

Radio Settings for W9AXD Yaesu® System Fusion® Repeater users

Revision History

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|--------------|----------|---|
| Version 1.0 | 03/03/16 | Initial release/drj |
| Revision 1.1 | 03/03/16 | Pages 4 & 7 Code changed to Break (Squelch Level) |

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Section 1: Introduction

This document is a work in progress, check it for any changes on a periodic basis.

All of the settings are shown using RTSystems software. Yaesu does offer a scaled down version of their software on their website. Check the files portion of their site for firmware updates and new products.

Section 2: Analog users

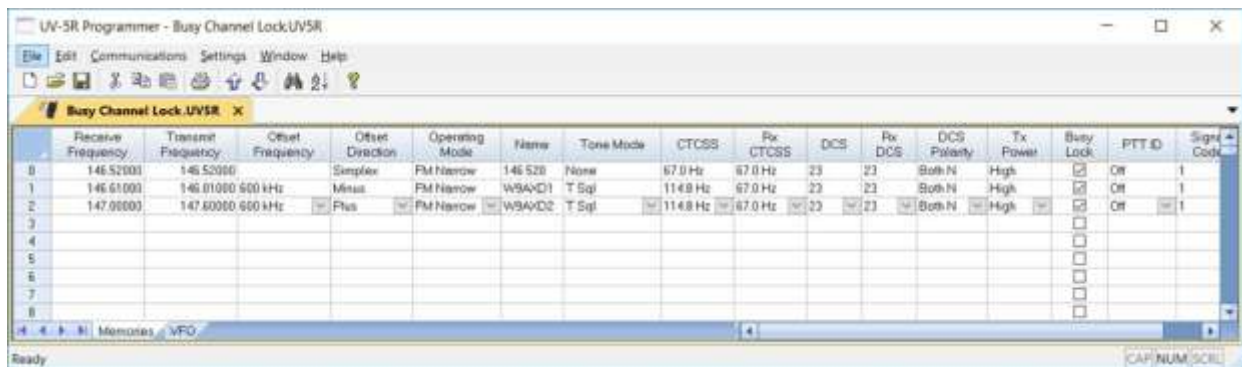
Our current settings for FM users is: 146.61 and 147.00 repeaters with a CTCSS of 114.8. Essentially, that remains the same as our old Vertex Standard repeaters. No changes are necessary for FM users.

Please note that if you see the frequency looks like it is in use, and you cannot hear audio (scratchy), there are folks using the Digital side.

Please don't try and interfere with their QSO!!!

Enhanced settings for FM users

- Set your radio for tone squelch if you haven't already done so.
- In addition, if your radio has Busy Channel Lock Out (BCLO) etc. Turn it on please. The UV-5R has a "Busy Lock" column for each channel. In reality all should be checked!



The screenshot shows the 'UV-5R Programmer - Busy Channel Lock UV5R' window. The main area is a table with columns for channel configuration. The 'Busy Lock' column has checkboxes that are checked for channels 1 and 2.

| | Receive Frequency | Transmit Frequency | Offset Frequency | Offset Direction | Operating Mode | Name | Tone Mode | CTCSS | Rx CTCSS | DCS | Rx DCS | DCS Polarity | Tx Power | Busy Lock | PTT ID | Sign Cook |
|---|-------------------|--------------------|------------------|------------------|----------------|---------|-----------|----------|----------|-----|--------|--------------|----------|-------------------------------------|--------|-----------|
| 0 | 146.52000 | 146.52000 | | Simplex | FM Narrow | 146.520 | None | 67.0 Hz | 67.0 Hz | 23 | 23 | Both N | High | <input type="checkbox"/> | Off | 1 |
| 1 | 146.61000 | 146.61000 500 kHz | | Minus | FM Narrow | WSA/D1 | T Squ | 114.8 Hz | 67.0 Hz | 23 | 23 | Both N | High | <input checked="" type="checkbox"/> | Off | 1 |
| 2 | 147.00000 | 147.00000 500 kHz | | Plus | FM Narrow | WSA/D2 | T Squ | 114.8 Hz | 67.0 Hz | 23 | 23 | Both N | High | <input checked="" type="checkbox"/> | Off | 1 |
| 3 | | | | | | | | | | | | | | <input type="checkbox"/> | | |
| 4 | | | | | | | | | | | | | | <input type="checkbox"/> | | |
| 5 | | | | | | | | | | | | | | <input type="checkbox"/> | | |
| 6 | | | | | | | | | | | | | | <input type="checkbox"/> | | |
| 7 | | | | | | | | | | | | | | <input type="checkbox"/> | | |
| 8 | | | | | | | | | | | | | | <input type="checkbox"/> | | |

