

YAESU
The radio

C4FM/FM 144/430MHz
DUAL BAND DIGITAL TRANSCEIVER

FT5DR
FT5DE

Advance Manual



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Digital Personal ID (DP-ID) feature

About the Digital Personal ID (DP-ID) feature

When operating in digital C4FM communications, each transceiver is programmed with, and sends its own individual ID information (Radio ID) in each transmission. The DP-ID function and the individual identification information, makes possible group communications of stations that are within communications range.

Digital Personal ID (DP-ID) feature opens the speaker audio only when a signal set to the same DP-ID in the Digital Mode is received, even if each transceiver is set a different Digital Group ID (DG-ID) number.

The digital C4FM repeater equipped with the DP-ID function allows preferentially contact in an emergency, regardless of the repeater setting or if the repeater is being used without the DG-ID setting.



- Digital C4FM mode transceivers compatible with the DG-ID function are required in order to utilize this function.
- If the firmware is not compatible with the DG-ID function, update to the latest firmware to use the DG-ID function. The latest firmware is available on the YAESU website.

Registering the DP-ID of the other station



- Once registered, DP-ID is stored until deleted.
- Register with each other's transceivers nearby.
- When setting the DG-ID code to "00", the transceiver will receive signals from all digital C4FM stations. To utilize the DP-ID function, it is necessary to set the receive DG-ID code to a number other than "00".

1. Press and hold the [F MENU] key → touch [GM] → touch [1 DP-ID LIST].

- The DP-ID list is displayed.
- If a number of DP-IDs are registered, rotate the DIAL knob to display the desired DP-ID.



2. A transmission in the digital C4FM mode from the other transceiver will register the DP-ID.

When a signal from the other station is received, the callsign and "REGISTRATION?" are displayed on the LCD.



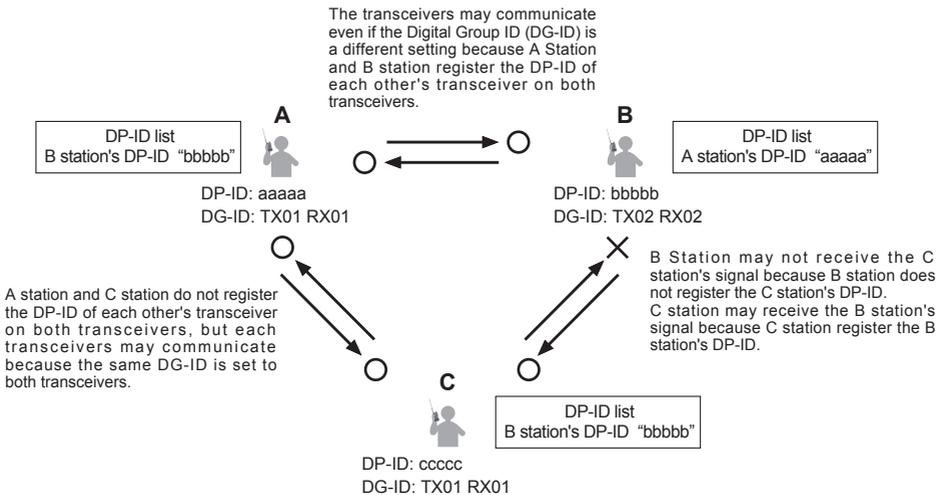
- When a signal from another registered transceiver is received, nothing is display on the LCD.
- When registering a transceiver already registered with a different call sign, the call sign registered in the DP-ID list is changed to the new registered call sign.



3. Touch **[OK]** to save the setting.
 - When registering in the DP-ID list is finished, “COMPLETED” is displayed for three seconds, then the display returns to the DP-ID list screen.
 - If not registering the DP-ID, press the **[CANCEL]**.
 - If registering several DP-IDs, repeat step 2 and 3.
 - A maximum of 24 stations may be registered.
4. Press the **PTT** switch to save the setting and return to normal operation.
 - Similarly, register all of the communicating transceivers’ DP-IDs to the DP-ID lists of the other stations.
 - The DP-ID setting is complete.



For communicating using the DP-ID function, register the DP-ID of each other’s transceiver on both transceivers. By registering the DP-ID, users may communicate even if the Digital group ID (DG-ID) is a different setting



Deleting the registered DP-ID

1. Press and hold the **[F MENU]** key → touch **[GM]** → touch **[1 DP-ID LIST]**.
 The DP-ID list is displayed.



2. Rotate the DIAL knob to select the call sign of the other transceiver, then touch **[DEL]**.

Confirmation screen "DELETE?" is displayed.



3. Touch **[OK]** to delete.
 - When finished registering in the DP-ID list, "COMPLETED" is displayed for three seconds.
 - If not registering another DP-ID, touch **[CANCEL]**.
 - If deleting several DP-IDs, repeat step 2 and 3.
4. Press the **PTT** switch to save the setting and return to normal operation.

Communicating with specified other station in the Analog FM mode

Selecting the Squelch Type in the Analog FM Mode

1. Press the [F MENU] key → [SQTYP].

If [SQTYP] is not displayed, touch [FWD →] to display [SQTYP] and then touch it.



2. Turn the DIAL knob and select the type of squelch, refer to the table below.



Tone squelch (CTCSS), DCS and the New PAGER (EPCS) functions do not operate in the C4FM digital mode. Touch [MODE] to change to the Analog FM mode, or turn the AMS function ON.

Squelch type	Icon indication	Description
OFF	—	Deactivates the tone squelch function and DCS function OFF, then returns to the normal squelch operation in the Analog FM mode.
TONE	TN	Analog FM Transmissions contain the CTCSS tone. Receives as a normal squelch operation.
TONE SQL	TSQ	Activates the CTCSS tone squelch function on Analog FM receive.
DCS	DCS	Activates the Digital Code Squelch (DCS) function. The DCS code may be selected from 104 codes (from 023 to 754).
REV TONE	RTN	Activates the reverse tone function. Used to monitor communications based on the squelch control system. When a signal contains the designated tone, the squelch is not opened, and when the tone signal disappears, the squelch opens, and communication starts.
PR FREQ	PR	Activates the no-communication squelch function for radios. The no-communication signal tone frequencies may be specified within the range from 300 Hz to 3000 Hz in steps of 100 Hz.
PAGER	PAG	Activates a new two-tone CTCSS pager function. When communicating with FT5DR/DE transceivers among friends, specify personal codes (each code is composed of two tones) so that only specific stations are called.
D CD*	DC	Transmits the signal containing the DCS CODE. Receives as a normal squelch operation.
TONE-DCS*	T-D	Sends a tone signal when transmitting, and receives the only signal matches the DCS code when receiving.
D CD-TONE SQL*	D-T	Sends the DCS CODE when transmitting and receives only signals that contain a matching tone signal when receiving.

*: Press and hold the **[F MENU]** key → **[SIGNALING]** → **[10 SQL EXPANTION]** set to “ON”, “D CD”, “TONE-DCS” and “D CD-TONE SQL” setting values are activated.

3. Press the **PTT** switch to save the settings and return to normal operation.

- The squelch type may be set for each frequency band (BAND).
- The CTCSS and DCS squelch settings are also active during scanning. If scanning is performed with the CTCSS and DCS squelch function activated, scanning stops only when a signal containing the specified CTCSS tone or DCS code is received.
- Pressing the MONI/T-CALL switch allows signals that do not contain a tone or DCS code, and signals with different tones, DCS codes, digital mode signals to all be heard.
- Press and hold the **[F MENU]** key → **[SIGNALING]** → **[3 DCS INVERSION]** allows to receive the DCS code of the inverted phase.



Tone squelch feature

The tone squelch opens the speaker audio only when a signal containing the specified CTCSS tone is received. The receiver will be quiet while waiting for a call from a specific station.



The tone squelch function does not function in digital mode. Touch **[MODE]** to change the communication mode to Analog FM mode or turn the AMS function ON.

Setting CTCSS Tone frequency

The tone frequency may be selected from 50 frequencies (from 67.0 Hz to 254.1 Hz).

1. Press the **[F MENU]** key → **[SQTYP]**.

If **[SQTYP]** is not displayed, touch **[FWD →]** to display **[SQTYP]** and then touch it.

2. Rotate the DIAL knob to select “**TONE SQL**”.

3. Press the **PTT** switch to save the settings and return to normal operation.

4. Press the **[F MENU]** key → **[CODE]**.

5. Rotate the DIAL knob to select the tone frequency.

6. Press the **[BACK]** key to save the setting and return to normal operation.



- The tone frequency setting is common with the squelch types as follows:
TONE, TONE SQL, REV TONE, TONE-DCS, D CD-TONE SQL
- The default setting is “100.0 Hz”

Searching for the CTCSS Tone transmitted by the other Station



The tone search function does not function in digital mode. Touch **[MODE]** to change the communication mode to Analog FM mode or turn the AMS function ON.

Search and display the tone squelch CTCSS tone transmitted by the other station.

1. Press the **[F MENU]** key → **[SQTYP]**.

If **[SQTYP]** is not displayed, touch **[FWD →]** to display **[SQTYP]** and then touch it.

2. Rotate the DIAL knob to select the “**TONE SQL**”.

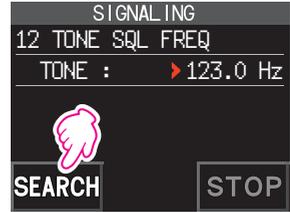
3. Press the **PTT** switch to save the setting and return to normal operation.

4. Press the **[F MENU]** key → **[CODE]**.

The setting screen of the tone frequency is displayed.

5. Touch **[SEARCH]**.

- The transceiver begins searching for a matching tone frequency.
- When a corresponding tone frequency is detected, a beep sound is emitted, and the detected tone frequency blinks. The searching stops for 5 seconds and the audio is heard.



6. Touch **[STOP]** to stop searching.

7. Press the **[BACK]** key to save the detected tone frequency and return to normal operation.



To set the transceiver operation when scanning stops, press and hold the **[F MENU]** key → **[SCAN]** → **[4 SCAN RESUME]**. This setting is common with the scan setting, tone search function and DCS search function.

Digital Code Squelch (DCS) feature

The Digital Code Squelch opens the speaker audio only when a signal containing the specified DCS code is received.

The DCS code may be selected from 104 types (from 023 to 754).



The tone search function does not function in digital mode. Touch **[MODE]** to change the communication mode to Analog FM mode or turn the AMS function ON.

Setting the DCS CODE

1. Press the **[F MENU]** key → **[SQTYP]**.

If **[SQTYP]** is not displayed, touch **[FWD →]** to display **[SQTYP]** and then touch it.

2. Rotate the DIAL knob to select “**DCS**”.

3. Press the **PTT** switch to save the setting and return to normal operation.

4. Press the **[F MENU]** key → **[CODE]**.

5. Rotate the DIAL knob to select the DCS code.

6. Press the **[BACK]** key to save the detected tone frequency and return to normal operation.



- The DCS code set by the above operation is the common setting for all transmissions with a DCS Code (DCS, D CODE, T DCS, D TONE).
- The default DCS code is “023”.

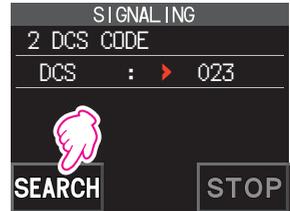
Searching for the DCS Code Used by the Other Station

Search for the DCS code used by the other station.

1. Press the **[F MENU]** key → **[SQTYP]**.
If **[SQTYP]** is not displayed, touch **[FWD →]** to display **[SQTYP]** and then touch it.
2. Rotate the DIAL knob to select “**DCS**”.
3. Press the **PTT** switch to save the setting and return to normal operation.
4. Press the **[F MENU]** key → **[CODE]**.

The DCS code setting screen is displayed.

5. Touch **[SEARCH]**.
 - The transceiver starts to search for the DCS code.
 - When a corresponding DCS code is detected, a beep sound is emitted. The detected DCS code blinks. The searching stops for 5 seconds and the audio is heard.



6. Touch **[STOP]** to stop searching.
7. Press the **[BACK]** key to save the detected DCS code and return to normal operation.



To set the transceiver operation when scanning stops, press and hold the **[F MENU]** key → **[SCAN]** → **[4 SCAN RESUME]**. This setting is common for all scan settings, the tone search function and DCS search function.

Two-Tone CTCSS Pager Function

When using FT5DR/DE transceivers with a group of friends, setting the Two-Tone CTCSS personal codes allows calling just the specific stations. Even when the person who is called is not near the transceiver, the information on the LCD indicates that a call was received.



The new two-tone CTCSS pager feature does not operate in digital mode. Touch **[MODE]** to change the communication mode to Analog FM mode or turn the AMS function ON.

Using the Pager Function

1. Press the **[F MENU]** key → **[SQTYP]**.
If **[SQTYP]** is not displayed, touch **[FWD →]** to display **[SQTYP]** and then touch it.
2. Rotate the DIAL knob to select the “**PAGER**”.
3. Press the **PTT** switch to save the setting and return to normal operation.

Setting the Code for Your Station

Set the “pager code” to be called by other stations.

1. Activate the pager function by referring to “Using the pager function” above.
2. Press the **[F MENU]** key → **[CODE]**.

If **[CODE]** is not displayed, touch **[FWD →]** to display **[CODE]** and then touch it.

3. Rotate the DIAL knob to select “**CODE-RX**”.

SIGNALING		
6 PAGER		
ANS-BACK:		OFF
▶ CODE-RX :	05	47
CODE-TX :	05	47

4. Press the [F MENU] key to move the “▶” icon to the first element of the code.

Rotate the DIAL knob to select the first element of the code from 01 to 50.

SIGNALING		
6 PAGER		
ANS-BACK:		OFF
CODE-RX :	▶05	47
CODE-TX :	05	47

5. Press the [F MENU] key to move the “▶” icon to the second element of the code.

Rotate the DIAL knob to select the second element of the code from 01 to 50.

The same code cannot be use for both elements.

SIGNALING		
6 PAGER		
ANS-BACK:		OFF
CODE-RX :	05	▶47
CODE-TX :	05	47

6. Press the PTT switch to save the setting and return to normal operation.



- The reverse combination works as the same code, that is “05 47” is the same as “47 05”.
- If the same code is specified for all individuals, all the individuals can be called at the same time.
- The default code is “05 47”.
- When receiving the signals, the intermittent sound of the tone signal may be heard slightly.

Calling a Specific Station

The “pager code” may be set to call specific stations.

1. Activate the pager function by referring to “**Using the Pager Function**” (page 12).

2. Press the [F MENU] key → [CODE].

If [CODE] is not displayed, touch [FWD →] to display [CODE] and then touch it.

3. Rotate the DIAL knob to select “**CODE-TX**”.

4. Press the [F MENU] key to move the “▶” icon to the first element of the code.

Rotate the DIAL knob to select the first element of the code from 1 to 50.

5. Press the [F MENU] key to move the “▶” icon to the second element of the code.

Rotate the DIAL knob to select the second element of the code from 1 to 50.

The same code cannot be use for both elements.

6. Press the PTT switch to save the setting and return to normal operation.

7. Press the PTT switch to transmit a call to the specific station.

Receiving “pager code” calls from a Remote Station (Standby Operation)

When the Pager function is activated, and a call is received with a corresponding Code, the audio is heard. When the PTT switch is pressed, the “**PAG**” icon blinks and the other station's audio is heard regardless of whether the code matches or not. About 10 seconds after the signal disappears, the “**PAG**” icon will light, and the sound of the unmatched signal will not be heard.

Furthermore, when the Bell function (see below) is activated, the bell rings and the “” icon blinks when receiving calls from the other station.

Using the Pager Answer Back

when called by another station with a corresponding pager code, the transceiver is automatically placed in the transmit mode (for about 2.5 seconds) to notify the other station that you are ready to communicate.

1. Activate the pager function by referring to “**Using the Pager Function**” (page 12).
2. Press the [F MENU] key → [CODE].

If [CODE] is not displayed, touch [FWD →] to display [CODE] and then touch it.

