



USER MANUAL

ALEXANDER
GREAT TONES. DOING GOOD.

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ABOUT ALEXANDER PEDALS

Alexander Pedals builds hand-crafted effects pedals in Garner, North Carolina. Each Alexander Pedal is meticulously voiced and tweaked by our sonic scientists to achieve sounds that are both instantly familiar yet completely unique.

Alexander Pedals are designed by Matthew Farrow and a group of trusted players, builders, and friends. Matthew has been building guitar pedals since the late 1990s, first with Pharaoh Amplifiers, and now with Disaster Area Designs. Matthew has designed some of the most innovative effects units on the market, including some big names he's not allowed to tell you about.

Alexander Pedals was started for two reasons - to make great tones, and to do good. The great tones part you probably have some idea about. As for doing good, Alexander Pedals donates a portion of the profits from every pedal sold to charity, whether you buy from us or our dealers. Matthew's younger brother Alex passed away in 1987 of a form of cancer called neuroblastoma. Alexander Pedals honors his memory by helping in the fight to end childhood cancer.

ALEXANDER

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alexanderpedals.com

INTRODUCTION

Chorus is one of those effects that folks either love or hate. We're squarely in the "love it" camp, and since you bought this thing then that means you are too! To that end, we've done everything in our power to create the most whirly, swirly effect we possibly can.

We took our favourite 1980s style chorus pedals and tried to capture their unique essence, added in a dash of rotary speaker swirl, and added in a few icy pitch-shifted crystal tones.

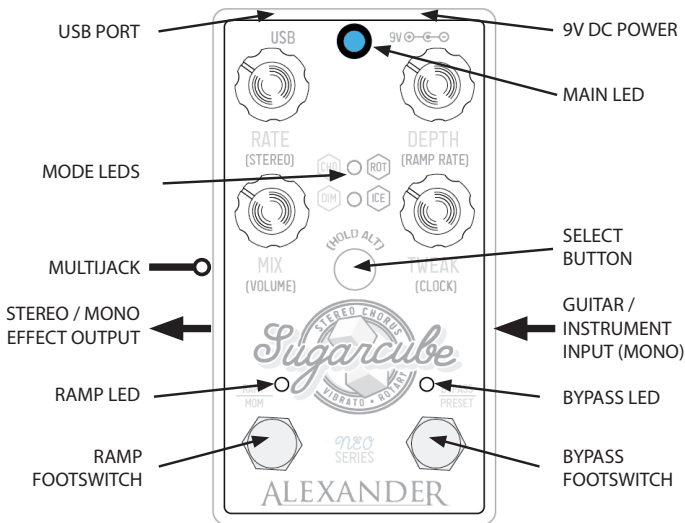
Then we wrapped it all up in a pedalboard-friendly package with MIDI, presets, and expression pedal support. If this pedal were any sweeter you'd need to go visit your dentist

GETTING STARTED

Sugarcube is pretty much like any other pedal. Plug in on the right side, then plug the lower jack on the left side to your amp or next pedal. Power it up, hit the footswitch and see what happens!

Want to hear some sounds that we like? Hold down the BYPASS footswitch to load in the factory presets. We put four cool tones in the pedal for you to tweak.

Experiment. Turn the knobs. Push the buttons. We think you'll find something you like.



Messing with the knobs will get you a long way, but there is a lot to this pedal just under the surface. When you're ready to dive in to the advanced features of your new pedal, read on.

SOUNDS AND CONTROLS

Sugarcube does a lot of stuff, but that doesn't mean that it's hard to use! Generally you can just turn the knobs on the pedal and explore new sounds, but we put a few extra controls on the pedal that we think you can use.

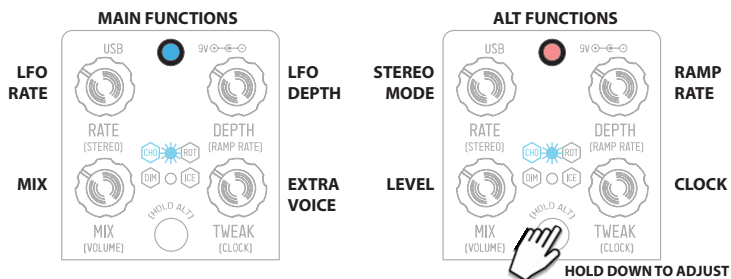
Sugarcube has four distinct Effect Modes. Each one has its own set of controls, and while they do relate to each other, it's worth taking a few minutes to learn what everything does.