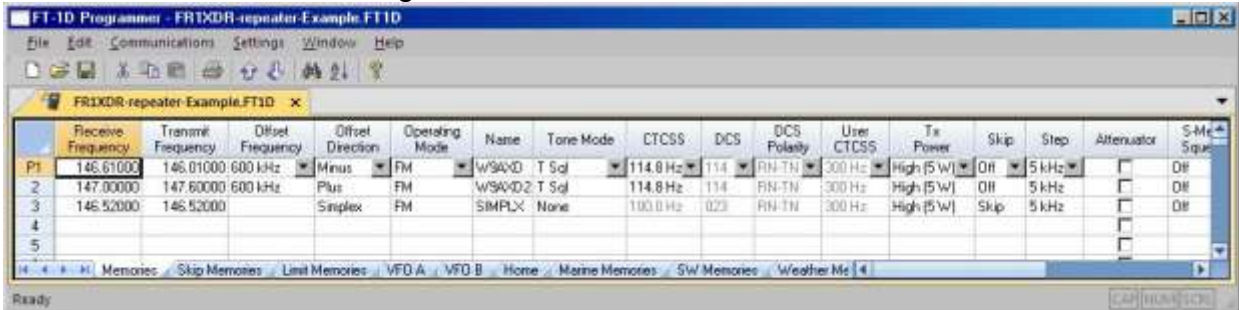
- That's IT! Nothing too new.

Section 3: Settings for C4FM Digital users.

Yaesu has done what ICOM needed to do years ago, but didn't. Don't get me wrong D-STAR was a great system, but not affordable for us or most clubs. At a price tag of several thousand dollars for their repeater, we couldn't afford it!! Yaesu in it's wisdom, made digital affordable. At \$500 per repeater, it was a no brainer!!! The radios are cheaper than the ICOM ones too by \$100 or more, again a no brainer!! I purchased a FTM100XDR mobile for \$325, nuff said.

Radio settings for the W9AXD System Fusion Repeaters:

- FM, same as the settings in section 2 of this document.



- Digital: Set DSQ to 114. You can check page 127 in the FTM-100DR manual online. [FTM-100DR manual link](#)
- Here is the way to make the changes for the FT1D hand held and the FTM-100DR mobile software:

Setting the digital mode squelch code (5 DIGITAL SQL CODE)

You can set the squelch code in digital mode.

- 1 Press and hold **DISP SETUP** for over one second.
The Setup menu appears.
- 2 Rotate the DIAL to select **[2 TX/RX]**, then press **DISP SETUP**.
- 3 Rotate the DIAL to select **[5 DIGITAL SQL CODE]**, then press **DISP SETUP**.
- 4 Rotate the DIAL to select the desired code.
Tips
 - The code can be selected from 001 to 126.
 - The default setting: 001
- 5 Press and hold **DISP SETUP** for over one second.
Sets the squelch code and returns the display to the previously viewed screen.

