transceiver) in handbags, and so on. Simply carrying with or placing near metal objects such as a key, and so on may cause shorting. This may damage not only the battery pack, but also the transceiver.

**⚠ DANGER!** Use and charge only specified Icom battery packs with Icom transceivers or Icom chargers. Only Icom battery packs are tested and approved for use with Icom transceivers or charged with Icom chargers. Using thirdparty or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery to burst.

**⚠ WARNING RF EXPOSURE!** This device emits Radio Frequency (RF) energy. Caution should be observed when operating this device. 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. The transceiver will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the transceiver is vertical.

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

**⚠ WARNING! NEVER** operate the transceiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

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

**DO NOT** operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere.

**DO NOT** push [PTT] when you do not actually intend to transmit.

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

**DO NOT** operate or place the transceiver in direct sunlight or in areas with temperatures below -20°C (-4°F) or above +60°C (+140°F).

**KEEP** the transceiver out of the reach of children.

**DO NOT** use harsh solvents such as benzene or alcohol when cleaning, as they will damage the transceiver's surfaces.

**DO NOT** modify the transceiver. The specifications may change and then not comply with the requirements of a corresponded regulation. The transceiver warranty does not cover any problems caused by unauthorized modification.

**KEEP** the transceiver away from heavy rain, and never immerse it in the water. The transceiver meets IP54\* requirements for dust-protection and splash resistance. However, once the transceiver has been dropped, dust-protection and splash resistance cannot be guaranteed because of possible damage to the transceiver's case or the waterproof seal.

\*Only when the battery pack or case, antenna and jack cover are attached.

**MAKE SURE** to turn OFF the transceiver before connecting or disconnecting the supplied or optional accessory.

Even when the transceiver power 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 battery pack or installed dry cell batteries will become exhausted.

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

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

**⚠ DANGER!** Use the battery only with the transceiver for which it is specified. Never use a battery with any other equipment, or for any purpose that is not specified in the instruction manual.

**⚠ DANGER!** If fluid from inside the battery gets in your eyes, blindness can result. Rinse your eyes with clean water, without rubbing them, and see a doctor immediately.

**⚠ WARNING!** Immediately stop using 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.

**⚠ WARNING!** Immediately wash, using clean water, any part of the body that comes into contact with fluid from inside the battery.

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

**CAUTION:** Always use the battery within the specified temperature range, -20°C to +60°C (-4°F to +140°F). Using the battery out of its specified temperature range will reduce the battery's performance and battery life.

**CAUTION:** Shorter battery life could occur if the battery is left fully charged, completely discharged, or in an excessive temperature environment (above +50°C; +122°F) for an extended period of time. If the battery must be left unused for a long time, it must be detached from the transceiver after discharging. You may use the battery until the battery icon shows half-capacity, and then keep it safely in a cool dry place at the following temperature range:

-20°C to +50°C (-4°F to +122°F) (up to a month)  
-20°C to +35°C (-4°F to +95°F) (up to three months)  
-20°C to +20°C (-4°F to +68°F) (up to 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 inside battery material will become weak after a period of time, even with little use. The estimated number of times you can charge the battery is between 300 and 500.

Even when the battery appears to be fully charged, the operating time of the transceiver may become short when:

- Approximately five years have passed since the battery was manufactured.
- The battery has been repeatedly charged.

### ◇ 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 battery will activate, causing the battery to stop charging.

**⚠ WARNING! 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! DO NOT** charge or leave the battery in the battery charger beyond the specified time for charging. If the battery is not completely charged by the specified time, stop charging and remove the battery from the battery charger. Continuing to charge the battery beyond the specified time limit may cause a fire, overheating, or the battery may rupture.

**⚠ WARNING! NEVER** insert the transceiver (battery attached to the transceiver) 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 outside of the specified temperature range: BC-193 (+10°C to +40°C; +50°F to +104°F). Icom recommends charging the battery at +20°C (+68°F). The battery may heat up or rupture if charged out of the specified temperature range. Additionally, battery performance or battery life may be reduced.

The supplied battery pack, charger, and power adapter differ, or no supplied depending on the version. Prior to using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation.

## ■ Battery cautions

### ◇ For the BP-264 Ni-MH battery

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

**⚠ DANGER! NEVER** immerse the battery pack in water. If the battery pack becomes wet, be sure to wipe it dry **BEFORE** attaching it to the transceiver.

