

**INSTALLATION AND SERVICE INSTRUCTIONS  
FOR  
SEMISTAT™ DIRECT I/O STATUS INDICATOR  
MODEL SCB/SCC**

Address all communications and shipments to:



**FEDERAL SIGNAL CORPORATION**  
Electrical Products Division  
Service Department  
2645 Federal Signal Drive  
University Park, IL 60466-3195

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**⚠ SAFETY MESSAGE TO INSTALLERS, USERS AND MAINTENANCE PERSONNEL**

It is important to follow all instructions shipped with this product. This device is to be installed by a trained electrician who is thoroughly familiar with the Country Electric Codes and will follow these guidelines as well as local codes.

The selection of mounting location for the device, its controls and the routing of the wiring is to be accomplished under the direction of the facilities engineer and the safety engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Read and understand all instructions before installing or operating this equipment.
- Disconnect unit from the power supply before any installation or maintenance is performed.
- After installation, test the device to ensure that it is operating properly.
- After testing is complete, provide a copy of this instruction sheet to all operating personnel.
- Establish a procedure to routinely check the device installation for integrity and proper operation.
- The product nameplate, which may contain cautionary or other information of importance to maintenance personnel, should not be obscured in any way.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

**I. INSTALLATION.**

**A. Unpacking.**

After unpacking the light, examine it for damage that may have occurred in transit. If the equipment has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Carefully check all envelopes, shipping labels, shipping labels and tags before removing or destroying them.

**B. Mounting.**

The SemiStat is designed for mounting on a flat horizontal or vertical surface on machines, cabinets, and control panels. The unit may be mounted with the sounder grill at the top or bottom of the light windows. Three-high and four-high units have identical mounting footprints.

1. Surface Mounting.

a. Remove the cover by prying the snap-catch loose on either the top or bottom of the unit.

b. Mark the mounting holes on the surface by the dimensions shown in figure 1 or directly from the backplane. Also mark the location of the center-wiring hole.

c. Drill or punch the mounting holes and wire-entrance hole.

d. Mount the backplane to the mounting surface using the appropriate user supplied hardware.

e. Refer to the electrical connections instructions before reinstalling the cover.

C. *Electrical Connections.*

Units are provided with a nine-position screw terminal block to accommodate field wiring. This unit may be wired for continuous or flashing operation. The switching may be via dry contact or transistor switching. Transistor switching may be PNP or NPN type. Refer to the appropriate wiring diagram for instructions. Fusing is to be supplied by the user.



To avoid electrical shock hazards, do not connect to the supply circuit when power is applied.

1. Remove the cover as outlined above if necessary.

2. Route wiring (18-22AWG, 300V) through the center-wiring hole under the printed circuit board. Feed wires to the terminal block.

3. Strip wires a maximum of 0.25" (6mm) and insert wire into terminal block. If stranded wire is used, be sure that there are no loose strands outside the connector that could touch an adjacent lead to cause a short circuit. Tighten the terminal block screw to a maximum torque of 5 in-lb (.6Nm).

4. Connect wires according to the desired wiring scheme. Refer to attached diagrams.

5. If LED module or switch re-configuration is necessary proceed to section D. Otherwise, reinstall cover taking care not to pinch supply wiring.

D. *LED Module Configuration and Volume Control.*

The LED modules may be placed in any position on the printed circuit board. A white LED module may be purchased separately. To re-configure the LED modules:

1. Disconnect power to unit to prevent shock hazard.

2. Remove cover as outlined previously if necessary.

3. Lift the LED board upwards off of the PCB mounting headers.
4. Reinsert the module by aligning the box connectors with the PCB headers and press the module into place. Be sure that the module connectors fully engage the header pins and that the module is sitting flat.
5. Reinstall cover and test for proper operation.

The piezo sounder is provided with an adjustable volume control potentiometer (R14). To adjust, insert a small flat-blade screwdriver into the potentiometer slot and turn clockwise to increase the volume and counterclockwise to decrease the volume.

## **II. MAINTENANCE.**

This unit is generally maintenance free. The outer cover and lens may be cleaned using mild detergent, but remove first to avoid damaging the electronics. Low-pressure compressed air may be used to clean dust from the printed circuit boards if necessary. The only serviceable component on the device is the LED modules.

### *A. LED Module Replacement.*

1. Disconnect power to unit to prevent shock hazard.
2. Remove the cover by prying the snap-catch on the bottom of the unit.
3. Grasp the LED module and remove by lifting upwards. The box connectors will separate from the main PCBA headers.
4. Reinsert the module by aligning the box connectors with the PCB headers and press the module into place. Be sure that the module connectors fully engage the header pins and that the module is sitting flat.
5. Replace the cover.
6. Test unit for proper operation after replacement is complete.

