

SPACE  
FORCE  
reverberation

leap  
SERIES

USER MANUAL  
V1.02

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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.

## BASIC OPERATION

Mankind has long known of the amazing properties of reverberant spaces. From the brilliant reflections of the largest concert halls to the splashy depths of your own shower, every space has its own characteristic sound. The Space Force is our love letter to the sounds of "elsewhere," and features eight ingenious ways to add some space to your place, whether you're reaching for the stars or just trying to make your world a little bigger.

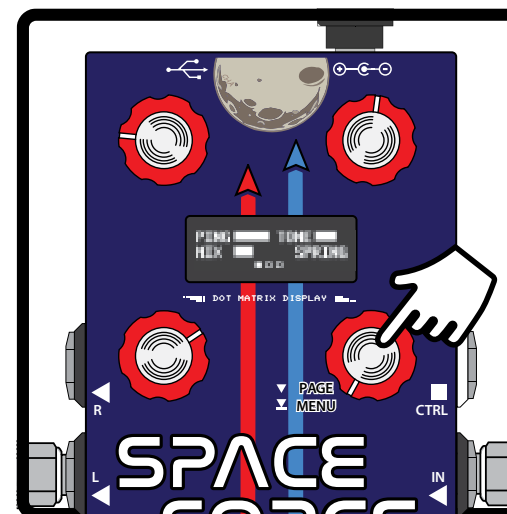
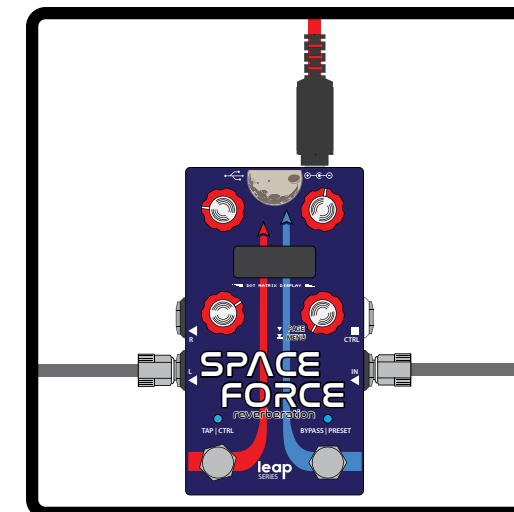
Using the pedal is pretty simple:

Plug your instrument into the INPUT jack and your amplifier or other effect into the L jack.

Power up the pedal with 9V 250mA or more.

Turn some knobs. As soon as you touch a knob, the display will change to show what is happening.

Hold the right foot switch (BYPASS / PRESET) to advance to the next preset, we've loaded some cool sounds on here for you to try out.



The lower-right knob has a pushbutton switch, tap that to access extra parameters on the back pages of the user interface.

We've put the most common controls up front, tweaking stuff on page 2, and utility items on page 3.

Three small boxes at the bottom of the display indicate the currently selected page.

That's pretty much it. The rest of this manual covers advanced topics and fine details. If you run into any issues, we've got support info at the link below.

Have fun!



scan me for  
more info!

This manual contains full technical details on the operation of this pedal. For more information regarding firmware updates, update tools, and software integration, please scan the code in this section to visit our website.

# CONTROLS & DISPLAY

Your Leap Series pedal is pretty complex under the hood, but we worked hard to make sure that it's easy to drive. We combined a simple user interface with a high-contrast OLED display to get you the maximum tweakability with the minimum frustration. Just turn the knobs, it acts like pretty much every other pedal.

If **KNOBS** is set to **JUMP**, turning any physical knob will make the virtual knob on the display jump immediately to the physical knob's position. If set to **PICKUP**, the virtual knob won't update until the physical knob is turned to the same position as the virtual knob. This prevents unexpected knob value changes.

The lower right knob is equipped with push switch. Tap this knob to switch the display page, as indicated by the three small boxes at the bottom of the display. We'll refer to this knob + button as the Page knob throughout this manual. Hold the Page knob to access the [Setup \(page 7\)](#) and [Preset Save \(page 6\)](#) menus.

**KNOB DISPLAY**  
Turn the pedal knobs to show the Knob Display. Each knob is labeled with its function and current value.  
Set DISPLAY = KNOBS in the Setup menu to make the pedal show this screen by default.

**PRESET DISPLAY**  
Hold the Bypass / Preset foot switch to load a the next preset and show this display. The current preset name, number, and sound mode are shown.  
Set DISPLAY = PRESET in the Setup menu to make the pedal show this screen by default.

