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# REWIND

PROGRAMMABLE ECHO

WIND  
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WIND

# USER MANUAL

**leap** v1.01  
SERIES

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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

It's time to rediscover your affinity for trippy reverse reflections, washed-out reverberations and crystal-clear repeats. The Alexander Pedals Rewind is a reimagining of our flagship delay platform. Ten rejuvenated delay types, all the under-the-hood functionality you require, and an OLED display for instant recall of every parameter. Record, Repeat — Rewind.

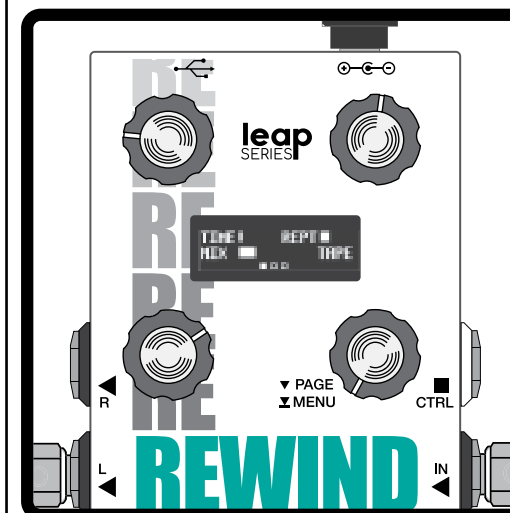
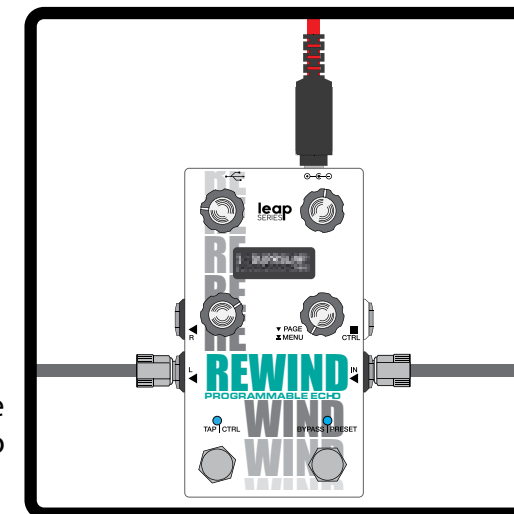
Using the pedal is pretty simple:

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 BOTH FOOTSWITCHES FOR PREVIOUS PRESET

HOLD RIGHT FOOTSWITCH FOR NEXT PRESET

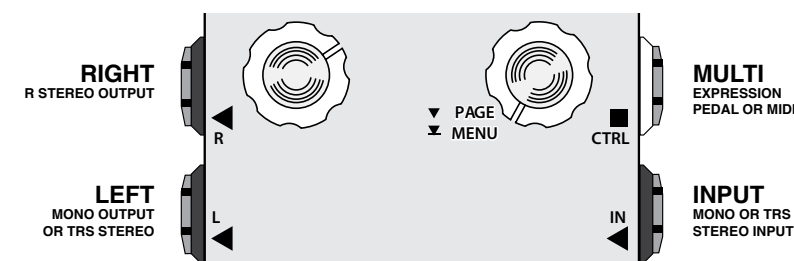
...

## 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 under [Stereo Routing \(page 11\)](#), 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

Rewind has ten 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 pedal (wet + dry)

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

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

## TAPE

Magnetic mash up based on our favourite tape echo units. Set HEAD to A for a classic single tape echo, or experiment for multi-tap madness.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

WOW - tape wobble  
FLUT - random tape crinkle  
AGE - tape noise and warmth  
HEAD - enable heads A, B, C, D

## PITCH

Clean digital delay with a flexible pitch transposer for the ultimate in shifty business. Set the MODE to PRE or POST for traditional pitch shifting, or engage the ARP modes for arpeggio patterns.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

MODE - PRE, POST, ARP-, ARP+, ARP^  
TUNE / RATE - pitch select or arp rate  
PMIX - blend of pitch shift signal  
FINE / PATT - fine tune or arp pattern

## DYNAMIC

Clean digital delay with a flexible audio gate and swell generator. MODE selects DUCK (delay swells in when playing stops,) GATE (delay is cut off sharply,) BLOM (delay blooms in behind dry signal) or SWEL (delay and dry signal swell in over time)