SETUP MENU

1 DISPLAY 5 SCAN

2 TX/RX 6 BQ

3 MEMORY 7 WIRESS-X

4 SIGNALING 8 CONFIG

SETUP MENU TX/RX

5 DIGITAL SQL CODE

6 DIGITAL POPUP TIME

7 LOCATION SERVICE

8 STANDBY BEEP

DIGITAL SQL CODE

001

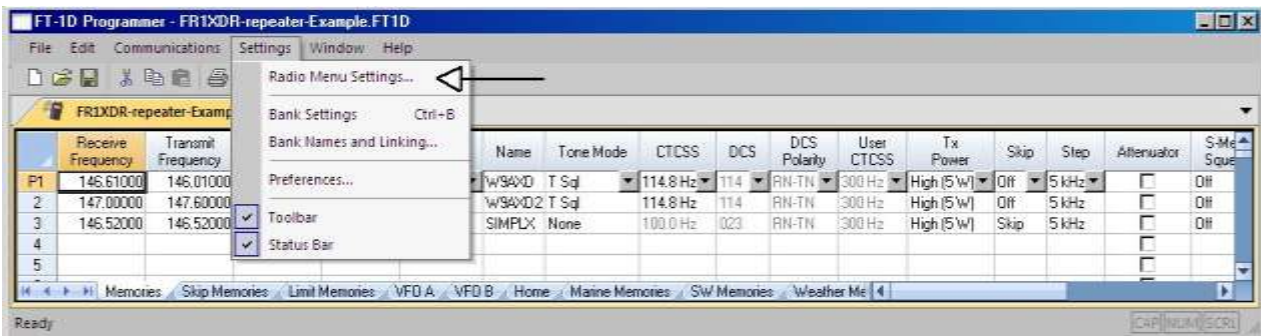
002

003

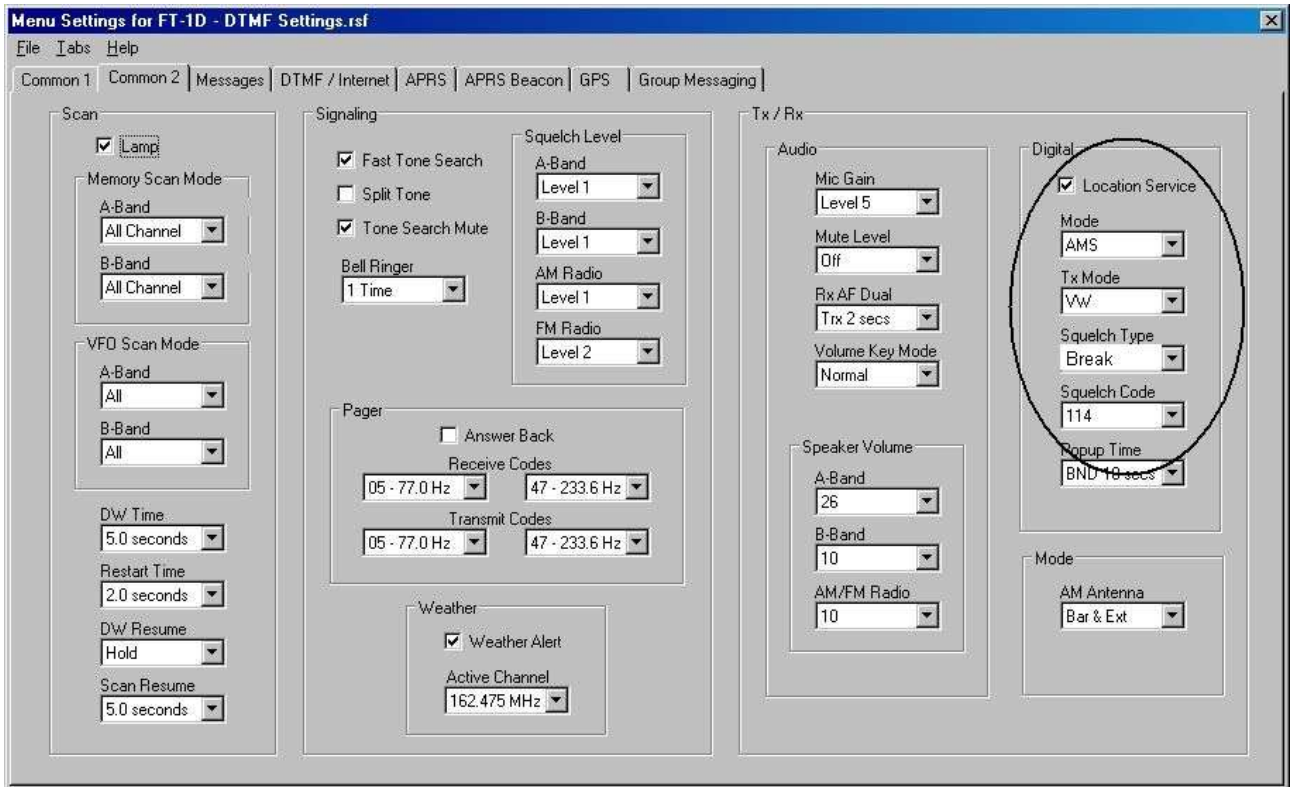
004

Part of manual page for setting Digital mode squelch code (DSQ) for FTM-100DR.

