

FTB8800 Software

Programming the FT-8800R with FTB8800

A Companion to
*Yaesu FT-8800R Operating Manual:
The W5JCK Expanded Version*

This manual is courtesy of W5JCK



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About this Manual

LATEST UPDATE: 18 November 2006

I wrote this manual as a companion to my *Yaesu FT-8800R Operating Manual: The W5JCK Expanded Version*.

This manual covers some of the settings you can set for the Yaesu **FT-8800R** using the **FTB8800** programming software written by Bob Freeth, G4HFQ. Please visit Bob's website at <http://www.g4hfg.co.uk> for more information on his software for programming various amateur radios. (Please note that I am not affiliated with Bob Freeth or his software in any manner. I am merely a freelance writer who chose to expound upon the merits and features of a great software tool with which to program our **FT-8800Rs**.)

This manual does not cover every setting available through **FTB8800**. Please see the **FTB8800** Help for a more comprehensive list of topics. However, this manual does cover the more common settings you might want to apply to your **FT-8800R**, and organizes them into logical categories.

This manual is *absolutely free*. However, if you like, you can donate a small amount to help defray the cost of developing this (and other) HAM radio manuals. If you would like to make a donation, goto <http://w5jck.jackswinden.com/manuals/ft-8800r/donations.html>.

If you have any questions or comments, please email me at w5jck@jackswinden.com.

Happy reading! **Jack Swinden, W5JCK**

Conventions are used in this manual

- The "**Main** band" is the side of the **FT-8800R** on which you can transmit. This band is indentified on the **FT-8800R**'s LCD screen by the **MAIN** symbol.
- The "**Sub** band" is the side of the **FT-8800R** on which you can receive only.
- The "**MAIN** DIAL knob" is the **DIAL** knob on the side of the **FT-8800R** currently set as the **Main** band.
- Menu items and key terms are shown in **bold Arial text**, and menu names (functions) and menu options or shown in `monospace text`.
For example: "**Menu #21** `LOCK` can be set to `OFF` or `ON`."
- Notes are presented as below:



This is a sample note. Notes typically contain extra information designed to clarify the information presented in a topic. Sometimes they contain **CAUTIONs** or **WARNINGs**.

Introduction

The Yaesu **FT-8800R** is a ruggedly-built, high quality Dual Band FM transceiver providing 50 Watts of power output on the 144 MHz Amateur band and 35 Watts on the 430 MHz band.

FTB8800 is an extremely useful application for programming the Yaesu **FT-8800R**. It was developed by Bob Freeth, G4HFQ. You can visit his website at <http://www.g4hfq.co.uk>.

Left Memory	Receive Frequency	Op Mode	RPT Shift	RPT Offset	Transmit Frequency	Encoding Method	CTCSS Tone	DCS Code	Store Name	Memory Name	Transmit Power	Scan/Skip Hyster 1	Scan/Skip Hyster 2	Scan/Skip Hyster 3	Scan/Skip Hyster 4	Scan/Skip Hyster 5	Scan/Skip Hyster 6	Tuning Step	Ch. Description
1	147.1000	FM	Plus	0.00	Enc	110.9	023	Name	AAPC24	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
2	146.5400	FM	Mixus	0.00	Enc	110.9	023	Name	FTWRTH	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
3	145.5200	FM	Simplex	0.00	OH	100.0	023	Name	N1LSM2	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
4	440.0000	FM	Simplex	5.00	OH	300.0	023	Name	N1LSM4	MD2	OH	OH	OH	OH	Skip	Skip	Skip	25.0K	OFF
5	Empty																		
6	Empty																		
7	Empty																		
8	147.3000	FM	Plus	0.00	Enc	110.9	023	Name	STPH24	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
9	444.7750	FM	Plus	5.00	Enc	179.9	023	Name	STPH44	MD2	OH	OH	OH	OH	Skip	Skip	Skip	5.0K	OFF
10	146.0000	FM	Mixus	0.00	Enc	100.0	023	Name	SAPC24	MD2	Skip	Skip	Skip	Skip	Skip	Skip	Skip	5.0K	OFF
11	224.9000	FM	Mixus	1.00	OH	100.0	023	Name	SAPC22	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
12	442.4250	FM	Plus	5.00	OH	300.0	023	Name	SAPC44	MD2	OH	OH	OH	OH	Skip	Skip	Skip	5.0K	OFF
13	Empty																		
14	224.0000	FM	Mixus	1.00	Enc	110.9	023	Name	AAPC22	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
15	444.2000	FM	Plus	5.00	Enc	300.0	023	Name	AAPC44	MD2	OH	OH	OH	OH	Skip	Skip	Skip	5.0K	OFF
16	223.9000	FM	Mixus	1.00	Enc	110.9	023	Name	RAAL22	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
17	443.0000	FM	Plus	5.00	Enc	110.9	023	Name	RAAL44	MD2	OH	OH	OH	OH	Skip	Skip	Skip	5.0K	OFF
18	145.4900	FM	Mixus	0.00	Enc	88.5	023	Name	CLERF00	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
19	145.2700	FM	Mixus	0.00	Enc	110.9	023	Name	SLARF05	MD2	OH	Skip	OH	OH	Skip	Skip	Skip	5.0K	OFF
20	Empty																		
21	145.1100	FM	Mixus	0.00	Enc	110.9	023	Freq		MD2	OH	OH	OH	Skip	Skip	Skip	Skip	5.0K	OFF
22	145.3900	FM	Mixus	0.00	Enc	110.9	023	Freq		MD2	OH	OH	OH	Skip	Skip	Skip	Skip	5.0K	OFF

Purpose of this Manual

This manual has as its scope and mission to provide concise, accurate instructions for accomplishing some of the most common **FT-8800R** programming tasks using **FTB8800**. It is outside the scope and mission of this manual to provide explanatory or expository commentary on the Yaesu **FT-8800R**, its many features, or specific amateur radio and communications concepts. For this kind of information, please refer to the companion manual, *Yaesu FT-8800R Operating Manual: The W5JCK Expanded Version* (hereafter referenced as *Expanded Operating Manual*).

