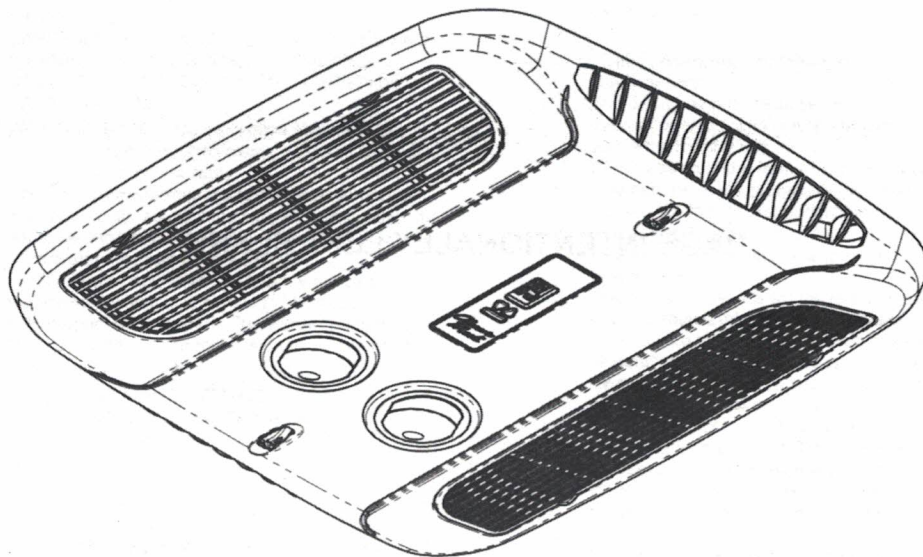# AIRXCEL®
RV Products Division

INSTALLATION INSTRUCTIONS FOR BLUETOOTH CEILING ASSEMBLY

9430*720 BLUETOOTH CEILING ASSEMBLY WITH 12 DC POWER SUPPLY (COOL ONLY)
9430*725 BLUETOOTH CEILING ASSEMBLY WITH 12 DC POWER SUPPLY (HEAT READY)
9630*725 BLUETOOTH CEILING ASSEMBLY WITH 12 DC POWER SUPPLY (HEAT PUMP)
9430*7202 BLUETOOTH CEILING ASSEMBLY WITHOUT 12 DC POWER SUPPLY (COOL ONLY)
9430*7252 BLUETOOTH CEILING ASSEMBLY WITHOUT 12 DC POWER SUPPLY (HEAT READY)
9630*7252 BLUETOOTH CEILING ASSEMBLY WITHOUT 12 DC POWER SUPPLY (HEAT PUMP)

Designed and manufactured by the makers of Coleman®-Mach® Air Conditioners

1980-097

12-10-2018

I. WARNINGS

IMPORTANT NOTICE

These instructions are for the use of qualified individuals specially trained and experienced in installation of this type equipment and related system components.

Installation and service personnel are required by some states to be licensed.

PERSONS NOT QUALIFIED SHALL NOT INSTALL OR SERVICE THIS EQUIPMENT.

WARNING! – SHOCK HAZARD To prevent the possibility of severe personal injury or equipment damage due to electrical shock, always be sure the electrical power source to the appliance is disconnected.

CAREFULLY FOLLOW ALL INSTRUCTIONS AND WARNINGS IN THIS BOOKLET TO AVOID DAMAGGE TO THE EQUIPMENT, PERSONAL INJURY OR FIRE.

WARNING! Improper installation may damage equipment, can create a hazard and will void the warranty.

The use of components not tested in accordance with these units will void the warranty, may make the equipment in violation of state codes, may create a hazard and may ruin the equipment.

NOTE: The words "shall" or "Must" indicate a requirement which is essential to satisfactory and safe product performance. The words "Should" or "May" indicate a recommendation or advice which may be useful or helpful.