Tap the center Select button to move to the next Effect Mode. You'll notice that the small LEDs in the center of the pedal change to show the current Effect Mode.

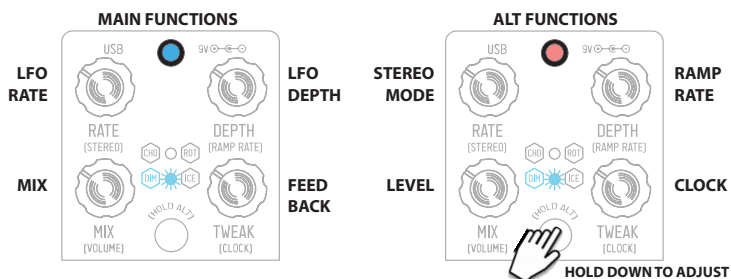
If you *hold* the center Select button, you can access the "Alt Functions" for the pedal knobs.

Here's a run-down on what all of the knobs do in each Effect Mode of the pedal.

CHORUS (upper blue) This is probably what most folks think of when someone says "chorus!" This mode features rate and depth controls for the chorus, as well as a mix control to go from dry to chorus to vibrato. The Tweak control adds in an additional chorus voice to thicken and widen the effect.

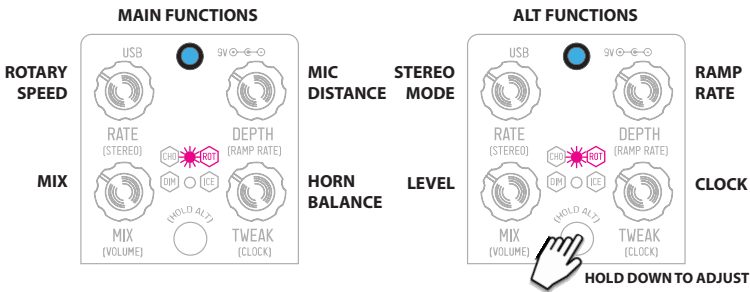


DIMENSION (lower blue) "Motionless" chorus effect - the Dimension mode features two opposing delay lines that combine to create wide soundscapes without the "wavering" sound of traditional chorus. If you're trying to replicate the tones of the four-button vintage unit, keep the Depth control at noon or below. We've expanded the control range and even added a Feedback control for flange-like chorus tones. Milk and Kisses, here we come!

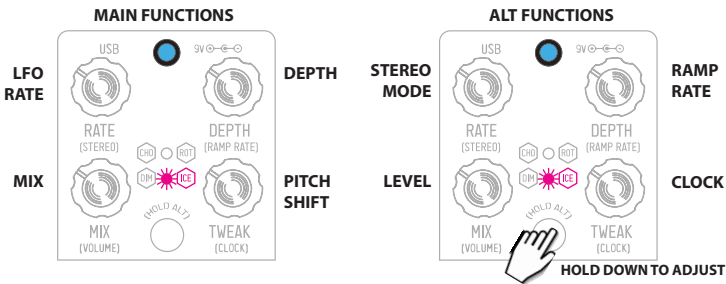


SOUNDS AND CONTROLS (CONTINUED)

ROTARY (upper red) This is a bit of a stretch, since a real rotary speaker is an insanely complex amalgam of amp, motion, room, wood, glass, and fire. Trying to replicate it in a stompbox is always going to be disappointing, but we've grabbed the important stuff and tried to make it sound as cool as possible! Rate controls the speed of the horn and drum, while the Tweak control balances between them. Pro tip: a real rotary speaker doesn't have a blend knob, so set Mix to fully wet for the most realistic effect



ICE (lower red) Chorus with a crystalline pitch-shift added. Ice mode features a two-voice chorus effect that's mixed with a selectable pitch shift. Turn the Tweak knob to select Octave Down, Unison Detune, Perfect Fifth, or Octave Up.



