

**FLEETWOOD FOLDING TRAILERS, INC.  
INSTALLATION INSTRUCTIONS**

1968B447  
Revised September 2003

**PART NUMBER: 4737J8091  
MINI-MACH/SUPER-MACH AIR CONDITIONER INSTALLATION KIT**

**NOTE:** The 4737J8091 kit is designed for installation on:

1986 - 1997 Pioneer and Destiny series trailers with aluminum top assemblies  
1986 - 1988 Americana series trailers  
1993 and newer Four Season series trailers  
1998 to present Taos models  
2004 to present Tucson

**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.

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**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.**

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**This package contains:**

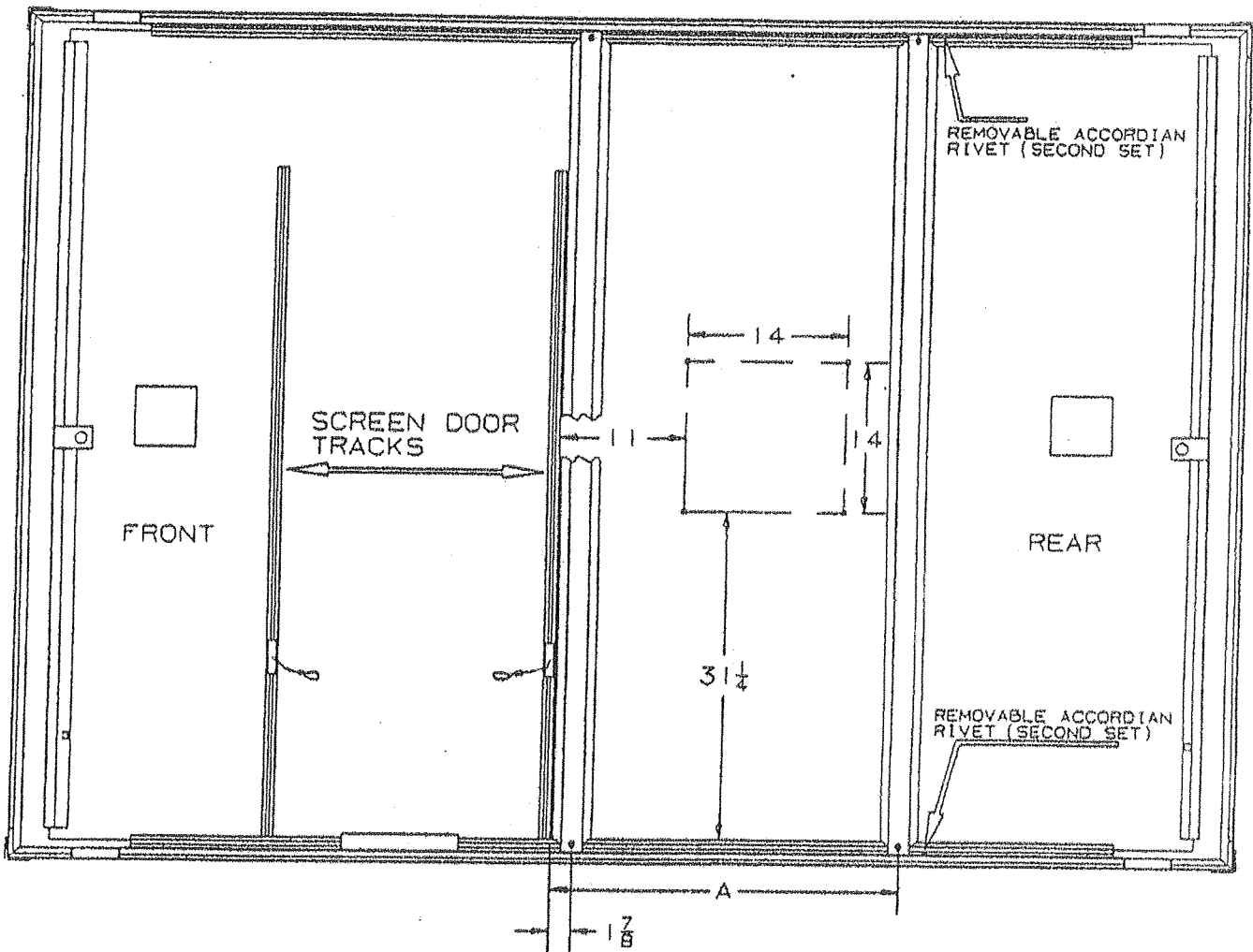
1 - 4747A889	Roof brace, 76 ½ " (all models except 1998 Redwood)		
1 - 4747A890	Roof brace, 76 ½" (pre-drilled, all models except 1998 Redwood)		
9 - 4741B965	Expansion rivet	1 - 4752-245	Top trim
3 - 4741C936	Screw (painted)	4 - 4746B053	Machine bolt ½" S/S x 1 ½"
4 - 4749B109	Flat washer	6" - 435-00-000-58	6"/PC foam tape
4 - 4747-232	Sealing washer	1 - 1202B269	Flat Washer
4 - 4744-311	1" Bushing	4 - 4749A212	Channel extension
1 - 1212-013	Grommet	26' - 435-00-000-22	Thick foam tape
1 - 4744A130	Shear pin	1 - 4748A659	Cord
1 - 4723-337	Velcro Strap	1 - 1968-412	Instruction Sheet
3 - 4739-415	Nylon clamp	2 - 4741-497	Bumper
1 - 4752-244	Caution decal	5' - 435-00-000-32	Putty tape
4 - 4747A111	1" Warm grey bolt	9" - 435-00-002-95	Acrylic tape
4 - 4747A695	L-shaped mounting bracket (warm grey)		