II. PACKAGE CONTENTS

1. Ceiling Assembly Consisting of:
   Shroud
   Filters
   Grills
   Chute
   Cloth Air Duct
2. Mounting Frame
3. Control Box
4. Small Parts Package Consisting of:
   Mounting Bolts   x4
   #10 x 3/8 Screw   x11
   #6 x 3/8 Screw   x1
   Plastic Spacer
   Plastic Shoulder Washer
   Indoor Temperature Sensor
   Freeze Sensor
   Cable Clamp
   Spring Nut   x2
   Wire Nut   x3
   Thermostat Cable

III.   GENERAL INFORMATION

The Bluetooth Ceiling Assembly is designed as a free delivery without any field fabricated ducting. The Bluetooth Ceiling Assembly can pair up to 4 smart devices. The App "RV Climate" can be downloaded from play store or the app store. Omnidirectional louvers are designed to direct conditioned air into the RV interior in any direction. When the omnidirectional louvers are closed, the conditioned air is directed forward and aft through the front and rear flow dampers. The pop out retained grills ae easy, tool-free access to the washable air filters.

All air conditioning equipment is subject to freeze up when the evaporator air flow is sufficiently reduced. To protect both the installer and Airxcel, Inc. from conditions that promote reduced air flow and system freeze up, Airxcel, Inc. has equipped the compressor control circuit with a low temperature probe. The low temperature probe monitors the temperature of the air conditioner evaporator coil. When the temperature of the evaporator coil drops below 28° F. the switch will open, stopping the compressor operation. The compressor operation will resume once the evaporator warms to 55° F.

IMPORTANT

The low temperature sensor is part of the electrical circuit. The probe must be inserted into the evaporator coil of the roof top unit by the installer.

IV. Ceiling Assembly Installation Requirement

1. The ceiling plenum must be installed under the roof opening. The ceiling plenum bolts below the rooftop unit.
   Compression of the framed ceiling cavity between the roof top unit and the ceiling plenum holds both components in place.
2. The ceiling cavity depth is the measurement from the ceiling to the roof-maximum 6".
3. The 115 VAC service for the roof top unit must be routed into the ceiling plenum. To prevent wire pinching and to promote ease of installation, allowances must be made for routing the 115 VAC supply wiring into the front of the roof opening.
4. The control box has a 9 pin receptacle extending from the front. This mates with the roof top unit 115 volt electrical conduit. When making this connection, verify that the plugs are properly aligned and have snapped together securely.
5. The control box for the heat/cool and heat pump units will have a 2 pin receptacle which mates with the umbilical plug from the heater assembly.
6. The Thermostat Cable assembles to the low voltage terminal strip on the front of the box with 1/4 " quick connects and connects to the ceiling shroud.
7. The room sensor is screwed to the mounting frame and connects to the 2 pin plug of the ceiling shroud.

V.   ROUTING HIGH VOLTAGE A/C WIRING

Following Airxcel, Inc. high voltage wiring specifications and all local and national electric codes, route the roof top unit 115 VAC supply wiring from its power source to the 14 x 14 opening for the rooftop unit.

High Voltage Wiring
Specifications are based on Minimum Overcurrent Protection Device Amperage – see upper unit nameplate.

1. U.L. requires copper conductors, with minimum #12 AWG when using the minimum recommended overcurrent protection device. Higher rated devices or longer wiring runs will require #10 AWG or greater copper conductors.

2. To prevent voltage drops greater than 10% during starting loads, adhere to the following guideline:

For lengths greater than 50 feet, use #10 AWG or larger copper conductors. Match to the overcurrent protection device provided.

Circuit Protection – refer to upper unit nameplate.

High Voltage Wiring Specifications based on Overcurrent Protection Device rated higher than the minimum required (see upper unit nameplate).

Follow all local and NEC (National Electrical Code) for proper sizing of wire AWG based on Overcurrent Protection Device selected and the length of the wiring run to the rooftop unit.

VI. SECURING THE ROOF TOP UNIT TO THE ROOF

A mounting frame is supplied with the ceiling assembly.

A. Position the roof top unit with the base pan gasket framing the 14 x 14 inch opening in the roof. The nose of the unit must face the front of the coach.