### *B. Replacement Parts.*

Description	Part No.
LED Module, Red	K2001925A
LED Module, Amber	K2001925A-01
LED Module, Blue	K2001925A-02
LED Module, Green	K2001925A-03
LED Module, White	K2001925A-04

### **III. SERVICE.**

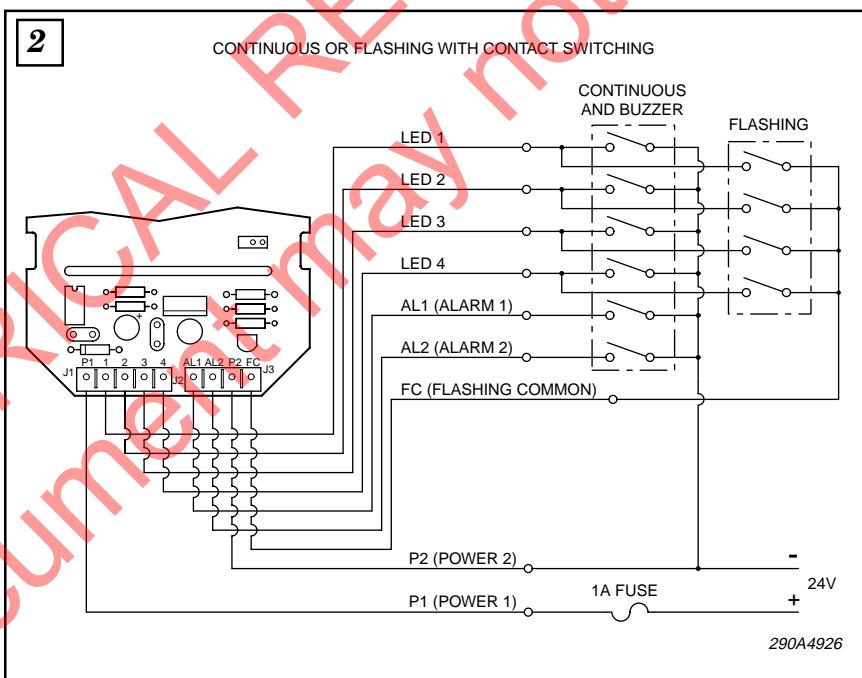
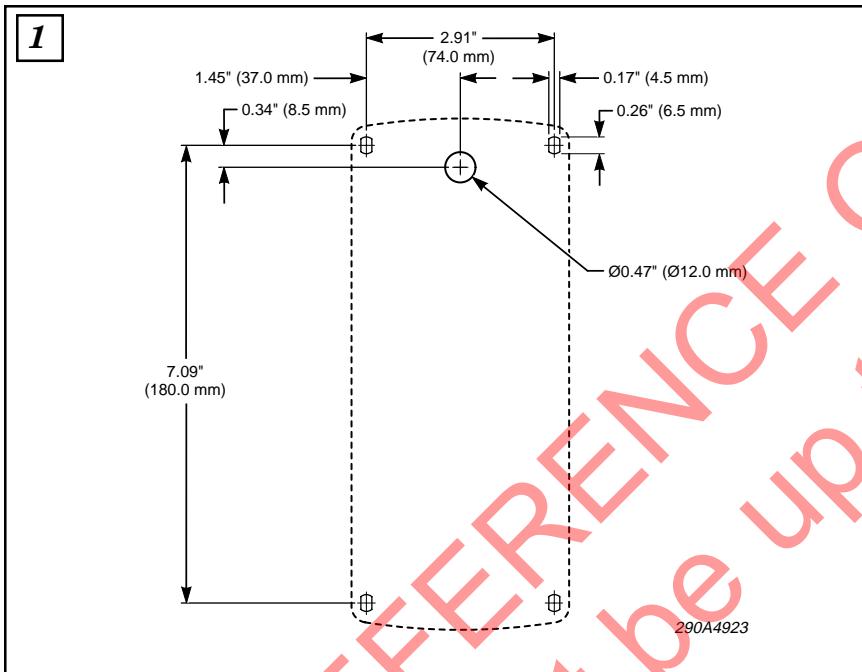
The Federal factory will service your equipment or provide technical assistance with any problems that cannot be handled locally.

Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization. This R.M.A. can be obtained from a local Distributor or Manufacturer's Representative.

At this time a brief explanation of the service requested, or the nature of the malfunction, should be provided.

