Axe-Fx II Firmware Release Notes

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7.00

NOTE: THIS FIRMWARE MAY CHANGE THE SOUND OF EXISTING PRESETS. YOU SHOULD AUDITION ALL YOUR PRESETS AFTER INSTALLATION AND CHECK FOR PROPER OPERATION AND TONE. AN AMP MODEL CAN BE RESET BY TEMPORARILY CHANGING THE AMP TYPE AND THEN CHANGING BACK TO THE DESIRED TYPE. THIS WILL LOAD THE MODEL WITH DEFAULT PARAMETERS.

The dynamics processing of the amp block was totally rewritten for this release. A complex set of formulas was developed that completely describe the various voltages in a tube amp. Unlike other modelers that simply model an amps dynamics as a first-order compressor, the Axe-Fx II now accurately models the complex interaction of the power tubes with the surrounding circuitry including the power supply and screen voltage network. You may notice a difference in the feel of the various amp models. Please refer to the descriptions below to understand the operation of the various controls. Doing so will enable you to adjust the dynamics to your personal preferences.

Added compression modeling to amp block preamp section. A new parameter, "COMP", controls the amount of compression. Most models default to zero as they do not have measureable compression. Other models have a non-zero default value which matches the amp's preamp compression characteristics. The time constant of the dynamics can be set in the Advanced menu with the PREAMP DYN TIME parameter. Preamp compression can be used to emphasize pick attack which is useful for certain musical styles. Use caution when dialing extreme values as this can cause excessive pumping.

Improved preamp modeling. Harmonics now move more with input level which results in a more open and less congested tone.

The DYNAMICS control in the Amp block now allows negative values. Negative values cause dynamic range expansion while positive values work as before and cause dynamic range reduction. Use caution when dialing in extreme values as this can cause unwanted distortion.

Note that there are two dynamics controls for the power amp section. SUPPLY SAG controls how much the virtual power supply sags. This is a complex interaction between the master volume (MSTR), transformer matching (XFRMR MATCH) and screen network. Depending upon the amp you may even feel the screen voltage bounce if the screen network is underdamped (amps with chokes can often be underdamped). The screen network parameters are automatically set when the model is selected and cannot be altered by the user. DYNAMICS is an idealized dynamic range processor which controls the power amp response independently of the aforementioned parameters although it is still somewhat dependent on master volume. In general, the more heavily driven the power amp section, the more effect the SUPPLY SAG and DYNAMICS controls have.

Removed matching data from some of the amp models because the new algorithms make it unnecessary.

Added “Herbie” amp models based on a Diezel Herbert.

Added “Dizzy” amp models based on a Diezel VH4.

Added Friedman Dirty Shirley amp model.

Added “Division13 CJ” amp model based on Divided by 13 CJ11.

Added “Solo99 Rhythm” amp model based on Soldano X99 Crunch channel.

Added “Sure Weasel” amp model based on a Suhr Badger.

Added “Spawn Fastrod” amp model based on Splawn Quickrod.

Added “Prince Tone 2” based on a Fender AA964 Princeton. This particular amp is an early CBS “Silverface” but still using pre-CBS design and components.

Replaced the “Brit 800 Mod” model with “Brit Super” based on a Marshall AFD100.

Tweaked the gain in many amp models to compensate for new modeling and make more accurate.

Exposed the bias point of the last tube stage in the preamp modeling. This parameter, called PREAMP BIAS, sets the bias point of the last triode (cathode follower not counted). Depending on the bias points of the previous stages increasing or decreasing this value can alter both the harmonic content and the attack characteristics. Typically, if the previous stage has a negative bias then increasing this value will be more noticeable and vice-versa. This value is set to a default value for the model whenever the type is changed but can be overridden by the user.

Added six new cabinet models from the excellent Kalthallen collection. Please visit www.kalthallen.de to download more and please donate to the maker if you enjoy these.

Added Sample Rate Reduction to Drive block. This allows intentional aliasing which can be used for creative effects.

Improved Reverb block. The Reverb block has two new parameters: LF TIME and LF XOVER. LF TIME controls the decay time relative to mid-band. LF XOVER controls the crossover frequency to the low-frequency decay. Many real rooms have a longer low-frequency decay time relative to mid-band. These controls allow more natural reverb simulations. The Types in the Reverb block have been reworked due to the new algorithms. As such, for best results you should reset the Reverb block by deselecting and then reselecting the desired type.

