



INSTALLATION INSTRUCTIONS

Model Number 4737E8091 - Mini-mach Air Conditioner Installation Kit

Note: This kit is designed for installation on 1990-91 Pioneer and Destiny series model Coleman camping 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 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 the mini-mach air conditioner for additional mounting details.

IMPORTANT NOTICE TO DEALER AND CONSUMER - LIFT SYSTEM ADJUSTMENTS

To insure proper performance of the lift system, the following service procedures must be performed:

1. Following the air conditioner installation and subsequent raising and lowering of the trailer top assembly, it is necessary to perform a cable adjustment in order to reattain the proper top height. The initial shock of this extra weight placed on the lift system will cause the cables to stretch. This adjustment must be performed at the whiffle tree. Since this adjustment is considered part of the installation, any additional costs must be borne by the consumer.
2. Due to the additional weight of the air conditioner, the thrust nut roll pin must be replaced with the 4744A130 solid pin supplied with this kit on trailers manufactured prior to September 5, 1985. The date of manufacture is listed on the certification label on the left body panel. Using a 3/16" punch and hammer, drive the existing roll pin out of the thrust nut and whiffle tree. The new solid pin supplied is slightly tapered on one end for ease of installation. Place the tapered end of the solid pin into the hole in the thrust nut and drive it into place. See Figure 4.

This package contains:

1 - 4747-889	Roof brace	6" - 435-00-000-58	6"/PC foam tape
3 - 4741B936	Screw (painted)	4 - 4744-311	1" Bushing
4 - 4749-109	Flat washer	26' - 435-00-000-22	Thick foam tape
4 - 4747-232	Sealing washer	9 - 4741B965	Expansion rivet
1 - 4747-890	Roof brace (predrilled)	4 - 4746A053	Machine bolt 1/2" S/S x 1 1/2"
1 - 1212-012	Grommet	1 - 4723-337	Velcro strap
1 - 4744A130	Shear pin	1 - 1202B269	Flat washer
1 - 4733-165	Cord	1 - 1968-355	Instruction sheet
3 - 4739-415	Nylon clamp	4 - 4749-212	Channel extension
4 - 4747-695	L-shaped mounting bracket	1 - 1968G197	Instruction sheet
4 - 4747-111	1" Colonial white bolt		

A. Instructions (Air Conditioner Kit)

1. Before proceeding with any cutting or drilling, carefully study the dimensions on Figure 3. Note that the rear screen door track is used as the starting point for all measurements.
 2. Apply a strip of foam tape (435-00-000-22) to each flange of both air conditioner top braces.

Notes: Foam tape should be applied so it will be between the top brace and the inside surface of the top assembly when the brace is installed.
 3. 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 and in line with the phillips-head screws (or rivets) along the bottom flange of the interior cove molding. See Figure 2.
 4. Drill a second hole through the roadside of the camper top using the dimensions in Step 3 as a guide. See Figure 2.
 5. Using two of the L-shaped mounting bracket assemblies (4747-695), two machine bolts (4746A053), two sealing washers (4747-232), and two flat washers (4749-109), fasten one bracket on each side of the camper top using the holes drilled in Steps 3 and 4. The long flange of the bracket should face down. See Figure 2.
 6. Using the holes drilled in Steps 3 and 4 as reference points, drill two 13/64" holes in the upper top flange of the interior cove molding on both sides of the top assembly. Locate these two holes 1/2" out on each side of the reference points. See Figure 2.
- CAUTION:** Do not drill completely through the top assembly. Holes should be drilled through metal cove molding and inside vinyl-coated paneling only. See Figure 2.

7. Place an expansion rivet (4741B965) in each hole drilled in Step 6 to secure the interior cove molding to the ceiling.
8. Route the power cord (4733-165) through the roof brace (4747-890) as follows for each model camping trailer prior to fastening the roof brace securely to the L-shaped mounting brackets installed in Step 5.

