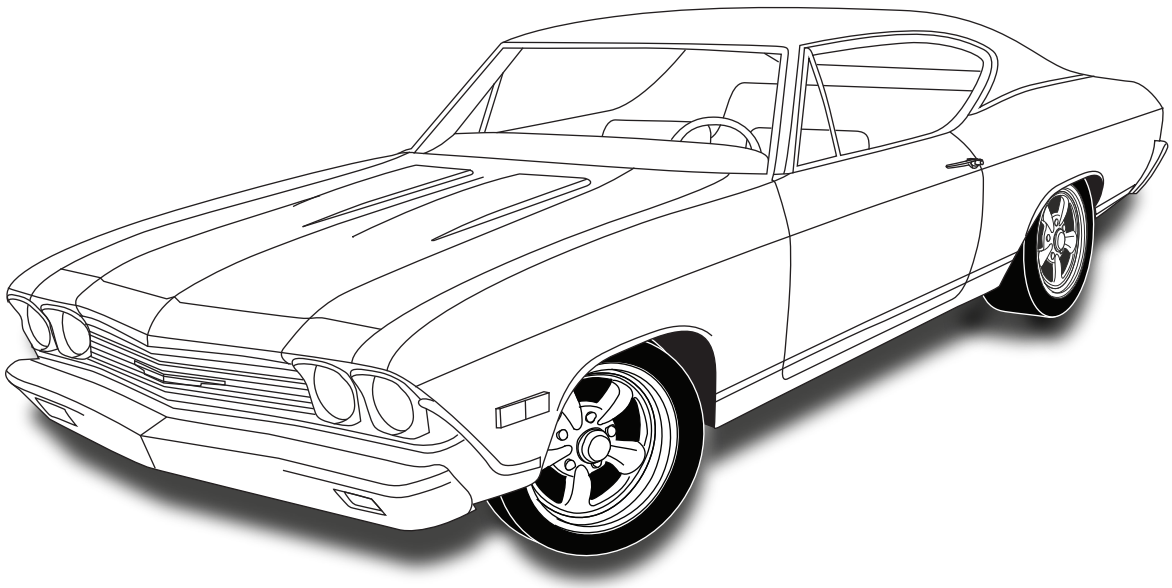
an ISO 9001:2008 Registered Company

1969 Chevrolet Chevelle

Condenser Kit *with* Drier (021168)



18865 Goll St. San Antonio, TX 78266
Phone: 210-654-7171
Fax: 210-654-3113
www.vintageair.com

www.vintageair.com

Table of Contents

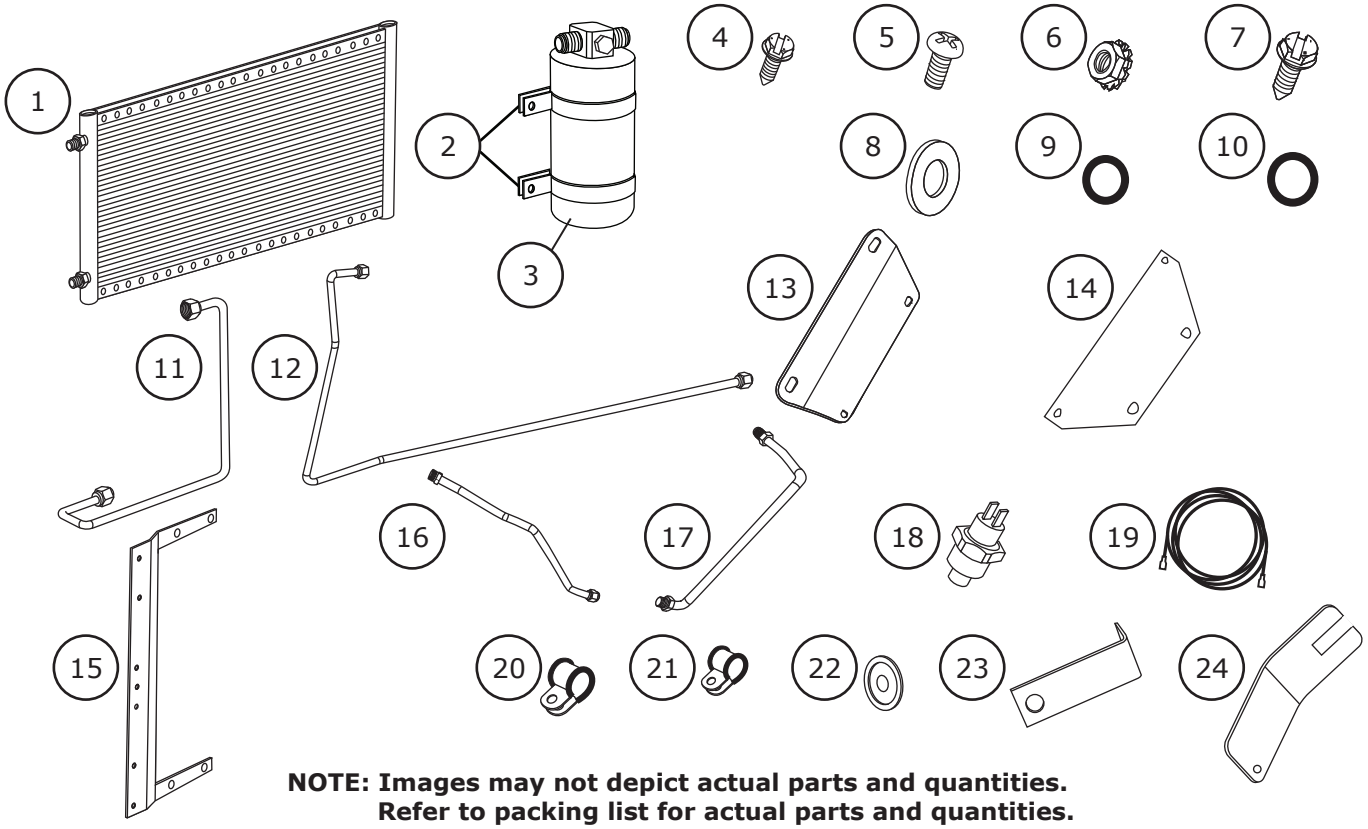
Thank you for purchasing this condenser kit from Vintage Air. When installing these components as part of a complete SureFit™ system, Vintage Air recommends working from front to back on the vehicle, installing the condenser kit, hose kit, and compressor first, followed by the wiring, evaporator, and finally the control panel.

www.vintageair.com

Packing List: Condenser Kit (021168)

No.	Qty.	Part No.	Description
1.	1	03767-VUC	Condenser, 14” x 24”, Parallel Flow
2.	2	07113-VUB	Drier Clamp
3.	1	07321-VUC	Drier
4.	2	18247-VUB	Screw, #10 x 1/2”, Sheet Metal
5.	12	18249-VUB	Screw, 10-24 x 3/8”, Pan Head
6.	12	18260-VUB	Nut, 10-24, with Star Washer
7.	1	18266-VUB	Screw, #14 x 3/4”, Sheet Metal
8.	1	18611-VUB	Washer, 5/16”, Flat
9.	3	33857-VUF	O-ring, #6
10.	2	33858-VUF	O-ring, #8
11.	1	35368-VCG	Hardline, #6 Drier/Condenser
12.	1	09169-FFD	Hardline, #8 Condenser
13.	1	644074	Bracket, Top Mounting
14.	1	644071-FCB	Bracket, Bottom Mounting
15.	1	65998-VUB	Bracket, Drier
16.	1	091175	Hardline, #6 Drier/Core
17.	1	091178	Hardline, #8 Condenser/Compressor
18.	1	11079-VUS	Binary Switch, Male
19.	1	23127-VUW	Compressor Lead
20.	3	31603-VUD	Adel Clamp, #4
21.	1	31600-VUD	Adel Clamp, #2
22.	2	33137-VUI	Grommet, Large
23.	1	640055-PFR	Bracket, #8 Hardline
24.	1	644171	Bracket, #6 Hardline

**** Before beginning installation, open all packages and check contents of shipment. Please report any shortages directly to Vintage Air within 15 days. After 15 days, Vintage Air will not be responsible for missing or damaged items.**



NOTE: Images may not depict actual parts and quantities. Refer to packing list for actual parts and quantities.

www.vintageair.com

Important Notice—Please Read

For Maximum System Performance, Vintage Air Recommends the Following:

NOTE: Vintage Air systems are designed to operate with R134a refrigerant only. Use of any other refrigerant could damage your A/C system and/or vehicle, and possibly cause a fire, in addition to potentially voiding the warranties of the A/C system and its components.

