



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

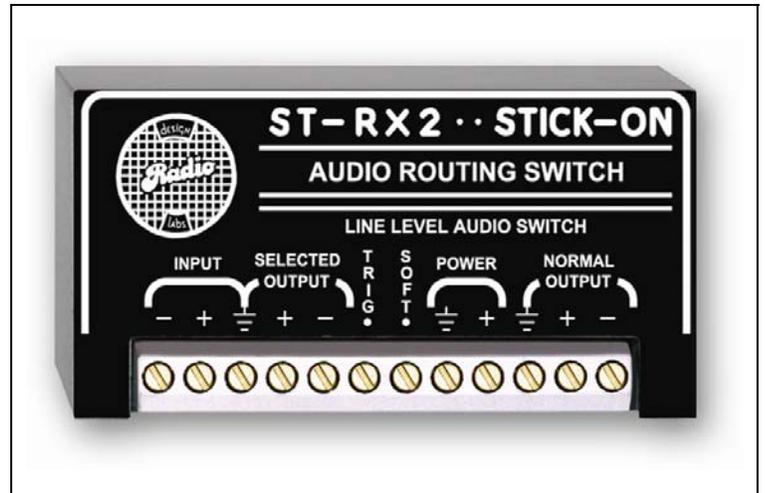
## STICK-ON<sup>®</sup> SERIES

### Model ST-RX2

### Solid-State Audio Router

#### ANYWHERE YOU NEED...

- To Route a Line-Level Source
- Audio Switched to One of Two Destinations
- Silent Audio Switching
- Balanced or Unbalanced Routing
- Switching by Open-Collector Logic



#### *You Need The ST-RX2!*

The ST-RX2 is part of a group of products in the STICK-ON series from Radio Design Labs. The durable bottom adhesive permits quick, permanent or removable mounting nearly anywhere or it may be used with RDL's racking accessories. The ST-RX2 offers the ultimate in totally solid state audio switching, with a big *plus*, you can put it right where you need it!

**APPLICATION:** The ST-RX2 has a single line-level audio input and two line-level audio outputs. In the absence of a control input, the **NORMAL** module output is fed from the audio input. When the **TRIG** control terminal is connected to ground, the input audio is fed to the **SELECT** output and the **NORMAL** output is switched off. When the **TRIG** terminal is again disconnected from ground, then the **SELECT** output is turned off and the **NORMAL** output is fed from the input. The module contains no relays or other mechanical devices. The control circuits utilize solid-state switching to route the input signal to one of the balanced output line drivers with off attenuation better than 80 dB at all audio frequencies!

The ST-RX2 has user-selectable switching rates. The module can be used in muting applications where audio must be switched off extremely fast. This could be required to prevent feedback in automatic microphone mixing installations. For muting, the audio output is connected to the **NORMAL** output, and the ST-RX2 is used to turn this line off. In this mode, the audio turn-off time switching is accomplished in less than 100  $\mu$ s. Although necessary in some circumstances, this fast switching transition can sound harsh to the ear and would be undesirable where the module is being used to select inputs to a high power amplifier or in high quality studio applications. Installation of a jumper between the **SOFT** terminal and **GROUND** slows the switching transition by implementing a soft knee, ramping the audio to the ON or OFF condition. This still sounds instant to the ear, but is slowed sufficiently to remove any unpleasant edge from the switch transition. For most applications, the module is used in the **SOFT** mode.

The control current required at the **TRIG** terminal is so minimal ( $< 0.5$  mA) that the ST-RX2 can be controlled from nearly any source from switches to logic circuits. The **TRIG** input feeds a comparator, which switches at a threshold of 2 volts, permitting open-collector switching, or switching directly from circuits operating from a 5 Vdc supply. The exceptional low noise and low distortion performance of the ST-RX2 makes it the ideal choice for noiseless line-level audio switching in both sound system or recording installations. Used in conjunction with other RDL audio and control modules, the ST-RX2 can be the foundation for many high quality, innovative audio systems!

Wherever a solid-state audio router is needed, the ST-RX2 is the ideal choice. Use the ST-RX2 combined with other RDL RACK-UP<sup>®</sup>, STICK-ON, TX<sup>™</sup>, or FLAT-PAK<sup>™</sup> series products as part of a complete audio/video system.

