

Program	Description	Date:01/19/22	Input	Output	Control 1	Control 2	Control 3
Delay AUX	Right In & Out are for processing the feedback path through an external module.		MONO	MONO	Delay Time	Feedback	Tone
Delay Comb	Feedforward & Feedback Comb.		STEREO	STEREO	Frequency	Resonance	+ - Feedforward
Delay Comb > Reverb	Reverb after Feedback Loop		STEREO	STEREO	Frequency	Resonance	+ - Long/Short
Delay Dual	Separate Left & Right delays		STEREO	STEREO	Left Delay Time	Feedback	Right Delay Time
Delay Freq Shift	Frequency shift (+-650 Hz range) inside feedback loop		STEREO	STEREO	Delay Time	Feedback	+ - Freq. Shift
Delay F.Shift after FB	Frequency shift is after feedback loop		MONO	STEREO	Delay Time	Feedback	+ - Freq. Shift
Delay Freq Shift_Clk	Frequency shift in feedback loop		MONO	STEREO	Clock Divide	Feedback	+ - Freq. Shift
Delay HP	Resonating 2 pole Highpass filter inside feedback loop		MONO	STEREO	Delay Time	Feedback	Frequency
Delay HP_Clk	2 pole Highpass filter in feedback loop		MONO	STEREO	Clock Divide	Feedback	Frequency
Delay Karplus-Strong	Micro Delay Karplus-Strong & Flange		STEREO	STEREO	Delay Time	Feedback	Tone
Delay LP	Resonating 4 Pole Lowpass Filter inside feedback loop		MONO	STEREO	Delay Time	Feedback	Frequency
Delay LP_Clk	Lowpass 4 Pole Filter inside feedback loop		MONO	STEREO	Clock Divide	Feedback	Frequency
Delay Magneto	4 tape heads with even spacing		MONO	STEREO	Delay Time	Feedback	Chorus
Delay Mono	Right output is 1/8 earlier		MONO	STEREO	Delay Time	Feedback	Tone
Delay Mono_Clk	Right is 1/8 earlier		MONO	STEREO	Clock Divide	Feedback	Tone
Delay Mono Muted	Muted Delay Changes		MONO	STEREO	Delay Time	Feedback	Tone
Delay Ping-Pong	Right output first, Left output second		MONO	STEREO	Delay Time	Feedback	Frequency
Delay Ping-Pong Chorus	Right output first, then Left /w Chorus.		MONO	STEREO	Delay Time	Feedback	Chorus
Delay Ping-Pong Dual	2 Separate Ping-Pong delays		STEREO	STEREO	Left Delay Time	Feedback	Right Delay Time
Delay Ping-Pong Sync	Right output first, Left output second /w Clock		STEREO	STEREO	CV (Clock) In	Feedback	Divider
Delay Ping-Pong_Clk	Right out first, Left out 2nd		MONO	STEREO	Clock Divide	Feedback	Frequency
Delay Ping-Pong Muted	Muted Delay Changes		MONO	STEREO	Delay Time	Feedback	Frequency
Delay Pitch Shift	Pitch Shift (+-Octave range) inside feedback loop		MONO	STEREO	Delay Time	Feedback	+ - Pitch Shift
Delay Pitch Shift after FB	Pitch Shift after feedback loop		MONO	STEREO	Delay Time	Feedback	+ - Pitch Shift
Pitch Shift Step after FB_Clk	Shift Steps after Feedback		MONO	STEREO	Clock Divide	Feedback	+ - Semitone Shift

Program	Description	Input	Output	Control 1	Control 2	Control 3	
Delay Pitch Shift_Clk	Pitch Shift inside feedback loop		MONO → STEREO	Clock Divide	Feedback	+ - Pitch Shift	
Delay Pitch Shift Stepped	1 semitone pitch shift steps		MONO → STEREO	Delay Time	Feedback	+ - Semitone Shift	
Delay Pitch Shift Step_Clk	1 semitone pitch shift steps		MONO → STEREO	Clock Divide	Feedback	+ - Semitone Shift	
Delay Reverse	Delayed & Reversed		MONO → MONO	Delay Time	Feedback	Tone	
Delay Stereo	Total Delay Time 500ms (half a second)		STEREO → STEREO	Delay Time	Feedback	Tone	
Delay Stereo Sync	Syncable to Square wave Clock		STEREO → STEREO	CV (Clock) In	Feedback	Clock Divider	
Delay Sync	Syncable to Square wave Clock		MONO → STEREO	CV (Clock) In	Feedback	Clock Divider	
Delay Tap Tempo	Follows Square wave at CV Input.		MONO → STEREO	CV (Clock) In	Feedback	Tone	
Delay Tape	3 Tape Heads (Head 1&2 Left, Head 2&3 Right)		MONO → STEREO	Delay Time	Feedback	Heads Ratio	
Delay Vowel	Pre-feedback Vowel Filter		MONO → STEREO	Delay Time	Feedback	Vowel	
Delay Vowel_Clk	Pre-feedback		MONO → STEREO	Clock Divide	Feedback	Vowel	
Delay > Chorus	Delay into Chorus.		MONO → STEREO	Delay Time	Feedback	Chorus	
Delay > Chorus_Clk	Delay into Chorus.		MONO → STEREO	Clock Divide	Feedback	Chorus	
Delay > Dual Shimmer	Delay into both Up & Down Oct.		MONO → STEREO	Delay Time	Feedback	+ - Long/Short Amount	
Delay > Input Dual Shimmer	Both Up & Down Octave		MONO → STEREO	Delay Time	Feedback	+ - Long/Short Amount	
Delay > Input Shimmer	Up/Down Octave Shimmer		MONO → STEREO	Delay Time	Feedback	Up/Down Amount	
Delay > Reverb	Reverb is outside feedback loop		MONO → STEREO	Delay Time	Feedback	+ - Long/Short Amount	
Delay > Shimmer	Either Up or Down Octave		MONO → STEREO	Delay Time	Feedback	Up/Down Amount	
808 Bass Drum	808 Bass Drum Emulation		L.TRIG → LEFT → L.OUT TUNE ↗ ATTACK ↗ DECAY → KICK 1 → L.OUT TUNE ↗ ATTACK ↗ DECAY → KICK 2 → R.OUT	L.TRIG → LEFT	Tune	Attack	Decay
808 Hand Clap	808 Clap Emulation		LEFT TRIG IN → CLAPS → TUNE ↗ ATTACK ↗ DECAY	L.TRIG → STEREO	Tune	Attack	Decay
808 Claves	808 Claves Emulation		LEFT TRIG IN → CLAVES 1 → L.OUT TUNE ↗ ATTACK ↗ DECAY → CLAVES 2 → R.OUT	L.TRIG → LEFT	Tune	Attack	Decay
808 CowBell	808 CowBell Emulation		LEFT TRIG IN → COWBELL 1 → L.OUT TUNE ↗ ATTACK ↗ DECAY → COWBELL 2 → R.OUT	L.TRIG → LEFT	Tune	Attack	Decay
808 Cymbal	808 Cymbal Emulation		LEFT TRIG IN → CYMBAL → TUNE ↗ ATTACK ↗ DECAY	L.TRIG → STEREO	Tune	Attack	Decay
808 HiHat	808 HiHat Emulation		LEFT TRIG IN → HI-HAT → TUNE ↗ ATTACK ↗ DECAY	L.TRIG → STEREO	Tune	Attack	Decay
808 Maracas	808 Maracas Emulation		LEFT TRIG IN → MARACAS → TUNE ↗ ATTACK ↗ DECAY	L.TRIG → STEREO	Tune	Attack	Decay

