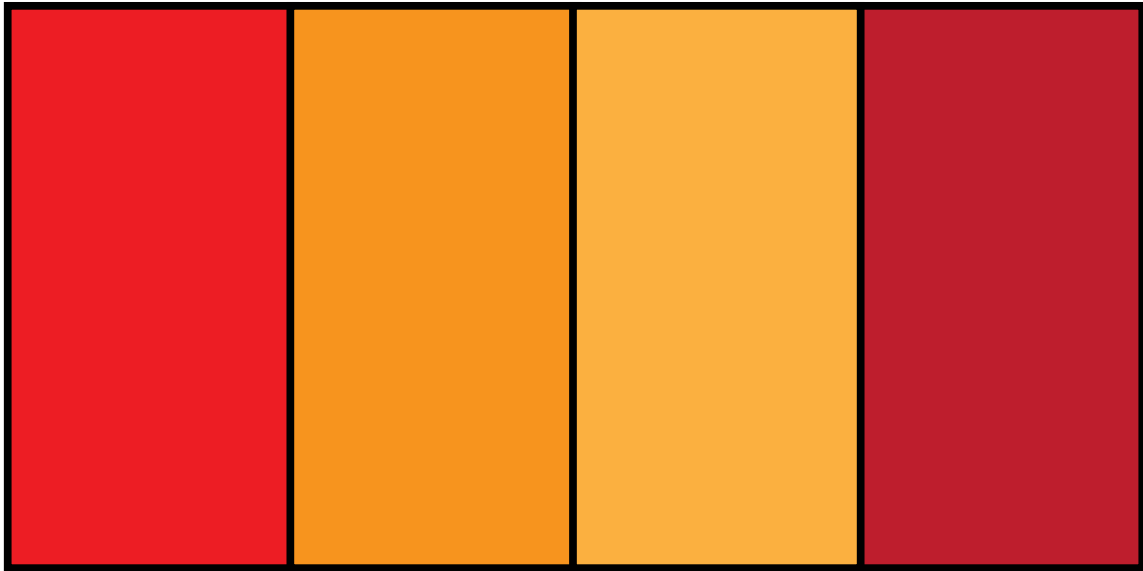


DYNAFLANGER



MODEL 213

USER MANUAL

CONTENTS

BASIC OPERATION	1
CONTROLS & DISPLAY	2
INS & OUTS.....	3
BYPASS & TRAILS.....	3
SOUND MODES.....	4
PRESETS	6
SETUP MENU	7
EXPRESSION PEDAL.....	8
RAMPING	9
REMOTE FOOT SWITCH.....	9
EXPANDER SWITCH.....	9
TAP TEMPO AND MIDI CLOCK	10
STEREO ROUTING	11
MIDI SETUP	12
MIDI COMMANDS	13
HINTS AND TIPS	14
SPECIFICATIONS	15
CHANGE LOG	15

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.

alexanderpedals.com

BASIC OPERATION

Ever since intrepid 60s-era studio pioneers began manually applying pressure to their tape reels, the jet plane sound of the flanger has been an iconic part of our tonal toolkit. This is uniquely true for us here at Alexander Pedals, as our roots are firmly planted in flanging concepts. Our F.13 and F.13N pedal are benchmarks for flanging excellence.

So when it came time to design our ultimate flanger pedal, we pulled out all the stops to combine all the best tones we love from our original F.13 into the Dynaflanger 213 — weirdness and all. Explore at your own risk (or delight!)

