

# Power Supply Module

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## FEATURES

- **24 Vdc System Power Supply**
- **4 Amp Output Rating**
- **Flexible Expandable Design**
- **Battery Charging and Supervision**
- **True Load Battery Test with Report**
- **Ground Fault Detection**
- **Auxiliary Power Outputs**
- **Power Supply Trouble Contact**

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## DESCRIPTION

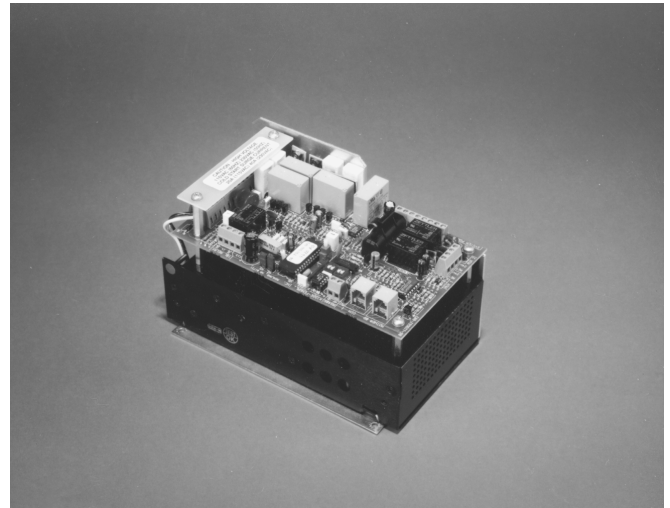
The Kidde® PEGAsys™ Power Supply Module is a microprocessor based assembly which provides the system with 24 Vdc power derived from 120 or 220 AC input power. The 24 Vdc power operates the entire system including the main enclosure hardware and Intelligent Loop devices such as SmartOne® smoke and heat detection devices, addressable input and output devices and audible/visual indicating appliances.

The Power Supply Module communicates with the Central Control Module over the serial RS-485 I/O bus. In the event of any trouble condition involving the Power Supply Module, the CCM will display a specific trouble message informing the operator of the trouble for the particular power supply by module address. Conditions that are monitored by the Power Supply Module are AC Input Failure, Battery Failure and Capacity, Ground Fault Detection (+/-), Power Supply Failure, Microprocessor Failure and Communications Failure. The CCM is capable of displaying a trouble for each of the previously listed trouble conditions.

In applications that require increased 24 Vdc power, the Power Supply Module can be expanded to provide a full 8 Amps of 24 Vdc power. The module assembly provides connections for and supervision of an additional power supply unit, which supplies an additional 4 Amps of 24 Vdc power.

The power supply charges and supervises sealed gel-type lead acid batteries which provide standby power necessary during AC input power failure conditions. In the event of AC power (120/220) failure, the power supply will automatically transfer to standby battery operation and initiate a system trouble.

The unique battery test feature, when initiated, performs an actual battery capacity test by placing the batteries under an actual load condition. The power supply reports the results to the CCM for display purposes. If during the test condition the battery voltage should dip below a factory set threshold value, a test failure would be generated by the system.



Ground fault detection circuitry insures system integrity by annunciating inadvertent short conditions of system 24 Vdc conductors to earth ground. Both positive and negative sides of the 24 Vdc are monitored. The corresponding trouble message would indicate polarity of the conductor affected by the short to assist locating and correcting the problem.

Two power limited 24 Vdc auxiliary outputs are provided for operation of auxiliary field devices. Auxiliary outputs are programmable for a reset or non-reset operation. These outputs are typically used to power four wire devices such as UV/IR flame detectors, beam smoke detectors and the like.

A DPDT Form "C" dry contact is provided for remote annunciation of power supply trouble conditions. These contacts transfer on any power supply trouble condition.

## INSTALLATION

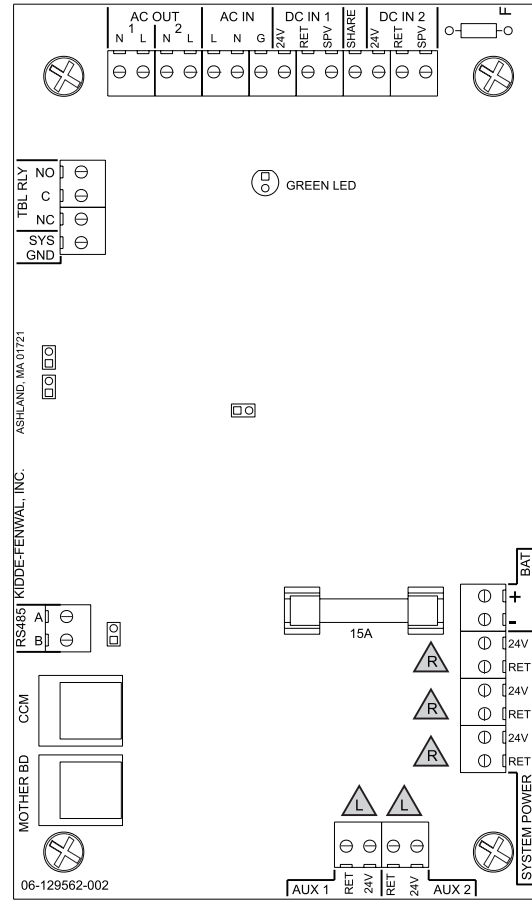
The Power Supply Modules and auxiliary power supplies mount on studs provided in the main and expansion enclosures of the Kidde PEGAsys system.

## ORDERING INFORMATION

Part Number	Description	Weight
76-100009-010	Power Supply Assembly	5.0 lb.
76-100009-002	Auxiliary Power Supply (AC/DC unit only), 36-inch Wiring Harness for use in Main Enclosure	4.0 lb.
76-100009-003	Auxiliary Power Supply (AC/DC unit only), 8-inch Wiring Harness for use in Expansion Enclosure	4.0 lb.

## TECHNICAL INFORMATION

Input Voltage:	120/220 Vac, 50/60 Hz
Input Current:	2.5 Amps AC (Max.)
Output Rating:	24 Vdc, 8 Amps (Max.)
Battery Charger Output:	3 Amps @ 26.4 Vdc
Auxiliary Output Rating:	24 Vdc, 1 Amp each
Maximum Ripple Voltage:	10 mVolts (RMS) (Max.)
Operating Temperature:	32° to 120°F
Battery Type:	Sealed Lead Acid, Gel Type, 12 Vdc (2 Required) 99 Ah Maximum



△L=Power Limited    △R=Regulated Output

Figure 1. Power Supply Wiring Drawing

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