

ModFactor Algorithms

Ten distinct modulation effects – Chorus, Phaser, Q-Wah, Flanger, ModFilter, Rotary, TremoloPan, Vibrato, Undulator, and RingMod. Each of these effects offers a world of possibilities. For example, there are several types of Flangers, Phasers, etc.

These effects use 2 LFO's (Low Frequency Oscillators) to create classic or FM/AM modulated versions of many popular modulation effects. The primary LFO drives the main effect and is controlled by the three parameters, Depth, Speed and Shape. The secondary LFO in turn modulates the Speed and Depth of the primary LFO. The S-Mod knob controls the amount of Frequency Modulation applied to the primary LFO and the D-Mod knob controls the amount of Amplitude Modulation.

With S-Mod/D-Mod turned OFF, high quality renditions of classic modulation effects are created. As the S-Mod/D-Mod knobs are turned up a small amount of movement will be added to the effect to give it a controlled organic feel. Increase the amount of S-Mod/D-Mod for complex and interesting and even extreme modulation effects.

The availability of expression pedal and envelope mod shapes allows the modulation rate to be controlled dynamically by your playing as well.

Chorus - [CHORUS]

Chorus is an effect that is designed to take a single voiced instrument and give it the sound of many instruments playing together. This is achieved through randomly modulating several delay lines to create pitch and timing imperfections and then panning these voices in the stereo field. Four types of chorus effects are supported: Liquid [LIQUID], Organic [ORGNIC], Shimmer [SHIMER] and Classic [CLASIC].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select Liquid [LIQUID], Organic [ORGNIC], or Shimmer [SHIMER] or Classic [CLASIC].
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal

		[EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Feedback/ Delay Offset/Filter	[FEEDBK], [MDO], [FILTER]	Controls feedback for Liquid and Shimmer. For Organic, used to scroll a manual delay offset. For Classic, used to control a filter.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the [RATE] control becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.

Phaser - [PHASER]

Phaser is an effect created by a series of all pass filters (phase shifters). When the output of the filters is mixed with the dry signal sharp notches are created in the frequency spectrum of the output; by modulating the center frequencies of the filters the notches move giving a sense of motion to the effect. Five types of phasing effects are supported Positive [POS], Negative [NEG], Feedback [FEEDBK], Bi-phase [BIPHAZ] and PhaseX0 [PHASX0].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select Positive [POSTVE], Negative [NEGTVE], Feedback [FEEDBK], Bi-phase [BIPHAZ] or PhaseX0 [PHASX0]. Negative mixes the forward and feedback signals inverted; Positive mixes the feed forward and feedback signals non-inverted; Feedback is feedback only (no feed forward signal);

		BiPhase is based on the topology of the Mu-Tron Bi-Phase; PhaseX0 is a phase 90 clone (but it also does phase 180 and some others if you check the top right “STAGES” knob)
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset’s pedal mapping is ignored.
Stages/ Direction	[STAGES], [FWD-RV]	This control allows you to select the number of digital filters. For [BIPHAZ] selects the sweep direction.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset’s pedal mapping is ignored.

Q-Wah - [Q-WAH]

The Q-Wah effect simulates a classic wah wah pedal when Shape is set to pedal or an auto wah when set to envelope. Using Depth and/or other wave shapes creates more complex wah sounds. Intensity will increase the Q or “Slinky-ness” of the wah effect. The types of wah-wah effect supported are [QWAH], Vocal Wah [VOXWAH], Bass Wah [BASWAH] and Bass Vocal Wah [BASVOX].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select [WAHWAH], [VOXWAH], [BASWAH] or [BASVOX]. The bass types retain the low end as the wah filter climbs to higher frequencies.
Modulation Depth or Vowel Sound	[DEPTH], [VOWEL], [EVOWEL]	In [WAHWAH] and [BASSWAH] types, [DEPTH] sets the modulation sweep range from narrow to wide. In [VOXWAH] and [BASVOX] types, [VOWEL] will determine the vowel sound of the vocal wah, or if [BOTTOM] is set to do a starting vowel, [EVOWEL] will set the ending vowel sound for a talk-box style effect.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Base Frequency or Starting Vowel	[BOTTOM], [SVOWEL]	Select the base frequency in [WAHWAH] and [BASWAH] types. In vocal types this will set the base frequency for a single vowel (first half of knob), or allow you to set the starting vowel for a talk-box style effect (second half of knob).
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).

Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset’s pedal mapping is ignored.

Flanger - [FLANGE]

Flanging is similar to Phasing but more intense – deeper more numerous frequency notches. Four types of flanging effects are supported: Positive [POS], Negative [NEG], Jet [JET] and Thru Zero [THRU-0].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select Positive [POSTVE], Negative [NEGTVE], Jet [JET] or Thru Zero [THRU-0] flanging. Positive mixes the feed forward and feedback signals non-inverted; Negative mixes the forward and feedback signals inverted; Jet uses a special arrangement that creates a very extreme effect (like a jet taking off); Thru-0 uses two different delay line that flange against each other, so the flange offset goes through 0.
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal

		[EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Delay Offset	[MDO]	Set Delay offset.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.

