Atomic

ATOMIC AMPLIFIERS

AMPLIFIRE

POWERED BY

STUDIO DEVIL

USER MANUAL

V 6.0


AMPLIFIRE


AMPLIFIRE 6


AMPLIFIRE 12

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INTRODUCTION

Thank you for purchasing AMPLIFIRE, a world-class amp tone and multi-effects pedal/processor. A powerful and portable device, it is small enough to fit in a gig bag yet potent enough to please even the most discriminating tube amp and effects aficionados.

We designed AMPLIFIRE as an instrument that we, as guitar players, wanted for ourselves. This meant it had to sound/feel authentic and amazing while being easy-to-use, portable and road-rugged.

AMPLIFIRE is equally capable of being a complete rig replacement or part of a larger pedal board and/or outboard processing rig.

HERE ARE SOME HIGHLIGHTS:

- All new, state-of-the-art amp modeling based on Studio Devil's highly acclaimed and patented technology
- Blazing dual-DSP powered hardware allowing for complex and detailed algorithms
- Stereo 1024-point cabinet impulses (IRs) with ability to upload 3rd-party IRs
- Robust effects selection including drive, modulation, delay, reverb, compression, eq, gate, etc.
- Dedicated physical amp control knobs for intuitive tone adjustments
- Pristine studio quality audio and ultra-low noise floor
- Versatile I/O options including ¼" Hi-Z input with proprietary processing, separate stereo ¼" and XLR outputs and user programmable effects loop
- Fully configurable and rugged foot switches
- Robust external control of presets parameters via midi and foot switch jacks
- Easy to use as a pedal or desktop device
- PC/Mac editor
- 128 programmable presets
- Field upgradable firmware

AMPLIFIRE12 ADDITIONAL FEATURES:

- 12 fully programmable footswitches for ultimate control
- 2 dedicated expression control inputs
- 1/4" professional headphone jack
- Large easy to read LCD display
- Ultra rugged extruded aluminum case
- Power Switch

AMPLIFIRE 6 ADDITIONAL FEATURES:

- 6 fully programmable foot switches for ultimate control
- 2 dedicated expression control inputs
- Ultra rugged extruded aluminum case

AMPLIFIRE SPECS

Dimensions
8 5/8" W x 6 5/8" D x 3" H – 21.91cm W x 16.83cm D x 7.62cm H
Weight . . . . . 2.35lbs – 1.07kg

AMPLIFIRE 12 SPECS

Dimensions
16 3/4" W x 61/2" D x 3" H – 16.51cm W x 42.55cm D x 7.62cm H
Weight . . . . . 5.57lbs – 2.61kg

AMPLIFIRE 6 SPECS

Dimensions
8 5/8"W x 6 5/8"D x 3"H – 91cm W x 16.83cm D x 7.62cm H
Weight . . . . . 3lbs – 1.36kg

If you need service or have questions about your product please contact us:
support@atomicamps.com

Warranty: One year parts and labor

Enjoy!

CONNECTORS

1. **DATA ENTRY ENCODER** – used to select and edit user presets. Turn to select a preset or change a parameter value. Push (click) to select menus for editing presets.

2. **BACK BUTTON** – used to decrease preset or to go to previous item in edit menus.

3. **SAVE BUTTON WITH LED** – used to save presets. Press once to select destination and new preset name. Press again to commit the save. Press and HOLD for TUNER function. Built-in LED blinks when a preset has been edited but not saved as a warning to save your edits.

4. **NEXT BUTTON** – used to increase preset or to go to next item in edit menus.

5. **LCD SCREEN** – displays currently active preset or edited data name and value.

6. **GAIN KNOB** – adjusts the gain control of the preamp of the virtual guitar amplifier model.

7. **MASTER KNOB** – adjusts the master volume control of the virtual guitar amplifier model.

8. **PRESENCE KNOB** – adjusts the presence control of the simulated power amp section of the virtual guitar amplifier model.

9. **BASS KNOB** – adjusts the bass equalization control of the tone stack in the virtual guitar amplifier model.

10. **MIDS KNOB** – adjusts the mids equalization control of the tone stack in the virtual guitar amplifier model.

11. **TREBLE KNOB** – adjusts the treble equalization control of the tone stack in the virtual guitar amplifier model.

12. **LEVEL KNOB** – sets the output level of all outputs simultaneously (MAIN outputs, AUX outputs, and HEADPHONES level). This is like an analog output level control.

13. **FOOTSWITCH** – fully programmable footswitch for changing presets, enabling individual effects, selecting tap tempo, and more.

14. **DUAL-COLOR LED** – indicates the state of the programmable footswitch. In preset mode, lights up in RED or AMBER to indicate preset A or preset B. In effect enable mode, lights up RED when effect is active. Blinks at repeat rate for TAP TEMPO function.

15. **GUITAR INPUT** – Hi-Z input for connecting an electric guitar with a 1/4" phone jack.

16. **MAIN OUTPUTS** – TRS balanced (or unbalanced) 1/4" output jacks for connecting to amplifiers, mixers, computer interfaces, or input channels of other audio devices.

CONNECTORS CONTINUED...

⑰ **HEADPHONE JACK (AMPLIFIRE)** – 1/8" mini jack for connecting to headphones.

⑰ **HEADPHONE JACK (AMPLIFIRE12)** – 1/4" jack for connecting to headphones.

REMEMBER TO USE CAUTION WITH HEADPHONES. EXCESSIVE LOUDNESS IS HARMFUL TO YOUR HEARING AND HEALTH.

⑱ **FX LOOP SEND JACK** – 1/4" mono output jack for connecting to the input of an external effects unit.

⑲ **FX LOOP RETURN / AUX IN JACKS / EXPRESSION** – stereo 1/4" jacks for connecting to either the outputs of an external effects unit or to an auxiliary music player. In FX LOOP mode, these act as a switchable external effect that can be placed into your effect signal chain. In AUX IN mode, these act as an auxiliary audio input which can be mixed with your processed guitar output (for playing along with backing tracks, etc.). In EXPRESSION mode (AMPLIFIRE only) these inputs can be used with a special Y-cable to provide an expression pedal input for real-time effect control (wah, volume, etc). See EXPRESSION section for full detail.

⑳ **MIDI OUT JACK** – 5-pin DIN connector for connecting to the MIDI input of an external effects processor. Allows synchronizing program changes to an external processor which may be used in the effects loop. Also, performs an optional MIDI THRU function to merge incoming MIDI data from the MIDI IN jack.

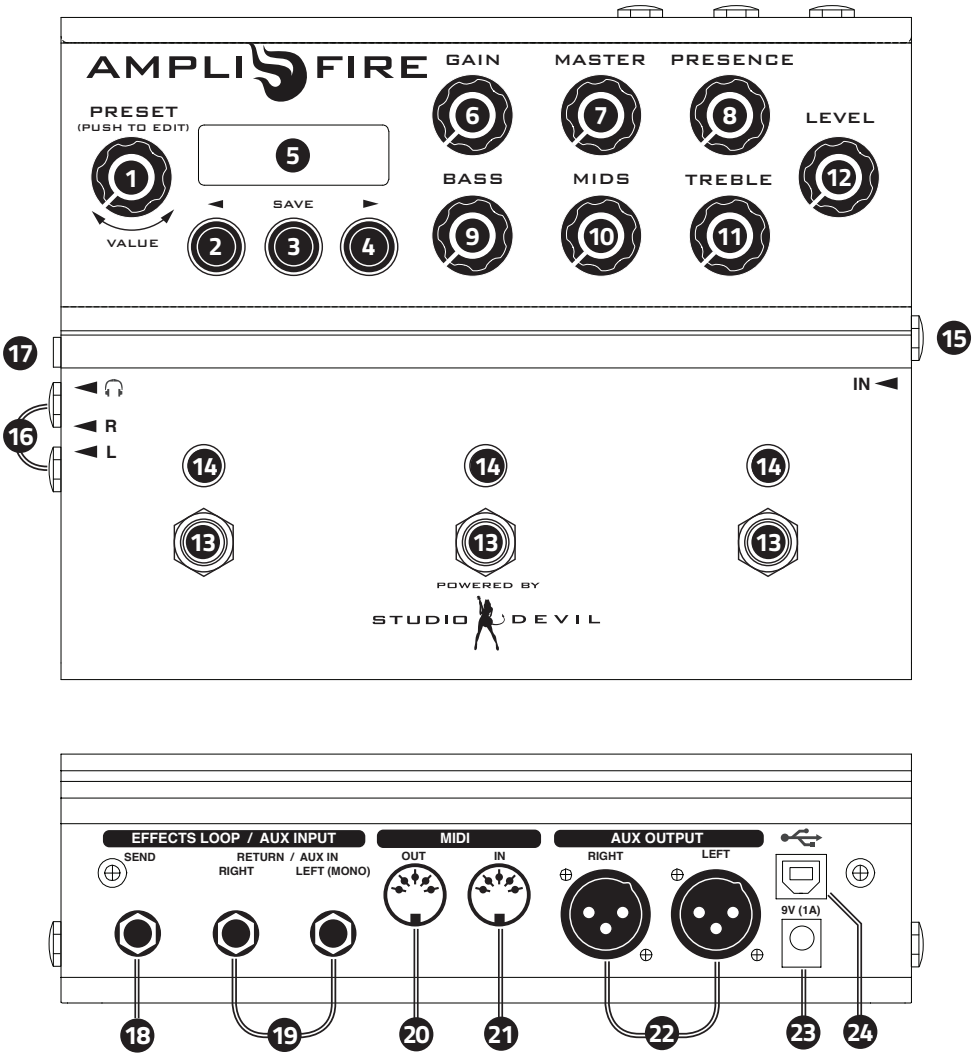
㉑ **MIDI IN JACK** – 5-pin DIN connector for connecting to the MIDI output of a MIDI controller or MIDI footswitch. Allows for changing presets via program changes and enabling individual effects via continuous controllers.

㉒ **AUX OUTPUT XLR JACKS** – Balanced XLR output jacks for connecting to external mixer or professional direct recording equipment.
*CAUTION-DO NOT APPLY 48V PHANTOM POWER FROM A MIXER OR AUDIO INTERFACE. THIS WILL CAUSE NOISE AND CAN DAMAGE THE UNIT.

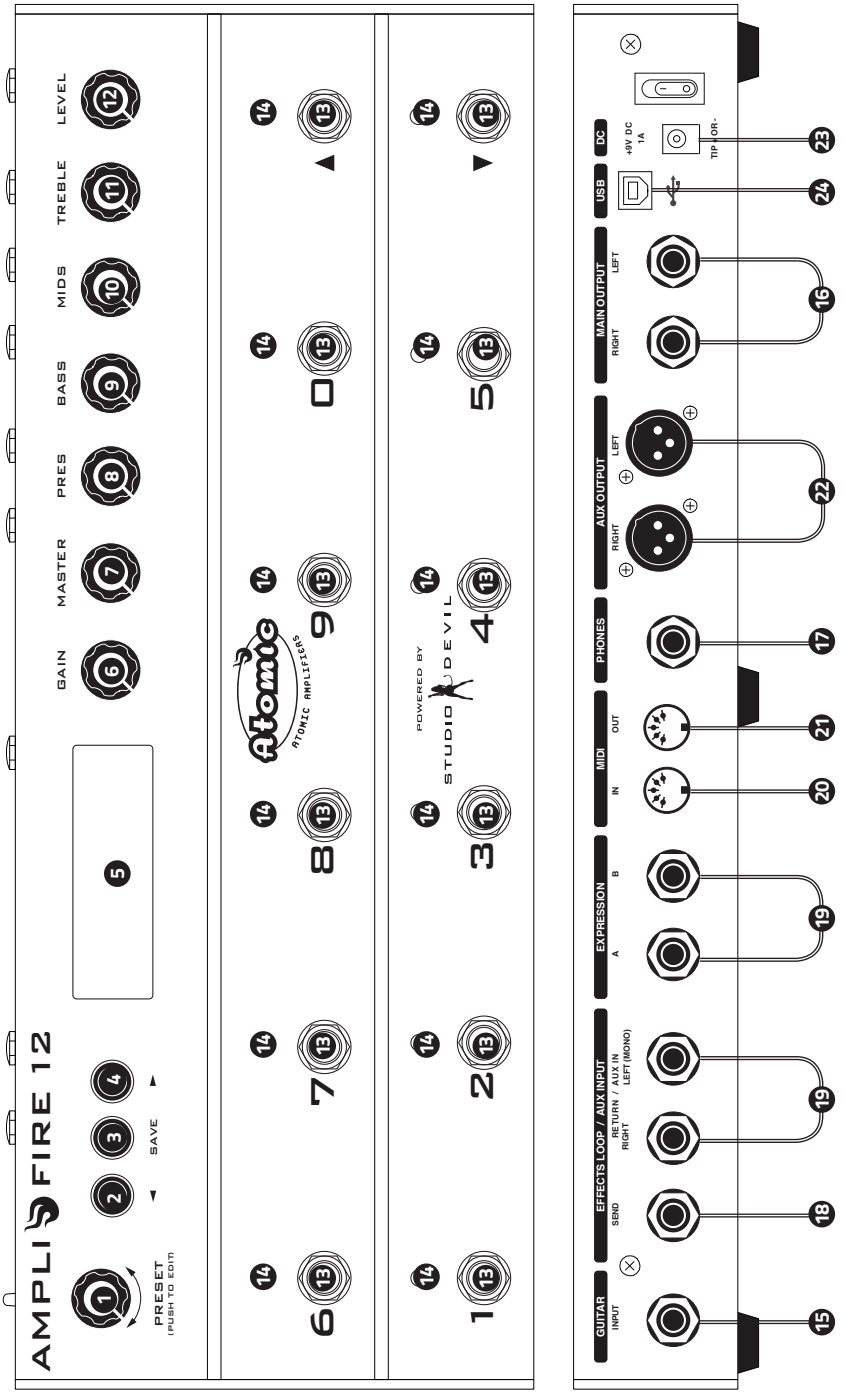
㉓ **DC POWER JACK** – for connecting to a 9 or 12 volt power supply (DC or AC, either polarity), 1A minimum. Accepts a standard 2.1mm coaxial plug (either polarity).

㉔ **USB CONNECTOR** – for connecting to a host PC. Allows easier editing of presets and uploading custom user cabinet impulse data and firmware via host editing software.