3. Press the [F MENU] key, and then rotate the DIAL knob to select “**ON**”.

SIGNALING		
6	PAGER	
ANS-BACK:	▶	ON
CODE-RX :	05	47
CODE-TX :	05	47

4. Press the PTT switch to transmit a call to the specific station.

Notification of a Call from a Other Station by the Bell Function

The Bell may be set to sound an Alert when a call from another station containing a corresponding tone, DCS or pager code is received. “” icon on the display blinks to provide a later notice of the call from the other station.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [1 BELL].
2. Press the [F MENU] key.
3. Rotate the DIAL knob to select “**BELL**”.

4. Press the [BACK] key, and then rotate the DIAL knob to select “**RINGER**”, and then press the [F MENU] key.

5. Rotate the DIAL knob to select the desired number of times (1-20 times or continuous) the Bell rings.

••• 1time ↔ 2times ↔ ••• ↔ 20times ↔ CONTI •••

SIGNALING		
1	BELL	
SELECT :	▶	BELL
RINGER :		1time

6. Press the PTT switch to save the setting and return to normal operation, and the “” icon appears on the display.



If the setting is “CONTI” (continuous), the bell keeps sounding until an operation is made.

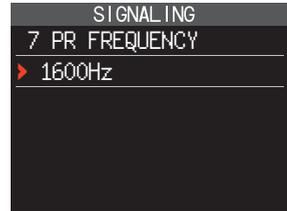
User Programmed Reverse CTCSS Decoder

The tone signal frequency can be set at 100 Hz intervals between 300 Hz and 3000 Hz to mute the audio when receiving a signal containing a CTCSS tone matching the programmed tone.

1. Press the **[F MENU]** key → **[SQ TYP]**.
2. Rotate the DIAL knob to select "**PR FREQ**".
3. Press the **PTT** switch to save the setting and return to normal operation.
4. Press the **[F MENU]** key → **[CODE]**.

The setting screen containing the CTCSS tone frequencies is displayed.

5. Rotate the DIAL knob to select the desired CTCSS tone frequency.
300Hz to 3000Hz (100Hz steps)
6. Press the **PTT** switch to save the setting and return to normal operation.



Memory Function

Memory Channel List

Since memory channels are displayed in a list, you can easily recall the memory by checking the frequency and memory tag display.

1. Press the [F MENU] key → [MEMORY].
 - If [MEMORY] is not displayed, touch [FWD →] to display [MEMORY] and then touch it.
 - You can switch between memory tag display and frequency display by press and hold the [V/M •] key.
 - The “X” icon is displayed at the left of memory channels set as skip memory, and the “P” icon is displayed at the left of memory channels set as specified memory.
 - Deleted memory channels are displayed in gray text.
 - Touching [▶▶], will cause the 10 digits of the memory channel to blink. Then turning the DIAL knob will fast forward memories in 10 channel steps. To cancel fast forward, touch [▶▶] again.

MEMORY CH LIST	
1	145.030.00
2	439.700.00
▶	3 145.620.00
X	4 432.500.00
ENT	

2. Rotate the DIAL knob to select the desired memory channel.
3. Touch [ENT] to recall the selected memory channel and enter memory mode.

The Memory Channel Only Mode

The FT5DR/DE may be set to operated only in the registered memory channels.

1. While pressing the [V/M •] key, press and hold the POWER switch to turn the transceiver **ON**.
 - The memory channel only mode is ON, the previously selected memory channel is recalled.
 - Rotate the DIAL knob to select the memory channels.
 - Touch and hold the frequency display to display the numeric keypad, enter a 3-digit memory channel number, and then touch [ENT] to recall the memory channel.
-
- In the memory only mode, only the following functions will operate:
 - Changing the communication mode (touch [MODE])
 - The transmission mode setting of the AMS function (touch [TX AUTO], [TX FM] or [TX DN])
 - Switching MAG groups (press the [BAND] key)
 - Audio level adjustment
 - Key lock function (press the **POWER** switch)
 - Function menu MEMORY, DISP, LED LIGHT, SCAN, and D.RCV functions
 - SQL level adjustment (press the [SQL] key)
 - Group monitor (GM) function (press the [GM] key)
 - WIRES-X function (press the [X] key)
 - Pressing the [V/M •] key, will sound the beep, “M-ONLY” will be displayed, and the function will not operate.



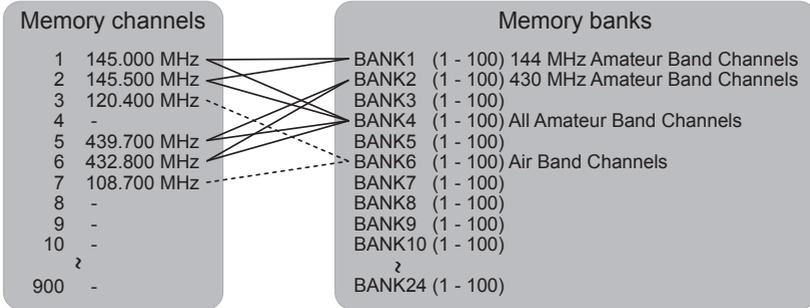
● Canceling Memory Only Mode

1. Turn the transceiver **OFF**; and then while pressing the [V/M •] key, press and hold the **POWER** switch to turn the transceiver **ON**.

Using Memory Banks

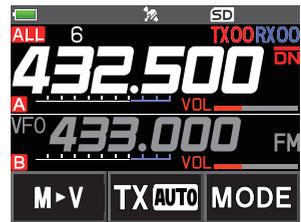
The transceiver allows using up to 24 memory banks to be recalled with the sorted memory channels. One memory channel may also be registered in two or more memory banks according to the intended use.

Example of registering memory channels to the memory banks:



Registering to Memory Banks

1. Press the **[V/M .]** key to enter the memory mode.
2. Rotate the DIAL knob to recall the memory channel to register in the memory bank.
3. Press and hold the **[V/M .]** key.
Memory channel will blink.
4. Rotate the DIAL knob to select the memory bank (BANK1 to BANK24) to register the memory channel.



The memory bank channels are displayed between the memory channel 1 (1CH), and PMS memory channel U50.

5. Press the **[V/M .]** key.

The memory channel is registered in the selected memory bank and the transceiver operation returns to the memory mode.

Open the Memory Bank display

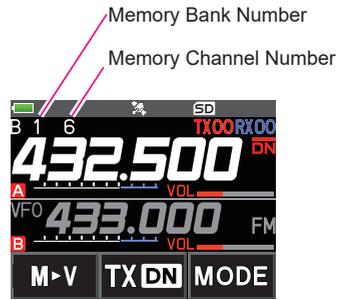
1. Press the [V/M .] key to enter the memory mode.

2. Press the [F MENU] key → [BANK].

If [BANK] is not displayed, touch [BACK ←] to display [BANK] and then touch it.

B1 to B24: The memory bank display

M: The memory channel display



If no memory channel is registered, setting the following operation sounds the beep and "NO BANK" will be displayed.

● Disable the memory bank display

1. Press the [F MENU] key → [MR].

If [MR] is not displayed, touch [BACK ←] to display [MR] and then touch it.

Open Memory Bank Channels

1. While the memory bank is displayed, press the [BAND] key.

2. Rotate the DIAL knob to select the memory bank (BANK1 to BANK24) to be recalled.



If no memory channel is registered, the memory bank may not be selected.

3. Press the [BAND] key or PTT switch.

The selected memory bank is activated.

Canceling a Memory Channel Registered in Memory a Bank

1. Recall the memory bank to cancel registering.

2. Press and hold the [V/M .] key.

3. Rotate the DIAL knob to select the memory channel to cancel registering to the memory channel.

4. Touch [M.DEL], and then touch [M.DEL].

Assigning a Name to a Memory Bank

A name can be assigned to a memory bank using up to 16 characters.

The following types of characters can be entered:

- Alphabetic characters (1 byte and 2 byte letters, uppercase and lowercase characters)
- Numbers (1 byte and 2 byte numbers)
- Symbols

1. Press and hold the [F MENU] key → touch [MEMORY] → [2 BANK NAME].
2. Touch the bank where you want to edit the tag.
 - The character input screen is displayed.
 - Use the numeric keys or DIAL knob, to input the name characters.
 - Touch [→]: to move the cursor to the right
 - For additional details on inputting a memory tag, refer to “Text input screen” in the Operating Manual.



 The default memory bank names are set from “BANK 1” to “BANK24. Each name may be changed.

3. When input is complete, press the PTT switch to save the characters and return to normal operation.



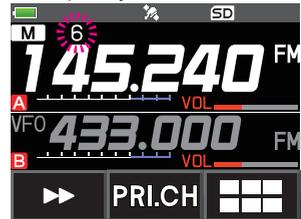
Split Memory

Two different frequencies, one for receive and another for transmit, may be registered to a memory channel.

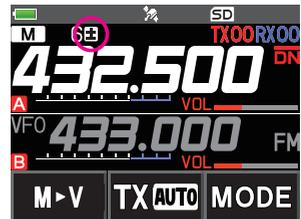
1. Register the receive frequency to a memory channel first.
 - For additional details on registering to a memory channel, refer to the “**Registering to Memory Channels**” in the Operating Manual.
2. Set the transceiver to the desired transmit frequency.
3. Press and hold the [V/M ●] key .
4. Rotate the DIAL knob to select the channel number that the receive frequency was registered to on step 1.
5. While pressing and holding the **PTT** switch, press the [V/M ●] key.
 - The beep sounds and the split memory is saved.
 - While recalling the split memory, “**±**” is displayed on the LCD.



Registering the receive frequency.



Registering the transmit frequency.



Recalling the split memory



While operating the split memory, Press the [F MENU] key → [REV], to reverse the transmit and receive frequencies temporarily. When reversing the frequencies, “**±**” will blink.

Setting Skip Memory Channel and Specified Memory Channel

For efficient memory channel scanning, two types of memory channels may be designated, “skip memory channels” and “specified memory channels”. Set “Skip Memory Channels” will be skipped during the memory scanning; and only “Specified Memory Channels” will be scanned during specified memory channel scanning.

1. Recall the memory channel to skip or specify.
2. Press and hold the [F MENU] key → touch [MEMORY] → [5 MEMORY SKIP].
3. Rotate the DIAL knob to change as follows:
 - → OFF → SKIP X → SELECT ▶ → •••

- **SKIP:** Skip Memory Channel

The “X” at the right of the memory channel number lights up, and then the channel is skipped during scanning of memory channels.

- **SELECT:** Specified Memory Channel

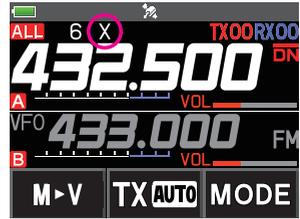
The “▶” at the right of the memory channel number lights up, and then only designated memory channels are scanned during memory scanning.

- **OFF:** Normal Memory Channel

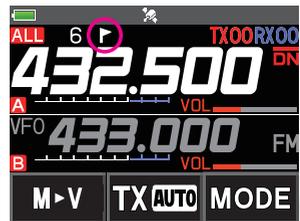
The “X” or “▶” at the right of the memory channel number turns OFF.

- **Scanning Only the Specified Memory Channels**

1. Recall the memory channel registered as a specified memory channel.
2. Press the [F MENU] key → [SCAN].
 - If [SCAN] is not displayed, touch [BACK ←] to display [SCAN] and then touch it.
 - Only the memory channels registered as the specified memory channels are scanned.



Skip Memory



Specified Memory



Unless two or more specified memory channels are registered, the specified memory channel scanning does not function.

Skipping Unwanted Scan Frequencies (Skip Search Memory)

During the VFO scan, an unwanted frequency may be skipped by registering it to the “skip search memory channels” in advance.

● Set the temporary scan stop to the skip search memory

1. Press and hold the [V/M .] key to temporarily stop the VFO scan.
2. Rotate the DIAL knob to select a skip search memory channel from 901-999.

Only skip search memory channels 901-999 may be selected.

3. Press the [V/M .] key.

The beep sounds, and the search skip channel is saved to memory, then the scan resumes.

● Specifying Unwanted VFO Scan Frequencies

1. In the VFO mode, set the frequency that you do not want to receive.
2. Register the skip search memory (901-999) with the same steps as “Registering to Memory Channels” (see the Operating Manual).



The skip search memory may be deleted with the same steps as “Clearing Memories” (see the Operating Manual). The deleted frequency is scanned again.

Programmable Memory Channel Scan (PMS)

Registering to the Programmable Memory Channels

50 sets of PMS memory channels (L1/U1 to L50/U50) are available.

- Register the lower and upper frequencies of the frequency range in a pair of Programmable Memory Channels.

L□□: Lower limit memory channel

U□□: Upper limit memory channel

- For more details on registering frequencies to the memory channel, refer to the “Registering to Memory Channels” in the Operating Manual.

- Make sure to use the corresponding numbers for the lower and upper limit memory channels.

- Set the PMS memory channel for performing the Programmable Memory scanning (PMS) as follows:

- The scan width of the upper and lower limit frequencies must be 100 kHz or more.
- The lower and upper limit memory channels must be within the same frequency band.
- The lower and upper limit memory channels must not be registered in reverse.
- The PMS memory channel must not be registered as a skip memory channel.



Performing Programmable Memory Channel Scan

The programmable memory channel scan allows scanning a specified frequency range within the same frequency band.

1. Recall the PMS memory channel to which the lower limit (L□□) or upper limit (U□□) of the frequency band is registered.

2. Press the [F MENU] key → [SCAN].

- If [SCAN] is not displayed, touch [BACK ←] to display [SCAN] and then touch it.

- Programmable memory channel scanning starts.

- During scanning, “PMS□□” appears on the upper left side of the display.

- If the DIAL knob is rotated while scanning is in progress, the scanning will continue up or down in frequency according to the direction of the DIAL Knob rotation.

- If the scanner halts on an incoming signal, the back light will turn ON and the decimal point between the “MHZ” and “KHZ” digits of the frequency display will blink.
 - Scanning will resume in about five seconds.
3. Touch **[STOP]** or press the **PTT** switch to cancel the scanning.
In this state (displayed as “**PMSP□□**” at the upper left of the display), the frequency can be changed by turning the DIAL knob only in the upper/lower limit frequency range stored by PMS memory.
- **Disable the PMS function**
1. Press the **[V/M .]** key.
Return to the normal memory mode.

Memory Bank Scanning

Scan only the memory channels stored in the recalled memory bank.

1. Recall the memory bank you want to scan by referring to “**Open the Memory Bank display**” (page 18) and “**Open Memory Bank Channels**” (page 18).
2. Press **[F MENU]** → **[SCAN]**.

If **[SCAN]** is not displayed, touch **[BACK ←]** to display **[SCAN]** and then touch it.

Memory bank scan starts.

Memory Bank Link Scanning

During regular memory bank scanning, only the memory channels assigned to the recalled memory bank are scanned. During memory bank link scanning, you can scan memory channels registered in two or more banks you specified in advance.

Setting Bank Link

1. Press and hold the **[F MENU]** key → touch **[MEMORY]** → **[1 BANK LINK]**.
2. Rotate the DIAL knob to select the memory bank for which you want to perform bank link scanning.
3. Press the **[F MENU]** key, a check mark will appear and it will be set to Bank Link.
4. Repeat steps 3 and 4 to select other memory banks.
5. Press the **PTT** switch to save the setting and return to normal operation.

Performing Bank Link Scan

1. Recall the memory bank set as bank link by referring to “**Open the Memory Bank display**” (page 18) and “**Open Memory Bank Channels**” (page 18).

The memory bank number is changed from [B] to [b] and the bank link scanning is activated.

2. Press the **[F MENU]** key → **[SCAN]**.

If **[SCAN]** is not displayed, touch **[BACK ←]** to display **[SCAN]** and then touch it.

Bank Link Scanning is performed toward the higher memory channel numbers.



Press and hold the **[DISP]** key → touch **[SCAN]** → **[5 SCAN WIDTH]** → **[BANK LINK]** is set to “**OFF**”, to temporarily disable banklink and perform normal memory-bank scanning while banklink is set.