B. Using the four bolts provided, secure the mount frame to the rooftop unit. The four mounting bolts are to be inserted through the bottom of the mount frame into the bottom of the rooftop unit. See figure below.

C. Proper tension has been achieved for each bolt when any portion of each gasket indicating tab has been pulled down even with the roof. The roof top unit has now been properly installed with the optimum gasket compression.

MOUNT GASKET
ROOFTOP AIR CONDITIONER
ROOF STRUCTURE
MOUNTING FRAME
GASKET INDICATING TAB
MOUNTING BOLT
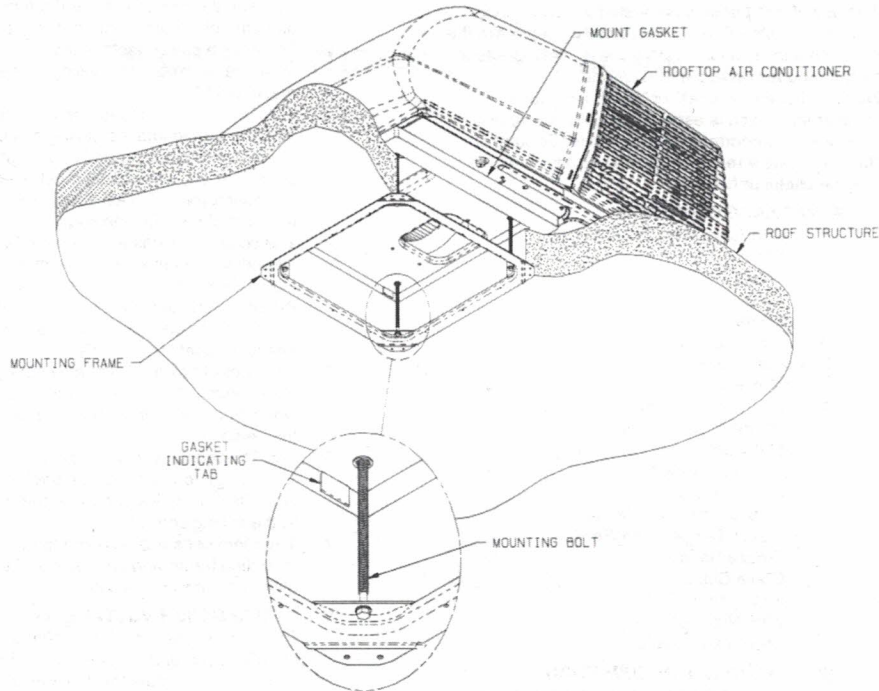
VII. INSTALLING THE CONTROL BOX and HEATER ASSEMBLY

1. Remove the control box assembly cover which is held by two sheet metal screws. Retain the screws. Feed the field lead wires with ground wire through the cable clamp provided in the small parts package.

2. Connect the supply conductor wires to the "pigtail" leads with the wire nuts provided in the small parts package:
   black to black
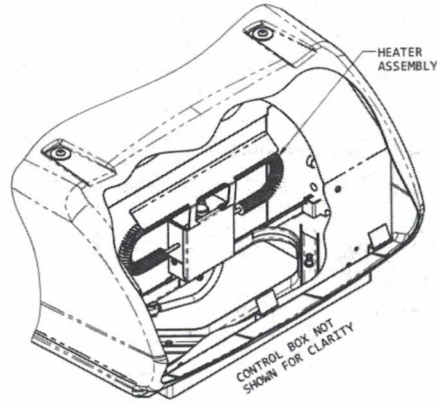   white to white
   ground to green.

3. Insure that no bare wires can come into contact with live electrical parts and that wires cannot be pinched between the control box sides and the lid. Insert the cable clamp into the control box entry hole to secure the field wiring. Reinstall the control box lid.

The optional add-on heater may now be installed.

If the heater is not being installed, skip to Step C.

