8.0 WIRING

8.1 Field Wiring to Matrix

All wiring must be in accordance with the Canadian Electrical code, **CSA C22.2**, and any applicable local codes. Ensure that the wiring is in accordance with this manual.

The boiler must be electrically grounded in accordance with the National Electrical Code **ANSI/NFPA 70**, or local codes, and/or the Canadian Electrical Code **CSA C22.1**.

All connections to the Matrix are made at the terminal board provided. This terminal board can be found on the left side of the appliance just above the plumbing connections. The following connections are available, and provide different functions according to which inputs are energized.

Figure 8.1 Low Voltage Connections

Matrix
Terminal Strip

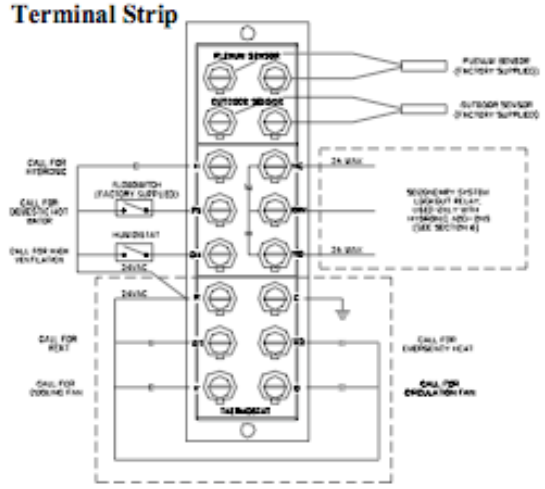
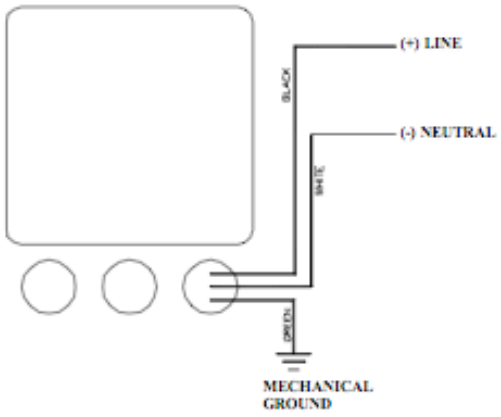


Figure 8.2 120V Connections

Matrix
Electrical Box

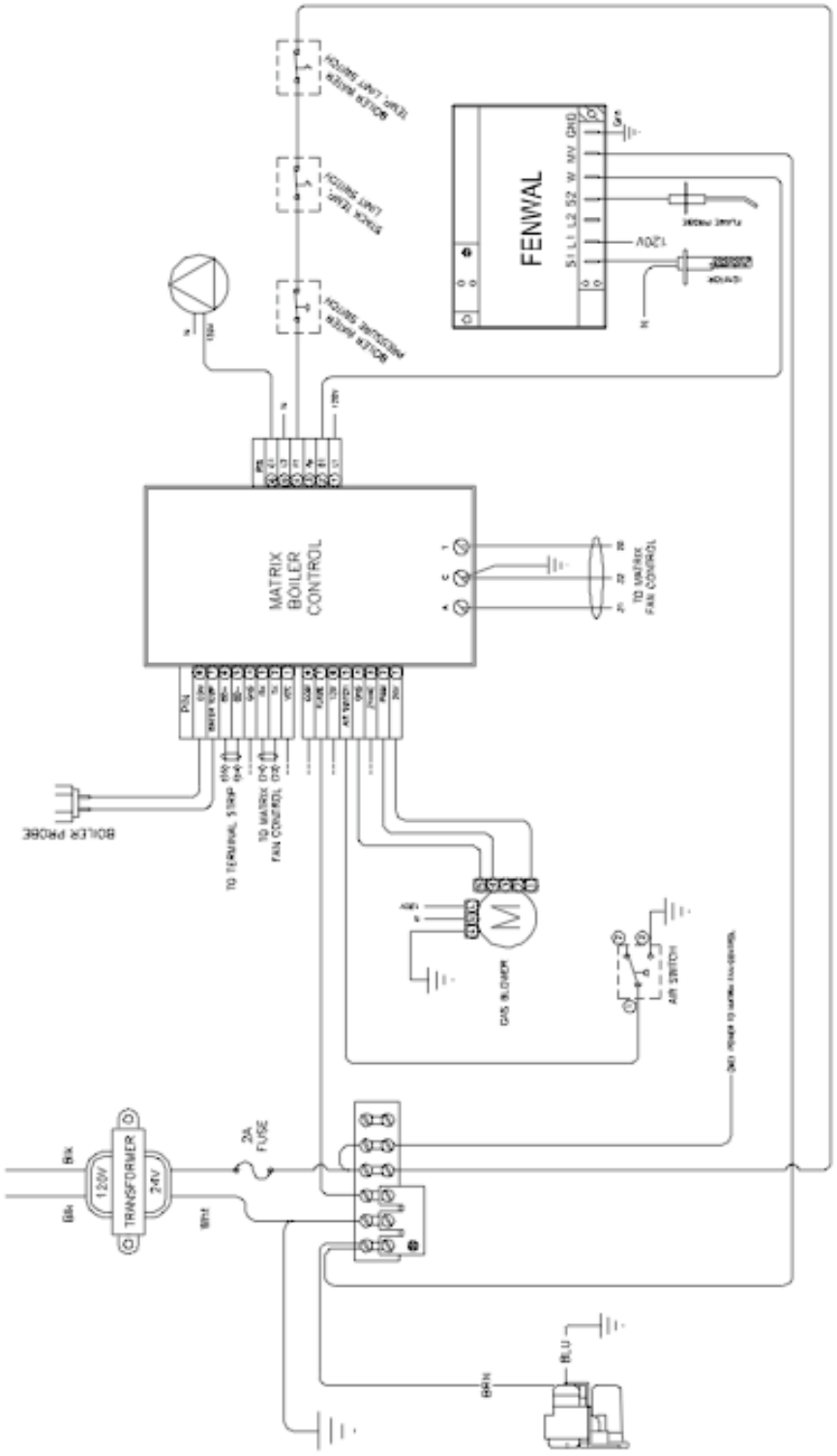


⚠ WARNING

THE MATRIX TERMINAL STRIP IS FOR LOW VOLTAGE (MAX 24 VAC) AND LOW LOAD (MAX 1 AMP) CONNECTIONS. ANY ELECTRICAL LOADS IN EXCESS OF 24VAC OR 1 AMP MUST BE ISOLATED USING RELAYS. FAILURE TO FOLLOW THESE INSTRUCTION CAN RESULT IN FIRE.

ATTENTION

1. **Before providing 120 Volts to the appliance, do a continuity check between all wires and ground to make sure that there are no electrical leaks that could damage the Matrix circuitry.**
2. **Before providing 120 Volts to the appliance, do a polarity check of the line and neutral wires, line must be connected to black and neutral must be connected to white.**
3. **Do not use magnetic tip screwdriver near the Matrix control boards.**
4. **Ensure that the wiring for the plenum and outdoor air sensor is not damaged or grounded.**
5. **Caution: Label all wires prior to disconnecting them when servicing controls. Wiring errors can cause improper and dangerous operation**

8.2.1 Boiler Control Wiring

Consult diagram on unit for exact wire routing.