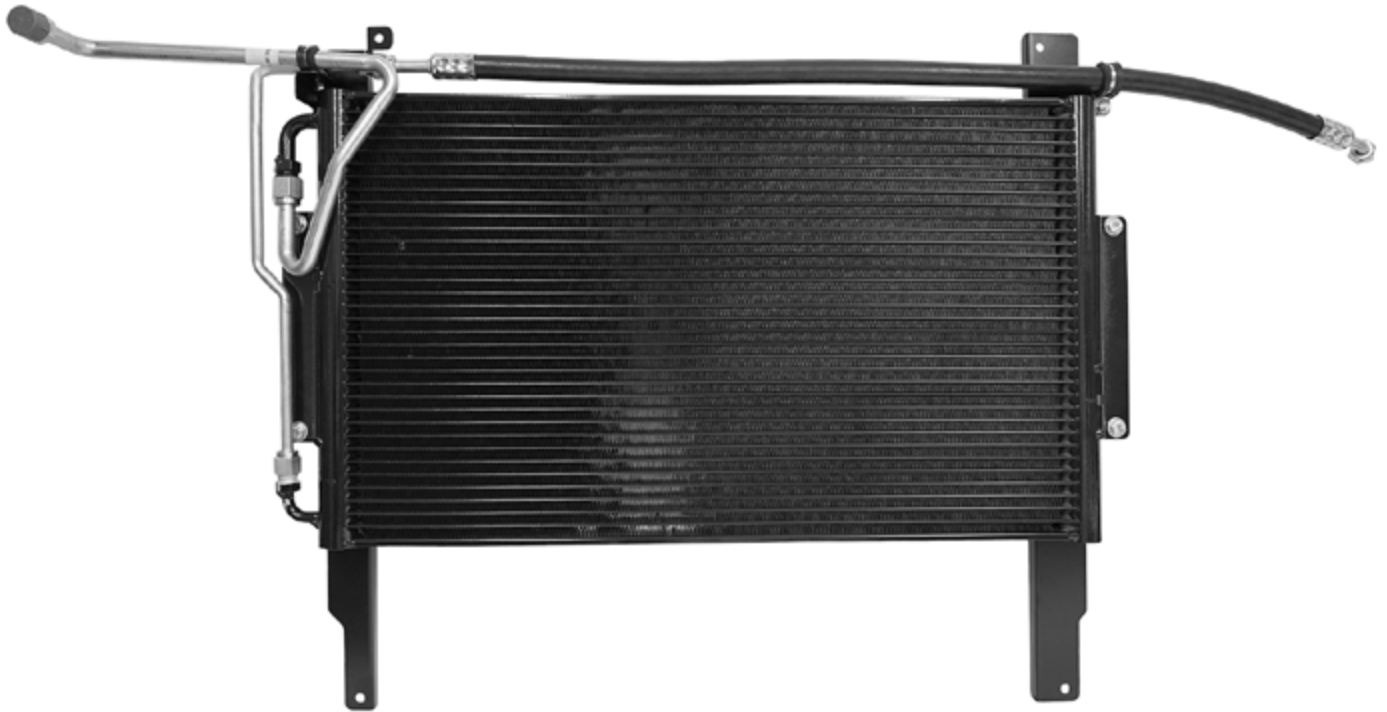




# 1980-86 Ford F-Series/Bronco

Condenser Kit *with* Drier  
(011155)



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## Additional Info: Please Read Before Beginning

- If using the Small Block Ford Front Runner system, a new #8 hardline, PN: 082110 will be required. This alternative #8 hardline will reroute the condenser connection to the passenger side. The #8 hardline included in this condenser kit will not be used.