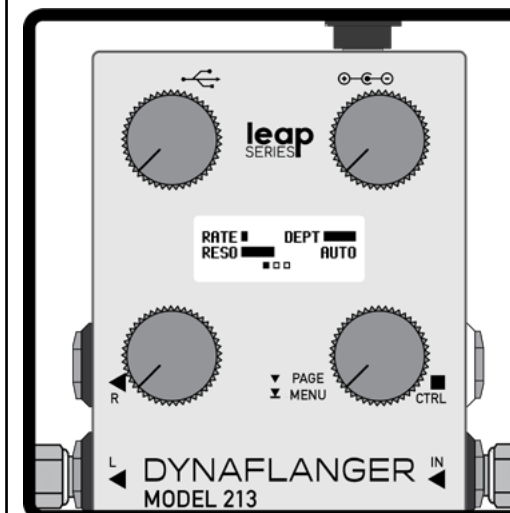
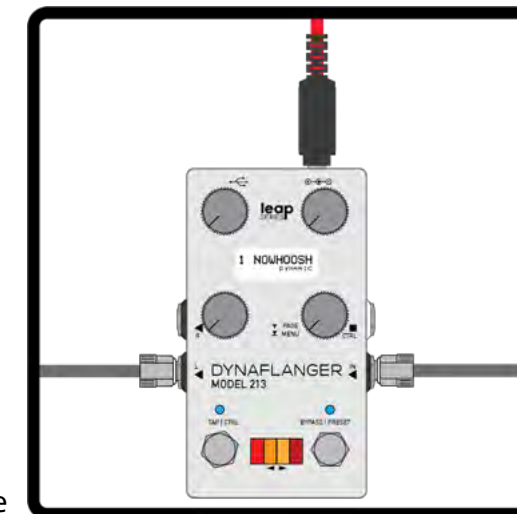
Using the pedal is pretty simple:

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, isolated power is required.

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.

MANUAL VERSION 1.00
OCTOBER 2023

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.

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

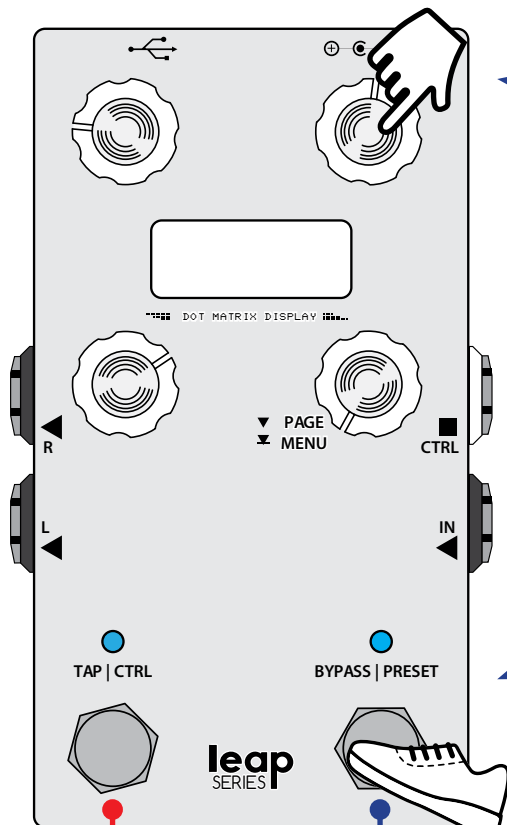
Hold the Bypass / Preset foot switch to load a the next preset and show this display. The current preset name, number, and sound mode are shown.



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

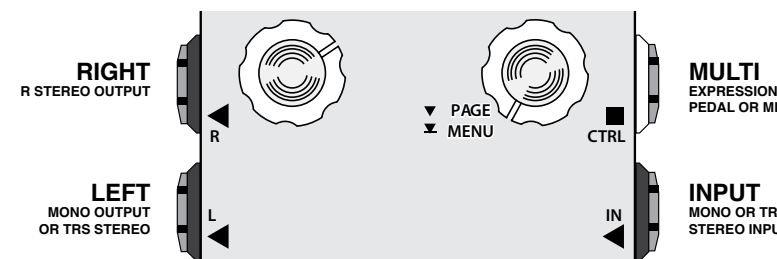
HOLD BOTH FOOTSWITCHES FOR PREVIOUS PRESET

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. Use only isolated power supplies.
- 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

Dynaflanger has ten selectable sound modes, each based on a different phaser 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.

Knobs marked * do not respond to expression or ramp controls. **HINT:** flanger is most intense with mix set to **5a0%**, higher mix settings will yield vibrato tones.

