Contest Memory Keyer

The CW message capability of the FTDX101MP may be controlled either from the Transceiver Front Panel, or with the optional FH-2 Remote Control Keypad, which plugs into the rear panel REM jack.

• Message Memory

Five CW memory channels capable of retaining 50 characters each are available (using the PARIS standard for characters and word length).

Example: CQ CQ CQ DE W6DXC K (19 characters)

-.-.	--.-	-.-.	--.-	-.-.	--.-	-..	.	.--	-....	-..	-..-	-.-.	-.-
C	Q	C	Q	C	Q	D	E	W	6	D	X	C	K

• Storing a Message into Memory

1. Press the [FUNC] key.
2. Select [CW SETTING] →[KEYER] .
3. Select the CW Memory Register (“CW MEMORY 1” to “CW MEMORY 5”) into which the message is to be stored; for now, the message entry technique is being set to “Keyer Entry” for the selected CW Memory register.
4. Set the selected CW Memory Register to “MESSAGE”. To use the Keyer Paddle for message entry on all the memories, set all five Menu items to “MESSAGE”.
5. Press the [FUNC] key to save the new setting and exit the Setting Menu.
6. Press the [FUNC] key to exit to normal operation.

• Message Memory Programming (Using your Paddle)

1. Set the operating mode to CW.
2. Be sure that Break-in is still turned “OFF” by the [BK-IN] key.
3. Press the [MIC/SPEED] knob.
   The indicator on the right side of the [MIC/SPEED] knob glows orange; and the built-in Electronic Keyer is activated.
   When using the optional FH-2 Controller, go to step 6.
4. Press the [FUNC] key.
5. Touch [REC/PLAY] .
6. Touch [MEM] on the display or press the [MEM] key on the FH-2.
   A blinking “REC” will appear in the display.

> ! If a Key [1] through [5] is not pressed within five seconds (see next step), the memory storage process will be cancelled.

7. Touch [1] through [5] on the display or press any of the FH-2 keys numbered [1] through [5] to select that memory storage register.
   - The “REC” will glow steadily.
   - If keying is not begun within ten seconds, the memory storage process will be cancelled.
8. Send the desired message using the keyer paddle.
9. Touch [MEM] on the display or press the [MEM] key on the FH-2 once more to end message recording.

> Care must be exercised in sending to ensure the spaces between letters and words are accurately applied.
>
> ! If the timing is off, the spacing may not be correct in the stored message. For ease in setting up the keyer memories, we recommend setting Menu item “F KEYER TYPE” (page 94) and/or “R KEYER TYPE” (page 95) to “ACS” (Automatic Character Spacing) while programming the keyer memories.

• CHECKING THE CW MEMORY CONTENTS

1. Be sure that Break-in is still turned “OFF” by the [BK-IN] key.
2. Press the [MONI] key to enable the CW monitor.
   When using FH-2, go to step 5.
3. Press the [FUNC] key.
4. Touch [REC/PLAY] .
5. Touch [1] - [5] on the display or press the FH-2 [1] - [5] key, whichever memory was just recorded. The message will be played and heard in the sidetone monitor, but no RF energy will be transmitted.
   - The “MSG” and “PLAY” icon will appear in the display.
   - To adjust the volume level during playback, press and hold the [MONI] key then rotate the [MULTI] knob.

● ON-THE-AIR CW MESSAGE PLAYBACK

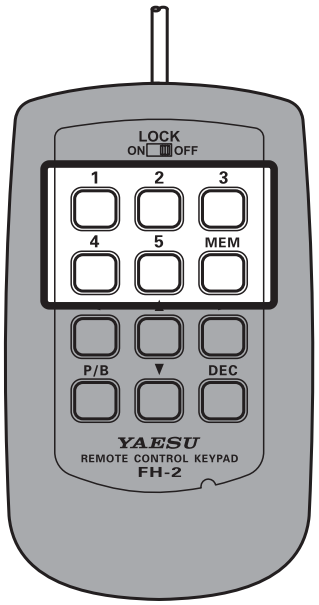
1. Press the [BK-IN] key to enable transmission.
   When using FH-2, go to step 4.
2. Press the [FUNC] key.
3. Touch [REC/PLAY] .
4. Touch [1] - [5] on the display or press the FH-2 [1] - [5] key, to transmit the recorded CW Memory Register message. The programmed message will be transmitted on the air.
   - During a transmission, the same key may be pressed again to immediately end the transmission.

Transmitting in the Beacon Mode

In “Beacon” mode, any programmed message, (either via Paddle, or via “Text” input method) may be repeatedly transmitted. The time delay between message repeats may be set from 1 to 60 seconds, in one second steps, via Menu item “REPEAT INTERVAL”.

To transmit the message:

1. Touch and hold [1] - [5] on the display or press and hold the FH-2 [1] - [5] key. Repetitive transmission of the Beacon message will begin.
2. Press the same key again to cancel the Beacon Mode.



• TEXT Memory

The five channels of CW message memory (up to 50 characters each) may also be programmed using a text-entry technique.

This technique is somewhat slower than sending message directly from the keyer paddle, but accuracy of character spacing is ensured. Be sure to enter the character "}" at the end of the text message.

Example 1: CQ CQ CQ DE W6DXC K} (20 characters)

The sequential Contest Number ("Count up") feature is another impressive feature of the CW Memory Keyer.

Example 2: 599 10 200 # K} (15 characters)

• Text Memory Storage

1. Press the [FUNC] key.
2. Select [CW SETTING] →[KEYER] .
3. Select the CW Memory Register ("CW MEMORY 1" to "CW MEMORY 5") into which a message is to be stored. For now, the message entry technique is being set to (Text entry) for the selected CW Memory Register.
4. If Text Message entry is to be used for all five memories, set all five CW Memory Register Menu items to "TEXT".
5. Press the [FUNC] key to save the new setting and exit the Setting Menu.
6. Press the [FUNC] key to exit to normal operation.

Contest Number Programming

Use this process when starting a new contest, or if somehow the numbering gets out of sync during the contest.

1. Press the [FUNC] key.
2. Select [CW SETTING] → [KEYER] → [CONTEST NUMBER].
3. Rotate the [MULTI] knob to set the Contest Number to the desired value.
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation.

• Text Message Programming

1. Set the operating mode to CW.
   When using the optional FH-2, go to step 4.
2. Press the [FUNC] key.
3. Touch [REC/PLAY] .
4. Touch [MEM] on the display or press the [MEM] key on the FH-2.
5. Touch [1] through [5] on the display or press any of the FH-2 keys numbered [1] through [5] to select that memory storage register.
   The text input screen will appear.

> The following texts are programmed to MEMORY 4 and MEMORY 5 in factory default.
> MEMORY 4: DE FTDX101 K}
> MEMORY 5: R 5NN K}

6. Touch the character keys on the display to enter the letters, numbers, or symbols of the desired label. Use the "#" character to designate the position where the Contest Number will appear.
7. When the message is complete, add the "}" character at the end to signify the termination of the message.
   Example: CQ CQ CQ DE W6DXC K}

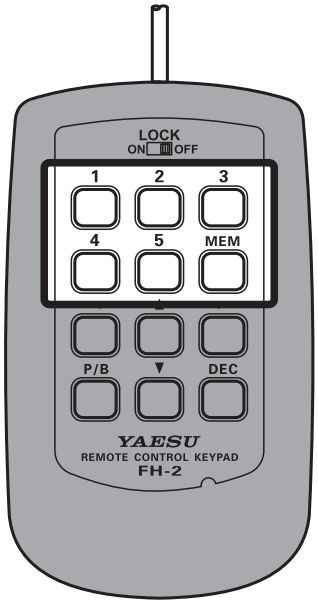
> Use the FH-2 [◀] and [▶] keys to set the cursor position and use the FH-2 [▲] and [▼] keys to choose the letter/number to be programmed into each slot of the memory.

8. When the text entry is completed, touch [ENT].

9. When all the characters (including "}") have been programmed, touch [BACK] to exit.

• Checking the CW Memory Contents

1. Set the operating mode to CW.
2. Be sure that Break-in is still turned “OFF” by the [BK-IN] key.
3. Press the [MONI] key to enable the CW monitor.
   When using the optional FH-2, go to step 6.
4. Press the [FUNC] key.
5. Touch [REC/PLAY] .
6. Touch [1] - [5] on the display or press the FH-2 [1] - [5] key, whichever memory that was recorded in. The message will be played, and heard in the sidetone monitor, but no RF energy will be transmitted.
   - The “MSG” and “PLAY” icons will appear in the display.
   - To adjust the playback volume level, press and hold the [MONI] key then rotate the [MULTI] knob



• ON-THE-AIR CW Message PLAYBack

1. Press the [BK-IN] key to enable transmission. When using FH-2, go to step 4.
2. Press the [FUNC] key.
3. Touch [REC/PLAY] .
4. Touch [1] - [5] on the display or press the FH-2 [1] - [5] key, depending on the CW Memory Register message to be transmitted. The programmed message will be trans- mitted on the air.
   - During transmission, press the same key again, to immediately cancel the transmission.

Transmitting in the Beacon Mode

In “Beacon” mode, any programmed message, (either via Paddle, or via “Text” input method) may be repeatedly transmitted. The time delay between message repeats may be set from 1 to 60 seconds, in one second steps, via Menu item “REPEAT INTERVAL”.

To transmit the message:

1. Touch and hold [1] - [5] on the display or press and hold the FH-2 [1] - [5] key. Repetitive transmission of the Beacon message will begin.
2. Press the same key again to cancel the Beacon Mode.

Contest Number

If “#” is entered in the CW message, the contest number will automatically increment (count up) each time the message is sent. See below to set the contest number.

Contest Number Programming

1. Press the [FUNC] key.
2. Select [CW SETTING] → [KEYER] → [CONTEST NUMBER].
3. Rotate the [MULTI] knob to set the Contest Number to the desired value.
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation.

Decrementing the Contest Number

Use this process if the current contest number gets ahead of the actual number. For example: in case of a duplicate QSO,).

Press the FH-2 [DEC] key momentarily. The current Contest Number will be reduced by one. Press of the FH-2 [DEC] key as many times as necessary to reach the desired number. If you go too far, use the “Contest Number Programming” technique described above.

Repeater Operation

The FTDX101MP may be operated on 29 MHz and 50 MHz repeaters.

1. Press and hold the [MODE] key, and then touch [FM].
2. Set to the desired repeater's output frequency (downlink from the repeater).
3. Press the [FUNC] key.
4. Touch [RPT] .
5. Rotate the [MULTI] knob to select the desired repeater shift direction. The selections are:

   "SIMP" → "+" → "–" → "SIMP"

   - To program the proper repeater shift, use Menu items "RPT SHIFT(28MHz)" (page 88) and "RPT SHIFT(50MHz)" (page 88), as appropriate.
6. Press the [FUNC] key.
7. Touch [ENC/DEC] .
8. Rotate the [MULTI] knob to select "ENC".
9. Press the [FUNC] key.
10. Touch [TONE FREQ] .
11. Rotate the [MULTI] knob to select the desired CTCSS Tone to be used. A total of 50 standard CTCSS tones are provided (see the CTCSS Tone Chart).

Press and hold the microphone PTT switch to begin transmission.

Tone Squelch Operation

The "Tone Squelch" may be activated to keep the receiver silent until an incoming signal modulated with a matching CTCSS tone is received. The receiver squelch will then open in response to reception of the required tone.

1. Press and hold the [MODE] key, and then touch [FM].
2. Set the transceiver to the desired frequency.
3. Press the [FUNC] key.
4. Touch [ENC/DEC] .
5. Rotate the [MULTI] knob to select "TSQ".
6. Press the [FUNC] key.
7. Touch [TONE FREQ] .
8. Rotate the [MULTI] knob to select the desired CTCSS Tone to be used. A total of 50 standard CTCSS tones are provided (see the CTCSS Tone Chart).

CTCSS Tone Frequency (Hz)											
67.0	69.3	71.9	74.4	77.0	79.7	82.5	85.4	88.5	91.5	94.8	97.4
100.0	103.5	107.2	110.9	114.8	118.8	123.0	127.3	131.8	136.5	141.3	146.2
151.4	156.7	159.8	162.2	165.5	167.9	171.3	173.8	177.3	179.9	183.5	186.2
189.9	192.8	196.6	199.5	203.5	206.5	210.7	218.1	225.7	229.1	233.6	241.8
250.3	254.1	-	-	-	-	-	-	-	-	-	-

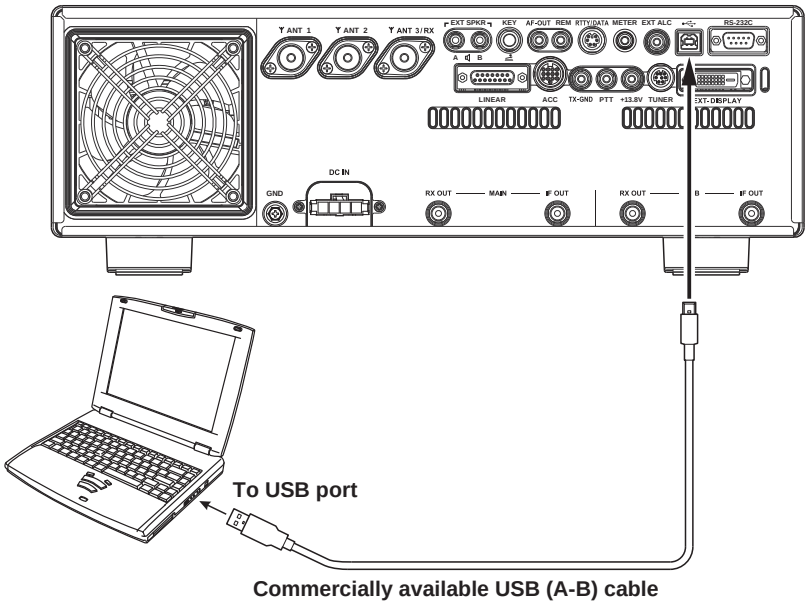
RTTY (FSK) Operation

The FTDX101MP is equipped with a RTTY decode function. The RTTY signal may be easily synchronized by aligning the marker displayed on the TFT screen.
Mark frequency (2125 Hz), SHIFT width (170 Hz), and baudot code (US) can be changed in the Setting Menu.

Connecting to a Personal Computer

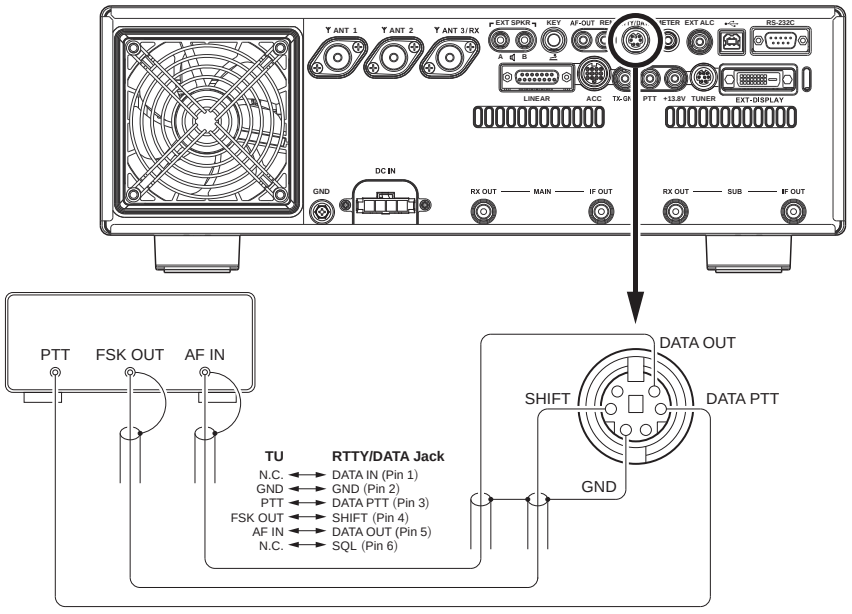
Connect the transceiver and a PC with a commercially available USB cable (A-B) to operate RTTY using commercially available software and freeware.

To connect to a PC using a USB cable, a Virtual COM port driver must be installed on the PC.
Visit the Yaesu website http://www.yaesu.com/ to download the Virtual COM port driver and Installation Manual.



Connecting to the TU (Terminal Unit)

Connect the RTTY communications TU (Terminal Unit) to the rear panel RTTY/DATA terminal. Be sure to read the instruction manual of the TU device before connecting it.



RTTY Decode

The received RTTY signal is decoded and the text is presented on the TFT display.

Cross talk, noise, phasing, etc. may prevent accurate decoding and display of the RTTY text.

1. Before operating with RTTY, set the Menu items in the chart to the below.

Setting Menu	Available Values (Bold is the default)	
RADIO SETTING → MODE RTTY → RPTT SELECT	**DAKY**	Controls the RTTY transmit signal from the RTTY/DATA jack (pin 4) on the rear panel.
	RTS/DTR	Controls the RTTY transmit signal from the USB virtual COM/RTS or DTR ports.
RADIO SETTING → MODE RTTY → POLARITY RX	**NOR**	The shift direction of the RTTY receive space frequency will be lower than the mark frequency.
	REV	The shift direction of the RTTY receive mark frequency will be lower than the space frequency.
RADIO SETTING → MODE RTTY → POLARITY TX	**NOR**	The shift direction of the RTTY transmit space frequency will be lower than the mark frequency.
	REV	The shift direction of the RTTY transmit mark frequency will be lower than the space frequency.
RADIO SETTING → MODE RTTY → RTTY OUT SELECT	**MAIN** SUB	RTTY operating band setting.
RADIO SETTING → MODE RTTY → MARK FREQUENCY	1275Hz **2125Hz**	Normally use at 2125 Hz.
RADIO SETTING → MODE RTTY → SHIFT FREQUENCY	**170Hz** 200Hz 425Hz 850Hz	Normally use at 170 Hz.

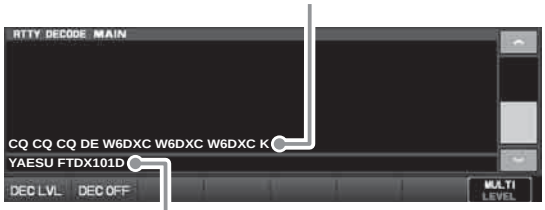
2. Press and hold the [MODE] key, then touch “RTTY-L”.

Generally, amateur band stations operate RTTY in LSB.

Align the peak of the received signal with the mark frequency and shift frequency marker of the TFT screen.

3. Press the [FUNC] key.
4. Touch “DECODE”.
   The RTTY DECODE screen will appear, and the decoded text is displayed on the screen.

Displays the decoded RTTY text.



Displays text entered into the RTTY sending memory.

- When a RTTY signal is not being received, scrambled characters may be displayed due to noise and band clutter. The threshold level can be adjusted so the scrambled text is not displayed.
- To decode a signal received in the SUB band, set the setting menu “DECODE RX SELECT” (page 97) to “SUB”.

Threshold Level Adjustment

1. Touch [DEC LVL] on the lower left side of the RTTY decode screen.
2. Rotate the [MULTI] knob, and adjust the threshold level (between 0 and 100) so scrambled text is not displayed.
   Note that text will no longer be displayed for weak signals if the level is increased too much.
3. The setting is concluded when 4 seconds have elapsed after making the level adjustment.

RTTY Text Memory

Five phrases (up to 50 characters each) frequently used in RTTY exchanges can be entered into the Text Memory, either by operation on the TFT screen, or by using the optional “FH-2” Remote Control Keypad connected to the rear panel REM jack.

