

CMR control wiring options

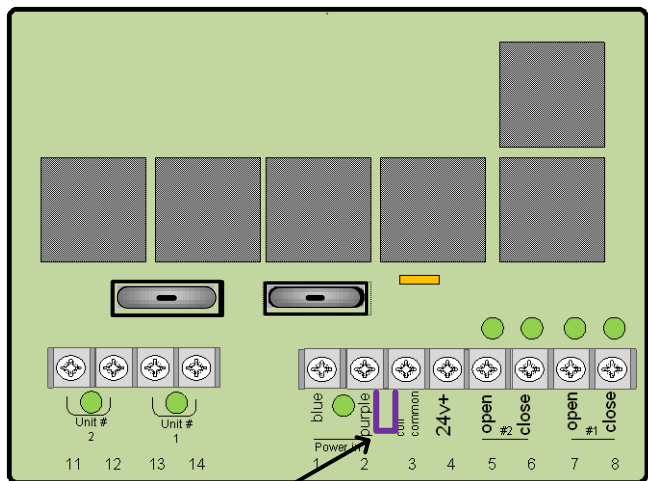
There are 2 modes of control wiring. Choose the mode that best suits your ventilation controller.

Mode A. Mode A is typical for smaller installations. It allows the CMR to be connected to dry contact relays in a vent controller. This is typical in animal agriculture applications. Power to activate the relay coil comes from the CMR itself. No outside voltage is added to the control signals

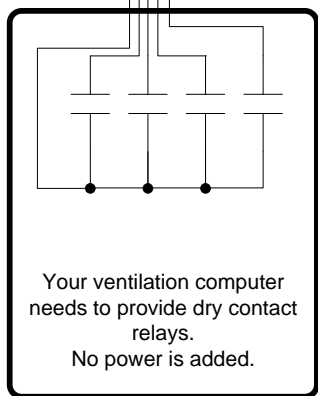
Mode B. Mode B is typical of horticulture applications. Sometimes many CMR are in the same building and operate from the same control signal. If multiple CMR units share a vent controller signal, Mode B is recommended.

Mode B requires external control power. Normally its supplied by the ventilation control system. 24vac is common in the horticulture space. However it can be 24vdc or 24vac.

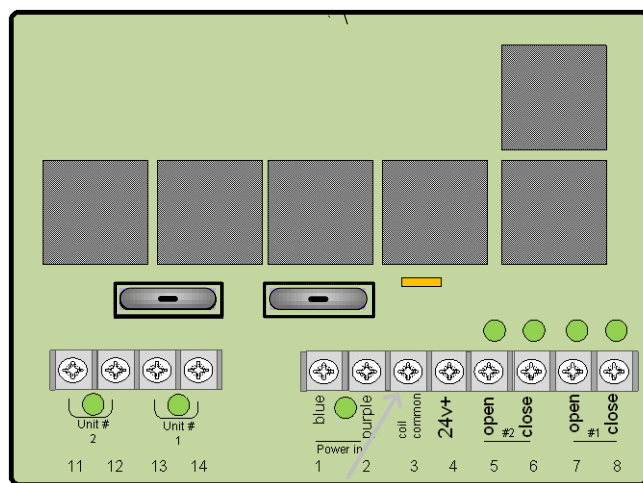
Mode A



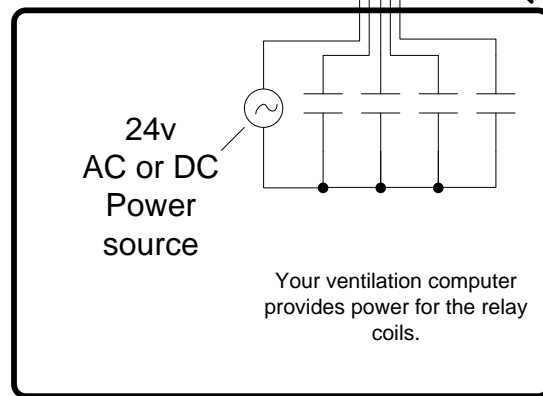
Jumper must be installed between terminals 2 & 3



Mode B

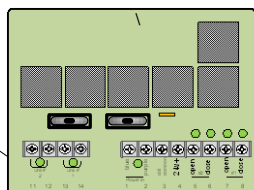


No jumper. Terminal #4 is unused



Motor indicator lights

There is indicators led at motor connections. It will be red for open and green when closing.



