

JAVELIN

EXPRESSIVE ENVELOPE AND AMPLITUDE CONTROLLER

EXPO (LED): Indicates 3 levels of exponential. Off produces a linear envelope. Dim produces a slightly exponential envelope. Lit produces a very exponential envelope. Hold LOOP to cycle through these settings.

LOOP: Quickly pressing this button will toggle looping on the envelope. The sustain stage remains active in loop mode.

LEVEL: Quickly pressing this button cycles through three attenuation levels of the envelope output. The envelope will have the most attenuation when the LED is the dimmest. Holding this button will slowly cycle through three levels of accent. This value determines the max level an accented envelope can reach.

RESET: Reset forces the envelope back to 0V. The envelope will restart its attack stage if GATE is high when this event occurs, otherwise it will rest at 0V.

AMP CV, IN, OUT: These three jacks are for the integrated VCA. IN and OUT are the signal path. The envelope is normalised to AMP CV. The LED in crosshairs at the top of this column shows the AMP CV level.

GATE: Gate input for the envelope.



ACCENT (CV): Putting a positive signal into this jack creates an accent by allowing the envelope to attack to a higher voltage. A higher voltage at this CV will correspond to a more dramatic effect. Use a sequencer to jump between different accent amounts for even more dynamics. Holding MODE and pressing LEVEL will toggle "accent stacking." This feature slews the accent response while it's enabled. The ACC LEVEL LED will blink 3 times when this feature is enabled. Once when disabled.

STATUS LEDs (ENV, ACC): ENV LED shows the pre-level voltage of the envelope. ACC LED shows the current accent level.

MODE: Pressing this button toggles between two states. When the LED is lit the envelope will always complete every stage regardless of gate length. If the LED is not lit, the envelope will only continue through its stages as long as the GATE input is high. If it becomes low, the envelope will jump to the release stage.

RANGE: Pressing this button cycles through three envelope time ranges. A dim LED indicates the fastest envelope ranges.

ATTACK: Potentiometer and associated jack control the attack time of the envelope.

DECAY: Potentiometer controls the decay time of the envelope. Holding MODE and pressing LOOP will enable CV control of decay time through the RELEASE jack.

SUSTAIN: Sets the sustain level of the envelope.

RELEASE: Potentiometer and associated jack control the release time of the envelope.

INTRODUCTION

Javelin is the envelope that WMD always needed to make, it just took years of figuring out how to properly weaponize the necessities. Taking technology developed for the Multimode Envelope, and perfecting the digital control was just the beginning. With that very powerful core, we took inspiration from percussion and bass line synthesizers and designed a stacking accent feature into the envelope itself, helping breathe life and drama into your patches. All ranges are intentional and immediately musical. The controls are intuitive and inspiring. Javelin's engineering is the collision of passion and perfection.

W. Matheson

SPECS

Size: 6hp
Depth: 38mm (with cables)
Power: +93mA, -65mA

VCA:
100k ohm input/CV impedance
1k ohm output impedance
Linear curve. 0V = off, 5V = unity
2.2Vpp range

Envelope:
Digitally controlled analog core
Gate/Reset: 100k ohm impedance.
2V Schmitt Trigger
15us Latency
Attack/Release CV: 68k ohm impedance
Accent CV: 100k ohm impedance. 0-5V

Envelope Levels: 3V, 5V, 7V
Accent Levels: +32%, +42%, +48%
Max Level + Max Accent: 6V, 9.8V, 11.7V (clipped)
1k ohm output impedance

Segment Ranges (Linear)
Fast: 350us to 1.15s
Medium: 700us to 5.5s
Slow: 1ms to 23s
Slow with 5V CV: 240ms to 88min

Memory:
Front panel settings save to EEPROM: 1 save / minute

WMD