Suhr®

Alexa

User Guide

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Thank you *for purchasing the Suhr Alexa Analog Chorus Pedal.*

Please take the time to read this manual to get the most out of the pedal. The more you familiarize yourself with the features of this pedal, the more you will enjoy its benefits and maximize its potential.

Overview

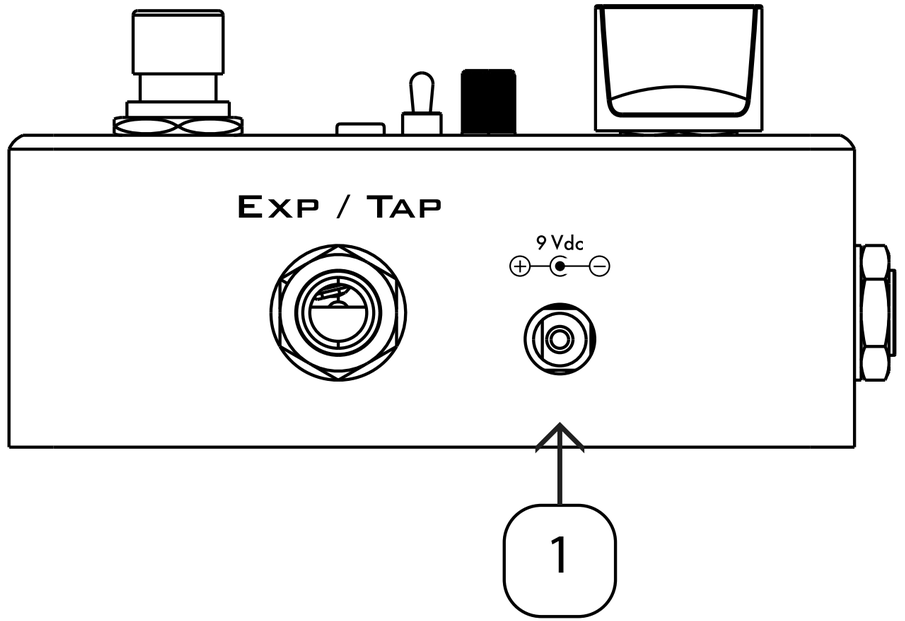
The Suhr Alexa is a two channel, analog stereo chorus with digital control. Utiilizing bucket brigade technology, classic chorus tones are achieved with the extra flexibility of new waveforms, tap tempo and expression speed control.

Each channel contains six unique waveforms that allow you to tailor your modulation to suite your needs. The triangle and sine waveforms are classic waveforms used in a majority of choruses, however there are two new custom waveforms, the rotary and photo cell waveforms that allow the Alexa to achieve swirling rotary sounds or pulsing vibe-like sounds. With the final ramp up and ramp down waveforms, rhythmic chorus tones can be achieved that give a delay-like effect on sustained notes.

Each channel contains an individual Speed, Depth, Delay and Waveform option. Channel A contains a switch that allows for Vibrato as well. Wether you want to have a chorus that can switch from slow lush chorus to a fast rotary chorus with a hit of a botton, or use it like no chorus has been used before with the ramp waveforms, Alexa can cover a large range of analog chorus tones and more.

Powering Alexa

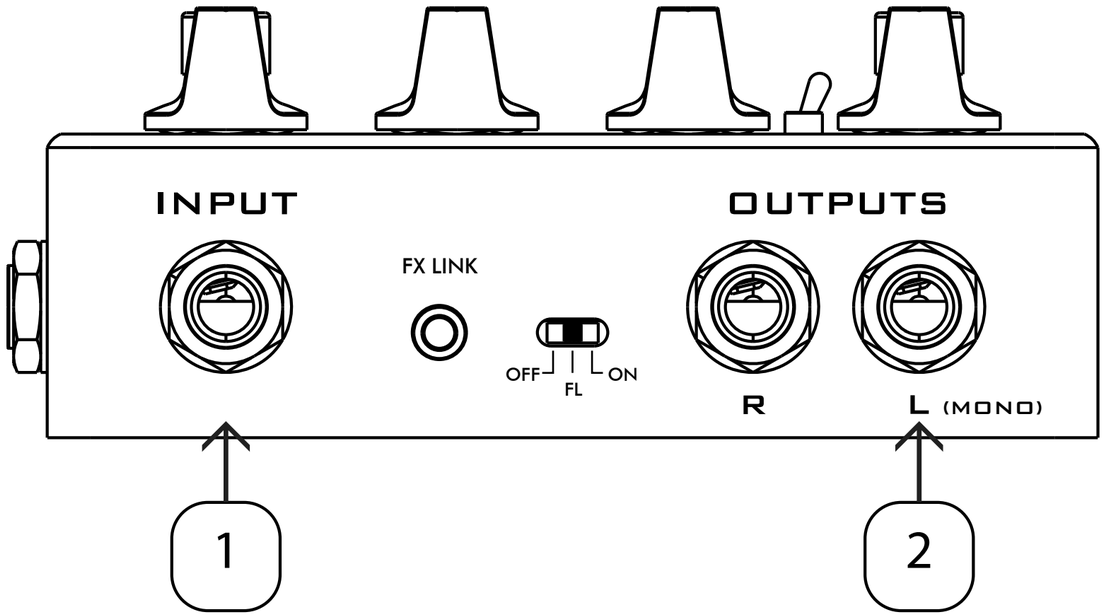
1 **DC Input:** Alexa powers with a 9Vdc *regulated,* center-negative power supply that can supply 100mA or more, such as a BOSS PSA power supply.



Getting Connected (Mono)

1 **Input:** Plug the cable from your guitar into here, or from the previous effect's output.

2 **Output:** Plug a cable from here to an amp or another effect's input.



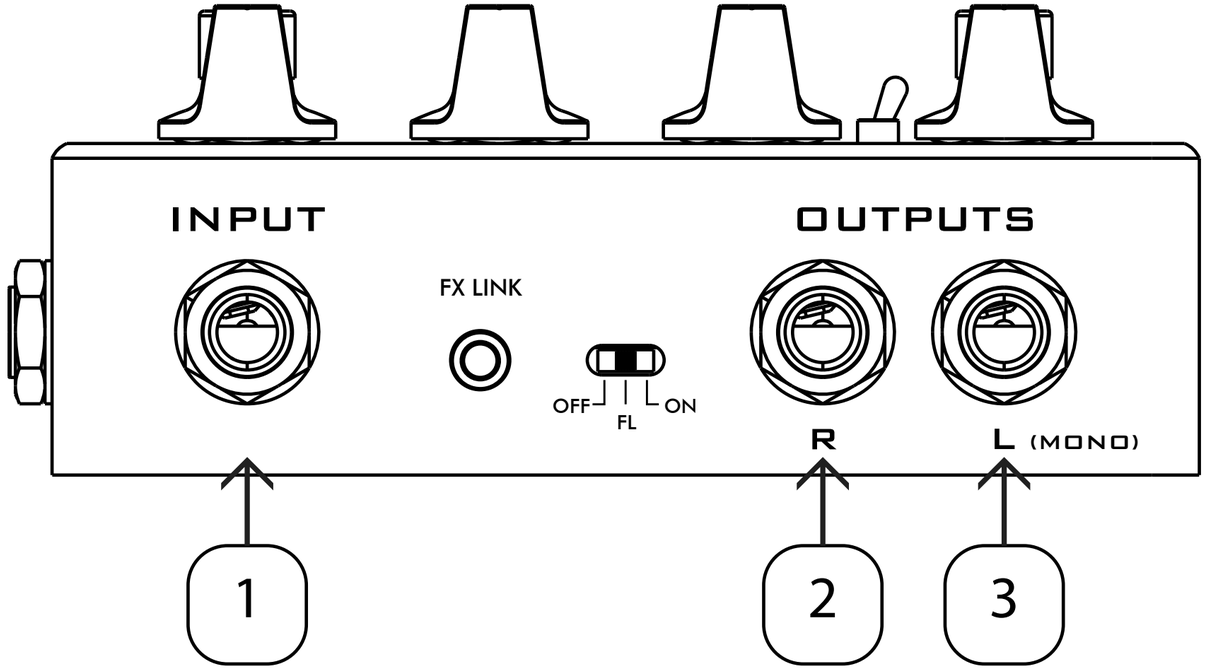
Getting Connected (Stereo)