**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 and prior model trailers (Exception: Evergreen model trailers) is used as the starting point for all measurements. All 1993 to present top configurations have incorporated accordion rivets inserted into the top ceiling panel and interior side coves pre-determining the air conditioner cut-out and roof brace mounting locations.
2. Apply a strip of foam tape 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 and prior 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 to present 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, two machine bolts, two sealing washers, and two flat washers, 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.

FIGURE 1



NOTE: 14" x 14" CUT - OUT SIZE SHOWN MAY VARY.  
REFER TO AIR CONDITIONER MFG. RECOMMENDATIONS  
PRIOR TO CUTTING THROUGH TOP ASSEMBLY

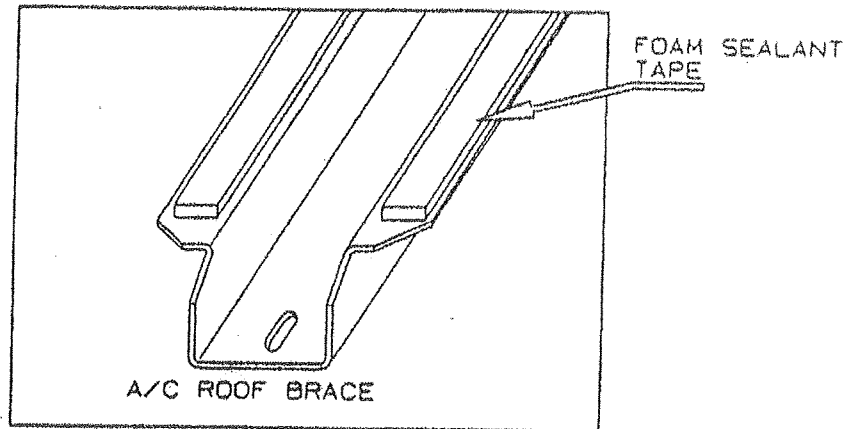


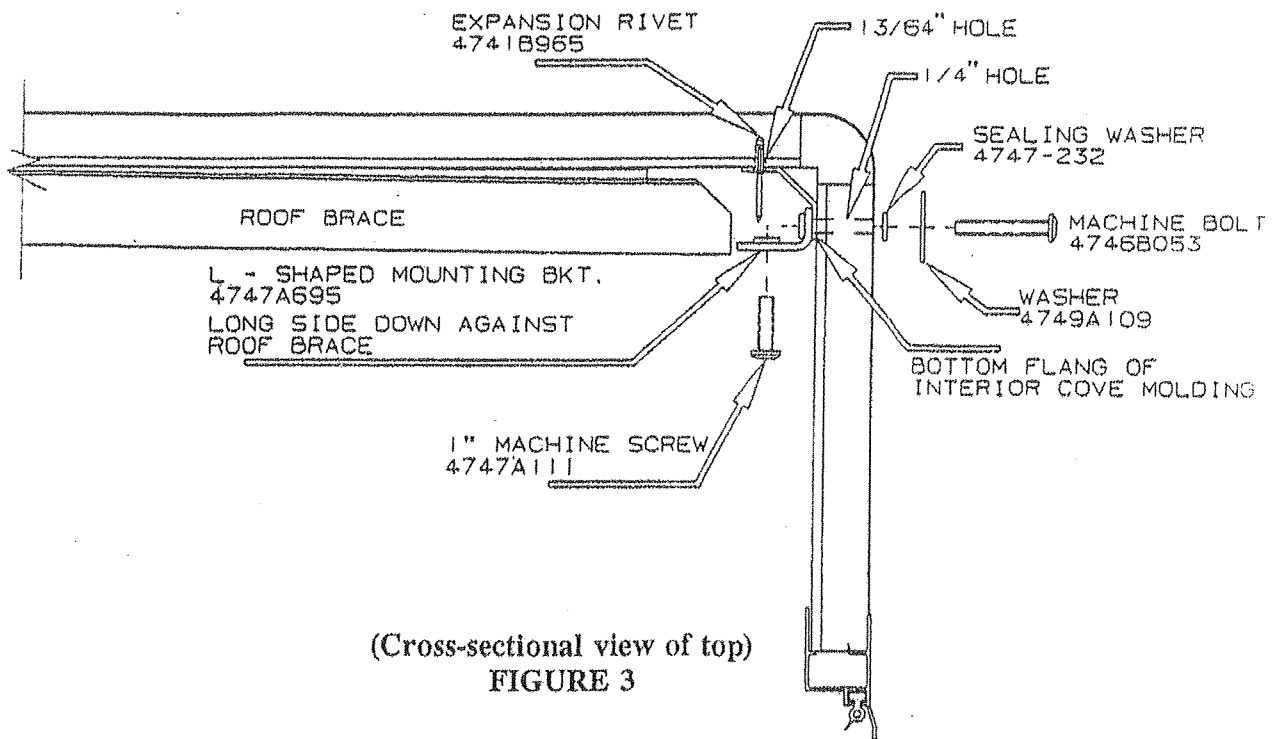
FIGURE 2

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

7. Place an expansion rivet in each hole drilled in Step 6 to secure the metal interior cove to the ceiling.
8. Route the power cord through the pre-drilled roof brace 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. The pre-drilled roof brace 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.



- Set the appropriate top brace 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 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.

- 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.

