an ISO 9001:2015 Registered Company

1973-79 Ford F-Series / 1978-79 Bronco

Condenser Kit *with* Drier (011153)

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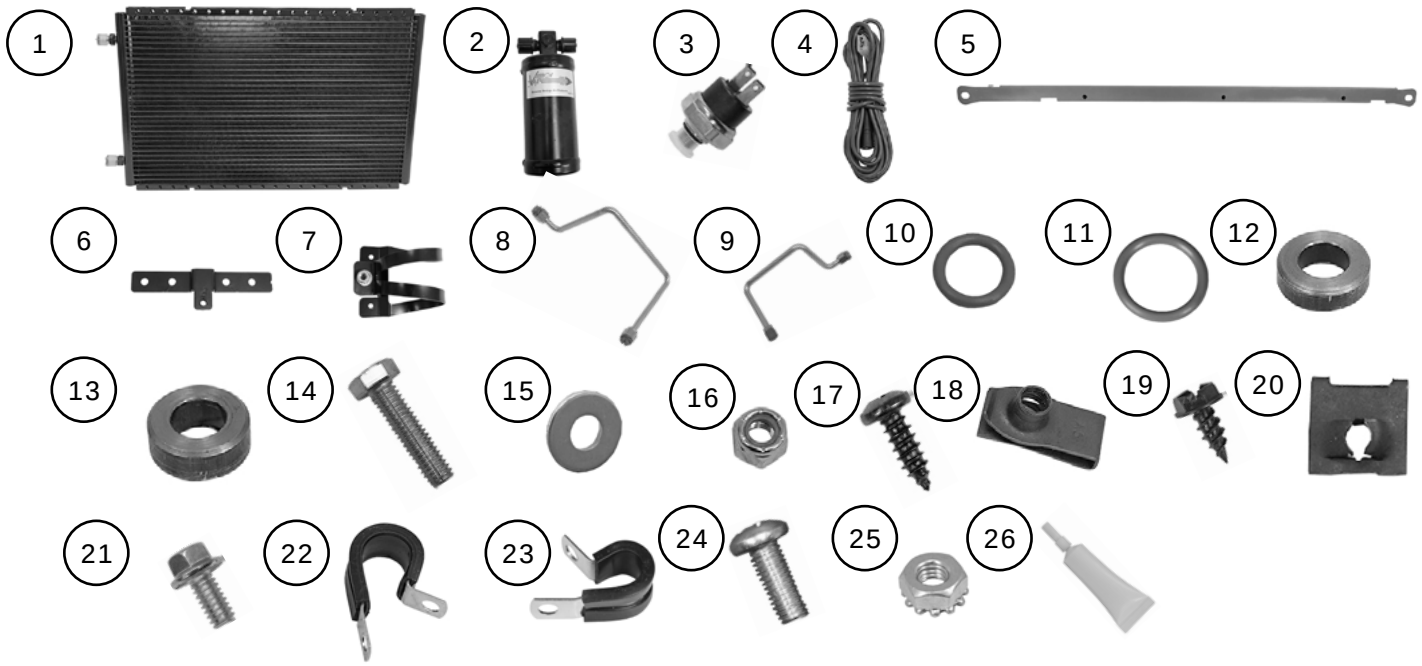
Packing List: Condenser Kit (011153)

No.	Qty.	Part No.	Description
1.	1	03766-VUC	Condenser, 14” x 22”, Parallel Flow
2.	1	07321-VUC	Drier
3.	1	11079-VUS	Binary Switch, Male
4.	1	23135-VUW	Compressor Lead
5.	1	647121	Bracket, Condenser, Upper Mounting
6.	1	646971	Bracket, Condenser, Lower Mounting
7.	1	071130	Clamp, Drier
8.	1	082078	Hardline, #6 Condenser/Drier
9.	1	082079	Hardline, #8 Condenser/Compressor
10.	2	33857-VUF	O-ring, #6
11.	1	33858-VUF	O-ring, #8
12.	2	18201-VUB	Spacer, 1/4” Length
13.	2	180034	Spacer, 5/16” Length
14.	4	183009-DSR	Bolt, 5/16-18 x 1 ¼”, Hex
15.	4	18125-VUB	Washer, 1/4” USS, Flat
16.	2	18151-VUB	Locknut, 5/16-18
17.	7	18235-VUB	Screw, #8 x 1/2”, Pan Head
18.	4	18977-VUB	U-nut, 5/16”
19.	3	18247-VUB	Screw, #10 x 1/2”, Sheet Metal
20.	7	18979-VUB	J-nut, #8
21.	1	182870	Bolt, 1/4-20 x 1/2”, Hex Flange
22.	2	31603-VUD	Adel Clamp, #4
23.	1	31600-VUD	Adel Clamp, #2
24.	1	18250-VUB	Screw, 10-32 x 1/2”, Pan Head
25.	1	18251-VUB	Nut with Star Washer, 10-32
26.	1	41117-VUP	Refrigerant Oil

**** 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.

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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 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.

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Important Information Before Beginning:

- **For sufficient engine cooling and proper airflow through the 14" x 22" condenser supplied with this kit, it will be necessary to replace the 6-cylinder OEM radiator with a higher-capacity V8-style radiator.**
- **For optimal cooling performance, Vintage Air recommends using a fan shroud. When using a shroud with an OEM engine fan, be sure the fan blade is 2/3 inside the shroud, using spacers as needed for proper blade alignment.**

Core Support Measurements

This kit was developed based on the measurements below, which were taken from a 1977 Ford Truck and 1979 Ford Bronco with factory air.