1. **Input:** Plug the cable from your guitar into here, or from the previous effect's output.

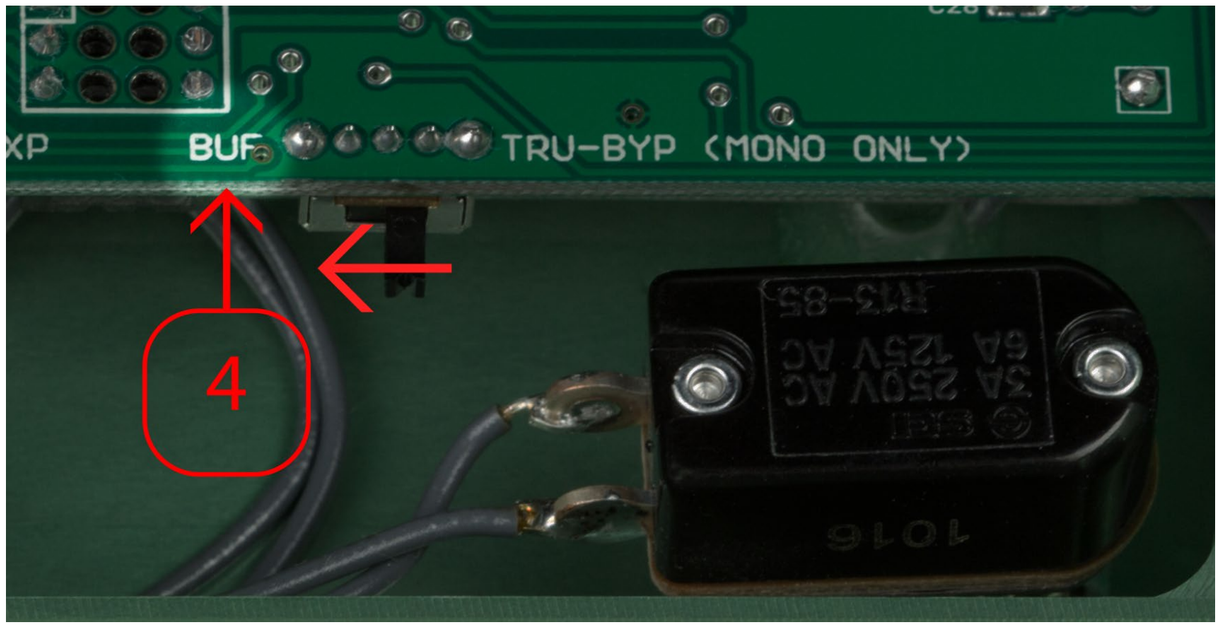
2. **Output Right:** Plug a cable from here to the right amplifier (or another effect's input) for the right channel of the chorus.

3. **Output Left:** Plug a cable from here to the left amplifier (or another effect's input) for the left channel of the chorus.

4. **BUF / TRU-BYP switch:** Located on the inside of the pedal are two slide switches. The right switch determines if the pedal is in buffered or true bypass mode. Switch to buffer bypass (BUF) for stereo operation. Restart the pedal by powering it off and back on to finish setting it in buffer bypass mode.



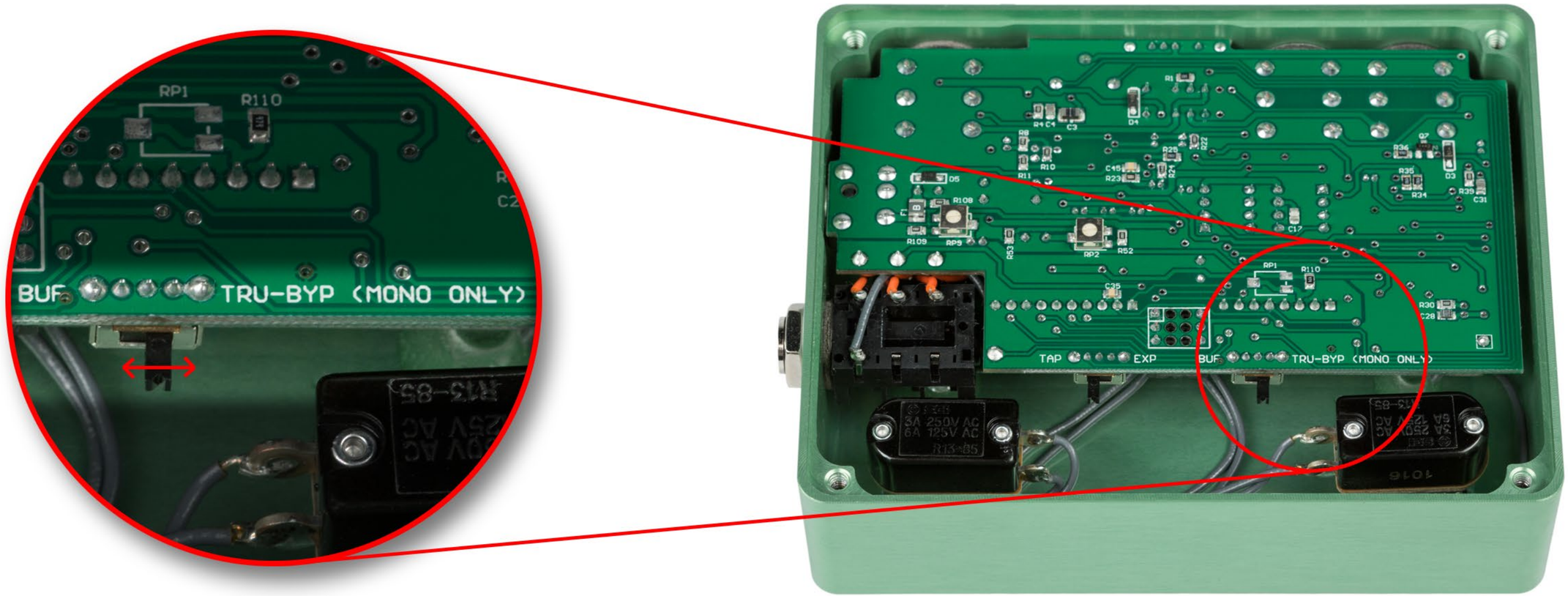
WARNING: *The true bypass feature is dedicated for the left output only. When using Alexa in stereo, please set the pedal to* ***buffer bypass****, which is located on a switch on the inside of the pedal. When turning the effect off in true bypass, the Right channel is disconnected from the input. Buffer Bypass mode sends a buffered signal through both outputs, and is the mode that should be used for stereo scenarios. Alexa is shipped in buffer bypass mode.*