5 channels can be memorized, and the memory content can be transmitted by operation on screen or the FH-2.

• Text Message Programming on TFT Screen

1. Press and hold the [MODE] key, then touch “RTTY-L”.
2. Press the [FUNC] key, then touch [REC/PLAY]. The “RTTY MESSAGE MEMORY” screen will appear.

3. Touch [MEM].
   A blinking “REC” will appear in the display. If no entry is made within 5 seconds, the registration operation will be cancelled.
4. Touch [1] through [5] to select the desired RTTY Text Memory Register into which the text is to be programmed.
   The text input screen will appear.
5. Continue with “Text Input” below:

• Text Input

1. Enter the letters, numbers, or symbols with the touch character keys on the TFT display or use a USB keyboard connected to the USB port on the transceiver front panel.
   Use the FH-2 [◀] and [▶] keys to move the cursor position and use the FH-2’s [▲] and [▼] keys to select the letter/number to be entered for each character of the memory.

> When the message is complete, add the “↵” character (touch [End]), to complete the entry.

> The following texts are programmed to the MEMORY 4 and MEMORY 5 in factory default.
> MEMORY 4: DE FTDX101 K↵
> MEMORY 5: R 5NN K↵

2. Touch [ENT] or press and hold the [MEM] key on the FH-2 to exit, after all characters (including “↵”) have been programmed.

• Text Message Programming on FH-2 Remote Controller

1. Press and hold the [MODE] key, then touch “RTTY-L”.
2. Press the [MEM] key on the FH-2.
   A blinking “REC” will appear in the display. If no entry is made within 5 seconds, the registration operation will be cancelled.
3. Press any of the FH-2 keys numbered [1] through [5] to select that memory storage register.
   The text input screen will appear.
4. Continue with “Text Input”.

• On-The-Air RTTY Text Message Playback

Operation on TFT screen

1. Press the [FUNC] key.
2. Touch [REC/PLAY].
   The “RTTY MESSAGE MEMORY” screen will appear.

3. Touch [1] through [5] key, depending on which RTTY Text Memory Register message is to be transmitted. The programmed message will be transmitted on the air.
   Touch the same number again to immediately cancel the transmission.

Operation with FH-2 Controller

Press the FH-2 [1] through [5] key, depending on which RTTY Text Memory Register message is to be transmitted. The programmed message will be transmitted on the air.

Press the same number again to immediately cancel the transmission.

> Adjust the RTTY data output level using Menu item [RADIO SETTING] → [MODE RTTY] → [RTTY OUT LEVEL] (page 90).

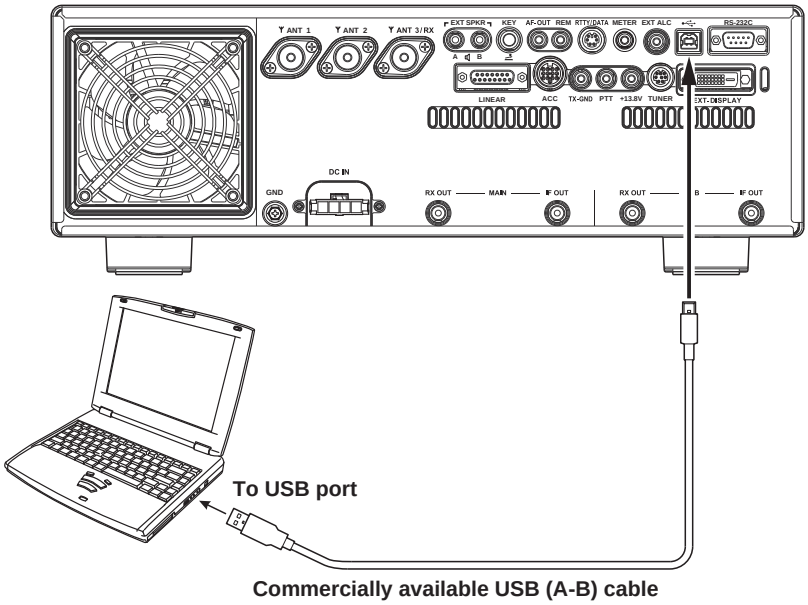
DATA (PSK) Operation

The FTDX101MP PSK Decode Feature supports both BPSK and QPSK with error correction functions. Easily synchronize PSK by aligning the marker on the TFT display screen.

Connecting to a Personal Computer

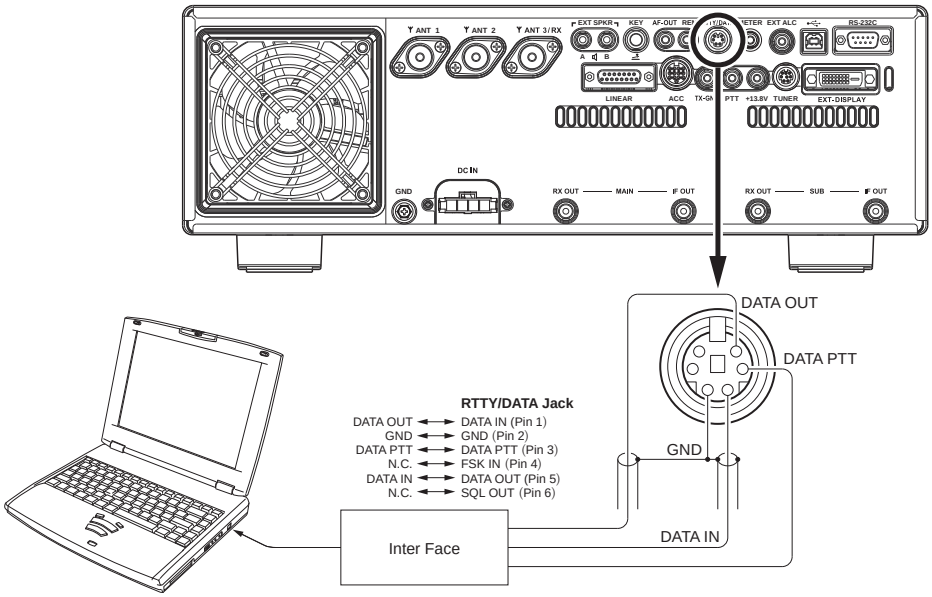
Connect the transceiver and a PC with a commercially available USB cable (A-B) to perform PSK data communications using commercially available software and freeware.

To connect to a PC using a USB cable, a Virtual COM port driver must be installed on the PC.
Visit the Yaesu website http://www.yaesu.com/ to download the Virtual COM port driver and Installation Manual.



Connecting to the Data Communications Device

A Data Communications Device may be connected to the rear panel RTTY/DATA terminal. Be sure to read the instruction manual of the Data Communications Device before connecting it.



PSK Decode

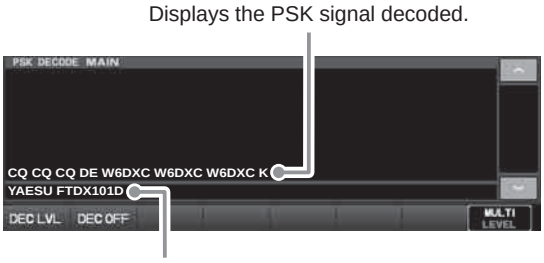
The received PSK signal is decoded and presented in text on the TFT display.

Cross talk, noise, phasing, etc., may cause scrambled characters to be displayed.

1. For PSK operation, set the Menu items as indigitated in the below chart.

Setting Menu	Available Values (Bold is the default)	
RADIO SETTING → MODE PSK/DATA → DATA MODE SOURCE	MIC	DATA is input from the MIC jack on the front panel.
	REAR	DATA is input from the USB jack or RTTY/DATA jack on the rear panel.
RADIO SETTING → MODE PSK/DATA → RPTT SELECT	**DAKY**	Controls the DATA transmit signal from the RTTY/DATA jack (pin 4) on the rear panel.
	RTS/DTR	Controls the DATA transmit signal from the USB virtual COM/RTS or DTR ports.
RADIO SETTING → MODE PSK/DATA → REAR SELECT	**DATA**	Inputs the transmission data from the RTTY/DATA jack (pin 1) on the rear panel.
	USB	Inputs the transmission data from the USB Jack on the rear panel.
RADIO SETTING → MODE PSK/DATA → DATA OUT SELECT	**MAIN** SUB	PSK/DATA signal output Band setting.
RADIO SETTING → ENCDEC PSK → PSK MODE	**BPSK**	THIS is the standard mode. Normally use BPSK mode.
	QPSK	QPSK incorporates error correction function.

2. Press and hold the [MODE] key, then touch "PSK".
   Align the peak of the received signal with the mark frequency and shift frequency marker of the TFT screen.
3. Press the [FUNC] key.
4. Touch "DECODE".
   The PSK DECODE screen will appear, and the decoded text is displayed on the screen.



- Set the data output level for data communications using Menu item "DATA OUT LEVEL" (page 89).
- When a signal is input, it can be automatically sent using Menu item "VOX SELECT" (page 102).
- Set data input VOX gain in VOX operation for data communications using Menu item "DATA VOX GAIN" (page 102).
- To decode a signal received in the SUB band, set the setting menu "DECODE RX SELECT" (page 97) to "SUB".

Threshold Level Adjustment

1. Touch [DEC LVL] on the lower left side of the PSK decode screen.
2. Rotate the [MULTI] knob, and adjust the threshold level (between 0 and 100) so scrambled characters are not displayed.
   Note that text will no longer be displayed for weak signals if the level is increased too much.
3. The setting is concluded when 4 seconds have elapsed after making the level adjustment.

PSK Text Memory

Five phrases (up to 50 characters each) frequently used in PSK exchanges can be entered into the Text Memory, either by operation on the TFT screen, or by using the optional “FH-2” Remote Control Keypad connected to the rear panel REM jack.
5 channels can be recorded. The memory content can be transmitted by operation on screen or the FH-2.

• Text Message Programming on TFT Screen

1. Press and hold the [MODE] key, then touch “PSK”.
2. Press the [FUNC] key, then touch [REC/PLAY].
   The “PSK MESSAGE MEMORY” screen will appear.

3. Touch [MEM].
   A blinking “REC” will appear in the display. If no entry is made within 5 seconds, the registration operation will be cancelled.

• Text Input

1. Enter the letters, numbers, or symbols with the touch a character keys on the display or the USB keyboard connected to the USB port on the front panel.
   Use the FH-2 [◀] and [▶] keys to set the cursor position, and use the FH-2’s [▲] and [▼] keys to choose the letter or number to be programmed for each character of the memory.

> When the message is complete, add the “↵” (touch [End]) character at the end to signify the completion of the message.

> The following texts are programmed to the MEMORY 4 and MEMORY 5 in factory default.
> MEMORY 4: DE FTDX101 K↵
> MEMORY 5: R 5NN K↵

2. Touch [ENT] to exit, once all characters (including “↵”) have been programmed.

4. Touch [1] through [5] to select the desired PSK Text Memory Register into which the text is to be programmed.
   The text input screen will appear.
5. Continue with “Text Input” below.

• Text Message Programming on FH-2 Remote Controller

1. Press and hold the [MODE] key, then touch “PSK”.
2. Press the [MEM] key on the FH-2.
   A blinking “REC” will appear in the display. If no entry is made within 5 seconds, the registration operation will be cancelled.
3. Touch [1] through [5] on the display or press any of the FH-2 keys numbered [1] through [5] to select that memory storage register.
   The text input screen will appear.
4. Continue with “Text Input”.

• On-The-Air PSK Text Message Playback

Operation on TFT screen

1. Press the [FUNC] key.
2. Touch [REC/PLAY] .
   The “PSK MESSAGE MEMORY” screen will appear.

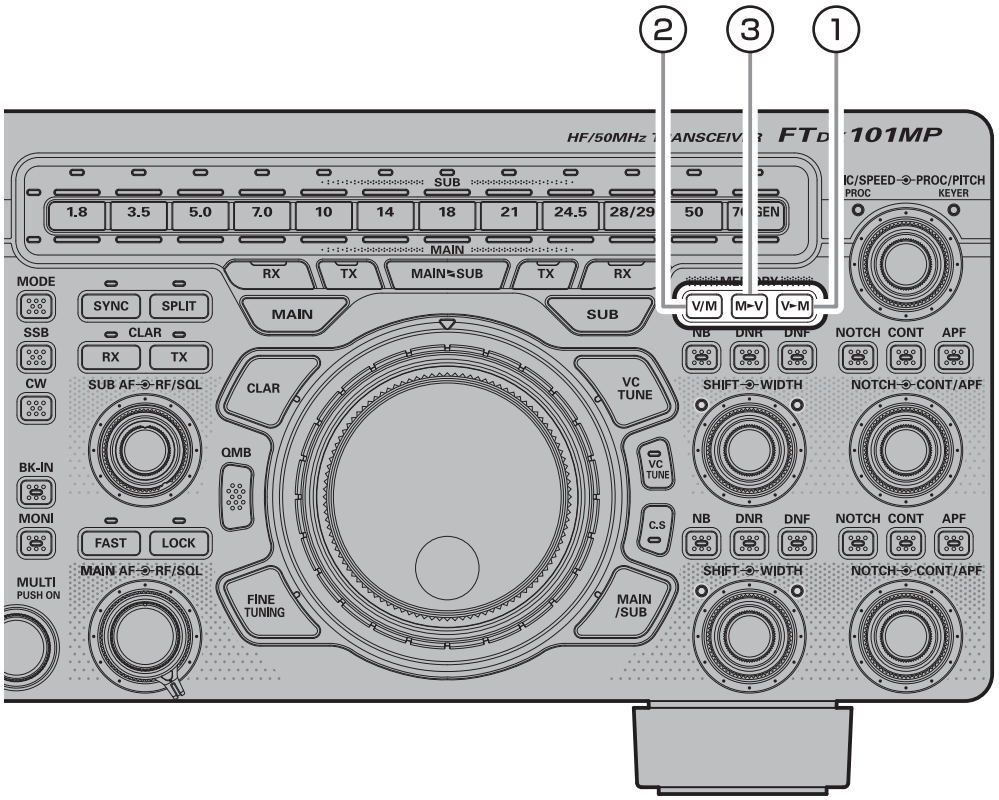
3. Touch [1] through [5] key, depending on which PSK Text Memory Register message you wish to transmit. The programmed message will be transmitted on the air.
   Touch the same number again during transmission, transmission will be canceled.

Operation with FH-2 Controller

Press the FH-2 [1] through [5] key, depending on which PSK Text Memory Register message you wish to transmit.
The programmed message will be transmitted on the air.
Press the same number again during to immediately cancel the transmission.

> Adjust the data output level using Menu item [RADIO SETTING] → [MODE PSK/DATA] → [DATA OUT LEVEL] (page 102).

Memory Operation



① V►M

• Memory Storage

1. Set the frequency, mode, and status, as desired.
2. Press the [V►M] key.
   The memory channel list will be displayed.
3. From the channel list, touch and select the desired memory channel
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.

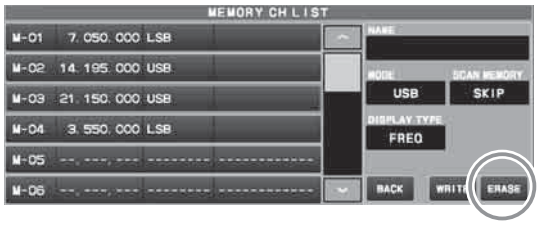
4. Press and hold the [V►M] key to store the frequency and other data into the selected memory channel.
   - This method may also be used to overwrite the contents previously stored to a memory channel.
5. Press the [V►M] key, the memory is stored and the screen returns normal.

> The information saved in the memory may be lost due to incorrect operation, static electricity or electrical noise. Data may also be lost due to component failures and repairs. Make sure to write down the information registered in the memories on a piece of paper or by using a SD card (page 79).

• Erasing Memory Channel Data

The contents written to the memory channel may be erased.

1. Press the [V►M] key.
   The memory channel list will be displayed.
2. From the channel list, touch and select the memory channel to be erased.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Touch [ERASE] to clear the contents of the selected memory channel.



4. Press the [V►M] key to erase the contents of the selected memory channel.

> If you make a mistake and wish to restore a memories contents, touch [RESTORE].

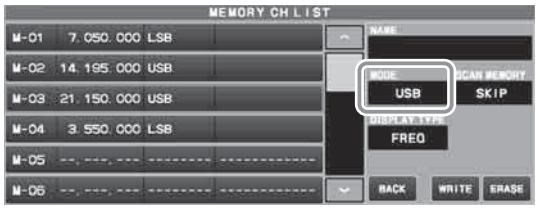
> Memory channels “M-01” (and “5-01” through “5-10”: U.S. version) cannot be erased.

• Check Memory Channel Status

Before programming a memory channel, the current contents of that channel may be verified without the danger of over-writing the channel.

1. Press the [V►M] key.
   The memory channel list will be displayed.

2. From the channel list, touch and select the memory channel and check, or change the operation mode.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
   - Press the [MULTI] knob to enter memory mode on the selected channel.
3. To change the operation mode, touch [MODE], rotate the [MULTI] knob to select the mode then press the [MULTI] knob.



4. [WRITE] will turn orange, so touch [WRITE].
5. The channel list changes, and the selected memory channel on the list is framed in orange.
6. Press the [V►M] key to return to the previous screen.

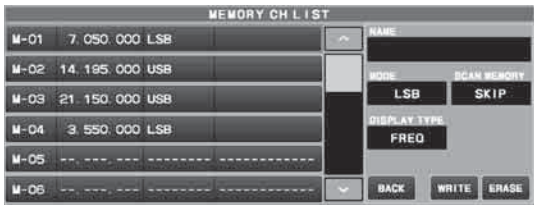
② V/M

This key toggles frequency control between VFO and the memory system.

> The contents of the memory channels can be recalled and used later.

• Recall a Memory Channel other than the last used VFO frequency

1. Press and hold the [V/M] key.
   The memory channel list will be displayed.



2. From the channel list, touch and select the desired memory channel.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Press the [MULTI] knob

> Memory channels can also be called up in the following method.
>
> 1. Press the [V/M] key.
> 2. Press the [FUNC] key.
> 3. Touch [MEM CH].
>   Rotate the [MULTI] knob to select the desired memory channel.

- While using the recalled memory, the stored frequency and operating mode can be changed temporarily (see “Memory Tune Operation” below).

4. To exit from memory mode and return to the VFO mode, press the [V/M] key.

> If a memory group is set, the channels stored in the selected memory group may be recalled.

• Memory Tune Operation

You may freely tune off from any memory channel in a “Memory Tune” mode, this is similar to VFO operation. So long as you do not over-write the contents of the current memory, Memory Tune operation will not alter the contents of the memory channel.

- The “***MT***” notation will appear instead of the “M-nn”.

Press the [V/M] key to return to the originally memorized frequency of the current memory channel.

③ M►V

• Moving Memory Data to the VFO register

The contents of the currently selected Memory Channel may be transferred into the VFO register:

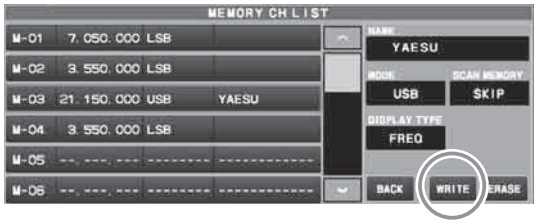
1. Press the [M►V] key While operating in either VFO mode, or memory channel mode, to transfer memory channel data to the VFO.
   The memory channel list will be displayed.
2. From the channel list, touch the memory channel to select it and transfer it to the VFO.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Press the [M►V] key.
   The data in the selected memory channel will now be transferred to VFO.

