


## Performing Communication

### •Turning off the Transceiver



To turn off the transceiver, press and hold  over 1 second.

### Adjusting the Volume Level


You can adjust the transceiver volume level for the A-band and B-band separately.


1 Press  to select the A-band or B-band for which you want to adjust the volume level.

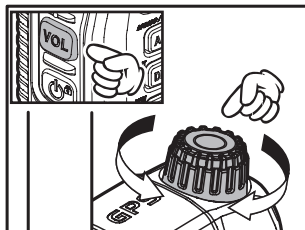
Pressing  each time toggles between the A-band and B-band.

2 While pressing , turn  to adjust the volume level.



The volume bar graph moves up/down.

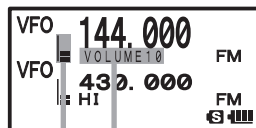
**Supplement** If no sound is heard from the speaker, press  and then adjust the volume level while listening to white noise.

3 Release  to exit from the Volume Level Adjustment mode.



#### Tips

- Pressing  starts MUTE (silencing the audio) function, muting entire sound.
- Pressing  while the audio is being muted cancels the MUTE function.



Sound Volume Bar Graph

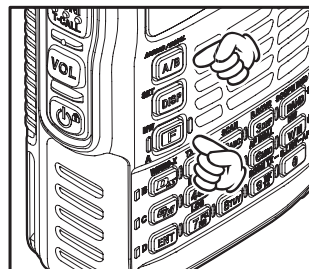
A "SP VOLUME" level among 0 trough 31 appears.

## Performing Communication

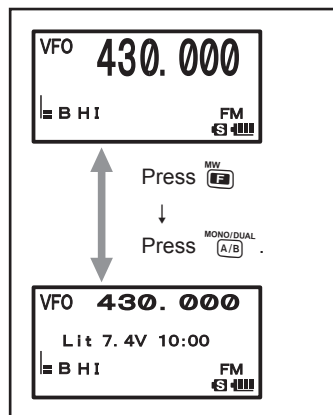
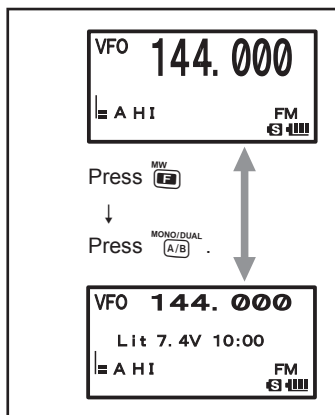
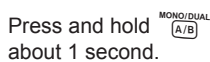
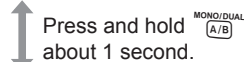
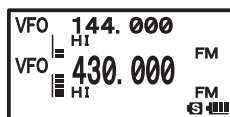
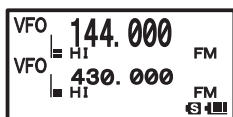
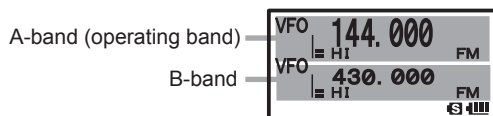
### Selecting an Operating Band

The frequency displayed on the LCD in large letters is the operating band.

You can change the frequency of the operating band and activate the transmitter.



Each time <sup>MONO/DUAL</sup> (A/B) is pressed, the operating content displayed on the LCD screen is changed.



## Performing Communication

### Tip

- On A-band, you can transmit and receive using the 144 MHz and 430 MHz Amateur radio bands.
  - On B-band, you can transmit and receive using the 144 MHz and 430 MHz Amateur radio bands.
- In addition, the frequencies on the chart below can be received on A-band and B-band.  
 Chart of A-band and B-band reception frequencies

**A-band and B-band reception frequencies**

A-band	B-band
0.5 MHz to 1.8 MHz (AM BC Band)	--
76 (88) MHz to 108 MHz (FM BC Band)	--
1.8 MHz to 30 MHz (SW band)	--
30 MHz to 76 (88) MHz (50 MHz band)	--
108 MHz to 137 MHz (AIR band)	108 MHz to 137 MHz (AIR band)
137 MHz to 174 MHz (144 MHz band)	137 MHz to 174 MHz (144 MHz band)
174 MHz to 222 MHz (VHF-TV Band)	174 MHz to 222 MHz (VHF-TV Band)
222 MHz to 420 MHz (INFO band (1))	222 MHz to 420 MHz (INFO band (1))
420 MHz to 470 MHz (430 MHz band)	420 MHz to 470 MHz (430 MHz band)
470 MHz to 774 (800) MHz (UHF-TV Band)	470 MHz to 580 MHz
803 (800) MHz to 999.9 MHz Cellular Blocked USA version	--

( ): EXP/European version

- A-band and B-band can be received at the same time.  
 You can receive Amateur radio frequency while listening to the AIR band, or receive two Amateur radio frequencies on the same frequency band at the same time (V+V/U+U: Dual frequency reception on the same band).

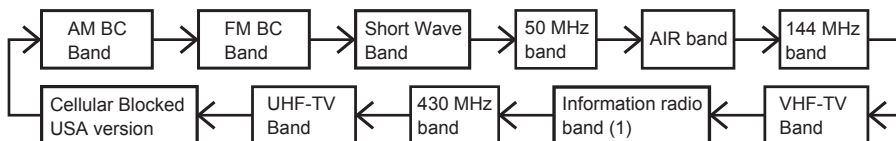
## Performing Communication

### Selecting a Frequency Band

You can select a frequency band to use for the A-band and B-band separately.

#### •Setting a Frequency Band for the A-band

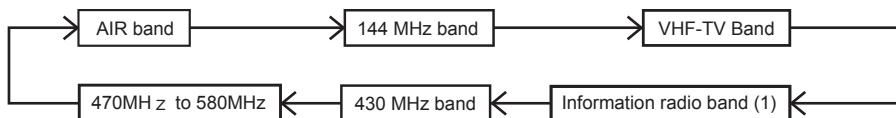
- 1 Press  $\overline{\text{MONO/DUAL}}$   $\overline{\text{(A/B)}}$  to select the A-band.
- 2 Press  $\overline{\text{SCOPE BAND DN}}$   $\overline{\text{(BAND)}}$  repeatedly to select a frequency band.



**Tip** Pressing  $\overline{\text{MW}}$   $\overline{\text{(M)}}$  and then  $\overline{\text{SCOPE BAND DN}}$   $\overline{\text{(BAND)}}$  changes frequency bands shown above in the reverse order.

#### •Selecting a Frequency Band for B-band

- 1 Press  $\overline{\text{MONO/DUAL}}$   $\overline{\text{(A/B)}}$  to select the B-band.
- 2 Press  $\overline{\text{SCOPE BAND DN}}$   $\overline{\text{(BAND)}}$  to select a frequency band.



**Tip** Pressing  $\overline{\text{MW}}$   $\overline{\text{(M)}}$  and then  $\overline{\text{SCOPE BAND DN}}$   $\overline{\text{(BAND)}}$  changes frequency bands shown above in the reverse order.

#### Caution

- Digital communication can be performed only on the A-band.  
 Digital communication cannot be performed on the B-band.


#### Tips

- The frequency settings from the factory are:  
 A-band: 144.000 MHz      B-band: 430.000MHz
- The factory setting of the Auto mode is set such that the transceiver is automatically switched to the optimal reception mode for the default frequency bands.  
 To change the default reception mode, press and hold  $\overline{\text{SET}}$   $\overline{\text{(DISP)}}$  for over 1 second and then select [2 TX/RX] → [1 MODE] → [4RX MODE] (See page 38).
- For the relationship between frequency bands and reception frequencies, see the table on page 28.
- You can also recall the home channel of each frequency band by pressing  $\overline{\text{MW}}$   $\overline{\text{(M)}}$  and then  $\overline{\text{HOME}}$   $\overline{\text{(4ch)}}$  (See page 45).




## Performing Communication


### Tuning in to a Frequency

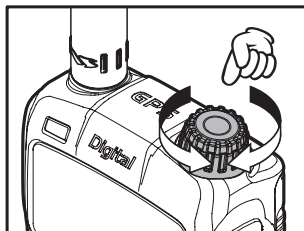
Tune in to your desired frequency using either of the following methods:

- (1) Turn  to tune in to your desired frequency.
- (2) Enter your desired frequency directly using the numeric keys.


