MOBIUS

Multidimensional Delay

USER MANUAL

strymon®

Front Panel Controls

VALUE: Provides fine adjustment of LFO speed when the speed is displayed. Scrolls through presets when bank or name is displayed. PUSH to access the parameter menu for the current mod machine. HOLD to access the global menu.

SPEED: Provides coarse adjustment of LFO speed.

DEPTH: Sets the modulation depth for the current mod machine.

TYPE: Turn to select desired Mod Machine. Push to toggle the display between showing BPM or the current bank. Hold to save current preset.

LEVEL: Adjusts the output level from -3dB to +3dB. Set to 12 o'clock for unity gain.

PARAM 1: Assignable to the parameters in the current mod machine. To assign the PARAM 1 knob, navigate to the desired parameter, press and hold the value encoder and turn the PARAM 1 knob.

PARAM 2: Assignable to the parameters in the current mod machine. To assign the PARAM 2 knob, navigate to the desired parameter, press and hold the value encoder and turn the PARAM 2 knob.

Front Panel Controls Continued ....

TAP LED: Pulses to indicate current LFO rate. Flashes amber to indicate that a tap division is active.

TIP: To find the knob positions of a saved preset, turn each knob until the LED returns to GREEN after glowing Amber.

A & B LEDS: Green if active. Amber if the preset has been edited. Off if bypassed.

FOOTSWITCH A: Press to engage or bypass preset A of the current bank.

FOOTSWITCH B: Press to engage or bypass preset B of the current bank.

TAP: Tap to set the LFO speed. Press once to sync LFO for Phaser, Filter, Formant, Pattern Trem and Quadrature. Assignable to tap or speed select for Rotary.
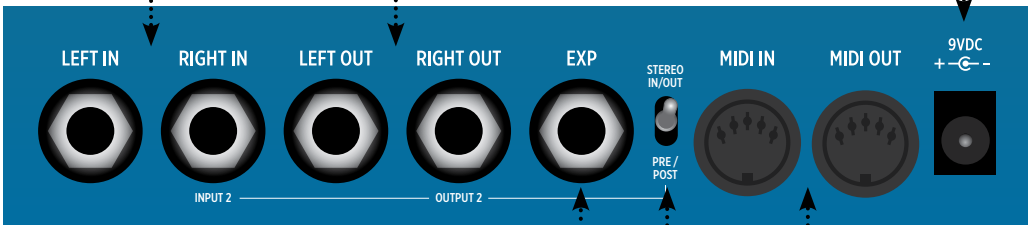
BANK SELECT: Press A & B to select a lower bank. Press B & TAP to select a higher bank. While the selected bank is pending it is displayed as "BANKXX" where XX is the bank number. After the desired bank is selected, press A or B to activate a preset from that bank.

Rear Panel

INPUTS: High impedance inputs. Use LEFT input for mono. RIGHT IN is used as input 2 if using a pre/post configuration.

OUTPUTS: Use LEFT output for mono. RIGHT OUT is used as output 2 if using a pre/post configuration.

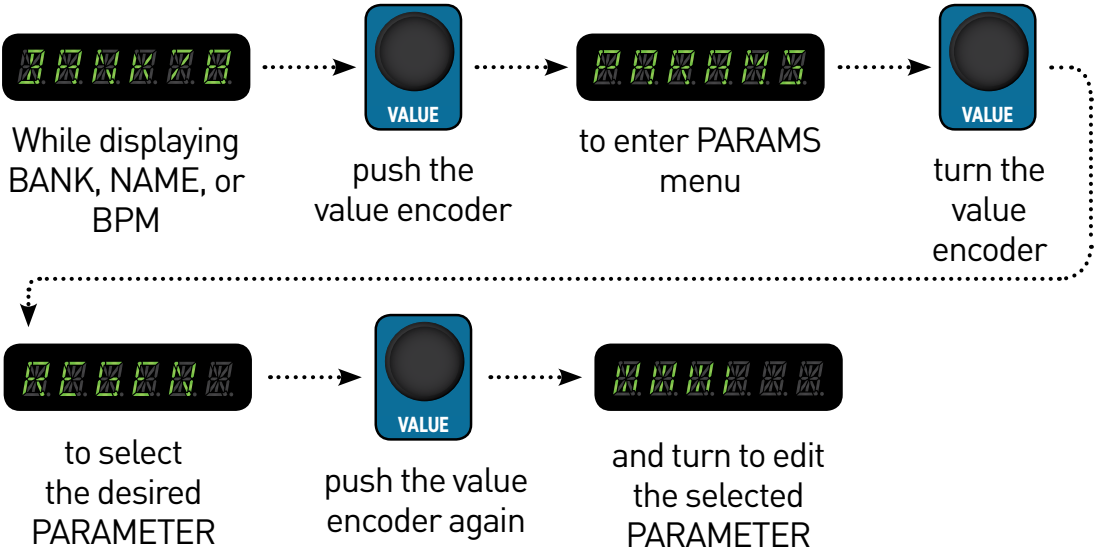**POWER:** NEVER plug into voltage higher than 9VDC. Requires at least 300mA of available current.

LEFT IN   RIGHT IN   LEFT OUT   RIGHT OUT   EXP   STEREO IN/OUT   PRE / POST   MIDI IN   MIDI OUT   9VDC + -

INPUT 2   OUTPUT 2

EXP: Connect an expression pedal or switch for external tap tempo.

SIGNAL ROUTING SWITCH: Choose between standard stereo in/out operation or pre/ post mode. Turn to *Pre/Post* section for more details.

MIDI: Full featured MIDI input and output supporting MIDI CCs, Program changes, etc. Consult **MIDI Specifications** section for full MIDI spec.
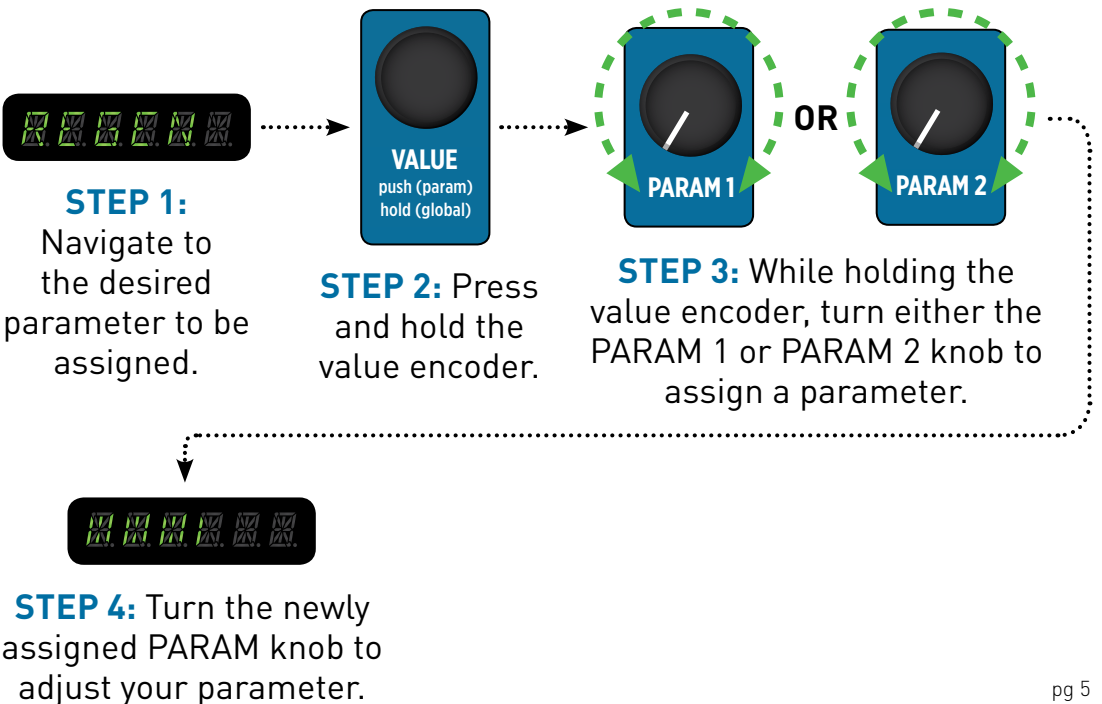
Editing Parameters

While displaying BANK, NAME, or BPM

push the value encoder

to enter PARAMS menu

turn the value encoder

to select the desired PARAMETER

push the value encoder again

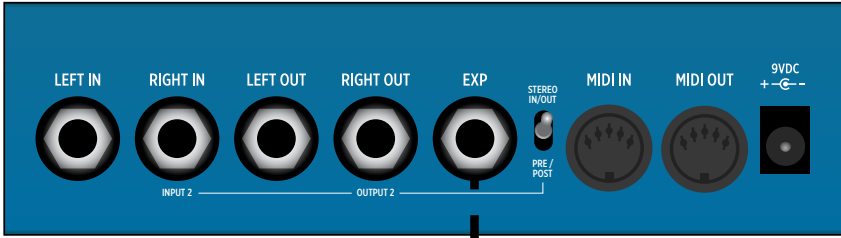and turn to edit the selected PARAMETER

In Depth: PARAM 1 & 2 Controls

The PARAM 1 & PARAM 2 knobs allow you to continuously control any desired parameter of the currently active mod machine. This can be very convenient in allowing continuous control over the various mod machines. For example, REGEN in a flanger can be assigned to one of the parameter knobs to allow for continuous control over the flanger feedback.

