Model Number 4737G8091 - Mini-Mach/Super-Mach Air Conditioner Installation Kit

Note: This kit is designed for installation on: 1992 and newer Pioneer and Destiny series trailers 1993 Cape Cod model trailers

Note: This air conditioner kit is not to be used in conjunction with any air conditioner ceiling assembly that is equipped with a heat strip option. Although the wiring in the camping trailer meets all the necessary standards for safety, the size of the wire would not be adequate to operate the added amperage load of the heat strip ceiling assembly.

IMPORTANT NOTICE

These instructions are intended 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 should not attempt to install this equipment nor interpret these instructions. Improper installation may cause damage to the equipment and may cause a hazard.

These instructions are for the installation of the air conditioner kit and the air conditioner unit itself. Refer to the instructions included with each air conditioner model for additional mounting details.

This package contains:

1 - 4747A889 Roof brace
3 - 4741C936 Screw (painted)
4 - 4749A109 Flat washer
4 - 4747-232 Sealing washer
1 - 4747A890 Roof brace (predrilled)
1 - 1212-012 Grommet
1 - 4744A130 Shear pin
1 - 4723-337 Velcro Strap
3 - 4739-415 Nylon clamp
4 - 4747A695 L-shaped mounting bracket (warm grey)
4 - 4747A111 1" Warm grey bolt
4 - 4749-212 Channel extension
1 - 1968J197 Instruction sheet

9 - 4741B965 Expansion rivet
4 - 4746B053 Machine bolt 1/2" S/S x 1 1/2"
6" - 435-00-000-58 6"/PC foam tape
1 - 1202B269 Flat Washer
4 - 4744-311 1" Bushing
26' - 435-00-000-22 Thick foam tape
1 - 4748-659 Cord
A. Instructions (Air Conditioner Kit)

1. Before proceeding with any cutting or drilling, carefully study the dimensions in Figure 1. Note that the rear screen door track on 1992 model trailers (Exception: Evergreen model trailers) is used as the starting point for all measurements. All 1993 top configurations have incorporated a roof vent or accordion rivets inserted into the top ceiling panel and interior side coves pre-determining the air conditioner cut-out and roof brace mounting locations.

**FIGURE 1**
2. Apply a strip of foam tape (435-00-000-22) to each flange of both air conditioner top braces. Foam tape should be applied so it will be between the top brace and the ceiling of the top assembly when the brace is installed. See figure 2.

3. For all 1992 models: Using a drill and a 1/4" drill bit, drill a hole through the curbside of the camper top. Locate this hole 1 7/8" back from the rear screen door track or bathroom curtain track (Evergreen models only) and in line with the phillips-head screws or rivets along the bottom flange of the interior aluminum coves. All 1993 top configurations will utilize an accordion rivet in this location except the Rio Grande model. This model has the accordion rivets located toward the front of the trailer top starting with the front screen door track. Remove the rivet prior to drilling through the curbside of the camper top. See Figure 3.

4. Drill a second hole through the roadside of the camper top using the dimensions or pre-determined accordion rivet holes in Step 3 as a guide. See Figure 3.

5. Using two of the L-shaped mounting bracket assemblies (4747A695), two machine bolts (4746B053), two sealing washers (4747-232), and two flat washers (4749A109), fasten one mounting bracket to each interior cove of the camper top using the holes drilled in Steps 3 and 4. The long flange of the mounting bracket should face down to be assembled against the air conditioner brace. See Figure 3.

Note: The machine bolt, flat washer, and sealing washer will be inserted through the camper top sidewall externally.

6. Using the bolt holes drilled in Steps 3 and 4 as reference points, drill two 13/64" holes in the upper top flange of the curbside interior cove in line with the screws (or rivets) 1/2" out on each side of the machine bolt. Repeat procedure for roadside interior cove. See Figure 3.

CAUTION: Do not drill completely through the top assembly. Holes should be drilled through the metal interior cove and inside ceiling paneling only. See Figure 3.
7. Place an expansion rivet (4741B965) in each hole drilled in Step 6 to secure the metal interior cove to the ceiling.