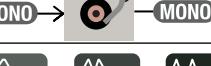
Program	Description	Input	Output	Control 1	Control 2	Control 3
808 Rimshot	808 Rimshot Emulation	LEFT TRIG IN → RIMSHOT 1 → L.OUT TUNE ↗ATTACK ↘DECAY RIMSHOT 2 → R.OUT	L.TRIG LEFT RIGHT	Tune	Attack	Decay
808 Snare	808 Snare Emulation	LEFT TRIG IN → SNARE → TUNE ↗ATTACK ↘DECAY	L.TRIG STEREO	Tune	Attack	Decay
808 Tom/Conga	808 Tom Emulation	LEFT TRIG IN → TOM → TUNE ↗ATTACK ↘DECAY	L.TRIG STEREO	Tune	Attack	Decay
909 Bass Drum	909 Bass Drum Emulation	LEFT TRIG IN → KICK → L.OUT TUNE ↗ATTACK ↘DECAY KICK DISTORT → R.OUT	L.TRIG LEFT RIGHT	Tune	Attack	Decay
909 Hand Clap	909 Clap Emulation	LEFT TRIG IN → CLAPS → TUNE ↗ATTACK ↘DECAY	L.TRIG STEREO	Tune	Attack	Decay
909 Rimshot	909 Rimshot Emulation	LEFT TRIG IN → RIMSHOT 1 → L.OUT TUNE ↗ATTACK ↘DECAY RIMSHOT 2 → R.OUT	L.TRIG LEFT RIGHT	Tune	Attack	Decay
909 Snare	909 Snare Emulation	LEFT TRIG IN → SNARE → L.OUT TUNE ↗ATTACK ↘DECAY LF PUNCH → R.OUT	L.TRIG LEFT RIGHT	Tune	Attack	Decay
909 Tom	909 Tom Emulation	LEFT TRIG IN → TOM → L.OUT TUNE ↗ATTACK ↘DECAY PUNCH → R.OUT	L.TRIG LEFT RIGHT	Tune	Attack	Decay
Generator	Left: SINE<>SQR Right: TRI<>SAW	FADE L.OUT FADE R.OUT	N/A LEFT RIGHT	Course	Fine	Waveform Xfade
Noise Station	Tunable Noise Source, No Input	NOISE TONE TUNE SHAPE NOISE TONE TUNE SHAPE	N/A STEREO	Tune	Shape	Tone
Tuner	Generates 880 Hz, 440 Hz, 220 Hz Tones	SAW L.OUT TRI R.OUT	N/A STEREO	880 Hz	440 Hz	220 Hz
Chorus x2	2 Voice Chorus	L.IN CHORUS R.IN CHORUS	STEREO STEREO	Rate	Depth	Stereo Width
Chorus x4	4 Voice Chorus	L.IN CHORUS CHORUS R.IN CHORUS CHORUS	STEREO STEREO	Rate	Depth	Stereo Width
Chorus Dimension D	Transparent 2 Voice Chorus	L.IN CHORUS R.IN CHORUS	STEREO STEREO	Rate	Range	+ - Feedback
Chorus > Reverb	8 Voice Chorus	MONO IN CHORUS CHORUS CHORUS CHORUS CHORUS CHORUS CHORUS REVERB	MONO STEREO	Spread	Stereo Width	Long/Short Reverb Amount
Flanger	Flanger (if Rate is 0: CV or Manual Sweep)	L.IN → FLANGER R.IN → FLANGER	STEREO STEREO	Rate	Range	+ - Feedback
Flanger Barberpole	Up or Down Movement	L.IN → FLANGER R.IN → FLANGER	STEREO STEREO	Rate	Range	+ - Feedback
Flanger Diffuse	Diffused Flanger	L.IN → FLANGER DIFFUSE R.IN → FLANGER DIFFUSE	STEREO STEREO	Rate	Range	+ - Feedback
Phaser 12	6 Poles (if Rate is 0: CV or Manual Sweep)	MONO IN PHASER PHASER PHASER PHASER PHASER PHASER	MONO STEREO	Rate	Range	+ - Feedback
Phaser 12 Diffuse	12 Stages, 6 Poles	MONO IN PHASER PHASER PHASER PHASER PHASER PHASER	MONO STEREO	Rate	Range	+ - Feedback
Phaser 6 Barberpole	Up or Down Movement	MONO IN PHASER PHASER PHASER PHASER PHASER PHASER	MONO STEREO	Rate	Range	+ - Feedback
Phaser 6 Stereo	6 Stages, 3 Poles	L.IN → PHASER PHASER PHASER R.IN → PHASER PHASER PHASER	STEREO STEREO	Rate	Range	+ - Feedback
Phaser 6 Stereo Diffuse	6 Stages, 3 Poles	L.IN → PHASER PHASER PHASER R.IN → PHASER PHASER PHASER	STEREO MONO	Rate	Range	Feedback
Phaser Switched	2,6,8,10, or 12 Stages	MONO PHASER PHASER PHASER PHASER PHASER PHASER	MONO STEREO	Rate	Range	# of Stages
Tremelo into Reverb	Tremolo before Reverb	L.IN TREMOLO → REVERB R.IN TREMOLO → REVERB	STEREO STEREO	Rate	Range	Long/Short Amount

