

ADSR

The ADSR is an essential modulator for synthesis. In this case, it is a DAHDSR (Delay-Attack-Hold-Decay-Sustain-Release) envelope.

The main features of this ADSR are:

- 6-stage envelope (Delay-Attack-Hold-Decay-Sustain-Release)
- Configurable curve for Attack, Delay, and Release stages
- Multiple modes (Gate, Trig, Loop, and Gated Loop)
- The envelope can restart when retriggered before finishing (or continue)
- Like other modulators, the output gain can be modulated to function as a "Depth" parameter.

Keep in mind that every envelope parameter can be modulated, except those in the Settings tab, which define the envelope's behavior.

All values are displayed in %. Time values depend on the Range settings (Snap, Fast, Medium, Slow).

Main ADSR Screen



ADSR Tab

The ADSR tab consists of two pages, navigable by pressing the corresponding button (button 1).

Page 1 allows you to modify (and modulate) envelope times:

Attack	Decay	Sustain	Release
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Sets the time for the envelope to reach its peak level after the gate is activated (or a key is pressed in MIDI).	Sets the time for the envelope to drop to the Sustain level after Attack completes, while the gate remains high (or the key stays pressed in MIDI).	Defines the level at which the envelope remains as long as the gate is high (or the key is held in MIDI).	Sets the time for the envelope to return to its lowest level after the gate is released (or a key is released in MIDI). If the gate is released before Decay (or Attack) finishes, the envelope directly starts the Release stage from its current level, skipping Sustain (or both Decay and Sustain).
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Page 2 allows you to modify (and modulate) envelope curves:



Curve A	Curve B	-	Curve C
Sets the Attack stage curve, from Logarithmic to Linear to Exponential.	Sets the Decay stage curve, from Exponential to Linear to Logarithmic.	-	Sets the Decay stage curve, from Exponential to Linear to Logarithmic.

Delay/Hold Tab

This tab allows you to add segments to the ADSR envelope:

Predelay	Hold	-	-
Sets the delay time before the Attack stage starts ramping up after the gate is activated (or a key is pressed in MIDI).	Sets the time the envelope is held at its peak after Attack completes and before Decay starts.	-	-

Settings Tab

This tab contains settings that define the envelope behavior. These settings cannot be modulated.

Trigger	Mode	Range	Retrig
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<p>Defines the source that triggers the envelope:</p> <ul style="list-style-type: none"> • Disabled • Any of the 6 Gate inputs • Voice trigger (note on) • Clock signals 	<p>Defines how the envelope responds to gate signals:</p> <ul style="list-style-type: none"> • Gate: Standard operation mode. • Trigger: The Sustain stage is skipped, and the envelope goes into Release after Decay. • Loop: The envelope cycles like a free-running LFO. • Gated Loop: The loop resets to the beginning of the Attack phase each time the gate goes high. 	<p>Selects the time range for the envelope:</p> <ul style="list-style-type: none"> • Slow • Medium • Fast • Snap (optimized for percussive sounds) 	<p>Restarts the envelope from the beginning if retriggered before completion.</p>
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Output Tab

A final gain stage for the envelope, which can be modulated:

Gain	-	-	-
<p>Adjusts the amplitude of the envelope signal, typically used for Velocity modulation.</p> <p>-100% means no output.</p>	-	-	-

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