Added “Vintage Tape” type to Chorus block. This type uses the tape delay algorithm used in the Delay block as the basis for the chorus effect. Note that this type sums the left and right block inputs into mono so use caution as stereo cancellation may occur.

Added tone control to Phaser block. This affects only the wet signal.

Added “Esoteric RCB” drive model based on Xotic RC Boost.

Added “Zen Master” drive model based on Hermida Zendrive.

Added RATIO parameter to Ping-Pong mode in Delay block. This allows altering the ratio between the left and right times to something other than the usual 50%.

Added REF SOLO parameter to Tone Matching block. When set to "ON" the reference source is sent directly to the block output. This allows easily switching between the reference source and the matched signal for comparison. It is recommended to connect an external controller (i.e. footswitch) to this for ease in switching between the signal sources. NOTE: when Ref Solo is active the Layout menu will flash a message so that you know when you are listening to the reference source.

Added STRIP ALL GLOBAL DATA function to Utility-Preset menu. This function removes all Global Block associations from a preset. This is useful when downloading presets created by others that use Global Blocks. Running the function will strip the Global Block links but retain the sound of the preset as the author intended as that data is embedded in the preset.

Added Global Block message to Recall menu. When a preset is loaded that contains Global Blocks, a message will appear indicating so. You can remove all links to Global Blocks by pressing Enter.

Preset name functionality in the Store menu has been changed as follows:
X: Insert a character at the current cursor position.
Y: Delete the character at the current cursor position.
A: Select an upper-case character.
B: Select a lower-case character.
C: Select a number.
D: Move the cursor.
< >: Move the cursor.
Value: Select any character from the character set.
This behavior is also extended to the IR Capture utility.

Improved Tuner Stability.

Fixed Tone Matching data not being copied properly when using Recall->Effect.

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6.02

Restored Triode Hardness parameter to Amp block. When resetting an amp, this value defaults to 0.0. To achieve the sound of 6.00 firmware, set this to 5.0. Note that all presets created prior to Version 6.02 will have this value set to 0.0. You may override this value by setting the desired value and then saving the preset.

Added Scale and Offset to Modifiers. The Scale parameter applies a "gain" to the modifier curve allowing the user to create steeper or shallower curves. The Offset parameter allows shifting the curve up or down.

Fixed bug in Looper where distortion could occur depending upon position of Looper in grid.

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6.01

NOTE: As a result of amp matching tests, the Transformer Match internal values have been reduced. This may be detectable as a slightly more open and less compressed tone. If you desire the slightly more compressed sound of Version 6.00, this can be obtained by increasing the Transformer Match to a value of 1.1.

Added 5153 Green, Blue and Red models based on EVH 5150 III.

Added filter on reference input of Tone Match block so as to minimize high-frequency errors during matching.

Changed Grid Modeling switch in amp block so that Off turns off ALL grid modeling including preamp tubes.

Re-matched Mr. Z 38 SR model as matching data was incorrectly captured.

Re-matched PVH 6160 model against an original “block letter” EVH 5150.

Added Low Frequency (LF) Mic Spacing parameter to Rotary block. Setting this to zero (default) simulates a single mic (mono) on the drum.

Add Drive parameter to Rotary block which controls the amount of drive into the new power amp simulation. Improved HF modeling in block.

Added “Classic” mode to Enhancer block which uses old Haas effect delay-based processing. The Type parameter selects between the new (Modern) and old (Classic) enhancer types.

Added “Eternal Love” type to Drive block. Based on a Lovepedal Eternity.

Added “Esoteric ACB” type to Drive block. Based on Xotic AC Boost.

Added “Emphasis” control to Compressor block Pedal mode. Since the Pedal mode does not have a side-chain, this allows for a similar function by pre-emphasizing the high frequencies prior to compression and then de-emphasizing them after.

Improved tuner stability.

Added support for Axe-Edit to remotely set an individual parameter to default values.

Fixed various bugs in Looper.

Fixed FX Loop state not being sent to MFC.

Fixed exporting Tone Matches to cabinet IRs can sometimes lead to wrong IRs due to overflow.

Fixed feedback tap not being set correctly for Block 90 type in Phaser.

Fixed nasty bug where garbage data in Global Blocks could lead to preset corruption due to errant pointer.