ASSIGNING A PARAMETER

VALUE
push (param)
hold (global)

OR

PARAM 1

PARAM 2

STEP 1: Navigate to the desired parameter to be assigned.

STEP 2: Press and hold the value encoder.

STEP 3: While holding the value encoder, turn either the PARAM 1 or PARAM 2 knob to assign a parameter.

STEP 4: Turn the newly assigned PARAM knob to adjust your parameter.
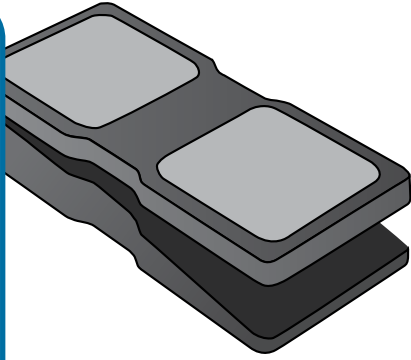
EXP Connections

Connect a Strymon MiniSwitch to tap tempo remotely. Use a standard TRS cable to connect the external switch. Set the EXP MD global setting to TAP to use external tap.

Connect a standard TRS expression pedal for continuous control over any knob. To select the knob(s) controlled by the expression pedal, use the EP SET parameter in each preset. All knobs can be controlled simultaneously. See **Common Parameters** for set up instructions.
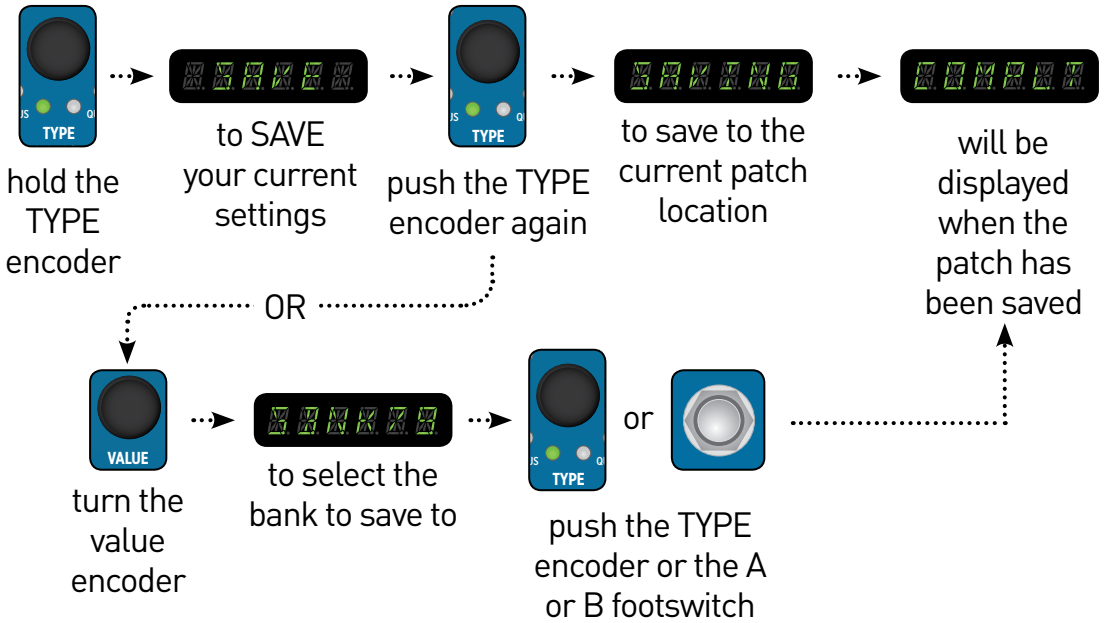
OR

Connect a Strymon MultiSwitch for external tap tempo, bank selection, or preset selection. Set the EXP MD global setting to either TAP, BANK, or PRESET. Please refer to the MultiSwitch user manual for detailed setup information: **www.strymon.net/support/multiswitch**
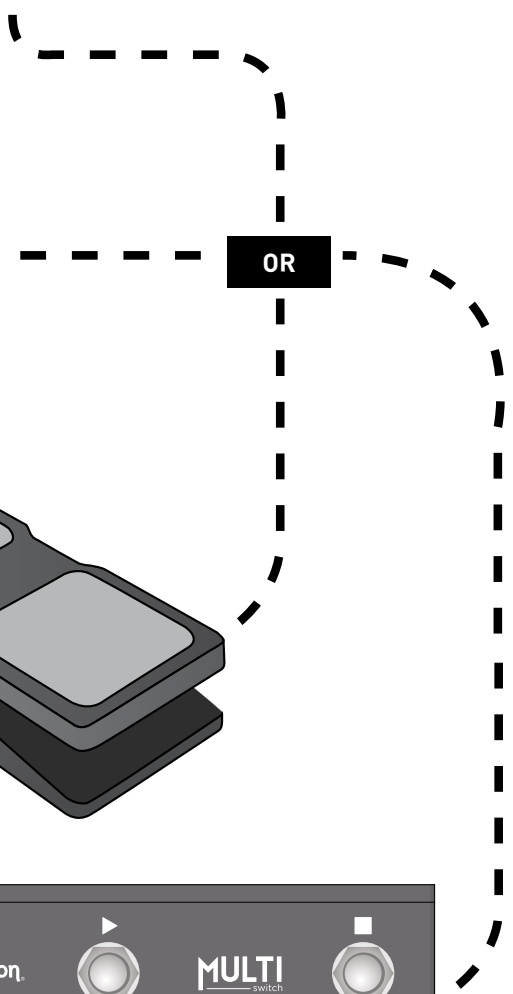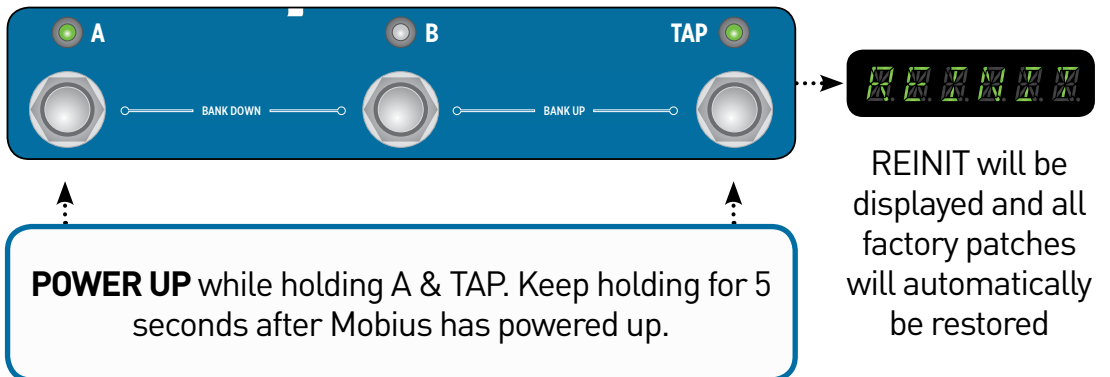
Banks and Patches

Mobius has 100 banks with A & B patches in each bank. Banks are numbered 0 to 99 on the display. The patches in banks 0-49 are duplicated in banks 50-99 at the factory.
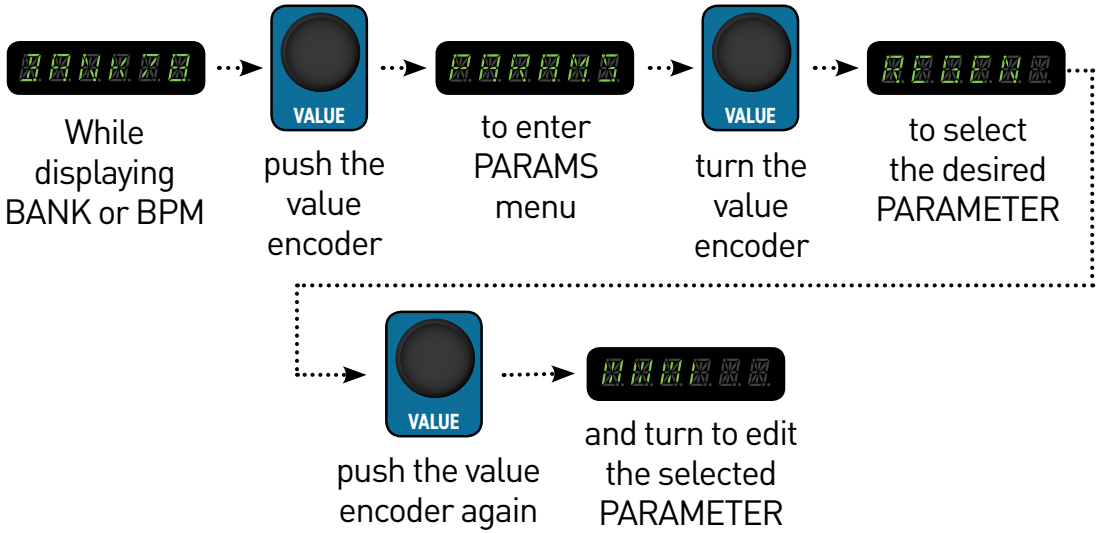
Saving Patches

hold the TYPE encoder

to SAVE your current settings

push the TYPE encoder again

to save to the current patch location

will be displayed when the patch has been saved

OR

turn the value encoder

to select the bank to save to

or

push the TYPE encoder or the A or B footswitch

Restoring Factory Patches

CAUTION: This procedure will erase any custom patches saved in the Mobius and restore them to factory

A   B   TAP

BANK DOWN   BANK UP

POWER UP while holding A & TAP. Keep holding for 5 seconds after Mobius has powered up.

