G90 Firmware Update Instructions

The following items are needed:

1. The G90 Radio
2. Power supply for the G90 Radio
3. Power cord for attaching the power supply to the G90 Radio
4. A computer preferably running Windows 10
5. A USB to Serial Cable that was in the G90 Radio box

Attach the serial cable to the USB port of your computer. The computer should find and install the driver for the cable. If the computer does not automaticaly load the driver, then you have to manually install the driver that was provided with the firmware download.

When you update your radio, you have to update both the main unit and the display. The only major difference between the two is which socket you put in the programming cable.

When programming the main unit, plug the cable into the COMM port in the back of the radio. When programming the display, plug the cable into the bottom connector on the left side of the display (looking at it from the front).

Program the main unit first. Before you start, turn off the power supply, wait for thirty seconds, and then turn on the power supply. Do this again when you start to program the display.

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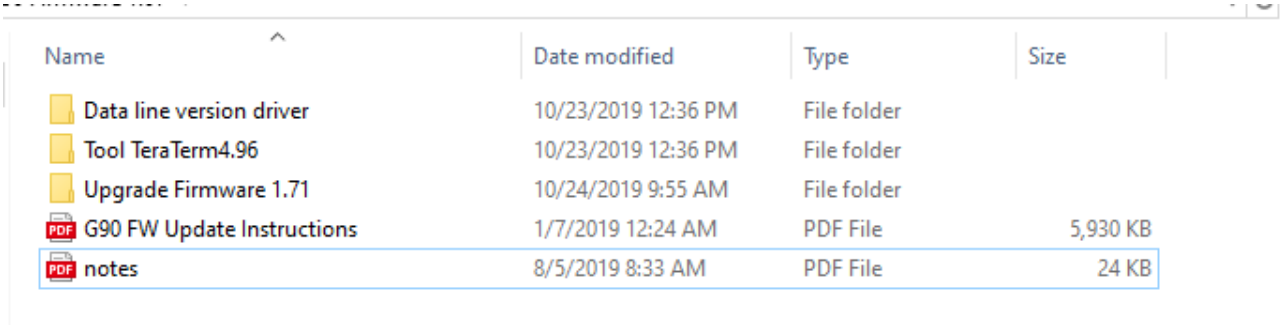
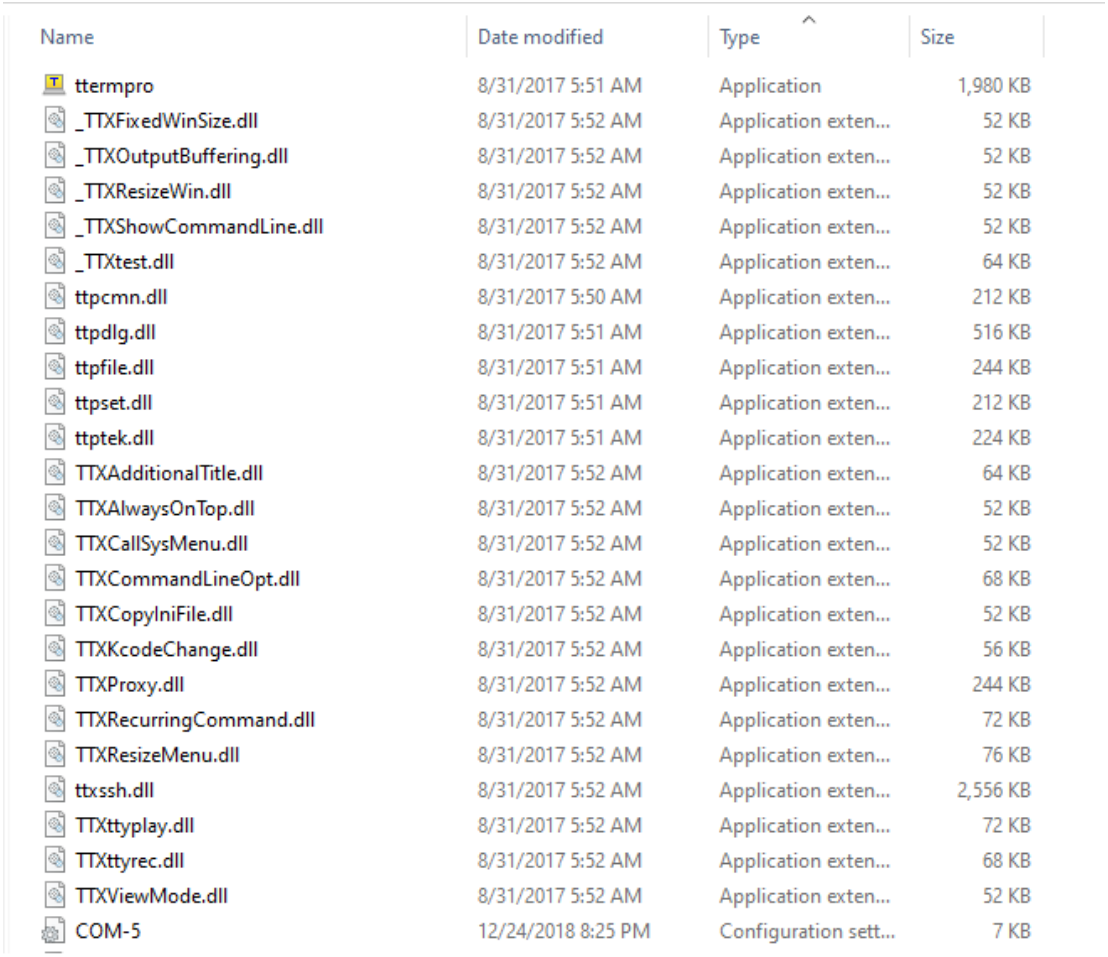
The following instructions shows how to update the firmware.

Unzip the downloaded file and you should get a file similar to the following:



Name	Date modified	Type	Size
Data line version driver	10/23/2019 12:36 PM	File folder	
Tool TeraTerm4.96	10/23/2019 12:36 PM	File folder	
Upgrade Firmware 1.71	10/24/2019 9:55 AM	File folder	
G90 FW Update Instructions	1/7/2019 12:24 AM	PDF File	5,930 KB
notes	8/5/2019 8:33 AM	PDF File	24 KB

Double click on the Tool TeraTerm4.96 folder and you should see the following:



Name	Date modified	Type	Size
ttermpro	8/31/2017 5:51 AM	Application	1,980 KB
_TTXFixedWinSize.dll	8/31/2017 5:52 AM	Application exten...	52 KB
_TTXOutputBuffering.dll	8/31/2017 5:52 AM	Application exten...	52 KB
_TTXResizeWin.dll	8/31/2017 5:52 AM	Application exten...	52 KB
_TTXShowCommandLine.dll	8/31/2017 5:52 AM	Application exten...	52 KB
_TTXtest.dll	8/31/2017 5:52 AM	Application exten...	64 KB
ttpcmn.dll	8/31/2017 5:50 AM	Application exten...	212 KB
ttpdlg.dll	8/31/2017 5:51 AM	Application exten...	516 KB
ttpfile.dll	8/31/2017 5:51 AM	Application exten...	244 KB
ttpset.dll	8/31/2017 5:51 AM	Application exten...	212 KB
ttptek.dll	8/31/2017 5:51 AM	Application exten...	224 KB
TTXAdditionalTitle.dll	8/31/2017 5:52 AM	Application exten...	64 KB
TTXAlwaysOnTop.dll	8/31/2017 5:52 AM	Application exten...	52 KB
TTXCallSysMenu.dll	8/31/2017 5:52 AM	Application exten...	52 KB
TTXCommandLineOpt.dll	8/31/2017 5:52 AM	Application exten...	68 KB
TTXCopyIniFile.dll	8/31/2017 5:52 AM	Application exten...	52 KB
TTXKcodeChange.dll	8/31/2017 5:52 AM	Application exten...	56 KB
TTXProxy.dll	8/31/2017 5:52 AM	Application exten...	244 KB
TTXRecurringCommand.dll	8/31/2017 5:52 AM	Application exten...	72 KB
TTXResizeMenu.dll	8/31/2017 5:52 AM	Application exten...	76 KB
ttxssh.dll	8/31/2017 5:52 AM	Application exten...	2,556 KB
TTXttyplay.dll	8/31/2017 5:52 AM	Application exten...	72 KB
TTXttyrec.dll	8/31/2017 5:52 AM	Application exten...	68 KB
TTXViewMode.dll	8/31/2017 5:52 AM	Application exten...	52 KB
COM-5	12/24/2018 8:25 PM	Configuration sett...	7 KB

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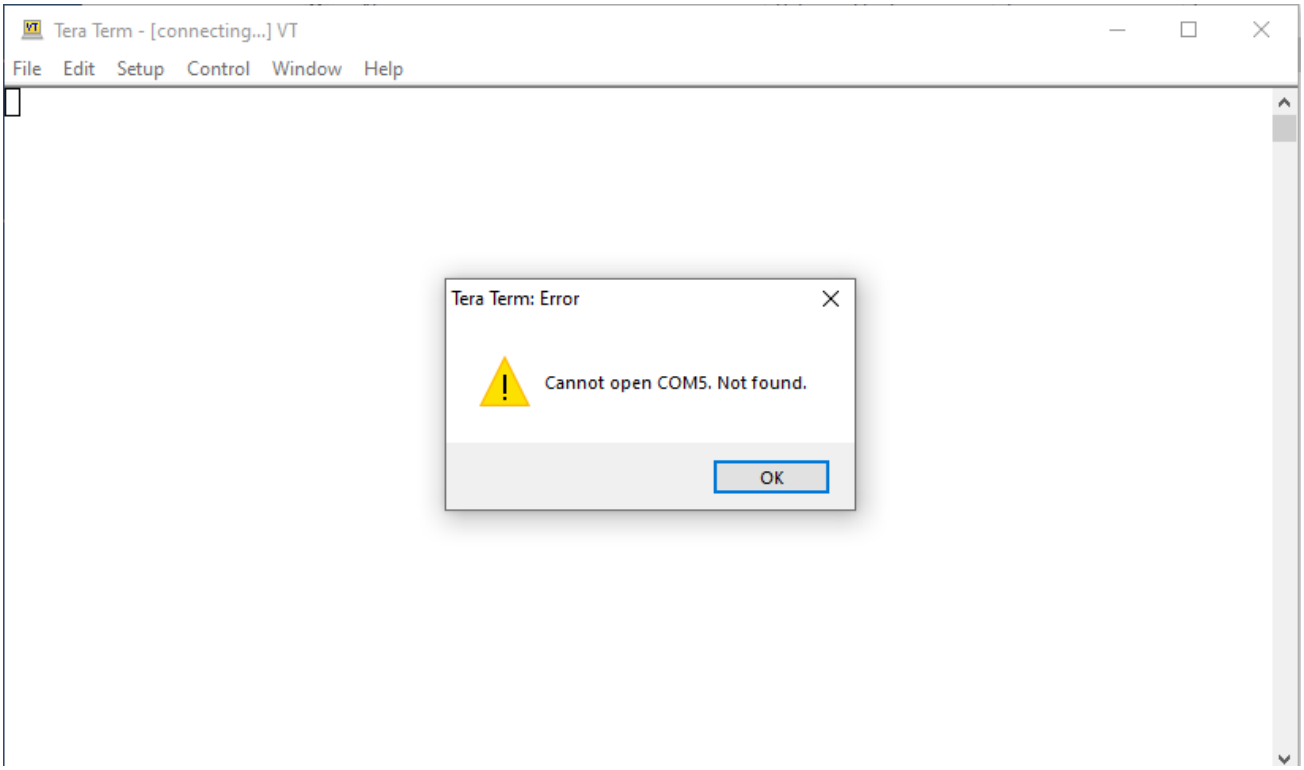
Double click on ttermpro to start the program and you should see the following:



If you see the error message press the OK. If you do not get the error message, or you pressed the OK, you will then get to the following screen.

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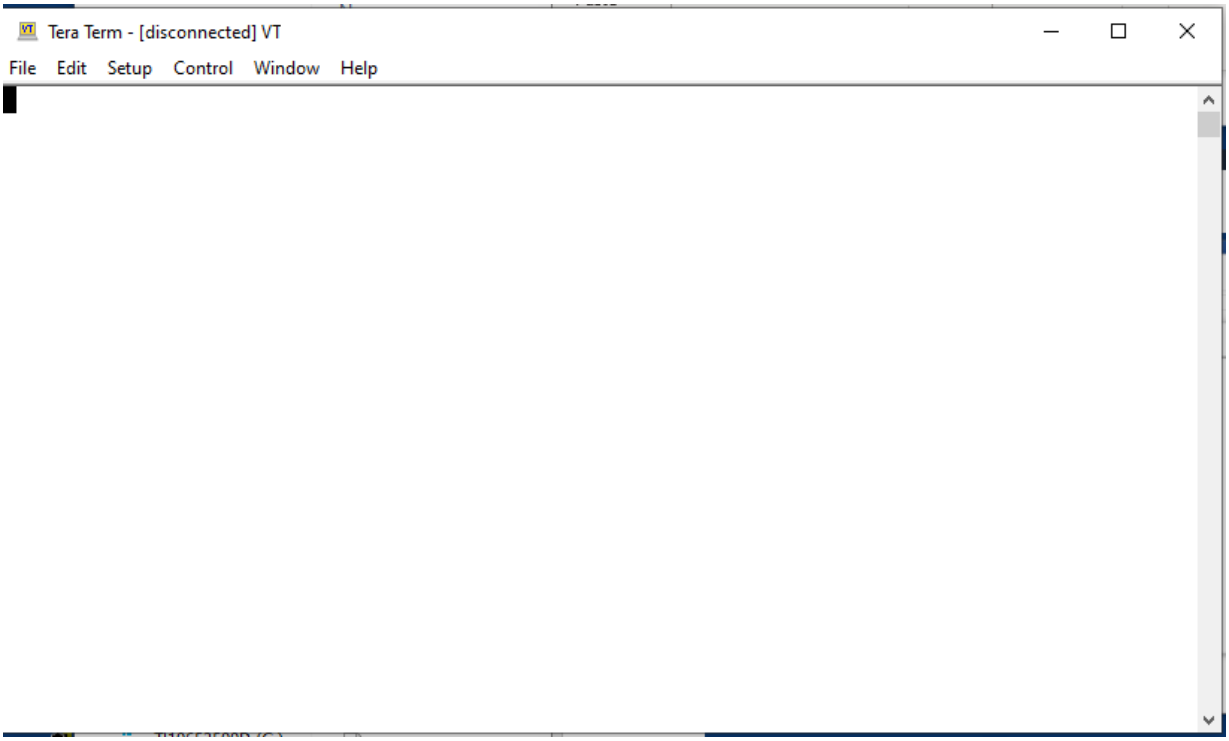