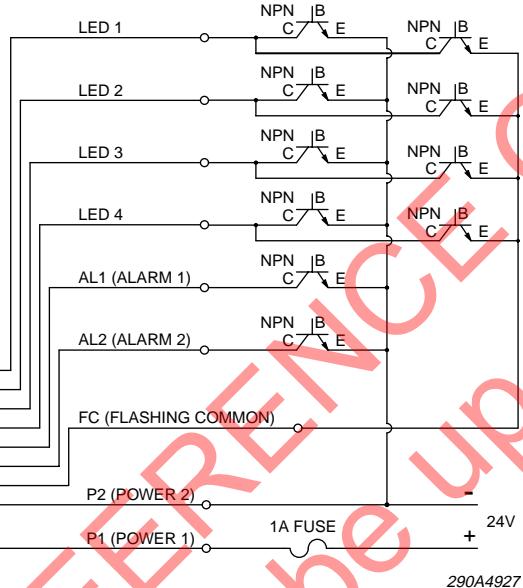
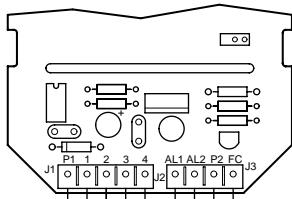
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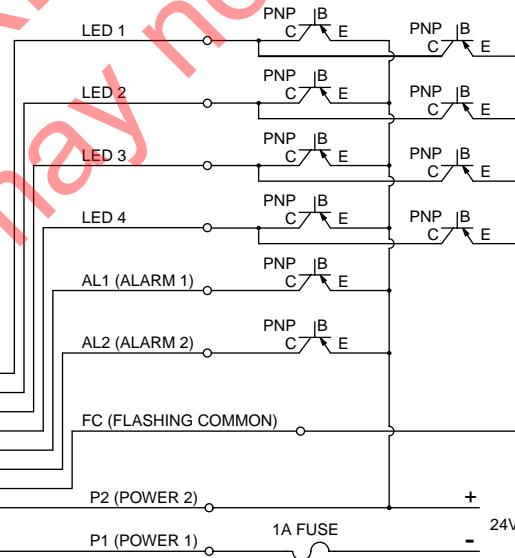
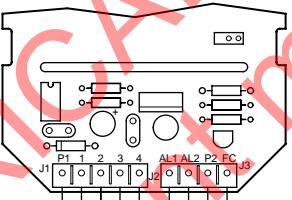


**3**

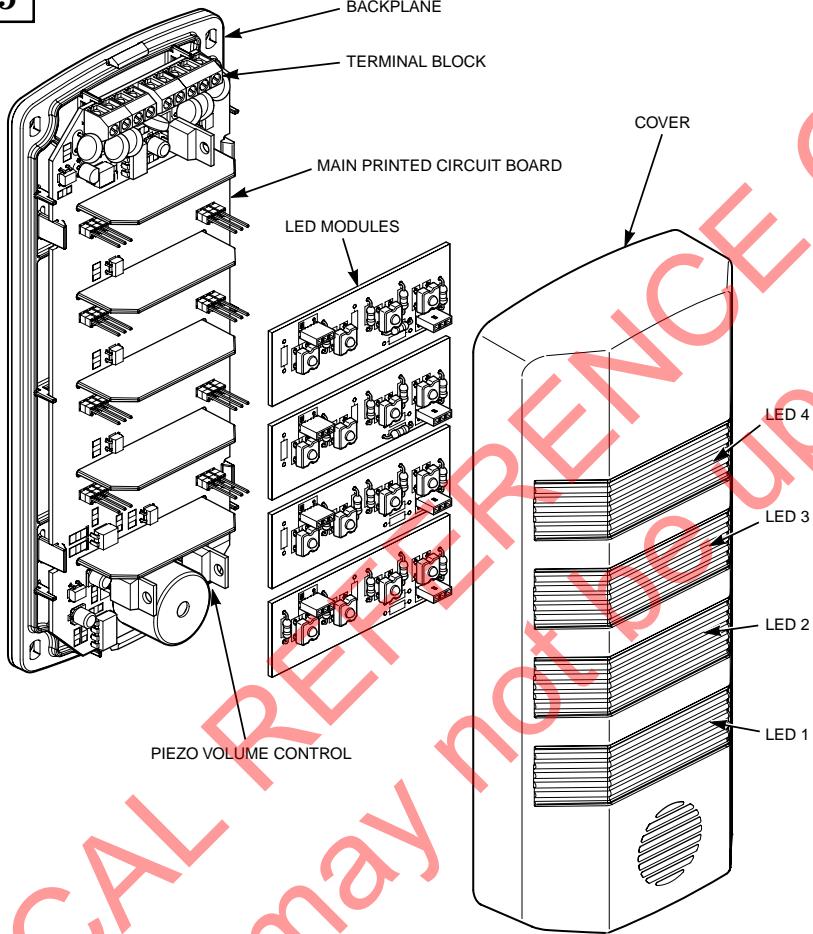
CONTINUOUS OR FLASHING WITH NPN TRANSISTOR

**4**

CONTINUOUS OR FLASHING WITH PNP TRANSISTOR



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