



CV-I/O User Guide

Version 1.0.0

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Introduction

Thank you for your interest in the CV-I and CV-O devices!

CV-I (I for Input) and CV-O (Outputs) converts audio signals to Control Voltage (CV) or vice versa. Although this process is pretty uncomplicated, it can be useful for various purposes:

- Sending CV between Reason and hardware synthesizers via the audio interface
- Sending CV to and from VSTs like Native Instruments Reaktor
- Applying audio effects to CV signals

In this manual we will show a typical setup using an external modular synthesizer. Let's begin!

Getting Started



Warning! Please check that your audio interface supports outputting direct current (DC), and use the appropriate cables. Otherwise you might damage it.

Read more about this here: <http://www.expert-sleepers.co.uk/siwacompatibility.html>

The operation of these devices is very simple: just create them and patch the audio and CV connections that you wish to convert. Besides editable name labels for each channel, there are no settings or automatable parameters. We decided to split the functionality into two separate devices so that you can place them at different locations in the rack.

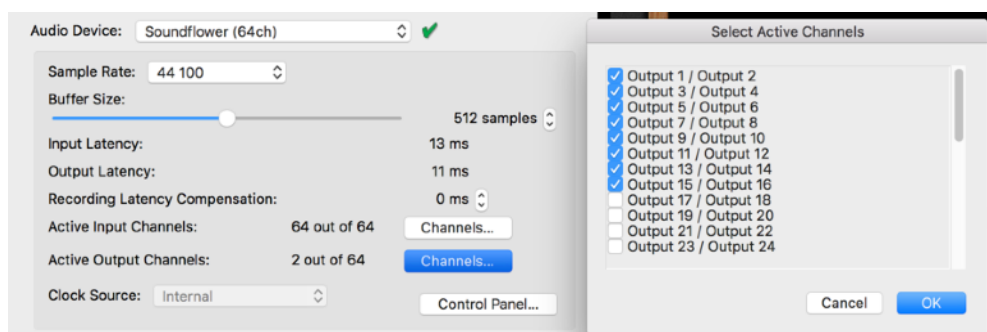
A typical setup could look like this:

1. Let's say you have a modular synth and need an extra LFO. First create a CV-O and connect it to one of the audio outputs (channel 9 in our example) in the Hardware Interface device:



This setup will convert the LFO CV signal to audio, and send it to the output of your audio interface.

If the LEDs next to the audio sockets in the Hardware Interface are red, please open Reason's Preferences on the Audio page and check that all input and output channels you want to use are enabled.



2. Create a Synchronous (or any device with a CV output you want to send to your modular) and connect it to CV-O. You can also rename the CV-O channel to anything you like, in our example “LFO”:



Notice that the Activity LED starts blinking in time with Synchronous. You should now have an LFO signal ready for use in your audio interface!

Pro tip: Ctrl/Cmd-click the name label to reset it to the channel number!



A note on pitch (no pun intended): While the CV and audio signals have high resolution and accuracy and works fine for gates and modulation signals, it is tricky to send pitch CV using just CV-I/O. This is because oscillator tracking needs to be carefully calibrated. For sending pitch CV, we recommend using Expert Sleepers Silent Way Voice Controller:

<https://shop.propellerheads.se/rack-extension/silent-way-voice-controller/>

- Now let's see how to send signals from your modular into Reason! Let's say you have a 4 channel drum sequencer in your modular system that you want to use with some samples from Kong. Connect the CV gate outputs from the sequencer to the inputs of your audio interface. Then create a CV-1 device and route channel 1-4:



Notice that having CV-I and CV-O as separate devices makes rack placement more flexible!

- Finally, create a Kong and route CV channels 1-4 to the pads you want to trigger:



That's about it for the typical usecase! But as mentioned before, you can also use CV-I/O for sending CV as audio to VSTs, to other apps using virtual audio interfaces like Soundflower etc.

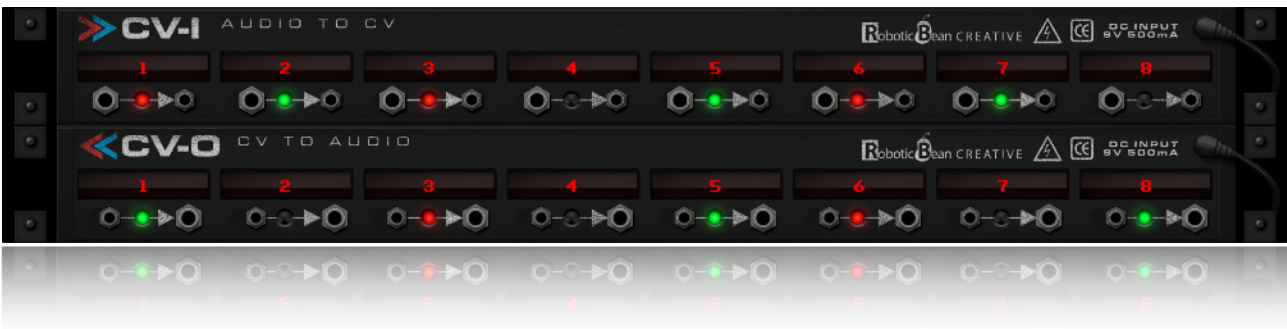
The Front Panel



These are the controls on the CV-I/O front panels:

Name label 1-8	Label for naming the 8 separate channels
Activity LED 1-8	Lights up green for positive signals, and red for negative

The Back Panel



These are the controls on the CVI/O back panels:

Name label 1-8	Label for naming the 8 separate channels
Activity LED 1-8	Lights up green for positive signals, and red for negative
CV inputs and outputs	Connect your CV signals here

Remote Implementation Chart

There are currently no remotable items in CV-I/O.