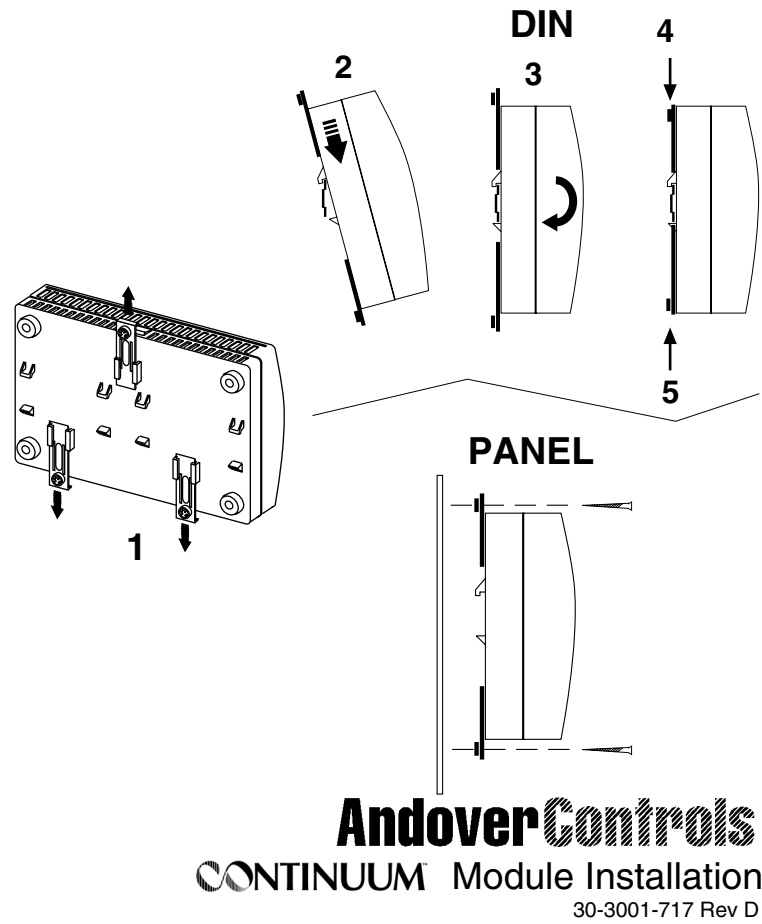


Mechanical



Wiring Rules

These modules are intended for installation within the enclosure of another product

- High voltage AC Power wiring should be routed to the conduit opening nearest the AC power terminals.
- Do not bundle or route AC Power wiring with low voltage input or output wiring.
- Be absolutely certain that your installation complies with all aspects of the National Electric Code, NFPA 70. Be **especially** sure that your system is properly grounded.

Building Ground Requirements

Be sure that all equipment from Andover Controls is grounded to true Earth ground. True Earth ground protects the equipment from transients and other power surges in the area. We cannot guarantee that the controller system will operate as documented without a properly grounded installation.

An example of a sub-standard ground is a galvanized steel cold water pipe. As the pipe corrodes, it does not act as a true ground. The corrosion acts as an insulator, raising the potential of the pipe with respect to the ground.

When lightning strikes in the area of the installation, it drastically changes the potential of the Earth. Since properly grounded Andover Controls units respond to changes in potential more rapidly than poorly grounded electrical systems, a poorly grounded building tries to reach ground through the Andover Controls system. The surge of current can destroy electronic components on the controller board. Surges of much lower potential than lightning also impact the reliability of the equipment.

Inspecting the Ground

Be sure to have your grounds inspected before you begin the installation process to be sure your municipality follows the National Electrical Code. Many municipalities do not follow the code and often have substandard electrical grounds.

Check your ground as follows:

Inspect the building power distribution panel for Earth-ground termination. If the ground termination is any of the following, it is not adequate and must be corrected:

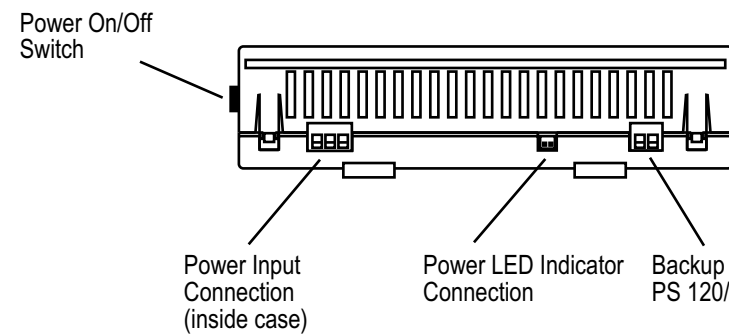
- Does not exist.
- Is connected to a corroded or galvanized pipe.
- Is connected using a small gauge wire (less than 14 AWG).