Refrigerant Capacities:

Vintage Air System: 1.8 lbs. (1 lb., 12 oz.) of **R134a**, charged by weight with a quality charging station or scale. **NOTE: Use of the proper type and amount of refrigerant is critical to system operation and performance.**

Other Systems: Consult manufacturer's guidelines.

Lubricant Capacities:

New Vintage Air-supplied Sanden Compressor: No additional oil needed (Compressor is shipped with proper oil charge).

All Other Compressors: Consult manufacturer (Some compressors are shipped dry and will need oil added).

Safety Switches

Your Vintage Air system is equipped with a binary pressure safety switch. A binary switch disengages the compressor clutch in cases of extreme low pressure conditions (Refrigerant Loss) or excessively high head pressure (406 PSI) to prevent compressor damage or hose rupture. A trinary switch combines Hi/Lo pressure protection with an electric fan operation signal at 254 PSI, and should be substituted for use with electric fans. Compressor safety switches are extremely important since an A/C system relies on refrigerant to circulate lubricant.

Service Info:

Protect Your Investment: Prior to assembly, it is critical that the compressor, evaporator, A/C hoses and fittings, hardlines, condenser and receiver/drier remained capped. Removing caps prior to assembly will allow moisture, insects and debris into the components, possibly leading to reduced performance and/or premature failure of your A/C system. This is especially important with the receiver/drier.

Additionally, when caps are removed for assembly, **BE CAREFUL!** Some components are shipped under pressure with dry nitrogen.

Evacuate the System for 35-45 Minutes: Ensure that system components (Drier, compressor, evaporator and condenser) are at a temperature of at least 85° F. On a cool day, the components can be heated with a heat gun ***or*** by running the engine with the heater on before evacuating. Leak check and charge to specifications.

Bolts Passing Through Cowl and/or Firewall:

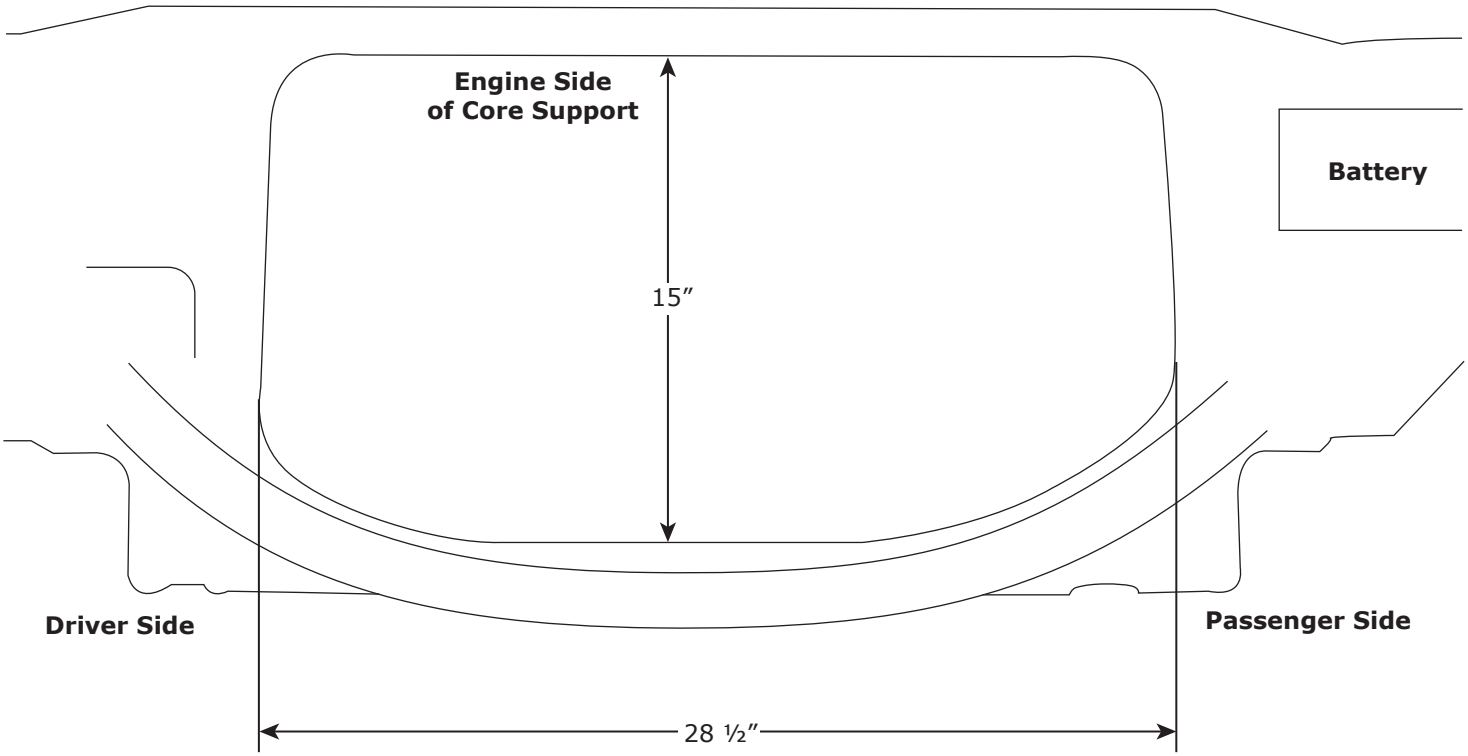
To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the cowl and/or firewall, Vintage Air recommends coating the threads with silicone prior to installation.

Heater Hose (Not Included With This Kit):

Heater hose may be purchased from Vintage Air (Part# 31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.

Core Support Measurements

This kit was developed based on the measurements below, which were taken from a 1969 Chevrolet Chevelle with Factory Air core support.



www.vintageair.com

Radiator and Hood Latch Assembly Removal

1. Drain radiator.
2. Remove upper and lower radiator hoses.
3. Remove radiator.
4. Remove the OEM hood latch assembly (See Figure 1, below).

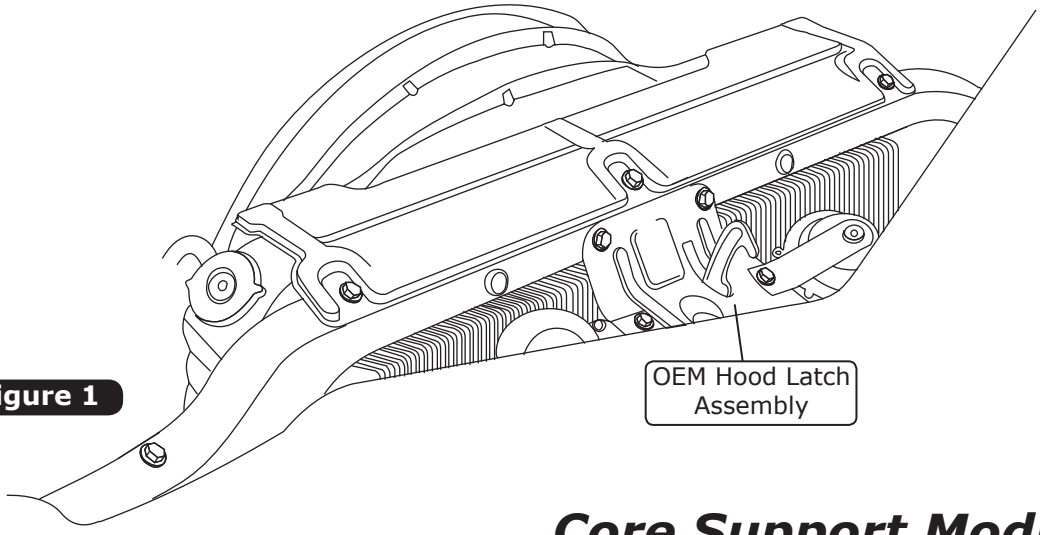


Figure 1

Core Support Modification (Factory Non-Air Models Only)

NOTE: Before starting the modification, the battery and battery tray must be removed.

1. Cut out the templates provided on Pages 14 and 15. Place the templates on the engine side of the core support as shown in Figure 2, below.
2. Using a 1 ¼" hole saw, drill (2) holes through the core support.

