

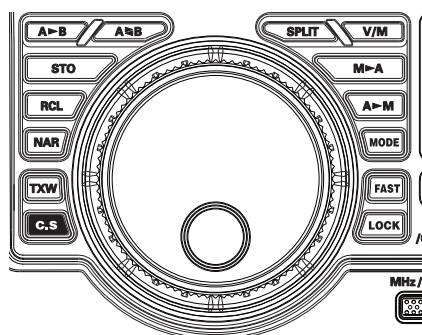
BASIC OPERATION: RECEIVING ON AMATEUR BANDS

though the actual tone that you hear is not changing.

- ❑ When operating on the FM mode, rotate the **[RF/SQL]** (Squelch) knob clockwise to the point where the background noise is just silenced. This is the point of maximum sensitivity to weak signals. Excessive advancement of the **[RF/SQL]** knob will decrease the ability of the receiver to detect weak signals.

You may switch the **[RF/SQL]** knob from the RF Gain Function to the Squelch Function via Menu item “037 RF/SQL VR”.

8. Rotate the Main Tuning Dial knob to tune around the band, and begin normal operation.



ADVICE:

- ❑ Clockwise rotation of the Main Tuning Dial knob increases the operating frequency, one “step” of the synthesizer at a time; similarly, counter-clockwise rotation of the Main Tuning Dial knob will decrease the frequency. Two settings, one “normal” and one “fast”, are available for each operating mode. Pressing the **[FAST]** button engages the “Fast” tuning selection (see chart below).

- ❑ The tuning steps for the Main Tuning Dial knob are set, at the factory, to 10 Hz (SSB, CW, RTTY, DATA) and 100 Hz (AM/FM) per step. Via Menu items “150 CW DIAL STEP” to “154 SSB DIAL STEP”, however, you may change these settings from 10 Hz to 1 or 5 Hz (SSB, CW, RTTY, DATA) and 100 Hz to 10 Hz (AM, FM) instead.

MAIN TUNING DIAL KNOB TUNING RATE

OPERATING MODE	1 STEP	1 DIAL ROTATION
LSB/USB/CW/RTTY/DATA	1 / 5 / 10 Hz (100 Hz)	1 / 5 / 10 kHz (100 kHz)
AM/FM	100 Hz (1 kHz)	100 kHz (1 MHz)

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

- ❑ If you want to effect rapid frequency change, there are several techniques available:
 - Direct keyboard entry of the frequency.
 - Use the **[CLAR/VFO-B]** knob to tune in 1 MHz steps.
 - Use the microphone’s **[UP]/[DWN]** scanning keys, if your microphone is so equipped.

BASIC OPERATION: RECEIVING ON AMATEUR BANDS

OPERATION ON 60-METER (5 MHz) BAND (U.S. AND U.K. VERSION ONLY)

The recently-released 60-meter band is covered, in the **FTdx1200**, by fixed memory channels. These channels are set to USB or CW, and they appear between the “last” PMS channel (“P9U”) and the first “regular” memory channel (Channel 1):

1. Press the **[V/M]** button once to enter the “Memory” mode; the “**MCH**” icon will appear in the display and a memory channel number will appear on the display.

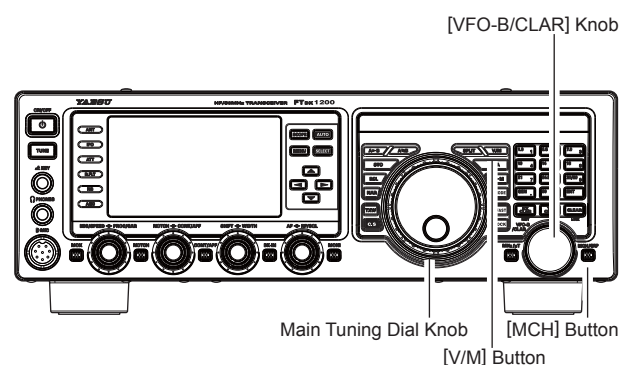
ADVICE:

If you can not enter the “Memory” mode, the transceiver may be in **[(VFO-B)RX]**, so check to see if the green indicator is illuminated in the display. If so, press the **[A↔B]** Switch to return operation to VFO-A. Now, press the **[V/M]** button to enter the “Memory” mode.