#### •Tuning in to your desired frequency with .


- 1 Switch to the VFO mode.
- 2 Turn  to tune in to your desired frequency.  
 Turning  clockwise: The frequency increases.  
 Turning  counterclockwise: The frequency decreases.






**Tip** You can tune to the desired frequency in steps of 1 MHz by pressing  and turning .




#### •Entering a Desired Frequency Directly Using Numeric Keys

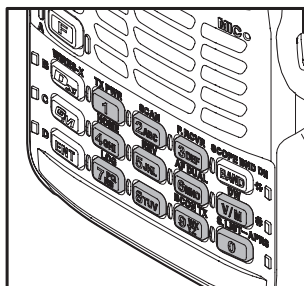
- 1 Press  to enter the VFO mode, in which you can tune to the desired frequency.
- 2 Enter the desired frequency using numeric keys.

Example: To enter 145.520 MHz, Press the  the following keys in sequence:

 1 →  4GH →  5JKL →  5JKL →  2ABC






Example: To enter 430.000 MHz, Press the  the following keys in sequence:

 4GH →  3DEF → 



Basic Operation


#### Tips

- In factory settings, the Auto Step mode is set such that the transceiver is automatically switched to the optimal frequency steps for the reception frequency.  
 You can change frequency steps manually using  (See page 37).
- If you enter a wrong digit when entering a frequency using numeric keys, you can cancel it by pressing .
- In factory settings, turning  beyond the selected frequency band does not change the selected frequency band to another frequency band and displays the selected frequency band repeatedly on the LCD.  
 To prevent it, press and hold  for over 1 second to switch to the Set mode, select [8 CONFIG] → [21 VFO MODE] and change the [21 VFO MODE] to "ALL". Thereby, you can change the frequency band to another frequency band by turning  beyond the selected frequency band.

### Selecting Communication Mode






This transceiver can operate in both analog and digital communication modes.

## Performing Communication

Pressing  repeatedly switches the communication mode as follows.

[Analog (FM)] → [Auto (FM)] → [Digital (DN)] → [Digital Wide (VW)]

FM: Analog Analog communication using FM mode.

  Auto Automatically switches between Analog AM (AM), Analog FM (FM), and Digital (DN).

DN: Digital Digital communication using (C4FM (Quaternary FSK) modulation

VW: Wide Digital High sound quality of Digital Communication

### Caution

- Digital communication can be performed only on the A-band.

## Performing Communication

1 Speak into the microphone while pressing .

When speaking into the microphone, keep it about 5 cm away from your mouth.






2 Release .

The transceiver returns to the Reception mode.

### Cautions

- Use the transceiver at the minimum required transmission power level.
- Doing so prevents the transceiver from overheating and saves battery power, increasing the operating time.
- Do not continue transmitting for a prolonged period. The transceiver can overheat, resulting in malfunction or burn.
- If transmission is continued for a long period, the transceiver overheats and the overheat protection function is activated. As a result, the transmitting power level is automatically set to Low Power. If you continue transmitting while the overheat protection function is active, the transceiver will be forcibly returned to the Reception mode.
- If you touch the transceiver immediately after the overheat protection function has become active, you can get burned. Wait for the temperature inside the transceiver to drop sufficiently before resuming transmission.
- Do not perform transmission without attaching the antenna. The transmitter circuit can be damaged.

### Tips

- In the FM mode, you can transmit on the 144 MHz and 430 MHz ham radio bands.
- Even while you are receiving in the AM mode, you can transmit in the FM mode by pressing .
- You can change the transmit power level by pressing  and then .  
Transmit power level may be lower when using the battery pack or the alkaline battery case. For more details, see “Changing the Transmission Power Level” on page 36.
- If  is pressed when a frequency other than the amateur ham radio band is selected, an alarm tone (beep) will be emitted and “ERROR” appears on the LCD, disabling transmission.
- Pressing and holding  for over 1 second, and changing the Set Mode option [8 CONFIG] will allow you to use the transceiver more conveniently.
- Selecting [8 CONFIG] → [2 BCL0] prohibits transmission during reception of a signal.

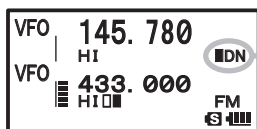
## Performing Communication

### Selecting Communication Mode



This transceiver is equipped with AMS (Automatic Mode Select) which automatically selects between 4 modes of transmission to fit the signal being received. Because the transmission is automatically adjusted to that of the other station, not only C4FM digital signals, but analog signals are also recognized.

Press  to display [■DN\*] on the LCD.

\* (The display depends on the received signal.)



Example of when AMS is displayed.

To fix the transmission mode for operation, switch the transmission mode with . Pressing  toggles between communication modes in the order listed below.

[■DN (AMS)] → [DN (V/D mode)] → [VW (FR mode)] → [FM (analog)]


Operation mode	Display	Description of Modes
AMS (Automatic Mode Select)	■○○	Transmission mode is automatically selected from 4 types according to the signal received. (“○○” part differs depending on the received signal.) The AMS feature settings may be changed via Set Mode ( p.112).
V/D Mode (Voice/Data simultaneous transmission mode)	DN	Call is less prone to interruption due to detection and correction of voice signals during digital voice signal transmission. This is the standard mode for C4FM FDMA Digital
Voice FR Mode (Voice Full Rate Mode)	VW	Digital voice data transmission using the entire 12.5kHz band. Enables high-quality voice communication.
Data FR Mode (High Speed Data Communication Mode)		High speed data communication using entire 12.5kHz band. This mode is automatically selected for image communication.
Analog FM Mode	FM	Analog communication using FM mode. Effective when the signal is weak and audio is susceptible to interruption in digital mode.




### Cautions

- Digital communication can be performed only on the A-band.
- Digital communication cannot be performed on the B-band.
- In V/D mode (“DN” on the LCD), position information is included in the radio wave during voice communication, however, it is not include in the Voice FR mode (“VW” on the LCD).



# Listening to the Radio

## Listening to the AM/FM Radio

AM broadcast stations can be easily received using “Preset Memory Receiver” (See page 52), where many major broadcast stations are already saved to this transceiver, or the stations can be directly tuned in by inputting the frequency of the desired broadcast station with the  and key pad.

- 1 Press .  
Set A band as the operating band.
- 2 Press .  
Select either the “AM broadcast” or “FM broadcast” bands. The “**RM**” icon will appear on the display while in the Broadcast Reception mode.
- 3 Adjust the frequency by turning  or using the key pad (See page 30).









### Tip

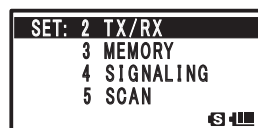
- Broadcast stations that are frequently listened to can be saved to memory (See page 43).
- If you would like to scan a radio band, set A band as the operating band and press , then .
- If a signal is detected during the scan, a beep will sound; the transceiver will receive the signal for 5 seconds then resume scanning.
- The decimal point will flash when the scan is stopped.

## Switching between AM Antennas

When listening to AM broadcast stations, the Bar and external antennas may be switched for best reception according to conditions. During normal use, you may not need to switch between AM antennas.

### Enter the Set mode:

- 1 Press and hold  for over 1 second.
- 2 Turn  to select [2 TX/RX].
- 3 Press .
- 4 Turn  to select [1 MODE].
- 5 Press .
- 6 Turn  to select [1 ANTENNA AM].
- 7 Press .
- 8 Turn  to switch to the desired antenna.



Display	Operation
BAR & EXT ANTENNA	AM broadcasts can be received using both the whip antenna provided at the top of the transceiver and the built-in bar antenna.
BAR ANTENNA	When receiving AM broadcasts, the transceiver uses only the built-in bar antenna. Rotate the transceiver to adjust the AM broadcast (middle wave band) for the best receiving sensitivity.

- 9 Press  to exit from the Set mode.










## Miscellaneous Settings

### Setting clock time

This transceiver is equipped with an internal clock. The clock is used to display the time, and also to turn the transceiver on or off at a specified time (timer function). Set the clock before using the transceiver for the first time.