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6.00

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Reworked power amp modeling based on new research. The power amp modeling has been totally rewritten based on "amp matching" studies. This includes improved output transformer saturation modeling.

Most amp models have been matched to their respective physical amps. Exceptions are those models which don't have a physical counterpart, i.e. FAS MODERN, etc. The matching data is integral to the amp block and is transparent to the user. This has increased the size of the firmware slightly and also uses the master DSP for part of the calculations which increases the CPU load associated with the amp block slightly.

Many amps have received a complete overhaul based on the matching studies. The most notable are the 65 Bassguy, Deluxe Verb, 1987x Normal and Treble, Hipower Normal and Treble, all USA models, all Recto models, Euro Blue, Red and Uber, ODS-100 Clean and Lead, and Mr Z 38 Sr.

Reworked most tone stacks based on amp matching results.

Reworked most drive tapers to match actual amp. Master Volume tapers, however, are uniform across all amp models as this prevents drastic jumps in volume when switching between amp types.

In general most knobs now behave exactly like the actual amp when possible. In a few instances there may be minor discrepancies between the knob position of the model and actual amp due to programming constraints and/or peculiarities of the actual amp (such as poor potentiometer tolerance). Due to variations in presence circuit topologies the taper of the Presence parameter, in particular, may vary between the model and the actual amp. In other words, a different setting on the model may be required to achieve the same response as the actual amp. In most cases however, the Drive, Treble, Mid, and Bass knobs will be accurate to within 10% of the actual amp.

The Recto models have been consolidated. There are now four Recto models: Recto Org Vntg, Recto Org Mdrn, Recto Red Vntg and Recto Red Mdrn. These models are based on a late-model Dual Rectifier and are matched to those four channels of the amp.

Since Recto Org Mdrn was already a model and is now redundant, it has been replaced with the "Supertweed" model ported from the original Axe-Fx.

Added two new USA models: USA Lead 1+, which is the same as Lead 1 with the Mid Gain switch on and USA Lead 2+, which is the same as Lead 2 with the Mid Gain switch on.

There are now two "Brit JVM" models: Brit JVM OD1 and Brit JMV OD2. The "Prince Tone" model has been moved and the OD1 model is in its place so that the models are located sequentially. Both models are based on the "Orange" modes of the

amplifier. The “Red” modes of the amplifier are equivalent to engaging the Boost switch (select Type and press Enter).

Added “Blankship Leeds” model. This model is based on a Blankenship Leeds which is a boutique version of an 18W Marshall. This particular amp is known for sounding “big” despite being relatively low power.

Added “Fat Switch” to amp block. When engaged, this switch, under the MID knob, shifts the center frequency of the tone stack down thereby “fattening” the tone.

Since the new output transformer modeling is improved, more effective and more important to the tone, this parameter, XFRMR DRIVE, has replaced the SPKR DRIVE parameter on the DYN (Dyanmics) page of the amp block. SPKR DRIVE has been moved to the SPKR page.

Added Definition control to Amp block. This parameter allows changing the fundamental character of the amp from vintage to modern or vice-versa. Positive values increase the amount of upper overtone saturation whilst negative values reinforce lower harmonics.

Added “Tone Matching” block. This block allows sampling a reference tone “fingerprint” and matching the user’s tone to that sound. Please see the accompanying documentation for more details.

Added IR Export feature to Tone Matching block. This allows converting the spectrum match data to an impulse response and saving as a user cabinet IR.

New and improved Looper. The Looper block now features a host of new features and improvements, including quantization, undo, half-speed, etc. Please refer to the updated User’s Manual for details.

Added Delay parameter to Cabinet block. This parameter allows delaying the signal up to 1ms. When running a stereo mode, or two cab blocks in parallel, delaying one cabinet relative to the other can achieve interesting comb filter effects. A common practice in studio recording is to use multiple mics on a speaker at different distances to intentionally introduce comb filtering.

Added third voice to Synth block. The first two Synth block voices now have a range of 40 – 4k Hz as this, in conjunction with the Shift parameter, allows tones over the usable audio spectrum. The third voice has a range of 20 – 20K Hz.

Changed Volume Increment/Decrement so that action only happens for a CC value greater than 63.

Improved tuner with strobe tuner accuracy and detection down to G0. Added “Magic 8-ball” display to tuner GUI. The 8-ball rotates clockwise if the note is sharp and vice-versa.

