

INTRODUCTION:

The 4090-9010 8 Amp Relay IAM provides control of one Form-A (normally open) and one Form-B (normally closed) set of relay contacts to the 4100ES, 4010ES, 4010 and 4100U Fire Alarm Control Panels (FACP).

The IAM reports its current state back to the FACP for confirmation of operation via IDNet channels. These channels provide the communication link between the IAM and the FACP and power the entire 8 Amp Relay IAM circuitry. The two contact sets are only used to control supplementary functions.

Note: The LED flashes approximately once every three seconds to indicate valid communication with the FACP.

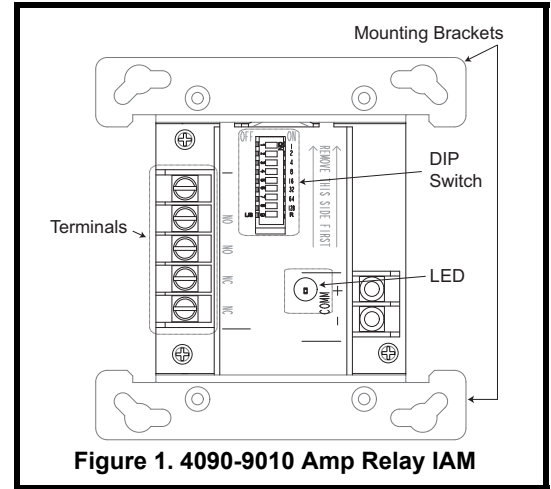


Figure 1. 4090-9010 Amp Relay IAM

MOUNTING INSTRUCTIONS:

Items not included but required:	1x UL-Listed 4-inch Square	1 cover: 4090-9801 Semi-flush Cover or 4090-9802 Surface Cover or standard 4-inch square electrical box cover
	2 x #8 Panhead Screws	

Mount the 8 Amp Relay IAM into a UL Listed 4-inch back box as follows:

1. Loosen the two screws on the square back box.
2. Mount the IAM to the back box using the teardrop holes on the mounting bracket.
3. Secure the IAM to the back box using the two #8/32 panhead screws.

Mounting Notes:

- To mount in a 4 11/16" square back box, order Adapter Plate 4098 - 9813.
- Covers with light pipes that allow viewing of the communications LED without cover removal are available and ordered separately. Cover 4090-9801 is for semi-flush mounted IAMs and cover 4090-9802 is for flush mounted IAMs. Installation instructions are detailed in document 574-796: *4090 IDNet Semi-Flush/Surface Covers and IAM Bracket Installation Instructions*.
- If controlling 120 VAC or 240 VAC with Relay Contacts, apply the supplied warning label 0526-831 to the cover.

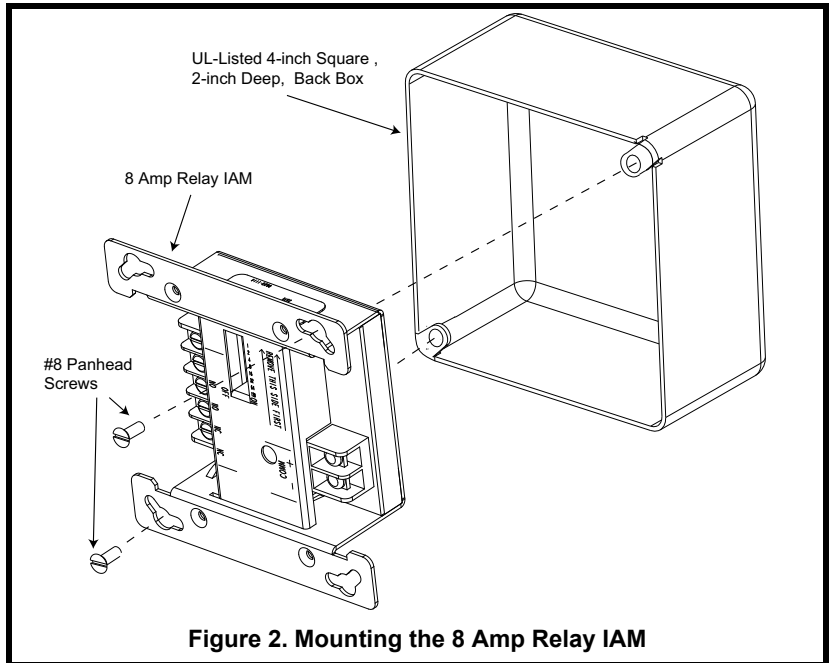


Figure 2. Mounting the 8 Amp Relay IAM

Cautions and Warnings

READ AND SAVE THESE INSTRUCTIONS- Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depend upon proper installation.



DO NOT INSTALL ANY SIMPLEX® PRODUCT THAT APPEARS DAMAGED- Upon unpacking your Simplex product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify an authorized Simplex product supplier.



ELECTRICAL HAZARD - Disconnect electrical field power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of your local Simplex product supplier.