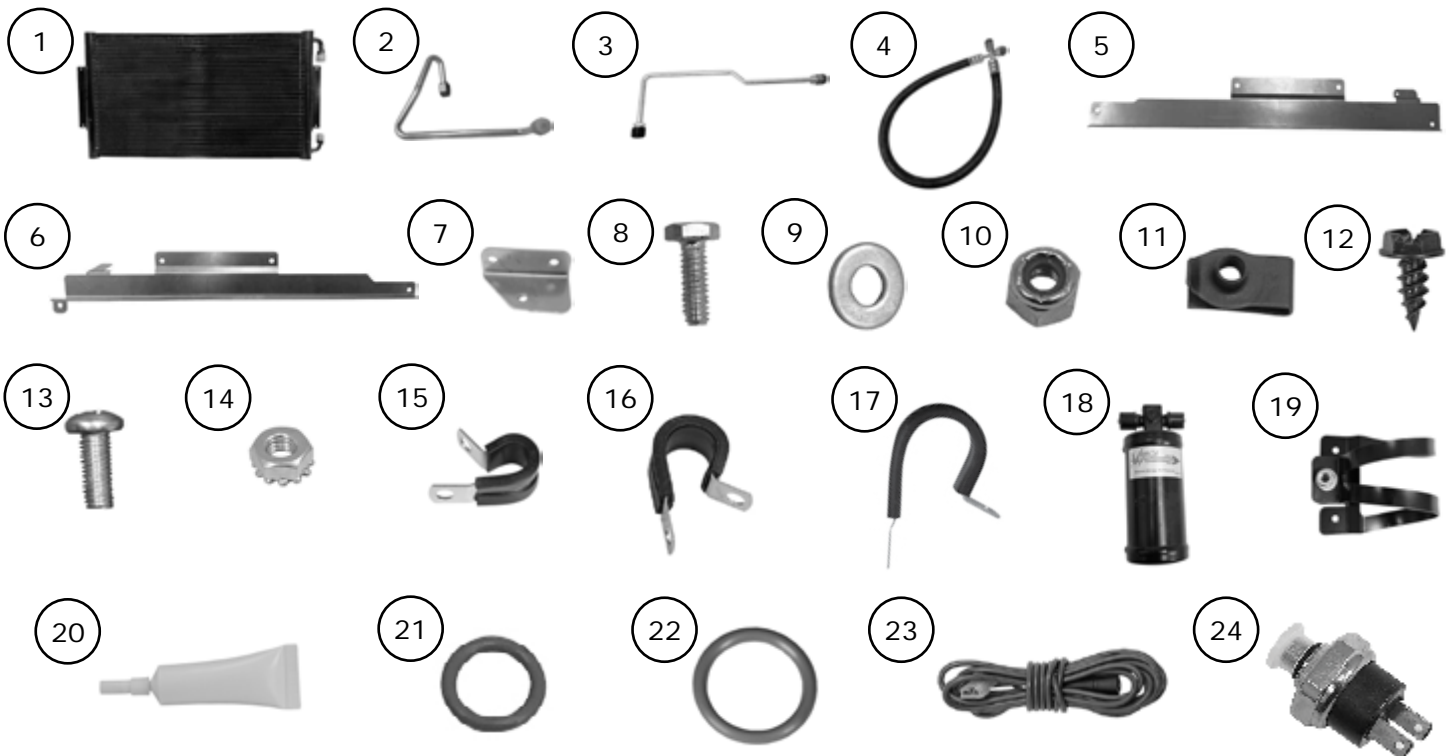


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## Packing List: Condenser Kit (011155)

No.	Qty.	Part No.	Description
1.	1	037035	Condenser, 14" x 25", Parallel Flow
2.	1	082100	Hardline, #8 Compressor/Condenser
3.	1	082101	Hardline, #6 Condenser/Drier
4.	1	082112	Hose, #6 A/C, Condenser/Drier
5.	1	649660	Bracket, Passenger-Side Condenser
6.	1	649661	Bracket, Driver-Side Condenser
7.	1	649666	Bracket, #8 Hardline
8.	8	182871	Bolt, 1/4-20 x 3/4", Hex
9.	14	186011	Washer, 9/32", Flat
10.	6	181490	Locknut, 1/4-20
11.	2	18978-VUB	U-nut, 1/4-20
12.	5	18247-VUB	Screw, #10 x 1/2", Sheet Metal
13.	2	18250-VUB	Screw, 10-32 x 1/2", Pan Head
14.	2	18251-VUB	Nut with Star Washer, 10-32
15.	1	31600-VUD	Adel Clamp, 3/8" I.D.
16.	2	31603-VUD	Adel Clamp, 1/2" I.D.
17.	1	31602-VUD	Adel Clamp, 3/4" I.D.
18.	1	07321-VUC	Drier
19.	1	071130	Clamp, Drier
20.	1	41117-VUP	Refrigerant Oil
21.	3	33857-VUF	O-ring, #6
22.	2	33858-VUF	O-ring, #8
23.	1	23135-VUW	Compressor Lead
24.	1	11079-VUS	Switch, Binary