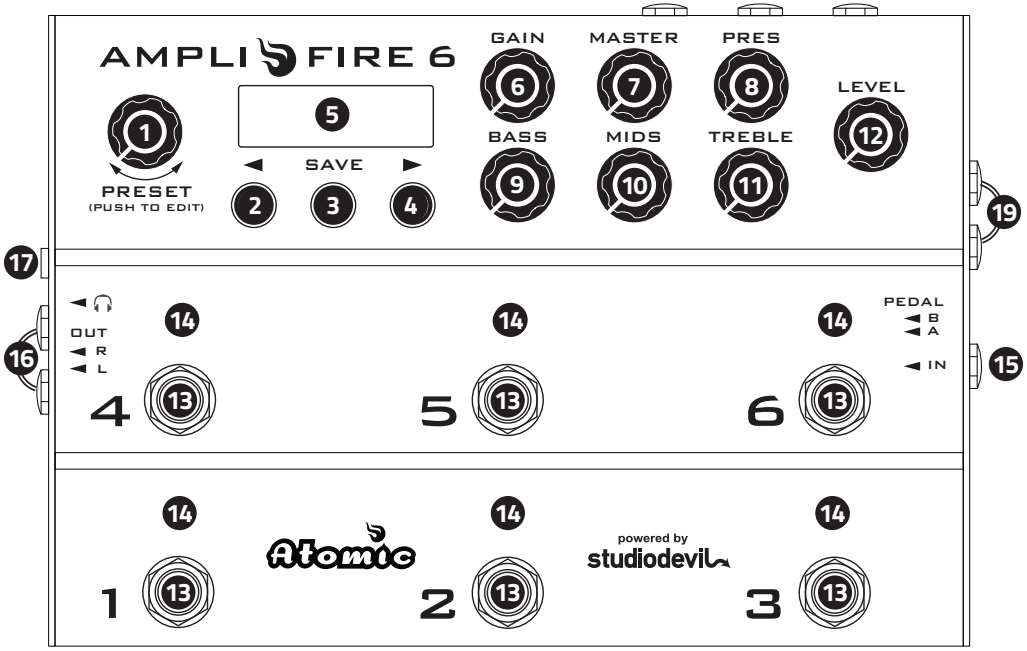
CONNECTORS – AMPLIFIRE

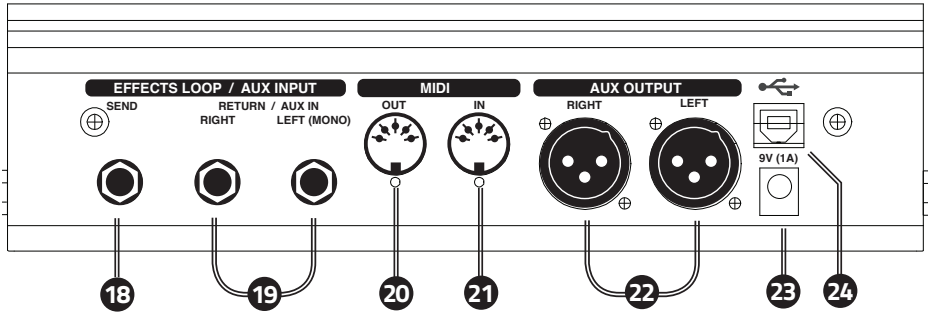


CONNECTORS – AMPLIFIRE 12

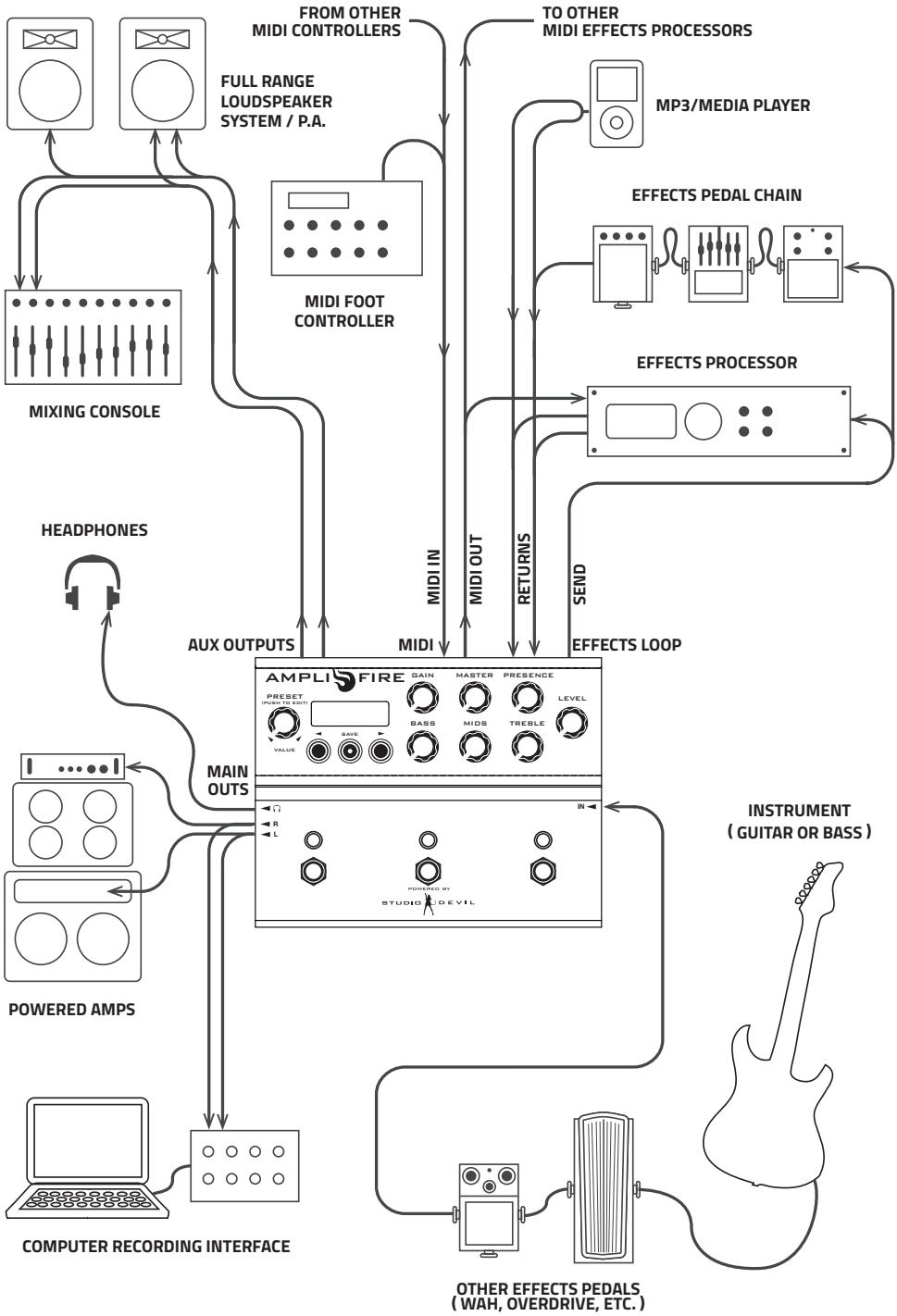


CONNECTORS – AMPLIFIRE 6





CONNECTION DIAGRAM – AMPLIFIRE



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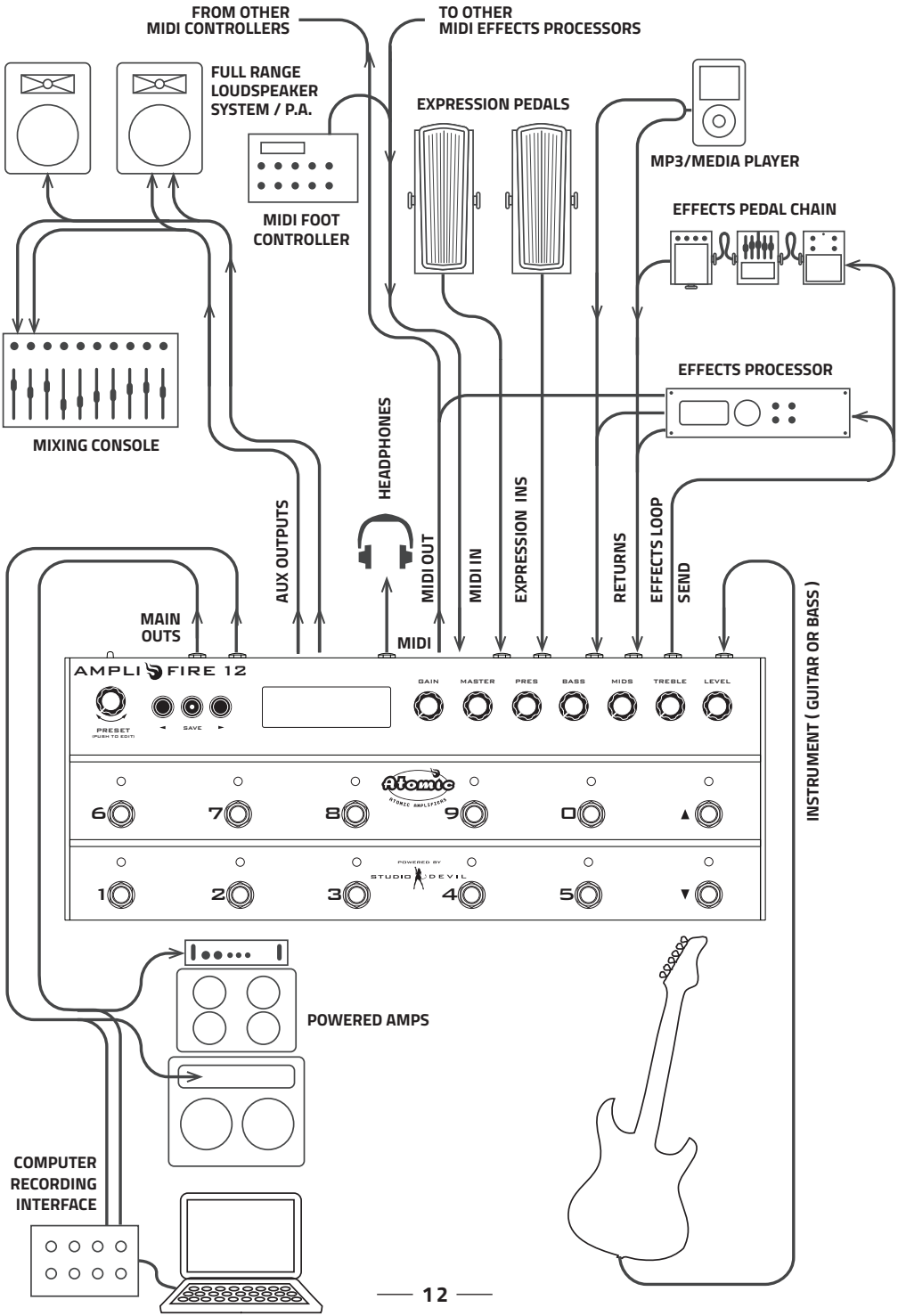
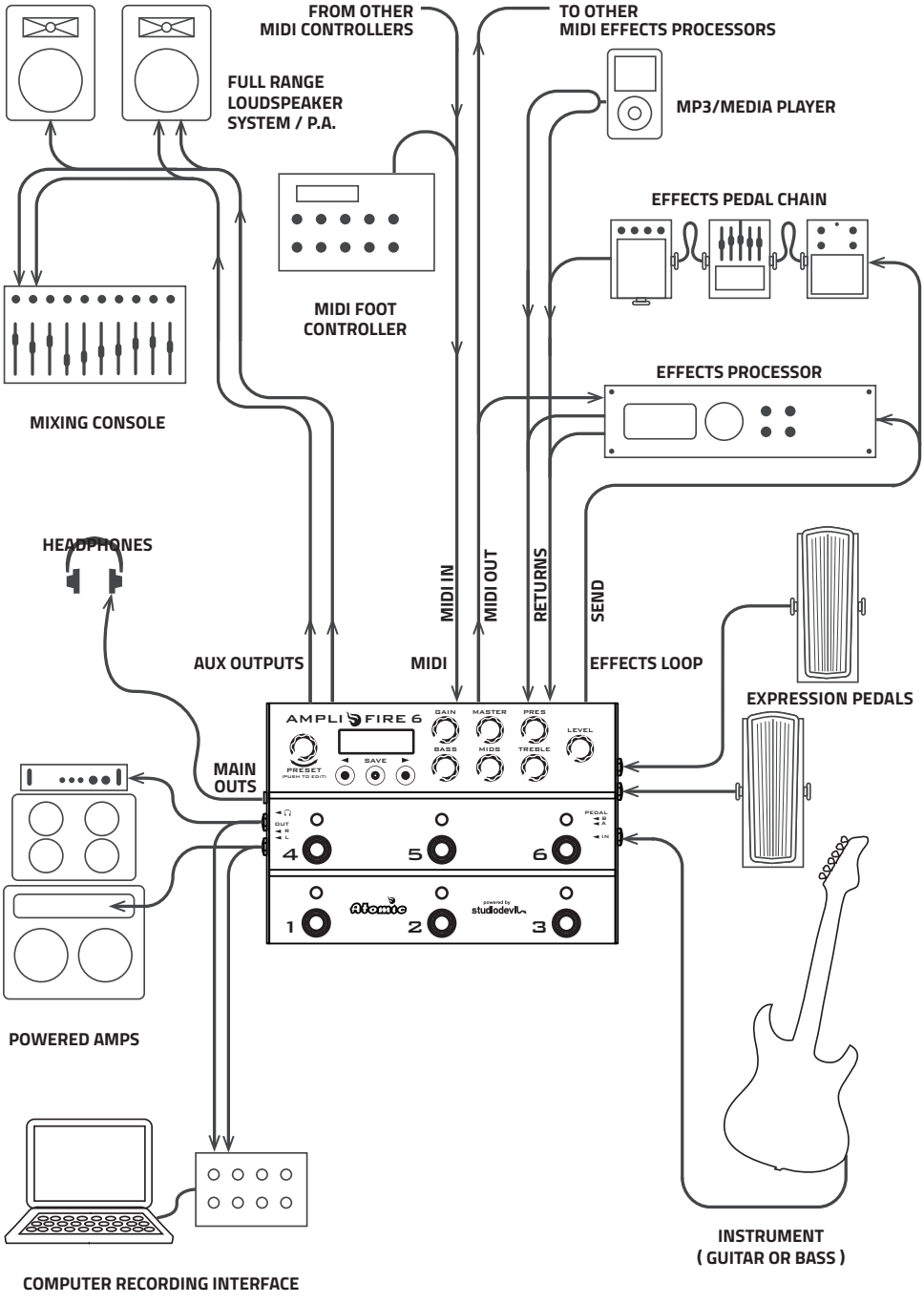


CONNECTION DIAGRAM – AMPLIFIRE 6



EFFECTS AND SIGNAL CHAIN

AMPLIFIRE offers studio-quality effects developed by Studio Devil. They are arranged into the following signal chain categories (Editor designation is noted in parentheses):

NOISE GATE (GTE)
COMPRESSOR (CMP)
PRE EQ (PRE)
WAH (WAH)
VOLUME (VOL)
DISTORTION / SCREAMER / OVERDRIVE/ FUZZ / CLEAN BOOST (BST)
PARAMETRIC EQ / PROGRAMMABLE FILTER (PQ1/2/3)
GRAPHIC EQ (GEQ)
TREMOLO / PANNER (TRE)
CHORUS (CHO)
FLANGER (FLA)
PHASER (PHA)
PITCHSHIFTER (PSH)
ECHO / MULTI-TAP DELAY (ECO)
REVERB (RVB)

You can choose to place most of these effects either prior to or after the AMP block to allow versatility in pre or post processing of your amplifier tone. Simply select PRE or POST under the ROUTING section of the Editor screen.

Think of the the effects prior to as the pedals that you run into your amp, and the effects after as any stereo studio effects you would place onto your amp after it is mic'd up (either on a live mixing board, or in a recording studio).

All signals placed before are mono, and all signals after are stereo. So, any stereo effects placed before the AMP block will operate in MONO mode.

DESCRIPTIONS

- **The GATE effect** provides a programmable NOISE SUPRESSOR, EXPANDER, and GATE. Some of the GATE parameters are *global* settings, so that you don't need to change all your presets if you change your guitar. NOISE GATE enable is programmed per preset, so that you can shut it off for particular presets, and leave it on for others. These options can be set in the GATE effect menu.

- **The VOLUME effect** models a VOLUME pedal control. The VOLUME options can be set in the VOLUME effect menu. It can be repositioned across the signal chain for maximum flexibility.

- **The WAH effect** models a WAH-WAH effects pedal. The WAH-WAH is fully customizable and the options are set in the WAH-WAH effect menu. In addition to expression pedal control, the WAH also features AUTO-WAH and TOUCH-WAH style effects.

- **The COMP effect** models a compressor module for controlling the dynamics of your guitar input. The COMPRESSOR options can be set in the COMPRESSOR effect menu.

- **The BOOST effect** models classic stomp box distortion effects. It is typically placed toward the beginning of the signal chain to drive the front end of the amp model and tighten tone, but it can be placed elsewhere if you're feeling experimental.

DESCRIPTIONS CONTINUED...

- **The EQ block** is made up of the GRAPHIC EQ and three (3) PARAMETRIC EQ effect modules, each of which can be placed in the PRE or POST sections of the signal chain. These options can be set in the GRAPHIC EQ, PARAMETRIC 1, PARAMETRIC 2, and PARAMETRIC 3 effect menus.
- **The CHO/FLA/PHA/TRE blocks** represent world-class classic CHORUS, FLANGER, PHASER, and TREMOLO effects, and can be placed before or after the AMP block for maximum flexibility.
- **The PITCHSHIFTER effect** can be placed before or after the AMP block for maximum flexibility.
- **The ECHO effect** can be assigned either before or after the AMP block to get the different effects of feeding an echo into an amp or processing echoes after the amp tone, respectively. The ECHO features multiple modes of operation including a MULTITAP mode with the ability to utilize up to 4 independent delays at once.

EFFECTS AFTER THE AMP

Placing certain effects after the AMP block allows you to apply any standard STEREO effects processing along the lines of studio post-processing.

These include:

- **The EQ blocks**
- **The CHORUS/ FLANGER/PHASER/ TREMOLO blocks**
- **The ECHO block**
- **The REVERB block**
- **The VOLUME block**
- **The COMP block**
- **The PITCHSHIFTER block**

CABINET MODELING

The CABINET section is where AMPLIFIRE applies Impulse Response (IR) modeling technology and filtering to simulate the sound of real-life speakers and guitar cabinets as recorded by specific microphones . Each of the amp models in AMPLIFIRE contain a "matched" built-in IR cabinet, but you are free to mix and match to create YOUR tone. AMPLIFIRE also supports user-customizable IR cabinets which you can upload to AMPLIFIRE via USB.

- The CABINET modeler can be configured to use any cabinet from the list of amp models, or any one of the user-defined cabinets.
- The CABINET modeler lets you tweak the cab models with filters specially designed for adjusting microphone and loudspeaker cabinet tones.
- The CABINET modeler can be enabled or disabled on either set of outputs independently (MAIN / AUX), allowing you to use full range systems AND other real guitar cabinets simultaneously.
- The CABINET modeler is always enabled on the headphones output (although you can choose to disable the cabinet modeling on all outputs for three separate full range outputs).