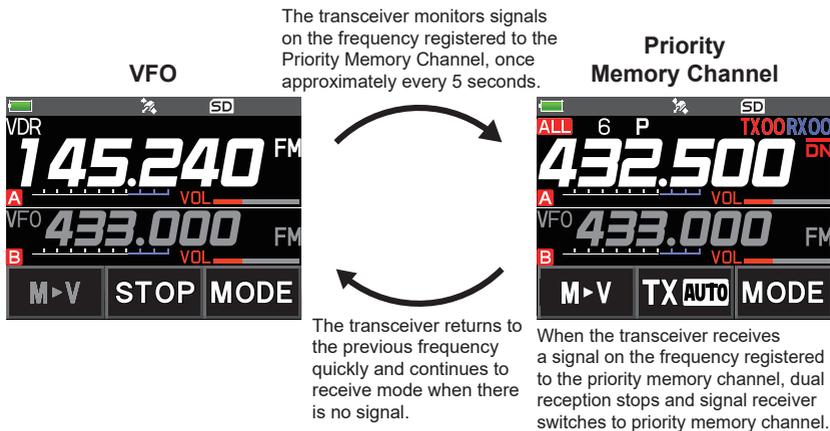
Dual Receive (D.RCV) Function

The transceiver is equipped with the following 3 types of Dual Receive Functions:

- VFO Dual Receive
- Memory Channel Dual Receive
- Home Channel Dual Receive

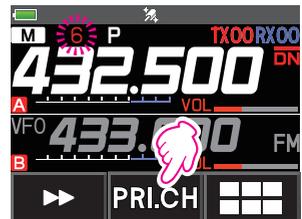
The transceiver checks for signals on the frequency registered to the selected memory channel (Priority Memory Channel) once approximately every 5 seconds. When receiving a signal on the frequency registered to a priority memory channel, the Dual Receive function automatically pauses, and allows reception of the signals.

Example: Checking the priority memory channel “6” (432.500 MHz), while receiving “145.240 MHz”.



Registering the priority channel

1. Register the preferred receive frequency and communication mode to the priority memory channel (see the operating manual).
2. Press the [V/M] key to recall the memory channel.
3. Touch and hold the [F MENU] key, and then rotate the DIAL knob to select the memory channel registered in step 1.
4. Touch [PRI.CH].
 - The priority memory channel setting is saved and operation returns to the prior recalled memory channel.
 - When recalling the priority memory channel, the “P” icon appears on the upper right side of the memory channel number.



Activating the Dual Receive (D.RCV) feature

1. Set the frequency and communication mode to monitor continually.

The monitor frequency may be set on the VFO mode, the memory channel mode or the HOME channel mode.

VFO Dual Receive

VFO ⇔ Priority Memory Channel

Memory Channel Dual Receive

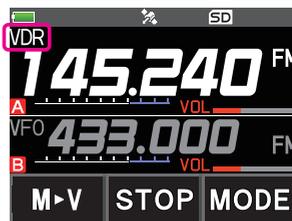
Memory Channel ⇔ Priority Memory Channel

HOME Channel Dual Receive

HOME channel ⇔ Priority Memory Channel

2. Press the [F MENU] key → [D.RCV].

- If [D.RCV] is not displayed, touch [BACK ←] to display [D.RCV] and then touch it.
- The dual receive function is activated and the following icon is displayed on the top left of the display.



VFO Dual Receive:

VDR

Memory Channel Dual Receive: **MDR** (/DXX/dXX)*

HOME Channel Dual Receive: **HDR**

* In the memory bank, **DXX** is displayed, and in the memory bank where the bank link is set, **dXX** (**XX** is a bank number) is displayed.

When a signal is received on the priority channel, the beep sounds, and the Dual Receive function stops temporarily.



The combination of the frequency bands and modes for the Priority Memory Channel and the receiver monitor frequency can be easily changed. Dual Receive may be operated with the AMS function ON.

Setting the Dual Receive (D.RCV) Resume Conditions

1. Press and hold the [F MENU] key → touch [SCAN] → [4 SCAN RESUME].
2. Rotate the DIAL knob to select "DW".
3. Press the [F MENU] key, and then rotate the DIAL knob to select the resume condition after halting in the Dual Receive function (default setting is "HOLD").

2.0 sec~10.0 sec

The signal is received for the specified period of time, and then the Dual Receive resumes.

The Dual Receive resume time may be set from 2 to 10 seconds at 0.5 second intervals.

BUSY

The signal is received until the signal fades out. Two seconds after the signal fades out, the Dual Receive resumes.

HOLD

The Dual Receive stops and tuning remains on the current receive frequency. (The Dual Receive does not resume.)

4. Press the **PTT** switch to save the new setting and return to normal operation.



Press and hold the [F MENU] key → touch [SCAN] → [6 PRIORITY REVERT] is set to "ON", press the **PTT** switch to transmit, without waiting for activity to appear on the priority channel. After transmitting, the transceiver receives the priority channel and Dual Receive resumes after 5 seconds.

Using the GPS Function

The GPS Function

GPS (Global Positioning System) is a space-based satellite navigation system that provides location and time information anywhere on the earth. It was developed by the U.S. Department of Defense as a military system. When the GPS receiver acquires 3 or more signals (of about 30) GPS satellites orbiting at an altitude of about 20,000 km, it can calculate and display its current position (latitude, longitude, and altitude) within a tolerance of several meters. In addition, GPS can receive the exact time from the satellite onboard atomic clock.

Activating the GPS Function

Activating the GPS function enables the transceiver to automatically obtain the internal clock setting, and your location information setting from the GPS data.



The default setting is ON.

1. Press and hold the **[F MENU]** key → touch **[APRS]** → **[20 GPS POWER]**.
2. Rotate the DIAL knob to select “**GPS ON**”.
3. Press the **PTT** switch to save the setting and return to normal operation.



When the GPS function is active, the power consumption increases by about 15 mA. As a result, the battery life is reduced, as compared to when the GPS function is deactivated.

Displaying Position Information of Remote Stations in Digital Mode

With V/D mode of the C4FM digital, the GPS position information is transmitted simultaneously with voice signals; therefore, the direction and position of the remote station can be displayed in real-time even while communicating.

For details, see “**Real-Time Navigation Function**” (page 30)



- Even if the GPS function of your station is set to OFF, the position information of the remote station can be displayed in V/D mode.
- When the GPS function is not active, the remote station cannot display the position information for your station.

About Positioning by GPS

“Positioning” refers to calculation of your current position from the satellite orbit information and radio propagation time. At least 3 satellites need to be acquired for successful positioning. If positioning fails, move away from buildings as far as possible and stand in an area with open sky.

- **About errors**

The measurement environment may result in positioning errors of several hundred meters. Under favorable conditions, positioning can be performed successfully using only three satellites. However, under the following poor conditions, the positioning accuracy can decrease or positioning can fail.

- Between tall buildings
- Narrow paths between buildings
- Indoors or near large buildings
- Under elevated roads or high voltage power lines
- Between trees such as in forests or woods
- Inside a tunnel or underground
- Through heat reflective glass
- Areas with strong magnetic fields

- **When not in use for a long time**

When using the GPS functions for the first time after purchase, or when it has been unused in a while, a few minutes may be required to acquire the satellites. Also, if the GPS function has been turned OFF for several hours, a few minutes may be required to search for satellites.

Saving GPS Information (GPS Log Function)

The GPS position information can automatically be saved periodically onto a microSD memory card. Using the saved data, tracks can be displayed on commercially available map software*.

* Technical support for the map software is not provided by YAESU.

1. See “**Activating the GPS Function**” on page 26, and activate the GPS function.
2. Press and hold the [F MENU] key → touch [CONFIG] → [7 GPS LOG].
3. Rotate the DIAL knob to select the GPS data logging interval.
OFF / 1 sec / 2 sec / 5 sec / 10 sec / 30 sec / 60 sec
4. Press the PTT switch to save the setting and return to normal operation.

The GPS log function is activated, and GPS log “LOG” icon will be displayed.



- The position information is saved periodically unless “OFF” is selected in step 3 (shown above) or the power of the transceiver is turned off.
 - Reselecting the GPS data logging interval in step 3 or turning on the transceiver again, begins saving the GPS data under a different file name.
-

Checking Tracks on Your PC

1. Turn off the transceiver.
2. Remove the microSD memory card from the transceiver.
3. Connect the microSD memory card to your PC using a commercially available memory card reader.
4. Open the “**FT5D**” folder in the microSD memory card.
5. Open the “**GPSLOG**” folder.
 - The data is saved as “**GPSyymmddhhmmss.log**”.
 - The [yymmddhhmmss] part of the name consists of year (yy), month (mm), day (dd), hour (hh), minute (mm), and second (ss).

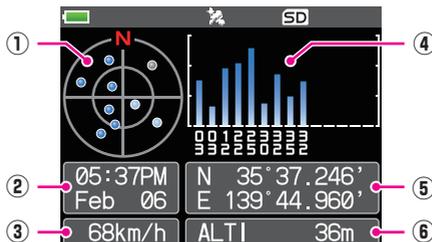


- Tracks can be displayed on the map by importing the data to commercially available map software.
 - For information on importing, please refer to the operation manual for the map software you use.
-

GPS Screen Information and Operation

Activating the GPS function displays the following information on the LCD.

1. In the normal operation screen, press the **[F MENU]** key → touch **[DISP]**.
 - If **[D.RCV]** is not displayed, touch **[BACK ←]** to display **[D.RCV]** and then touch it.
 - If the navigation screen is displayed, touch the compass display to switch to the GPS information screen.



- ① Displays the satellite azimuth and elevation angles. Displays in North-up mode.
- ② Displays the date and time.
- ③ Displays the current speed.
- ④ Displays the satellite number and reception level.
- ⑤ Displays the latitude on the upper side of the screen whereas displays the longitude on the lower side of the screen.

The current position appears using north (N) or south (S) latitude.

Display format: X DD° MM. MMM

X: X=N: North latitude, X=S: South latitude, DD: Degree, MM:MMM Minute
Example: N 35° 37.250 (35 degrees, 37 minutes, 15 seconds north latitude)

The current position appears using east (E) or west (S) longitude.

Display format: X DDD° MM. DMMM

X: X=E: East longitude, X=W: West longitude, DDD: Degree, MM:MMM Minute
Example: E 139° 44.500 (139 degrees, 44 minutes, 30 seconds east latitude)

- ⑥ Displays the altitude of the current position "ALTI xxxm".

Example: ALTI 36m

-
- The GPS data units for position, speed and altitude may be changed by pressing and holding the **[F MENU]** key → touch **[APRS]** → **[22 GPS UNIT]**.
 - When the GPS function is used, the accurate time and date are obtained from GPS and shown on the LCD in 24-hour format. This time data is displayed on the GPS and APRS screens.
 - The geodetic system datum (WGS-84 / Tokyo) of the built-in GPS unit may be selected by pressing and holding the **[F MENU]** key → touch **[APRS]** → **[19 GPS SETUP]** in Setup Menu. However, since APRS uses the geodetic system of WGS-84, it is recommended not to change it.
 - The time zone may be set at 30-minute increments by press and hold the **[F MENU]** key → touch **[APRS]** → **[28 TIME ZONE]** (the default setting: UTC 0:00).
 - The position information obtained from an external GPS device may be used by pressing and holding the **[F MENU]** key → touch **[APRS]** → **[17 COM PORT SETTING]** and then setting "INPUT" to "GPS". In this case, the data from the internal GPS will be ignored.
 - When using an external GPS device, move it away from the transceiver to reduce interference.
-



Smart Navigation Function

There are 2 methods of navigation with the Smart Navigation function.

- Real-time navigation function
- Backtrack function



Before using the smart navigation function, press and hold the [F MENU] key → touch [APRS] → [1 TARGET LOCATION], select "COMPASS".

Real-Time Navigation Function

GPS position information and voice signals are simultaneously transmitted in the V/D mode of C4FM digital. For this reason, the position and direction of the remote station can be displayed in real time even during communication.

1. In the normal operation screen, press the [F MENU] key → touch [DISP].
 - If [DISP] is not displayed, touch [FWD →] to display [DISP] and then touch it.
 - If the GPS information screen is displayed, touch the compass display to switch to the navigation display screen.
2. Touch [] to switch to the remote station location information display.
3. The distance and direction to the remote station operating on the same frequency in the V/D mode are displayed.



4. Press the [F MENU] key to return to the normal operation display.

Backtrack Function

By registering a point such as the departure point in advance, the distance and direction to the registered point from your current position can be displayed in real time.

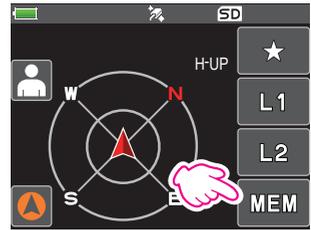
● Registering Your Current Position (Departure Point) (up to 3 Positions can Be Registered)

1. In the normal operation screen, press the [F MENU] key → touch [DISP].
 - If [DISP] is not displayed, touch [FWD →] to display [DISP] and then touch it.
 - If the GPS information screen is displayed, touch the compass display to switch to the navigation display screen.
2. Touch [] to switch to your own station location information display.

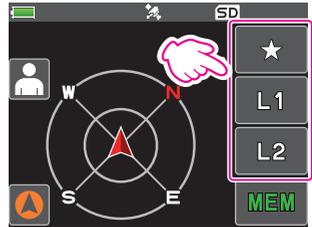


You can register the other partner's callsign and current location by touching [] and performing the registration operation while the remote station's location information is displayed.

3. Touch **[MEM]**.
 “★”, **L1**” and **“L2”** blink.



4. Touch one of the blinking indicators to which you want to register the position information.
 - The location information is registered with the selected indicator.
5. Press the **[F MENU]** key return to normal operation display.

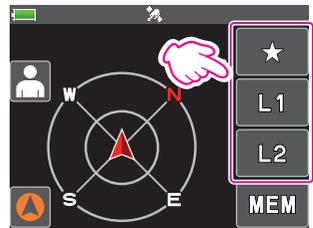


● Using the Back Track Function

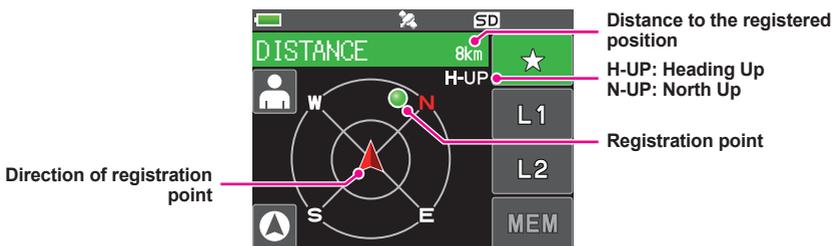
1. In the normal operation screen, press the **[F MENU]** key → touch **[DISP]**.
 - If **[DISP]** is not displayed, touch **[FWD →]** to display **[DISP]** and then touch it.
 - If the GPS information screen is displayed, touch the compass display to switch to the navigation display screen.
2. Touch the indicator (**[★]**, **[L1]** or **[L2]**) to which you want to register the location information for back tracking.

The arrows in the circle indicate the direction of the registered point (departure point). You can return to the departure point by moving forward so that the arrow always points up (In case of heading up display).

3. Press the **[F MENU]** key to return to normal operation display.



● Description of the BACK TRACK Function Screen

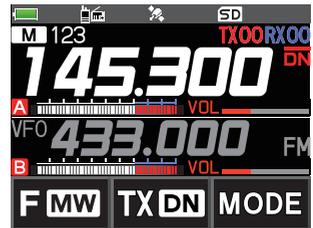
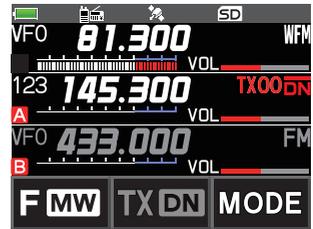


AF-DUAL Receive Function

The AF-DUAL Receive Function allows reception of a radio broadcast during standby reception of A-band or B-band frequency (or frequency registered to a memory channel). When standby reception is active, no audio is heard on the standby frequency, however if a voice signal is detected, the reception of the broadcast radio will be paused, and the receiver frequency will be heard.