Be sure your Andover Controls cabinet is connected to the ground with a copper conductor that terminates at the distribution panel.

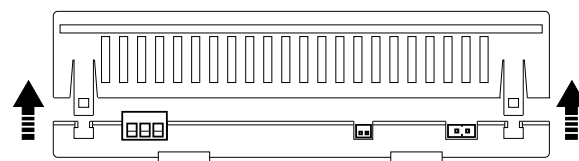
Lightning Protection

Metal oxide varistors are built into the power supply to protect against power line transients.

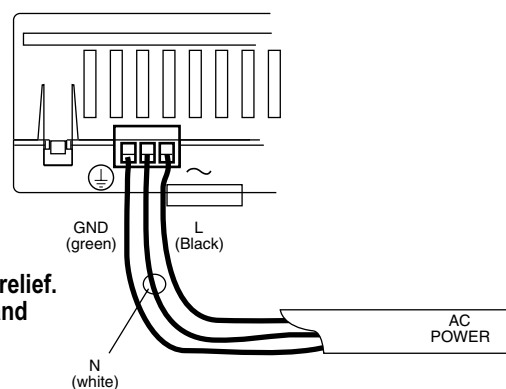
Power Supplies PS 120/240 AC 50, AC 85, AC 50-U, AC 85-U / PS -48 DC 50



Open Case to Access Power Input Connector

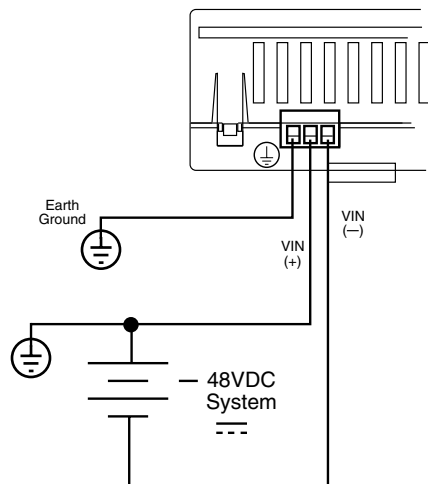


AC Power Connection (inside case) PS 120/240 AC 50, AC 50-U, AC 85, AC 85-U

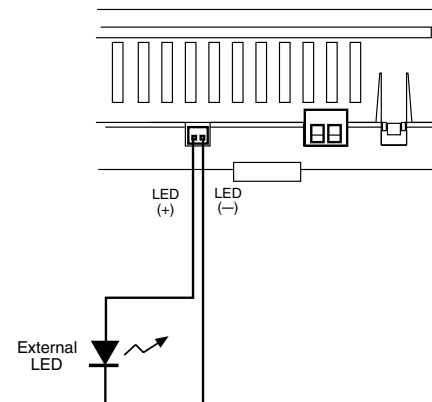


Use care when attaching AC wiring to this connector. It is not to be used as a strain relief. This connector cannot withstand excessive bending or flexing.

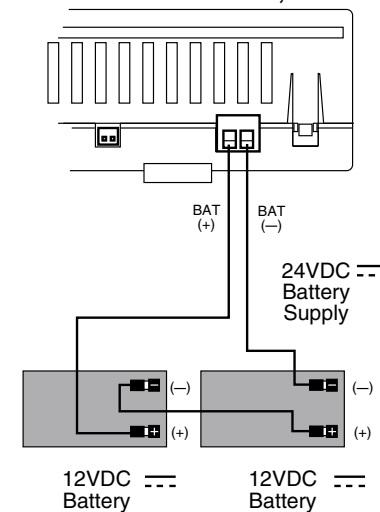
DC Power Connection PS -48 DC 50



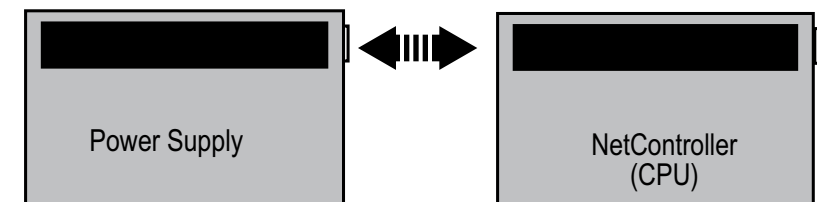
LED Power Indicator Connection All Units



