



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.

STICK-ON[®] SERIES

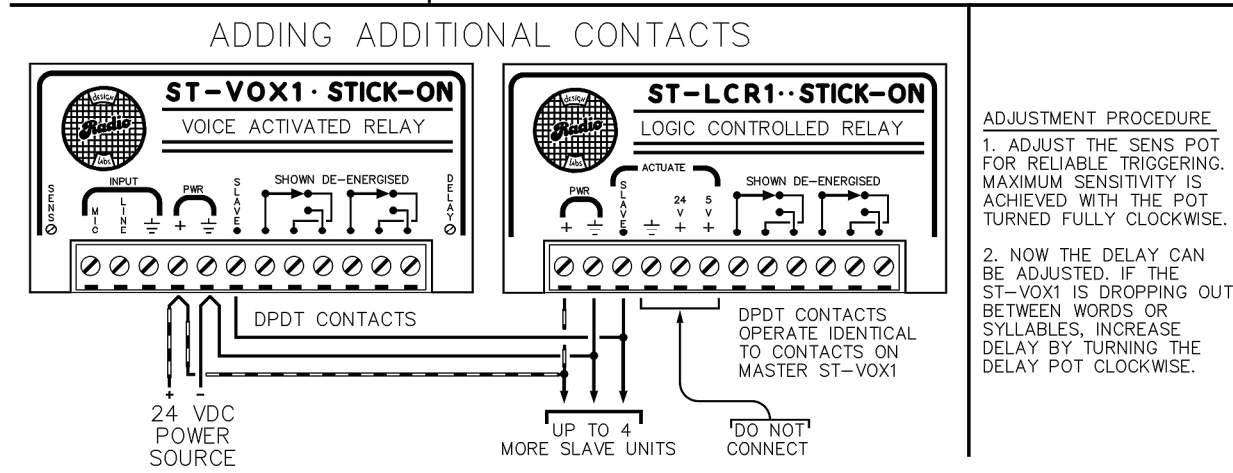
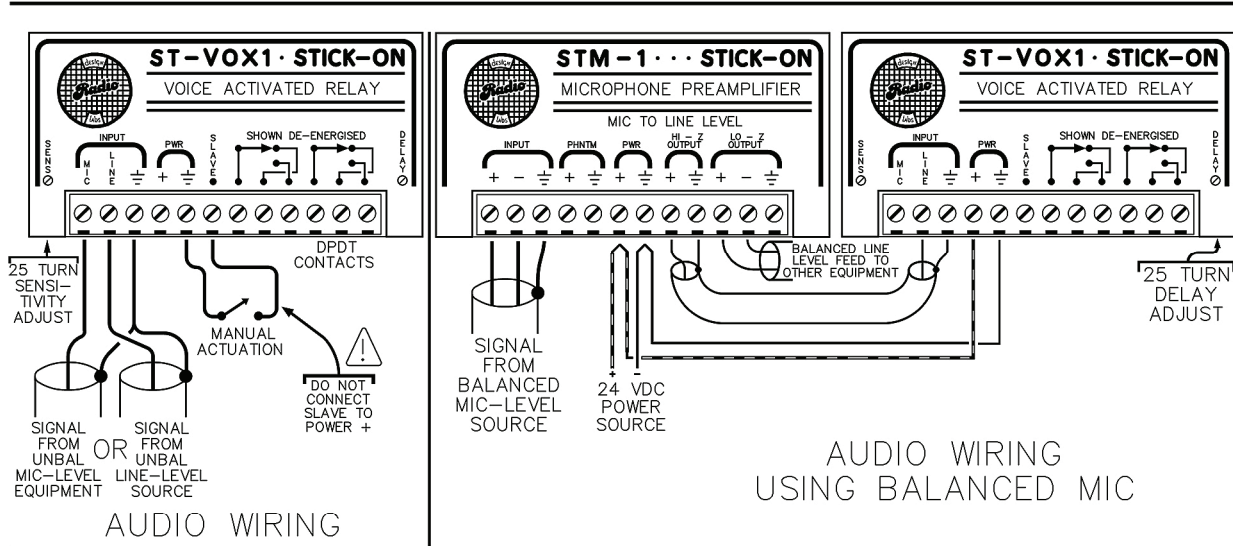
Model ST-VOX1

Voice Activated Relay

Installation/Operation



EN55103-1 E1-E5; EN55103-2 E1-E4
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. 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:
Line Input:
Control Outputs:
Relay Contacts:
Max. Switching Power:
Mic Input Sensitivity:
Line Input Sensitivity:
Indicators:
Retrigger Delay:
Release Delay Time Adjustment Range:

Activation Response Time:

Ambient Operating Environment:
Power Requirement:

Dimensions:

5 k Ω unbalanced line
200 k Ω unbalanced
Open-Collector @ 25 mA, suitable to drive indicators or Slave LCR
Double-pole-double-throw
60 W, (220 Vdc, 125 Vac, 2A)
Adjustable -80 dBu to -50 dBu
Adjustable -45 dBu to -15 dBu
Audio threshold LED (for setting sensitivity)
50 ms
Relay Contacts: 70 to 260 ms
Slave open-collector output: 15 to 260 ms
Relay Contacts: 5 ms
Slave open-collector output: 3 ms
0° C to 55° C
GROUND-REFERENCED 24 Vdc @ 50 mA *
* Assumes 20 mA max load at SLAVE output
Height: 0.7 in. (1.7 cm), Width: 3 in. (7.6cm), Depth 1.6 in. (3.9 cm)