Control Indicator lights

There are 4 led lights above the control terminals. The light will be on whenever there is a control signal is on. Please remember the override switches must in Auto for a control signal to have an effect.

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3

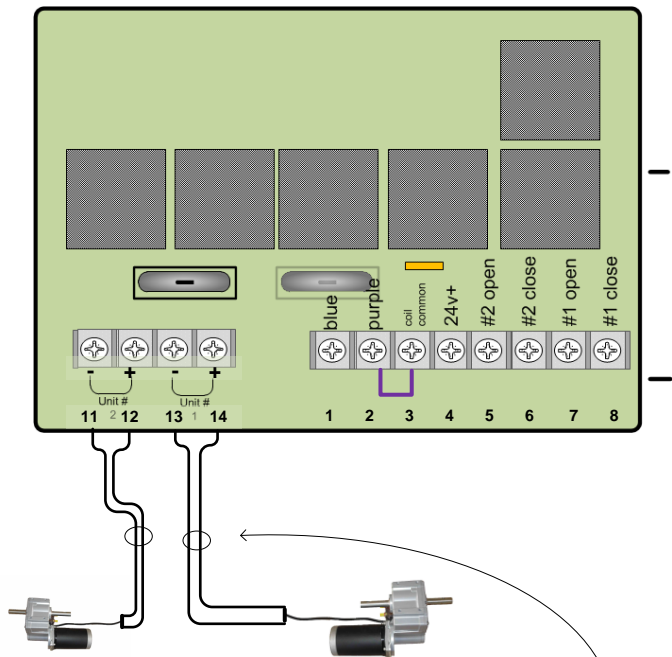
2

1

Motor wiring

D

D



C

C

24v Motor wire connections

Connect the 1st motor wires to terminals 13&14
 Connect the 2nd motor wires to terminals 11 &12

If a motor runs the wrong direction, swap the motor wires to make the motor's movement match the toggle switches .

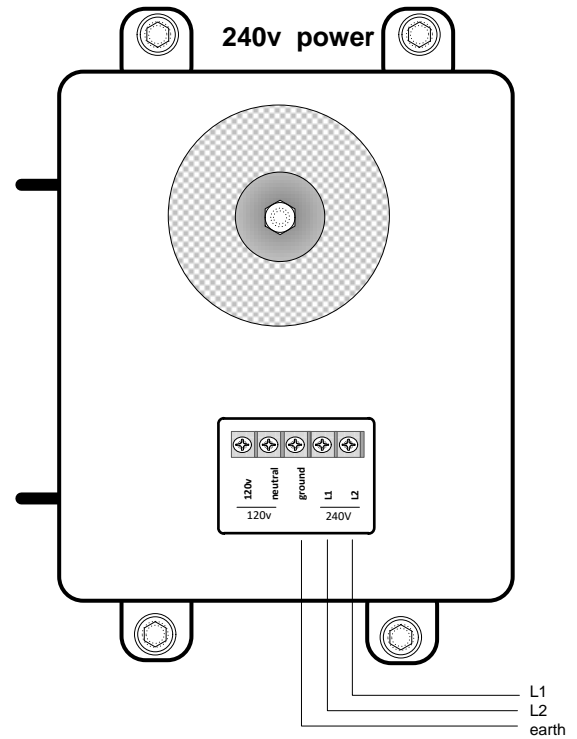
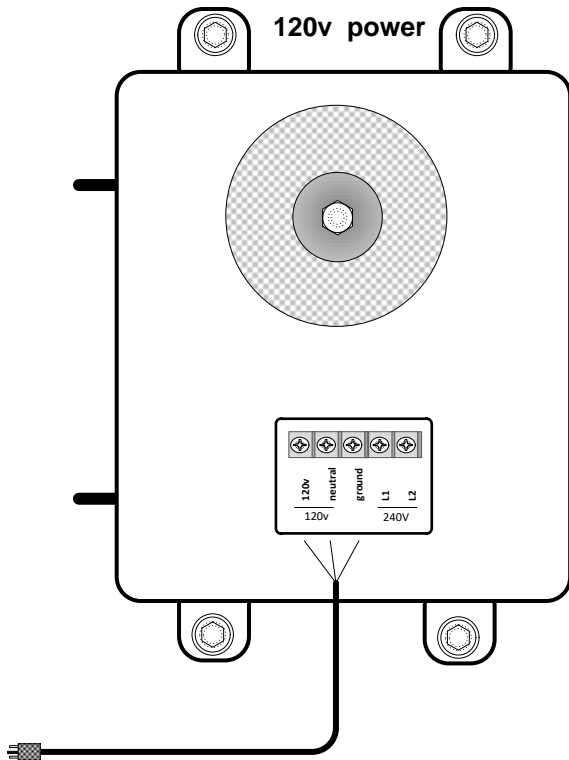
Extending the motor wire

