

Installing MiniTiouner_v0.4c on Windows10

This set of instructions is intended to outline everything needed to install MiniTiouner on Win10 in one place. There are four installation and testing areas for installing MiniTiouner_v0.4c with the hardware tuner on a Windows10 computer.

- Install the FT2232H USB driver for the MiniTiouner board
- Inspect the FT2232H USB-controller module for correct internal memory programming
- Install LAVfilters CODECs and test the board and test the DirectShow filters
- Run the MiniTiouner_v0.4c executable & perhaps adjust the decoder filters being used.

1.0 Install the USB driver for the MiniTiouner board

1.1) download a FT2232H device driver from the FTDichip website

(the FTDI CDM driver : http://www.ftdichip.com/Drivers/CDM/CDM21218_Setup.zip)

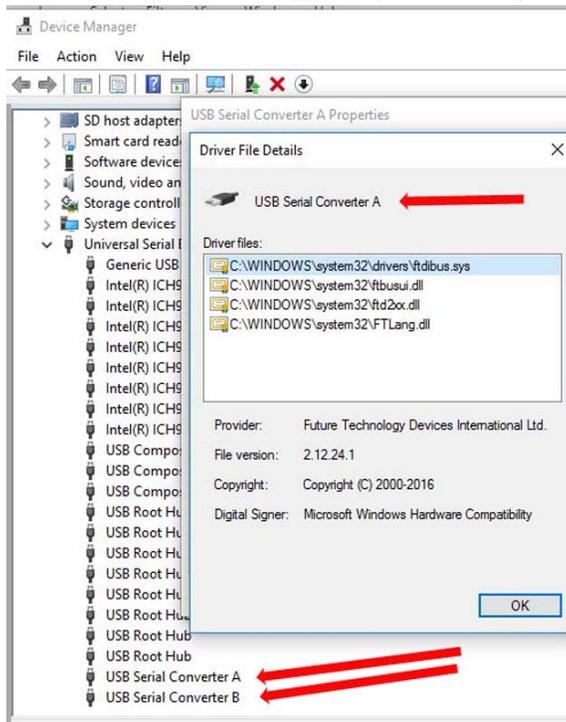
1.2) also download a tool called FT_PROG (also from the FTDI site) that will be used to check the configuration of the FT2232H module to confirm it contains the BATC programming

1.3) plug-in MiniTiouner board and install FT2232H driver by allowing an internet connection to find the driver (it is all done silently on Windows 10...wait perhaps 5 minutes for installation to become completed)

1.4) if the Win10 auto-install works correctly, then the CONTROL PANEL Device Manager will display two new entries for USB Device Controllers (see screen-capture below):

- USB serial controller A
- USB serial controller B

...ELSE...follow the driver-installation manual steps for FT-2232H in FTDichip drivers Application Note AN_396 (for Win10)



Windows10 Device Manager showing correct installation of FT-2232H device driver in the USB-controllers area

2.0 Inspect the FT2232H USB-controller module for correct programming

- 2.1) download the FT_PROG app note AN_124 User Guide for FTDI FT_PROG Utility
- 2.2) install and use FT_PROG tool to now confirm that the USB-module contains the BATC programming for the NIMtuner (and is in Direct D2XX mode)
- 2.3) select "Scan and Parse" from the "EEPROM -> Devices" menu of FT_PROG
- 2.4) select HARDWARE SPECIFIC...first PORT A HARDWARE should be already set as RS232 and DRIVER can be set to VCP or D2XX
- 2.5) Next PORT B HARDWARE should already be set as 245 FIFO and DRIVER should be set to D2XX DIRECT
- 2.6) If FT_PROG shows everything is correct in steps 2.4 and 2.5...go directly to step 3.0 ELSE...if necessary, there is excellent procedure to fully re-program the FT2232H module internal memory contents on the vivaDATV website at <http://www.vivadatv.org/viewforum.php?f=80> (English)

3.0 Install LAVfilters CODECs and test the board and test the DirectShow filters

[Note: Pierre HB9IAM-F8BXA cautions that when performing the two working tests of the MiniTiouner (TestMyMiniTiouner and CheckMiniTiouneDriverAndFilters), to be attentive to temporarily disable the antivirus, especially AVAST, to prevent it from erasing these two test files !]

- 3.1) Be sure that you have the good codec: install LAVfilters
..... <http://www.videohelp.com/software/LAV-Filters> (currently version 0.68.1)
- 3.2) Be sure you have registered the "usrc.ax" file in the windows registry by running the file "install_usrc_ax_winXP.exe" tool as an administrator (NOTE this tool will work OK on any version of Windows from WinXP to Win10)
- 3.3) move the downloaded Minitiounev04c_pack folder to a convenient document location. DO NOT install the Minitiounev04c_pack folder in the Windows Program Files area because MiniTioune_V0_4c does not have admin rights to run there.
- 3.4) You can test your MiniTiouner board using the software "TestMyMini Tiouner_v1_3b" You must have 0 errors.
- 3.5) test that all is good using the software tool "CheckMiniTiouneDriverAndFilters V0_2b" All LEDs should be green.

4.0 Running the MiniTiouner_v0.4c executable

[Note: Jean-Pierre F6DZP cautions that you do NOT want to use a generic Windows video driver for the Graphics controller card on your PC, ...ELSE...you will not have successful access to a "Video Mixing renderer". Some graphic cards have a bad driver that doesn't allow the use of a "Video Mixing renderer" after the decoder filter, but only a simple "renderer". So you will absolutely need a good/recent specific graphics driver from the manufacturer (not Microsoft) for the graphic card in your PC.]

- 4.1) Make any necessary adjustments to the minitiounr.ini file for desired frequency and SymbolRate, etc. to start your first test.
...(NOTE: the software now automatically detects any kind of "acceptable" NIM tuner)

4.2) Make sure there is a transmitted DVB-S signal out there for the tuner to receive. Then power up the MiniTiouner board...and start the "Minitiounev0.4c" executable file. Make any adjustments to frequency and the expected SymbolRate etc until you see the modulation constellation displayed by the MiniTioune software screen.

4.3) It is possible that you can have poor video being displayed on the screen of the MiniTioune Analyzer on your particular PC? If you have poor video (my video was initially very "jerky" ...maybe 1 FPS because Windows had not chosen the LAV video decoder filter...but instead chose "Microsoft DTV/DVD video decoder"), then you may have to install GraphStudioNext to manually choose the LAV video decoder.

4.4) Install the free GraphStudioNext executable in the same folder as the MiniTioune executable to inspect and select and adjust DirectShow filters and the graph to work best with MiniTioune executable on your PC.