• Labeling Memories

Alphanumeric labels (“Tags”) may be appended to memory channels, to aid in recollection of the channel’s use (such as a club name, a location etc.).

1. Press the [V►M] key.
   The memory channel list is displayed.
2. From the channel list, touch and select the desired memory channel.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Touch [NAME] area on the screen.
   The character input screen will be displayed.
4. Touch a character key on the display to enter the letters, numbers, or symbols of the desired label.
   Up to 12 characters may be used in the creation of a label.

5. Touch [ENT] .
6. [WRITE] will turn orange, then touch [WRITE].



7. The entered characters are confirmed, and the selected memory channel on the list is framed in orange.
   To add a label to another memory, repeat steps 2 to 7 above.
8. Press the [V►M] key to save the new settings and return to normal operation.

• Displaying the Memory Tag

The “Frequency display” or “Alpha tag display” format may be selected.

1. Press the [V►M] key.
   The memory channel list will be displayed.
2. From the channel list, touch and select the desired memory channel.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Touch [DISPLAY TYPE] area.

4. Rotate the [MULTI] knob to select the desired display type.

FREQ	Frequency
NAME	Memory Tag

5. [WRITE] will turn orange, then touch [WRITE].
6. The data is saved to the new setting, and the selected memory channel on the list is framed in orange.
7. Press the [V►M] key to save the new setting and return to normal operation.

• Scan Skip Setting

The “Frequency display” or “Name display” format may be selected.

1. Press the [V►M] key.
   The memory channel list will be displayed.
2. From the channel list, touch and select the Memory Channel to be skipped during scanning.
   Alternately, the memory channel may be selected by rotating the [MULTI] knob.
3. Touch [SCAN MEMORY] area.

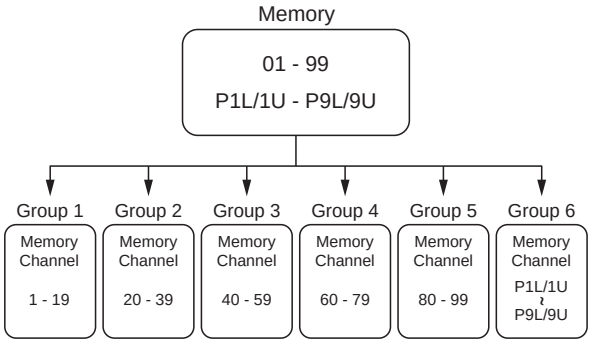
4. Rotate the [MULTI] knob to select “SKIP”, then press the [MULTI] knob.
5. [WRITE] will turn orange, then touch [WRITE].
6. The data is saved to the new setting, and the selected memory channel on the list is framed in orange.
7. Press the [V►M] key to save the new setting and return to normal operation.

> To re-institute a channel into the scanning loop, select “SCAN” in step 4 above.

Memory Groups

Memory channels may be listed into as many as six convenient groups, for easy identification and selection. For example: groups for AM BC stations, Short-wave broadcast stations, Contest frequencies, Repeater frequencies, PMS limits, or any other desired grouping may be created.

Each memory group may hold up to 20 memory channels (except Memory Group 01 which is limited to 19 memory channels). When memory channels are grouped, the channel numbers change to correspond to the chart below:



1. Press the [FUNC] key.
2. Select [OPERATION SETTING]→[GENERAL]→[MEM GROUP].
3. Select [ON].
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation.
   - To cancel Memory Group operation, repeat steps 1 through 5 above, choosing “OFF” in step 3.

Choosing the Desired Memory Group

If desired, just the memories listed within a particular Memory Group, may be recalled.

Before performing the operation, set the “MEM GROUP” menu to “ON” (Refer to “Memory Groups” setting on the left).

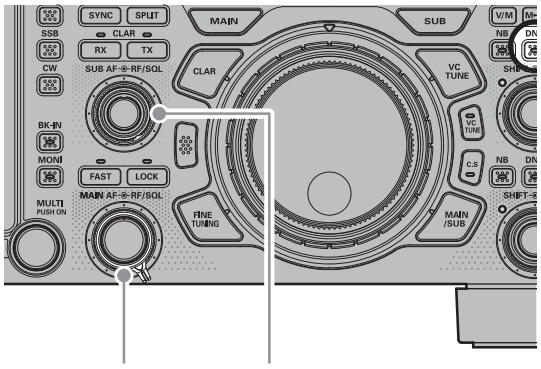
1. Press the [V/M] key, if necessary, to enter the “Memory” mode.
2. Press the [FUNC] key.
3. Touch [GROUP].
4. Rotate the [MULTI] knob to select the desired Memory Group, then press the [MULTI] knob.
5. Press the [FUNC] key, then touch [MEM CH].
6. Rotate the [MULTI] knob to select the desired Memory Channel within the Selected Memory Group.

VFO and Memory Scanning

Either the VFO or the memory channels of the FTDX101MP may be scanned, and the receiver will halt scanning on any frequency with a signal strong enough to open the receiver squelch.
In the SSB/CW and SSB-based Data modes, the decimal points in the frequency display area will blink and the scanner will slow down (but does not stop).

VFO/Memory Scan

1. Set the frequency or Memory channel at which scanning is to begin.
2. Rotate the [RF/SQL] knob so that the background noise is just silenced (page 40, 41).



3. Press the [FUNC] key.
4. Touch [SCAN] to start scanning.
   - You can start scanning by pressing and holding the UP or DWN key on the microphone.
   - If the scanner halts on an incoming signal, the decimal point between the “MHz” and “kHz” digits of the frequency display will blink.
   - The operation when a signal is received during scanning varies depending on the mode type.

Other than SSB, CW	Scanning will pause.
SSB, CW	Scanning speed will be slower, but scanning will not be paused.

   - If the scan has paused on a signal, pressing the microphone UP or DWN button will cause scanning to resume instantly.
   - If the Main Tuning Dial knob is rotated while scanning is in progress, the VFO scanning or memory channel scanning will continue up or down in accordance with the direction of the Dial Knob rotation. (In other words, if the dial is rotated to the left when scanning toward a higher frequency or memory channel number, the direction of the scan will reverse.)

To cancel scanning, press the PTT switch, or press any key on the front panel of the transceiver.

If the microphone PTT button is pressed during scanning, the scanner will halt at once. However, pressing the PTT button while scanning will not cause transmission.

- If you have no interest in scanning, and wish to prohibit the microphone UP/DWN buttons from initiating scanning, you may disable scanning control from the microphone using Menu item [OPERATION SETTING] → [GENERAL] → [MIC SCAN] (page 98).
- During Memory Group operation, only the channels within the current Memory Group will be scanned.
- The manner in which the scanner resumes after it has paused on a signal may be selected by using Menu item [OPERATION SETTING] → [GENERAL] → [MIC SCAN RESUME] (page 98).

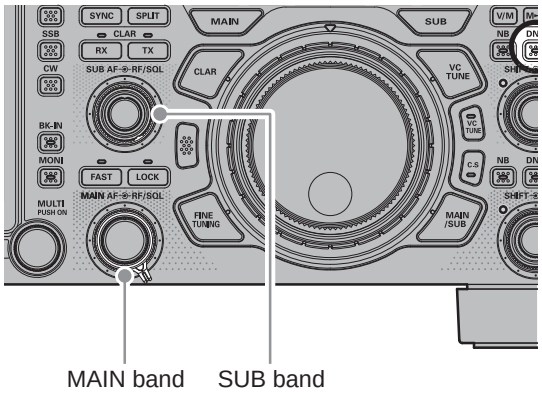
  The default “TIME” (5 sec) setting will cause the scanner to resume scanning after five seconds; however the scan setting may be changed to resume only after the received signal has dropped out.

Programmable Memory Scan (PMS)

To limit scanning (and manual tuning) to a particular frequency range, the Programmable Memory Scanning (PMS) feature utilizes nine special-purpose memory pairs (“M-P1L/M-P1U through M-P9L/ M-P9U). The PMS feature is especially useful in helping to observe any operating sub-band limits which apply to your Amateur license class.

First: store the Lower and Upper tuning/scanning limit frequencies into the memory pair “M-P1L” and “M-P1U”, respectively (or any other “L/U” pair of special PMS memories).

1. Recall the memory channel "M-P1L".
2. Rotate the [RF/SQL] knob so that the background noise is just silenced (page 40, 41).



3. Turn the Main Dial knob slightly (to activate memory tuning).
   - The Memory Channel “M-PL1” will be replaced by “***PMS***”.
4. Press the [FUNC] key.
5. Touch [SCAN] to start PMS.
   - Scanning is only between frequencies stored in M-P1L and M-P1U.
   - Start scanning by pressing and holding the UP or DWN key on the microphone.
   - The operation when a signal is received during scanning varies depending on the mode type.

Other than SSB, CW	Scanning will pause.
SSB, CW	Scanning speed will be slower, but scanning will not be paused.

   - If the scan has paused on a signal, pressing the microphone UP or DWN button will cause scanning to resume instantly.
   - If the Main Tuning 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. (in other words, if the dial is rotated to the left when scanning toward a higher frequency, the direction of the scan will reverse.)

To cancel scanning, press the PTT switch, or press any key on the front panel of the transceiver.

If the microphone PTT button is pressed during scanning, the scanner will halt at once. However, pressing the PTT button while scanning will not cause transmission.

- If you have no interest in scanning, and wish to prohibit the microphone UP/DWN buttons from initiating scanning, you may disable scanning control from the microphone using Menu item [OPERATION SETTING] → [GENERAL] → [MIC SCAN] (page 98).
- The manner in which the scanner resumes after it has paused on a signal may be selected by using Menu item [OPERATION SETTING] → [GENERAL] → [MIC SCAN RESUME] (page 98).
  The default “TIME” (5 sec) setting will cause the scanner to resume scanning after five seconds; however the scan setting may be changed to resume only after the received signal has dropped out.

Other Functions

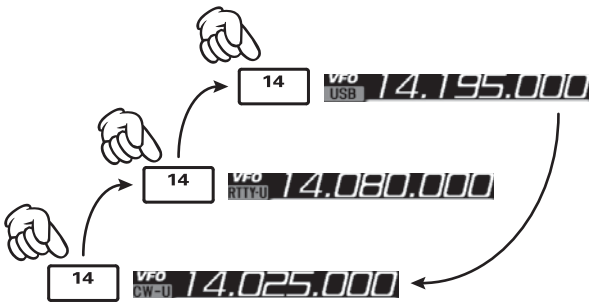
Band Stack Operation

The FTDX101MP employs a triple band-stack VFO selection technique that permits storing up to three favorite frequencies and modes onto each band VFO register.

A typical setup, for the 14 MHz band, might be arranged like this:

1. Program 14.0250 MHz, CW Mode, then press the [14] key.
2. Program 14.0800 MHz, RTTY Mode, then press the [14] key.
3. Program 14.1950 MHz, USB Mode, then press the [14] key.

With this configuration, successive momentary presses of the [14] MHz band key will step sequentially through these three VFOs.



TOT (Time Out Timer)

The “Time-Out Timer” (TOT) shuts the transmitter OFF after continuously transmitting for the programmed time.

1. Press the [FUNC] key.
2. Select [OPERATION SETTING]→[GENERAL]→[TX TIME OUT TIMER].
3. Rotate the [MULTI] knob to select the TOT countdown time (1 -30 min or OFF).
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation.

The beep sounds at about 10 seconds before returning to receive mode automatically.

[MULTI] knob Step Increment Setting

The [MULTI] knob may be set to turn in preset frequency steps.

1. Press the [FUNC] key.
2. Touch [STEP DIAL].
3. Rotate the [MULTI] knob.
   - Pressing the [FAST] key engages the “Fast” tuning selection.
   - The amount of frequency change depends on the operating mode (default setting: see table below).

Operating Mode	1 Step
SSB / CW / RTTY / PSK DATA-L / DATA-U	2.5 kHz [25 kHz]*
AM / FM DATA-FM	5 kHz [50 kHz]*

*Numbers in parentheses indicate steps when the [FAST] key is On.

- The frequency steps can be changed in the Setting Menu.

Operating Mode	Memu Item	Step (kHz)
SSB / CW RTTY / PSK DATA-L / DATA-U	CH STEP (page 103)	1 / 2.5 / 5
AM	AM CH STEP (page 103)	2.5 / 5 / 9 / 10 / 12.5 / 25
FM DATA-FM	FM CH STEP (page 103)	5 / 6.25 / 10 / 12.5 / 20 / 25

Operation on Alaska Emergency Frequency: 5167.5 kHz (U.S. Version Only)

Section 97.401(d) of the regulations governing amateur radio in the United States permit emergency Amateur communications on the spot frequency of 5167.5 kHz by stations in (or within 92.6 km of) the state of Alaska. This frequency is only to be used when the immediate safety of human life and/or property are threatened, and is never to be used for routine communications.

The FTDX101MP is capable of transmitting and receiving on 5167.5 kHz under such emergency conditions. Use the Setting Menu to activate the Alaska Emergency Frequency feature:

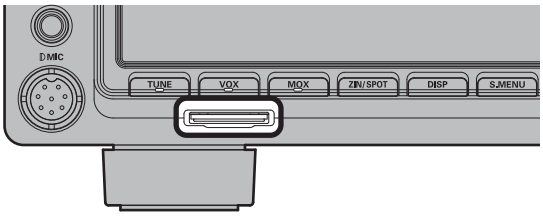
1. Press the [FUNC] key.
2. Select [OPERATION SETTING]→[TX GENERAL]→[EMERGENCY FREQ TX].
3. Select “ON”.
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation. Emergency communication on this spot frequency is now possible.
6. Press the [V/M] key, as necessary, to enter the Memory mode.
7. Press the [FUNC] key, then touch [MEM CH].
8. Rotate the [MULTI] knob to select the emergency channel (“EMG”), which is found between channels “5-10” and “M-01”.

Screen capture

The display on the TFT screen may be saved on the SD card.

When performing screen capture, a commercially available SD card is necessary.
For SD card information, refer to “Using the SD Card” on page 78.

1. Insert the SD card into the SD card slot.



2. Display the screen that is to be saved.
3. Hold down the [FUNC] key until “SCREEN SHOT” appears on the screen.
   Screen data is saved to the SD card.

Data saved on the SD card can be displayed on a personal computer or similar viewer.

data form	bmp (Bitmap format)
Image size	800×480
File Name	yyyymmdd_hhmmss.bmp The captured date and time will be the file name. y (year), m (month), d (day), h (hour), m (minute), s (second)
Data storage location	"Capture” folder Folder structure in SD card FTDX101 ├ Capture ├ MemList └ Menu

Using the SD Card

The following operations can be completed with the use of an SD card in the transceiver:

- Saving the Memory Channel information
- Saving the Set-up Mode settings
- Transceiver firmware update
- Save a screen capture of the TFT display

• SD Cards that can be used

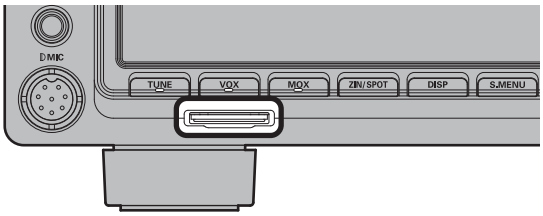
YAESU has tested with the 2GB SD card, and 4GB, 8GB, 16GB and 32GB SDHC cards, most can be used in this radio.
Please format (initialize) the SD card used for the first time on this unit with this transceiver.

- The SD or SDHC cards are not provided with the product.
- Not all SD and SDHC cards sold commercially are guaranteed to work with this product.

- Do not touch the contacts of the SD card with your hands.
- SD memory cards formatted on other devices may not properly save information when used with this transceiver. Format SD memory cards again with this transceiver when using memory cards formatted with another device.
- Do not remove the SD memory card or turn the transceiver OFF, while saving data to a SD memory card is in progress.
- When a single SD card is used for a long period of time, writing and deletion of data may become disabled. Use a new SD card when data can no longer be written or erased.
- Note that Yaesu shall not be liable for any damages suffered as a result of data loss or corruption in use of the SD card.

• Installing the SD card

1. Turn OFF the transceiver.
   Insert the SD card into the SD card slot, with the contact face on the bottom, until a click sound is heard.



• Removing the SD card

1. Turn OFF the transceiver.
2. Push in on the SD card.
   A click sound will be heard and the SD card will be pushed outward.

• Formatting a SD card

When using a new SD card, format it according to the following procedure.

Formatting a microSD memory card erases all data saved on it. Before formatting the microSD memory card, be sure to check the data previously saved on it.

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING] → [SD CARD] .
3. Touch “DONE” on the “FORMAT” item.
   The format confirmation screen will be displayed.
4. Touch “START”, the SD card will be initialized.
   Touch “BACK” to cancel the initialization.
5. “FORMAT COMPLETED” will be displayed when initialization is completed.
6. Touch the screen to end formatting.
7. Press the [FUNC] key to exit to normal operation.

Adjusting the Date and Clock

If the time stamp of the saved file is not correct, adjust the date and time by the following operation.

Adjusting the Date

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING]→ [DATE&TIME].
3. Select the item “DAY", “MONTH or “YEAR”.
4. Rotate the [MULTI] knob to select the “day", “month” and “year", then press the [MULTI] knob.
5. Press the [FUNC] key to save the new setting and exit the Setting Menu.
6. Press the [FUNC] key to exit to normal operation.

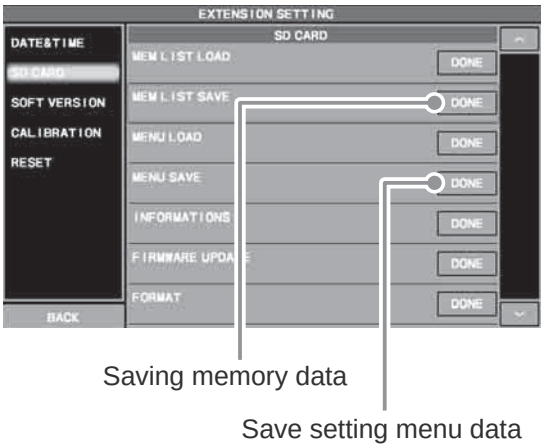
Adjusting the Clock

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING]→ [DATE&TIME].
3. Select the item “HOUR” or “MINUTE”.
4. Rotate the [MULTI] knob to select the “hour” and “minute", then press the [MULTI] knob.
5. Press the [FUNC] key to save the new setting and exit the Setting Menu.
6. Press the [FUNC] key to exit to normal operation.

• Saving Memory data and Setting Menu data

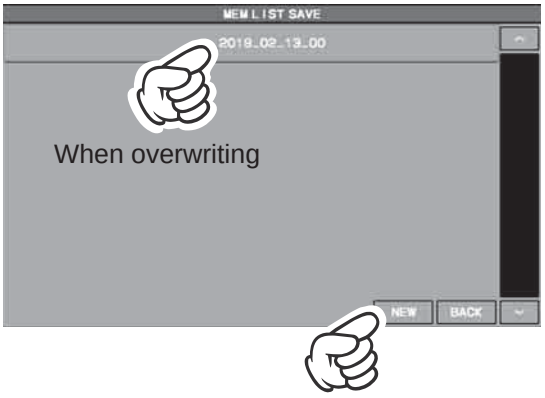
The Memory Channel data, and the Setting Menu data can be saved to the SD Card:

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING]→[SD CARD].
3. Touch “DONE” for the data item to be saved.



