RDL®
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON® SERIES
Model ST-VOX1
Voice Activated Relay

- Switching Controlled by Voice Signal
- Switching from Mic or Line Level Signals
- Precise Threshold Adjustment
- DPDT Switching Contacts
- Open-Collector **Slave** Output

The ST-VOX1 is an audio controlled relay in the group of STICK-ON series products by Radio Design Labs. These products are designed for quick, convenient installation and reliable operation in a variety of control applications. The ST-VOX1 is specifically designed to switch reliably on voice signals. STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

APPLICATION: When used in intercom or talk-back applications, the ST-VOX1 may be triggered directly from an unbalanced microphone. In many such installations, the microphone or other audio source must be preamplified, making the ST-VOX1 an ideal mate to work with RDL's STM-1 preamp. The unbalanced output from the STM-1 can be used to trigger the ST-VOX1, while the STM-1 balanced output is used for the audio feed.

The ST-VOX1 releases very quickly, but holds on through very short pauses in syllables common to speech. These time constants allow the design of a communications system yielding comfortable two-way conversation.

- High-impedance inputs connect across any unbalanced audio line
- Multi-turn sensitivity adjustment permits precise threshold setting
- Multi-turn **DELAY** control adjusts relay release delay
- Tight bandpass filtering yields triggering on voice frequencies
- **Slave** open-collector terminal allows additional relays to be added for more contacts (RDL's ST-LCR1)
- **Slave** terminal may be used with remote switch to manually override the control circuit and turn on the relay

Wherever a voice activated relay is needed, the ST-VOX1 is the ideal choice. Use the ST-VOX1 individually, or combine it with other RDL products as part of a complete audio/video system.

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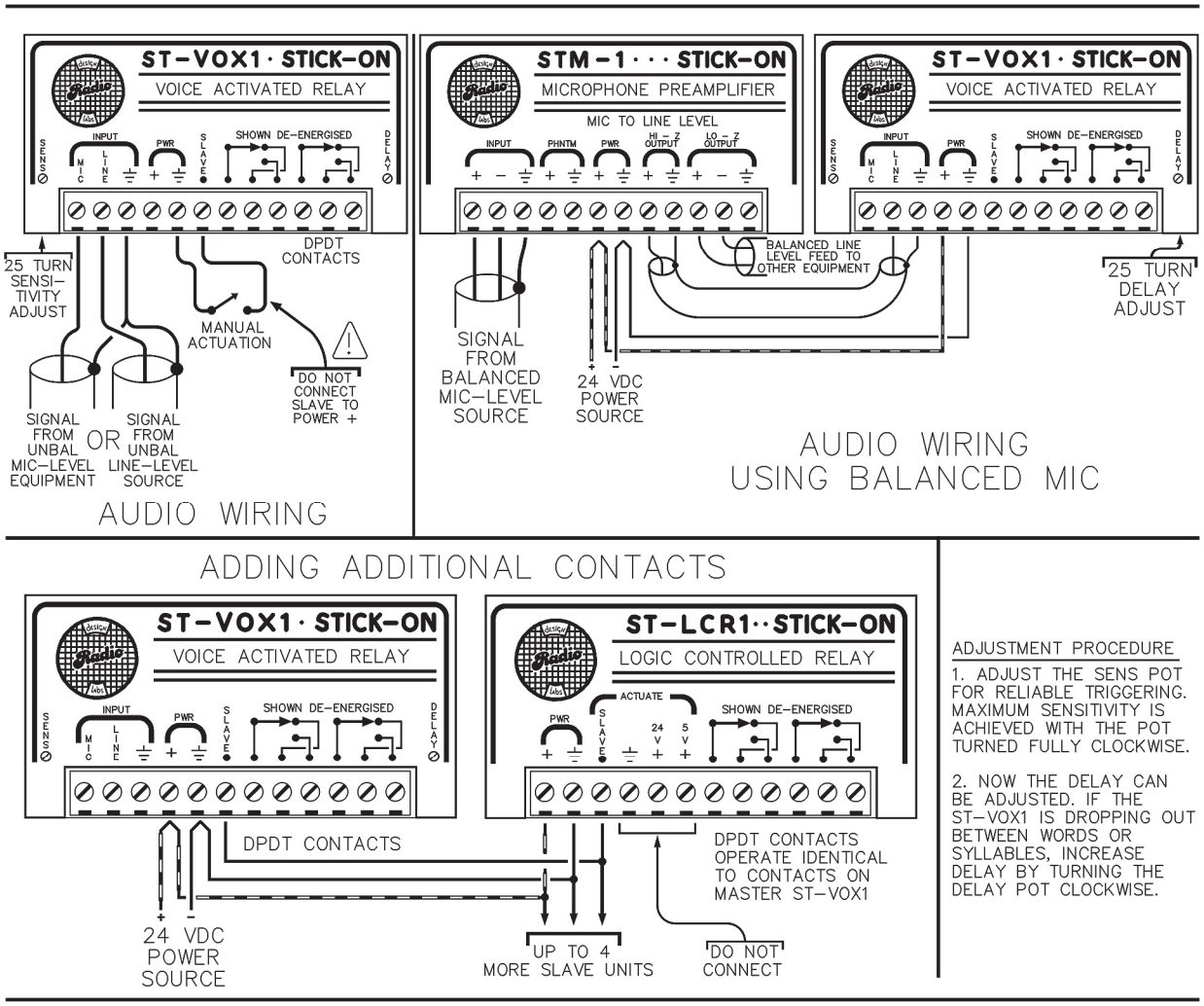
Installation/Operation

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



ADJUSTMENT PROCEDURE

1. ADJUST THE SENS POT FOR RELIABLE TRIGGERING. MAXIMUM SENSITIVITY IS ACHIEVED WITH THE POT TURNED FULLY CLOCKWISE.

2. NOW THE DELAY CAN BE ADJUSTED. IF THE ST-VOX1 IS DROPPING OUT BETWEEN WORDS OR SYLLABLES, INCREASE DELAY BY TURNING THE DELAY POT CLOCKWISE.

TYPICAL PERFORMANCE

Mic Input:	5 kΩ unbalanced line
Line Input:	200 kΩ unbalanced
Control Outputs:	Open-Collector @ 25 mA, suitable to drive indicators or Slave LCR
Relay Contacts:	Double-pole-double-throw
Max. Switching Power:	60 W, (220 Vdc, 125 Vac, 2A)
Mic Input Sensitivity:	Adjustable -80 dBu to -50 dBu
Line Input Sensitivity:	Adjustable -45 dBu to -15 dBu
Indicators:	Audio threshold LED (for setting sensitivity)
Retrigger Delay:	50 ms
Release Delay Time Adjustment Range:	Relay Contacts: 70 to 260 ms Slave open-collector output:15 to 260 ms
Activation Response Time:	Relay Contacts: 5 ms Slave open-collector output: 3 ms
Ambient Operating Environment:	0° C to 55° C
Power Requirement:	GROUND-REFERENCED 24 Vdc @ 50 mA * * Assumes 20 mA max load at SLAVEoutput
Dimensions:	Height: 0.7 in. (1.7 cm), Width: 3 in. (7.6cm), Depth 1.6 in. (3.9 cm)

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