Common Task Settings

The following sections contain some of the most common tasks for programming the Yaesu FT-8800R. For detailed conceptual information, refer to *Yaesu FT-8800R Operating Manual: The W5JCK Expanded Version*.

Set the Right Side Keys to Key Mode 2

To set the right side keys to **Key Mode 2**:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 20 (this represents **Menu #20** KEY.MOD).
3. In the **Actual** field, select KEY 2.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.



When set to **Key Mode 2**, the **KEY2** indicator is displayed.

Right Side Keys (5R) when in Key Mode 2 (**KEY2**)



MHz Key: **LOW** while in Key Mode 2

- Press this key momentarily to allow tuning in 1-MHz steps on the **Main** band VFO.
- Press and hold in this key for ½ second to allow tuning in 10-MHz steps on the **Main** band VFO.

REV Key:  while in Key Mode 2

- Press this key momentarily to reverse the transmit and receive frequencies on the **Main** band during split-frequency (i.e. Repeater) operation.
- Press and hold in this key for ½ second to change the frequency shift direction:

RPT - (minus shift) → RPT + (plus shift) → RPT OFF (simplex)

TONE Key:  while in Key Mode 2

- Press this key momentarily to change the **Tone Squelch** mode:

ENC (CTCSS Encoder) → ENC.DEC (CTCSS Tone Squelch) → DCS (DCS operation)

SUB Key:  while in Key Mode 2

- Press this key momentarily to activate the **Sub** band function (the  icon will blink on the **Sub** band). When the **Sub** band function is activated, any keys you press act on the **Sub** band.
- When the **Sub** band function is activated (the  icon is blinking on the **Sub** band), press this key momentarily to deactivate the **Sub** band function.

Program the Microphone Buttons

Default **FT-8800R** key functions have been assigned to the **MH-48A6J** Microphone **P1**, **P2**, **P3**, and **P4** buttons at the factory. If you wish to utilize another function on any of these keys, you can program any of them for the following functions: BAND, HOME, LOW, MHz, PRI, REV, RPTR, SCAN, SQL.OFF, TCALL, TONE, VFO/MR.

To program the microphone **P1**, **P2**, **P3**, and **P4** buttons:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 28 (this represents **Menu #28** PG P1).
3. In the **Actual** field, select from the following options: BAND, **VFO/MR**, SCAN, SQL.OFF, TCALL, RPTR, PRI, LOW, TONE, MHz, REV, HOME.
4. Repeat steps 2 and 3 for Item 29 (PG P2), Item 30 (PG P2), and Item 31 (PG P2).
5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Programming Options for the Buttons

BAND function (factory default for  button)

- Press the button to toggle the **Main** band of operation between the Left band and right band.
- Press and hold the button for ½ second to switch operating band on the **Main** band.

HOME (HM) function

- Press the button to switch operation to the **Home Channel** on the **Main** band.
- Press and hold the button for ½ second to activate the Priority Scanning.

LOW function (factory default for  button)

- Press the button to select the transmit power output level on the **Main** band.
- When the **Main** band is set to the **Memory** mode or **Home Channel**, press and hold in this button for ½ second to switch the memory channel display between the Frequency format and Alpha-numeric Tag format.

MHz function

- Press the button to allow tuning in 1-MHz step on the **Main** band **VFO**.
- Press and hold the button for ½ second to allow tuning in 10-MHz step on the **Main** band **VFO**.

PRI function

- Press the button to activate the **Priority** feature on the **Main** band.
- No press and hold function for this button.

REV function

- Press the button to reverse the transmit and receive frequencies during split-frequency operation.
- Press and hold the button for ½ second to select Repeater Shift direction on the **Main** band.

RPTR function

- Press the button to select Repeater Shift direction on the **Main** band.
- No press and hold function for this button.

SCAN function

- Press the button to activate the Scanner on the **Main** band.
- When the **Main** band is set to the **Memory** mode, press and hold the button for ½ second to shift to the Memory Tuning feature.

SQL.OFF function

- Press the button to open the Squelch on the **Main** band to allow un-muted reception.
- Press and hold the button for ½ second to open the Squelch on the **Main** band to allow un-muted reception.

TCALL function

- Press the button to activate 1750 Hz Tone Burst.
- Press and hold the button for ½ second to activate 1750 Hz Tone Burst.

TONE function (factory default for  button)

- Press the button to activate the CTCSS or DCS operation on the **Main** band.
- No press and hold function for this button.

VFO/MR function (factory default for  button)

- Press the button to switch frequency control between the **VFO** and **Memory** modes on the **Main** band.
- When the **Main** band is set to the **VFO** mode, press and hold the button for ½ second to activate the Smart Search Feature.
- When the **Main** band is set to the **Memory** mode, press and hold the button for ½ second to activate the **Memory Bank** feature.

Select the Main Operating Band

In the factory default configuration, the **FT-8800R** operates in the **Dual Receive** mode.

During **Dual Receive** operation, the **Main** band frequency (on which transmission is possible) will be indicated by the  icon.

You will observe the  icon lighting up alternate sides of the display as you switch **Main** bands from the left side to the right side, and vice-versa. (The following illustration shows the **Main** band on the left side and the **Sub** band on the right side.)



To select which side of the radio will be the **Main** band:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 53 **Active Side (Main Band)**.
3. In the **Actual** field, select **Left** or **Right** for **Hypermemory1**. You set the **Main Band** separately for each **Hyper Memory** channel.
4. Repeat step 3 for **Hypermemory1** through **Hypermemory1**.
5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Change the Frequency Band

In the factory default configuration, the **FT-8800R** operates in the **Dual Receive** mode.

The following illustration shows UHF-VHF (**U-V**) mode of operation.



The **FT-8800R** can also be configured to operate in **V-U** mode (not shown), or **V-V** or **U-U** modes (shown below).