2. Press the **[MCH]** button located on the bottom right of the **[VFO-B/CLAR]** knob. The LED imbedded in the button will glow orange to signify that rotation of the **[VFO-B/CLAR]** knob will allow selection of the memory channel.
3. Memory channels (“5M-01” through “5M-10”) are pre-programmed, at the factory, with the permitted frequencies in the 5 MHz band, and the USB or CW mode is automatically selected on these channels.
4. To exit from 60-meter operation and return to the VFO mode, just press the **[V/M]** button.

NOTE:

The frequencies and operating mode for 5 MHz band operation are fixed, and may not be changed.



CHANNEL NUMBER	FREQUENCY	
	U.S. VERSION	U.K. VERSION
5M-01	5.332000 MHz	5.260000 MHz
5M-02	5.348000 MHz	5.280000 MHz
5M-03	5.358500 MHz	5.290000 MHz
5M-04	5.373000 MHz	5.368000 MHz
5M-05	5.405000 MHz	5.373000 MHz
5M-06	5.332000 MHz	5.400000 MHz
5M-07	5.348000 MHz	5.405000 MHz
5M-08	5.358500 MHz	-
5M-09	5.373000 MHz	-
5M-10	5.405000 MHz	-

BASIC OPERATION: RECEIVING ON AMATEUR BANDS

CLAR (CLARIFIER) OPERATION

The [RX CLAR], [TX CLAR], [CLEAR] buttons and [VFO-B/CLAR] knob are used to offset the receive frequency, the transmit frequency, or both, from their settings on the VFO-A frequency. Four small numbers on the Multi-Display Window show the current Clarifier offset. The Clarifier controls on the **FTdx1200** are designed to allow you to preset an offset (up to ± 9.999 kHz) without actually retuning, and then to activate it via the Clarifier [RX CLAR] and [TX CLAR] buttons. This feature is ideal for following a drifting station, or for setting the small frequency offsets sometimes utilized in DX “Split” work.

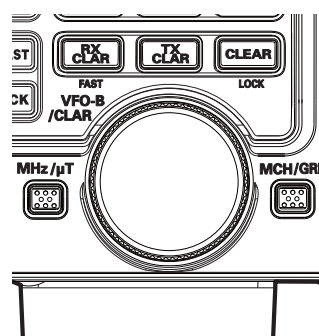
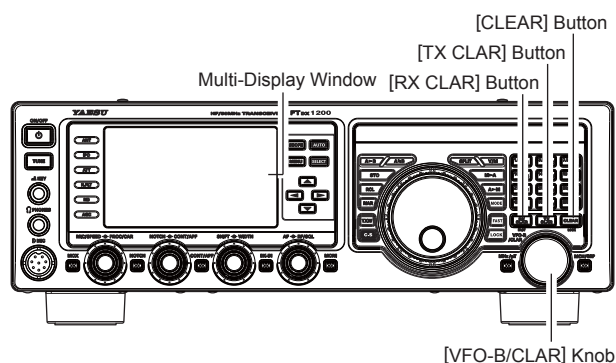
Here is the technique for utilizing the Clarifier:

1. Press the [RX CLAR] button. The “RX” notation will appear in the Multi-Display Window, and the programmed offset will be applied to the receive frequency.
2. Rotation of the [VFO-B/CLAR] knob will allow you to modify your initial offset on the fly. Offsets of up to ± 9.995 kHz may be set using the Clarifier.

To cancel Clarifier operation, press the [RX CLAR] button. The “RX” notation will disappear from the display.