Press the file pull down menu and you will get the following:

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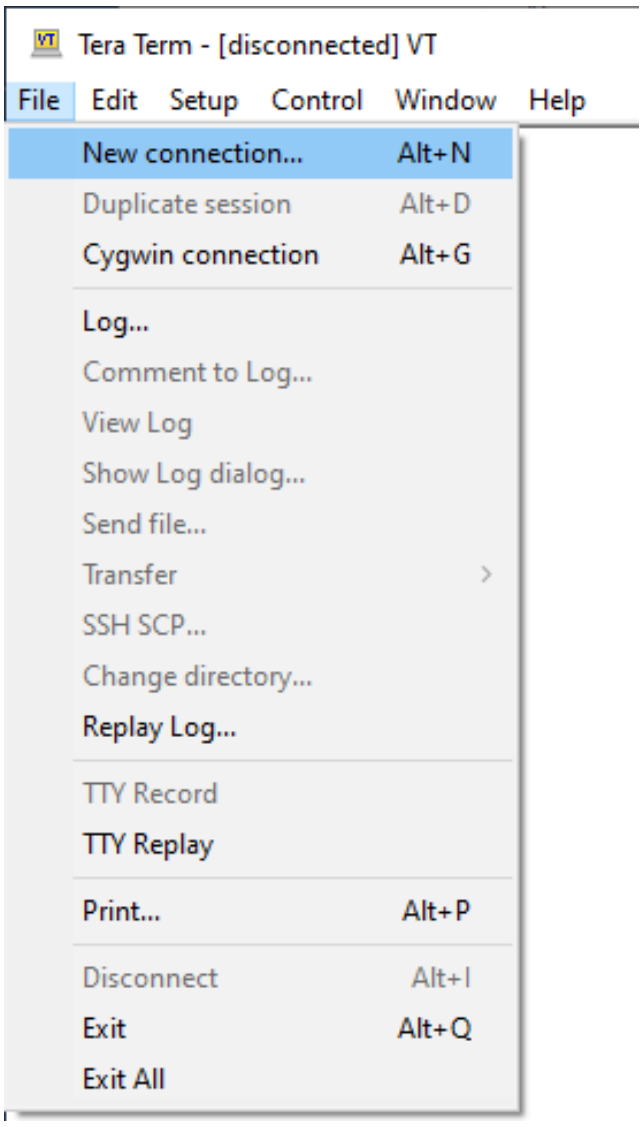

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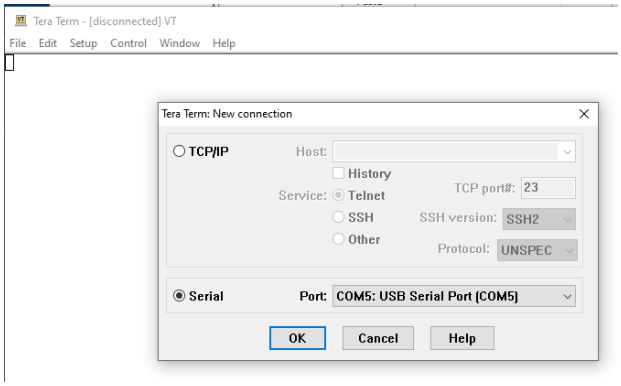
Execute the New Connection command and you will then get the following:



If the screen shows TCP/IP check box enabled, turn off the program and try again. If that still does not work, try moving the program cable to a different USB port and try again.

If you have multiple Port connections available, select the one corresponding to your programming cable.

When everything is right, press the OK key and you are now finished with that screen.

If nothing seems to work you could have a bad cable, Windows did not find a driver, or you did not load in your own driver.

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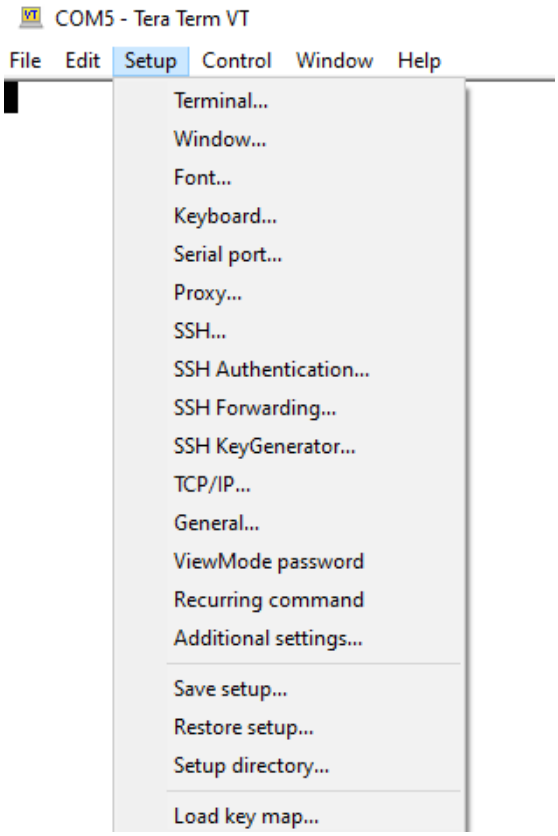
Press the Setup pull down menu and you will get the following:



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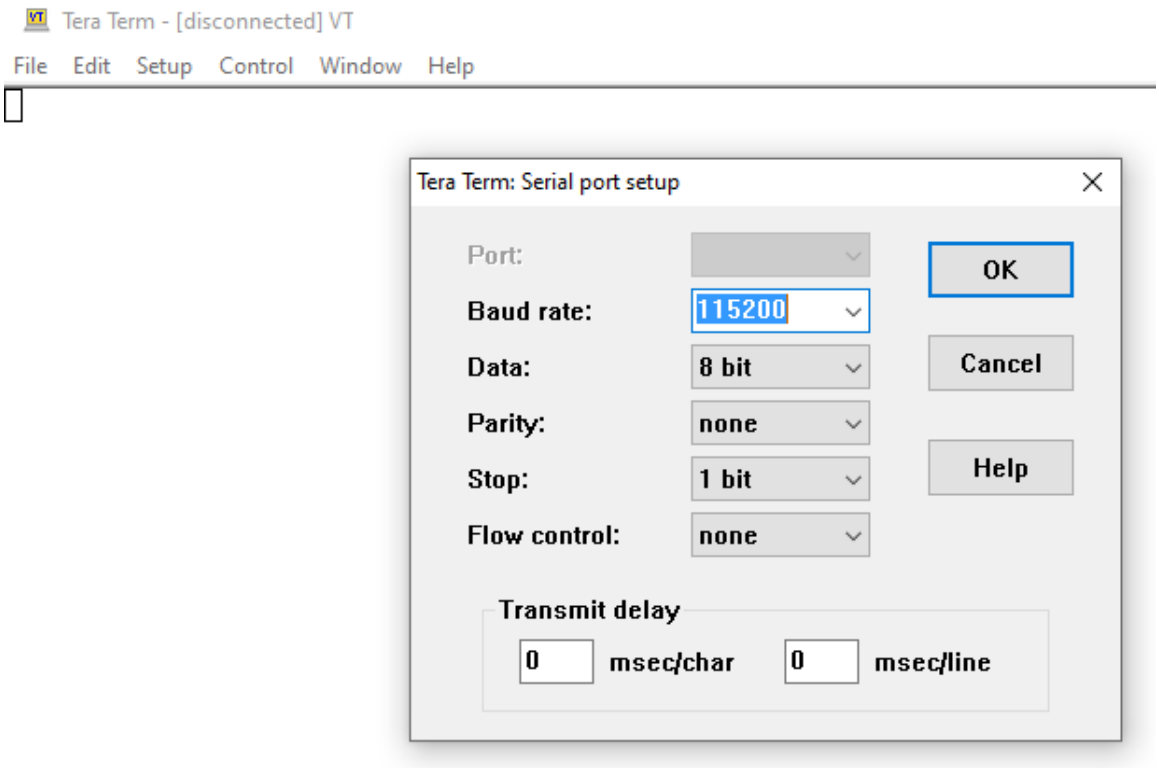
Execute the Serial Port … Command and you will get the following:



Make sure all the parameters are set the same as above and then press OK and you are finished with the screen.

You should now have a blank screen as shown below:

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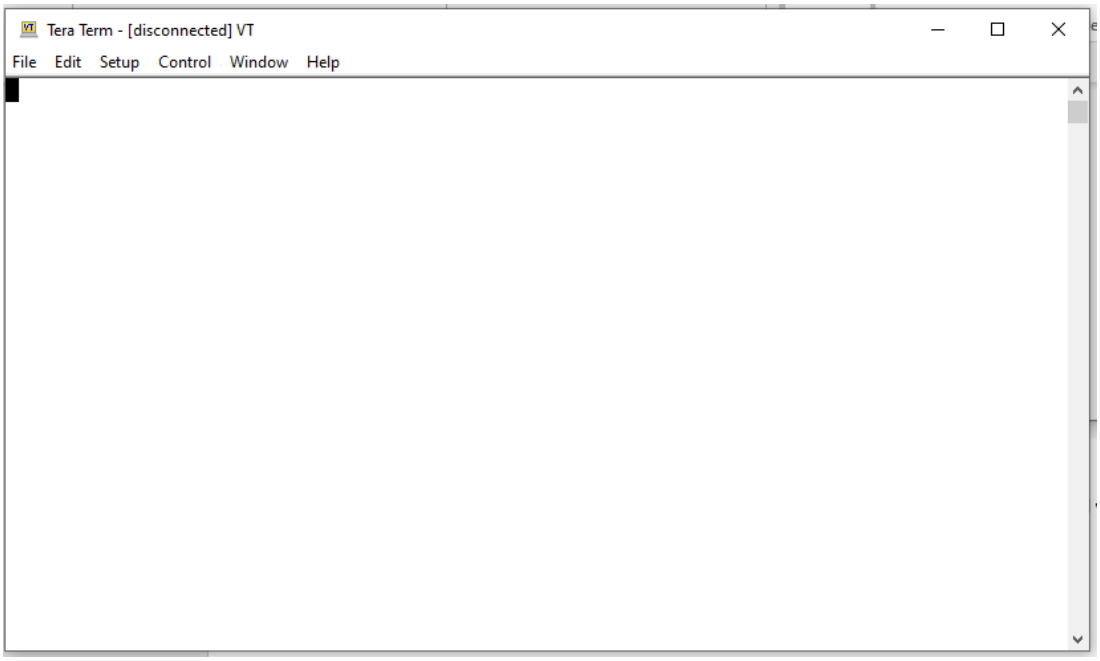
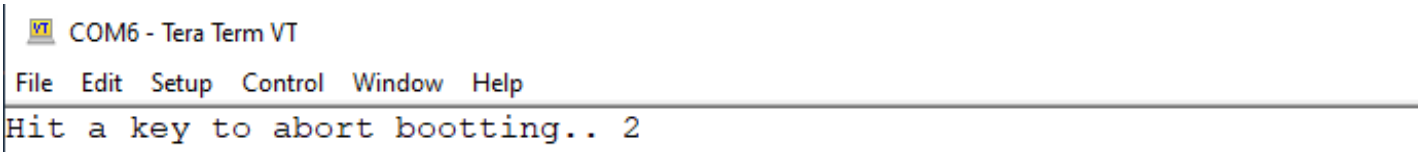


Please read this section before you do anything as the timing is very critical.

1. Turn on the power to the radio by pressing the power key on the radio. When you do this, you will get the following:



As soon as you see this screen you press the space bar on your computer. With the main unit you have a very few seconds to press the space bar and with the display you have a fraction of a second. Keep one finger on the space bar and use the other hand to press the power button of the radio.