Selecting Buffer Bypass / True Bypass

When turning off the pedal, the outputs can receive a buffered signal (buffer bypass) of the input, or the left mono output can receive a non-buffered signal (true bypass) of the input. An internal slide switch determines whether Alexa uses buffer bypass (labeled **BUF**) or true bypass (labeled **TRU-BYP**).

Important: *Switching from one mode to another requires the pedal to be powered off and re-powered to take effect.*

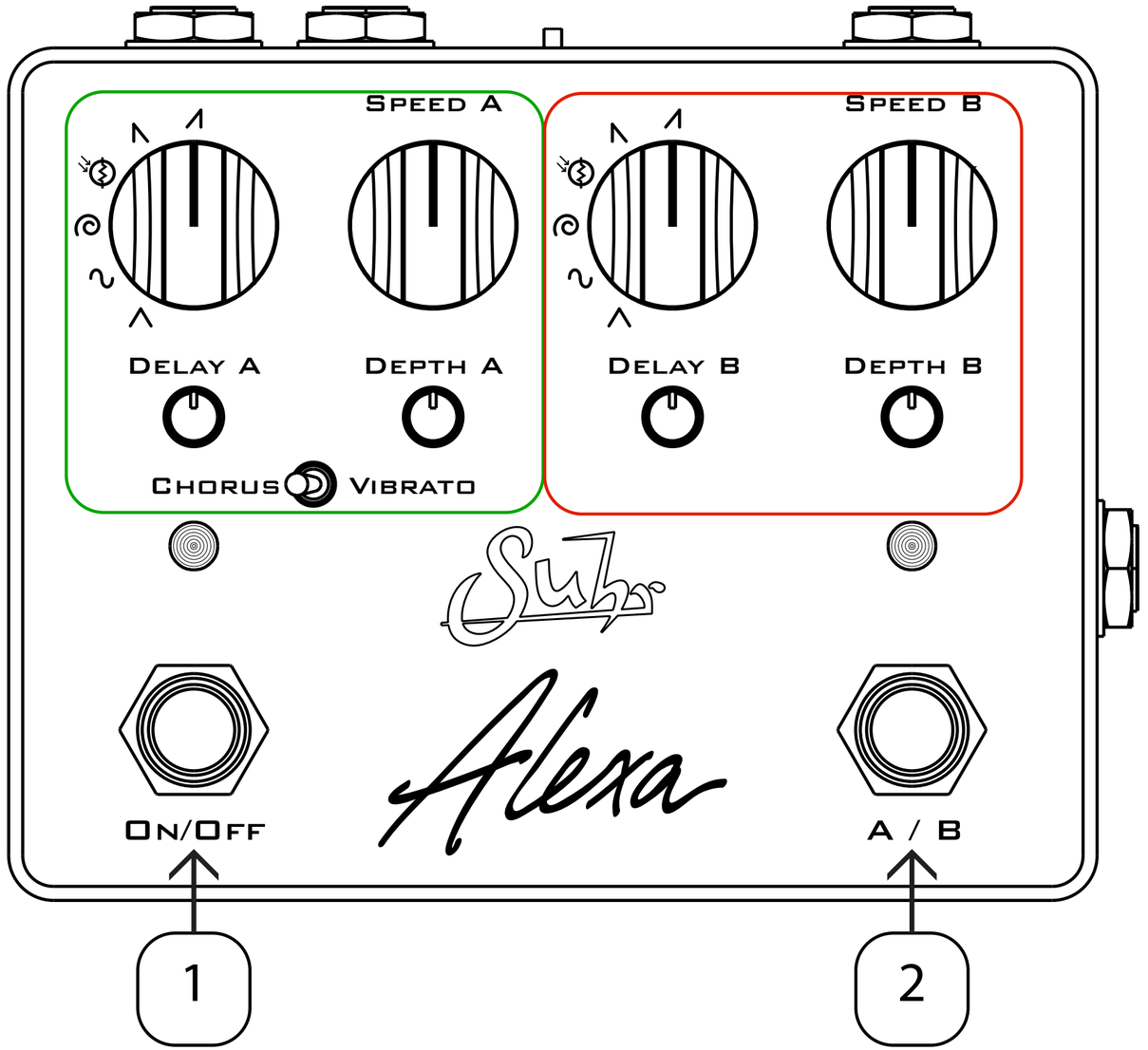


Channel Selection / Bypass

Alexa has two channels (green and red) with independent settings that are selected by the switch labeld ***A/B [2]***. The channels can be set for the same sound on each channel with slight modifications, or they can be radically different.

The left side is **Channel 1** and is indicated by a **green** LED above the A/B footswitch [2].

The right side is **Channel 2** and is indicated a **red** LED above the A/B footswitch [2].



Bypass

1 Stepping on the ON/OFF footswitch to bypasses the effect.

NOTE: *If the internal bypass switch on the inside of the pedal is switched to* ***BUF****, both left and right outputs get a buffered input signal. If the internal bypass switch is switch to* ***TRU-BYP (MONO ONLY)****, an unbuffered input signal will pass through the left output only.*

Channel Selection

2 Stepping on the A/B footswitch will toggle between channels A and B.

When the LED is green, Channel 1's settings are used.

When the LED is red, Channel 2's settings are used.

Controls

Waveform Selector: Chooses one of the 6 waveform shapes that will modulate the Vibrato / Chorus. A more indepth description of each waveform is on page 9.