ADVICE:

- ☐ Turning the Clarifier off merely cancels the application of the programmed offset from the receive and/or the transmit frequencies. To clear the Clarifier offset, and reset it to “zero,” press the [CLEAR] button. The programmed offset is displayed in the small multi-channel window of the frequency display.
- ☐ You may also activate the clarifier on the VFO-B frequency. In this case, the offset frequency is set using the Main Tuning Dial knob, instead of the [VFO-B/CLAR] knob.
- ☐ The Clarifier operation (including the offset frequency) will be memorized independently on each VFO stack of VFO-A and VFO-B.



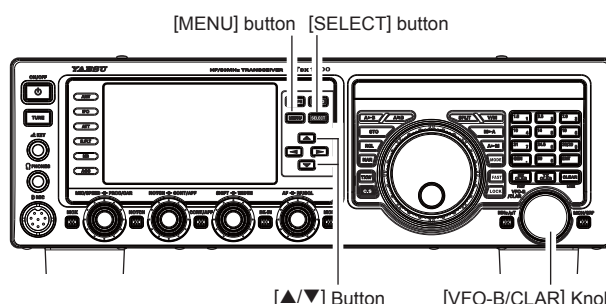
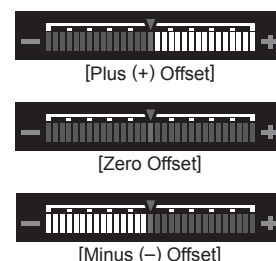
TXCLAR

Alternately, you may apply the Clarifier offset to the transmit frequency, without changing the receive frequency (typically, for “split” DX pile-ups).

The Tuning Offset Indicator provides a graphical representation of the Clarifier offset.

In CW mode the factory default setting of the Tuning Offset Indicator shows the CW Center Tuning, instead of Clarifier Offset. If you wish to change this so that the Clarifier Offset is also displayed on CW, use the following procedure:

1. Press the [MENU] button to enter the Menu mode.
2. Rotate the [VFO-B/CLAR] knob (or press the $\blacktriangle/\blacktriangledown$ button) to select Menu item “010 BAR DISPLAY SELECT”.
3. Press the [SELECT] button, then rotate the [VFO-B/CLAR] knob (or press the $\blacktriangle/\blacktriangledown$ button) to select “CLAR (Clarifier)” (replacing the default “CW TUNE (CW TUNING)” selection).
4. Press the [SELECT] button, then press the [MENU] button to save the new setting and exit to normal operation.



BASIC OPERATION: RECEIVING ON AMATEUR BANDS

LOCK

You may lock the setting of the Main Tuning Dial knob (for VFO-A frequency tuning) and the [VFO-B/CLAR] knob (for VFO-B frequency tuning), to prevent accidental frequency change.

Main Tuning Dial Knob Lock

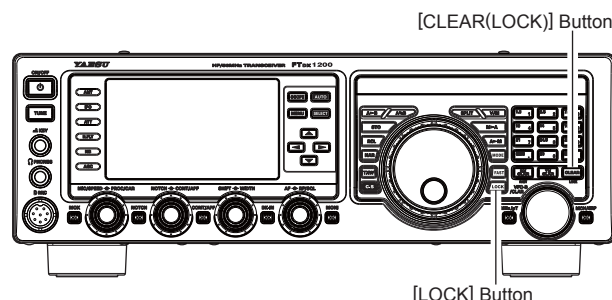
To lock the Main Tuning Dial knob, press the [LOCK] button that is located to the right of the Main Tuning Dial knob. To unlock the Dial setting, and restore normal tuning, press the [LOCK] button once more.

[VFO-B/CLAR] Knob Lock

To lock the [VFO-B/CLAR] knob, press the [CLEAR (LOCK)] button that is located to the top of the [VFO-B/CLAR] knob. To unlock the [VFO-B/CLAR] knob, and restore normal tuning, press the [CLEAR (LOCK)] button once more.

ADVICE:

The lock feature will be memorized independently on the Main Tuning Dial knob and the [VFO-B/CLAR] knob.