LOADING AND SAVING PRESETS

Have you ever spent a lot of time tweaking your gear to get the sounds you really love, only to find that your pedal knobs moved between your practice space and the gig? Or maybe you need a lot of sounds but don't have a ton of room on your board for multiple pedals?

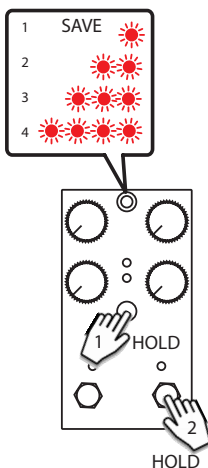
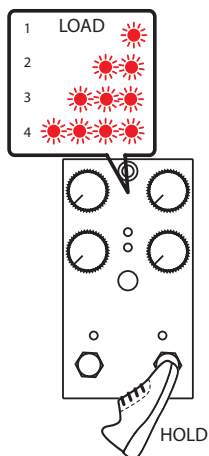
Presets to the rescue!

Sugarcube and all of our other Neo Series pedals have built-in preset capability. That means you can save and recall four sounds from a single pedal with no extra hardware or funny business. If you do have a MIDI controller, the preset capability expands to 16!

To load a preset, simply hold down the BYPASS footswitch for 1 second.

The upper LED will blink one, two, three, or four times to indicate the current preset and you're all set!

ALL of the pedal settings are recalled as part of the preset - knob positions, expression settings, and effect modes.



To save the current preset, press and hold the center Select button, then hold the BYPASS footswitch down.

The upper LED will blink to indicate the preset that was saved.

If you're using a MIDI controller to access presets on your Neo Series pedal, just send a program change (PC) message to load a preset.

You can access an additional 12 presets using MIDI for a total of 16.

To save presets 5-16, load in the preset by sending a MIDI program change then edit its settings. Once satisfied, save as normal. The current settings will save in the current preset.

((STEREO))

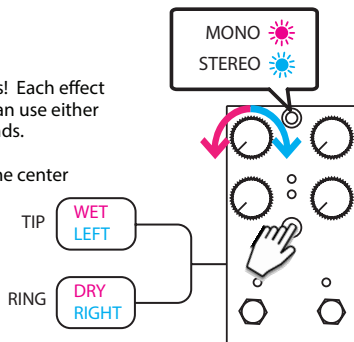
Sugarcube is our first pedal with true stereo outputs! Each effect mode has both mono and stereo modes, and you can use either mode with one or two outputs to get different sounds.

To switch between stereo and mono modes, hold the center Select button and turn the Rate knob. The upper large LED will light Pink for Mono and Blue for Stereo.

Connect a TRS Y-Cable (also called an Insert Cable) to the Sugarcube's output jack.

In Mono mode, the Tip carries the wet mix of the signal, and the Ring carries the dry signal. **You can also use a standard mono cable in mono mode, so don't worry about getting fancy if you're using a single amp.**

In Stereo mode, the Tip and Ring carry left and right signals. **Sugarcube has a standard Mono input.**



RAMP FOOTSWITCH

Sugarcube features an advanced expression functionality using the secondary footswitch on the pedal. This allows you to seamlessly morph between two different pedal settings with a single tap of your toe.

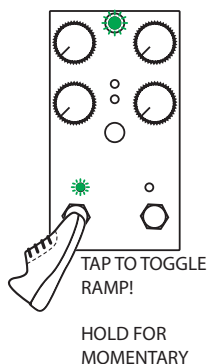
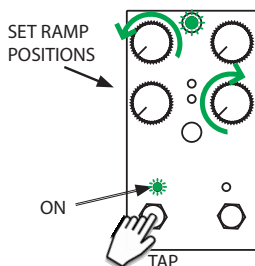
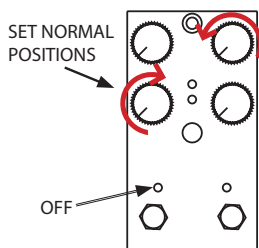
Tap the left footswitch on the pedal to begin the RAMP effect - you will see the RAMP LED light up and the main LED will fade from white to blue if the pedal is engaged. You will then hear the pedal slide from its current settings to the RAMP settings.

