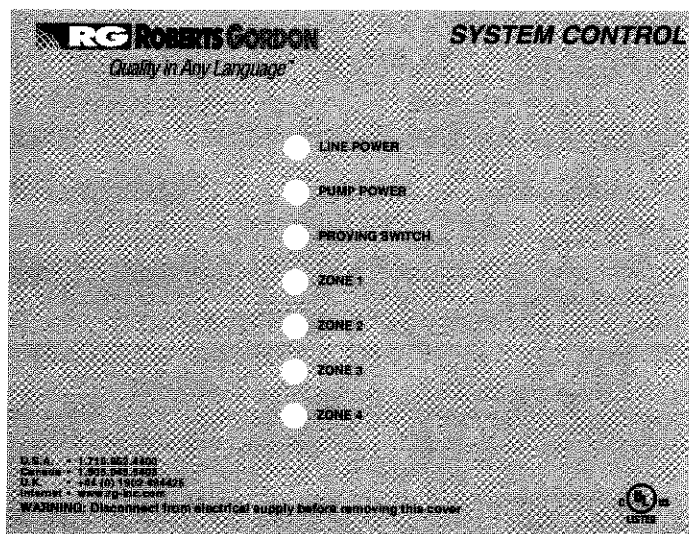


System Control

Installation, Operation & Service Manual



▲ WARNING

Improper installation, adjustment, alteration, service or maintenance will result in death, injury or property damage. Read the installation, operation and service manual thoroughly before installing or servicing this equipment.

Installation must be done by a electrician qualified in the installation and service of control systems for heating equipment.

Installer

Please take the time to read and understand these instructions prior to any installation. Installer must give a copy of this manual to the owner.

Owner

Keep this manual in a safe place to provide your serviceman with information should it become necessary.



