

Power Supply Module



A UTC Fire & Security Company

F-74-202

FEATURES

- **24 VDC System Power Supply**
- **4-Amp Output Rating**
- **Expandable Design**
- **Battery Charging And Supervision**
- **True Load Battery Test**
- **Ground Fault Detection**
- **Auxiliary Power Outputs**
- **Power Supply Trouble Contact**

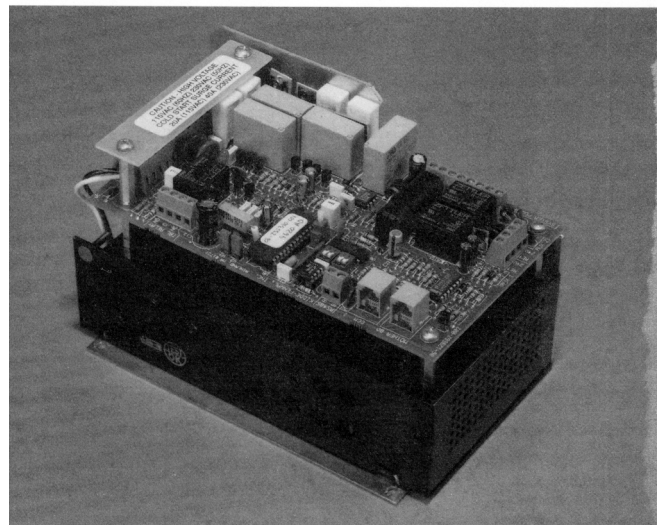
DESCRIPTION

The FenwalNET 2000™ 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 such devices as SmartOne™ smoke & heat detection devices, FenwalNET 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 buss which also supports the I/O Expansion Modules. 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. Conditions which are monitored by the Power Supply Module are AC Input Failure, Battery Failure & 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.

The Power Supply Module Assembly (P/N-74-200009-010) is comprised of a power supply monitor, PCB, and an AC/DC Switching Module. The power supply monitor PCB, is capable of supervising and controlling two AC/DC Switching Modules. The power supply monitor provides the functionality described above while the AC/DC Switching Module provides up to 4 Amps of 24 VDC power.

In applications which require increased 24 VDC power, the Power Supply Module can be expanded to provide a full eight (8) amps of 24 VDC power. The module assembly provides connections for and supervision of an AC/DC switching unit, which supplies an additional 4 Amps of 24 VDC power. The system supports a maximum of 8 Power Supply Module assemblies for a maximum system power of 64 Amps @24 VDC.



The unique battery test feature (when initiated), performs an actual battery capacity test by placing the batteries under load conditions. 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 minimize the time required to locate and correct the problem.

Two power limited 24 VDC auxiliary outputs are provided for operation of auxiliary field devices. Auxiliary outputs are programmable for resettable or non-resettable 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

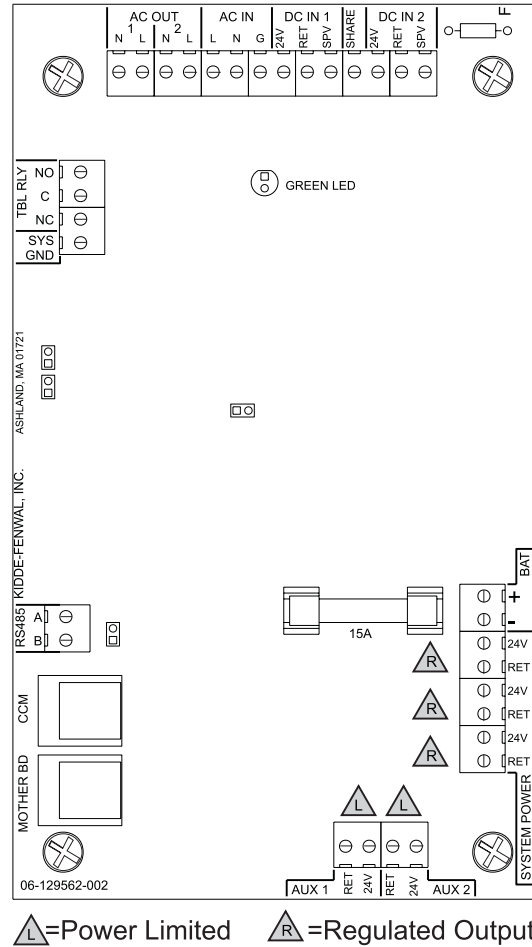
The Power Supply Modules and auxiliary power supplies mount on studs provided in the main and expansion enclosures of the FenwalNET 2000 system.

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 mV RMS (Max.)
 Operating Temperature: 32-120° F
 Battery Type: Sealed Lead Acid,
 Gel Type, 12 VDC
 (2 Required) 99 AH Max.

ORDERING INFORMATION

Part Number	Description	Weight
74-200009-010	Power Supply Assembly	5.0 lbs.
74-200009-002	AC/DC Switching Module, 36" wiring harness for use in main enclosure	4.0 lbs.
74-200009-003	AC/DC Switching Module 8" wiring harness for use in expansion enclosure	4.0 lbs.



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