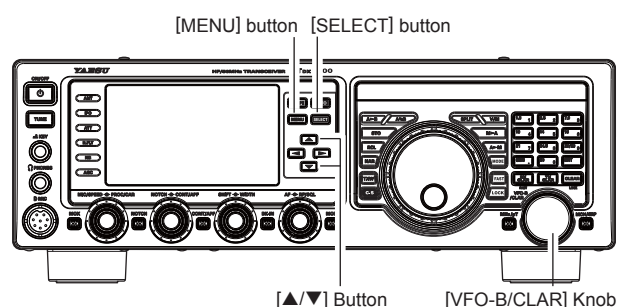


DIMMER

The illumination level of the VFO-A Frequency display, TFT display and six keys (left of the TFT display), may be adjusted via Menu items 007, 008 and 009.

To adjust the illumination level:

1. Press the [MENU] button to enter the Menu mode.
2. Rotate the [VFO-B/CLAR] knob (or press the ▲/▼ button) to select Menu item "008 DIMMER LED" (LED Display) or "009 DIMMER TFT" (TFT Display).
3. Press the [SELECT] button then rotate the [VFO-B/CLAR] knob (or press the ▲/▼ button) to select the desired illumination level.
4. Press the [SELECT] button, then press the [MENU] button to save the new setting and exit to normal operation.



CONVENIENCE FEATURES

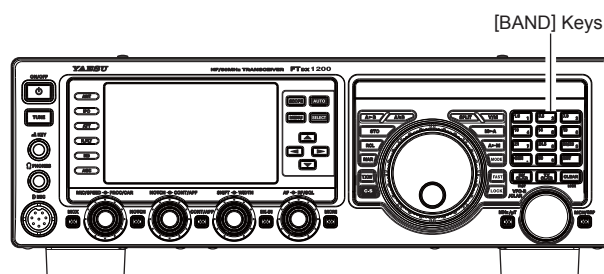
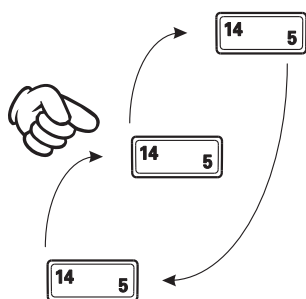
BAND STACK OPERATION

The **FTdx1200** utilizes a triple band-stack VFO selection technique, that permits you to store up to three favorite frequencies and modes onto each band's VFO register. For example, you may store one frequency each on 14 MHz CW, RTTY, and USB, then recall these VFOs by successive, momentary presses of the **[14]** MHz band button. Each Amateur band key may similarly have up to three frequency/mode settings applied. Both the VFO-A and VFO-B systems have their own, independent, band stacks.

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

1. Program 14.025 MHz, CW Mode, then press the **[14]** MHz band button;
2. Program 14.080 MHz, RTTY Mode, then press the **[14]** MHz band button;
3. Program 14.195 MHz, SSB Mode, then press the **[14]** MHz band button.

With this configuration, successive momentary presses of the **[14]** MHz band button will allow you to step sequentially through these three VFOs.

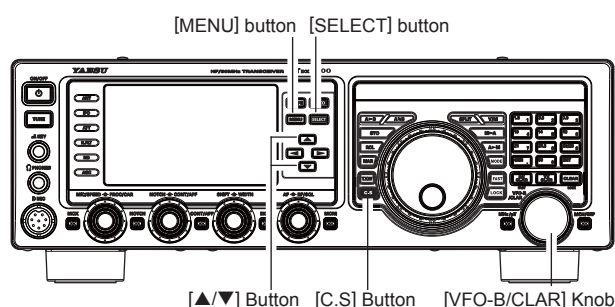


C.S (CUSTOM SWITCH)

The front panel **[C.S]** button may be programmed to directly access an often-used Menu Mode selection.

C.S Setup

1. Press the **[MENU]** button to engage the Menu mode; the Menu list will appear on the display.
2. Rotate the **[VFO-B/CLAR]** knob (or press the **▲/▼** button) to select the Menu item you want to access with the front panel **[C.S]** button.
3. Press the **[C.S]** button to lock in your selection.
4. Press the **[MENU]** button to save the new configuration and exit to normal operation.



