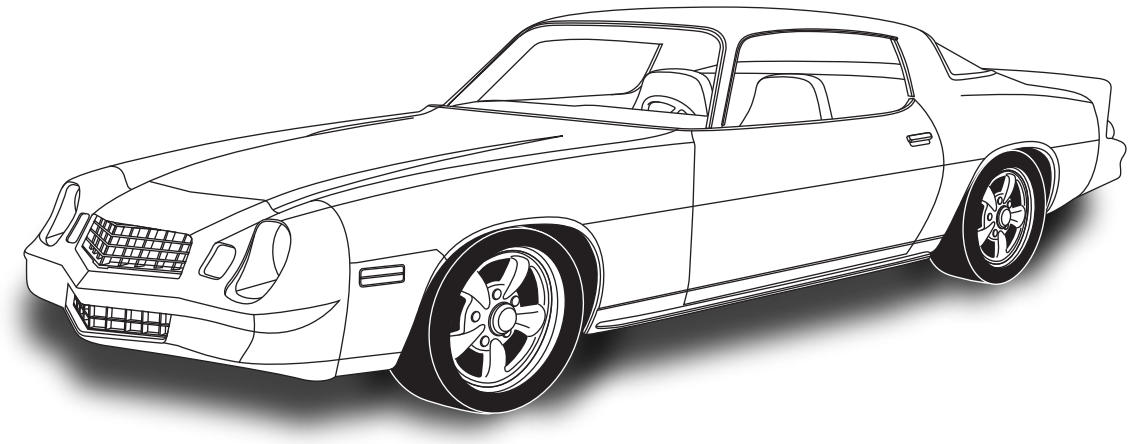
# 1978-81 Chevrolet Camaro

## Condenser Kit *with* Drier
## (021179)



**18865 Goll St.  San Antonio, TX 78266**
**Phone: 800-862-6658**
**Sales: sales@vintageair.com**
**Tech Support: tech@vintageair.com**
**www.vintageair.com**

www.vintageair.com

# Table of Contents


Cover..... 1
Table of Contents/Parts Disclaimer..... 2
Information Page..... 3
Drier Bracket Installation..... 4
Top Bracket Installation, Drier Installation..... 5
Hardline and Bottom Bracket Installation, Lubricating O-rings..... 6
Hood Latch Assembly, Radiator Removal..... 7
Condenser Installation..... 8
Condenser Installation (Cont.)..... 9
#6 Drier/Core Hardline Installation, Safety Switch Installation..... 10
Final Steps..... 11
Packing List..... 12


## Parts Disclaimer: Please Read

**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. Packing list located on last page of instructions.**

## Additional Info: Please Read Before Beginning

- **If the core support opening has an air baffle blocking the mounting of the condenser, it must be removed prior to installation.**

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. (28.8 oz.) or 816 grams 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 remain 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.

# Drier Bracket Installation

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

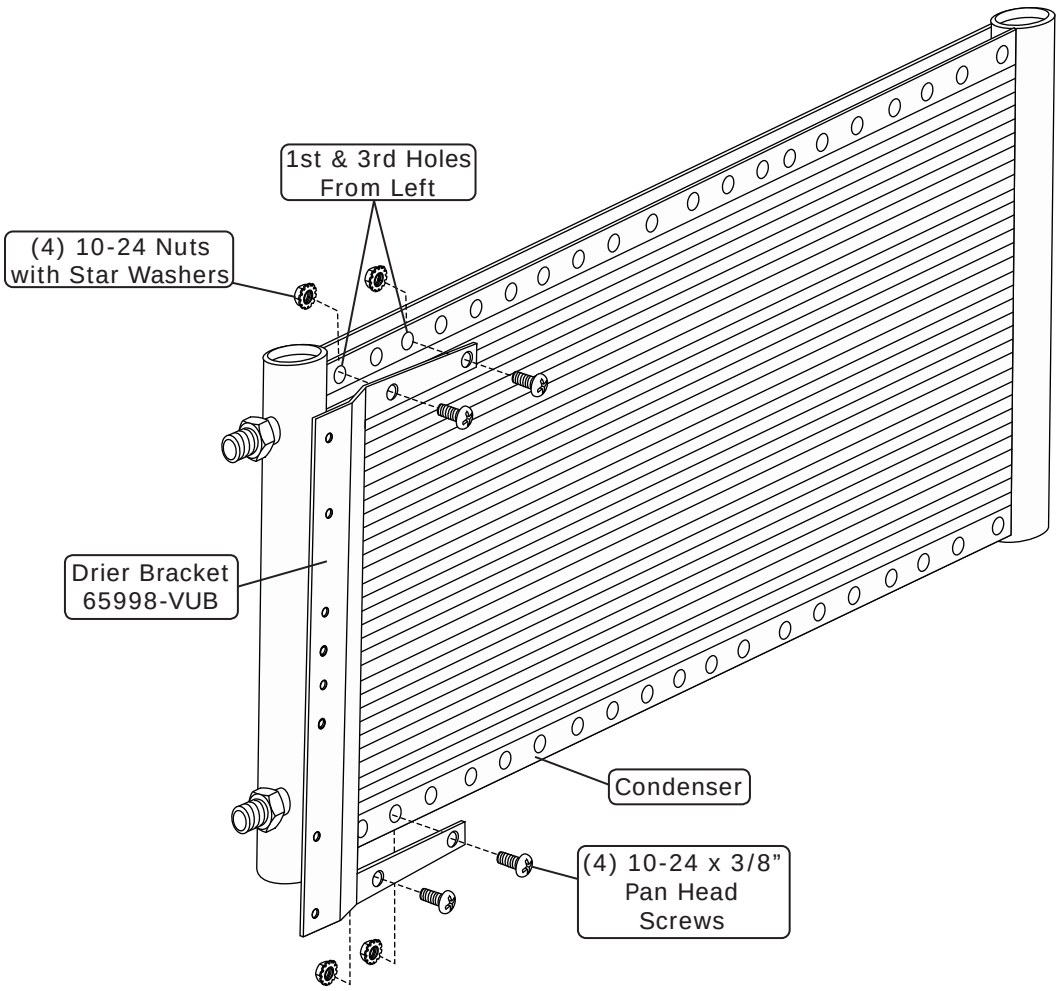



**Figure 1**

www.vintageair.com

# Top 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 Figures 1 & 1a, below). **NOTE: The bracket mounts to the outside of the flange through the 7th and 11th holes from the left side of the condenser.**