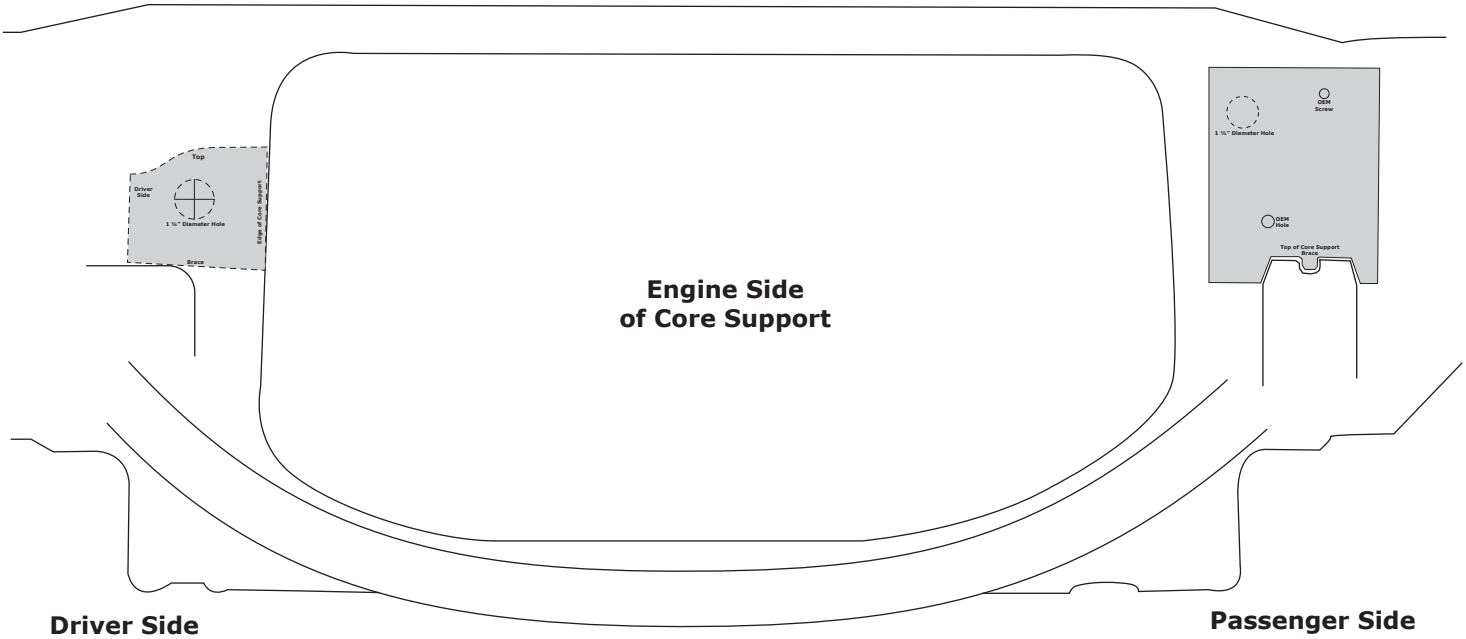


Figure 2

Drier Bracket Installation

1. On a workbench, install the drier bracket onto the condenser using (4) 10-24 x 3/8" pan head screws and (4) 10-24 nuts with star washers (See Figure 3, below). **NOTE: The drier bracket mounts through the 1st and 3rd holes from the left side of the condenser.**

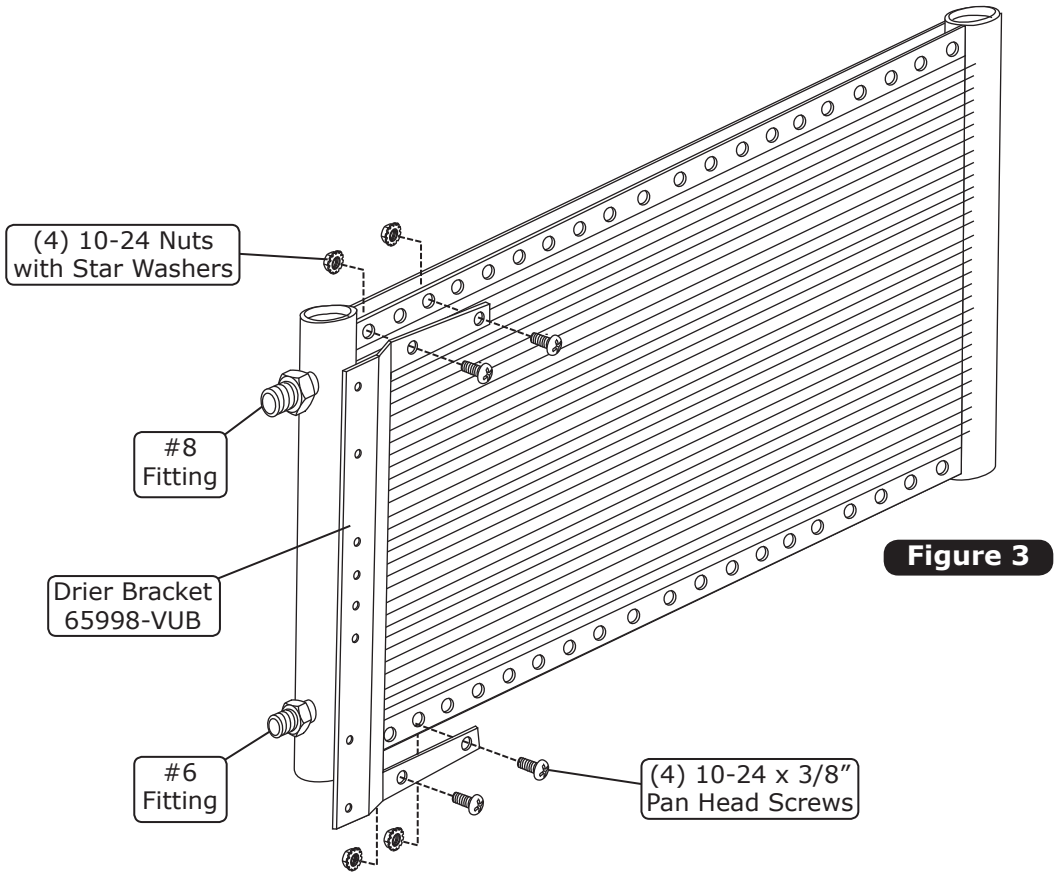


Figure 3

www.vintageair.com

Mounting Bracket Installation

1. Install the top mounting bracket onto the condenser using (2) 10-24 x 3/8" pan head screws and (2) 10-24 nuts with star washers (See Figure 4, below). **NOTE: The bracket mounts to the outside of the flange through the 7th & 11th holes from the left side of the condenser.**
2. Install the bottom mounting bracket onto the condenser using (2) 10-24 x 3/8" pan head screws and (2) 10-24 nuts with star washers (See Figure 4a, below). **NOTE: The bracket mounts to the outside of the flange through the 5th & 13th holes from the right side of the condenser (Rear View).**