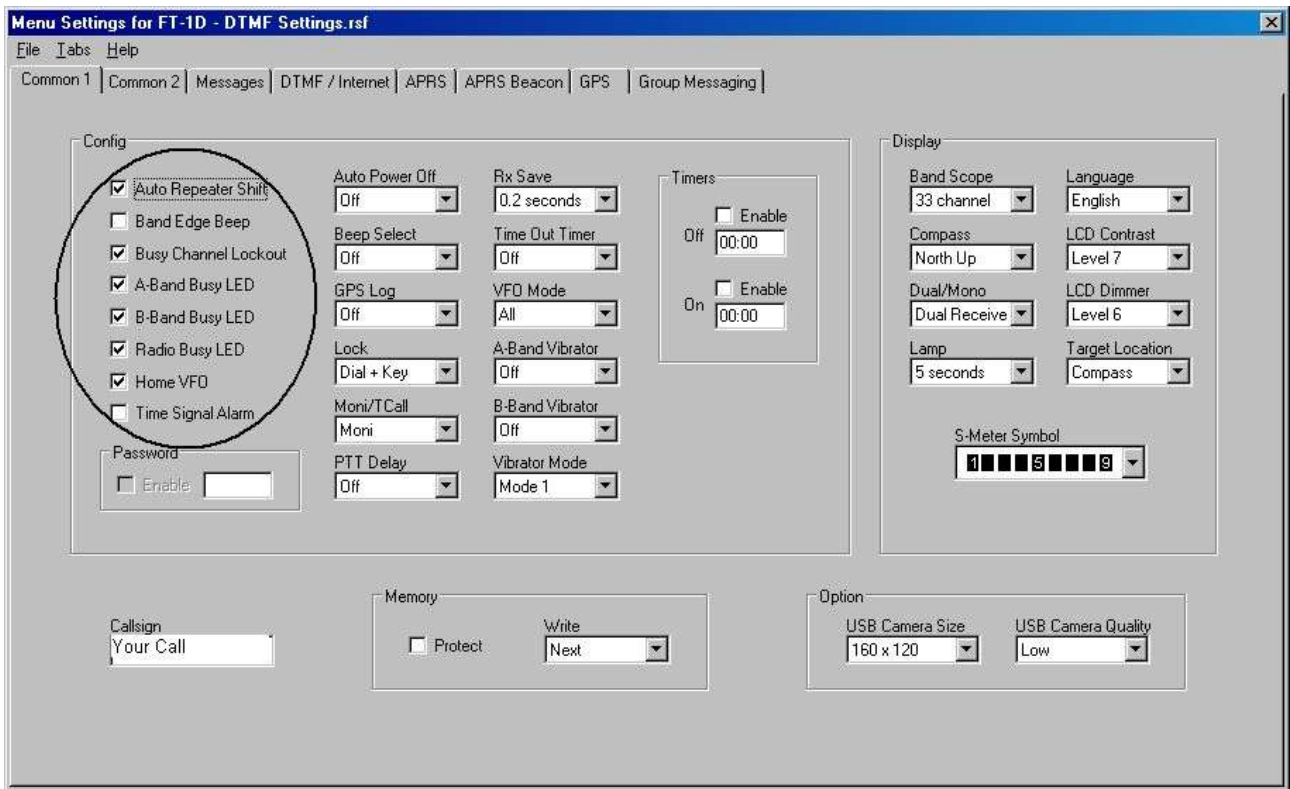
Other radios will vary slightly.