NOTE: selecting a sound mode with the knob doesn't change any of the other knob parameters, so you may need to tweak the controls after changing sound modes.

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

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

LEVL - overall volume for the pedal (wet + dry)

PHAS* - Controls flange phasing, four combinations of positive and negative phase are available

RAMP* - Ramp rate and trigger mode, please see EXPRESSION AND RAMPING below.

AUTO

Deluxe automatic flanger with all of the bells and whistles. Features a wide-ranging sweep, manual control of delay time for chorus and doubling effects, and a second delay line for through-zero flanging (TZF.)

RATE - sweep speed from 10-0.1s
DEPT - sweep intensity
RESO - flange feedback

MANU - flanger delay time
MIX - mix of wet and dry signals
WAVE* - LFO wave shape
ZERO - dry signal delay for TZF

DYNA

Volume envelope controlled flanger reacts to your playing dynamics. Envelope detector features a selectable filter to accentuate highs, lows, or full-range input. Independent soft and loud sweep controls allow for fast tweaking.

SOFT - flange delay at low volume
LOUD - flange delay at high volume
SENS - signal level into envelope

FALL - envelope release filter
MIX - mix of wet and dry signals
RESO - flange feedback
FILT* - low, high, or full range

DUAL AUTO

What could be better than one flanger? Two flangers, of course! Dual independent units with their own sweep generators may be locked together or set opposite from each other using RAT2. Use MONO into one amp or STER into two.

RAT1 - flanger 1 sweep rate
DEP1 - flanger 1 sweep range
RES1 - flanger 1 feedback

RAT2 - flanger 2 sweep rate
DEP2 - flanger 1 sweep range
RES2 - flanger 2 feedback
ROUT* - MONO or STEReo

DUAL DYNA

Inspired by a certain "pillowy sound," this mode connects twin flangers to the dynamic envelope sensor. One flanger sweeps up while the other sweeps down, with controls for the range of each. Use MONO into one amp or STER into two.

UP - rising flanger range
DOWN - falling flanger range
SENS - signal level into envelope

FALL - envelope release filter
MIX - mix of wet and dry signals
RESO - flange feedback
ROUT* - MONO or STEReo

SPIRAL

FOUR synchronized flangers that each spiral up or down forever, creating an auditory illusion like a never-ending staircase. Try a very slow sweep with the RESO turned way up for maximum anxiety.

RATE - sweep speed
DEPT - sweep intensity
RESO - flange feedback

DLAY - flanger delay time
MIX - mix of wet and dry signals
DIR - sweep direction
ZERO - dry signal delay for TZF

STEP

Rhythmic step-sequenced flanger with eight selectable patterns. Sounds like of like a transforming robot toy TV show. Use MIDI commands to edit Pattern 8 and save in your presets.

RATE - pattern step speed
DEPT - pattern sweep range
RESO - flange feedback

STEP - number of pattern steps
MIX - mix of wet and dry signals
PATT* - pattern selection
DIR* - DOWN, UP, or UP&DOWN

ECHO FLANGER

You might also call this one a poly chorus. Up to 800ms of echo wrapped into a versatile flanger, resulting in a very radio friendly unit shifter. Flange may be placed either before or after the echo for genius tom-tom sounds.

TIME - echo time from 0-800ms
REPT - echo repeats
MIX - mix of echo and dry signals

RATE - flanger sweep rate
DEPT - flanger sweep range
RESO - flanger feedback
ROUT* - flanger PRE or POST echo

FLERB

Large hall reverb feeding into our automatic flanger. This one is great for lush dream-pop or shoegaze tones, like you might hear in a four-calendar café.

SIZE - reverb size and decay
TONE - reverb tone and diffusion
MIX - mix of reverb and dry signals

RATE - flanger sweep rate
DEPT - flanger sweep intensity
RESO - flanger feedback
FMIX - flanger mix

FILTER SAMPLE HOLD

Flanger feeding a randomized filter for classic 1970s "sample and hold" effects. We put this mode in the pedal for a very specific type of user, and you folks know who you are. Ship ahoy!