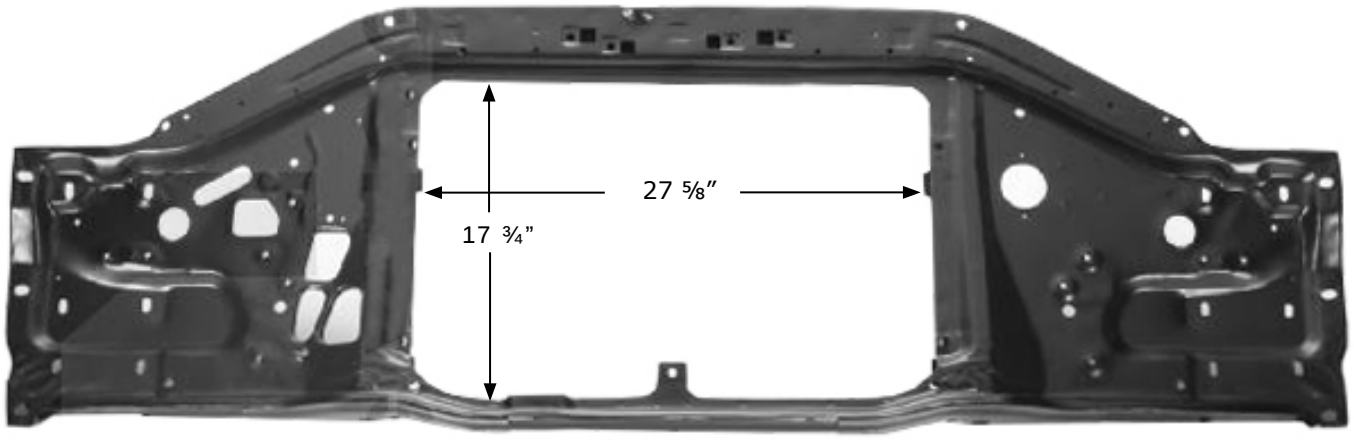


Figure 1

Engine Compartment Disassembly

NOTE: Before starting the installation, check the function of the vehicle (horn, lights, etc.) for proper operation, and study the instructions, illustrations, & diagrams. Retain all OEM bolts, washers and nuts, as some hardware will be reused. Some steps will only apply to factory A/C trucks.

Perform the Following:

1. Disconnect the battery.
2. Evacuate the A/C system (if equipped).
3. Remove the grille insert hardware and grille insert(s) (See Photo 1, below).
4. Remove (4) grille bracket bolts (See Photo 2, below).
5. Remove (2) hood latch assembly bolts (See Photo 3, below).
6. Remove (3) hood latch assembly core support bracket bolts ((2) upper and (1) lower) (See Photos 3 and 4, below).
7. Remove (2) #8 A/C line bracket screws and the bracket (See Photo 5, below).
8. Disconnect the OEM #6 A/C hardline from the drier (See Photo 6, below).
9. Disconnect the OEM #8 A/C hardline from the condenser (See Photo 7, below).

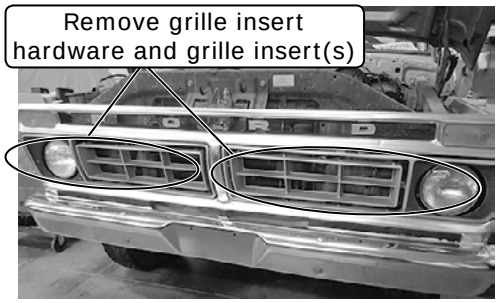
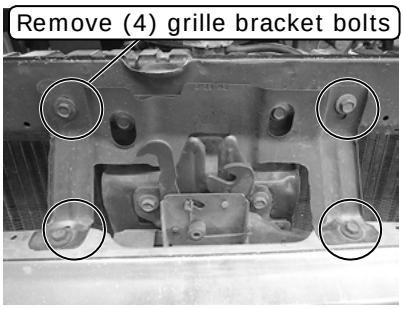


Photo 1



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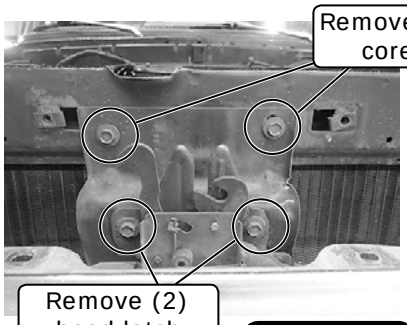

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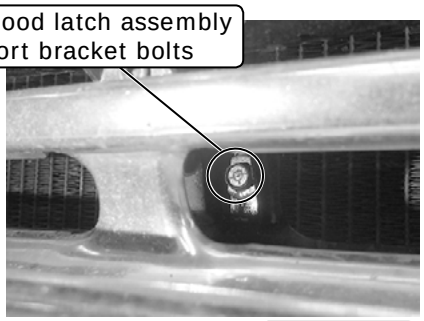

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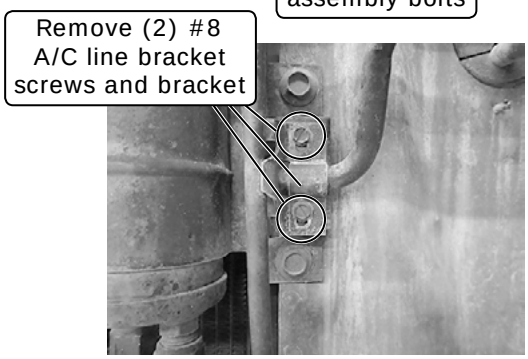

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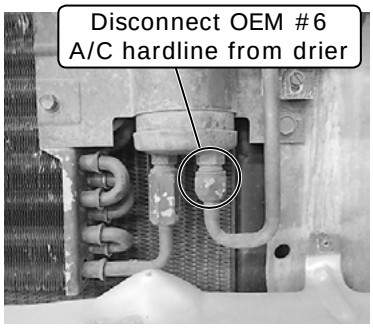

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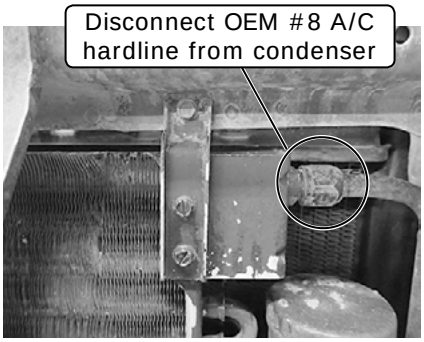


Photo 7

Engine Compartment Disassembly (Cont.)

10. Remove (3) driver side condenser mounting bolts ((2) bolts on the drier/condenser bracket and (1) bolt on the upper bracket) (See Photos 8 and 9, below).