Dual Receive is a similar function. When using the Dual Receive function, every time the transceiver checks for a signal on the specified memory channel during radio reception, the radio reception is interrupted (approximately every 5 seconds). When using the AF-DUAL Receive Function, the radio reception is interrupted only when there is a calling signal from another transceiver.

1. Set the A-band or B-band frequency for standby receive during broadcast radio reception.
2. Press the [F MENU] key → [A.DUAL].
 - If [A.DUAL] is not displayed, touch [BACK ←] to display [A.DUAL] and then touch it.
 - The AF-DUAL function is activated, and AF DUAL “” icon will be displayed.
 - Pressing the [BAND] key each time switches between the AM broadcast (middle wave band) and FM broadcast.
3. Rotate the DIAL knob to tune to the frequency of the broadcast station.



- The AF-DUAL receive function can also be used to monitor a radio frequency registered to a memory channel or memory bank.
- Pressing [MONI] switch during radio reception, allows receiving the standby frequency.
- While listening to the radio using the AF-DUAL function, in standby receive mode, the transceiver cannot simultaneously receive broadcasts on the AM frequency (middle wave band) on either the A-band or B-band, and FM frequency.

● Disable the AF DUAL function

1. Press the [F MENU] key → [A.DUAL].

DTMF Operation

DTMF (Dual Tone Multi Frequencies) are the tone signals sent to make telephone calls, or control repeaters and network links. Up to 10 registers of 16-digit DTMF tone codes can be stored as telephone numbers to make calls through the public telephone network using a phone patch or connect through the WIRES-X analog node station.

Setting the DTMF Memory

1. Press and hold the [F MENU] key → touch [SIGNALING] → [5 DTMF MEMORY].
2. Rotate the DIAL knob to select the desired channel (1 to 10) to register the DTMF code, then press the [F MENU] key.
The DTMF memory channel input screen is displayed.
3. Use the numeric keypad or DIAL knob to input the DTMF code maximum of 16 digits.
 - Using the DIAL knob:
The DTMF codes from 0 to 9 may be input.
••• ⇨ 0 to 9 ⇨ A to D ⇨ * ⇨ - ⇨ # ⇨ •••
4. Press the PTT switch to save the setting and return to normal operation.

Transmitting the Registered DTMF Code

1. Press and hold the [F MENU] key → touch [SIGNALING] → [4 DTMF MODE].
2. Rotate the DIAL knob to select the “MODE”.
3. Press the [F MENU] key, and then turn the DIAL knob to select the setting.
AUTO ☎: The registered DTMF code is automatically transmitted.
MANUAL: The DTMF code may be transmitted manually by pressing each numeric key.
4. Press the PTT switch to save the setting and return to normal operation.
When set to “AUTO”, the DTMF icon “☎” will be shown on the display.

Transmitting DTMF code automatically using DTMF memory

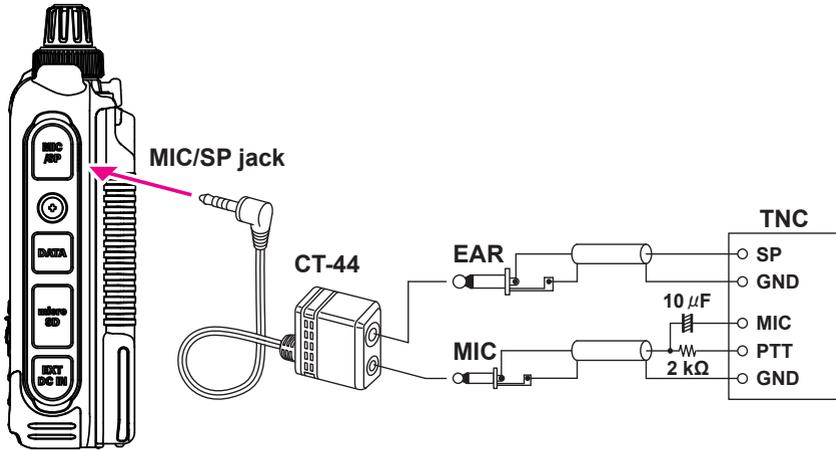
1. Set “**AUTO** ☎” by referring to “Transmitting the Registered DTMF Code” (above).
2. While pressing and holding the PTT switch, touch [DTMF].
3. Touch a numeric [0] to [9].
 - The DTMF code registered in the DTMF memory channel is automatically transmitted.
 - Even after releasing the PTT switch, the transmission continues until the DTMF code is completed. The transceiver is automatically returned to receive mode.

Manually Transmitting the DTMF Code

1. Set “**MANUAL**” by referring to “Transmitting the Registered DTMF Code” (above).
2. While pressing and holding the PTT switch, touch [DTMF].
 - Touch each corresponding key to send the DTMF code
 - The transmission may continue for one second after releasing the PTT switch.

Using the Transceiver for Packet Communication

You can perform packet communication with your transceiver by connecting a TNC (Terminal Node Controller) using an optional Microphone Adapter (CT-44).



After connecting the TNC to the transceiver, set the output signal level to the TNC by adjusting the sound volume level of the transceiver.

Also, adjust the signal level input to your transceiver using the output level adjustment volume on the TNC (Input level cannot be adjusted on your transceiver).



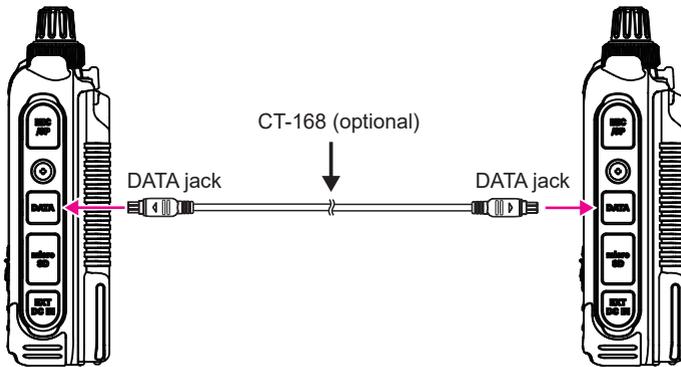
When sending a vast volume of data, the transmission takes a longer time and the transceiver may be overheated. If the transmission is continued for a long time, the overheat prevention circuit will operate and the transmission power decreases. If the transmission is continued further, the transmission will be automatically stopped to prevent the transceiver from overheating and consequently malfunctioning. If the overheat prevention circuit has operated the transceiver returns to the receive mode, turn the transceiver OFF, or leave it in the receive mode until the temperature falls.



- Set the receive battery Save Function to OFF during packet communication by pressing and holding the [F MENU] key → touch [CONFIG] → [17 SAVE RX].
- Reception can be interfered with by noise generated by the Personal Computer.
- If the transceiver enters an abnormal receive state, disconnect the transceiver from the PC, and reconnect it to the PC using a photo coupler device or noise filter.
- For details on how to connect a TNC to the PC, refer to the TNC instruction manual.

Clone Operation

Data and various settings saved in your transceiver can be copied to any other FT5DR/DE transceiver.



1. Turn OFF the power of both FT5DR/DE transceivers, then connect an optional clone cable (CT-168) to the DATA terminal of each transceiver.
2. While pressing and holding the [F MENU] keys on both FT5DR/DE transceivers, press the POWER switch.

The two transceivers are turned on and placed in the clone mode. The “CLONE” appears on the display.

3. Touch [RECEIVE] on the receiving side transceiver.
The “WAIT” appears on the display.
4. Touch [SEND] on the transmitting side transceiver.
 - The “TX” appears on the display and data transfer starts.
 - When data transfer starts, the display on the receiving transceiver changes from “WAIT” to “RX”.
 - When data transfer begins, the data transfer amount indicator appears on the LCD.
5. When copying is completed, the receiving side transceiver returns to the normal mode. On the transmission side transceiver, the indication on the LCD returns from “TX” to “CLONE”.
6. Turn OFF the power of both transceivers, then disconnect the clone cable.



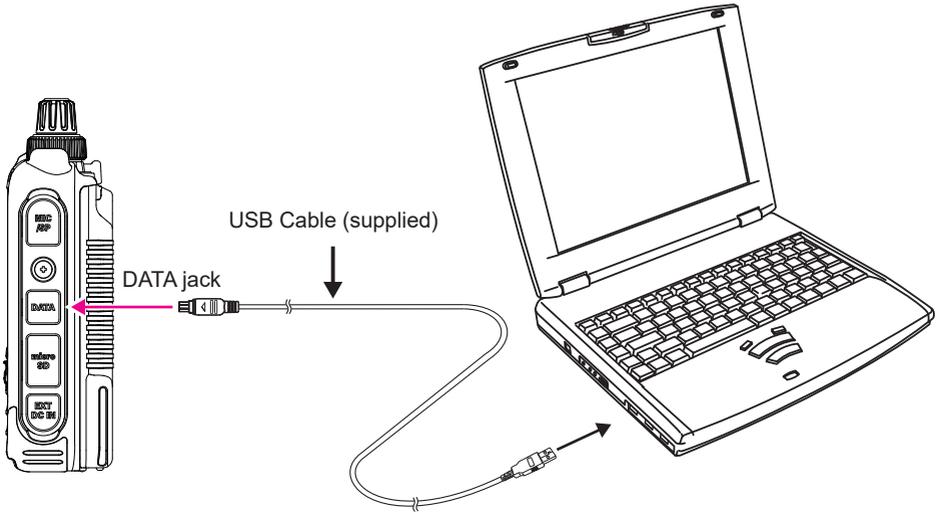
- When the “ERROR” appears on the LCD during data transfer, copying cannot be completed. Check the clone cable connection, and redo the operation from the beginning.
- Time data cannot be copied.

Connecting to a PC

Updating the FT5DR/DE firmware

To update the transceiver firmware, connect a PC to the DATA terminal of the FT5DR/DE with the supplied USB cable, as described below:

When a new firmware update for the FT5DR/DE is available, download the data from the YAESU website to update the FT5DR/DE to the latest version.



Caution

When the All Reset function is performed, all data registered in the memory is deleted. Be sure to note the settings on paper or back up the data on a microSD memory card. For details on how to save data onto a microSD memory card, refer to "Setup Menu: SD CARD Menu Operations".

All Reset

To restore all transceiver settings and memory content to the factory defaults.

1. Turn the transceiver **OFF**.
2. Press and hold the [**F MENU**] key, the [**A/B**] key and the [**BAND**] key and turn the transceiver **ON** simultaneously.

The beep sounds and the confirmation screen is displayed.

3. Touch [**OK**].
 - The beep will sound, and the transceiver will reset all factory defaults.
 - After resetting all defaults, the call sign input message appears on the LCD. Set the call sign.
 - To cancel the resetting, touch [**CANCEL**].

Setup Menu Reset

Reset only the Setup Menu parameters, and restore them to the default settings.

1. Turn the transceiver **OFF**.
2. Press and hold the [**F MENU**] key and the [**A/B**] key and turn the transceiver **ON** simultaneously.

The beep sounds and the confirmation screen is displayed.

3. Touch [**OK**].
 - The beep will sound, and the transceiver will reset all Setup Menu settings to defaults.
 - To cancel the resetting, touch [**CANCEL**].
 - To reset all the following items, perform All Reset (see above).

[DISPLAY]

8 OPENING MESSAGE

[SIGNALING]

1 BELL
2 DCS CODE
3 DCS INVERSION
5 DTMF MEMORY
6 PAGER
7 PR FREQUENCY
9 SQL S-METER
11 SQL TYPE
12 TONE SQL FREQ

[WIRES-X]

1 RPT/WIRES FREQ
2 SEARCH SETUP
3 EDIT CATEGORY TAG

[CALLSIGN]

CALLSIGN

[TX/RX]

1-1 ANTENNA ATT
1-2 FM DEVIATION
1-3 RX MODE
2-4 DIGITAL VW

[SCAN]

5 SCAN WIDTH

[CONFIG]

6 CLOCK TYPE
12 PASSWORD
15 RPT SHIFT
16 RPT SHIFT FREQ
18 STEP

[OPTION]

2 Bluetooth
3 DEVICE LIST
4 Bluetooth AUDIO

[MEMORY]

1 BANK LINK
2 BANK NAME
3 MEMORY NAME
5 MEMORY SKIP

[GM]

1 DP-ID LIST

[APRS]

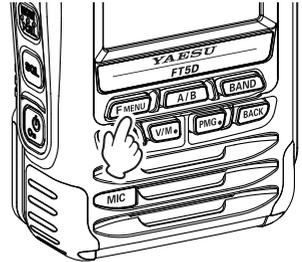
6 APRS MSG GROUP
7 APRS MSG TEXT
13 BEACON INFO
15 BEACON STATUS TEXT
17 COM PORT SETTING
18 DIGI PATH
19 GPS SETUP
23 CALLSIGN (APRS)
24 MY POSITION
25 MY SYMBOL

Using Setup Menu

The Setup Menu permits configuring the various functions according to individual operating needs and preferences.

Setup Menu Operation

1. Press and hold the **[F MENU]** key.
The Setup Menu screen will be displayed.



2. Touch the desired item in Setup Menu.
 - The Sub-menu screen will be displayed.
 - You can also turn the DIAL knob to indicate a menu item, and then press the **[F MENU]** key to select it.



3. Touch the desired Setup Menu sub-menu.
 - Turn the DIAL knob to display a sub-menu that is not displayed, then touch it.
 - You can also turn the DIAL knob to indicate a menu item, and then press the **[F MENU]** key to select it.
4. Rotate the DIAL knob to select the desired item to set.
[When there is no deeper level of menu items]
Go step 6.
[When there is deeper level of menu items]
5. Touch the desired item to set.
6. Rotate the DIAL knob to select the desired item to set.
7. Press the **PTT** switch to save the settings and return to normal operation.

On some setting screens, pressing **PTT** switch does not exit from Menu Mode. In this case, press the **[BACK]** key several times to return to the frequency display screen.