**DISPLAY BLANK**  
Set DISPLAY = BLANK in the Setup menu to blank the display. The display automatically returns to Knobs or Preset mode when a knob is turned or a preset is loaded.

**HOLD RIGHT FOOTSWITCH FOR NEXT PRESET**

**HOLD BOTH FOOTSWITCHES FOR PREVIOUS PRESET**

DOT MATRIX DISPLAY

PAGE MENU

CTRL

IN

TAP | CTRL

BYPASS | PRESET

leap SERIES

PING PING TONE  
FIX KNOBS SPRING

4 SURFS UP  
SPRING

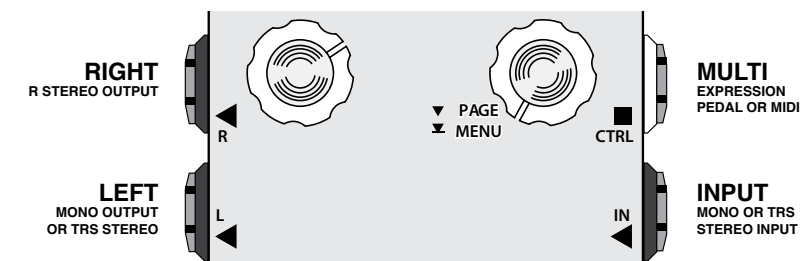
...

# INS & OUTS

We've equipped every Leap Series pedal with a plethora of pluggable ports, to allow you lots of flexibility in your pedalboard routing.

We'll cover the stereo routing stuff in full detail on [page 10](#), but if you're running in mono just use the input and L output jacks.

- INPUT:** Instrument input. Defaults to mono, may be set to TRS Stereo or TRS Sum using the Setup menu.
- RIGHT:** Right stereo output. This output may be phase-inverted in the Setup menu to match the output phase of your amplifiers.
- LEFT / TRS:** Main output. Use this as the main output for mono setups, or the left output for stereo. May also be used as a TRS stereo output (disables the RIGHT jack) if the next effect or input is TRS stereo.
- MULTI:** User configurable jack, used for Expression pedal (TRS only,) remote foot switch, or MIDI input / output (requires converter unit or adapter cable.)



- DC 9V:** Center-negative, 2.1mm ID barrel jack for DC input. The pedal requires a minimum of 250mA to operate, higher current supplies are acceptable. Do not power the pedal from a source greater than 9.6V DC.
- USB:** USB mini-B connector for USB MIDI or firmware updates

# BYPASS & TRAILS

Leap Series pedals feature a buffered bypass system designed to keep your signal as clean as possible at all times. The dry signal passes through the digital signal processor in order to maintain phase coherence between wet and dry.

We offer three bypass modes, selectable with the TRAILS item in the Setup menu.

- OFF:** The wet signal is cut off immediately upon entering bypass
- ON:** The wet signal delay / reverb trails are allowed to ring out in bypass
- AUTO:** The wet signal delay / reverb trails are allowed to ring out but automatically fade out after 10 seconds to eliminate noise in bypass

# SOUND MODES

Space Force has eight selectable sound modes, each based on a different reverb effect type. You can tweak these modes to your taste, and you can save any sound to any preset. To change sound modes, turn the lower right knob on page 1. Tap the lower right knob to advance to the next page.

The following controls are common to all modes on page 3:

**DIV** - tap division for modulation or delay, not available in DYNAMIC or PITCH modes

**LEVL** - overall volume for the effect

**RAMP** - Ramp rate, lower settings ramp faster

**TRIG** - Ramp trigger mode, please see [Expression](#) and [Ramping](#) for details

Reverb modes marked with \* support reverb HOLD. Turn this knob to maximum to increase reverb time and freeze the reverb. While the HOLD is active, the reverb effect will be “frozen” and new notes will not add the reverb. Reduce this knob slightly to exit HOLD and return to normal reverb mode. *Fun tip: try ramping or using the expression pedal to engage the HOLD function to create reverb “pad” effects.*

## PLATE

Based on a vintage studio reverb, this simulates the reflective properties of a giant metal plate. We’ve also included a virtual tape pre-delay and adjustable tape flanging modulation.

SIZE\* - reverb decay time

DAMP - reverb high EQ

MIX - mix of wet and dry signals

PRE - tape echo pre-delay

RATE - tape flanger rate

WAVE - tape flanger waveform

DEPTH - tape flanger intensity

## MOD HALL

Classic 1980s electronic hall reverb with adjustable pitch modulation. We’ve added high and low EQ controls to allow for fine-tuning the reverb tone.

