Specifications

Transformer	300W
120V Primary Breaker	4A
240V Primary Breaker	2A
Secondary Breaker	10A
Motor Voltage	26-32V

All electrical connections must be made by a qualified, licensed electrician. All connections must be made in accordance with all state and local codes. The inside of the box housing the transformer has high voltage which can be dangerous.

Troubleshooting

My motor is not running. Confirm presence of 26-32V DC at the relay board terminals labeled "-24V+" (NOT the terminals labeled ("+24V"). If this voltage is not present, it is likely that the rectifier is damaged.

My breaker is tripping. (1) This is usually a sign of a damaged rectifier. Apply power with the DC rectifier terminals disconnected. If the breaker still trips, the rectifier needs replacement. (2) If the breaker does not trip with the DC rectifier terminals disconnected, disconnect the "24V+" wires from the relay boards one board at a timeto determine if the breaker trips. The board causing the tripping is suspect and should be substituted or replaced.

Temperature Sensor Troubleshooting

LED Flashing F1 and Temperature: LED Flashing F1 and Temperature - F1 is the fault code for a disconnected temperature sensor. Check to ensure the red, and white sensor wires are in the correct location and securely connected. The wires may appear to be connected but not making good contact. Disconnecting and reconnecting the sensor wires clears the fault in most occurrences.

LED Flashing F2: The F2 fault code indicates a damaged or short-circuit of the temperature sensor. Temperature sensor failures are rare and usually caused by improper splicing or physical damage. If an F2 fault condition is present, please contact Technical Support - 877.546.2257.

Temperature Reading Fluctuates: The LED temperature reading continually indicates large swings in temperature. Temperature fluctuations occur when the sensor wire runs parallel to power lines, (120/220V AC). Do not run temperature sensor wire inside of conduit alongside power lines. Make all sensor wire crossings at 90° to power lines.

Heater Troubleshooting

Heater Does Not Come on at Setpoint: Check the configuration setting C19 to verify it is set to a value of at least 1 to enable the heater. The heater thermostat wires must be connected to contact #3 when only 1 heater is present. Verify parameter settings P5 – P7 is set to the desired setpoints and hysteresis. Check heater manufacturer documentation to confirm thermostat wires correct installed.

Fan(s or Louver(s)

Check configuration setting C19 is set to a maximum value of 1 to enable the fan/louver. The fan/louver must be connected to the vent control unit via an AC contactor box. Do not connect fans/louvers directly to the relay board. Confirm the AC contactor box connection is at contact #4 and the additional wiring required corresponds to the diagram on page 11. Check parameter setting P6 is set to the desired setpoint.

ADVANCING ALTERNATIVES

41-VCU2-24

Vent Control Unit

Quick Start Guide

Scan the QR Code to visit our Knowledge Center, which features the full instruction manual and other resources.

Warranty Registration:
advancingalternatives.com/register

Visit Advancing Alternatives' YouTube Channel to Access Video Tutorials

IMPORTANT
For detailed instructions and technical support, visit advancingalternatives.com/knowledge-center

Safety Information:

SHOCK HAZARD Electric shock can kill. Touching live electrical parts can cause fatal shocks or severe burns.

WARNING All electrical connections must be made by a qualified, licensed electrician. All connections must be made in accordance with all state and local codes.

What's Included:

41-VCU2-24

Temperature Sensor

Mounting Brackets (x4)

Plug-In Relays (x4)

Mounting screws (x4)

Images not to scale.

Tools & Materials Required:

- Screwdriver (#1)
- Wire crimper
- Drill with 7/8" bit (if using provided cable glands)
- Motor wire
  - 14 AWG for less than 100' connections
  - 12 AWG for connections over 100'
- Signal Wire
  - 18-22 AWG