Tables of Setup Menu Operations

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
DISPLAY		
1 TARGET LOCATION	Set what to display using the smart navigation function.	COMPASS / NUMERIC
2 COMPASS	Set the compass display of the smart navigation function.	HEADING UP / NORTH UP
3 BAND SCOPE	Set the number of search channels for the band scope function.	19ch / 39ch / 79ch
4 LAMP	Set the duration time of the back light and keys to be lit.	KEY: OFF / 2 sec to 180 sec / CONTINUOUS KEY 30 sec SAVE: ON / OFF
5 LANGUAGE	Switch between Japanese/English for the menus and Setup Menu, etc.	ENGLISH / JAPANESE
6 LCD BRIGHTNESS	Set the brightness level of the LCD back light and numeric keypad light.	LEVEL1 to LEVEL6
7 DISPLAY COLOR	Set the font color of the operating band frequency.	WHITE / BLUE / RED
8 OPENING MESSAGE	Set the opening message type.	OFF / DC / MESSAGE
9 SENSOR INFO	Display the voltage.	DC
10 SOFTWARE VERSION	Display the software version.	Main / Sub / DSP
TX/RX		
1 MODE		
1 ANTENNA ATT	Switch the attenuator between ON/OFF.	ON / OFF
2 FM DEVIATION	Set the FM transmission modulation level.	WIDE / NARROW
3 RX MODE	Select the receive mode.	AUTO / FM / AM
2 DIGITAL		
1 DIGITAL POPUP	Set the POP UP time.	OFF / BAND 2 s / BAND 4 s / BAND 6 s / BAND 8 s / BAND 10 s / BAND 20 s / BAND 30s / BAND 60 s / BND CONTINUE
2 LOCATION SERVICE	Set whether or not to display your current location in digital mode.	ON / OFF
3 STANDBY BEEP	Switch the standby beep function between ON/OFF.	ON / OFF
4 DIGITAL VW	Turn the VW mode selection ON or OFF.	OFF / ON
5 AUDIO PITCH	Set the quality of received audio in digital mode.	FLAT / HIGH BOOST / LOW BOOST
3 AUDIO		
1 MIC GAIN	Adjust the microphone gain level.	LEVEL1 to LEVEL9 LEVEL5
2 MUTE	Set the muting level on the non operating band side when a signal is received on the operating band side.	OFF / MUTE 30% / MUTE 50% / MUTE 100%
3 RX AF DUAL	Set the resumption time of radio reception in the AF Dual mode.	Transmit and receive 1 second to 10 seconds, Fixed, or transmission 1 second to 10 seconds. Transmit and receive 2 seconds
4 SP SELECT	Set Speaker switching operation when connecting an external SP/MIC.	AUTO / FIX
5 VOX	VOX function setting.	VOX: OFF / LOW / HIGH DELAY: 0.5 sec / 1.0 sec / 1.5 sec / 2.0 sec / 2.5 sec / 3.0 sec
6 RECORDING	Voice recode function setting.	BAND: A / B / A+B MIC: ON / OFF

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
MEMORY		
1 BANK LINK	Set the memory bank link.	BANK1 to BANK24 BANK LINK ON / OFF
2 BANK NAME	Assign a name to each memory bank.	BANK1 to BANK24
3 MEMORY NAME	Input the memory channel tag.	Up to 16 letters
4 MEMORY PROTECT	Set whether to allow or prohibit memory channel registration.	ON / OFF
5 MEMORY SKIP	Set for skip memory / specify memory.	OFF / SKIP / SELECT
6 MEMORY WRITE	Set the automatic channel number increment when registering to a memory channel.	NEXT / LOWER
SIGNALING		
1 BELL	Set the bell function settings.	SELECT: OFF / BELL RINGER: 1 time to 20 times / CONTINUOUS
2 DCS CODE	Set the DCS code.	DCS 023 to DCS 754
3 DCS INVERSION	Select a combination of DCS inversion codes in terms of communication direction.	RX (Receive): NORMAL (Homeomorphic) / INVERT (Inversion) / BOTH (Both Phase) TX (Transmission): NORMAL (Homeomorphic) / INVERT (Inversion)
4 DTMF MODE	Set the transmission of DTMF code registered to a DTMF memory channel, DTMF code transmission delay time, and DTMF code transmission speed.	MODE: MANUAL / AUTO DELAY: 50 ms / 250 ms / 450 ms / 750 ms / 1000 ms SPEED: 50 ms / 100 ms
5 DTMF MEMORY	Set the DTMF auto dialer channel and code (16 characters).	CH1 to CH10
6 PAGER	Turn the pager answer back Function ON/OFF, and specify a personal code (transmit/receive).	ANS-BACK: ON / OFF CODE-RX: 01 to 50 for each, 05 47 CODE-TX: 01 to 50 for each, 05 47
7 PR FREQUENCY	Set a non-communication squelch.	300Hz to 3000Hz 1600Hz
8 SQL LEVEL	Select a squelch level.	LEVEL0 to LEVEL15 LEVEL1 LEVEL0 to LEVEL8 LEVEL1 (AM Radio) LEVEL0 to LEVEL8 LEVEL2 (FM Radio)
9 SQL S-METER	Select an S-Meter squelch level.	OFF / LEVEL1 to LEVEL10
10 SQL EXPANSION	Set a squelch type separately for Receive and transmit.	ON / OFF
11 SQL TYPE	Select a squelch type.	OFF / TONE / TONE SQL / DCS / REV TONE / PR FREQ / PAGER / (D CD) / (TONE-DCS) / (D CD-TONE SQL) * The options in the parentheses are available when the SQL expansion is ON.
12 TONE SQL FREQ	Set a tone frequency.	67.0Hz to 254.1Hz 100.0 Hz
13 TONE SEARCH	Set the audio output during tone search. Turn the muting function on/off and select a tone search speed.	MUTE: ON / OFF SPEED: FAST / SLOW
14 WX ALERT	Enables/Disables the Weather Alert Feature.	ON / OFF
SCAN		
1 DW TIME	Set the priority memory channel monitoring interval.	0.1 sec to 10 sec 5.0 sec
2 SCAN LAMP	Set whether or not to light up the scan lamp when scanning stops.	ON / OFF
3 SCAN RE-START	Set the scanning restart time.	0.1 sec to 10 sec 2.0 sec
4 SCAN RESUME	Configure the scan stop mode settings.	SCAN: BUSY / HOLD / 2.0 sec to 10 sec 5.0 sec DW: BUSY / HOLD / 2.0 sec to 10.0 sec

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
5 SCAN WIDTH	Set the scan mode operation.	VFO: ALL / BAND MEMORY: ALL CH / BAND BANK LINK: ON / OFF
6 PRIORITY REVERT	Turn the "Priority Channel Revert" feature ON or OFF during Dual Receive.	ON / OFF
GM		
* For details of the functions, refer to the GM Function Instruction Manual.		
1 DP-ID LIST	Displays the DP-ID list screen.	-
2 RADIO ID CHECK	Display the transceiver specific number (ID). (Uneditable)	-
WIRES-X		
* For details of the functions, refer to the WIRES-X Instruction Manual.		
1 RPT/WIRES FREQ	Set the frequency to be used for Repeater/WIRES.	MANUAL / PRESET
2 SEARCH SETUP	Set the WIRES ROOM selection method.	HISTORY / ACTIVITY
3 EDIT CATEGORY TAG	Edit category tags.	C1 to C5
4 REMOVE ROOM/NODE	Delete registered Category ROOMs.	C1 to C5
5 DG-ID	Set the DG-ID number for WIRES-X.	01 to 99 / AUTO
CONFIG		
1 APO	Set the length of time until the transceiver turns off automatically.	OFF / 30 min to 12 hour 00 min
2 BCLO	Turn on/off the busy channel lockout function.	ON / OFF
3 BEEP	Set the beep emitting function, and set whether or not to emit the beep sound when a band edge/CH1 is encountered.	SELECT: KEY&SCAN / KEY / OFF EDGE: ON / OFF
4 BEEP LEVEL	Beep volume setting.	LOW / HIGH
5 BUSY LED	Turn on/off the BUSY indicator.	A BAND: ON / OFF B BAND: ON / OFF RADIO: ON / OFF
6 CLOCK TYPE	Set the clock shift function.	A / B
7 GPS LOG	Set the GPS log recording time interval.	OFF / 1 sec / 2 sec / 5 sec / 10 sec / 30 sec / 60 sec
8 HOME VFO	Enable/disable VFO transmission in Home Channel.	ENABLE / DISABLE
9 LOCK	Configure the lock mode setting.	KEY&DIAL / PTT / KEY&PTT / DIAL&PTT / ALL / KEY / DIAL
10 MONI/T-CALL	Select the function of the MONI/T-CALL switch.	MONI / T-CALL The default setting: MONI (USA version), T-CALL (European/Asian version)
11 TIMER	Switch the timer between ON and OFF.	POWER ON: 00:00 ~ 23:59 POWER OFF: 00:00 ~ 23:59
12 PASSWORD	Input the password.	OFF / ON : - - -
13 PTT DELAY	Set the PTT delay time.	OFF / 20 ms / 50 ms / 100 ms / 200 ms
14 RPT ARS	Turn the ARS function on/off.	ON / OFF
15 RPT SHIFT	Set the repeater shift direction.	SIMPLEX / -RPT / +RPT
16 RPT SHIFT FREQ	Set the repeater shift width.	0.000MHz to 150.000MHz
17 SAVE RX	Set the receive save time.	OFF / 0.05 sec (1:1) to 20.0 sec (1:400)
18 STEP	Set the channel step.	AUTO / 5.0 kHz / 6.25 kHz / (8.33 kHz) / (9.0 kHz) / 10.0 kHz / 12.5 kHz / 15.0 kHz / 20.0 kHz / 25.0 kHz / 50.0 kHz / 100.0 kHz

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
19 DATE & TIME ADJ	Set the built-in clock.	-
20 TOT	Set the timeout timer.	OFF / 30sec to 10MIN 3 min 00 sec
21 VFO MODE	Select the frequency selection range in the VFO mode.	ALL / BAND
22 BAND SELECT	Set the frequency bands that can be selected for A-band and B-band ("OTHER" includes 50MHz band*, VHF (1), VHF (2), UHF (1), UHF (2*)) * A-Band only	AIR: ON / OFF VHF: ON / OFF UHF: ON / OFF OTHER: ON / OFF SW*: ON / OFF AM*: ON / OFF FM*: ON / OFF *A-Band only.
23 DIAL KNOB CHANGE	Select a vibrator mode and set up the vibrator function.	-
APRS		
* For details of the functions, refer to the APRS Instruction Manual.		
1 APRS AF DUAL	Turn ON/OFF the muting function when both the APRS function and AF dual function are active.	ON / OFF
2 APRS DESTINATION	Display the model code.	APY05D (Uneditable)
3 APRS FILTER	Select the filter function.	Mic-E: ON / OFF POSITION: ON / OFF WEATHER: ON / OFF OBJECT: ON / OFF ITEM: ON / OFF STATUS: ON / OFF OTHER: ON / OFF ALTNET: ON / OFF
4 APRS MODEM	Set the APRS baud rate.	OFF / 1200bps / 9600bps
5 APRS MSG FLASH	Set the strobe to flash when there is an incoming message.	MSG: OFF / 2 sec to 60 sec / CONTINUOUS / EVERY 2 s to EVERY 10 m 4 sec GRP: OFF / 2 sec to 60 sec / CONTINUOUS 4 sec BLN: OFF / 2sec to 60sec / CONTINUOUS 4sec
6 APRS MSG GROUP	Group filtering for received messages.	G1: ALLxxxxxx G2: CQxxxxxxx G3: QSTxxxxxx G4: YAESUxxxx G5: ----- B1: BLNxxxxxx B2: BLNx B3: BLNx
7 APRS MSG TEXT	Input the fixed text message.	1 to 8
8 APRS MUTE	Set the B-band AF muting function on/off when APRS is active.	ON / OFF
9 APRS POPUP	Set the beacon type, message type and time for pop-up display.	The setting values of Mic-E, POSITION, WEATHER, OBJECT, ITEM, STATUS, OTHER, MY PACKET, MSG, GRP and BLN are as follows. OFF / ALL 2 s to ALL 60 s / ALL CNT / BND 2s to BND 60 s / BND CNT ALL 10 s The setting values of MY MSG, DUP.BCN, DUP.MSG, ACK.REJ and OTHER MSG are as follows.: OFF / BND 2 s to BND 60 s BND 10 s

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
10 APRS RINGER	Set the bell ring on/off when a beacon or message is received.	Mic-E: ON / OFF POSITION: ON / OFF WEATHER: ON / OFF OBJECT: ON / OFF ITEM: ON / OFF STATUS: ON / OFF OTHER: ON / OFF MY PACKET: ON / OFF MSG: ON / OFF GRP: ON / OFF BLN: ON / OFF MY MSG: ON / OFF DUP.BCN: ON / OFF DUP.MSG: ON / OFF ACK.REJ: ON / OFF OTHER MSG: ON / OFF TX BCN: ON / OFF TX MSG: ON / OFF
11 APRS UNIT	Select the units for APRS display.	POSITION: MM.MM' / MM'SS" DISTANCE: km / mile SPEED: km/h / knot / mph ALTITUDE: m / ft TEMP: °C / °F RAIN: mm / inch WIND: m/s / mph
12 APRS TX DELAY	Set the data sending delay time.	100ms to 1000ms 300ms
13 BEACON INFO	Set the transmission beacon information.	AMBIGUITY: OFF / 1 digit / 2 digit / 3 digit / 4 digit SPD/CSE: ON / OFF ALTITUDE: ON / OFF
14 BEACON INTERVAL	Set a beacon automatic sending interval.	30 sec / 1 min / 2 min / 3 min / 5 min / 10 min / 15 min / 20min / 30 min / 60min
15 BEACON STATUS TEXT	Input setting for status text.	S.TXT: ON / OFF TX RATE: 1/1 to 1/8 TEXT: TEXT1 to TEXT5
16 BEACON TX	Select automatic or manual sending of beacon.	AUTO / MANUAL / (SMART)
17 COM PORT SETTING	Set the COM port.	STATUS: ON / OFF SPEED: 4800 / 9600 / 19200 / 38400 INPUT: OFF / GPS OUTPUT: OFF / GPS / WAY.P WAYPOINT: NMEA9 / NMEA6 / NMEA7 / NMEA8 Mic-E: ON / OFF POSIT: ON / OFF WEATHER: ON / OFF OBJECT: ON / OFF ITEM: ON / OFF
18 DIGI PATH	Set the digital repeater route.	P1 OFF P2(1) 1 WIDE1-1 P3(2) 1 WIDE2-1 / 2 WIDE2-1 P4(2) 1..... / 2..... P5(2) 1..... / 2..... P6(2) 1..... / 2..... P7(2) 1..... / 2..... P8(8) 1..... to 8.....
19 GPS SETUP	Select a datum used for the GPS function.	DATUM: WGS-84 / Tokyo (Mean) PINNING: ON / OFF DGPS: ON / OFF
20 GPS POWER	Turn the GPS function ON/OFF.	GPS ON / GPS OFF

Setup Menu no. / Item	Description	Selectable options (Options in bold are the default settings)
21 GPS TIME SET	Turn on/off the GPS time and date automatic acquisition function.	AUTO / MANUAL
22 GPS UNIT	Select the units for GPS display.	POSITION: .MMM' / 'SS" SPEED: km/h / knot / mph ALTITUDE: m / ft
23 CALLSIGN (APRS)	Specify the call sign of your station.	-----
24 MY POSITION	Set your location.	GPS / Manual / P1 to P10
25 MY SYMBOL	Set your station symbol.	48 icons including 1 (/[Human/Person]) / 2(/b Bicycle) / 3(/> Car) / 4(YY Yaesu Radios)
26 POSITION COMMENT	Set up the position comment function.	Off Duty / En Route / In Service / Returning / Committed / Special / Priority / Custom 0 to 6 / EMERGENCY!
27 SmartBeaconing	Set the smart beaconing function.	STATUS: OFF / TYPE1 / TYPE2 / TYPE3 * For details on the following setting items for each type, refer to the APRS Instruction Manual. LOW SPD, HIGH SPD, SLOW RATE, FAST RATE, TURN ANGL, TURN SLOP, TURN TIME
28 TIME ZONE	Set the time zone.	UTC -13:00 to UTC 0:00 to UTC +13:00 UTC 0:00
SD CARD		
1 BACKUP	Save the data stored on the transceiver onto a microSD memory card or load the data from a microSD card.	Write to SD / Read from SD
2 MEMORY CH	Save or load the memory channel information onto or from a microSD memory card.	Write to SD / Read from SD
3 MEMORY INFO	Displays the total capacity and free space of the SD Memory Card.	-
4 FORMAT	Initialize microSD memory cards.	-
OPTION		
1 USB CAMERA	Set the USB camera resolution and Speaker.	SIZE: 320x240 / 160x120 QUALITY: LOW / NORMAL / HIGH SP SEL: CAMERA / INT SP
2 Bluetooth	Sets the Bluetooth function.	OFF / ON CONNECT/DISCON
3 DEVICE LIST	Bluetooth device list.	-
4 Bluetooth Audio	Set the received audio to be heard from both the Bluetooth® headset and the transceiver speaker, or only from the connected Bluetooth® device.	AUTO / FIX
CALLSIGN		
CALLSIGN	Set the call sign.	xxxxxxxxxx

Setup Menu Operations

DISPLAY Menu

1 TARGET LOCATION

Set what to display on the smart navigation screen.

1. Press and hold the **[F MENU]** key → touch **[DISPLAY]** → **[1 TARGET LOCATION]**
2. Rotate the DIAL knob to select what is displayed on the screen.

COMPASS	Displays the compass.
NUMERIC	Displays the latitude and longitude.

Remark The default setting: COMPASS

2 COMPASS

Set the compass display.

1. Press and hold the **[F MENU]** key → touch **[DISPLAY]** → **[2 COMPASS]**
2. Rotate the DIAL knob to select the desired setting.

HEADING UP	The heading direction is indicated at the top of the compass.
NORTH UP	The north direction is indicated at the top of the compass.

