

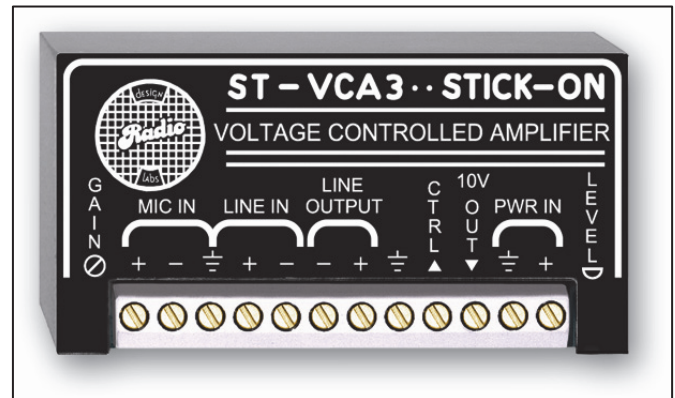
## STICK-ON<sup>®</sup> SERIES

### Model ST-VCA3

### Voltage Controlled Amplifier

- Audio Level Control from a DC Voltage
- Audio Level Remote Control
- Two Wire with Shield or Three Wire Control
- VCA with Microphone or Line Level Input
- VCA with Line Level Output
- VCA with LED Metering of Operating Level

The ST-VCA3 is a voltage controlled preamplifier in the convenient line of STICK-ON products, featuring the superior engineering and components common to RDL products. The ST-VCA3 may be rack or surface mounted with optional STICK-ON series accessories. The ST-VCA3 gives you the advantages of audio level remote control with the added convenience of STICK-ONs! STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.



#### ASSOCIATED REMOTE CONTROL EXAMPLES:

- ▶ D SERIES-RLC10K Wall mounted remote controls
- ▶ D SERIES-RLC10KM Wall mounted remote controls with muting
- ▶ D SERIES-RLC10 Rotary encoder remote control
- ▶ D SERIES-RLC10M Rotary encoder remote control with muting
- ▶ D SERIES-RLC3 Remote control with preset levels
- ▶ RLC10R Rotary encoder remote control
- ▶ AMS-10K Linear potentiometer remote control

**APPLICATION:** The ST-VCA3 is a high performance voltage controlled amplifier with two inputs and one output. The line input is designed to accept an input signal with operating levels between -20 dBV and +4 dBu. The microphone input accepts low or high impedance microphones with output levels from -60 to -44 dBu. Only one of the inputs may be used at a time. A multi-turn trimmer is provided for setting the correct input gain according to the dual-LED VU meter located directly in front of the gain control. The intended output level is +4 dBu for 10 Vdc at the **CTRL** input terminal. The green metering LED begins illuminating at 15 dB below +4 dBu. The green LED progresses to full intensity at +4 dBu. The adjacent red LED illuminates at +4 dBu.

Terminals are provided for connection of an external ramp generator (0 to 10 Vdc) or a linear taper 10 kΩ potentiometer remote control. The RDL RLC10K is most commonly used. Three terminals are provided for external control; a single-pair shielded audio cable is recommended. If a remote volume control with a mute button is preferred, an RDL RLC10KM may be connected directly to the ST-VCA3. The regulated +10 Vdc control **OUT** voltage provides sufficient current to power an RLC10KM. The **CTRL** terminal does not load the external control voltage, therefore a single 10 kΩ control may control multiple ST-VCA3s simultaneously. The **LEVEL** LED varies in intensity corresponding to the VCA control voltage. This provides a relative indication at the module of the level setting on the remote control.


The ST-VCA3 is used in applications requiring smooth audio level control from a remote control panel, potentiometer or dc voltage (0 to 10 V). Installation in series with the audio input of a power amplifier allows remote control of that amplifier's level. For installations where it is preferred to keep the audio localized in a rack or common equipment location, audio level control may be extended outside the rack using an ST-VCA3. Many installations benefit from avoiding long-term wear from audio running through a potentiometer. An ST-VCA3 with external dc control provides virtual immunity from scratchy audio. Audio/video system control units often provide 0 to 10 Vdc control outputs that can directly adjust audio levels using an ST-VCA3. The ST-VCA3 is primarily intended for line-level attenuation although a high quality utility microphone preamplifier is included in the module. If remote control of a microphone preamplifier is desired, such as a wall mounted level control for a microphone jack, the ST-VCA3 may serve as a remote controlled microphone preamplifier.