MODEL	A/C CUT-OUT MEASUREMENT	OPPOSITE BRACE LOCATION
Royale	11"	42"
Rio Grande	11" (located towards front of trailer top)	42" (located towards front of trailer top)
Cedar	11"	42"
Roanoke	11"	42"
Taos	11"	42"
Laredo	11"	42"
Redwood	11"	42"
Chesapeake	11"	36"
Seneca	11"	36"
Arcadia	11"	36"
Cape Cod	11"	36"
Newport	11"	36"
Evergreen	11"	Not Required
Sedona	11"	34 1/2" (relocate rear light fixture)

**NOTE:** All measurements taken from the rear screen door track (except where noted).

- 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

**NOTE:** The 11" dimension is critical for proper air conditioner alignment.

- 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 manufacturers recommendations for the exact air conditioner cut-out size to measure.

- Place the four channel extensions into the air conditioner hole cut-out, one in each side 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.
- Once the air conditioner hole is completely cut, lower the top assembly to enable easy access to the exterior portion.
- 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.
- If installing a Coleman super-mach 13.5 BTU air conditioning unit (except TSR models) cut the rear center seam strip back an additional 9". This will allow clearance for the compressor support bracket. Re-seal the exposed screw holes with silicone caulking and apply a 9" section of aluminum top trim with acrylic tape supplied. Press down on the metal strip to ensure proper seal. See Figure 4.