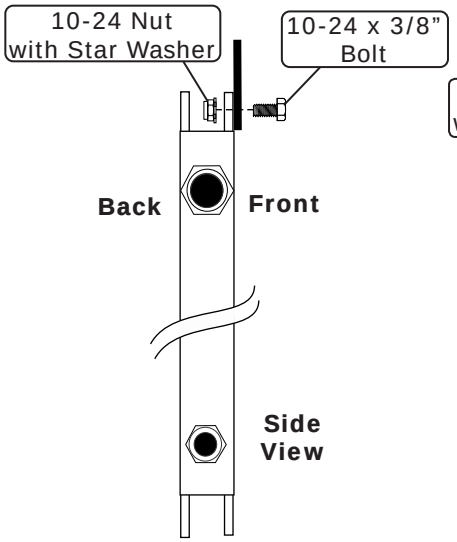



**Figure 1a**

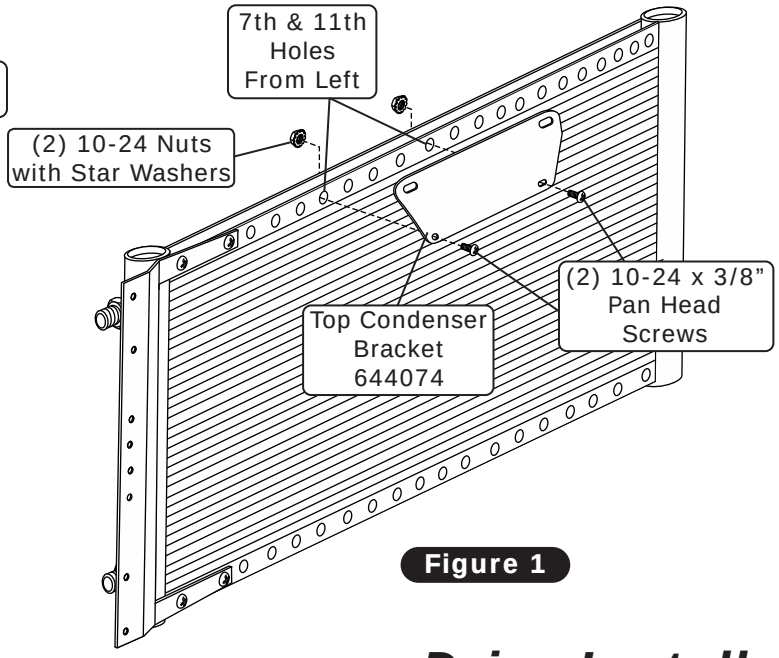



**Figure 1**

# 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.

**2.** Secure the drier to the drier bracket using (2) #10 x 1/2" sheet metal screws through the 3rd and 6th holes from the bottom of the bracket as shown in Figure 1, below. **NOTE: Refrigerant flow through the drier is IN from condenser, OUT to evaporator.**

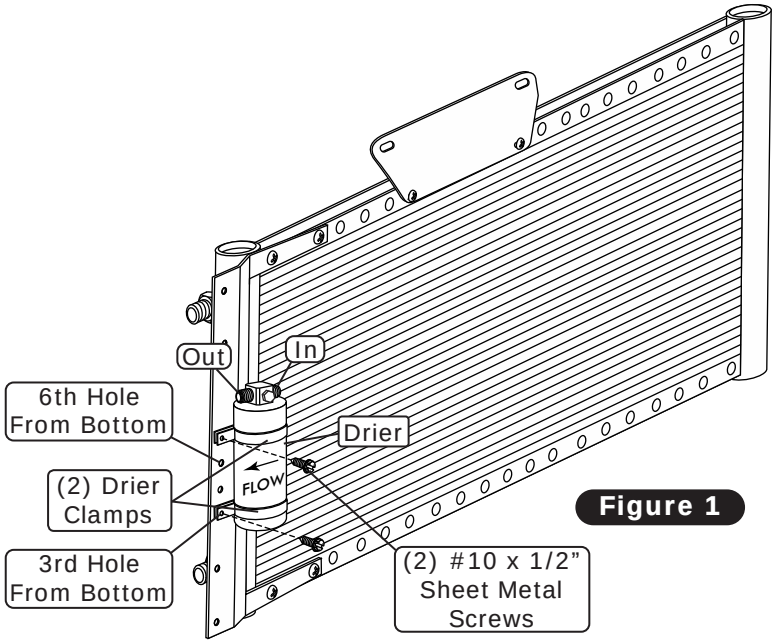



**Figure 1**

www.vintageair.com

# Hardline and Bottom Bracket Installation

1. Lubricate (2) #6 O-rings, and install the #6 condenser/drier hardline as shown in Figures 1 & Lubricating O-rings, below. Tighten fittings as shown in Lubricating O-rings, below.
2. Lubricate a #8 O-ring, and install the #8 condenser/core hardline as shown in Figures 1 & Lubricating O-rings, below. Tighten fittings as shown in Lubricating O-rings, below.
3. Using (2) 10-24 x 3/8" pan head screws and (2) 10-24 nuts with star washers, install the bottom condenser mounting bracket onto the back side of condenser as shown in Figures 2 & 2a, below. **NOTE: The bracket mounts to the outside of the flange. The bracket mounts through the 5th and 18th holes from the left side of the condenser.**