The optional Electric Heating Element is intended to take the chill out of the indoor air when the air is a few degrees too cool for comfort. The Electric Heating Element is an effective "chill chaser". **It is not a substitute for a furnace.**

A. If adding the electric heater to the 48000 and 49000 series units, position the heater assembly in the upper unit return air opening as shown in figure below. Insure that the set screw is retracted sufficiently to allow installation over the basepan extrusion.

The heater bracket must be installed over the metal basepan extrusion and positioned between the basepan and the plastic drain pan. Tighten set screw to secure the assembly to prevent movement.
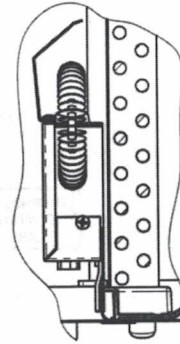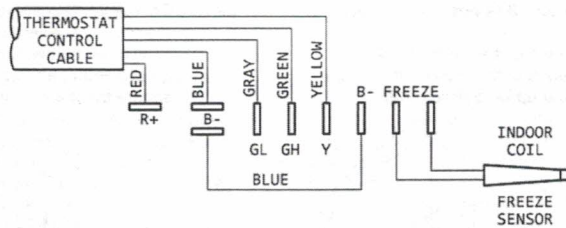

B. If adding the electric heater to the 47000 series, the heater will be assembled on weld studs using wing nuts to secure the heater assembly as shown in figure below.
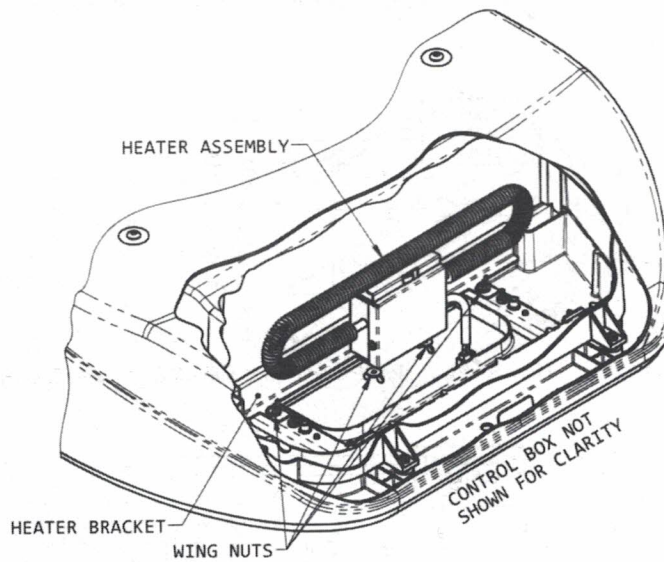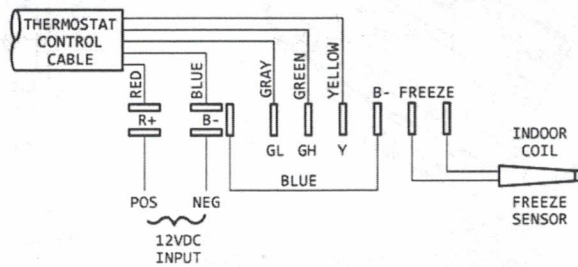

B. Insert the two pin connector of the heater umbilical into the receptacle on the control box. Insure that the connector snap-locks into position.

C. TIE ALL WIRING TO INSURE NO CONTACT WITH THE HEATER OR ANY SHARP EDGES. KEEP IN MIND THAT HIGH VELOCITY AIR WILL BE ENCOUNTERED IN THIS AREA.
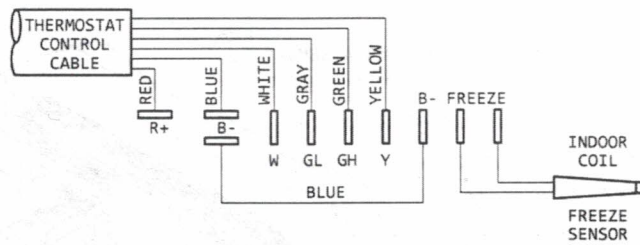
D. Attach the freeze sensor wires to the terminal board.