Remark The default setting: HEADING UP

3 BAND SCOPE

Set the number of channels to be displayed for the band scope when the BAND SCOPE function is used.

1. Press and hold the **[F MENU]** key → touch **[DISPLAY]** → **[3 BAND SCOPE]**
2. Rotate the DIAL knob to select the number of channels to search for.
19ch / 39ch / 79ch

Remark The default setting: 39ch

4 LAMP

Change the LCD and key lighting condition.

1. Press and hold the **[F MENU]** key → touch **[DISPLAY]** → **[4 LAMP]**
2. Rotate the DIAL knob to select **[KEY]**, then press the **[F MENU]** key.
3. Rotate the DIAL knob to select the lighting condition.

2 sec (KEY) to 180 sec (KEY)	When the DIAL is rotated or a key is pressed, the LCD and key lights remain illuminated for the set time.
CONTINUOUS	The LCD and key lights remain illuminated.
OFF	The LCD and keys do not light up.

Remark The default setting: 30 sec (KEY)

4. Press the **[BACK]** key.
5. Rotate the DIAL knob to select **[SAVE]**, then press the **[F MENU]** key.

6. Rotate the DIAL knob to select the lighting status after the set illumination time elapses.

OFF	After the illumination time selected for [KEY] elapses, the lights dim to [LEVEL 1] of the LCD dimmer setting.
ON	After the illumination time selected for [KEY] elapses, lights turn off.

Remark The default setting: OFF



When [KEY] is set to CONTINUOUS, regardless of the [SAVE] setting, the illumination stays lit according to the **"6 LCD BRIGHTNESS"** setting level.

5 LANGUAGE

Select the display language from Japanese and English.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [5 LANGUAGE]
2. Rotate the DIAL knob to select the desired language.

JAPANESE	Japanese is selected.
ENGLISH	English is selected.

Remark The default setting: English

6 LCD BRIGHTNESS

Adjust the brightness level of the LCD back light and key button light.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [6 LCD BRIGHTNESS]
2. Rotate the DIAL knob to select the desired brightness level.
3. Select from LEVEL 1 to LEVEL 6.

Remark The default setting: LEVEL 6

7 DISPLAY COLOR

Set the color of the operating band frequency.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [7 DISPLAY COLOR]
2. Rotate the DIAL knob to select the desired color.
3. Select from WHITE / BLUE / RED.

Remark The default setting: WHITE

8 OPENING MESSAGE

You can select the message under the “YAESU” logo displayed when turning on the transceiver.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [8 OPENING MESSAGE]
2. Rotate the DIAL knob to select the desired message referring to the following table.

OFF	Displays the receive frequency instead of the opening message immediately after turning on the power.
DC	Displays the power-supply voltage and time when turning on the power.
MESSAGE	Displays a message comprising up to 16 characters when turning on the power. Press the [F MENU] key to switch the screen to the message registration screen. For details on how to enter the message to be displayed, refer to the “Text input screen” in the Operating Manual. Press the [F MENU] key when you have finished entering the characters.

Remark The default setting: DC

9 SENSOR INFO

Display the battery voltage. When the optional external power supply adapter with a cigarette plug (SDD-13) is connected, the power supply voltage of this adapter is displayed.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [9 SENSOR INFO]
2. The battery voltage is shown on the LCD.

- The indication differs depending on the type of the power supply used.



Battery pack: “Lit”

Battery case: “Dry”

External power supply adapter: “Ext”

- During mono band receive, the voltage can be displayed on the LCD constantly.

10 SOFTWARE VERSION

Display the software version.

1. Press and hold the [F MENU] key → touch [DISPLAY] → [10 SOFTWARE VERSION]
2. The software versions of “Main”, “Sub” and “DSP” are shown.

TX/RX Menu

1 MODE

1 ANTENNA ATT

If the signal from the remote station is too strong or, a strong signal exists nearby that interferes with reception, use the attenuator (ATT) function to reduce interference.

1. Press and hold the [F MENU] key → touch [TX/RX] → [1 MODE] → [1 ANTENNA ATTN]
2. Rotate the DIAL knob to select the desired setting.

OFF	Disable the attenuator (ATT) function OFF.
ON	Enable the attenuator (ATT) function ON. The amount of attenuation by the attenuator (ATT) is about 10 dB.

Remark The default setting: OFF

2 FM DEVIATION

The FM deviation can be set to half of its usual level.

Select [WIDE] for normal amateur operation.

1. Press and hold the [F MENU] key → touch [TX/RX] → [1 MODE] → [2 FM DEVIATION]
2. Rotate the DIAL knob to select the desired setting.

WIDE	Normal FM mode (Full deviation)
NARROW	Narrow FM mode (Half deviation)

Remark The default setting: WIDE

3 RX MODE

Manually switch to a suitable mode (radio wave type) according to the frequency band.

Press and hold the [F MENU] key → touch [TX/RX] → [1 MODE] → [3 RX MODE].

For details, refer to “Fixing the Communication Mode” in the Operating Manual.

2 DIGITAL

1 DIGITAL POPUP

Set the time duration to display the remote station information such as the call sign, on the LCD.

1. Press and hold the [F MENU] key → touch [TX/RX] → [2 DIGITAL] → [1 DIGITAL POPUP]
2. Rotate the DIAL knob to select the desired setting.

OFF	The remote station information is not displayed.
BAND 2 s to BAND 60 s (seconds)	Set the time duration to display the remote station information (2 to 60 seconds). BAND 2 s / BAND 4 s / BAND 6 s / BAND 8 s / BAND 10 s / BAND 20 s / BAND 30 s / BAND 60 s
BAND CONTINUE	The remote station information is continuously displayed.

Remark The default setting: BAND 10 s (seconds)

2 LOCATION SERVICE

Set whether or not to display your location in digital mode.

1. Press and hold the [F MENU] key → touch [TX/RX] → [2 DIGITAL] → [2 LOCATION SERVICE]
2. Rotate the DIAL knob to select the desired setting.

ON	Displays your location.
OFF	Does not display your location.

Remark The default setting: ON

3 STANDBY BEEP

Set whether or not to emit the standby beep sound when the remote station completes transmission.

1. Press and hold the [F MENU] key → touch [TX/RX] → [2 DIGITAL] → [3 STANDBY BEEP]
2. Rotate the DIAL knob to select the desired setting.

ON	Emits the standby beep sound.
OFF	Does not emit the standby beep sound.

Remark The default setting: ON

4 DIGITAL VW

Set the digital voice FR (VW) mode selection.

1. Press and hold the [F MENU] key → touch [TX/RX] → [2 DIGITAL] → [4 DIGITAL VW]
2. Rotate the DIAL knob to select the desired setting.

ON	The digital voice FR (VW) mode may be selected.
OFF	The digital voice FR (VW) mode may not be selected.

Remark The default setting: OFF

5 AUDIO PITCH

Set the digital voice FR (VW) mode selection.

1. Press and hold the [F MENU] key → touch [TX/RX] → [2 DIGITAL] → [5 AUDIO PITCH]
2. Rotate the DIAL knob to select the desired setting.

FLAT	Normal sound quality.
HIGH BOOST	Emphasizes the treble range.
LOW BOOST	Emphasizes the bass range.

Remark The default setting: FLAT

3 AUDIO

1 MIC GAIN

You can adjust the input level of the built-in microphone or an optional external microphone.

1. Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [1 MIC GAIN]
2. Rotate the DIAL knob to select the desired microphone sensitivity level.
3. Select a microphone gain level from LEVEL 1 to LEVEL 9.

Remark The default setting: LEVEL 5



- Increasing the microphone gain excessively can distort the sound or pick up the surrounding noise, impairing intelligibility.
 - Be sure to check the microphone gain whenever the microphone is changed.
-

2 MUTE

In dual receive mode, while receiving signals in the operating band and subband at the same time, the subband can be automatically muted (100%, 50%, 30%) or not muted.

1. Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [2 MUTE]
2. Rotate the DIAL knob to select the desired mute setting.

OFF	Disable the muting audio.
MUTE 30%	Mute the audio level set to 30%.
MUTE 50%	Mute the audio level set to 50%.
MUTE 100%	Mute the audio level set to 100%.

Remark The default setting: MUTE 100%

3 RX AF DUAL

Set the time to resume radio broadcast reception after transmit/receive when using simultaneously receive mode.

Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [3 RX AF DUAL].

For details, see “AF-DUAL Receive Function” (page 32).

4 SP SELECT

Speaker operation switching settings when connecting to an External SP/MIC or an Earpiece Microphone.

1. Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [4 SP SELECT]
2. Rotate the DIAL knob to select the desired setting.

AUTO	The receiver audio is heard only from only the external SP/MIC.
FIX	The receiver audio is heard from both the external SP/MIC and the of the transceiver speaker.

Remark The default setting: AUTO

5 VOX

Set the VOX function settings.

Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [5 VOX].

For details, refer to “**VOX Operation**” in the Operating Manual.

6 RECORDING

Set the Voice Recording function settings.

Press and hold the [F MENU] key → touch [TX/RX] → [3 AUDIO] → [6 RECORDING].

For details, refer to “**Using the Voice Recording**” in the Operating Manual.

MEMORY Menu

1 BANK LINK

You can link multiple registered memory banks so that you can recall frequently used memory banks immediately.

1. Press and hold the [F MENU] key → touch [MEMORY] → [1 BANK LINK]
2. Rotate the DIAL knob to select the memory bank you want to link, then press the [F MENU] key.

The check box is checked.

3. Repeat step 2 to link the memory banks one by one from BANK 1 to BANK 24.

2 BANK NAME

You can assign a name to each memory bank using up to 16 characters.

1. Press and hold the [F MENU] key → touch [MEMORY] → [2 BANK NAME]

For details, see “**Assigning a Name to a Memory Bank**” (page 19).

3 MEMORY NAME

You can assign a name such as a call sign and broadcast station name to each memory channel and home channel.

1. Press and hold the [F MENU] key → touch [MEMORY] → [3 MEMORY NAME]

For details, refer to “**Using Memory Tag**” in the Operating Manual.

4 MEMORY PROTECT

A memory channel may be protected so that a new frequency or memory channel tag name cannot be registered to it.

1. Press and hold the [F MENU] key → touch [MEMORY] → [4 MEMORY PROTECT]
2. Rotate the DIAL knob to select the desired setting.

OFF	Allows registering to registering to memory channels.
ON	Prohibits registering to memory channels.

Remark The default setting: OFF

5 MEMORY SKIP

You can set the scan method for scanning memory channels.

1. Press and hold the [F MENU] key → touch [MEMORY] → [5 MEMORY SKIP]

For details, see “Setting Skip Memory Channel and Specified Memory Channel” (page 21).

6 MEMORY WRITE

Set whether to register to the lowest unused memory channel number following the channel number you most recently used, or to the lowest unused memory channel number.

1. Press and hold the [F MENU] key → touch [MEMORY] → [6 MEMORY WRITE]
2. Rotate the DIAL knob to select the desired setting.

NEXT	Registers to the smallest unused memory channel number which comes after the channel number you used most recently.
LOWER	Registers to the unused memory channel having the lowest memory number.

Remark The default setting: NEXT

SIGNALING Menu

1 BELL

Set whether or not to alert you of a call from a remote station using the bell.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [1 BELL]

For details, see “Notification of a Call from a Other Station by the Bell Function” (page 14).

2 DCS CODE

Select the DCS code out of the 104 codes from 023 to 754.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [2 DCS CODE]

For details, see “Setting the DCS CODE” (page 11).

3 DCS INVERSION

The transmit and receive DCS code phase may be inverted when using the digital code squelch function.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [3 DCS INVERSION]
2. Rotate the DIAL knob to select the phase combination for transmit/receive.

RX	Homeomorphic / Both Phase / Inverted Phase
TX	Homeomorphic / Inverted Phase

Remark The default setting: Receive [Homeomorphic], Transmit [Homeomorphic]

4 DTMF MODE

Set the transmission method of the registered DTMF code.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [4 DTMF MODE]

For details, see “Transmitting the Registered DTMF Code” (page 33).

5 DTMF MEMORY

The maximum of 16 digit DTMF code can be registered for a telephone number to make a call through the public telephone line from a phone patch.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [5 DTMF MEMORY]

For details, see “Setting the DTMF Memory” (page 33).

6 PAGER

When using transceivers with a group of friends, specifying individual personal codes permits directing a call to a specific station.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [6 PAGER]

For details, see “Two-Tone CTCSS Pager Function” (page 12).

7 PR FREQUENCY

Set a no-communication squelch frequency in steps of 100 Hz within the range from 300 Hz to 3000 Hz.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [7 PR FREQUENCY]
2. Rotate the DIAL knob to select a no-communication squelch frequency.
3. Select a no-communication squelch frequency in steps of 100 Hz within the range from 300 Hz to 3000 Hz.

Remark The default setting: 1600 Hz

8 SQL LEVEL

Set the squelch level to mute the raspy noise heard when there is no signal.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [8 SQL LEVEL]
2. Rotate the DIAL knob to adjust the squelch level from LEVEL 0 to LEVEL 15 (LEVEL 0 to LEVEL 8: AM and FM radio).

Remark The default setting: LEVEL1 (LEVEL 2: FM radio)

9 SQL S-METER

You can set A-Band and B-Band individually to emit audio only when receiving a signal stronger than the S-meter Squelch level setting.

To adjust the S-Meter squelch, first set the operating band by pressing the [A/B] key.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [9 SQL S-METER]
2. Rotate the DIAL knob to select the setting value referring to the table below.

Display	Operating Status
OFF	S-Meter squelch function is OFF.
LEVEL1 to LEVEL 10	Outputs the audio of a signal as strong or stronger than the S-Meter level 1 to level 10.

Remark The default setting: OFF

10 SQL EXPANSION

You can add squelch types to [11 SQL TYPE] for transmit and receive, respectively.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [10 SQL EXPANSION]
2. Rotate the DIAL knob to select the desired setting.

ON	Add squelch types for transmit and receive, respectively.
OFF	Does not add squelch types for transmit and receive, respectively.

Remark The default setting: OFF

11 SQL TYPE

Select [11 SQL TYPE] to open the squelch only when a signal containing the specified tone or code is received.

For details, see “Selecting the Squelch Type in the Analog FM Mode” (page 9).

12 TONE SQL FREQ

Select [12 TONE SQL FREQ] to select the tone frequency from 50 types between 67.0 Hz and 254.1 Hz.

For details, see “Setting CTCSS Tone frequency” (page 10).

13 TONE SEARCH

The audio may be muted during tone search. The operation speed of the tone search can also be changed.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [13 TONE SEARCH]
2. Rotate the DIAL knob to select [MUTE], then press the [F MENU] key.
3. Rotate the DIAL knob to select the desired setting.

ON	Mutes the audio during the tone search operation.
OFF	Does not mute the audio during the tone search operation.

Remark The default setting: ON

4. Press the [BACK] key.
5. Rotate the DIAL knob to select [SPEED], then press the [F MENU] key.
6. Rotate the DIAL knob to select the desired setting.

FAST	Speed up the tone search operation.
SLOW	Slow down the tone search operation.

Remark The default setting: FAST

For details, see “Searching for the CTCSS Tone transmitted by the other Station” (page 10).

14 WX ALERT

Setting the weather Alert Feature, used for notifying storms and hurricanes, ON or OFF.

1. Press and hold the [F MENU] key → touch [SIGNALING] → [14 WX ALERT]
2. Rotate the DIAL knob to select the desired setting.

ON	Enables the Weather Alert Feature.
OFF	Disables the Weather Alert Feature.

Remark The default setting: OFF

SCAN Menu

1 DW TIME

When the dual receive function is active, the interval time at which the priority channel is monitored can be set.

1. Press and hold the [F MENU] key → touch [SCAN] → [1 DW TIME]
2. Rotate the DIAL knob to select the monitoring interval from 0.1 sec to 10 sec.

Remark The default setting: 5.0 sec (seconds)

2 SCAN LAMP

Set whether or not the LCD backlight is turned on when a signal is received during scanning.

