Coleman-Mach

An *AIRXCEL* Brand

INSTALLATION, OPERATION & APPLICATION GUIDE

FOR MULTI-ZONE WALL THERMOSTAT **9420-330**

WARNING!
This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure they can use the appliance safely.

CAUTION!
This thermostat should be installed by trained technicians only. Adhere to all local and national codes and ordinances.
DISCONNECT ALL POWER TO THE SYSTEM BEFORE INSTALLING, REMOVING, OR CLEANING.

Operational Specs
Operating voltage range: 9-16 VDC
Max Voltage : 20 VDC
Standby Current : 13 mA
Operational Current Draw: Less than 50mA with outputs OFF.
Storage Temperature Range: -22F to 176 (-30C to 80C)
Operating Temperature Range: -13F to 158F (-25C to 70C)
Display Temperature Range: 45F to 99F (8C to 37C)
LCD diagonal length: 4.3"
Terminating Resistor: 120 Ohm. Built in.

Product Compatibility
This thermostat is compatible with :
9430-754 COOL ONLY NETZONE CNTL KIT
9430-758 COOL/HEAT NETZONE CNTL KIT
9630-758 HEAT PUMP NETZONE CNTL KIT

Features
The thermostat wiring is factory installed by the OEM (Original Equipment Manufacturer). RV Products suggests the thermostat to be wired using the attached harness RVP 9530-395.
The thermostat package includes an instruction manual, 9530-395 power harness, Zone 1 Resistor, mounting plate, 4 screws and 4 wall anchors.

Room Temperature Sensor:

- Zone temperature sensor (RVP 8330-310) should be connected to the zone control box to display the zone temperature. This is required on Zones 2, 3, 4 noting that Zone 1 it is optional to use the above remote room sensor or Zone 1 can use its internal sensor. The initial reading of the thermostat will display "_ _" until the zone controller updates the reading of the zone temperature displayed on the thermostat.

- **Built in thermostat room temperature sensor:** The multi zone thermostat is equipped with built in thermistor that capable of measuring the room / zone temperature where the thermostat is installed. This feature requires the following to be followed:
    - The zone controller box must be set to Zone 1.
    - The supplied internal temperature sensing module must be installed on the room sensor input on zone 1 control box.
    - The Use Internal Thermistor option for the Zone 1 must be enabled under the setting menu on the Thermostat Zone Setup page.
    - Note: This feature is available on Zone 1 only.

Installation

ELECTRICAL SHOCK HAZARD – Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat (if applicable).

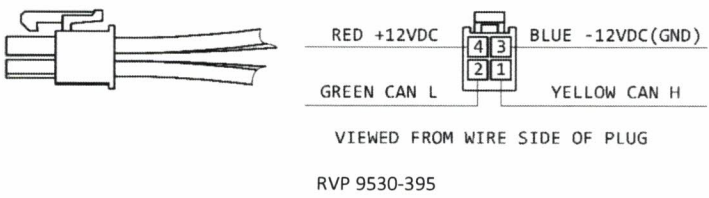
A. Thermostat and Room Sensor Location

The thermostat is a sensitive electronic instrument. For accurate temperature control and comfort, the following should be considered:

1. Locate the thermostat on an inside wall about five feet above the floor. Pick a dry area where the air circulation is good.
2. Do not install the thermostat where there are unusual heating conditions such as direct sunlight, near heat producing appliances (TV, radio, wall lamp, etc.), a furnace supply register or an air conditioner supply register.
3. The Thermostat must be installed in a vertical position.

