VERSION 3.02   MARCH 10, 2021

NOTE: This release contains exciting new features and fixes, but does NOT include CYGNUS amp modeling, which will be delivered in a future FM3 update.

Features and Fixes

- Added Per-Preset and Global Performance Pages. These provide a new means of intuitive hands-on control of FM3 sound parameters with no menu delving required.
  (A PDF overview is included with the zip file containing this firmware release.)
- Added "Downtune" and "Display Mode" parameters to the Tuner, and added the option "All" to Tuner Input Source so it can track both input 1 and/or input 2.
- Added Setup: Global: Config "Output 1 EQ Type" and "Output 2 EQ Type" options for graphic or parametric, including the option to turn each EQ off.
- Added "Footswitch Tuner Mode" (Setup: FC Controllers: Config) which uses the onboard LED rings on the FM3 to help you tune visually.
- Added "Detector Type" (RMS or Peak) to the downward expander effect (Gate Block).
- Added Diffusion Amount and Time parameters to Crystal Echoes effect (Pitch block).
- Added Multitap Master Chorus rate and depth parameters.
- Added LFO High Cut parameter and markers to ADSR graphs.
- External Controller "Initial Values" can now be set to any value from 0 to 100%.
- Improved the rate of communication with a connected FC controller (especially FC-12).
- Improved how the FM3 remains connected to FM3-Edit after certain USB "sleep" activity.
- The UI is now more responsive when a high CPU preset is loaded.
- FC: Preset/Select in Bank switches will now flash after a bank change until you make a selection. This will not happen if your Bank switch is set to automatically load the FIRST or CURRENT preset in the new bank.
- FC: You can now install the "OMG9" FC settings directly from the **SETUP: FC Controllers: Reset** page of the FM3, with no download required. The OMG9 Owner's Manual can be found at: http://www.fractalaudio.com/downloads/manuals/FM3/FM3-OMG9-Manual.pdf
- FC Added: "2nd Press = Previous Scene" option to the Scene/Select function. When set to "ON" this allows you to press the footswitch for the current scene to return to the previous one.
- Fixed: Overlapping text when "Prompt on Edited Preset Change" is enabled.

- Fixed: Global Input and Output volumes now initialize correctly when an expression pedal is used. (These parameters are located on the "Setup: MIDI/Remote: Other" page.)
- Fixed: UI now updates when you disable Tuner "Use Offsets" in FM3-Edit while tuning.
- Fixed: "COPY SCENE" and "SWAP SCENE" now correctly copy or swap scene data in the Scene MIDI block and Control Switch "Per Scene" settings.
- Fixed zippering that occurred in some circumstances when using an external MIDI modifier.
- Fixed: Setting "Output 2 Copy" to anything other than "NONE" no longer overwrites the regular OUT2 signal.
- Fixed: Auto-engage now works consistently with modifiers on the amp and delay blocks.
- FC Fixed: the main LCD on a remote FC should now update correctly in all circumstances.
- Fixed: Activating the tuner with "hold" on a TEMPO switch will no longer affect the tempo.
- Fixed: the MIDI block UI now consistently displays the current scene.
- Fixed: Multiband Compressor now works as expected.
- Fixed: Global parameters under Midi/Remote now reset correctly to default values.
- Fixed: User Cab should no longer be able to accidentally overwrite Factory Cab 1.
- Fixed: Metronome OUT2 level should be correct in all cases.

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RELEASE NOTES HISTORY

VERSION 3.01, DEC 21, 2020
- Fixed amp block's Cathode Follower Compression value not loading correctly for patches saved under firmware prior to version 2.0.
- Added "59 Bassguy Jump" Amp type.
- Fixed Scales menu in Global Settings not synchronizing with FM3-Edit.
- Fixed audio artifact when changing channels and viewing the Tone page on the amp block in some circumstances.