**\*\* 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 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):

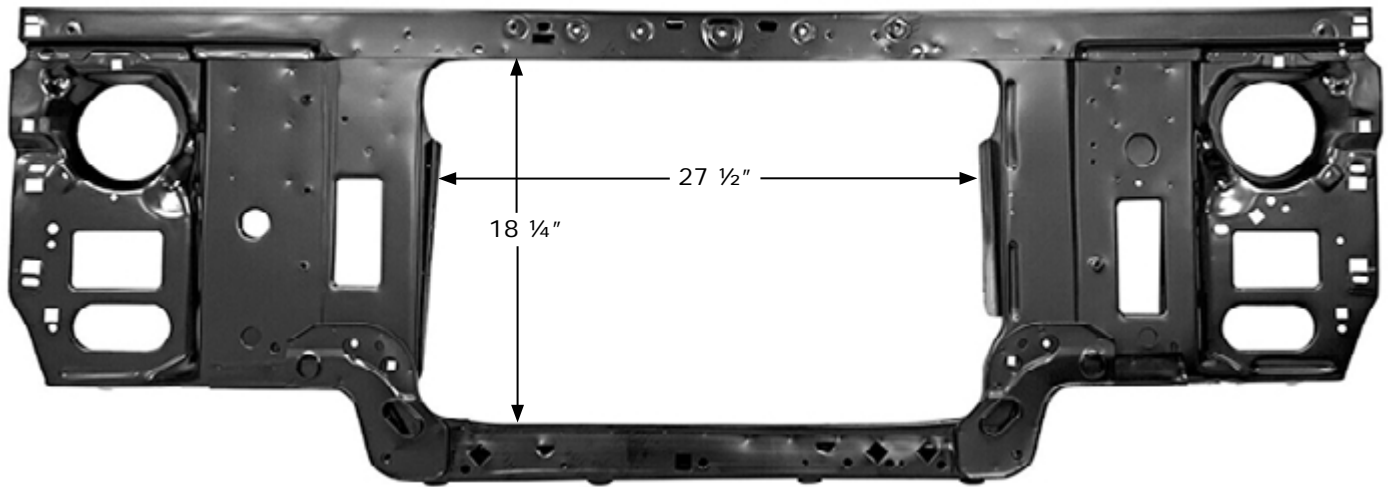
Heater hose may be purchased from Vintage Air (Part#31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.



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## Core Support Measurements

This kit was developed based on the measurements below, which were taken from a 1981 Ford Bronco V8 with factory air, a 1981 Ford Truck I6 with factory air, and a 1981 Ford Truck I6 without factory air.