Quality in Any Language™

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SECTION 4: TYPICAL EXTERNAL WIRING DIAGRAMS

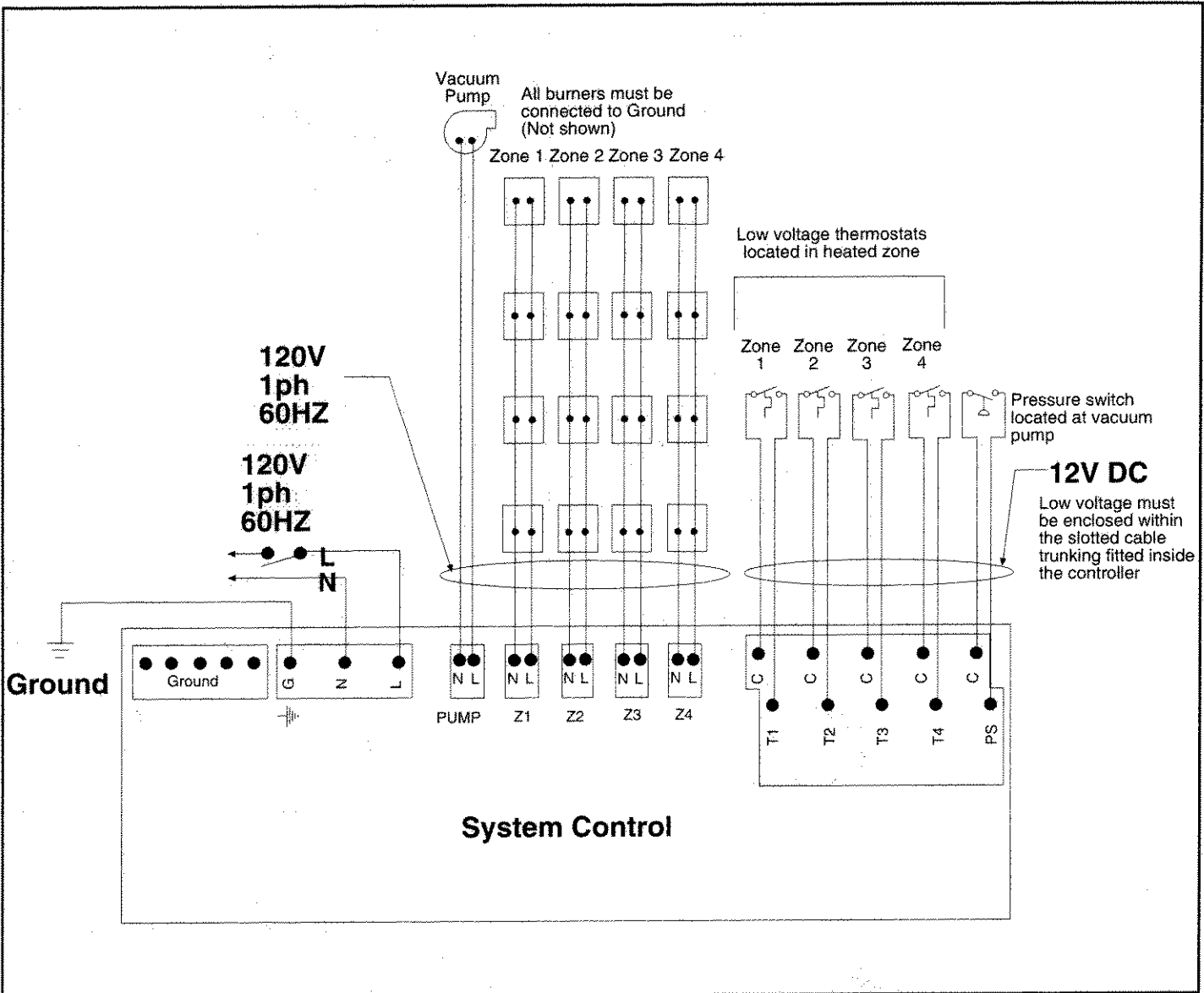


FIGURE 5 - External Wiring Diagram EP 100 or EP 201 120V 1ph Pump

4.1 120V 1PH EXTERNAL WIRING DIAGRAM

The external wiring diagram above shows the connections for four zones of system burners. System burners can be either CORAYVAC® or VANTAGE® EV.

The zones are connected to a single vacuum pump. The external wiring diagram above shows connection to an EP 100 or EP 201 pump.

4.1.1 External wiring connection details

⚠ WARNING	
Electrical Shock Hazard	
	<p>The cable used for all the wiring must be rated for line voltage up to 250V.</p>
	<p>The low voltage circuit conforms with Class 2 separation of circuits requirements. National Electrical Codes® for wiring class 2 low voltage circuits must be followed.</p>
	<p>Failure to follow these instructions will result in death or electrical shock.</p>

