

Tips for using the Yaesu FT-60 / VX-8R (and others) Specifics for these two, but generally adaptable to other Yaesu radios.

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Page references are to the Yaesu Operator's Manual for the radio.

1) Wires Internet Access Mode

You want to avoid this, but it's unfortunately easy to enable by accident. It will cause an annoying DTMF "beep" at the start of every transmission for anyone listening to you, masking anything you're speaking for the first second or so. When on, there is a 'crossed ellipses' symbol (some think it looks like an infinity symbol) in the upper right corner (FT-60) or lower left corner (VX-8R) of the display.

To toggle Wires mode on or off:

FT-60: Press the "0 " key briefly. Page 49.

VX-8R: Press the " [TX PO]" key (lower left) briefly. Page 111.

Fortunately, there is a way to disable the beep, even when Wires is accidentally enabled, in the radio settings. It's not obvious, but it works, by telling the radio to send an *empty* sequence of DTMF dial tones instead of the one beep. This web page describes it, including specific steps for several Yaesu radios:

http://www.sbara.org/downloads/WIRES/Turning_Off_WIRES_on_Yaesu_Radios.htm

There are downloadable pdfs and a link to the web version of the same information at <http://www.sbara.org/downloads/WIRES/>

2) Key Lock

This can be handy when you're carrying the radio in a pocket etc, and reaching for it might take you off frequency or a keypress would mess up your settings (see Wires). By default it locks the dial and keypad; you can configure it to lock any combination of dial, keypad, and PTT. When locked, there is a lock symbol in the display.

To toggle Key Lock on or off:

FT-60: Briefly press the "W" key, then the "6 [LOCK]" key.

OR: Press and hold the "6 [LOCK]" key for one second. Page 16.

VX-8R: Press the "(PWR)" switch briefly. Page 26.

3) Named Memories Frequency Check [Not VX-8R, which displays both]

When you've got your radio programmed with a set of frequencies with mnemonic channel names, this makes life easy for common tasks, such as participating in a "net" or exercise, or everyday communication. But the FT-60 display only permits a choice of frequency or alpha name, not both.

If you're operating on a named memory channel and would like to check the frequency: Briefly press the "BAND" key. Press it again to return to alpha name mode. This actually initiates something called "Memory Offset Tuning", page 31, but this display toggle is a simple and useful side effect.

4) Automatic Repeater Shift (ARS)

This radio feature, On by default, uses hardcoded knowledge of regional amateur band usage to decide when to add an appropriate repeater shift to a frequency you dial in VFO mode. The problem is that it's been wrong for me on my FT-60 more than once. Setting a simplex frequency in VFO mode, it added a shift that disabled communication.

For example: With ARS On, the FT-60 decides that it's appropriate to use a negative (-) repeater offset when the vfo is set in the 445.025 - 449.975 MHz range. That includes the standard UHF (70 cm) national simplex calling frequency of 446.000 MHz. ARS is correct *most* of the time, but its value seems limited to me.

Essentially all my repeater use is with preprogrammed channels. If I did set one up on the fly I'd still have to program the PL tone; the offset is easier. I decided this ARS was more a bug than a useful feature and turned it off. That's personal experience and an opinion, but it's mine. To disable ARS:

FT-60: Setting 4, page 19

VX-8R: Setting 74, page 31.

5) Checking a Memory's Repeater PL Tone Frequency

If you're operating on a programmed memory channel for a repeater, you might need to determine what the settings are, either for troubleshooting, or to help someone set up their radio for that repeater when the only information you have at hand is your programmed radio.

Tip (3) above tells you how to get the frequency, even if the channel has an alpha name. The radio's display will tell you the repeater offset and Tone *mode*. But how can you determine the PL tone *frequency*?

Set the radio to operate on the memory of interest. Now briefly press the "F/W" key, then the "2 [CODE]" key. The PL tone frequency is displayed. Since you don't want to change it, just press the "F/W" key to exit. (Note: you *can* change the PL tone here, as long as you stay operating on that same memory channel. You cannot change the value stored in the memory, which will be restored after any change to another channel or vfo operation or power off.)

For the VX-8R:

The procedure to access/set the CTCSS (PL) tone is on page 35. Aside from the variation in which buttons are pressed, it should work the same, but that has not been verified on a physical radio.

6) Automatic Power-off (APO) and Transmit Timeout Timer (TOT)

Both these radios can be set to automatically power off some interval after the last key or dial activity, which can prevent dead batteries when the radio is accidentally left on while traveling, etc. On the other hand, if you are monitoring in receive mode for an extended time, the radio could turn off without you noticing, also a problem.

Still, the APO time can be set from 1/2 hour to 12 hours in 1/2 hour steps; there's probably some value in there that makes more sense than the default APO Off.

For the FT-60, this is set mode item 1 APO, page 60.

For the VX-8R, this is set mode item 4 APO, page 126.

Separately, both radios have a configurable timer for how long a single transmission by the radio will last. See the manual for reasons why this is a good idea if it's not obvious. The values for TOT can be 1-30 minutes (FT-60) or 1/2 to 10 minutes (VX-8R), or Off. Fortunately, the default here is more sensible at 6 or 3 minutes. Consider making it shorter.

For the FT-60, this is set mode item 51 TOT, page 61.

For the VX-8R, this is set mode item 102 TOT, page 127.

7) Repeater Reverse Mode (Advanced Topic).

Repeater operation uses duplex mode, where the Tx and Rx frequencies are different. There is a feature that causes your radio to swap the current Tx and Rx frequencies, transmitting on the Rx frequency, and listening on the TX frequency. In this case you would be emulating the repeater in some ways. We don't want to **Transmit** in this mode a lot, as a matter of repeater use etiquette, but used carefully, it has several real-life uses:

- When listening to a repeater, this allows you to monitor other operators' talking on the repeater input. You can gauge their Tx signal strength *into* the repeater. Perhaps you don't need the repeater and can use simplex? And you will transmit on the frequency they are listening on, so you can get a measure of whether they can hear you on simplex. **Be Careful Here!**
- If you can hear them on the repeater input but not the output, this allows you to diagnose a likely PL Tone configuration problem.
- The display now shows the repeater input frequency, if you would like to get a check of that. For the FT-60, this also works together with the "Memory Offset Tuning" feature described above to display the repeater input frequency (your normal Tx frequency) of a named channel.

To toggle Repeater Reverse Mode:

FT-60: Briefly press the HM/RV Key. Page 21.

VX-8R: Briefly press the HM/RV Key. Page 33.

7a) Beyond Reverse Mode: Using the sub-band to monitor repeater input: VX-8R (or other dual-receive radios like FT-8800) only:

You can use the sub-band to simultaneously monitor the repeater input frequency while using the repeater normally on the main band.

Set up a "Repeater Reverse" channel in another memory, or just set it as simplex via VFO. You will almost certainly want to set "Audio Muting" to 100%, page 28. The bar graph S meter will provide information on the sub band even when muted.