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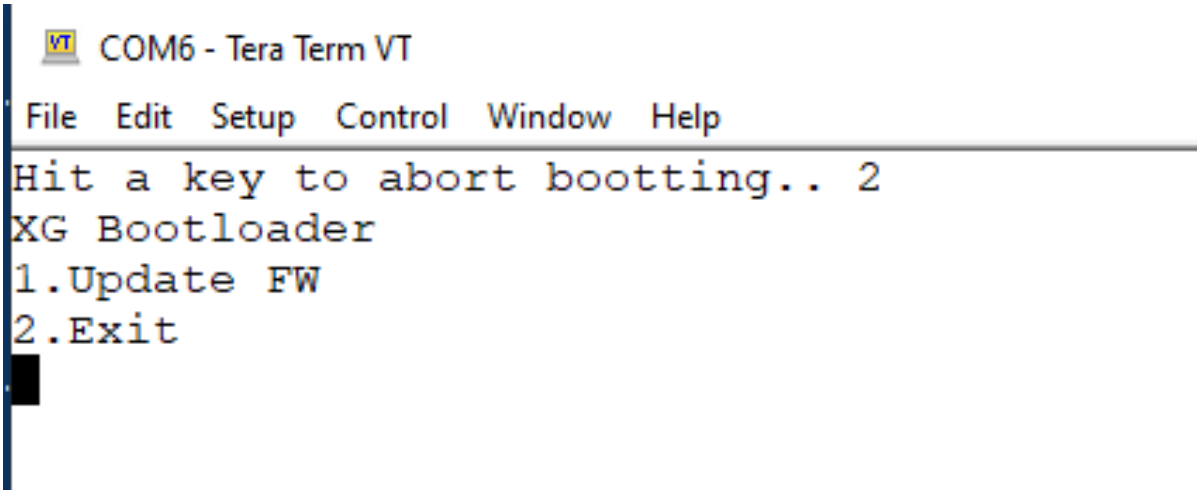
If successful, you get the following screen.



Press the one key on the computer. Do not use the mouse to select that command. You will now get a display as follows:

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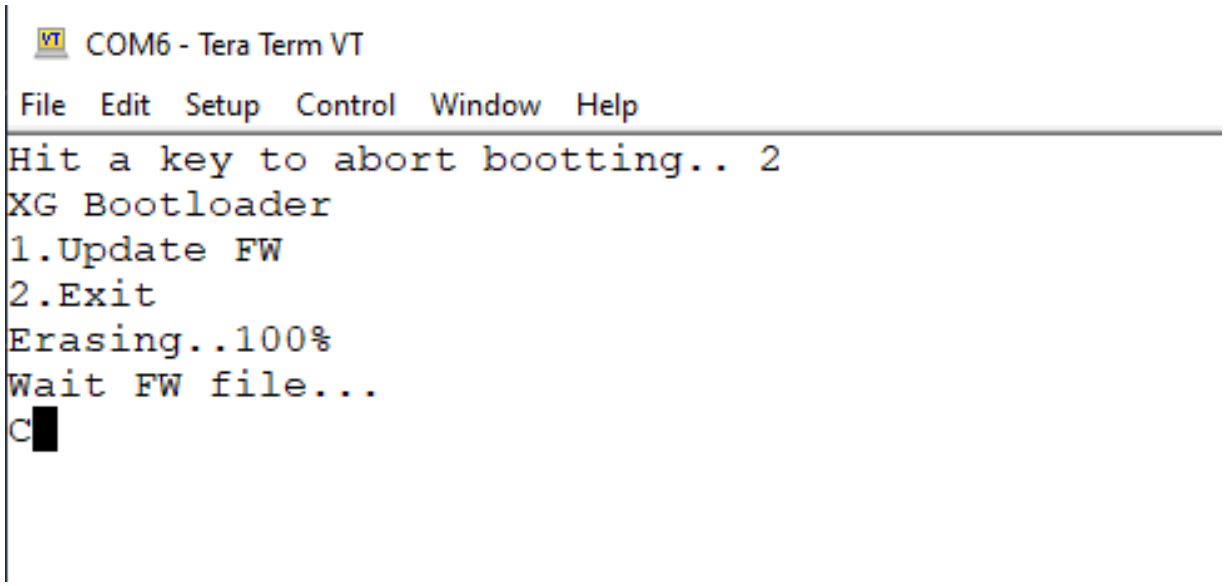
When the display reaches 100%, you get the following screen:



Notice it says at the bottom, Wait FW file …

From the File pull down menu, select and execute the Send command as follows:

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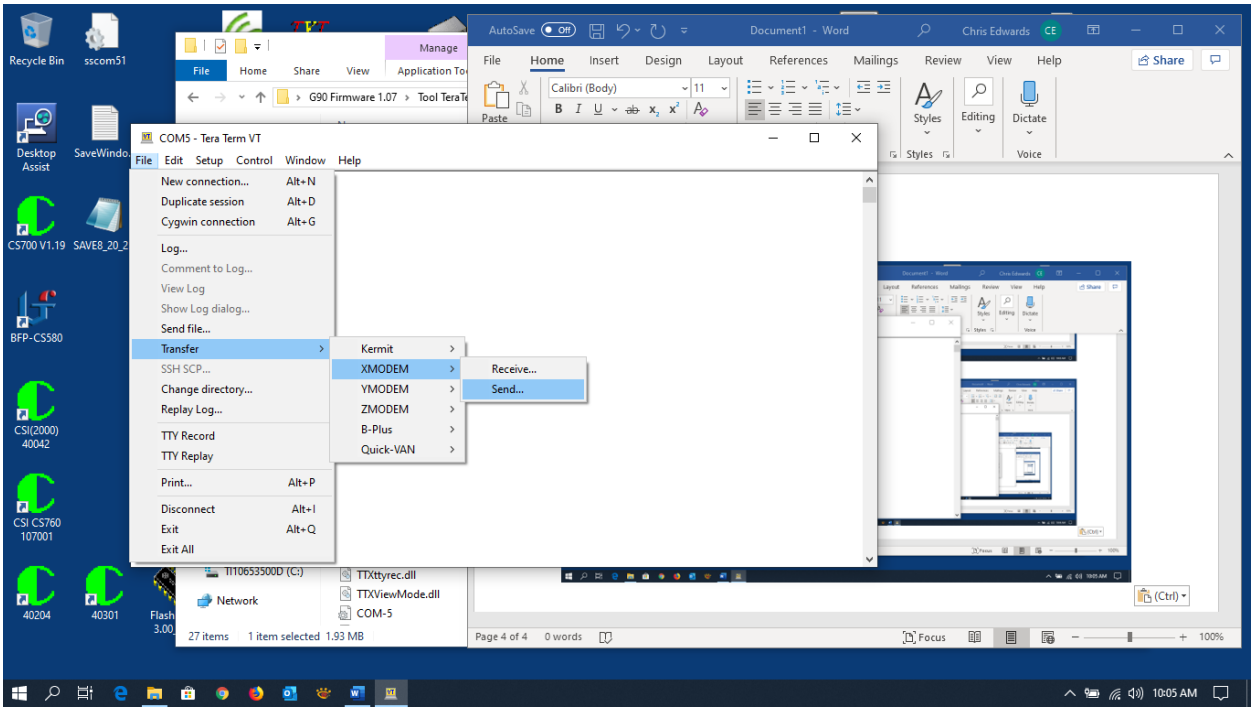