RATE - flanger sweep rate
DEPT - flanger sweep range
RESO - flanger feedback

SPD - sample & hold speed
FREQ - maximum filter frequency
PEAK - filter emphasis
MIX - mix of wet and dry signals

TURBO

You may notice that extreme settings of this pedal result in "choppy" audio, which sounded so cool we built a whole mode around it! This one runs a flanger through a variable-wave amplifier, for fade, chop, and tremolo effects. And if you don't like the choppy audio in the other modes, turn the RESO knob down a little.

RATE - flanger sweep rate
DEPT - flanger sweep range
RESO - flanger feedback

TREM - tremolo rate
DEPT - tremolo amount
WAVE* - LFO wave shape
MIX - flanger mix

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.

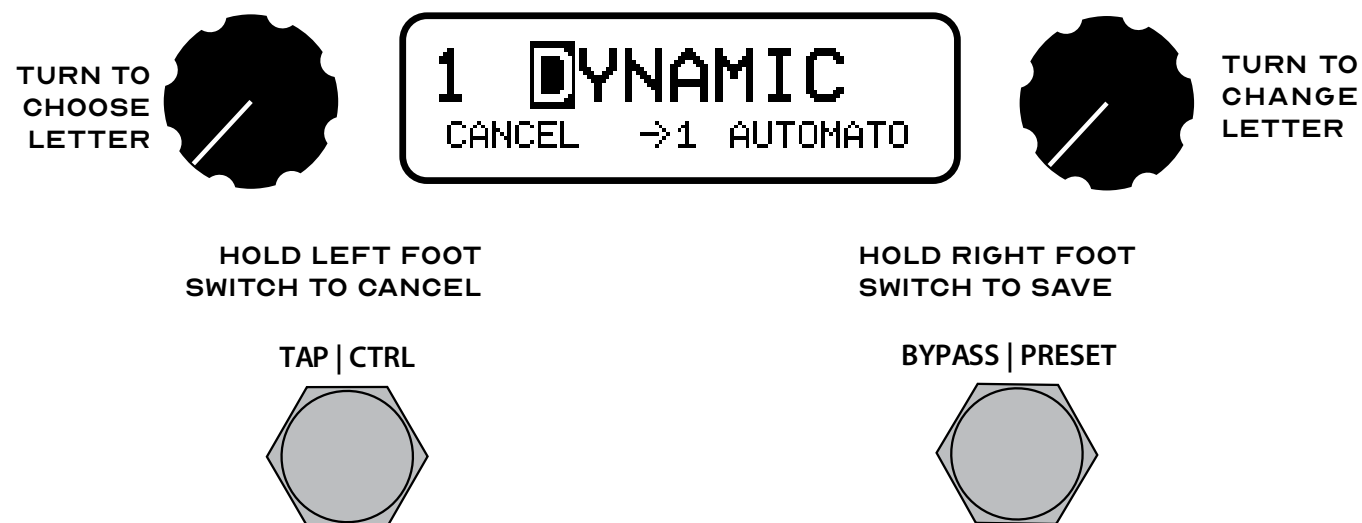
If eight presets per bank isn't enough, you can enable a double-bank of 16 presets by setting PRESET = 1-16 or 17-32.

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** MultiJack is expression pedal input
- 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 **AEXPANDER** footswitch
- SCRL.EX** Preset scroll using **AEXPANDER** footswitch
- CHANNL** Sets MIDI input channel
- STEREO** INPUT jack is mono
- MONO IN** INPUT jack sums to 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
- PWR ON** Choose **BYPASS** or **ENGAGE** to set the power-on state of pedal
- 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.

The RAMP knob sets how fast the built-in expression ramp function will run, with clockwise settings ramping more slowly. The range of this knob is divided into three sections that also select the ramp trigger type.

(T)OGGLE: Ramp will trigger when the Tap / Ctrl switch is held, then remain at the "toe" position until Tap / Ramp is held again.

(M)OMENTARY: Ramp will trigger while the Tap / Ctrl switch is held, then return when the switch is released

CLR*: Ramp / EXP reset. Hold the Tap / Ctrl switch to set the "toe" values of each knob to match the "heel" values.