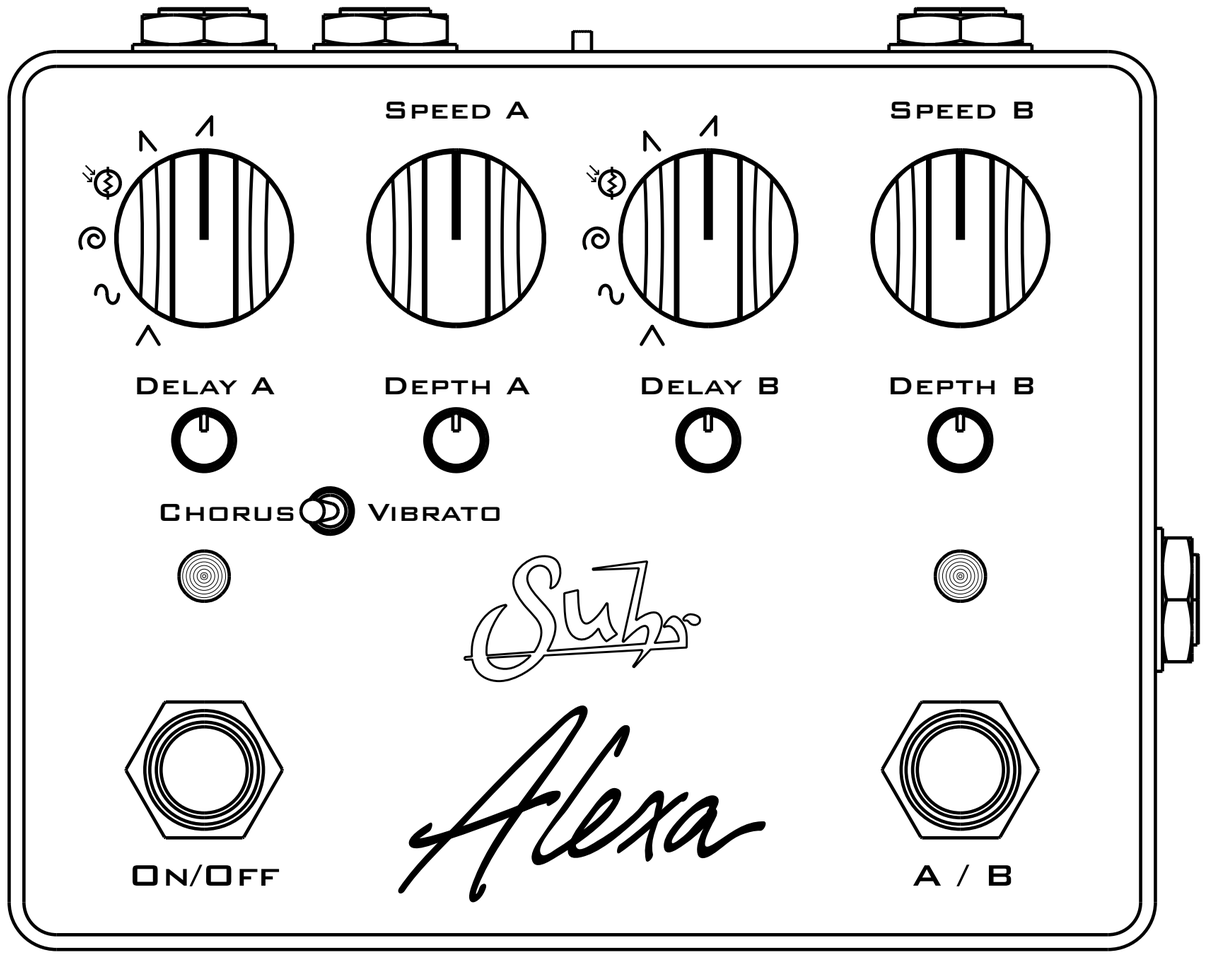
Speed: Adjusts the speed at which the modulation occurs. Turning the knob clockwise sets the speed to up to 10Hz. Turning the knob counter clockwise sets the speed down to 1/2Hz.

Delay: Adjusts the delay point that chorus modulates around. This ranges from 10ms to 40ms.

Tip: *Increasing the Delay typically gives a "wider" sound. If the chorus's pitch wobbles too dramatically, counteract by decreasing the Depth control to keep a smoother chorus sound.*

Depth: The depth knob reduces (counter clockwise) or boosts (clockwise) the amount of modulation.

Chorus / Vibrato: This switch is only active on channel A. This allows you to turn Channel A into a vibrato effect (pitch bending).



Waveforms

Alexa contains six musical waveforms to choose from when dialing in a chorus/vibrato setting.

Triangle: A classic waveform used in a majority of analog choruses. Results in a smooth modulation. Good for a smooth lush chorus with less noticeable pitch bending.

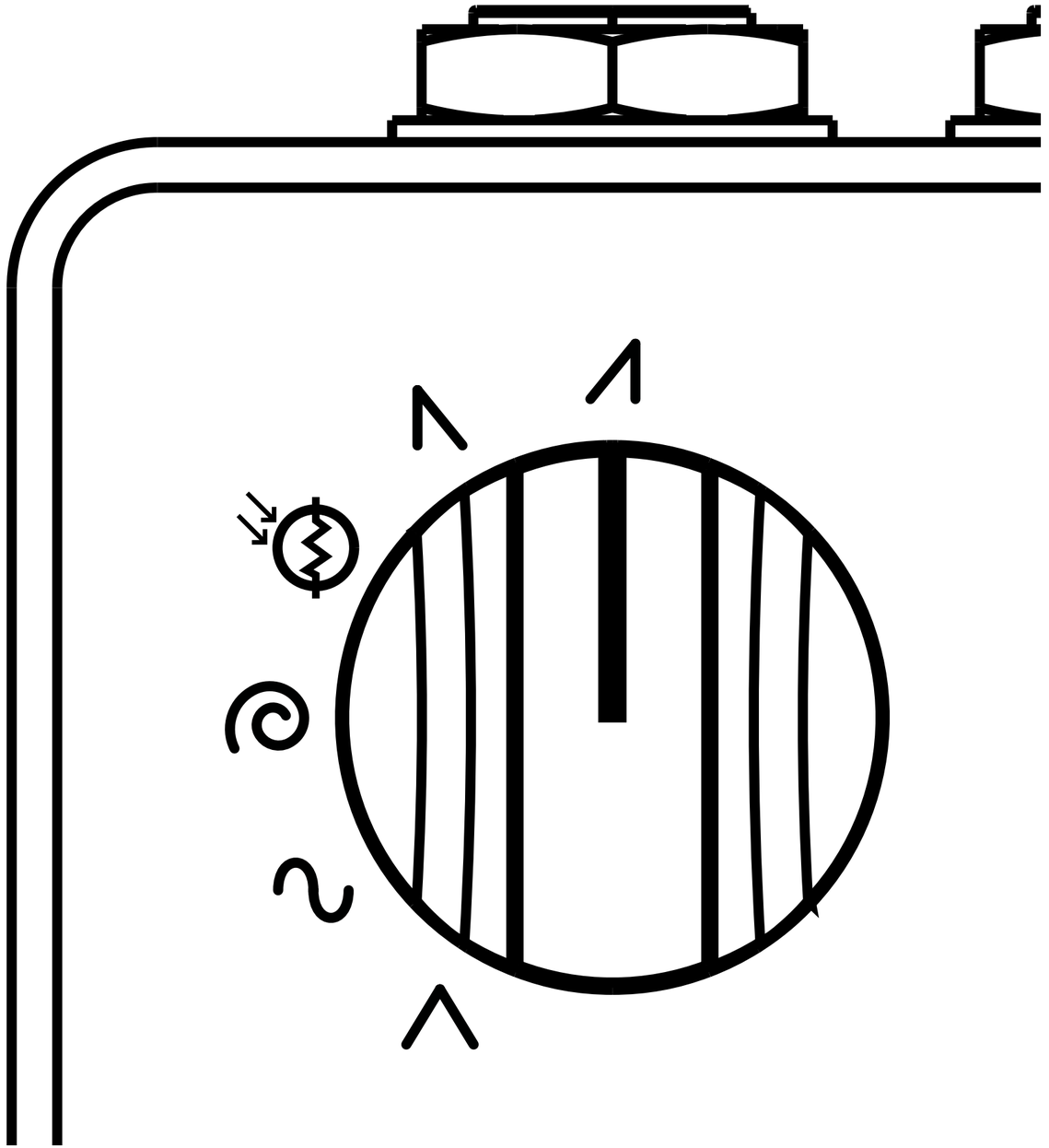
Sinewave: Another common waveform used on choruses. Sinewave modulation can give a throb sound, and is a great waveform for Vibrato, as the pitch bends evenly.