REINIT will be displayed and all factory patches will automatically be restored

Editing Parameters

While displaying BANK or BPM → push the value encoder → to enter PARAMS menu → turn the value encoder → to select the desired PARAMETER →

→ push the value encoder again → and turn to edit the selected PARAMETER

Mod Machines: Common Parameters

All Mod Machines share a set of parameters. These parameters are saved with each preset and include:

TAP DIVISION: Selects the subdivision to use for LFO speed when tapping in a tempo. Tap division options include:

Whole, Half, Quarter(default), Dotted Eight, Eighth, Triplets, Sixteenth notes
NOTE: If TAPDIV is set to anything other than Quarter notes, the TAP LED will pulse in amber

PRE / POST: Allows configuration per preset of the pre/post configuration available via the rear panel toggle switch. When Mobius is used in pre/post configuration, set to "PRE" to place the modulation effect in front of your amp and set to "POST" to place the modulation effect in your amp's effect loop.

NAME: Allows editing the 16 character name of the current patch. Use the VALUE encoder to change the selected character. Use the TYPE encoder to select a character. Exit by pressing the VALUE encoder, then press and hold the TYPE encoder to SAVE the name permanently.
NOTE: For the patch name to be displayed the NAMES global must be set to ON or SCROLL.

Common Parameters Continued ···

EXPRESSION PEDAL ON/OFF: Enables or disables the expression
pedal input for each patch.

EXPRESSION PEDAL SET: Enters the expression pedal setup for each
patch. All knobs can be configured to be used with the
expression pedal. To set up which knobs are controlled
by the expression pedal, push the Value encoder when
it displays "EP SET" and it will then display "HEEL".
Turn the knob(s) to the position desired at heel
down on the expression pedal. Then, turn the Value
encoder right to display"TOE" and set the knobs to
their desired values at the toe down position on the
expression pedal. An expression pedal can control all
of the knobs simultaneously.

MIDI CLOCK ON/OFF: When set to ON, Mobius will respond to external
MIDI clock from the MIDI input. This parameter is
saved independently so that only presets with this
parameter set to ON will respond to MIDI clock.

Mod Machines: Chorus   CHORUS 🟢

A full featured Chorus with 5 distinct modes. dBucket, Multi and Vibrato all utilize our dBucket variable clock technology for classic analog bucket brigade style chorusing. dBucket utilizes a single LFO while Multi utilizes multiple LFOs simultaneously for a distinctly rich sounding chorus. Vibrato is a pitch modulation effect reminiscent of bucket brigade style pitch modulation effects. The Detune and Digital modes are clean digital chorus effects reminiscent of the rack effects of the '80s. Detune applys a "thickening" effect to your signal while Digital is a crystal clear chorusing algorithm.

PARAMETERS:

MODE: Selects the current Chorus algorithm. Each algorithm is completely unique in its sonic character.

- **dBucket**
- **Multi**
- **Vibrato**
- **Detune**
- **Digital**

MIX: Sets the Mix of the wet Chorus signal relative to the uneffected dry signal. A 50/50 mix is usually the most typical setting.

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TONE: Allows adjustment of the brightness of the effected signal.

         -    I   +

Mod Machines: Chorus Continued ···

> **TIPS & TRICKS:**
>
> **dBCKET mode** covers the sounds of the classic analog choruses from the 1970's. Turn the DEPTH Knob to 12:00 and the MIX parameter at around 80% for the coveted large-box chorus sound. Turn the MIX back to half-way to experience the sound of the first compact chorus pedal.
>
> **MULTI mode's** three dBucket modulated-delay- lines allow for super-lush modulation at high mix and depth levels without excessive 'warble'. If you have a stereo rig, you owe it to yourself to check this out. Try preset 00A for starters.
>
> **VIBRTO mode** uses our dBucket and variable-clock technology to capture the warmth of old-school stomp circuits. Set the MIX param to maximum for pure vibrato. Reduce the MIX to add some dry signal to give a vibrato-influenced chorus.
>
> **DETUNE mode** mixes a pitch-detuned signal with the dry input to create a chorus that doesn't use an LFO. The SPEED knob controls the pitch shift from -25 cents to +25 cents, while the DEPTH knob adds a widening or doubling effect as it is turned up for a distinctive '80s feel. Set MIX to 50% for the fullest effect.
>
> **DIGITL mode** uses a classic modulated digital delay line to produce clean, pristine, unadulterated chorus tones. Set MIX to 50% for traditional digital chorus sounds.

Mod Machines: Flanger

FLANGER ●

A deep and rich Flanger with a wide pallete of sonic possibilities. Six separate modes cover a variety of flanger sounds. Each separate algorithm uses dBucket technology at its heart for authentic recreations of classic bucket brigade flangers.

PARAMETERS:

MODE: Sets the currently active Flanger algorithm.

Silver a re-creation of the classic "silver box" flanger

Grey the classic "grey box" flanger featuring its unusual LFO waveshape

Black+ one of the most sought after flange sounds in history, with positive regeneration

Black- the black box flanger with negative regeneration

Zero+ a through zero flanger with positive regeneration

Zero- a through zero flanger with negative regeneration

REGEN: Adjusts the amount of feedback in the flanger's delay line. Adjust high for more extreme flanging sounds.

||||||||||||

MANUAL: Controls the delay time of the flanger. Higher settings produce higher frequency flanging effects and vice versa.

||||||||||||

Mod Machines: Flanger Continued

TIPS & TRICKS:

SILVER mode creates textured, airy flanging. Turn up the Depth and Regen params to add color to stacatto rhythm parts, or turn back for a mellower chorus-like effect.

GREY mode's logarithmic LFO creates a dramatic sweep that lingers at the higher registers when the DEPTH knob is high and the speed is slow. Increase the REGEN parameter to intensify the effect.

BLACK mode's super-wide sweep creates a signature 'swoop' at high depth settings. At fast speeds, this mode will get crazy.

In the **ZERO modes** with the MANUAL parameter at minimum, the 'top' of the sweep just passes through zero. Increasing the MANUAL parameter moves the sweep even further past zero. Increase the DEPTH to add lower frequency flanging at the 'bottom' of the sweep.

Mod Machines: Rotary

ROTARY ●

A realistic recreation of a rotary speaker cabinet commonly used with tonewheel organs and guitars. Just like an actual rotating speaker cabinet, the speed of rotation can be varied between slow and fast speeds.

PARAMETERS:

**HORN LEVEL:** Controls the output of the high frequency rotating horn driver.

PREAMP DRIVE: Controls the drive of the rotary cabinet's tube preamp and phase inverter stages. Turn up for a more overdriven cab sound.

SLOW ROTOR SPEED: Controls the speed of the rotors in SLOW speed.

ACCELERATION: Controls how quickly the rotors transition from Fast to Slow and from Slow to Fast speed. The rotors will accelerate independently.
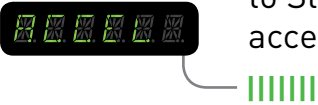
TAP SWITCH: Determines whether to use the TAP footswitch as a tap tempo or a slow/fast speed toggle.

Tap
Speed

MIC DISTANCE: Varies the distance of the two stereo microphones from the rotating horn driver. The DEPTH knob takes this function on the Rotary machine.

DEPTH

TIPS & TRICKS: In the ROTARY machine, the SPEED knob controls the fast rotor speed. Set the DEPTH control high for close-miking and maximum intensity, and dial it back for a more mellow effect.

Mod Machines: Vibe   VIBE 🟢

A recreation of the late '60s "vibe" circuit which was one of the first modulation effects of its time. A staple in classic rock lead guitar of the era and originally intended to be a recreation of a rotary speaker sound, the vibe has its own unique niche in the world of modulation.