**CAUTION:** Always use the battery within the specified temperature range, -5°C to +60°C (+23°F to +140°F). Using the battery out of its specified temperature range will reduce the battery's performance and battery life.

**CAUTION:** Shorter battery life could occur if the battery is left completely discharged, or in an excessive temperature environment (above +55°C; +131°F) for an extended period of time. If the battery must be left unused for a long time, it must be detached from the transceiver after charging. Keep it safely in a cool dry place at the following temperature range:

-20°C to +45°C (-4°F to +113°F) (up to a month)  
-20°C to +35°C (-4°F to +95°F) (up to six months)  
-20°C to +25°C (-4°F to +77°F) (up to a year)

\* We recommend charging the battery pack every 6 months.

Clean the battery terminals to avoid rust or bad contact.

**Keep** battery terminals clean. It's a good idea to occasionally clean them.

If your Ni-MH battery pack seems to have no capacity, even after being charged, completely discharge it by leaving the power ON overnight. Then, fully charge the battery pack again. If the battery pack still does not retain a charge (or only very little charge), a new battery pack must be purchased.

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

• Recommended temperature range for charging: between +10°C and +40°C (+50°F to +104°F) (rapid charge: with BC-191) or between 0°C and +45°C (+32°F to +113°F) (regular charge: with BC-192)

• Use only the supplied charger or optional charger (BC-191 for rapid charging, BC-192 for regular charging). **NEVER** use other manufacturers' chargers.

The battery pack contains a rechargeable battery.

Charge the battery pack before first operating the transceiver, or when the battery pack becomes exhausted.

If you want to prolong the battery life, the following points should be observed:

- Avoid over charging. The charging time period should be less than 48 hours.
- Use the battery pack until it becomes almost completely exhausted, under normal conditions. We recommend battery charging just when transmitting becomes impossible.

### ◇ For the BP-265 Li-ion battery

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! DO NOT** hit or otherwise impact the battery. Do not use the battery if it has been severely impacted or dropped, or if the battery has been subjected to heavy pressure. Battery 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** use or leave battery pack in areas with temperatures above +60°C (+140°F). High temperature buildup in the battery, 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 to rupture or catch fire. Excessive temperatures may also degrade battery performance or shorten battery life.

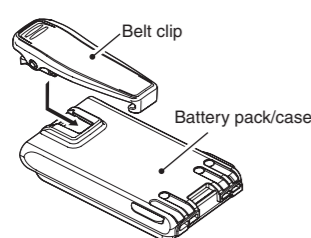
**⚠ DANGER! DO NOT** expose the battery to rain, snow, seawater, or any other liquids. Do not charge or use a wet battery. If the battery gets wet, be sure to wipe it dry before using.

**⚠ DANGER! KEEP** battery packs away from fire. Fire or heat may cause them to rupture or explode. Dispose of an used battery pack according to local ordinances and/or regulations.

## ■ Belt clip

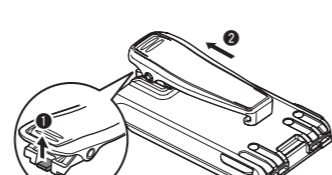
### To attach the belt clip:

Slide the belt clip in the direction of the arrow until the belt clip locks in place, and makes a 'click' sound.



### To detach the belt clip:

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

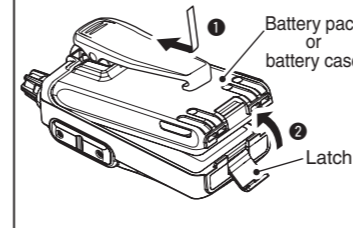


## ■ Battery pack or case

**NEVER** remove or attach the battery pack or case when the transceiver is wet or soiled. This may result in water or dust getting into the transceiver or the battery pack or case, and may result in them being damaged.

### To attach the battery pack or case:

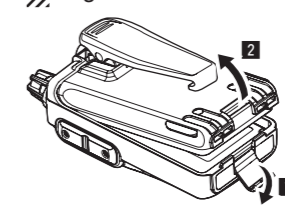
- 1 Fit the battery pack or case in the direction of the arrow (1), and then close it.
- 2 Hook the latch until it makes a 'click' sound (2).