Ramping and expression use the same "heel" and "toe" values. You can set these values in ramp mode by firing the ramp in T mode, then turning the knobs while the ramp is at full / "toe" position. Fire the ramp again to return to minimum / "heel" position to set the other values.

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.

- HALF:** time multiples to half-note (1/2 tap speed)
- QTR:** time is not subdivided, quarter-note (1x tap speed)
- 8TH:** time subdivides to eighth-note (2x tap speed)
- 16TH:** time subdivides to sixteenth-note (4x tap speed)
- NCLK:** time is not subdivided, quarter note, MIDI CLOCK is ignored

ECHO FLANGER mode controls the delay with tap tempo, instead of the LFO rate and uses the following subdivisions:

- 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 canceled 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.

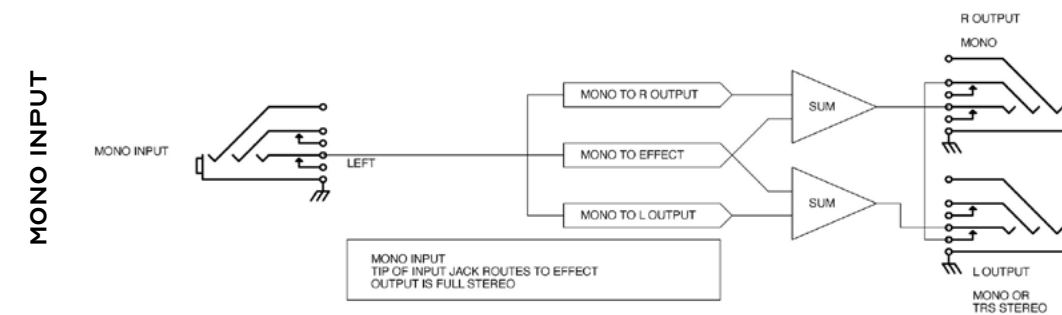
The DIV setting is saved for each preset, so you can use any division on any preset based on your musical needs.

STEREO ROUTING

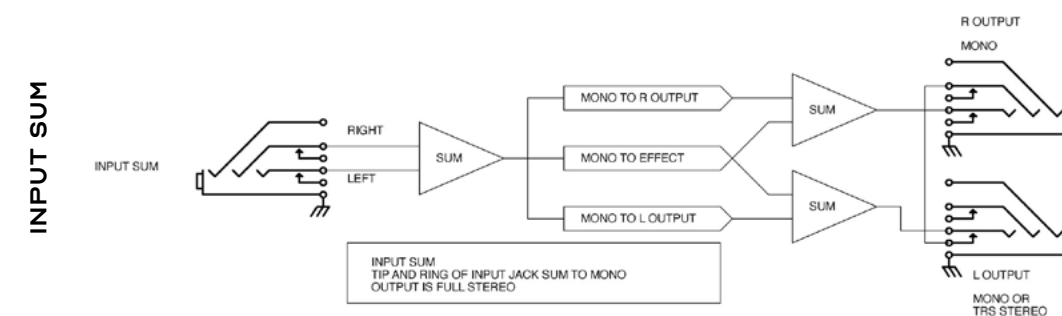
Every Leap Series pedal is designed to work in a stereo context, but also shines in mono. We'll cover how all the various stereo modes work so you can pick the one that works best with your rig.

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.