ModFilter - [M-FLTR]

ModFilter is a set of modulated filters. Intensity controls a combination of base filter frequency and Q, while Depth controls the frequency offset of the left and right channels to create a stereo image. Three types of ModFilter effect are supported Low Pass [LPF], High Pass [HPF], and Band Pass [BPF].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select Lowpass [LOPASS], Bandpass [BDPASS] or Highpass [HIPASS] modulated filters.
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven

		by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Unused/ Stereo Width	[UNUSED]/ [WIDTH]	In mono out mode, this control is not used. In stereo mode, this control shifts the phase of the right channel's LFO creating a tremolo that will move from left to right in the stereo field. When set to Max, the right channel will be 180 degrees out of phase with the left creating an autopanner.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.

Rotary - [ROTARY]

Rotating speaker (Leslie) simulation. Choose cabinet size: Standard [STNDRD] or over-sized [GIANT]. A Leslie is built using a rotating speaker for low and mid-range frequencies and a rotating treble horn for highs. With Rotary you can control the speed of the rotor and horn independently and adjust the mix of the two.

Intensity	[INTENS]	Effect level.
Type	[SIZE]	Select Standard [STDRD] or Giant [GIANT] size cabinets.
Rotor Speed	[RTRSPD]	Sets the rotation speed of the rotor (low frequency) speaker.
Horn Speed	[HRNSPD]	Sets the rotation speed of the horn (high frequency) speaker.
Rotor/Horn Balance	[BALNCE]	Sets the balance between the rotor level and horn level.
Tone Control	[TONE]	Just what you'd expect.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.

TremoloPan - [TREMLO]

Tremolo is an effect that is created by modulating the level of the incoming audio with a LFO. With this effect, as you turn WIDTH knob, it will shift the phase of the right channel's LFO creating a tremolo that will move from left to right in the stereo field. When the WIDTH is full clockwise, the right channel will be 180 degrees out of phase with the left creating an autopanner. Both outputs will have to be connected for this to function correctly.

Drive/Edge	[DRIVE], [EDGE]	For [BIAS], Intensity controls the amount of Drive. For high input levels, setting [INTENS] to high levels can cause overload distortion. For [OPTO], Intensity controls input slew rate (Edge) and, depending on the input signal, may only have a subtle effect.
Effect Type	[TYPE]	Select Bias [BIAS] or opto-coupled [OPTO].
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelope [ENVLPE], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Mono Spread/ Stereo Width	[SPREAD], [WIDTH]	In mono out mode, this control spreads the tremolo and make the sound more smooth. In stereo mode, this control shifts the phase of the right channel's LFO creating a tremolo that will move from left to right in the stereo field. When set to Max, the right channel will be 180 degrees out of phase with the left creating an autopanner.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.

Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.
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Vibrato - [VIBE]

Vibrato is an effect that simulates the pitch change you get by modulating a guitar string or using a whammy bar. Modulating the rate with an Expression Pedal or envelope will create some insane vibratos. Three types supported – Modern [MODRN], Vintage [VINTG] and Retro [RETRO].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select – Modern [MODREN], Vintage [VINTGE] or Retro [RETRO].
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelope [ENVLPE], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Unused/ Stereo Width/ Filter Stages	[UNUSED], [WIDTH], [STAGES]	For Modern and Vintage controls the ‘width’ of stereo panning (stereo mode only). For Retro selects the number of filter stages.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).

Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset’s pedal mapping is ignored.

Undulator - [UNDLTR]

Undulator is a classic Eventide effect that combines two delays, two detuned voices, and a FM modulated tremolo. By turning up the Intensity you can increase the dry/effect ratio.

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select – Pitch [PITCH] or Feedback [FEEDBK].
Modulation Depth	[DEPTH]	Sets the modulation sweep range from narrow to wide.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelope [ENVLPE], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset’s pedal mapping is ignored.

Pitch Spread/ Feedback	[SPREAD] [FEEDBK]	For Pitch select the spread (de-tuning), for Feedback control the amount of feedback.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset’s pedal mapping is ignored.

RingMod - [RINGMD]

Ring Modulator is an effect created by multiplying an input signal by an audio frequency waveform; the result is a waveform containing the sums and differences of those frequencies and their partials. This creates a waveform with complex (and usually nonharmonic) bell-like overtones. By using the S-Mod control to modulate this carrier frequency you can create useful and interesting sounds. The D-Mod parameter slightly detunes the right and left voices creating a stereo field. Two modulation types are supported [RING] and [STRING].

Intensity	[INTENS]	Effect level.
Effect Type	[TYPE]	Select [RING] or [STRING].
UN-USED	[UNUSED]	Unused control.
Modulation Speed	[SPEED]	Sets the modulation sweep rate. Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven

		by the amplitude of the audio input and the Speed control becomes a Sensitivity control.
Modulation Waveform Shape	[SHAPE]	Selects the shape (or source) of the modulation. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelope [ENVLPE], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.
Tone Control	[TONE]	Just what you'd expect.
Amplitude Modulation	[D-MOD]	Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation).
Frequency Modulation	[S-MOD]	Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation).
Secondary LFO Rate	[RATE]	Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod “wiggle” their targets. Ranges from 1/8 to 8X the Speed value. Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the speed modulation control [S-MOD] becomes a Sensitivity control.
Modulation Source	[MODSRC]	Selects the secondary LFO modulation source. The choices are: [SINE], TRIANGLE [TRIANG], [PEAK], [RANDOM], [SQUARE], [RAMP], Sample and Hold [SMPHLD], Envelop [ENVLOP], or [ADSR]. In addition, the Expression Pedal [EXPPDL] can be chosen as a source. When [EXPPDL] is chosen, the current preset's pedal mapping is ignored.