

CENTER DUCT KIT NO. 3108019

FOR USE WITH DOMETIC DUCTED ROOF TOP AIR CONDITIONERS & HEAT PUMPS
MODEL SERIES: 579, 590, 595, 591

Note: These instructions are for installing Center Duct Kit number 3108019 only. Before installing Center Duct Kit, read the Air Conditioner Installation Instructions carefully. Observe all warnings and cautions listed in the installation manual supplied with the air conditioner.

1. AIR DISTRIBUTION SYSTEM SIZING & DESIGN

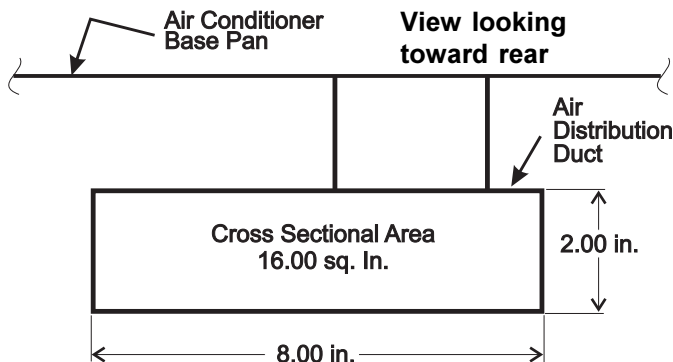
The Installer of this air conditioner system must design the air distribution system for his particular application. Several requirements for this system **MUST** be met for the air conditioner to operate properly. These requirements are as follows:

- A. Roof cavity thickness must be 5.00" minimum. This distance is measured between roof and ceiling surfaces.
- B. The total cross-sectional discharge area of outlet duct from the air conditioner must be 16 sq. in. minimum.
- C. Duct sizing requirements as follows:

	min. □	max.
Duct Depth	2.00 in.	—
Duct Width	8.00 in.	—
Total Duct Length	12 ft.	36 ft.
Duct Length (short run)	1/3 Total Length	

DISCHARGE AIR DUCT SYSTEM THAT STARTS AT THE FRONT AND REAR OF THE 14-1/4" X 14-1/4" (±1/8") OPENING

FIG. 1



- D. Register requirements as follows:

	min. □	max.
Distance from duct end	5 in.	8 in.
Distance between registers	24 in.	---
Total number required	4	8
Number required per run 2	---	---
Free area per register	14 sq. in.	

- E. The duct material must meet or exceed any agency or RVIA Standard that may be in existence at the time the RV is produced.

⚠ CAUTION

It is the responsibility of the installer to insure the duct-work will not collapse or bend during and after the installation. The Dometic Corporation will not be liable for roof structural or ceiling damage due to improperly insulated, sealed or collapsed duct-work.

- F. All discharge air ducts must be properly insulated to prevent condensation from forming on their surfaces or adjacent surfaces during operation of the air conditioner. This insulation must be R-7 minimum.
- G. Ducts and their joints must be sealed to prevent condensation from forming on adjacent surfaces during operation of the air conditioner.
- H. Return air opening must have 40 sq. in. minimum free area including the filter.
- I. Return air to the air conditioner must be filtered to prevent dirt accumulation on air conditioner cooling surface.
- J. Total system pressure must be between 0.12 to 0.65 in. W.C. This is to be determined with the air conditioner blower operating on High Speed and return air filter and grille in place.

⚠ CAUTION

It is the responsibility of the installer of this air conditioner system to ensure structural integrity of the RV roof. Never create a low spot on the roof where water will collect. Water standing around the air conditioner may leak into the interior causing damage to the product and the RV.

REVISION

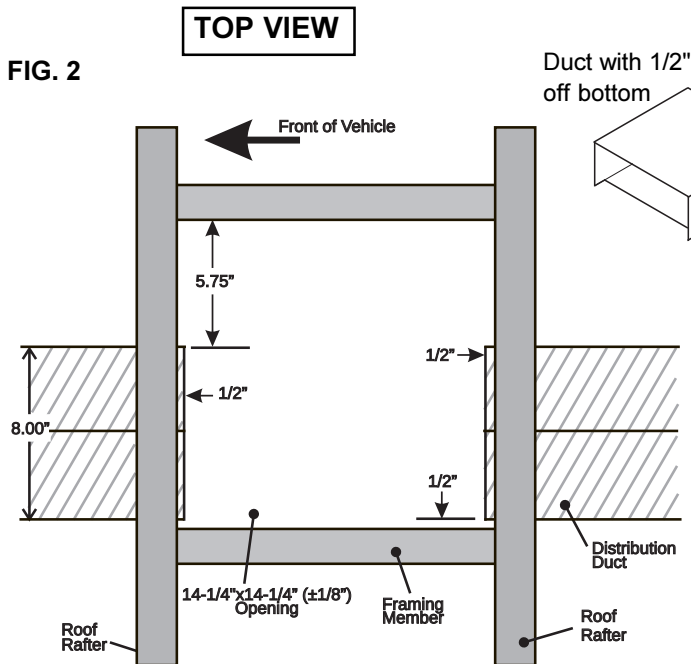
Form No. 3108028.014 10/99

(Replaces 3108028.006)