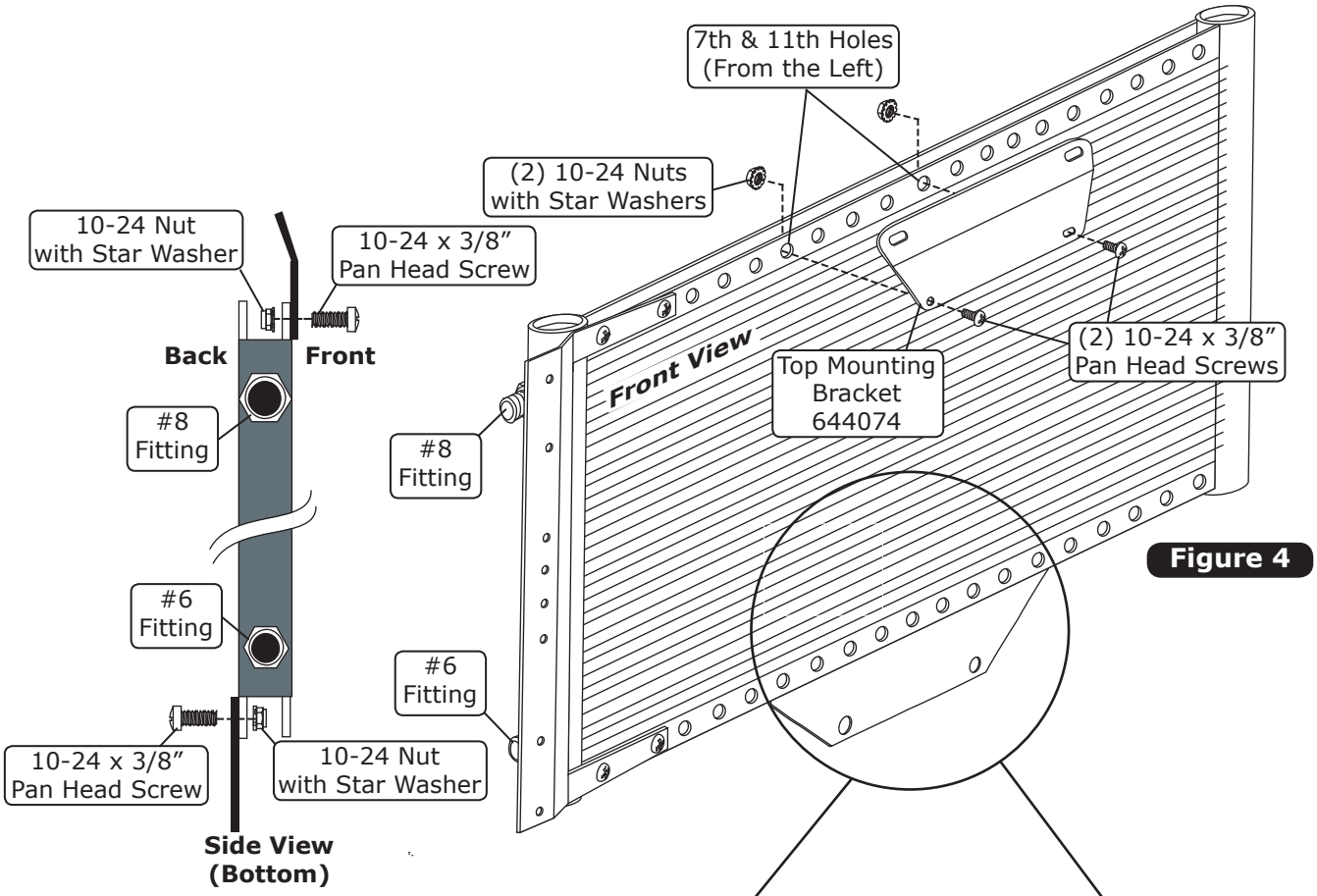


Figure 4

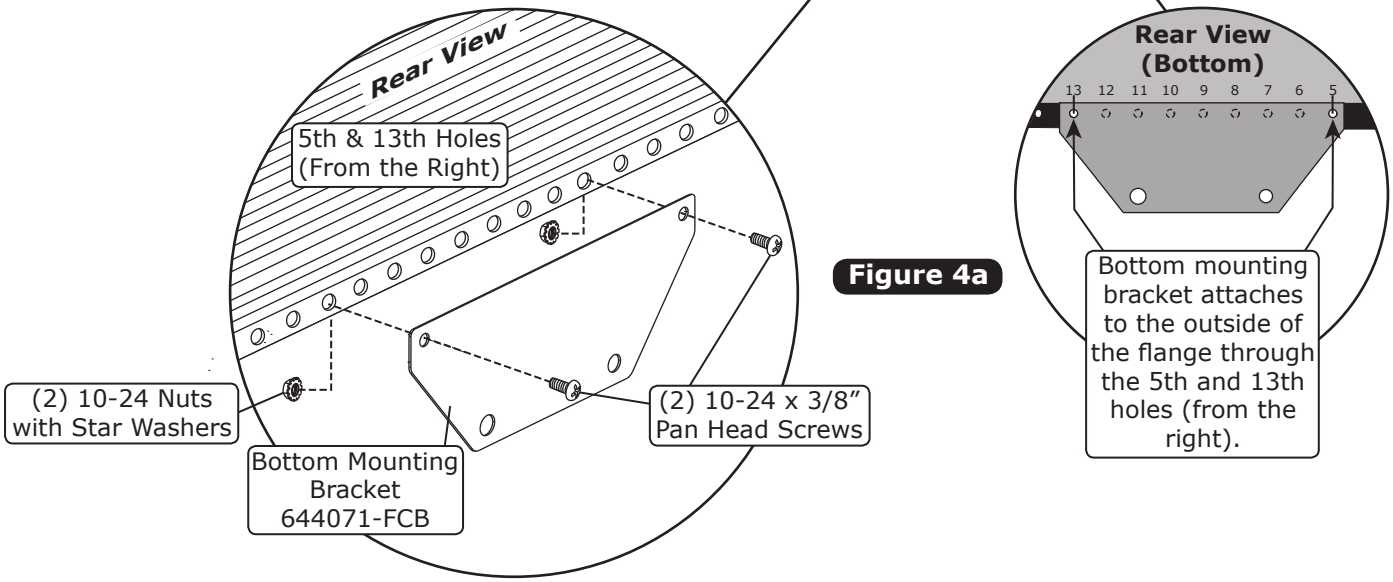


Figure 4a

Drier Installation

NOTE: Do not remove the caps from the drier. The drier contains a desiccant that will quickly absorb moisture from the air, causing it to lose effectiveness. For this reason, Vintage Air recommends that the drier remains capped until the installer is ready to evacuate the system.

Perform the Following:

1. Install the drier clamps onto the drier as shown in Figure 5, below.
2. Secure the drier to the drier bracket using (2) #10 x 1/2" sheet metal screws in the 4th and 6th holes from the top as shown in Figure 5, below. **NOTE: Refrigerant flow through drier is IN from condenser, OUT to evaporator.**

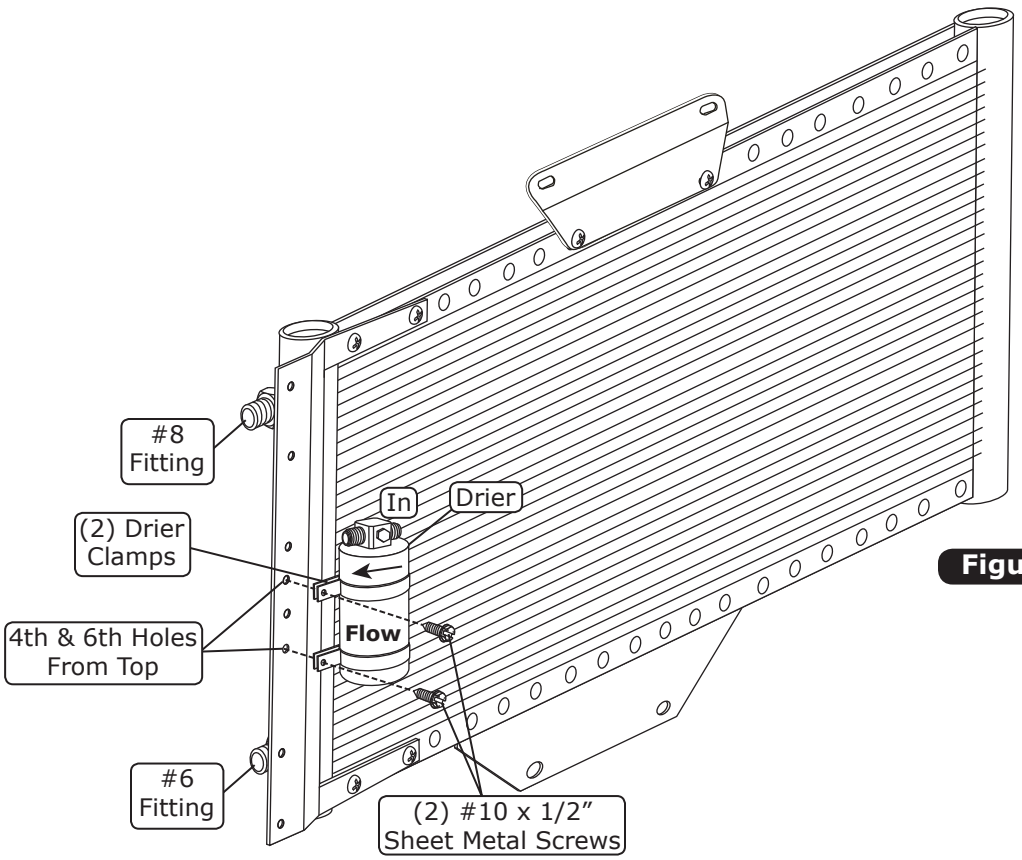


Figure 5

Hardline Installation

1. Lubricate (2) #6 O-rings, and install (1) onto each end of the #6 drier/condenser hardline as shown in Figure 7, below.
2. Install the #6 drier/condenser hardline onto the #6 condenser fitting, and then onto the drier (See Figure 6, below). Tighten fittings as shown in Figure 7, below.
3. Lubricate (1) #8 O-ring, and install it onto the #8 condenser hardline as shown in Figure 7, below.
4. Install the #8 condenser hardline onto the #8 condenser fitting as shown in Figure 6, below. Tighten fittings as shown in Figure 7, below.
5. Install (2) #4 Adel clamps onto the #8 condenser hardline, and secure them to the bottom of the condenser using (2) 10-24 x 3/8" pan head screws and (2) 10-24 nuts with star washers as shown in Figure 6, below.