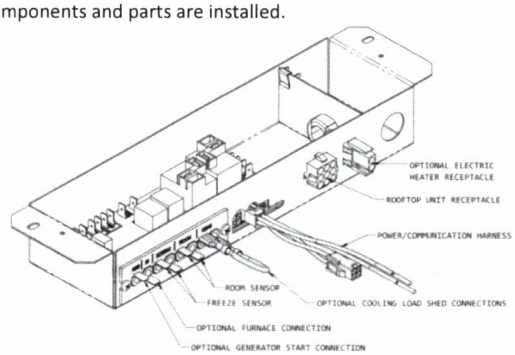
B. Installing the Thermostat

1. Place the thermostat mounting plate against the wall where the thermostat will be mounted.
   Using the inner shape of the mounting plate, make a hole in the wall to allow the insertion of the wire harness and the connectors in the back of the thermostat.
2. Affix the mounting plate to the wall using the four included screws. If needed, wall anchors are included to secure the mounting plate to the wall.
3. **Connect the vehicle thermostat wiring to the thermostat:**



RVP 9530-395

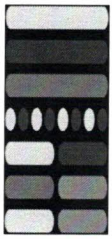
4. Review the System Wiring Diagram in the last page of this manual to validate the proper hardware configuration and all the system components and parts are installed.



5. Turn on the power.

Status LED (Diagnostic Feature)

The multi-zone thermostat equipped with Status LED located in the back of thermostat to allow the diagnosis of the issues or monitor the operation of the thermostat. The LED colors and flashing patterns are described below:



LED Activity	Status
Solid Green	Device is connected to the network and communicating properly.
Off	Device has no power or has completely failed.
Solid Red	Device has gone offline and is not connected to the network.
Fast Flashing Green (4 Times/Sec)	Device is attempting to make initial connection to the network.
Slow Flashing Green (1 Time/Sec)	Device was online but has not seen a valid network message for 5 seconds.
Alternating Red & Orange	Device has gone offline and is attempting to reconnect (within 30 Seconds)
Alternating Green & Orange	Device is currently online but has gone offline 2 or more times

Recommendations and Notes:

The multizone thermostat is designed to operate in such a way that consumer safety, convenience and satisfaction is maintained at a higher level. Please follow the instructions below:

- Usage of 18AWG wire is recommended.
- Airxcel recommends connecting the multizone thermostat using the hardware provided by the manufacturer.
- Avoid altering the hardware configuration.
- Airxcel recommends Heat outputs to be used with isolation relay. Any alterations to the hardware configuration are forbidden.
- The interface of the thermostat is very simplified. It is recommended for the user of the thermostat to explore through all the options of the thermostat interface to be familiar with the operation of the thermostat.
- The touch screen of this thermostat is a sensitive device so avoid pressing hard or using objects that may damage the thermostat.
- The zoning thermostat is preconfigured so only one thermostat to be installed in the network. Airxcel approval is needed for different configurations.

Thermostat behavior during different mode selections:

Mode Selection – Cool / Off / Heat

The use of Heat and Cool modes at the same time within a single zone or across multiple zones is not permitted and is prevented by the Thermostat. While in Heat mode on any zone(s), the Thermostat will hide the Cool Mode from all zones. Similarly, while in Cool mode on any zone(s), Heat Mode will be hidden from all zones.

Switching directly from Heat Mode to Cool mode, or from Cool Mode to Heat Mode, is not permitted, and the thermostat must have all zones set to Off before a change between Cool and Heat is possible.

Fan Mode: While not in Cool or Heat Mode, manually running the fan is permitted in High or Low modes.

Fan control is not available during Heat Mode, but can also be adjusted in Cool Mode.

Cool Mode: While in Cool Mode, the fan speed can be manually set to Low or High, or can automatically be adjusted by the system while in Auto Mode.

Heat Mode: Depending on the application and configuration, zones can have Electric Heat, Gas Heat, or both Electric Heat and Gas Heat.

For zones with Electric Heat and Gas Heat, these can be used separately or together as desired. If only Electric Heat is on, Gas Heat will automatically assist if the Electric Heat is unable to keep up. The Gas Heat assist option will be on if:

- The Electric Heat takes more than 20 minutes to bring the temperature up to the set point, or
- The Room Temperature gets to be more than 2°C / 4°F from the Set Temperature

Touch Screen Interface

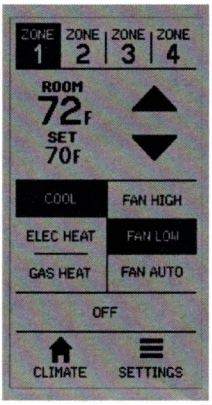
- **Climate or Home Page**

Select the desired zone.