11. Remove (2) passenger side condenser mounting bolts (See Photos 10 and 11, below).

12. Remove the condenser assembly from the vehicle (discard).

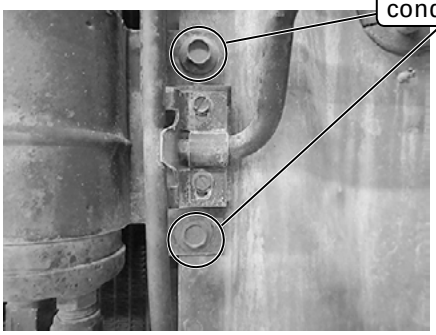
13. Remove the OEM U-nut from the lower middle hood latch mounting bracket (See Photo 12, below).

14. On the engine side of the core support, disconnect the #6 A/C hose from the condenser hardline (See Photo 13, below).

15. Disconnect the #8 condenser A/C hose from the compressor (See Photo 14, below).

16. Remove (2) grommet bracket screws (See Photo 15, below).

17. Remove the hardlines and A/C hoses (See Photo 15, below).



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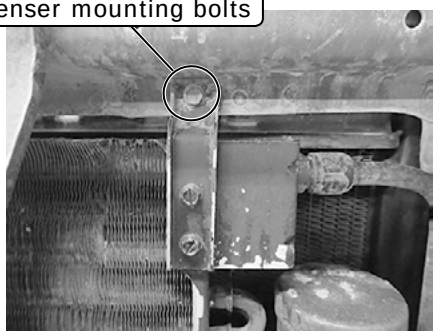

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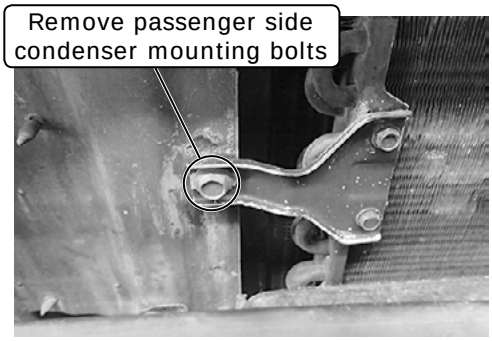

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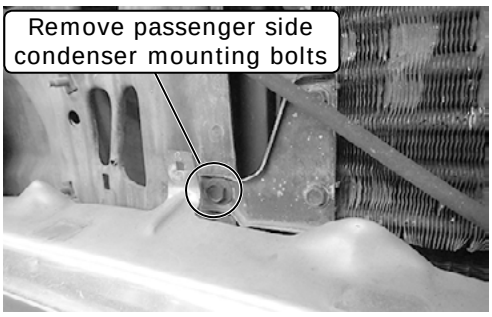

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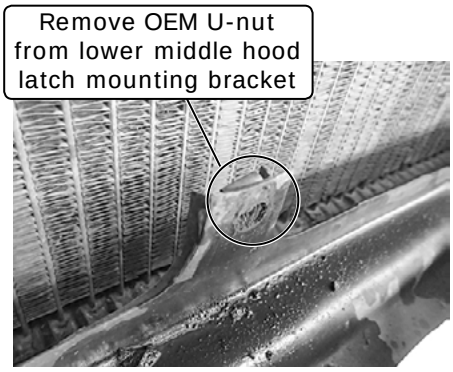

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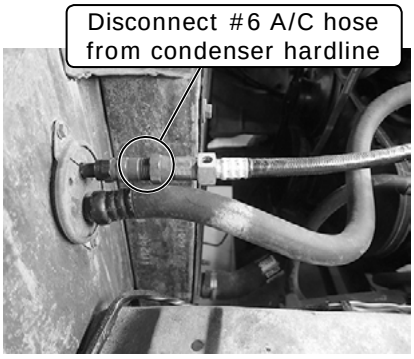

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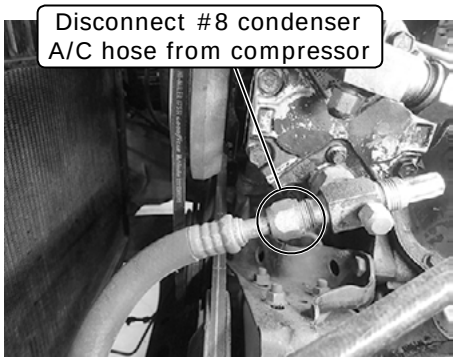

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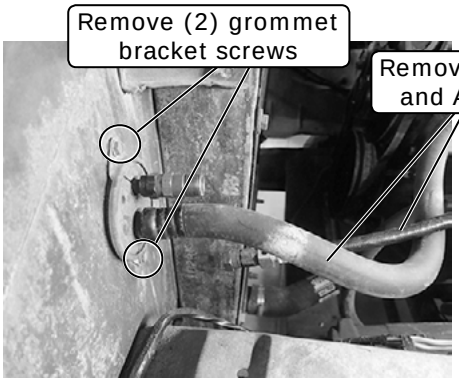

Photo 15

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Condenser Mounting Bracket Installation

1. Locate the condenser upper mounting bracket (See Photo 1, below) and the condenser lower mounting bracket (See Photo 2, below).
2. Install (3) #8 J-nuts onto the condenser top (from left to right) at the 2nd, 11th and 19th holes (See Photo 3, below).
3. Install (4) #8 J-nuts onto the condenser bottom (from left to right) at the 7th, 8th, 10th and 11th holes (See Photo 3, below).
4. Install the upper mounting bracket onto the condenser using (3) #8 x 1/2" pan head screws (See Photo 4, below).
5. Install the lower mounting bracket onto the condenser using (4) #8 x 1/2" pan head screws (See Photo 4, below).