4. To save the file with a new name, touch “NEW”.

> **i** To overwrite previously saved data, touch the file name, and touch “OK” when the overwrite confirmation screen appears.
> Touch “CANCEL” to cancel overwrite save.



When saving with a new file name

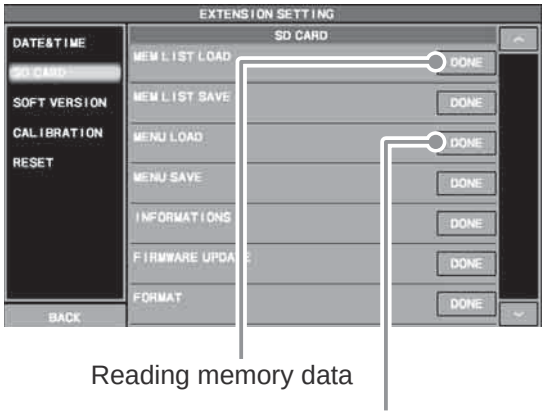
Enter the file name (maximum 15 characters) on the file name input screen.
If the file name is not to be changed, proceed to step 6 as it is.

5. Touch “ENT” to start saving data, or touch “BACK” to cancel the name input.
6. “FILE SAVED” is displayed when data saving is completed.
7. Touch the screen to end saving data.
8. Press the [FUNC] key twice to return to the normal operation screen.

• Reading Memory and Set Menu data

The Memory and Setting Menu data saved on the SD card may be read to the Transceiver.

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING] → [SD CARD].
3. Touch “DONE” of the data item to be read.



Reading memory data

Loading setting menu data

4. Touch the file name to be loaded.
   Touch “BACK” to cancel reading data.

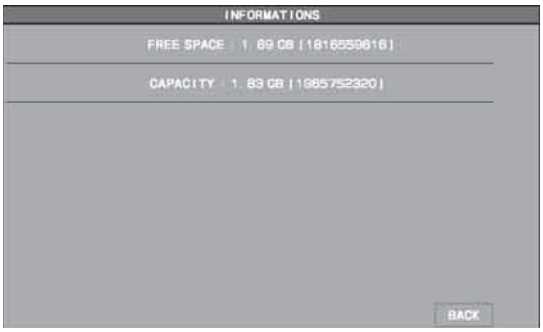
When saving with a new file name

5. When the overwrite confirmation screen appears, touch “OK”.
6. “FILE LOADED” is displayed when the data reading is completed.
7. Touch the TFT screen to finish loading the data.
8. Press the [FUNC] key twice to return to the normal operation screen.
9. Touch the screen to finish loading the data.
10. Once the power is turned OFF, the power is turned ON automatically afterwards.
    With this, the Reading of data is completed.

• Display the SD Card Information

The memory free space of the SD card may be checked:

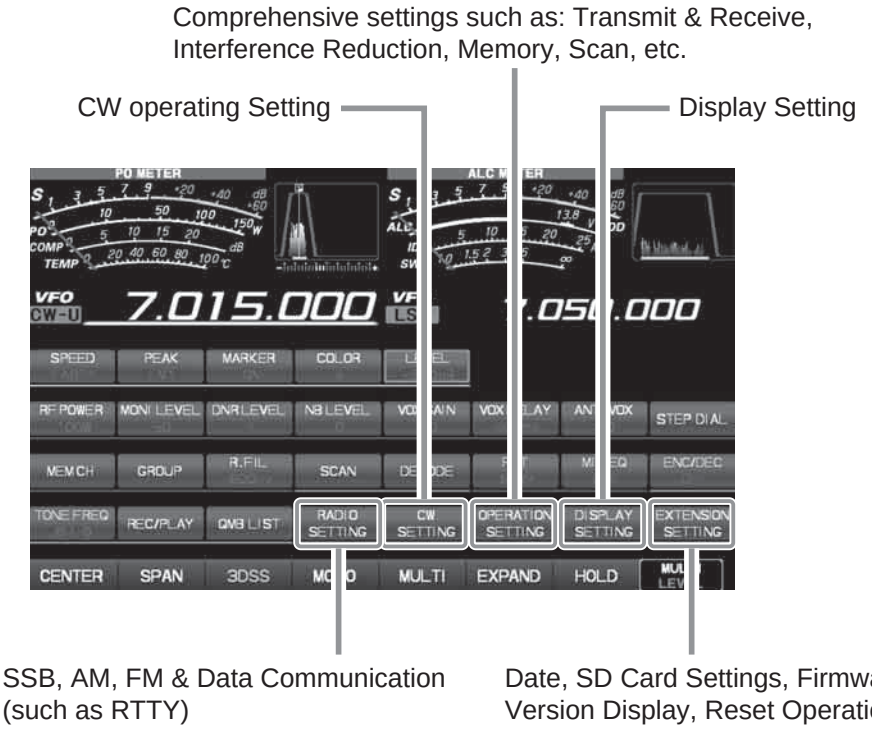
1. Press the [FUNC] key.
2. Select [EXTENSION SETTING] → [SD CARD].
3. Touch “DONE” of the “INFORMATIONS” item.
   The capacity and free space of the SD card are displayed.



4. Touch “BACK” to return to the Setting Menu screen.
5. Press the [FUNC] key twice to return to the normal operation screen.

Setting Menu

The Menu system of the FTDX101MP provides extensive customization capability. The transceiver functions can be tailored for the most demanding operators. The Setting Menus are grouped into five specific utilization categories.



Using the Menu

1. Press the [FUNC] key.
2. Touch the category item that is to be set (see above).
3. Touch the desired item.
4. Touch the item setting that is to be changed.
5. Touch the desired setting, or turn the [MULTI] knob to change the setting.
6. Press the [FUNC] key to save the new setting and exit the Setting Menu.
7. Press the [FUNC] key to exit to normal operation.

Reset the Setting Menu

Use this procedure to restore the Menu settings to their factory defaults, without affecting the Programmed Frequency Memories.

1. Press the [FUNC] key.
2. Select [EXTENSION SETTING] → [RESET] .
3. Touch “DONE” of the “MENU CLEAR” item.
   The reset confirmation screen will be displayed.
4. Touch “OK” or press the [MULTI] knob to reset.
   (Touch “CANCEL” to cancel the reset)
5. Once the power is turned OFF, it will turn ON automatically afterwards.
   Setting Menu reset is complete.

Menu Function		Available Settings (Default: Bold)
RADIO SETTING		
MODE SSB	AGC FAST DELAY	20 - **300** - 4000 (20msec/step)
	AGC MID DELAY	20 - **1000** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **3000** - 4000 (20msec/step)
	LCUT FREQ	OFF/**100** - 1000 (50Hz/step)
	LCUT SLOPE	**6dB/oct** / 18dB/oct
	HCUT FREQ	700 - **3000** - 4000 (50Hz/step) / OFF
	HCUT SLOPE	**6dB/oct** / 18dB/oct
	SSB OUT SELECT	**MAIN**/SUB
	SSB OUT LEVEL	0 - **50** - 100
	TX BPF SEL	50-3050 / 100-2900 / 200-2800 / **300-2700** / 400-2600
	SSB MOD SOURCE	**MIC** / REAR
	REAR SELECT	**DATA** / USB
	RPORT GAIN	0 - **50** - 100
	RPTT SELECT	**DAKY** / RTS / DTR
MODE AM	AGC FAST DELAY	20 - **1000** - 4000 (20msec/step)
	AGC MID DELAY	20 - **2000** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **4000** (20msec/step)
	LCUT FREQ	**OFF**/100 - 1000 (50Hz/step)
	LCUT SLOPE	**6dB/oct** / 18dB/oct
	HCUT FREQ	700 - 4000 (50Hz/step)/ **OFF**
	HCUT SLOPE	**6dB/oct** / 18dB/oct
	AM OUT SELECT	**MAIN** / SUB
	AM OUT LEVEL	0 - **50** - 100
	TX BPF SEL	**50-3050** / 100-2900 / 200-2800 / 300-2700 / 400-2600
	AM MOD SOURCE	**MIC** / REAR
	MIC GAIN	**MCVR** / 0 - 100
	REAR SELECT	**DATA** / USB
	RPORT GAIN	0 - **50** - 100
	RPTT SELECT	**DAKY** / RTS/DTR
MODE FM	AGC FAST DELAY	20 - **160** - 4000 (20msec/step)
	AGC MID DELAY	20 - **500** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **1500** - 4000 (20msec/step)
	LCUT FREQ	OFF / 100 - **300** - 1000 (50Hz/step)
	LCUT SLOPE	6dB/oct / **18dB/oct**
	HCUT FREQ	700 - **3000** - 4000 (50Hz/step) / OFF
	HCUT SLOPE	6dB/oct / **18dB/oct**
	FM OUT SELECT	**MAIN** / SUB
	FM OUT LEVEL	0 - **50** - 100
	FM MOD SOURCE	**MIC** / REAR
	MIC GAIN	**MCVR** / 0 - 100
	REAR SELECT	**DATA** / USB
	RPORT GAIN	0 - **50** - 100
	RPTT SELECT	**DAKY** / RTS/DTR
	RPT SHIFT(28MHz)	0 - **100** - 1000 (10kHz/step)
	RPT SHIFT(50MHz)	0 - **1000** - 4000 (10kHz/step)
MODE PSK/DATA	AGC FAST DELAY	20 - **160** - 4000 (20msec/step)
	AGC MID DELAY	20 - **500** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **1500** - 4000 (20msec/step)
	PSK TONE	**1000** / 1500 / 2000 (Hz)
	DATA SHIFT (SSB)	0 - **1500** - 3000 (10Hz/step)
	LCUT FREQ	OFF / 100 - **300** - 1000 (50Hz/step)
	LCUT SLOPE	6dB/oct / **18dB/oct**
	HCUT FREQ	700 - **3000** - 4000 (50Hz/step)/OFF
	HCUT SLOPE	6dB/oct / **18dB/oct**

Menu Function		Available Settings (Default: Bold)
	DATA OUT SELECT	**MAIN** / SUB
	DATA OUT LEVEL	0 - **50** - 100
	TX BPF SEL	50-3050 / 100-2900 / 200-2800 / **300-2700** / 400-2600
	DATA MOD SOURCE	MIC / **REAR**
	REAR SELECT	**DATA** / USB
	RPORT GAIN	0 - **50** - 100
	RPTT SELECT	**DAKY** / RTS/DTR
MODE RTTY	AGC FAST DELAY	20 - **160** - 4000 (20msec/step)
	AGC MID DELAY	20 - **500** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **1500** - 4000 (20msec/step)
	POLARITY RX	**NOR** / REV
	POLARITY TX	**NOR** / REV
	LCUT FREQ	OFF / 100Hz - **300Hz** - 1000Hz (50Hz/step)
	LCUT SLOPE	6dB/oct / **18dB/oct**
	HCUT FREQ	700Hz - **3000Hz** - 4000Hz (50Hz/step)/ OFF
	HCUT SLOPE	6dB/oct / **18dB/oct**
	RTTY OUT SELECT	**MAIN** / SUB
	RTTY OUT LEVEL	0 - **50** - 100
	RPTT SELECT	**DAKY** / DTR / RTS
	MARK FREQUENCY	1275 / **2125** (Hz)
	SHIFT FREQUENCY	**170** / 200 / 425 / 850 (Hz)
ENCDEC PSK	PSK MODE	**BPSK** / QPSK
	DECODE AFC RANGE	8 / **15** / 30 (Hz)
	QPSK POLARITY RX	**NOR** / REV
	QPSK POLARITY TX	**NOR** / REV
	PSK TX LEVEL	0 - **70** - 100
ENCDEC RTTY	RX USOS	OFF / **ON**
	TX USOS	OFF / **ON**
	RX NEW LINE CODE	**CR, LF, CR+LF** / CR+LF
	TX AUTO CR+LF	OFF / **ON**
	TX DIDDLE	OFF / **BLANK** / LTRS
	BAUDOT CODE	CCITT / **US**
CW SETTING		
MODE CW	AGC FAST DELAY	20 - **160** - 4000 (20msec/step)
	AGC MID DELAY	20 - **500** - 4000 (20msec/step)
	AGC SLOW DELAY	20 - **1500** - 4000 (20msec/step)
	LCUT FREQ	OFF / 100Hz - **250Hz** - 1000Hz (50Hz/step)
	LCUT SLOPE	6dB/oct / **18dB/oct**
	HCUT FREQ	700Hz - **1200Hz** - 4000Hz (50Hz/step)/OFF
	HCUT SLOPE	6dB/oct / **18dB/oct**
	CW OUT SELECT	**MAIN** / SUB
	CW OUT LEVEL	0 - **50** - 100
	CW AUTO MODE	**OFF** / 50M / ON
	CW BK-IN TYPE	**SEMI** / FULL
	CW BK-IN DELAY	30 - **200** - 3000 (msec)
	CW WAVE SHAPE	1 / 2 / **4** / 6 (msec)
	CW FREQ DISPLAY	DIRECT FREQ / **PITCH OFFSET**
	PC KEYING	**OFF** / DAKY / RTS / DTR
	QSK DELAY TIME	**15** / 20 / 25 / 30 (msec)
	CW INDICATOR	OFF / **ON**
KEYER	F KEYER TYPE	OFF / BUG / ELEKEY-A / **ELEKEY-B** / ELEKEY-Y / ACS
	F KEYER DOT/DASH	**NOR** / REV
	R KEYER TYPE	OFF / BUG / ELEKEY-A / **ELEKEY-B** / ELEKEY-Y / ACS
	R KEYER DOT/DASH	**NOR** / REV
	CW WEIGHT	2.5 - **3.0** - 4.5

Menu Function		Available Settings (Default: Bold)
	NUMBER STYLE	**1290** / AUNO / AUNT / A2NO / A2NT / 12NO / 12NT
	CONTEST NUMBER	**1** - 999
	CW MEMORY 1	**TEXT** / MESSAGE
	CW MEMORY 2	**TEXT** / MESSAGE
	CW MEMORY 3	**TEXT** / MESSAGE
	CW MEMORY 4	**TEXT** / MESSAGE
	CW MEMORY 5	**TEXT** / MESSAGE
	REPEAT INTERVAL	1 - **5** - 60 (sec)
DECODE CW	CW DECODE BW	25 / 50 / **100** / 250 (Hz)
OPERATION SETTING		
GENERAL	DECODE RX SELECT	**MAIN** / SUB
	HEADPHONE MIX	**SEPARATE** / COMBINE-1 / COMBINE-2
	ANT3 SELECT	**TRX** / RX
	NB WIDTH	1 / **3** / 10 (msec)
	NB REJECTION	10 / **30** / 40 (dB)
	BEEP LEVEL	0 - **10** - 100
	RF/SQL VR	**RF** / SQL
	TUNER/232C SELECT	**TUNER** / RS232C
	232C RATE	**4800** / 9600 / 19200 / 38400 (bps)
	232C TIME OUT TIMER	**10** / 100 / 1000 / 3000 (msec)
	CAT RATE	**4800** / 9600 / 19200 / 38400 (bps)
	CAT TIME OUT TIMER	**10** / 100 / 1000 / 3000 (msec)
	CAT RTS	OFF / **ON**
	QMB CH	**5ch** / 10ch
	MEM GROUP	**OFF** / ON
	QUICK SPLIT INPUT	**OFF** / ON
	QUICK SPLIT FREQ	-20 - **5** - 20 (kHz)
	TX TIME OUT TIMER	**OFF** / 1 - 30 (min)
	MIC SCAN	OFF / **ON**
	MIC SCAN RESUME	PAUSE / **TIME**
	REF FREQ FINE ADJ	-25 - **0** - 25
	CS DIAL	RF POWER / MONI LEVEL / DNR LEVEL / NB LEVEL / VOX GAIN / VOX DELAY / ANTI VOX / STEP DIAL / **MEM CH** / GROUP / R.FIL
	KEYBOARD LANGUAGE	JAPANESE / ENGLISH(US) / ENGLISH(UK) / FRENCH / FRENCH(CA) / GERMAN / PORTUGUESE / PORTUGUESE(BR) / SPANISH / SPANISH(LATAM) / ITALIAN
RX DSP	APF WIDTH	NARROW / **MEDIUM** / WIDE
	CONTOUR LEVEL	-40 - **-15** - 0 - 20
	CONTOUR WIDTH	1 - **10** - 11
	DNR LEVEL	**1** - 15
	IF NOTCH WIDTH	NARROW / **WIDE**
TX AUDIO	PROC TYPE	COMP / **AMC**
	AMC RELEASE TIME	FAST / **MID** / SLOW
	PRMTRC EQ1 FREQ	**OFF** / 100 - 700 (100Hz/step)
	PRMTRC EQ1 LEVEL	-10 - 0 - **5** - 10
	PRMTRC EQ1 BWTH	0 - **10**
	PRMTRC EQ2 FREQ	**OFF** / 700 - 1500 (100Hz/step)
	PRMTRC EQ2 LEVEL	-10 - 0 - **5** - 10
	PRMTRC EQ2 BWTH	0 - **10**
	PRMTRC EQ3 FREQ	**OFF** / 1500 - 3200 (100Hz/step)
	PRMTRC EQ3 LEVEL	-10 - 0 - **5** - 10
	PRMTRC EQ3 BWTH	0 - **10**
	P PRMTRC EQ1 FREQ	**OFF** / 100 - 700 (100Hz/step)

Menu Function		Available Settings (Default: Bold)
	P PRMTRC EQ1 LEVEL	-10 - **0** - 10
	P PRMTRC EQ1 BWTH	0 - **2** - 10
	P PRMTRC EQ2 FREQ	**OFF** / 700 - 1500 (100Hz/step)
	P PRMTRC EQ2 LEVEL	-10 - **0** - 10
	P PRMTRC EQ2 BWTH	0 - **1** - 10
	P PRMTRC EQ3 FREQ	**OFF** / 1500 - 3200 (100Hz/step)
	P PRMTRC EQ3 LEVEL	-10 - **0** - 10
	P PRMTRC EQ3 BWTH	0 - **1** - 10
TX GENERAL	HF MAX POWER	5 - **200** (W)
	50M MAX POWER	5 - **200** (W)
	70M MAX POWER	5 - **50** (W)
	AM MAX POWER	5 - **50** (W)
	VOX SELECT	**MIC** / DATA
	DATA VOX GAIN	0 - **50** - 100
	EMERGENCY FREQ TX	**OFF** / ON
TUNING	SSB/CW DIAL STEP	5 / **10** (Hz)
	RTTY/PSK DIAL STEP	5 / **10** (Hz)
	CH STEP	1 / **2.5** / 5 (kHz)
	AM CH STEP	2.5 / **5** / 9 / 10 / 12.5 / 25 (kHz)
	FM CH STEP	**5** / 6.25 / 10 / 12.5 / 20 / 25 (kHz)
	MAIN STEPS PER REV.	250 / **500** / 1000
	MPVD STEPS PER REV.	250 / **500**
DISPLAY SETTING		
DISPLAY	MY CALL	Max 12 characters (**FTDX101**)
	MY CALL TIME	OFF / **1** / 2 / 3 / 4 / 5 (sec)
	SCREEN SAVER	OFF / 15 / 30 / **60** (min)
	TFT CONTRAST	0 - **10** - 20
	TFT DIMMER	0 - **15** - 20
	LED DIMMER	0 - **10** - 20
	MOUSE POINTER SPEED	0 - **10** - 20
	FREQ STYLE	LIGHT / **BOLD**
SCOPE	RBW	**HIGH** / MID / LOW
	SCOPE CTR	FILTER / **CAR POINT**
	2D DISP SENSITIVITY	NORMAL / **HI**
	3DSS DISP SENSITIVITY	NORMAL / **HI**
EXT MONITOR	EXT DISPLAY	**OFF** / ON
	PIXEL	**800x480** / 800x600
EXTENSION SETTING		
DATE&TIME	DAY	-
	MONTH	-
	YEAR	-
	HOUR	-
	MINUTE	-
SD CARD	MEM LIST LOAD	-
	MEM LIST SAVE	-
	MENU LOAD	-
	MENU SAVE	-
	INFORMATIONS	-
	FIRMWARE UPDATE	-
	FORMAT	-
SOFT VERSION		-
CALIBRATION	CALIBRATION	-
RESET	MEMORY CLEAR	-
	MENU CLEAR	-
	ALL RESET	-

RADIO SETTING
- MODE SSB -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for SSB mode.
Available Values: 20 - 4000msec
Default Setting: 300msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for SSB mode.
Available Values: 20 - 4000msec
Default Setting: 1000msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for SSB mode.
Available Values: 20 - 4000msec
Default Setting: 3000msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in SSB mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: 100Hz
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in SSB mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 6dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in SSB mode.
Available Values: 700Hz - 4000Hz / OFF
Default Setting: 3000Hz
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in SSB mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 6dB/oct

SSB OUT SELECT

Function: SSB signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the SSB signal.