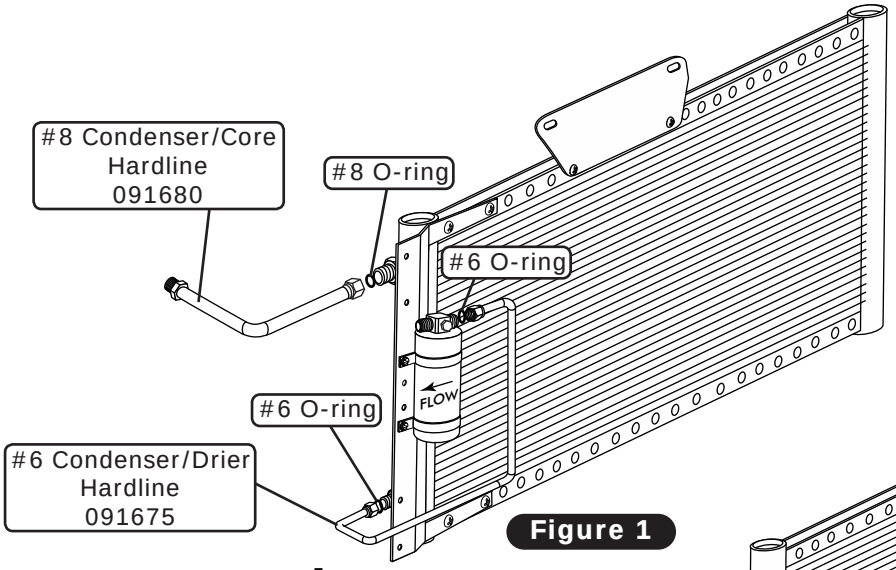



**Figure 1**

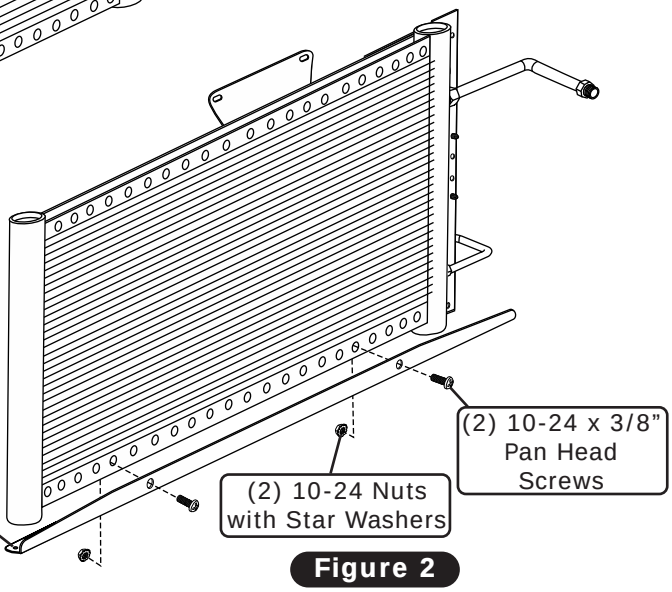



**Figure 2**

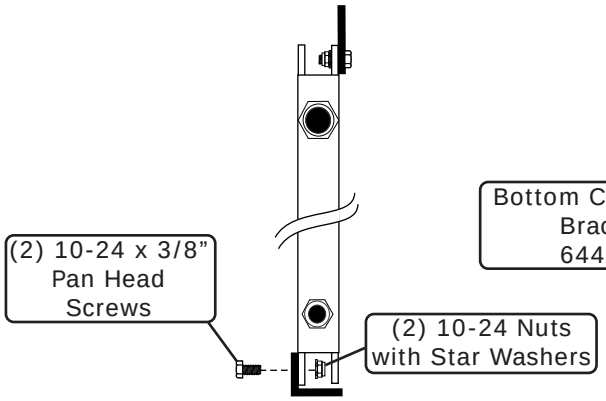
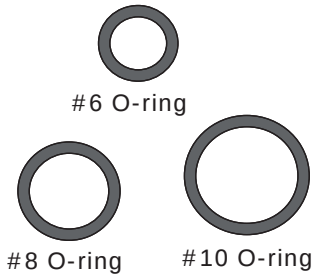
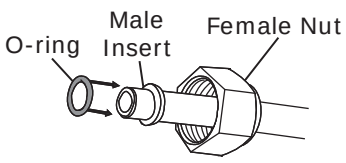