Rotary: This waveform is a custom shape used to emulate the swirling sound of a rotary speaker. It is similar to the Triangle shape in smoothness.

Photocell: This waveform emulates the photocell throb effect found on some modulation effects that use a light dependent component to control the modulation. It has a pulsing assymetrical shape and sound.

Ramp Down: This waveform ramps the modulation downward and repeats, which results in a rhythmic effect that is delay-like on sustained notes.

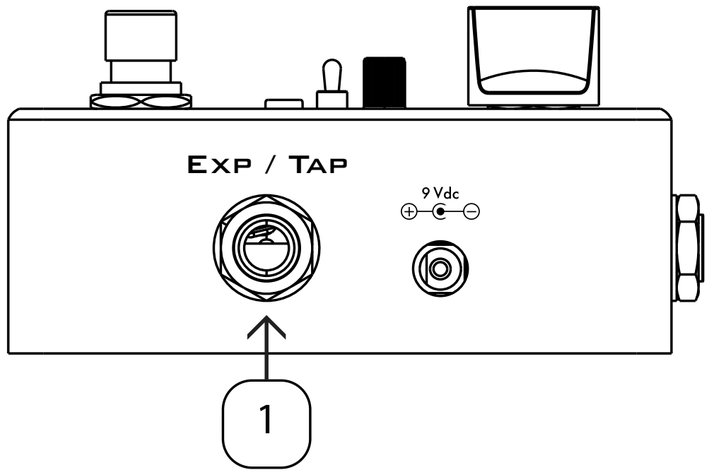
Ramp Up: This waveform modulates in an upward direction then repeats, which results in a rhythmic effect.

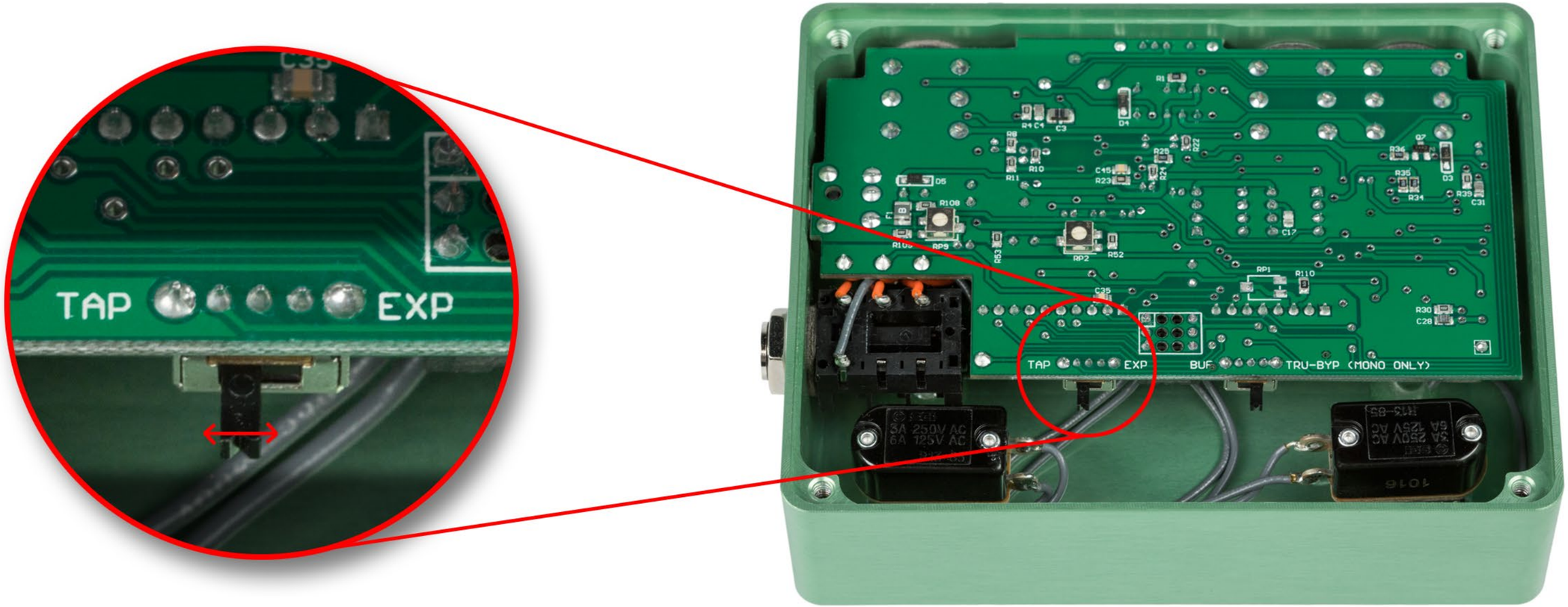


Selecting Expression Control / Tap Tempo

1. Alexa's chorus speed can be controlled via an Expression pedal in Expression mode, or a Momentary Switch in Tap Tempo mode through the 1/4" TRS jack located on the right side of the pedal.

2. The function of the EXP / TAP jack is determined by an internal slide switch. When set to (TAP), the jack takes a mono cable to a momentary switch. When set to (EXP), the jack takes a stereo cable to an expression pedal. When changing modes, the pedal must be powered off before taking effect.