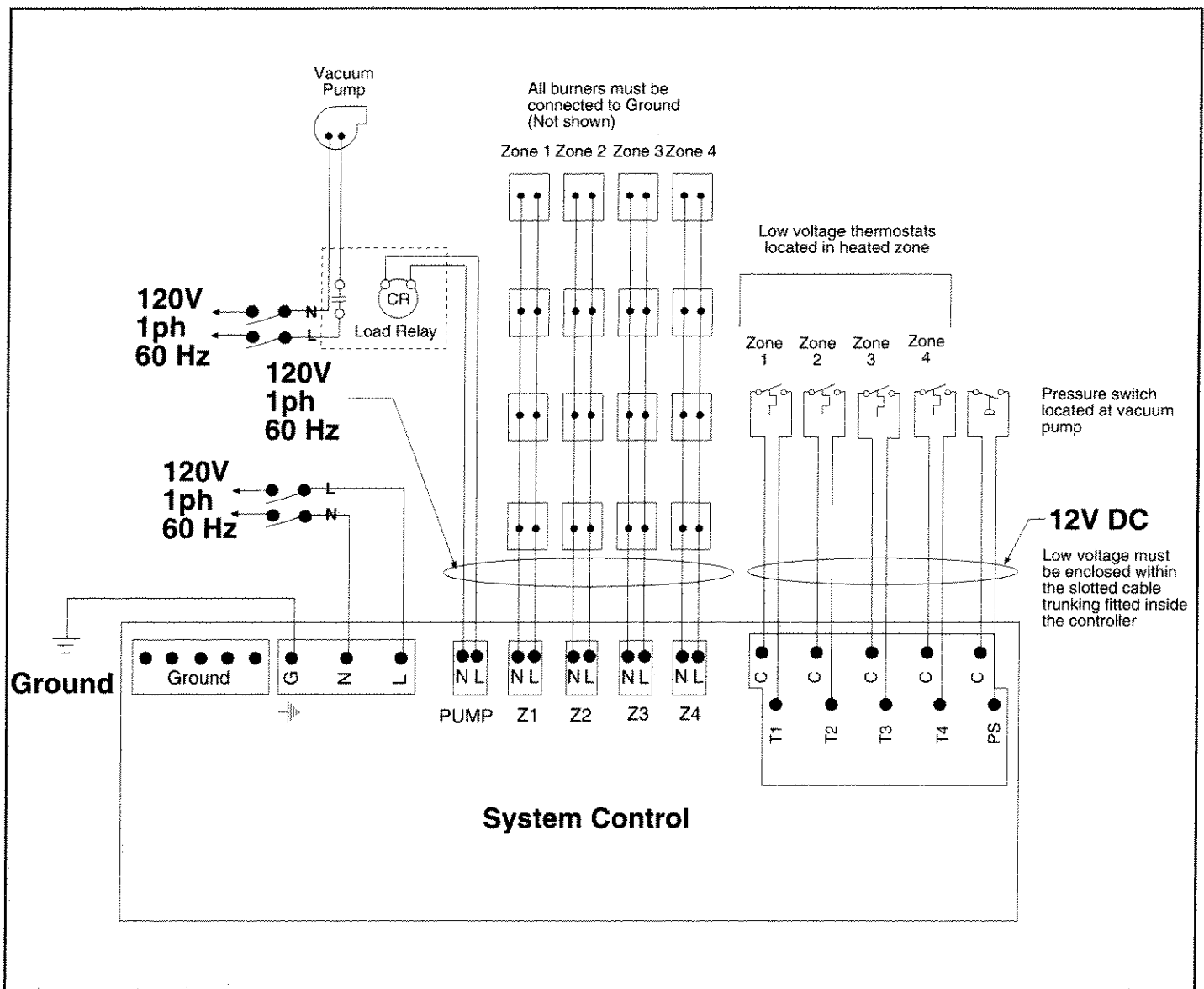


FIGURE 6 - External Wiring Diagram EP 301 120V 1ph Pump

4.2 120V 1PH EXTERNAL WIRING DIAGRAM

The external wiring diagram above shows the connections for four zones of system burners. System burners can be either CORAYVAC® or VANTAGE® EV.

The zones are connected to a single vacuum pump. The external wiring diagram above shows connection to an EP 301 1ph motor.

4.2.1 External wiring connection details

⚠ WARNING	
Electrical Shock Hazard	
	<p>The cable used for all the wiring must be rated for line voltage up to 250V.</p>
	<p>The low voltage circuit conforms with Class 2 separation of circuits requirements. National Electrical Codes® for wiring class 2 low voltage circuits must be followed.</p>
	<p>Failure to follow these instructions will result in death or electrical shock.</p>