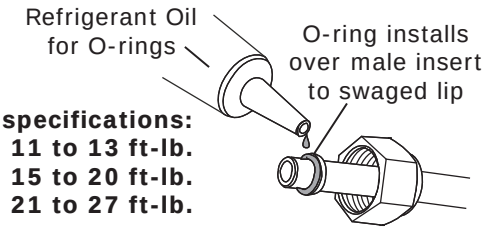

**Figure 2a**

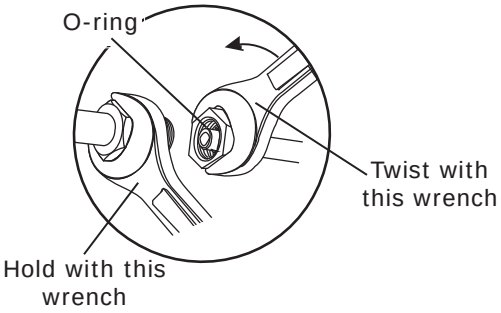
## Lubricating O-rings




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




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

## Hood Latch Assembly

**1.** Remove the (2) OEM hood latch bolts from the hood latch assembly (See Figure 1, below).

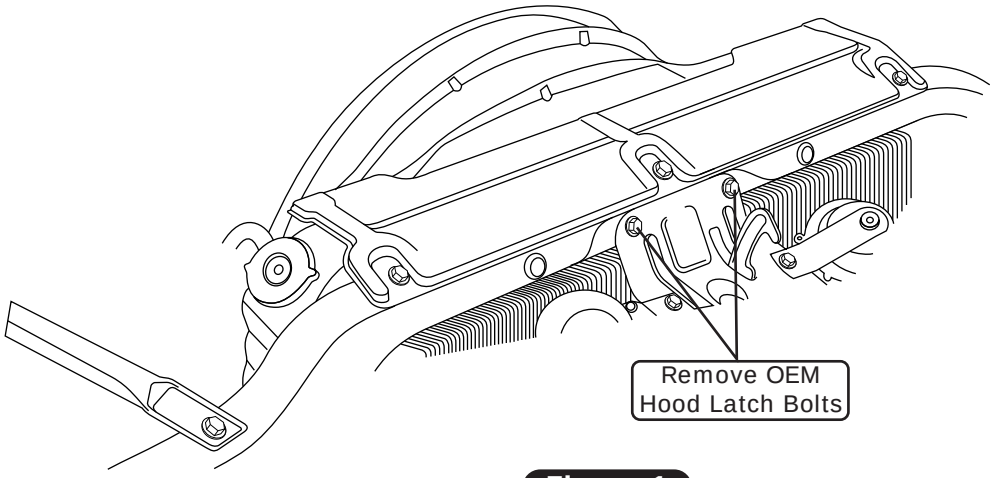



**Figure 1**

## Radiator Removal

**1.** Drain radiator, and remove upper and lower radiator hoses.
**2.** Remove the core support cover (See Figure 1, below).
**3.** Remove radiator and fan shroud (See Figure 1, below).

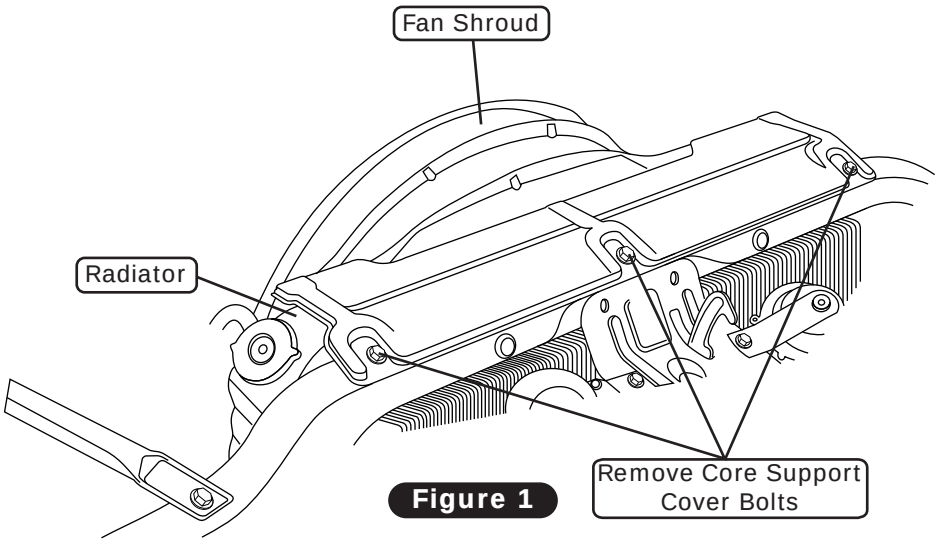
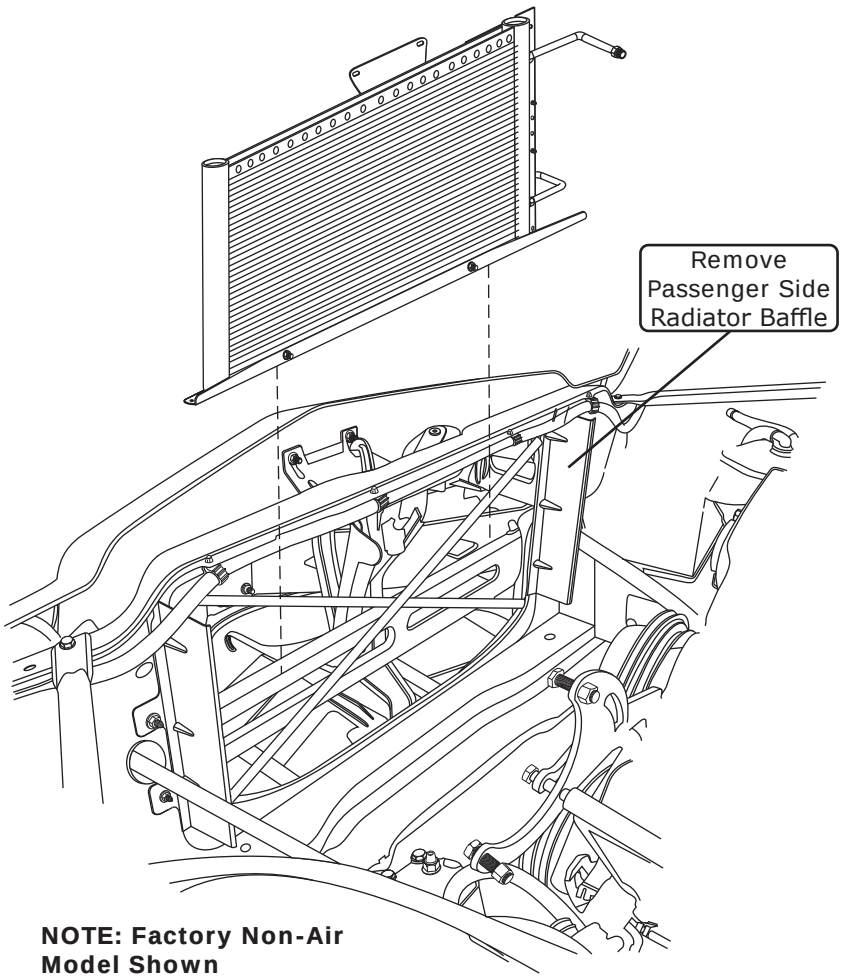



**Figure 1**

# Condenser Installation

**1.** Lower the condenser/hardline assembly onto the engine side of the core support (See Figure 1, below). **NOTE: Models without factory air require removal of the passenger side radiator baffle.**




**NOTE: Factory Non-Air Model Shown**

**Figure 1**

# Condenser Installation (Cont.)

**2.** Secure the top of the condenser to the engine side of the core support using (2) 5/16-18 x 1 ¼" hex bolts, (2) 5/16" flat washers, (2) 5/16" lock washers, and (2) 5/16-18 nuts as shown in Figure 2, below.