View the Room Temp and view/adjust the Set Temp.

Fan/Cool/Heat or Off Mode

Return to the home page.

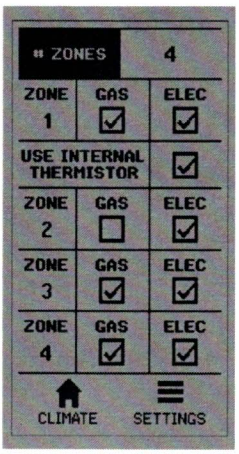


- **Settings page contains:**
  - Brightness
  - Zone settings
  - Standby screen
  - Software version
- **Zone Settings Page:**

Select the number of zones.

Select if internal thermistor is used in zone 1.

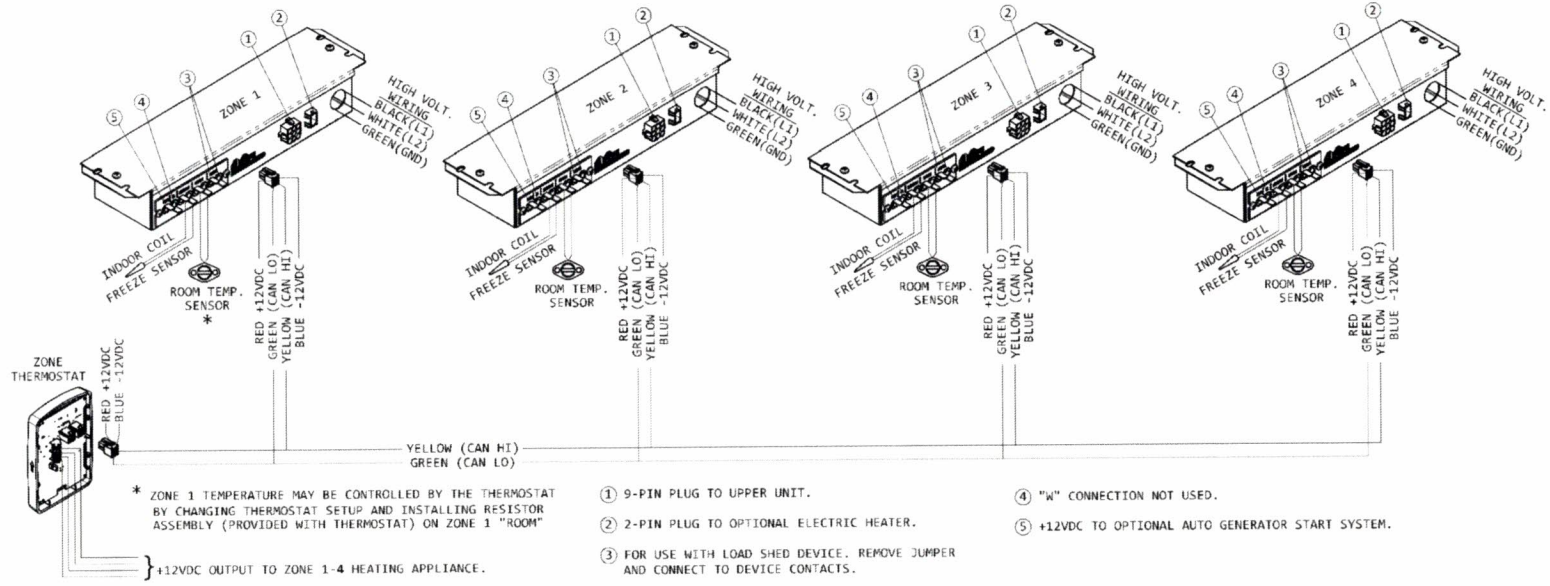
Enable/Disable (if equipped) the GAS and/or ELEC Heat source for each zone.



Applications and Configuration Scenarios:

- **MaxxFan / Ventilation Products Control:** This thermostat has the capability to operate network driven MaxxFan products. This feature has to be enabled and the product (MaxxFan with RV-C compatibility) installed in the RV.

System Wiring Diagram



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