V-V mode



U-U mode



To change the frequency band:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 49 **Active Band** when in **VFO Mode**.
3. In the **Actual** field, select 144, 250, 350, 430, or 850 for **Hypermemory1**, Left side. You set the **VFO Frequency Band** separately for each side (**Left** or **Right**) of each **Hyper Memory** channel.
4. In the **Actual** field, select 144, 250, 350, 430, or 850 for **Hypermemory1**, Right side.
5. Repeat step 3 and 4 for **Hypermemory1** through **Hypermemory1**.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Activate the Lock Feature

In order to prevent accidental frequency change, the panel switches and **DIAL** knobs may be locked out.

To activate the **Lock** feature:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 21 (this represents **Menu #21 LOCK**).
3. In the **Actual** field, select **OFF**, or **ON**.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Activate the Key/Button Beeper

A key/button beeper provides useful audible feedback whenever a key/button is pressed.

To turn the beep on or off:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 5 (this represents **Menu #5 BEEP**).

3. In the **Actual** field, select `BEP.OFF`, or `BEP.ON`.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.



Menu #5 BEEP controls all **FT-8800R** beeps, including those sounded when powering on the radio and when the radio is receiving a signal.

Select the Channel Step

The **FT-8800R**'s synthesizer provides the option of utilizing channel steps of 5/10/12.5/15/20/25/50 kHz per step, any number of which may be important to your operating requirements. The **FT-8800R** is set up at the factory with different default steps on each operating band which probably are satisfactory for most operation.

To change the default Channel Steps:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 38 (this represents **Menu #38** `STEP`).
3. In the **Actual** field, select `5K`, `10K`, `12.5K`, `15K`, `20K`, `25K`, or `50K` for Left 144MHz. You set the channel steps separately for each side (**Left** or **Right**) of each frequency band.
4. In the **Actual** field, select `5K`, `10K`, `12.5K`, `15K`, `20K`, `25K`, or `50K` for Right 144MHz.
5. Repeat step 3 and 4 for the 250MHz, 350MHz, 430MHz, and 850MHz bands.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Set the Display Brightness

The **FT-8800R** display illumination has been specially engineered to provide high visibility with minimal disruption of your night vision while you are driving.

The set the brightness of the display:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 9 (this represents **Menu #9** `DIMMER`).
3. In the **Actual** field, select `DIM1`, `DIM2`, `DIM3`, or `OFF`.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Activate the Band Linking Feature

For operation on Amateur satellites which use a normal (not inverted) FM transponder, the **Band Link** feature may be useful.



1. Both sides of the **FT-8800R** have to be in **VFO** mode.
2. Band Linking does not work with **AMSAT AO-51** (or similar) satellites.

To set up **Band Linking**:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 43 (this represents **Menu #43 VFO.TR**).
3. In the **Actual** field, select **OFF** or **ON** for **Hypermemory1**. You set the Band Linking feature separately for each **Hyper Memory** channel.
4. Repeat step 3 for **Hypermemory1** through **Hypermemory1**.
5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

As you rotate the **MAIN DIAL** knob, you will observe that the frequencies for both bands are changing together. When you are done with this operating mode, select **OFF** in step 3 above.

Select the Audio Muting Preference

The **Audio Mute** feature is useful in situation where it would be helpful to reduce the audio level of the **Receive Only** band whenever you receive a signal on the **Main** band or you transmit on the **Main** band during **Dual Receive** operation.

To activate the **Audio Mute** feature:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 24 (this represents **Menu #24 MUTE**).
3. In the **Actual** field, select **OFF**, **TX**, **RX**, or **TX/RX**.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Set the RF Squelch Level

A special **RF Squelch** feature is provided on this radio. This feature allows you to set the squelch so that only signals exceeding a certain S-meter level will open the squelch.

To set the **RF Squelch** level:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 32 (this represents **Menu #32** RF SQL).
3. In the **Actual** field, select OFF, S-2, S-5, S-9, or S-FULL for the **Left** side. You set the **RF Squelch** separately for each side (**Left** or **Right**).
4. In the **Actual** field, select OFF, S-2, S-5, S-9, or S-FULL for the **Right** side.
5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Activate the Time-Out Timer

The **Time-Out Timer (TOT)** feature is designed to force the transceiver into the **Receive** mode after a preset time period of continuous transmission (the default is 6 minutes). This feature prevents your transceiver from transmitting a dead carrier for a long period of time in the event that the microphone **PTT** switch is accidentally locked in the **TX** position. The **Time-Out Timer's** switch-to-receive time may be adjusted, in one minute increments, for any period between 1 and 30 minutes.

To change the default (6 minute) time setting:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 42 (this represents **Menu #42** TOT).
3. In the **Actual** field, select OFF or 1mins through 30mins.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Activate Automatic Power Off

The **Automatic Power-Off (APO)** feature will turn the radio completely off after a user-defined period of **PTT** switch or key/button inactivity. If you do not press any front panel keys or buttons, rotate the **DIAL** knobs or use the microphone's keys and buttons, or transmit, and so long as the transceiver is not scanning or engaged in priority monitoring, the radio will shut itself off after the specified time period. This feature is useful in minimizing battery drain in a mobile installation if you forget to turn the transceiver off when you leave your vehicle.

To set the **APO** feature:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 1 (this represents **Menu #1** APO).

3. In the **Actual** field, select `OFF` or `0.5` through `12.0` (hours).
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Set FM Bandwidth and MIC Gain

You can reduce the microphone input level and receiver bandwidth when operating on tightly, clustered frequencies (channel spacing of 12.5 or 15 kHz). This will reduce the transmitter and receiver deviation, thus minimizing interference to other users (and improving reception).

To configure for the narrower bandwidth:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 44 (this represents **Menu #44** `WID.NAR`).
3. In the **Actual** field, select `WIDE` or `NARROW` for the Left 144MHz. You change the **FM Bandwidth** separately for each side (**Left** or **Right**) of each frequency band.
4. In the **Actual** field, select `WIDE` or `NARROW` for the Right 144MHz.
5. Repeat step 3 and 4 for the 250MHz, 350MHz, 430MHz, and 850MHz bands.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

To restore the normal (higher) microphone input level and normal (15 kHz) receiver bandwidth, select `WIDE` in steps 3 and/or 4 above.