PARAMETERS:

**WAVESHAPE:** Varies the shape of the LFO by warping its waveform and duty cycle.

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LOW END CONTOUR: Allows for shaping the low-end from full low-end to progressive high-passing.

+ | | -

HEADROOM: Adjusts the amount of distortion within the vibe circuitry. Set to maximum for the cleanest vibe tones, and dial back to add the feel and grit of dirtier vibe tones.

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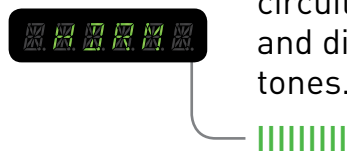
MODE: Toggles the vibe mode between vibe (vibrato) and chorus.

Vibrato
Chorus
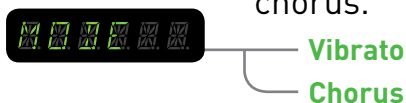
TIPS & TRICKS:

The DEPTH knob changes the character of the VIBE from a smooth pulsing to a warbled undulation, most noticeable at slower speeds. For maximum throb, set the LO END param to the '+' side.

The quintessential VIBE sound occurs in the VIBE machine's CHORUS mode. This mode combines the input signal with the wet effect signal, producing the psychedelic phasey sound. The vintage vibe effects had a switch that removed the unaffected dry signal from the output, which results in a unique 'phase-shift vibrato'. Select the VIBRTO mode for this vibrato effect. Try setting the WAVSHP param to maximum to get some vintage-amp-inspired vibrato mojo.

Mod Machines: Phaser

PHASER ●

From the thick and chewy 2, 4 and 6 stage modes, to the rich and swirly 8, 12 and 16 stage modes, the PHASER machine offers a full palette of traditional and innovative phaser sounds. For added fun, a unique BARBER mode is added, derived from the frequency shifters developed in the 1970's.
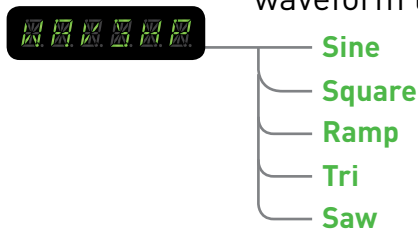
PARAMETERS:

**MODE:**   Selects the current phaser algorithm.

— 2 Stage
— 4 Stage   — 12 Stage
— 6 Stage   — 16 Stage
— 8 Stage   — Barber Pole
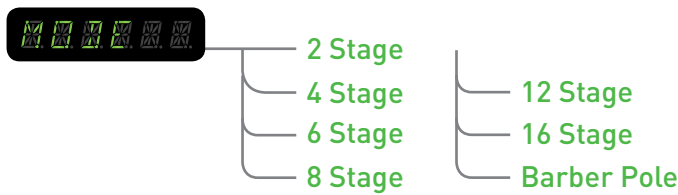
REGEN: Adjusts the amount of feedback signal. Adjust high for more extreme phaser sounds.

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WAVESHAPE: Selects the current LFO (low frequency oscillator) waveform to apply to the phase stages.

— **Sine**
— **Square**
— **Ramp**
— **Tri**
— **Saw**

HEADROOM: Adjusts the amount of distortion within the phaser circuitry. Set to maximum for the cleanest phaser tones, and dial back to add the feel and grit of dirtier phase tones.

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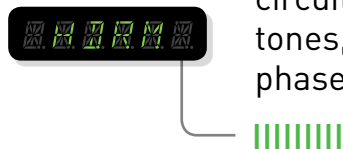
Mod Machines: Phaser Continued ··

SPREAD:

Determines the offset between the Left and Right channel LFO signals. Listen to the effect it has on the stereo image as you adjust the parameter. **Note:** Only applies when using the unit in Stereo Configuration.

- **Off**
- **1/4**
- **Half**
- **3/4**
- **Full**

TIPS & TRICKS: For classic orange phaser sounds, set MODE to '4 STG', Depth knob to about 2 o'clock, and the REGEN param at half or a bit less to taste. Switch to '6 STG' for chewy funky phasing.

For infinite rising barber pole phaser, set MODE to BARBER, WAVSHP to RAMP, and set the Depth control to maximum. Change the WAVSHP to SAW to get infinitely falling barber pole phaser. Adjust REGEN to dial in the intensity.

Try slow speed SINE or TRI waveforms on the 8, 12, and 16 stage phasers. For maximum swirl, experiment with the SPREAD param in a stereo setup.

Mod Machines: Filter   FILTER ●

An LFO synced filter with three filter types, eight LFO waveshapes and variable resonance. Envelope filtering and traditional Wah effects (with an Expression pedal) are available.

PARAMETERS:

MODE: Selects the current filter type. The low pass filter will cut high frequencies, the high passfilter will cut low frequencies, and wah is a classic wah wah bandpass type filter.

- **Low Pass**
- **Wah**
- **High Pass**

WAVESHAPE: Sets waveform shape that the LFO will utilize. Both + and - envelope modes trigger the filter based on the input level but in opposite directions.

- **Sine**
- **Triangle**
- **Square**
- **Ramp**
- **Saw**
- **Random**
- **Envelope +**
- **Envelope -**

FREQUENCY MID: Adjusts the frequency midpoint of the filter sweep.

L | H

RESONANCE: Sets the amount of feedback in the filter. High resonance causes ringing at the cutoff frequency and subsequently a boost around the cutoff.

- **OFF**
- **|||||||||**

DRY LEVEL: Sets the amount of unfiltered signal at the output.

- **OFF**
- **|||||||||**

Mod Machines: Filter Continued ··

SPREAD: Determines the phase offset between the Left and Right LFO signals. Listen to the effect it has on the stereo image as you adjust the parameter. **NOTE:** Only applies when using the unit in a stereo configuration.

- Off
- 1/4
- 1/2
- 3/4
- FULL

TIPS & TRICKS: With the MODE set to WAH and the DEPTH knob at minimum, attach an expression pedal to control the F MID param and you've got a great sounding wah effect with adjustable Q (resonance).

When using the Env+ or Env- waveshapes, adjust the DEPTH knob to set the response of the filter to your playing dynamics. Try higher DEPTH for weaker input signals, or back it off with hotter inputs. The SPEED knob controls how quickly the filter follows the envelope. Set high for funky single line riffs, or lower for smoother response for rhythm work. Add some dry signal to make more subtle filtering effects.
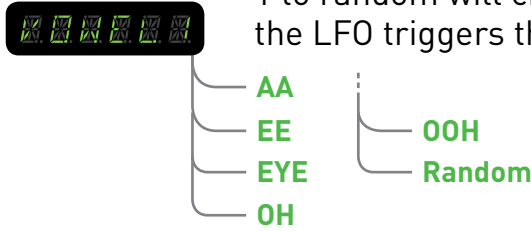
Mod Machines: Formant

FORMANT

A special filter type that emulates the human vocal tract. The formant machine also features selectable LFO waveforms.
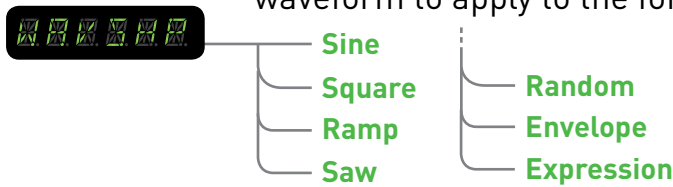
PARAMETERS:

VOWEL 1: Sets the first vowel of the formant filter. Setting Vowel 1 to random will choose a new vowel sound every time the LFO triggers the vowel.

- AA
- EE   OOH
- EYE   Random
- OH

VOWEL 2: Sets the second vowel of the formant filter. Setting Vowel 2 to random will choose a new vowel sound every time the LFO triggers the vowel.

- AA
- EE   OOH
- EYE   Random
- OH
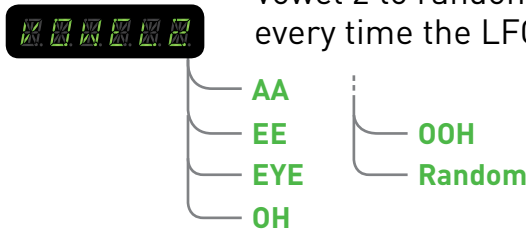
WAVESHAPE: Selects the current LFO (low frequency oscillator) waveform to apply to the formant filter.

- Sine
- Square   Random
- Ramp   Envelope
- Saw   Expression

SPREAD: Determines the phase offset between the Left and Right LFO signals. Listen to the effect it has on the stereo image as you adjust the parameter. **NOTE:** Only applies when using the unit in a stereo configuration.