SIZE\* - reverb decay time

TONE - reverb high EQ

MIX - mix of wet and dry signals

LOW - reverb low EQ

RATE - reverb modulation rate

WAVE - modulation waveform

DEPTH - modulation intensity

## PITCH

Chamber reverb effect with twin adjustable pitch shifters. Each shifter has selectable intervals ranging from a detune effect to an octave. Try with detune or down an octave for a cool textural wash.

SIZE\* - reverb decay time

TONE - reverb high EQ

MIX - mix of wet and dry signals

UP - pitch up amount

DOWN - pitch down amount

P.UP - pitch up interval

P.DN - pitch down interval

## SPRING

Surf’s up! Spring reverb effect with multi-wave tube bias type tremolo. We’ve placed the tremolo after the reverb to ensure that it stays juicy no matter how wet you run the springs.

PING - spring reverb “drip”

TONE - reverb tank tone control

MIX - mix of wet and dry signals

TANK - size of reverb springs

RATE - tube bias tremolo rate

WAVE - tremolo waveform

DEPTH - tremolo intensity

## LO-FI

1990s style electronic reverb with distortion on the reverb trails. Classic “shoegaze” effect, try this with the SAW modulation to simulate whammy bar guitar.

SIZE\* - reverb decay time

DIRT - post-reverb dirt

MIX - mix of wet and dry signals

PRE - reverb pre-delay

RATE - vibrato modulation rate

WAVE - vibrato waveform

DEPTH - vibrato intensity

## ANALOG

“Electronic” reverb based on an obsolete analog delay chip, these units were often used in karaoke units and have a distinctive tone. Keep the time knob low for reverb or increase for cascading delay effects.

TIME - delay time

REPT - delay feedback / repeats

MIX - mix of wet and dry signals

TONE - delay tone control

RATE - chorus modulation rate

WAVE - chorus waveform

DEPTH - chorus intensity

## DYNAMIC

Large cathedral-style reverb with a volume-sensing fade effect. GATE mode will cut off the reverb like ‘80s drums, BLOOM will fade in just the reverb signal, and SWELL fades in both wet and dry for a more intense effect.

SIZE - reverb decay time

DAMP - reverb high EQ

MIX - mix of wet and dry signals

PRE - reverb pre-delay time

TIME - slow-attack gate time

ATTK - gate sensitivity

RELS - gate release

TYPE (pg3) - GATE, BLOOM, SWELL

## ECHOVERB

Room reverb and delay in parallel. Each effect has its own set of controls and is independent. The delay effect works even when the reverb effect is in the HOLD / FREEZE state.

REVB\* - reverb decay time

TONE - reverb high EQ

MIX - mix of wet and dry signals

DTIM - delay time control

REPT - delay feedback / repeats

DMIX - delay mix

D.EQ - delay high EQ

# PRESETS

How do you make quick changes on a pedal that has 12+ knobs? PRESETS. Every Leap Series pedal allows you to save up to 32 presets that contain the entire state of the pedal.

Loading a preset recalls all knob positions, sound modes, and expression pedal mappings.

To load a preset, hold the BYPASS / PRESET foot switch. You can set the number of available presets in the Setup Menu, from 1 to 8. You can also set the pedal to access the upper banks of presets (9-16, 17-24, 25-32) in the same menu. This allows you to use multiple banks of presets for different gigs, bands, instruments, whatever you like. Hold both footswitches to scroll back to the previous preset.

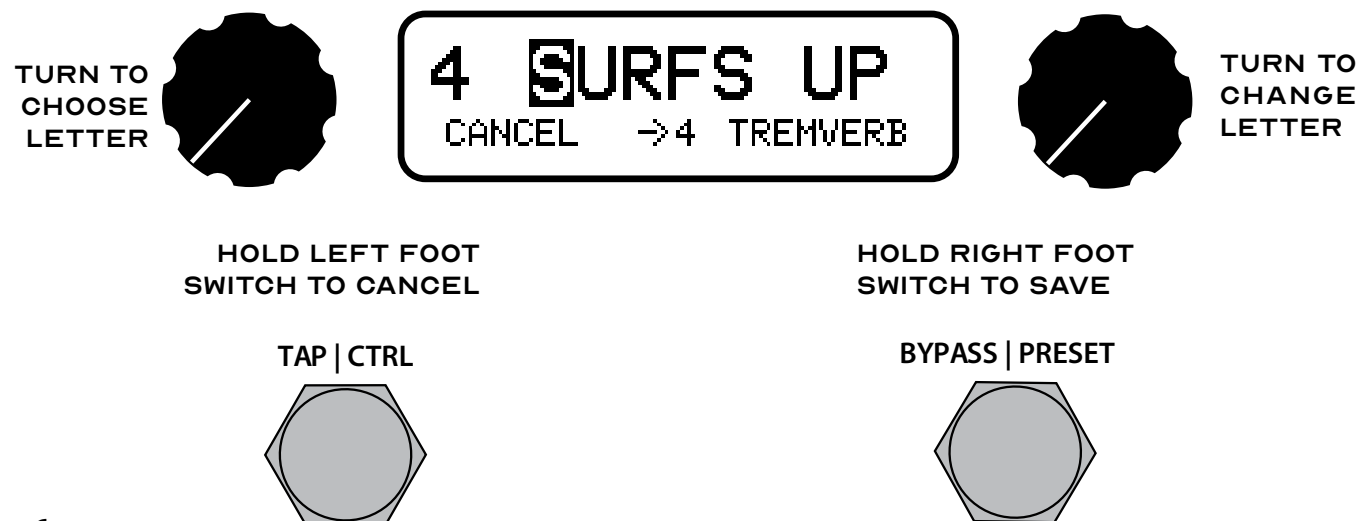
If eight presets per bank isn't enough, you can enable a double-bank of 16 presets by setting PRESET = 1-16 or 17-32.