1. Press and hold the [F MENU] key → touch [SCAN] → [2 SCAN LAMP]
2. Rotate the DIAL knob to select the desired setting.

ON	The LCD backlight will illuminate when a signal is received.
OFF	The LCD backlight will not illuminate when a signal is received.

Remark The default setting: ON

3 SCAN RE-START

Set the time interval to resuming scanning after a received signal ends during scanning.

1. Press and hold the [F MENU] key → touch [SCAN] → [3 SCAN RE-START]
2. Rotate the DIAL knob to select the time to resume scanning from 0.1 sec to 10 sec.

Remark The default setting: 2.0 sec (seconds)

4 SCAN RESUME

Set the receive operation for when scanning stops.

1. Press and hold the [F MENU] key → touch [SCAN] → [3 SCAN RESUME]

For details, refer to “Setting the Receive Operation When Scanning Stops” in the Operating Manual.

5 SCAN WIDTH

You can set the frequency range for scanning in VFO mode and Memory mode.

1. Press and hold the [F MENU] key → touch [SCAN] → [5 SCAN WIDTH]
2. Rotate the DIAL knob to select [VFO], then press the [F MENU] key.
3. Rotate the DIAL knob to select the desired setting referring to the table below.

ALL	Scans all bands from the current frequency within the 1.8 MHz to 999 MHz range.
BAND	Starting with the current frequency, scans within the current band.

Remark The default setting: ALL

4. Press the [BACK] key.
5. Rotate the DIAL knob to select [MEMORY], then press the [F MENU] key.
6. Rotate the DIAL knob to select the desired setting referring to the table below.

ALL CH	Scans all memory channels (1 to 900) starting with the currently specified memory channel. When “Selected memory channel” is selected, all specified memory channels are scanned.
BAND	Scans only the memory channels to which the frequencies are registered, within the same frequency band*1 as the currently specified memory channel. When the memory channels are registered as the specified memory channels, scans only the specified memory channels to which the frequencies are registered, within the same frequency band.*1

Remark The default setting: ALL CH

*1: For the relationship between frequency bands and receive frequencies, see “Selecting a Frequency Band” in the Operating Manual.

7. Press the [BACK] key.
8. Rotate the DIAL knob to select [BANK LINK], then press the [F MENU] key.
9. Rotate the DIAL knob to select the desired setting.

ON	During memory bank link scanning, memory channels registered in two or more previously specified banks can be scanned.
OFF	Only the memory channels assigned to the recalled memory bank are scanned.

Remark The default setting: ON

6 PRIORITY REVERT

Determines the operation of the **PTT** switch when pressed during the Dual Receive.

1. Press and hold the [**F MENU**] key → touch [**SCAN**] → [**6 PRIORITY REVERT**]
2. Rotate the DIAL knob to select the desired setting.

OFF	When a signal is received on Priority Memory Channel, dual receive pauses, press the PTT switch to deactivate the Dual Receive operation and transmit on the Priority Memory Channel. (The Dual Receive does not resume.)
ON	Press the PTT switch to transmit on the Priority Memory Channel. Release the PTT switch to receive the Priority Memory Channel for about five seconds, then Dual Receive operation continues.

Remark The default setting: OFF

GM Menu

For details on how to set each item, refer to “FT5DR/DE GM Function Instruction Manual” which is available on Yaesu website.

WIRES-X Menu

For details on how to set each item, refer to “FT5DR/DE WIRES-X Instruction Manual” which is available on Yaesu website.

CONFIG Menu

1 APO

Set whether or not to turn the transceiver OFF automatically if there is no operation for a certain period of time.

1. Press and hold the [**F MENU**] key → touch [**CONFIG**] → [**1 APO**]
2. Rotate the DIAL knob to select the desired setting.

OFF	Does not turn the power OFF automatically.
30 minutes to 12 hours	Turns off the power when no operation is performed for a specified period of time.

Remark The default setting: OFF



- When the auto power-off function is active,  appears on the LCD.
 - Once the time for automatic power-off is set, the new setting is retained. Unless “OFF” is selected in step 3, the next time the transceiver is turned on, if you perform no operation for the set period of time, the transceiver will automatically turn OFF.)
-

2 BCLO

Preventing transmissions when the receive channel is busy.

1. Press and hold the [F MENU] key → touch [CONFIG] → [2 BCLO]
2. Rotate the DIAL knob to select the desired setting.

OFF	Permits starting a transmission while receiving a signal.
ON	Disables transmissions while receiving a signal.

Remark The default setting: OFF

3 BEEP

Set whether or not a beep sound is emitted to confirm when keys are operated, when scanning reaches the end of a frequency band, or when a band edge/CH1 is encountered.

1. Press and hold the [F MENU] key → touch [CONFIG] → [3 BEEP]
2. Rotate the DIAL knob to select [SELECT], then press the [F MENU] key.
3. Rotate the DIAL knob to select the desired setting referring to the table below.

KEY & SCAN	Emits the beep sound when a key is operated or scanning stops.
KEY	Emits the beep sound when a key is pressed.
OFF	Mutes the beep sound.

Remark The default setting: KEY & SCAN

4. Press the [BACK] key.
5. Rotate the DIAL knob to select [EDGE], then press the [F MENU] key.
6. Rotate the DIAL knob to select the desired setting referring to the table below.

OFF	No confirmation sound is emitted when a band edge/CH1 is encountered.
ON	Emits the confirmation sound when a band edge/CH1 is encountered.

Remark The default setting: OFF

4 BEEP LEVEL

Set the volume of the beep sound.

1. Press and hold the [F MENU] key → touch [CONFIG] → [4 BEEP LEVEL]
2. Rotate the DIAL knob to select the desired setting.

HIGH	Volume level set to HIGH
LOW	Volume level set to LOW

Remark The default setting: LOW

5 BUSY LED

When listening to the radio continuously or to extend the remaining battery operating time, turn off the BUSY indicator to save battery power consumption.

1. Press and hold the [F MENU] key → touch [CONFIG] → [5 BUSY LED]
2. Rotate the DIAL knob to select "A BAND", "B BAND" or "RADIO", then press the [F MENU] key.
3. Rotate the DIAL knob to select the desired setting.

ON	Turns the BUSY indicator ON.
OFF	Turns the BUSY indicator OFF.

Remark The default setting: ON

4. Press the [BACK] key.
5. To change the setting for other bands, repeat steps 2 to 4.

6 CLOCK TYPE

Set the micro computer Clock Shift function may be activated to eliminate an internally generated spurious high frequency signal. Select [A] for normal use.

1. Press and hold the [F MENU] key → touch [CONFIG] → [6 CLOCK TYPE]
2. Rotate the DIAL knob to select the desired setting.

A	Automatically switches the Clock Shift function between ON & OFF.
B	Activates the Clock Shift function constantly.

Remark The default setting: A

7 GPS LOG

Set the interval at which the current position GPS information is saved to the microSD memory card.

1. Press and hold the [F MENU] key → touch [CONFIG] → [7 GPS LOG]
2. Rotate the DIAL knob to select the time interval:
OFF / 1 sec / 2 sec / 5 sec / 10 sec / 30 sec / 60 sec

Remark The default setting: OFF

3. If OFF is selected, no GPS Information is saved onto the microSD memory card



- Data saved onto the microSD memory card is saved in GPSyymmddhhmmss.LOG format.
 - Saved data may be viewed by using OEM PC applications*.
 - * Yaesu does not provide technical support for PC applications.
-

8 HOME VFO

Set whether or not to permit tuning off of the home channel and transfer to the VFO.

1. Press and hold the [F MENU] key → touch [CONFIG] → [8 HOME VFO]
2. Rotate the DIAL knob to select the desired setting.

ENABLE	Turning the home channel DIAL knob shifts the frequency from the home cancel to the VFO, and then changes the VFO mode.
DISABLE	Turning the Dial on the home channel does not switch to the VFO.

Remark The default setting: ENABLE

9 LOCK

Select keys/DIAL knob to which you want to apply the lock function.

1. Press and hold the [F MENU] key → touch [CONFIG] → [9 LOCK]
2. Rotate the DIAL knob to select the desired setting.

KEY&DIAL	Locks the DIAL knob and keys on the front side of the transceiver.
PTT	Locks PTT switch.
KEY&PTT	Locks PTT switch and the keys on the front side of the transceiver.
DIAL&PTT	Locks the DIAL knob and PTT switch.
ALL	Locks the DIAL knob, PTT switch and the keys on the front side of the transceiver.
KEY	Locks the keys on the front side of the transceiver.
DIAL	Locks the DIAL knob.

Remark The default setting: KEY & DIAL

10 MONI/T-CALL

Set how the transceiver functions when the **MONI/T-CALL** key is pressed.

1. Press and hold the [F MENU] key → touch [CONFIG] → [10 MONI/T-CALL]
2. Touch [10 MONI/T-CALL].
3. Rotate the DIAL knob to select the desired setting.

MONI	Monitors frequencies.
T-CALL	Functions as the tone call.

Remark The default setting: MONI (USA version), T-CALL (European/Asian version)

11 TIMER

You can turn the transceiver to ON or OFF at the specified time. Before using this function, adjust the clock referring to “11 TIMER” (page 60).

1. Press and hold the [F MENU] key → touch [CONFIG] → [11 TIMER]
2. Rotate the DIAL knob to select the desired option.

POWER ON	Turns the transceiver ON at the specified time.
POWER OFF	Turns the transceiver OFF at the specified time.

3. Press the [F MENU] key.
4. Rotate the DIAL knob to set the hour, then press the [F MENU] key.
5. Rotate the DIAL knob to set the minute, then press the [F MENU] key.
6. Touch [TIMER ON] or [TIMER OFF] to set the timer function to ON or OFF.
7. Touch [TIMER OFF] to deactivate the timer function.

Remark The default setting: (TIMER OFF)

12 PASSWORD

A 4-digit password may be entered to prevent a third party from using the transceiver without permission. Once a password is set, the transceiver cannot be used unless the valid password is entered.

1. Press and hold the [F MENU] key → touch [CONFIG] → [12 PASSWORD]
2. Rotate the DIAL knob to select [ON].

ON	Set the password.
OFF	Does not set the password.

Remark The default setting: OFF

3. Press the [F MENU] key.
4. Use the numeric keypad to input the desired 4 letters using 0 to 9, A to D, * or #.
5. Press the [F MENU] key.

The registered 4 letters appear.



- To deactivate the password function, select [OFF] in step 3, then press PTT switch.
- When the on-timer function is activated, the password function is disabled.

● Inputting the Password to Use the Transceiver

1. Press and hold the Power (Lock) switch to turn the transceiver ON.
The password input screen appears.
2. Use the numeric keypad on the display to input the password.
3. When the valid password is entered, the frequency display screen appears.

Remark If an invalid password is entered, the transceiver is turned OFF automatically.



- If you have forgotten the registered password, carrying out all resetting allows you to turn on the transceiver without entering the password.
- It should be noted that performing all resetting resets (initializes) all information such as the information registered to memory channels and various setting values. It is recommended that the password be written down on paper.

13 PTT DELAY

Set a timed delay before actual transmission begins after PTT switch is pressed.

1. Press and hold the [F MENU] key → touch [CONFIG] → [13 PTT DELAY]
2. Rotate the DIAL knob to select the desired setting.
OFF / 20 ms / 50 ms / 100 ms / 200 ms
3. Selecting OFF disables the PTT delay time function.

Remark The default setting: OFF

14 RPT ARS

Enable or disable the automatic Repeater Shift operation ARS (Repeater operation is initiated by tuning to the repeater frequency).

1. Press and hold the [F MENU] key → touch [CONFIG] → [14 RPT ARS]
2. Rotate the DIAL knob to select the desired setting.

ON	Enables the ARS function.
OFF	Disables the ARS function.

Remark The default setting: ON

15 RPT SHIFT

Set the TX frequency shift direction for repeater use.

1. Press and hold the [F MENU] key → touch [CONFIG] → [15 RPT SHIFT]
2. Rotate the DIAL knob to select the desired setting.

SIMPLEX	No TX frequency offset.
-RPT	Shifts TX to a lower frequency.
+RPT	Shifts TX to a higher frequency.

Remark The default setting differs depending frequency

16 RPT SHIFT FREQ

Set the repeater shift offset frequency.

1. Press and hold the [F MENU] key → touch [CONFIG] → [16 RPT SHIFT FREQ]
2. Rotate the DIAL knob to select the desired shift offset.
3. The offset frequency can be set in steps of 0.05 MHz between 0.000 MHz and 150.000 MHz.

Remark The default setting differs depending frequency

17 SAVE RX

Sets the Receive OFF Battery save interval (sleep ratio) to reduce power consumption.

1. Press and hold the [F MENU] key → touch [CONFIG] → [17 SAVE RX]
2. Rotate the DIAL, then touch [17 SAVE RX].
3. Rotate the DIAL knob to select the desired setting (the time interval for disabling the receiver operation).

0.05 sec(1:1) / 0.1 sec(1:2) / 0.2 sec(1:4) / 0.5 sec(1:10) / 1.0 sec(1:20) / 2.0 sec(1:40) / 5.0 sec(1:100) / 10.0 sec(1:200) / 20 sec(1:400) / OFF

Selecting OFF disables this function.

Remark The default setting: 0.2 sec (1:1)

18 STEP

Sets the frequency step when the dial knob is turned.

1. Press and hold the [F MENU] key → touch [CONFIG] → [18 STEP]

For details, refer to “Changing the Frequency Step” in the Operating Manual.

19 DATE & TIME ADJ

Set the date and time function of the built-in clock of the FT5DR/DE.

In the factory settings, the date and time are automatically set when positioning the GPS signal, so in this case no manual setting is necessary.

1. Press and hold the [F MENU] key → touch [CONFIG] → [19 DATE & TIME ADJ]
2. Rotate the DIAL knob to select the year, month, day, hour and minute.
3. To activate the time signal (alarm goes off every hour on the hour), touch [SIGNAL].
The check box will be checked.
4. Touch [OK].

20 TOT

Set the transceiver to automatically return to receive mode after transmitting continuously for a certain period of time. The TOT function limits inadvertent transmission of unnecessary signals, and unwanted battery power consumption (time-out timer function).

1. Press and hold the [F MENU] key → touch [CONFIG] → [20 TOT]
2. Rotate the DIAL knob to set the time for the transceiver to automatically return to receive mode state in steps of 30 seconds.
OFF/30 sec to 10 min 00 sec
3. Selecting OFF disables the TOT function.

Remark The default setting: 3 min 00 sec



- When the time-out timer function is active, a beep is emitted when a continuous transmission nears the set time. About 10 seconds later, the transceiver returns to the receive mode.
- The TOT setting is retained until “OFF” is selected in step 3 above.

21 VFO MODE

Sets the frequency tuning range while operating in VFO mode.

1. Press and hold the [F MENU] key → touch [CONFIG] → [21 VFO MODE]
2. Rotate the DIAL knob to select the desired tuning range.

ALL	Tuning continues to the next band when reaching the end of a band.
BAND	Tuning continues to the other end of the current band when reaching the end of the band.

Remark The default setting: ALL

22 BAND SELECT

Set the selectable bands (frequency band) for A band and B band individually. Stored memory channels can be recalled regardless of this setting.

1. Press the [A/B] key to set the A band or B band as the operating band.
2. Press and hold the [F MENU] key → touch [CONFIG] → [22 BAND SELECT]
3. Rotate the DIAL knob to select a band, then press the [F MENU] key to remove the check mark.

The frequency bands without check marks cannot be selected by operating the BAND key, DIAL knob, VFO scan, etc.

AIR:

VHF:

UHF:

OTHER: Including 50MHz band^{*2}, VHF(1), VHF(2), UHF(1), and UHF(2)^{*2}

SW^{*1}:

AM^{*1}:

FM^{*1}:

Remark The default setting: All bands are checked.

NOTE: Not all bands can be unchecked.

^{*1}Can be set only with the A band.

^{*2}Not included in the B band.

23 DIAL KNOB CHANGE

1. Press and hold the [F MENU] key → touch [CONFIG] → [23 DIAL KNOB CHANGE]
2. Press the [CHANGE] key.
3. The VOL and DIAL knob functions are swapped.