Note: For all camping trailers except the Columbia models, the roof brace (4747-890) will be installed next to the rear screen door track. Columbia models will have the roof brace (4747-889) installed next to the rear screen door track.

Model	Routing
Columbia	Route power cord through rear brace (4747-890) from center hole toward the <u>roadside</u> of the top and let hang.
Newport Chesapeake Roanoke	Route power cord through front brace (4747-890) from center hole toward the <u>roadside</u> of the top and let hang.

Roanoke Royale Route the power cord through the front brace (4747-890) from center hole toward the curbside of the top and let hang.

Allow 18" to 24" of the power cord (non-plug end) to remain at the air conditioner location for later attachment to the air conditioner.

9. Set the appropriate front top brace into position on the interior ceiling, being certain it is flush against the rear screen door track. Insert the two bolts (4747-111) provided through the holes at the ends of the brace and fasten the brace to the L-brackets installed in Step 5.

10. Locate the rear top brace according to the ceiling assembly used. See Figure 3, dimension A. The 6759 ceiling assembly cannot be used on the Columbia or Roanoke models.

Ceiling assembly 6727 - Dimension A equals 29"

Ceiling assembly 6759 - Dimension A equals 33" (See "Note" in Step 11 for Roanoke Royale)

11. Orient the rear brace so the holes at the end of the roof brace face the rear of the top (Columbia model only). Drill holes and install the rear brace using Steps 1 through 10 as guide.

Note: Columbia model - It will be necessary to relocate the rear dome light when installing the rear brace. Locate the light 1" from the rear brace toward the rear of the trailer. Position the light with the on and off switch facing the roadside or curbside of the trailer.

Roanoke Royale model - If ceiling assembly 6759, dimension A is used. It will be necessary to relocate the rear dome light. See above note.

12. Carefully mark the air conditioner cutout opening on the top interior as shown in Figure 3.

Note: The 7 3/4" dimension is critical for proper air conditioner alignment.

13. Cut the 14" x 14" opening for the air conditioner with the use of a sabre saw or other suitable cutting tool.

14. Place the four channel extensions (4749-212) into the 14" x 14" cut out, one in each corner between the interior ceiling paneling and the exterior metal skin of the top assembly. (See 1968-355 instructions included.)

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

16. 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.

17. Reseal the 2" exposed ends with the enclosed sealant tape (435-00-000-58).

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

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 14" x 14" roof opening 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.

Note: The centering flange on the underside of the air conditioning unit must be centered over the 14" x 14" roof opening.

Note: 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.

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.

D. Wiring Procedure

D A N G E R -- S H O C K H A Z A R D

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. For the Columbia model, a wiring access hole through the interior plastic ceiling cover of the air conditioner is now needed. This hole should be located approximately 8" from the curbside rear and 1" down from the top edge of the ceiling assembly and should be drilled with a 7/8" bit.

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

For the Newport, Chesapeake, Roanoke and Roanoke Royale models, the 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 hole drilled in the front ceiling brace in Step 8.a.

2. Insert wire through enclosed white rubber grommet (1212-012) and the interior plastic ceiling assembly cover.
3. Splice wires color for color with the enclosed wire nuts. Reference Figures 21 and 22 of air conditioner manual.
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 Figure 22.
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 Figure 24 in 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 aluminum canvas track toward the roadside front of the trailer top on Newport, Chesapeake, and Roanoke models and fasten the cord to the top with the three nylon clamps (4739-415) and three screws (4741B936) provided. On Columbia models, route the power cord toward the roadside rear of the top. On Roanoke Royale model, route the power cord to the curbside rear and fasten with the clamps and screws 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 trailer.