Backup Battery Connection PS 120/240 AC 50-U, AC 85-U

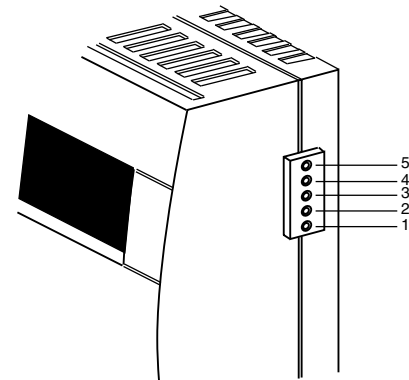
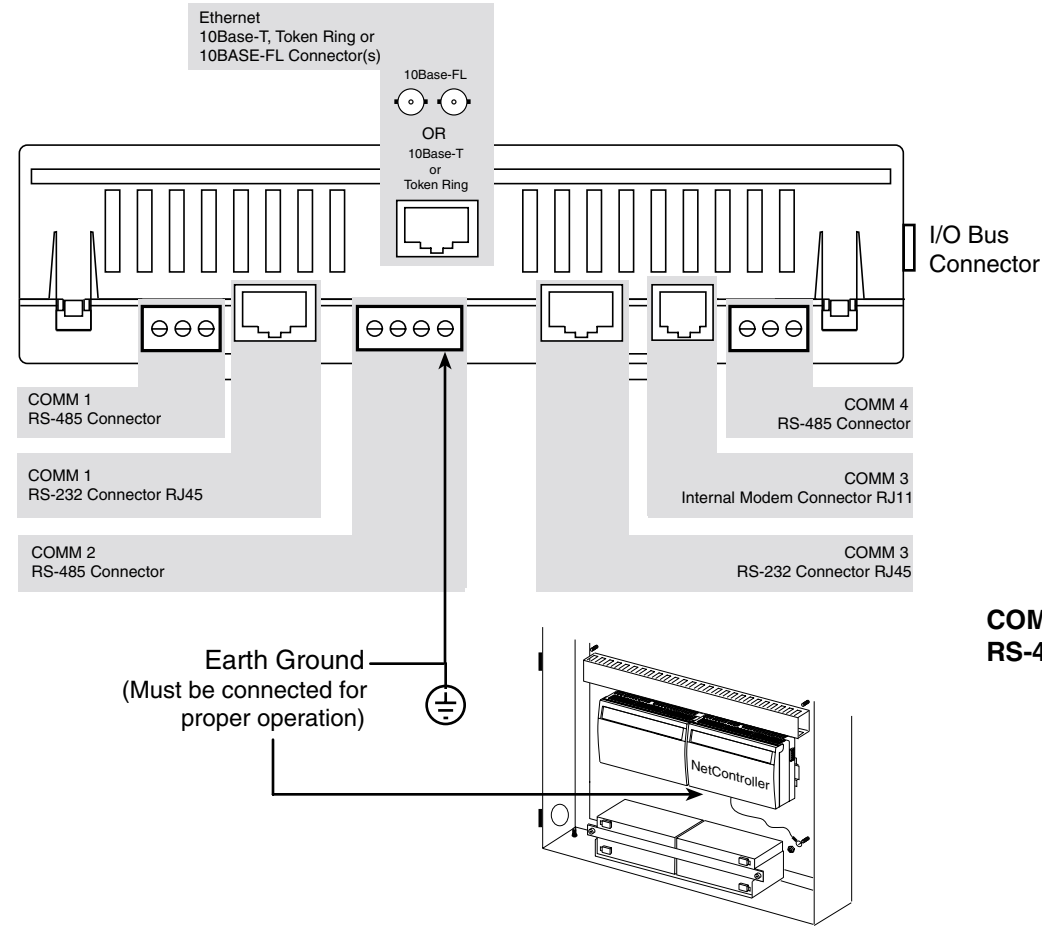


Direct Connect



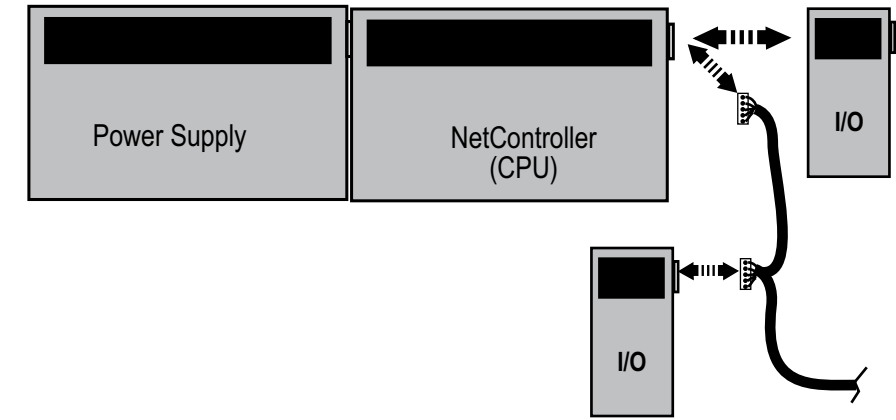
Power Supply	Input Voltage	Output Power
PS 120/240 AC 50	120 - 240 VAC 50/60 HZ	50 Watts
PS 120/240 AC 50-U	120 - 240 VAC 50/60 HZ	35 Watts
PS 120/240 AC 85	120 - 240 VAC 50/60 HZ	85 Watts
PS 120/240 AC 85-U	120 - 240 VAC 50/60 HZ	70 Watts
PS -48 DC 50	-48 VDC	50 Watts