**3.** Secure the bottom condenser bracket to the core support using (2) 5/16-18 x 1 ¼" hex bolts, (2) 5/16" flat washers, (2) 5/16" lock washers, and (2) 5/16-18 nuts as shown in Figure 3, below.

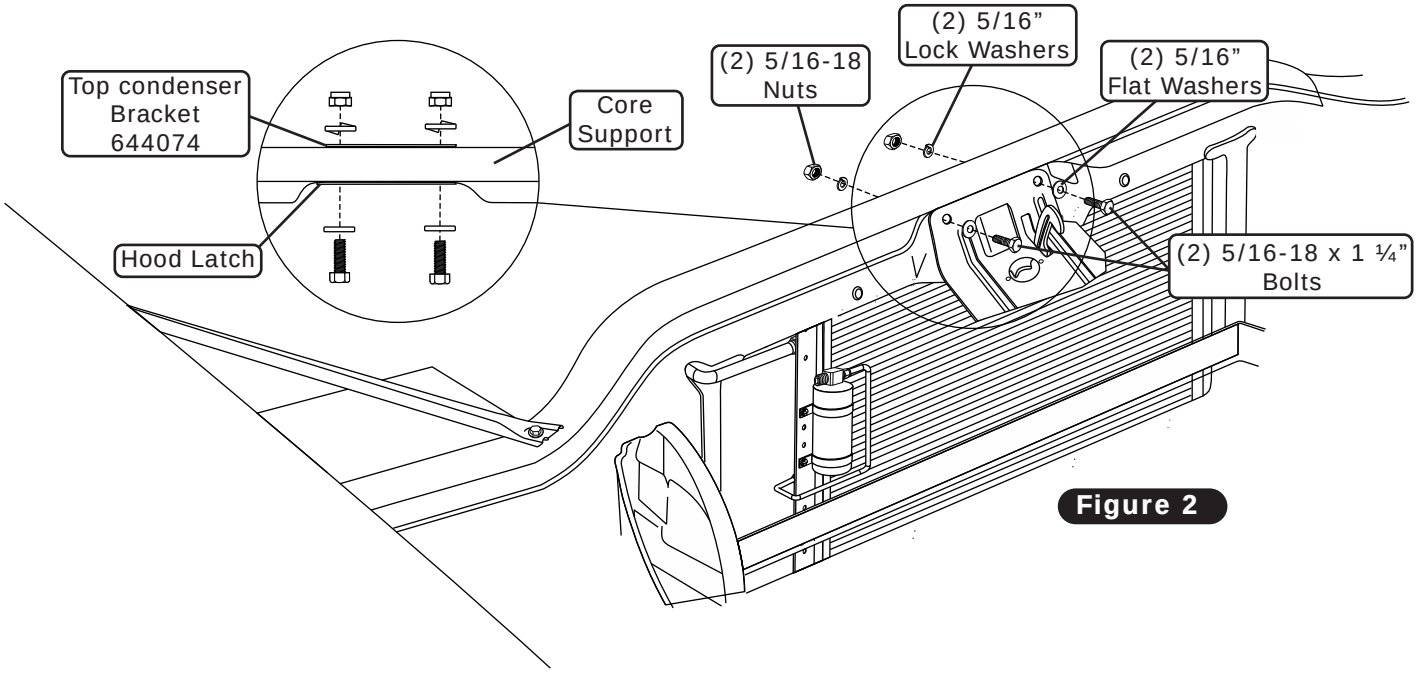



**Figure 2**

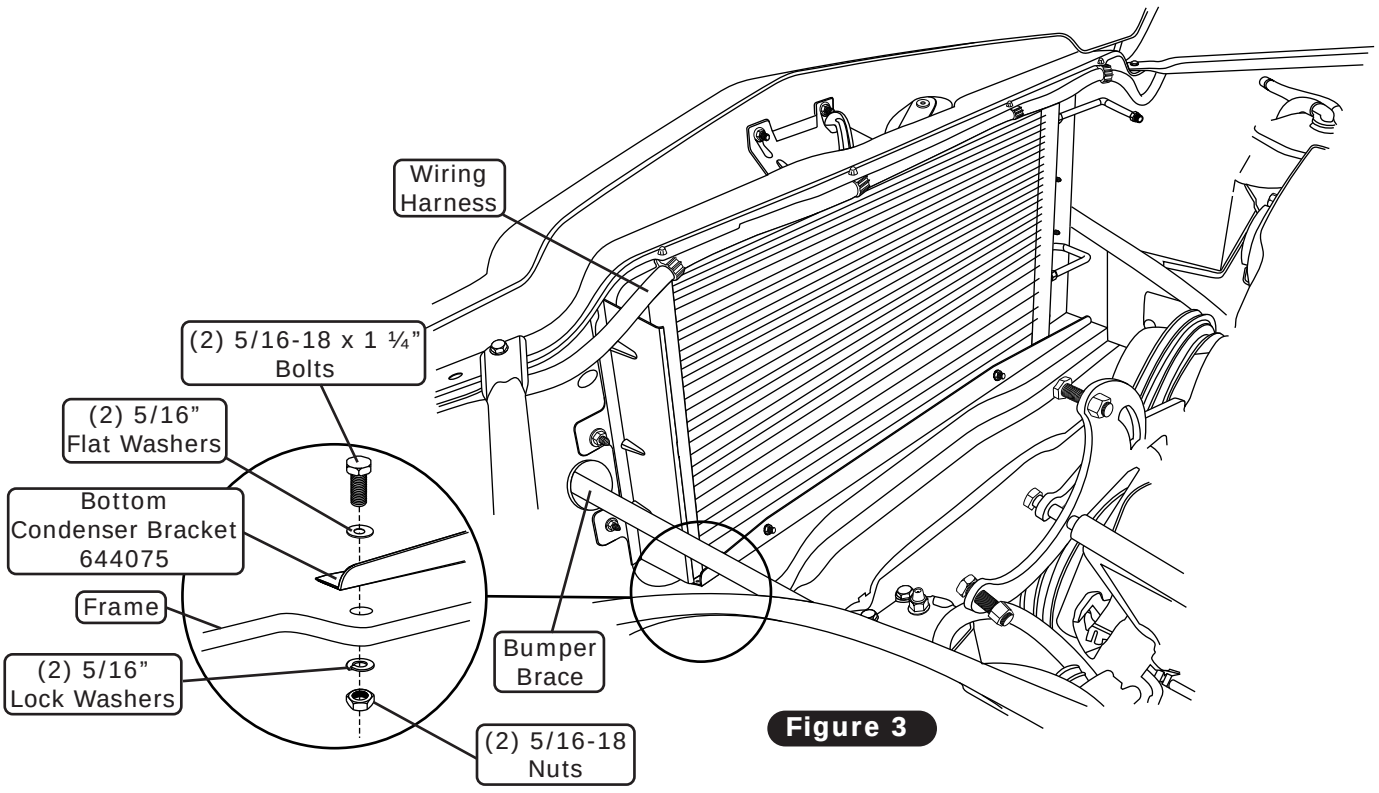



**Figure 3**

# #6 Drier/Core Hardline Installation

**1.** Lubricate a #6 O-ring, and install the #6 drier/core hardline as shown in Lubricating O-rings, Page 6, and Figure 1, below. Tighten fittings as shown in Lubricating O-rings, Page 6.