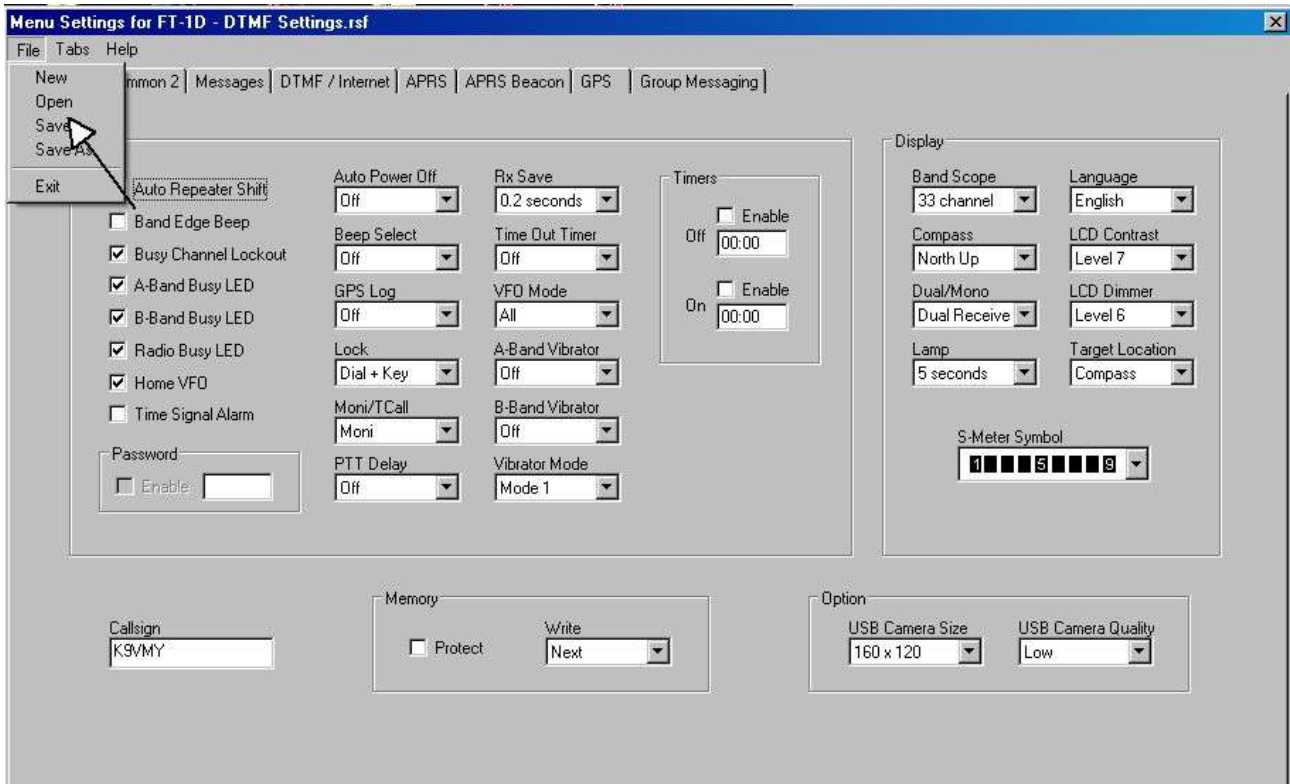
Go to the Radio Menu settings "Common 2" tab



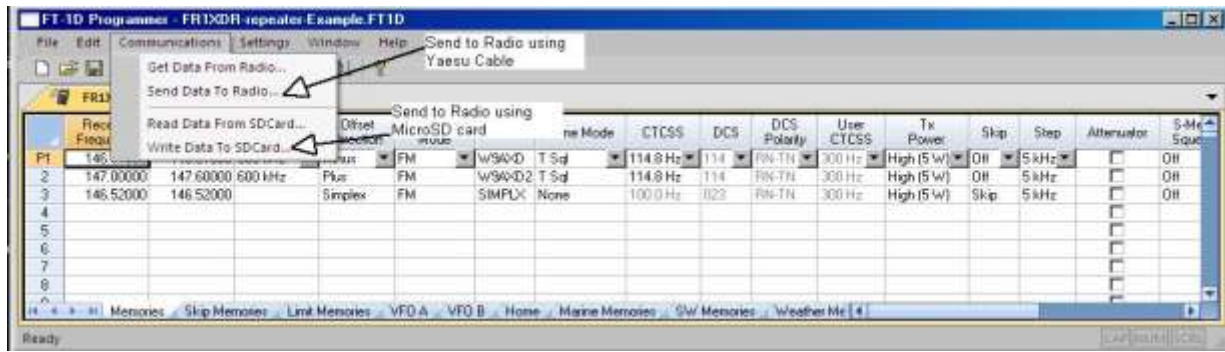
Set the TX mode to Voice Wide (VW) and the squelch code to 114.