You can also use an external MIDI controller to load any preset from 1-32, regardless of how the Setup Menu is configured.

To save a preset, first use the pedal knobs to tweak the sound, then hold the Page knob. Press and hold the BYPASS / PRESET foot switch to enter the save menu.

If you want to save to the current preset, you can just hold down the BYPASS / PRESET foot switch again. If you prefer to rename the preset, turn the lower left knob to select a character in the name and turn the Page knob to edit that character. You can also change the save location by highlighting the preset number then turning the Page knob.

Press and hold the BYPASS / PRESET foot switch to save, or hold the TAP / CTRL foot switch to cancel the save.



# SETUP MENU

To enter the Setup menu, first hold down the PAGE / MENU knob (lower right,) then hold the left foot switch.

Turn the lower left knob to scroll through the available parameters, then turn the lower right knob to set its value.

Hold the PAGE / MENU knob (lower right) to save your settings and exit the menu.



- |               |                 |   |
|---------------|-----------------|---|
| <b>M.JACK</b> | <b>EXPRESSN</b> | MultiJack is expression pedal input, set here if not using jack   |
|               | <b>FOOT. SW</b> | MultiJack is foot switch input  |
|               | <b>MIDI</b>     | MultiJack is MIDI input (requires MIDI to TRS adapter)  |
|               | <b>PRST.EX</b>  | MultiJack connects to Expander Switch for preset selection  |
|               | <b>SCRL.EX</b>  | MultiJack connects to Expander Switch for preset scrolling  |
| <b>CHANNL</b> |                 | Sets MIDI input channel   |
| <b>STEREO</b> | <b>MONO IN</b>  | INPUT jack is mono, outputs are stereo  |
|               | <b>INP. SUM</b> | INPUT jack sums to mono, outputs are stereo   |
|               | <b>STEREO</b>   | INPUT jack is stereo, outputs are stereo  |
| <b>RPHASE</b> | <b>NORMAL</b>   | R / DRY output phase normal   |
|               | <b>INVERT</b>   | R / DRY output phase inverted   |
| <b>PRESET</b> |                 | Sets number of presets available on device. Does not affect MIDI.   |
| <b>DISPLY</b> | <b>PRESET</b>   | Display shows preset except when turning knobs  |
|               | <b>KNOBS</b>    | Display shows knobs except when loading preset  |
|               | <b>BLANK</b>    | Display is off when not adjusting knobs   |
| <b>KNOBS</b>  | <b>JUMP</b>     | Knobs will jump to new value immediately  |
|               | <b>PICKUP</b>   | Knobs don't move until turned to previous value first   |
| <b>RETURN</b> |                 | Pedal will return to the main control page after 5, 10, 30 seconds  |
| <b>MIDOUT</b> | <b>OFF</b>      | Pedal does not send MIDI CC values when knobs are turned  |
|               | <b>JACK</b>     | Pedal sends MIDI CC from MultiJack  |
|               | <b>USB</b>      | Pedal sends MIDI CC from USB MIDI   |
|               | <b>BOTH</b>     | Pedal sends MIDI CC from both   |
| <b>TRAILS</b> | <b>NORMAL</b>   | Hard bypass   |
|               | <b>TRAILS</b>   | Trails bypass, allows reverbs or delays to ring   |
|               | <b>AUTO</b>     | Auto-Trails bypass, trails ring but are faded after 10s.  |
| <b>EXP LO</b> |                 | Sets the heel down calibration for the MultiJack expression pedal   |
| <b>EXP HI</b> |                 | Sets the toe down calibration for the MultiJack expression pedal  |
| <b>TAPCNT</b> |                 | Enable or disable tap tempo timer display   |
| <b>PWR ON</b> |                 | Choose BYPASS or ENGAGE to set the power-on state of the pedal  |
| <b>RESET</b>  |                 | Turn to reset <b>CONFIG, PRESETS, or ALL</b> . Hold MODE to reset. Set to <b>MIDI DUMP</b> to export the pedal presets over USB MIDI. |