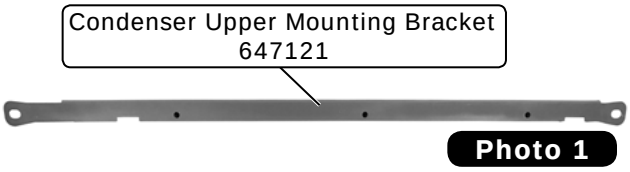
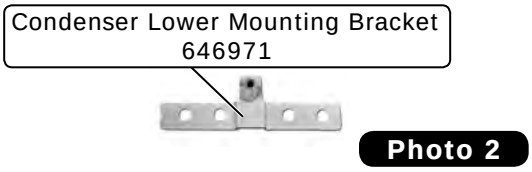


Photo 1



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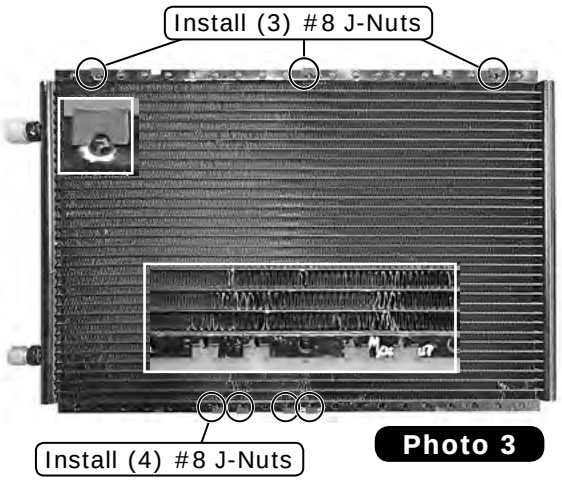

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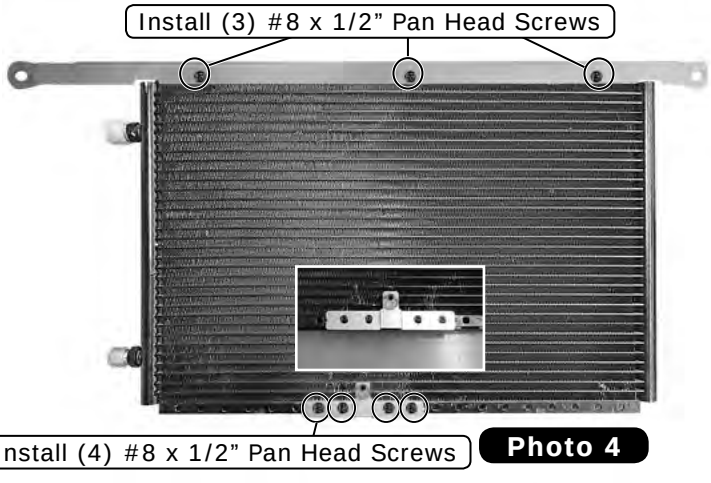


Photo 4

Condenser Assembly Installation (Standard Core Support)

NOTE: Do not fully tighten the mounting hardware until all adjustments to the mounting brackets have been made.

1. Replace the (2) OEM upper radiator mounting bolts with (2) 1/4" USS flat washers and (2) 5/16-18 x 1 ¼" hex bolts (See Photos 1 and 2, below). **NOTE: If the OEM U-nuts are missing or damaged, use the 5/16" U-nuts provided with this kit.**

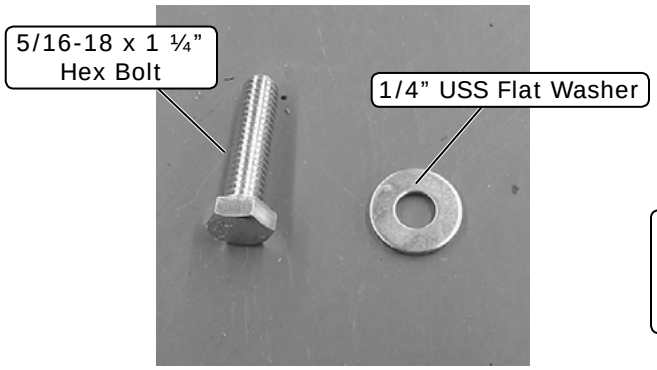


Photo 1

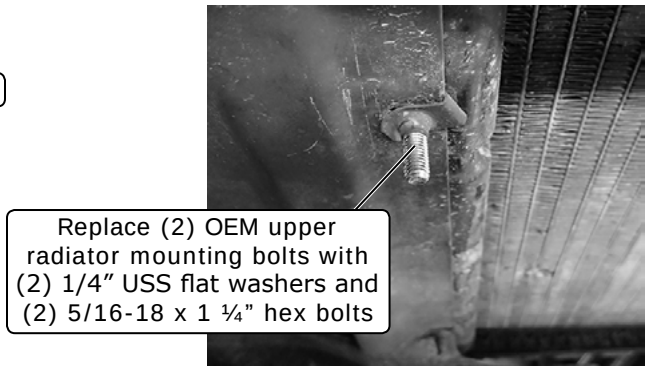


Photo 2

Condenser Assembly Installation (Standard Core Support) (Cont.)

2. Install (2) 1/4" length spacers over the upper radiator mounting bolts (See Photo 3, below).

3. Install the condenser assembly in front of the radiator (bottom first), locating the lower mounting bracket behind the grille mounting bracket. Then install the condenser upper mounting bracket over the upper radiator bolts (See Photo 4, below). Secure the condenser assembly using (2) 1/4" USS flat washers and (2) 5/16" locknuts (See Figure 1 and Photo 5, below). **NOTE: Before fully tightening the locknuts, ensure that the bottom condenser mounting bracket weld nut is aligned with the opening for the lower grille bracket (See Photo 6, below). Adjust as needed.**

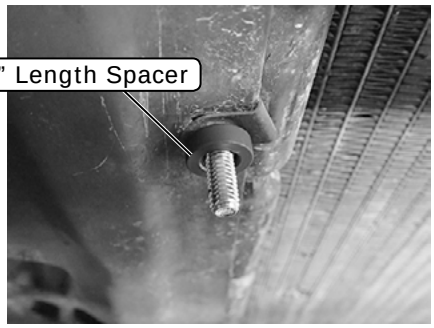
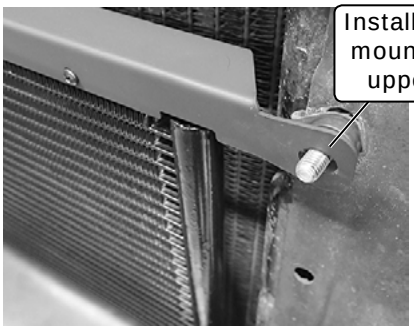