#### Enter the Set mode:

- 1 Press and hold  for over 1 second.
- 2 Turn  to select [8 CONFIG].
- 3 Press .
- 4 Turn  to select [19 DATE & TIME ADJ].
- 5 Press .
- 6 Turn  to set [YEAR].
- 7 Press .




2013.01.01

2013.06.01

2013.06.17


00:37 -- SET

The cursor moves to [MONTH].

- 8 Turn  to set [MONTH].

- 9 Repeat steps 5 and 6.

Set [DAY], [HOUR], and [MINUTE]

Pressing  moves the cursor to the setting item shown on the left.

**Remark** The hour appears in the 24-hour clock format.

**Tip** If GPS information is received, the clock will be set automatically.

Next, set the time signal alarm.

If you do not want to set the time signal alarm, proceed to step 3 described in “Setting the Time Signal”.

### Setting the Time Signal

Set the time signal so that a tone is emitted at 00 minute of each hour.

- 1 Press .

00:37 -- SET

The cursor moves to [--].

- 2 Turn  to select “SIG”.

00:37 SIG SET


If you select [TIME SIGNAL] you will hear a time signal tone (beep) at 00 minute of each hour.

If you do not want to hear the time signal tone, leave “--” as it is.

- 3 Press .

01:16 SIG SET

The cursor moves to [SET].

- 4 Press  to save the [TIME SIGNAL] setting.

- 5 Press  to exit from the Set mode.

**Remark** When “MONOBAND RECEPTION” is selected, the current time appears on the LCD.









## Miscellaneous Settings

### Tips

- The accuracy of the clock is 30 seconds/month. However, it may vary depending on the environment conditions, such as the temperature.
- The transceiver is equipped with a dedicated rechargeable lithium battery for the clock. Normally, the transceiver is powered from the battery pack. When the battery pack is detached or runs out, the lithium battery starts operating automatically. The lithium battery can power the clock for approximately 2 months.
- When you use the transceiver for the first time or without the battery pack for a long period of time, the accuracy of the clock may be poor. In such case, reattach the battery pack and adjust the time.
- When the transceiver is operating in “Mono” band, the current time appears on the LCD. However, when display of double-size characters or dual display is selected, the current time does not appear on the LCD.
- The calendar can display dates from January 1, 2000 A.D. up to December 31, 2099 A.D.
- If AUTO is selected in [9 APRS] → [21 GPS TIME SET] in the Set mode, the clock will automatically display accurate time. However, the day of the week is not set automatically. Set the day of the week manually.
- If you use the timer function, the transceiver will be turned off automatically (See page 132). In addition, you can set the transceiver to turn on at the specified time (See page 132).

## Muting Audio

If it is difficult to hear the voice because the audio of A-band and the B-band are mixed during dual reception, you can mute the audio of the non-operating band.

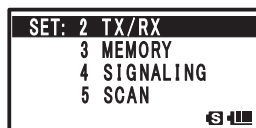
- 1 Press and hold  for over 1 second to select the Set mode.
- 2 Turn  to select [2 TX/RX].
- 3 Press .
- 4 Turn  to select [3 AUDIO].
- 5 Press .
- 6 Turn  to select [2 MUTE].
- 7 Press .
- 8 Turn  to select a mute level.

**Remark** You can select one of the following 4 levels of mute:

- MUTE 30%
- MUTE 50%
- MUTE 100%
- OFF



The higher the value for MUTE, the more the non-operating band audio is reduced.

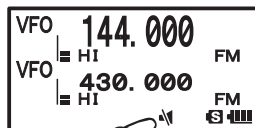
To deactivate the muting function, select OFF.



## Miscellaneous Settings

9 Press  to exit from the Set mode.

**Remark** When the muting function is active,  appears on the LCD.  
 When the muting function is active,  blinks on the LCD.




### Tips

- Even if the muting function is activated, the voice is not muted when no signal is received on the operating band.
- Pressing **[VOL]** while in frequency display screen, zooms in on [MUTE] and both A and B bands can be muted simultaneously.  
 Pressing **[VOL]** again will deactivate MUTE.


## Changing the Transmission Power Level

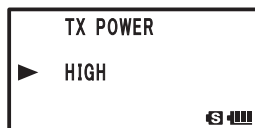
The maximum transmission power level of this transceiver is 5W. When communicating with a friend in the immediate area or when you want to reduce the battery power consumption, you can lower the transmit power level. For power supply types and transmit power levels, see the table shown below.

1 Press  and then .

2 Turn  to select the transmit power level.

Select [LOW1], [LOW2], [LOW3], or [HIGH] by turning .

3 Press  to save the selected transmit power level.



Battery type	HI (High Power)	L3	L2	L1
Battery pack	5 W	2.5 W	1 W	0.1 W
External power supply (13.8 VDC)				
Battery Case (alkaline battery)			Approx. 0.8 W	0.1 W

### Tips

- You can set the transmitter power level separately for the A-band and B-band.
- Use the transceiver at the minimum required transmit power level to reduce battery power consumption.
- By default, "HI (High power)" is selected.

## Miscellaneous Settings

### Adjusting the Squelch Level

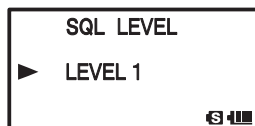
You can mute the raspy noise heard when no signal is being received. The squelch level can be adjusted separately for two broadcasts (FM and AM) received on the A-band and B-band. When the squelch level is increased, the noise is more liable to disappear but, if it is set too high, it becomes difficult to receive weak signals. Adjust the squelch level as required.

- 1 Press to select the desired operating band.
- 2 On the FT1XDR, press and then .  
 On the FT1XDE, press and hold over 1 second to enter the Set mode, and then select [4 SIGNALING] → [8 SQL LEVEL].

- 3 Turn to adjust the squelch level.

**Remark** The squelch level can be adjusted within the range from 0 to 15.  
 Default: LEVEL 1

- 4 Press to save the Squelch Level Adjustment and exit the Squelch Level Adjustment mode.



#### Tips

While is held pressed, the squelch function will be deactivated for both the A-band and B-band.

### Changing the Frequency Step Manually

By default, “AUTO (Step)” is selected so that the optimum frequency step is automatically selected according to the received frequency. You can change this frequency step manually.

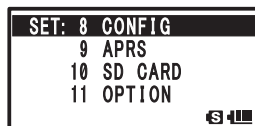
- 1 Press and hold over 1 second.  
 Enters the Set mode.
- 2 Turn to select [8 CONFIG].
- 3 Press .
- 4 Turn to select [18 STEP].
- 5 Press .
- 6 Turn to select your desired frequency step.

**Remark** Selectable frequency steps are as follows:

• AUTO	• 5 KHz	• 6.25 KHz
• (8.33 KHz)	• 10 KHz	• 12.5 KHz
• 15 KHz	• 20 KHz	• 25 KHz
• 50 KHz	• 100KHz	

It is recommended that AUTO be selected normally.  
 Default: AUTO

- 7 Press to save the frequency step, and exit the Frequency Step Setting mode.



## Miscellaneous Settings









### Tips

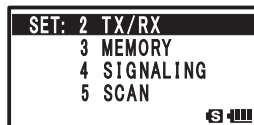
- For the AIR band (108 MHz to 136.991 MHz), the frequency step “8.33 kHz” can be selected.
- For bands covering 250MHz to 300MHz, and bands covering 580 MHz or higher, the frequencies, frequency steps “5 kHz”, “6.25 kHz”, and “15 kHz” cannot be selected.

## Changing the Mode Manually

By default, the reception (RX) is set to “AUTO (Auto Mode)” so that the optimal reception mode (radio wave type) is automatically selected according to the receiving band (frequency band). You can change this mode manually.

### Enters the Set mode:

- 1 Press and hold  for over 1 second.
- 2 Turn  to select [2 TX/RX].
- 3 Press .
- 4 Turn  to select [1 MODE].
- 5 Press .
- 6 Turn  to select [4 RX MODE].
- 7 Press .
- 8 Turn  to select your desired reception mode.



It is recommended that AUTO be selected normally.

Display	Operation
AUTO	The optimal reception mode is automatically selected according to the frequency band.
FM	Only the selected band is switched to the NFM (FM mode).
AM	Only the selected band is switched to the AM mode.

