



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON[®] SERIES

Model ST-IC1

Intercom Amplifier

- Intercom Electronics
- Intercom with Push-to-Talk
- Mic or Speaker Input
- 8 Ω or 45 Ω Speakers
- Bidirectional Communication Option



The ST-IC1 is part of the group of versatile STICK-ON products from Radio Design Labs. STICK-ONs feature the advanced circuitry for which RDL products are known, combined with unequalled versatility in mounting possibilities. The durable adhesives provided with the ST-IC1 permit permanent or removable mounting. Numerous available mounting accessories, brackets and rack-mount chassis are optionally available to facilitate any system design. STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

APPLICATION: The ST-IC1 is the ideal choice where an intercom system is to be installed, or where an amplifier is needed to bring a mic level up to a 1 W speaker level, with optional muting capability.

The ST-IC1 has one input, one output, and two muting control terminals.

The input accepts a dynamic mic, a condenser mic (a phantom supply input terminal is provided to power condenser mics), an 8 Ω speaker or a 45 Ω speaker. The gain range of the module is sufficient to accommodate this wide variety of source levels.

The output is ground-referenced, and drives more than 1 watt RMS into an 8 Ω load. The output circuit can be connected to any load impedance of 4 Ω or greater.

When no connections are made to either **MUTE** terminal, the module output is active. If the **MUTE -** terminal is pulled to ground (using a switch, an open-collector transistor, or the slave terminal of another RDL module), the ST-IC1 output will mute. Pulling the **MUTE +** terminal high (+15 Vdc) has the same effect. In a bi-directional intercom, the **MUTE -** terminal of the master module is connected to the **MUTE +** terminal of a secondary module, thereby muting the secondary module. When the master module's **MUTE -** terminal is pulled to ground, the master modules mutes and the secondary module becomes active. There is an internal 15 ms time delay between the two operations which is fast enough to have no audible effect on voice communication, but prevents any feedback effects during switching.

Wherever an intercom is needed, the ST-IC1 is the ideal choice. Use the ST-IC1 individually, or combine it with other RDL products as part of a complete audio/video system.



STICK-ON[®] SERIES

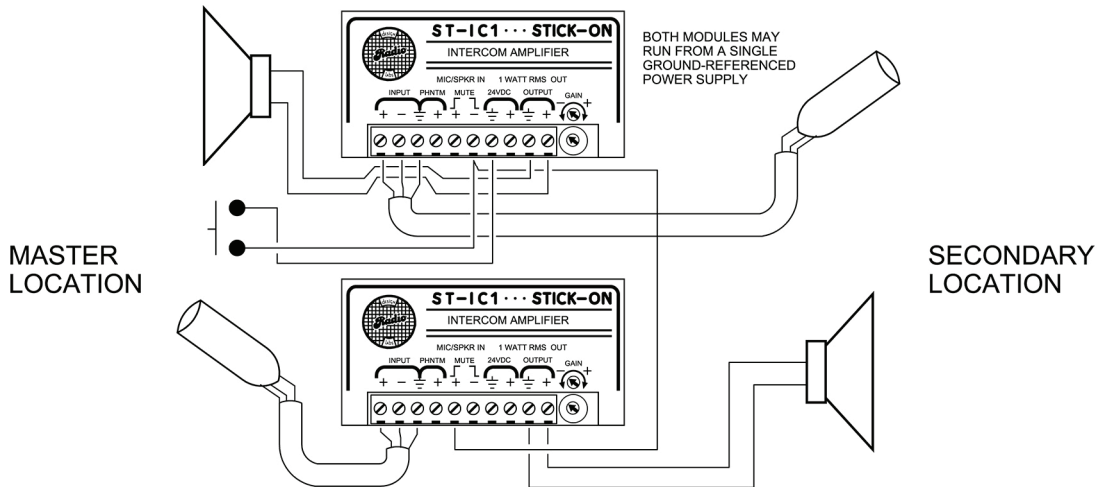
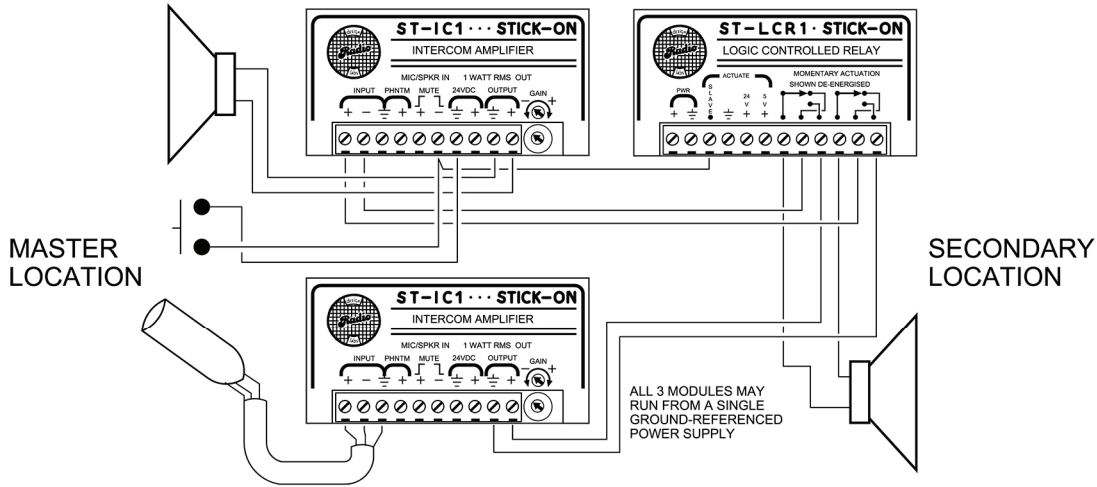
Model ST-IC1 Intercom Amplifier

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.

INTERCOM USING SINGLE REMOTE SPEAKER



INTERCOM USING SEPARATE MICS AND SPEAKERS

TYPICAL PERFORMANCE

Input:	> 600 Ω balanced
Frequency Response:	300 Hz to 4 kHz (± 2 dB, filtered for voice-band intelligibility)
Gain Range:	OFF to 70 dB (adjustable)
Input level required to produce 1 W RMS:	-60 dBu (8 Ω source); -55 dBu (600 Ω source)
THD+N:	< 1% @ 1 kHz, referred to 1 W @ 50 dB gain
Residual Noise (unmuted output below 1 W):	< 75 dB @ 60 dB gain setting
Operating Output Power:	1 W RMS
Maximum Output Power (before clipping):	1.5 W RMS
Mute Inputs (2):	Trigger on high to low transition, 2 mA, 15 V pullup; Trigger on low to high transition, 0.1 mA
Mute Attenuation:	> 115 dB @ 1 kHz
Muting Switching Type:	Solid State - no relay contacts used
Mute Release Delay:	15 ms
Ambient Operating Environment:	0° C to 40° C
Power Requirement:	GROUND-REFERENCED, 24 Vdc @ 175 mA

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