SSB OUT LEVEL

Function: Sets the level of the receive SSB signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

TX BPF SEL

Function: Selects the audio passband of the DSP modulator on the SSB mode.
Available Values: 50-3050 / 100-2900 / 200-2800/ 300-2700 / 400-2600 (Hz)
Default Setting: 300-2700 Hz

SSB MOD SOURCE

Function: Selects the microphone input jack for SSB mode.
Available Values: MIC / REAR
Default Setting: MIC
Description:
MIC: Audio is input from the MIC jack on the front panel.
REAR: Disables the microphone circuit on the front panel and inputs audio/data from the USB jack or RTTY/DATA jack on the rear panel.

REAR SELECT

Function: Selects the input jack of the SSB signal.
Available Values: DATA / USB
Default Setting: DATA
Description: Selects the input jack of the SSB signal when “SSB MOD SOURCE” is set to “REAR”.
DATA: Inputs from the RTTY/DATA jack on the rear panel.
USB: Inputs from the USB jack on the rear panel.

RPORT GAIN

Function: Sets the level of the SSB signal input when “SSB MOD SOURCE” is set to “REAR”.
Available Values: 0 - 100
Default Setting: 50

RPTT SELECT

Function: Sets the PTT control for the SSB transmit signal.
Available Values: DAKY / RTS / DTR
Default Setting: DAKY
Description:
DAKY: Controls the SSB transmit signal from the RTTY/DATA jack (pin 3) on the rear panel.
DTR: Controls the SSB transmit signal from the USB virtual COM/DTR ports.
RTS: Controls the SSB transmit signal from the USB virtual COM/RTS ports.

RADIO SETTING
- MODE AM -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for AM mode.
Available Values: 20 - 4000msec
Default Setting: 1000msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for AM mode.
Available Values: 20 - 4000msec
Default Setting: 2000msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for AM mode.
Available Values: 20 - 4000msec
Default Setting: 4000msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in AM mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: OFF
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in AM mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 6dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in AM mode.
Available Values: 700Hz - 4000Hz / OFF
Default Setting: OFF
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in AM mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 6dB/oct

AM OUT SELECT

Function: AM signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the AM signal.

AM OUT LEVEL

Function: Sets the level of the receive AM signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

TX BPF SEL

Function: Selects the audio passband of the DSP modulator on the AM mode.
Available Values: 50-3050 / 100-2900 / 200-2800
300-2700 / 400-2600 (Hz)
Default Setting: 50-3050 Hz

AM MOD SOURCE

Function: Selects the microphone input jack for AM mode.
Available Values: MIC / REAR
Default Setting: MIC
Description:
MIC: Audio is input from the MIC jack on the front panel.
REAR: Disables the microphone circuit on the front panel and inputs audio/data from the USB jack or RTTY/DATA jack on the rear panel.

MIC GAIN

Function: Sets the microphone gain for the AM mode.
Available Values: MCVR / 0 - 100
Default Setting: MCVR
Description:
MCVR: Adjust the microphone gain (0 - 100) using the front panel [MIC/SPEED] knob.
0 - 100: Fixed to the set value.

REAR SELECT

Function: Selects the input jack of the AM signal.
Available Values: DATA / USB
Default Setting: DATA
Description: Selects the input jack of the AM signal when “AM MOD SOURCE” is set to “REAR”.
DATA: Inputs from the RTTY/DATA jack on the rear panel.
USB: Inputs from the USB jack on the rear panel.

RPORT GAIN

Function: Sets the level of the AM signal input when “AM MOD SOURCE” is set to “REAR”.
Available Values: 0 - 100
Default Setting: 50

RPTT SELECT

Function: Sets the PTT control for the AM transmit signal.
Available Values: DAKY / RTS / DTR
Default Setting: DAKY
Description:
DAKY: Controls the AM transmit signal from the RTTY/DATA jack (pin 3) on the rear panel.
DTR: Controls the AM transmit signal from the USB virtual COM/DTR ports.
RTS: Controls the AM transmit signal from the USB virtual COM/RTS ports.

RADIO SETTING
- MODE FM -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for FM mode.
Available Values: 20 - 4000msec
Default Setting: 160msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for FM mode.
Available Values: 20 - 4000msec
Default Setting: 500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for FM mode.
Available Values: 20 - 4000msec
Default Setting: 1500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in FM mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: 300
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in FM mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in FM mode.
Available Values: 700Hz - 4000Hz/OFF
Default Setting: 3000Hz
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in FM mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

FM OUT SELECT

Function: FM signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the FM signal.

FM OUT LEVEL

Function: Sets the level of the receive FM signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

FM MOD SOURCE

Function: Selects the microphone input jack for FM mode.
Available Values: MIC / REAR
Default Setting: MIC
Description:
MIC: Audio is input from the MIC jack on the front panel.
REAR: Disables the microphone circuit on the front panel and inputs audio/data from the USB jack or RTTY/DATA jack on the rear panel.

MIC GAIN

Function: Sets the microphone gain for the FM mode.
Available Values: MCVR / 0 - 100
Default Setting: MCVR
Description:
MCVR: Adjust the microphone gain (0 - 100) using the front panel [MIC/SPEED] knob.
0 - 100: Fixed to the set value.

REAR SELECT

Function: Selects the input jack of the FM signal.
Available Values: DATA / USB
Default Setting: DATA
Description: Selects the input jack of the FM signal when “FM MOD SOURCE” is set to “REAR”.
DATA: Inputs from the RTTY/DATA jack on the rear panel.
USB: Inputs from the USB jack on the rear panel.

RPORT GAIN

Function: Sets the level of the FM signal input when “FM MOD SOURCE” is set to “REAR”.
Available Values: 0 - 100
Default Setting: 50

RPTT SELECT

Function: Sets the PTT control for the FM transmit signal.
Available Values: DAKY / RTS / DTR
Default Setting: DAKY
Description:
DAKY: Controls the FM transmit signal from the RTTY/DATA jack (pin 3) on the rear panel.
DTR: Controls the FM transmit signal from the USB virtual COM/DTR ports.
RTS: Controls the FM transmit signal from the USB virtual COM/RTS ports.

RPT SHIFT(28MHz)

Function: Sets the RPT offset frequency on the 28 MHz band.
Available Values: 0 - 1000 kHz
Default Setting: 100 kHz
Description: The RPT offset frequency can be set at 10 kHz increments between 0 kHz and 1000 kHz.

RPT SHIFT(50MHz)

Function: Sets the RPT offset frequency on the 50 MHz band.
Available Values: 0 - 4000 kHz
Default Setting: 1000kHz
Description: The RPT offset frequency can be set at 10 kHz increments between 0 kHz and 4000 kHz.

RADIO SETTING
- MODE PSK/DATA -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for PSK/DATA mode.
Available Values: 20 - 4000msec
Default Setting: 160msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for PSK/DATA mode.
Available Values: 20 - 4000msec
Default Setting: 500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for PSK/DATA mode.
Available Values: 20 - 4000msec
Default Setting: 1500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

PSK TONE

Function: Set the PSK tone
Available Values: 1000 / 1500 / 2000 Hz
Default Setting: 1000 Hz

DATA SHIFT (SSB)

Function: Sets the carrier point in DATA mode.
Available Values: 0 - 3000 Hz
Default Setting: 1500 Hz
Description: The frequency can be set in steps of 10 Hz.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in DATA mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: 300
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in DATA mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in DATA mode.
Available Values: 700Hz - 4000Hz / OFF
Default Setting: 3000Hz
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in DATA mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

DATA OUT SELECT

Function: DATA signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the DATA signal.

DATA OUT LEVEL

Function: Sets the level of the receive DATA signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

TX BPF SEL

Function: Selects the audio passband of the DSP modulator on the DATA mode.
Available Values: 50-3050 / 100-2900 / 200-2800
300-2700 / 400-2600 (Hz)
Default Setting: 300-27000 Hz

DATA MOD SOURCE

Function: Selects the microphone input jack for DATA mode.
Available Values: MIC / REAR
Default Setting: REAR
Description:
MIC: Audio is input from the MIC jack on the front panel.
REAR: Disables the microphone circuit on the front panel and inputs audio/data from the USB jack or RTTY/DATA jack on the rear panel.

REAR SELECT

Function: Selects the input jack of the DATA signal.
Available Values: DATA / USB
Default Setting: DATA
Description: Selects the input jack of the AM signal when “DATA MOD SOURCE” is set to “REAR”.
DATA: Is input to the RTTY/DATA jack on the rear panel.
USB: Is input the USB jack on the rear panel.

RPORT GAIN

Function: Sets the level of the DATA signal input when “DATA MOD SOURCE” is set to “REAR”.
Available Values: 0 - 100
Default Setting: 50

RPTT SELECT

Function: Sets the PTT control for the DATA transmit signal.
Available Values: DAKY / RTS / DTR
Default Setting: DAKY
Description:
DAKY: Controls the DATA transmit signal from the RTTY/DATA jack (pin 3) on the rear panel.
DTR: Controls the DATA transmit signal from the USB virtual COM/DTR ports.
RTS: Controls the DATA transmit signal from the USB virtual COM/RTS ports.

RADIO SETTING
- MODE RTTY -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for RTTY mode.
Available Values: 20 - 4000msec
Default Setting: 160msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for RTTY mode.
Available Values: 20 - 4000msec
Default Setting: 500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for RTTY mode.
Available Values: 20 - 4000msec
Default Setting: 1500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

POLARITY RX

Function: Sets the shift direction for receiving in RTTY mode.
Available Values: NOR / REV
Default Setting: NOR
Description:
NOR: The space frequency will be lower than the mark frequency.
REV: The mark frequency will be lower than the space frequency.

POLARITY TX

Function: Sets the shift direction for transmitting in RTTY mode.
Available Values: NOR / REV
Default Setting: NOR
Description:
NOR: The space frequency will be lower than the mark frequency.
REV: The mark frequency will be lower than the space frequency.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in RTTY mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: 300Hz
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in RTTY mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in RTTY mode.
Available Values: 700Hz - 4000Hz / OFF
Default Setting: 3000Hz
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in RTTY mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

RTTY OUT SELECT

Function: RTTY signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the RTTY signal.

RTTY OUT LEVEL

Function: Sets the level of the receive RTTY signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

RPTT SELECT

Function: Sets the PTT control for the RTTY transmit signal.
Available Values: DAKY / RTS / DTR
Default Setting: DAKY
Description:
DAKY: Controls the RTTY transmit signal from the RTTY/DATA jack (pin 3) on the rear panel.
DTR: Controls the RTTY transmit signal from the USB virtual COM/DTR ports.
RTS: Controls the RTTY transmit signal from the USB virtual COM/RTS ports.

MARK FREQUENCY

Function: Sets the mark frequency for RTTY mode.
Available Values: 1275 / 2125 (Hz)
Default Setting: 2125Hz

SHIFT FREQUENCY

Function: Sets the shift width for RTTY mode.
Available Values: 170 / 200 / 425 / 850 (Hz)
Default Setting: 170Hz

RADIO SETTING
- ENCDEC PSK -

PSK MODE

Function: Selects the operation mode of the PSK mode.
Available Values: BPSK / QPSK
Default Setting: BPSK
Description:
BPSK: This is a standard mode. Normally use this mode.
QPSK: This is a mode with error correction function.

DECODE AFC RANGE

Function: Selects the operation range (or bandwidth) of the AFC feature.
Available Values: 8 / 15 / 30 (Hz)
Default Setting: 15 Hz
Description: Automatically tunes to the PSK signal within the set range for the display frequency.

QPSK POLARITY RX

Function: Setting QPSK Decode Phase Shift Direction.
Available Values: NOR / REV
Default Setting: NOR
Description: Sets the phase shift direction during QPSK reception.
NOR: Normally use this mode.
REV: Inverts the phase of decoding.

QPSK POLARITY TX

Function: Setting QPSK Encode Phase Shift Direction.
Available Values: NOR / REV
Default Setting: NOR
Description: Sets the phase shift direction for QPSK transmission.
NOR: Normally use this mode.
REV: Inverts the phase of encoding.

PSK TX LEVEL

Function: Data output level setting during PSK communication
Available Values: 0 - 100
Default Setting: 70

RADIO SETTING
- ENCDEC RTTY -

RX USOS

Function: Enables/Disables the RX USOS feature.
Available Values: OFF / ON
Default Setting: ON
Description: When the space symbol is received, the RX USOS function that automatically switches to character reception (LTRS) is turned ON or OFF.

TX USOS

Function: Enables/Disables the TX USOS feature.
Available Values: OFF / ON
Default Setting: ON
Description: When sending a number and a symbol following a space symbol, the TX USOS function to forcibly insert the FIGS code is turned ON or OFF.

RX NEW LINE CODE

Function: Selects the command code used for the Carriage Return during RTTY receive.
Available Values: CR, LF, CR+LF / CR+LF
Default Setting: CR, LF, CR+LF
Description: Set the code to perform line feed for RTTY.
CR, LF, CR+LF: Do a line break with all codes.
CR+LF: Line feed is performed only for CR + LF code.

TX AUTO CR+LF

Function: Enables/Disables the sending of the Carriage Return (CR+LF) Code while transmitting in RTTY.
Available Values: OFF / ON
Default Setting: ON

TX DIDDLE

Function: Selects the transmission code when there is not a character to be transmitted.
Available Values: OFF / BLANK / LTRS
Default Setting: BLANK
Description: This code is sent when there are no characters sending.
BLANK: If there is no character transmission, a blank code is transmitted.
LTRS: When there are no characters transmitted, the letter code is transmitted.
OFF: Does not send out the code.

BAUDOT CODE

Function: Selects the Baudot Code used for the RTTY mode.
Available Values: CCITT / US
Default Setting: US

CW SETTING
- MODE CW -

AGC FAST DELAY

Function: Sets the AGC-FAST DELAY voltage decay characteristics for CW mode.
Available Values: 20 - 4000msec
Default Setting: 160msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC MID DELAY

Function: Sets the AGC-MID DELAY voltage decay characteristics for CW mode.
Available Values: 20 - 4000msec
Default Setting: 500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

AGC SLOW DELAY

Function: Sets the AGC-SLOW DELAY voltage decay characteristics for CW mode.
Available Values: 20 - 4000msec
Default Setting: 1500msec
Description: Sets the AGC voltage decay characteristics in 20 msec steps after the input signal level becomes lower than the AGC detection level and the HOLD time has expired.

LCUT FREQ

Function: Sets the low-frequency cutoff audio filter in CW mode.
Available Values: OFF / 100Hz - 1000Hz
Default Setting: 250Hz
Description: The cutoff frequency can be set at 50 Hz increments between 100 Hz and 1000 Hz.

LCUT SLOPE

Function: Sets the slope of the low-frequency cutoff audio filter in CW mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

HCUT FREQ

Function: Sets the high-frequency cutoff audio filter in CW mode.
Available Values: 700Hz - 4000Hz / OFF
Default Setting: 1200Hz
Description: The cutoff frequency can be set at 50 Hz increments between 700 Hz and 4000 Hz.

HCUT SLOPE

Function: Sets the slope of the high-frequency cutoff audio filter in CW mode.
Available Values: 6dB/oct / 18dB/oct
Default Setting: 18dB/oct

CW OUT SELECT

Function: CW signal output band setting from RTTY/DATA jack.
Available Values: MAIN / SUB
Default Setting: MAIN
Description: Select the band to output the CW signal.

CW OUT LEVEL

Function: Sets the level of the CW signal output from the RTTY/DATA jack.
Available Values: 0 - 100
Default Setting: 50

CW AUTO MODE

Function: Enables/disables CW keying while operating on SSB.
Available Values: OFF / 50M (50MHz) / ON
Default Setting: OFF
Description:
OFF: Disables CW keying while operating on SSB.
50M: Enables CW keying while operating SSB on 50 MHz (but not HF).
ON: Enables CW keying while operating SSB on all TX bands.

CW BK-IN TYPE

Function: Sets the CW brake-in function.
Available Values: SEMI / FULL
Default Setting: SEMI
Description:
SEMI: A brief delay is provided after the CW keying operation, before the transceiver returns to receive mode.
The receiver recovery time may be changed using “CW BK-IN DELAY”.
FULL: The transceiver immediately returns to receive mode after every CW key-up (QSK mode).

CW BK-IN DELAY

Function: Sets the CW delay time.
Available Values: 30msec - 3000msec
Default Setting: 200msec
Description: The delay time can be changed between 30 msec and 3000 msec.

CW WAVE SHAPE

Function: Selects the CW carrier wave-form shape (rise/fall times).
Available Values: 1ms / 2ms / 4ms / 6ms
Default Setting: 4ms (msec)
Description: Sets the rise and fall times of the keying envelope in CW mode (transmit waveform).

CW FREQ DISPLAY

Function: Sets the PITCH frequency offset.
Available Values: DIRECT FREQ / PITCH OFFSET
Default Setting: PITCH OFFSET
Description: Sets the displayed frequency offset when switching the transceiver mode between SSB and CW.
DIRECT FREQ: Displays the same frequency in CW mode as in SSB mode without any offset added.
PITCH OFFSET: Displays the frequency in CW mode with the pitch offset added. When CW BFO is set to USB, the displayed frequency will be increased and when CW BFO is set to LSB, the displayed frequency will be decreased with pitch offset added.

PC KEYING

Function: Sets the RTTY/DATA jack for PC keying.
Available Values: OFF / DAKY / RTS / DTR
Default Setting: OFF
Description:
OFF: Disables PC keying from DATA PTT (pin 3) of the RTTY/DATA jack.
DAKY: Controls the transmit from the RTTY/DATA jack (pin 3) on the rear panel.
RTS: Controls the transmit from the USB virtual COM/RTS ports.
DTR: Controls the transmit from the USB virtual COM/DTR ports.

QSK DELAY TIME

Function: Sets the time delay before transmitting the keying signal.
Available Values: 15 / 20 / 25 / 30 msec
Default Setting: 15 msec
Description: The delay time in QSK mode before transmitting the CW signal may be set in 5 msec steps.

CW INDICATOR

Function: Bar display settings shown below the filter function display in CW mode.
Available Values: OFF / ON
Default Setting: ON
Description: In CW mode, the bar shown below the filter function display may be set to ON or OFF.