Added Metronome option to Output 1. Metronome is accessed via the Tempo menu.

Added mute options to Tuner. “OUTPUT” mutes the entire unit when entering the tuner display and is the same as prior behavior. “INPUT” mutes the input to the device only which allows any delays, reverbs, etc. to continue to sound.

Added Program Change sync when changing presets via front panel. This allows MFC and Axe-Edit to synchronize.

Quick Control knobs now function when naming presets and IRs. Knob A selects only upper-case letters, knob B only lower-case letters, and knob C only numbers. Knob D moves the cursor.

Improved knob acceleration logic allows adjusting parameters more easily.

Improved some filter efficiencies resulting in lower CPU usage for some blocks.

Changed amp block reset (double-click Bypass) so that type is not changed.

Improved IR Capture Utility so as to work even if FX Loop block is present.

Fixed "FILTER Q 4" in Resonator block mapped to wrong parameter.

Fixed attaching modifier to amp block INPUT TRIM parameter causes lag in other modifiers.

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5.07

Fixed incorrect range on TIME R in Delay block for Dual Delay mode.

Exposed PAN L and PAN R parameters in Volume block to modification.

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5.06

Changed LFOs to reset to zero phase when stopped with RUN modifier.

Changed “4x12 V30 ULTRA” in 5.05 to “4x12 30W ULTRA”.

Added remote bypass and mute via MIDI SysEx so Axe-Edit can bypass or mute unit during preset sync.

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5.05

Fixed system bank corruption upon sync with Axe-Edit.

Fixed Gate block not muting in bypass if Bypass Mode set to Mute.

Removed MUTE INPUT mode from Quad Chorus Bypass Modes.

Removed “4x12 METAL” cab per owner’s request. Replaced with “4x12 V30 ULTRA” which is a cab from the original Axe-Fx.

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5.04b

Changed remote patch dump protocol so that presets are synchronized with Global blocks.

Fixed Global Patches so that corruption does not occur if parameters were added in a firmware upgrade.

Improved power tube saturation modeling. This results in a smoother tone when the virtual power amp is driven hard.

Added Air Freq parameter to Cabinet block. This allows adjusting the cutoff frequency of the mixed signal.

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5.03

Fixed GUI stall on certain combinations of effects in a preset.

Disabled MIDI Thru and Adapter Mode during firmware updates.

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5.02

Decreased damping on Delay block Input.

Added HF Resonance control back into Amp block. This control is similar to the previous control but only changes the slope of the resonance. The default value is consistent with the typical “semi-inductance” of a speaker voice-coil. Varying this value will change the high-frequency load presented to the virtual power tubes.

Added “CALI LEGGY” amp model based on a Carvin Legacy I.

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5.01

Fixed random lockups due to Noise Filter illegal state.

Fixed Delay block click on Tempo change when followed by large amounts of gain.

Restored USB main outputs selectable.

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5.00

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WHILE THIS UPDATE HAS HAD A SIGNIFICANT AMOUNT OF CHANGES, HOWEVER, THE OVERALL SOUND OF YOUR PRESETS SHOULD NOT BE DRASTICALLY ALTERED. ONLY MINOR ADJUSTMENTS SHOULD BE REQUIRED.

Changed USB outputs so that it is always Out 1 L/R and Input L/R rather than whatever is on digital outputs and Input L/R. The Digital Outputs are still selectable but the USB outputs are fixed.

Added Block Left and Block Right options to Sidechain Select in Compressor block.

Much improved grid modeling in Amp block preamp and power amp stages. New modeling very accurately replicates grid conduction and resulting bias excursion. This results in a more dynamic, thicker and bouncier tone. The power tube grid conduction parameters are exposed to the user in the GUI. The Bias Excursion parameter controls how much the grid voltage droops when the grids conduct. The Excursion Time and Recovery Time parameters control the time constants associated with the excursion.

Added dynamics processing to Amp block. A new tab, "DYN", in the amp block, allows adjusting various parameters of the dynamics processor along with several other parameters related to amp dynamics. The Dynamics parameter controls the amount of dynamics processing and models the interaction between the power amp, power supply and loudspeaker under high power-level conditions. The Dynamics Time parameter (ADV tab) controls the time constant of the associated processing. The Level parameter is duplicated on the DYN page for convenience.