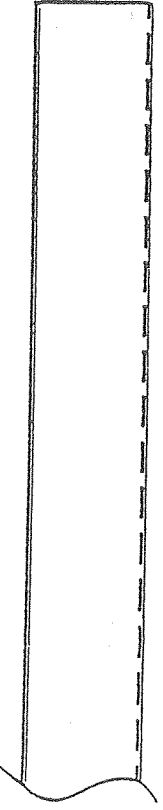


FIGURE 1

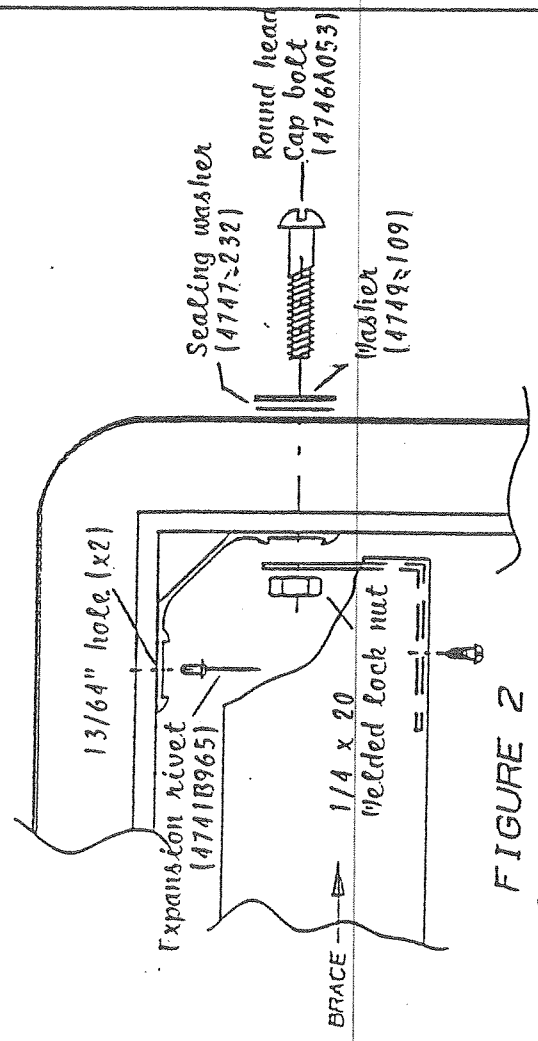


FIGURE 2
TOP ASSY. - SIDE VIEW