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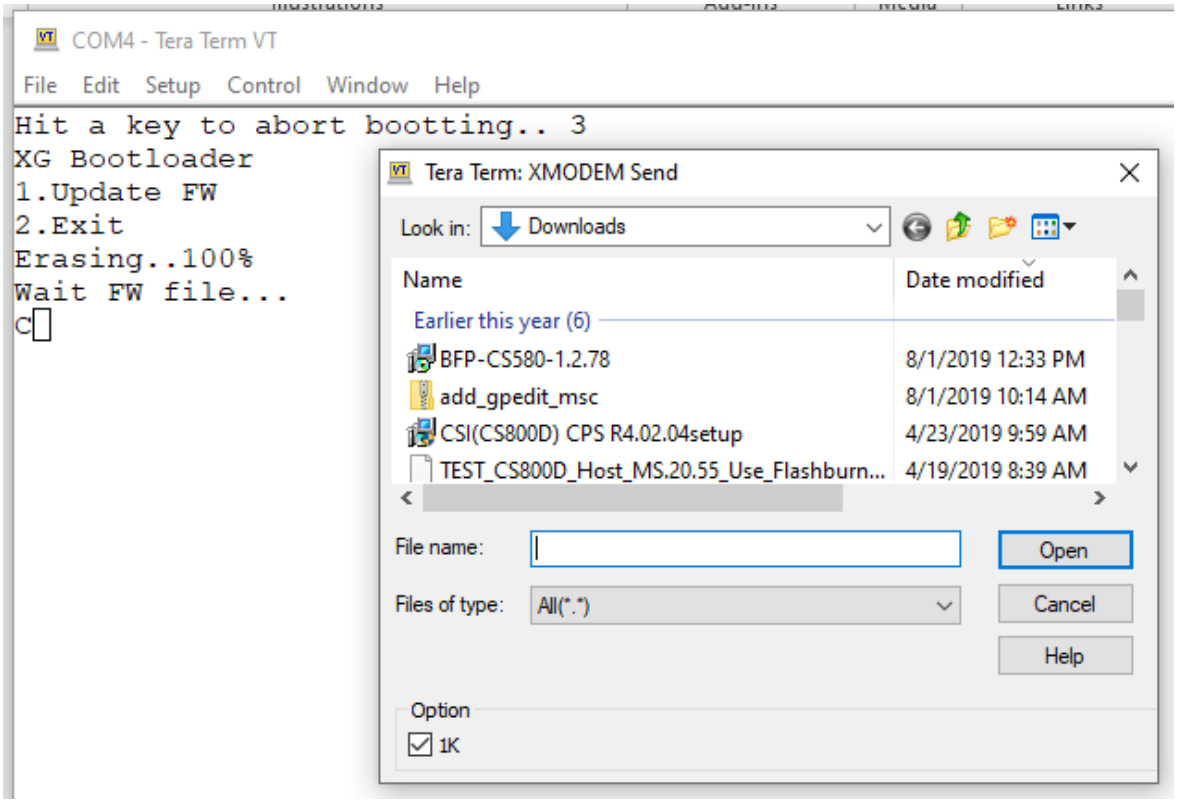
This will get to the following screen:



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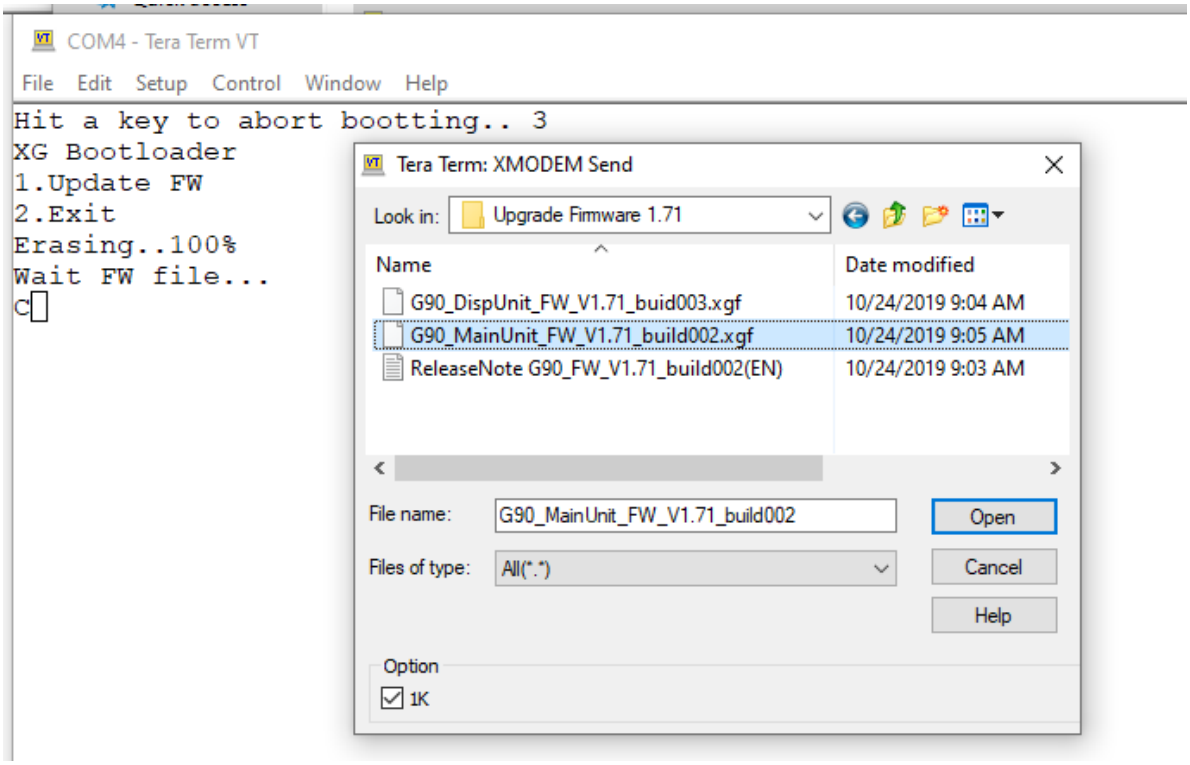
Browse the computer until you find the appropriate firmware files and highlight the appropriate file for either the main unit or the display. Use a single click to highlight the file. Double clicking will start the downloading. The display below shows the main unit selected.



Make sure the Option 1K box located in the bottom left corner is checked.