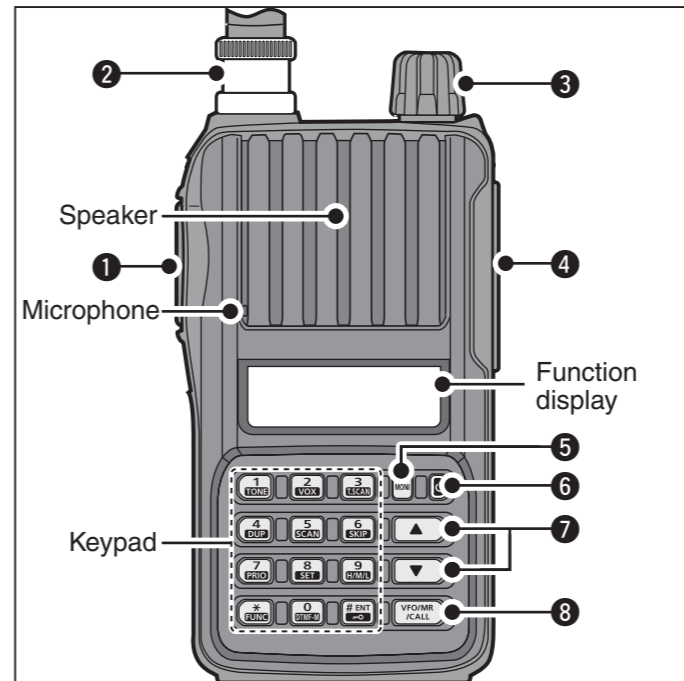
### To remove the battery pack or case:

**Be careful!** The latch is tightly locked, so use caution when releasing it. **DO NOT** use your fingernail. Use the edge of a coin or screwdriver tip to carefully release it.

- 1 Unhook the latch (1), and then lift up the battery pack or case in the direction of the arrow (2).



## ■ Panel description— Front panel



### 1 PTT SWITCH [PTT]

→ Hold down to transmit, release to receive.

### For IC-V80E only

→ Quickly push [PTT] once, then immediately hold down [PTT] again for 1 or 2 seconds, to transmit a 1750 Hz tone burst signal.

### 2 ANTENNA CONNECTOR

Connect an antenna here.

### 3 CONTROL DIAL [VOL]

→ Adjust the volume level.  
→ While in the Set mode, or Initial Set mode, rotate to select a desired item, option or value.

### 4 EXTERNAL SPEAKER/MICROPHONE JACKS [SP MIC]

Accepts an optional speaker-microphone, plug adapter cable or cloning cable connector. The internal microphone and speaker will not function when an option is connected.

→ Be sure to turn OFF the transceiver power, before connecting or disconnecting optional equipment to or from the [SP/MIC] jack.

### 5 MONITOR KEY [MONI]

→ Hold down to temporarily open the squelch to monitor the operating frequency.  
→ While holding down this key, push [▲] or [▼] to adjust the squelch level.

→ Enters or sends the DTMF code 'A.'

### 6 POWER KEY [⏻]

Hold down for 1 second to turn the power ON or OFF.

### 7 UP/DOWN KEYS [▲/▼]

→ Push to change the operating frequency.  
→ During memory mode, push to select a memory channel.  
→ While scanning, push to change the scanning direction.  
→ While holding down [MONI], push to adjust the squelch level.  
→ While in the Set mode, or Initial Set mode, push to select a setting item.  
→ [▲] enters or sends the DTMF code 'B'.  
→ [▼] enters or sends the DTMF code 'C'.

### 8 VFO/MEMORY/CALL KEY [VFO/MR/CALL]

→ Push to sequentially select the VFO mode, memory mode, a Call channel or a weather channel\*.

\*For only USA version.  
→ After pushing [FUNC](\*), push to enter the memory programming mode.

→ After pushing [FUNC](\*), hold down for 1 second to transfer a channel contents to a memory channel, or to the VFO mode.

→ Enters or sends the DTMF code 'D.'

### ◇ KEYPAD

- While in the VFO mode, push to enter numbers for frequency input.
- While in the memory mode, push to enter numbers to select a memory channel.
- Push to enter or send a DTMF code.
- To activate the second function of a key, first push [FUNC](\*), and then push the key.

1 [TONE] [1] → Numeric input and DTMF code: '1'  
→ After pushing [FUNC](\*), selects the Tone function.

2 [VOX] [2] → Numeric input and DTMF code: '2'  
→ After pushing [FUNC](\*), turns the VOX function ON or OFF\*.  
\* Only when an optional headset and plug adapter are connected.

3 [SCAN] [3] → Numeric input and DTMF code: '3'  
→ After pushing [FUNC](\*), starts a tone scan.