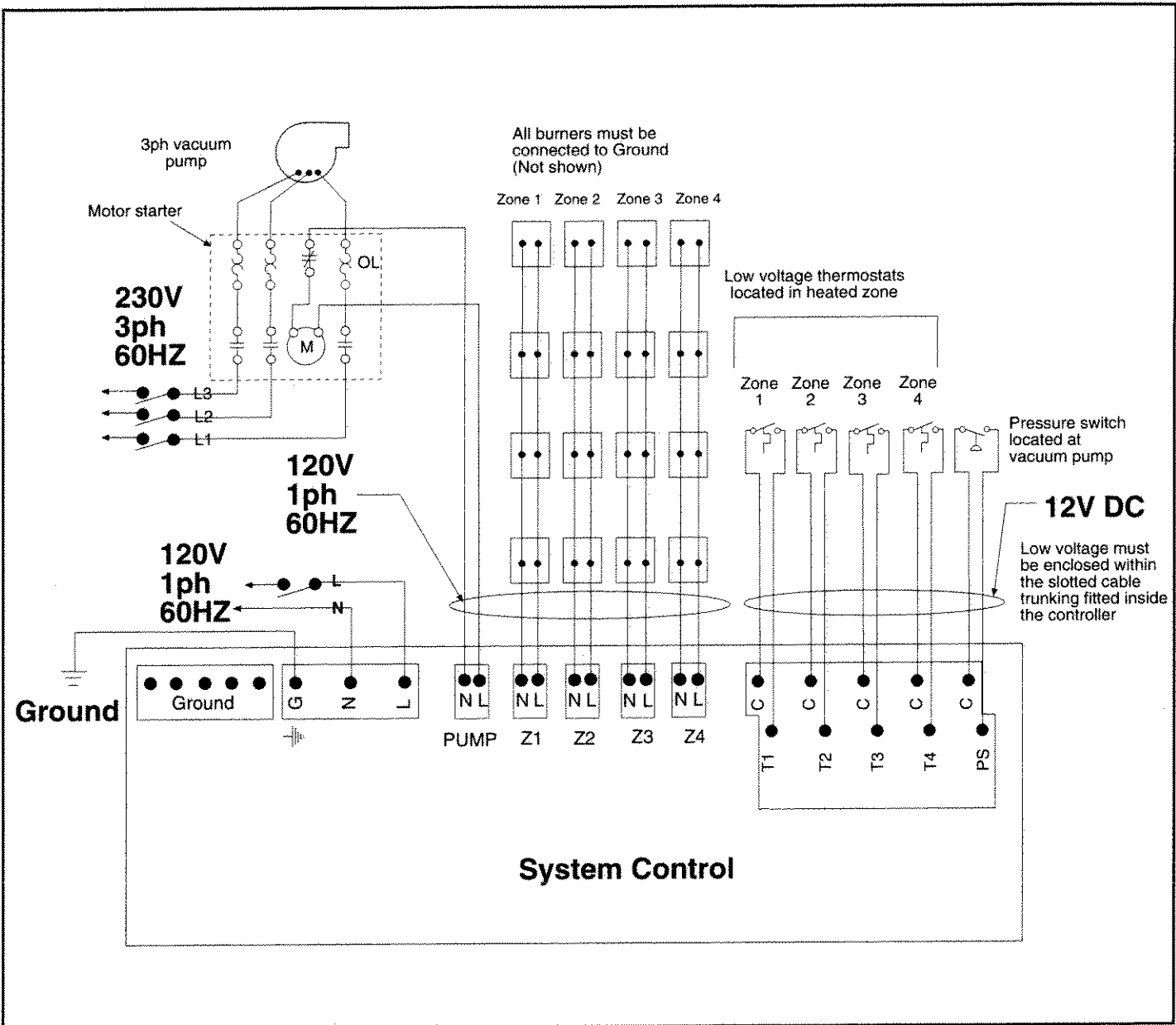


FIGURE 7 - External Wiring Diagram EP 203 and EP 303 230V 3ph Pump

4.3 230V 3PH EXTERNAL WIRING DIAGRAM

The external wiring diagram above shows the connections for four zones of system burners. System burners can be either CORAYVAC® or VANTAGE® EV.

The zones are connected to a single vacuum pump. The external wiring diagram above shows connection to an EP 203 or EP 303 3ph motor.

4.3.1 External Wiring Connection Details

⚠ WARNING	
Electrical Shock Hazard	
	<p>The cable used for all the wiring must be rated for line voltage up to 250V.</p>
	<p>The low voltage circuit conforms with Class 2 separation of circuits requirements. National Electrical Codes® for wiring class 2 low voltage circuits must be followed.</p>
	<p>Failure to follow these instructions will result in death or electrical shock.</p>