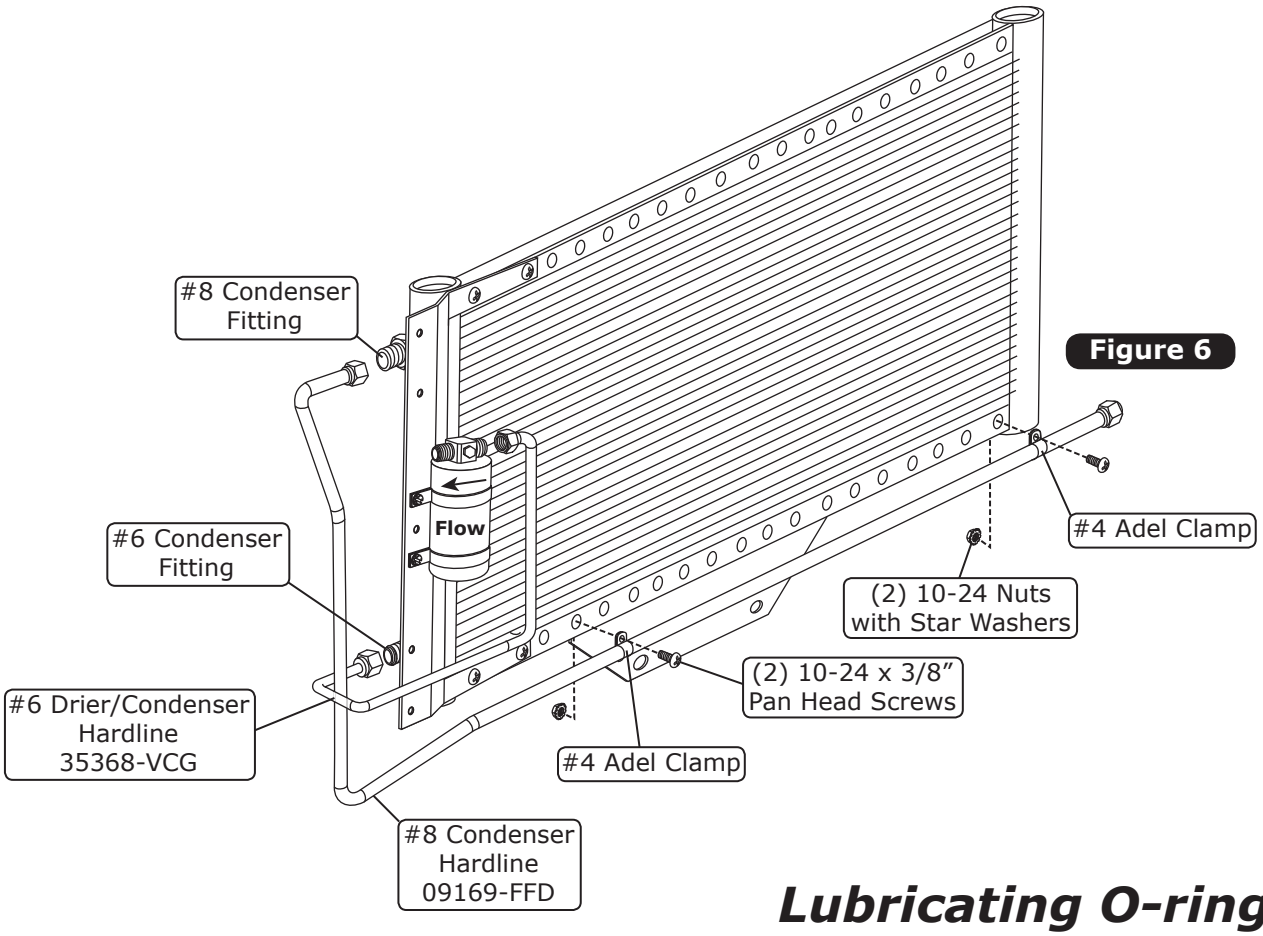
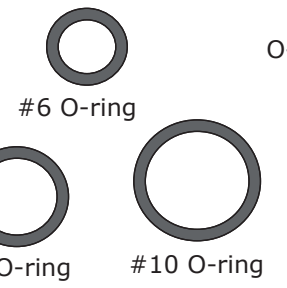
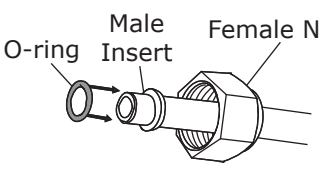
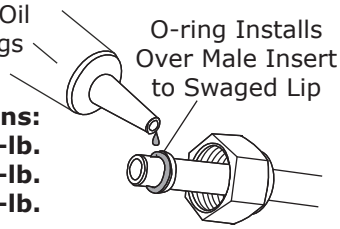


Figure 6

Lubricating O-rings

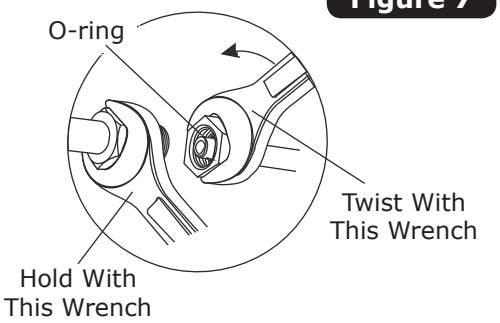






For a proper seal of fittings: Install supplied O-rings as shown, and lubricate with supplied oil.

Figure 7



NOTE: Standard torque specifications:
#6: 11 to 13 ft-lb.
#8: 15 to 20 ft-lb.
#10: 21 to 27 ft-lb.

Condenser Installation

1. Lower the condenser assembly into the vehicle from the engine side of the core support (See Figure 8, below). **NOTE: The top mounting bracket mounts on the front side of the core support (See Figure 9, below).**
2. Secure the bottom passenger side of the condenser to the core support using the OEM bolt.
3. Using the driver side mounting hole as a guide, drill a 3/16” hole in the core support.
4. Secure the bottom driver side of the condenser to the core support using a #14 x 3/4” sheet metal screw and a 5/16” flat washer (See Figure 9, below).