***Breakers Required for Motors**

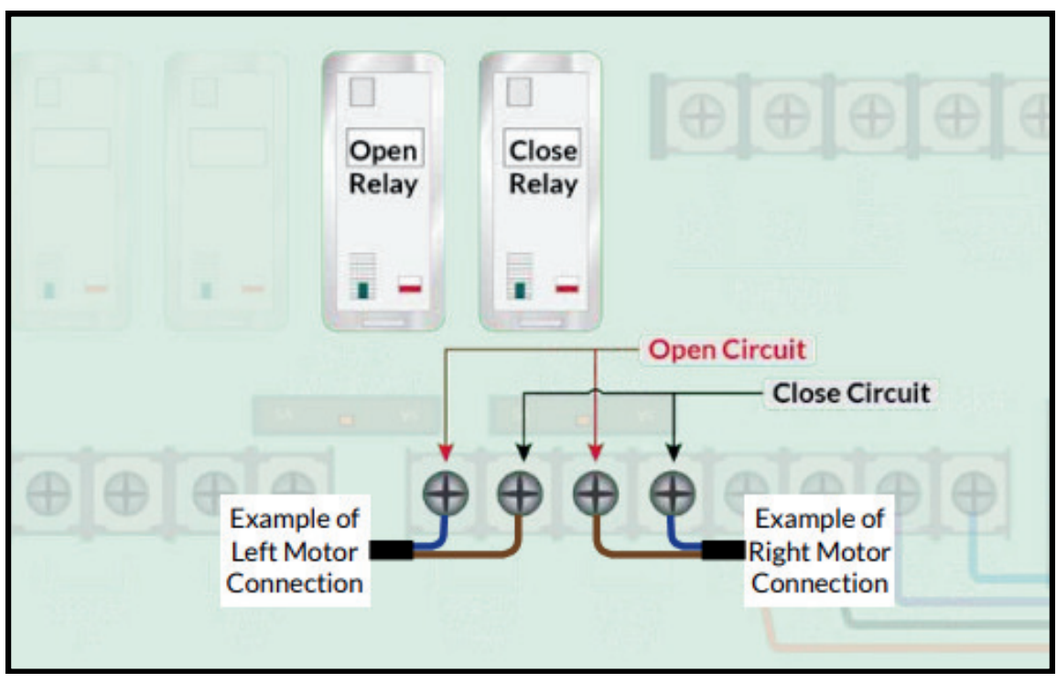
LVM-60: 3A breaker
LVM-100: 5A breaker
LVM-180: 7.5A breaker
LVM-200: 10A breaker

PLEASE NOTE: Illustrations for example purposes only. Actual wiring and layout may vary. Read the 41-VCU2-24 instruction manual for full details.

CAUTION: Equipment Damage
Do not expose the 41-VCU2-24 to weather. Locate in a dry, protected area to prevent equipment damage.

Installation Overview

- **CONNECTING THE LOW VOLTAGE VENTILATION MOTORS:** The motor wires connect to the lower relay board at the terminals labeled "1st 24v motor" and "2nd 24v motor." Relay #1 (close circuit) and Relay #2 (open circuit) provide the signal for the motors. Connect the motor wires to the circuit board using the rotation guide to determine which wire should connect to the "Open" relay. If the motor operates in the opposite direction after connection; simply switch the terminals of the blue and brown wires for that motor



Configuration

- **Press and release "SELECT" to cycle through the configuration menu. To change configuration menu item values, press and release either "CLOSE" (-) or "OPEN" (+). When values are at the desired setting, press "Select" again to continue through the configuration menu until "END" appears on the LED readout.**

Parameters

- **Press and release the "SELECT" button to enter the Parameter Menu. Press "SELECT" to cycle through the menu, "OPEN" to increase values, and "CLOSE" to decrease values.**

P1 - Ventilation Curtain Setpoint
P2 - Ventilation Curtain Runtime: Seconds
P3 - Ventilation Curtain Idle Time: Minutes
P4 - Ventilation Curtain Temperatures Differential
P5 - Heater or Fan Setpoint: Contact #3
P6 - Heater or Fan Setpoint: Contact #4
P7 - Heater Hysteresis / Fan Differential
P8 - Ventilation Curtain Humidity Override: RH%
P9 - Humidity Override Curtain Runtime: Seconds
P10 - Humidity Low-Temp. Override
P11 - Fan #1 Humidity Override: RH%
P12 - Humidity Deadspan
P13 - Alarm: Low-Temp. Setpoint
P14 - Alarm: High-Temp. Setpoint

NOTE: The rectifier DC output is unfiltered DC voltage. Some meters may give slightly inaccurate readings with this type of voltage. Furthermore, abnormally high DC voltages may be seen with no load on the rectifier output. The most accurate DC voltage readings can be obtained with at least one relay engaged. This can be accomplished by setting a channel to "Manual" and setting the motor control to "Open' or "Close".