If you want to engage RAMP for a short time, for example to accentuate a phrase, you can hold the left footswitch to engage then release to go back to normal.

To set the normal and RAMP sounds on Sugarcube, first tap the left footswitch until the RAMP LED is off.

Next, turn the knobs to set the sound you want for the normal setting. Please note that the alternate knob functions may also be set at this time!

Finally, tap the left footswitch until the RAMP LED is on and set the knob positions as desired for your RAMP sound!

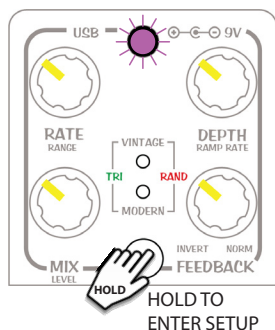


You can set the RAMP to activate instantly or slowly - hold the Select button and turn the RAMP RATE (upper right) knob to set.

SETTING UP YOUR PEDAL

Your Neo Series pedal has a few user settings stored in memory. These settings include the function of the MultiJack on the left side of the pedal, LED brightness, and others.

To enter setup, power on the pedal and then hold down the center Select button. Release the button when you see the center LED turn violet.



HOLD TO ENTER SETUP

Tap the center Select button to assign the MultiJack function. The upper small LED will change to show this function.

- Green: Expression Pedal Input
- Orange: Footswitch Input
- Red: MIDI Input

Turn the upper left knob to set the function of the external footswitch, if configured. The upper large LED will change to show this function.

- Green: Trigger Ramp
- Cyan: Advance One Preset

Turn the lower right knob to set the brightness of the main and lower LEDs.

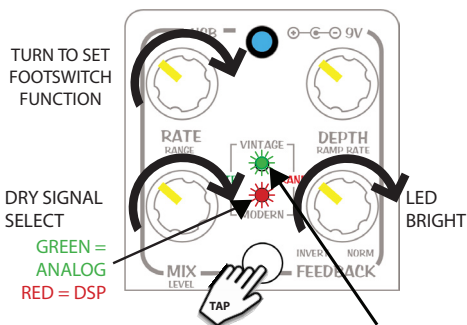
The lower left knob sets the dry signal routing in effect mode.

- Green: Analog dry signal, clean signal at all times.
- Red: DSP dry signal, better phase response but the dry signal gets darker at lower clock rates.

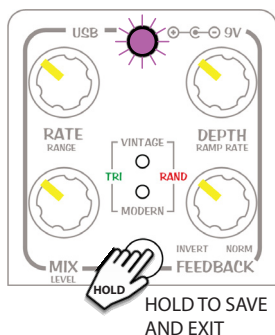
Hold the center Select button to save and exit setup.

If you have changed the function of the MultiJack, we recommend you power the Neo Series pedal off and back on in order to ensure the jack is configured properly.

- GREEN = RAMP
- CYAN = PRESET



- TAP TO SELECT MULTIJACK FUNCTION
- UPPER PROGRAM LED WILL SHOW
- GREEN = EXPRESSION PEDAL
- ORANGE = FOOT SWITCH
- RED = MIDI



HOLD TO SAVE AND EXIT

EXPRESSION PEDAL

Sugarcube supports most types of expression pedals for performance control.

We recommend the Roland EV-5 and Moog EP-3, but just about any expression pedal that uses a TRS cable should work. The supported expression wiring is **SLEEVE = 0V, RING = 3.3V, TIP = 0-3.3V**.

Before connecting your expression pedal, make sure that you have set up the MultiJack to read expression! The instructions are covered in the [Setting Up Your Pedal](#) section on page 6.

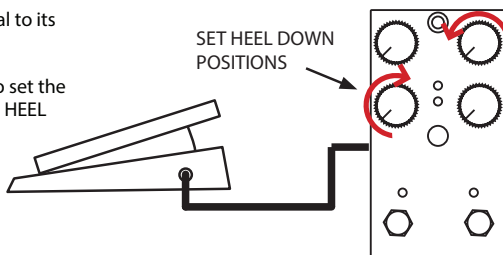
The expression pedal can control all of the pedal knobs, just like the RAMP footswitch. The big difference is that the RAMP footswitch always ramps between settings at the rate you set with the RAMP knob, and the expression pedal ramps as you move the pedal.