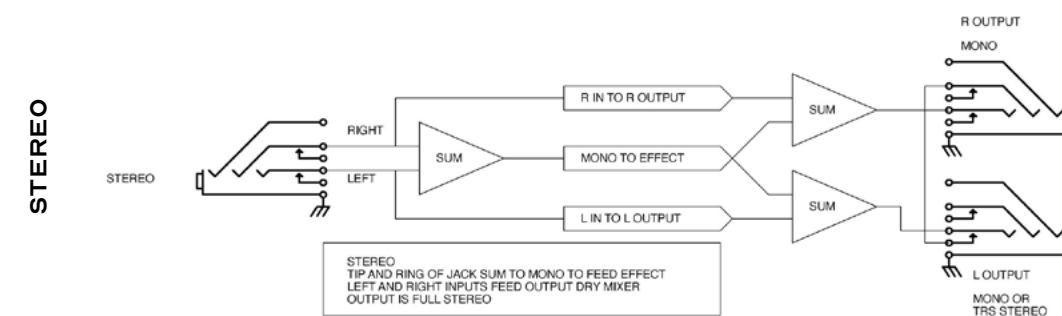
We also allow you to change the phase of the R output to correct issues with the phase of your amplifiers or other effects. Try setting R.PHASE to both options, the one with more low end is usually correct.



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.