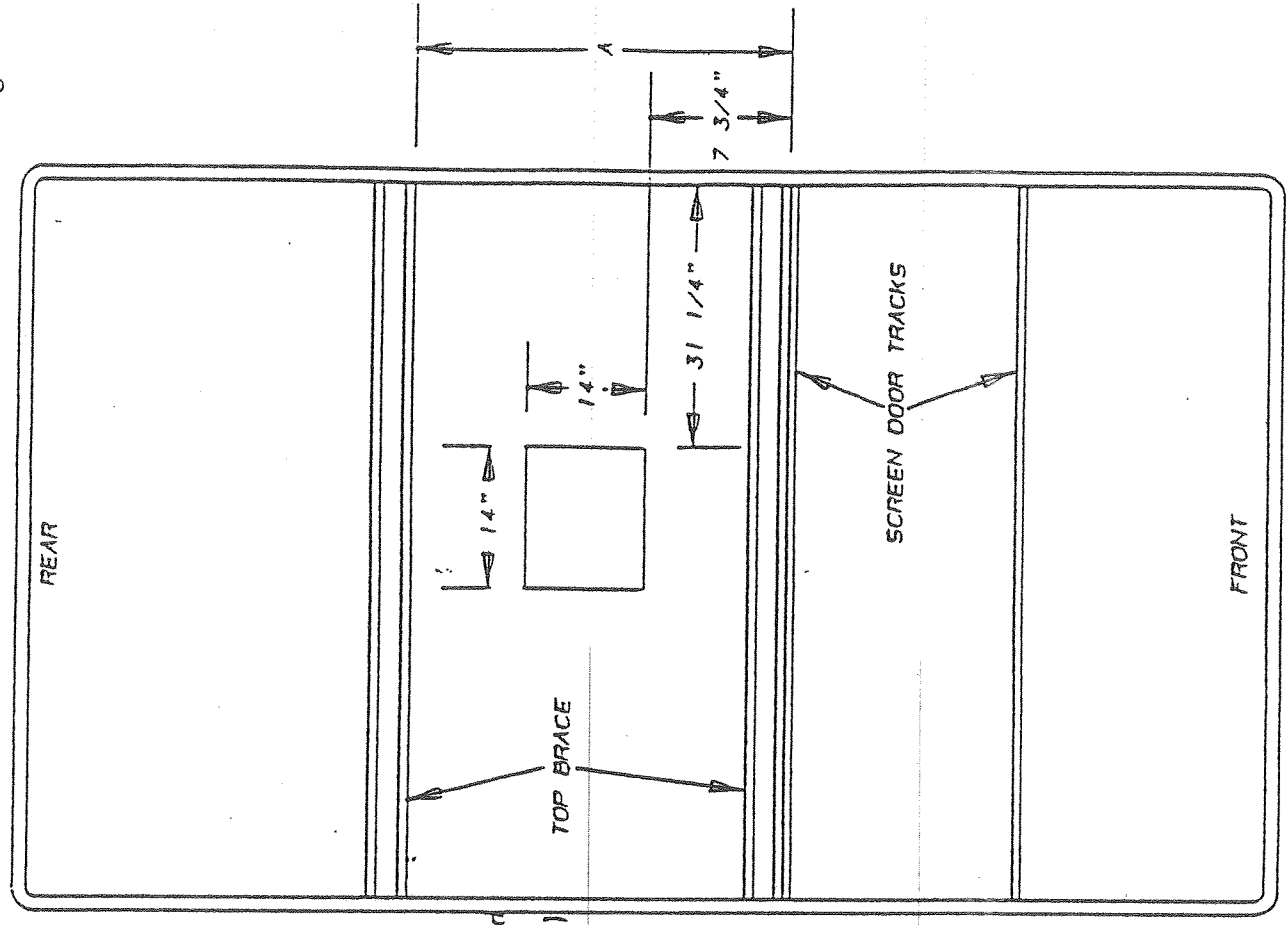


FIGURE 3
TOP ASSY. INTERIOR VIEW

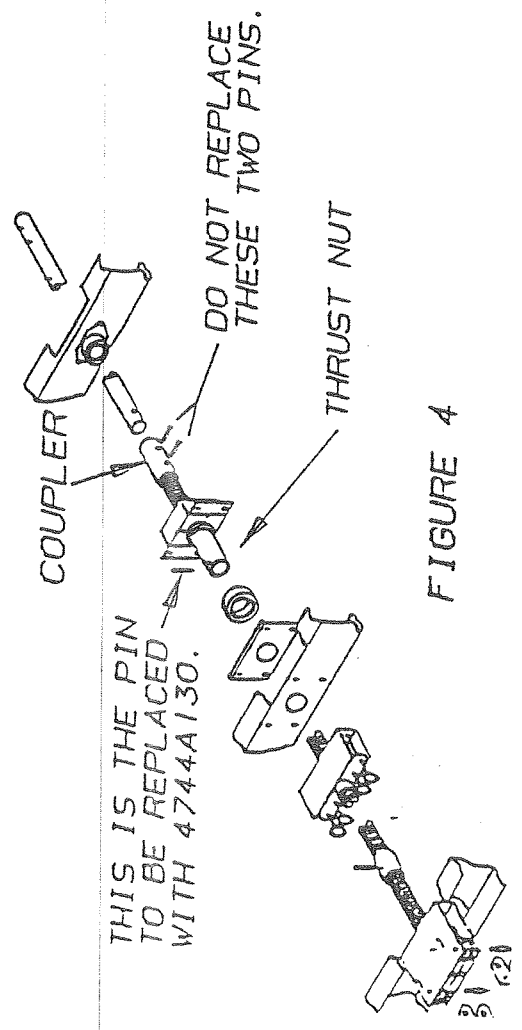


FIGURE 4