

# C H I L L G R I L L E COLEMAN®-MACH® AIR CONDITIONERS

# **INSTALLATION AND OPERATING INSTRUCTIONS**

## CHILLGRILLE<sup>TM</sup> DIRECT AIRFLOW REPLACEMENT CEILING ASSEMBLY PART NUMBER 7330A6331

FOR 6727, 6799 AND 7000 SERIES AIR CONDITIONERS

DESIGNED AND MANUFACTURED BY THE MAKERS OF COLEMAN®-MACH® AIR CONDITIONERS



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### I. WARNINGS

While the Coleman®-Mach® Chillgrille<sup>™</sup> can be installed very easily, certain precautions and procedures must be followed in order to ensure the safety of the installer and the integrity of the product. PERSONS WHO FEEL THEY ARE NOT QUALIFIED TO INSTALL THIS PRODUCT SHOULD CONTACT A RV SERVICE PROFESSIONAL.

#### WARNING - ELECTRICAL SHOCK HAZARD

To prevent the possibility of personal injury or damage to your equipment due to high voltage electrical shock, always be certain to disconnect electrical power to the air conditioner prior to any installation or service process. This can normally be accomplished by switching the breaker for the air conditioner to "OFF", disconnecting all external electrical connections and cords, switching "on-board" electrical generators to "OFF" and removing the cable from each positive terminal on all storage and starting batteries. Should you need assistance in disconnecting the power, consult your service professional.

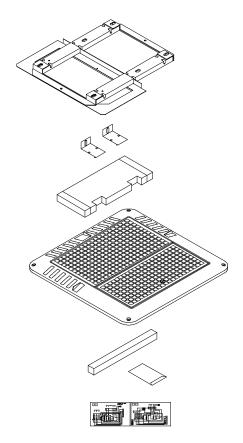
Carefully follow all instructions and all warnings in these instructions to avoid personal injury and/or equipment damage. PERSONS WHO FEEL THEY ARE NOT QUALIFIED TO INSTALL THIS PRODUCT SHOULD CONTACT A RV SERVICE PROFESSIONAL. Do not install and use the Chillgrille<sup>™</sup> if an electric heater is fitted within the return air plenum in the listed air conditioners.

#### **II. PACKAGE CONTENTS**

- 1. Air Chute Assembly
- 2. Frame Brackets (2)
- 3. Duct Divider Board
- 4. Chillgrille<sup>TM</sup> Interior Grille
- 5. Adhesive Coated Divider Gasket (1" x 1")
- 6. Small Parts Package:

Wing Nuts (2) Mounting Springs (4) Sheet Metal Screws (3) Edgeguard Strips (2)

7. Wiring Diagram Sheet



### **III. GENERAL INFORMATION**

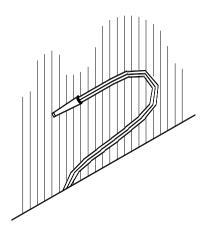
The Coleman®-Mach® Chillgrille<sup>™</sup> ceiling assembly allows you to divert the cold air supply from the internal duct system of your RV directly into the living space through the use of the specially designed DirectFlow louver system. The Chillgrille<sup>™</sup> also offers you the exclusive EZReach filter system that provides quick access to the included washable air filter. The Chillgrille<sup>™</sup> is designed with the do-it-yourself RV owner in mind. The Chillgrille<sup>™</sup> replacement ceiling assembly retrofit kit, part #7330A6331, is intended to fit existing lateral ducted Coleman®-Mach® 6727, 6799 and 7000 series air conditioners. **Do not install and use the Chillgrille<sup>™</sup> if an electric heater is fitted within the return air plenum in the listed air conditioners.** 

### **IV. HOW TO INSTALL**

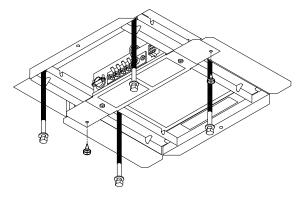
#### WARNING - ELECTRICAL SHOCK HAZARD

To prevent the possibility of severe personal injury or equipment damage due to electrical shock, always be sure the electrical power to the air conditioner is disconnected during the installation of the Chillgrille<sup>TM</sup>. It will not be necessary during this installation to disconnect any electrical wiring nor gain access inside the electrical connection wire box.

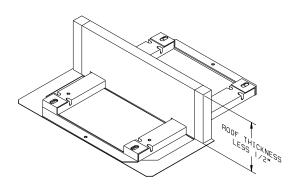
- 1. After determining the high voltage to the air conditioner is disconnected, begin the installation process by removing the four screws that secure the plastic return air grille to the ceiling of your vehicle. Be sure to retain the four screws you remove from the grille.
- 2. Reach into the return air plenum and locate the anti freeze sensor which is a small metal probe attached to the white wire coming out of the electrical connection wire box. The sensor will be imbedded into the coil. Note the location of the sensor in the coil as you will be reinstalling the sensor. Gently pull the sensor from the coil.



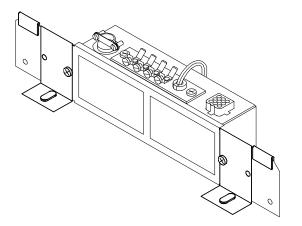
3. Remove the two (2) sheet metal screws that secure the electrical connection wire box to the frame assembly. Carefully lower the wire box and let it hang below the ceiling. Make a note of where the low voltage connections are made on the external terminal strip in the event a wire becomes disconnected. In order to prevent the possible disconnection of wiring, do not allow the wire box to free-fall below the ceiling.