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

MODE - GATE, BLOM, SWEL  
RISE - slow-attack gate time  
ATTK - gate sensitivity  
RELS - gate release

## ANALOG

Classic 1970s electronic solid-state echo, based on our collection of vintage delay pedals. We've added a multi-waveform modulation section for analog style chorus and vibrato textures

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

TONE - delay high EQ  
RATE - chorus modulation rate  
WAVE - modulation waveform  
DEPTH - modulation intensity

## DUAL

Double delay lines in parallel. Set TYPE to MONO for classic dual delay, STER for independent left / right echo, or PONG for panning ping-pong delay. Each delay has 625ms of echo time. Set TIM2 to LOCK to synchronize delay times.

TIM1 - delay 1 time from 0-625ms  
REP1 - delay 1 repeat level  
MIX1 - delay 1 mix

TIM2 - delay 2 time from 0-625ms  
REP2 - delay 2 repeat level  
MIX2 - delay 2 mix  
TYPE - MONO, STER, PONG

## FILTER

Delay with synth-style resonant low-pass filter. MOD selects filter modulation source, SIN and SQU LFO, ENV- and ENV+ envelope follower, RAND random sample and hold, or FIXD parked filter.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

RESO - filter resonance  
RATE / LAG - LFO rate or env speed  
MOD - SIN SQU ENV- ENV+ RND FIX  
DEPT / SENS - LFO amt or env sens

## DIFFUSE

Cloudy day delay, combines a single echo with a reverb-style diffusion filter to smear and wash the delay repeats. We've incorporated digital bit crushing as well as two-band EQ to fine tune your ambient experience.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

BITS - bit crushing  
SOFT - delay diffusion  
HIGH - delay high EQ  
LOW - delay low EQ

## DIGITAL

1980s computer magic lives here, digital delay with modulation. Use the BITS control to dial in low-resolution "early digital" sounds, set it low for clean repeats.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

BITS - bit crushing  
RATE - chorus modulation rate  
WAVE - modulation waveform  
DEPTH - modulation intensity

## REVERSE

We named the pedal "Rewind," so you knew this one had to be in here. We've upped the delay time to a whopping 2.5 seconds to make your reverse echoes sound cooler, at the cost of a bit of high end and fidelity.

TIME - delay time from 0-2500ms  
REPT - delay feedback / repeats  
MIX - mix of wet and dry signals

BITS - bit crushing  
DIR - mix of forward and reverse  
TONE - delay tone control  
CLIK - reverse delay click filter

## LO-FI

Filthy and gorgeous dirty delay. This mode stacks a digital distortion after the delay pedal for unique textures. Also includes triangle-wave modulation on the delay effect.

TIME - delay time from 0-1250ms  
REPT - delay repeat level  
MIX - mix of wet and dry signals

DIRT - distortion gain and level  
RATE - modulation speed  
TONE - distortion high EQ  
DEPT - modulation intensity

# 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.

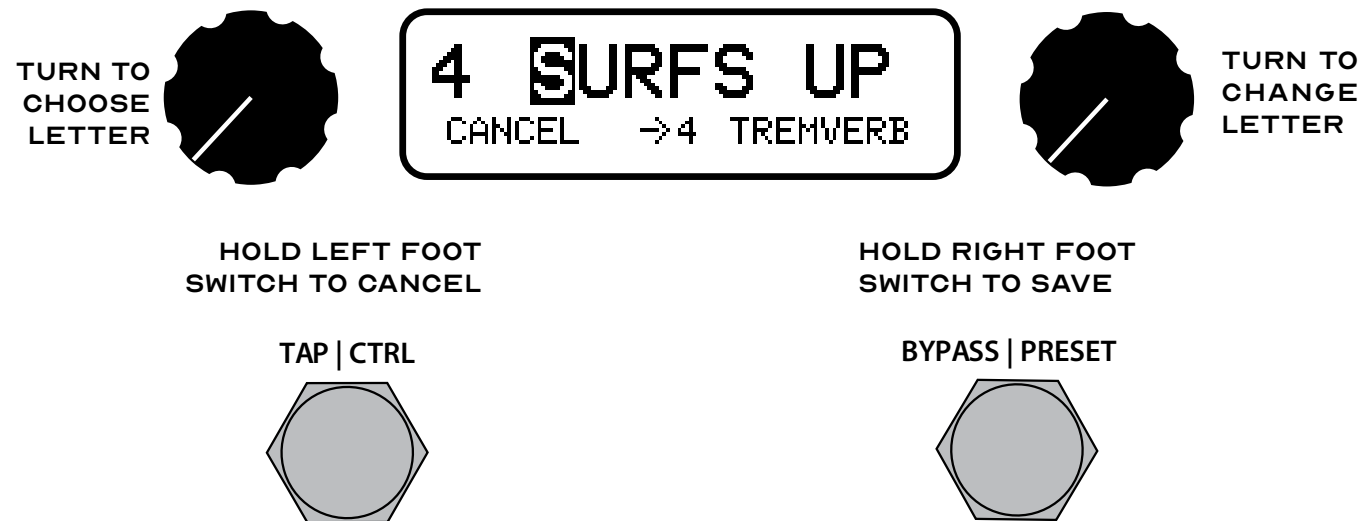
If eight presets per bank isn't enough, you can enable a double-bank of 16 presets by setting PRESET = 1-16 or 17-32.