Menu Selection Recall via **[C.S]** button

Press the **[C.S]** button.

The programmed Menu item will appear on the display.
Press the **[MENU]** button exit to normal operation.

CONVENIENCE FEATURES

SCOPE

This function displays a convenient spectrum scope for monitoring the band conditions in real time. Both strong and weak signals can be displayed in an easy-to-understand manner on the TFT screen. This multifunctional scope takes into consideration the operator's preference, by switching between the convenient CENTER mode where the VFO frequency is constantly in the center of the screen (for monitoring conditions on both sides of your operating frequency), and the FIX mode, where the frequency is fixed to the left side of the screen (for convenience in monitoring in the band). Note that the received sound is not output during the scope operation.

1. Press the [**SCOPE**] button momentarily to display the scope screen.

ADVICE:

- ☐ See the instructions on the right side of this page for details on individual operating modes.
 - ☐ See "Switching Between CENTER/FIX Modes" below for details on changing operating modes.
2. Select an operating mode for the scope function, either CENTER or FIX mode.

ADVICE:

Sweep speed can be changed in "124 SCOPE SPEED" menu mode.

3. Press the [**SCOPE**] button momentarily again to display the AF-FFT screen on the scope screen when the optional FFT unit is installed.

ADVICE:

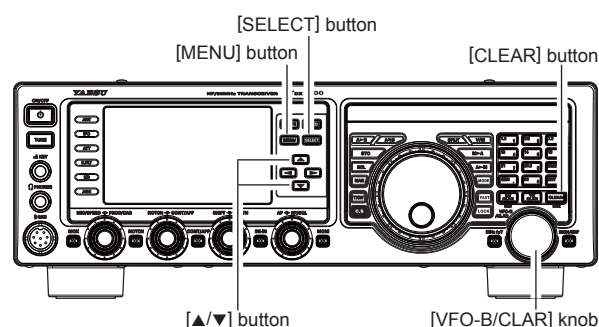
- ☐ The received sound spectrum is displayed on the AF-FFT screen. Press the [**MONI**] button to display the received station's transmission signal spectrum.
 - ☐ On the AF-FFT screen, either the "Spectrum Display" or the "Waterfall Display" can be selected in the "184 FFT DISPLAY MODE" menu mode.
4. Press the [**SCOPE**] button again momentarily to return to the previous scope operating screen function.

CENTER mode

1. Switch operation mode to "CENTER mode".
See "Switching Between CENTER/FIX Modes" below.
2. Press the [**SCOPE**] button momentarily to display the scope screen.
 - The current frequency is displayed in the center.
 - Width of scope display can be set in "127 CENTER SPAN FREQ" menu mode.

Switching Between CENTER/FIX Modes

1. Press the [**MENU**] button to enter the Menu mode.
2. Rotate the [**VFO-B/CLAR**] knob (or press the **▲/▼** button) to select Menu item "123 SCOPE MODE".
3. Press the [**SELECT**] button, then rotate the [**VFO-B/CLAR**] knob (or press the **▲/▼** button) to select the "CENTER" or "FIX" (Factory default is "CENTER").
4. Press the [**SELECT**] button, then press the [**MENU**] button to save the new setting and exit to normal operation.



CONVENIENCE FEATURES

SCOPE

FIX mode

1. Switch the operation mode to “FIX mode”.
See “Switching Between CENTER/FIX Modes” on the previous page.
2. Press the [**SCOPE**] button momentarily to display the scope.
 - The frequency set in Menu Mode is displayed at the leftmost start point on the screen.
 - Width of scope display can be set in Menu Mode by individual band (See below).