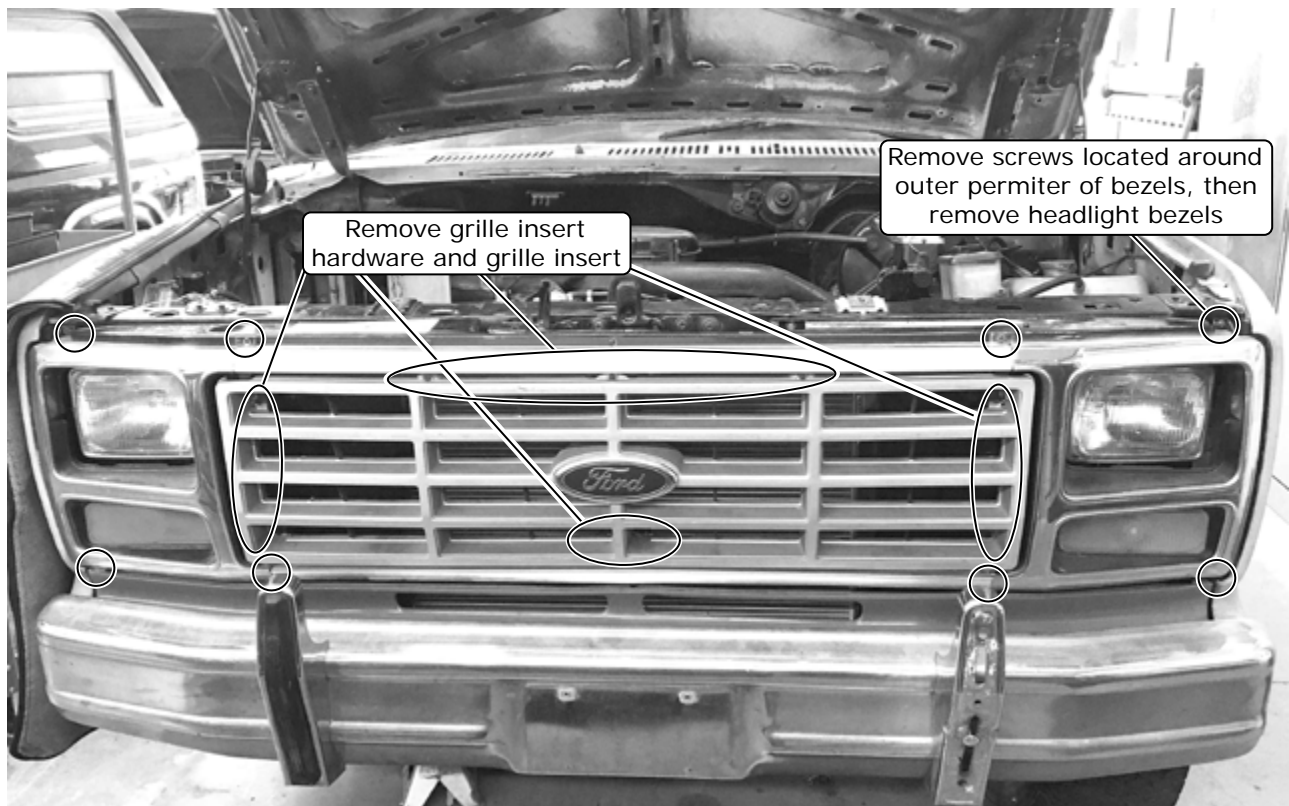
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## Engine Compartment Disassembly

**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.

### Perform the Following:

1. Disconnect the battery.
2. Evacuate the A/C system (if equipped).
3. Drain the radiator.
4. Unplug the turn signal bulbs from the headlight bezels.
5. Remove the grille insert. Screws are located across the top of the grille insert, along each side and on the bottom in the middle (See Photo 1, below).
6. Remove the screws located around the outer perimeter of the bezels to remove the headlight bezels (See Photo 1, below).



**Photo 1**



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## Engine Compartment Disassembly (Cont.)

7. Remove the top grille trim. Screws are located along the top edge (See Photo 2, below).
8. Remove the bottom grille trim. Screws are located at each end of the grille trim and in the middle (See Photo 2, below).
9. Remove the valance by removing (2) bolts on each side into the fenders and (3) screws in the middle (See Photo 2, below).
10. Remove the (2) bolts that hold the hood latch assembly to the grille support. **NOTE: The hood release cable will still be connected, just set the assembly out of the way (See Photo 3, below).**