CABINET MODELING CONTINUED...

MATCHED CABINETS

Each amp model in AMPLIFIRE has its own ideal IR. meaning that they represent the type of cabinet that is typically used with that particular type of amp model. Without any programming or cabinet selection, you get the "right" sound by default. When changing an AMP MODEL, you automatically get the typical cabinet for that amp.

AMPLIFIRE allows you customize your tone and swap out these "matched" IRs for those that are from the other amp models.

NOTE: One of our unique features is that IRs are embedded in user presets so that the preset is completely portable. Any imported or exported presets carry the IR data with them so you get the exact tone you need.

SELECTING A CABINET

To EDIT THE CABINET OPTIONS from the preset display, click the ENCODER twice: the first time takes you to the AMP MODEL menu, the second time takes you to the CABINET menu. Then, turn the encoder to select a new CABINET model or mode. Press the NEXT and BACK buttons to cycle through some of the other CABINET modeling options, including filter tweaks.

USER CUSTOM CABINET IRS

AMPLIFIRE also supports custom IRs that you can upload to AMPLIFIRE via USB. To use one of these custom cabinets, just select one of the user cabinet slots from the end of the list in the CABINET menu. For more information, see the USB section below.

SELECTING PRESETS

AMPLIFIRE stores 128 user programs called presets. You can select the active preset from this set with the ENCODER knob or the NEXT and BACK buttons. To advance to the next preset, press NEXT. To backtrack to the previous preset, press BACK. Press and hold NEXT or BACK to advance quickly through the presets. You can also turn the ENCODER knob clockwise to go forward or counter-clockwise to go backward. AMPLIFIRE automatically loads the preset as soon as you select it.

QUICK EDIT - TWEAK KNOBS

AMPLIFIRE includes six (6) quick tweak knobs to make adjustments just like on a real amplifier without having to enter edit menus or programming. These six knobs allow you to adjust GAIN (tube preamp gain), MASTER (tube power amp master volume), PRESENCE (tube power amp presence control), BASS, MIDS, and TREBLE (tube preamp tone stack controls).

Just grab and turn one of the knobs to instantly adjust the tone. The display will show the value while you're turning the knob to let you know where it is. It also shows you how it compares to the original preset value using left and right arrows in the display. The arrows show you which direction to turn to match the knob with the original preset value. When both arrows are displayed, the knob matches the original preset value.

Once you edit the preset, the SAVE LED starts blinking, warning you to remember to save your changes if you want to (see SAVING PRESETS below).

DEEP EDIT – PRESET PARAMETERS

AMPLIFIRE has many effects modules, and each effects module has several parameters. Deep editing allows you to customize each of these parameters to create your own tone and effects setup. Here's how it works:

- **To ENTER EDIT MODE,** push down on the ENCODER knob. This takes you to the first effect menu, AMP MODEL.
- **To CHANGE THE PARAMETER VALUE,** turn the ENCODER knob right or left to increase or decrease your selection.
- **To ADVANCE TO THE NEXT PARAMETER** within an effect menu, press the NEXT button. This takes you to the next parameter within that same effect.
- **To BACK UP TO THE PREVIOUS EFFECT PARAMETER,** press the BACK button. This takes you to the previous parameter within that same effect.
- **To ADVANCE TO THE NEXT EFFECT MENU,** press down on the ENCODER knob again. This takes you to the next effect menu.
- **To EXIT EDIT MODE,** press and hold down either the ENCODER knob or the BACK button for one second. This will return to the preset display.

The effects MENUS are organized as depicted in the diagram below. Press the ENCODER knob to go down to the next effect menu, and press the NEXT and BACK buttons to move right or left across each effect menu's parameters. At any location, turn the ENCODER to change the value.

Some tricks about the EDIT MODE:

- **WRAP-AROUND:** If you are currently at the last parameter item in the same effect, pressing NEXT will take you to the first item of the next effect menu.
- **FAST BACK:** If you are currently at the first parameter of an effect, pressing BACK will take you back to the first parameter of the previous effect menu! This is to provide a FAST BACK option for when you want to quickly advance from a menu far down the list to one closer to the top.
- **FAST OPTIONS MENU:** The last menu is the OPTIONS menu, which sets some global parameters. To get there quickly, press and hold the NEXT button for one second. This takes you to the last menu immediately without having to press the ENCODER knob several times.

AMPS

At the heart of AMPLIFIRE is Studio Devil's patented, world-class amp modeling, with amps that cover nearly all the sonic territory from Jazz to Djent. They are:

US Clean: Based on the two-speaker combo that set the standard for clean, loud guitar amps spanning a wide variety of styles.

D Luxe: Based on a medium-powered, American, single 12" workhorse classic known for its snappy and crystalline tones and coveted by country, blues and rock players.

'59 B Man: This legend started as a bass amp and is known for its diverse tones and touch-sensitive dynamics.

Top Boost: Based on a British classic, this "Class A" 2x12 is known best for its chime, jangle and its beautiful, unique voicing whether played clean, dirty or in between.

Plexi: Based on THE British amp that defined rock as we know it.

Brit 800: Based on the early 80s British 100w head that helped defined metal.

Hot Brit: An AMPLIFIRE original model, this amp is inspired by the great British rock amps but has a tighter low end and more gain on tap.

Recto: Based on the amp that defined much of 90s' rock/metal, this model has tons of gain and compression on tap, sounds great with scooped mids and has a powerful bottom end.

5051: Based on the original signature amp of one of the most influential guitarists of all time, it has become a Metal standard.

Kornfield: Based on a very popular boutique model, this amp puts its own aggressive but responsive and nuanced spin on the Brit sound.

SLO: Based on an American-made, high-gain head versatile enough to play blues, rock or roaring metal. It features a signature clipping preamp that creates cutting tones.

Freeman BE/HBE: These are based on the channels of a ridiculously popular boutique "Hot Rodded" Marshall variant that has taken the guitar world by storm.

Rumble/Rumble Bright: Based on an uber-expensive boutique amp known for note "bloom" and cherished by jazz/blues/fusion players, these "Steely" channels let you get your "D"-style thing on.

Marc IV Lead/EQ: This distinct, California-made monster is known for aggressive tone and a powerful EQ sliders to shape the tone to perfection. We give it to you both with that seminal EQ "smile" curve enabled and without.

"Power" Amps: We provide authentic-sounding power amp sims for tube types ranging from EL34s to KT88 for use with your favorite preamp pedals in the FX loop. Each has a particular sonic character, so experiment for what works best. On Power Amp models, only the Master and Presence knobs are active. The Level knob still controls the overall output.

EFFECTS LOOP (FX-LOOP)

The EFFECTS LOOP allows you to place an external effect or processor or pedal into the AMPLIFIRE signal routing chain.

The EFFECTS LOOP may be positioned in any of the following locations:

- **At Input:** The EFFECTS LOOP is the first block in the signal chain immediately following the GATE effect.
- **With Pre-FX:** The EFFECTS LOOP is within the pre-fx section. Before the PRE-EFFECTS section.
- **Before AMP:** The EFFECTS LOOP is after the PRE-FX section and immediately preceeding the AMP block.
- **With Post-FX (DEFAULT LOCATION):** The EFFECTS LOOP is after the post-EQ and prior to the post-fx section.
- **At Output:** The EFFECTS LOOP is at the end of the signal chain just prior to the REVERB block.

The following table lists recommended EFFECTS LOOP positions for certain types of effects that may be added in the loop. Please use these suggestions as general guidelines only and be sure to experiment to obtain unique tones!

Effect Type	EFFECTS LOOP position
Noise gate, Volume Pedal, Wah, Overdrives, etc.	At Input
EQ, Phasers, Flangers, etc.	With Pre-FX
Pre-amps, External Amp Sims, Boosts, etc.	Before AMP
Post EQ, External Multi-effects, Time based Effects (Delays, Chorus, etc.)	With Post-FX
Reverbs, External Cab Sims	At Output

LOOP MIX

This parameter allows you to configure the effects loop as series or parallel.

In series, the signal leaves the AmpliFire at the send jack, is processed by an external effects processor and the signal is returned at the return jack. Any wet/dry mixing must be done in the external effects processor.

In Parallel, the signal flow inside the AmpliFire continues as normal but the signal is also sent to the send jack to be sent to an external effects processor. In this scenario the signal returning to the AmpliFire return jack should be 100% wet. The Return Level parameter is then used to mix this 100% wet signal with the internal signal flow of the AmpliFire. If you chose to use ONLY amp and cab modeling in the AmpliFire and use an external effects processor for all of your other effects, the dry amp tone in the AmpliFire would never be affected by the external effects and remain pure. Whereas in Series, the signal must be converted from digital to analog to feed the external effects processor. The signal is then converted to digital again, processed and converted back to analog to return to the AmpliFire where it is converted to digital again. Some players feel that this process changes their guitar tone in a negative way. Using the parallel mode avoids all of that.

EFFECTS LOOP (FX-LOOP) CONTINUED...

The EFFECTS LOOP has a MONO SEND and a STEREO RETURN. All processing before the EFFECTS LOOP is MONO. All processing after the EFFECTS LOOP is STEREO.

Connect the MONO SEND to your external effect processor input, and connect the outputs of your external effect processor to the AMPLIFIRE STEREO RETURN jacks. If your external effect processor has a MONO output only, you may connect it to either of the STEREO RETURN jacks. **(When only one return jack is connected, AMPLIFIRE will automatically split the return signal into dual-MONO mode from either return jack.)**

The EFFECTS LOOP is switchable so you can switch the inserted effect on or off. You can do this by assigning the EFFECTS LOOP control to a FOOTSWITCH (see FOOTSWITCH section below). You can also program each preset to have the EFFECTS LOOP on or off, so that some presets could use the loop effect while others don't.

If you connect nothing to the EFFECTS LOOP STEREO RETURN jacks, the EFFECTS LOOP is always off. In this configuration, you may use the SEND jack as an alternate amp modeling direct MONO output.

The EFFECTS LOOP can be configured as MUTE SEND or MUTE RETURN (spillover). In MUTE SEND mode, turning off the effects loop only mutes the loop send, allowing any remaining delay or reverb tails in the loop to properly decay (spillover). In MUTE RETURN mode, the effects loop acts like a traditional loop, immediately muting the returns and cutting off the loop right away.

The EFFECTS LOOP can be configured as an AUX INPUT mode (see GLOBAL SETTINGS sections below). This mode allows you to connect a music player or backing tracks which are mixed (unaffected) with your main outputs. In this mode, the EFFECTS LOOP position setting has no effect.

If you have the AUX INPUT mode selected, then AMPLIFIRE will disable the EFFECTS LOOP, routing the output of the AMP MODEL effects block directly to the POST-EFFECTS section. AMPLIFIRE will also mix the RETURN JACKS with the MAIN and AUX outputs, to allow full-range blending of the aux input with your playing.

On the AMPLIFIRE, the EFFECTS LOOP can also be configured as EXPRESSION PEDAL mode, allowing you to use expression pedals (with a special adapter cable, available separately) to control effect parameters in real-time. (See EXPRESSION PEDALS section.) This mode does not exist on the AMPLIFIRE12 or AMPLIFIRE 6 because of the dedicated EXPRESSION inputs.

SAVING PRESETS

Saving a preset requires pressing the SAVE button TWICE.

The first press lets you choose the destination preset and edit the preset name. The second press commits your changes to preset memory.

After you press the SAVE button the first time, the destination preset, the preset name, and a cursor appear in the display window. The NEXT and BACK buttons move the cursor in the display to allow you to select either the destination preset or individual characters in the preset name. Turning the ENCODER knob then allows you to change the value of the element at the cursor position.

Once you have selected the destination preset and name, press the SAVE button again to save your changes.

- **To SAVE YOUR CHANGES TO THE SAME PRESET,** without making any changes to the name, simply press the SAVE button twice, and wait for AMPLIFIRE to finish saving your preset.
- **To SAVE YOUR CHANGES TO A DIFFERENT PRESET LOCATION** with the same name, press the SAVE button once, then turn the ENCODER knob to select the destination preset, and then press the SAVE button a second time to commit the save. AMPLIFIRE will overwrite your changes to the selected destination preset.
- **To COPY A PRESET TO A DIFFERENT LOCATION,** press the SAVE button once, then turn the ENCODER knob to select the destination preset, and then press the SAVE button again to commit the save. AMPLIFIRE will copy the active preset to the selected destination preset.
- **To CHANGE A PRESET NAME**, first press the SAVE button once. Then, using the NEXT and BACK buttons, move the cursor across the preset name to the location of the character you wish to change. While over this character, turn the ENCODER knob to scroll through the available characters. When you have selected the appropriate character, continue to use the NEXT and BACK buttons to move to the next character, and so on, until you have completed editing the name. Finally, press the SAVE button again to commit the changes. AMPLIFIRE will overwrite your changes to the selected destination preset with the new name.
- **To CANCEL SAVE,** simply press either the BACK or ENCODER knob. This returns you to the preset display.

PRESET MANAGER (Editor Only)

On the EDIT tab of the AmpliFire editor application in the lower, left corner is the PRESET MANAGER. Clicking on this will launch the PRESET MANAGER tool. This allows you to change the order of the presets in the AmpliFire. Any preset that you click on will be highlighted in amber. For example, click on preset 002. Then click and drag preset 002 on to preset location 001. Presets 001 and 002 have now changed places. Preset 002 will have red letters and still be highlighted in amber. Preset 001 will also have red letters and be below preset 002. Continued...

PRESET MANAGER CONTINUED

At the bottom of the PRESET MANAGER window, click UNDO and the presets will go back to their original order. Click REDO and the presets will revert to the previously edited location. Click CANCEL and the PRESET MANAGER window will close and no changes will be made to the order of your presets. Click SAVE and the editor will show UPDATING PRESETS with a progress bar. When the process is complete the PRESET MANAGER window will close and the reordering of your presets will be complete. You can make as many preset order changes as you like before you select SAVE. You can also UNDO as many changes as you make.

DEFAULT PRESET ON POWER-UP

You can choose the preset which AMPLIFIRE will load when it first powers up. Initially, this is set to preset 0, but it can be programmed to be any of the 128 presets in AMPLIFIRE:

- **To SET THE DEFAULT POWER UP PRESET,** simply select the preset you want by turning the ENCODER knob (or by pressing the NEXT and BACK buttons). Once you have selected the desired preset, press the SAVE button TWICE to save the UNCHANGED PRESET into the SAME PRESET LOCATION. This redundant SAVE operation instructs AMPLIFIRE to make it the default preset on power up. The next time you turn on AMPLIFIRE, it will load your selected preset.

DISCARD EDIT? CONFIRM

If you try to change presets with the ENCODER or NEXT / BACK buttons while the preset has been changed (edited), AMPLIFIRE will warn you and ask you to confirm your decision.

The display window will show a message asking if you want to DISCARD EDIT? Press the NEXT button to confirm and discard all of your changes. Press the BACK button to CANCEL return to the edited preset for either more editing or to save.

WARNING: AMPLIFIRE will not warn you if you try to make a program change via a footswitch or MIDI program change. If you are in a performance, and use either a footswitch or external MIDI device to instruct AMPLIFIRE to change presets, it will discard any edits and immediately switch to the selected preset. This is to make sure that accidental edits caused by turning the KNOB accidentally don't interfere with live performance switching. If you make intentional edits, make sure to SAVE before hitting any footswitches or external MIDI program changes!

PARAMETER SETTINGS

AMP

MODEL: Selects the amplifier model from the list of available amp models. Choose NONE to bypass the amp model.

ENABLE: Enables or disables the amp modeling effect. Choose ACTIVE to enable the amp modeling or BYPASSED to disable the amp modeling.

GAIN: Sets the gain control knob of the amplifier from 0.0 (minimum) to 10.0 (maximum).

BASS: Sets the bass control knob of the amplifier tone stack from 0.0 (minimum) to 10.0 (maximum).

MIDS: Sets the mids control knob of the amplifier tone stack from 0.0 (minimum) to 10.0 (maximum).

TREBLE: Sets the treble control knob of the amplifier tone stack from 0.0 (minimum) to 10.0 (maximum).

PRESENCE: Sets the presence control knob of the power amplifier from 0.0 (minimum) to 10.0 (maximum).

MASTER: Sets the master volume control knob of the power amplifier from 0.0 (minimum) to 10.0 (maximum).

LEVEL (dB): Adjusts the final output level of the amp model. This control helps to match the level of your preset with other presets.

DAMPING: Adjusts the damping factor of the power amp model from 0% to 100%. Set at 100% for normal power amp operation. Lowering the damping results in more bass resonance and more presence.