Program Band Limits for VFO Mode

The **FT-8800R** contains ten sets of band-edge memories, also know as **Programmable Memory Scan** (PMS) channels, labeled `L1/U1` through `L10/U10`. This feature allows you to set sub-band limits for either scanning or manual **VFO** operation.

To set sub-band limits:

1. Click the **PMS** tab to make it active.
2. Enter the receive frequency in the **Receive Frequency** field for the side of the radio and the Lower sub-band limit of the **PMS** channel you want to set up.

For example: `Left L1` or `Right L1`.

3. Enter the receive frequency in the **Receive Frequency** field for the side of the radio and the Upper sub-band limit of the **PMS** channel you want to set up.

For example: `Left U1` or `Right U1`.

4. For each subsequent set of **PMS** channels you want to set up, repeat steps 2–3.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Repeater Operation Settings

Repeater stations, usually located on mountaintops or other high locations, provide a dramatic extension of the communication range for low-powered hand-held or mobile transceivers. The **FT-8800R** includes a number of features which make repeater operation simple and enjoyable.

Repeater Shifts

Your **FT-8800R** has been configured at the factory for the repeater shifts customary in your country. While the 144 MHz shift will be 600 kHz; on 70 cm the shift may be 1.6 MHz, 7.6 MHz, or 5 MHz (USA version).

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

Set the Automatic Repeater Shifts

The **FT-8800R** provides a convenient **Automatic Repeater Shift (ARS)** feature, which causes the appropriate repeater shift to be automatically applied whenever you tune into the designated repeater sub-bands in your country. These sub-bands are shown below.



If the **ARS** feature does not appear to be working, you may have accidentally disabled it.

To enable **ARS**:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 2 (this represents **Menu #2 ARS**).
3. In the **Actual** field, select **OFF** or **ON** for **Hypermemory1**. You set the **ARS** feature separately for each **Hyper Memory** channel.
4. Repeat step 3 for **Hypermemory1** through **Hypermemory1**.
5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Manual Repeater Shift Activation

If the **ARS** feature has been disabled, or if you need to set a repeater shift direction other than that established by the **ARS**, you may set the direction of the repeater shift manually.

To set repeater shifts manually:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 33 (this represents **Menu #33** RPT.MOD).
3. In the **Actual** field, select RPT.OFF, RPT.-, or RPT.+ for the Left 144MHz. You set the Manual Repeater Shift separately for each side (**Left** or **Right**) of each frequency band.
4. In the **Actual** field, select RPT.OFF, RPT.-, or RPT.+ for the Right 144MHz.
5. Repeat step 3 and 4 for the 250MHz, 350MHz, 430MHz, and 850MHz bands.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Changing the Default Repeater Shifts

If you travel to a different region, you may need to change the default repeater shift so as to ensure compatibility with local operating requirements.

To change default repeater shifts:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 36 (this represents **Menu #36** SHIFT).
3. In the **Actual** field, enter a shift value between 0.00 and 99.50 (MHz) for the Left 144MHz. You change the **Default Repeater Shift** separately for each side (**Left** or **Right**) of each frequency band.
4. In the **Actual** field, enter a shift value between 0.00 and 99.50 (MHz) for the Right 144MHz.
5. Repeat step 3 and 4 for the 250MHz, 350MHz, 430MHz, and 850MHz bands.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.



If you just have one odd split that you need to program, don't change the default repeater shifts using this **Menu** item. Enter the transmit and receive frequencies separately, as shown in "Store Independent Transmit Frequencies (Odd Splits)" on page 22.

Tone Coded Squelch Settings

This section discusses how to set up specific settings to operate your Yaesu **FT-8800R** using tone coded squelch systems.

Set Up for CTCSS Tone System

Many repeater systems require that a very-low-frequency audio tone be superimposed on your FM carrier in order to activate the repeater. This helps prevent false activation of the repeater by radar or spurious signals from other transmitters. This tone system, called **CTCSS** (Continuous Tone Coded Squelch System), is included in your **FT-8800R**, and is very easy to activate.

CTCSS setup involves two actions: Setting the **Tone Mode** and then setting of the **Tone Frequency**.

To set up CTCSS:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
3. In the **Encoding Method** field, select `ENC`.
4. In the **CTCSS Tone** field, select the appropriate tone frequency from the list.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Set Up for DCS Tone System

Another form of tone access control is **Digital Code Squelch (DCS)**. It is a newer, more advanced tone system which generally provides more immunity from false paging than does **CTCSS**. The **DCS Encoder/Decoder** is built into your **FT-8800R**, and operation is very similar to that just described for **CTCSS** Tone System. Your repeater system may be configured for **DCS**; if not, it is frequently quite useful in Simplex operation if your friend(s) use transceivers equipped with this advanced feature.

To set up DCS:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
3. In the **Encoding Method** field, select `DCS`.
4. In the **DCS Code** field, select the appropriate code from the list.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Adjust for DCS Code Inversion

The **DCS** system was first introduced in the commercial **LMR (Land Mobile Radio)** service, where it is now in widespread use. **DCS** is sometime referred to by its different proprietary names, such as **DPL® (Digital Private Line®)**, a registered trademark of Motorola, Inc.).

DCS uses a codeword consisting of a 23-bit frame, transmitted (subaudible) at a data rate of 134.4 bps (bit/sec). Occasionally, signal inversion can result in the complement of a code to be sent or received. This prevents the receiver squelch from opening with **DCS** enabled, as the decoded bit sequence would not match that selected for the operation.

Typical situations that might cause inversion to occur are: connection of an external receiver preamplifier, operating through a repeater, and connection of an external linear amplifier.

Note that code inversion does not mean that any of the above listed equipment is defective.

In certain amplifier configurations, the output signal (phase) is inverted from the input. Small signal or power amplifiers having an odd number (1, 3, 5, etc.) of amplification stages may result in inversion of a transmitted or received **DCS** code.