Program	Description	Input	Output	Control 1	Control 2	Control 3
Wah-Wah	Wah-Wah with LFO control	L.IN → WAH-WAH R.IN → WAH-WAH RESONANCE	STEREO → STEREO	Rate	Range	Resonance
Reverb Black Cloud	Mix of Blackhole and cloud	MONO IN → TONE → BLACK HOLE CLOUD	MONO → STEREO	Decay Time	Reverse/Gravity	Tone
Reverb Black Hole	Eventide's Black Hole Inspired	MONO IN → TONE → BLACK HOLE GRAVITY	MONO → STEREO	Decay Time	Reverse/Gravity	Tone
Black Hole > Phaser	Reverb into Phaser	MONO IN → TONE → BLACK HOLE GRAVITY → PHASER → PHASER → PHASER	MONO → STEREO	Decay Time	Rate	Range
Reverb Bloom	Big Sky Inspired	MONO IN → TONE → REVERB BLOOM	MONO → STEREO	Decay Time	Bloom	Tone
Reverb Chorale	Big Sky Inspired	E U O I A → MONO IN → TONE → CHORALE VOWEL	MONO → STEREO	Decay Time	Resonance	Vowel
Reverb Cloud	Big Sky Inspired	MONO IN → TONE → CLOUD CHORUS	MONO → STEREO	Decay Time	Chorus	Diffusion
Reverb Crushed	Reverb into Sample Rate Reducer	MONO IN → TONE → CLOUD SSR	MONO → STEREO	Decay Time	SSR Amount	Tone
Reverb Depth	Variable Depth	L.IN → TONE → REVERB DEPTH → R.IN → TONE → REVERB DEPTH	STEREO → STEREO	Decay Time	Depth	Tone
Reverb EMT250	Medium Constant Density (1st digital reverb)	MONO IN → PRE-DELAY → EMT250 TONE	MONO → STEREO	Decay Time	Pre-Delay	Tone
Reverb Freeverb	High constant density (8 combs > 4 allpass)	MONO IN → TONE → FREEVERB WIDTH	MONO → STEREO	Decay Time	Stereo Width	Damping
Reverb Freeze	Dual Pass Freezing Reverb	MONO IN → TONE → REVERB FREEZE	MONO → STEREO	Decay/Freeze	Reverb<>Freeze	Tone
Reverb Gate	Adjustable Reverb/Signal Ratio	MONO IN → TONE → REVERB GATE HOLD	MONO → STEREO	Decay Time	Hold	Tone
Reverb Gate Time	Adjustable Reverb past Signal tone	MONO IN → TONE → REVERB GATE CHORUS	MONO → STEREO	Gate Time	Chorus	Tone
Reverb Grayhole Heavy	Needs to be heard	MONO IN → TONE → GRAYHOLE GRAVITY	MONO → STEREO	Delay Time	+–Gravity	Tone
Reverb Grayhole Light	Needs to be heard	MONO IN → TONE → GRAYHOLE GRAVITY	MONO → STEREO	Delay Time	+–Gravity	Tone
Reverb Hall Chorus	Big Chorused Hall	L.IN → TONE → REVERB CHORUS → R.IN → TONE → REVERB CHORUS	STEREO → STEREO	Delay Time	Chorus	Tone
Reverb Hall Chorus v2	Big Chorused Hall 2	L.IN → TONE → REVERB CHORUS → R.IN → TONE → REVERB CHORUS	STEREO → STEREO	Decay Time	Chorus	Tone
Reverb Hall Medium	Medium Sized Hall	L.IN → TONE → PRE-DELAY → REVERB R.IN → TONE → PRE-DELAY → REVERB	STEREO → STEREO	Decay Time	Pre-Delay	Tone
Reverb Infinite	Almost Infinite (Use Decay Time to mute)	MONO IN → TONE → INFINITE CHORUS	MONO → STEREO	Decay Time	Chorus	Tone
Reverb Infinite Dark	Almost Infinite Decay	MONO IN → TONE → INFINITE CHORUS	MONO → STEREO	Decay Time	Chorus	Tone
Reverb MI Clouds	Reverb in Mutable Instruments Clouds	MONO IN → TONE → PRE-DELAY → MI CLOUDS	MONO → STEREO	Decay Time	Pre-Delay	Tone
Reverb Metallic	Variable Size ringing reverb	MONO IN → TONE → METALLIC SIZE	MONO → STEREO	Decay Time	Size	Tone
Reverb Parking	Distinguishable wall reflections	MONO IN → TONE → PARKING CHORUS	MONO → STEREO	Decay Time	Chorus	Tone
Reverb Phaser 6	6 Stage 3 Pole Phaser into Reverb	TONE → PHASER → PHASER → PHASER → REVERB	MONO → STEREO	Decay Time	Phaser Rate	Tone