POWERAMP ENABLE: Separately enable the power amp section of the amp model. This is a GLOBAL parameter. When using your pedal with a real tube power amp, you can optionally turn off the simulated tube power amp by selecting DISABLED here. Most times you will just want to leave this parameter ENABLED.

AMP BUTTON: Assign the AMP ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the amp model. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PARAMETER SETTINGS CONTINUED...

CABINET

MODEL: Selects the cabinet model and/or cabinet emulation mode. Select NONE to disable everything: no cabinet model, no ROLLOFF, PEAK Q, BOTTOM, and AIR adjustment filters (for use with real guitar cabinets). Select FILTER ONLY to disable the cabinet model only and run the cabinet ROLLOFF, PEAK Q, BOTTOM, and AIR adjustment filters ONLY. Select MATCHED to automatically select the built-in cabinet model for each amp model (and filters). Select an amp model name to choose a specific matched cabinet from the list of available amp models (mix and match cabs for other amps). Select one of the USER CABS slots to select one of the user custom impulse response models. Select one of the PRESET cabinet models to copy a cabinet from one of the other 128 presets. In all modes except NONE, the ROLLOFF, PEAK Q, BOTTOM, and AIR adjustment filters are active.

ENABLE: Choose the outputs to have cabinet modeling. This is a GLOBAL parameter.

NONE: No cabinet modeling (using guitar cabs on either sets of outputs).

MAINS ONLY: Cabinet modeling on the main ¼" outputs only (no cabinet modeling on the aux XLR outputs)

AUX ONLY: Cabinet modeling on the aux XLR outputs only (no cabinet modeling on the main ¼" outputs)

BOTH OUTPUTS: All outputs have cabinet modeling.

NOTE: Cabinet modeling is ALWAYS on for the HEADPHONE output.

ROLLOFF (kHz): Adjusts a high frequency rolloff filter corner frequency to help tame cabinet impulses that have too much high end. Adjust down to cut off more highs or adjust up for less rolloff.

PEAK Q: Adjust the peaking of the rolloff filter. The peak is a bump in the frequency response just before rolloff. A lower value of PEAK Q means less peak. Smooth (no peak) values are between 0.5 and 1.0. High peaking values are between 1.0 and 5.0.

BOTTOM (dB): Adjust the bottom end shelf of the cabinet model. Use this to reduce cabinet models with too much low end woof or increase to warm up cabinets that sound too thin.

AIR (dB): Adjust the upper top end frequencies of the cabinet model. Use to add more sparkle and brilliance to cabinet models that sound too dull or dark.

LEVEL (dB): Adjust the output level of the cabinet model. Some impulses have a different perceived loudness than others. Use this parameter to help balance the level of a cabinet model with your amp model.

PARAMETER SETTINGS CONTINUED...

BOOST

BOOST: Turns the BOOST effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

MODE: Select from the following BOOST modes:

OVERDRIVE: Models a classic overdrive pedal similar to the Boss SD-1

SCREAMER: Models a classic overdrive pedal similar to the Ibanez TS-808

DISTORTION: Models a typical distortion pedal similar to a Boss DS-1

FUZZ: Models a fuzz-type distortion pedal similar to a Fuzz-Face

CLEAN BOOST: Models a traditional clean boost drive pedal

INSERT: Select from the following INSERT positions in the signal chain:

BOOST>FX>EQ: Places the BOOST pedal before the modulation effect and pre-eq effects in the PRE EFFECTS section.

FX>BOOST>EQ: Places the BOOST pedal between the modulation effect and pre-eq effects in the PRE EFFECTS section.

FX>EQ>BOOST: Places the BOOST pedal after the modulation effect and pre-eq effects in the PRE EFFECTS section.

DRIVE (0-100%): Adjusts the drive of the boost effect from 0% to 100%.

TONE (0-100%): Adjusts the variable tone of the boost effect from 0% to 100%. This tone control is a Hight Pass Filter (HPF). Meaning that it doesn't boost high frequencies, it cuts low frequencies. Setting the knob to 0% doesn't cut any low frequencies. Setting the knob at 100% cuts all low frequencies.

LEVEL (dB): Adjusts the output level of the boost effect. Can be set to match the bypassed level or to just provide additional boost or cut.

BUTTON: Assign the BOOST ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the BOOST. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PARAMETER SETTINGS

ECHO

ECHO: Turns the ECHO effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the ECHO effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

TYPE: Select from the following ECHO modes / styles:

DIGITAL: Models a digital delay pedal with a full range echo repeat.

ANALOG: Models an analog-delay type pedal with a very warm echo repeat.

TAPE ECHO: Models a delay pedal based on audio tape, having echo repeats with a mid-range peak.

DARK TAPE: Models a delay pedal similar to the TAPE ECHO mode but with a darker rolloff on the echo repeats.

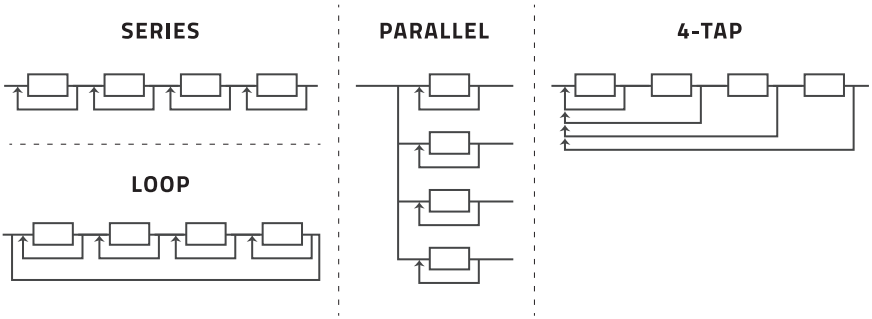
SOFT DIGITAL: Models a delay pedal similar to the DIGITAL mode but with a gentle rolloff of the highs on the echo repeats

CONFIG: Select from 3 unique ECHO configurations (see diagram below):

SERIES: 4 individual delays aligned in a series configuration. The input feeds into the first delay tap. The output of tap 1 feeds into tap 2, tap 2 feeds into tap 3, etc. Each delay feeds back directly to its own input.

PARALLEL: 4 individual delays aligned in a parallel configuration. The input feeds into all 4 taps. The output is then summed together. Each delay feeds back directly to its own input only.

4-TAP: 4 individual delays aligned in a series configuration. The input feeds into the first delay tap. The output of tap 1 feeds into tap 2, tap 2 feeds into tap 3, etc. Unlike the regular SERIES configuration, in 4-TAP mode each delay feeds back to the input of the FIRST delay tap.



PARAMETER SETTINGS [ECHO] CONTINUED...

LEVEL (dB): Controls the level in dB of the ECHO effect only. Adjust to blend the right amount of effect signal with your dry (unaffected) signal.

WIDTH (0-100%): Controls the stereo width of the delay. Works in conjunction with the PING-PONG mode and only used when the ECHO effect is set in the POST (stereo) position. Adjust from 0% (full summed to mono) to 100% (true stereo).

DRY LEVEL (dB): Allows you to change the dry (unaffected) signal level when the ECHO effect is enabled. Usually, the dry signal is mixed equally (0dB) with the ECHO effect. In cases where you want the dry signal much lower than the ECHO effect (to accentuate the echoes), or want to increase the output level, you can adjust it here.

Each of the 4 available delays has individual controls for the following 5 parameters:

TEMPO 1-4: Sets the length of the echo to a particular note duration (quarter note, eighth note, etc.) Whenever the ECHO BPM (see below) is set the delay time will be automatically updated based on the note duration. When Tempo is set to OFF the length of the ECHO is determined by the TIME setting for the delay.

TIME 1-4 (milliseconds): Sets the time interval between echo repeats. This setting is ignored when the TEMPO parameter is not set to OFF. The maximum delay time of each delay is 2700 milliseconds.

FEEDBACK 1-4 (0-100%): Controls the amount of delayed output that is fedback into the input of the. Higher feedback settings result more repeats of the ECHO. Set to 100% for infinite repeats.

MIX 1-4 (dB): Sets the level of ECHO effect to be mixed in with the dry input signal. A setting of 0 dB would result in the ECHO being equally as loud as the dry signal.

PAN 1-4 (-1/+1): Controls the location of the effect in the L/R stereo image. A positive value will place the effect on the right side of the stereo image. A negative value places it to the left side of the stereo image.

LOWCUT (Hz): A high-pass filter placed in the ECHO feedback path. Increasing the value of this filter results in reduced low frequencies in the ECHO effect. Useful for removing muddy frequencies that can build up in long ECHO effects.

HIGHCUT (Hz): A low-pass filter placed in the ECHO feedback path. Decreasing the value of this filter results in reduced high frequencies in the ECHO effect. Useful for taming harshness and creating warmer and more "vintage" sounding ECHO effects.

FLUTTER (0-100%): Controls the variation in delay time (FLUTTER) to simulate subtle changes in speed control in old analog tape echo effects, creating a natural CHORUS-like effect. Adjust from 0% (no flutter) to 100% (maximum speed variation and flutter).

FLUTTER SPEED (0-100%): Control the FLUTTER variation speed in Hertz (Hz). Adjusts the frequency of the flutter speed variation, which has an effect similar to a CHORUS LFO speed. Only noticeable when FLUTTER control is set above 0%

PARAMETER SETTINGS [ECHO] CONTINUED...

DIFFUSION (0-100%): Controls the amount of cross-coupling in the feedback paths of the delays. Adding diffusion can make the ECHO sound more like a reverb.

DRIVE (0-100%): Adds a distortion or overdrive character to the signal in the feedback loop.

BITS (32-8): Provides the ability to lower the bit resolution of the signal in the feedback loop. Lower bit resolution adds quantization noise to the signal which can be used to emulate lower fidelity digital delays or add industrial style noise to the ECHO.

BUCKETS: When enabled, this activates a "bucket brigade" model delay. Bucket brigade-style delay pedals send your signal through a series of capacitors which store the signal for a certain period of time. As the number of buckets is decreased the sampling rate is effectively decreased as well. This necessitates the use of low-pass antialiasing filters and therefore a darker sounding delay.

DUCKING (dB): Controls the DUCKING effect of the ECHO modeler. The DUCKING effect lowers the volume of the ECHO effect when it detects that you are playing, and will swell it back up to normal volume when you stop playing. This allows you to hear a nice echo effect at the tail end of your phrasing without it cluttering up the notes as you play them. Set the amount of DUCKING ATTENUATION here. This effect is also controlled by the THRESHOLD and RELEASE parameters (see below).

THRESHOLD (dB): Controls the THRESHOLD of the DUCKING effect. Sets the level which the input to the ECHO needs to reach in order to activate the DUCKING ATTENUATION. As soon as your input reaches this threshold, the echoes will be reduced in volume by the amount of dB specified in the DUCKING parameter.

RELEASE (milliseconds): Controls the amount of time that the DUCKING effect will restore the echo levels to normal (0dB of attenuation) after the input to the ECHO falls below the THRESHOLD. Once your playing stops (or falls below the THRESHOLD parameter), the DUCKING effect begins to increase the volume of the ECHO effect. The RELEASE time controls how fast (or slow) this release occurs.

PING PONG (ON/OFF): Activates PING-PONG mode. Choose ENABLED to turn on the ping-pong delay mode which makes the repeats alternately bounce between left and right channels. Choose DISABLED for a standard echo effect without ping-pong echoes. This option only works in the POST (stereo) position. In the PRE (mono) position, the PING PONG effect is not noticeable.

TAILS (ON/OFF): Activates TAILS (repeat tails). Choose ENABLED to have your echo repeats continue to ring out and delay even after the ECHO effect is turned off. This allows you to hear a smooth transition from ACTIVE to BYPASSED. Choose DISABLED to force the echo effect and its repeat echoes to both mute immediately after turning the ECHO effect to BYPASSED.

PARAMETER SETTINGS [ECHO] CONTINUED...

SPILLOVER (ON/OFF): Controls if the echo effect continues to decay after changing presets (spilling over into the next preset). This parameter is per preset and controls if the delay spills over when ENTERING (switching to) that preset. Setting this parameter to ENABLED means that any remaining echo from the previous preset will continue to spillover when you switch to THIS preset. Setting this parameter to DISABLED means that when entering THIS preset, any remaining echoes will be reset. If the ECHO effect is set differently in the switched preset from the previous preset, the echoes will change to the sound indicated by the new preset. If you want the echo speed and character to sound identical between two (or more) presets, make sure to set the ECHO parameters the same in all of them.

BPM: The Beats-Per-Minute tempo setting that is used by the ECHO effect. Whenever any of the ECHO taps are set to TEMPO mode then the delay time will be updated automatically based on the BPM and the selected note duration for each tap.

BUTTON: Assign the ECHO ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the ECHO. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PITCHSHIFTER (Only available for AmpliFire 6 and AmpliFire 12)

The PITCHSHIFTER effect block is capable of basic detuned pitch shifting style effects, crazy Whammo effects using an expression pedal and even intelligent harmony effects using specific scales, keys and intervals. It can be positioned pre or post the amp effect block.

The PITCHSHIFTER block has three modes:

PITCHSHIFTER MODE is a fixed interval, dual-voice pitchshifter. Each voice has a range selection of plus or minus 24 steps. This mode uses the following parameters:

PITCH SHIFT 1: sets the musical interval for voice #1 in half steps.

PITCH SHIFT 2: sets the musical interval for voice #2 in half steps.

PITCH MIX 1: sets the mix level (loudness) of pitched voice #1.

PITCH MIX 2: sets the mix level (loudness) of pitched voice #2.

PITCH PAN 1: sets the right-to-left stereo pan position of voice #1.

PITCH PAN 2: sets the right-to-left stereo pan position of voice #2.

PITCH DRY MIX: sets the volume of the dry (non pitch effected) signal.

PITCH TUNE 1: adjusts the fine tuning (in cents) of voice #1.

PITCH TUNE 2: adjusts the fine tuning (in cents) of voice #2.

PITCH LEVEL: sets the overall level of the effect when it is active.

PARAMETER SETTINGS [PITCHSHIFTER]
CONTINUED...

WHAMMO MODE emulates a mono pitch pedal effect with wet-only signal. This function must be used with an expression pedal. This mode uses the following parameters:

PITCH PEDAL: sets the pedal position (or displays the expression value)

PITCH HEEL: sets the musical interval at the pedal's down (heel) position.

PITCH TOE: sets the musical interval at the pedal's up (toe) position.

PITCH TUNE 1: adjusts the fine tuning (in cents) of pitch effect.

PITCH LEVEL: sets the overall level of the effect when it is active.

HARMONIZER MODE is a two-voice, intelligent harmony effect. It allows you to select the musical key and scale as well as the interval for each of the two voices. This mode uses the following parameters:

PITCH MIX 1: sets the mix level (loudness) of pitched voice #1.

PITCH MIX 2: sets the mix level (loudness) of pitched voice #2.

PITCH PAN 1: sets the right-to-left stereo pan position of voice #1.

PITCH PAN 2: sets the right-to-left stereo pan position of voice #2.

PITCH DRY MIX: sets the volume of the dry (non pitch effected) signal.

PITCH KEY: sets the key signature (root note) of the musical scale.

PITCH SCALE: sets the musical scale.

PITCH INTERVAL 1: sets the interval (in notes up/down) for voice #1.

PITCH INTERVAL 2: sets the interval (in notes up/down) for voice #2.

PITCH TUNE 1: adjusts the fine tuning (in cents) of voice #1.

PITCH TUNE 2: adjusts the fine tuning (in cents) of voice #2.

PITCH LEVEL: sets the overall level of the effect when it is active.

PARAMETER SETTINGS [PITCHSHIFTER]
CONTINUED...

Each of these modes requires specific parameters, and so not all parameters are used in all modes. We grouped the parameters together for their specific use to keep things easy to follow. This is described in the table below...

	PITCHSHIFTER	WHAMMO	HARMONIZER
PITCH SHIFT 1	▪		
PITCH SHIFT 2	▪		
PITCH MIX 1	▪		▪
PITCH MIX 2	▪		▪
PITCH PAN 1	▪		▪
PITCH PAN 2	▪		▪
PITCH DRY MIX	▪		▪
PITCH PEDAL		▪	
PITCH HEEL		▪	
PITCH TOE		▪	
PITCH KEY			▪
PITCH SCALE			▪
PITCH INTERVAL 1			▪
PITCH INTERVAL 2			▪
PITCH TUNE 1	▪	▪	▪
PITCH TUNE 2	▪		▪
PITCH LEVEL	▪	▪	▪

PARAMETER SETTINGS [PITCHSHIFTER]
CONTINUED...

The following describes each PITCH effect block parameter in greater detail...

ENABLE: Turns the PITCHSHIFTER effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the PITCHSHIFTER effect. Choose PRE to position the effect in the PRE- EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

PITCH LEVEL: Sets the overall level of the pitch effect when enabled. -40.0dB to +12.0 dB.