Frequency	Menu Mode
1.8MHz	130 FIX 1.8MHz SPAN
3.5MHz	132 FIX 3.5MHz SPAN
5MHz	134 FIX 5.0MHz SPAN
7MHz	136 FIX 7.0MHz SPAN
10MHz	138 FIX 10MHz SPAN
14MHz	140 FIX 14MHz SPAN
18MHz	142 FIX 18MHz SPAN
21MHz	144 FIX 21MHz SPAN
24MHz	146 FIX 24MHz SPAN
28MHz	148 FIX 28MHz SPAN
50MHz	150 FIX 50MHz SPAN

CONVENIENCE FEATURES

SCOPE

Memorizing the Scope Screen

The **FTdx1200** can memorize the scope screen in up to 10 channels, and recall it later.

How to memorize

Press and hold the **[SELECT]** button for one second to memorize the current scope screen. Up to 10 channels may be memorized. Once all 10 memories have data in them, previous data (starting with channel “1”) will be over-written, on a first-in, first-out basis.

Recalling memorized screens

1. Press the **[SCOPE]** button several times until the “Scope Memory” screen appears.

The last stored scope screen memory will be displayed.

Press the **[SCOPE]** button to display the screens in the following order:

[MENU] screen → **[SCOPE]** screen →
→ **[SCOPE+AF-FFT]** screen* →
→ **[SCOPE MEMORY]** screen →

*: When the optional FFT unit is installed

2. Press the **[▲]/[▼]/[◀]/[▶]** buttons to recall the memorized screen you wish.

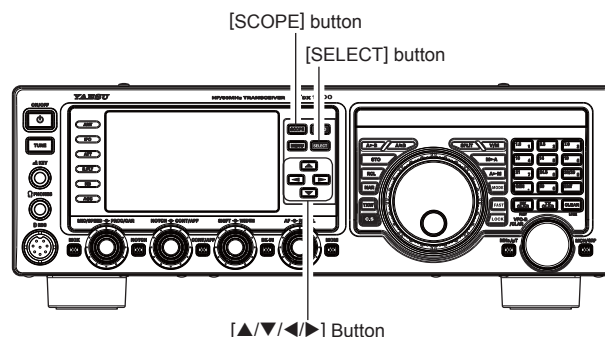
[▲]/[▶] button: Recalls the memory towards the new memory.

1 → 2 → 3 → 4 9 → 10 → 1 → 2 ...

[◀]/[▼] button: Recalls the memory towards the old memory.

10 → 9 → 8 → 7 2 → 1 → 10 → 9 ...

3. To close the scope screen, press the **[SCOPE]** button several times until the desired screen appears.



Erasing the memorized screens

1. Recall the scope screen that you wish to erase using the **[▲]/[▼]/[◀]/[▶]** button.
2. Press and hold one of the **[▲]/[▼]/[◀]/[▶]** button for one second to erase the scope screen. The memory channel is deleted, and the channel numbers, for channels with higher numbers, are decremented.

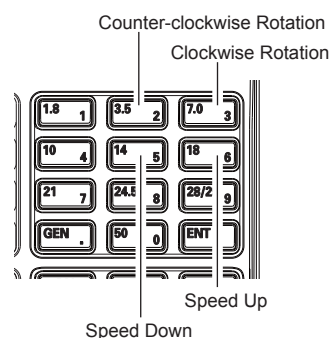
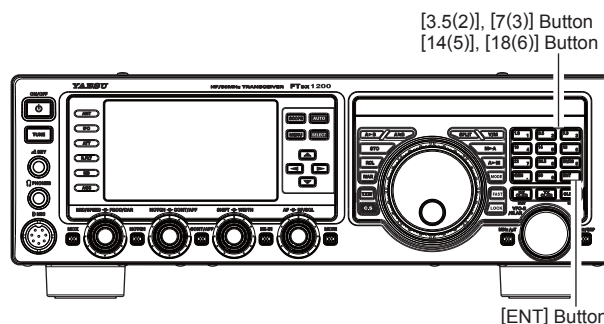
CONVENIENCE FEATURES

ROTATOR CONTROL FUNCTIONS

When using a YAESU model **G-800DXA**, **G-1000DXA**, **G-2800DXA** Antenna Rotator (not supplied), it is possible to control it from the front panel of the **FTdx1200**.