VERSION 3.00, DEC 18, 2020
- Amp modeling updated to match Axe-Fx III firmware 15.01.
- Improved Power Amp Modeling. The new algorithm yields accurate dynamic frequency response which results in clearer bass and extended highs. More "chug", "thump" and "chime". NOTE: Existing presets should be auditioned. While the overall tone isn't significantly changed, the transient frequency response is enhanced which may alter the tonal perception.
- Improved output transformer modeling in Amp block. For typical values of Transformer Drive the difference is subtle but mathematically more accurate adding a pleasing low-end growl and improving "tightness" _in high-gain sounds. For high values of Transformer Drive the difference is more pronounced. If you have increased Transformer Drive on your presets above the default value then you should audition your presets.
- Fixed Depth control not working on some amp models.
- Fixed erratic flashing of Tempo LED.
- Fixed random flashing of front panel LEDs.
- Added "Tuner on Heel Down" to MIDI/Remote/Other. When the value of the specified controller goes below 5%, the tuner will be displayed automatically. Typically, you would set this to the same CC# or pedal used for volume control so the tuner will come on automatically when the volume pedal is pulled back.
- Fixed issue with modifiers on the Amp block causing audio artifacts and drop outs.
- Fixed imported Tone Matches not working correctly.
- Fixed crashing with some imported Axe-Fx III presets.
- Fixed issue causing audio drop out when changing the input gate type.
- FC: Fixed an issue causing "*CFG ERR*" to be displayed in some footswitch configurations.

VERSION 2.00, DEC 08, 2020
- Fixed USB audio issues that were affecting some customers.
- Updated Amp block, now in sync with Axe-Fx III v14 (282 models including new "Archean").
- Updated Chorus and Compressor blocks, now in sync with Axe-Fx III v14.
- "Swap Scenes" is now available on the Tools page of the Layout menu.
- Reduced the overall latency of all analog I/O.
- FC Pedals can now be selected for global Input/Output Volumes (in Setup:MIDI/Remote:Other).
- Output "Volume Increment" functions now work as specified.
- FC: The first FC will now display the tuner when the FM3 is in the Tuner menu.
- Display brightness is now applied correctly on power up.
- Fixed incorrect default scene on Patch recall from FM3-Edit.
- Fixed an occasional crash caused by an "illegal" modifier.
- Fixed crashes related to importing Axe-Fx III presets via FM3-Edit.
- Fixed Bypass button issue in hardware GUI and FM3-Edit.
- Fixed bugs reported during public beta.

VERSION 1.06, SEP 09, 2020

- Fixed Pitch block Mix overriding custom settings.
- Fixed Pitch block Custom Scale number not displaying correctly.
- Fixes and improvements related to USB audio artifacts and buffering.
- Third party MIDI "STATUS DUMP" command will now return the correct data.
- Fixed some Presets freezing on startup.
- Corrected default Negative Feedback for Deluxe Verb models.
- Fixed PC Mapping not always loading designated scene.
- MIDI Looper CC commands will now function properly after a power cycle.
- Fix Contour parameter not working in Drive block for Shred Distortion type.
- Align Plex block with Axe-Fx III.
- Input 1 Source setting will no longer affect Input 2.
- Improved modifier performance for external controllers (Wah "zippering").
- Improved performance of modifiers attached to Amp and Delay blocks.
- FC: FC-6 and FM3 will now wrap Views correctly within Layout 9 (the "Master Layout Menu").
- Scene Revert will now take effect for scene changes via MIDI CC messages.
- Removed "Diffusion" parameters from the Delay blocks due to CPU constraints.

VERSION 1.05, JUL 01, 2020

- Minor Amp block optimizations.
- Improved how Amp block and Delay block values are synchronized with FM3-Edit.
- Fixed Pitch block mix overriding custom settings.
- Eliminated scenes/presets "blip" while FM3-Edit is open (requires FM3-Edit 1.01.05 rc2).
- Improved fan control relies on actual CPU temperature vs. ambient temperature.
- Preset 000 will no longer occasionally be blank on startup.
- Default Scene will now be loaded correctly on preset change.
- MIDI clock synchronization with DAWs should now result in a consistent tempo.
- Fixed stability issues when 5-pin MIDI communications are active.
- MIDI/Remote channel changes should now operate as expected using CC messages.
- FC: Prevent stand-in switch from switching the view when Hold Function Mode is SWITCH UP.
- Additional improvements related to stability and performance.

VERSION 1.04, JUN 05, 2020

FM3 Firmware 1.04 requires FM3-Edit version 1.01.04 or newer.