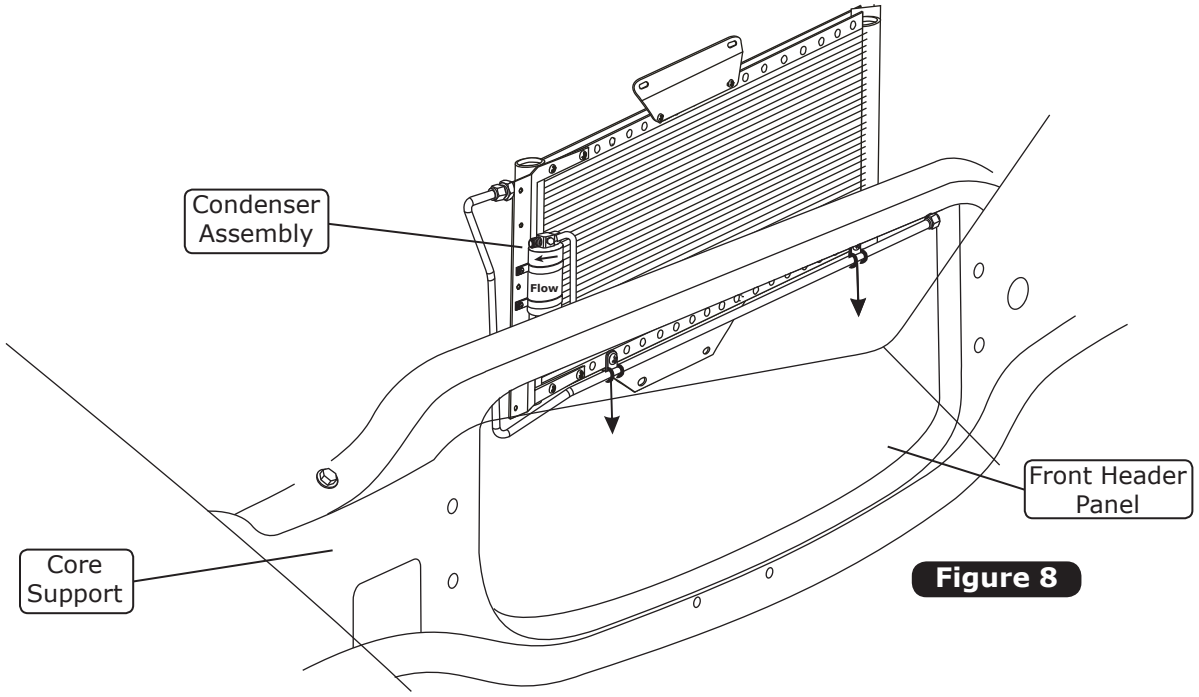


Figure 8

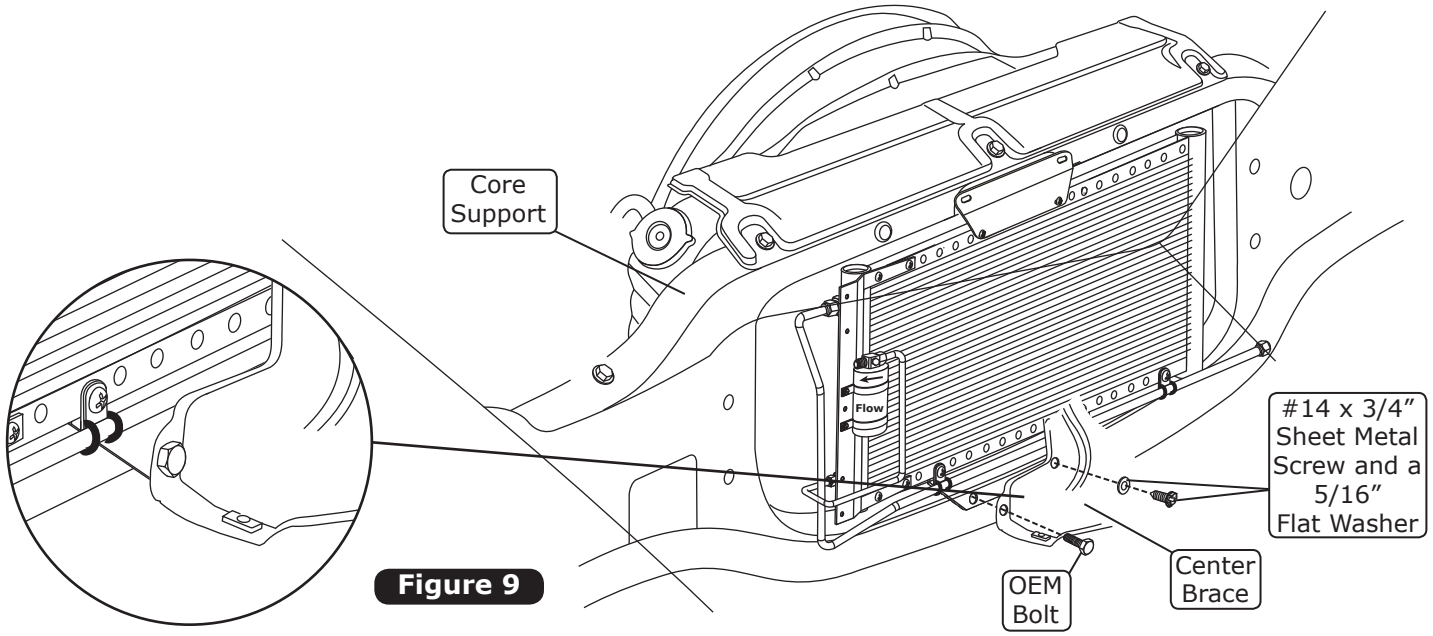


Figure 9

Condenser Installation (Cont.)

1. Reinstall the hood latch assembly using the OEM bolts. Install the OEM bolts through the hood latch assembly, top mounting bracket and core support (See Figure 10, below).
2. Enlarge OEM holes on core support to 1 ¼" diameter as shown in Figure 10, below. **NOTE: For cars without factory air, see the core support modification instructions on Page 6.**
3. Install (2) grommets into the 1 ¼" diameter holes on the core support as shown in Figure 10, below.

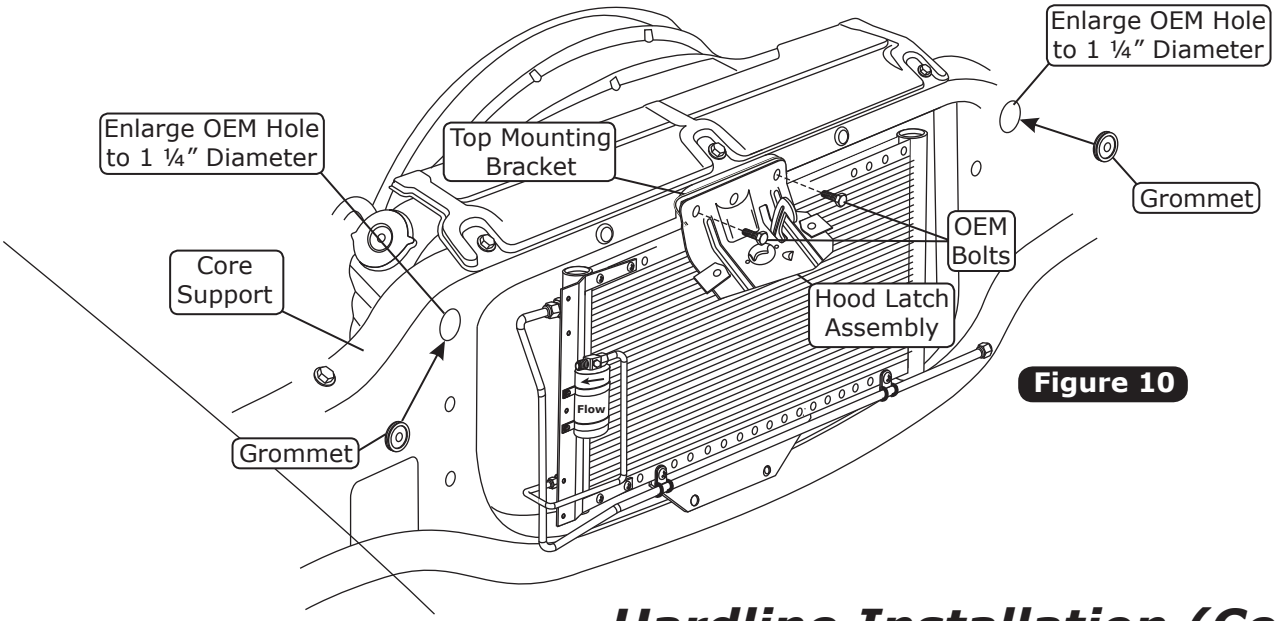


Figure 10

Hardline Installation (Cont.)

1. Lubricate a #8 O-ring and install it onto the #8 condenser hardline as shown in Figure 7, Page 10.
2. Install the #8 condenser/compressor hardline onto the #8 condenser hardline as shown in Figure 11, below. Tighten fittings as shown in Figure 7, Page 10.
3. Install the #8 hardline bracket onto the core support using the OEM bolt, and secure it to the #8 condenser/ compressor hardline with a #4 Adel clamp (See Figure 11a, below).