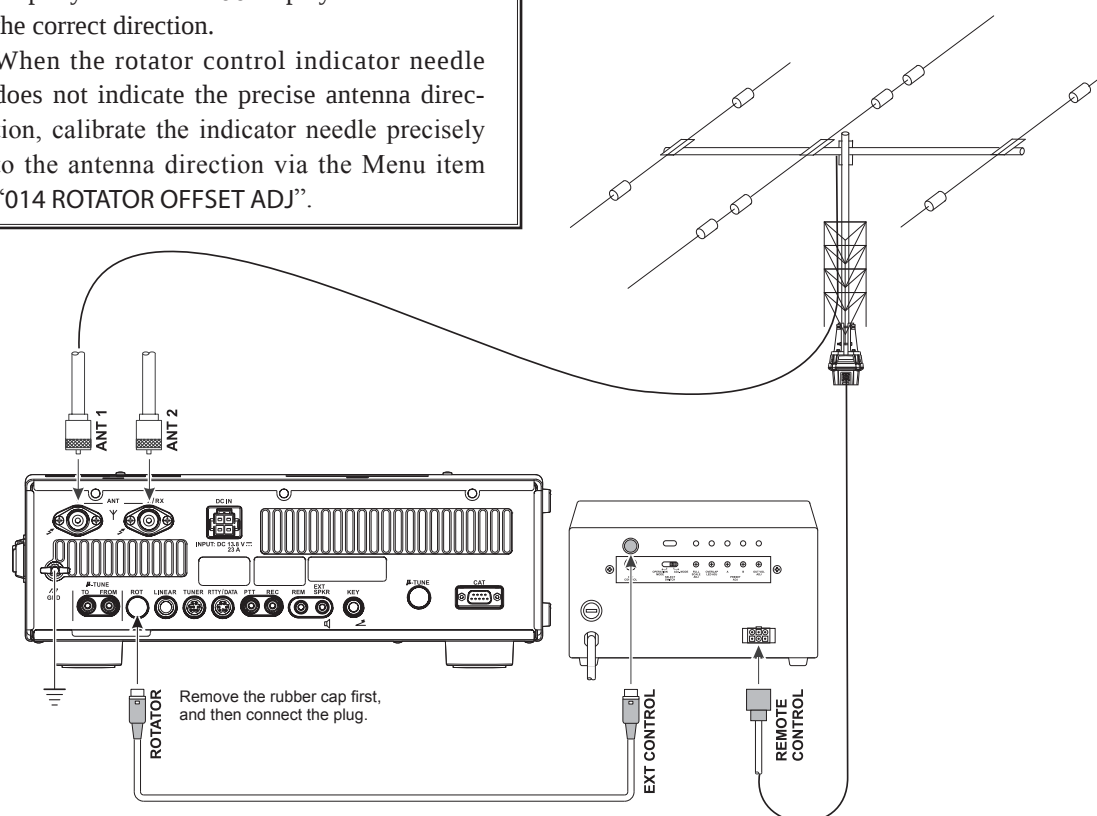
1. Press and hold in the **[ENT]** button (one of the **[BAND]** key switches) for one second. The VFO-B Frequency Display area will change to the “Rotator Control” configuration.
2. Press either the **[3.5(2)]** button or the **[7(3)]** button to rotate the antenna. Pressing the **[3.5(2)]** button will cause rotation to the left (counter-clockwise) by two degree steps, while pressing the **[7(3)]** button will cause rotation to the right (clockwise) by two degree steps.
3. Press the **[14(5)]** button or the **[18(6)]** button to control the speed of rotation. Pressing the **[14(5)]** button will cause slower rotation, while pressing the **[18(6)]** button will speed up rotation. Usually, you will be using the “100%” speed setting.

When you are through exercising rotator control, press the **[ENT]** button momentarily. The VFO-B Frequency Display will return to the main display field.