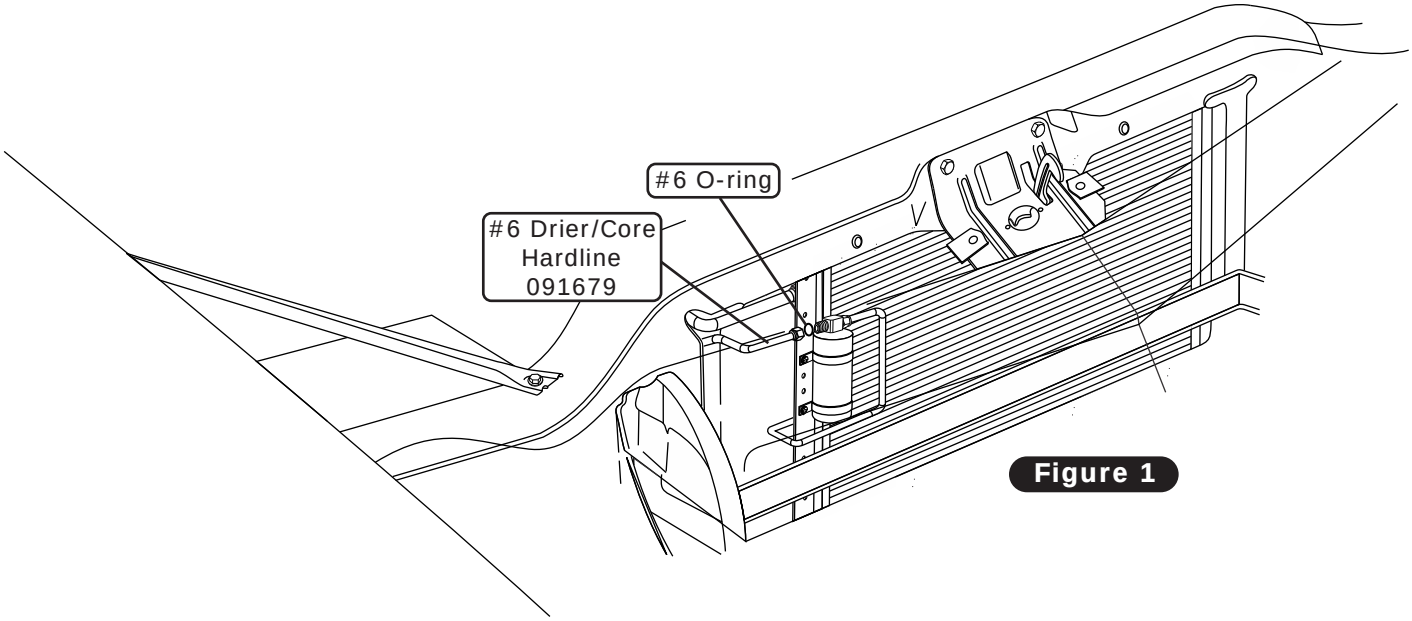



**Figure 1**

# Safety Switch Installation

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

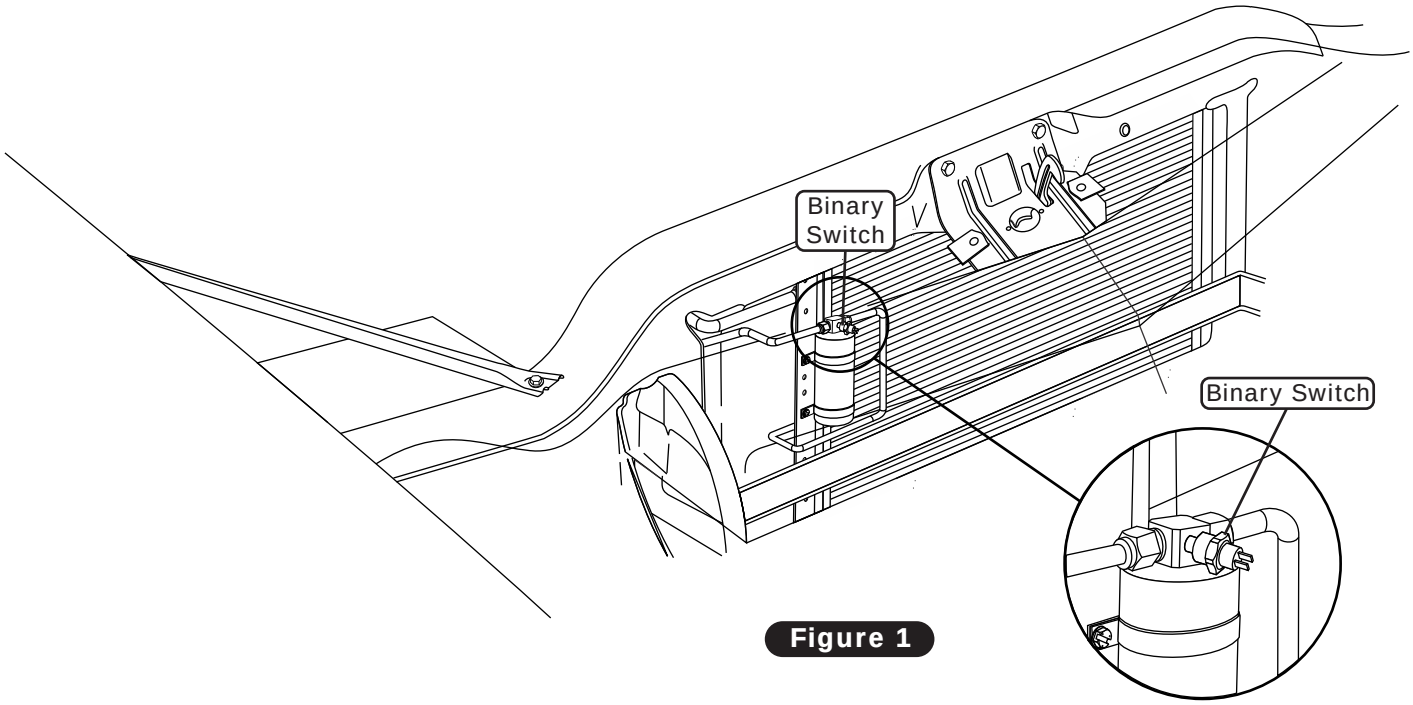



**Figure 1**

# Final Steps

1. Reinstall the OEM fan shroud, radiator, and radiator core support cover (See Figure 1, below).
2. Using a 1/4-20 x 1/2" bolt and 1/4" flat washer, attach the hardline assembly bracket to the core support as shown in Figure 2, below. **NOTE: The bolt will be installed through the OEM hole in the core support and into the weld nut on the bracket.**
3. Install a 3/8" Adel clamp onto the #6 drier/core hardline, and a 1/2" Adel clamp onto the #8 condenser/core hardline. Attach the clamps to the hardline assembly bracket using a 10-32 x 1/2" pan head screw and a 10-32 nut with star washer (See Figure 2, below).
4. Attach the #6 hardline bracket to the engine side of the core support using the OEM bolt that holds the ground wire near the back side of the headlight.
5. Install a 3/8" Adel clamp onto the #6 drier/core hardline, and secure it to the #6 hardline bracket using a 10-32 x 1/2" pan head screw and 10-32 nut with star washer (See Figure 2, below).