- Off
- 1/4   3/4
- 1/2   Full
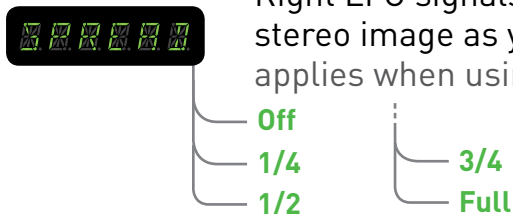
Mod Machines: Formant Continued

TIPS & TRICKS: Many cool vocal effects happen in the transition between vowels. With that in mind, experiment with the DEPTH knob to dial in the desired vocal effects.

The DEPTH knob is similarly important when using the ENV WAVSHP, as it sets the dynamic vocal response to your playing. The SPEED knob controls how quickly the formants follow the envelope.

Connect an expression pedal and select EXPR under the WAVSHP param, and Mobius will blend between the two vowels based on the position of the pedal giving you a vocal Wah experience.

Mod Machines: Vintage Trem

🟢 VINTAGE TREM

The Vinage Trem features three classic tremolo sounds from the '60s. The distinctly different tremolo circuits in vintage combo amps of the era resulted in three unique tremolos, each with their own signature sound.

PARAMETERS:

MODE:

Tube
Harmonic
Photoresistor

Selects the current tremolo type. The tube tremolo accomplished its tremolo sound by varying the bias on the output tube circuit. The harmonic trem used band filtering to achieve tremolo with a unique "phasey" sound. The photoresistor tremolo cut the amplifier in and out with a bulb/photoresistor combination for the most choppy and square sounding tremolo of the three.

PAN:

Off
Half
Full

Determines the offset between the Left and Right channel LFO signals. Listen to the effect it has on the stereo image as you adjust the parameter. **NOTE:** Only applies when using the unit in Stereo Configuration.

TIPS & TRICKS: For thick atmospheric trems, choose the HARM mode at slower speeds. For moody sultry trems, try the TUBE mode. For spy and surf sounds, check out the PHOTO mode at higher speeds.

Mod Machines: Pattern Trem

🟢 **PATTERN TREM**

A pattern-sequenced tremolo with user definable patterns. Up to eight beats can be sequenced, with one to sixteen trem cycles per beat. The unique and rhythmic effects can be sync'ed with a single press of the TAP footswitch.

PARAMETERS:

WAVESHAPE: Selects the waveform shape of the tremolo LFO.

- Sine
- Triangle
- Square
- Rectangle
- Pulse
- Ramp
- Saw
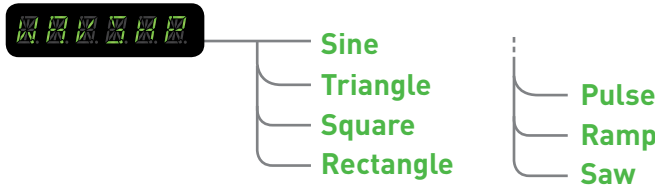
BEAT 1: Sets the number of subdivisions for each beat. Additionally, when set to full, the signal is present with no tremolo applied during that beat. When set to zero, no signal is present for that beat.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- FULL
- ZERO
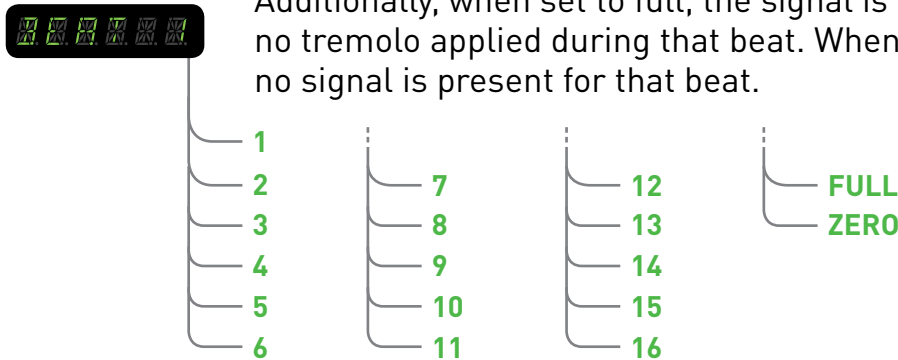
BEAT 2-8: Has the same parameters as beat 1 but includes a '----' option to ignore the beat and all subsequent beats, which signifies the end of the sequence.

- ----
- [... additional parameters identical to beat 1]
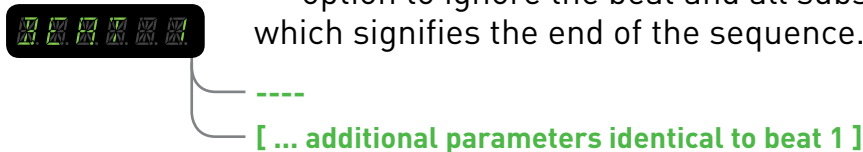
PAN: Determines the phase offset between the Left and Right LFO signals. Listen to the effect it has on the stereo image as you adjust the parameter. **NOTE:** Only applies when using the unit in a stereo configuration.

- Off
- On
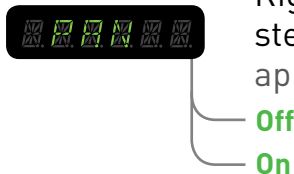
Mod Machines: Pattern Trem Continued ···

TIPS & TRICKS: Tap the TAP footswitch once to start the pattern sequence from the beginning. This is a powerful performance feature to sync the pattern with specific song cues.

Select SINE waveshape and set PAN to ON for a traditional panning effect in a stereo rig. Experiment with different LFO shapes and see how the stereo field is changed. Complex patterns can take on a psychedelic nature when PAN is ON in stereo rigs.

You can create a simple geometric LFO waveform trem by setting BEAT 1 param to '1', and Beat 2 to '---'.
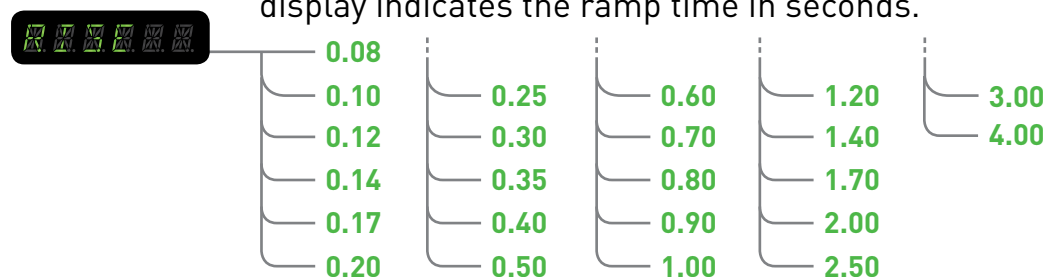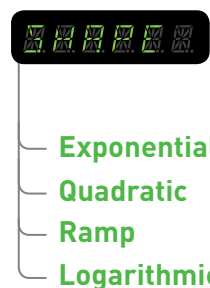
Mod Machines: Autoswell

● AUTOSWELL

An automatic volume swell effect triggered by the input signal. Various rise times and swell curves are available. A chorus effect can be added to the swelled signal.

PARAMETERS:

RISE TIME: Sets the time constant of the swell rise time. The display indicates the ramp time in seconds.

0.08				
0.10	0.25	0.60	1.20	3.00
0.12	0.30	0.70	1.40	4.00
0.14	0.35	0.80	1.70	
0.17	0.40	0.90	2.00	
0.20	0.50	1.00	2.50	

SHAPE: Sets the shape of the swell.

- Exponential
- Quadratic
- Ramp
- Logarithmic

Exponential – Traditional 'first order' response. It starts to rise quickly, and then slows as it approaches full volume.

Quadratic – A 'second order' swell response. This gives a smoother rise and approach to full volume.

Ramp – A linear ramp that has a constant slope from rise to full volume.

Logarithmic – The opposite of the Exponential response, this choice rises slowly and picks up steam as it approaches full volume.

> **TIPS & TRICKS:** The SPEED and DEPTH knobs control a chorus effect that is added to the swelled signal. With the DEPTH knob at minimum, no chorus effect is added.
>
> Try the LOGARITHMIC shape with fast rise times to allow for more separation between notes when playing single-note phrases.
>
> Try the QUAD Shape with longer rise times to get smooth ambient swells for chordal work.

Mod Machines: Destroyer

DESTROYER

An intricate tool to mangle your audio. The speed knob controls rotational speed of the virtual record for the Vinyl effect.

PARAMETERS:

BIT DEPTH: Reduces the digital bit depth from 32 bits down to 4 bits. Fuzzy crunchy artifacts are introduced as the bit depth is reduced.

4 Bit			
4.5 Bit	7 Bit	11 Bit	16 Bit
5 Bit	7.5 Bit	12 Bit	18 Bit
5.5 Bit	8 Bit	13 Bit	20 Bit
6 Bit	9 Bit	14 Bit	24 Bit
6.5 Bit	10 Bit	15 Bit	32 Bit

SAMPLE RATE: Selects the sample rate from 96 KHz to 750Hz. As the sample rate is reduced, aliasing artifacts damage the fidelity of the signal.