Note the Busy Channel Lockout is checked.

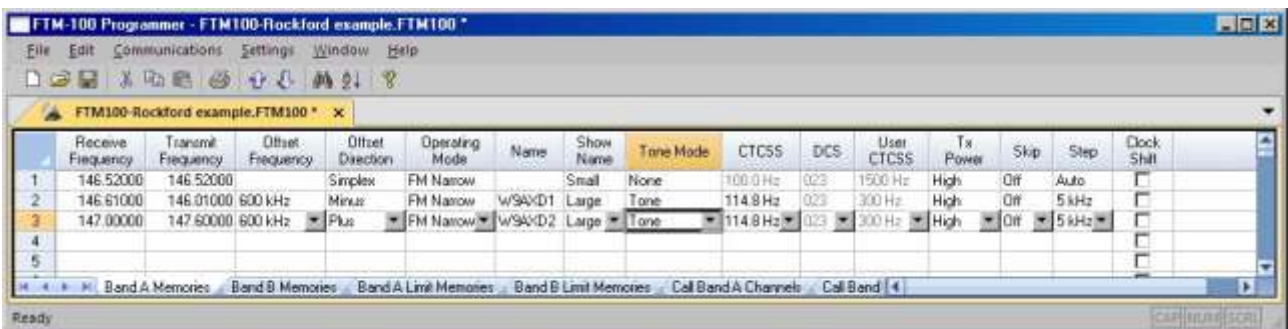


Save the settings and exit the radio settings.

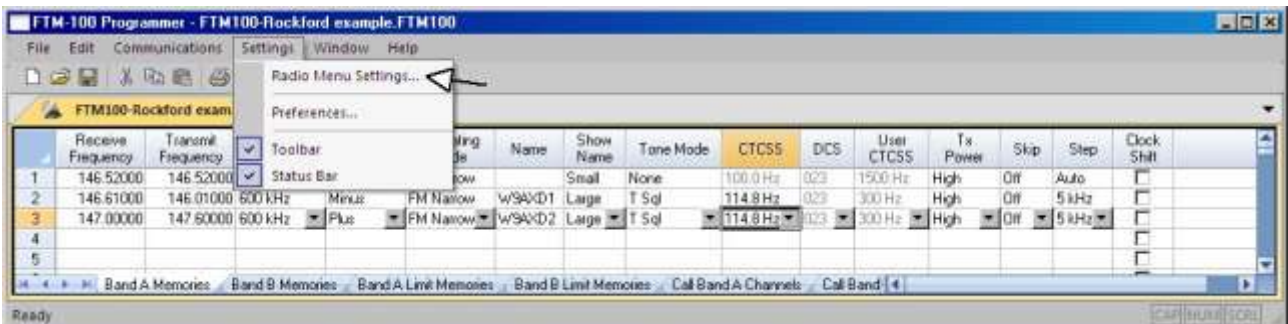


Now, program your radio via the Yaesu supplied USB cable or a microSD card. Of course, save and exit the program. (OK, I didn't get the Tone Mode right here oops)