Simplified Hi-Frequency Resonance controls in the Amp block. There is now a single HI FREQ control. The value of this parameter sets the "corner frequency" of the impedance rise due to voice-coil inductance (technically this is a "semi-inductance"). The actual impedance seen by the virtual power tubes is then internally calculated based on the transformer and power tube parameters. Typical guitar speakers have a corner frequency between 1 kHz and 2 kHz. This value is preset based on the model but the user can override the value as desired. Many speaker manufacturers publish impedance data for their drivers which can be used as a reference point. Lower values give more midrange emphasis. For convenience, the transformer low-cut and high-cut frequencies are now present on the SPKR page and their influence on the open-loop response is reflected in the impedance graph.

Added speaker motor modeling to Cabinet block. This models the effect of high power levels on the tone of the speaker. The Motor Drive parameter controls the relative drive level and, therefore, the intensity of the effect.

Improved Enhancer block. The new Enhancer uses multi-band techniques for a much more natural effect. Also, the effect is mono-compatible with no phasing problems when summing to mono. The effect both widens stereo signals and "stereoizes" mono signals. Low-cut and High-cut parameters allow control over the region of influence. Note that it is NOT recommended to use the Enhancer if just using one side of a stereo output as phasing effects may be encountered.

Improved noise gate. New gate uses dynamic filtering in addition to downward expansion.

Reworked nearly all amp models based on new "amp matching" algorithms.

Fixed B+ Time Constant in amp block not being transmitted to slave DSP.

Fixed Gate Bypass Mode knob bug.

Fixed look-ahead delay still running if Compressor block is bypassed.

Fixed lost data on MIDI Thru if sending large amounts of data to MIDI In.

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4.01

Fixed Treble Booster name corruption in Drive block.

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4.00

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Overhauled power amp modeling. Master Volume control is now usable over a larger range. Reduced harshness in many amp models. Most amps will sound more "open". Adjusting the MV in existing presets is recommended for optimum results.

Added "Grid Modeling" parameter to Amp block. Turning this to OFF bypasses the grid modeling in the power amp which can reduce subjectively undesirable distortion.

Added "FAS 6160" model. This model is based on the PVH 6160 model but more open and less fizzy than the original amp. Also, a virtual choke has replaced the resistor found on the original's power supply filter. This results in a bouncier feel.

Added Tape Echo algorithm to Delay and Multidelay blocks. This algorithm simulates a tape echo where modulation occurs due to tape speed variation. In the Delay block the algorithm is implemented as a two head monophonic tape "deck". The Time/Tempo parameters set the distance between the record and first playback head. The Ratio parameter sets the relative distance between the record and second playback head as a percentage of the first playback head. The Multidelay block is implemented as a monophonic deck with four independent heads. See the updated manual for full details.

Fixed TEMPO R parameter affecting left time in Dual Delay.

Added Dry Delay Shift for Thru-Zero mode of Flanger. This allows moving the thru-zero point from the center (default) to the edge or anywhere in between.

Exposed Advanced Whammy Start and Stop parameters to modifier control.

Increased output level for Octave Distortion model in Drive block.

Added support for all MIDI Voice Messages when MIDI Adapter Mode is on. This allows using the MIDI ports for keyboards and other devices other than foot controllers.

Fixed Recall Effect not working in certain instances.

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3.04

Fixed bug where presets greater than 131 not being properly received over MIDI.

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3.03

Amp block now has high-res mode. In this mode the internal sampling rate is doubled so as to provide greater fidelity and resistance to aliasing. This mode is automatic and is selected whenever there is only amp block in the layout grid. Adding a second amp block will revert to normal resolution. Note that switching between presets with differing number of amp blocks may introduce an additional delay as a "soft reset" of the amp blocks must be done whenever changing the resolution.

Increased precision of many of the filters in the amp block. The new filters now have eight additional bits of mantissa precision which increases filter accuracy, especially at low frequencies.

Fixed popping and zipper noise in Amp block under certain Damping settings.

Fixed Modifier not being recalled along with effect when doing Recall Effect.

Added Global Block support via MIDI. This allows Axe-Edit to dump Global Blocks for off-board storage.

Fixed spurious interrupt causing lockups when USB is connected.

Fixed sections of audio being erased from Looper on preset changes.