- 9 Press  to exit the Set mode.

### Tip






- Even if the AM mode is selected on a ham radio band, 144 MHz band or 430 MHz band, transmission takes place in the FM mode.


### Caution


- You cannot change the mode of A-band AM/FM broadcast radio bands.


## Miscellaneous Settings


### Locking keys and switches

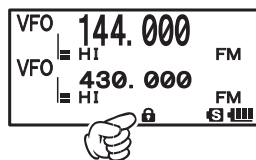
To prevent accidental frequency change during operation, keys, switches and  except  switch, , ,  can be locked.

1 Press  to lock the keys and switches.

 appears on the LCD.

**Remark** To unlock a key or switch, press  again.

 disappears from the LCD.



#### Tip

- You can also lock the  and  switch by selecting the Set mode option [8 CONFIG] → [9 LOCK].


### Restoring to Defaults (All Reset)

You can restore all transceiver settings and memory content, such as memory channels, to the defaults.

1 Press  while pressing , , and .

The transceiver is turned on, followed by beep.

When you hear the beep, release the keys.


2 When "ALL RESET PUSH F KEY!" appears on the LCD, press .

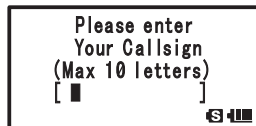
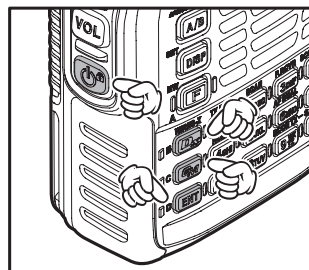
A beep sounds and the callsign input screen appears on the LCD.

3 Input a callsign for your transceiver.

Input the callsign with the numeric keys.

4 Press  to save your callsign and the screen returns to the frequency display.

**Remark** To cancel the All Reset function, press a key or switch other than .



#### Caution

When the All Reset function is performed, all data such as memory channels registered in the memory is deleted. Be sure to write it down on paper or back up the data on the microSD memory card (See pages 138 to 139).

#### Tip




To return only the Set Mode option settings to default, press  while pressing  and .

# Repeater Operation

## Repeater Operation







### Communicating Via the Repeater

The transceiver includes an ARS (Automatic Repeater Shift) function which permits communication through the repeater automatically just by setting the receiver to the repeater frequency.






- 1 Set the receive frequency to the repeater frequency.  
 “” or “” appears in the upper right corner of the LCD.
- 2 Press , to begin communicating through the repeater.



#### Tips

- Pressing  and then pressing  enters the “reverse” state where the transmit frequency and the receive frequency are temporarily reversed. This allows you to check and find if direct communication with the remote station is possible.
- In the “reverse” state,  blinks on the LCD.
- Pressing  again and then  exits the “reverse” state.
- Press and hold  over 1 second to enter the Set mode and change the options to allow more convenient use of this function.
  - [8 CONFIG] → [14 RPT ARS] You can deactivate the ARS function.
  - [8 CONFIG] → [15 RPT SHIFT] You can set the repeater shift direction.
  - [8 CONFIG] → [16 RPT SHIFT FREQ] You can change the repeater shift step.

### Tone Calling (1750 Hz)

If your transceiver is FT1XDE (European version), press and hold in the  switch (just below the  switch) to generate a 1750 Hz burst tone to access the European repeater. The transmitter will automatically be activated, and a 1750 Hz audio tone will be superimposed on the carrier. Once access to the repeater has been gained, you may release the  switch, and use the  switch for activating the transmitter thereafter. If you need to access the repeaters which requires a 1750 Hz burst tone for access by the FT1XDR (USA/EXP versions), you can set the  switch to serve as a “Tone Call” switch instead. To change the configuration of this switch, use Set Mode [8 CONFIG] → [10 MONI/T-CALL].

## Repeater Shift








The FT1XDR/DE has been configured, at the factory, for the repeater shifts customary in the country where it is sold. For the 144 MHz band, this usually will be 600 kHz, while the 430 MHz shift will be 1.6 MHz, 7.6 MHz, or 5 MHz (USA version).

Depending on the part of the band in which you are operating, the repeater shift may be either downward (-) or upward (+), and one of these icons will appear to the right of the display frequency on the LCD when repeater shifts have been enabled.

### Automatic Repeater Shift (ARS)

The FT1XDR/DE Automatic Repeater Shift feature causes the appropriate repeater shift to be automatically applied whenever it is tuned into the designated repeater sub-bands. If the ARS feature does not appear to be working, you may have accidentally disabled it.

#### To re-enable ARS:

- 1 Press and hold the  for over 1 second to enter the set mode.
- 2 Turn the  to select [8 CONFIG].
- 3 Press .
- 4 Turn the  to select [14 RPT ARS].
- 5 Press .
- 6 Turn the  to select "ON" (to enable Automatic Repeater Shift).
- 7 Press the  to save the new setting and exit the Set mode.



## A Wide Variety of Memory Functions

The FT1XDR/DE transceiver provides the following various types of memory channels in addition to the regular memory channels (numbers 001 to 900).

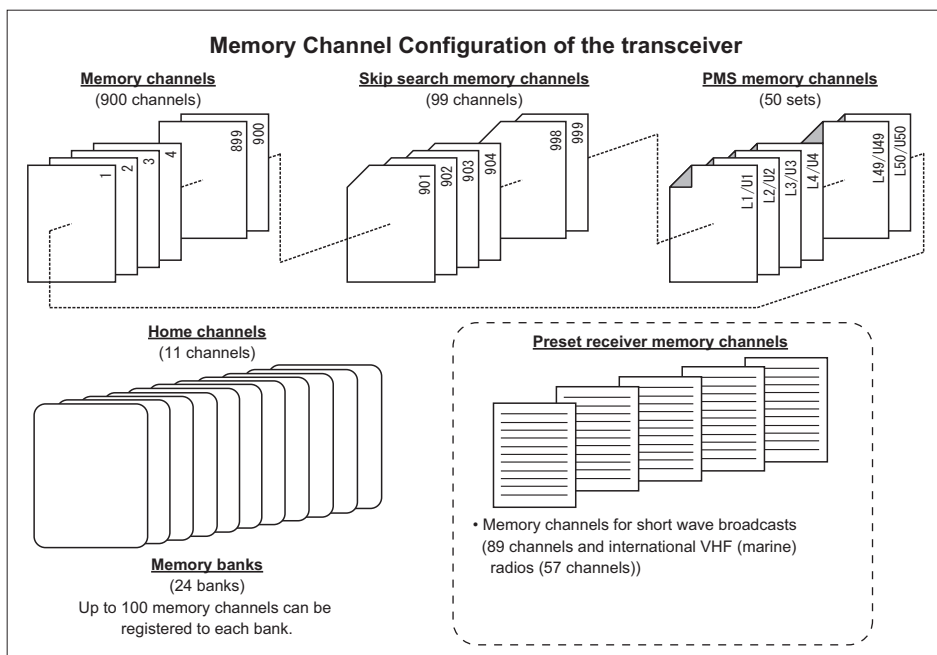
- [Home channels] which can be recalled on each frequency band with one touch of a key. (See page 45)
- Preset Receiver Memory Channels such as VHF Weather Broadcast Station (10 channels), international VHF (marine) radios (57 channels) and world broadcasts (89 channels) (see pages 51 to 55)
- 99 (901 to 999) skip search memory channels that allow you to skip unwanted frequencies during VFO scanning (See page 58)
- 50 sets of memory channels (L01/U01 to L50/U50) for programmable memory channels scanning (PMS) (See page 63)

The operating frequency and other operational information can be registered to each regular memory channel, home channel, or PMS memory channel:

- Operating frequency
- Memory tag
- Repeater information
- Tone information
- DCS information
- Transmission output
- Memory channel skip information

(The operating mode information is not registered to the memory channels)

Memory channels can be sorted and registered to memory banks according to the intended use. The transceiver allows you to use 24 types of memory banks. A maximum of 100 memory channels can be registered to each memory bank. A name can be assigned to each memory bank with up to 16 characters. (See page 48)



## A Wide Variety of Memory Functions

### Registering to Memory Channel

#### Caution

The information such as operating frequency that is registered to memory channels can be corrupted due to wrong operation, static electricity, or electrical noise. Also, it can be erased in the case of a failure or repair. Be sure to write it down on paper or otherwise save the information (See pages 138 to 139).