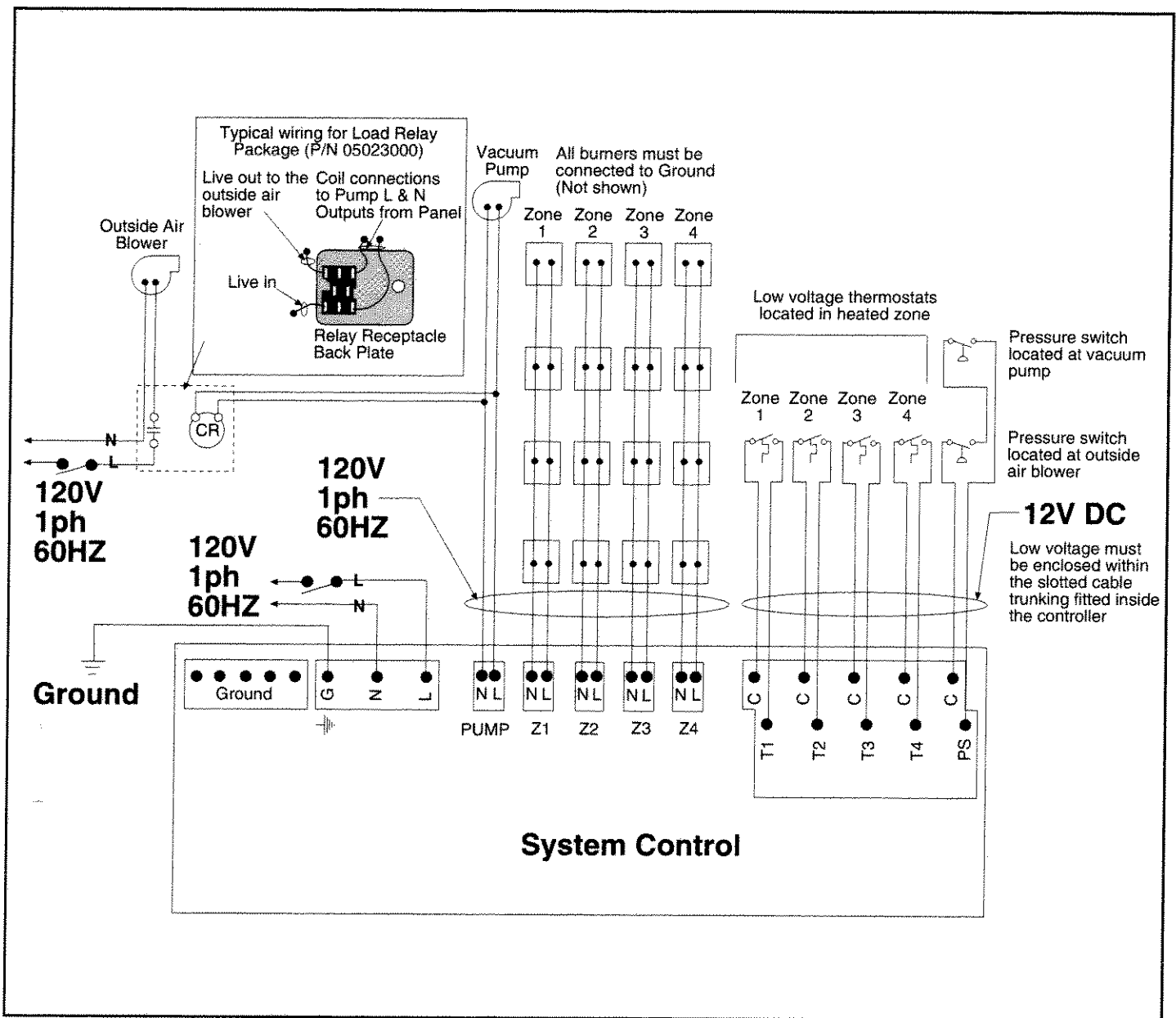


FIGURE 8 - External wiring diagram EP 100 or EP 201 120V 1ph pump with outside air blower

4.4 OUTSIDE AIR BLOWER EXTERNAL WIRING DIAGRAM

The external wiring diagram above shows the connections for four zones of system burners. System burners can be either CORAYVAC® or VANTAGE® EV.

The zones are connected to a single vacuum pump. The external wiring diagram above shows connection to an EP 100 or EP 201 1ph motor. The diagram also shows the connection via a load relay to the optional outside air blower.

4.4.1 External Wiring Connection Details

⚠ WARNING	
Electrical Shock Hazard	
	<p>The cable used for all the wiring must be rated for line voltage up to 250V.</p>
	<p>The low voltage circuit conforms with Class 2 separation of circuits requirements. National Electrical Codes® for wiring class 2 low voltage circuits must be followed.</p>
	<p>Failure to follow these instructions will result in death or electrical shock.</p>

► SECTION 5: TROUBLESHOOTING

5.1 SEQUENCE OF OPERATION

- a. On demand for heat, the panel will send power to the pump. The pump will begin operation.
- b. Once vacuum is established, the vacuum proving switch at the pump will close.

- c. The panel sends power to the burners. The burners will go through a 45 second purge and cycle time.
- d. Once flame is established, the heater will remain in operation until such time as either a lockout condition occurs or the heating is turned off by the thermostat.
- e. After the heating is turned off, the pump will continue operation for 2 minutes, post purge.