Figure 11

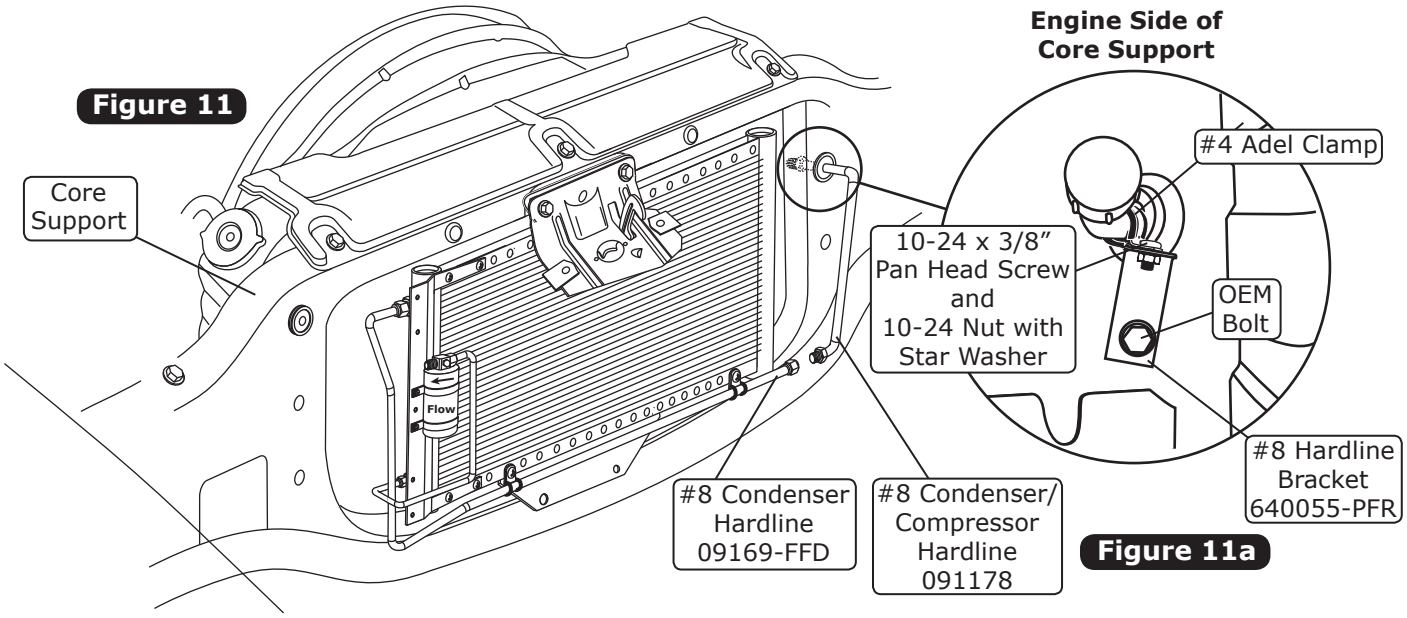


Figure 11a

Hardline Installation (Cont.)

1. Lubricate a #6 O-ring and install it onto the #6 drier/core hardline as shown in Figure 7, Page 10.

2. Install the #6 drier/core hardline onto the drier as shown in Figure 12, below. Tighten fittings as shown in Figure 7, Page 10.

3. Install the #6 hardline bracket onto the core support using the OEM bolt, and secure it to the #6 drier/core hardline with a #2 Adel clamp (See Figure 12a, below).

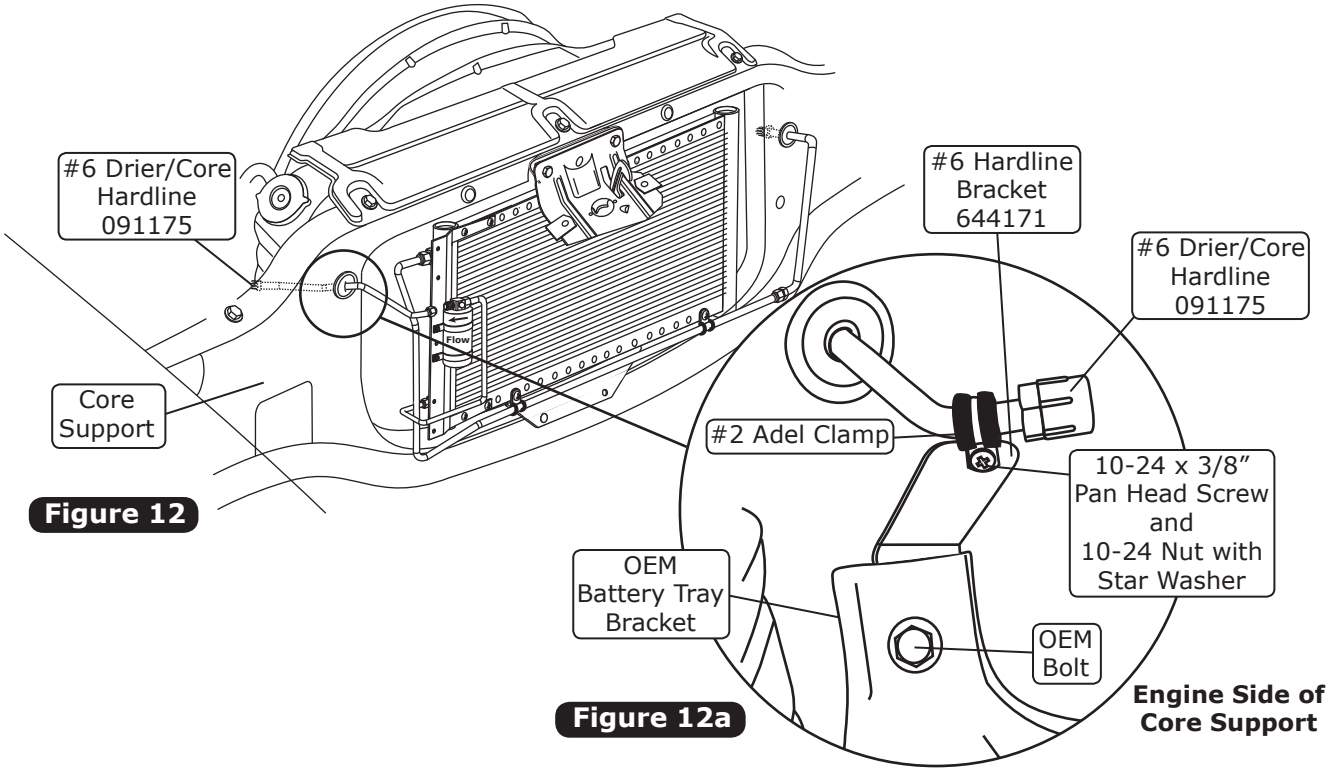


Figure 12

Figure 12a

Binary Switch Installation

1. Install the binary switch onto the drier as shown in Figure 13, below.

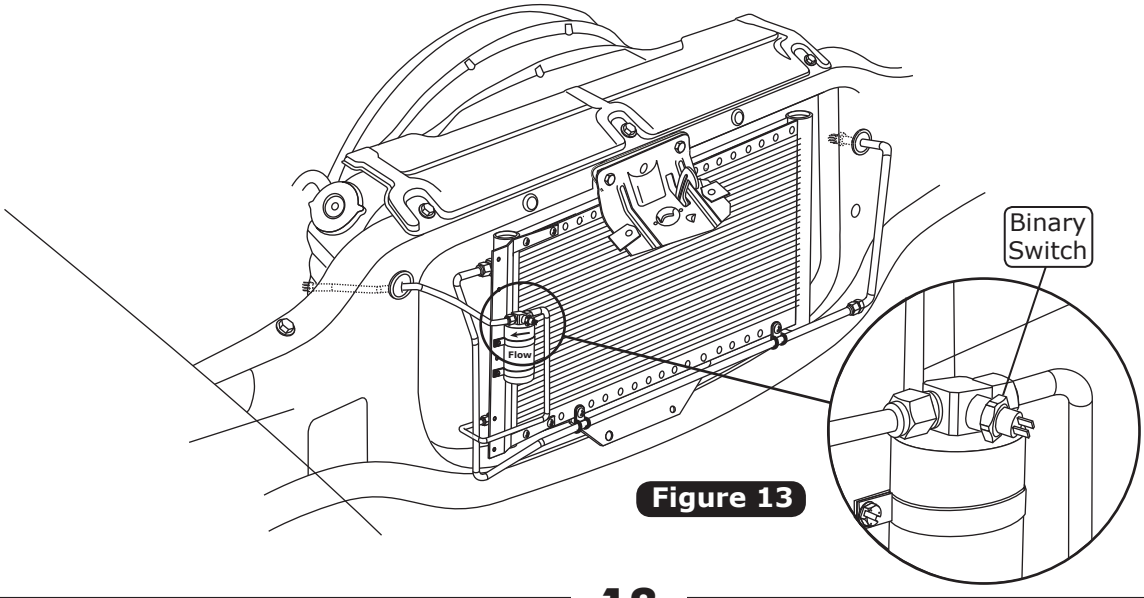
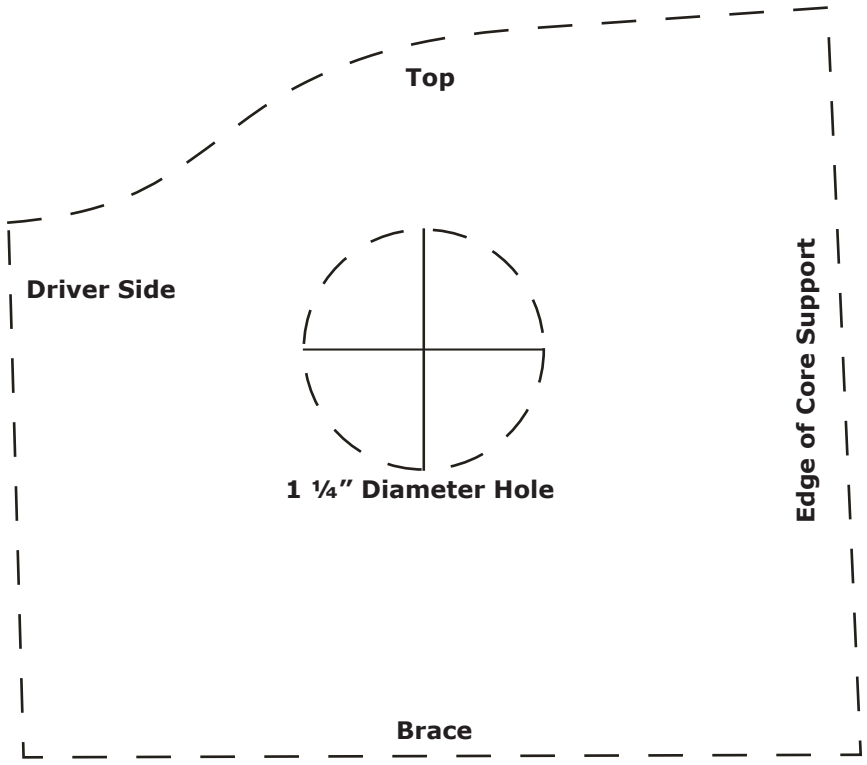
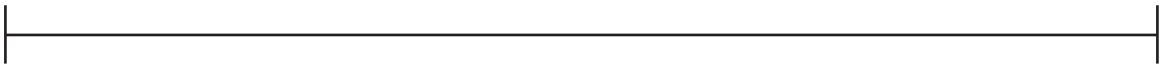