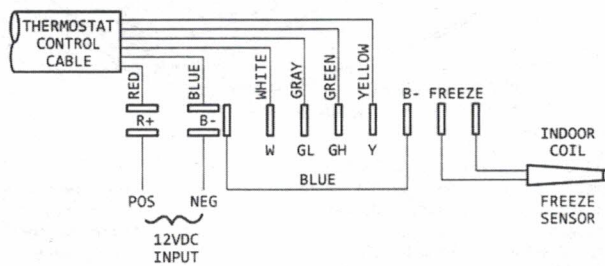E. Attach the thermostat wire to the control box referencing the diagrams below..

Cool Only Board with 12 DC power Supply

THERMOSTAT CONTROL CABLE

RED — R+
BLUE — B-
GRAY — GL
GREEN — GH
YELLOW — Y
B- FREEZE
BLUE
INDOOR COIL
FREEZE SENSOR

Cool Only Board without 12 DC Power Supply

THERMOSTAT CONTROL CABLE

RED — R+
BLUE — B-
GRAY — GL
GREEN — GH
YELLOW — Y
B- FREEZE
BLUE
INDOOR COIL
FREEZE SENSOR

POS NEG
12VDC INPUT

Heat Ready & Heat Pump Board with 12 DC Power Supply

THERMOSTAT CONTROL CABLE

RED — R+
BLUE — B-
WHITE — W
GRAY — GL
GREEN — GH
YELLOW — Y
B- FREEZE
BLUE
INDOOR COIL
FREEZE SENSOR

Heat Ready & Heat Pump Board without 12 DC Power Supply

THERMOSTAT CONTROL CABLE

RED — R+
BLUE — B-
WHITE — W
GRAY — GL
GREEN — GH
YELLOW — Y
B- FREEZE
BLUE
INDOOR COIL
FREEZE SENSOR

POS NEG
12VDC INPUT

F. Mount the control box inside the upper unit evaporator cover. Position the control box cover over the existing machine screws and secure with the two spring nuts provided.
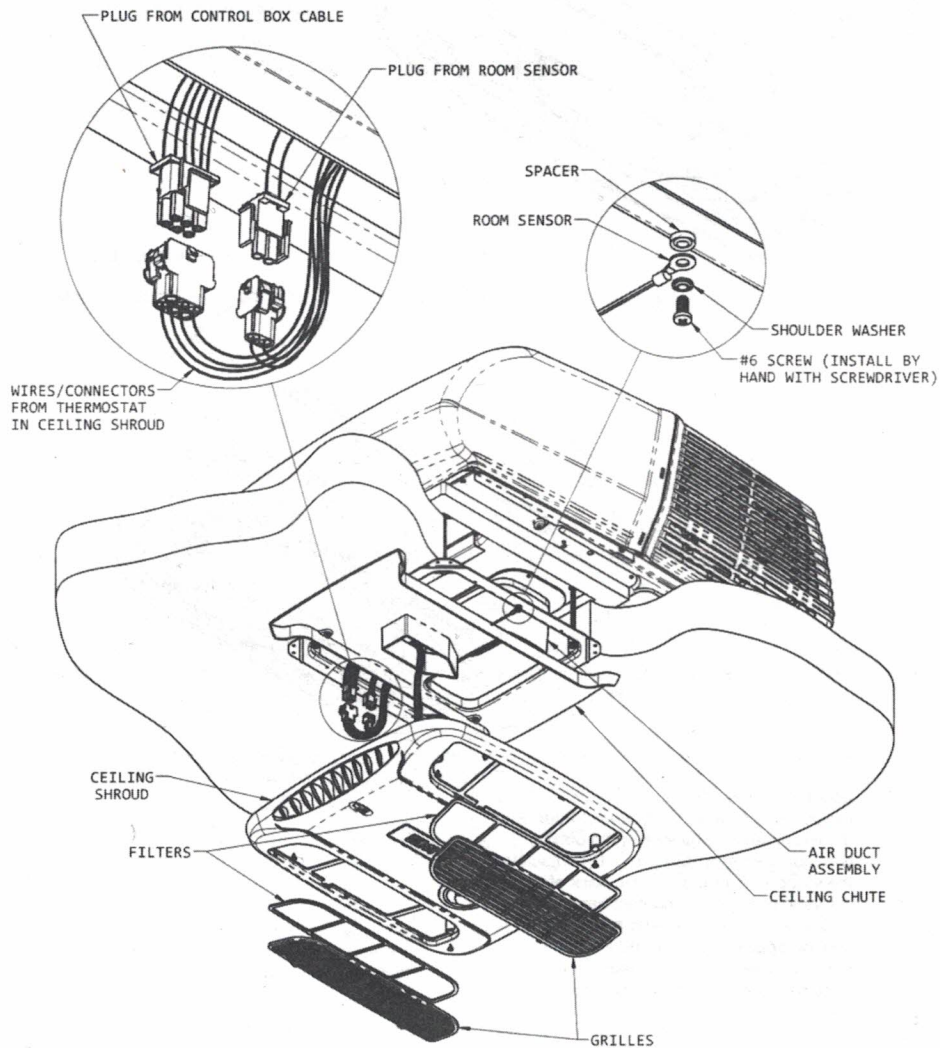
Note, that on the 47000 series units, the control box installs with the wires exiting upward.