## EXPRESSION PEDAL

Connect a TRS expression pedal to the MultiJack to control any or all of the pedal parameters remotely. Enter the Setup menu and configure M.JACK = EXPRESSN, then save and exit.

Leap Series pedals requires a TRS expression pedal, sleeve = 0V (common,) ring = 3.3V, tip = 0-3.3V. You can also use an external control voltage (CV) connected to tip and sleeve, as long as it doesn't exceed 3.3V.

If you're using a MIDI controller, you can send MIDI CC 100, value 0-127. 0 is the same as full heel setting, 127 is toe setting.

To map expression pedal values to pedal settings, first set the expression pedal to the heel setting then turn the pedal knobs. Then sweep the expression pedal to the toe setting and turn the knobs again.



HEEL SETTING



TOE SETTING

Your Leap Series pedal will smoothly blend between the two knob settings as you move the expression pedal. You can map any of the effect knobs to the expression pedal, other than a few controls that don't have linear functions like tap division and ramp settings.

If you prefer to have controls that aren't affected by the expression pedal, simply set them with the pedal heel down, then gently "wiggle" the knob with the pedal at toe down. This will set the same values for heel and toe and those knobs won't change as you sweep the pedal. You can also use the Ramp Clear function to clear the expression pedal settings, as described on the next page.

The MultiJack input is factory-calibrated for most common expression pedal types, but you can also adjust the range using the Setup menu. Sweep the pedal to the heel position and then set the EXP LO value to match the number shown in the box on the display next to it. Repeat for the EXP HI value and then save.



CALIBRATE  
HEEL VALUE



CALIBRATE  
TOE VALUE

## RAMPING

If you're not into using an expression pedal, that's okay - the Leap Series pedals feature a built-in expression control function called RAMP.

Imagine the Ramp as an automatic expression pedal that you trigger from a foot switch. Hold the Tap / Ramp foot switch to fire the ramp, and the pedal will smoothly move between expression pedal settings by itself.

Use the **RAMP** knob to set the speed of the ramp, and the **TRIG** knob to set the trigger mode.

**TOGG** ramp will alternate between positions when you hold the foot switch  
**MOM** ramp will move from heel to toe when you hold the foot switch, and return when you release it.

**CLR\*** resets the ramp and expression parameters. Select this option, then fire the ramp using the Tap / Ramp foot switch copy the "heel" values to the "toe" values and clear the expression settings. The ramp trigger will then return to TOGG mode.

## REMOTE FOOT SWITCH

You can also connect a standard momentary normally-open foot switch to the MultiJack to remotely control the Tap / Ramp functions.

Enter the Setup menu and configure M.JACK = FT.SW, then save and exit.

Tap the remote foot switch to set the tap tempo rate, hold to trigger the ramp. The remote foot switch will duplicate the functions of the built-in left foot switch.

## EXPANDER SWITCH

Starting with firmware version 1.01, Space Force supports the AEXPANDER triple foot switch for preset selection or scrolling.

Connect your AEXPANDER to the MultiJack using a standard TRS / stereo cable, then enter the Setup menu and configure M.JACK = PRST.EX or SCRL.EX. Save and exit.

In PRST.EX mode, the three buttons of the AEXPANDER directly select presets 1, 2, and 3 with a single tap. You can still use the footswitches on the pedal itself to access any other presets in your currently selected bank.

In SCRL.EX mode, the A and C (left and right) buttons of the AEXPANDER will scroll through all 32 presets in order. Tap the B (center) button to enter SEARCH MODE, which will scroll through the presets without activating them. When you arrive at your desired preset, tap the B (center) button again to load that preset and exit SEARCH.

# TAP TEMPO AND MIDI CLOCK

Leap Series pedals support Tap Tempo for the modulation LFO or the delay time. The pedal will always prioritize the delay time for sound modes that have both LFO and delay.

Tap the TAP / CTRL (left) footswitch once to begin the Tap Tempo function. The display will show TAP in the lower left corner to indicate that the pedal is waiting for a second tap.

Tap the TAP / CTRL (left) footswitch a second time to set the tempo and end the Tap Tempo function.