STATIC HAZARD - Static electricity can damage components. Handle as follows:

- Ground yourself before opening or installing components.
- Prior to installation, keep components wrapped in anti-static material at all times.

WIRING INSTRUCTIONS:

WARNING: Make sure that all power is disconnected before starting the installation.

When wiring the 8 Amp Relay IAM, provide a minimum of ¼-inch spacing between IDNet wiring and contact wiring. Use separate conduit entries if the contacts are switching non power-limited power sources. When both power-limited, and non power-limited sources are present, use type FPL, FPLR, or FPLP power-limited cable for power-limited circuits.



IMPORTANT: Do not loop wire under terminals. Break wire runs to provide supervision.

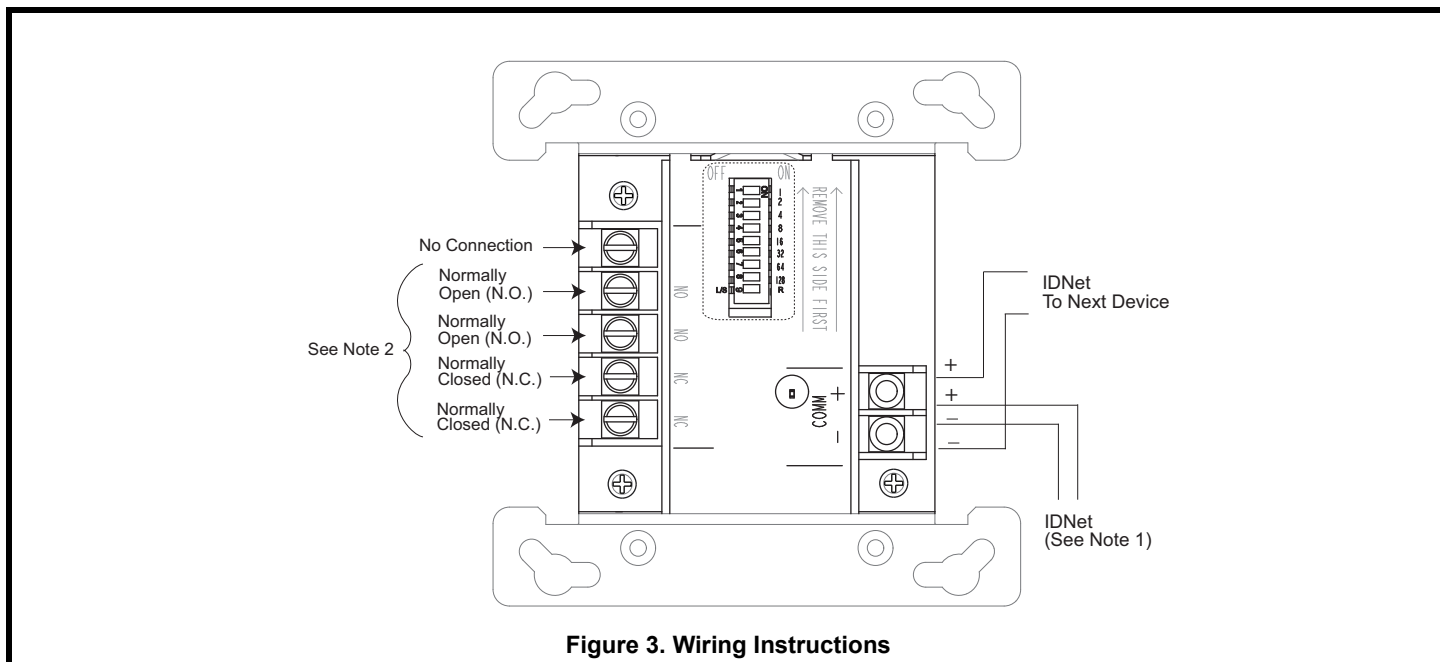


Figure 3. Wiring Instructions

Wiring Notes:

1. When connecting two wires to one terminal, position one wire on each side of the terminal screw. Maximum allowable run from the 4010 to the farthest device cannot exceed 2500 feet. Refer to *Field Wiring Diagram 842-073* for further information on ratings and wiring of 8 Amp Relay IAMs. Refer to 4010 panel label 526-444 to use an appropriate revision of the field wiring diagram. IDNet wiring is supervised and power-limited.
2. Contractor wiring to relay contacts is unsupervised. Use #14 AWG or wiring that meets local code requirement. Relay contact wiring is only power-limited if switching power is provided by the 4010 FACP or a UL-listed power-limited power supply for fire protective signaling systems. Inductive loads (0.35 power factor) must be suppressed with a suitable UL-listed suppression device. The operation of this relay is programmable. Relay contacts rated at 8 A 30 VDC resistive, 3.5 A for a 0.35 power factor inductive load; 8 A 250 VAC resistive, 3.5 A for a 0.35 power factor inductive load.

SETTING THE ADDRESS

Each 8 Amp Relay IAM has a unique address (1 through 250). The address of the IAM is set via an eight position DIP switch. DIP switch position 1 is the least significant bit (LSB) and position 8 is the most significant bit (MSB). Set the address using Figure 4 as a reference. Use a small screwdriver or pen to set the switches.