INDOOR COIL
FREEZE SENSOR
CONTROL BOX

INDOOR COIL
FREEZE SENSOR
CONTROL BOX
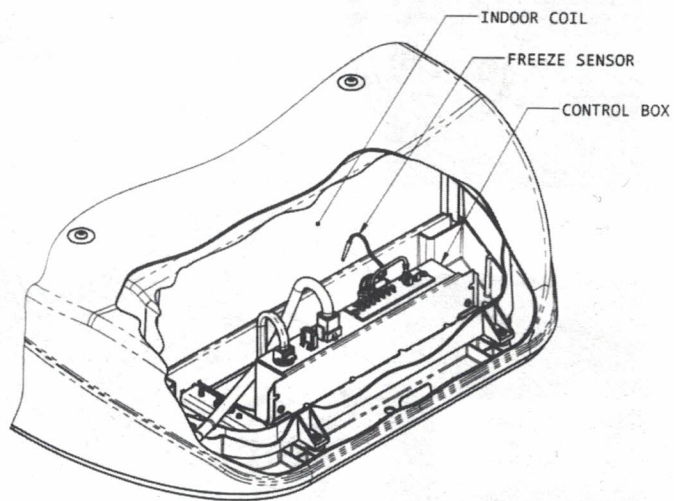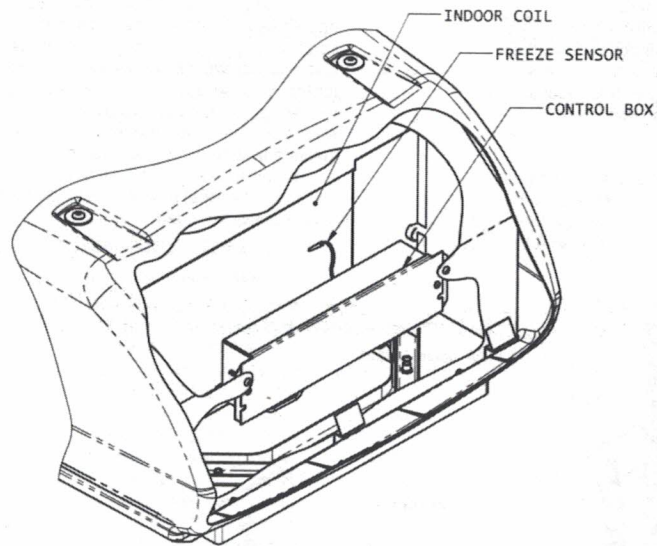
G. Insert the Freeze Sensor between the evaporator fins near the bottom center of the evaporator and between the bottom two tubes. Insert straight in until contacting the staggered tube directly in back of the insertion point. When contact has been made, elevate the exposed end of the sensor, approximately 45 degrees, then continue insertion at a 45 degree angle until the sensor is completely embedded into the evaporator.