There is a limit to how far the motor leads can be extended.
 Maximum motor wire length from the motor to the CMR
 For 12 gauge wire , max extension is 150 ft
 For 10 gauge wire , max extension is 200ft.

120v or 240v Power wiring

B

B



A

A

The voltage you select is your preference.
 Always use a qualified electrician.
 Wire per NEC and AHJ

4

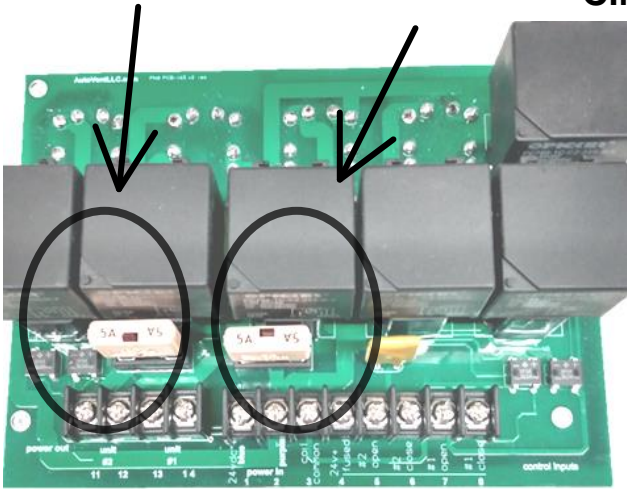
3

2

1

CMR-3224

Circuit breakers



These are circuit breakers. Their intent is to protect your system/motor. Your motor/system decides what size to use. This means that same motor could use a different size circuit breaker. A small curtain compared to a big curtain would use a smaller breaker.

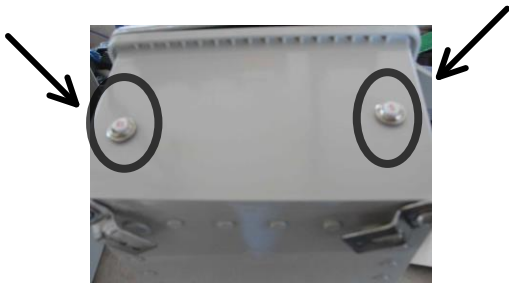
Example: A 10 amp motor is put on a small curtain, Intent is to protect the overall curtain components. Use a 7.5 amp or 5 amp. For best system protection use the smallest circuit breaker. Pay attention, during the winter time the amps will be higher.

Many things affect amps needed to move a curtain. We have seen 2x the amps required for -5°F compared to same installation in the summer time. Greenhouses tend to have less fluctuations because the curtains stay closed in cold weather.

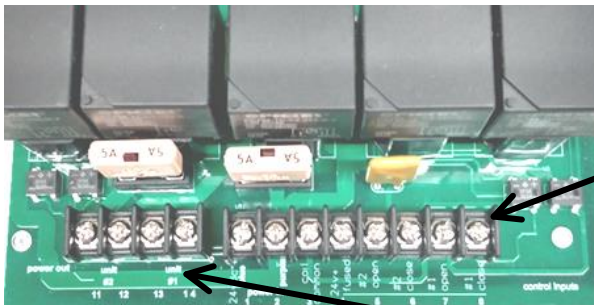
When a breaker trips, a tab pops out of the breaker. .

Go check your curtains for any mechanical or electrical malfunctions if a breaker trips.

Then press the tab back into the breaker to reset it.



There are 2 additional external breakers to protect the unit. They are mounted through the bottom of the box. If either one trips both motors are disabled. (Press in to reset)



Connect control wires and the corresponding motor will activate. (Curtain must be in Auto)

Wire the motors directly to these terminals. Swap the wires if motor goes the wrong way.

Drill holes into the bottom of the box only. Any other holes will void warranty.

AutoVent LLC

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