(French 3108978.010)

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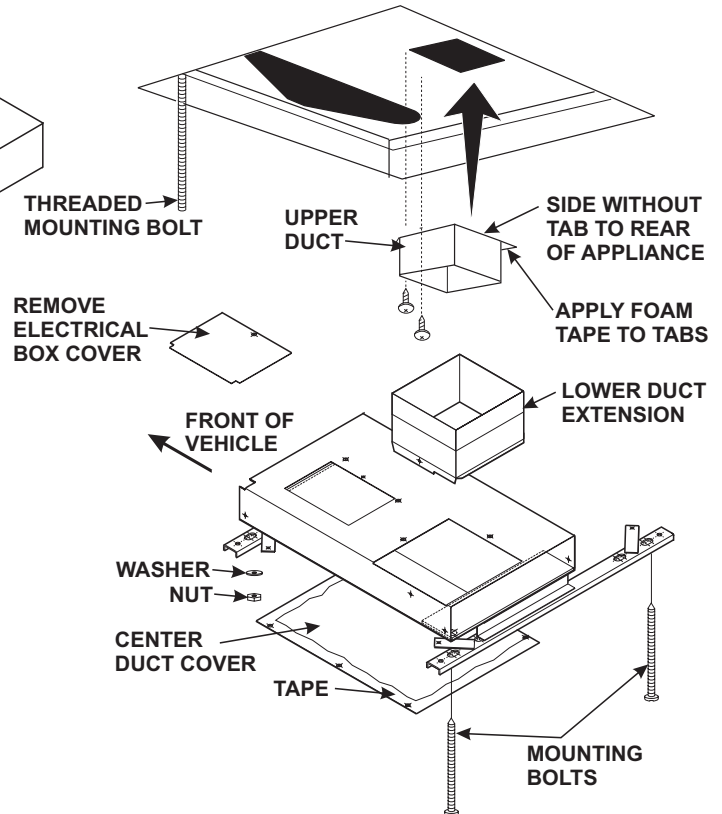
2. INSTALLATION OF CENTER DUCT KIT

- Remove the Center Duct Kit from the carton.
- Locate the upper duct extension and add foam tape to each flange. See FIG. 3
- Attach the upper duct extension to the air conditioner's discharge opening using two (2) #10-16 x 1/2" screws (supplied). See FIG. 3
- Attach the lower duct extension to the Center Duct Assembly using two (2) #10-16 x 1/2" screws. See FIG. 3
- Install Control Box at this time. Remove electrical box cover from center duct kit and discard. Mount box to Center Duct Kit using two (2) blunt pointed screws provided with control box. See FIG 3 & 4

Note: Your inside ceiling duct should be cut back .50" at the bottom of the duct so the center duct will fit up and inside of the 2 X 8 duct. See FIG. 2

- Install the 1/4-20 x 10" all thread rod in the left front mounting bracket of the air conditioner. Leave approximately 1" exposed below ceiling. This will be a blind hole when the center duct goes into place. See FIG. 3
- Install the Center Duct using the three (3) 1/4-20 x 8" mounting bolts and 1/4-20 nut with washer on the all thread rod. Evenly tighten bolts to a torque of 40 to 50 inch pounds. See FIG. 3

FIG. 3



CAUTION

If bolts are left loose there may not be an adequate roof seal or if over tightened, damage may occur to the air conditioner base or ceiling template. Tighten to torque specifications listed in this manual.

- Seal the Center Duct to the Ceiling Duct using the tape strips supplied. See FIG. 5
- Install the Center Duct cover using six (6) #10-16 x 1/2" screws provided.

Note: Follow Air Conditioner Installation Instructions for connection of power supplies, remaining wiring and return air cover installation.

- Install the Return Air Cover assembly.

3. RETURN AIR REQUIREMENTS

The return air system of the air conditioner is located within the 14 inch opening. When the Return Air Kit from Dometic is not used, the installer will be responsible for providing for the return air and choosing the method of finishing the 14 inch opening. This can be done in a manner which best fits the decor of the RV.

We do require that the return air openings to the air conditioner be a minimum of 40 sq. inches of free area and be filtered. This assembly must overlap the ceiling structure so that attachment to the ceiling is possible. On the supply side of the arrangement, insulation must be provided to prevent condensation of the return grille surface.

FIG. 5

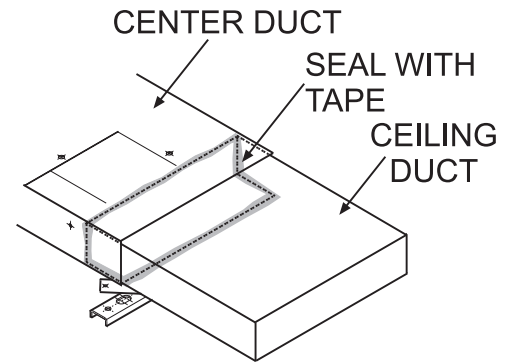


FIG. 4