CW SETTING
- KEYER -

F KEYER TYPE

Function: Selects the desired keyer operation mode for the device connected to the front panel KEY jack.
Available Values: OFF / BUG / ELEKEY-A/ ELEKEY-B / ELEKEY-Y / ACS
Default Setting: ELEKEY-B
Description:
OFF: Disables the keyer function.
BUG: Functions as a “BUG key”. Only the “Dot” side is automatically generated (the “Dash” side is generated manually).
ELEKEY-A: A code element (“Dot” or “Dash” side) is transmitted upon pressing both sides of the paddle.
ELEKEY-B: Pressing both sides of the paddle transmits the currently generated “Dash” side followed by “Dot” side (or reverse order).
ELEKEY-Y: Pressing both sides of the paddle transmits the currently generated “Dash” side followed by “Dot” side (or reverse order).
While transmitting the “Dash” side, the first transmitted “Dot” side will not be stored.
ACS: Functions as the “Keyer with automatic spacing control feature” which sets spacing between characters precisely to be the same length as a dash (three dots in length).

F KEYER DOT/DASH

Function: Reverses the connections of the CW paddle front panel key jack.
Available Values: NOR / REV
Default Setting: NOR
Description:
NOR: Press the right side of the paddle to transmit the “Dot” signal and press the left side of the paddle to transmit the “Dash” signal.
REV: Press the left side of the paddle to transmit the “Dash” signal and press the right side of the paddle to transmit the “Dot” signal.

R KEYER TYPE

Function: Selects the desired keyer operation mode for the device connected to the rear panel KEY jack.
Available Values: OFF / BUG / ELEKEY-A / ELEKEY-B / ELEKEY-Y / ACS
Default Setting: ELEKEY-B
Description:
OFF: Disables the keyer function.
BUG: Functions as a “BUG key”. Only the “Dot” side is automatically generated (the “Dash” side is generated manually).
ELEKEY-A: A code element (“Dot” or “Dash”) is transmitted upon pressing both sides of the paddle.
ELEKEY-B: Pressing both sides of the paddle transmits the currently generated “Dash” side followed by “Dot” side (or reverse order).
ELEKEY-Y: Pressing both sides of the paddle transmits the currently generated “Dash” side followed by “Dot” side (or reverse order).
While transmitting the “Dash” side, the first transmitted “Dot” side will not be stored.
ACS: Functions as the “Keyer with automatic spacing control feature” which sets spacing between characters to be precisely to be the same length as a dash (three dots in length).

R KEYER DOT/DASH

Function: Reverses the connections of the CW paddle rear panel key jack.
Available Values: NOR / REV
Default Setting: NOR
Description:
NOR: Press the right side of the paddle to transmit the “Dot” signal and press the left side of the paddle to transmit the “Dash” signal.
REV: Press the left side of the paddle to transmit the “Dash” signal and press the right side of the paddle to transmit the “Dot” signal.

CW WEIGHT

Function: Adjusts the keyer CW weight.
Available Values: 2.5 - 4.5
Default Setting: 3.0
Description: Sets the “Dot”:“Dash” ratio for the built-in electronic keyer.

NUMBER STYLE

Function: Selects the contest number “Cut” format for an imbedded contest number.
Available Values: 1290 / AUNO / AUNT / A2NO / A2NT / 12NO / 12NT
Default Setting: 1290
Description: Abbreviates numbers “One”, “Two”, “Nine” and “Zero” using Morse code when sending the contest number.
1290: Does not abbreviate the contest number.
AUNO: Abbreviates to “A” for “One”, “U” for “Two”, “N” for “Nine”, and “O” for “Zero”.
AUNT: Abbreviates to “A” for “One”, “U” for “Two”, “N” for “Nine”, and “T” for “Zero”.
A2NO: Abbreviates to “A” for “One”, “N” for “Nine”, and “O” for “Zero”. Does not abbreviate number “Two”.
A2NT: Abbreviates to “A” for “One”, “N” for “Nine”, and “T” for “Zero”. Does not abbreviate number “Two”.
12NO: Abbreviates to “N” for “Nine”, and “O” for “Zero”. Does not abbreviate numbers “One” and “Two”.
12NT: Abbreviates to “N” for “Nine”, and “T” for “Zero”. Does not abbreviate numbers “One” and “Two”.

CONTEST NUMBER

Function: Enters the initial contest number that will increment/decrement each time the CW message is sent during contest QSOs.
Available Values: 1 - 999
Default Setting: 1

CW MEMORY 1

Function: Selects the registration method for the contest keyer “CW MEMORY 1”.
Available Values: TEXT / MESSAGE
Default Setting: TEXT
Description:
TEXT: Use the optional FH-2 or the touch panel to enter text (page 61).
MESSAGE: Use the keyer to register text to the contest memory keyer (page 59).

CW MEMORY 2

Function: Selects the registration method for the contest keyer “CW MEMORY 2”.
Available Values: TEXT / MESSAGE
Default Setting: TEXT
Description:
TEXT: Use the optional FH-2 or the touch panel to enter text (page 61).
MESSAGE: Use the keyer to register text to the contest memory keyer (page 59).

CW MEMORY 3

Function: Selects the registration method for the contest keyer “CW MEMORY 3”.
Available Values: TEXT / MESSAGE
Default Setting: TEXT
Description:
TEXT: Use the optional FH-2 or the touch panel to enter text (page 61).
MESSAGE: Use the keyer to register text to the contest memory keyer (page 59).

CW MEMORY 4

Function: Selects the registration method for the contest keyer “CW MEMORY 4”.
Available Values: TEXT / MESSAGE
Default Setting: TEXT
Description:
TEXT: Use the optional FH-2 or the touch panel to enter text (page 61).
MESSAGE: Use the keyer to register text to the contest memory keyer (page 59).

CW MEMORY 5

Function: Selects the registration method for the contest keyer “CW MEMORY 5”.
Available Values: TEXT / MESSAGE
Default Setting: TEXT
Description:
TEXT: Use the optional FH-2 or the touch panel to enter text (page 61).
MESSAGE: Use the keyer to register text to the contest memory keyer (page 59).

REPEAT INTERVAL

Function: Sets the interval time between each repition of the beacon message.
Available Values: 1 - 60 (sec)
Default Setting: 5 sec
Description: Set the interval for transmitting the CW code registered in the contest memory keyer as a beacon.
On the “CW MESSAGE MEMORY” screen, press and hold the number registered with the code to be sent. The CW Morse code message will be transmitted at the set intervals.

CW SETTING
- DECODE CW -

CW DECODE BW

Function: Selects the bandwidth of the AFC feature.
Available Values: 25 / 50 / 100 / 250 (Hz)
Default Setting: 100Hz

OPERATION SETTING
- GENERAL -

DECODE RX SELECT

Function: Sets the band to decode in CW, RTTY and PSK mode.
Available Values: MAIN / SUB
Default Setting: MAIN

HEADPHONE MIX

Function: Selects one of three audio mixing modes when using headphones during Dual Receive operation.
Available Values: SEPARATE / COMBINE-1 / COMBINE-2
Default Setting: SEPARATE
Description:
SEPARATE: Audio from the MAIN band receiver is heard only in the left ear, and SUB band receiver audio solely in the right ear.
COMBINE-1: Audio from both MAIN band and SUB band receivers can be heard in both ears, but SUB band audio is attenuated in the left ear and MAIN band audio is attenuated in the right ear.
COMBINE-2: Audio from both MAIN band and SUB band receivers is combined and heard equally in both ears.

ANT3 SELECT

Function: Selects the operation mode of the ANT 3 connector.
Available Values: TRX / RX
Default Setting: TRX
Description:
TRX: Possible to transmit and receive.
RX: Receive only and cannot transmit.

NB WIDTH

Function: Sets the duration of the noise blanking pulse to match various types of noise compatible with the noise blanker function.
Available Values: 1 / 3 / 10 (msec)
Default Setting: 3msec
Description: Reduces long duration noise as well as pulse noise by changing the setting.

NB REJECTION

Function: Selects the level of noise attenuation.
Available Values: 10 / 30 / 40 (dB)
Default Setting: 30dB

BEEP LEVEL

Function: Sets the beep volume level.
Available Values: 0 - 100
Default Setting: 10
Description: The higher the setting, the louder the sound becomes.

RF/SQL VR

Function: Selects the operation mode of the RF/SQL knob.
Available Values: RF / SQL
Default Setting: RF
Description:
RF: Functions as the RF gain adjustment knob.
SQL: Functions as the Squelch level adjustment knob.

TUNER/232C SELECT

Function: Switches between external antenna tuner (use the TUNER terminal) and CAT operation (use the RS-232C terminal).
Available Values: TUNER / RS232C
Default Setting: TUNER
Description:
TUNER: For use with an external antenna tuner (the optional FC-40, etc.).
RS232C: Enables the connection for input of CAT commands.

232C RATE

Function: Sets the baud rate for a RS-232C jack CAT input.
Available Values: 4800 / 9600 / 19200 / 38400 bps
Default Setting: 4800 bps

232C TIME OUT TIMER

Function: Time-Out-Timer for an RS-232C command input.
Available Values: 10 / 100 / 1000 / 3000 (msec)
Default Setting: 10 msec
Description: Sets the Time-Out-Timer countdown time for an RS-232C command input.

CAT RATE

Function: Sets the baud rate for a CAT command input of the USB jack.
Available Values: 4800 / 9600 / 19200 / 38400 bps
Default Setting: 4800 bps

CAT TIME OUT TIMER

Function: Sets the Time-Out Timer for a CAT command input.
Available Values: 10 / 100 / 1000 / 3000 (msec)
Default Setting: 10 msec
Description: Sets the Time-Out Timer countdown time for a CAT command input of the USB jack.

CAT RTS

Function: Configures the CAT RTS port setting.
Available Values: OFF / ON
Default Setting: ON
Description: Monitors the computer using the RTS signal.
ON: Monitors the computer status using the RTS signal.
OFF: Disables the monitoring function.

QMB CH

Function: Number of channels setting of the Quick Memory bank.
Available Values: 5ch / 10ch
Default Setting: 5ch
Description: Set the number of channels that can be registered in the Quick Memory Bank.

MEM GROUP

Function: Sets the memory group function.
Available Values: OFF / ON
Default Setting: OFF
Description: Set this setting to “ON” to divide the memory channels into 6 groups.

QUICK SPLIT INPUT

Function: Input a Quick Split offset frequency.
Available Values: OFF / ON
Default Setting: OFF
Description: When this setting “ON”, the Quick Split offset frequency can be input from the on-screen keyboard.

QUICK SPLIT FREQ

Function: Selects the amount the frequency is offset when the Quick Split feature is enabled.
Available Values: -20 - 0 - 20kHz (1 kHz/step)
Default Setting: 5kHz

- Press and hold the [SPLIT] key to activate SUB Band split frequency operation, thereby offsetting the transmitter by the specified frequency.
- Each time the [SPLIT] key is pressed and held, the frequency offset is increased by the setting amount.

TX TIME OUT TIMER

Function: Sets the Time-Out Timer countdown time.
Available Values: OFF / 1 - 30 min
Default Setting: OFF
Description: 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 is forced to return to the receiving mode.

MIC SCAN

Function: Activates the microphone automatic scanning function.
Available Values: OFF / ON
Default Setting: ON
Description: Sets the operation of the UP/DWN keys on the microphone.
ON: Starts scanning automatically by pressing and holding the UP/DWN key for 1 second or more (Scanning continues even after releasing the button). To stop scanning, press the UP/DWN key again briefly or press the PTT button to transmit.
OFF: Scans only while pressing and holding the UP/DWN key. To stop scanning, release the button.

MIC SCAN RESUME

Function: Sets the Scan Resume function.
Available Values: PAUSE / TIME
Default Setting: TIME
Description:
PAUSE: During automatic scanning, the scanner will hold until the signal disappears.
TIME: If the signal does not disappear within five seconds, the scanner will resume scanning for the next active channel (frequency).
If there are no signals, the scanner con-tin- ues scanning.

REF FREQ FINE ADJ

Function: Adjusts the reference oscillator.
Available Values: -25 - 0 - 25
Default Setting: 0
Description: The frequency may be calibrated by connecting a frequency counter to the transceiver, or by receiving a standard frequency such as WWV or WWVH.

CS DIAL

Function: Sets the Operation of MPVD dial when the [C.S] key is pressed.
Available Values: RF POWER / MONI LVL / DNR LVL / NB LVL / VOX GAIN VOX DELAY / ANTI VOX STEP DIAL / MEM CH GROUP / R.FIL
Default Setting: MEM CH
Description:
RF POWER: Adjusts transmit output.
MONI LVL: Adjusts the Monitor volume.
DNR LVL: DNR level adjustment.
NB LVL: NB level adjustment.
VOX GAIN: VOX gain adjustment.
VOX DELAY: VOX delay adjustment.
ANTI VOX: ANTI VOX adjustment.
STEP DIAL: Set the Frequency Change Steps.
MEM CH: Selects the Memory Channels.
GROUP: Selects the Memory Group.
R.FIL: Selects the Roofing filter Pass Band Width.

KEYBOARD LANGUAGE

Function: Selects the keyboard language.
Available Values: JAPANESE / ENGLISH(US) ENGLISH(UK) / FRENCH FRENCH(CA) / GERMAN PORTUGUESE PORTUGUESE(BR) SPANISH / SPANISH(LATAM) ITALIAN
Default Setting: Depends on the transceiver version.

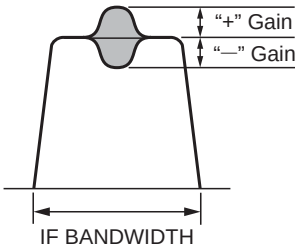
OPERATION SETTING
- RX DSP -

APF WIDTH

Function: Sets the bandwidth of the Audio Peak Filter.
Available Values: NARROW / MEDIUM/WIDE
Default Setting: MEDIUM
Description: In CW mode the APF peak center frequency is set according to the CW PITCH frequency and the chosen APF bandwidth value. In order to listen to the desired signal comfortably, select one of the three bandwidths of the peak filter.

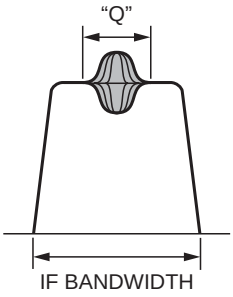
CONTOUR LEVEL

Function: Adjusts the GAIN of the CONTOUR circuit.
Available Values: -40 - 0 - 20
Default Setting: -15



CONTOUR WIDTH

Function: Sets the bandwidth (“Q”) of the CONTOUR circuit.
Available Values: 1 - 11
Default Setting: 10



DNR LEVEL

Function: Set the Digital Noise Reduction response.
Available Values: 1 - 15
Default Setting: 1

IF NOTCH WIDTH

Function: Sets the attenuation bandwidth characteristic of the DSP IF notch filter.
Available Values: NARROW / WIDE
Default Setting: WIDE
Description: Sets the attenuation bandwidth characteristic setting of the DSP IF notch filter to “NARROW” or “WIDE”.

OPERATION SETTING
- TX AUDIO -

PROC TYPE

Function: Sets the Speech Processor type.
Available Values: COMP / AMC
Default Setting: AMC
Description:
COMP: Regular speech processor.
AMC: Even if excessive audio is input, the level is automatically adjusted to suppress distortion.

AMC RELEASE TIME

Function: AMC level adjustment tracking speed setting
Available Values: FAST / MID / SLOW
Default Setting: MID
Description: Set the input audio level tracking speed of the AMC function.

PRMTRC EQ1 FREQ

Function: Sets the center frequency of the low range for the 3 band parametric microphone equalizer.
Available Values: OFF / 100 - 700 (Hz)
Default Setting: OFF
Description: Selects the center frequency of the low range of the 3 Band Parametric Microphone Equalizer in 100Hz steps between “100Hz” and “700Hz”.

PRMTRC EQ1 LEVEL

Function: Sets the gain for the low range of the 3 Band Parametric Microphone Equalizer.
Available Values: -10 - 0 - 10 (dB)
Default Setting: 5
Description: Adjusts the gain for the low range of the 3 Band Parametric Microphone Equalizer between “-10 dB” and “+10 dB”.

PRMTRC EQ1 BWTH

Function: Sets the width variation (“Q”) for the low range of the 3 Band Parametric Microphone Equalizer.
Available Values: 0 - 10
Default Setting: 10
Description: Selects the value of the width (Q) for the low range for the 3 Band Parametric Microphone Equalizer between “0” and “10”.

PRMTRC EQ2 FREQ

Function: Sets the center frequency for the middle range of the 3 Band Parametric Microphone Equalizer.
Available Values: OFF / 700 - 1500 (Hz)
Default Setting: OFF
Description: Sets the center frequency for the middle range of the 3 Band Parametric Microphone Equalizer in 100 Hz steps between “700 Hz” and “1500 Hz”.

PRMTRC EQ2 LEVEL

Function: Sets the gain for the middle range of the 3 Band Parametric Microphone Equalizer.
Available Values: -10 - 0 - 10 (dB)
Default Setting: 5
Description: Selects the gain setting for the middle range of the 3 Band Parametric Microphone Equalizer between “−10 dB” and “+10 dB”.

PRMTRC EQ2 BWTH

Function: Sets the width variation (“Q”) for the middle range of the 3 Band Parametric Microphone Equalizer.
Available Values: 0 - 10
Default Setting: 10
Description: Selects the width (“Q”) for the middle range of the 3 Band Parametric Microphone Equalizer between “0” and “10”.

PRMTRC EQ3 FREQ

Function: Sets the center frequency for the high range of the 3 Band Parametric Microphone Equalizer.
Available Values: OFF/1500 - 3200 (Hz)
Default Setting: OFF
Description: Selects the center frequency setting for the high range of the 3 Band Parametric Microphone Equalizer in 100 Hz steps between “1500 Hz” and “3200 Hz”.

PRMTRC EQ3 LEVEL

Function: Sets the gain for the high range of the 3 Band Parametric Microphone Equalizer.
Available Values: -10 - 0 - 10 (dB)
Default Setting: +5
Description: Selects the gain setting for the high range of the 3 Band Parametric Microphone Equalizer between “-10 dB” and “+10 dB”.

PRMTRC EQ3 BWTH

Function: Selects the width setting (“Q”) for the high range of the 3 Band Parametric Microphone Equalizer.
Available Values: 0 - 10
Default Setting: 10
Description: Selects the width (“Q”) setting for the high range of the 3 Band Parametric Microphone Equalizer between “0” and “10”.

P PRMTRC EQ1 FREQ

Function: Sets the center frequency of the low range for the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: OFF / 100 - 700 (Hz)
Default Setting: OFF
Description: Activates when the AMC or speech processor is “ON”. Adjusts the center frequency for the low range of the 3 Band Parametric Microphone Equalizer in 100 Hz steps between “100 Hz” and “700 Hz”.

P PRMTRC EQ1 LEVEL

Function: Selects the gain setting for the low range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: -10 - 0 - 10 (dB)
Default Setting: 0
Description: Activates when the AMC or speech processor is “ON” and sets the gain for the low range of the 3 Band Parametric Microphone Equalizer between “-10 dB” and “+10 dB”.

P PRMTRC EQ1 BWTH

Function: Selects the width (“Q”) for the low range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: 0 - 10
Default Setting: 2
Description: Activates when the AMC or speech processor is “ON” and sets the width (“Q”) for the low range of the 3 Band Parametric Microphone Equalizer between “1” and “10”.