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Reverb Phaser 6 v2	6 Stage 3 Pole Phaser into Reverb	TONE PHASER PHASER PHASER REVERB	MONO STEREO	Decay Time	Phaser Rate	Tone
Reverb Phaser 8	4 Pole Phaser into Reverb	TONE PHASER PHASER PHASER REVERB	MONO STEREO	Decay Time	Phaser Rate	Tone
Reverb Phaser Shimmer	3 Pole Phaser into Shimmer Reverb	TONE PHASER PHASER PHASER SHIMMER	MONO STEREO	Decay Time	Phaser Rate	Tone
Reverb Plate Classic	Popular Plate (120ms Pre-Delay)	MONO IN TONE PRE-DELAY → PLATE	MONO STEREO	Decay Time	Pre-Delay	Tone
Reverb Plate Narrow	HF's have narrow stereo width	MONO IN TONE → PLATE CHORUS	MONO STEREO	Decay Time	Chorus	Tone
Reverb Plate Stereo	Stereo Plate Version	L.IN TONE PRE-DELAY → PLATE R.IN TONE PRE-DELAY → PLATE	STEREO STEREO	Decay Time	Chorus	Tone
Reverb Reverse	Slope defines the shape (non-linear)	MONO IN → REVERSE SLOPE DAMPING	MONO STEREO	Decay Time	Slope	Damping
Reverb Room Classic	Realistic real reverb	MONO IN TONE PRE-DELAY → ROOM	MONO STEREO	Decay Time	Pre-Delay	Tone
Reverb Room Stereo	Stereo Room Version	L.IN TONE PRE-DELAY → ROOM R.IN TONE PRE-DELAY → ROOM	STEREO STEREO	Decay Time	Chorus	Tone
Reverb Saturated	No overload / clipping	MONO IN TONE CHORUS REVERB	MONO STEREO	Decay Time	Chorus	Tone
Reverb Shimmer	Regen Up or Down octave	MONO IN TONE SHIMMER	MONO STEREO	Decay Time	Tone	Up/Down Amount
Reverb Shimmer Combo	Input and Regen	MONO IN INPUT UP OR DOWN SHIMMER UP OR DOWN	MONO STEREO	Decay Time	Input Up/Down	Regen Up/Down
Reverb Shimmer Dual	Up & Down Octave	MONO IN SHIMMER UP SHIMMER DOWN FADE	MONO STEREO	Decay Time	Amount	Up<>Down Xfade
Reverb Shimmer Dual Delayed	Variable Shimmer Delay	MONO IN DELAY SHIMMER UP SHIMMER DOWN FADE	MONO STEREO	Decay Time	Shimmer Delay	Up<>Down Xfade
Reverb Shimmer Dual Slow	Slow build up Shimmer	MONO IN SLOW SHIMMER UP SLOW SHIMMER DOWN FADE	MONO STEREO	Decay Time	Amount	Up<>Down Xfade
Reverb Shimmer Infinite	Infinite Up or Down Shimmers	MONO IN TONE INFINITE SHIMMER UP OR DOWN	MONO STEREO	Decay Time	Tone	Up or Down Amount
Reverb Shimmer Input	Input Up or Down Octave	MONO IN TONE SHIMMER UP OR DOWN	MONO STEREO	Decay Time	Tone	Up or Down Amount
Reverb Shimmer Input Dual	Up & Down Octave	MONO IN SHIMMER UP SHIMMER DOWN FADE	MONO STEREO	Decay Time	Amount	Up<>Down Xfade
Reverb Shimmer Input Variable	1 Semitone Up or Down	MONO IN TONE SHIMMER SEMITONE UP OR DOWN	MONO STEREO	Decay Time	Amount	+ - Pitch Shift
Reverb Shimmer Variable	1 semitone increments	MONO IN SHIMMER SEMITONE	MONO STEREO	Decay Time	Amount	+ - Pitch Shift
Reverb Size Big	Variable Size Big Space	MONO IN TONE REVERB SIZE	MONO STEREO	Decay Time	Size	Tone
Reverb Space Station	Ursa Major based (8 taps 16 modulated)	MONO IN TONE SPACE STATION 8 TAP SPACING	MONO STEREO	Decay Time	Taps Spacing	Tone
Reverb Spooky	Scary tones on long decay (big sky)	L.IN TONE PRE-DELAY SPOOKY R.IN TONE PRE-DELAY SPOOKY	STEREO STEREO	Decay Time	Pre-delay	Tone
Reverb Spring	Variable resonance spring Mono In	MONO IN SPRING RESONANCE	MONO STEREO	Decay Time	+-Resonance	Damping
Reverb Spring Dual	Variable resonance spring Stereo In	STEREO SPRING RESONANCE	STEREO STEREO	Decay Time	+-Resonance	Damping