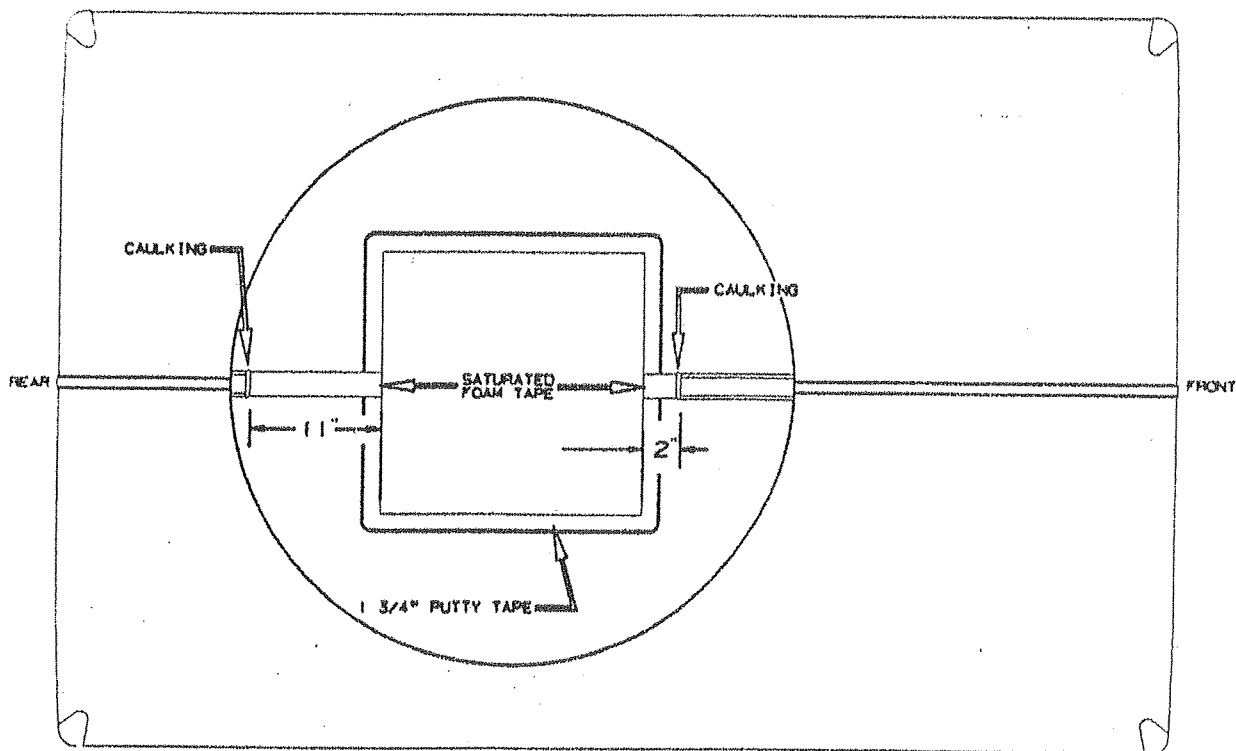


FIGURE 4

17. Cut away any double-stick tape that remains between the end of the center seam strip and the edge of the cut-out opening.
18. Place a bead of caulking along the cut edge of the center seam strip. See Figure 4.
19. Re-seal the exposed 2" section of the center seam with the enclosed sealant tape. Position the tape from the edge of the caulking to the edge of the cut-out opening. See Figure 4.
20. Place a strip of 1 3/4" putty tape completely around the exterior perimeter of the cut-out opening. See Figure 4.
21. 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 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**

1. Place the "CAUTION" decal on the 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.**

#### **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. 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 and the interior plastic ceiling assembly cover.
3. Splice wires color for color with the enclosed wire nuts. Reference 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 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 and three 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 with the expanda-rivet and flat washer provided.

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