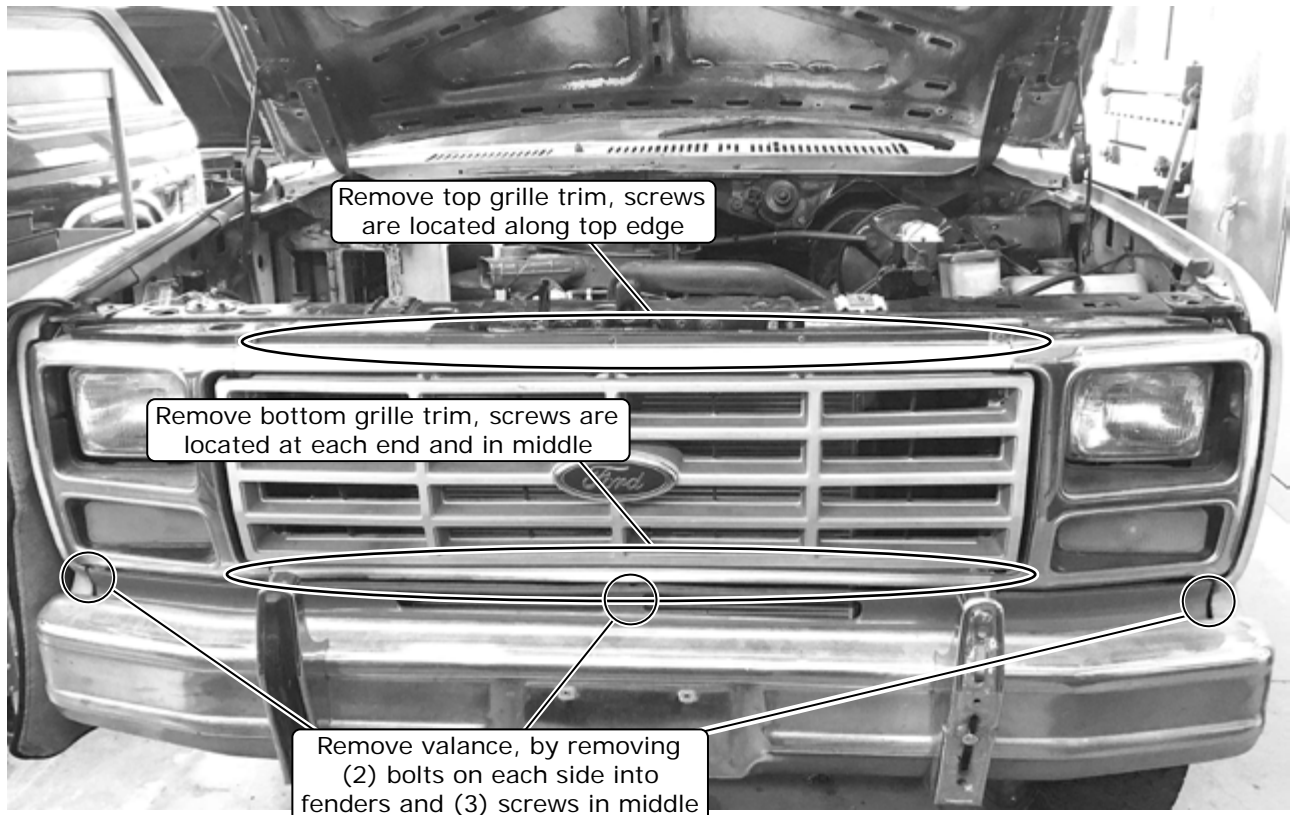


Photo 2

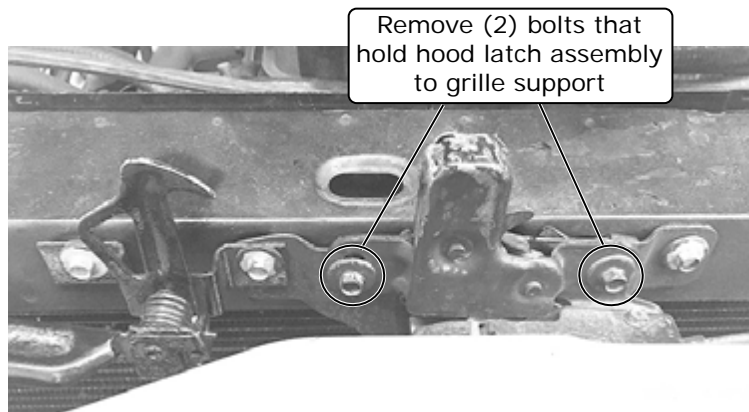


Photo 3



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## Engine Compartment Disassembly (Cont.)