IMPORTANT NOTE

- ❑ Set the starting point to match your rotator control indicator needle via the Menu item “013 ROTATOR START UP”. The default setting is zero (north). If your controller starting point is south, the Menu item “013 ROTATOR START UP” must be set to “180”. If not set properly the **FTdx1200** display will not show the correct direction.
- ❑ When the rotator control indicator needle does not indicate the precise antenna direction, calibrate the indicator needle precisely to the antenna direction via the Menu item “014 ROTATOR OFFSET ADJ”.



CONVENIENCE FEATURES

MORE FREQUENCY NAVIGATION TECHNIQUES

Keyboard Frequency Entry

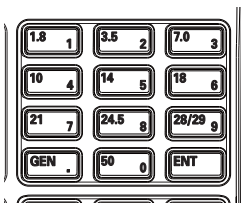
The Operating frequency may be entered directly into the current VFO, using the front panel **[BAND]** key buttons.

Example: Enter 14.250.00 MHz

1. Press the **[ENT]** button to begin the direct frequency entry process. Now, beginning with the first digit of the frequency (the leftmost digit), we will enter the required digits of the frequency.
2. Press, in order, the digits of the operating frequency, using the **[BAND]** buttons (the frequency entry digit or decimal point is printed on the right side of the buttons). In this example, enter
[1.8(1)] → **[10(4)]** → **[GEN(.)]** → **[3.5(2)]** →
[14(5)] → **[50(0)]** → **[50(0)]** → **[50(0)]** →
[50(0)]
 The decimal point after the “MHz” portion of the frequency must be entered, but no decimal point is required after the “kHz” portion.
3. Press the **[ENT]** button once more to complete the operating frequency entry. A short “beep” will confirm that the entry was successful, and the new operating frequency will appear on the display.

ADVICE:

If you attempt to enter a frequency outside the operating range of 30 kHz ~ 56 MHz, the microprocessor will ignore the attempt, and you will be returned to the previous operating frequency. If this happens, please try again, taking care not to repeat the error in the frequency entry process.



Using the **[UP]/[DWN]** buttons of the supplied MH-31B8 Hand Microphone

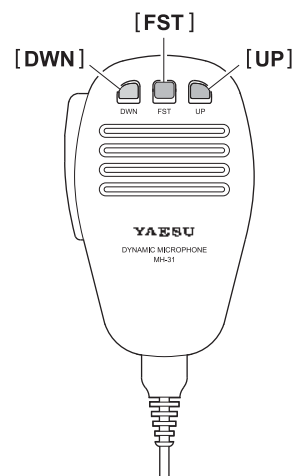
The **[UP]/[DWN]** buttons on the supplied **MH-31B8** Hand Microphone may also be used to manually scan the frequency upward or downward.

The microphone's **[UP]/[DWN]** buttons utilize the tuning steps of the Main Tuning Dial knob.

When the microphone **[FST]** button is pressed, the tuning rate increases by a factor of ten, in a manner similar to the transceiver front panel **[FST]** button.

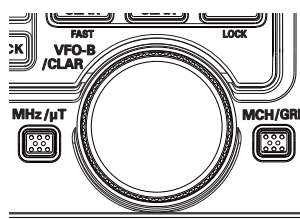
ADVICE:

You may independently set the tuning steps of the **[UP]/[DWN]** buttons in the AM and FM modes. To set new tuning steps, use Menu items “155 AM CH STEP” and “156 FM CH STEP”.



Using the **[VFO-B/CLAR]** knob

You may change the current VFO frequency in 1 MHz steps. Press the **[MHz/μT]** button located at the bottom and left of the **[VFO-B/CLAR]** knob. The 1 MHz steps will be applied to the current VFO frequency. The imbedded LED in the **[MHz]** button will glow orange in the latter case.



When tuning in 1 MHz steps, clockwise rotation of the **[VFO-B/CLAR]** knob will increase the frequency, while counter-clockwise rotation will decrease the frequency.