Fixed Cabinet block IR corruption when running in Mono Hi-Res mode in certain scenarios. Improved warping algorithm so as to provide higher fidelity.

Added "Brit JVM" amp model. Based on the OD2 channel of a Marshall JVM.

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3.02

Fixed Store-to name box too small for long preset names.

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3.01

Added tempo averaging.

Fixed Cabinet block Proximity parameter affecting right channel when Mic Type is NONE and in one of the mono modes.

Fixed corruption of Amp block bass EQ when Tonestack Type is set to ACTIVE.

Fixed incorrect Damping value in Recto Org Modern model. Increased LF Res value also as typical cabinet used with this amp has significant LF resonance.

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3.00

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Added IR Capture feature. Please see the separate instructions for details on the use of this feature.

Greatly improved power amp modeling. New pentode model with adjustable hardness. Improved power supply modeling. Improved screen grid modeling and bias excursion modeling (more apparent “knock” on high-gain tones).

Added POWER TUBE HARDNESS parameter. This parameter adjusts how rapidly the power tubes enter saturation. Higher values give a slightly more aggressive distortion character. Lower values give a smoother breakup.

Added TRANSFORMER MATCH parameter. This is an extremely powerful parameter that sets the relative output transformer primary impedance which in turn controls how easily the power tubes are driven into clipping. The higher the Master Volume setting the more pronounced the effect of this parameter. Decreasing the matching causes the power tubes to clip later and therefore the phase inverter and grid clipping becomes more predominant. Increasing the matching causes the power tubes to clip sooner. At lower settings the speaker resonance will be more pronounced, at higher settings the speaker resonance will be less pronounced. For optimum results bring up the Master until the desired amount of power amp distortion is achieved, then adjust the matching until the character of the distortion is as desired. The various LF and HF resonance parameters interact strongly with this parameter so be sure to experiment with those as well when crafting your ideal tone. The value of this parameter is relative to the actual transformer matching which is set internally and not directly exposed. The value is reset to 1.0 whenever they amp type is selected.

Added AMP VOICING parameter. This parameter voices the amp to a variety of tonal styles. Voicings take the guesswork out of mix engineering by automatically crafting the tone like a professional engineer would. Choose "Neutral" for the raw amp sound. Choose one of the other voicings to rapidly achieve a mix-ready tone.

Improved speaker load modeling. Now incorporates magnetic eddy current losses.

Added speaker impedance graph to the Amp block and moved all related parameters to that page. This graph allows you to visualize the resulting speaker impedance curve and how the various parameters affect the impedance. Note that the power amp frequency response will not equal the speaker impedance if the Damping is greater than 0. This is because negative feedback flattens the response curve.

Added quick reset to amp block graphic EQ. Pressing Enter while in the EQ menu resets all bands to zero.

Added mid-frequency resonance to Amp block. While most speakers don't have a mid-frequency resonance, this parameter allows you to fine-tune the edge-of-breakup profile enabling you to achieve "hyper-realistic" tones.

Added "TX STAR" amp model. This model is based on the lead channel of a Mesa Lonestar.

Added "FAS WRECK" model. This model is based on the original WRECKER 1 model from the Axe-Fx Ultra.

Added "PRINCE TONE" model. Based on a single-ended Fender Princeton model 5F2-A.

Reworked "MR Z 38 SR" model. If you are using this model it is highly recommended that you reset the model by selecting another model and then reselecting the "MR Z 38 SR" model.

Reworked "BRIT JM45" model. Model is now based on Channel 1 (the bright channel).

All amp models have been reworked to some extent. The models listed above received major rework.

Reprocessed most Redwirez cabinet IRs to reduce excessive low end.

Reworked all mic models and added Proximity parameter to allow the user to adjust the desired proximity effect.

Improved Spring Reverb modeling.

Added Drive parameter to Spring Reverb modes.

Added LOWCUT parameter to Pitch block.

Added 6 dB/octave slope to Delay block EQ.

Changed preset recall "wraparound" so that recall stops at the wrap point briefly. Continuing to increase or decrease the value will then result in the preset wrapping around after a brief period.

Improved Output Level knob tapers.

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2.00c

Fixed crashing under rare circumstances when loading presets created with certain versions of Axe-Edit.

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2.00b

Fixed slight corruption in tuner indicator.

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2.00a

Fixed level bug in Jr. Blues model.