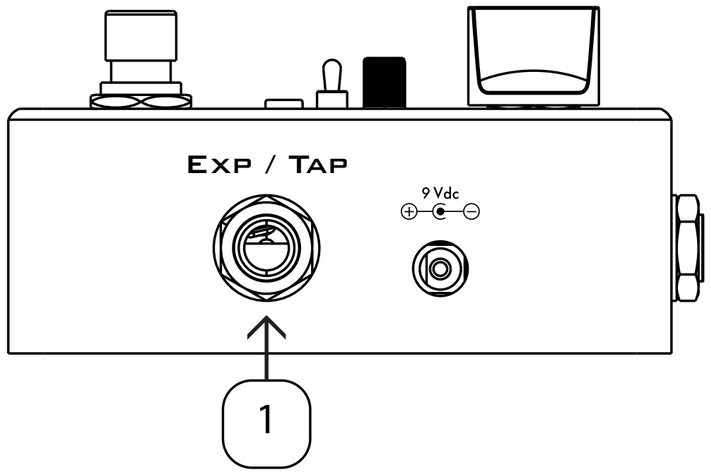


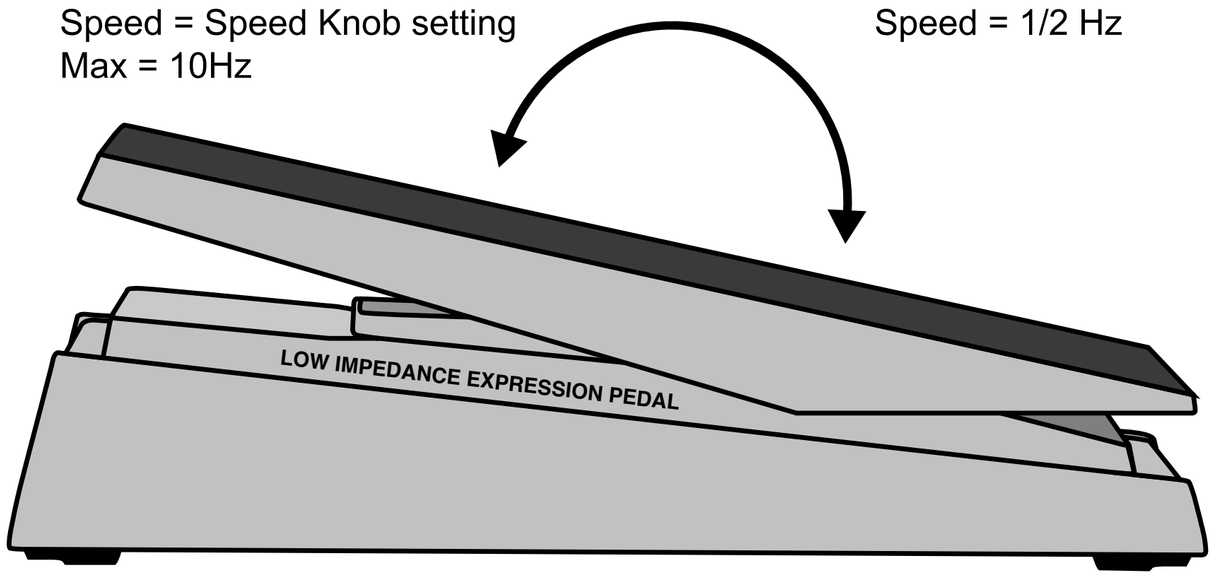
Using an Expression Pedal with Alexa

1. Plug a stereo 1/4” phone cable into the EXP / TAP jack, and into a ***low impedance*** expression pedal, such as a BOSS FV-500L.

2. Make sure to set the internal EXP / TAP slide switch (pg 10) to EXP. If set to TAP, make sure to unplug and re-plug the power after changing it to EXP.

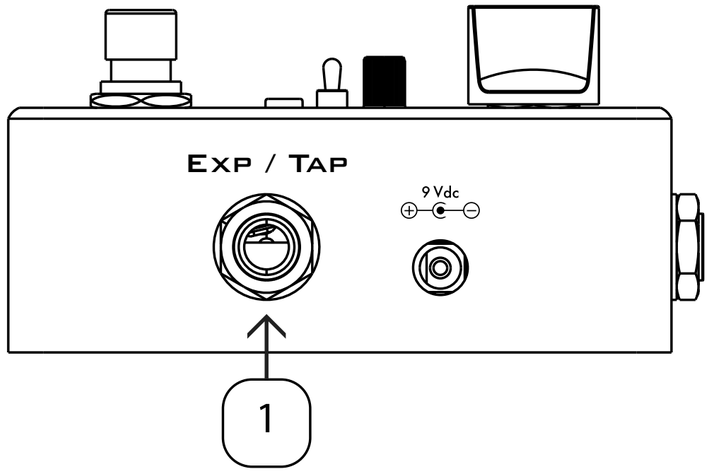
3. Press the heel back on the expression pedal to get the slowest modulation speed (1/2 Hz). The ***Speed A*** & ***Speed B*** knobs sets the maximum speed for their channel while the pedal is toe down. The maximum speed achievable is 10 Hz.





Using Tap Tempo with Alexa

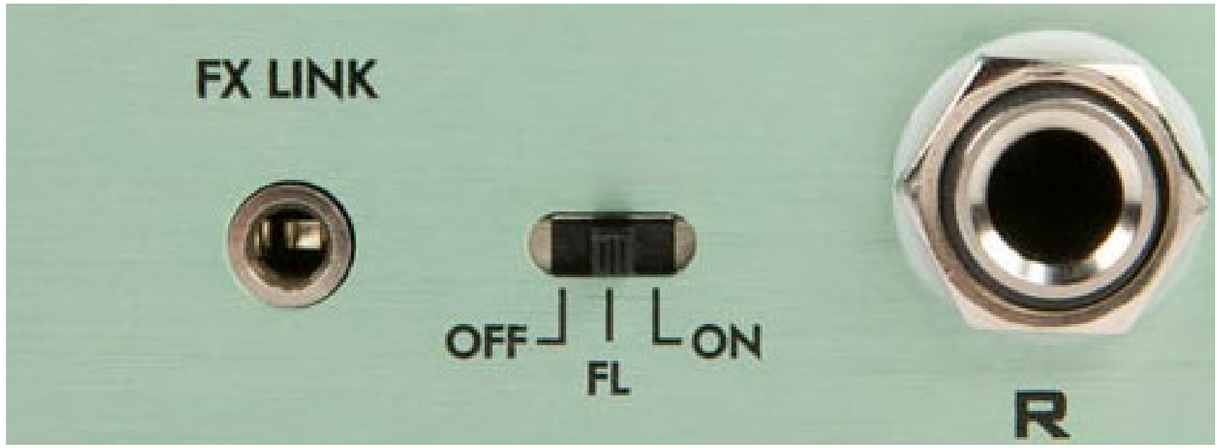
1. Plug a mono 1/4” phone cable into the EXP / TAP jack, and into a ***momentary footswitch.***
2. Make sure to set the internal EXP / TAP slide switch (pg 10) to TAP. If set to EXP, make sure to unplug and re-plug the power after changing it to TAP.
3. Push the momentary footswitch twice to set a new speed for Alexa



3-Position Slide Switch

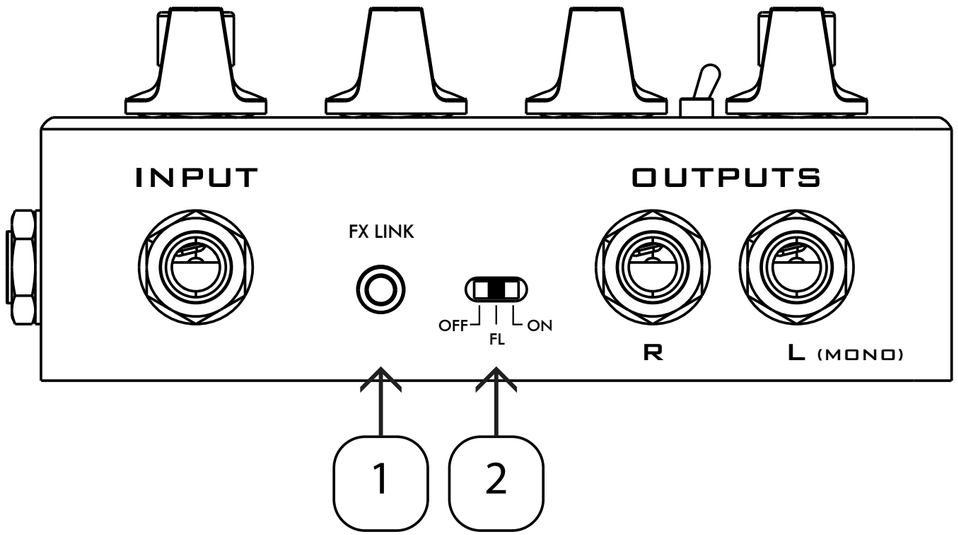
At the top of the pedal between the Input and Output jack is a 3 position toggle switch.