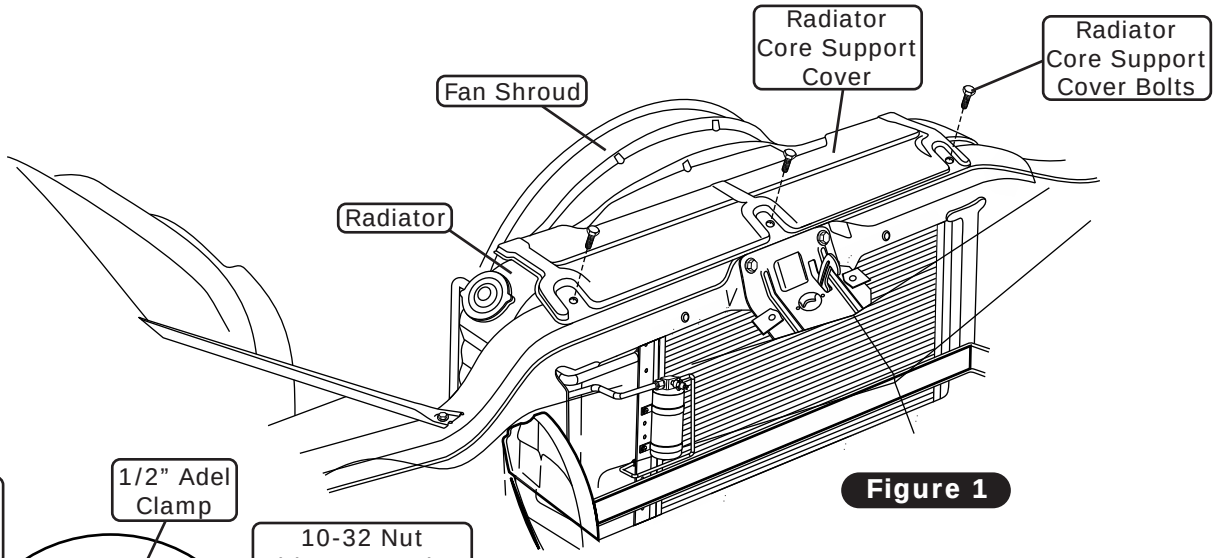



**Figure 1**

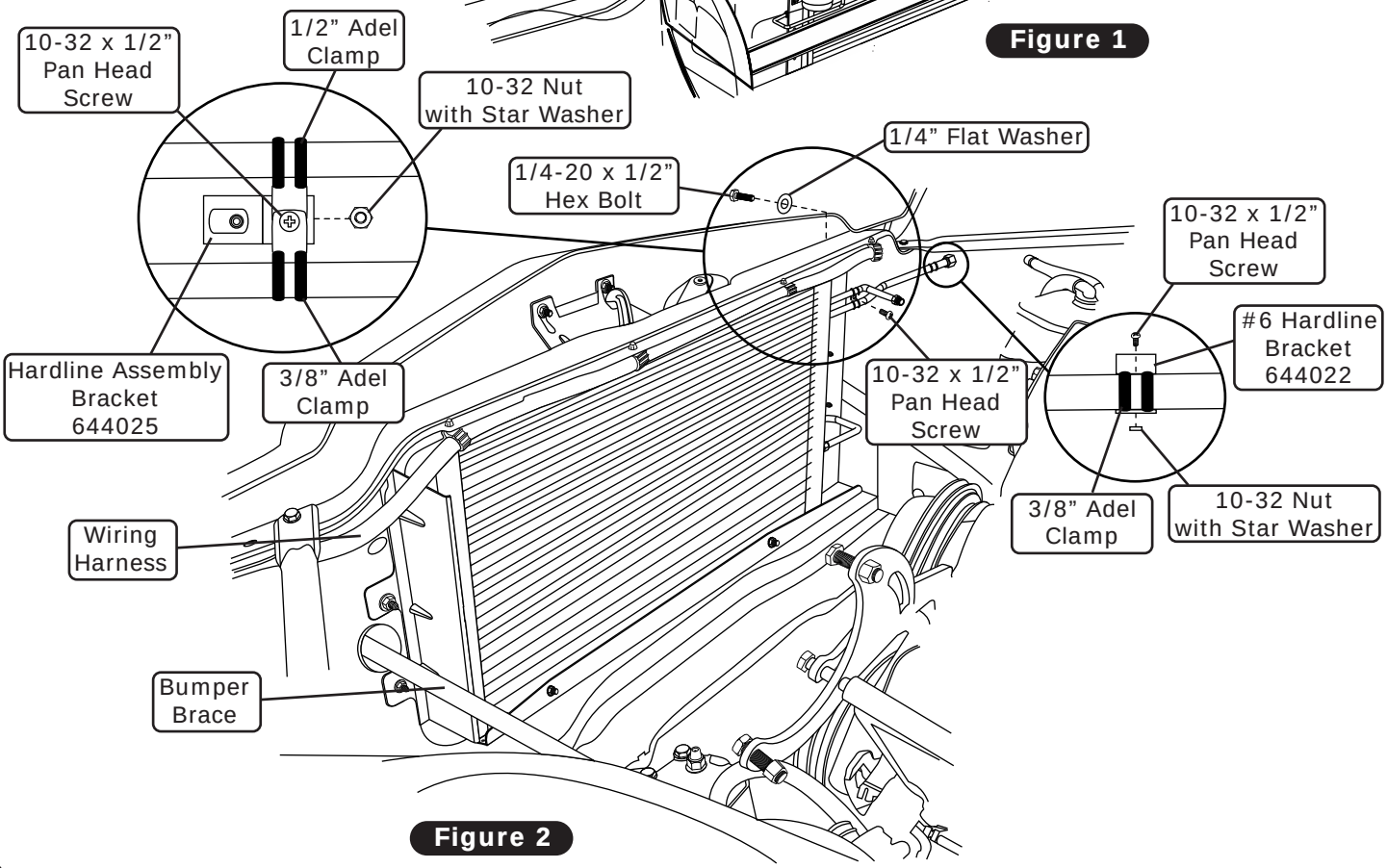



**Figure 2**

www.vintageair.com

# Packing List: Condenser Kit (021179)

| | Qty | | Part No | Description |
|---|---|---|---|---|
| | 1 | ☐ | 11079-VUS | Binary Switch, Male |
| | 1 | ☐ | 18125-VUB | Washer, 1/4" USS, Flat |
| | 4 | ☐ | 18148-VUB | Nut, 5/16-18, Hex |
| | 2 | ☐ | 18247-VUB | Screw, #10 x 1/2", Sheet Metal |
| | 8 | ☐ | 18249-VUB | Screw, 10-24 x 3/8", Pan Head |
| | 2 | ☐ | 18250-VUB | Screw, 10-32 x 1/2", Pan Head |
| | 2 | ☐ | 18251-VUB | Nut with Star Washer, 10-32 |
| | 8 | ☐ | 18260-VUB | Nut with Star Washer, 10-24 |
| | 1 | ☐ | 18287-VUB | Bolt, 1/4-20 x 1/2", Hex |
| | 4 | ☐ | 183009-DSR | Bolt, 5/16-18 x 1 ¼", Hex |
| | 4 | ☐ | 18610-VUB | Lock Washer, 5/16" |
| | 4 | ☐ | 18611-VUB | Washer, 5/16", Flat |
| | 1 | ☐ | 23127-VUB | Compressor Lead |
| | 2 | ☐ | 31600-VUD | Adel Clamp, 3/8" I.D. |
| | 1 | ☐ | 31603-VUD | Adel Clamp, 1/2" I.D. |

Packed By: _____

## O-rings/Refrigerant Oil

| | Qty | | Part No | Description |