- 4. Using a ratchet or electric drill, remove the four 5/16" bolts that secure the mounted frame assembly to the air conditioner. Be sure to retain the four bolts and four washers for future use.
- 5. Carefully pull the frame assembly from the roof opening and maneuver the frame around the wire box, again taking care to not disturb any wire connections. Be sure to remove any adhesive insulating materials that may remain in the roof opening after removing the frame. Do not break the sealing action of the foam roof gasket when removing the frame assembly. Breaking the seal could result in water leakage and the need to install a new gasket.
- 6. Measure the depth of the ceiling. Subtract 1/2" from that measurement. Cut the supplied divider board on the non-notched side to this dimension using a sharp knife or razor blade. Seat the new fiber divider board into the new frame assembly. The notched side of the divider board fits over the fore-and-aft rails of the frame.

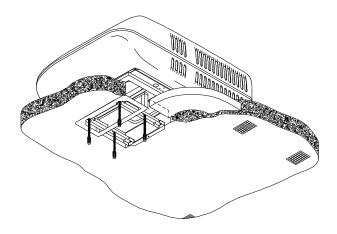


- 7. Take the supplied 1" x 1" foam divider gasket and remove the protective strip from the adhesive. Place the adhesive side of the gasket to the top (cut) edge of the divider board. There should now be foam gasket material on three sides of the divider.
- Remove one of two sheet metal screws holding the cover onto the electrical connection wire box. Taking one of the frame brackets from the kit, install it as shown, fastening the bracket with the sheet metal screw that was just removed.

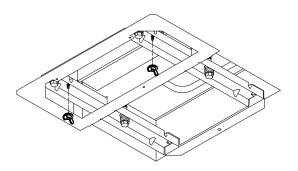


- 9. Fasten the second frame bracket onto the wire box in the same manner listed above.
- 10. Fasten a piece of the protective edgeguard material onto each side of the wire box assembly.
- 11. While holding onto the wire box, place the metal probe of the anti freeze sensor into the location from which it was removed. The sensor must be firmly in place in order to be functional. If you do not feel some resistance when replacing the sensor into its prior location, move it two inches to the right or left of the original location and reinsert until the probe is flush with the coil surface.

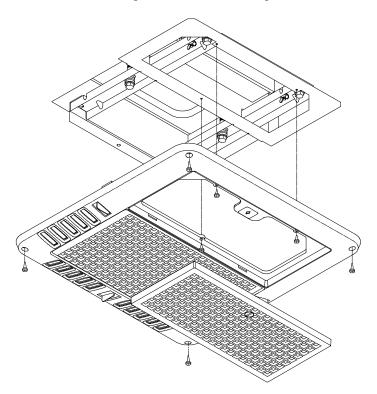
- 12. Place the wire box into the return air plenum with the welded bolts on the frame brackets pointing towards the floor. Attempt to keep all the wiring on top of the wire box. Position the wire box in such a manner that it will stay in place within the plenum.
- 13. Take the new frame assembly from the kit and place it into the roof opening as shown. Make sure the metal apron surrounding the frame is placed towards the front of the air conditioner.



- 14. Take the four 5/16" bolts you removed earlier; place one of the supplied springs over the bolt and insert them through the frame and into the Avdel nuts in the air conditioner basepan located directly above the clearance holes in the frame. Start each bolt by hand. Do not cross thread or force the bolts, as you may strip either the bolts or the Avdel nuts.
- 15. Using an alternative pattern, use a ratchet or a cordless driver and run the bolts into the basepan until the coils of the springs are compressed and just touching. **Do not over tighten.**
- 16. Once the frame is securely in place, retrieve the wire box from its stored location in the return air plenum and place the welded studs located on the frame brackets into the 1/4" clearance holes in the frame assembly as shown. If the wire box assembly is wider than the roof opening and not allowing the welded nuts to fit into the clearance holes on the frame, either cut away a small section from each side of the wire box flange <u>or</u> use a pair of pliers and bend each side of the wire box flange forward to gain the necessary clearance.



- 17. Place one of the supplied wing nuts onto each of the welded studs and tighten securely.
- 18. Remove the air filter assembly by rotating the black fastener one-quarter turn. Attach the plastic interior



Chillgrille<sup>™</sup> to the frame assembly with the supplied three sheet metal screws as shown. Tighten the three screws individually to affect a flush fit between the plastic grille and ceiling.

- 19. Insure that all foam parts are within the grille perimeter and secure the grille to the ceiling by utilizing the four screws that were removed from the original interior ceiling grille.
- 20. Replace the air filter assembly by inserting the tabs into the slots in the grille and rotate the black lock knob one-quarter turn. If you experience difficulty in getting the air filter assembly to lock in place, remove the two screws in the front of the grille as illustrated above.
- 21. Make sure all louvers are operating correctly.
- 22. Turn on electric power to the air conditioner.

The installation in complete.

### **V. OPERATING INSTRUCTIONS**

Once the Chillgrille<sup>™</sup> is installed, simply open or close the three louvers contained within the perimeter of the grille to achieve the desired level of airflow through the grille. Opening the louvers will place a great deal of conditioned air into the living space below and adjacent to the Chillgrille<sup>™</sup>. Closing the louvers will allow the conditioned air to flow completely through the ceiling duct system.

As with all air conditioning systems, we recommend you check and clean the washable filter once a month. If you utilize your RV in dusty conditions, check the filter more often.

Thank you for purchasing the Coleman®-Mach® Chillgrille<sup>™</sup>. It is built with the same care and quality you have come to expect from the entire family of Coleman®-Mach® air conditioners and other products designed and manufactured by RV Products, a division of Airxcel, Inc.



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