The transceiver allows you to use 900 memory channels (memory channel numbers 1 to 900).

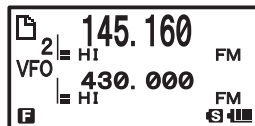
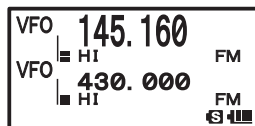
1 Switch to the VFO mode.


2 Tune in to a frequency by turning .


Select the frequency you want to register to a memory channel.

3 Press and hold  over 1 second.


Enters the Memory Channel Registration mode, and the number of the memory channel next to the memory channel to which you registered a frequency last blinks.




**Remarks** • To cancel the memory channel registration, press the  switch.

• To register a frequency to a memory channel specified, Turn  to select the memory channel.

The  icon indicating [The specified memory channel is unregistered] lights, and the memory channel blinks.



The  icon indicating [The specified memory channel is registered] lights.

• Pressing  each time skips memory channels quickly in steps of 100 memory channels.

4 Press  to complete the memory channel registration. The registered frequency appears on the LCD.

When registering a frequency to a memory channel already registered, "Overwrite OK?" appears on the LCD.

#### Tips

- By default, 144.000 MHz is registered to the memory channel 1. It can be changed to another frequency, but not be deleted.
- The frequency which has been registered to a memory channel can be overwritten with a new frequency. When you attempt to register a new frequency to a memory channel, an unregistered memory channel appears.
- To display the lowest unregistered memory number when you register a frequency to a memory channel, press and hold  over 1 second to enter the Set mode, and then select [3 MEMORY] → [6 MEMORY WRITE].
- To inhibit registration to all memory channels, press and hold  over 1 second to enter the Set mode, and then select [3 MEMORY] → [4 MEMORY PROTECT].





## A Wide Variety of Memory Functions


### Split Memory

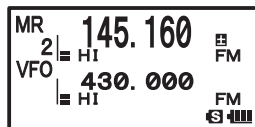
Two different frequencies, one for reception and other for transmission, can be registered to a memory channel.

- 1 Register a receive frequency to a memory channel.

**Remark** See "Registering to Memory Channel" above.



- 2 Select a transmit frequency in the VFO mode.
- 3 Press and hold  over 1 second.
- 4 Turn  to select the memory channel number that you registered the receive frequency to.
- 5 While pressing , press  to save the Split memory channel.

When you recall the memory channel to which you registered two different frequencies (one for receive and the other for transmit), the  appears on the LCD



### Recalling a Memory Channel



Recall a registered memory channel using the following procedure:


- 1 Press  to enter the Memory mode and the memory channel you used last appears on the LCD.
- 2 Turn  to select the desired memory channel.

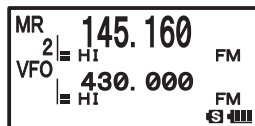
Select the memory channel to use.

**Remarks** • You can directly recall a memory channel using numeric keys.








To recall memory channel 15: Press   

• Pressing  and turning  allows you to skip memory channels quickly in steps of 10 memory channels.

- 3 Press  to exit the Memory mode, and the frequency selected in the VFO mode appears.



#### Tips


- Unregistered memory channels are skipped.
- By default, a priority memory channel, which is used as dual receive priority memory channel, is set to the memory channel number 1. [P] appears on the upper right corner of the priority memory channel number (See page 75).
- The frequency registered to a memory channel can be transferred to the VFO operating band in the following procedure:  
 Press and hold  over 1 second. → Press  → "OVERWRITE OK?" appears → Press .
- To place the FT1XDR/DE transceiver in the Memory Channel only mode, use the following procedure, which allows the use of memory channels only.  
 Press  while pressing  to turn on the transceiver.  
 To cancel the Memory Channel Only mode, press  while pressing  again.

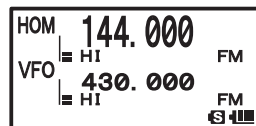
## A Wide Variety of Memory Functions

### Recalling Home Channel

- 1 Press  and then .

The home channel of the currently selected frequency band appears on the LCD.

- Tips**
- For the relationship between the frequency bands and the home channel frequencies, see the table on the next page.
  - Selecting a frequency by turning  allows you to return to the VFO mode.



Frequency band	Frequency	Frequency band	Frequency
AM BC Band	540 kHz	174 to 222 MHz band	174.000 MHz
FM BC Band	76.000 (88.000) MHz	(INFO band (1))	222.000 MHz
(SW band)	1.800 MHz	430 MHz band	446.000 (430.000) MHz
50 MHz	50.000 MHz	470 to 770 MHz band	470.000 MHz
(AIR band)	108.000 MHz	Information radio band (2)	860.000 MHz
144 MHz band	146.520 (144.000) MHz	—	—

( ) : EXP/European version





### Returning to the Previous Frequency

- 1 Press  and then .

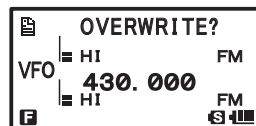
The frequency used before recalling the home channel appears on the LCD.

#### •Changing Home Channel Frequency

You can change a default home channel frequency.




- 1 Switch to the VFO mode.
  - 2 Turn  to select a frequency.  
Select a frequency to change.
  - 3 Press and hold  for over 1 second to enter the Write mode.
  - 4 Press .
- “OVERWRITE?” appears on the LCD for about 5 seconds.
- 5 Press .

When the home channel frequency has been overwritten by a new frequency, the home channel frequency of the selected frequency band is changed.




## A Wide Variety of Memory Functions

### Deleting Memory Channel

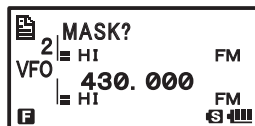
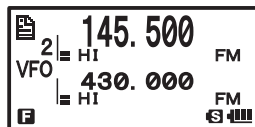
- 1 Switch to the Memory mode.
- 2 Press and hold  for over 1 second.
- 3 Turn  to select the memory channel to delete.
- 4 Press .

“MASK?” appears on the LCD for about 3 seconds.

**Remark** To cancel the memory channel deletion operation, press .

- 5 Press  to delete the memory channel.

**Remark** To delete other memory channels, repeat steps 2 through 5.



### Caution




- Memory channel 1 cannot be deleted.

### Tips

The memory channel specified as a priority memory channel cannot be deleted. To delete a priority memory channel, specify it as a regular memory channel, then delete it.

### Restoring Deleted Memory Channel

You can restore a deleted memory channel.

- 1 Switch to the Memory mode.  
The last used memory channel appears.
- 2 Press and hold  for over 1 second.
- 3 Turn  to select the memory channel to restore.
- 4 Press  to restore the deleted memory channel.

### Using Memory Tag







Memory channels and home channels can be assigned a name (memory tag) such as a callsign or broadcast station name. A memory tag can be specified with up to 16 characters. The following types of characters can be entered:

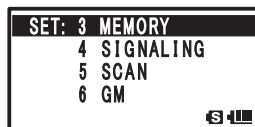
- Alphabetic characters (uppercase and lowercase characters)
- Numeric characters (numbers)
- Symbols

## A Wide Variety of Memory Functions



### Assigning a Name to a Memory Channel

Example: Assignment of name [YAESU]

- 1 Switch to the Memory mode.
- 2 Recall the memory channel to assign a name.
- 3 Press and hold **SET DISP** for over 1 second to enter the Set mode.
- 4 Turn **DIAL** to select [3 MEMORY].
- 5 Press **ENT**.
- 6 Turn **DIAL** to select [3 MEMORY NAME].
- 7 Press **ENT**.  
 The  cursor appears on the LCD.
- 8 Press **BCON TX**  8 times to select the numeric character [Y].
- 9 Press **ENT** to move the cursor to the next character position.
- 10 Press **SCAN**  5 times to select the numeric character [A].
- 11 Press **ENT** to move the cursor to the next character position.
- 12 Press **P. RCVR**  6 times to select the numeric character [E].
- 13 Press **ENT** to move the cursor to the next character position.
- 14 Press **LOG**  9 times to select the numeric character [S].
- 15 Press **ENT** to move the cursor to the next character position.
- 16 Press **8 TU V**  6 times to select the numeric character [U].
- 17 Press **6 9 9** to save the memory tag to the memory channel and exit the Set mode.




