Installation Guide

1.0 Notice

- These instructions are for the installation of the D9055 3 amp Notification Circuit Booster in a Notification Appliance Circuit (NAC) controlled by the Radionics D8024, D9024 or the D10024 Fire Alarm Control Panel (FACP).
- Installing the D9055 in a notification appliance circuit consists of:
  - Mounting the D9055 in an enclosure.
  - Removing power from the FACP.
  - Connecting the D9055 to the NAC.
  - Connecting the D9055 to the transformer.
  - Connecting remote LEDs.
  - Restoring power to the system.

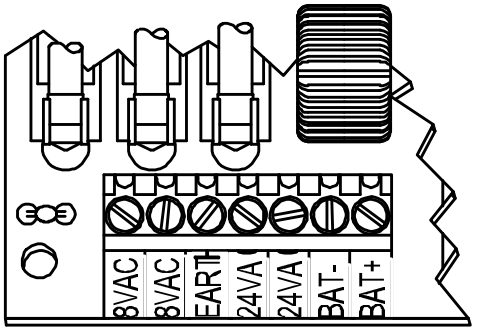

Figure 1: D9055 Power Connections

CAUTION

These instructions contain procedures to follow in order to avoid injury and damage to equipment.

2.0 Installation Standards

- Install, test, and maintain these devices according to these instructions, NFPA 72, Local Codes, and the Authority Having Jurisdiction. Failure to follow these instructions may result in failure of the system to initiate an alarm condition. Radionics is not responsible for improperly installed, tested or maintained devices.

3.0 Description

- The D9055 is a Notification Appliance Circuit Booster that provides three amps of 24V DC power into one circuit. It supervises the NAC, its power supply and the standby battery supply. This allows remote monitored power supplies to be located near to the load they are controlling. D9055 boosters may be placed anywhere in the circuit. The last notification appliance in the circuit must have an end of line resistor to insure supervision of the circuit.
- The D9055 and its transformer are mounted in a louvered fire-rated enclosure with space provided for standby batteries. The transformer provides 24V 120VA and 8V 20VA power to the D9055.
- A reverse polarity output from the FACP activates the power supply.
- Refer to the D8024, D9024, D10024 Technogram (P/N: 73-07535-000) for device compatibility listings.

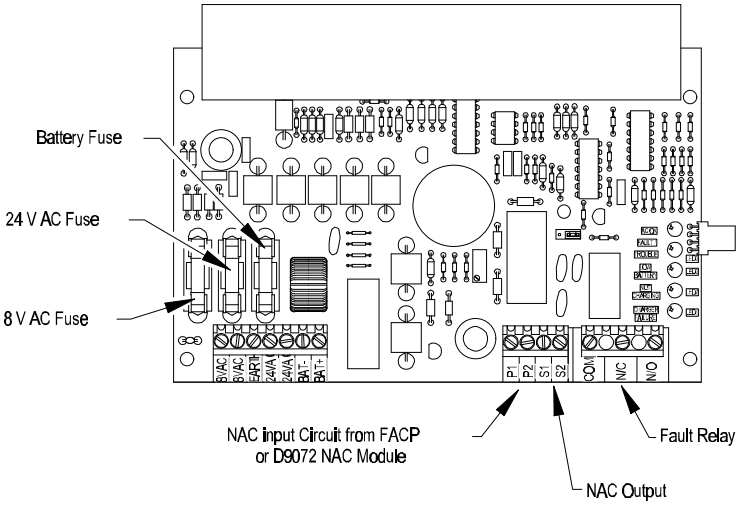

Figure 2: D9055 NAC Booster

4.0 Removing Power from the FACP

- Remove AC power from the system at the dedicated 120V AC breaker, “lock out” the breaker and remove the standby battery power before making or breaking any connections to the FACP.
- **Disconnect all power to the FACP before installing the D9055 NAC Circuit Booster.**

5.0 Connecting the D9055 to the Notification Appliance Circuit

- Connect the input wires from the notification appliance circuit to terminals P1 (positive) and P2. Connect the Notification Appliance Circuit (NAC) output wires to terminals S1 (positive) and S2.

6.0 Connecting the D9055 to a Power Source

- The input and standby power terminal connections to the D9055 are at the lower left of the board. Connect the 8V leads from the transformer to the two 8V AC terminals on the left. Connect the common ground from the transformer to the EARTH terminal. Connect the two 24V AC leads from the transformer to the 24V AC terminals.

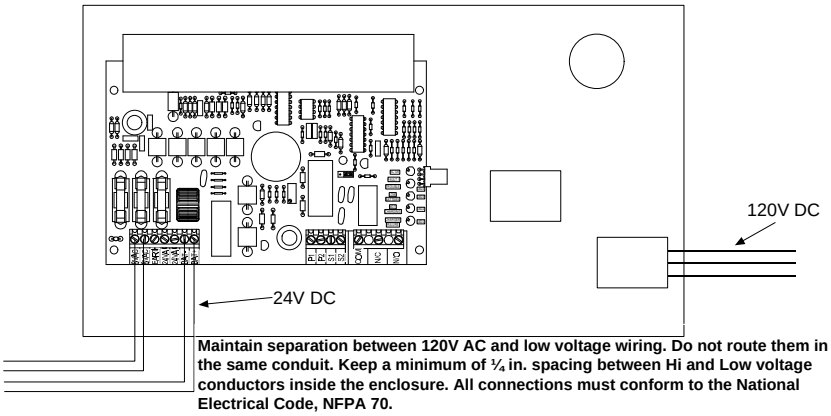

Figure 3: Separation of Circuits

- Connect the negative battery (BAT-) terminal on the circuit booster to the negative terminal of battery No. one. Connect the positive terminal of battery No. one to the negative terminal of battery No. two. Connect the positive terminal of battery No. two to the positive battery (BAT+) terminal on the circuit booster.
- **Be sure to route the high voltage and low voltage separately when connecting AC power.**

7.0 Connecting Remote LEDs

- The four-pin header next to the LED display provides connection points for remote LEDs to annunciate AC OK and FAULT/TROUBLE.

8.0 Restoring Power to the System

Close the 120V AC dedicated breaker that controls the power input to the FACP. The green AC OK LED on the D9055 lights to show that the AC power supply is on.

9.0 LED Display

- There are four functioning LEDs on the D9055 NAC Booster.
- **LED 1:** Lights to indicate that the charger has fallen below 24V.
- **LED 2**: Lights to indicate an open circuit on the battery circuit.
- **LED 3:** Lights to indicate a low battery charge.
- **LED 4:** Lights to indicate a fault or trouble (any of the above three conditions).

10.0 Specifications

Model Number	D9055
Primary Power	120 V AC Primary
NAC Supervisory Output	8 V 20 VA DC
NAC Output	25 V, 3 A (nominal) DC
Battery Charging Circuit	27.6 V, 0.7A (nominal) DC
On-board Fault Relay	One form “C” contact rated at 1 A @ 30 V DC
Surge Protection Fuses	**8 V, 20 VA Input:** 1.6A; 24V, **120 VA AC Input:** 5A; 24V **Battery:** 3.15A
Operating Temperature	32°F to 120°F (0°C to 49°C)
Maximum Humidity	85% RH-Non Condensing (@104°F, 40°C))
End of Line Resistor	2.2 k ohms
Dimensions	6-7/8” W x 4-5/8” H (15cm W x 12cm D)

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