8. Route the power cord (4748-659) through the roof brace (4747A890) prior to fastening the roof brace securely to the L-shaped mounting brackets installed in Step 5. Allow 18" to 24" of the power cord (non-plug end) to remain at the air conditioner cut-out location for later attachment to the ceiling assembly. Pre-punched holes at the end of the roof brace should face toward the 20 amp receptacle.

**IMPORTANT:** A 20 amp receptacle is located within the interior wall paneling at the front, rear, or sides of the trailer and can be identified by the short horizontal notch in one leg of the outlet. Roof Brace 4747A890 must be installed on the interior top assembly closest to the 20 amp receptacle for proper routing of the power cord. The roof brace can be turned end for end or interchanged with the rear roof brace for routing of the power cord to the receptacle.
9. Set the appropriate top brace (4747A889 or 4747A890) into position on the interior ceiling, being certain it is flush against the front or rear screen door track (rear bathroom curtain track on Evergreen model trailers, front screen door track on Rio Grande model trailers). Insert the two bolts (4747A111) provided through the holes at the ends of the brace and fasten the brace to the L-brackets installed in Step 5.

Note: Ensure that the long side of the L-bracket is assembled against the air conditioner brace. Top configurations using aluminum valance tracks may require a 1/2" to 3/4" access hole to be drilled through the valance track flange for installation of the bolts at the ends of the top brace where applicable.

10. Locate the opposite top brace according to the chart below. Remove the appropriate set of accordion rivets from the curbside and roadside interior coves. Drill holes and install the air conditioner brace using steps 1-9 as a guide. See Figure 1, dimension A.

**IMPORTANT:** Evergreen model trailers will not require installation of a rear air conditioner brace.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A/C CUT-OUT MEASUREMENT</th>
<th>OPPOSITE BRACE LOCATION</th>
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<tbody>
<tr>
<td>Royale</td>
<td>11&quot;</td>
<td>42&quot;</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>11&quot; (located towards front of trailer top)</td>
<td>42&quot; (located towards front of trailer top)</td>
</tr>
<tr>
<td>Cedar</td>
<td>11&quot;</td>
<td>42&quot;</td>
</tr>
<tr>
<td>Roanoke</td>
<td>11&quot;</td>
<td>42&quot;</td>
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<tr>
<td>Chesapeake</td>
<td>11&quot;</td>
<td>36&quot;</td>
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<tr>
<td>Seneca</td>
<td>11&quot;</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Arcadia</td>
<td>11&quot;</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Cape Cod</td>
<td>11&quot;</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Newport</td>
<td>11&quot;</td>
<td>Not Required</td>
</tr>
<tr>
<td>Evergreen</td>
<td>11&quot;</td>
<td>34 1/2&quot; (relocate rear light fixture)</td>
</tr>
<tr>
<td>Sedona</td>
<td>11&quot;</td>
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Note: All measurements taken from the rear screen door track (except where noted).

11. Remove four accordion rivets from within the ceiling paneling of the top assembly. Carefully mark the air conditioner cutout opening on the top interior as shown in Figure 1. For ease of cutting, it is recommended that a 1/2" - 3/4" circular hole be drilled through each corner of the disposable section of the cut-out. This will allow ample room for the sabre saw blade to miter each corner.

**WARNING:** Always check location of the pre-determined accordion rivets prior to cutting to ensure proper clearances from the air conditioner top braces for installation of the air conditioner unit.
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Note: The 11" dimension is critical for proper air conditioner alignment.

12. Cut out the opening for the air conditioner with the use of a sabre saw or other suitable cutting tool.

   IMPORTANT: Due to the various types of commercial air conditioners available, check each individual manufacturer's recommendations for the exact air conditioner cut-out size to measure.

13. Place the four channel extensions (4749-212) into the air conditioner hole cut-out, one in each corner between the interior ceiling paneling and the exterior metal skin of the top assembly. Align the edges of the channel extensions with the hole cut-out.

14. Once the air conditioner hole is completely cut, lower the top assembly to enable easy access to the exterior portion.

