

FM2000 Factory Software Upgrade – Version 1.6.x

February 18, 2009

Software release v1.6.x offers several more enhancements to the FM2000:

- A further improved main clipper.
- Refinements in the 31 band distortion cancellers.
- Incorporation of the ITU-BS.412 Multiplex Power Controller.
- Options to modify the dynamic behavior of the SST algorithm.
- Newly retuned factory presets that tap into the above improvements.
- The option to use either UDP or TCP protocols for remote metering.
- Various minor bug fixes in the Graphical User Interface (GUI) software.

Allow approximately one-half hour to accomplish this upgrade. Note that a reboot of the unit will be necessary in order to bring the new code online so this upgrade procedure is best done with the FM2000 not on the air noting that the upgrade can be done at any time and the unit rebooted later if desired. Tuning changes to presets are discouraged while the FM2000 is in an *'upgraded but not yet rebooted and running the new code'* state.

Please carefully follow the following instructions to implement the upgrade, and try to resist the temptation to skip or re-order the steps. ☺

1. Download the FM2K_v16x.zip file from the Vorsis FTP site and save it into a folder on the local PC.
2. Install the new Version 1.6.1 GUI.
3. Open the GUI application and configure a device so you can connect to your FM2000 with the new GUI.
4. Connect to the FM2000.
5. Use the Hardware Update option (right click within upper area of GUI) to send the new v1.6.2 VBN file to the FM2000. Do not reboot yet when it asks you to!
6. Next, use the Front Panel Update option (right click within upper area of GUI) to send the v 1.6.1 (this is not a misprint) LBN file to the front panel (remember, the front panel IP address is different than the one used for the hardware!).
7. Then you can reboot the box.
8. End the local GUI application.
9. Copy the Factorylock.exe program to same folder that contains the FM2000_gui.exe program (typically c:\program files\vorsis\fm2000).
10. Open that folder and double click the Factorylock.exe utility.
11. Enter a "U" when prompted for a "U" or "L".
12. Hit enter to close the Factorylock utility.

13. Start the Version 1.6.1 GUI and connect to the FM2000.
14. Click the Library button to open the preset library on the FM2000 hardware.
15. Highlight all the presets on the left side (hardware). Then right click and select Unlock (you should also see a Factory Lock option now). **
16. The padlock symbol should disappear from every preset in the list.
17. Then highlight all the presets on the hardware (left) side again and this time right click and select the Delete option. All presets on the FM2000 hardware will be removed. (NOTE: you don't have to delete any of YOUR own presets!)
18. Right click the Favorites folder on the right side of the Library dialog and select "Install preset package".
19. Navigate to and select the FM2K_Factory_162.pkg file.
20. A new folder with this name should show up under Favorites.
21. Inside this folder are the new Factory presets.
22. Highlight all the presets in the list and while they are highlighted grab the Bypass preset and slide it over to position #9 on the left side. All of the presets should copy over to their correct locations - there may be a pause or two as this process takes place.
23. Next, highlight all the new presets on the left (hardware) side.
24. Right click and select Factory Lock. A padlock symbol should appear to the left of each preset.
25. Completely exit the GUI application.
26. Locate and run the Factorylock.exe utility again, this time using "L" option when prompted.
27. You're finished upgrading!
28. Next you can restart the v1.6.1 GUI and then select a preset. Any custom presets that you may have created with previous software may be loaded into the new code with the following caveats:
 - The pre-emphasis option should be rechecked to ensure that it is on if it should be.
 - You should choose SST A or SST B in the AGC menu according to your preference.
 - You may find that the 31 band algorithm and final clipper can be driven harder while generating fewer artifacts.

Notes:

- If Factory Lock is not an option in the Library dialog then the FactoryLock.exe file is **not** located in the correct FM2000 folder. Also, if the GUI is still running the Factorylock utility will have no effect!
- When a custom preset is recalled with the new software it may display in red in the GUI window which usually indicates that changes have been made to the preset. However in this case it means that the preset's 'old' checksum doesn't

match the one generated by the new GUI and the cure is to simply resave the preset using the new v1.6.1 GUI software.

- If a user-built preset is recalled the SST A/B option will revert to SST A. This is normal. If you prefer to have your preset use SST B, simply recall your preset, select SST B, and then resave your preset. *

- If connecting to a remotely located FM2000 over the public internet and you see no metering but are connected, please select the "Metering Data over TCP/IP" option in the System menu of the GUI. **

* Please see our updated application note AN2008-01A available on the Vorsis website about the improvements in SST technology.

** Please see our updated application note AN2007-01B available on the Vorsis website for important details about changes in network connectivity options.

Please contact our Vorsis factory if you have questions or experience difficulties during the upgrade. We can be reached at 252-638-7000, or 24/7 via email at support@vorsis.com.

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