You can use the RAMP footswitch to set the expression pedal values, and vice versa. This allows you to connect an expression pedal when you have room on your board or use the RAMP footswitch when you don't!

Connect your expression pedal to the MultiJack with a TRS cable. Engage the pedal and sweep the pedal - you should see the upper LED change colors and the sound should change.

Set the expression pedal to its HEEL DOWN position.

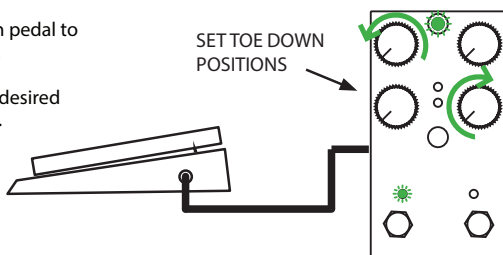
Turn the pedal knobs to set the sound you want for the HEEL DOWN position.



Next, set the expression pedal to its TOE DOWN position.

Move the knobs to the desired settings for TOE DOWN.

That's it!



Just like with the RAMP footswitch, all of the knobs on the pedal can be controlled with the expression pedal except RAMP RATE, PITCH LOCK, and the mode selection.

Once you have set the sounds you like, don't forget to save your preset! Changes you make to a preset are lost if you power off the pedal or load another preset without saving!

NEO FOOTSWITCH

Sugarcube also supports our Neo Footswitch for preset Select or Ramp functions.

To use the Neo Footswitch, you'll need to configure Sugarcube to use its MultiJack for footswitch input. Consult the instructions on page 6, [Setting Up Your Pedal](#).

Connect the Neo Footswitch to your Sugarcube using the provided TRS cable.

If you have configured the pedal correctly, you should see the LED on the Neo Footswitch light up and change as you tap the footswitch.

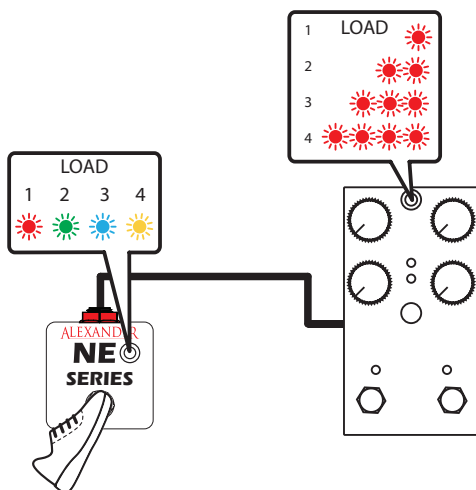
PRESET:

Tap the Neo Footswitch to advance one preset. The presets will load in sequence, 1, 2, 3, 4.

The LED on the Neo Footswitch will change to indicate the current preset:

RED = 1, GREEN = 2, BLUE = 3, YELLOW = 4.

Hold the Neo Footswitch to go back one preset.

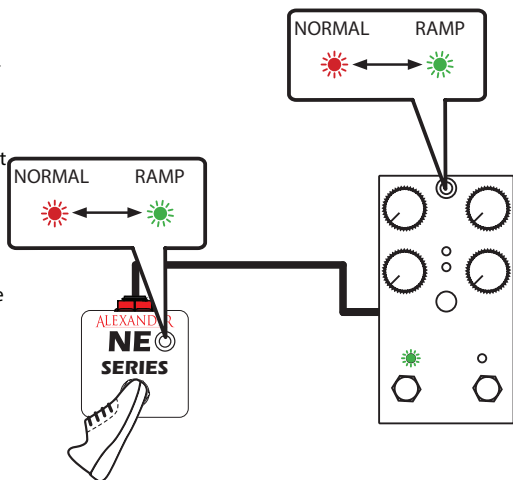


RAMP:

Tap the Neo Footswitch to trigger the RAMP effect.

The LED on the Neo Footswitch will change to indicate the current RAMP state.

You can also fire the ramp for a moment, by holding the Neo Footswitch down. The ramp will fade back down when you release the Neo Footswitch.