4 [DUP] [4] → Numeric input and DTMF code: '4'  
→ After pushing [FUNC](\*), selects minus duplex, plus duplex, or simplex operation.

5 [SKIP] [5] → Numeric input and DTMF code: '5'  
→ After pushing [FUNC](\*), starts a scan.

6 [SKIP] [6] → Numeric input and DTMF code: '6'  
→ After pushing [FUNC](\*), sets or cancels the skip setting.

7 [PRIO] [7] → Numeric input and DTMF code: '7'  
→ After pushing [FUNC](\*), starts a priority watch.

8 [SET] [8] → Numeric input and DTMF code: '8'  
→ After pushing [FUNC](\*), enters the Set mode.

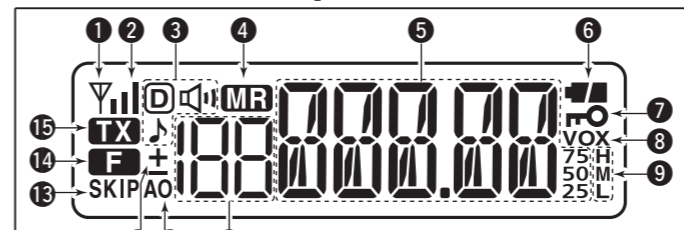
9 [H/M/L] [9] → Numeric input and DTMF code: '9'  
→ After pushing [FUNC](\*), selects the output power of high, mid or low.

0 [DTMF-M] [0] → Numeric input and DTMF code: '0'  
→ After pushing [FUNC](\*), enters the DTMF memory mode.

\* [FUNC] [F] → DTMF code: '\*' (indication: E)  
→ Push to access the second function of other keys.

# [ENT] [ENT] → DTMF code: '#' (indication: F)  
→ After entering a frequency, push to save it.  
→ Push to exit the Set mode or Initial Set mode.  
→ After pushing [FUNC](\*), hold down for 1 second to turn the Key Lock function ON or OFF.

## ■ Panel description— Function display



### 1 BUSY ICON

→ Appears when a signal is being received, or the squelch is open.  
→ Blinks while the monitor function is ON.

### 2 SIGNAL ICON

→ Shows the strength of the received signal.  
Weak ⇄ RX Signal level ⇄ Strong

→ While transmitting, shows the output power level.

### 3 TONE ICONS

Appear when the tone function is turned ON, and indicate which tone function is in use.

### 4 MEMORY ICON

→ Appears when the memory mode is selected.  
→ Blinks during a memory scan.

### 5 FREQUENCY READOUT

→ Displays the operating frequency, memory channel, Set modes contents and a variety of other information.  
→ The decimal point blinks during a scan.

→ While in the memory mode, the programmed memory name is displayed.

"J"	Repeater tone encoder
"B" and "J"	DTCS encoder (Only TX)
"d"	CTCSS squelch function
"B"	DTCS squelch function
"a" and "d"	CTCSS Pocket beep function
"a" and "B"	DTCS Pocket beep function

→ Appears when the memory mode is selected.  
→ Blinks during a memory scan.

### 6 BATTERY ICONS

→ "■" appears when the battery pack or case is attached.  
→ "■" appears when the battery is nearing exhaustion. Charging the battery pack, or replacing the batteries in the case is necessary.

### 7 KEY LOCK ICON

Appears when the Key Lock function is ON.

### 8 VOX ICON

Appears when the VOX function is ON.

### 9 POWER ICON

→ "H" appears when high power is selected.  
→ "M" appears when mid power is selected.  
→ "L" appears when low power is selected.

### 10 MEMORY CHANNEL NUMBER READOUT

→ Displays the selected memory channel number.  
→ "C" appears when the Call channel is selected.

### 11 AUTO POWER OFF ICON

Appears when the Auto Power OFF function is ON.

### 12 DUPLEX ICON

→ "+" appears when plus duplex is selected.  
→ "-" appears when minus duplex is selected.  
→ No icon is displayed when simplex is selected.

### 13 SKIP ICON

Appears when the selected memory channel is set as a skip channel.

### 14 FUNCTION ICON

Appears when a second function can be accessed.