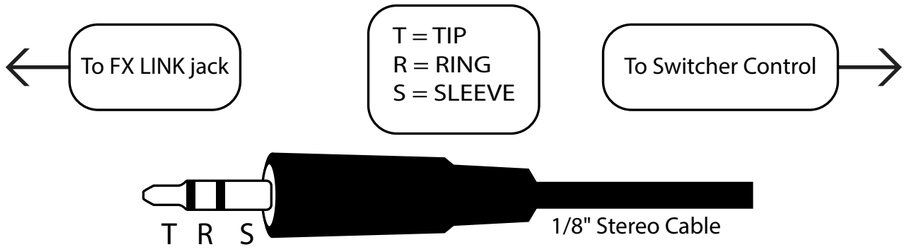
- When set to ON, the pedal powers on with the effect active.
- When pushed towards OFF, the pedal powers on with the effect bypassed.
- When set to FL (center), the pedal’s power state is controlled externally via the FX LINK jack.

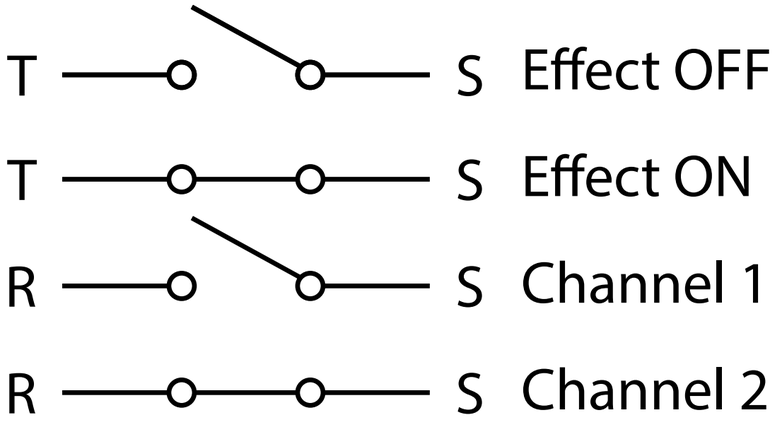


FX Link (External Control)

Alexa contains an 1/8” stereo TRS input jack called ***FX LINK*** that allows the pedal to be controlled by an effects switching system with TRS control output jacks, such as the BOSS ES-8 or ES-5.







Setup

1. Connect a TRS 1/8” cable into the FX LINK jack from your effects switching system. *A 1/4” to 1/8” stereo cable would typically be used.*

2. Set the 3-position slide switch to the **center** (FL) *on startup* for external control

A connection between the Tip and Sleeve controls Alexa’s ON/OFF state.

- When Tip is connected to Sleeve, Alexa is ON
- When Tip is disconnected from Sleeve, Alexa is OFF

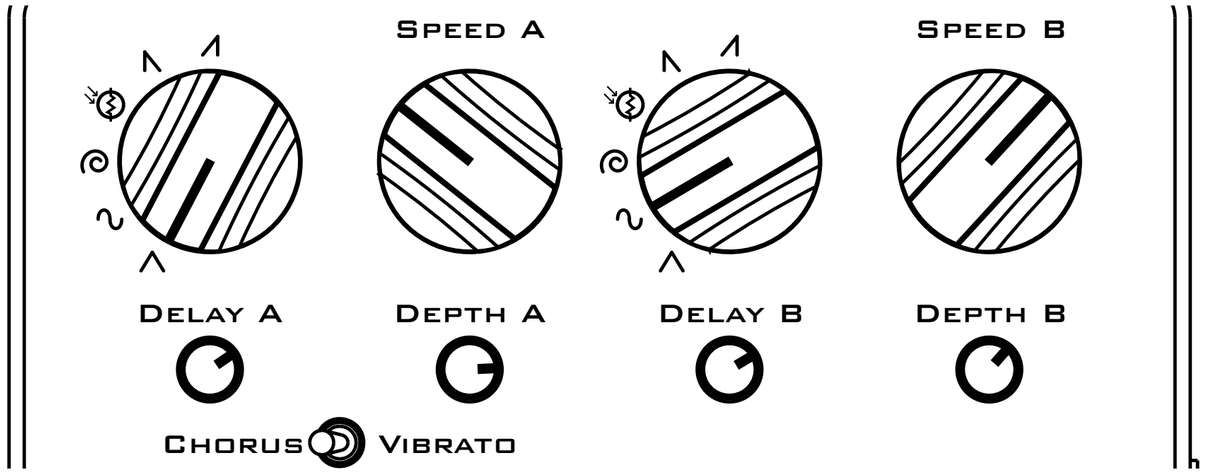
A connection between the Ring and Sleeve controls Alexa’s channels.

- When Ring is diconnected from Sleeve, Channel 1 is ON
- When Ring is connected to Sleeve, Channel 2 is ON

Sample Settings

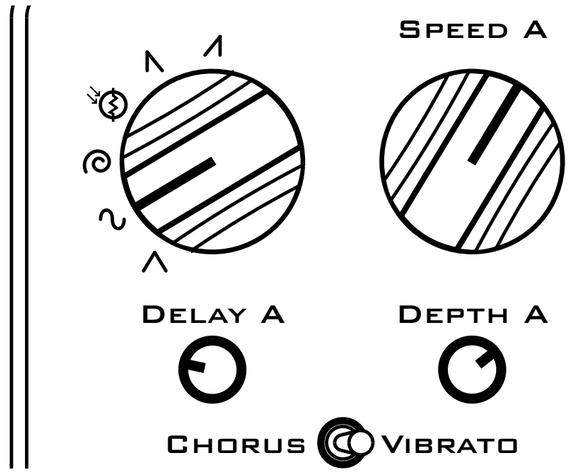
Any of these sample settings can be set up on either channel with the exception of the Vibrato setting, which only works on Channel A