# STICK-ON<sup>®</sup> SERIES

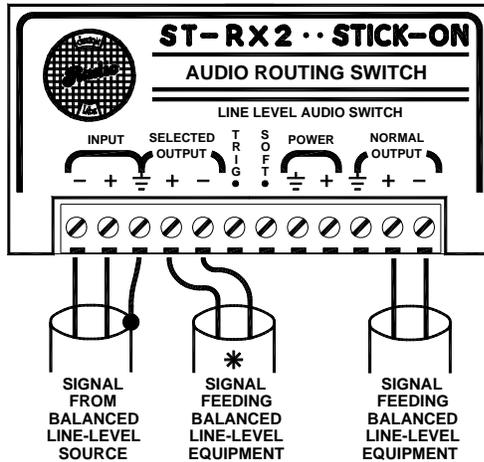
## Model ST-RX2

### Solid-State Audio Router

## Installation/Operation

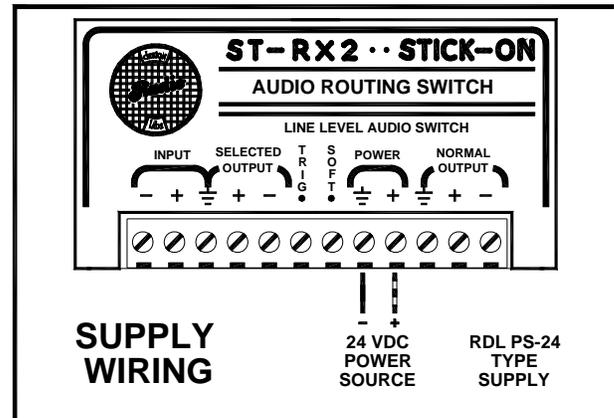
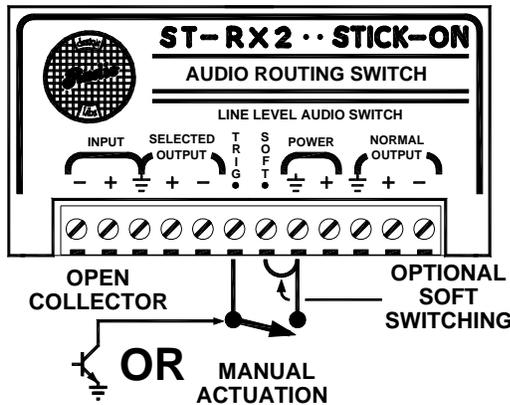
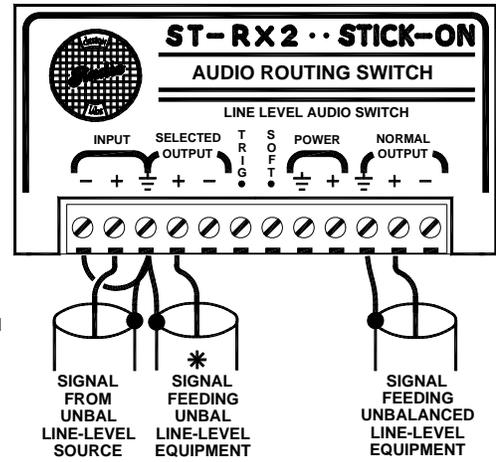


EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



### AUDIO WIRING

\*  
SELECTED OUTPUT WHEN UNIT IS TRIGGERED



### SUPPLY WIRING

24 VDC POWER SOURCE  
RDL PS-24 TYPE SUPPLY

### TYPICAL PERFORMANCE

Switching Time:	<b>Fast</b>	<b>Soft</b>
Time required for <b>Normal</b> output to turn off:	10 $\mu$ s	5 ms
Time required for <b>Normal</b> output to turn on:	15 $\mu$ s	70 ms
Time required for <b>Select</b> output to turn off:	15 $\mu$ s	10 ms
Time required for <b>Select</b> output to turn on:	20 $\mu$ s	35 ms
Control Signal:	<b>TRIG</b> terminal must be externally connected to ground.	
Control Current:	0.5 mA	
Headroom:	> 18 dB above +4 dBu	
THD:	< 0.030% @ 1 kHz	
CMRR:	> 45 dB (either input, 100 Hz)	
Freq. Response:	15 Hz to 20 kHz (+/- 0.5 dB, into 10 k $\Omega$ bridging input)	
	30 Hz to 20 kHz (+/- 0.5 dB, into 600 $\Omega$ )	
	< -85 dB below +4 dBu (-90 dB typ.)	
Noise:	Unity (balanced input/output)	
ON Gain:	> 80 dB (either output), 95dB @ 1kHz	
OFF Attenuation:	24 to 33 Vdc @ 40 mA, Ground-referenced	
Power:	Height: 1.55 in. 3.94 cm	
Dimensions:	Width: 3.00 in. 7.62 cm	
	Depth: 0.65 in. 1.65 cm	

Radio Design Labs Technical Support Centers

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