MODE (PITCHSHIFTER/WHAMMO/HARMONIZER): Determines the mode of the effect. In PITCHSHIFTER mode, the effect is a fixed interval, dual-voice pitchshifter. In WHAMMO mode, the effect is a single-voice, expression pedal controlled pitchshifter. In HARMONIZER mode, the effect is a dual-voice harmonizer.

PITCH SHIFT 1: (PITCHSHIFTER mode only) Selects the musical interval of the pitchshifter voice #1.

PITCH SHIFT 2: (PITCHSHIFTER mode only) Selects the musical interval of the pitchshifter voice #2.

PITCH MIX 1: (PITCHSHIFTER and HARMONIZER modes only) 0 to 100%: sets the level of Pitch Voice 1 and PITCH INTERVAL 1.

PITCH MIX 2: (PITCHSHIFTER and HARMONIZER modes only) 0 to 100%: sets the level of Pitch Voice 2 and PITCH INTERVAL 2.

PITCH PAN 1: (PITCHSHIFTER and HARMONIZER modes only) Sets the pan of Pitch Voice 1 and PITCH INTERVAL 1. (-1 is left, 0 is center, 1 is right). Has no effect if Pitch effect INSERT is set to PRE.

PITCH PAN 2: (PITCHSHIFTER and HARMONIZER modes only) Sets the pan of Pitch Voice 2 and PITCH INTERVAL 2. (-1 is left, 0 is center, 1 is right). Has no effect if Pitch effect INSERT is set to PRE.

PITCH DRY MIX: (PITCHSHIFTER and HARMONIZER modes only) 0 to 100%. Sets the level of the dry signal (unaffected signal) when the pitch effect is enabled.

PITCH PEDAL: (WHAMMO mode only) 0 to 100%. Sets the position of the pitch pedal. Can be assigned to an expression pedal (PSH:PEDAL) for realtime control between the heel and toe intervals.

PITCH HEEL: (WHAMMO mode only) Interval: selects the musical interval of the pitchshifter at the bottom (heel) position of the pitch pedal. (For a standard octave up whammo effect set this to 0 UNISON.)

PITCH TOE: (WHAMMO mode only) Interval: selects the musical interval of the pitchshifter at the top position of the pitch pedal. (For a standard octave up whammo effect set this to +12 OCT UP.)

PARAMETER SETTINGS [PITCHSHIFTER]

CONTINUED...

PITCH KEY: (HARMONIZER mode only) Key Signature: Sets the root note of the scale. C, C#/Db, D, D#/Eb, E, F, F#/Gb, G, G#/Ab, A, A#/Bb, B.

PITCH SCALE: (HARMONIZER mode only) Sets the musical scale of pitchshifter. Choose between Major, Minor, Major Pentatonic, Minor Pentatonic, Harmonic Minor, Melodic Minor, Blues, Dominant 7th, Dorian, Phrygian, Lydian, Mixolydian, Locrian, Diminsihed, Augmented, Altered, Whole Tone or Chromatic.

PITCH INTERVAL 1: (HARMONIZER mode only) Sets the musical steps above or below the detected note for pitchshifter voice #1 +/- 12 notes.

PITCH INTERVAL 2: (HARMONIZER mode only) Sets the musical steps above or below the detected note for pitchshifter voice #2. +/- 12 notes.

PITCH TUNE 1: +/-1200 cents: detunes the pitchshifter voice #1 by up to +/- 1 octave in cents. Offsets pitch in all modes. (Hardware moves in one cent values. The editor moves in 10 cent values. Hold down SHIFT while dragging to move in one cent values.)

PITCH TUNE 2: +/-1200 cents: detunes the pitchshifter voice #2 by up to +/- 1 octave in cents. Offsets pitch in all modes. (Hardware moves in one cent values. The editor moves in 10 cent values. Hold down SHIFT while dragging to move in one cent values.)

PITCH DETECT: (ALL modes) GUITAR INPUT or EFFECT INPUT: pitch detection is done at guitar input jack or at pitch effect block input.

PITCH BUTTON: (ALL modes) Assign the PITCHSHIFTER functionality to the selected footswitch . Pressing the assigned footswitch will toggle between

ACTIVE and BYPASS mode of the PITCHSHIFTER . Please note that the assigned footswitch must be in PRESET ASSIGN mode.

For Musical Interval Selection, the following choices are in the menu:
(this goes for pitch shift amounts as well as WHAMMO pedal toe and heel settings)

-24 (OCT -8)	-14 (2nd -8)	- 4 (3rd DN)	+ 6 (d 5 UP)	+16 (3rd +8)
-23 (7th -8)	-13 (m2 -8)	- 3 (m3 DN)	+ 7 (5th UP)	+17 (4th +8)
-22 (m7 -8)	-12 (OCT DN)	- 2 (2nd DN)	+ 8 (m6 UP)	+18 (d 5 +8)
-21 (6th -8)	-11 (7th DN)	- 1 (m2 DN)	+ 9 (6th UP)	+19 (5th +8)
-20 (m6 -8)	-10 (m7 DN)	+ 0 (UNISON)	+10 (m7 UP)	+20 (m 6 +8)
-19 (5th -8)	- 9 (6th DN)	+ 1 (m2 UP)	+11 (7th UP)	+21 (6th +8)
-18 (d 5 -8)	- 8 (m6 DN)	+ 2 (2nd UP)	+12 (OCT UP)	+22 (m 7 +8)
-17 (4th -8)	- 7 (5th DN)	+ 3 (m3 UP)	+13 (m 2 +8)	+23 (7th +8)
-16 (3rd -8)	- 6 (d 5 DN)	+ 4 (3rd UP)	+14 (2nd +8)	+24 (OCT +8)
-15 (m3 -8)	- 5 (4th DN)	+ 5 (4th UP)	+15 (m 3 +8)	

PARAMETER SETTINGS CONTINUED...

REVERB

ENABLE: Turns the REVERB effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

TYPE: Select from the following REVERB modes / styles:

SMALL: simulates the reverb of a small room.

MEDIUM: simulates the reverb of a medium-sized club or small hall.

LARGE: simulates the reverb of a large sized venue or large concert hall.

SPRING: simulates the reverb of a spring reverb tank.

SPRING2: simulates the reverb of a classic "D'Luxe"-type amp.

PLATE: Simulates the reverb of a steel plate reverberation system.

CAVERN: simulates the reverb of a large sized cave

LEVEL (dB): Controls the level of the reverb effect only. Adjust to blend the right amount of reverb with your dry (unaffected) signal.

DECAY (0-100%): Controls the decay time (size) of the reverb from 0% (minimum size) to 100% (maximum size).

LOW-FREQUENCY DAMPING (0-100%): Controls the amount of dampening of low-frequency (bass) in the simulated room acoustics from 0% (most amount of bass) to 100% (least amount of bass).

HIGH-FREQUENCY DAMPING (0-100%): Controls the amount of dampening of high-frequency (treble) in the simulated room acoustics from 0% (least amount of treble) to 100% (full amount of treble).

DIFFUSION (0-100%): Controls the amount of stereo diffusion of the reverb from 0% to 100%.

WIDTH (0-100%): Controls the amount of stereo separation of the reverb from 0% (fully summed to mono) to 100% (full stereo panning).

PREDELAY (milliseconds): Controls the amount of PREDELAY feeding into the reverb unit. Used to simulate very large spaces where the first echo splash from the reverb occurs only after a predelay time. Adjust from 0 to 100 milliseconds.

SPILLOVER (ON/OFF): Controls if the reverb effect continues to decay after changing presets (spilling over into the next preset). This parameter is per preset and controls if the reverb tail spills over when ENTERING (switching to) that preset. Setting this parameter to ENABLED means that any remaining reverb from the previous preset will continue to spillover when you switch to THIS preset. Setting this parameter to DISABLED means that when entering THIS preset, any remaining reverb will be reset. If the REVERB effect is set differently in the switched preset from the previous preset, the reverb will change to the sound indicated by the new preset. If you want the reverb character to sound identical between two (or more) presets, make sure to set the REVERB parameters the same in all of them.

PARAMETER SETTINGS [REVERB] CONTINUED...

DRY LEVEL (dB): Allows you to change the dry (unaffected) signal level when the REVERB effect is enabled. Usually, the dry signal is mixed equally (0dB) with the REVERB effect. In cases where you want the dry signal much lower than the REVERB effect (to accentuate the reverb), or want to increase the output level, you can adjust it here.

DUCKING (dB): Controls the DUCKING effect of the REVERB modeler. The DUCKING effect lowers the volume of the REVERB effect when it detects that you are playing, and will swell it back up to normal volume when you stop playing. This allows you to hear a nice reverb at the tail end of your phrasing without it cluttering up the notes as you play them. Set the amount of DUCKING ATTENUATION here. This effect is also controlled by the THRESHOLD and RELEASE parameters (see below).

THRESHOLD (dB): Controls the THRESHOLD of the DUCKING effect. Sets the level which the input to the REVERB needs to reach in order to activate the DUCKING ATTENUATION. As soon as your input reaches this threshold, the reverb will be reduced in volume by the amount of dB specified in the DUCKING parameter.

RELEASE (milliseconds): Controls the amount of time that the DUCKING effect will restore the reverb levels to normal (0dB of attenuation) after the input to the REVERB falls below the THRESHOLD. Once your playing stops (or falls below the THRESHOLD parameter), the DUCKING effect begins to increase the volume of the REVERB effect. The RELEASE time controls how fast (or slow) this release occurs.

BUTTON: Assign the REVERB ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the REVERB. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PARAMETER SETTINGS CONTINUED...

CHORUS

ENABLE: Turns the CHORUS effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the CHORUS effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

LEVEL (dB): Adjusts the overall output of the CHORUS effect (wet and dry signals combined) when the CHORUS is enabled.

MIX (0-100%): Adjusts the percertange of wet to dry in the output signal. When set to 0% the signal is completely dry. When set to 100% the signal is completely wet.

WIDTH (0-100%): Controls the amount of stereo panning of the CHORUS from 0% (fully summed to mono) to 100% (full stereo panning). The INSERT location must be POST for stereo operation.

SPEED (Hz): Controls the rate at which the LFO (Low-Frequency Oscillator) oscillates. The output of the LFO controls the delay time of the wet signal. A faster LFO rate means the delay times will change more quickly and a more "warbly" sound will be produced.

DEPTH (0-100%): Controls the depth of the LFO. As depth is increased, the LFO will have a wider sweep range. This means that the delay time of the wet signal will change more drastically. As a result, higher depth values result in more noticeable pitch shift in the wet signal.

DELAY (milliseconds): Sets the center point of the delay time of the wet signal. The CHORUS LFO will modulate around this center point. Set to lower values for a more flangey type CHORUS and set to higher values for more of a modulated delay type sound.

LOWCUT (Hz): A high-pass filter affecting only the WET portion of the CHORUS output. Set to higher values to reduce low frequencies. Can be useful for tightening up the low-end, particularly when the CHORUS is used with higher gain amps or for bass guitar.

HIGHCUT (Hz): A low-pass filter affecting only the WET portion of the CHORUS. Set to lower values to reduce high frequencies.

WAVE (0-100%): Adjusts the geometric shape of the LFO. The LFO shape is adjustable from full triangle wave (0%) to full sine wave (100%) or anywhere in between.

VOICES (1-4): Select the number of CHORUS voices. The CHORUS voices are summed together to form the wet portion of the CHORUS output. Each voice has programmable MIX, PHASE and PAN. Use multiple voices and experiment with unique MIX, PHASE and PAN settings for lusher CHORUS sounds.

The CHORUS provides full programmability of the following parameters for up to 4 voices:

MIX 1-4 (dB): Adjust the level of the individual chorus voices before they are summed together to form the wet output signal. When all voices are set to 0dB they are of equal amplitude.

PAN 1-4 (-1/+1): Controls the location of the voice in the L/R stereo image. A positive value will place the effect on the right side of the stereo image. A negative value places it to the left side of the stereo image.

PHASE 1-4 (0-359°): Adjusts the the phase offset of the voice from the LFO. For example, when set to 180**°** the LFO controlling that voice will be shifted one half cycle compared to the voice set to 0**°.** This results in the pitch of one voice increasing while the other is decreasing. Assigning different phase offsets for each voice will produce more interesting and complex chorus tones when several voices are in use.

BUTTON: Assign the CHORUS ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the CHORUS. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

FLANGER

ENABLE: Turns the FLANGER effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the FLANGER effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

LEVEL (dB): Adjusts the overall output of the FLANGER effect (wet and dry signals combined) when the FLANGER is enabled..

MIX (0-100%): Adjusts the percertange of wet to dry in the output signal. When set to 0% the signal is completely dry. When set to 100% the signal is completely wet.

WIDTH (0-100%): Controls the amount of stereo panning of the chorus from 0% (fully summed to mono) to 100% (full stereo panning).

DELAY (milliseconds): Sets the center point of the delay time of the wet signal. The FLANGER LFO will modulate around this center point. Choose different delay settings to adjust the notch filter frequencies that are created by the FLANGER effect. Lower delay time values result in higher pitch notches and longer delay times result in lower pitch notches.

PARAMETER SETTINGS - EFFECTS CONTINUED...

SPEED (Hz): Controls the rate at which the LFO (Low-Frequency Oscillator) oscillates. The output of the LFO controls the delay time of the wet signal. A faster LFO rate means the delay times will change more quickly and the resulting comb filter will move around more quickly. Turn up for a faster whooshing sound.

SWEEP (0-100%): Controls the depth of the LFO. As depth is increased, the LFO will swing between larger and larger values. This means that the delay time of the wet signal will change more drastically and the FLANGER's comb filter will sweep across a wider range of frequencies.

REGEN (0-100%): Controls the amount of regeneration (or feedback) of the FLANGER. This is the amount of wet output signal that is fed back to the input of the FLANGER. Higher values result in increased resonance of the FLANGER's comb filter and a more dramatic audible effect.

WAVE (0-100%): Adjusts the geometric shape of the LFO. The LFO shape is adjustable from full triangle wave (0%) to full sine wave (100%) or anywhere in between.

PHASE (0-360°): Controls the phase relationship between the left channel LFO and the right channel LFO for the stereo FLANGER. For example, setting to 180° allows one channel to be sweeping up while the other sweeps down. Note: The FLANGER must be in POST position for it to operate in stereo mode.

DUTY (0-100%): Adjusts the rise and fall time of the LFO. At 50%, the LFO will rise and fall at the same rate. The percentage indicates what portion of one LFO period will be spent during the rise. For example, at 25% it will rise for 1/4 of the total period of one LFO cycle and fall in 3/4 of the period. So it will rise three times as quickly as it falls.

THRU-ZERO (ON/OFF): Turning this ON adds some delay to the dry signal so that the delay time of the wet swings between positive and negative delay times relative to the dry. This allows it to pass "thru-zero" delay time. This simulates vintage flangers that accomplished this by varying the speed of one tape player relative to another.

INVERT FB (ON/OFF): Setting this to ON will invert the feedback of the FLANGER before it is summed with the input. In the frequency domain, this changes the nature of the FLANGER's comb filter so that the notches swap places with the peaks. The result is a more "jet" type of FLANGER.

INVERT MX (ON/OFF): Turning this ON will invert the phase of the wet signal before it is mixed back in with the dry. This allows the swapping of the FLANGER's comb filter notches without changing the feedback to negative.

BUTTON: Assign the FLANGER ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the FLANGER. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PHASER

ENABLE: Turns the PHASER effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the PHASER effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

LEVEL (dB): Adjusts the level of the output from the PHASER effect.

DEPTH (0-100%): Controls the depth of the LFO. As depth is increased, the LFO will have a wider sweep range. This means that the notch filters formed by the PHASER will sweep across a wider range of frequencies.

WIDTH (0-100%): Controls the amount of stereo panning of the PHASER from 0% (fully summed to mono) to 100% (full stereo panning). The INSERT must be in POST mode for stereo operation.

SPEED (Hz): Controls the rate at which the LFO oscillates. The output of the LFO is used to sweep the center frequencies of a selectable number (see STAGES below) of notch filters. SPEED controls how quickly these notch filters sweep through the range of frequencies.

SWEEP (0-100%): Controls the sweep range of the notch filters. Set to a higher percentage to sweep across a wider range of frequencies.

REGEN (0-100%): Controls the amount of regeneration (or feedback) of the PHASER. Adding regeneration causes the peaks around the notch filters to grow more sharp and the filters become more resonant.

WAVE (0-100%): Adjusts the geometric shape of the LFO. The LFO shape is adjustable from full triangle wave (0%) to full sine wave (100%) or anywhere in between.

