

Options Overview

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CERV2 Configuration



• 8" duct connections for improved airflow performance

Unitary All-in-One System

- Heat pump and dampers
- Fans same ECM fans as current CERV
- Fresh air and return filters (nom. 10"x20")
- Integrated color touch screen display



CERV2 Configuration





CERV2 Operation





VENTILATION HEATING



CERV2 Communication to the Outside



- Wifi
 - CERV-ICE for online control and monitoring
- Wired Inputs
 - CERV detects inputs from external devices to trigger operation modes
 - 24V sense
 - Dry contact
- Wired Outputs
 - CERV controls external devices
 - Dry contact NO or NC
 - 24VAC output
- Wireless EnOcean Devices

Built-In Communication



- Wifi and EnOcean communication are now built-in standard
- Internet gateway no longer needed to connect CERV online
- Wireless switch relay is not needed for wireless switch options
- Access to CERV-ICE online interface remains free
- OTA (over the air) software updates





CERV2 display



- Screen built into front of unit
- Color capacitive touch display
- 3.5" screen size
- Wifi is standard on CERV2, so shifting users to online control

Optional Wireless CERV2 display



- Needed if user wants a remote display other than CERV-ICE
- Same as current CERV controller but with upgraded capacitive touch display
- Uses EnOcean wireless communication

CERV2 Wired I/O



CERV2 I/O Built-in

- One Output X0
 - Dry contact NO, Comm, NC
 - Max 10A
- One 24VAC Output
 - Max 0.5A
- One Signal Input IO
 - Dry contact or 24V sense
 - Max 24VAC





Expansion Board Option

An additional 3 Input Channels and 6 Output Channels for wired external connections

Board is field installed by simply inserting circuit board standoffs into holes located on panel under front plastic electrical cover





- 3 Input Channels
 - Set to either dry contact or 24VAC sense

6 Output Channels

• Set to either dry contact or 24VAC output



Inputs

- 1 + 3 Input Channels
- Set to either dry contact contacts or 24VAC sense
- CERV detects inputs from external devices to trigger operation modes
- Trigger Modes
 - Vent
 - Recirc
 - Heat
 - Cool





Outputs

- 1 + 6 Output Channels
- Set to either dry contact or 24VAC output
- CERV triggers an external device
 - Geo-Boost
 - Fan Interlock
 - Heating
 - Cooling
 - Venting
 - Humidity
 - Zone Dampers



Wireless Devices



- EnOcean low power wireless communication
- Can add up to 18 wireless devices
- Use devices to trigger, sense, and control



Wireless Switches

Trigger venting



Active Circuit Transmitters

- 24VAC/DC or 120-277VAC
- Sense when circuit is active



Remote Sensing

- Temp, humidity, CO2
- Pair with external heat, cool, dehum, vent control

Wireless Relays

- 24VAC/DC or 120-277VAC
- Trigger an external device



No filter is currently built into Geo-Boost, so an insulated filter box is needed. Fresh air filter in CERV can be removed to reduce pressure drop





Two Geo-Boost Control Options:

- 1) Standard Geo-Boost hard wiring to CERV2 output channels
- 2) Wireless control using 120V wireless relay





Set Output Channel to Geo-Boost



 Wireless Geo-Boost control. Must purchase the 120V Wireless Relay.
Pump is wired to wireless relay.



Add wireless relay as EnOcean device



Set relay to Geo-Boost control



Duct Heater



Duct Heater Control Options:

- 1) Standard hard wiring to CERV2 output channels
 - 1) Dry contact for heaters that supply 24V
 - 2) CERV2 24VAC output can also be used
- 2) Wireless control using 24V wireless relay, heaters that don't have 24V supply need transformer

Temperature Source Options:

- 1) Use CERV2's temperature reading
- 2) Remote wireless temperature sensor





Remote Venting



Wireless, battery free switch options for on-demand timed ventilation (i.e. kitchen, bathroom spot ventilation)

Wall switches or ACTs (active circuit transmitters)







Wireless Switch Venting with Zones



Zone Dampers

CERV2 has increased zoning capability

- Increases airflow to the specific zone when active
 - Boost exhaust air from bathrooms/kitchens
 - Supply zones can direct fresh air to certain locations (bedrooms, living rooms)
 - Base CERV2 can control one damper
 - Exp board an additional 6 dampers
 - Wireless relays can also control dampers

EnOcean device screen showing all linked devices



Zone Damper Example

Kitchen vent hood – Active Circuit Transmitter is wired to vent hood fan switch



Mini Split Control







Can wire to expansion board to control heating/cooling systems



Wire from heating and cooling system to CERV2 output channels and set as heating and cooling

Can use CERV temp reading or remote sensor