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Reverb Swell Dry	Mixed Swelled Dry, Big Sky Inspired	(MONO IN) TONE	SWELL RISE TIME	(MONO)	STEREO	Decay Time	Rise Time	Tone		
Reverb Swell Wet	Big Sky Inspired	(MONO IN) TONE	SWELL RISE TIME	(MONO)	STEREO	Decay Time	Rise Time	Tone		
Reverb Transmitter	Earthquaker's Transmitter inspired	(MONO IN) FREQ	REVERB TRANSMIT	(MONO)	STEREO	Decay Time	Chorus	Frequency		
Reverb Transmitter Warp	Earthquaker's Transmitter inspired warp	(MONO IN) FREQ	REVERB TRANSWARP	(MONO)	STEREO	Decay Time	Warp	Frequency		
Reverb Vocal	Constant<>Rising Density, Big Sky Inspired	(MONO IN) TONE	REVERB DIFFUSION	(MONO)	STEREO	Decay Time	Diffusion	Tone		
AD Env. with VCA	Left In = VCA input, Right In = Trig Input	L.IN R.IN TRIG	VCA ATTACK/DECAY	(MONO)	(MONO)	Level	Attack	Decay		
AD Env. VCF 1 Pole	Left In= VCF 1 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 1 POLE ATTACK/DECAY	(MONO)	(MONO)	Frequency	Attack	Decay		
AD Env. VCF 2 Pole	Left In= VCF 2 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 2 POLE ATTACK/DECAY	(MONO)	(MONO)	Frequency	Attack	Decay		
AD Env. VCF 4 Pole	Left In= VCF 4 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 4 POLE ATTACK/DECAY	(MONO)	(MONO)	Frequency	Attack	Decay		
AD Delay with VCA	Left In = VCA input, Right In = Trig Input	L.IN R.IN TRIG	VCA DELAY - AD ENV.	(MONO)	(MONO)	Delay Time	Attack	Decay		
AR Env. with VCA	Left In = VCA input, Right In = Trig Input	L.IN R.IN TRIG	VCA ATTACK/RELEASE	(MONO)	(MONO)	Level	Attack	Release		
AR Env. VCF 1 Pole	Left In= VCF 1 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 1 POLE ATTACK/RELEASE	(MONO)	(MONO)	Frequency	Attack	Release		
AR Env. VCF 2 Pole	Left In= VCF 2 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 2 POLE ATTACK/RELEASE	(MONO)	(MONO)	Frequency	Attack	Release		
AR Env. VCF 4 Pole	Left In= VCF 4 Pole In, Right In = Trig In	L.IN R.IN TRIG	VCF LOWPASS 4 POLE ATTACK/RELEASE	(MONO)	(MONO)	Frequency	Attack	Release		
AR Delay with VCA	Left In = VCA input, Right In = Trig Input	L.IN R.IN TRIG	VCA DELAY - AR ENV.	(MONO)	(MONO)	Delay Time	Attack	Release		
Bit Crusher	Reduce Vertical Bit Fidelity		STEREO	STEREO	Amount	Pre-FX Tone	Post-FX tone			
Clipper	Adjustable ratio and knee Clipper		STEREO	STEREO	Threshold	Ratio	Knee			
Compressor Peak	Peak Type Compressing (Drums)	L.IN R.IN	PEAK COMPRESSER	STEREO	STEREO	Threshold	Ratio	Time		
Compressor RMS	RMS Type Compressing (Sustained Sounds)	L.IN R.IN	RMS COMPRESSER	STEREO	STEREO	Threshold	Ratio	Time		
Compressor Sidechain	L for signal, R for key (trigger)	L.IN R.IN	SIGNAL TRIGGER	STEREO	LEFT RIGHT	Threshold	Ratio	Time		
Crusher	Reduces Sample Rate & Bits		STEREO	STEREO	SSR Amount	BitT Amount	Post-FX tone			
Distortion Clipper	Gain till Hard Clipping		STEREO	STEREO	Threshold	Ratio	Knee			
Distortion Overdrive	Gain till Diode Clipping		STEREO	STEREO	Threshold	Ratio	Knee			
Expander	Downward Expander	L.IN R.IN	EXPANDER	STEREO	STEREO	Threshold	Ratio	Time		
Filter 3-Band EQ	High Shelf / Mid / Low Shelf	L.IN R.IN	HIGH SHELF HIGH SHELF	MID BOOST/CUT MID BOOST/CUT	LOW SHELF LOW SHELF	STEREO	STEREO	High	Mid	Low

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Filter BP 2 Pole	Classic 2 Pole Band Pass	L.IN DRIVE BANDPASS	R.IN DRIVE BANDPASS	STEREO STEREO	Frequency	Resonance Drive
Filter BP 4 Pole	Classic 4 Pole Band Pass	L.IN DRIVE BANDPASS	R.IN DRIVE BANDPASS	STEREO STEREO	Frequency	Resonance Drive
Filter BP Width	Variable Width Band Pass	L.IN DRIVE BANDPASS	R.IN DRIVE BANDPASS	STEREO STEREO	Frequency	Resonance Width
Filter DJ	Low Pass<THRU>High Pass DJ	L.IN DRIVE LP X HP	R.IN DRIVE LP X HP	STEREO STEREO	LP<Freq>HP	Resonance Drive
Filter HP 2 Pole	Classic 2 Pole High Pass	L.IN DRIVE HIGHPASS	R.IN DRIVE HIGHPASS	STEREO STEREO	Frequency	Resonance Drive
Filter HP 4 Pole	Classic 4 Pole High Pass	L.IN DRIVE HIGHPASS	R.IN DRIVE HIGHPASS	STEREO STEREO	Frequency	Resonance Drive
Filter LP 2 Pole	Classic 2 Pole Low Pass	L.IN DRIVE LOWPASS	R.IN DRIVE LOWPASS	STEREO STEREO	Frequency	Resonance Drive
Filter LP 4 Pole	Classic 4 Pole Low Pass	L.IN DRIVE LOWPASS	R.IN DRIVE LOWPASS	STEREO STEREO	Frequency	Resonance Drive
Filter LP Moog	4 Pole self-oscillating Low Pass	L.IN DRIVE LOWPASS	R.IN DRIVE LOWPASS	STEREO STEREO	Frequency	Resonance Drive
Filter Notch	Resonating Notch Filter	L.IN DRIVE NOTCH	R.IN DRIVE NOTCH	STEREO STEREO	Frequency	Resonance Drive
Filter Vowel	AH E EE U O I AE AW A ER MONO IN → FREQ.SHIFT → VOWEL	MONO MONO	+ - Freq. shift	Resonance	Vowel	
Generation Lost	Generation Lost Inspired	IN → TONE → PITCH → FILTER → OUT	MONO MONO	Wear	Wow	Tone
In / Out	Output copies Input, thru	L.IN → R.IN →	STEREO STEREO	None	None	None
Limiter	Variable Knee Limiter	L.IN → LIMITER R.IN → LIMITER	STEREO STEREO	Threshold	Knee	Time
Limiter 3-Band	Three Frequency Bands Limiter	L.IN → HIGH-LIMITER → MID-LIMITER → LOW-LIMITER R.IN → HIGH-LIMITER → MID-LIMITER → LOW-LIMITER	STEREO STEREO	High	Mid	Low
Lo-Junk	Instant Lo-Fi Junky Inspired	L.IN → LO-FI R.IN → LO-FI	STEREO STEREO	Speed	Depth	Comp <> Lo-Fi
Lo-Junk Noise Gate	Instant Lo-Fi Junky Inspired Noise Gated	L.IN → LO-FI → NOISE GATE R.IN → LO-FI → NOISE GATE	STEREO STEREO	Speed	Depth	Comp <> Lo-Fi
Noise Gate	Adjustable ratio noise gate	L.IN → NOISE GATE R.IN → NOISE GATE	STEREO STEREO	Threshold	Ratio	Time
Panner	Dual Panner Dual Mono Inputs	L.IN → PAN L.OUT R.OUT → R.IN → PAN R.OUT L.OUT	LEFT RIGHT STEREO	Left In Pan	Right In Pan	Left Right <> Mix
Panner Auto	LFO Panning	IN → PAN L.OUT R.OUT	MONO STEREO	LFO Rate	LFO Range	LFO Shape
Radio	Tunes between [Left: Station A] & [Right: Station B]	A B	LEFT RIGHT MONO	Tune	Noise	Tone
Ring Modulator	Ring Modulated by Internal Xfade VCO	L.IN → RING MOD R.IN → RING MOD	STEREO LEFT RIGHT	Course	Fine	Mod Shape
Sample & Hold Tones	Left In = Sample Source, Right In = Trig	L.IN SAMPLE SAW R.IN TRIG L.OUT TRI R.OUT	STEREO STEREO	Rate	Range	Shift + -
Sample Rate Reducer	Reduces the Sample Rate	MONO IN	STEREO STEREO	Amount	Pre-FX Tone	Post-FX tone
Sub Fatter	Bright/Dark Sub Octaves	MONO IN +- OCTAVE 1 +- OCTAVE 2 +- OCTAVE 3	MONO MONO	+ - 0	+ - 1	+ - 2