DUTY (0-100%): Adjusts the rise and fall time of the LFO. At 50%, the LFO will rise and fall at the same rate. The percentage indicates what portion of one LFO period will be spent during the rise. For example, at 25% it will rise for 1/4 of the total period of one LFO cycle and fall in 3/4 of the period. So it will rise three times as quickly as it falls. Set to 100% for a constantly rising (or "barberpole") PHASER effect.

PHASE (0-359°): Controls the phase relationship between the left channel LFO and the right channel LFO for the stereo PHASER. This allows some of the notches to be sweeping up on one channel while the other channel sweep's down. Note: The PHASER must be in POST position for it to operate in stereo mode.

STAGES (2-4-6-8-10-12): Controls the number of notch filters present in the PHASER. More stages results in more notches which produces a more dramatic PHASER effect.

PARAMETER SETTINGS CONTINUED...

BASE FREQ (Hz): Selects the starting frequency for the lowest notch filter when it is at the bottom most location of its sweep.

TYPE (LOG/LINEAR): Adjusts between logarithmic or linear sweeping of the notch filters. Remember, since our ears work logarithmicly setting this value to LOG will actually result in us hearing a consistent sweep through the frequencies.

BUTTON: Assign the PHASER ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the PHASER. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

TREMOLO

ENABLE: Turns the TREMOLO effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the TREMOLO effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

LEVEL (dB): Adjusts the level of the output from the TREMOLO effect.

DEPTH (0-100%): Controls the depth of the LFO. As depth is increased, the LFO will have a wider range. This means that the amplitude modulation effect of the tremolo will become more and more drastic as depth approaches 100%.

WIDTH (0-100%): Controls the width of the stereo panning effect of the TREMOLO. When used in conjunction with the PHASE control, panning effects can be created. For example, to create a panner that oscillates back and forth between the left and right channels set the WIDTH to 100% and set the PHASE to 180**°.** The TREMOLO must be placed in POST position (stereo operation) for this parameter to be effective.

SPEED (Hz): Controls the SPEED of the LFO which is modulating the amplitude of the signal.

WAVE (0-100%): Selects the type of LFO waveform used. At 0% the wave will be a pure sine wave. At 50% it will be a triangle wave. At 100% it will be a square wave. Or select any intermediate value for interesting blends of these waveforms.

DUTY (0-100%): Selects the duty cycle of the LFO waveform.

PHASE (0-359°): Adjusts the phase offset of the right channel from the left channel when the TREMOLO is operating in stereo mode. The TREMOLO must be in the POST position (stereo operation) for this parameter to be effecttive.

TAPER (0-100%): Controls how the LFO output is used to control the TREMOLO gain. TAPER controls the mid-point of the overall travel range of the TREMOLO gain. So at 50%, the TAPER is exactly linear. Below 50%, it is an audio TAPER and above 50% it is a reverse audio TAPER.

BUTTON: Assign the TREMOLO ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the TREMOLO. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

GATE / EXPANDER

The GATE effect features both GLOBAL and PRESET parameter settings. In the GLOBAL settings section of the software editor there is a gate parameter box labeled USE GLOBAL. If you click this box the global gate settings will aways be used. If you leave this box unchecked you can use the global gate parameters or preset gate parameters per preset. Both global and preset parameters can be edited in the gate parameters section of the hardware and the editor.

ENABLE: Turns the noise GATE effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

SETTING: You can select the GLOBAL gate parameters or the PRESET gate parameters. Selecting PRESET allows you to make unique gate parameter value settings for the currently selected preset.

THRESHOLD (dB): The THRESHOLD of the GATE determines is the minimum level of the input signal that will open the GATE. Signals below the THRESHOLD are reduced in gain by an amount equal to the RATIO (see below). Set to higher values for a more aggressive gating effect.

RATIO: Determines how much gain reduction is applied to signals that are below the THRESHOLD. For example, a RATIO of 2 means that signals below the THRESHOLD will be reduced by 50%. The GATE is a true dynamic range expander. Set to higher values for a more aggressive gating effect.

ATTACK (milliseconds): Adjusts the attack time of the noise GATE. This controls how much time it takes for the GATE to open once the input signal has risen above the THRESHOLD.

RELEASE (milliseconds): Adjusts the release time of the noise GATE. This controls how much time it takes for the GATE to close after the input signal has fallen below the THRESHOLD. Set to lower values to allow the GATE to operate quickly. Be sure not to set too low or you could negatively affect the sustain and decay of your guitar..

BUTTON: Assign the GATE ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the GATE. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

COMPRESSOR

ENABLE: Turns the COMPRESSOR effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the COMPRESSOR effect. Choose PRE to position the effect in the PRE-EFFECTS section.. Choose POST to position the effect in the POST-EFFECTS section.

MODE (STUDIO/PEDAL): Determines the source of the gain detector. In STUDIO mode, the gain reduction envelope comes from the input (feedforward). In PEDAL mode the gain reduction envelope comes from the output (feedback).

THRESHOLD (dB): The THRESHOLD determines the level at which the compressor begins to reduce the gain of the input signal. Signals above the threshold are reduced by an amount equal to the RATIO (see below).

RATIO: Determines how much gain reduction is applied to signals that are above the THRESHOLD. For example, when RATIO is set to 2 then signals above the THRESHOLD will be reduced by 50%. As RATIO approaches its maximum value the COMPRESSOR becomes closer to a LIMITER.

LEVEL (dB): Adjusts the output level of the COMPRESSOR block. Higher values of compression can result in decreased overall volume. The level can be adjusted higher to compensate for this.

MAKEUP (AUTO/OFF): Enables or disables the automatic MAKEUP gain feature. MAKEUP gain will automatically boost the output level of the COMPRESSOR effect to compensate for the reduction in amplitude due to the compression effect. Can be used instead of (or in addition to) manual level compensation.

ATTACK (milliseconds): Adjusts the ATTACK time of the COMPRESSOR. This determines how quickly the gain reduction is applied to the signal after it passes above the THRESHOLD.

RELEASE (milliseconds): Adjusts the RELASE time of the COMPRESSOR. This determines how quickly the gain reduction stops being applied after the input signal crosses below the THRESHOLD.

DETECT (PEAK/RMS): Determines the type of detector being used to DETECT the input level of the signal. In PEAK mode, the detector responds according to the peak input signal level. In RMS mode, the detector is taking a "root-mean-square" running average of the input signal. This means it will not respond quite as quickly to abrupt changes in signal amplitude.

KNEE (dB): The KNEE determines the width of the transition region between compression and non-compression. At 0dB, the THRESHOLD is an abrupt transition (picture two straight lines connecting at different angles). This is called a "hard-knee" compressor. As the KNEE is increased the transition becomes more gentle which can help create a smoother sound. This is called a "soft-knee" compressor. You can adjust this parameter between both types to suit your taste.

BUTTON: Assign the COMPRESSOR ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the COMPRESSOR.. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

LOOP

ENABLE: Turns the external effects LOOP on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off. In AUX INPUT mode, the loop ENABLE serves no function. (see loop MODES below)

MODE: Choose from the following 4 modes:

MUTE SEND: In MUTE SEND mode, the LOOP bypass/active state controls the mute on the send jack only and the return jacks are always active. This allows any effect tails (like in delays and reverbs) to continue to ring out and decay even after the loop is BYPASSED.

MUTE RETURN: In MUTE RETURN mode, the LOOP bypass/active state controls the mute on both the send and the return. This immediately mutes any external effects connected to the LOOP once it is BYPASSED.

AUX INPUT/DI: In AUX INPUT mode, the LOOP acts like an auxiliary input for connection with external music players. The input will mix with directly to the outputs without any effects. In this mode, the send jack remains active and can be used as an additional unprocessed guitar DI signal.

EXPRESSION: in EXPRESSION mode, the effects loop is disabled and may be used with a special adapter cable (available through Atomic Amps) to accommodate two standard expression pedals (for controlling effect parameters with pedals in real-time). For expression pedals to work with the loop jacks, the LOOP must be put into EXPRESSION mode. PLEASE NOTE: This mode is only available on the AMPLIFIRE since the AMPLIFIRE12 and AMPLIFIRE 6 have dedicated expression pedal inputs.

LOOP INSERT: Determines the location of the LOOP. For details, please see the EFFECTS LOOP section above.

SEND LEVEL (dB): Adjusts the relative output of the SEND jack to help match with external effects processor inputs.

RETURN LEVEL (dB): Adjusts the relative input gain of the RETURN jacks to help match with external effects processor output levels.

PEDAL A/B: Displays the position of applicable expression pedal in percent (%). The full heel position (minimum position) should display as near 0%. The full toe position (maximum position) should display as near 100%. If you do not get a good range with your pedal, you may calibrate it by pressing SAVE while on the PEDAL display. This starts the PEDAL calibration function. (See the EXPRESSION PEDALS section for more details).

PARAMETER SETTINGS CONTINUED...

PARAM A: Selects the parameter for expression pedal "A" to control. You may choose from any non-global, non-menu type parameters (normal continuous parameters) within your preset.

MIN A: Sets the minimum value of the selected PARAM A. This represents the value of the parameter when EXPRESSION PEDAL A is in the heel (minimum) position.

MAX A: Sets the maximum value of the selected PARAM A. This represents the value of the parameter when EXPRESSION PEDAL A is in the toe (maximum) position.

PARAM B: Selects the parameter for expression pedal "B" to control. You may choose from any non-global, non-menu type parameters (normal continuous parameters) within your preset.

MIN B: Sets the minimum value of the selected PARAM B. This represents the value of the parameter when EXPRESSION PEDAL B is in the heel (minimum) position.

MAX B: Sets the maximum value of the selected PARAM B. This represents the value of the parameter when EXPRESSION PEDAL B is in the toe (maximum) position.

BUTTON: Assign the LOOP ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the LOOP. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

WAH WAH

ENABLE: Turns the WAH-WAH effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

MODE: Select from 3 different modes for control of the WAH WAH:

NORMAL: The pedal-position of the wah is controlled by the PEDAL parameter (see below). This is typically assigned to an EXPRESSION pedal input. Or may be set to a fixed position for a "cocked-wah" type sound.

T-WAH: Selects a "touch-wah" mode. In this mode, the pedal position of the wah is automatically adjusted by an input level detector. Signals of greater amplitude (more aggressive playing) will cause the wah to move to the toe down position and it will automatically move back to the heel position as the signalj amplitude decays.

LFO-WAH: Selects a "Low Frequency Oscillator" mode where the pedal position of the wah will adjust automatically according to the position of an LFO. Allows for interesting tempo synced wah effects.

PEDAL (0-100%): Sets the position of the WAH-WAH pedal from 0% (down or heel position) to 100% (up or toe position). This can be set to a fixed position for a "cocked-WAH" sound, or assigned to an EXPRESSION PEDAL or MIDI for continuous control (see EXPRESSION PEDAL and MIDI sections).

TAPER (0-100%): TAPER controls the mid-point of the overall travel range of the WAH. At 50%, the TAPER is exactly linear. Below 50%, it is an audio TAPER and above 50% it is a reverse audio TAPER.

PARAMETER SETTINGS CONTINUED...

FREQUENCY MIN (kHz): Sets the minimum frequency of the WAH-WAH filter effect sweep. This is the resonant frequency of the filter when the PEDAL parameter is in the minimum 0% (heel) position.

FREQUENCY MAX (kHz): Sets the maximum frequency of the WAH-WAH filter effect sweep. This is the resonant frequency of the filter when the PEDAL parameter is in the maximum 100% (toe) position.

TYPE: Choose the type of filter for the WAH effect. Some WAH-WAHs use a BANDPASS type, but some use a high-peaking LOWPASS type. Each has its own character:

LOWPASS: Selects a variable low-pass filter. The WAH pedal controls the cutoff frequency. This mode preserves the low end of your guitar even when the pedal it put into the higher positions.

BANDPASS: Selects a variable band-pass filter. The WAH pedal controls the center frequency. This mode results in a more nasal and mid-rangey tone. It reduces the low end of your guitar when the pedal it put into the higher position.

Q: Adjusts the "Q" or peaking of the filter. Increase this value for a thinner, more nasal, and crisper WAH sound. Lower this value for a more subtle and rounder WAH sound.

LEVEL (dB): Sets the output LEVEL of the WAH when the effect is enabled. This allows you to automatically add clean boost to your WAH when it is enabled.

AUTO-OFF: *This is a GLOBAL parameter.* Enables the AUTO-OFF feature of the WAH effect. Most real WAHs have an on/off switch. Most expression pedals don't. To solve this issue, we created an AUTO-OFF feature which can bypass your WAH effect automatically when the pedal is parked or inactive for a period of time.

DISABLED: Turns off the AUTO-OFF feature, and your WAH is only manually controlled by the ENABLE parameter.

INACTIVITY: Selects INACTIVITY AUTO-OFF mode. In this mode, the WAH will automatically turn off when the WAH PEDAL parameter is not changed more than the THRESHOLD amount during an interval of time specified by the TIMER parameter. (see THRESHOLD and TIMER parameters below).

PARKED: Selects PARKED AUTO-OFF mode. In this mode, the WAH will automatically turn off when the WAH PEDAL parameter is kept below the THRESHOLD amount during an interval of time specified by the TIMER parameter. (see THRESHOLD and TIMER parameters below).

TIMER (milliseconds): *This is a GLOBAL parameter.* Sets the AUTO-OFF timeout time. When the AUTO-OFF feature is enabled, this parameter sets the amount of time for the WAH to automatically shut off when the PEDAL is either inactive or parked.

THRESHOLD (0-100%): *This is a GLOBAL parameter.* Sets the AUTO-OFF threshold for inactivity or parked position. If the PEDAL changes less than this amount then it is INACTIVE. If the PEDAL remains below this amount then it is PARKED.

PARAMETER SETTINGS CONTINUED...

T-WAH SENSE (dB): Adjusts the sensitivity of the TOUCH WAH. It does so by means of an input gain control adjustment. Setting this to positive values will make the TOUCH WAH more sensitive and lower signal amplitudes will more easily move the WAH to the toe-down position. Can be useful for pickup gain compensation.

T-WAH ATTACK (milliseconds): Controls how quickly the TOUCH WAH changes from heel to toe position as input signal amplitude increases. Lower values will cause the wah to sweep very quickly from heel to toe. Higher values will cause a slower transition.

T-WAH RELEASE (milliseconds): Controls how quickly the TOUCH WAH change from toe position to heel position as input signal ampitude decreases. Lower values will cause the wah to sweep very quickly from toe to heel. Higher values will cause a slower transition.

WAH LFO FREQ (Hz): Controls the rate of the Low-Frequency-Oscillator when in LFO-WAH mode. Determines how quickly the WAH travels from heel position to toe position and back.

WAH LFO WAVE (0-100%): Adjusts the geometric shape of the LFO when in LFO-WAH mode. The LFO shape is adjustable from full triangle wave (0%) to full sine wave (100%) or anywhere in between.

WAH LFO DUTY (0-100%): Adjusts the rise and fall time of the LFO whe in LFO-WAH mode. At 50%, the LFO will rise and fall at the same rate. The percentage indicates what portion of one LFO period will be spent during the rise. For example, at 25% it will rise for 1/4 of the total period of one LFO cycle and fall in 3/4 of the period. So it will rise three times as quickly as it falls.

BUTTON: Assign the WAH ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the WAH. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

VOLUME

ENABLE: Turns the VOLUME effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: Positions the VOLUME effect into one of three positions, each with a subtly different control of your sound:

PRE: In the PRE position, the VOLUME effect is placed in the beginning of your PRE-EFFECTS section (at the input, just after the GATE). This allows you to mimic the effect of rolling off your guitar volume knob with you foot. It is the same as if you had a volume pedal as your first pedal in your effects chain.

AMP: In the AMP position, the VOLUME effect is placed right after your AMP model. This allows you to control the volume of your tone as it is sent to your POST EFFECTS, allowing tails in your POST EFFECTS to ring out even after turning your VOLUME effect down.

POST: In the POST position, the VOLUME effect is placed at the end of your POST-EFFECTS section. This allows you to control the volume of everything, like a master volume control similar to the output LEVEL knob.

PARAMETER SETTINGS CONTINUED...

MODE (NORMAL/ENVELOPE): In normal mode the VOLUME pedal position is determined by the value of the PEDAL parameter (see below). In envelope mode the VOLUME pedal position is determined by an input gain envelope detector and automatically tracks with your playing like an auto-swell volume pedal.

PEDAL: Sets the position of the VOLUME pedal from 0% (down or heel position) to 100% (up or toe position). This can be set to a fixed position for a set VOLUME, or assigned to an EXPRESSION PEDAL or MIDI for continuous control (see EXPRESSION PEDAL and MIDI sections).

TAPER (0-100%): TAPER controls the mid-point of the overall travel range of the VOLUME. At 50%, the TAPER is exactly linear. Below 50%, it is an audio TAPER and above 50% it is a reverse audio TAPER.