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.



- M.JACK**    **EXPRESSN**    MultiJack is expression pedal input
- FOOT. SW**    MultiJack is foot switch input
- MIDI**    MultiJack is MIDI input (requires MIDI to TRS adapter)
- PRST.EX**    Preset selection using **ALEXPANDER** footswitch
- SCRL.EX**    Preset scroll using **ALEXPANDER** footswitch
- CHANNL**    Sets MIDI input channel
- STEREO**    **MONO IN**    INPUT jack is mono
- INP. SUM**    INPUT jack sums to mono
- STEREO**    INPUT jack is stereo
- RPHASE**    Sets phase of R output, allows correction for amp or effect phase.
- PRESET**    Sets number of presets available on device. Does not affect MIDI.
- DISPLY**    **PRESET**    Display shows preset except when turning knobs
- KNOB**    Display shows knobs except when loading preset
- BLANK**    Display is off when not adjusting knobs
- KNOB**    **JUMP**    Knobs will jump to new value immediately
- PICKUP**    Knobs don't move until turned to previous value first
- RETURN**    Pedal will return to the main control page after 5, 10, 30 seconds
- MIDOUT**    **OFF**    Pedal does not send MIDI CC values
- JACK**    Pedal sends MIDI CC from MultiJack
- USB**    Pedal sends MIDI CC from USB MIDI
- BOTH**    Pedal sends MIDI CC from both
- TRAILS**    **OFF** - hard bypass, **ON** - trails bypass, **AUTO** - trails fade out
- EXP LO / HI**    Sets heel and toe calibration for expression pedal
- TEMPO**    **PRESET**    Presets load with saved tempo
- GLOBAL**    Presets load with the current tap tempo
- PWR ON**    Choose **BYPASS** or **ENGAGE** to set the power-on state of pedal
- TIME.D**    **BAR**    Time displays as bar graph
- BPM**    Time displays in beats per minute
- MS**    Time displays in milliseconds
- RESET**    Turn to reset **CONFIG**, **PRESETS**, or **ALL**. Hold PAGE knob to reset. Select **MIDIDUMP** to export 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

All Leap Series pedals support 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 and a timeout bar 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 before the timeout bar resets, the tempo will remain at the previously set value.



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.

Your Leap Series pedal supports two different tempo modes, set by the TEMPO item in the Setup menu.

- PRESET:** Each preset loads with its saved tempo and division
- GLOBAL:** All presets load with the same master tempo but will subdivide based on DIV settings in preset.

Presets saved with DIV = NCLK will *always* load with their saved tempo, even if the pedal is set to GLOBAL tap tempo. This is useful for dialing in slap echo when in GLOBAL tempo mode.

You can also select from several tempo display options by adjusting the TIME.D item in the Setup menu.