While under most circumstances this should not occur (amplifier designs and industry standards take this into account), if you find that your receiver squelch does not open when both you and the other station are using a common **DCS** code, you or the other station (but not both) can try the following:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 11 (this represents **Menu #11** DCS.N/R).
3. In the **Actual** field, select TRX N, RX R, TX R or TRX R.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

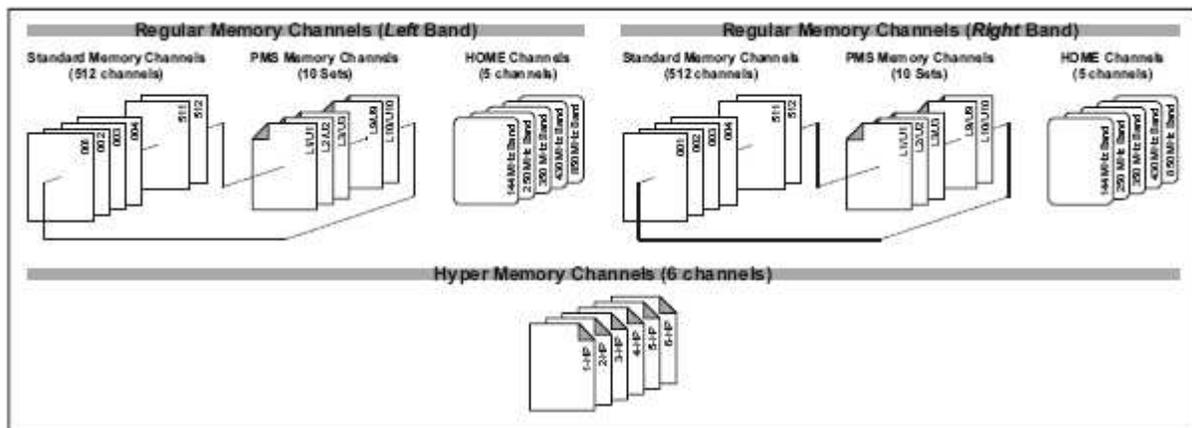


Remember to restore the default setting to TRX N (Encoder; Normal, Decoder; Normal) when done.

Regular Memory Settings

The Yaesu FT–8800R provides a wide variety of memory system resources. These include:

- Independent **Regular Memory Channels** for the **Main** and **Sub** bands, each consisting of:
 - 512 Standard memory channels (see page 21), numbered 001 through 512
 - Five Home channels (see page 23), providing storage and quick recall of one prime frequency on each operating band
 - Ten sets of band-edge memories also known as Programmable Memory Scan channels (see page 15), labeled L1/U1 through L10/U10
 - Ten Memory Channels (see page 24), labeled BANK1 through BANK10
- Six Hyper Memory channels (see page 25)



Store a Frequency in Memory

To store a frequency in a memory channel:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number), then click in the **Receive Frequency** field. All entries for this memory channel will be made in this row.
3. Enter the receiving (output) frequency in the **Receive Frequency** field, then press the **Enter** key. The fields for this row (memory channel) will be filled in with default information.

4. In the **RPT Shift** field, select the appropriate repeater **Shift** option from the following choices: Plus, Minus, Simplex, Split.
5. Enter the appropriate information for the other fields as necessary, then save the File.



To name a memory channel, see “Create/Modify a Name Tag for a Memory Channel” below.

Create/Modify a Name Tag for a Memory Channel

To create or modify a **Name Tag**:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number.
3. In the **Show Name** field, select **Name**.
4. In the **Memory Name** field, type in the text (up to six characters) for the **Name Tag**.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Delete/Hide an Alpha-numeric Name Tag for a Memory Channel

To delete a **Name Tag**:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number.
3. In the **Show Name** field, select **Freq**. This causes the frequency to be displayed instead of than the **Name Tag**.
4. Optionally, in the **Memory Name** field, delete the text for the **Name Tag**.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Store Independent Transmit Frequencies (Odd Splits)

To store independent transmit frequencies (odd splits) in a memory channel:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number), then click in the **Receive Frequency** field. All entries for this memory channel will be made in this row.
3. Enter the receiving (output) frequency in the **Receive Frequency** field.

4. In the **RPT Shift** field, select `Split`.
5. Enter the transmit (input) frequency in the **Transmit Frequency** field.
6. Enter the appropriate information for the other fields as necessary, then save the File.



Whenever you recall a memory which contains independently-stored transmit and receive frequencies, the **- +** (odd split) indicator will be displayed.

Delete a Memory

With 1052 memories available (except memory channel #1), there are frequently situations where you may desire to delete certain memorized frequencies.

To clear a **Memory** channel:

1. Click the **Memories** tab to make it active.
2. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number), then click in the **Receive Frequency** field.
3. Press the **Delete** key to empty the memory channel, then save the File.

Set a HOME Channel for an Operating Band

A special one-touch **HOME** channel is available (one for each of the five operating bands), to allow quick recall of a favorite operating frequency on each band.

To store a **HOME** channel:

1. Click the **Home** tab to make it active.
2. Click in the **Receive Frequency** field for the side of the radio and the frequency band you want to set up. For example: Left 144 contains the Home channel for the 144MHz band on the left side of the radio. (All entries for this Home channel will be made in this row.)
3. Enter the receiving (output) frequency in the **Receive Frequency** field.
4. Enter the appropriate information for the other fields as necessary, then save the File.

Assign a Memory channel to a Memory Bank

To assign a **Memory** channel to a **Memory Bank**:

1. Click the **Memories** tab to make it active.
2. Click the **Mem/Bank/Both** button (repeatedly if necessary) until the **Memory Bank** fields are displayed beside the **Memory** channels.
3. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
4. Click in any of the **Memory Bank** fields (**Bank 1** through **Bank 10**), then press the **CTRL+B** key combination to fill the field(s). You can select multiple **Memory Bank** fields either vertically (rows) or horizontally (columns) then press the **CTRL+B** key combination to fill the selected fields.
5. Save the File.