P PRMTRC EQ2 FREQ

Function: Selects the center frequency for the middle range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: OFF / 700 - 1500 (Hz)
Default Setting: OFF
Description: Selects the center frequency for the middle range of the 3 Band Parametric Microphone Equalizer in 100 Hz steps between “700 Hz” and “1500 Hz” when the AMC or speech processor is activated.

P PRMTRC EQ2 LEVEL

Function: Sets the gain for the middle range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: -10 - 0 - 10 (dB)
Default Setting: 0
Description: Selects the gain setting for the middle range of the 3 Band Parametric Microphone Equalizer between “-10 dB” and “+10 dB” when the AMC or speech processor is activated.

P PRMTRC EQ2 BWTH

Function: Sets the width (“Q”) for the middle range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: 0 - 10
Default Setting: 1
Description: Activates when the AMC or speech processor is “ON”, and selects the width (“Q”) setting for the middle range of the 3 Band Parametric Microphone Equalizer between “0” and “10”.

P PRMTRC EQ3 FREQ

Function: Sets the center frequency for the high range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: OFF/1500 - 3200 (Hz)
Default Setting: OFF
Description: Activates when the AMC or speech processor is “ON”, and selects the center frequency setting for the high range of the 3 Band Parametric Microphone Equalizer in 100 Hz steps between “1500 Hz” and “3200 Hz”.

P PRMTRC EQ3 LEVEL

Function: Sets the gain for the high range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: -10 - 0 - 10 (dB)
Default Setting: 0
Description: Activates when the AMC or speech processor is “ON”, and selects the gain setting for the high range of the 3 Band Parametric Microphone Equalizer between “-10 dB” and “+10 dB”.

P PRMTRC EQ3 BWTH

Function: Sets the width (“Q”) for the high range of the 3 Band Parametric Microphone Equalizer when the AMC or speech processor is activated.
Available Values: 0 - 10
Default Setting: 1
Description: Activates when the AMC or speech processor is “ON”, and sets the width (‘Q”) for the high range of the 3 Band Parametric Microphone Equalizer between “0” and “10”.

OPERATION SETTING
- TX GENERAL -

HF MAX POWER

Function: Sets the transmit RF power output of the HF band.
Available Values: 5 - 200W
Default Setting: 200W

50M MAX POWER

Function: Sets the transmit RF power output of the 50 MHz band.
Available Values: 5 - 200W
Default Setting: 200W

70M MAX POWER

Function: Sets the transmit RF power output of the 70 MHz band.
Available Values: 5 - 50W
Default Setting: 50W

AM MAX POWER

Function: Sets the transmit RF power output of the AM mode.
Available Values: 5 - 50W
Default Setting: 50W

VOX SELECT

Function: Selects the function of the VOX operation.
Available Values: MIC / DATA
Default Setting: MIC
Description:
MIC: Operates via input from the MIC jack (microphone).
DATA: Operates via input from the RTTY/DATA or USB jack.

DATA VOX GAIN

Function: Sets the VOX GAIN while operating VOX during the sending/receiving of data (PSK, RTTY, etc.).
Available Values: 0 - 100
Default Setting: 50
Description: Set the data input VOX gain to the point that the data signal reliably engages the transmitter, and also releases the transmit when there is no data signal.

EMERGENCY FREQ TX

Function: Enables TX/RX operation on the Alaska Emergency Channel, 5167.5kHz.
Available Values: OFF / ON
Default Setting: OFF
Description: When this Menu Item is set to “ON”, the spot frequency of 5167.5 kHz will be enabled. The Alaska Emergency Channel will be found between the PMS memory channel “M-P9U (or 5-10)” and the memory channel “M-01”.
Important: The use of this frequency is restricted to stations operating in or near Alaska, and only for emergency purposes (never for routine operations). See §97.401(c) of the FCC regulations.

OPERATION SETTING
- TUNING -

SSB/CW DIAL STEP

Function: Setting of the MAIN dial tuning speed in the SSB and CW mode.
Available Values: 5 / 10 (Hz)
Default Setting: 10

RTTY/PSK DIAL STEP

Function: Setting of the Main dial knob tuning speed in the RTTY and PSK mode.
Available Values: 5 / 10 (Hz)
Default Setting: 10

CH STEP

Function: Selects the tuning steps for the [MULTI] knob.
Available Values: 1 / 2.5 / 5 (kHz)
Default Setting: 2.5kHz

AM CH STEP

Function: Selects the tuning steps for the microphone [UP]/[DWN] keys and [MULTI] knob in the AM mode.
Available Values: 2.5 / 5 / 9 / 10 / 12.5 / 25 (kHz)
Default Setting: 5kHz

FM CH STEP

Function: Selects the tuning steps for the microphone [UP]/[DWN] keys and [MULTI] knob in the FM mode.
Available Values: 5 / 6.25 / 10 / 12.5 / 20 / 25 (kHz)
Default Setting: 5kHz

MAIN STEPS PER REV.

Function: Setting the step per rotation of the MAIN dial.
Available Values: 250 / 500 / 1000
Default Setting: 500

MPVD STEPS PER REV.

Function: Setting the step per rotation of the MPVD ring.
Available Values: 250 / 500
Default Setting: 500

DISPLAY SETTING
- DISPLAY -

MY CALL

Function: Programs a Call Sign or Name.
Available Values: Up to 12 alphanumeric characters
Default Setting: FTDX101
Description: Set characters to be displayed on the power ON opening screen.

MY CALL TIME

Function: Set the time for displaying characters registered in “MY CALL”.
Available Values: OFF / 1 / 2 / 3 / 4 / 5 (sec)
Default Setting: 1sec
Description: Set the time “My Call is displayed on the opening screen after power ON.

SCREEN SAVER

Function: Time setting before the screen saver to activate.
Available Values: OFF / 15 / 30 / 60 (min)
Default Setting: 60min
Description: If the transceiver is not operated for the set time, a screen saver will activate to prevent TFT screen burns.

TFT CONTRAST

Function: Sets the TFT contrast level.
Available Values: 0 - 20
Default Setting: 10

TFT DIMMER

Function: Sets the TFT display brightness level.
Available Values: 0 - 20
Default Setting: 15
Description: The higher the setting, the brighter the illumination becomes.

LED DIMMER

Function: Sets the key LED brightness level.
Available Values: 0 - 20
Default Setting: 10
Description: The higher the setting, the brighter the illumination becomes.

MOUSE POINTER SPEED

Function: Mouse pointer movement speed setting.
Available Values: 0 - 20
Default Setting: 10
Description: The higher the setting, the faster the Mouse pointer will move.

FREQ STYLE

Function: Frequency display font setting.
Available Values: LIGHT (thin) / BOLD (thick)
Default Setting: BOLD

DISPLAY SETTING
- SCOPE -

RBW

Function: Sets the resolution of Spectrum Scope display.
Available Values: HIGH / MID / LOW
Default Setting: HIGH
Description: When set to HIGH, the image is finely divided.

SCOPE CTR

Function: Sets the scope screen center and marker position.
Available Values: FILTER / CAR POINT
Default Setting: CAR POINT
Description:
FILTER: Relative to the center of the filter.
CAR POINT: Based on signal carrier points.

2D DISP SENSITIVITY

Function: Change the Waterfall Display sensitivity.
Available Values: NORMAL / HI
Default Setting: HI
Description:
NORMAL: Display at normal sensitivity.
HI: Display at high sensitivity.

3DSS DISP SENSITIVITY

Function: Change the 3DSS Display sensitivity.
Available Values: NORMAL / HI
Default Setting: HI
Description:
NORMAL: Display at normal sensitivity.
HI: Display at high sensitivity.

DISPLAY SETTING
- EXT MONITOR -

EXT DISPLAY

Function: Video signal output setting of the EXT-DISPLAY terminal on the rear panel.
Available Values: OFF / ON
Default Setting: OFF
Description:
OFF: No video signal output.
ON: Video signal is output.

PIXEL

Function: Select the screen resolution of the external video monitor.
Available Values: 800x480 / 800x600
Default Setting: 800x480

EXTENSION SETTING
- DATE & TIME -

DAY

Set the date (Day).

MONTH

Set the date (Month).

YEAR

Set the date (Year).

HOUR

Set the time (Hour).
Set to 24-hour format.

MINUTE

Set the time (Minute).

EXTENSION SETTING
- SD CARD -

MEM LIST LOAD

Function: Load the Memory Channel information saved on the SD memory card into the transceiver.

MEM LIST SAVE

Function: Save the Memory Channel information to the SD memory card.

MENU LOAD

Function: Load the Setting Menu information saved on the SD memory card into the transceiver.

MENU SAVE

Function: Save the Setting Menu information to the SD memory card.

INFORMATIONS

Function: Display information from SD Memory Card.
Description: Displays the total capacity and free space of the SD Memory Card.

FIRMWARE UPDATE

Function: Update the firmware of the FTDX101 series.
Description: When a new firmware update for the FTDX101 series is available, go to the YAESU web site to download the programming data and update the FTDX101 series Firmware.

FORMAT

Function: Format (initialize) the SD memory card.
Description: Format a micro SD Memory Card for use with this transceiver.

EXTENSION SETTING
- SOFT VERSION -

Description: Displays the software version.

EXTENSION SETTING
- CALIBRATION -

CALIBRATION

Function: Display touch position calibration.

Description: If the touch position and the operation are different, that is touch does not work or another function works, perform touch position calibration of the TFT display.

1. Select [CALIBRATION] then press the [MULTI] knob.
2. Touch “+” at the top left of the display.
   To cancel the calibration, press the [S.MENU] key.
3. Touch “+” displayed at another place.
4. Repeat step 3 and finally touch “+” in the center of the display to complete the calibration.

EXTENSION SETTING
- RESET -

MEMORY CLEAR

Function: Memory reset

Description: Only the information stored in the Memory Channel is initialized (all erased).

The contents of the memory channel “M-01” will return to the initial setting “7.00.000 MHz, LSB” and cannot be deleted.

Memory information can be saved on the SD card.

MENU CLEAR

Function: Setting Menu reset

Description: Only the contents of the Setting Menu is initialized (factory default).

Information in the setting menu can be saved on the SD card.

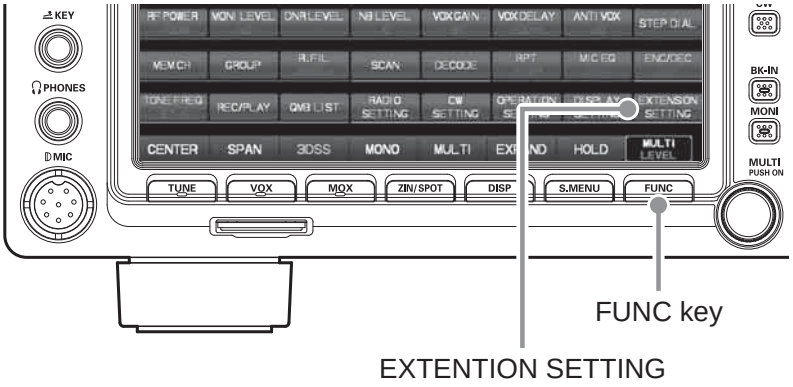
ALL RESET

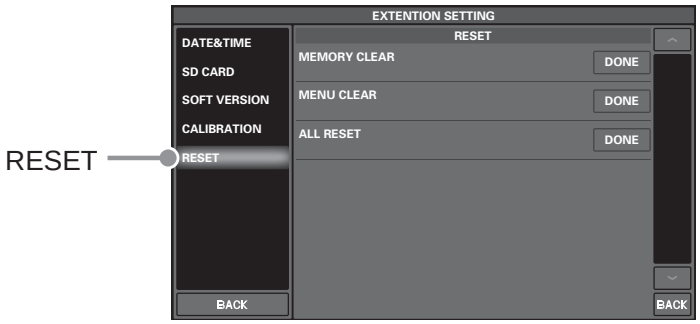
Function: ALL reset

Description: The Memory, Setting Menu and all other settings are initialized and set to the factory default.

Resetting the Microprocessor

Memory channels, setting menus, and various settings can be initialized and returned to their factory defaults.





1. Display the reset item selection screen.
   Select [FUNC] → [EXTENTION SETTING] → [RESET]
2. Touch “DONE” of the item you want to reset (see below).
   Or Select an item with the [MULTI] dial and press the [MULTI] dial.
   A confirmation screen for reset execution is displayed.

   MEMORY CLEAR (Memory Reset)

   Only the contents of the memory channel are initialized (factory default).
   All stored information will be erased, but channel M-01 will return to the initial setting of 7.000.000 MHz, LSB.

   MENU CLEAR (Setting Menu Reset)

   Only the contents of the setting menu are returned to their default values (factory default).

   ALL RESET (All Reset)

   Initializes all settings of this unit, including various settings, memories, and setting menus, and restores the factory settings.

3. Touch [OK] or select [OK] with the [MULTI] dial and press the [MULTI] dial to execute the reset.
   To cancel the reset, touch [CANCEL] or select [CANCEL] with the [MULTI] dial and press the [MULTI] dial.
4. The power is turned off once and then turned on automatically.
   The reset is complete.

Optional Accessories

FC-40 External Automatic Antenna Tuner (for Wire Antenna)

The FC-40 makes use of the control circuitry built into the transceiver, which allows the operator to control and monitor automatic operation of the FC-40, which mounts near the antenna feedpoint. The FC-40 uses specially selected, thermally stable components, and is housed in a waterproof case to withstand severe environmental conditions with high reliability.

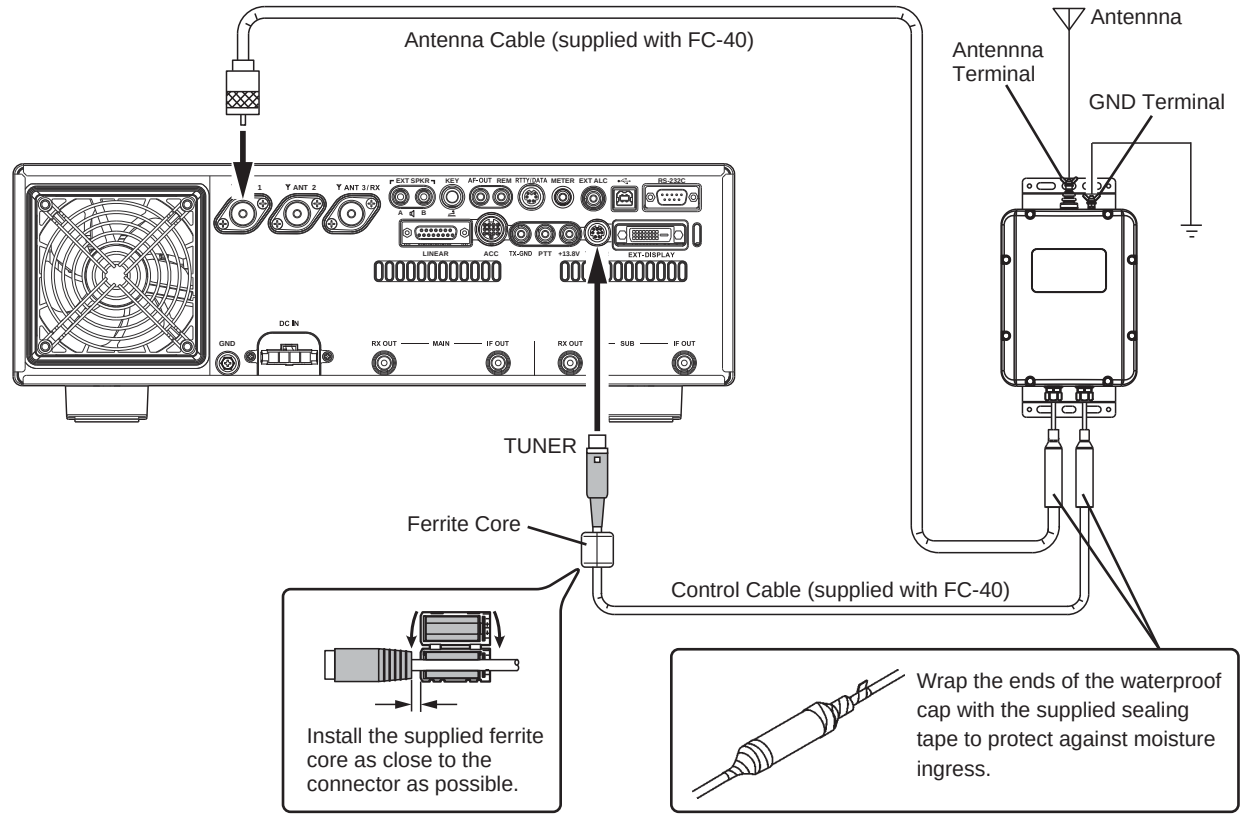
A carefully-chosen combination of solid-state switching components and high-speed relays allows the FC-40 to match a wide variety of antennas to within a 2:1 SWR on any amateur band frequency (160 through 6 meters), typically in less than eight seconds. Transmitter power required for matching may be as little as 4 - 60 Watts, and matching settings are automatically stored in memory for instant recall when the same frequency range is selected later.

Please see the FC-40 Operating Manual for detailed information.

Depending on the installation and location of some antennas, it may not be possible to tune to a low SWR.

●Interconnections to FTDX101MP

After mounting the FC-40, connect the cables from the FC-40 to the ANT and TUNER jacks on the rear panel of the FTDX101MP Transceiver.



●Setup the FTDX101MP

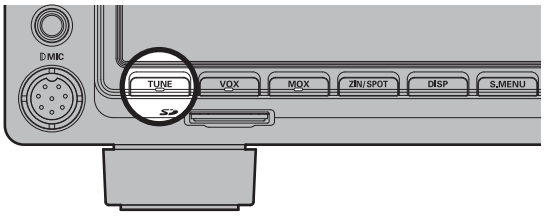
The optional FC-40 Automatic Antenna Tuner provides automatic tuning of a coaxial line to present nominal 50-ohm impedance to the FTDX101MP's ANT jack.
Before tuning can begin, the FTDX101MP must be configured to recognize that the FC-40 is being used.

Configuration is done using the Setting Menu Mode:

1. Press the [FUNC] key.
2. Select [OPERATION SETTING] → [GENERAL] → [TUNER/232C SELECT].
3. Select [TUNER].
4. Press the [FUNC] key to save the new setting and exit the Setting Menu.
5. Press the [FUNC] key to exit to normal operation.

Operation

1. Press the [TUNE] key.
   The LED inside the [TUNE] key glows orange; and the tuner function is activated.



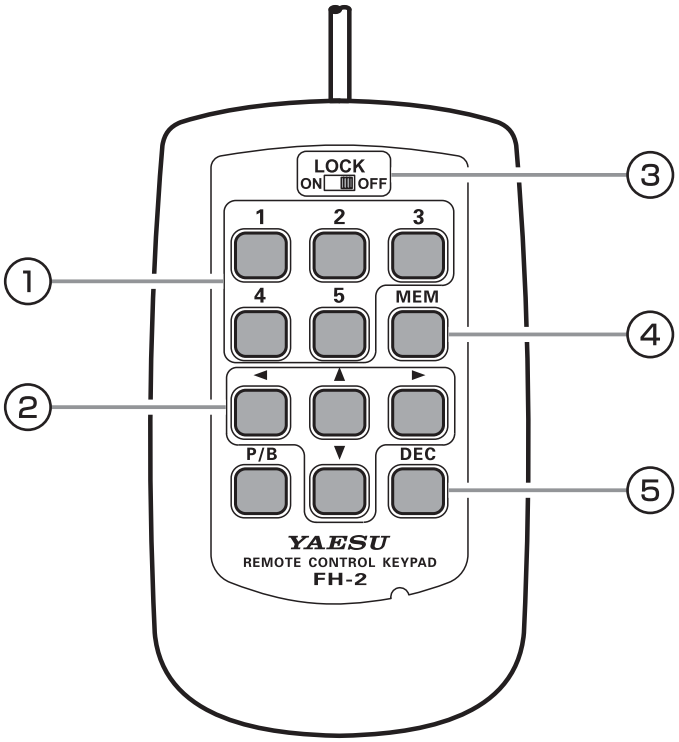
2. Press and hold the [TUNE] key to begin automatic tuning.
   - The transmitter will be engaged, and the LED in the [TUNE] key will blink while tuning is in progress.
   - When the optimum tuning point has been reached, the transceiver will return to receive, and the LED in the [TUNE] key will again glow steadily (instead of blinking).