Channel A: Lush Chorus

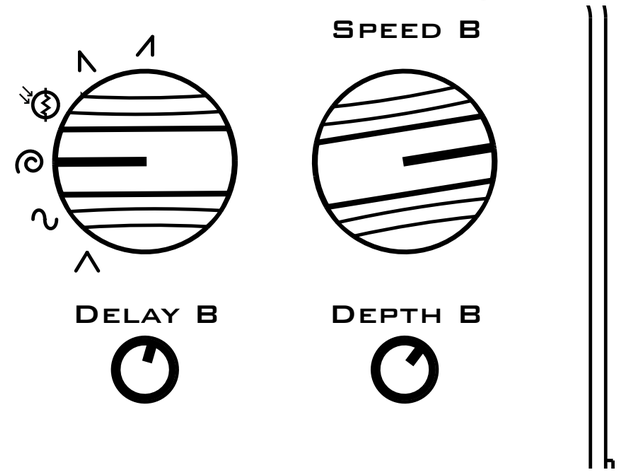


Channel B: Fast Sine Rotary

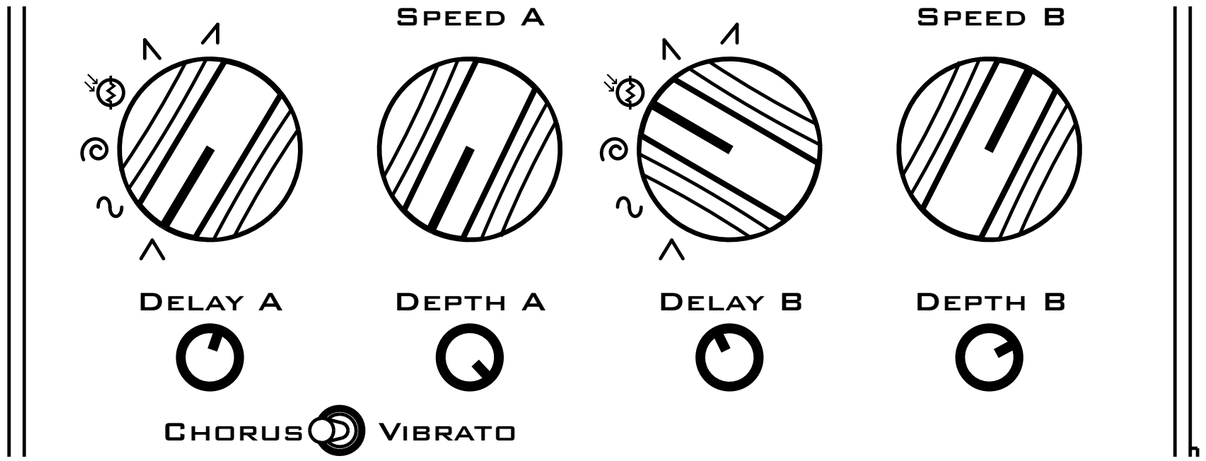
Channel A: Vibrato



Channel B: Fast Rotary

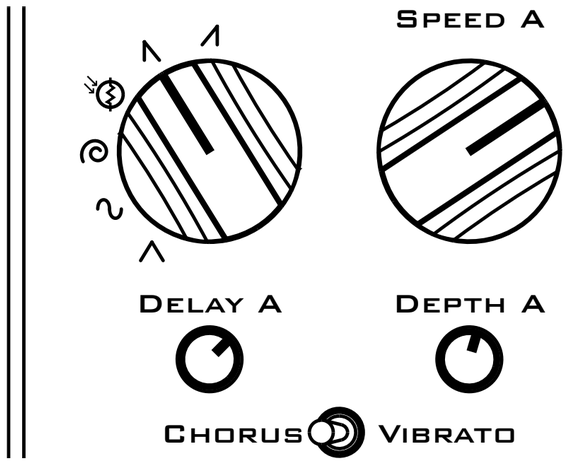


Channel A: Slow Sweep

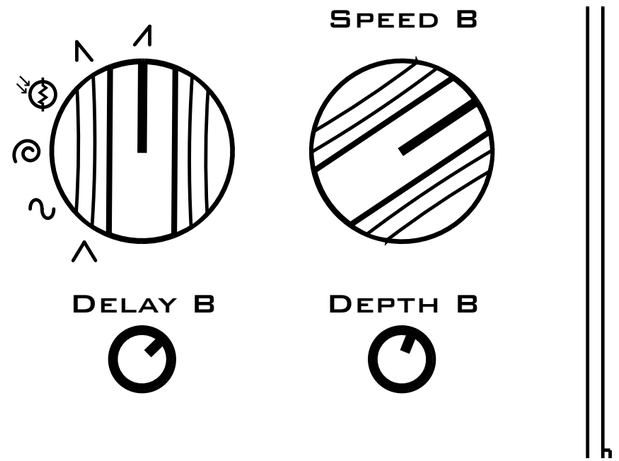


Channel B: Photo Cell Throb

Channel A: Ramp Down



Channel B: Ramp Up



Technical Specifications

Input Impedance:	470K Ω
Output Impedance:	470 Ω
Power Connector:	9Vdc, center negative, 2.1mm x 5.5mm
Operating voltage:	9Vdc
Maximum Voltage:	9.3Vdc
Over Voltage Protection:	Yes
Current Consumption:	55mA
Dimensions:	4.875”(W) x 3.875”(D) x 1.375”(H)
Weight:	1.05 lbs
FX Link Connector:	⅛” TRS jack
FX Link Max Voltage:	5Vdc
Shield -> Tip:	Active Pedal
Shield -> Ring:	Toggle A/B Channel
ROHS Compliant:	Yes

Warranty

JS Technologies, Inc. (JST) warrants for lifetime from date of purchase by the initial retail purchaser that this product shall be free from defects in workmanship. Electronic components such as capacitors, resistors, filters, transformers, jacks, and pots are covered for 5 years. Any parts determined defective by JST within the five (5) year term shall be repaired or replaced by JST without charge for parts and labor provided the unit is returned, transportation costs prepaid, to JS Technologies, Inc., 601 Crane Street, Unit A, Lake Elsinore, CA 92530, or to such facility authorized by JST. JST will pay shipping costs to return the unit to its owner. Defects in workmanship will be determined by JST for limited lifetime coverage.

This warranty does not cover damage caused by accident, misuse, abuse, neglect, unauthorized or improperly performed repairs, alterations, and/or wear and tear occasioned by use of the product, and does not include any expense for inconvenience or loss of use while the product is being repaired or replaced. JST expressly disclaims any liability for consequential damages arising from the sale, use, or inability to use the product. Any warranty implied by law, including any warranty of merchantability or fitness, is expressly limited to the one (5) year warranty term for the parts on our amplifiers and electronic products. The foregoing statements of warranty are exclusive and in lieu of all other remedies. Workmanship lifetime warranty is limited strictly to the original retailer purchaser of the instrument registered with JST within 10 days of purchase from an authorized JST dealer or distributor. JST will pay shipping costs to return the unit to its owner within the mainland U.S.

The above warranty policy only applies to customers in USA. If you are an international customer, please check with your distributor and the dealer in your country for warranty matters. Warranty issues must be handled through your dealer or distributor. If you are an international customer who purchased (or plan to purchase) from a US dealer, we can handle warranty matters direct but you will be responsible for shipping both ways. We encourage international customers to purchase through your local distributor or dealer for this reason. Our international distributors are set up to handle warranty issues in their respective countries. If you do not have an authorized Suhr dealer in your country, please contact us direct for further details.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/ TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.