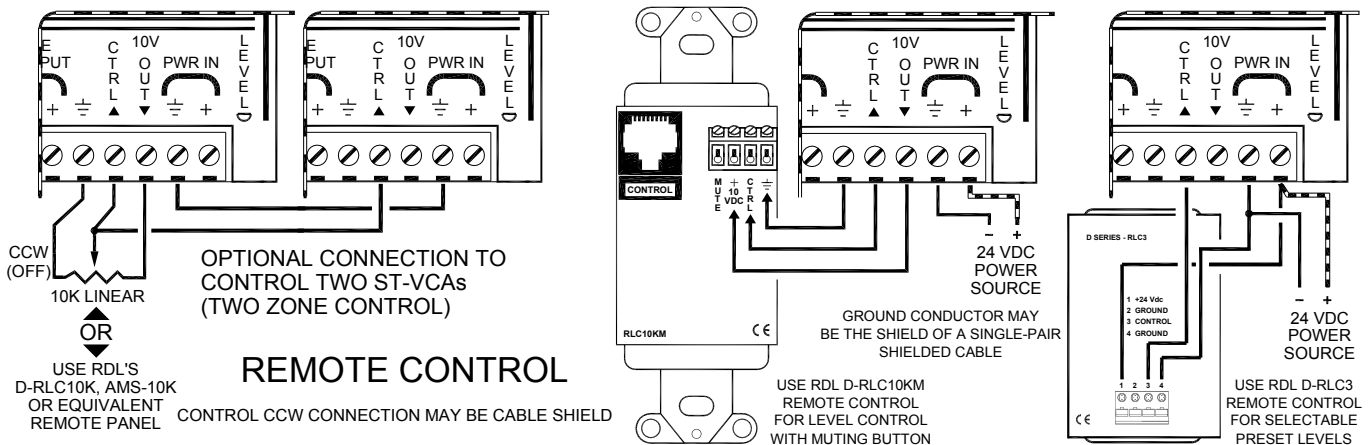
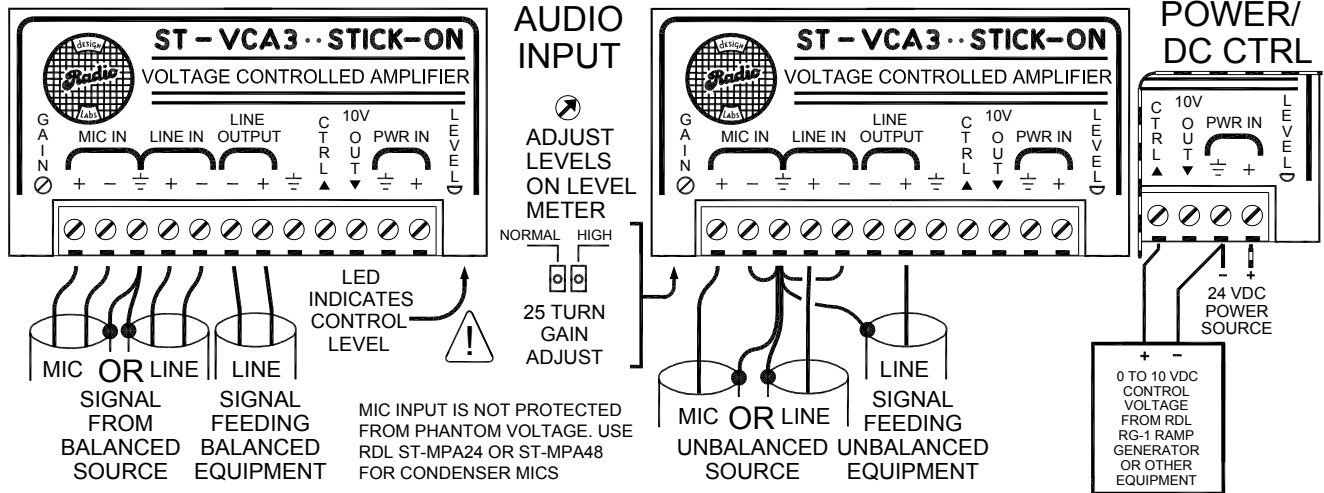
The ST-VCA3 operates from a 24 Vdc ground-referenced power supply.

Wherever it is desirable to keep audio signal sources at an equipment location while providing compact, high quality remote level control, the ST-VCA3 is the ideal choice. Use an ST-VCA3 and its associated remote control individually or combine them with other RDL products as part of a complete audio/video system.

STICK-ON<sup>®</sup> SERIES  
**Model ST-VCA3**  
**Voltage Controlled Amplifier**

## Installation/Operation

 Declaration of Conformity available from rdnet.com.  
 Sole EMC specifications provided on product package.  
 Specifications are subject to change without notice.



### TYPICAL PERFORMANCE

Inputs (2):	Mic: 200 Ω balanced; 5 kΩ unbalanced
Line:	30 kΩ bal. bridging or unbalanced
Input Levels (for +4 dBu output):	Mic: -44 dBu to -60 dBu (150 Ω source)
Line:	-18 dBu (-20 dBV) to +4 dBu
Output Signal (normal rated):	+4 dBu, 150 Ω balanced
Headroom:	18 dB
THD+N:	Mic: < 0.05%; Line: < 0.025% (unity gain); 0.025% typical at 15 dB attenuation
Frequency Response:	Mic: 30 Hz to 20 kHz (±1 dB) Line: 10 Hz to 20 kHz (±0.1 dB)
Noise:	Mic: < -71 dB below +4 dBu output (150 Ω source; 50 dB gain) Line: < -78 dB below +4 dBu output (maximum gain)
CMRR:	Mic: > 60 dB; Line: > 60 dB, (50 Hz to 120 Hz)
Control Input:	0 to 10 Vdc or 0 to 10 kΩ Linear
Attenuation Range:	0 to 90 dB (>90 dB at 0 Vdc control)
Ambient Operating Environment:	0° C to 55° C
Power Requirement:	GROUND-REFERENCED, 24 Vdc @ 50 mA
Dimensions: Height:	0.7 in. (1.7 cm), Width: 3 in. (7.6 cm), Depth: 1.6 in. (3.9 cm)