Figure 13

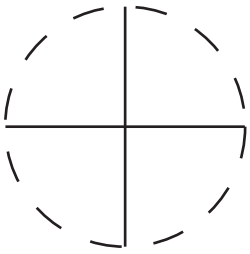
Core Support Modification Template (Driver Side)



NOTE: Due to printing variances, measure the line below before using this template. If template is scaled properly, the line should measure 6 inches.



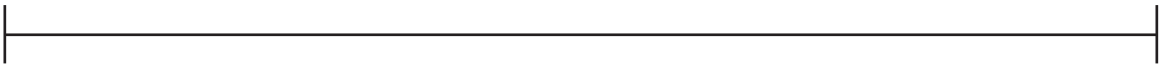
Core Support Modification Template (Passenger Side)

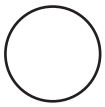


1 ¼" Diameter Hole

OEM Screw

NOTE: Due to printing variances, measure the line below before using this template. If template is scaled properly, the line should measure 6 inches.





OEM Hole

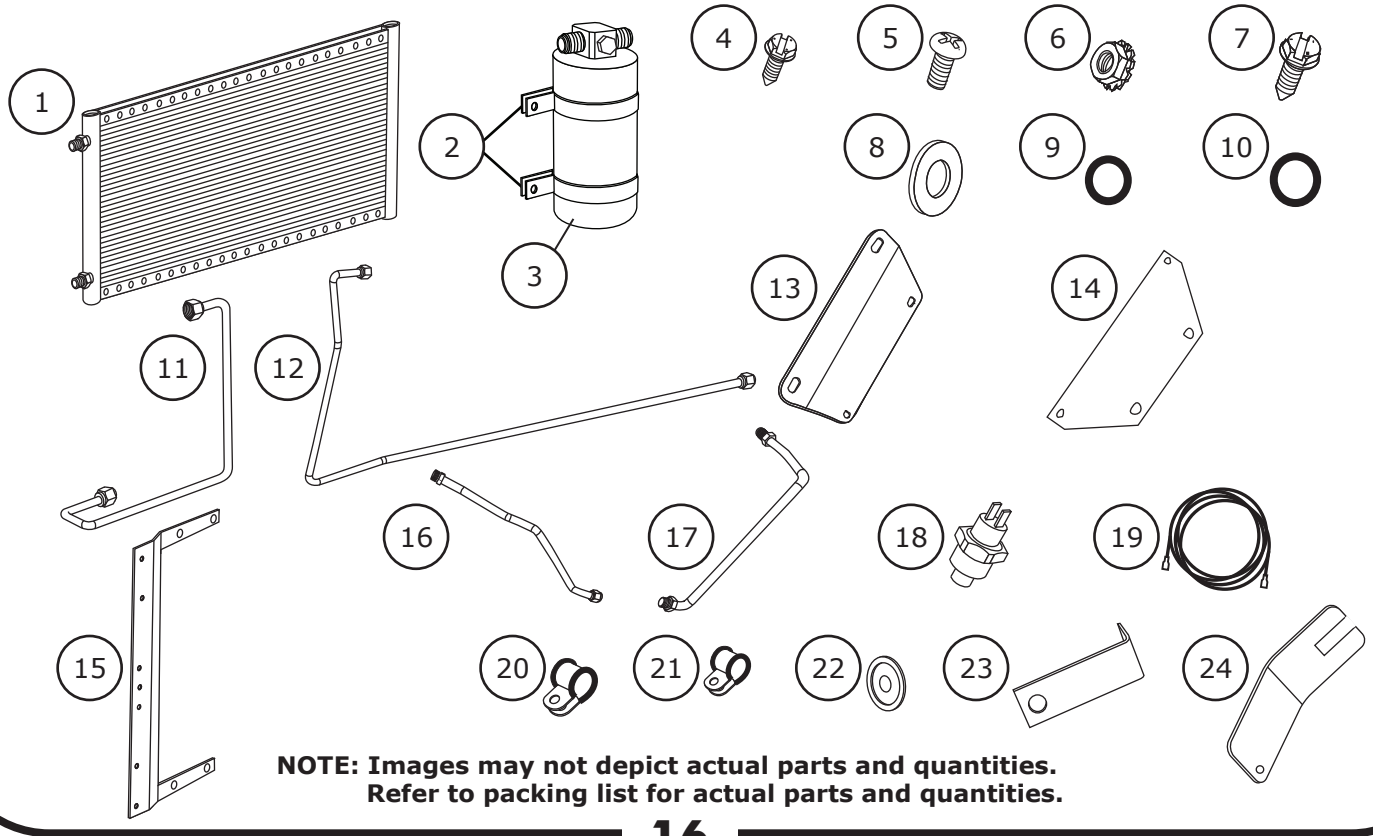
Top of Core Support Brace

www.vintageair.com

Packing List: Condenser Kit (021168)

No.	Qty.	Part No.	Description	
1.	1	03767-VUC	Condenser, 14” x 24”, Parallel Flow	
2.	2	07113-VUB	Drier Clamp	
3.	1	07321-VUC	Drier	
4.	2	18247-VUB	Screw, #10 x 1/2”, Sheet Metal	
5.	12	18249-VUB	Screw, 10-24 x 3/8”, Pan Head	
6.	12	18260-VUB	Nut, 10-24, with Star Washer	
7.	1	18266-VUB	Screw, #14 x 3/4”, Sheet Metal	
8.	1	18611-VUB	Washer, 5/16”, Flat	
9.	3	33857-VUF	O-ring, #6	
10.	2	33858-VUF	O-ring, #8	
11.	1	35368-VCG	Hardline, #6 Drier/Condenser	
12.	1	09169-FFD	Hardline, #8 Condenser	
13.	1	644074	Bracket, Top Mounting	
14.	1	644071-FCB	Bracket, Bottom Mounting	
15.	1	65998-VUB	Bracket, Drier	
16.	1	091175	Hardline, #6 Drier/Core	
17.	1	091178	Hardline, #8 Condenser/Compressor	
18.	1	11079-VUS	Binary Switch, Male	
19.	1	23127-VUW	Compressor Lead	
20.	3	31603-VUD	Adel Clamp, #4	
21.	1	31600-VUD	Adel Clamp, #2	
22.	2	33137-VUI	Grommet, Large	
23.	1	640055-PFR	Bracket, #8 Hardline	
24.	1	644171	Bracket, #6 Hardline	

Checked By: _____
Packed By: _____
Date: _____



NOTE: Images may not depict actual parts and quantities.
Refer to packing list for actual parts and quantities.