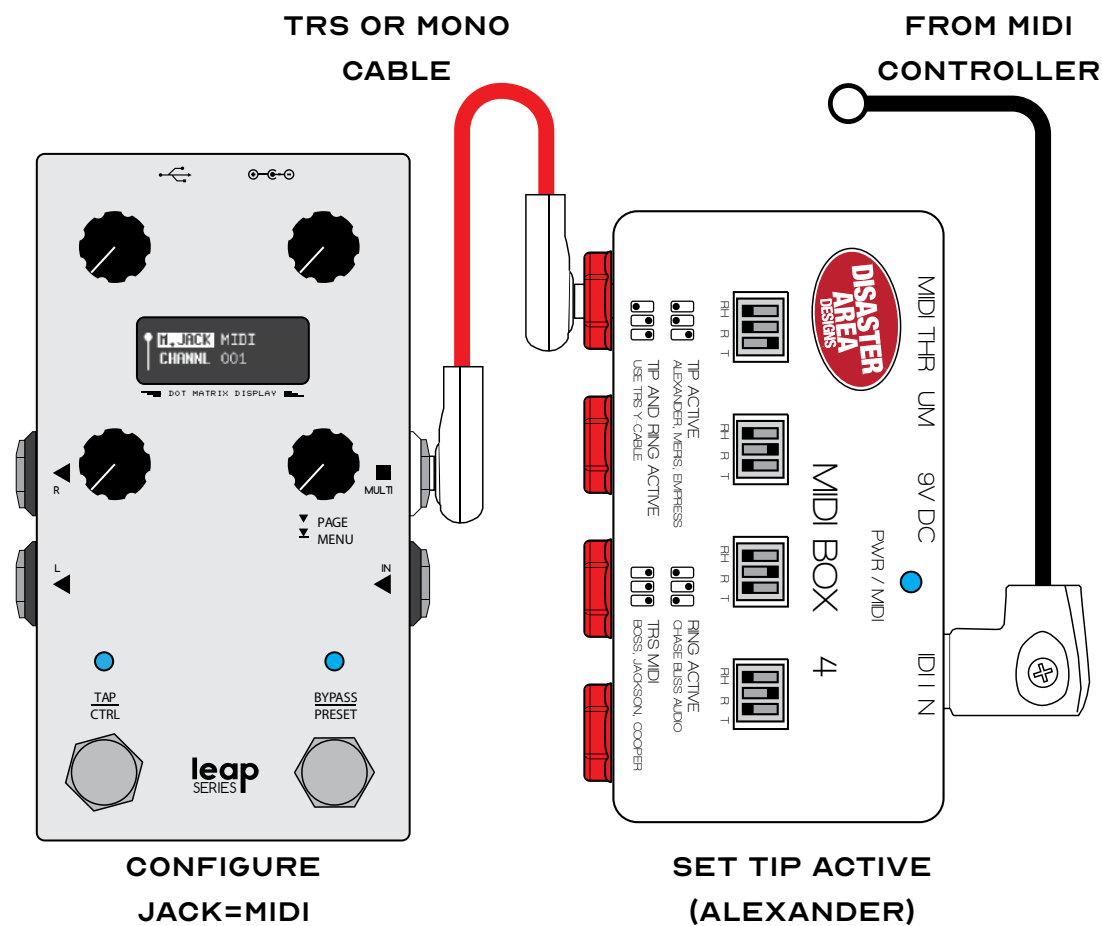
MIDI SETUP

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 \(page 4-5\)](#) 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
Flange Phasing	59	0-127
Level	60	0-127
Ramp	61	0-50 TOGG 51-110 MOM 111-127 CLR*
PATTERN 8 STEP 1	110	0-127
PATTERN 8 STEP 2	111	0-127
PATTERN 8 STEP 3	112	0-127
PATTERN 8 STEP 4	113	0-127
PATTERN 8 STEP 5	114	0-127
PATTERN 8 STEP 6	115	0-127
PATTERN 8 STEP 7	116	0-127
PATTERN 8 STEP 8	117	0-127

Command	MIDI CC	Range
SOUND MODE	53	0-12 AUTO 13-25 DYNA 26-37 DUAL AUTO 38-50 DUAL DYNA 51-63 SPIRAL 64-75 STEP 76-88 ECHO 89-101 FLERB 102-113 FILTER 114-127 TURBO
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 DELAY TIME or LFO DETAILS ON PG 10
LOAD PRESET 1-32		USE MIDI PROGRAM CHANGE (PC) 0-31

HINTS AND TIPS

Hey, this is Matthew! Flanging is a weird and wonderful form of modulation, and near and dear to my heart. My first pedal was a flanger, and it set me down the long and winding road that leads to this pedal you're holding in your hands.

I'd love to share some fun tips and pointers for getting the most out of the Dynaflanger 213, since it's a bit more complex than your average three- or four-knob pedal.

First up - what is this "through zero flanging" or "TZF" we mention in the mode descriptions? And what does the "ZERO" knob do? Simply put, a tape flanger has the ability to put the flange delay either *ahead* or *behind* the normal signal. When the flange signal gets to exactly the same point as the normal signal AND the flange is out of phase, you get this massive cancellation of the sound. Zero audio.

A typical guitar pedal flanger can't do this, since there's no way to make the wet flange delay be ahead / leading of the normal signal, it can only be behind / lagging. But we're not normal, so we put a very tiny delay on the normal signal so that we can hit that zero point! That delay is adjusted with the ZERO knob.

Here's how to get down to zero - use the AUTO mode, set RATE, DEPTH, and RESO to zero. Then go to the next page and set MIX and ZERO to their midpoints, you'll know when the display shows <>. Then go to the last page and set PHAS to NEG-, this ensures we'll get that zero. Go back to page 2 and slowly turn the MANU knob until you have zero output volume, and that's your ZERO POINT. Back to page 1, increase RATE and DEPTH to flange around and find out. BTW increasing RESO has the side effect of lessening the zero point, so keep it low if you want to get that cancellation.

Next - what are the modes on the PHAS control and what do they do? PHAS adjusts the phase relationships of the normal, delay, and feedback / resonance signals. Each of these signals is a core part of the flange sound and thus their relationships affect the overall tone and feel of the effect.

POS+ Delay and feedback are in phase with the input signal. Traditional "jet plane" sound.

CHOR Delay is in phase, feedback is out of phase. This is nice for thin / swirly sounds.

SWEP Delay is out of phase, feedback is in phase. Thicker sounding but still clear.

NEG- Delay and feedback are out of phase with the input signal. Hollow "tunnel" sound.

Finally, people keep telling me that chorus and flanger are the same thing? But why are there two different kinds of pedals? They're not the same thing in that a hot dog is not a sandwich, but they are both related. Most chorus pedals can't flange, but many flange pedals can do a sort of chorus. Here's how you get down and swirly:

Start with the AUTO mode, set RATE and DEPTH low, and RESO to zero. Then set MIX and ZERO to midpoint, and WAVE to SIN. Start with MANU halfway up and tweak to taste. PHASE set to CHOR or POS+ will sound the most like a traditional chorus pedal. You can also try the same approach using the DUAL AUTO mode, but its shorter delay time will always sound a bit more metallic than a classic chorus.

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 1.00, firmware version 1.00

Initial Release

ALEXANDER
GREAT TONES. DOING GOOD.