Note: DIP switch in “1” position is “ON” while DIP switch in “0” position is “OFF.”

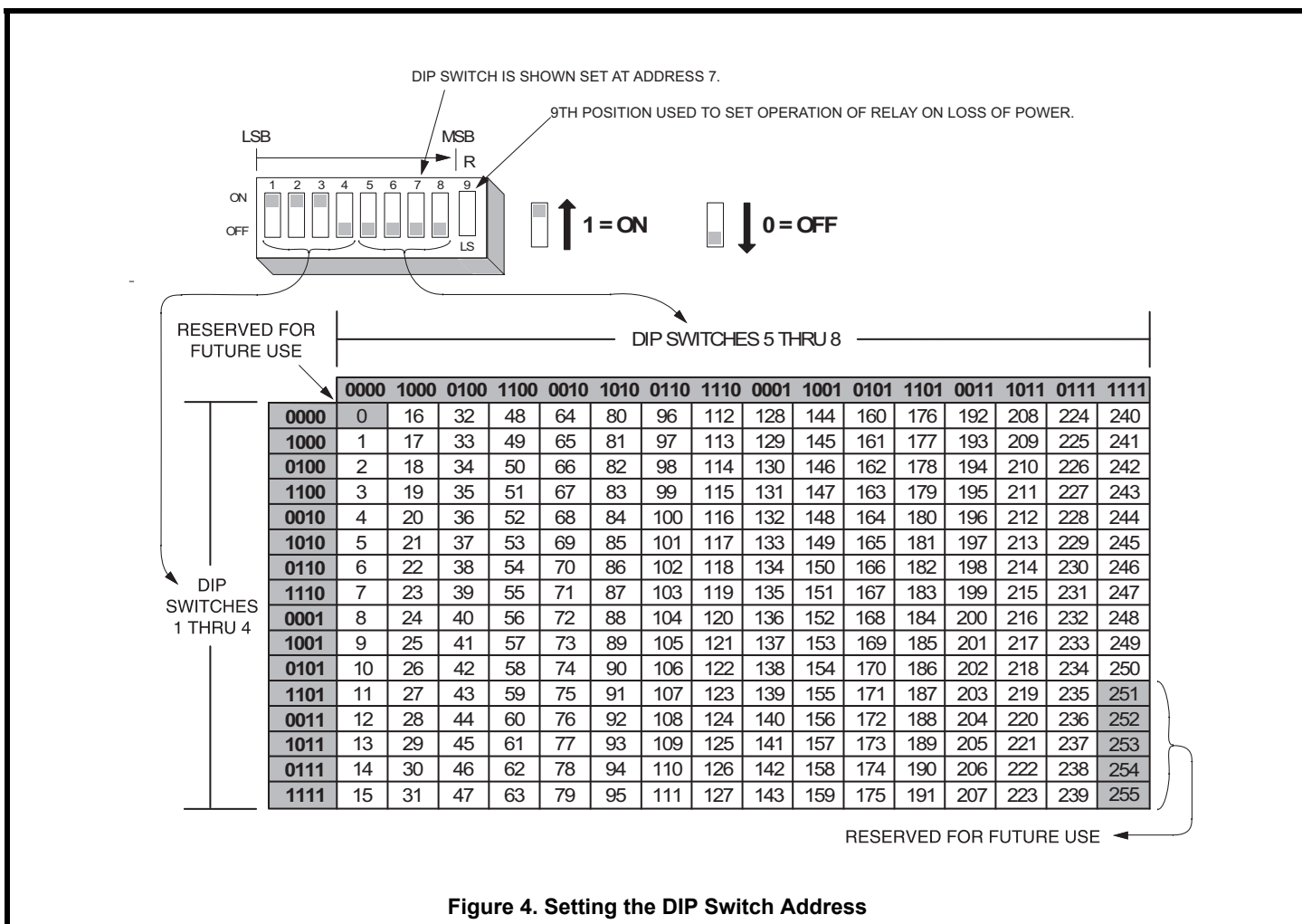


Figure 4. Setting the DIP Switch Address

4010 FACP (IDNet Channel)

Configure the 8 Amp Relay IAM (referred to in the application manuals as RIAM) for the 4010 panel using the *4010 Fire Alarm – PC Programmer Installation and Programming Instructions (574-187)* and *4010 Fire Alarm – Front Panel Installing, Operating, and Programming Instructions (574-052)*. Refer to panel label 526-444 to use the appropriate revision of the instructions.

4100U and 4100ES FACP (IDNet Channel)

Configure the 8 Amp RIAM for the 4100U or 4100ES panel using the *ES Panel Programmer's Manual (574-849)*.

9th Position DIP Switch Setting

To return the Relay contacts to the RESET condition on power up or power down, set the 9th DIP switch to the ON position, towards the “R” marking.

To have the Relay contacts remain in their current state on power up or power down, set the 9th DIP switch to the OFF position, towards the “L/S” (Last State) marking.