Photo 3



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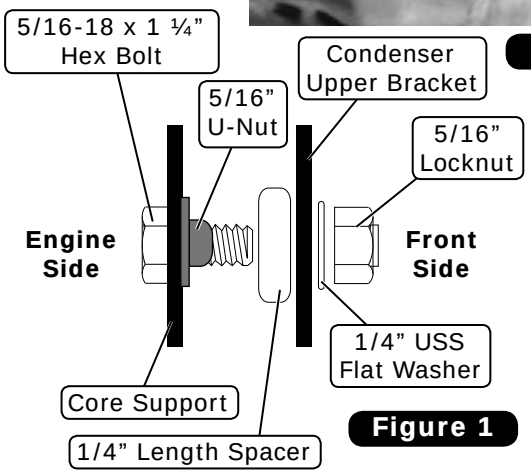
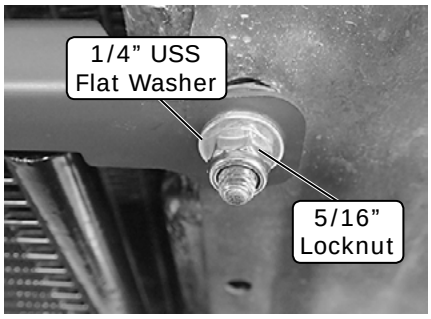


Figure 1



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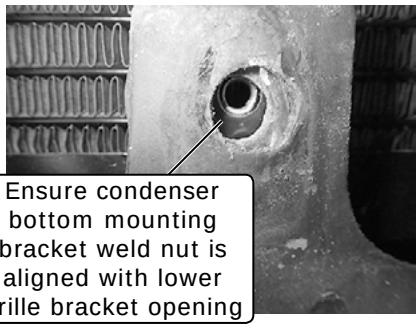


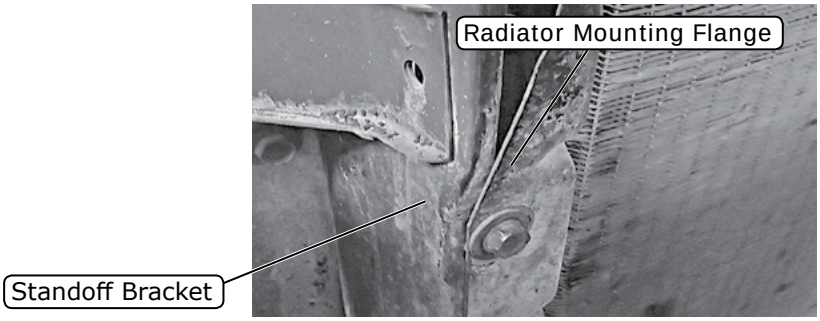
Photo 6

Condenser Assembly Installation (Super Cooling Core Support)

NOTE: Super cooling core supports, including those found on 4 x 4 trucks, have a different radiator mounting configuration than the standard configuration. The radiator is mounted to standoff brackets as shown in Photo 1, below, rather than directly to the core support.

1. Loosen the upper radiator mounting bolts.

2. Remove the lower radiator mounting bolts (discard).



Engine Side View

Photo 1

Condenser Assembly Installation (Super Cooling Core Support) (Cont.)

3. Install (2) 5/16" length spacers between the core support and the radiator. Secure using (2) 5/16-18 x 1 ¼" hex bolts and (2) 1/4" USS flat washers (See Figure 1 and Photo 2, below).
4. Tighten the previously loosened upper radiator mounting bolts.
5. Install (2) 5/16" U-nuts onto the OEM upper mounting holes on the front of the core support (See Photos 3 and 4, below).
6. Install the condenser in front of the radiator (bottom first), locating the lower condenser mounting bracket behind the grille mounting bracket. Secure it using (2) 1/4" USS flat washers and (2) 5/16-18 x 1 ¼" hex bolts (See Photos 5 and 6, below). **NOTE: Before fully tightening the 5/16-18 x 1 ¼" hex bolts, ensure that the bottom condenser mounting bracket weld nut is aligned with the opening for the lower grille bracket. Adjust as needed.**

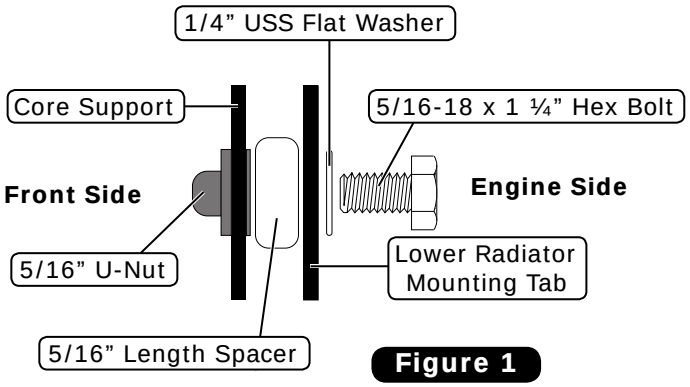
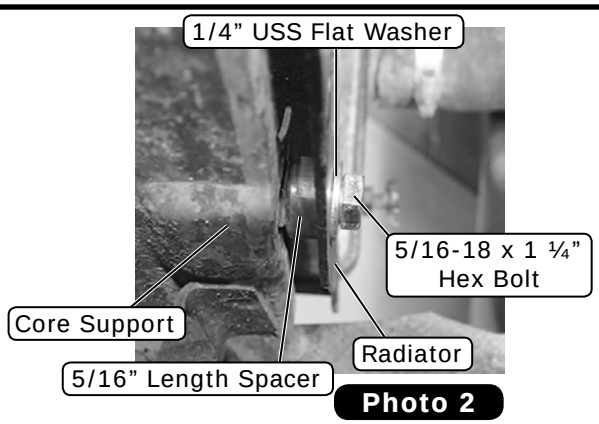