If you don't tap a second time, the tempo will remain at the previously set value.

If TAPCNT is enabled in the Setup menu, the display will also show a bar to indicate the remaining time before the Tap Tempo function times out and resets.

The DIV parameter on PG3 of the display sets the tap tempo subdivision.

- TRP:** time subdivides to eighth-note triplet (3x tap speed)
- 8TH:** time subdivides to eighth-note (2x tap speed)
- DOT:** time subdivides to dotted eighth-note (1.5x tap speed)
- QTR:** time is not subdivided, quarter-note (1x tap speed)
- NCLK:** time is not subdivided, quarter note, MIDI CLOCK is ignored

The pedal will use the most recent tempo adjustment, so if you tap tempo and then turn the Time or Rate knob the tapped tempo will be cancelled and set to the knob value.

If you tap in a tempo and then save the preset, the saved time will use the tempo and the subdivision as set by the DIV knob. If you use the time or rate knob to set the tempo, it may load with a different tempo unless DIV is set to QTR or NCLK. If you mostly plan to use the pedal knobs to set the tempo, we recommend using the QTR or NCLK setting for DIV.

Leap Series pedals also sync to incoming MIDI clock over the MultiJack or USB. MIDI clock will override all other tempo sources including Tap Tempo and the pedal knobs, unless DIV is set to NCLK in which case the pedal will ignore MIDI clock entirely.

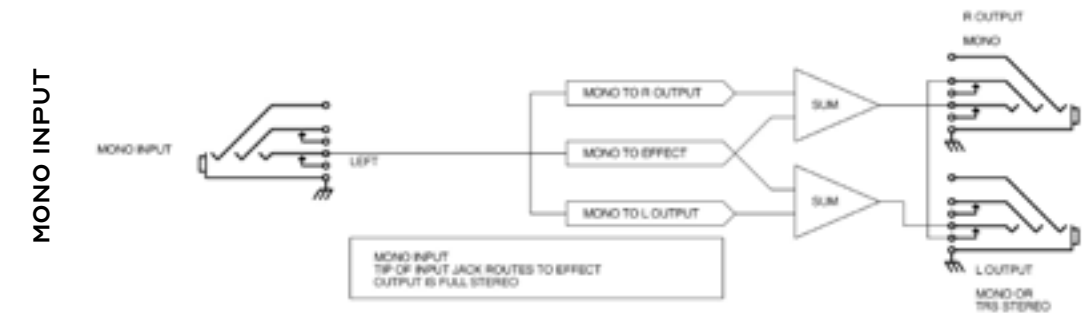
The DIV setting is saved for each preset, so you can use any division on any preset based on your musical needs.

# STEREO ROUTING

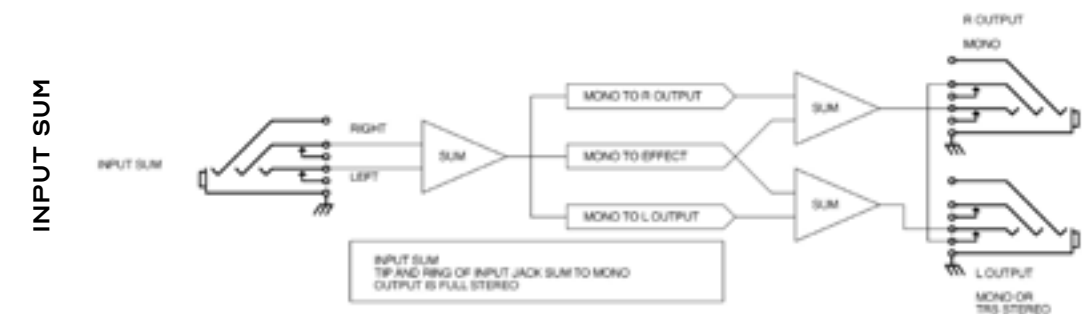
Every Leap Series pedal is designed to work in a stereo context, but also shines in mono. We'll cover how all the various stereo modes work so you can pick the one that works best with your rig.

To set the stereo mode, enter the Setup menu and navigate to STEREO. The pedal will reconfigure its inputs and outputs as you step through the menu, and once you've set it as you like just hold the PAGE knob to save.