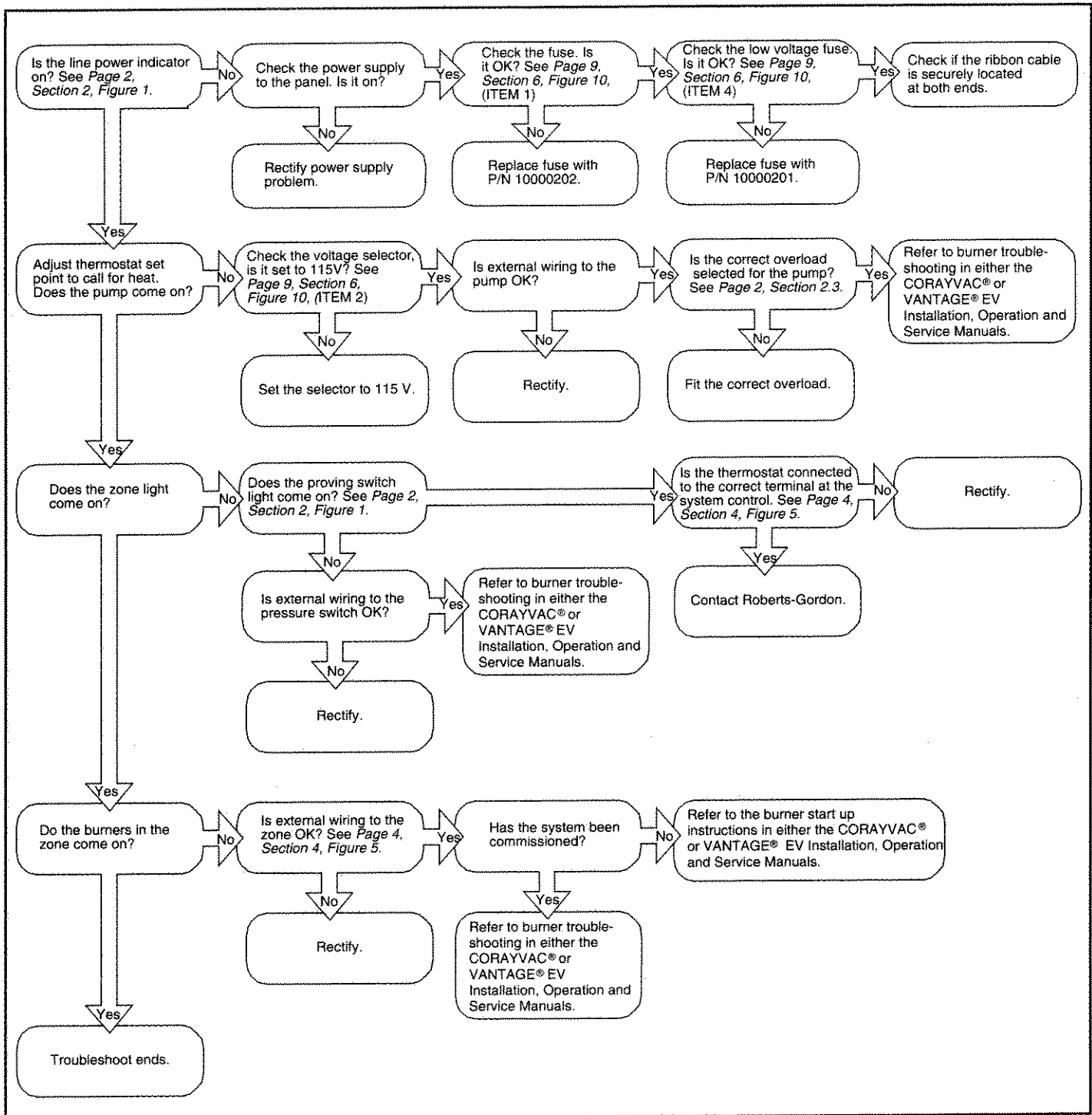


FIGURE 9 - System Control Troubleshooting Chart

SECTION 6: REPLACEMENT PARTS

⚠ WARNING

Use only genuine ROBERTS GORDON® replacement parts.

Use of parts not specified by Roberts-Gordon voids warranty.

Failure to follow these instructions will result in death, injury or property damage.