Figure 1



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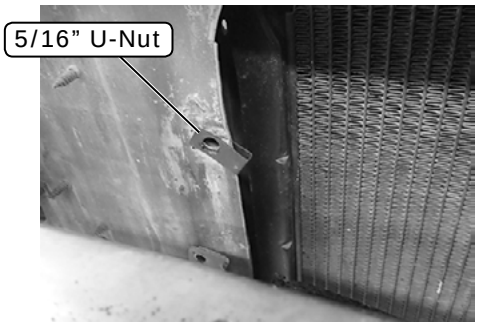

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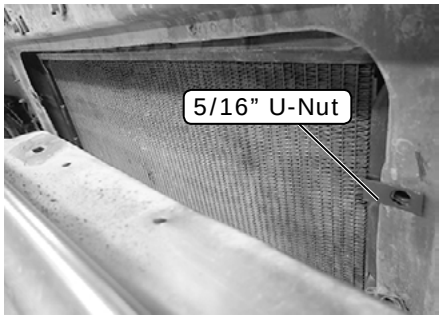

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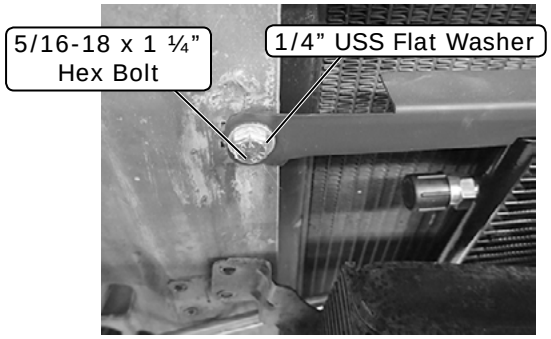

Photo 5

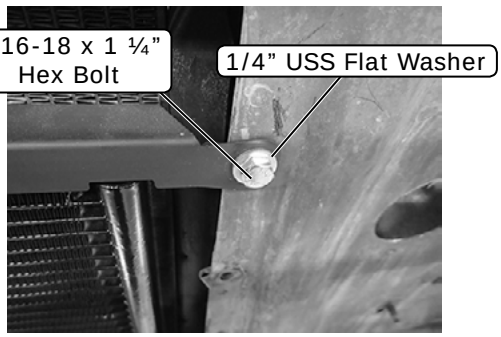

Photo 6

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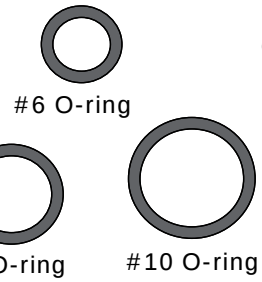
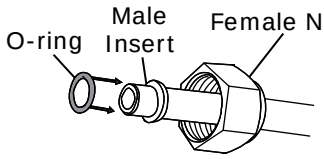
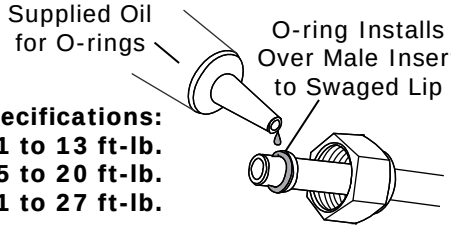
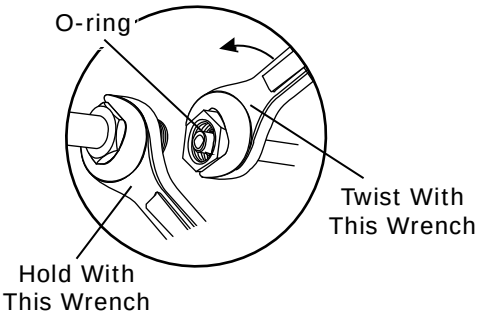
Lubricating O-rings





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





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

Binary Switch 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.

1. Lubricate the O-ring on the binary switch (See Photo 1, below). **NOTE: The binary switch and the drier each come with an O-ring. Only use the binary switch O-ring.**
2. Thread the binary switch onto the drier (See Photo 2, below).

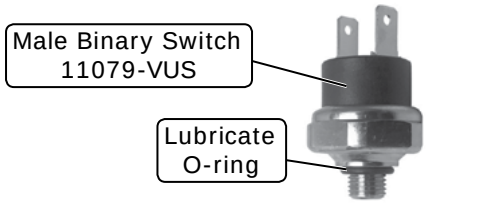


Photo 1

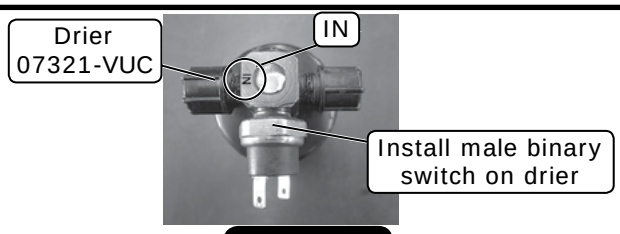


Photo 2

Hardline & Drier Installation

NOTE: The use of a backup wrench is important when installing the hardlines to avoid damage to the condenser (See Lubricating O-rings, above).

1. Lubricate (2) #6 O-rings and install (1) onto each end of the #6 condenser/drier hardline.
2. Route the #6 condenser/drier hardline through the core support opening, then connect it to the #6 condenser fitting (See Photo 1, below). **NOTE: Do not fully tighten at this time.**
3. Locate the drier clamp and loosen the nut, then insert the drier. **NOTE: Refrigerant flow through the drier is IN from the condenser, OUT to the evaporator (See Photo 2, above). Do not tighten drier clamp hardware at this time.**
4. Install the #6 condenser/drier hardline onto the drier. **NOTE: Do not fully tighten the fitting at this time. When installing the drier, leave 1/4" between the base of the drier and the vehicle. (See Photo 2, below).**

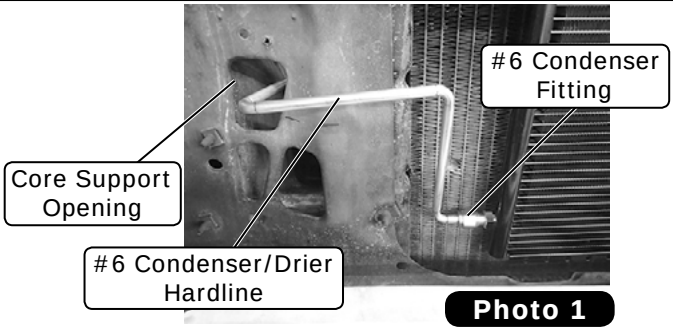


Photo 1

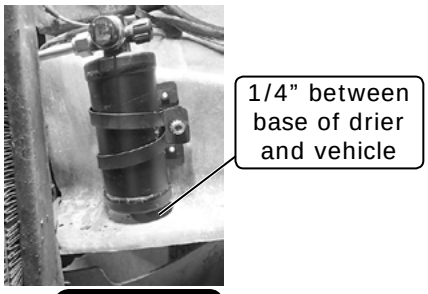


Photo 2

Hardline & Drier Installation (Cont.)