|---|---|---|---|---|
| | 4 | ☐ | 33857-VUF | O-ring, #6 |
| | 3 | ☐ | 33858-VUF | O-ring, #8 |
| | 1 | ☐ | 41117-VUP | Refrigerant Oil |

Packed By: _____

## Brackets

| | Qty | | Part No | Description |
|---|---|---|---|---|
| | 2 | ☐ | 07113-VUB | Drier Clamp |
| | 1 | ☐ | 644022 | Bracket, #6 Hardline |
| | 1 | ☐ | 644025 | Bracket, Hardline Assembly |
| | 1 | ☐ | 644027 | Bracket, Condenser, Top |
|  | 1 | ☐ | 644075 | Bracket, Condesner, Bottom |
| | 1 | ☐ | 65998-VUB | Bracket, Drier |

Packed By: _____

## Hardlines/Hoses

| | Qty | | Part No | Description |
|---|---|---|---|---|
| | 1 | ☐ | 091675 | Hardline, #6, Condenser/Drier |
| | 1 | ☐ | 091679 | Hardline, #6, Drier/Core |
| | 1 | ☐ | 091680 | Hardline, #8, Condenser/Core |

Packed By: _____

## Condenser/Drier

| | Qty | | Part No | Description |
|---|---|---|---|---|
| | 1 | ☐ | 03767-VUC | Condenser, 14" x 24", Parallel Flow |
| | 1 | ☐ | 07321-VUC | Drier |

Packed By: _____

Inspected By: _____

Date: _____

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