VII. INSTALLING THE CEILING ASSEMBLY

1. Remove the grilles and filters from the ceiling assembly shroud.
2. Locate the cloth duct assembly and assemble to the roof top unit base pan with three of the short screws.
3. Raise the ceiling assembly chute to align with the cloth duct assembly. Attach the chute to the steel mount frame with 4 short screws. Expand the cloth duct to drop through the ceiling assembly opening.
4. Gently peel off the release liner from the VHB (Very High Bond) double sided tape. Press the cloth duct uniformly around the perimeter of the opening to adhere the cloth duct to the plastic chute. Carefully trim the excess cloth duct (a razor knife is very effective for this) taking care not to tear the fabric beyond the adhesive strip.
5. Attach the room temperature sensor to one of the middle holes of the steel mount frame with a short screw, spacer and shoulder washer provided in the small parts package. (**See figure** below).
6. Connect the two pin connectors together for the room sensor and connect the thermostat cable to the control box cable.
7. Align the shroud with the air chute insuring that no wires are trapped between the plastic parts. Attach the shroud to the steel mounting frame with 4 short screws provided.

PLUG FROM CONTROL BOX CABLE

PLUG FROM ROOM SENSOR

SPACER

ROOM SENSOR

SHOULDER WASHER

#6 SCREW (INSTALL BY HAND WITH SCREWDRIVER)

WIRES/CONNECTORS FROM THERMOSTAT IN CEILING SHROUD

CEILING SHROUD

FILTERS

AIR DUCT ASSEMBLY

CEILING CHUTE

GRILLES

VIII. OPERATION

The ceiling assembly display indicates the mode and the room temperature. When the mode button ⬜ is pressed once, the ceiling assembly display will wake and the backlight will illuminate. When the mode button ⬜ is pressed again, the mode will change. Press the △ or ▽ button to wake the thermostat; the set temperature will display and the mode will flash. Press the △ or ▽ button again to change the set temperature. The thermostat will return to sleep mode after 5 seconds if no button is pressed.

There is a three minute anti-short cycle for cooling. After the cooling system has been de-energized, the system will not energize again for three minute, to protect your compressor. To bypass the anti-short cycle change the mode to OFF.

Note: Operating your cooling system when the outdoor temperature is below 50° F can cause damage to your cooling equipment.

Temperature Range

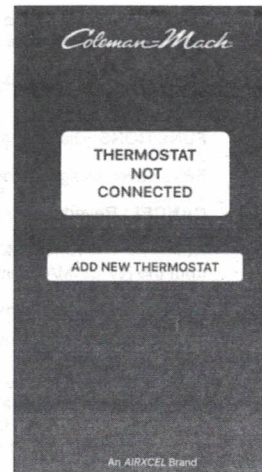| Mode	Range	
	°F	°C
Cooling (set)	33° F to 99° F	1° C to 37° C
Heating (set)	33° F to 99° F	1° C to 37° C

IX. BLUETOOTH PAIRING

Pairing New Thermostat

1. Download the **RV Climate** app to your smart device. The app is available on the Google Play Store and the Apple App Store.
2. Open the **RV Climate** app on your smart device and select "**ADD NEW THERMOSTAT**".
3. On the ceiling assembly thermostat, hold the **UP** and **DOWN** buttons simultaneously for five seconds to enter the pairing mode.
4. On the App, select "**PAIR NEW THERMOSTAT**".
5. When prompted, enter the 6-digit ID from the ceiling assembly thermostat and select "**PAIR**".
6. Once connected, the ceiling assembly thermostat will revert to the main screen.
7. Slide the smart device screen to the left for the 2nd screen.
8. Press ⚙ (settings).
9. Select "**ZONE NAME**".
10. Assign a name or description to the thermostat (7 characters maximum).
11. Select "**SET**" to save the assigned named or description.