#### Tips

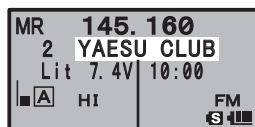
- To delete a character, press **MW** . The character is deleted and the cursor moves to left.
- Pressing **S LIST-APRS**  while entering alphanumeric characters (A,0) allows you to select 0, (space), -, /, ?, !, ,, : and #
- When entering the same character repeatedly, press **ENT** to move the cursor.
- When assigning a name to a home channel, recall the target home channel by first executing step 1 (see above).

### Displaying Memory Tag

During mono band operation, the tag (name) of the memory channel or home channel can be displayed using the following procedure:

- 1 Switch to the Memory mode.
- 2 Press and hold **MONO/DUAL**  for over 1 second.

The operating band is displayed in Mono band, and a tag (name) appears under the frequency.

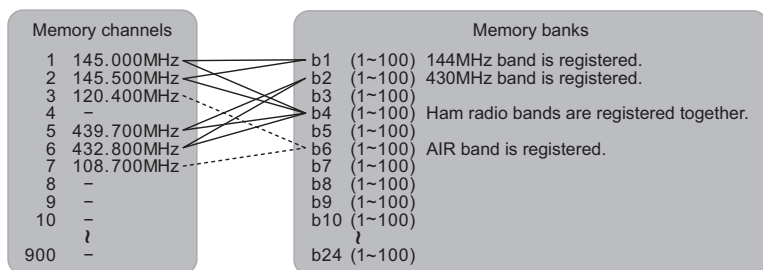


Tag (name) display

## Using Memory Bank

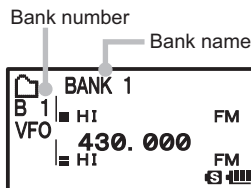
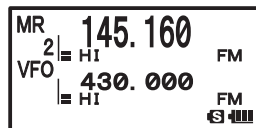
Registered memory channels can be sorted according to the intended use. The transceiver allows you to use 24 types of memory banks. A maximum of 100 memory channels can be registered to each memory bank.

One memory channel can be registered in two or more memory banks. If the memory channel registered in any memory bank is changed or updated, the content of the corresponding memory channel in the other memory banks is automatically changed or updated.



## Registering a Memory Channel in a Memory Bank

- Switch to the Memory mode.
- Turn to select a memory channel.  
Select the memory channel to register in a memory bank.
- Press and hold for over 1 second to enter the Memory Write mode.
- Turn to select a memory bank number.  
Select the number (B1 to B24) of the memory bank to register the memory channel.
- Press to register the memory channel in the memory bank.



Using the Memory

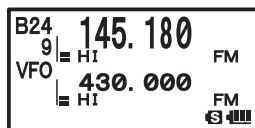
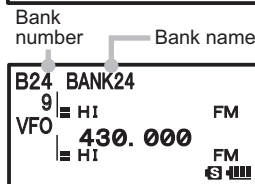
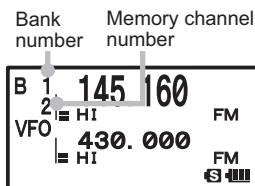
### Tips

- See “Registering Your Favorite Preset Receiver Memory Channels in Memory Bank” on page 51.
- When selecting a memory bank using , the memory channel, skip search memory channel, and programmable memory channel appear on the LCD as well. They appear repeatedly on the LCD in the following order:  
 1 ⇄ 2 ⇄ 3 ⇄ ...L50 ⇄ U50 ⇄ BANK1 ⇄ BANK2 ⇄ ...BANK24 ⇄ 1 ⇄ 2...
- When the displayed number is close to [1], turning counterclockwise will display memory banks. When the displayed number is close to [U50], turning clockwise will display memory banks.
- Pressing displays memory banks quickly in steps of 100 memory channels. If the bank name was changed, the changed bank name appears.
- The icon appears for a memory bank in which no memory channel is registered, and the icon appears for a memory bank in which at least one memory channel is registered.

## Using Memory Bank

### Recalling Memory Bank

- 1 Switch to the Memory mode.
  - 2 Press .  
 Pressing each time toggles between the memory channel number and bank number.
  - 3 Press and then .
  - 4 Turn to select a memory bank.  
 Select a memory bank.
  - 5 Press .  
 The memory bank to be used is determined.
  - 6 Turn to select a memory channel.  
 Select a memory channel in the memory bank.
- Remarks**
- To select another memory bank, repeat steps 3 through 5.
  - To return to the Regular Memory Channel mode, press .



### Canceling Memory Channel Registration in Memory Bank

- 1 Recall the memory bank in which the memory channel registration is to be deleted. See “Recalling Memory Bank” above.
- 2 Turn to select a memory channel that is to be canceled from the Memory bank.
- 3 Press and hold over 1 second, and then press .  
 Registration of memory channel in the memory bank is cancelled, returning to the memory bank display state. If no other memory channel is registered in the memory bank, the memory bank having the lowest bank number appears.

### Assigning Name to Memory Bank

A memory bank can be specified with up to 16 characters. The following types of characters can be entered:

- Alphabetic characters (uppercase and lowercase characters)
- Numeric characters (numbers)
- Symbols

















Example: 144Mz band

- 1 Press and hold for over 1 second to enter the Set mode.
- 2 Turn to select [3 MEMORY].
- 3 Press .





## Using Memory Bank

- 4 Turn  to select [2 BANK NAME].
- 5 Press .
- 6 Turn  to select a memory bank.  
 Select the number of the memory bank to which you want to assign a name.
- 7 Press  to move the cursor to the first character of the bank name.
- 8 Press  to select the numeric character [1].
- 9 Press  to move the cursor to the next character position.
- 10 Press  7 times to select the numeric character [4].  
 Pressing  allows you to select the following characters sequentially:  
 G → H → I → g → h → i → 4 → G
- 11 Press  to move the cursor to the next character position.
- 12 Press the  key 7 times to select the numeric character [4].  
 Pressing the  key allows you to select the following characters sequentially:  
 G → H → I → g → h → i → 4 → G
- 13 Press  to move the cursor to the next character position.
- 14 Press  to select [M].  
 Pressing  allows you to select the following characters sequentially:  
 M → N → O → m → n → o → 6 → M
- 15 Press  to move the cursor to the next character position.
- 16 Select [H].
- 17 Press [9] 8 times.  
 Select [z].
- 18 Press  to save the name of memory bank and exit the Set mode.






Bank number



Change the bank name.  
 Enter a name (First digit)



### Tips

- To delete a character, press . A character is deleted and the cursor moves to left.
- Pressing  while entering alphanumeric characters (A,0) allows you to select 0, (space), -, /, ?, !, ,, : and #
- When entering the same type of characters repeatedly, press  to move the cursor.






## Convenient Preset Receiver Memory Channels

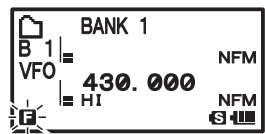
Frequencies of SP1 Weather Broadcast (10 channels). SP2 International VHF (marine) radio (57 channels) and SP3 Shortwave Broadcasts (89 channels) are preset in the preset receiver memory channels. These channels can be selected in advance from region to region.

- **VHF Weather Broadcast Station preset receiver memory channels**  
 [SP1 WX CH] .....Page 52  
 The frequencies (10 channel) used for the VHF Weather Broadcast Station are registered to the dedicated preset receiver memory channels.
- **International VHF (marine) radio preset receiver memory channels**  
 [SP2 INTVHF] .....Page 53  
 The frequencies (57 channel) used for the international VHF (marine) radio are registered to the dedicated preset receiver memory channels.
- **World broadcast preset receiver memory channels**  
 [SP3 SW] .....Page 54  
 You can listen to major broadcasts from around the world (total 89 channels).







### Registering Your Favorite Preset Receiver Memory Channels in Memory Bank

You can register your favorite preset receiver memory channel in a memory bank.

