OLD BLOOD EXPRESSION RAMPER instruction manual





OLD BLOOD EXPRESSTON RAMPER

instruction manual page 01



What is a Ramper?

A ramper is a device that creates motion on your expression-enabled devices. You choose point A, point B, and the way it moves between. It's utilitarian, but opens up a number of sounds from your existing pedals.

So how do you control it?

The toggle on the right determines which setting the knob affects.

A sets the A position (the start point of your expression motion), from all the way down (heel position) to all the way up (toe position). When a Ramper is at A, its top LED will be fully illuminated.

 ${\sf B}$ sets the B position (the end point of your expression motion), from all the way down (heel position) to all the way up (toe position). When a Ramper is at B, its bottom LED will be fully illuminated.

RATE sets the speed of motion for the Ramper, from very slow (approximately .0013Hz) to very fast. At the fastest setting, the motion is slewed - it will not become a ring modulator.

The TAP switch can be used to tap in the desired LFO speed, overriding the knob setting for Rate. It begins syncing at two taps, but multiple taps in a row at similar BPMs will average out to increase accuracy. Note: the slowest possible tap tempo is 30 BPM, and taps outside of this range will be disregarded.

The toggle on the left sets the shape of the LFO (the thing that determines the expression motion). There are three standard shapes, and three random variations of those shapes. To access the alternative shapes, simply hold down the tap button while switching the shape toggle.

From top to bottom, the shapes are:



(triangle), for a linear motion between A and B, starting and ending at A and hitting B at halfway on the LFO cycle



(square), to snap between A and B, spending half of the LFO cycle in each position

1 Sum, to move linearly either from A to B or B to A (depending on the starting point) and then stop

The alternate shapes are:

Smooth Random, which repeatedly moves to a random spot between A & B in a linear fashion

Sharp Random, which immediately moves to a new random spot between A & B at the start of each cycle

1 Shot Random, where each press of the footswitch snaps to a new random spot between A & B

EXPRESSION RAMPER

instruction manual page 02



The **Footswitch** sets things in motion. A stomp of the footswitch will initiate motion according to the shape and LFO speed you've set, and another stomp will stop that motion. By holding the footswitch, you can momentarily stop or start the movement, and then revert to where you were before when the footswitch is let go. Most of the time, when not in motion, a Ramper will be in the A position, unless using one of the 1 Shot modes or currently setting the B position. To know where your Ramper is, use your ears as an auditory guide and the two LEDs as a visual guide.

The **TRS output jack** can be configured for TRS active at Tip, TRS active at Ring, or TS connection using the internal jumpers. By default, it is configured for TRS active at Tip to be compatible with the OBNE expression standard. If the pedal you're using Ramper with requires a different configuration, use the jumpers to make it compatible according to the diagram below.

TRS at tip	TRS at ring	TS

The output uses a 50K digital potentiometer by default, which we have found to be the most widely compatible value. However, this potentiometer is socketed and can be replaced with 10K and 100K values if needed (part code MCP41010-I/P and part code MCP41100-I/P respectively).

Expression Ramper requires 50mA 9V DC power via the 2.1mm center negative jack.

A note on expression and CV: while often used interchangeably, these are different standards. With expression, the pedal with the expression input provides voltage for the expression pedal to use. With CV, the CV generator creates voltage and sends it to the expression input of the pedal. Expression Ramper is not a CV generator, so for proper function, be sure the pedal you're connecting it to is expecting expression and not CV.

A note on expression voltage: Expression Ramper prefers expression setups that are 5V or below. Above that, behavior can be unexpected. While a majority of expression setups are within this range, we have found some that are outside of it. Feel free to reach out if you are unsure what voltage your pedal uses on its expression jack.

A note on other weirdness: there are many expression standards out there. By manipulating a digital potentiometer, Expression Ramper acts very similarly to the analog potentiometers found in standard expression pedals. However, it can sometimes be confused by voltages as noted above, and does not do well when manipulating AC signals. We have found it to be compatible with many manufacturers that use expression standards similar to ours, but sometimes it's simply not the right tool for the job. Below is a very incomplete list of companies whose pedals are known to be compatible:

Asheville Music Tools, Boss, Catalinbread (TRS active @ Ring), Chase Bliss, Electro Harmonix, Earthquaker Devices, Eventide, Fender, Hologram, JHS, Keeley, Line6 (TS configuration, 10K digipot), Meris, Montreal Assembly, Red Panda, Strymon

If your Ramper is acting up: feel free to reach out with questions, but first, we always ask that you: Check your TRS cable Try your Ramper with another device Try your device with another expression pedal

Happy Ramping!