15. Cut the exterior metal center seam strip 2" back on each side of the opening and refasten the trimmed end. This will allow the air conditioner unit to properly seal against the exterior portion of the top assembly. See Figure 4.

16. Cut away any double-stick tape that remains between the end of the center seam strip and the edge of the cut-out opening.

17. Place a bead of caulking along the cut edge of the center seam strip. See Figure 4.

18. Re-seal the exposed 2" section of the center seam with the enclosed sealant tape (435-00-000-58). Position the tape from the edge of the caulking to the edge of the cut-out opening. See Figure 4.

19. You are now ready to begin the actual air conditioner installation.

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FIGURE 4

NOTE: REMOVE A 2" SECTION OF THE TOP CENTER SEAM ON EACH SIDE OF OPENING AND REPLACE WITH SATURATED FOAM.
B. Instructions (Roof Air Conditioner Unit)

1. Remove the carton and packaging from the roof air conditioning unit.

2. Lift the air conditioning unit off its wooden skid and set directly on the prepared roof opening cut-out with the pointed end of the unit facing the front of the trailer and the condensing coil facing the rear. The air conditioning unit may be lifted by its plastic cover. The roof seal gasket located on the air conditioner unit itself will provide a sufficient seal between the air conditioner and the smooth camper roof when secured properly.

Note: The centering flange on the underside of the air conditioning unit must be centered over the roof opening cut-out.

IMPORTANT: Different brands of roof air conditioners and ceiling assemblies are not interchangeable. Check individual manufacturers recommendations.

C. Installing the Air Conditioner Interior Ceiling Assembly

Specific instructions for this part of the air conditioner installation can be found in your mini-mach installation booklet. Follow these as indicated for proper installation.

CAUTION: When tightening the ceiling assembly anchor bolts, do not exceed 50% of gasket compression or irreversible cell damage to the gasket material will occur. Periodically check tightness of all anchor bolts.

D. Wiring Procedure

DANGER -- SHOCK HAZARD

MAKE SURE THAT THE POWER SUPPLY TO THE UNIT IS DISCONNECTED BEFORE PERFORMING ANY WORK ON THE UNIT TO AVOID THE POSSIBILITY OF SHOCK, INJURY, OR DAMAGE TO THE EQUIPMENT.

1. A wiring access hole through the interior plastic ceiling assembly cover of the air conditioner should be located 1" down from the top and 2 1/2" in from the curbside on the front of the ceiling assembly cover. This hole is located directly adjacent to the pre-drilled hole in the front ceiling brace in Step 8.a and should be drilled using a 7/8" bit. See individual manufacturers recommended hole locations included with the ceiling assembly instructions.

Note: The electrical control box is located on the curbside of the ceiling assembly cover.

2. Insert wire through enclosed white rubber grommet (1212-012) and the interior plastic ceiling assembly cover.

4. Using electrician's tape, tape the wire nuts securely to the wires.

5. Tighten the strain-relief clamp to secure the 115 volt supply wire in place (see air conditioner booklet). Coil the two connected wire ends and place inside the control box. Reinstall the control box cover. Be sure the thermostat probe is in position, routed through the rubber grommet and not touching any metal. See air conditioner manual.

6. Make sure the non-allergenic natural fiber filters are in position in the ceiling assembly cover and are held in place by elastic cords around four retainer pins; if they are not, install them at this time. See air conditioner manual.

7. Reinstall the interior ceiling assembly and secure with the two screws taken out earlier. Put the control knobs back on the ceiling assembly and turn the selector switch to "OFF."

8. Route the power cord along the top of the roadside or curbside aluminum canvas track toward the 20 amp receptacle, then fasten the cord to the top with the three nylon clamps (4739-415) and three screws (4741C936) provided.

9. Route the power cord along the seat bench frame or curbside cabinet assembly and into the 110 volt, 20 amp receptacle.

10. Drill a 13/64" hole in the corner of the top assembly (through ceiling panel only) coinciding with the routing of the power cord. Fasten the power cord retaining velcro strap (4723-337) with the expanda rivet (4741B965) and flat washer (1202B269) provided.

   Note: Store power cord looped at corner of top assembly prior to closing.