RDL® Radio Design Labs™

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON™ SERIES

Model ST-VCA1
Voltage Controlled Amplifier

ANYWHERE YOU NEED...

- To Control Audio Level with DC Voltage
- To Remotely Control Audio
- Single-Pair DC Control of Audio
- Microphone or Line Input VCA
- Microphone or Line Output VCA

You Need The ST-VCA1!

The ST-VCA1 is a high-quality Voltage Controlled Amplifier (VCA) in the STICK-ON series of products from Radio Design Labs. This VCA is designed to give you the maximum flexibility in application. Audio inputs and outputs are provided for both microphone and line-level signals. So the VCA can be used as a remote-gain-controlled mic preamp with line-level output, or can even control a line-level signal feeding into the mic channel of a mixer.

All that is required for dc control of the audio level is a single-pair. One wire connects to ground; the other to the ***CONTROL*** input on the VCA. A standard 10 kΩ linear-taper potentiometer controls the audio. The input dc signal from the pot is converted to a complex taper designed to give 20 dB control over three-fourths of the pot travel, while still allowing the pot to take the level essentially to OFF.

While many applications would call for a VCA to be unity gain, the ST-VCA1 offers more. A variable-gain preset allows the output level to be set anywhere from OFF to 20 dB above the input signal.

The performance of the VCA is uncompromised. Both inputs and outputs are exceedingly quiet, with very low distortion. You won't discover any hidden phase-shift, often associated with VCAs in the ST-VCA1!

With the quality performance, user-friendly taper, unparalleled flexibility, low cost and unequaled convenience of the STICK-ON product line, the ST-VCA1 is the ultimate solution to every VCA application!

RDL® Radio Design Labs™

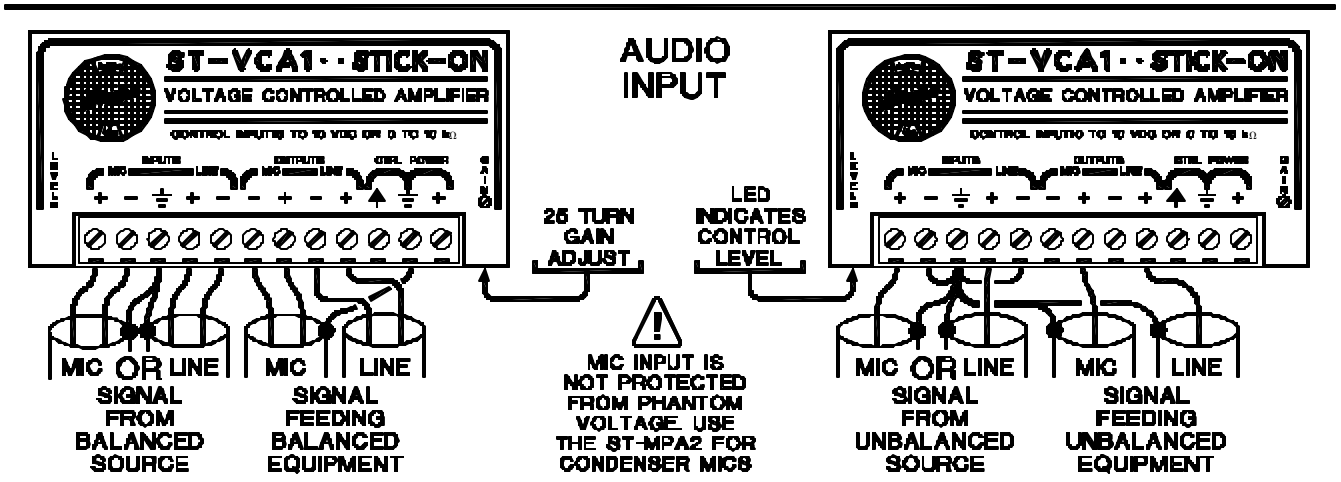
SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

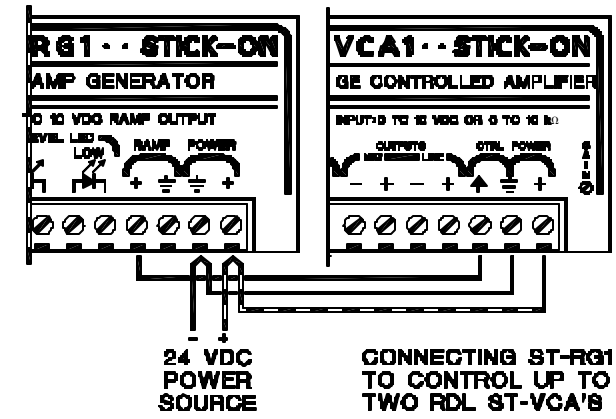
Installation Instructions

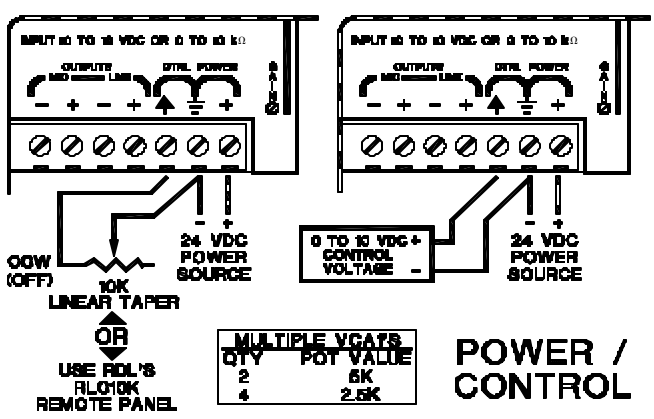
STICK-ON® SERIES

Model ST-VCA1
Voltage Controlled Amplifier

EMC EN55103-1 E1-E5, EN55103-2 E1-E4 Conformant in typical recommended installation: Mounted in RC with shielded input/output wiring; input <1m to adjacent modules or equipment; output >1m with shield connected to RC-1U. Input cable shields connect to module input ground. Product achieves ITU level 5 impairment immunity (scale 1-5, 5 being best). Power input wiring <3m. Contains no em radiation sources above 30MHz. Module is a sub-assembly. RC-1U mounts in grounded steel 19" equip rack with doors. These are sole specifications pertinent to EMC.







TYPICAL PERFORMANCE

Line Input:	30 kΩ bridging, balanced or unbalanced
Mic Input:	150 Ω balanced, 5 kΩ unbalanced (not protected from phantom supply voltages)
Line Output:	600 Ω balanced
Mic Output:	150 Ω balanced
Gain:	Adjustable off to 20 dB above unity
Maximum Gain:	20 dB for line input to 600 Ω line output 65 dB for mic input to 600 Ω line output
Headroom:	15 dB minimum above +4 dBu (referred to line output)
Frequency Response:	20 Hz to 22 kHz +/- 0.5 dB
Control Input:	0 to 10 Vdc; or 0 to 10 kΩ between control input and ground terminals
Total Harmonic Distortion:	< 0.05% (-10 dBV in, +4 dBu out, 10 Vdc control)
Control Attenuation:	0 dB to 70 dB
Power Requirement:	24 to 33 Vdc @ 50 mA, Ground referenced

Radio Design Labs Customer Service Centers
U.S.A. (800) 933-1780, (520) 778-3554; Fax: (520) 778-3506; http://www.rdlnet.com
Europe [NL Amsterdam] (+31) 20-6228 092; Fax (+31) 20-6225 287

891-0020H