

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

# MRI-4050 SYNC MODULE

### ABOUT THIS MANUAL

This manual is included as a quick reference for installation and should be left with the owner/operator of this equipment.

### MODULE DESCRIPTION

The MRI-4050 sync module provide a means of controlling and synchronizing NAC devices such as horns, strobes and horn-strobe combinations. It is compatible with Secutron 400 series devices. It is designed to be used with compatible UL or ULC listed Fire panels or NAC power boosters which can provide a continuous (non-coded) 24V regulated output during alarm condition. The MRI-4050 works with either DC filtered or FWR voltage supply and can be connected to one class A or two Class B lines with a load of up to 3 Amperes per line. The MRI-4050 uses under 25mA average. During standby, when the supply voltage is reversed, device current is negligible and will not affect NAC line supervision schemes using EOL resistors.

Up to 20 MRI-4050 can be liked together to provide module to module synchronization. Two-stage and ON-OFF control of audible devices is provided at the individual module level: Overall strobe sync or audible status of other linked MRI-4050 will not be affected when one or several modules are set to silence condition. Sync and on-off controls are electrically isolated which allows linked MRI-4050 to operate from different supply sources without compromising ground fault detection. The module to module sync uses an automatic master-slave scheme that requires no programming or dip-switch setting. If the device being the current master is switched off, a new master will take over immediately without creating off-normal sync pulses. A LED on the MRI-4050 will indicate which device is the master (steady on) or a slave (pulsating).

### SPECIFICATIONS

**Operating Voltage:** 24V regulated (16 to 33V DC filtered or FWR)

**Alarm supply current:** maximum 25mA average

**NAC lines current:** 3A for class A, 2 x 3A for class B lines

**First stage and Silence input activation voltage:** 16 to 33V DC filtered or FWR

**First stage and Silence input current:** 3.5mA max @ 33VDC.

**Sync link:** Internally limited current and voltage

**Temperature Range:** 32°F to 120°F (0°C to 49°C)

**Humidity:** 10% to 93% Non-condensing

**Dimensions:** 4 5/8" H x 4 1/4" W x 1 1/8" D

**Mounting:** 4" square by 2 1/8" deep box or double-gang box

**Accessories:** BB-400 surface mounted backbox

**Wiring range on all terminals:** 22 to 12 AWG

### MOUNTING

Notice: You must disconnect power from the system before installing the module. If this unit is being installed in a system that is currently operational, it is necessary to inform the operator and the local authority that the system will be temporarily out of service.

The MRI-4050 module is intended to be mounted in a standard 4" square back-box (see Figure 2) or double-gang box. The box must have a minimum depth of 2 1/8 inches. Surface mounted electrical boxes (BB-400) are available.

### WIRING:

Note: This device should be installed as per applicable requirements of the authorities having jurisdiction.

1. Install the module wiring as indicated by the job drawings and appropriate wiring diagrams. See figures 3 to 5.
2. Mount the module in the electrical box as shown in figure 2.

FIGURE 1 MODULE FRONT:

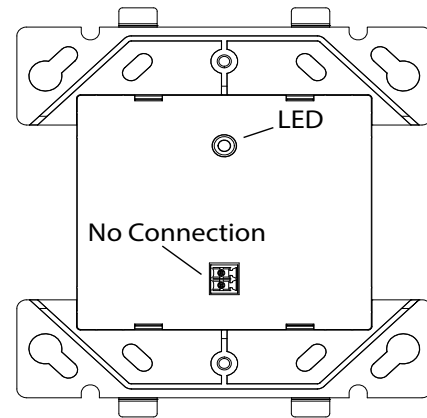
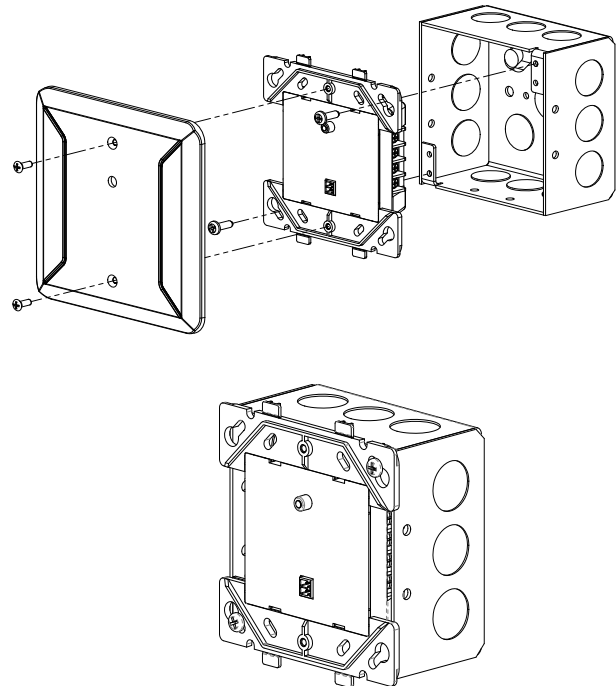
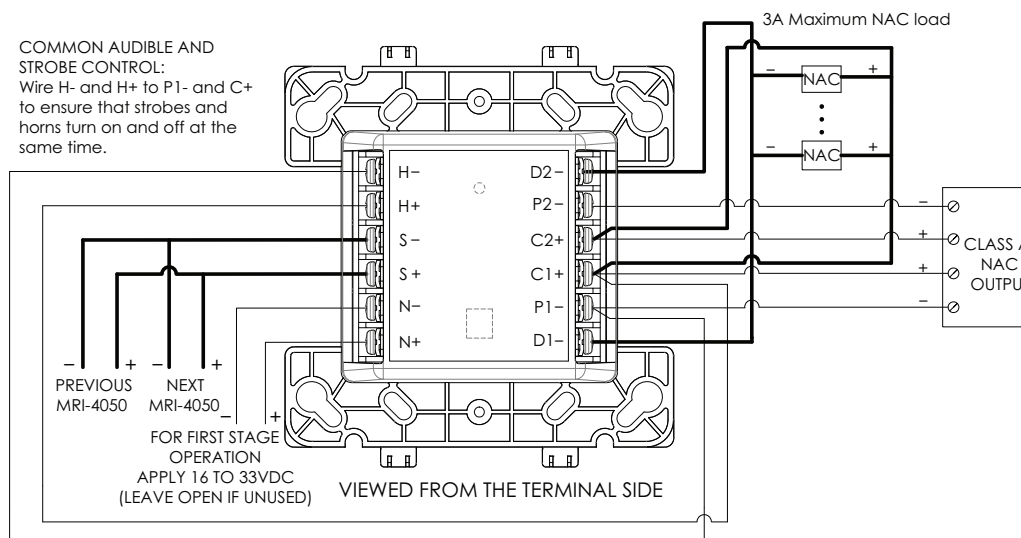


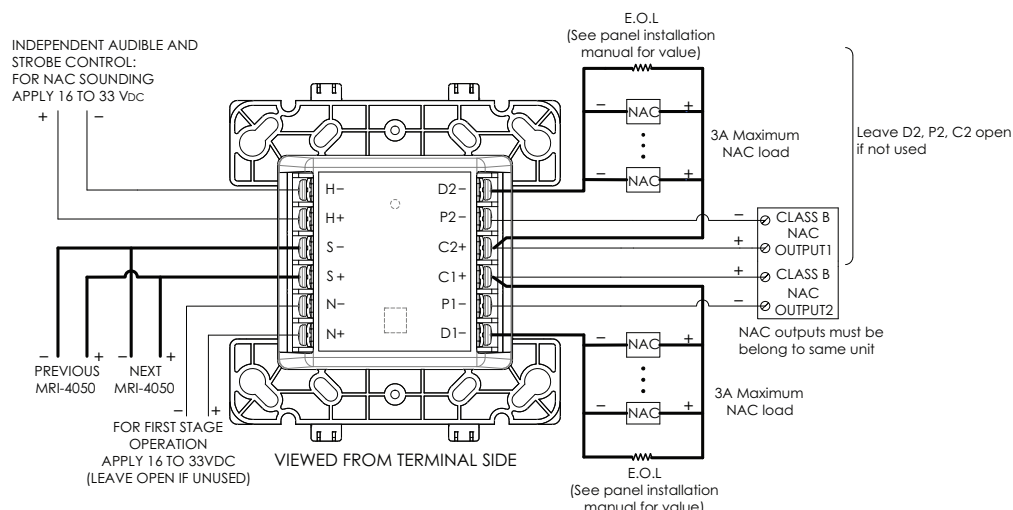
FIGURE 2 MODULE MOUNTING:



**FIGURE 3 SINGLE CLASS A WIRING:**



**FIGURE 4 DUAL CLASS B WIRING:**



**FIGURE 5 SYNC MODULES INTERCONNECTION (20 MODULES MAXIMUM):**

