







Version 1.0.0

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Introduction



AC-1 Acoustic Clapper is a virtual hand clapper for Reason. Just drop it into your rack, and it will start clapping in time with the music. It contains over a hundred sampled hand claps with different strengths and variations. Each sample was recorded with multiple microphones to separate the "dry" clap sound from the sound of the room. You can easily change the number of simultaneous clappers, their spread in the stereo image and their relative timing.

The built-in Auto Rhythm section has four preset patterns with fill variations. You can of course also play the hand clapper directly using MIDI or via the gate CV input on the rear panel.

Getting Started

Getting started with AC-1 is extremely simple! All you have to do is drag it into your rack and press play on Reason's main transport control. AC-1's Auto Rhythm section is enabled by default, and will start playing a simple Pop-style pattern (with claps on the 2nd and 4th beats).

While the rhythm is playing, try moving the knobs in the Sound section and see what happens to the sound.



The Front Panel

The front panel is divided into three major sections, **Sound**, **Auto Rhythm**, and **Output**.

Sound



There are four controls in the Sound section: Clappers, Spread, Slop and Room Level settings.

Clappers	This knob sets how many virtual clappers there are, from 1 to 8. Each clapper has a minimum of 3 clap variations for each velocity layer (called round-robins), but at lower settings each clapper "borrows" variations from the other clappers. So if you set Clappers = 1 it uses $8^*3 = 24$ variations for each velocity layer.
Spread	Sets the spread of the Clappers across the stereo image. At 0% they are all located in the center of the stereo image, and at 100% they are distributed evenly from the far left to the far right. Note that at 0%, the sound from the room mics will still be in stereo, so it's not the same as using the Width knob in Reason's main mixer.
Slop	Sets how bad timing the Clappers have. Even at the max setting, at least one Clapper will always be on the beat. Use this to get a natural sloppiness for the type of music you are making. The Slop setting scales with the tempo, so you should not have to adjust it when using tempo automation.
Room	Sets the balance between the two microphones used when recording the handclaps: one close mono ribbon mic, and a stereo pair of condenser ambience microphones placed further away in the room.

Auto Rhythm



The Auto Rhythm section contains 4 different patterns to choose from, and a two bar fill in for each pattern.

Pattern	Selects which pattern to play: Pop, Rock, Disco or All 4.			
Fill In	Triggers a fill-in for the currently selected pattern. The fill-in will continue playing for the rest of the bar, or for as long as the Fill In button is pressed.			
Synchro Start	When this is active, the Auto Rhythm is active and plays along with Reason's main sequencer. If you use MIDI or CV to trigger AC-1, this should probably be switched off. But you can of course use Auto Rhythm and MIDI/CV trigging in parallel.			





Output This section controls the output level of AC-1.

Intensity	This knob primarily adjust how hard the Clappers are clapping. It scales the incoming trigger (from Auto Rhythm, MIDI or CV) note velocity with a factor 20-100% before triggering the 5 different velocity layers. It also sets the CV Gate output level from the Auto Rhythm section.
Volume	Sets the output level for AC-1.

AC-1 CLAP AC 1				CV INPUTS			OUTPUT	Robotic
acoustic clapper	GATE IN	CLAPPERS	SPREAD	SLOP	ROOM	GATE OUT	I B	DC 9V-12V IN
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The Back Panel

These are the available sockets on the AC-1 back panel.

Gate In	CV trig input.			
Clappers CV In	Adds the incoming CV value to the current Clappers knob setting.			
Spread CV In Adds the incoming CV value to the current Spread knob setting.				
Slop CV In	Adds the incoming CV value to the current Slop knob setting.			
Room CV In	Adds the incoming CV value to the current Room knob setting.			
Intensity CV In	Adds the incoming CV value to the current Intensity knob setting. Hook up an LFO signal here to get some velocity variation on the handclaps.			
Gate Out	CV trig output. Besides outputting the Auto Rhythm patterns, it also forwards any incoming trigs from MIDI or from CV Gate In.			
Audio Outputs	This is where the sound comes out!			



MIDI Implementation Chart

MIDI CC#	Parameter
7	Volume
8	Spread
12	Room
13	Clappers
16	Pattern
17	Fill In
18	Intensity
40	Slop
92	Synchro Start

Remote Implementation Chart

Scope Robotic Bean	com.roboticbean.AcoustiClap
<pre>//Control Surface Item</pre>	Key Remotable Item Scale Mode
//Map _output_	Note On
//Map _output_	Fill In Active
//Map _output_	Synchro Start Active
//Map _control_	Clappers
//Map _control_	Stereo Spread
//Map _control_	Slop
//Map _control_	Room Level
//Map _control_	Pattern
//Map _control_	Fill In
//Map _control_	Synchro Start
//Map _control_	Intensity
//Map _control_	Volume

It can also be downloaded as a text file from AC-1's home page at http://roboticbean.com/creative/products/ac-1/