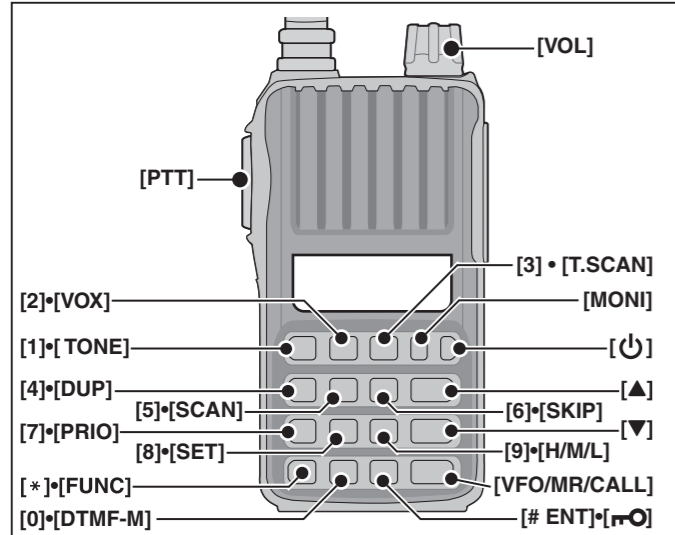
### 15 TRANSMIT ICON

Appears while transmitting.

## ■ 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.

## Basic operation



### Turning power ON/OFF

Hold down [⏻] for 1 second to turn the power ON or OFF.

### Mode selection

The transceiver has 2 basic operating modes; VFO mode and memory mode.

Push [VFO/MR/CALL] several times to sequentially select the VFO mode, memory mode, Call channel mode and weather channel mode.  
\*For only USA version.

### Setting a frequency

#### Using [▲] or [▼]

- If necessary, push [VFO/MR/CALL] several times to select the VFO mode.
- Push [▲] or [▼] to set a frequency.  
• The frequency changes according to the selected tuning step.

#### Using the keypad

- If necessary, push [VFO/MR/CALL] several times to select the VFO mode.
- To enter the desired frequency, enter 6 digits, starting from the 100 MHz digit.  
• Entering two or three to five digits, and then pushing [# ENT], also sets the frequency. (\*Depending on the transceiver version)  
• If the entered frequency is outside of the frequency range, the previously displayed frequency is automatically recalled.

### Tuning step selection

The transceiver has 8 tuning step options;  
• 5 kHz • 10 kHz • 12.5 kHz • 15 kHz  
• 20 kHz • 25 kHz • 30 kHz • 50 kHz

The tuning step can be selected in the Set mode.

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Push [▲] or [▼] to select the tuning step item (TS).
- Rotate [VOL] to select the desired tuning step.
- Push [# ENT] to exit the Set mode.

### Key Lock function

Use the Key Lock function to prevent accidental frequency or channel change and unnecessary function access.

- Push [FUNC](\*) , and then hold down [r-O] [# ENT] for 1 second to turn the Key Lock function ON or OFF.
- [r-O] appears while the Key Lock function is ON.
- [⏻], [VOL], [MONI], [PTT] and [FUNC](\*) + [r-O] [# ENT] are still operable while the Key Lock function is ON.

### Monitor function

This function is used to listen to weak signals, or to manually open the squelch. You can use it without disturbing the squelch setting, even when mute functions such as the tone squelch are in use.

- Hold down [MONI] to open the squelch.
- Release [MONI] to cancel the function.

### Adjusting the squelch level

- While holding down [MONI], push [▲] or [▼] several times to adjust the squelch level.
- "Squel 1" is loose squelch (for weak signals) and "Squel 10" is tight squelch (for strong signals). "Squel 0" is open squelch.

### Selecting output power

Set the output power level 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.

- Push [FUNC](\*) , and then push [H/M/L](9) several times to select the output power.
- "H", "M", or "L" appears, depending on the selected output power.

## Memory channels

### Memory channel programming

- Push [VFO/MR/CALL] several times to select the VFO mode.
- Set the desired frequency.  
• If desired, set other data (e.g. frequency offset, duplex direction, tone squelch, and so on).
- Push [FUNC](\*) , and then push [VFO/MR/CALL].  
• "MCH" and the memory channel number blink.  
• Select the Call channel mode to program the Call channel.
- Push [▲] or [▼] to select the memory channel to be programmed.  
• Select "1A/1B" to "3A/3B" to program a scan edge channel.
- Push [FUNC](\*) , and then hold down [VFO/MR/CALL] for 1 second to program.  
• 3 beeps sound.  
• If you continue to hold down [VFO/MR/CALL] for 1 second after programming, the memory channel number automatically increases.

