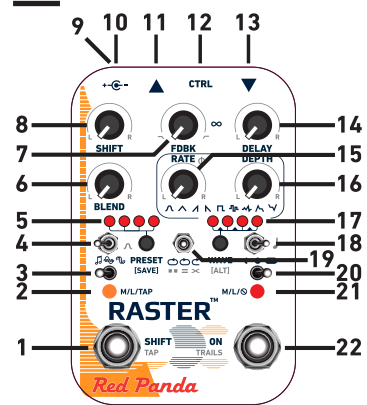


RASTER



The Raster™ is a digital delay with a pitch and phase/frequency shifter integrated into the feedback loop. Forward or reverse delays can be shifted once or have continuously shifted repeats. With flexible modulation and extensive stereo controls, it delivers a wide range of sounds including modulated and harmonized delays, reverse delays, chorus, arpeggios, infinite descents, chaotic self-oscillation, and continuously evolving soundscapes.

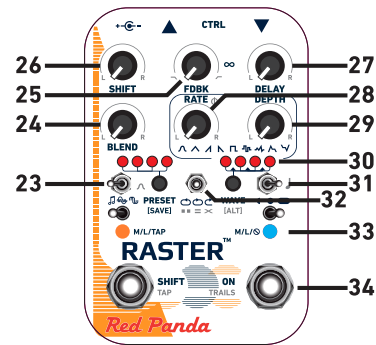
CONTROLS

- Shift on/off or tap tempo footswitch. Hold to disable tap tempo.
- Shift on indicator.
- SHIFT** Momentary/Latching/Tap.
- Shift mode:
 - transpose +/- 12 semitones
 - detune
 - phase/frequency shift
- Preset selection. Hold to save.
- Dry/wet blend.
- Feedback amount. Self oscillates at approximately 3:00 and above.
- Shift amount (off at 12:00).
- USB mini B.
- Power: 9V DC 250 mA or higher.
- Output (TRS stereo).
- Control port (expression/MIDI/remote)
- Input (TRS). Default mono in/stereo out. Use editor to configure.
- Delay time.
- LFO frequency. Syncs to tap tempo or MIDI clock. Use editor to set divisions.

CONTROLS (CONT.)

- Modulation depth.
- Modulation waveform:
 - Sine
 - Triangle
 - Ramp up
 - Ramp down
 - Square
 - Random step
 - Random smooth
 - Envelope
 - Inverse envelope
- Delay range: 400 / 800 / 1600 ms. 3200 ms (1600 reverse) via editor/MIDI.
- Feedback mode:
 - Reverse / shift all repeats
 - Forward / shift all repeats
 - Forward / shift once
 - Reverse / shift once
- ON** Momentary/Latching/mute out. Mute out (Ø) mutes output in bypass with input active, always recording.
- Effect on indicator. Blinks yellow for tap tempo and MIDI clock.
- Effect on/bypass.

CONTROLS — ALT



Hold down **WAVE/[ALT]** button to edit secondary parameters. Right LED will turn cyan. Settings are saved to presets and remembered when power is off. Knobs at center to turn off.

- Modulation destination: effect level (left), shift (middle), delay (right).
- Blend left/right balance.
- Tone. Turning clockwise, adjusts delay from dark to full frequency, then emphasizes attack at maximum setting.

CONTROLS — ALT (CONT.)

- Shift left/right balance. Transpose has fixed settings including unison, octaves, chords, and inversions. Detune and frequency shift reduce and then invert one channel as the knob is moved from noon. Use editor or MIDI to enable independent shift settings per channel.
- Left/right channel delay ratio.
- LFO left/right channel phase difference.
- Modulation depth left/right balance.
- Hold **[ALT]** button to edit secondary parameters.
- Delay tap note divisions: 8th (left), dotted 8th (middle), quarter note (right). More divisions available via editor.
- Delay structure:
 - series (left --> right)
 - parallel (left /right)
 - ping pong (left <--> right)
- Cyan if editing secondary parameters.
- Trails on/off.



GETTING STARTED

Start with **RATE** and **DEPTH** at minimum, **SHIFT** off, and all toggle switches at middle. The **BLEND**, **FDBK**, and **DELAY** knobs are a three knob digital delay.

The middle toggle switches between forward and reverse delay, and the right top toggle will smoothly jump between 400/800/1600 ms delay times.

Press the **SHIFT** footswitch and adjust the **SHIFT** knob and left top toggle switch.

PRESETS

Press the **PRESET** button to cycle through presets 1-4 and the live knob settings.

To save a preset, select the desired preset and hold the **PRESET** button for two seconds to store the current settings in that location. The right LED will blink green.

127 presets are available via MIDI program change messages. To save a preset, hold down the **PRESET** button while sending a MIDI program change.

POWER

Use an isolated, well-regulated 9V DC power supply that can deliver 250 mA or more. See our knowledge base for information about specific power supplies.

If the pedal detects a problem with the power supply, the bypass LED will turn magenta and switch to bypass.

CTRL PORT

The CTRL (control) port supports:

- expression pedal
- control voltage (0-3.3V)
- Red Panda Remote 4 (or DIY switches)
- Tap tempo (normally open)
- 1/4" MIDI (via 3rd-party adapters)

USB PORT

The Mini USB port supports:

- firmware updates
- MIDI

RESOURCES

Getting started videos:
www.redpandalab.com/rtfm

Owner's manual:
www.redpandalab.com/downloads

Firmware updates:
www.redpandalab.com/downloads

Web-based editor (requires Chrome):
www.redpandalab.com/web-editor

LIMITED WARRANTY

For one (1) year following the date of purchase, Red Panda, LLC will repair or replace, in its sole discretion, the Product, in order to correct defects in material or workmanship that existed when the Product was purchased (collectively, "Manufacturing Defects". For purposes of this Limited Warranty, "Manufacturing Defects" includes only defects in the Product at the time of purchase and does not include normal wear and tear, modification post-sale, misuse, accidental damage or destruction, or other abuse occurring after purchase.

See Owner's Manual for complete warranty terms.

SPECS

Input impedance: 1 MΩ
Output impedance: < 470 Ω
Max. input: +8 dBu
Power: 9V DC, center negative
Current: 250 mA

EXPRESSION PEDAL

Use a pedal with a 10-25 kΩ linear pot.

- Hold right footswitch while plugging in exp.
- Move to heel position, adjust knobs.
- Move to toe position, adjust knobs.
- Hold right footswitch for 2 seconds to save.

Default assignment is **DELAY** knob, from minimum to knob position.

REMOTE 4

- Hold right footswitch while plugging in.
- Press footswitch for desired mode.
- Hold right footswitch for 2 seconds to save.

QUICKSTART

RASTER 2

