# SJE-Rhombus® 4-20mA Simulator

The SJE-Rhombus<sup>™</sup> 4-20mA Simulator is an easy-to-use, hand-held test instrument designed to generate an adjustable 4-20mA signal from loop power. The output of the Simulator is adjusted across the full range by turning the adjustment knob. The 4-20mA Simulator can be used on a wide range of applications, provided the excitation voltage is within 12-24 VDC.

#### A WARNING! ELECTRICAL SHOCK HAZARD

This product is intended for use by a qualified service person. Always follow applicable electrical codes. Disconnect all power to the equipment to be tested prior to connecting or disconnecting this device. This device is intended for low voltage instrumentation testing. Do not connect to voltages higher than 24 VDC. Do not use in wet locations.

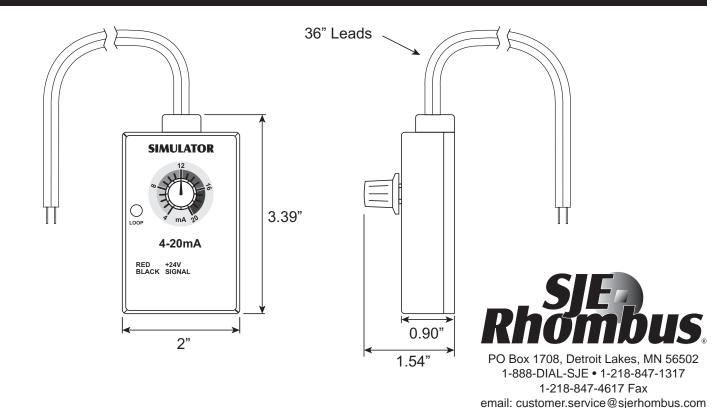
### A WARNING! EXPLOSION OR FIRE HAZARD



This product is NOT intended for use in hazardous locations as defined by the National Electrical Code, ANSI/NFPA 70.

SPECIFICATIONS	
EXCITATION VOLTAGE	12-24 VDC ±5%
SUPPLY CURRENT	30mA MAX.
OUTPUT SIGNAL	4-20mA
ACCURACY	±.5mA
OPERATING TEMPERATURE	+32º TO +122º F
ENCLOSURE MATERIAL	ABS PLASTIC
WEIGHT	5 oz.
CABLE	SPEC:20 AWG, 2 COND.LENGTH:36 INTERMINATION:FERRULE
FUSE	500mA 5x20MM FAST BLOW

# DIMENSIONS



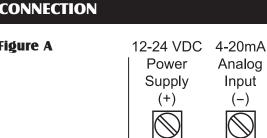
www.sjerhombus.com

#### **USING THE SIMULATOR**

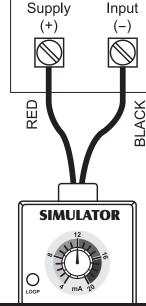
- 1. Connect the 4-20mA simulator according to Figure A.
- 2. The red lead must always be connected to the excitation voltage source and the black lead to the 4-20mA input terminal on the device to be tested.
- 3. When connected correctly and power applied, the green loop power indicator turns on and will increase in brightness as the current approaches 20mA.

## MARNING:

- a. Using the Simulator will cause your control system to respond accordingly. Machine may start or stop unexpectedly.
- b. This is a test equipment designed for troubleshooting only. Do not leave connected permanently or unsupervised.



**Figure A** 



### **TROUBLESHOOTING**

If the 4-20mA Simulator loop power indicator fails to light when connected:

- 1. Check all wiring connections and verify the excitation voltage is within the usable range.
- 2. Check the 4-20mA simulator fuse by removing the four screws on the back cover and removing the fuser cover.
- Contact the factory if the problem persists.

#### SJE-RHOMBUS<sup>®</sup> ONE-YEAR LIMITED WARRANTY

SJE-RHOMBUS® warrants to the original consumer that this product shall be free of manufacturing defects for one (1) year after the date of consumer purchase. During that time period and subject to the conditions set forth below, SJE-RHOMBUS®will repair or replace, for the original consumer, any component which proves to be defective due to defective materials or workmanship of SJE-RHOMBUS®.

#### ELECTRICAL WIRING AND SERVICING OF THIS PRODUCT MUST BE PERFORMED BY A LICENSED ELECTRICIAN.

THIS WARRANTY DOES NOT APPLY: (A) to damage due to conditions beyond the control of SJE-RHOMBUS®; (B) to defects or malfunctions resulting from failure to properly connect or operate the unit in accordance with printed instructions provided; (C) to failures resulting from abuse, misuse, accident, or negligence; (D) to units which are not used in accordance with applicable local codes, ordinances, or accepted trade practices, and (E) to units repaired and/or modified without prior authorization from SJE-RHOMBUS®.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

TO OBTAIN WARRANTY SERVICE: The consumer shall assume all responsibility and expense for removal, reinstallation, and freight. Any item to be repaired or replaced under this warranty must be returned to SJE-RHOMBUS®, or such place as designated by SJE-RHOMBUS®.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. SJE-RHOMBUS® SHALL NOT, IN ANY MANNER, BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF A BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.

#### NOTICE! Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment to ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.