Note:

Each ceiling assembly thermostat may be connected to a maximum of 4 individual smart devices. Any subsequent pairing connections will result in the oldest/first connections being automatically deleted in order.

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To add a new thermostat, press and hold the up and down arrow buttons for 5 seconds, then when prompted, enter the passkey that is flashing on the thermostat display

PAIR NEW THERMOSTAT

By using this app, I agree to the Terms of Use

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Coleman-Mach

THERMOSTAT NOT CONNECTED
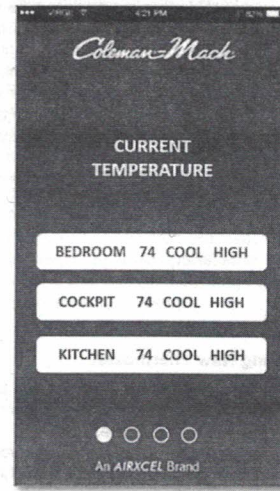
ADD NEW THERMOSTAT

An AIRXCEL Brand

Pairing additional thermostats

1. Open the **RV Climate** app and slide the screen to the left (last screen).
2. Select "**PAIR NEW THERMOSTAT**".
3. On the ceiling assembly thermostat, hold the **UP** and **DOWN** buttons simultaneously to enter pair mode.
4. When prompted, enter the 6 digit ID from the thermostat and select "**PAIR**".
5. Once connected, the ceiling assembly thermostat will revert to the main screen.
6. Slide smart device screen to the left for 2nd screen.
7. Press ⚙ (settings).
8. Select "**ZONE NAME**".
9. Assign a name or description to the thermostat (maximum of 7 characters).
10. Select "**SET**" to save the assigned name or description.

Note:
A maximum of 3 units may be added to an individual smart device.

Pairing a previously paired thermostat

1. Using the RV Climate app, select "**PAIR NEW THERMOSTAT**".

2. On the ceiling assembly thermostat, Hold the **UP** and **DOWN** buttons simultaneously to enter pair mode.

3. The Thermostat will automatically pair.

   Note: If the thermostat doesn't pair automatically, when prompted enter the 6 digit ID from the ceiling assembly thermostat and select "**PAIR**".

4. Once pairing is complete, press the ceiling assembly thermostat's mode button to return to the main screen.

⚙ Details (2nd Screen)

ZONE NAME: Assigns a name or description to the thermostat (maximum of 7 characters).

THERMOSTAT ID: Displays the thermostat's 6-digit ID.

FUNCTIONS: Displays available modes.

SET: Saves assigned zone name/description.

**CANCEL:** Reverts to the main screen.

REMOVE THERMOSTAT: Removes thermostat from the RV CLIMATE app.

Controlling the thermostat via RV Climate app:

1. Select the **RV Climate** icon on your smart device.
2. Slide screen to the left for 2nd screen.
3. Tap the icon displaying the current settings [Kitchen 75 FAN HIGH).
4. Select the desired temperature/mode.
5. Press "**SET**".

Removing a previously paired thermostat

1. Select the **RV Climate** app on your smart device.
2. Slide screen to the left for 2nd screen.
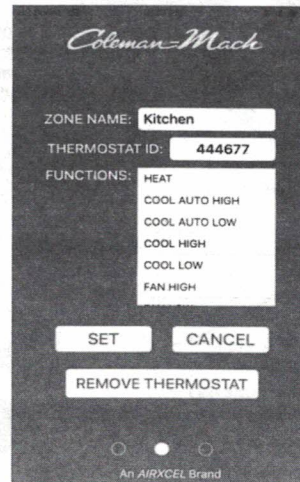
3. Press ⚙ .
4. Select "**REMOVE THERMOSTAT**" and press
    "**OK**".

BUTTON FUNCTIONS

UP – Wake thermostat and increase
temperature

DOWN – Wake thermostat and
decrease temperature

MODE – Wake thermostat, change mode

Note: Hold mode button down for 5 seconds. The
thermostat will change from Fahrenheit to
Celsius or Celsius to Fahrenheit. The backlight
will turn off after five seconds.