- CPU Performance improvements across all presets.
- Added new amp types: Matchbox D-30 EF86, FAS Express, Triple Crest 2, Triple Crest 3, PVH 6160+ Crunch Bright, PVH 6160+ Clean Bright.
- Block Updates (Find details in the Fractal Audio Systems Block Guide):
- Gate: Improved Downward Expander; Tremolo: Added Optical type; PEQ: Added Slope controls; Plex Delay: Added Stack/Hold, Reverb: Added Dispersion.
- Improved power tube modeling yields smoother overdrive especially for semi-clean and edge-of-distortion tones.
- Improved FM3-Edit preset switching time when certain blocks are present.
- Improved USB audio performance and stability, reduced recording latency.
- Clarified polarity options under I/O: Pedal: Switch Settings.
- Improved how the position of pedals is detected after startup.
- Fixed "banner messages" on the Tools page of the layout menu.
- Parameter values now update when changed via a modifier.
- FM3-Edit now honors the global setting for "Default Scene".
- Fixed "Astable" LFO type.

- Fixed audio drop in Shred Distortion type.
- Fixed MIDI clock sync issues.
- Scratchpads now properly initialize on boot.
- Added "OUTPUT 2" as an option for "USB 3,4 Record Source".
- LEDs and Display will no longer flicker when FM3 is powered off with USB connected.
- Fixed Copy/Paste Block and Channel errors for the Amp and Delay blocks.
- Added ECONOMY mode to the Reverb (from Axe-Fx III v12.08). Pre-existing presets will default to this new setting, which produces excellent results at considerably reduced CPU.
- FC: LED rings for Looper functions will now be OFF if the Looper is not in the preset.
- FC: "LOOPER BLOCK NOT FOUND IN THIS PRESET" message now shown when appropriate.
- FC: The "Advanced" switch page is no longer blank after the FC banner has been displayed.
- FC: The Tuner now exits in all cases after using "Reveal Hold".
- FC: Loading Factory Default Layouts now correctly initializes Layout Link Views.
- FC: Fixed stand in switches sometimes not responding to the first press.
- FC: Fixed the Tuner display when activated from an FM3 footswitch.
- FC: Stand in switches now honor the Hold Function Mode "SWITCH UP" setting.

VERSION 1.03, APR 07, 2020
- Fixed an issue that was causing instability in some cases.

VERSION 1.02, MAR 31, 2020
- Added support for FM3-Edit Scene Manager.
- Fix interaction of Global Scales with the FM3-Edit.
- USB "DI" recording levels corrected.
- Looper "Undo" now works as it does on the Axe-Fx III.
- Preset storing is now faster.
- Knob D on the HOME screen now changes the "FC View" within the current layout of the FM3.
- When Tuner is assigned as a hold function, you can now exit the Tuner with a single tap.
- The following blocks have been updated with changes from their counterparts on the Axe-Fx-III: Chorus, Compressor, Drive, Enhancer, Filter, Flanger, Formant, Gate, Graphic EQ, Input, Send, Return, Looper, Megatap, Phaser. The features and CPU usage of these blocks may have changed, and any presets that contain them should be checked.
- Output2 Global EQ feature added to SETUP: Global Settings.
- When using the "Output 2 Copy" feature (in SETUP: I/O) the options "INPUT 1" and "OUTPUT 1" now produce increased level at Out 2 to better match the level at Out 1 without.
- FC: Stand-in switches now help prevent false triggering if no switch is plugged in.
- FC: Display now shows looper "Record 2nd Press" function (OVERDUB, PLAY, or STOP).
- FC: Tap tempo now works across all Views.
- FC: "View" functions are now available when creating per-preset switches.
- FC: Tap tempo now works when using a stand-in switch.
- FC: "View Inc" and "View Dec" mini-LCD now works when when "Destination #" is selected.
- FC: The MLM and certain View functions now work as intended on a connected FC-6.
- FC: The main LCD will now display the correct first preset in the bank if the Global Setting for "Display Offset" is set to '1.'

VERSION 1.01, FEB 13, 2020

- Small changes to some amp types.

VERSION 1.0, FEB 11, 2020
- This is the first public release. See the FM3 Owner's Manual for details.