- Be sure to connect a good earth ground to the GND terminal of the FC-40.
- The carrier signal transmits continuously while tuning is in progress. Please monitor the operating frequency before beginning the tuning process. Be sure you are not interfering with others who may already be using the frequency.
- It is normal to hear the sound of the relays while tuning is in progress.
- If the impedance cannot be matched by the FC-40 better than 2:1, and the "HI-SWR" icon blinks, the microprocessor will not retain the tuning data for that frequency, as the FC-40 presumes that you will want to adjust or repair the antenna system to correct the high SWR condition.

Optional FH-2 Control

With the optional remote-control keypad FH-2 voice messages may be recorded and transmitted (Voice Memory). The FH-2 is also the control of the Contest Memory Keyer during CW operation.

- SSB / AM / FM modes have five voice memory channels (20 seconds each) for storage and playback, of voice recordings (page 52).
- The CW Memory Keyer has 5 channels each for the MESSAGE Memory and the TEXT Memory (page 59).



① Voice Memory: 5 Memory Channels for the Memory Keyer

In the case of Voice Memory, up to 20 seconds of audio may be stored on each channel.

"MESSAGE Memory" and "TEXT Memory" are available for the Contest Memory Keyer.

Each "MESSAGE Memory" channel is capable of retaining a 50-character CW message using the PARIS standard for characters and word length.

Each "TEXT Memory" channel is capable of retaining a maximum of 50 characters.

② Cursor Keys

When programming the Contest Memory Keyer, these keys are used to move the cursor and select the text characters.

The cursor may be moved in 4 different directions (up/down/right/left).

NOTE: Usually, these keys are used for changing the VFO frequency. Press the [▲]/[▼] keys to change the frequency in the same increments as the microphone [UP]/[DWN] switches. Press the [◀]/[▶] keys to change the frequency by 100 kHz steps.

③ LOCK Switch

The FH-2 key keys may be locked by setting this switch to "ON".

④ MEM Key

Press this key to store either a Voice Memory, or a Contest Keyer Memory.

⑤ DEC Key

When utilizing the sequential contest number capability of the Contest Keyer, press this key to decrement (decrease) the current Contest Number by one digit (i.e. to back up from #198 to #197, etc.).

*No function is assigned to the [P/B] key.

Specifications

General

Tx Frequency Ranges:	1.8 MHz - 54 MHz (Amateur bands only) 70 MHz - 70.5 MHz (UK Amateur bands only)
Rx Frequency Range:	30 kHz - 75 MHz (operating) 1.8 MHz - 29.699999 MHz (Specified performance, Amateur bands only) 50 MHz - 53.999999 MHz (Specified performance, Amateur bands only) 70 MHz - 70.499999 MHz (Specified performance, UK Amateur bands only)
Emission Modes:	A1A (CW), A3E (AM), J3E (LSB, USB), F3E (FM), F1B (RTTY), G1B (PSK31)
Frequency Steps:	1/5/10 Hz (SSB, CW), 10/100 Hz (AM, FM)
Antenna Impedance:	50 ohms, unbalanced (Antenna Tuner OFF) 16.7 - 150 ohms, unbalanced (Tuner ON, 1.8 MHz - 29.7 MHz Amateur bands) 25 - 100 ohms, unbalanced (Tuner ON, 50 MHz Amateur band)
Operating Temperature Range:	+32 °F to +122 °F (0 °C to +50 °C)
Frequency Stability:	±0.1 ppm (after 1 minute @+14 °F to +140 °F [–10 °C to +60 °C])
Supply Voltage:	AC 100 V/200 V
Power Consumption (Approx.):	Rx (no signal) 100VA Rx (signal present) 120VA Tx 720VA
Dimensions (WxHxD):	16.6” x 5.1” x 12.7” (420 x 130 x 322 mm)
Weight (Approx.):	31.3 lbs (14.2 kg)

Transmitter

Power Output:	5 - 200 W (5 - 50 W AM carrier)
Modulation Types:	J3E (SSB): Balanced A3E (AM): Low-Level (Early Stage) F3E (FM): Variable Reactance
Maximum FM Deviation:	±5.0kHz/±2.5kHz (Narrow)
Harmonic Radiation:	Better than –50 dB (1.8 MHz - 29.7 MHz Amateur bands) Better than –66 dB (50 MHz Amateur band: 200 W)
SSB Carrier Suppression:	At least 60 dB below peak output
Undesired Sideband Suppression:	At least 60 dB below peak output
Bandwidth:	3 kHz (LSB/USB), 500 Hz (CW), 6 kHz (AM), 16 kHz (FM)
Audio Response (SSB):	Not more than –6 dB from 300 to 2700 Hz
Microphone Impedance:	600 ohms (200 to 10 k-ohms)

Receiver

Circuit Type:	Double Superheterodyne
Intermediate Frequencies:	1 st: 9.005 MHz (MAIN), 8.9000 MHz (SUB)
	2 nd: 24 kHz (MAIN/SUB)
Sensitivity (TYP):	SSB/CW (BW: 2.4 kHz/10 dB S+N/N)
	1.8 MHz - 30 MHz 0.16 µV (AMP2 “ON”)
	50 MHz - 54 MHz 0.125 µV (AMP2 “ON”)
	70MHz - 70.5MHz 0.16µV (AMP2 “ON”)
	AM (BW: 6 kHz/10dB S+N/N, 30% modulation @400 Hz)
	0.5 MHz - 1.8 MHz 6.3 µV
	1.8 MHz - 30 MHz 2 µV (AMP2 “ON”)
	50 MHz - 54 MHz 1 µV (AMP2 “ON”)
	70MHz - 70.5MHz 2µV (AMP2 “ON”)
	FM (BW: 12 kHz, 12 dB SINAD)
	28 MHz - 30 MHz 0.25 µV (AMP2 “ON”)
	50 MHz - 54 MHz 0.2 µV (AMP2 “ON”)
	70MHz - 70.5MHz 0.25 µV (AMP2 “ON”)
Squelch Sensitivity (TYP):	SSB/CW/AM
	2µV (1.8MHz - 30MHz, 50MHz - 54MHz) (AMP2 “ON”)
	FM 0.25µV (28MHz - 30MHz) (AMP2 “ON”)
	0.2µV (50MHz - 54MHz) (AMP2 “ON”)

Selectivity (WIDTH: Center):	Mode	–6 dB	–60 dB
	CW (BW: 0.5 kHz)	0.5 kHz or better	750 Hz or less
	SSB (BW: 2.4 kHz)	2.4 kHz or better	3.6 kHz or less
	AM (BW: 6 kHz)	6 kHz or better	15 kHz or less
	FM (BW: 12 kHz)	12 kHz or better	25 kHz or less

IF Rejection:	60 dB or better (1.8 MHz - 28 MHz Amateur bands, VC-tune “ON”)
	60 dB or better (50 MHz Amateur bands)
Image Rejection:	70 dB or better (1.8 MHz - 28 MHz Amateur bands)
	60dB or better (50 MHz - 54 MHz Amateur bands)
Maximum Audio Output:	2.5 W into 4 ohms with 10 % THD
Audio Output Impedance:	4 to 16 ohms (4 ohms: nominal)
Conducted Radiation:	Less than 4 nW

Specifications are subject to change, in the interest of technical improvement, without notice or obligation, and are guaranteed only within the amateur bands.

Symbol placed on the equipment

⎓ Direct current

Index

+13.8V 15
3DSS 23

A

About TFT Displays 27
ACC 15
Accessories 8
Adjustable Receiver Audio Filter 53
Adjust contrast 28
Adjusting the brightness 28
Adjusting the Clock 78
Adjusting the Date 78
Adjusting the Sidetone Audio level 56
AF (MAIN) 40
AF-OUT 14
AF (SUB) 41
AGC 21
Alaska Emergency Frequency: 5167.5 kHz 77
AMC 48
ANT 20
ANT 1, 2, 3/RX 14
Antenna Considerations 9
APF 45
ATT 20
ATU 54
Audio Peak Filter 45
Automatic Antenna Tuner 54
Automatic Mic Gain Control 48

B

BAND 33
Band Stack Operation 76
BK-IN 34

C

CENTER 22
Check Memory Channel Status 71
Clarifier 37
COLOR 25
CONT 44
Contest Memory Keyer 59
Contest Number 62
Contour 44
C.S 38
CURSOR 22
Custom selection 38
CW 34
CW Decode 57
CW Delay Time Setting 56
CW Mode Operation 56

D

DATA (PSK) Operation 67
DC IN 15
Digital Noise Reduction 43
Digital NOTCH Filter 43
DISP 24
Display Indications 18
DNF 43
DNR 43

E

Electronic Keyer 58
Erasing Memory Channel Data 70
EXPAND 24
EXT ALC 15
EXT-DISPLAY 15
EXT SPKR 14

F

FAST 32
FC-40 External Automatic Antenna Tuner 110
FH-2 Connections 10
FH-2 Control 112
Filter Function Display 19
FINE TUNING 32
FIX 23
FM Mode Operation 63
Font setting for frequency display 28
Frequency Display 19
Front Panel Controls & Switches 30
Function Menu Display 26

G

General Description 4
GND 15

H

Headphone Connections 10
HOLD 24

I

IF NOTCH Filter 43
IF OUT (MAIN) 15
IF OUT (SUB) 15
Important Receiver Settings 20
Inputting the Call Sign 28
Installation and Interconnections 9
IPO 20

K

KEY 14, 30
Key and Keyer Connections 10
Keyboard Frequency Entry 19
Keyer Speed 58
Keyer Weight (Dot/Dash) Ratio 58

L

Labeling Memories 72
LEVEL 25
LINEAR 15
Linear Amplifier Interconnections 11
LOCK 32

M

MAIN dial 32
MARKER 25
Memory Groups 73
Memory Operation 70
Memory Scanning 74
METER 15
Meter Display 18
MIC 30, 41
Microphone Connections 10
Microphone gain 48
MODE 34
MONI 34
MONO 23
MOX 31
MPVD ring 36
MULTI 24

N

NB 42
NOTCH 43

O

ON/OFF Switch 30
Operating Band Selection 33
Operation of the Display MULTI Knob 26
Options 8
Other Functions 76
Other On-Screen Indications 27

P

Parametric Microphone Equalizer 50
PEAK 25
PHONES Jack 30
PITCH 41
PMS (Programmable Memory Scan) 75
PROC 41
Programmable Memory Scan 75
PSK Decode 68
PSK Text Memory 69
PTT 15

Q

QMB 33
Quick Memory Bank 33
Quick Split Operation 35

R

Rear Panel 14
REM 14
Repeater Operation 63
Resetting the Microprocessor 109
Reversing the Keyer Polarity 58
R.FIL 21
RF (MAIN) 40
RF Power output control 49
RF (SUB) 41
RS-232C 15
RTTY/DATA 15
RTTY Decode 65
RTTY (FSK) Operation 64
RTTY Text Memory 66
RX Clarifier 37
RX (MAIN) 39
RX OUT (MAIN) 15
RX OUT (SUB) 15
RX (SUB) 39

S

Safety Precautions 6
Scan Skip Setting 72
Scope Display Setting 22
Screen capture 77
Screen Saver 28
SD memory card slot 31
Selecting the Keyer Operating Mode 58
Setting Menu 81
Setting of the Electronic Keyer 58
Setting the Keyer Weight 58
SHIFT 45
S.MENU 25
SPAN 23
Specifications 113
Speech Processor 49
SPEED 25, 41
SPLIT 35
SPOT 31
SQL (MAIN) 40
SQL (SUB) 41
SSB 34
SSM-75G Microphone Switches 16
SYNC 34

T

Time Out Timer 76
Tone Squelch Operation 63
TOT 76
TUNE 31
TUNER 15
Tuning in 1 MHz or 1 kHz Steps 19
TX Clarifier 37
TX-GND 15
TX (MAIN) 39
TX (SUB) 39

U

USB 15
USB Jack 30
Using the SD Card 78

V

VC TUNE 38
VFO Scanning 74
Voice Communications 48
Voice Memory 52
VOX 31
VOX anti-trip sensitivity 31
VOX Delay Time 31
VOX GAIN 31

W

WIDTH 45

Z

ZIN 31

YAESU LIMITED WARRANTY

Limited Warranty is valid only in the country/region where this product was originally purchased.

On-line Warranty Registration:
Thank you for buying YAESU products! We are confident your new radio will serve your needs for many years! Please register your product at **www.yaesu.com** - Owner's Corner

Warranty Terms:
Subject to the Limitations of the Warranty and the Warranty Procedures described below, YAESU MUSEN hereby warrants this product to be free of defects in materials and workmanship in normal use during the "Warranty Period." (the "Limited Warranty").

Limitations of Warranty:
A. YAESU MUSEN is not liable for any express warranties except the Limited Warranty described above.
B. The Limited Warranty is extended only to the original end-use purchaser or the person receiving this product as a gift, and shall not be extended to any other person or transferee.
C. Unless a different warranty period is stated with this YAESU product, the Warranty Period is three years from the date of retail purchase by the original end-use purchaser.
D. The Limited Warranty is valid only in the country/region where this product was originally purchased.
E. During the Warranty Period, YAESU MUSEN will, at its sole option, repair or replace (using new or re-furbished replacement parts) any defective parts within a reasonable period of time and free of charge.
F. The Limited Warranty does not cover shipping cost (including transportation and insurance) from you to us, or any import fees, duties or taxes.
G. The Limited Warranty does not cover any impairment caused by tampering, misuse, failure to follow instructions supplied with the product, unauthorized modifications, or damage to this product for any reasons, such as: accident; excess moisture; lightning; power surges; connection to improper voltage supply; damage caused by inadequate packing or shipping procedures; loss of, damage to or corruption of stored data; product modification to enable operation in another country/purpose other than the country/purpose for which it was designed, manufactured, approved and/or authorized; or the repair of products damaged by these modifications.
H. The Limited Warranty applies only to the product as it existed at the time of the original purchase, by the original retail purchaser, and shall not preclude YAESU MUSEN from later making any changes in design, adding to, or otherwise improving subsequent versions of this product, or impose upon YAESU MUSEN any obligation to modify or alter this product to conform to such changes, or improvements.
I. YAESU MUSEN assumes no responsibility for any consequential damages caused by, or arising out of, any such defect in materials or workmanship.
J. TO THE FULLEST EXTENT PERMITTED BY LAW, YAESU MUSEN SHALL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTY WITH RESPECT TO THIS PRODUCT.
K. If the original retail purchaser timely complies with the Warranty Procedures described below, and YAESU MUSEN elects to send the purchaser a replacement product rather than repair the "original product", then the Limited Warranty shall apply to the replacement product only for the remainder of the original product Warranty Period.
L. Warranty statutes vary from state to state, or country to country, so some of the above limitations may not apply to your location.

Warranty Procedures:
1. To find the Authorized YAESU Service Center in your country/region, visit www.yaesu.com. Contact the YAESU Service Center for specific return and shipping instructions, or contact an authorized YAESU dealer/distributor from whom the product was originally purchased.
2. Include proof of original purchase from an authorized YAESU dealer/distributor, and ship the product, freight prepaid, to the address provided by the YAESU Service Center in your country/ region.
3. Upon receipt of this product, returned in accordance with the procedures described above, by the YAESU Authorized Service Center, all reasonable efforts will be expended by YAESU MUSEN to cause this product to conform to its original specifications. YAESU MUSEN will return the repaired product (or a replacement product) free of charge to the original purchaser. The decision to repair or replace this product is the sole discretion of YAESU MUSEN.

Other conditions:
YAESU MUSEN'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. IN NO EVENT SHALL YAESU MUSEN BE LIABLE FOR LOSS OF, DAMAGE TO

OR CORRUPTION OF STORED DATA, OR FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, HOW EVER CAUSED; INCLUDING WITHOUT LIMITATION TO THE REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, PROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE YAESU PRODUCT.

Some Countries in Europe and some States of the USA do not allow the exclusion or limitation of incidental or consequential damages, or a limitation on how long an implied warranty lasts, so the above limitation or exclusions may not apply. This warranty provides specific rights, there may be other rights available which may vary between countries in Europe or from state to state within the USA.

This Limited Warranty is void if the label bearing the serial number has been removed or defaced.

YAESU

Declaration of Conformity

Type of Equipment:	HF/50MHz TRANSCEIVER
Brand Name:	YAESU
Model Number:	FTDX101MP
Manufacturer:	YAESU MUSEN CO., LTD.
Address of Manufacturer:	Tennozu Parkside Building, 2-5-8 Higashi-Shinagawa, Shinagawa-ku,Tokyo 140-0002 Japan

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions; (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The technical documentation as required by the Conformity Assessment procedures is kept at the following address:

Company: Yaesu U.S.A.
Address: 6125 Phyllis Drive, Cypress, CA 90630, U.S.A.
Telephone: (714) 827-7600

- Changes or modifications to this device that are not expressly approved by YAESU MUSEN could void the user's authorization to operate this device.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference including received, interference that may cause undesired operation.
- The scanning receiver in this equipment is incapable of tuning, or readily being altered, by the User to operate within the frequency bands allocated to the Domestic public Cellular Telecommunications Service in Part 22.
- The YAESU MUSEN is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

DECLARATION BY MANUFACTURER

The Scanner receiver is not a digital scanner and is incapable of being converted or modified to a digital scanner receiver by any user.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

CAN ICES-3 (B) / NMB-3 (B)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy; and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

EU Declaration of Conformity

We, Yaesu Musen Co. Ltd of Tokyo, Japan, hereby declare that this radio equipment FTDX101MP is in full compliance with EU Radio Equipment Directive 2014/53/EU. The full text of the Declaration of Conformity for this product is available to view at http://www.yaesu.com/jp/red

ATTENTION – Conditions of usage

This transceiver works on frequencies that are regulated and not permitted to be used without authorisation in the EU countries shown in this table. Users of this equipment should check with their local spectrum management authority for licensing conditions applicable for this equipment.

AT	BE	BG	CY	CZ	DE
DK	ES	EE	FI	FR	UK
GR	HR	HU	IE	IT	LT
LU	LV	MT	NL	PL	PT
RO	SK	SI	SE	CH	IS
LI	NO	–	–	–	–

Disposal of Electronic and Electrical Equipment

Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.

Electronic and Electrical Equipment should be recycled at a facility capable of handling these items and their waste by-products.

Please contact a local equipment supplier representative or service center for information about the waste collection system in your country.

YAESU
The radio

YAESU MUSEN CO., LTD.
Tennozu Parkside Building
2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002 Japan

YAESU USA
6125 Phyllis Drive, Cypress, CA 90630, U.S.A.

YAESU UK
Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

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