- 1 Turn  to select your favorite preset receiver memory channel.
- 2 Press and hold  for over 1 second to enter the Memory Bank Write mode.  
 The **F** blinks on the LCD.  
**Remark** To cancel registration, press .
- 3 Turn  to select the memory bank in which you want to register your favorite preset receiver memory channel.
- 4 Press the  to register the preset receiver memory channel in the memory bank, and the frequency appears on the LCD.



### Recalling Preset Receiver Memory Channel to Listen to the Weather Broadcast

- 1 Press  to set A-band to the operating band.
- 2 Press  and then  to enter the Preset Receiver mode.
- 3 Press .  
 Select [SP1 WX CH].
- 4 Turn  to select a preset Weather Broadcast receiver memory channel to listen to.  
**Remark** To stop reception of the Weather Broadcast, press .

Using the Memory

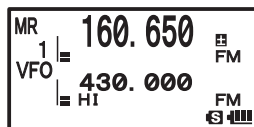
## Convenient Preset Receiver Memory Channels

### Recalling Preset Receiver Memory Channel to Listen to the International VHF (Marine) Radio

The frequencies (57 channels) used for the international VHF (marine) radio are registered to the dedicated preset receiver memory channels.

- 1 Press to set A-band to the operating band.
- 2 Press and then to enter the Preset Receiver mode.
- 3 Press .  
Select [SP2 INTVHF].
- 4 Turn to select a preset VHF receiver memory channel to listen to.

**Remark** To stop reception of the international VHF radio, press .



In the event of extreme weather disturbances, such as storms and hurricanes, the NOAA (National Oceanic and Atmospheric Administration) sends a weather alert accompanied by a 1050 Hz tone and subsequent weather report on one of the NOAA weather channels. You may enable the Weather Alert tone via Set Mode option [4 SIGNALING] → [14 WX ALERT], if desired (See page 124).

#### Tips

- The preset receiver memory channel cannot be rewritten with the data of another frequency.
- To scan the preset receiver memory channels toward higher channel numbers, press and then . Turning one click counterclockwise scans the preset receiver memory channels toward lower channel numbers. If a signal is received during scanning, the scanning is suspended for 5 seconds.
- The operation that is performed when scanning stops can be set by following the procedure described in "Selecting a Reception Method When Scanning Stops" on page 59.

#### WX Channel Frequency List

CH	Frequency	CH	Frequency
1	162.550 MHz	6	162.500 MHz
2	162.400 MHz	7	162.525 MHz
3	162.475 MHz	8	161.650 MHz
4	162.425 MHz	9	161.775 MHz
5	162.450 MHz	10	163.275 MHz

## Convenient Preset Receiver Memory Channels







### Frequencies of International VHF (Marine) Radio registered to the preset receiver memory channels

Memory channel No.	Frequency (MHz)		Memory channel No.	Frequency (MHz)	
1	156.050	160.650*	15	156.750	
2	156.100	160.700*	16	156.800	
3	156.150	160.750*	17	156.850	
4	156.200	160.800*	18	156.900	161.500*
5	156.250	160.850*	19	156.950	161.550*
6	156.300		20	157.000	161.600*
7	156.350	160.950*	21	157.050	161.650*
8	156.400		22	157.100	161.700*
9	156.450		23	157.150	161.750*
10	156.500		24	157.200	161.800*
11	156.550		25	157.250	161.850*
12	156.600		26	157.300	161.900*
13	156.650		27	157.350	161.950*
14	156.700		28	157.400	162.000*

Memory No.	Frequency (MHz)		Memory No.	Frequency (MHz)	
60	156.025	160.625*	74	156.725	
61	156.075	160.675*	75	156.775	
62	156.125	160.725*	76	156.825	
63	156.175	160.775*	77	156.875	
64	156.225	160.825*	78	156.955	161.550*
65	156.275	160.875*	79	156.975	161.575*
66	156.325	160.925*	80	157.025	161.625*
67	156.375		81	157.075	161.675*
68	156.425		82	157.125	161.725*
69	156.475		83	157.175	161.775*
70	156.525		84	157.225	161.825*
71	156.575		85	157.275	161.875*
72	156.625		86	157.325	161.925*
73	156.675		87	157.375	161.975*
—	—		88	157.425	162.025*

Using the Memory






#### Remark


\* indicates the frequency of the VHF Marine base station. For example, if the preset receiver memory channel 1 is selected, the base station frequency 160.650 MHz appears and  lights. Pressing  and then  displays the Ship Station frequency 160.650 MHz and  lights. The base station frequency minus 4.6 MHz equals the Ship Station frequency, and duplex operation starts. To return to the base station frequency, press  and then .

## Convenient Preset Receiver Memory Channels

### Recalling Preset Receiver Memory Channel to Listen to the World Broadcast

The frequencies (89 channels) used for the world broadcast are registered to the dedicated preset receiver memory channels.

- 1 Press  to set A-band to the operating band.
- 2 Press  and then  to enter the Preset Receiver mode.
- 3 Press .  
Select [SP3 SW].
- 4 Turn  to select a preset world Broadcast receiver memory channel to listen to.

**Remark** To stop reception of the world broadcast, press .

- Depending on time zone or signal strength, Broadcasts may not be received.
- There are broadcast station other than those listed below that can be received. In addition, depending on the broadcast station, the frequency may be changed, off-air, or have become abolished. For details, please refer to a commercially sold frequencies list.

### Worldwide short wave broadcast

CH Number	Frequency (MHz)	Name	Broadcast Station Name	CH Number	Frequency (MHz)	Name	Broadcast Station Name
1	6.030	VOA	USA	25	7.170	TURKEY	Turkey
2	6.160	VOA	USA	26	7.270	TURKEY	Turkey
3	9.760	VOA	USA	27	9.560	TURKEY	Turkey
4	11.965	VOA	USA	28	11.690	TURKEY	Turkey
5	9.555	CANADA	Canada	29	9.660	VATICAN	Vatican
6	9.660	CANADA	Canada	30	11.625	VATICAN	Vatican
7	11.715	CANADA	Canada	31	11.830	VATICAN	Vatican
8	11.955	CANADA	Canada	32	15.235	VATICAN	Vatican
9	6.195	BBC	UK	33	5.955	NEDRLAND	Netherlands
10	9.410	BBC	UK	34	6.020	NEDRLAND	Netherlands
11	12.095	BBC	UK	35	9.895	NEDRLAND	Netherlands
12	15.310	BBC	UK	36	11.655	NEDRLAND	Netherlands
13	6.090	FRANCE	France	37	5.985	CZECH	Czech Republic
14	9.790	FRANCE	France	38	6.105	CZECH	Czech Republic
15	11.670	FRANCE	France	39	9.455	CZECH	Czech Republic
16	15.195	FRANCE	France	40	11.860	CZECH	Czech Republic
17	6.000	DW	Germany	41	9.780	PORTUGAL	Portugal
18	6.075	DW	Germany	42	11.630	PORTUGAL	Portugal
19	9.650	DW	Germany	43	15.550	PORTUGAL	Portugal
20	9.735	DW	Germany	44	21.655	PORTUGAL	Portugal
21	5.990	ITALY	Italy	45	9.650	SPAIN	Spain
22	9.575	ITALY	Italy	46	11.880	SPAIN	Spain
23	9.675	ITALY	Italy	47	11.910	SPAIN	Spain
24	17.780	ITALY	Italy	48	15.290	SPAIN	Spain