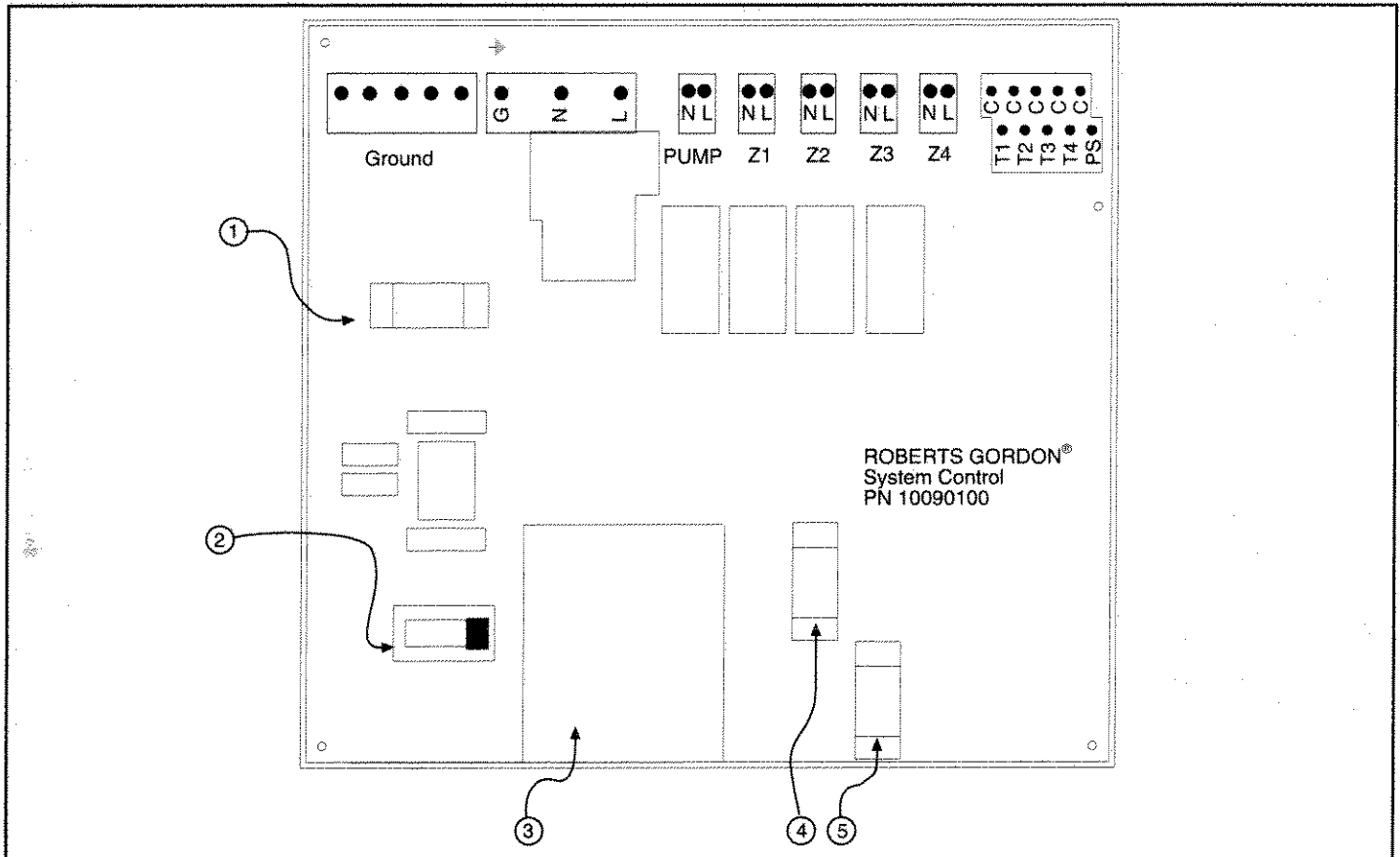


FIGURE 10 - System Control Internal Components Diagram

6.1 REPLACEMENT PARTS LIST

Part Number	Description
1. 10000202	FUSE 250V 500mA
2. NA	VOLTAGE SELECTOR SWITCH
3. NA	TRANSFORMER
4. 10000201	LOW VOLTAGE FUSE (BOARD) 500mA
5. 10000201	LOW VOLTAGE FUSE (OUTPUT) 500mA
6. 10000702	Cable Entry Plate <i>not shown</i>
7. 10000703	Clip Cover and Screw (4 pack) <i>not shown</i>



