



RDL® Radio Design Labs®

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON® SERIES

Model STM-2X

Switchable Low-Noise Microphone Preamplifier

ANYWHERE YOU NEED...

- Quiet Switching of Condenser Mic
- Remote Microphone Soft-Switching
- Switched Mic-Level Source with Mic or Line-Level Output
- Remote Toggle or Push-to-Talk
- Adjustable Preset Gain on Microphone Source



You Need The STM-2X!

The STM-2X is part of the group of versatile STICK-ON products from Radio Design Labs, featuring the advanced circuitry for which RDL products are known. The durable adhesives provided with the STM-2X permit permanent or detachable mounting. Numerous mounting accessories, brackets and rack-mount chassis are optionally available to facilitate any system design.

APPLICATION: The STM-2X is the ideal choice in many installations where a microphone preamplifier is required, and is the ideal choice where either a toggle-type switch or push-to-talk switch is to be provided for microphone control, particularly if condenser microphones are used.

The STM-2X features a balanced mic-level input, and both a line-level and mic-level output. The input and each output may be wired balanced or unbalanced. A 25-turn trimming potentiometer is provided for precise level adjustment whether the module is being used as a mic-level switch, or as a switched mic-to-line preamplifier. A phantom voltage input is provided for use with condenser mics. The 24 Vdc power source is typically used as the phantom supply, requiring no other external phantom supply. These features permit the STM-2X to be used as a manually switched mic preamp, or as a mic-level remote switch for dynamic or condenser microphones. The mic-level output from the STM-2X may be safely connected to other equipment mic inputs which produce phantom voltage.

It is frequently necessary to provide user accessible switching for condenser microphones. This may include a simple mic on/off switch, push-to-talk or a *cough* button switch. Conventional methods of either shorting or opening the microphone line results in loud audible *pops* due to the phantom voltage on the mic line. For these applications, the STM-2X provides quiet, solid-state soft switching with no disruption to the phantom voltage. The output of the STM-2X is turned on by grounding the control terminal, either by a switch or by any of the SLAVE terminals from other RDL products.

Wherever mic signals need to be switched, or switched and preamplified, the STM-2X is the ideal choice. Use the STM-2X individually, or combine it with other RDL RACK-UP®, STICK-ON, TX™, or FLAT-PAK™ series products as part of a complete audio/video system.



STICK-ON[®] SERIES

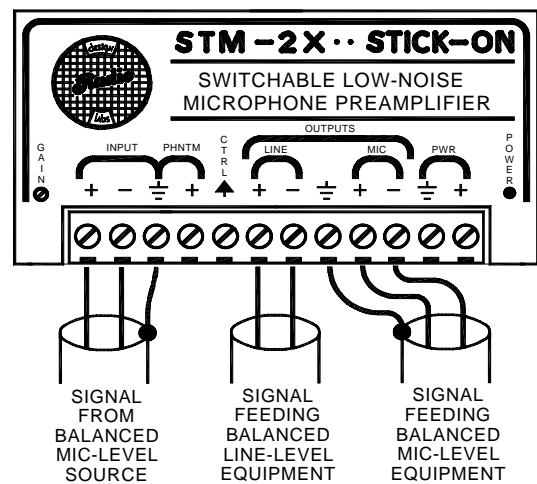
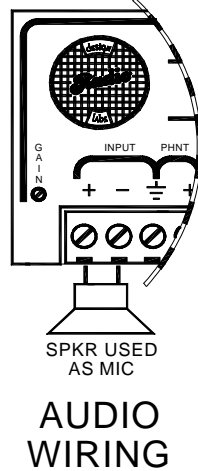
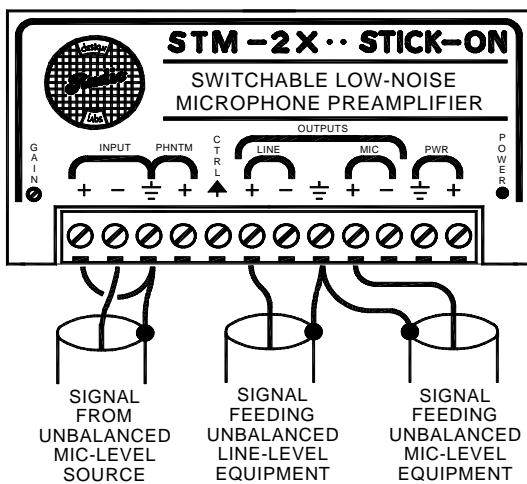
Model STM-2X