You cannot assign the **PMS** memory channels (L1/U1 through L10/U10) to a **Memory Bank**.

Delete a Memory channel from a Memory Bank

To delete a **Memory** channel to a **Memory Bank**:

1. Click the **Memories** tab to make it active.
2. Click the **Mem/Bank/Both** button (repeatedly if necessary) until the **Memory Bank** fields are displayed beside the **Memory** channels.
3. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
4. Click in any of the **Memory Bank** fields (**Bank 1** through **Bank 10**), then press the **CTRL+E** key combination to clear the field(s). You can select multiple **Memory Bank** fields either vertically (rows) or horizontally (columns) then press the **CTRL+E** key combination to clear the selected fields.
5. Save the File.

Hyper Memory Settings

The FT-8800R uses two different types of memory systems, **Regular Memory** (see page **Error! Bookmark not defined.**) and **Hyper Memory**, that store different kinds of information. One of the most difficult concepts for users to comprehend has been the distinction between these two memory systems.

The **Regular Memory** is a memory system that stores information specific to a memory channel. For example, the information needed to operate on a particular repeater will be stored in a **Regular Memory** channel. The FT-8800R contains 512 **Regular Memory** channels per side (left and right) for a total of 1024 **Regular Memory** channels. (See the table below for the types of data that are stored in a **Regular Memory** channel.)

The **Hyper Memory** is a memory system that stores information specific to the overall configuration of your FT-8800R. That is, a **Hyper Memory** records, or is a snapshot of, the way you have set up your FT-8800R to operate and meet your communication needs. For most radios, you can only have one configuration setup. However, the FT-8800R has six **Hyper Memory** channels thus allowing you to set up six unique configurations. (See the table below for the types of data that are stored in a **Hyper Memory** channel.)

REGULAR MEMORY Storage <i>memory channel information</i>	HYPER MEMORY Storage <i>radio configuration information</i>
<p><i>Each Regular Memory channel contains the information for one frequency on which you want to operate .</i></p> <ul style="list-style-type: none"> • Memory channel number (left/right) • Receive/Transmit frequencies • Operating mode (AM, FM, NFM) • Repeater information (shift, offset, encoding method, CTCSS tone, DCS code) • Whether to display frequency or name tag • Transmitting power • Scan/Skip preference • Bank assignments • Hyper Memory assignments 	<p><i>Each Hyper Memory channel contains a set of information on how you operate your FT-8800R.</i></p> <ul style="list-style-type: none"> • Which Memory channels to include • ARS (activation/deactivation) • Band edge criteria • Sub band display format • Packet information (Baud rate, operating band) • Memory scan mode (MEM, MSM) • Band Linking (Off, On) • Automatically tune AM for Aircraft band (Off, On) • Default Operating mode for each side (VFO, Memory, Home) • Active band (left/right) • Which Banks to scan (left/right) • Which Memory channel to default to (left/right) • Which Menu item to default to (left/right) • Which is the Active side: Main band (left or right)

Some examples of using Hyper Memory

Let's say that you frequently monitor the local HAM repeaters in your area, that you belong to the RACES organization for your county, and that you like to work Amateur Radio satellites. You could set up your **Hyper Memory** channels as follows:

- Hyper Memory Channel 2 Use to operate on local HAM repeaters
- Left Side -- start on **Regular Memory** channel 39
 - use as **Sub** band
 - **Memory** mode (only UHF repeaters)
 - 430MHz band (when in **VFO** mode)
 - Right Side -- start on **Regular Memory** channel 1
 - use as **Main** band
 - **Memory** mode (only VHF repeaters)
 - 144MHz band (when in **VFO** mode)
- Hyper Memory Channel 3 Use to operate on local RACES/ARES/Skywarn repeaters
- Left Side -- start on **Regular Memory** channel 1
 - use as **Sub** band
 - **Memory** mode (all local, VHF/UHF HAM repeaters)
 - 430MHz band (when in **VFO** mode)
 - Right Side -- start on **Regular Memory** channel 501
 - use as **Main** band
 - **Memory** mode (only RACES/ARES/Skywarn repeaters)
 - 144MHz band (when in **VFO** mode)
- Hyper Memory Channel 4 Use to operate on Amateur Radio satellites (**Band Linking** feature activated)
- Left Side -- start on **Regular Memory** channel 301
 - use as **Main** band
 - **Memory** mode (only Amateur Radio satellite frequencies)
 - 430MHz band (when in **VFO** mode)
 - Right Side -- start on **Regular Memory** channel 301
 - use as **Sub** band
 - **Memory** mode (only Amateur Radio satellite frequencies)
 - 144MHz band (when in **VFO** mode)

With this setup, you would be ready for three of your HAM radio interests at the press of a button! You now have three complete and unique radio configurations, each catered to a specific need.

- To operate on the local HAM repeaters you will press **Hyper Memory** key **2**.
- If a RACES activation occurs, you will press **Hyper Memory** key **3**.
- When you get ready to work an Amateur Radio satellite, you will press **Hyper Memory** key **4**.

Store a Hyper Memory Channel

The following instructions are a general guideline for configuring your **FT-8800R** and storing the Configuration(s) into **Hyper Memory** channels.

Part 1: Set the VFO frequencies for each Hyper Memory channel

For each **Hyper Memory** channel, you can set up, separately for each side of the radio, the lowest **VFO** frequency to use on each frequency band. For example, on the 2 meter band you can set the lowest frequency to 144.600 MHz rather than at the start of the band (which is 144.000 MHz). In this manner you can avoid scanning unwanted CW and data transmissions.

1. Click the **Hypermemory VFOs** tab to make it active.
2. For each **Hyper Memory** channel (**H1** through **H2**), in the **Receive Frequency** field enter a lowest frequency to use for the corresponding frequency band.
 - The **Left** side bands are listed as **L144, L250, L350, L430, and L850**.
 - The **Right** side bands are listed as **R144, R250, R350, R430, and R850**.
3. Enter the appropriate information for the other fields as desired.
4. When you finish entering all of the **VFO** information for the **Hyper Memory** channels, save the File.