**NOTE:** To cancel programming, push [VFO/MR/CALL] before doing step 5.

### Selecting a memory channel

- Using [▲] or [▼]  
• Push [VFO/MR/CALL] several times to select the memory mode.  
• "MCH" appears.
- Push [▲] or [▼] to select the desired channel.  
• Only programmed channels are displayed.

### Using the keypad

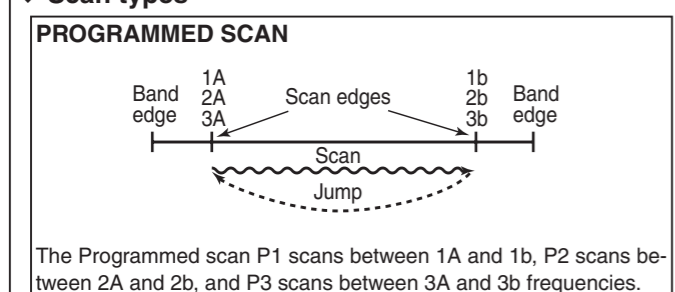
- Push [VFO/MR/CALL] several times to select the memory mode.  
• "MCH" appears.
- To select the desired channel, enter the 3 digits of the channel number using the keypad.  
• Blank channels are also selectable.  
• Entering one or two digits, and then pushing [# ENT] also selects a 1 or 2 digit memory channel, respectively.

### Selecting the Call channel

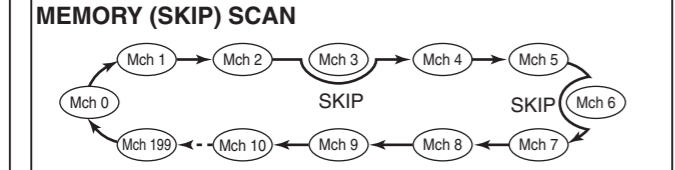
- Push [VFO/MR/CALL] several times to select the Call channel.  
• "C" appears instead of the memory channel number.

## Scan operation

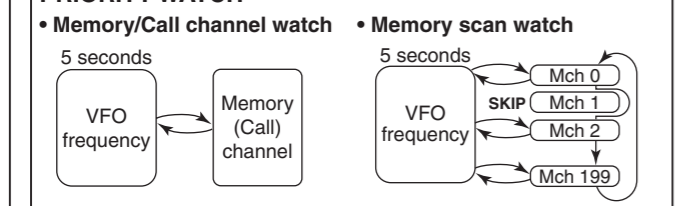
### Scan types



The Programmed scan P1 scans between 1A and 1b, P2 scans between 2A and 2b, and P3 scans between 3A and 3b frequencies.



### Priority Watch



### Programmed scan

Repeatedly scans between two programmed frequencies (memory channels "xA" and "xb"). Used to check for frequencies within a specified range, such as repeater output frequencies, and so on. 3 pairs of scan edges are programmable.

**NOTE:** Scan edge channels, 1A/b, 2A,b and 3A/b must be programmed in advance. Program them in the same manner as regular memory channels.  
If identical frequencies are programmed into the scan edge channels, the programmed scan will not function.

- Push [VFO/MR/CALL] several times to select the VFO mode.
- Push [FUNC](\*) , and then push [SCAN](5) to start the scan.
- During the scan, push [FUNC](\*) , and then push [SET](8) several times to select either the "P1", "P2", "P3" or "AL" scan.  
• "AL" for band edge to band edge scan.  
• "P1", "P2" and "P3" for programmed scan between the programmed scan edge channels.  
• To change the scan direction, push [▲] or [▼].
- To cancel the scan, push any key except [⏻], [▲]/[▼], [MONI] or [FUNC](\*) .

### Memory Scan

Repeatedly scans memory channels, except those set as skip channels, described in the next scan topic.

- Push [VFO/MR/CALL] several times to select the memory mode.  
• "MCH" appears.
- Push [FUNC](\*) , and then push [SCAN](5) to start the scan.  
• To change the scan direction, push [▲] or [▼].
- To cancel the scan, push any key except [⏻], [▲]/[▼], [MONI] or [FUNC](\*) .

### Setting skip channels

The memory skip function speeds up scanning by not scanning those memory channels set as skip channels. Set skip channels as follows.

- Push [VFO/MR/CALL] several times to select the memory mode.
- Push [▲] or [▼] to select the memory channel to be skipped.
- Push [FUNC](\*) , and then push [SKIP](6) to set the channel as skip channel.  
• "SKIP" appears.