750Hz			
1 kHz	5 kHz	10 kHz	19 kHz
1.5 kHz	6 kHz	11 kHz	24 kHz
2 kHz	7 kHz	12 kHz	32 kHz
3 kHz	8 kHz	14 kHz	48 kHz
4 kHz	9 kHz	16 kHz	96 kHz

FILTER SHAPE: A collection of filters inspired by telephones, victrolas, am radios, bull horns, and other gadgets. The mixed lofi and full-resolution signal (along with any dVinyl noise) goes through the selected filter.

OFF	
1 (Portable Vintage Amp)	5 (Cheerleader's Plastic Megaphone)
2 (Victrola Phonograph)	6 (Antique Telephone Ear Piece)
3 (70s Clock Radio)	7 (Cell Phone)
4 (Bullhorn Megaphone)	8 (Apartment Intercom)

Mod Machines: Destroyer Continued

VINYL:

Our dVinyl technology introduces random vinyl dust noise and scratches from a 33 1/3 to 78 rpm record. Effect speed determines the rotational speed of the record.

IIIIII
OFF

MIX:

Mixes the lo-fi (bit and sample-rate dependent) signal with the full resolution signal. Heinously corrupted audio can sit on top of the full resolution signal. Set to full lo-fi mix for just destroyed signal.

D   I   L

TIPS & TRICKS: Change your sonic landscape and add some instant atmosphere with the FILTER parameter. The FILTER parameter can be a powerful tone-shaping element just used on its own.

The DEPTH knob introduces Vinyl warping that tracks the record speed set by the Speed knob. Add some warping in conjunction with the dVinyl noise for an authentic old-school vinyl experience.

Mod Machines: Quadrature

QUADRATURE

The Quadrature machine handles another spectrum of signal corruption featuring Quadrature oscillators. Choose from AM (amplitude modulation), FM (frequency modulation), or Frequency Shifting (single side band modulation) to go where few have gone before. This mode is highly flexible with a variety of waveshapes to modulate the modulation.

PARAMETERS:

MODE: Selects the current Quadrature algorithm.

AM – like a tremolo with a crazy-wide speed range. Also commonly referred to as a Ring Modulator.
FM – like a vibrato with a crazy-wide speed range.
Positive Frequency Shifter – Offsets all frequencies by the same amount in the positive direction.
Negative Frequency Shifter – Offsets all frequencies by the same amount in the negative direction.

— **AM**
— **FM**
— **Frequency Shifter +**
— **Frequency Shifter -**

SHIFT: Sets the modulating frequency of the selected Mode. Mild effects are achieved at the lowest settings, and more extreme effects come about at higher settings.

— **IIIIIIII**

WAVESHAPE: Selects the LFO waveshape to modulate the SHIFT param for the selected Mode.

— **Sine**
— **Triangle**   — **Saw**
— **Square**   — **Random**
— **Ramp**   — **Envelope**

Mod Machines: Quadrature Continued

TIPS & TRICKS: The DEPTH knob sets the amount of modulation of the shift frequency. With the DEPTH at minimum, the shift frequency is unaltered and set by the SHIFT param. Turning up the DEPTH will modulate the shift frequency. This is most easily understood when heard with large SHIFT param settings, but will create many interesting sounds with lower shift settings.

When the DEPTH knob is set to maximum, the shift frequency will approach 0 during the LFO cycle. Try using a SQR LFO waveshape with a high SHIFT value and the DEPTH knob at maximum. One half of the square wave will sound like input signal (when the shift frequency is 0) and the other half will sound like the effect at the shift frequency set by the SHIFT param.

Globals Menu

Global parameters affect Mobius regardless of what patch is currently active.

BPM DISPLAY: Configures the display to show BPM in Hz or Beats Per Minute.

- **BPM**
- **Hz**

GLOBAL TAP: Allows the last tapped tempo to affect all presets regardless of the tempo saved in the preset.

- **PRESET** - when patch is changed, delay time will change to save value in preset
- **GLOBAL** - delay time will remain at the last tapped tempo regardless of current preset

BYPASS SET-UP: Changes the bypass mode between True Bypass and Buffered Bypass. In True Bypass, electromechanical relays are used to bypass Mobius so that no components are touching the input signal. In Buffered Bypass the bypassed signal runs through a high quality analog buffer.

- **TRUE BYPASS**
- **BUFFERED BYPASS**

MIDI CHANNEL: Sets the MIDI Channel. Can be set to 1 - 16.

- **CH 1 - 16**

**MIDI CONTINUOUS CONTROLLERS:** Turns MIDI CC messaging (continuous controllers) ON or OFF.

- **ON**
- **OFF**

MIDI PATCH CHANGE: Turns MIDI patch change messaging ON or OFF.

- **ON**
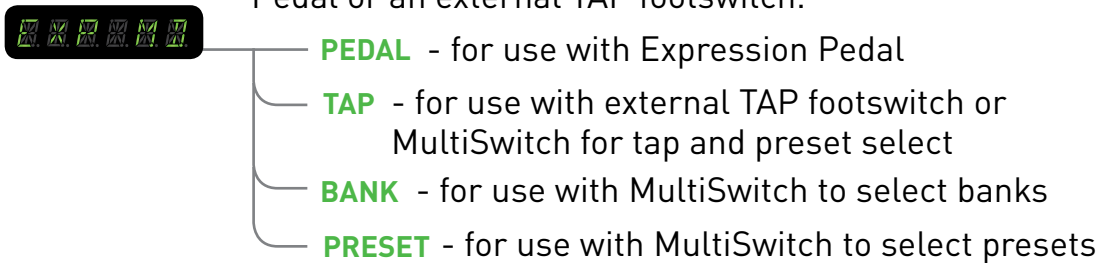- **OFF**

Globals Menu Continued

MIDI THROUGH: When set to THRU, MIDI messages that arrive at the MIDI input are sent to the MIDI output without ANY additional MIDI messages generated by Mobius. When set to MERGE, MIDI messages that arrive at the input and those that are generated by Mobius are merged together to be sent to the MIDI output. When set to OFF, only MIDI messages generated by the controls on Mobius are sent to the MIDI output.

THRU
MERGE
OFF
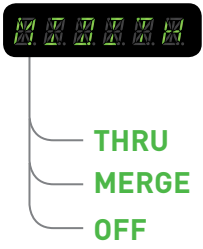
BANK SCROLL: Sets the maximum bank number to scroll to.

BNK 1-99

EXP INPUT MODE: Configures the EXP input to use an Expression Pedal or an external TAP footswitch.

PEDAL - for use with Expression Pedal

TAP - for use with external TAP footswitch or MultiSwitch for tap and preset select

BANK - for use with MultiSwitch to select banks

PRESET - for use with MultiSwitch to select presets

Please refer to the MultiSwitch user manual for detailed MultiSwitch setup information: **www.strymon.net/support/multiswitch**

PATCH NAMES: Enables or disables the display of patch names when displaying the current bank. If set to ON or SCROLL, when incrementing through banks with the VALUE ENCODER, the bank number will be displayed with 2 digits followed by the first 3 characters of the patch name.

OFF - bank numbers are displayed instead of patch names

ON - the first 6 characters of the patch name are displayed

SCROLL - the patch name will scroll once completely through its 16 characters then settle on the first 6 characters
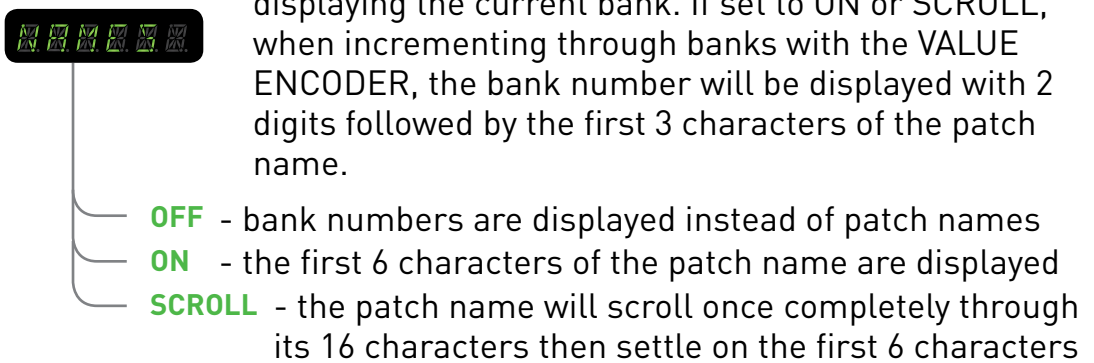
NOTE: If any of the above options do not appear in the GLOBLS menu, you may need to update the firmware to the latest version. Visit the link below for instructions:

www.strymon.net/update

PRE/POST Setup in an Amplifier's Effect Loop

Set the PRE/POST switch to the down position to use Mobius in a pre/post type setup.