Part 2: Set Menu item Configurations for each Hyper Memory channel

You can set up the Configuration items that are stored separately for each **Hyper Memory** channel.

1. Click the **Configuration** tab to make it active.
2. For each **FTB8800** Item number with a corresponding **FT-8800R** Menu number, select/enter the appropriate information.
 - Item 2 (**Menu #2** ARS)
 - Item 4 (**Menu #4** BAND)
 - Item 12 (**Menu #12** DSP .SUB)
 - Item 26 (**Menu #26** PCKT S)
 - Item 27 (**Menu #27** PCKT B)
 - Item 35 (**Menu #35** SCAN M)
 - Item 43 (**Menu #43** VFO .TR)
 - Item 47 (**Menu #47** AUT .AM)

3. For each **FTB8800** Item number without a corresponding **FT-8800R** Menu number, select/enter the appropriate information.
 - Item 48 sets the **Operating** mode for each side (**VFO, Memory, Home**)
 - Item 49 sets the active frequency band for **VFO** mode for each side (144MHz, 250MHz, 350MHz, 430MHz, or 850MHz)
 - Item 50 sets the **Banks** to scan for each side (1 through 10, or All)
 - Item 51 sets the default **Memory** channel number for each side
 - Item 52 sets the default **Menu** item number for when you press the  **SET** key
 - Item 53 sets the **Main Band** to the **Left** or **Right** side
4. When you finish entering all of the **Menu Configuration** information for the **Hyper Memory** channels, click the **OK - Apply all changes made** button (near the bottom of the application window), then save the File.

Part 3: Assign Regular Memory channels to Hyper Memory channels

You can set up, separately for each side of the radio, all the **Regular Memory** channels, and then assign each to one or more **Hyper Memory** channels.

1. Click the **Memories** tab to make it active.
2. If necessary, click the **Mem/Bank/Both** button until the six **Scn/Skp Hyper #** columns are displayed beside the **Memory** channels.
3. For each **Regular Memory** channel (**Left** and **Right**), select the scanning criteria for each of the six **Scn/Skp Hyper #** fields. The options are as follows, and apply to when the radio is in **Memory** mode:
 - **Pref—Preferential Scan.** If you press the  key while on a channel with the **Pref** option selected, then only channels with the **Pref** option selected will be scanned. Channels with the **Pref** option selected display the  icon. This option includes the channel in the **Hyper Memory** during a scan.
 - **Skip—Skip Scan.** Channels with the **Skip** option selected will be skipped during a Scan, and they will display the **SKIP** icon. This option excludes the channel from the **Hyper Memory** during a scan, although all channels, including those with the **Skip** option selected, can be manually tuned.
 - **Off—Scan.** If you press the  key while on a channel with the **Off** option selected, then channels with the **Off** option selected will be scanned and so will channels with the **Pref** option selected. This option includes the channel in the **Hyper Memory** during a scan.
4. Enter the appropriate information for the other fields as desired.
5. When you finish entering all of the **Hyper Memory** information for the **Regular Memory** channels, save the File.

Scan Settings

The Yaesu **FT-8800R** allows you to scan just the Memory channels via **Memory Scan mode** (see page 29), the entire operating band in **VFO Scan mode**, or a portion of that band via **Programmable Memory Scan** (see page 31). It will pause on signals encountered, so you can monitor the station(s) on that frequency.

Scanning operation is basically the same in each of the above modes. Before you begin, take a moment to select the way in which you would like the **FT-8800R** to resume scanning after it pauses on a signal. (See “Set the Scan-Resume Preference” below.)

Set the Scan-Resume Preference

Two options for the **Scan-Resume** mode are available:

- TIME** In this mode, scanning will pause on a signal it encounters, and will hold there for five seconds. If you do not take action to disable scanning within five seconds, scanning will resume even if the stations are still active. This is the default setting.
- BUSY** In this mode, scanning will pause on a signal it encounters. Two seconds after the carrier has dropped, scanning will resume.

To set the **Scan-Resume** mode:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 34 (this represents **Menu #34** SCAN).
3. In the **Actual** field, select **TIME** or **BUSY**.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Standard Memory Scan

During **Standard Memory Scan**, scanning will pause on any signal encountered that is strong enough to open the squelch; scanning will then resume according to the **Scan-Resume** mode that was selected. See “Set the Scan-Resume Preference” above for details.

Part 1: Flag a Memory channel to be Scanned during Standard Memory Scan



This is the default setting, so you only need to complete these steps if you previously changed this setting for this **Memory** channel.

1. Click the **Memories** tab to make it active.
2. If necessary, click the **Mem/Bank/Both** button until the six **Scn/Skp Hyper #** columns are **displayed beside the Memory channels**.
3. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
4. For the appropriate **Scn/Skp Hyper #** field(s), select **OFF**.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Part 2: Configure the FT-8800R for Standard Memory Scan



This is the default setting, so you only need to complete these steps if you previously changed this setting. This setting is configured separately for each side of each **Hyper Memory** channel.

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 35 Selects the Memory Scan Mode.
3. In the **Actual** field, select **MEM** for any or all of the following fields as desired:
 - Left field if you want to set it for the left side of the radio
 - Right field if you want to set it for the right side of the radio
 - Hypermemory#, Left field(s)
 - Hypermemory#, Right field(s)
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

How to Skip a Channel During Memory Scan

Some continuous-carrier stations like a **Weather Broadcast** station will seriously impede scanning operation especially if **Menu #34** **SCAN** is set to **BUSY**, as the incoming signal will not pause long enough for the **FT-8800R** to resume scanning.

To skip a channel during scanning:

1. Click the **Memories** tab to make it active.
2. If necessary, click the **Mem/Bank/Both** button until the six **Scn/Skp Hyper #** columns are displayed beside the Memory channels.
3. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
4. For the appropriate **Scn/Skp Hyper #** field(s), select **Skp**.
5. Enter the appropriate information for the other fields as necessary, then save the File.



