



Duct Heater Setup Guide



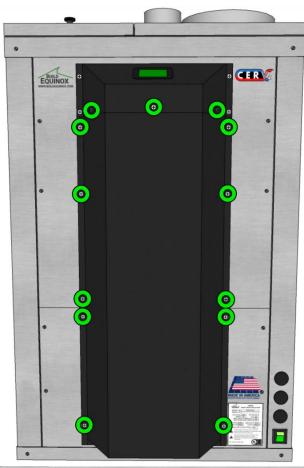
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Rev 1.0 - 09/02/2021

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Front Panel Removal and Auxiliary Output (X0) Access

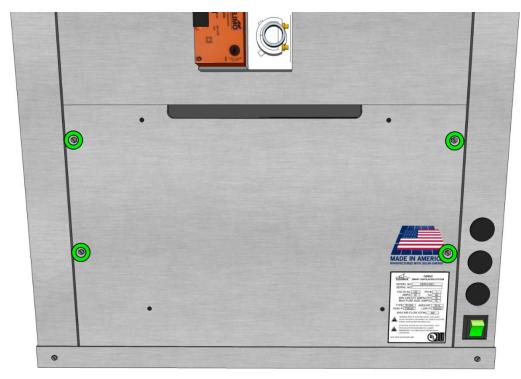
These instructions show how to access the internal output connections in the CERV2. Before removing any access covers, power to the CERV2 should be turned off and the unit either unplugged or the electric breaker switched off. Remove the lower front plastic cover by removing the 13 phillips head screws shown below.



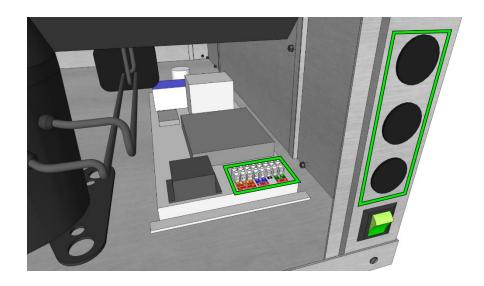


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Once the lower front cover is off, the four screws for the lower access panel can be removed. Screw locations are shown below. With the screws removed, the panel will be free to come out.

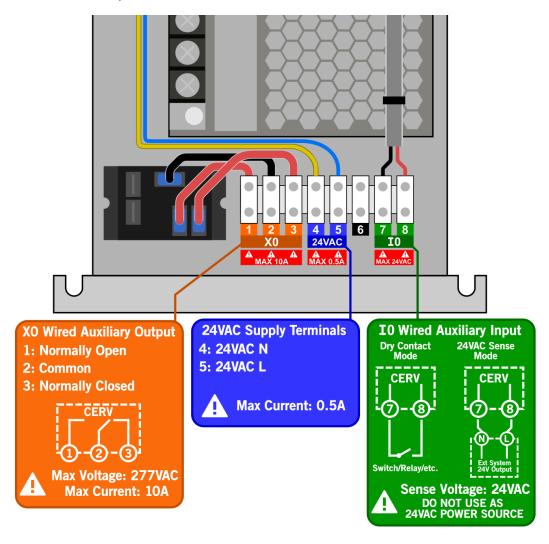


On the right side is the power conditioning and distribution electronics assembly. The I/O terminals are located at the front of this assembly. Three ¾" knockouts are provided for running wires to the I/O terminals. Conduit or wire strain relief fittings should be used in these knockouts.



Built-In Auxiliary Input and Output (X0 and I0)

A schematic of the I/O terminals is shown below. The following sections describe making wired connections to these terminals for the Auxiliary Heater



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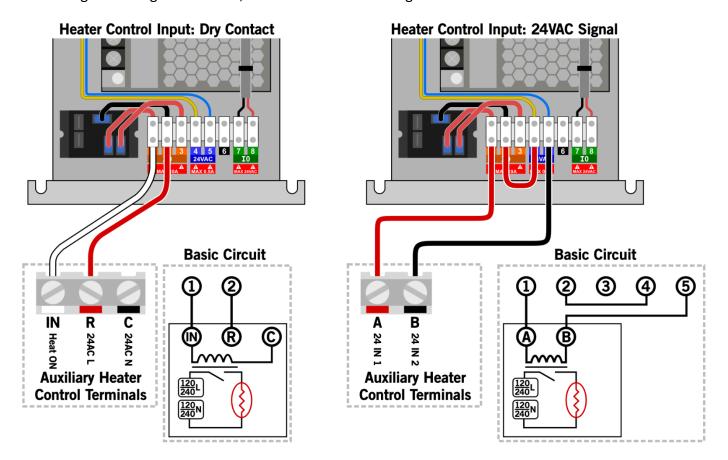
Wired Auxiliary Output - Inline Duct Heater (wiring)

The CERV2 can control electric heaters in two ways; dry contact, where the heater is suppling a 24V signal, or 24V signal where the CERV is directly supplying the 24V control signal. <u>Installation should only be performed by a trained professional.</u> Turn power off to CERV2 and unplug or turn off breaker before performing any <u>wiring.</u> Incorrect wiring can damage components and void warranties. Please review your electric heater's installation instructions carefully to see which heater control applies. Schematics below show the wiring configurations for the two cases. In either case, low voltage control wire can be used such as standard 2 conductor thermostat wire.

For the dry contact connection, 24V from the heater is connected to terminal 2 on the CERV2's output channel. Terminal 1 is then wired back to the heater. When the CERV2 activates the heater, the relay will close the connection between terminals 1 and 2 allowing the 24V signal to go back to the heater control to activate it.

For the 24VAC signal control connection, a jumper is needed between CERV2 terminals 2 and 4. Terminal 4 is a 24VAC output channel. The control wires from the heater then connect to terminals 1 and 5. To activate the heater the CERV will activate a relay to close the connection between terminals 1 and 2. This allows 24VAC to pass through to the heater's controls to activate heat.

After making the wiring connections, see next section to configure heater on CERV2 controller.

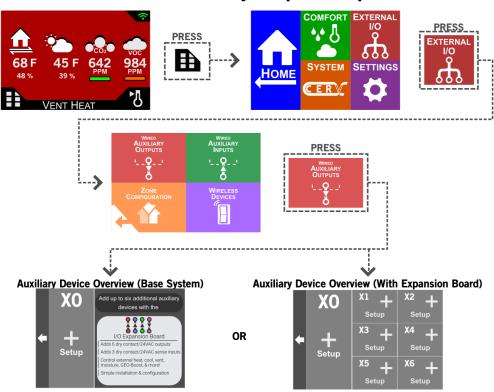


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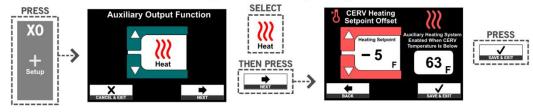
Wired Auxiliary Output - Inline Duct Heater (Configuration)

After completing the electric heater wiring, the CERV2 output channel must be configured through the controller. Follow the schematic below. When the external heater is on, a heater icon will appear in the status bar of the home screen located in the upper right corner.

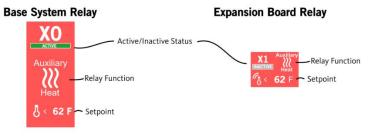
Wired Auxiliary Output Setup



Configure Auxiliary Output



Auxiliary Device Overview Icons





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