GMS-712 DUAL VOLTAGE CONTROLLED AMPLIFIER

PRELIMINARY OPERATION MANUAL
06/08/2019

GROVE AUDIO®

Features

- 2 high quality voltage controlled amplifiers
- Linear or logarithmic response switch selectable on each channel
- Control voltage input routed through a reversible attenuator
-
-

Basic Operation

VCA Channel

When the toggle switch for a channel is set to the LIN position, the amplifier gain response to the control voltage signal varies in a linear fashion with respect to the control voltage signal. When the toggle switch is set to the LOG position, the amplifier gain response will vary in a logarithmic fashion with the control voltage signal. The gain will be approximately X1 with a 5 Volt input and will have a value greater than X1 for control voltage inputs greater than 5 Volts.

CV LVL Reversible Attenuator

With no control signal inserted at the control input, 5 VDC is normaled through the control input jack and fed to the input of the reversible control voltage attenuator. Varying the control position between 0 and 5 will allow the input signal to appear on the output jack for the corresponding channel. The signal gain will vary from – infinity to approximately X1.5 at the 5 position. At about the 3 position the amplifier gain will be X1 which means that the amplitude of a signal going through the amplifier will be equal on input and output. The phase of the signal going through the amplifier is not affected and is in-phase on the output.

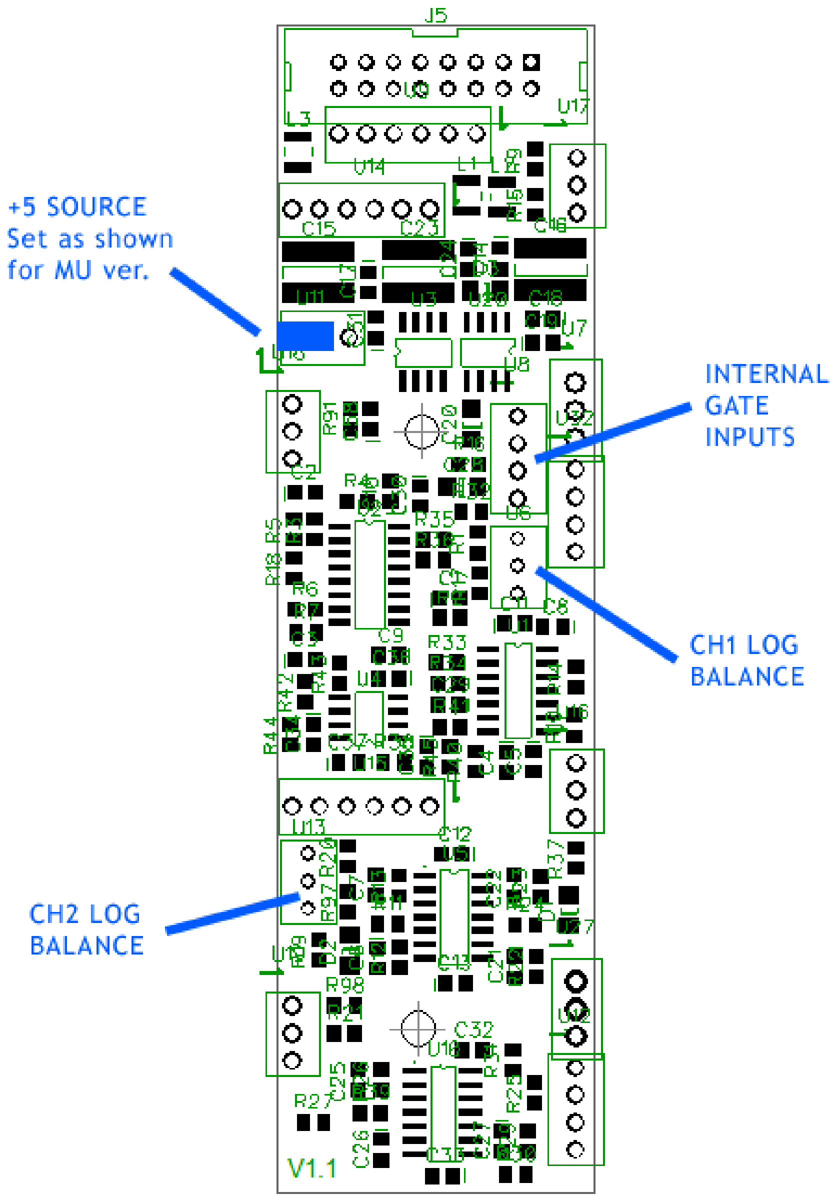
When a control voltage signal is applied to the control input of a channel, the reversible attenuator will act as a variable gain control with approximately the range of –X1.5 at –5, X0 at 0, and X1.5 at +5.

INIT GAIN Control

The INIT GAIN control determines the initial output level of the amplifier with the CV input at 0 Volts or if no CV input is used, the CV LVL control at the 0 position. This is useful, as an example, for patches that require varying the amplitude of a modulation signal from an initial value to something higher or lower in amplitude.

Internal Gate Inputs

There is an internal gate input connector for each channel that will accept a 0 to +5 Volt signal that is added to the output of CV reversible attenuator before the gain control signal is applied to the VCA. This input can have various uses including gating the audio on and off for the corresponding channel or applying an initial gain control signal.


+5 SOURCE
Set as shown
for MU ver.
INTERNAL
GATE
INPUTS
CH1 LOG
BALANCE
CH2 LOG
BALANCE
V1.1