### Scan resume setting

Various pause and timer options can be selected with the Scan Resume function. The selected resume option is also used for Priority Watch, described below.

### Priority watch

#### Memory or Call channel watch

While operating on a VFO frequency, Priority Watch checks for a signal on the selected memory or Call channel every 5 seconds.

- Select the VFO mode, and then set the operating frequency.
- Push [VFO/MR/CALL] several times to select the memory mode or Call channel mode.
- Push [FUNC](\*) , and then push [PRIO](7) to start the watch.  
• The decimal point ".", on the frequency readout blinks.  
• When a signal is received on the channel, the watch resumes according to the selected scan resume option.
- To cancel the watch, push any key except [⏻], [▲]/[▼], [MONI], [FUNC](\*) , or [PTT].

### Memory scan watch

While operating on a VFO frequency, Priority Watch sequentially checks for signals on each memory (except Skip) channel.

- Select the VFO mode, and then set the operating frequency.
- Push [VFO/MR/CALL] several times to select the memory mode.
- Push [FUNC](\*) , and then push [SCAN](5) to start the memory scan.
- Push [FUNC](\*) , and then push [PRIO](7) to start the watch.  
• The VFO mode is selected, and the decimal point ".", on the frequency readout blinks.  
• When a signal is received on a channel, the watch resumes according to the selected scan resume option.
- To cancel the watch, push any key except [⏻], [▲]/[▼], [MONI], [FUNC](\*) , or [PTT].

## Partial reset

If you want to reset the VFO frequency, VFO settings and Set mode items to their default values, without clearing the memory contents, you can do a partial reset of the transceiver's CPU.

- Hold down [⏻] for 1 second to turn OFF the power.
- While holding down [VFO/MR/CALL], hold down [⏻] for 1 second to turn ON the power.  
• The CPU will partially reset.

## Repeater operation

### Accessing a repeater

- Set the receive frequency (the repeater output frequency).  
• For only USA version:  
When the Auto Repeater function is ON, step 2 and 3 are not necessary.  
② Push [FUNC](\*) , and then push [DUP](4) several times to select minus duplex or plus duplex. ("-" or "+")  
③ Push [FUNC](\*) , and then push [TONE](1) several times to turn ON the subaudible tone encoder, depending on the repeater requirements.  
• "J" appears.  
• The subaudible tone frequency can be set in the Set mode.  
④ Hold down [PTT] to transmit.  
• The displayed frequency automatically changes to the transmit frequency (repeater input frequency).  
• If "OFF" appears, confirm that the frequency offset is correctly set.
- Release [PTT] to receive.
- Hold down [MONI] to check whether you can directly receive the signal from the other station.  
• When the other station's signal can be directly received, move to a non-repeater frequency to use simplex. (duplex OFF)

### For only USA version:

Auto repeater function uses standard repeater tone frequencies and frequency offsets.

### Duplex operation

#### Setting the frequency offset

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Push [▲] or [▼] to select the frequency offset item.  
• "+" and decimal point "." blink, and the current frequency offset appears.
- Rotate [VOL] to set the desired frequency offset.  
• The offset is set in the same step as the frequency tuning step.  
• The unit of the frequency offset is "MHz."
- Push [# ENT] to exit the Set mode.

#### Setting the duplex direction

- Push [FUNC](\*) , and then push [DUP](4) to select the off-set direction.  
• The "-" (negative offset) or "+" (positive offset) icon appears to represent the frequency offset direction.  
• "-" or "+" blinks when the Reverse Duplex function is ON.

### For only USA version:

The Auto Repeater function has priority over the manual duplex setting. If the transmit frequency changes after setting, the Auto Repeater function may have changed the duplex setting. Turn the Auto Repeater function OFF to prevent this.

### Reverse Duplex function

When the reverse duplex function is ON, the receive and transmit frequencies are reversed.

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Push [▲] or [▼] to select the Reverse Duplex function item (REV).
- Rotate [VOL] to turn the function ON or OFF.
- Push [# ENT] to exit the Set mode.  
• "-" or "+" blinks when the Reverse Duplex function is ON.

### Subaudible tones

Some repeaters require subaudible tones to access. Subaudible tones are superimposed over your normal signal, and must be set in advance.

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Push [▲] or [▼] to select the repeater tone item. (rt)
- Rotate [VOL] to select the desired subaudible tone frequency.
- Push [# ENT] to exit the Set mode.

### DTCS encoder (Only TX)

The DTCS encoder superimposes the selected DTCS code over your transmitted signal.