You can also use any momentary normally-open (NO) footswitch in place of the Neo Footswitch, but you won't get the super-cool LED stuff.

MIDI CONFIGURATION

All Neo Series pedals support full control using MIDI. In order to use your Sugarcube with a MIDI controller, you'll need to follow these instructions to configure its MultiJack and set up the MIDI channel.

First, you'll need a way to connect your MIDI controller to the MultiJack.

If you're using a Disaster Area Designs controller, you should be able to use one of its MultiJacks to send MIDI. We recommend the qCONNECT controller, since it's made to interface with multiple 1/4" MIDI devices. Consult your MIDI controller's manual for details on how to configure its output.

If you are using another type of MIDI controller, you'll need an interface box or adapter cable.

We support the following interfaces and cables:

Alexander Neo Link

Disaster Area Designs MIDI Box (any)

Empress MIDI Box (1 or 2)

Alexander Neo MIDI Cable

Chase Bliss Audio MIDI Box

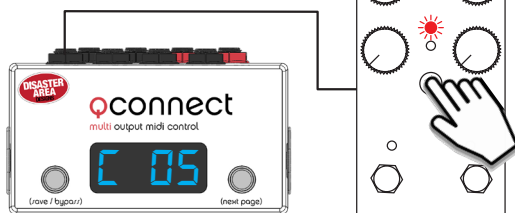
Next, connect your Neo Series pedal to your MIDI controller or interface box using a standard 1/4" cable or adapter cable. Make sure that your controller is powered on.

Power on the Neo Series pedal while holding its center Select button.

Release the button when the main LED turns violet.

Tap the center Select button until the upper small LED is red, then hold

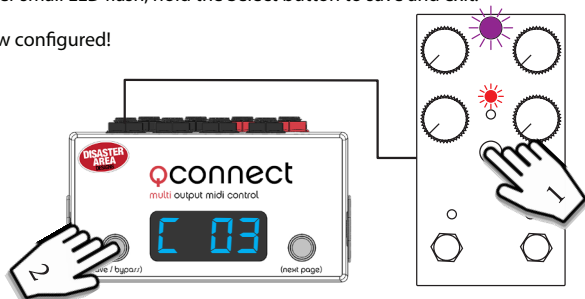
Select to save.



Power the Neo Series pedal off and back on, again holding the center Select button until the upper LED turns violet.

Send a program change message from your controller on the MIDI channel you would like to use. When you see the upper small LED flash, hold the Select button to save and exit.

Your Neo Series pedal is now configured!



MIDI COMMANDS

All of the functions of your Neo Series pedal may be controlled with MIDI messages.

The following commands are accepted by Sugarcube:

MIDI Program Change: Load Presets 0-15

0-3 are the Red bank, also accessible by holding the Bypass / Preset footswitch

4-7 are the Green bank

8-11 are the Blue bank

12-15 are the White bank

MIDI Continuous Controller 97: Ramp

Send any value to trigger the ramp

MIDI Continuous Controller 100: Expression Pedal

Value 0 = Heel down, Value 127 = Toe down

MIDI Continuous Controller 102: Bypass

Value 0-63 = Bypass, Value 64-127 = Engage

MIDI Continuous Controller 50-57: Pedal Knobs

Value 0 = CCW, Value 127 = CW

CC 50 = Tweak

CC 51 = Rate

CC 52 = Depth

CC 53 = Mix

CC 54 = Clock

CC 55 = Stereo Mode (0-63 Mono, 64-127 Stereo)

CC 56 = Ramp Rate

CC 57 = Level

MIDI Continuous Controller 59: Mode Select

0: CHO Chorus

1: DIM Dimension

2: ROT Rotary

3: ICE Ice

Sugarcube does not respond to MIDI Beat Clock and does not have tap tempo capability.

SPECIFICATIONS

Input Impedance: 1M ohm

Output Impedance: 560 ohm

Power Supply: 9V DC, 80mA or greater, center negative

Bypass: Buffered analog bypass

Dry Signal: 24-bit DSP

DSP: 24-bit + 32-bit controller

Sampling Frequency: 36kHz -> 8kHz

We recommend the use of an isolated power supply with your Neo Series pedal.