LEFT IN   RIGHT IN   LEFT OUT   RIGHT OUT   EXP   STEREO IN/OUT   MIDI IN   MIDI OUT   9VDC + -⊙-

PRE / POST

INPUT 2   OUTPUT 2

Amp Input

amp

Instrument   Send   Return
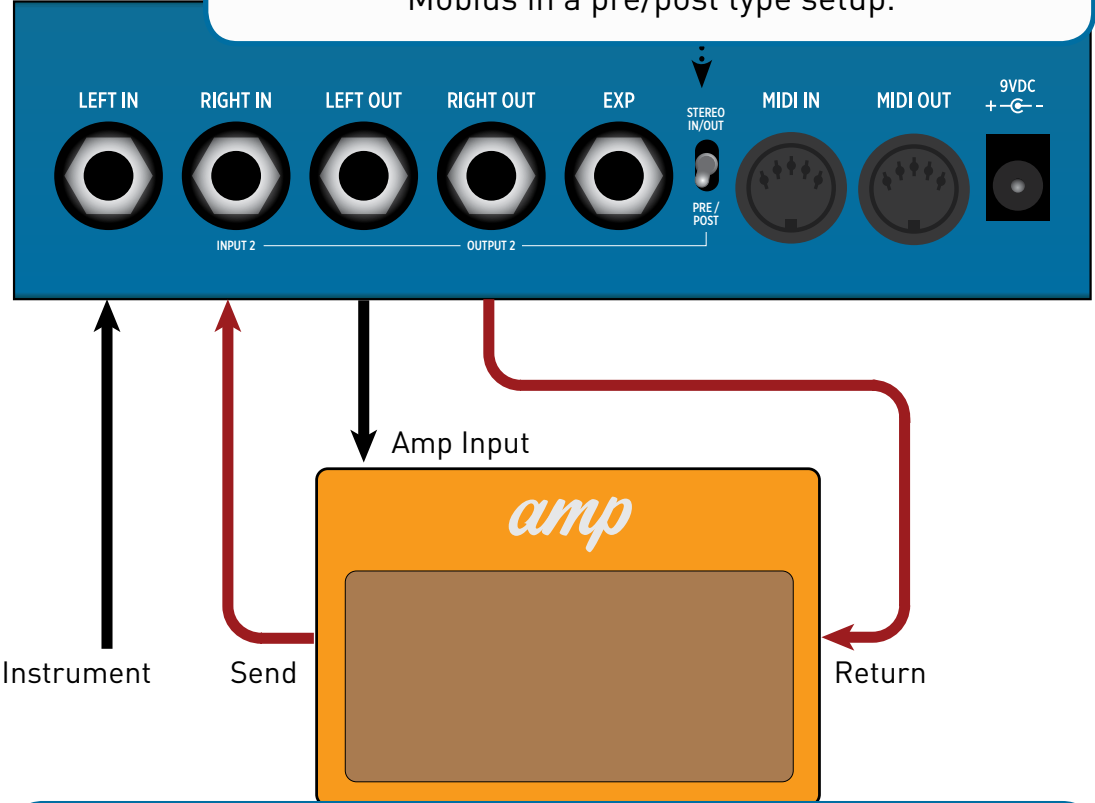
Connect INPUT 2 and OUTPUT 2 to your amplifier's effects loop. Then you can select whether the modulation effect occurs before the amplifier input or in the amplifier effects loop. This is selectable per preset.

When connected as above, the PRE/POST setting in the preset menu has the following effect:

PRE

INSTRUMENT →

amp

POST

INSTRUMENT →

amp

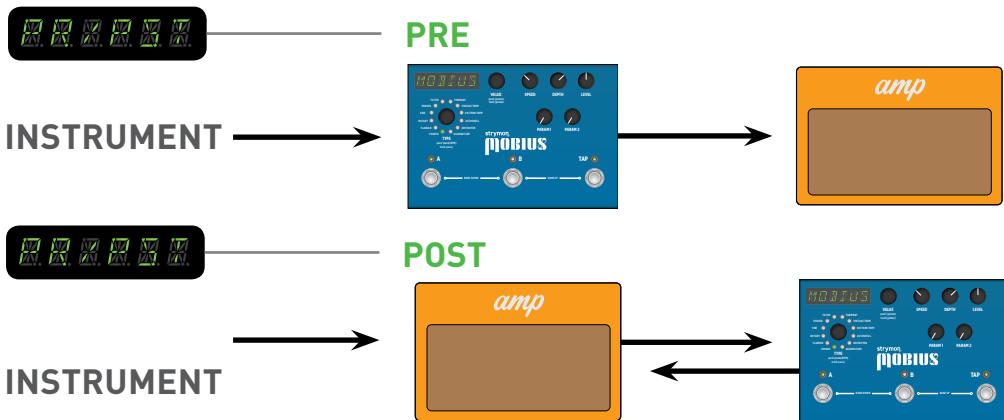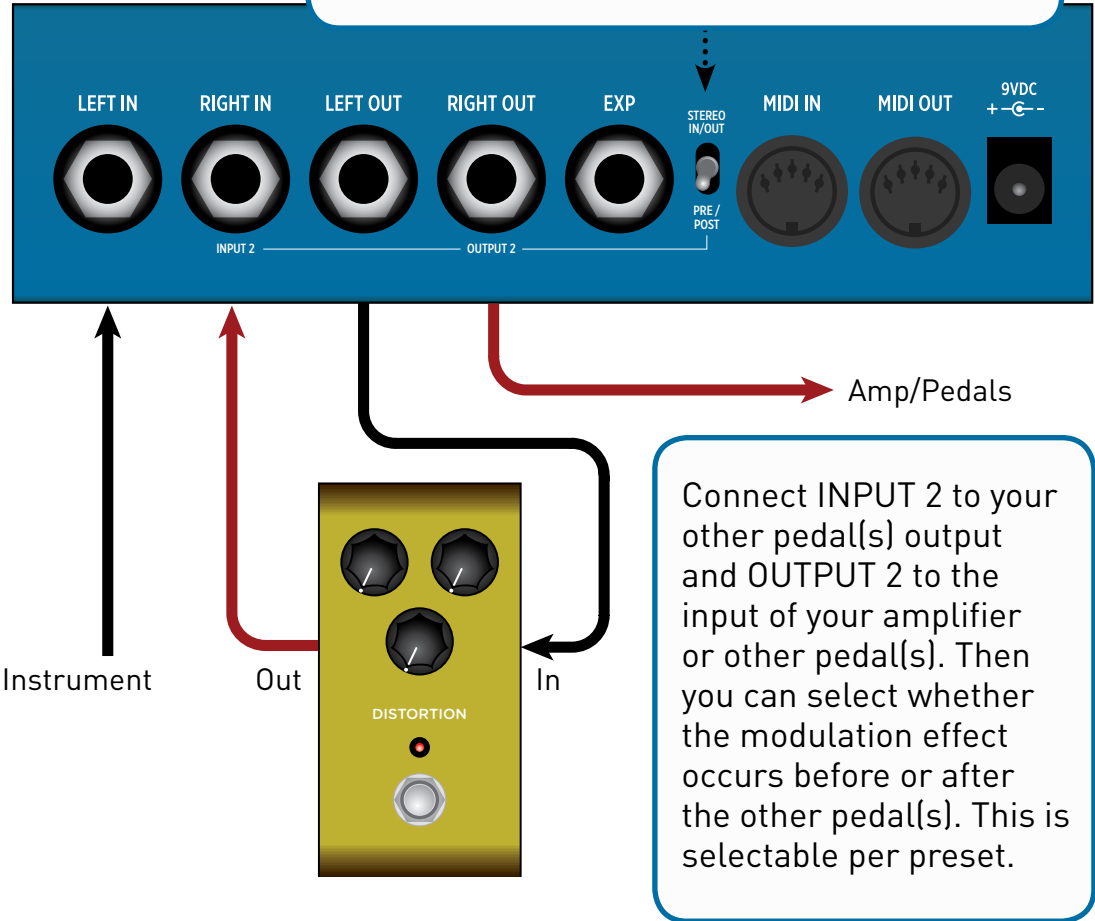# PRE/POST Setup in an Chain of Pedal Effects

Set the PRE/POST switch to the down position to use Mobius in a pre/post type setup.

LEFT IN   RIGHT IN   LEFT OUT   RIGHT OUT   EXP   STEREO IN/OUT   MIDI IN   MIDI OUT   9VDC + – C –

INPUT 2 ———— OUTPUT 2 ————

PRE / POST

Amp/Pedals

Instrument   Out   In

DISTORTION

Connect INPUT 2 to your other pedal(s) output and OUTPUT 2 to the input of your amplifier or other pedal(s). Then you can select whether the modulation effect occurs before or after the other pedal(s). This is selectable per preset.