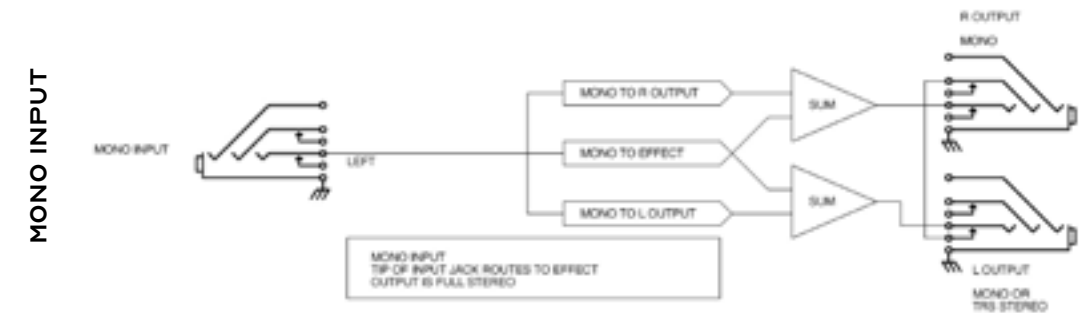
- BAR:** Time displays as bar graph
- BPM:** Time displays in beats per minute
- MS:** Time displays in milliseconds

# STEREO ROUTING

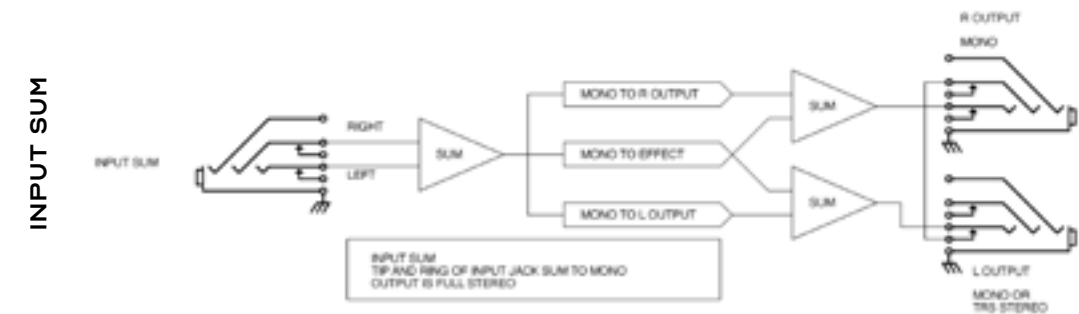
Every Leap Series pedal is designed to work in a stereo context, but also shines in mono. We'll cover how all the various stereo modes work so you can pick the one that works best with your rig.

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.

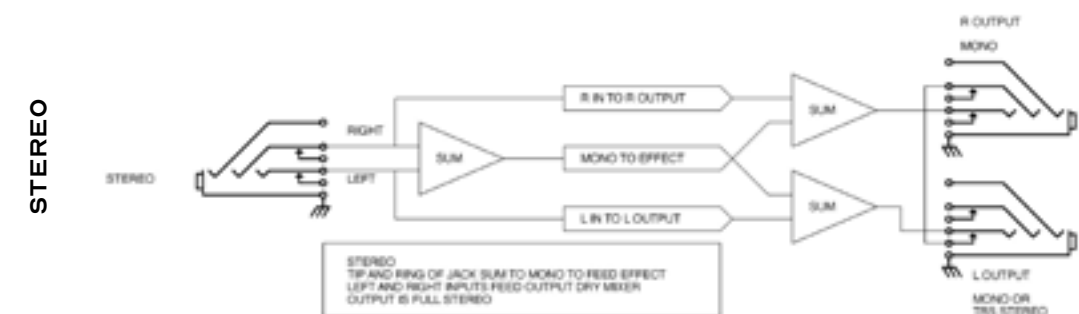
We also allow you to change the phase of the R output to correct issues with the phase of your amplifiers or other effects. Try setting R.PHASE to both options, the one with more low end is usually correct.



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.