Program	Description	Input	Output	Control 1	Control 2	Control 3
Vinyl	Vinyl Degradition Record player simulator	L.IN → R.IN →  L.OUT → R.OUT	STEREO → STEREO	Wear	Noise	Tone
Vinyl Retro	Mono Vinyl Degradition Record player simulator	MONO →  MONO	MONO → MONO	Wear	Noise	Tone
Wave Folder	Reflect Above Floor & ceiling	   	STEREO → STEREO	Amount	+ - Symmetry	Stereo Width
xFader	L<>R blend with mix law & tone.	L.IN → FADE → L.OUT → R.IN → FADE → R.OUT	STEREO → STEREO	L<>R Crossfade	Law	Tone
Frequency Shifter	Up or Down	L.IN → FREQ. SHIFT → DELAY → R.IN → FREQ. SHIFT → DELAY	STEREO → STEREO	+ - Freq. Shift	+ - Feedback	Feedback delay time
Frequency Shifter Barbpole	Up or Down movement	MONO IN → FREQ. SHIFT →  or 	MONO → STEREO	+ - Rate	Range	Feedback
Frequency Shifter Dual	Dual Up or Down with separate controls	MONO IN → FREQ. SHIFT → FADE → FREQ. SHIFT → FADE	MONO → STEREO	+ - Shift 1	+ - Shift 2	1<2 Xfade
Frequency Shifter Up-Down	Simultaneous Up & Down	L.IN → FREQ. SHIFT UP/DOWN → DELAY → R.IN → FREQ. SHIFT DOWN/UP → DELAY	STEREO → STEREO	+ - Freq. Shift	+ - Feedback	Feedback delay time
Pitch Shifter	Smooth Pitch adjustment (+- 2 Octave range)	MONO IN → TONE → PITCH SHIFT	MONO → STEREO	+ - Pitch Shift	+ - Feedback	Tone
Pitch Shifter Barbpole	Up or Down movement	L.IN → PITCH SHIFT →  or 	STEREO → STEREO	+ - Rate	Range	+ - Feedback
Pitch Shifter Dual	Smooth Pitch (+- Oct. range)	L.IN → P. SHIFT 1 → FADE → P. SHIFT 2 → FADE → R.IN → P. SHIFT 1 → FADE → P. SHIFT 2 → FADE	STEREO → STEREO	+ - Pitch Shift 1	+ - Pitch Shift 2	1<2 Xfade
Pitch Shifter Dual Stepped	1 semitone Pitch increments	L.IN → P. SHIFT 1 → FADE → P. SHIFT 2 → FADE → R.IN → P. SHIFT 1 → FADE → P. SHIFT 2 → FADE	STEREO → STEREO	+ - Semitone	+ - Semitone	1<2 Xfade
Pitch Shifter Stereo	Smooth Pitch adjustment	L.IN → TONE → PITCH SHIFT → R.IN → TONE → PITCH SHIFT	STEREO → STEREO	+ - Pitch Shift	+ - Feedback	Tone

HOW TO USE FX AID EDITOR

Go to <https://fxaid.app>

Choose and create your bank list of 32 programs.

Click the SAVE BANK button to save your bank list (you can save more than one list)

 SAVE BANK

Click the GET MEMO button to print out your bank list

 GET MEMO

Click the GET FIRMWARE button to download Wave File.

 GET FIRMWARE

After the firmware is downloaded, press and hold both buttons on the FX AID module for 10 seconds to enter the firmware update mode.

Hold both for 10 sec.