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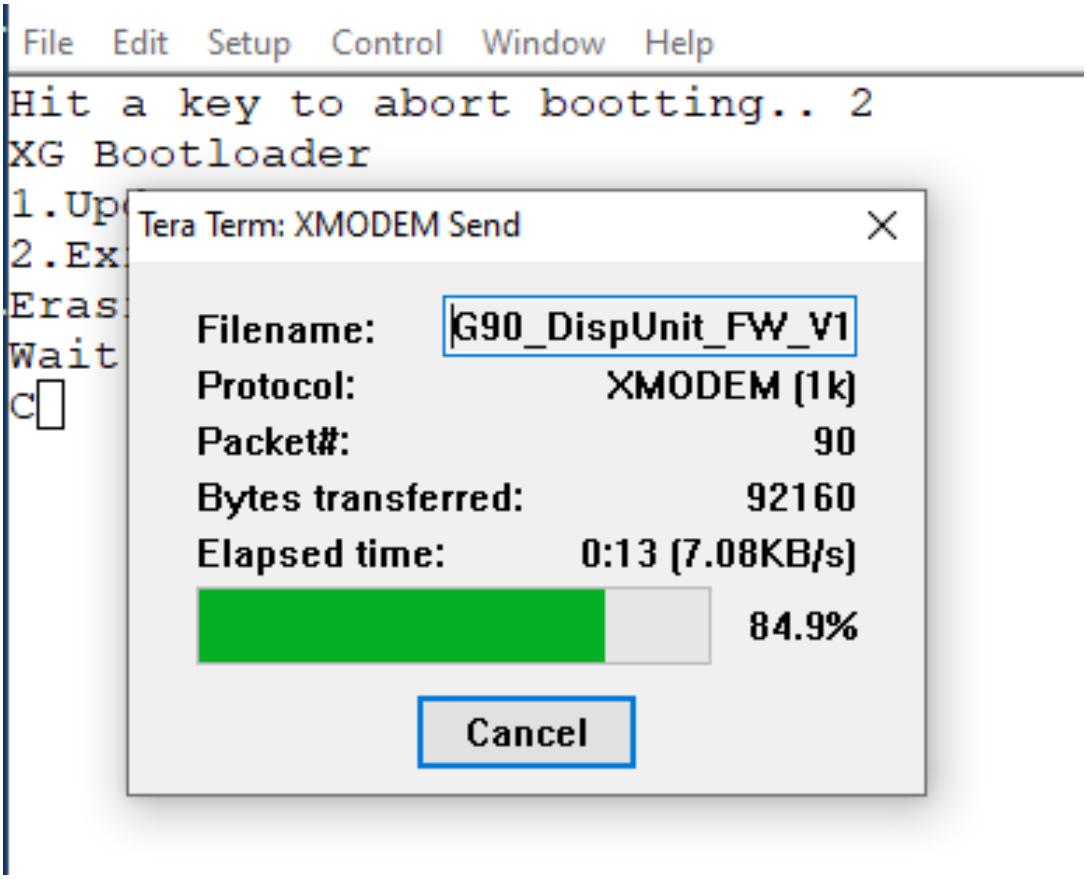
Now select the Open button and you should get the following screen.



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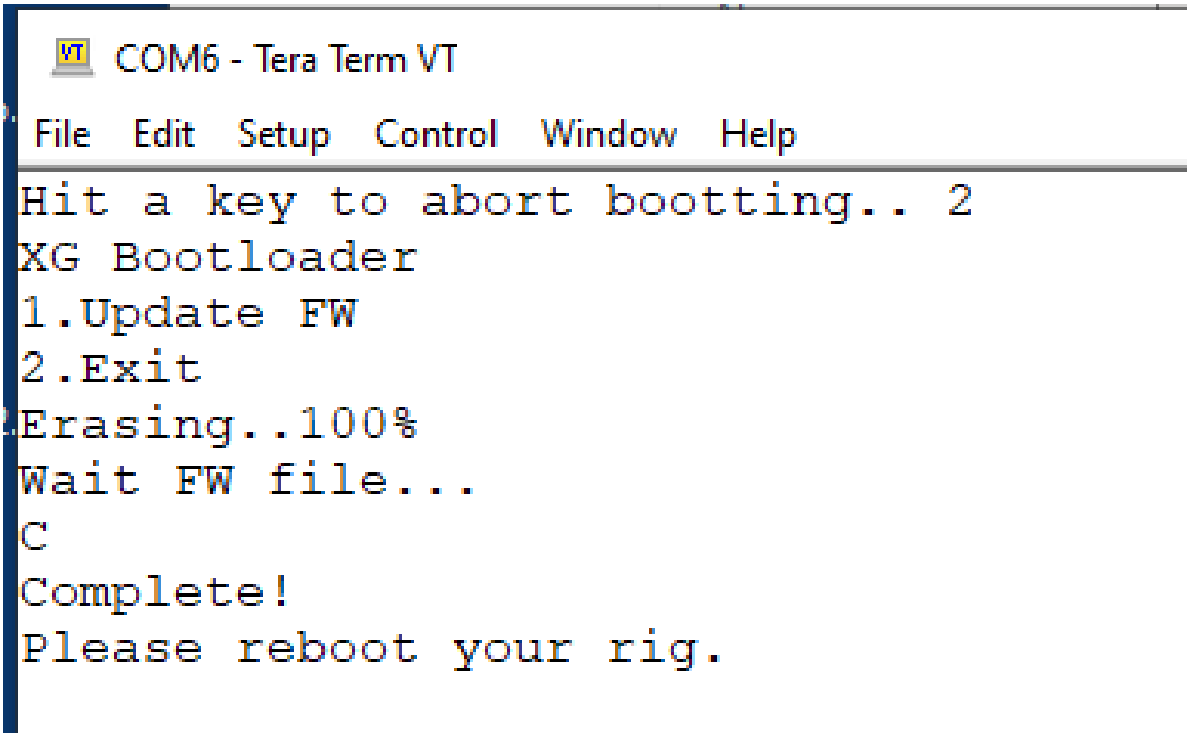
When its finished you will get the following screen:

you did



Now remove the power cable from the radio and you are ready to program the display. Follow the above instructions exactly as you did the Main unit.