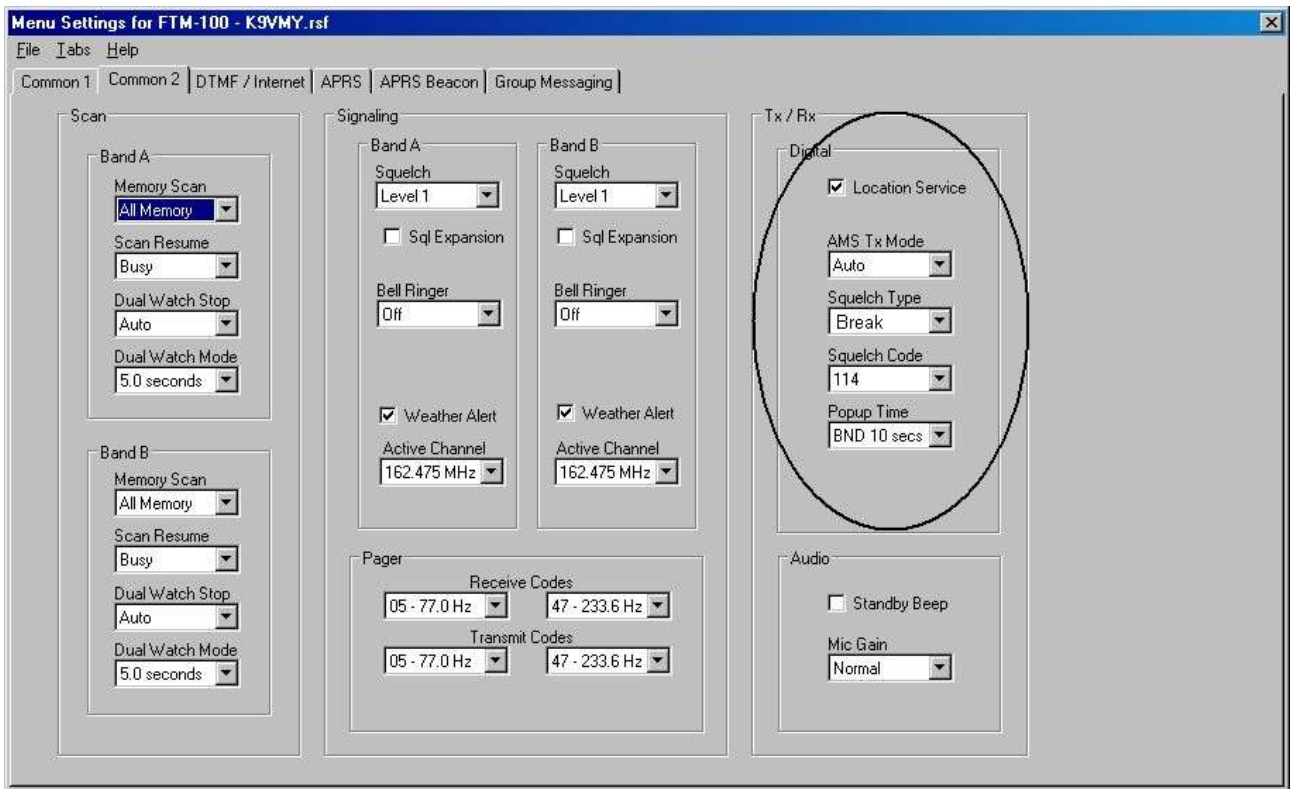
Now for the FTM-100DR screens:



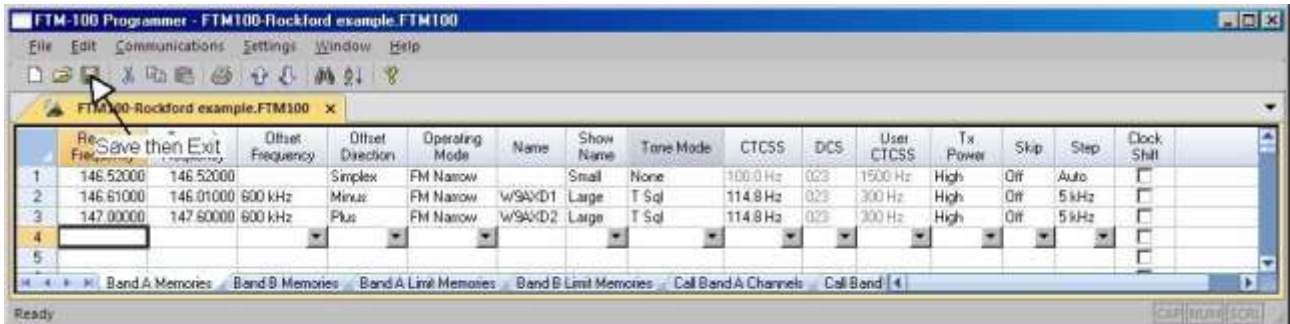
Note the settings for FM



Go to radio Menu settings



Set the TX mode to Voice Wide (VW) and the squelch code to 114.
 By the way, this radio does not have Busy Channel Lockout.



Save your settings and exit the program.

Hyperlinks for reference:

Yaesu System Fusion Digital Products:

<http://yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=249&encProdID=3F8B6B6AF1EC22B82F01E68C1E0F0BA6&DivisionID=65&isArchived=0>

RT Systems Software:

<http://www.rtsystemsinc.com/yaesu-radio-programming-software-s/1819.htm>