4. Adjust the drier clamp on the inner fenderwell. Using the drier clamp as a template, mark and drill (2) 9/64" mounting holes. Secure it using (2) #10 x 1/2" sheet metal screws (See Photo 3, below).
5. Tighten the drier clamp hardware. With properly lubricated O-rings installed, tighten the #6 condenser/drier hardline connections at the drier and condenser.
6. Lubricate a #8 O-ring, and install it onto the #8 condenser/compressor hardline end that connects to the #8 condenser fitting. Install the #8 condenser/compressor hardline onto the #8 condenser fitting, routing the line through the core support opening (See Photo 4, below). **NOTE: Do not fully tighten at this time.**
7. Install a #4 Adel clamp onto the #8 condenser/compressor hardline (See Photo 5, below). **NOTE: The gap between the #6 and #8 hardline should be between 3/8" - 1/2".**
8. Mark and drill a 9/64" hole into the core support, and secure the #4 Adel clamp using a #10 x 1/2" sheet metal screw (See Photo 6, below). **NOTE: Tighten the #8 hardline connection at the condenser.**
9. Install the #4 and #2 Adel clamps onto the hardlines. Secure them together using a 10-32 x 1/2" pan head screw and a 10-32 nut with star washer (See Photo 7, below).

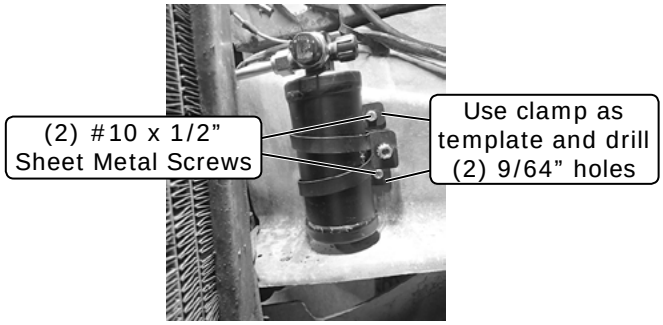


Photo 3

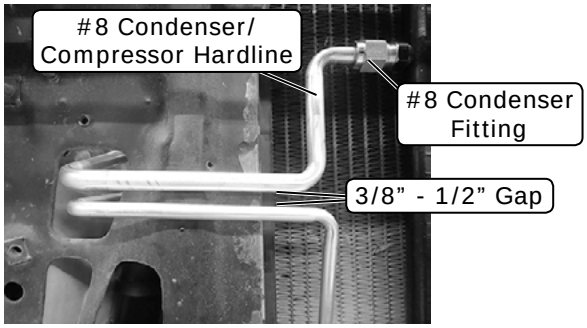


Photo 4

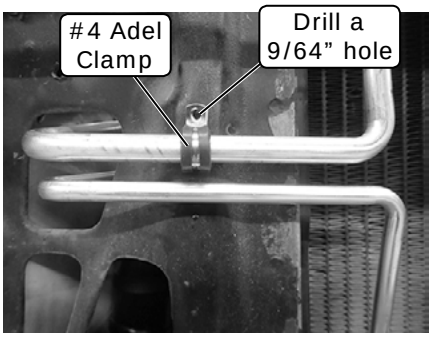


Photo 5

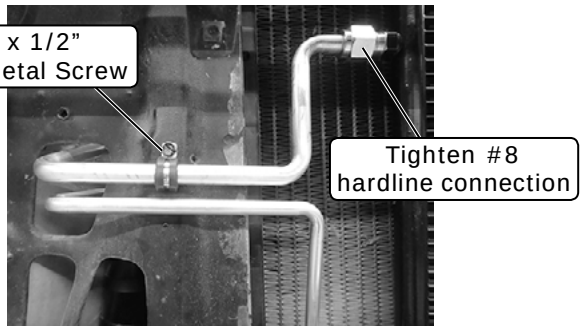


Photo 6

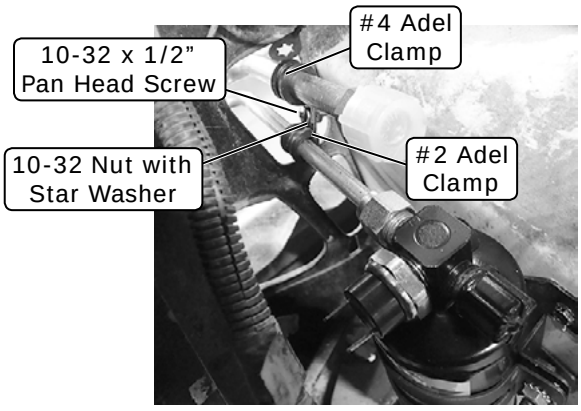


Photo 7

Final Steps

NOTE: The 1/4-20 x 1/2" flange hex bolt that is supplied in this kit is for replacing the center grille/ bracket mounting hardware (See Photo 1, below). Use caution when tightening this bolt into the lower condenser bracket. If the bolt is too long, it can pass through the lower bracket and into the condenser, causing damage.

1. Reinstall and/or reconnect all remaining items removed or disconnected in the Engine Compartment Disassembly instructions on Pages 6 and 7. This concludes the condenser kit portion of your installation.