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2.00

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NOTE: ALTHOUGH THE AXE-FX II WILL AUTOMATICALLY REBOOT UPON UPDATING THE FIRMWARE IT IS RECOMMENDED TO POWER CYCLE THE UNIT AFTER INSTALLING THIS FIRMWARE.

NOTE: DUE TO THE LARGE NUMBER OF CHANGES IN THIS FIRMWARE YOU MAY NEED TO RESET YOUR SYSTEM PARAMETERS. IF YOU EXPERIENCE STRANGE PRESET BEHAVIOR AFTER INSTALLING THIS PRESET WE RECOMMEND PERFORMING A PARAMETER RESET VIA THE UTILITY MENU.

Added “Triode Hardness” parameter to amp block. This parameter controls how sharply the triodes enter saturation and can be used to simulate softer or harder tubes. The default value is 5.0 and is set to this value whenever the type is changed. The effect of this is subtle and most apparent at edge of breakup. Lower values give softer saturation, higher values give a more aggressive breakup.

NOTE: Existing presets should be checked as this value may load to a value of other than 5.0 depeding upon what version of firmware was originally used to create the preset. All factory presets have been reworked as the factory presets will load to 0.0.

Exposed the second-to-last triode plate frequency: Triode1 Plate Freq. This parameter sets the cutoff frequency of the plate impedance for the next-to-last triode in the chain. Many amps have a capacitor across this triode's plate resistor. This capacitor is used to smooth the response and reduce noise. You can adjust the amount of capacitance, and the resulting frequency, using this parameter. The last triode plate capacitor is also exposed: Triode2 Plate Freq.

Reworked most amp models. Corrected various mistakes and updated Miller capacitance values based on recent research.

Added SOLO X99 LEAD model. Based on the lead channel of a Soldano X99 preamp.

Added RECTO ORG MDRN model. Based on the Modern channel of a new Dual Rectifier with the voicing in the Modern position.

Added Cabinet Size warping. This allows the user to change the relative size of the speaker. Note: feature only available in Mono modes.

Reverted Output Level tapers to original taper.

Reduced power-off pop. For maximum suppresion of output transients at power-down turn the Output Level controls full CCW before turning power off.

Added Low Rate Mult parameter to Rotary block. This parameter adjusts the rate of the virtual LF drum relative to the HF rotor.

Added Time Const. Parameters to Rotary block. These parameters control how fast the respective rates change in response to changes in the rate.

Added Input Select to Volume block.

Exposed Mixer block Output Mode parameter to Modification.

Improved GUI performance. Screen draws are now faster which should reduce sluggishness at high CPU usage. Added knob highlights for kicks.

Fixed bypass state not being saved properly when switching between X/Y and then changing state.

Fixed Looper block not reporting controllers correctly to MFC-101.

Fixed Pitch block using same custom scale degrees for both X and Y.

Fixed MIDI processing not handling running status properly.

Fixed CPU usage increasing if USB not initialized.

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1.05

Fixed X/Y copy not working in Reverb.

Increased sequencer steps to 32.

Added Hicut to Quadchorus.

Added Bypass Mode to Volume block.

Added FAS Brown and Big Hair models.

Exposed Drive block Bit Reduction parameter to Modification.

Exposed Delay block Bit Reduction parameter to Modification.

Exposed Delay block Drive parameter to Modification.

Exposed Crossover Freq parameter to Modification.

Patch recall now wraps at boundaries.

Quick Control knobs now work in Global EQ menu.

Fixed crashing on certain GUI messages (X/Y, etc.).

Changed Output Level knobs so that volume goes to zero and eliminated "beating".

Fixed noise in USB audio when using OS-X aggregate device and changing presets via MIDI.

Fixed some Bypass Mode Modifiers not correctly mapped.

Fixed pop when X/Y switching between regular and reverse delay types.

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1.04

Fixed Output 2 Configuration not working.

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1.03

Fixed Reverb "Y" not recalling properly

Changed X/Y so that switching by MIDI preserves bypass state

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1.02

Fixed popping when switching between certain amp models.

Fixed X/Y not working properly in Cabinet block.

Improved Rotary block.

Added X/Y copy feature. To copy all parameters from “X” to “Y” double-click “Y”. Likewise double-click “X” to copy from “Y”.

Added Tube Pre model.

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1.01

Initial production release.