ATTACK (milliseconds): ENVELOPE MODE only. Determines how quickly the VOLUME pedal moves from heel position to toe position after the input signal amplitude crosses the THRESHOLD. Setting to longer times can create an auto-volume swell effect.

SENSE (dB): ENVELOPE MODE only. Determines the minimum signal level before the VOLUME pedal detects your guitar picking and starts an auto-swell cycle. Think of this as touch sensitivity or pick sensitivity.

VOL ENV SRC (VOLUME IN/GUITAR IN): The source of the envelope detector is configurable between the input to the VOLUME block or the input of the GUITAR directly after the A/D converter. Selecting GUITAR IN can be useful if you have the VOLUME block placed in the AMP or POST position and you do not want other effects in the signal chain to influence the shape of the envelope.

BUTTON: Assign the VOLUME ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the WAH. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

GRAPHIC EQ

ENABLE: Turns the GRAPHIC EQ effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

INSERT: positions the GRAPHIC EQ effect. Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model). Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model).

LEVEL: Adjusts the output level of the GRAPHIC EQ effect in dB to match the bypassed level or to just provide additional overall boost or cut to the effect.

80, 160, 320, 640, 1.2K, 2.6K, 5.1K, LEVEL: Adjusts the amount of boost or cut for each of the equalizer bands of the GRAPHIC EQ effect in dB.

BUTTON: Assign the GRAPHIC EQ ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the GRAPHIC EQ. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PARAMETER SETTINGS CONTINUED...

PRE EQ

ENABLE: Turns the PRE EQ filter effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

TYPE: Selects the type of filter. Choose from the following:

NONE: Disables the filter even when it is ACTIVE.

GAIN ONLY: Applies only gain (across all frequencies). In this mode, only the LEVEL parameter has effect.

LOWPASS 1: Applies a first-order low pass filter which passes bass (lows) and rolls off treble (highs). This filter begins to roll off (cut) high frequencies above the value set in the FREQUENCY parameter. It passes all low frequencies below the FREQUENCY parameter at the level set with the LEVEL parameter. This filter is not affected by the Q control.

HIGHPASS 1: Applies a first-order high pass filter which passes treble (highs) and rolls off bass (lows). This filter begins to roll off (cut) low frequencies below the value set in the FREQUENCY parameter. It passes all high frequencies above the FREQUENCY parameter at the level set with the LEVEL parameter. This filter is not affected by the Q control.

LOW SHELF 1: Applies a first-order low shelf filter which changes the level of the bass (lows) and leaves treble (highs) unaffected. This filter boosts (or cuts) low frequencies below the value set in the FREQUENCY parameter by the amount set with the LEVEL parameter. It leaves high frequencies above the FREQUENCY parameter unaffected. This filter is not affected by the Q control.

HIGH SHELF 1: Applies a first-order high shelf filter which changes the level of the treble (highs) and leaves bass (lows) unaffected. This filter boosts (or cuts) high frequencies above the value set in the FREQUENCY parameter by the amount set with the LEVEL parameter. It leaves low frequencies below the FREQUENCY parameter unaffected. This filter is not affected by the Q control.

LOWPASS 2: Applies a second-order low pass filter which passes bass (lows) and rolls off treble (highs). This filter begins to roll off (cut) high frequencies above the value set in the FREQUENCY parameter. It passes all low frequencies below the FREQUENCY parameter at the level set with the LEVEL parameter. This mode is similar to LOWPASS 1, but has a faster roll off and it is affected by the Q control. The Q control affects peaking before rolloff. Increase the Q to increase the peak that occurs just before rolloff. Reduce the Q to flatten the peak for a smoother rolloff.

HIGHPASS 2: Applies a second-order high pass filter which passes treble (highs) and rolls off bass (lows). This filter begins to roll off (cut) low frequencies below the value set in the FREQUENCY parameter. It passes all high frequencies above the FREQUENCY parameter at the level set with the LEVEL parameter. This mode is similar to HIGHPASS 1, but has a faster roll off and it is affected by the Q control. The Q control affects peaking before rolloff. Increase the Q to increase the peak that occurs just before rolloff. Reduce the Q to flatten the peak for a smoother rolloff.

PARAMETER SETTINGS CONTINUED...

LOW SHELF 2: Applies a second-order low shelf filter which changes the level of the bass (lows) and leaves treble (highs) unaffected. This filter boosts (or cuts) low frequencies below the value set in the FREQUENCY parameter by the amount set with the LEVEL parameter. It leaves high frequencies above the FREQUENCY parameter unaffected. This mode is similar to LOW SHELF 1, but has a sharper transition from lows to highs and it is affected by the Q control. The Q control affects peaking just around the transition between lows and highs. Increase the Q to increase the peak that occurs at the transition. Reduce the Q to flatten the peaks for a smoother transition.

HIGH SHELF 2: Applies a second-order high shelf filter which changes the level of the treble (highs) and leaves bass (lows) unaffected. This filter boosts (or cuts) high frequencies above the value set in the FREQUENCY parameter by the amount set with the LEVEL parameter. It leaves low frequencies below the FREQUENCY parameter unaffected. This mode is similar to HIGH SHELF 1, but has a sharper transition from highs to lows and it is affected by the Q control. The Q control affects peaking just around the transition between highs and lows. Increase the Q to increase the peak that occurs at the transition. Reduce the Q to flatten the peaks for a smoother transition.

BANDPASS: Applies a bandpass filter which allows only frequencies in a narrow band to pass and cuts all other frequencies outside this band. The center frequency of the band is determined by the FREQUENCY parameter and its level is controlled by the LEVEL parameter. The width of the band (amount of frequencies near the center frequency) is determined by the Q control. Increase the Q control for a NARROWER band, decrease the Q control for a WIDER band.

NOTCH: Applies a notch filter which cuts frequencies within a narrow band and lets all other frequencies outside this band pass at the level set by the LEVEL parameter. The center frequency of the band is determined by the FREQUENCY. The width of the band (amount of frequencies near the center frequency) is determined by the Q control. Increase the Q control for a NARROWER band, decrease the Q control for a WIDER band.

PEAKING: Applies a peaking filter which boosts or cuts the level of frequencies within a narrow band and leaves all other frequencies outside this band unaffected The level of the peak is set by the LEVEL parameter The center frequency of the peak is determined by the FREQUENCY parameter The width of the peak (amount of frequencies near the center frequency) is determined by the Q control Increase the Q control for a NARROWER peak, decrease the Q control for a WIDER peak

LEVEL: Adjusts the output LEVEL (in dB) of the filter, typically the level of the pass band of frequencies for the filter (see filter types above for more detail).

FREQUENCY: Adjusts the corner frequency of the filter This can be either the cutoff, transition, or center frequency depending on the type of filter (see filter types above for more detail).

Q: Adjusts the Q of the filter which controls the amount of peaking This parameter has no effect on GAIN ONLY and first order filters (which do not have a Q control) Increase the Q for sharper peaks / narrower bands Decrease the Q for smoother transitions / wider bands.

PARAMETER SETTINGS CONTINUED...

LOW-CUT: Adjusts the roll off frequency of a special low-cut filter, designed to allow customizing your tone by feeding less lows into the front end input of the guitar amp model This parameter can be used to "mod" the amp models for a tighter and punchier tone.

BUTTON: Assign the PRE EQ ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the PRE EQ. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

PARAMETRIC 1, 2, and 3

ENABLE: Turns the effect on or off. Select ACTIVE to turn it on. Select BYPASSED to turn it off.

TYPE: Selects the type of filter Choose from GAIN ONLY, LOWPASS 1, HIGHPASS 1, LOW SHELF 1, HIGH SHELF 1, LOWPASS 2, HIGHPASS 2, LOW SHELF 2, HIGH SHELF 2, BANDPASS, NOTCH, or PEAKING (see the PRE EQ section above for a detailed description of these filter modes)

INSERT: positions the PARAMETRIC (1, 2, or 3) effect Choose PRE to position the effect in the PRE-EFFECTS section (mono, before the amp model) Choose POST to position the effect in the POST-EFFECTS section (stereo, after the amp model)

LEVEL: Adjusts the output LEVEL (in dB) of the filter, typically the level of the pass band of frequencies for the filter (see filter types above for more detail)

FREQUENCY: Adjusts the corner frequency of the filter This can be either the cutoff, transition, or center frequency depending on the type of filter (see filter types above for more detail)

Q: Adjusts the Q of the filter which controls the amount of peaking This parameter has no effect on GAIN ONLY and first order filters (which do not have a Q control) Increase the Q for sharper peaks / narrower bands Decrease the Q for smoother transitions / wider bands

BUTTON: Assign the PARAMETRIC EQ ENABLE functionality to the selected footswitch. Pressing the assigned footswitch will toggle between ACTIVE and BYPASS mode of the PARAMETRIC EQ. Please note that the assigned footswitch must be in PRESET ASSIGN mode.

FOOTSWITCHES

AMPLIFIRE features three (3) fully programmable footswitches. AMPLIFIRE12 features twelve (12) fully programmable footswitches. AMPLIFIRE 6 features (6) fully programable footswitches.

PROGRAMMING FOOTSWITCHES

Footswitch modes are selected on the FOOTSWITCH menu. The FOOTSWITCH menu appears third to last in the edit menu list, just before the CC settings page. To CHANGE THE FOOTSWITCH MODES, press the ENCODER knob to enter edit mode. Then, tap the ENCODER knob several times to drill down the effect menus until the FOOTSWITCH 1 mode selection appears in the LCD display window. You are now in the FOOTSWITCH menu. Press the NEXT and BACK buttons to cycle through the options for the footswitches, and turn the ENCODER knob to change the values.

FOOTSWITCH MODE: Select the mode of operation for the footswitch. Choose from the following options:

PRESET ASSIGN: In this mode the footswitch functionality will be assigned on a per preset basis. Within each preset you will be able to use the BUTTON parameter to assign ON/OFF functionality for a specific effect.

A<->B: Toggles between two presets, preset "A" and preset "B". Press once for preset "A". Press again for preset "B". Press again returns to preset "A", and so on. Press and hold for two seconds to BYPASS the unit. Each footswitch has two presets, "A" and "B" which can be assigned to any of the 128 presets (see PRESET "A" and PRESET "B" sections below).

A/B<->BYPASS: Toggles between a preset and BYPASS. Press once for preset "A". Press again for bypass. Press again returns to preset "A", and so on. Press and hold for two seconds to toggle between preset "A" and preset "B". Each footswitch has two presets, "A" and "B" which can be assigned to any of the 128 presets (see PRESET "A" and PRESET "B" sections below).

LOOP CONTROL: Toggles the external effects loop on and off.

ALL BYPASS: Toggles the unit from ACTIVE to BYPASS, bypassing all effects and amp modeling.

BOOST: Toggles the BOOST effect between ACTIVE and BYPASSED.

EFFECT: Toggles any or all of the modulation effects (CHORUS, FLANGER, PHASER, TREMOLO) between ACTIVE and BYPASSED. Useful when you have a preset featuring multiple effects that you'd like to toggle with a single switch.

ECHO: Toggles the ECHO effect between ACTIVE and BYPASSED.

REVERB: Toggles the REVERB effect between ACTIVE and BYPASSED.

NOISE GATE: Toggles the NOISE GATE effect between ACTIVE and BYPASSED.

WAH: Toggles the WAH-WAH effect between ACTIVE and BYPASSED.

FOOTSWITCH SETTINGS CONTINUED...

VOLUME: Toggles the VOLUME effect between ACTIVE and BYPASSED.

GRAPHIC EQ: Toggles the GRAPHIC EQ effect between ACTIVE and BYPASSED.

PRE FILTER: Toggles the PRE FILTER effect between ACTIVE and BYPASSED.

PARAMETRIC (1, 2, AND 3): Toggles the PARAMETRIC (1, 2, AND 3) effect between ACTIVE and BYPASSED..

AMP BYPASS: Toggles the amp modeling on and off.

COMPRESSOR: Toggles the COMPRESSOR effect between ACTIVE and BYPASSED.

TAP TEMPO: Allows you to set the ECHO delay time by tapping the tempo with your foot to select a quarter note BPM. In this mode, the footswitch LED blinks red at a rate that represents the quarter note delay time of the ECHO effect.

PRESET INC: Increment the current preset by one. Will wrap around from 128 to 1 if you reach the end of the preset bank.

PRESET DEC: Decrement the current preset by one. Will wrap around from 1 to 128 if you reach the start of the preset bank.

CHORUS: Toggles the CHORUS effect between ACTIVE and BYPASSED.

FLANGER: Toggles the FLANGER effect between ACTIVE and BYPASSED.

PHASER: Toggles the PHASER effect between ACTIVE and BYPASSED.

TREMOLO: Toggles the TREMOLO effect between ACTIVE and BYPASSED.

BANK +10: Increment the currently selected bank by 10. Please note that AMPLIFIRE will not select a preset in that bank until you press a footswitch that is assigned to an offset (see below).

BANK -10: Decrement the currently selected bank by 10. Please note that AMPLIFIRE will not select a preset in that bank until you press a footswitch that is assigned to an offset (see below).

OFFSET 1-9: Select the preset indicated by the specified offset for the currently selected bank. For example, if you are presently in bank 20 and specify a footswitch to an offset of 3 then pressing that switch will select preset 23.

OFFSET 1/6 - 5/10: Toggles back and forth between the two different offsets. For example, if you are presently in bank 20 and specify a footswitch to the offset of 1/6 then pressing that switch will toggle between presets 21 and 26.

PRESET "A": Select one of the 128 presets for use as preset "A" in A<->B or A/B<->BYPASS modes (allows you to toggle between two presets).

PRESET "B": Select one of the 128 presets for use as preset "B" in A<->B or A/B<->BYPASS modes (allows you to toggle between two presets).

FOOTSWITCHES CONTINUED...

VOLUME: Toggles the VOLUME effect between ACTIVE and BYPASSED.

GRAPHIC EQ: Toggles the GRAPHIC EQ effect between ACTIVE and BYPASSED.

PRE FILTER: Toggles the PRE FILTER effect between ACTIVE and BYPASSED.

PARAMETRIC (1, 2, AND 3): Toggles the PARAMETRIC (1, 2, AND 3) effect between ACTIVE and BYPASSED.

AMP BYPASS: Toggles the amp modeling on and off.

COMPRESSOR: Toggles the COMPRESSOR effect between ACTIVE and BYPASSED.

TAP TEMPO: Allows you to set the ECHO delay time and GLOBAL BPM value by tapping the tempo with your foot to select a quarter note BPM. In this mode, the footswitch LED blinks red at a rate that represents the quarter note delay time of the ECHO effect.

PRESET INC: Increment the current preset by one. Will wrap around from 128 to 1 if you reach the end of the preset bank. Press and hold to cycle quickly through presets.

PRESET DEC: Decrement the current preset by one. Will wrap around from 1 to 128 if you reach the start of the preset bank. Press and hold to cycle quickly through presets.

CHORUS: Toggles the CHORUS effect between ACTIVE and BYPASSED.

FLANGER: Toggles the FLANGER effect between ACTIVE and BYPASSED.

PHASER: Toggles the PHASER effect between ACTIVE and BYPASSED.

TREMOLO: Toggles the TREMOLO effect between ACTIVE and BYPASSED.

PITCHSHIFTER: Toggles the PITCHSHIFTER effect between ACTIVE and BYPASSED.

BANK +10: Increment the currently selected bank by 10. After a press, AMPLIFIRE will flash the currently selected BANK and wait for the user to press one of the switches assigned to an OFFSET (see below). Times out after 5 seconds.

BANK -10: Decrement the currently selected bank by 10 After a press, AMPLIFIRE will flash the currently selected BANK and wait for the user to press one of the switches assigned to an OFFSET (see below). Times out after 5 seconds.

> **After pressing these (BANK +10 / BANK -10), you can press ANY numbered foot switch to get the preset... even if those footswitches are assigned to other functions. This way, you don't tie them up to access presets via bank mode!**

OFFSET 1-9: Select the preset indicated by the specified offset for the currently selected bank For example, if you are presently in bank 20 and specify a footswitch to an offset of 3 then pressing that switch will select preset 23.

FOOTSWITCHES CONTINUED...

OFFSET 1/6 - 5/10: Toggles back and forth between two different offset banks of 5. For example, if you are presently in bank 20 and specify a footswitch to the offset of 1/6 then pressing that switch will toggle between presets 21 and 26. This lets you use one row of 5 buttons to access a bank of 10 presets.

PRESET "A": Select one of the 128 presets for use as preset "A" in A<->B or A/B<->BYPASS modes (allows you to toggle between two presets).

PRESET "B": Select one of the 128 presets for use as preset "B" in A<->B or A/B<->BYPASS modes (allows you to toggle between two presets).