Switchable Low-Noise Mic Preamp

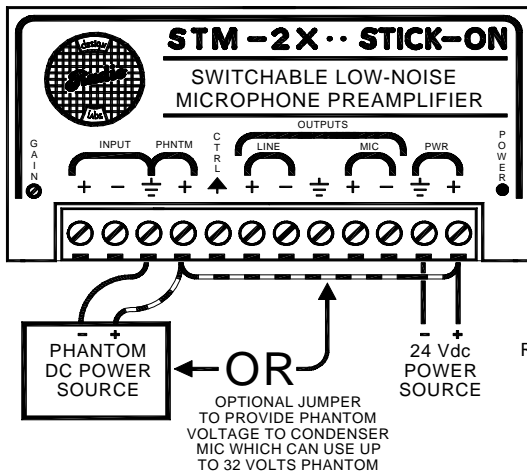
Installation/Operation



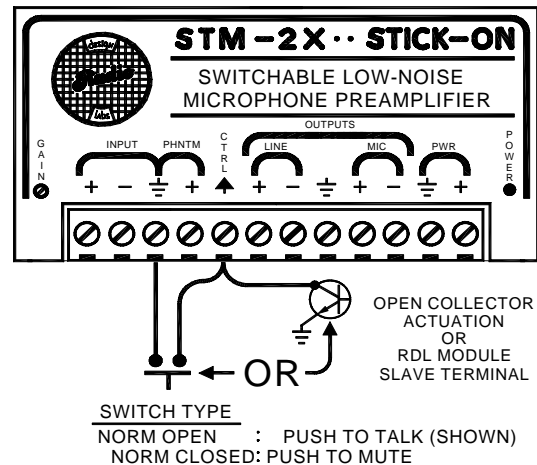
EN55103-1 E1-E5; EN55103-2 E1-E4
 Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



EACH INPUT/OUTPUT MAY BE WIRED BALANCED OR UNBALANCED



POWER/CONTROL WIRING



TYPICAL PERFORMANCE

Input: Mic level, dynamic or condenser
 Input Source Impedance: 150 to 600 Ω balanced; 5 kΩ unbal
 Outputs (2):
 Line Level (1): Balanced (+4 dBu nominal)
 Mic Level (1): Balanced (-45 dBu)
 Headroom: >18 dB
 Gain Range:
 Line-Level Output: Off to +65 dB
 Mic-Level Output: Off to +15 dB
 Frequency Response: 50 Hz to 25 kHz (+/- 1 dB)
 THD+N: <0.05%

Residual Noise (ON): <-70 dB (referred to +4 dBu)
 (150 Ω source @ 50 dB gain)
 <-75 dB (referred to +4 dBu)
 (600 Ω source @ 60 dB gain)
 OFF Attenuation: >85 dB @ 1 kHz (>70 dB 50 Hz to 10 kHz)
 Switching Control Input: Connect to ground to activate signal;
 15 mA maximum current required
 Switching Time: <5 ms on transition;
 125 ms initial (30 dB) OFF transition
 CMRR: >50 dB (60 or 120 Hz)
 Power Requirement: 24 to 33 Vdc @ 30 mA, Ground-referenced
 (12 Vdc with >12 dB headroom and
 5 ms decrease in ON transition time)

Radio Design Labs Technical Support Centers

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