2 inner LED's blink: ready for wave file

2 outer LED's blink in case of error



Play Wave File
Signal should be ±1 volt

Lower or turn up the volume
and Play Wave File again

Click to reset
if error occurs

ON THE 6 HP USE THE SRR INPUT

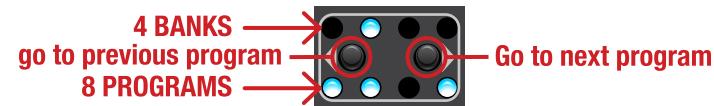


Play Wave File Here

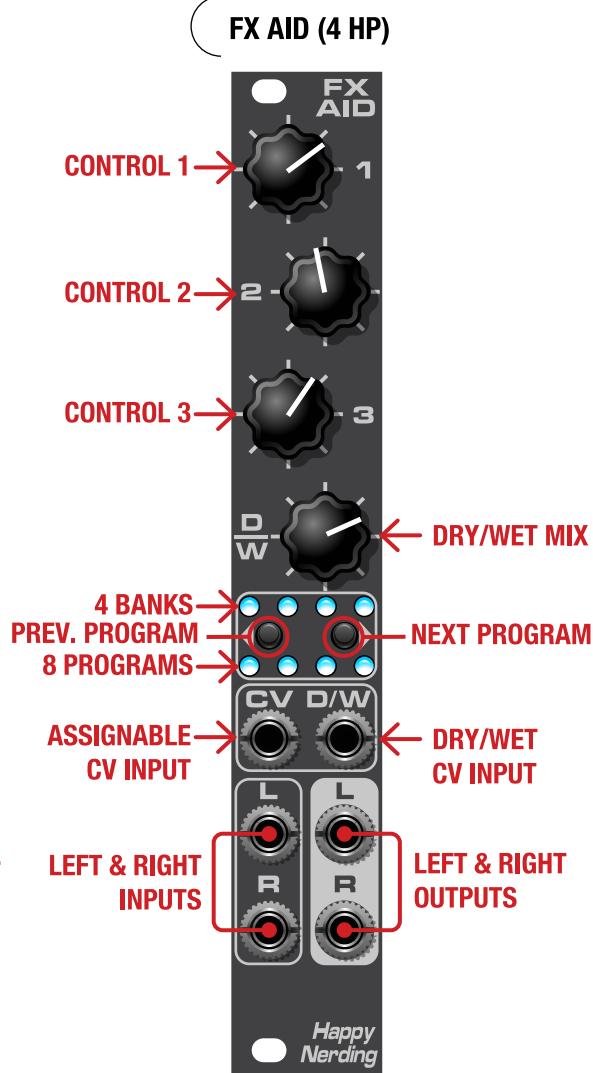
Play the generated 40 second audio wave file to the CV input to update the firmware. Line level amplitude around -1...+1 V is expected. The inner LED's flash alternately while receiving a successful signal, if error occurs press the left button, adjust level and try again. After firmware completes the LED's turn off and returns to normal operation with new list of programs installed.

HOW TO SELECT A PROGRAM

factory presets shown



1	Delay Tape	2	Delay Ping Pong	3	Delay HP	4	Delay LP	5	Delay Freq. Shift	6	Delay Pitch Shift	7	Delay Clock Sync.	8	Delay Comb
9	Delay Magneto	10	Delay>Reverb	11	Delay>Dual Shimmer	12	Delay Vowel	13	Filter Vowel	14	Wave Folder	15	Sample Rate Reducer	16	Bit Crusher
17	Flanger	18	Phaser Classic 12	19	Pitch Shifter	20	Pitch Shifter Dual	21	Freq. Shift Up/Down	22	Chorus > Reverb	23	Reverb Spring	24	Reverb Plate Classic
25	Reverb Room Stereo	26	Reverb Hall Chorus	27	Reverb Hall Medium	28	Reverb Black Hole	29	Reverb Cloud	30	Gray Hole Light	31	Shimmer Input Dual	32	Reverb Shimmer Dual



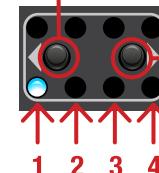
HOW TO STORE PRESETS (4 quick presets)



Hold down right button and keep holding after all LED's turn off.



Click the left button to select preset

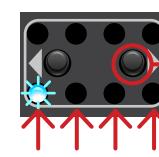


Keep holding until preset location is chosen letting go will store the preset in that location

HOW TO SELECT A PRESET



Hold for 2 sec.



Click the right button to choose the next preset

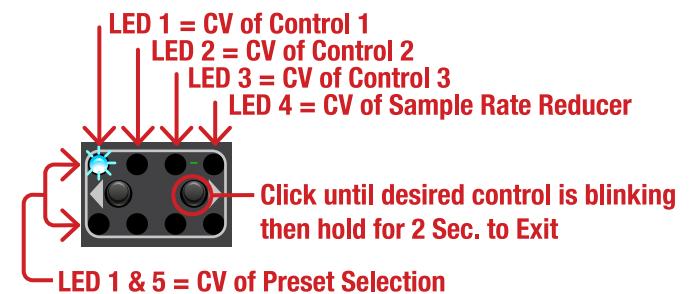


Click the left button to go to back

HOW TO ASSIGN CV INPUT



(ON THE FX AID 6 HP THE SRR INPUT CAN BE RE-ASSIGNED TO ANY CONTROL AND IT WILL BE SUMMED WITH THE OTHER CV INPUT)