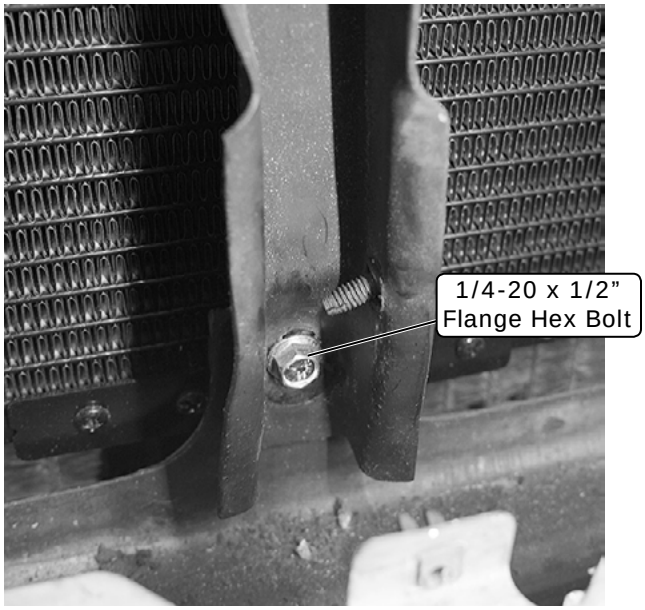


Photo 1

www.vintageair.com

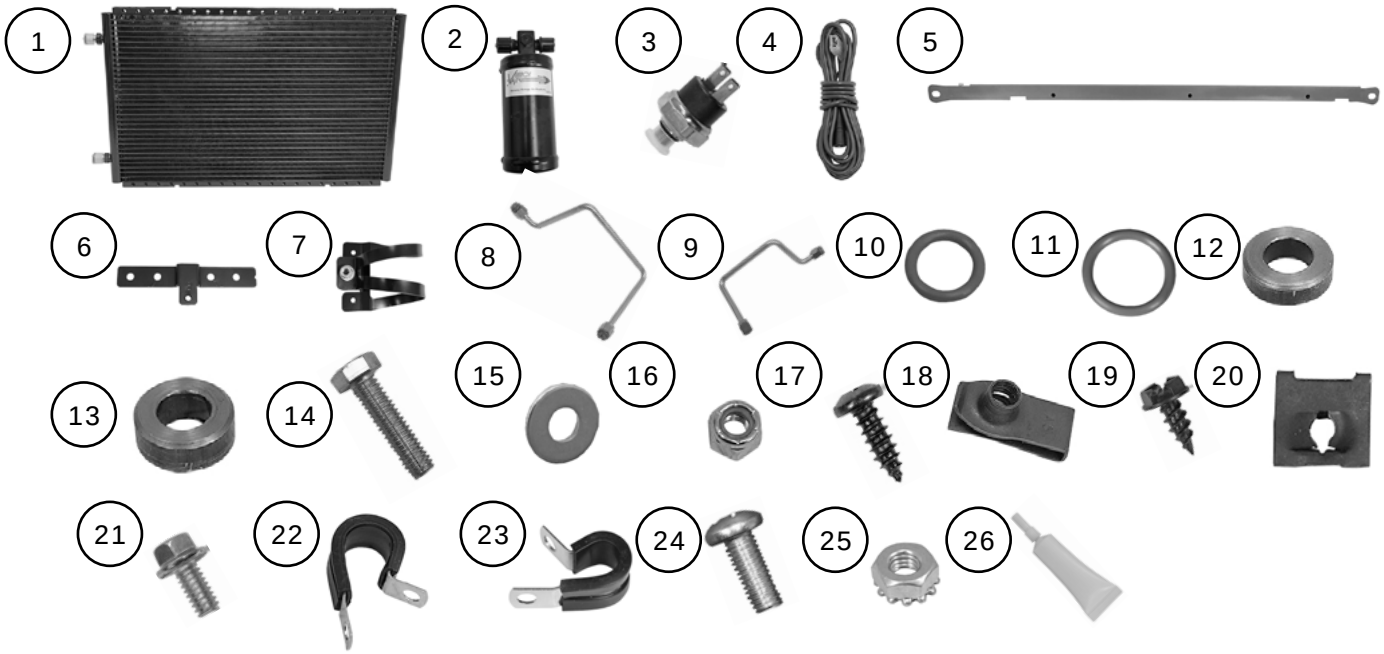
Packing List: Condenser Kit (011153)

No.	Qty.	Part No.	Description	
1.	1	03766-VUC	Condenser, 14” x 22”, Parallel Flow	
2.	1	07321-VUC	Drier	
3.	1	11079-VUS	Binary Switch, Male	
4.	1	23135-VUW	Compressor Lead	
5.	1	647121	Bracket, Condenser, Upper Mounting	
6.	1	646971	Bracket, Condenser, Lower Mounting	
7.	1	071130	Clamp, Drier	
8.	1	082078	Hardline, #6 Condenser/Drier	
9.	1	082079	Hardline, #8 Condenser/Compressor	
10.	2	33857-VUF	O-ring, #6	
11.	1	33858-VUF	O-ring, #8	
12.	2	18201-VUB	Spacer, 1/4” Length	
13.	2	180034	Spacer, 5/16” Length	
14.	4	183009-DSR	Bolt, 5/16-18 x 1 ¼”, Hex	
15.	4	18125-VUB	Washer, 1/4” USS, Flat	
16.	2	18151-VUB	Locknut, 5/16-18	
17.	7	18235-VUB	Screw, #8 x 1/2”, Pan Head	
18.	4	18977-VUB	U-nut, 5/16”	
19.	3	18247-VUB	Screw, #10 x 1/2”, Sheet Metal	
20.	7	18979-VUB	J-nut, #8	
21.	1	182870	Bolt, 1/4-20 x 1/2”, Hex Flange	
22.	2	31603-VUD	Adel Clamp, #4	
23.	1	31600-VUD	Adel Clamp, #2	
24.	1	18250-VUB	Screw, 10-32 x 1/2”, Pan Head	
25.	1	18251-VUB	Nut with Star Washer, 10-32	
26.	1	41117-VUP	Refrigerant Oil	

Checked By: _____

Packed By: _____

Date: _____



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