NetController

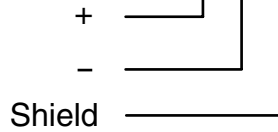


I/O Bus Connector

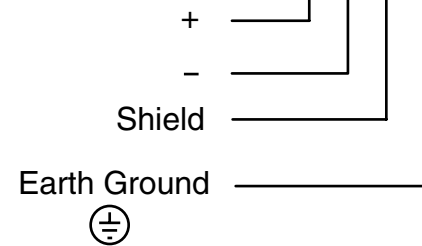
PIN	Function
5	+24 VDC
4	24 VDC Return
3	Shield
2	Comm B
1	Comm A



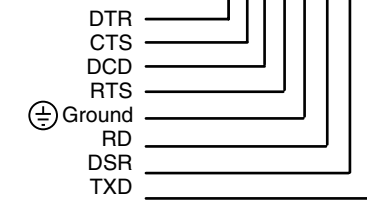
COMM 1 RS-485 Connector



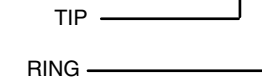
COMM 2 RS-485 Connector



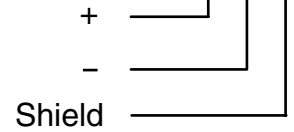
COMM 1 & 3 RS-232 Connectors



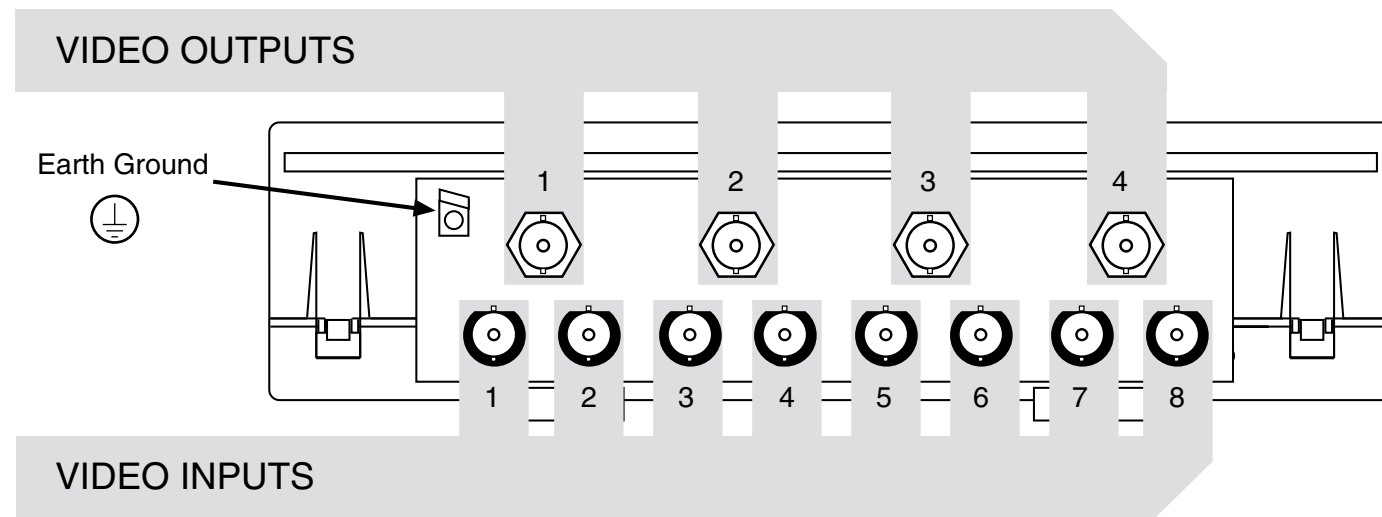
COMM 3 Modem Connector



COMM 4 RS-485 Connector



Video Switcher VS-8-4 / VS-8-4-T



8 INPUTS

Impedance: 75Ω
Connection: BNC connector
Bandwidth (-3dB): > 75MHz (Rload=150 Ω)

4 OUTPUTS

Impedance: 75Ω
Connection: BNC connector
Signal: 2V pk/pk