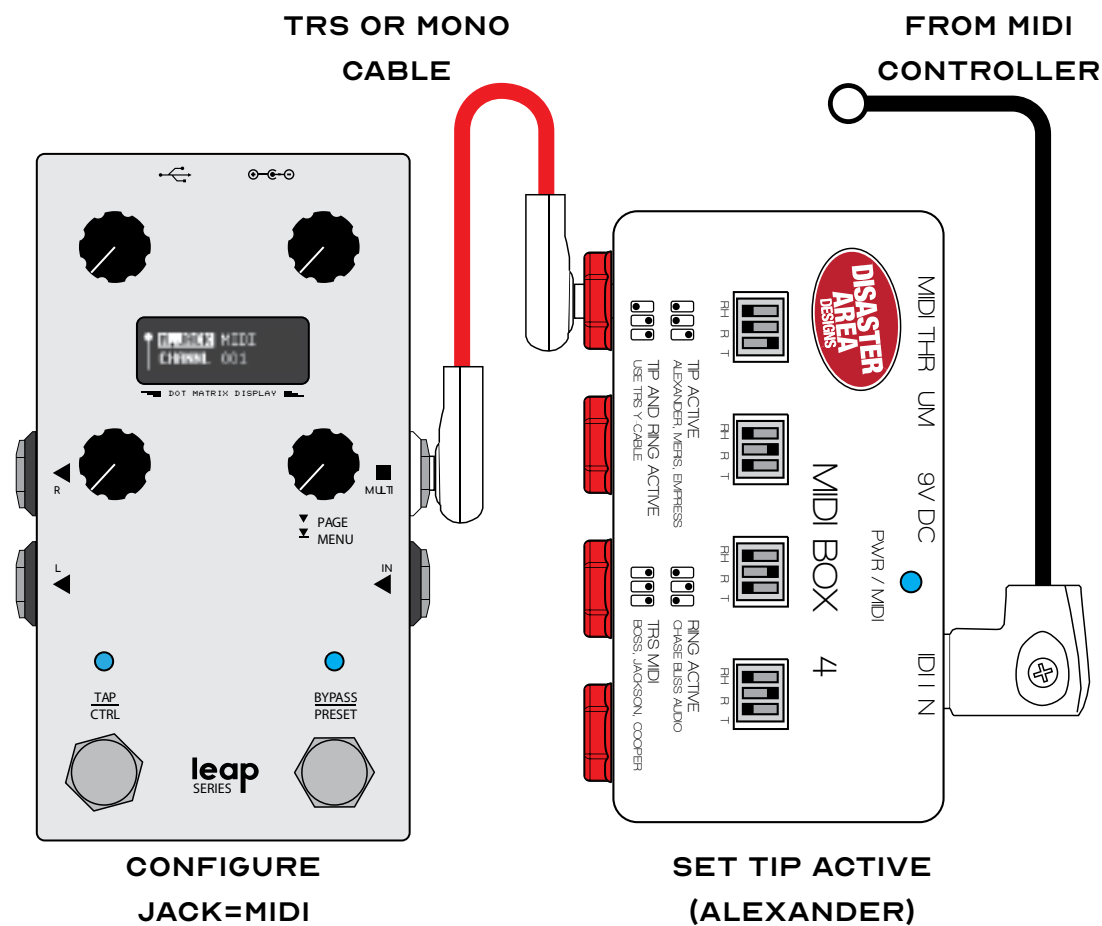
# MIDI SETUP

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 \(page 4-5\)](#) section 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
<b>SOUND MODE</b>	53	0-12 TAPE
		13-25 ANALOG
		26-37 DIGITAL
		38-50 PITCH
		51-63 DUAL
		64-75 DIFFUSE
		76-88 REVERSE
		89-101 DYNAMIC
		102-113 FILTER
		114-127 LO-FI
<b>TAP TEMPO</b>	93	ANY
<b>RAMP TRIGGER</b>	97	ANY
<b>EXPRESSION PDL</b>	100	0 HEEL, 127 TOE
<b>BYPASS</b>	102	0 BYP, 127 ON
<b>MIDI BEAT CLOCK</b>		CONTROLS
		DELAY TIME
		DETAILS ON <a href="#">PG 10</a>



# 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

Manual version 1.01, firmware version 1.01

v1.01 3/8/23

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

v1.00d 2/23/22

DYNAMIC mode now shows when envelope detector is bypassed

DYNAMIC mode now has DUCK option, decreases wet level when signal is present

Fix issue with tap divisions going away during ramps / expression

Fix issue with tap tempo changing expression settings for the worse

v1.00c

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

Increased reverse bit crush bypass level, should bypass at lowest knob settings

Fix DUAL mode bar for time2 not being drawn correctly

v1.00b

Added ms / bpm time display to delay 2 of DUAL mode

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

Now shows RAMP bar even if EXT CLOCK is present

Change low-cut values for TAPE mode, set AGE to minimum for max low end

v1.00a

Added time display options

removed time display from tap bar display config

**ALEXANDER**  
GREAT TONES. DOING GOOD.