## Convenient Preset Receiver Memory Channels

CH Number	Frequency (MHz)	Name	Broadcast Station Name	CH Number	Frequency (MHz)	Name	Broadcast Station Name
49	6.055	NIKKEI	Japan (Nikkei)	71	9.595	INDIA	India
50	7.315	NORWAY	Norway	72	11.620	INDIA	India
51	9.590	NORWAY	Norway	73	15.020	INDIA	India
52	9.925	NORWAY	Norway	74	7.190	CHINA	China
53	9.985	NORWAY	Norway	75	7.405	CHINA	China
54	6.065	SWEDEN	Sweden	76	9.785	CHINA	China
55	9.490	SWEDEN	Sweden	77	11.685	CHINA	China
56	15.240	SWEDEN	Sweden	78	6.135	KOREA	South Korea
57	17.505	SWEDEN	Sweden	79	7.275	KOREA	South Korea
58	6.120	FINLAND	Finland	80	9.570	KOREA	South Korea
59	9.560	FINLAND	Finland	81	13.670	KOREA	South Korea
60	11.755	FINLAND	Finland	82	6.165	JAPAN	Japan
61	15.400	FINLAND	Finland	83	7.200	JAPAN	Japan
62	5.920	RUSSIA	Russia	84	9.750	JAPAN	Japan
63	5.940	RUSSIA	Russia	85	11.860	JAPAN	Japan
64	7.200	RUSSIA	Russia	86	5.995	AUSTRALI	Australia
65	12.030	RUSSIA	Russia	87	9.580	AUSTRALI	Australia
66	7.465	ISRAEL	Israel	88	9.660	AUSTRALI	Australia
67	11.585	ISRAEL	Israel	89	12.080	AUSTRALI	Australia
68	15.615	ISRAEL	Israel				
69	17.535	ISRAEL	Israel				
70	6.045	INDIA	India				



Reception Mode: AM

## Using the Scanning Function


The FT1XDR/DE supports the following four scan modes:


- (1) VFO Scan
- (2) Memory Channel Scan
- (3) Programmable Memory Channel Scan
- (4) Selected Memory Channel Scan

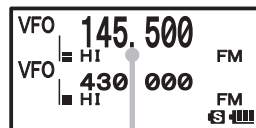
### VFO Scan

- 1 Switch to the VFO mode, and then select a band to scan.
- 2 Press  and then  to start scanning (SCAN) toward higher frequencies.

**Tips** When a signal is received during scanning, the decimal point blinks.

Turn  clockwise: Scanning is performed toward higher frequencies.

Turn  counterclockwise: Scanning is performed toward lower frequencies.




When a signal is received, the decimal point blinks.

When a signal is received during scanning, a beep is emitted and its frequency appears for 5 seconds. When scanning is suspended, the decimal point blinks and the LCD stays lit. After receiving the signal for 5 seconds, scanning resumes.






The range for scanning can be selected by selecting the Set mode options [5 SCAN WIDTH] and then [5 SCAN] .

## Using the Scanning Function

### Canceling Scanning

To cancel scanning, press .


#### Tips

- Even during scanning, you can adjust the squelch in the following procedure:  
 Press  → Press  → Turn  to adjust the squelch.
- During scanning, you can save the squelch adjustment in the following procedure:  
 Press  → Press .

**A-band and B-band reception frequencies**

A-band	B-band
0.5 MHz to 1.8 MHz (AM BC Band)	--
76 (88) MHz to 108 MHz (FM BC Band)	--
1.8 MHz to 30 MHz (SW band)	--
30 MHz to 76 (88) MHz (50 MHz band)	--
108 MHz to 137 MHz (AIR band)	108 MHz to 137 MHz (AIR band)
137 MHz to 174 MHz (144 MHz band)	137 MHz to 174 MHz (144 MHz band)
174 MHz to 222 MHz (VHF-TV Band)	174 MHz to 222 MHz (VHF-TV Band)
222 MHz to 420 MHz (INFO band (1))	222 MHz to 420 MHz (INFO band (1))
420 MHz to 470 MHz (430 MHz band)	420 MHz to 470 MHz (430 MHz band)
470 MHz to 774 (800) MHz (UHF-TV Band)	470 MHz to 580 MHz
803 (800) MHz to 999.9 MHz Cellular Blocked USA version	--

( ): EXP/European version

- For the operation to perform when scanning stops, see “Selecting a Reception Method When Scanning Stops” on page 59.
- Press and hold  over 1 second to select the Set mode option, and then select the following setting items for more convenient use:  
 [8 CONFIG] → [3 BEEP] → [EDGE]: Emits a beep when the frequency band edge is reached.  
 [8 CONFIG] → [3 BEEP] → [SELECT]: Prevents a beep from being emitted when scanning stops.  
 [5 SCAN] → [2 SCAN LAMP]: Prevents the LCD from being lit when scanning stops.








### Skipping a Frequency You Do Not Want to Scan (Skip Search Memory)

Scanning may stop at a frequency that you do not want to receive. Such a frequency can be skipped by registering it to the [skip search memory channels]. Up to 99 frequencies can be saved in the skip search memory channels (memory channels 901 to 999).





## Using the Scanning Function

### Specifying the Frequency You Do Not Want to Scan


- 1 Start VFO scanning.  
Start VFO scanning with reference to [VFO Scanning] on page 56.
- 2 When scanning stops at a frequency you do not want to receive, press and hold  for over 1 second.  
The number of the next unregistered skip search memory channel will blink.  
**Tips** Turning  allows you to specify other skip search memory channels.
- 3 Press  to save (register) the frequency to the skip search memory channel, and resume scanning.  
**Tips**
  - You can register a frequency you do not want to receive to a skip search memory channel by using the following procedure in advance:
    - 1 In the VFO mode, tune in to the frequency you do not want to scan.
    - 2 Press and hold  for over 1 second.
    - 3 Turn  to select a skip search memory channel.
    - 4 Press  to save (register) the frequency to the skip search memory channel.
  - To stop scanning, press .



### Deleting a Frequency Registered to the Skip Search Memory Channel

The frequency registered to the skip search memory channel can be deleted in the following procedure. After it is deleted the frequency is scanned.

- 1 Switch to the Memory mode.
- 2 Press and hold  for over 1 second.
- 3 Turn  to select a skip search memory channel from which you wish to delete the registered frequency.

Select the skip search memory channel (901-999) from which the registered frequency is to be deleted.

When selecting a skip search memory channel number, pressing  allows you to skip memory channel numbers in steps of 100 memory channel numbers.

- 4 Press .
- [DELETE OK?] appears on the LCD.
- 5 Press  to delete the registered frequency from the skip search memory channel.
- Tip** To delete another frequency from the skip search memory channel, repeat steps 2 through 4.

#### Tips

- Restoring the Frequency Deleted from the Skip Search Memory Channel  
If you have not specified a new frequency for the same memory channel, you can restore the deleted frequency by repeating steps 1 through 4.

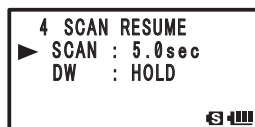
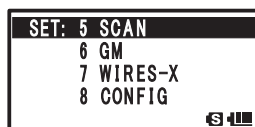
## Using the Scanning Function

### Selecting a Reception Method When Scanning Stops

When scanning stops, you can select one of the following three reception methods:

- (1) The signal is received for the specified period of time, and then scanning resumes. You can specify this period of time in steps of 0.5 second within the range from 2 to 10 seconds.
- (2) The signal is received until it fades out. Two seconds after the signal fades out, scanning resumes. [BUSY] appears on the LCD.
- (3) Scanning stops and the current frequency is received. [HOLD] appears on the LCD.

- 1 Press and hold **SET** **DISP** for over 1 second.
- 2 Turn **DIAL** to select [5 SCAN].
- 3 Press **ENT**.
- 4 Turn **DIAL** to select [4 SCAN RESUME].
- 5 Press **ENT**.
- 6 Press **ENT** again.
- 7 Turn **DIAL** to specify the reception method.  
 Select a reception method from [2 SEC TO 10 SEC (0.5 SEC STEP)], [BUSY], and [HOLD].
- 8 Press **PTT** to save the specified reception method and exit from the Set mode.



#### Tips

- The reception method selected here is also applied to [VFO Scanning], [Programmable Memory Channel Scanning] and [Memory Channel Scanning].
- The scanning restart time after BUSY (duration of signal reception) can be changed by selecting the Set mode option [5 SCAN RESTART] → [3 SCAN RE-START].

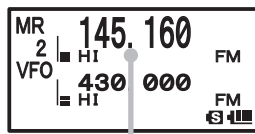
### Memory Channel Scanning

Frequencies registered to the memory channels can be scanned in the order of memory channel number.

- 1 Switch to the Memory mode and recall a memory channel.
- 2 Press **MW** and then **SCAN** **(ZABC)**.

Scanning (SCAN) is performed toward higher memory channel numbers.

When a signal is received, the decimal point blinks.



When a signal is received, the decimal point blinks.