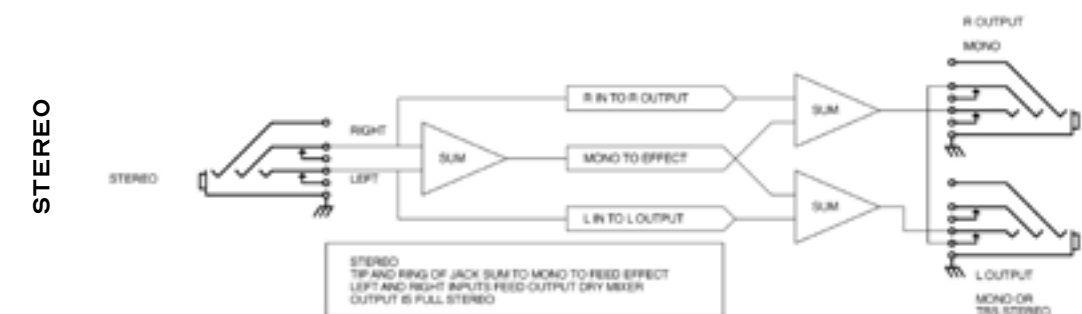
We also allow you to change the phase of the R output to correct issues with the phase of your amplifiers or other effects. Try setting R.PHASE to both options, the one with more low end is usually correct.



Standard mono input.  
Use this for mono input with full stereo output  
Use the L output for mono.



Input is summed L+R from TRS, output is full stereo.  
Use this if you play in mono but have stereo effects before the Leap Series pedal.



Input is stereo from TRS, output is full stereo.  
Use this if the previous device in chain has stereo output.

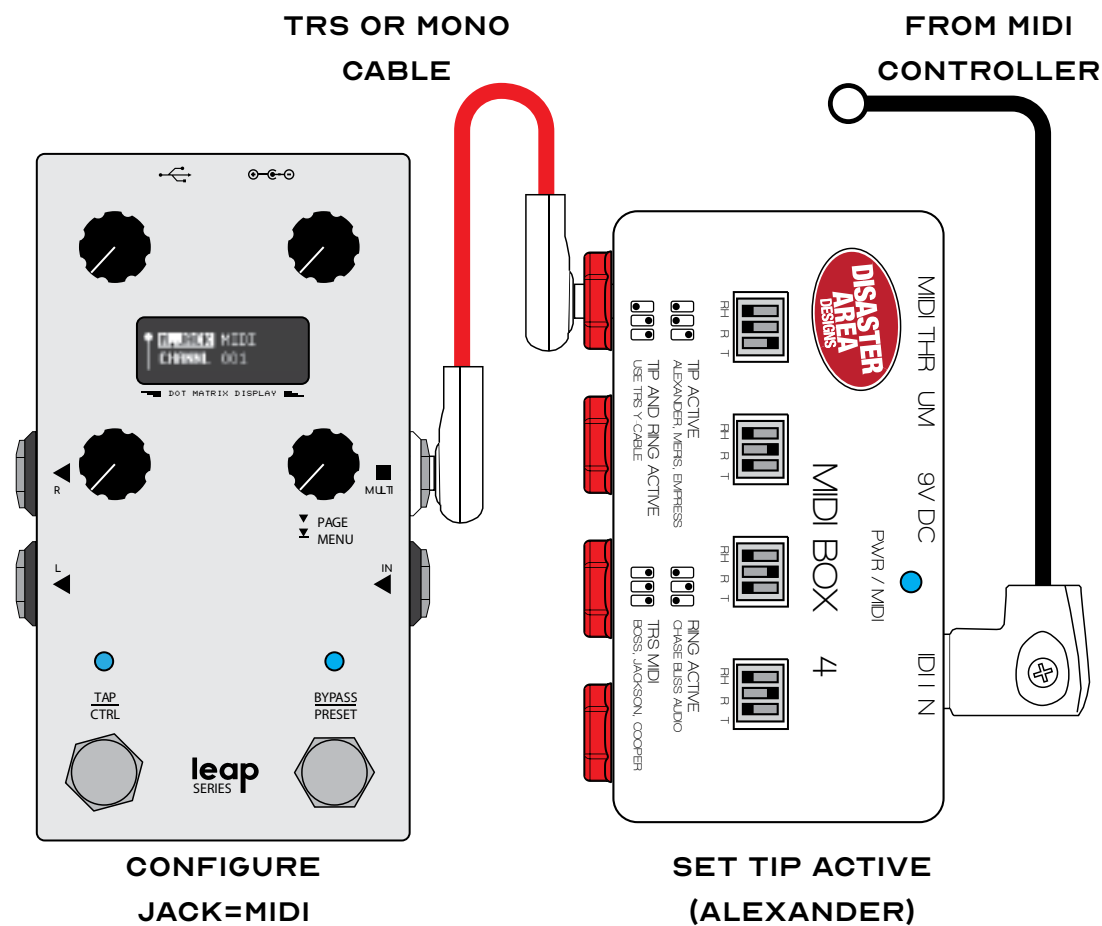
# MIDI SETUP

The MultiJack can also act as a MIDI interface, to allow full remote control of your Leap Series pedal.