This **Memory Channel** will now be ignored during scanning. The **SKIP** indicator will appear when you manually recall this skipped memory channel.

Preferential Memory Scan

During **Preferential Memory Scan**, scanning will pause on any signal encountered that is strong enough to open the squelch; scanning will then resume according to the **Scan-Resume** mode that was selected. See “Set the Scan-Resume Preference” on page 29 for details.

Part 1: Flag a Memory channel to be Scanned during Preferential Memory Scan

1. Click the **Memories** tab to make it active.
2. If necessary, click the **Mem/Bank/Both** button until the six **Scn/Skp Hyper #** columns are displayed beside the **Memory** channels.
3. In the appropriate memories window (**Left** or **Right**), scroll to the desired row number (this represents the memory channel number).
4. For the appropriate **Scn/Skp Hyper #** field(s), select **Pref**.
5. Enter the appropriate information for the other fields as necessary, then save the File.

Part 2: Configure the FT-8800R for Preferential Memory Scan



This setting is configured separately for each side of each **Hyper Memory** channel.

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 35 Selects the Memory Scan Mode.

3. In the **Actual** field, select `MSM` for any or all of the following fields as desired:
 - Left field if you want set it for the left side of the radio
 - Right field if you want set it for the right side of the radio
 - Hypermemory#, Left field(s)
 - Hypermemory#, Right field(s)
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Auto Range Transponder System Settings

The **ARTS** (Auto Range Transponder System) feature uses **DCS** signaling to inform both parties when you and another **ARTS** equipped station are within communications range. This may be particularly useful during Search-and-Rescue situations, where it is important to stay in contact with other members of your group.

Both stations must set up their **DCS** codes to the same code number, then activate their **ARTS** feature using the command appropriate for their radio. Alert ringers may be activated, if desired.

Whenever you push the **PTT** switch, or every 25 seconds after **ARTS** is activated, your radio will transmit a signal which includes a (subaudible) **DCS** signal for about one second. If the other radio is in range, the beeper will sound (if enabled) and the display will show `IN.RNG` as opposed to the out of range display `OUT.RNG` in which **ARTS** operation begins.

Whether you talk or not, the polling every 25 seconds will continue until you de-activate **ARTS**. Every 10 minutes, moreover, you can have your radio transmit your callsign via **CW**, so as to comply with identification requirements. When **ARTS** is de-activated, **DCS** will also be deactivated (if you were not using it previously in non-**ARTS** operation).

If you move out of range for more than one minute (four pollings), your radio will sense that no signal has been received, three beeps will sound, and the display will revert to `OUT.RNG`. If you move back into range, your radio will again beep, and the display will change back to the `IN.RNG` indication.

During **ARTS** operation, it is not possible to change the operating frequency or other settings on the **Main** band; you must terminate **ARTS** in order to resume normal operation. This is a safety feature designed to prevent accidental loss of contact due to channel change.

Set Up ARTS

To set up ARTS:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 3 (this represents **Menu #3** ARTS).
3. In the **Actual** field, select from the following options: `IN RNG` or `ALWAYS`.
4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

Set Up the CW Identifier

The **ARTS** feature includes a **CW Identifier**. Every ten minutes during **ARTS** operation, the radio can be instructed to send `DE your-callsign K` if this feature is enabled. The callsign field may contain up to 6 characters.

To set up the **CW Identifier**:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 7 (this represents **Menu #7** CWID).
3. In the **Actual** field, select `TX ON` (to enable the **CW Identifier**).
4. Scroll to Item 8 (this represents **Menu #8** CWID W).
5. In the **Actual** field, enter you callsign.
6. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.

DTMF Autodialer Settings

Sixteen **DTMF Autodialer** memories are available on the **FT-8800R**. These **DTMF Autodialer** memories can store up to 16 digits of a telephone number for repeater autopatch or other uses.

Load DTMF Autodialer memories

To set this function:

1. Click the **Configuration** tab to make it active.
 2. Scroll to Item 15 (this represents **Menu #15** DTMF W).
 3. In the **Actual** field next to d-1, enter the telephone number (up to 16-digit).
 4. Repeat step 3 for **DTMF Autodialer** memories d-2 through d-16.
 5. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.
-

Set the DTMF Autodialer time delay

You can also set a longer delay between the time you press the  key (with PTT switch pressed) and when the first **DTMF** digit is sent.

To set the time delay:

1. Click the **Configuration** tab to make it active.
 2. Scroll to Item 13 (this represents **Menu #13** DTMF D).
 3. In the **Actual** field, select the desired speed (50ms, 250ms, 450ms, 750ms, or 1000ms).
 4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.
-

Set the DTMF Autodialer speed

The speed at which the **DTMF** digits are sent can be changed.

To set the speed:

1. Click the **Configuration** tab to make it active.
 2. Scroll to Item 14 (this represents **Menu #14** DTMF S).
 3. In the **Actual** field, select the desired speed (50ms, 75ms, or 100ms).
 4. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.
-

Internet Connection Settings

The Yaesu **FT-8800R** can be used to access a repeater which has been configured to provide access to the Vertex Standard **WIRES™** (Wide-Coverage Internet Repeater Enhancement System) or other **Internet Link Systems** that use a **DTMF** string for access.

Configure the FT-8800R for an Internet Connection

To configure the Internet Connection feature:

1. Click the **Configuration** tab to make it active.
2. Scroll to Item 17 (this represents **Menu #17** INET).
3. In the **Actual** field, select the Internet Connection mode:
 - INT.COD: **WIRES™**
 - INT.MEM: other Internet Link System
4. Scroll to Item 18 (this represents **Menu #18** INET C).
5. In the **Actual** field, select the Access Number for **WIRES™** operation (CODE 0 through CODE 9, CODE A through CODE F).
6. Scroll to Item 19 (this represents **Menu #19** INET M).
7. In the **Actual** field, select the **Access Number** for other (non-**WIRES™**) Internet Link System operation (d-1 through d-16).
8. Near the bottom of the application window, click the **OK - Apply all changes made** button, then save the File.