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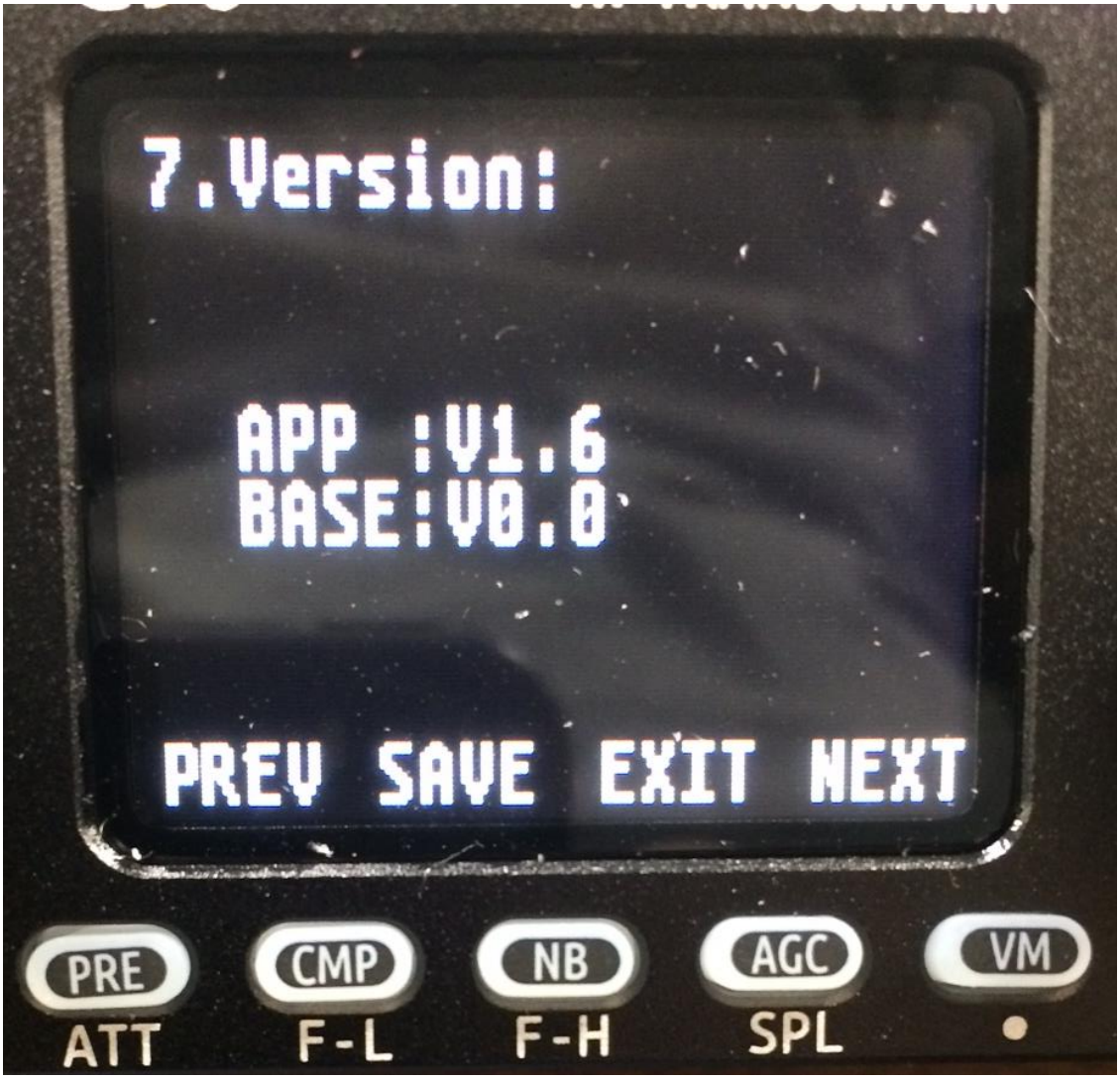
Now for the most important last step. Determine if the firmware version is correct.

1. Turn on the Radio.
2. Press the FUNC key for about three seconds until you get the following screen:

3. Press PRE key once and you should get the following screen:



This screen above is an example of where the firmware was not loaded correctly in both the main unit and the display. In this case the base was loaded with version 1.7 and the display had version 1.6.

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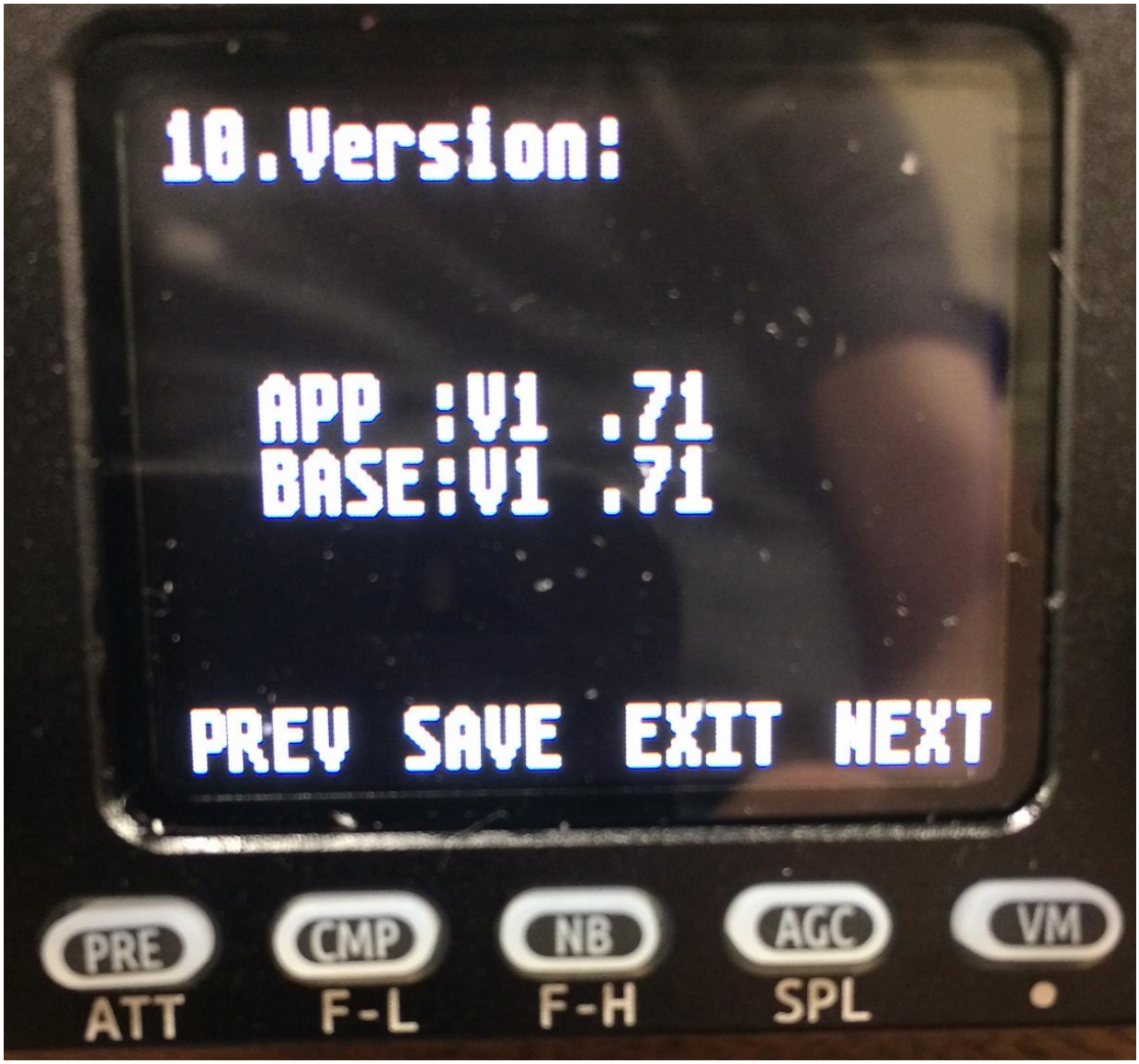
The screen below shows where the firmware has been updated correctly. Note that the version that has been loaded is version 1.71.



If the radio was not programmed correctly, start this procedure again. If you are having problems, try removing the USB cable from the computer, and removing power from the radio and try again.

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