GLOBAL SETTINGS

Some of AMPLIFIRE's parameters are GLOBAL, meaning that they have only one value and do not change with each preset. These GLOBAL parameters are either system options or effect parameters that are best set once from one location and that apply to all presets universally.

When you change a GLOBAL SETTING, the SAVE LED will NOT blink, since it does not require you to save the preset. All GLOBAL SETTINGS are saved automatically when you return to the preset display.

Some globals settings are scattered among the effects menus (if they apply to a specific effect), but most are located in the last menu (the OPTIONS menu).

The table below lists the GLOBAL SETTINGS and their functions:

MAIN LEVEL (dB): Sets the output level of the MAIN output jacks. This is a relative level in dB for a full scale digital output.

AUX LEVEL (dB): Sets the output level of the AUX output jacks. This is a relative level in dB for a full scale digital output.

HEADPHONES LEVEL (dB): Sets the output level of the HEADPHONES jack. This is a relative level in dB for a full scale digital output.

MAIN OUTPUT MODE: Sets the MONO/STEREO operation of the MAIN outputs. Choices are:

STEREO MODE: Left and right outputs are a true stereo signal pair.

MONO SUM L+R: A dual mono mode, where the sum of the right and left stereo outputs is copied to both the left and right outputs.

DUAL MONO LEFT: A dual mono mode, where the left stereo output is copied to both the left and right outputs.

DUAL MONO RIGHT: A dual mono mode, where the right stereo output is copied to both the left and right outputs.

GLOBAL SETTINGS CONTINUED...

AUX OUTPUT MODE: Sets the MONO/SETEREO operation of the AUX outputs. Choices are:

STEREO MODE: Left and right outputs are a true stereo signal pair.

MONO SUM L+R: A dual mono mode, where the sum of the right and left stereo outputs is copied to both the left and right outputs.

DUAL MONO LEFT: A dual mono mode, where the left stereo output is copied to both the left and right outputs.

DUAL MONO RIGHT: A dual mono mode, where the right stereo output is copied to both the left and right outputs.

LEVEL ASSIGN: Chooses which output(s) should be affected by changes of the LEVEL knob. The options are ALL OUTPUTS, MAINS + PHONES, AUX + PHONES, or PHONES only.

TAP TEMPO MODE: Selects the mode of operation for the tap tempo switch. The options are:

GLOBAL: All presets follow the tempo set by the GLOBAL BPM (see below). This overrides the PRESET BPM while set to global.

PRESET: Each preset ignores the GLOBAL BPM and follows the BPM of the currently selected preset.

GLOBAL BPM: When TAP TEMPO mode is set to GLOBAL then the GLOBAL BPM is in effect for all presets. It can be set to a value here and updated via the tap tempo switch.

MIDI IN (OFF/1-16/OMNI): Selects the MIDI IN channel on which AMPLIFIRE will listen and respond to incoming MIDI messages. Set to a specific channel (1-16) or set to OMNI to listen on all channels. See the MIDI section below for more detail.

MIDI OUT (OFF/1-16/OMNI): Selects the MIDI OUT channel on which AMPLIFIRE will transmit MIDI messages. Set to a specific channel (1-16) or set to OMNI to broadcast on all channels. See the MIDI section below for more detail.

MIDI THRU (OFF/ON): When MIDI THRU is set to ON the AMPLIFIRE will pass through all MIDI messages from the MIDI IN to the MIDI OUT. This enables daisy-chaining multiple MIDI devices together.

MIDI CLOCK (OFF/INPUT/OUPUT): Allows the AMPLIFIRE to transmit or receive a MIDI CLOCK signal. When set to INPUT the AMPLIFIRE will listen and respond to MIDI CLOCK messages on MIDI IN and set the BPM accordingly. When set to OUTPUT the AMPLIFIRE will transmit the current BPM via the MIDI OUT port.

GLOBAL SETTINGS CONTINUED...

PRESET INDEX: Selects the numbering of the presets:

0-127: Presets are numbered starting from 0 and running up to 127.
1-128: Same presets are numbered starting from 1 and running up to 128.

TUNER SILENT (OFF/ON): Turning this to ON will engage a silent tuning mode whenever the Tuner is engaged. In this mode, the INPUT is muted. This enables silent tuning when the Tuner is engaged.

TUNER REF (Hz): Set the reference frequency of Concert A for the tuner. The default frequency is A440.0Hz.

CONTRAST (1-10): Allows customization of the display contrast. Useful for adjusting visibility for different viewing angles. Adjust as needed for best readibility.

SEND LEVEL (dB): Sets the output level of the SEND jack. This is a relative level in dB for a full scale digital output.

RETURN LEVEL (dB): Sets the input level of the RETURN jacks. This is a relative level in dB for a full scale digital input.

CABINET OUTPUT: Chooses which set of outputs have cabinet modeling. In some cases you may want to send a signal without cabinet modeling to a real guitar cabinet (such as a stage amp), and another signal with cabinet modeling to a full range system (such as a PA system).

NONE: No cabinet modeling is applied to any of the outputs.
MAINS ONLY: Cabinet modeling is applied to the MAIN output only.
AUX ONLY: Cabinet modeling is applied to the AUX output only.
BOTH: Cabinet modeling is applied to BOTH the MAIN and AUX outputs.

NOTE: Cabinet modeling is ALWAYS present on the HEADPHONES output.

LOOP MODE: Selects the mode of the EFFECTS LOOP. Choices are MUTE SEND, MUTE RETURN, and AUX INPUT.

In MUTE SEND mode, switching the effects loop on and off only mutes the send, allowing the return to continue to spill over into the post processing effects chain. This is useful for allowing external delays and reverbs to continue to spillover into AMPLIFIRE's return jacks.

In MUTE RETURN mode, switching the effects loop on and off will immediately mute the return jacks and any sound coming back from them. This is a typical effects loop operation.

In AUX INPUT mode, the return jacks are rerouted to the end of AMPLIFIRE's processing chain, and mixed with the output. The aux input bypasses the cabinet modeling for full range blending of the return jack inputs with the outputs. This allows mixing external music players with the amp modeling output for playing over backing tracks, computer, and other music sources.

In EXPRESSION mode (AMPLIFIRE ONLY), the effects loop is configured as EXPRESSION PEDAL mode, allowing you to use expression pedals (with a special adapter cable, available separately) to control effect parameters in real-time. (See EXPRESSION PEDALS section.)

POWER AMP ENABLE: Globally enables or disables the power amplifier section of the amp modeling effect. This is useful when you are running AMPLIFIRE into a real tube power amp, and you want to avoid having the power amp modeling on top of the effects of a real tube power amp.

TUNER

AMPLIFIRE features a built-in tuner to assist in tuning up your guitar.

- **To ACTIVATE THE TUNER**, press and hold the SAVE button for one second or press and hold any footswitch that is set to enable an effect.
- **To EXIT TUNER MODE,** press any button.

While in TUNER MODE, AMPLIFIRE will display the closest note and arrows indicating your tuning in the LCD display window. Adjust the tuning of your guitar until both arrows point to the center note, indicating the string is in tune.

CLIP WARNING

AMPLIFIRE features a digital clip warning system to alert you whenever your output signal is driven above the maximum digital levels.

If your signal clips one of the three (3) sets of outputs (MAIN, AUX, or HEADPHONES), AMPLIFIRE will display a CLIP WARNING in the display windows for 2 seconds. The CLIP WARNING will also indicate which output pairs clipped. For example, if you see Main+Aux+HP in the CLIP WARNING message, then you are experiencing digital clips on all three sets of outputs.

The CLIP WARNING will remain displayed for as long as digital clips continue to occur. The CLIP WARNING will automatically disappear after two seconds of no digital clipping.

To help control digital clips, you can do one of the following:

- Reduce the LEVEL knob to lower levels.
- Reduce an effect LEVEL within your preset which may be causing excessive output.
- Adjust the EQ settings of your preset to lower excessive bass or treble frequencies.
- Set the individual MAIN OUTPUT, AUX OUTPUT, or HEADPHONE OUTPUT global settings to help reduce the output level of each set of outputs.

EXPRESSION PEDALS

AMPLIFIRE supports up to two standard expression pedals to allow real-time control of parameters using foot pedals via the effects loop jacks.

AMPLIFIRE12 supports up to two standard expression pedals via dedicated expression pedal inputs.

AMPLIFIRE6 supports up to two standard expression pedals via dedicated expression pedal inputs.

SPECIAL CABLING (AMPLIFIRE ONLY)

To enable expression pedals you will need a special adapter cable to connect your expression pedals to AMPLIFIRE.

This adapter is available through Atomic Amps, or you can build your own with standard 1/4" adapters. Alternatively, you might want to assemble your own.

The connections you need are:

- Connect the SEND JACK (TIP) to both RINGS of the EXPRESSION PEDALS. (If using only one expression pedal, then connect the SEND JACK (TIP) to the RING of the single EXPRESSION PEDAL only).
- Connect the TIP of EXPRESSION PEDAL "A" to the RIGHT RETURN JACK (TIP).
- Connect the TIP of EXPRESSION PEDAL "B" to the LEFT RETURN JACK (TIP). (only if using a second expression pedal.
- ALL SLEEVES CONNECTED TO EACH OTHER (for shielding).

With these connections, you can adapt expression pedals for use with AMPLIFIRE's FX LOOP.

ENABLING EXPRESSION PEDAL MODE (AMPLIFIRE ONLY)

Once your expression pedals are connected to AMPLIFIRE you must set the EFFECTS LOOP to EXPRESSION mode.

Go to the EFFECTS LOOP menu and choose EXPRESSION mode from the choices.

EXPRESSION PEDALS CONTINUED...

AMPLIFIRE12 and AMPLIFIRE6 EXPRESSION PEDALS

AMPLIFIRE12 and AMPLIFIRE6 both have two dedicated expression pedal input jacks and does not require any special cabling or any special loop mode.

Simply plug in any standard expression pedal with a TRS cable to these expression pedal inputs and they will be ready for use following calibration (see below).

TESTING AND CALIBRATING EXPRESSION PEDALS

Once your expression pedals are connected and EXPRESSION mode is enabled (AMPLIFIRE only), you can test and calibrate your expression pedals.

To TEST your expression pedals:

Go to the PEDAL A (or PEDAL B) parameter items of the EFFECT LOOP menu. These parameters display the current position of the expression pedal. The reading should change smoothly from 0% to 100% as you move the corresponding expression pedal from the minimum (heel) position to the maximum (toe) position.

If you do not get good results (or no changes at all), you may need to check your cabling adapter, make sure you are in EXPRESSION mode, or CABIBRATE your pedals.

To CALIBRATE your expression pedals:

1. Press the SAVE button while AMPLIFIRE is displaying the PEDAL A (or PEDAL B) parameter. Pressing SAVE while TESTING your expression pedal will start the CALIBRATE process.

2. AMPLIFIRE will ask for the "Heel Position". Move your expression pedal to the minimum position (fully down / heel position). Leave it there for a few seconds and then press the SAVE button again.

3. AMPLIFIRE will then ask for the "Toe Position". Move your expression pedal to the maximum position (fully up / toe position). Leave it there for a few seconds and then press the SAVE button to complete the CALIBRATE process.

Optionally, you can repeat the process starting on the PEDAL B test parameter menu to CALIBRATE the second expression pedal.

If at any point in the CALIBRATE process you wish to ABORT the calibration operation, press the ENCODER or BACK or NEXT buttons. This will abandon the calibration, restore the calibration setting to the previous state, and return to the PEDAL A (or PEDAL B) TEST display.

EXPRESSION PEDALS CONTINUED...

ASSIGNING EXPRESSION PEDALS

Once the expression pedals are connected, calibrated, and working smoothly, you can assign them to parameters for continuous control.

When an expression pedal is assigned to a parameter, it does not corrupt the value of the parameter in the preset (this is to preserve your settings when you choose to use your presets without expression pedals in the future). The expression pedal simply overrides the preset value with the value generated by the expression control.

To ASSIGN A PARAMETER to an expression pedal control, go to the LOOP PARAM A (or LOOP PARAM B) parameter item in the LOOP menu and select one of the numerous parameters available for continuous control. To start, you may want to assign PARAM A to WAH PEDAL and PARAM B to VOLUME PEDAL. These are the most common parameters used with expression pedals.

After assigning a parameter to an expression pedal, you may want to adjust the minimum and maximum values of that parameter that the expression pedal will sweep between.

MIDI

AMPLIFIRE reponds to and transmits MIDI messages to support program changes and MIDI continuous control changes.

MIDI communicates messages over one of sixteen (16) channels. AMPLIFIRE can be programmed to send or receive these messages on any one, all, or none of these channels. These are selected by the MIDI options in the GLOBAL SETTINGS menu.

The **MIDI IN CHANNEL** global setting selects which MIDI channel AMPLIFIRE will react to.

- Set the MIDI IN CHANNEL to the desired MIDI channel and AMPLIFIRE will react to program changes or control changes it receives on the MIDI IN jack on that channel ONLY.
- Set the MIDI IN CHANNEL to OMNI, and AMPLIFIRE will react to any program changes or control changes it receives on the MIDI IN jack.
- Set the MIDI IN CHANNEL to NONE, and AMPLIFIRE will ignore all program changes and control changes it receives on the MIDI IN jack.

The **MIDI OUT CHANNEL** global setting selects which MIDI channel AMPLIFIRE will transmit program changes on.

- Set the MIDI OUT CHANNEL to the desired MIDI channel and AMPLIFIRE will send program changes to the MIDI OUT jack on that channel ONLY.
- Set the MIDI OUT CHANNEL to OMNI, and AMPLIFIRE will send program changes on the MIDI OUT jack on all channels.
- Set the MIDI OUT CHANNEL to NONE, and AMPLIFIRE will not send any MIDI program changes to the MIDI OUT jack.

The **MIDI THRU** global setting allows AMPLIFIRE to relay MIDI messages it receives on the MIDI IN jack to the MIDI OUT jack. This is useful for MIDI setups where AMPLIFIRE is part of a chain of MIDI equipment in which only some of the messages are intended for AMPLIFIRE, and others are intended for other equipment on the same chain.

- Turn the MIDI THRU global setting to ON to let AMPLIFIRE merge incoming messages on the MIDI IN jack with outgoing messages to the MIDI OUT jack.
- Turn the MIDI THRU global setting to OFF and AMPLIFIRE will only send its own program changes to the MIDI OUT jack.

MIDI PROGRAM CHANGES are mapped one-to-one, meaning that AMPLIFIRE will switch to the same preset as the incoming MIDI program change message. Likewise, if you change presets in AMPLIFIRE using the ENCODER or FOOTSWITCH, AMPLIFIRE will transmit the same preset number in the outgoing MIDI program change.

MIDI CONTROL CHANGES are MIDI messages that contain a control number (CC#) and a data value. AMPLIFIRE allows external control of effects and functions via programmable MIDI CC table. See the table below for the list of default assignments.

DATA VALUES between 0 and 63 are interpreted as OFF, and DATA VALUES between 64 and 127 are interpreted as ON.

MIDI CC MENU

MIDI CC settings are selected from the MIDI CC menu. The MIDI CC menu appears second to last in the edit menu list, just before the global settings. From this menu you can customize what actions the AMPLIFIRE will take in response to different MIDI control number (CC) messages.

The following table lists the *default* MIDI CC values for AMPLIFIRE.

MIDI CC#	FUNCTION
21	WAH PEDAL
22	VOLUME PEDAL
23	EXPRESSION A
24	EXPRESSION B
18	TAP TEMPO press
80	BYPASS AMPLIFIRE
81	EFFECT LOOP enable
20	VOLUME enable
19	WAH enable
82	BOOST enable
83	EFFECT enable
25	CHORUS enable
26	FLANGER enable
27	PHASER enable
28	TREMOLO enable
29	PITCHSHIFTER enable
84	ECHO enable
85	REVERB enable
86	NOISE GATE enable
17	COMPRESSOR enable
87	GRAPHIC EQ enable

MIDI CC#	FUNCTION
12	PRE-EQ enable
88	PARAMETRIC #1 enable
89	PARAMETRIC #2 enable
90	PARAMETRIC #3 enable
16	AMP enable
13	FS1 press
14	FS2 press
15	FS3 press
11	FS4 press (AMPLIFIRE12 only)
10	FS5 press (AMPLIFIRE12 only)
9	FS6 press (AMPLIFIRE12 only)
8	FS7 press (AMPLIFIRE12 only)
7	FS8 press (AMPLIFIRE12 only)
6	FS9 press (AMPLIFIRE12 only)
5	FS0 press (AMPLIFIRE12 only)
4	FS+ press (AMPLIFIRE12 only)
3	FS- press (AMPLIFIRE12 only)
84	ECHO enable

For TAP TEMPO and FOOTSWITCH continuous controls, the DATA VALUE is ignored and any message is interpreted as a "press" of that function.

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