Enter the Setup menu and configure M.JACK = MIDI, then set CHANNL = your desired MIDI channel. Save and exit.

You can then connect your Leap Series pedal to your MIDI controller or other device using the MultiJack.

We recommend the use of an active MIDI converter such as the Disaster Area MIDI Box 4.



The MultiJack is also compatible with many devices using a passive MIDI to TRS cable, we recommend the Disaster Area 5P-TRS PRO but most TRS type-A cables should work so long as pin 2 is earthed at the MIDI controller output. Please note that some MIDI controllers do not support the use of a passive MIDI to TRS cable, consult your controller manufacturer.

The MultiJack is wired using Tip = Current Sink, Sleeve = Ground / Common.

**NOTE: In some cases, MIDI interference can occur if the TRS ring is left floating. We recommend you set MIDOUT to OFF or USB, this disables the ring connection and will prevent MIDI echoes.**

# MIDI COMMANDS

Your Leap Series pedal features full and comprehensive MIDI implementation. Every single function and knob may be controlled by MIDI.

Each MIDI command controls the knob or function as described below. Please consult the Sound Modes section on [page 6-7](#) to match each knob position to the relevant control.

Leap Series pedals will sync to incoming MIDI clock messages for any modes that have the DIV knob on the last page of the display. The pedal will subdivide incoming clock as set by DIV, or set DIV to NCLK to force the pedal to ignore incoming clock. This setting is saved per-preset. Please consult the Tap Tempo and MIDI Clock section on page 10 for details.

Command	MIDI CC	Range
Knob 0 (PG1 upper L)	50	0-127
Knob 1 (PG1 upper R)	51	0-127
Knob 2 (PG1 lower L)	52	0-127
Knob 4 (PG2 upper L)	54	0-127
Knob 5 (PG2 upper R)	55	0-127
Knob 6 (PG2 lower L)	56	0-127
Knob 7 (PG2 lower R)	57	0-127
Knob 8 (PG3 upper L)	58	0-127
Ramp Rate	59	0-127
Level	60	0-127
Ramp Trigger Mode	61	0-50 TOGG 51-110 MOM 111-127 CLR*

Command	MIDI CC	Range
SOUND MODE	53	0-15 PLATE 16-30 MOD HALL 31-45 PITCH 46-60 SPRING 61-75 LO-FI 76-90 ANALOG 91-105 DYNAMIC 106-127 ECHOVERB
TAP TEMPO	93	ANY
RAMP TRIGGER	97	ANY
EXPRESSION PDL	100	0 HEEL, 127 TOE
BYPASS	102	0 BYP, 127 ON
MIDI BEAT CLOCK		CONTROLS LFO RATE (MODES 1,2 4,5,6) OR DELAY TIME (MODE 8) NOT USED IN MODES 3, 7.



# SPECIFICATIONS

- Input: Mono or stereo (TRS)
- Output: Mono or stereo (use either TRS or dual TS)
- Input Impedance: 1M ohms
- Output Impedance: 560 ohms
- Power Requirements: DC 9V only, 250mA or greater
- Requires isolated DC power supply
- Dimensions: 2.4" x 4.7" x 1.6" W x H x D not including knobs (67 x 120 x 42mm)
- 32 user presets, selectable on-device without additional controllers
- MultiJack enables expression pedal, foot switch, expander switch, or MIDI input
- Full MIDI control over every knob and setting
- EXP Morph allows controlling all knobs from expression or MIDI
- Automated ramping function for expression without external pedal
- CTL foot switch for tap tempo or ramp trigger
- USB port for firmware updates and USB MIDI
- Buffered bypass (hybrid analog+digital)

# CHANGE LOG

v1.02

Removed display brightness configuration option

Added knobs reading mode configuration option

Added Knob Mode = Pickup, user must turn pot to match display before the pedal will change values

Added eeprom ready state check

Fix issue with EEPROM reading on 24CW128-equipped pedals

v1.01b 2/22/23

Fix issue with MIDI clock not setting ECHOVERB delay time properly

v1.01a

Ramp always resets after program load, ramp also clears if trigger mode is changed

removed incorrect knob settings in config mode (knobs 12+13)

v1.01

DSP - now use global MREG / CREG / SFR to save space in flash

DSP - improve input muting for Echoverb mode

Enable support for ALExpander multi switch

added dual bank (1-16 or 17-32)

**ALEXANDER**  
GREAT TONES. DOING GOOD.