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Set the DTCS code and polarity, in the same way you set the DTCS squelch.  
• You can set the DTCS transmit and receive polarity, but the DTCS encoder affects only transmit.
- Push [# ENT] to exit the Set mode.
- Push [FUNC](\*) , and then push [TONE](1) several times, until both "S" and "J" appear.  
• The DTCS encoder activated.

### Tone setting

#### DTMF TONES

While holding down [PTT], push the desired DTMF keys, [0] to [9], [MONI](A), [▲](B), [▼](C), [VFO/MR/CALL](D), [\*] (E), and [# ENT](F), to transmit their assigned DTMF codes.

#### 1750 Hz TONE

To access some European repeaters, the transceiver must transmit a 1750 Hz tone burst.

#### For IC-V80E only

Quickly push [PTT] once, then immediately hold down [PTT] again for 1 or 2 seconds.

#### For other transceivers

While holding down [PTT], hold down either the [▲] or [▼] for 1 or 2 seconds.

## Set mode programming

### Set mode operation

- Push [FUNC](\*) , and then push [SET](8) to enter the Set mode.
- Push [▲] or [▼] to select a desired item.
- Rotate [VOL] to select an option or value.
- Push [# ENT] to exit the Set mode.

#### Set mode items

- Repeater tone frequency  
Select the subaudible tone needed to access the repeater.
- Tone squelch frequency  
Select the CTCSS tone frequency for tone squelch.
- DTCS code  
Set the DTCS code for DTCS squelch and DTCS encoder.
- DTCS polarity  
Set the Transmit and Receive DTCS polarity.
- Frequency offset  
Set the duplex frequency offset.
- Reverse duplex function  
Turn the Reverse Duplex function ON or OFF.
- Tuning step  
Select the VFO tuning step.
- Scan resume setting  
Select the scan pause and resume setting.
- Function key timer  
Set the time between when the Function mode is entered, and how long it remains activated after you push the keypad key to activate its second function.
- LCD backlight  
Select the LCD Backlight function.
- TX permission  
Turns the TX Inhibit function ON or OFF.
- Weather alert (For only USA version)  
Turn the Weather Alert function ON or OFF.
- VOX gain  
Set the VOX gain.  
To turn OFF the VOX function, select "VOX.OF"
- MIC gain  
Set the microphone sensitivity.
- VOX delay  
Set the VOX Delay.
- VOX time-out timer  
Set the VOX time-out timer.  
To turn OFF the function, select "Vto.OF"
- DTMF TX key  
Select the method to transmit a DTMF code sequence.
- Operating mode  
Set the operating mode to FM or FM-N.

**NOTE:** When the display type setting is set to "CH" in the Initial Set mode, and accessing the Set mode from the memory mode, most of the Set mode items do not appear.

## Initial Set mode programming

The initial Set mode is accessed at power ON, and allows you to set seldom-changed settings. In this way, you can "customize" the transceiver to suit your preference and operating style.

### Initial Set mode operation

- While holding down [▲] and [▼], hold down [⏻] for 1 second to enter the Initial Set mode.
- Push [▲] or [▼] to select a desired item.
- Rotate [VOL] to select an option or value.
- Push [# ENT] to exit the initial Set mode.

#### Initial Set mode items

- Key-touch beep  
Turns the key-touch beep ON (Set the beep level 1 to 3) or OFF.
- Time-out timer  
Inhibit continuous transmissions longer than the selected time period.
- Auto repeater (For only USA version)  
Turns the Auto Repeater function ON or OFF.
- Auto power OFF  
Automatically turns OFF the transceiver's power.
- Lockout  
Turn the Lockout function ON or OFF.
- Squelch delay  
Set the squelch delay to Short or Long.
- DTMF speed  
Set the DTMF sending rate.
- Dial assignment  
Select whether or not to use [VOL] as the tuning control instead of [▲] and [▼].
- Display type  
Select the display type for memory mode operation.
- LCD contrast  
Select the LCD contrast.
- Power save  
Select the ratio of the power save time to the standby time.
- Select speed  
Selects whether or not to accelerate the step speed when rotating [VOL] rapidly.
- Microphone simple mode  
Select the Microphone mode.
- Battery protection function  
Select the protection option according to your battery type.
- Auto low power  
Turns the Auto Low Power function ON or OFF.
- Squelch burst (For only IC-U80/IC-U80E)  
Turns the Squelch Burst function ON or OFF.