When connected as above, the PRE/POST setting in the preset menu has the following effect:

PRE

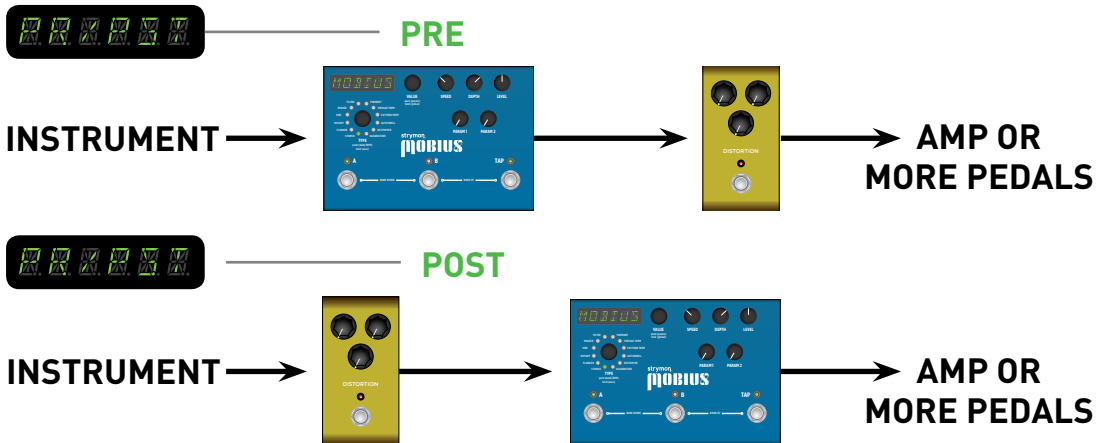INSTRUMENT →   →   → AMP OR MORE PEDALS

POST

INSTRUMENT →   →   → AMP OR MORE PEDALS

MIDI Specification

KNOBS:	CC#	Value Range
Type encoder	19	0-11
Speed	17	0-127
Depth	18	0-127
Level	15	0-127
Param 1	9	0-127
Param 2	16	0-127

PARAMETERS:		
Tap Division	21	0-6
Pre/Post	22	0-1
Tap Switch	39	0-1
Expression Off/On	60	0-1
MIDI Clock Off/On	70	0-1
CHORUS - Mode	28	0-4
CHORUS - Mix	29	0-17
CHORUS - Tone	30	0-20
FLANGER - Mode	24	0-5
FLANGER - Regen	25	0-17
FLANGER - Manual	26	0-17
ROTARY - Horn Level	34	0-17
ROTARY - Preamp Drive	35	0-17
ROTARY - Slow Rotor Speed	36	0-17
ROTARY - Acceleration	37	0-17
ROTARY - Tap Select	39	0-1
VIBE - Waveshape	40	0-17
VIBE - Low End	41	0-20
VIBE - Headroom	42	0-17
VIBE - Mode	43	0-1
PHASER - Mode	44	0-6
PHASER - Regen	45	0-17
PHASER - Waveshape	46	0-3
PHASER - Stereo Spread	47	0-4
PHASER - Headroom	68	0-17
FILTER - Mode	48	0-2
FILTER - Waveshape	49	0-7
FILTER - Resonance	50	0-18
FILTER - Dry Level	51	0-18
FILTER - Frequency Middle	52	0-20
FILTER - Stereo Spread	69	0-4
FORMANT - Vowel 1	65	0-5
FORMANT - Vowel 2	66	0-5

MIDI Specification Continued

	CC#	Value Range
FORMANT - LFO	67	0-6
FORMANT - Stereo Spread	115	0-4
VINTAGE TREM - Mode	31	0-2
VINTAGE TREM - Pan	32	0-1
PATTERN TREM - Waveshape	113	0-6
PATTERN TREM - Beat 1	105	0-17
PATTERN TREM - Beat 2	106	0-18
PATTERN TREM - Beat 3	107	0-18
PATTERN TREM - Beat 4	108	0-18
PATTERN TREM - Beat 5	109	0-18

PARAMETERS:	CC#	Value Range
PATTERN TREM - Beat 6	110	0-18
PATTERN TREM - Beat 7	111	0-18
PATTERN TREM - Beat 8	112	0-18
PATTERN TREM - Pan	114	0-1
AUTOSWELL - Rise Time	57	0-22
AUTOSWELL - Shape	58	0-3
DESTROYER - Bit Depth	59	0-20
DESTROYER - Sample Rate	61	0-20
DESTROYER - Filter	62	0-8
DESTROYER - Vinyl	63	0-18
DESTROYER - Mix	64	0-20
QUADRATURE - Mode	53	0-3
QUADRATURE - Shift 1	54	0-17
QUADRATURE - LFO	56	0-6
QUADRATURE - Mix	55	0-20

MIDI Specification Continued ···

MIDI PATCH CHANGES:

Mobius presets are arranged in a grid of 100 numbered Banks (00-99) with 2 presets (A and B) within each Bank for a total of 200 presets.

Because MIDI Program Change messages have a maximum number of 128 (0-127), the presets are grouped into 2 MIDI Patch Banks:

MIDI BANK 0 = PRESETS 00A-63B
MIDI BANK 1 = PRESETS 64A-99B

The presets are numbered sequentially within each bank:

PRESET 00A = MIDI program # 0
PRESET 00B = MIDI program # 1
PRESET 01A = MIDI program # 2
PRESET 01B = MIDI program # 3
PRESET 02A = MIDI program # 4 etc. up to #127...

Mobius always powers up in MIDI Patch Bank 0, so if you plan to stay within the first 127 presets (00A-63B), simply send a standard MIDI Program Change message to load a preset.

If you will be using MIDI Bank 1, it is advisable to send a standard MIDI Bank Change message [MIDI CC# 0 with a value equal to the MIDI Bank #] before each MIDI Program Change.

OTHER MIDI CC NUMBERS:

	CC#	Value Range
A footswitch	80	down=0 up=127
B footswitch	82	down=0 up=127
TAP footswitch	81	off=0 on=127
Remote TAP	93	any
Expression Pedal	100	0-127
Bypass	102	byp=0 eng=127
Phase Reset	125	any
MIDI Patch Bank	0	0-1

- Send a 0 value to access presets 00A - 63B
- Send a 1 value to access presets 64A - 99A

MIDI CLOCK:

Mobius will accept MIDI clock at the MIDI input and sync modulation speed. A MIDI start clock message resets the modulation phase.

Features

• 12 hand crafted modulation machines

• Modulation machine subtypes for 33 total discrete algorithms

• Ultra Low Noise, high performance A/D and D/A Converters

• Premium analog front end and output section

• High Performance DSP

• 200 presets, selectable via encoder, MIDI or on the fly via footswitch

• Numerous deep edit parameters on all mod machines

• Stereo Input & Output

• Pre-post mode for flexible routing, allowing you to place Mobius in two different places in your mono signal chain.

• Expression pedal input with selectable simultaneous control over multiple knob parameters

• Pre/Post configuration available via rear panel toggle switch

• Full time Tap Tempo footswitch and external Tap footswitch available via EXP input

• Rugged & Lightweight Anodized Aluminum Chassis

• Intuitive, performance friendly User Interface

• Global bypass selectable between True Bypass or Analog Buffered Bypass on the fly via footswitch/MIDI

Specifications

Input Impedance	1Meg Ohm
Output Impedance	100 Ohm
Signal to Noise	115 dB typical
A/D & D/A	24-bit 96kHz
Frequency Response	20Hz to 20kHz
Max Input Level	+8dBu
Bypass Switching	True Bypass (electromechanical relay switching) or Analog Buffered Bypass
Dimensions	5" deep x 6.75" wide x 1.87" tall

Power Supply

Input Voltage	9VDC Center Negative
Required Current	300mA

STRYMON NON-TRANSFERRABLE LIMITED WARRANTY

Warranty
Strymon warrants the product to be free from defects in material and workmanship for a period of one (1) year from the original date of purchase. If the product fails within the warranty period, Strymon will repair or, at our discretion, replace the product at no cost to the original purchaser.

Exclusions
This warranty covers defects in manufacturing discovered while using this product as recommended by Strymon. This warranty does not cover loss or theft, nor does the coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage, lightning, or natural disasters.

Limits of Liability
In the case of malfunction, the purchaser's sole recourse shall be repair or replacement, as described in the preceding paragraphs. Strymon will not be held liable to any party for damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, damage to other equipment, and incidental or consequential damages arising from the use, or inability to use this product. In no event will Strymon be liable for more than the amount of the purchase price, not to exceed the current retail price of the product. Strymon disclaims any other warranties, express or implied. By using the product, the user accepts all terms herein.

How to Obtain Service Under this Warranty
For North American customers: Contact Strymon through our website at http://www.strymon.net/support for Return Authorization and information. Proof of original ownership may be required in the form of a purchase receipt.

For International Customers: Contact the Strymon dealer from which the product was purchased from in order to arrange warranty repair service.

Strymon® is a division of Damage Control®, LLC.