More Illustrated Manuals
<http://www.vo1t.com/Vo1tIllustrated.html>

If you would like to donate
<http://www.paypal.me/bobborries>



Email modular@bobborries.com

Number

Program

Input

Description

Number	Program	Input	Description	Control 1	Control 2	Control 3	Output
1	Delay Tape	MONO	3 Tape Heads (Head 1&2 Left, Head 2&3 Right)	MONO IN → HEAD	HEAD → HEAD	FEEDBACK	Delay Time Feedback Heads Ratio STEREO
2	Delay Ping-Pong	MONO	Right output first, Left output second	MONO IN → DELAY	LEFT → LEFT	RIGHT	Delay Time Feedback Frequency STEREO
3	Delay HP	MONO	Resonating 2 pole Highpass filter inside feedback loop	MONO IN → DELAY	HIGHPASS	DELAY	Delay Time Feedback Frequency STEREO
4	Delay LP	MONO	Resonating 4 Pole Lowpass Filter inside feedback loop	MONO IN → DELAY	LOWPASS	DELAY	Delay Time Feedback Frequency STEREO
5	Delay Freq Shift	MONO	Frequency shift (+650 Hz range) inside feedback loop	MONO IN → DELAY	FREQ. SHIFT	DELAY	Delay Time Feedback FreqShift STEREO
6	Delay Pitch Shift	MONO	Pitch Shift (+Octave range) inside feedback loop	MONO IN → DELAY	PITCH SHIFT	DELAY	Delay Time Feedback PitchShift STEREO
7	Delay Clock Sync	MONO	Syncable to Squarewave Clock	MONO IN → CLOCK IN	MONO IN → DELAY	CV (Clock) In	Feedback Clock Divider STEREO
8	Delay Comb	STEREO	Feedforward & Feedback comb	L.IN → SHORT DELAY	R.IN → SHORT DELAY	FEED FORWARD	Frequency Feedback Feedforward STEREO
9	Delay Magneto	MONO	4 tape heads with even spacing	MONO IN → FEED FORWARD	HEAD → HEAD	HEAD → HEAD	Delay Time Feedback Chorus STEREO
10	Delay > Reverb	MONO	Reverb is outside feedback loop	MONO IN → DELAY	REVERB	DELAY	Feedback Long/Short Ant. STEREO
11	Delay > Dual Shimmer	MONO	Both Up & Down Octave	MONO IN → DELAY	SHIMMER UP OCTAVE	SHIMMER DOWN OCT.	Delay Time Feedback Long/Short Ant. STEREO
12	Delay Vowel	MONO	Pre-feedback Vowel Filter	AH E EE O I AE AW A ER	VOWEL	DELAY	Delay Time Feedback Vowel STEREO
13	Filter Vowel	MONO	AH E EE U O I AE AW A ER	MONO IN → FILTER SHIFT	REF. SHIFT	→ VOWEL	±Freq. shift Resonance Vowel MONO
14	Wave Folder	STEREO	MONO Reflect Above Floor & ceiling	WAVE WAVE WAVE WAVE	WAVE	WAVE	Amount ±Symmetry Stereo Width STEREO
15	Sample Rate Reducer	STEREO	MONO Reduce Horizontal Rate Fidelity	WAVE WAVE WAVE WAVE	WAVE	WAVE	Amount Pre-FX Tone Post-FX tone STEREO
16	Bit Crusher	STEREO	MONO Reduce Vertical Bit Fidelity	BIT CRUSH BIT CRUSH BIT CRUSH BIT CRUSH	BIT CRUSH	BIT CRUSH	Amount Pre-FX Tone Post-FX tone STEREO
17	Flanger	STEREO	MONO Flanger (if Rate is 0: CV or Manual Sweep)	L.IN → FLANGER	R.IN → FLANGER	Rate	Range Feedback STEREO
18	Phaser Classic 12	MONO	6 Poles (if Rate is 0: CV or Manual Sweep)	PHASER PHASER PHASER PHASER	PHASER PHASER PHASER PHASER	Rate	Range Feedback STEREO
19	Pitch Shifter	MONO	Smooth Pitch adjustment (+- 2 Octave range)	MONO IN → TONE	TONE → PITCH SHIFT	±Pitch Shift	±Feedback Tone STEREO
20	Pitch Shifter Dual	STEREO	Smooth Pitch (+- Oct. range)	L.IN → P. SHIFT 1	R.IN → P. SHIFT 1	±Pitch Shift 1	±Pitch Shift 2 1↔2 Xfade STEREO
21	Fret-Shift Up-Down	STEREO	Simultaneous Up & Down	L.IN → P. SHIFT 2	R.IN → P. SHIFT 2	±Freq. Shift Up/Down	±Freq. Shift Down/Fwd Delay ±Freq. Shift ±Feedback Fb. delay time STEREO
22	Chorus > Reverb	MONO	8 Voice Chorus	CHORUS CHORUS CHORUS CHORUS	REVERB	SPREAD	Stereo Width Reverb Amount STEREO
23	Reverb Spring	MONO	Variable resonance spring	MONO IN → SPRING	SPRING → RESONANCE	Decay Time	±Resonance Damping STEREO
24	Reverb Plate Classic	MONO	Popular Plate (120ms Pre-Delay)	MONO IN → TONE → PRE-DELAY	PLATE	PLATE	Decay Time Pre-Delay Tone STEREO
25	Reverb Room Stereo	STEREO	Stereo Room version	L.IN → TONE → PRE-DELAY	R.IN → TONE → PRE-DELAY	ROOM	Decay Time Feedback Tone STEREO
26	Reverb Hall Chorus	STEREO	Big Chorused Hall	L.IN → TONE → REVERB	R.IN → TONE → REVERB	ROOM	Decay Time Pre-Delay Tone STEREO
27	Reverb Hall Medium	STEREO	Medium Sized Hall	L.IN → TONE → PRE-DELAY	R.IN → TONE → PRE-DELAY	ROOM	Decay Time Pre-Delay Tone STEREO
28	Reverb Black Hole	MONO	Eventide's Black Hole Inspired	MONO IN → TONE → BLACK HOLE	BLACK HOLE	GRAVITY	Decay Time Reverse/Gravity Tone STEREO
29	Reverb Cloud	MONO	Big Sky Inspired	MONO IN → TONE → CLOUD	CLOUD	REVERB	Decay Time Chorus Diffusion STEREO
30	Reverb Grayhole Light	MONO	Needs to be heard	MONO IN → TONE → GRAYHOLE	GRAYHOLE	GRAVITY	Decay Time ±Gravity Tone STEREO
31	Reverb Shimmer Input Dual	MONO	Up & Down Octave	SHIMMER UP SHIMMER DOWN	FADe	DECAY	Decay Time Amount Up/Down Xfade STEREO
32	Reverb Shimmer Dual	MONO	Up & Down Octave	SHIMMER UP SHIMMER DOWN	FADe	DECAY	Decay Time Amount Up/Down Xfade STEREO

(HOW TO SELECT PROGRAMS go to previous program 8 PROGRAMS → Go to next program)

(HOW TO STORE PRESETS (4 quick preset slots are available) click the left button to select preset)



Keep holding until preset location is chosen letting go will store the preset in that location.

1

2

3

4

(HOW TO ASSIGN CV TO CONTROL go to previous program 8 PROGRAMS → Go to next program)

(HOW TO SELECT A PRESET Hold for 2 sec. Hold for 2 sec.)



LED 1 & 5 = CV of Preset Selection

Click the right button to choose the next preset. Click the left button to go back.
Click until desired control is blinking.

CONTROL 1

CONTROL 2

CONTROL 3

Sample Rate Reducer

Click until desired control is blinking.