Remark The default setting: the upper knob is DIAL.

APRS Menu Operations

For details on setting each item, refer to “FT5DR/DE APRS Function Instruction Manual” which is available on Yaesu website.

Setup Menu: SD CARD Menu Operations

1 BACKUP

Settings information can be saved to a microSD memory card, also the saved information can be loaded to the transceiver.

1. Press and hold the **[F MENU]** key → touch **[SD CARD]** → **[1 BACKUP]**
2. Rotate the DIAL knob to select the operation to be performed.

Write to SD	Saves the transceiver setting information to a microSD memory card.
Read from SD	Loads the information to the transceiver from a microSD memory card.

3. Press the **[F MENU]** key.
A pop-up window appears on the LCD.
4. Touch **[OK]** twice.
5. When **[Write to SD]** is selected and data writing completes, a beep sounds and "COMPLETED" appears on the LCD.
6. When **[Read from SD]** is selected and data reading completes, a beep sounds, then the transceiver restarts with the settings read from the microSD memory card applied.

2 MEMORY CH

Memory channel setting information can be saved onto a microSD memory card, or saved information can be loaded to the transceiver.

1. Press and hold the **[F MENU]** key → touch **[SD CARD]** → **[2 MEMORY CH]**
2. Rotate the DIAL knob to select the operation to be performed.

Write to SD	Saves the memory channel information saved on the transceiver onto a microSD memory card.
Read from SD	Loads the information to the transceiver from the microSD memory card.

3. Press the **[F MENU]** key.
A pop-up window appears on the LCD.
4. Touch **[OK]** twice.
5. When **[Write to SD]** is selected and data writing completes, a beep sounds and "COMPLETED" appears on the LCD.
6. When **[Read from SD]** is selected and data reading completes, a beep sounds, then the transceiver restarts with the settings read from the microSD memory card applied.

3 MEMORY INFO

Display information from SD Memory Card.

1. Press and hold the **[F MENU]** key → touch **[SD CARD]** → **[3 MEMORY INFO]**
The bar graph and the following information will be displayed.
Used space: x,xxx MB
Free space: x,xxx MB
Capacity: x,xxx MB

4 FORMAT

Format a new microSD memory card.

For details, refer to “**Formatting a microSD Memory Card**” in the Operating Manual.

OPTION Menu

1 USB CAMERA

Image size and quality can be set for the optional microphone with camera (MH-85A11U).

1. Press and hold the **[F MENU]** key → touch **[OPTION]** → **[1 USB CAMERA]**
2. Rotate the DIAL knob to select **[SIZE]**, then press the **[F MENU]** key.
3. Rotate the DIAL knob to select one of the following image size settings.
160*120 / 320*240

Remark The default setting: 160*120

4. Press the **[BACK]** key.
5. Rotate the DIAL knob to select **[QUALITY]**, then press the **[F MENU]** key.
6. Rotate the DIAL knob to select one of the following image quality levels.
LOW / NORMAL / HIGH

Remark The default setting: LOW

7. Press the **[BACK]** key.
8. Rotate the DIAL knob to select **[SP SEL]**, then press the **[F MENU]** key.
9. Rotate the DIAL knob to select the speaker.

CAMERA: The audio is routed to MH-85A11U speaker (internal speaker is OFF).

INT SP: The audio is routed to the internal speaker (MH-85A11U speaker is OFF).

Remark The default setting: CAMERA



- If image size is set to large or image quality is set to high, the data transmission time becomes longer.
 - The transmission time varies depending on the image size.
-

2 Bluetooth

Make Bluetooth settings and connect to a Bluetooth headset.

For details, refer to “**Bluetooth® Operation**” in the Operating Manual.

3 DEVICE LIST

Displays a list of registered or searched Bluetooth devices. You can select and connect a Bluetooth headset.

For details, refer to “**Display device list**” in the Operating Manual.

4 Bluetooth Audio

Set whether received audio is heard from both the Bluetooth® headset and the transceiver speaker, or only from the connected Bluetooth® device.

1. Press and hold the [F MENU] key → touch [OPTION] → [4 Bluetooth Audio]
2. Rotate the DIAL knob to select the desired setting.

AUTO	The received audio comes from only the Bluetooth headset.
FIX	The received audio comes from both the Bluetooth headset and the speaker of this transceiver.

Remark The default setting: AUTO

CALLSIGN Menu

1. Press and hold the [F MENU] key → touch [CALLSIGN]
2. Enter a call sign using the alphabet input screen and the ten key input screen.
 - The alphabet input screen can be switched to the number input screen by touching [123].
 - The number input screen can be switched to the alphabet input screen by touching [ABC].



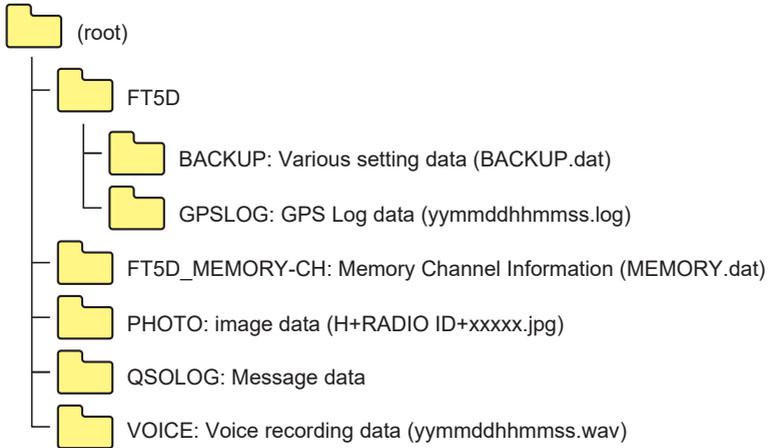
- Up to 10 characters can be entered.
 - Characters that may be entered for the call sign are the numbers 0-9, letters “A – Z” in upper case, the hyphen and the slash..
-

3. After inputting the call sign, press the PTT switch or press and hold the [F MENU] key.

The folder configuration of the micro-SD card

A commercially available microSD memory card may be inserted into the FT5DR/DE to save various data files.

The data of each function is stored in the following folders.



The [yymmddhhmmss] part of the file name consists of year (yy), month (mm), day (dd), hour (hh), minute (mm), and second (ss).

Preset receiver channel lists

The preset receiver function presets the frequencies and memory tags (names) of 156 channels and various radio stations into the following three categories:

- Weather Broadcast Stations (10 channels)
- International VHF Marine Radio (57 channels)
- International Worldwide Broadcast (89 channels)

Recall a preset receiver

1. Press the **[A/B]** key to set the A-band as the operating band.
2. Press **[F MENU]**, and then touch **[P.RCVR]**.
If **[P.RCVR]** is not displayed, touch **[BACK ←]** to display **[P.RCVR]** and then touch it.
3. Press the **[BAND]** key repeatedly, to select the desired preset receiver band.
••• → WX CH → INT VHF → SW → •••
4. Rotate the DIAL knob to select the desired channel or frequency.



● Return to normal mode

1. Press the **[BACK]** key or Press **[F MENU]** and then touch **[P.RCVR]**.

Weather Broadcast Stations (10 channels)

The frequencies (10 channels) used for the VHF Weather Broadcast Stations are registered.

Memory channel No.	Frequency (MHz)	Memory channel No.	Frequency (MHz)
1	162.550	6	162.500
2	162.400	7	162.525
3	162.475	8	161.650
4	162.425	9	161.775
5	162.450	10	163.275

International VHF Marine Radio (57 channels)

The frequencies used for international VHF (marine) radio are registered.

Memory channel No.	Frequency (MHz)		Memory channel No.	Frequency (MHz)	
1	156.050	160.650*	60	156.025	160.625*
2	156.100	160.700*	61	156.075	160.675*
3	156.150	160.750*	62	156.125	160.725*
4	156.200	160.800*	63	156.175	160.775*
5	156.250	160.850*	64	156.225	160.825*
6	156.300		65	156.275	160.875*
7	156.350	160.950*	66	156.325	160.925*
8	156.400		67	156.375	
9	156.450		68	156.425	
10	156.500		69	156.475	
11	156.550		70	156.525	
12	156.600		71	156.575	
13	156.650		72	156.625	
14	156.700		73	156.675	
15	156.750		74	156.725	
16	156.800		75	156.775	
17	156.850		76	156.825	
18	156.900	161.500*	77	156.875	
19	156.950	161.550*	78	156.925	161.525*
20	157.000	161.600*	79	156.975	161.575*
21	157.050	161.650*	80	157.025	161.625*
22	157.100	161.700*	81	157.075	161.675*
23	157.150	161.750*	82	157.125	161.725*
24	157.200	161.800*	83	157.175	161.775*
25	157.250	161.850*	84	157.225	161.825*
26	157.300	161.900*	85	157.275	161.875*
27	157.350	161.950*	86	157.325	161.925*
28	157.400	162.000*	87	157.375	
			88	157.425	

* 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 up. Touching [F MENU] followed by [REV] displays the Ship Station frequency 156.050 MHz appears and  blinks. The frequency lower than the base station frequency by 4.6 MHz is the Ship Station frequency and duplex operation may commence. To return to the base station frequency, press [F MENU] followed by [REV].

International World Wide Broadcast (89 channels)

The major shortwave broadcast stations around the world are registered.

CH No.	Frequency (MHz)	Name	Broadcast Station Name
1	6.030	VOA	USA
2	6.160	VOA	USA
3	9.760	VOA	USA
4	11.965	VOA	USA
5	9.555	CANADA	Canada
6	9.660	CANADA	Canada
7	11.715	CANADA	Canada
8	11.955	CANADA	Canada
9	6.195	BBC	UK
10	9.410	BBC	UK
11	12.095	BBC	UK
12	15.310	BBC	UK
13	6.090	FRANCE	France
14	9.790	FRANCE	France
15	11.670	FRANCE	France
16	15.195	FRANCE	France
17	6.000	DEUTSCHE WELLE	Germany
18	6.075	DEUTSCHE WELLE	Germany
19	9.650	DEUTSCHE WELLE	Germany
20	9.735	DEUTSCHE WELLE	Germany
21	5.990	ITALY	Italy
22	9.575	ITALY	Italy
23	9.675	ITALY	Italy
24	17.780	ITALY	Italy
25	7.170	TURKEY	Turkey
26	7.270	TURKEY	Turkey
27	9.560	TURKEY	Turkey
28	11.690	TURKEY	Turkey
29	9.660	VATICAN	Vatican
30	11.625	VATICAN	Vatican
31	11.830	VATICAN	Vatican
32	15.235	VATICAN	Vatican
33	5.955	NEDERLAND	Netherlands
34	6.020	NEDERLAND	Netherlands
35	9.895	NEDERLAND	Netherlands
36	11.655	NEDERLAND	Netherlands
37	5.985	CZECH LIBERTY	Czech Republic
38	6.105	CZECH LIBERTY	Czech Republic
39	9.455	CZECH PRAGUE	Czech Republic
40	11.860	CZECH LIBERTY	Czech Republic
41	9.780	PORTUGAL	Portugal
42	11.630	PORTUGAL	Portugal
43	15.550	PORTUGAL	Portugal
44	21.655	PORTUGAL	Portugal
45	9.650	SPAIN	Spain
46	11.880	SPAIN	Spain

CH No.	Frequency (MHz)	Name	Broadcast Station Name
47	11.910	SPAIN	Spain
48	15.290	SPAIN	Spain
49	6.055	NIKKEI	Japan (Nikkei)
50	7.315	NORWAY	Norway
51	9.590	NORWAY	Norway
52	9.925	NORWAY	Norway
53	9.985	NORWAY	Norway
54	6.065	SWEDEN	Sweden
55	9.490	SWEDEN	Sweden
56	15.240	SWEDEN	Sweden
57	17.505	SWEDEN	Sweden
58	6.120	FINLAND	Finland
59	9.560	FINLAND	Finland
60	11.755	FINLAND	Finland
61	15.400	FINLAND	Finland
62	5.920	RUSSIA	Russia
63	5.940	RUSSIA	Russia
64	7.200	RUSSIA	Russia
65	12.030	RUSSIA	Russia
66	7.465	ISRAEL	Israel
67	11.585	ISRAEL	Israel
68	15.615	ISRAEL	Israel
69	17.535	ISRAEL	Israel
70	6.045	INDIA	India
71	9.595	INDIA	India
72	11.620	INDIA	India
73	15.020	INDIA	India
74	7.190	CHINA	China
75	7.405	CHINA	China
76	9.785	CHINA	China
77	11.685	CHINA	China
78	6.135	KOREA	South Korea
79	7.275	KOREA	South Korea
80	9.570	KOREA	South Korea
81	13.670	KOREA	South Korea
82	6.165	JAPAN	Japan
83	7.200	JAPAN	Japan
84	9.750	JAPAN	Japan
85	11.860	JAPAN	Japan
86	5.995	AUSTRALIA	Australia
87	9.580	AUSTRALIA	Australia
88	9.660	AUSTRALIA	Australia
89	12.080	AUSTRALIA	Australia

Receive Mode: AM

In case of a malfunction

Check the following items before requesting a repair.

● The transceiver does not turn ON.

- Is the battery depleted?
 - Charge the battery pack after purchase, and when the transceiver has not been used for a long time.
- Is the battery pack properly attached?
 - Refer to “Installing the Battery Pack” and securely mount the battery pack.
- Is the external power supply properly connected?
 - When using an external power supply, connect the external power supply adapter with a cigarette lighter plug (SDD-13) or an external power cable (E-DC-6) to DC input jack.
- Is the voltage of the battery pack or the SDD-13 correct?
 - Be sure that there is a charge left in the battery pack (do not completely discharge). Check that the output voltage of the SDD-13 is approximately 12V.

● There is no sound.

- Is the level of squelch (or S meter squelch) set too high?
 - Press the Monitor Switch and verify that white noise can be heard.
 - Adjust the level of squelch (or S meter squelch) when receiving a weak signal.
- Is the volume low?
 - Rotate the VOL knob clockwise to increase the volume.
- Is the tone squelch or DCS on?
 - When the tone squelch or DCS is on, the sound is not output until the transceiver receives a signal containing the same tone frequency or DCS code set.
- Is the C4FM digital mode on?
 - When the AMS function is on, the sound is not output until the transceiver receives a signal containing the Analog FM mode.
 - Also, when the DG-ID function is on and set the DG-ID number to except for “00”, the sound is not output until the transceiver receives a signal correspond to the DG-ID number.

● There is no transmission of radio waves.

- Are you pressing the PTT switch properly?
- Is the PTT lock on?
- Is the Busy TX Block (BCLO function) on?
 - When the Busy TX Block (BCLO function) is on, transmission cannot be done when receiving a signal even if PTT is pressed. Wait until signal being received stops and then press PTT.
- Is the transmission frequency on a ham radio band?
 - Transmission cannot be performed on the AM Radio Broadcast Band, the Short-Wave Radio Band, the FM Radio Broadcast Band, the Air Band, or the Information Radio Band.
- Is the voltage of the battery pack or external power source correct?
 - Check the remaining charge on the battery pack.
 - In addition, using an inadequate power supply where voltage drops during transmission will prevent the FT5DR/DE from operating at full capability.

● The keys or DIAL do not respond.

- Is the Key Lock or DIAL Lock on?

● The battery pack cannot be charged, or the battery power depletes immediately after charging.

- Is the battery pack being charged with a charger specified by Yaesu?
 - Charge the battery pack using the accessory battery charger (SAD-25) or the rapid charge cradle (CD-41). When using an external power supply, use the external power supply adapter with a cigarette lighter plug (SDD-13) or an external power cable (E-DC-6).
 - When charging with an external power supply, charge in the input voltage range of 10.5 to 16 VDC with the EXT DC IN terminal.
- Is the battery pack in use exhausted?
- If the “Charging Error” appears on the LCD when charging, there is a chance the battery pack is over discharged. If the error is repetitively displayed after charging the battery pack several times, the battery pack may have reached its service life or be defective. Battery packs are consumables. Please replace the battery pack with a new one immediately. Battery packs can be charged and reused up to approximately 300 times.



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