11. Remove the bottom bolt from the grille support (See Photo 4, below).
12. Remove the (2) bolts for the secondary hood release, then remove the secondary hood latch (See Photo 5, below).
13. Remove the (2) remaining bolts, then maneuver the grille support out of the core support opening (See Photo 5, below).
14. Disconnect the A/C lines from the condenser. **NOTE: There is a connection on each side of the radiator (See Photos 6 and 7, below).**
15. Remove the (2) bolts that hold the radiator fan shroud onto the top of the radiator (See Photo 8, below). Pull up on the shroud slightly so the bottom of the shroud clears the lower radiator support channel, then push the shroud back towards the engine, away from the radiator.
16. Disconnect the upper and lower radiator hoses and transmission cooler lines (if so equipped).
17. Remove the upper radiator mounting brackets (See Photo 8, below), then raise the radiator up and out of the truck.

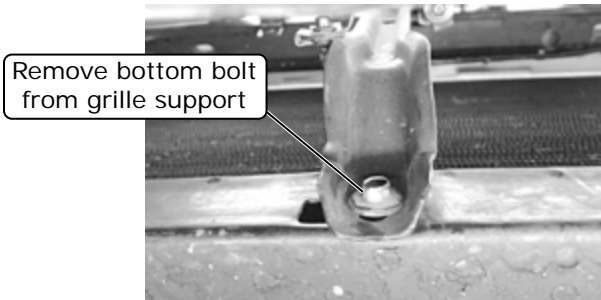


Photo 4

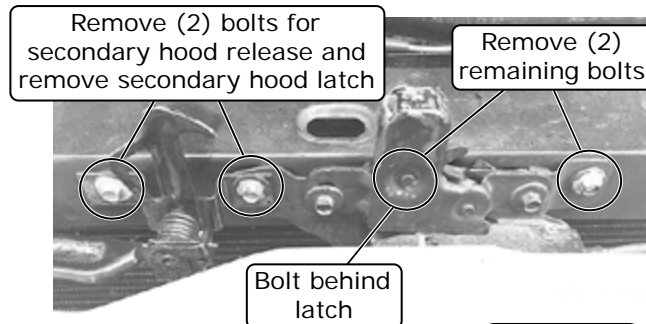


Photo 5

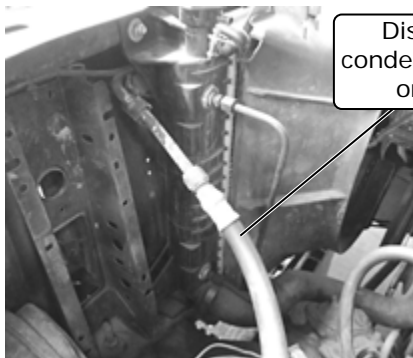


Photo 6



Photo 7

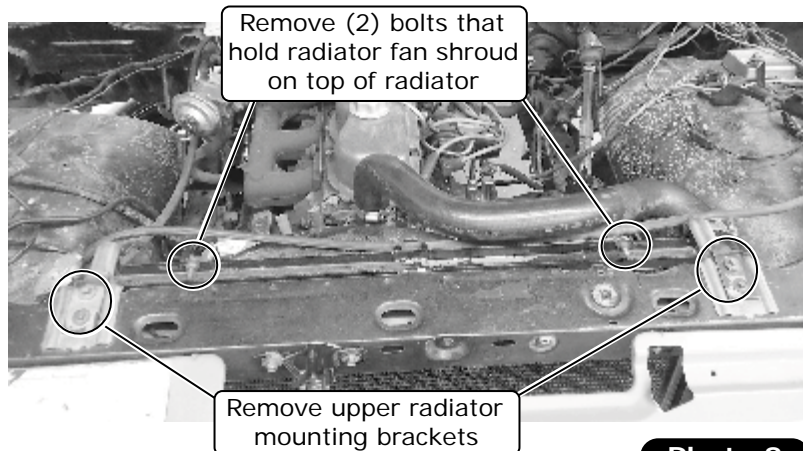


Photo 8





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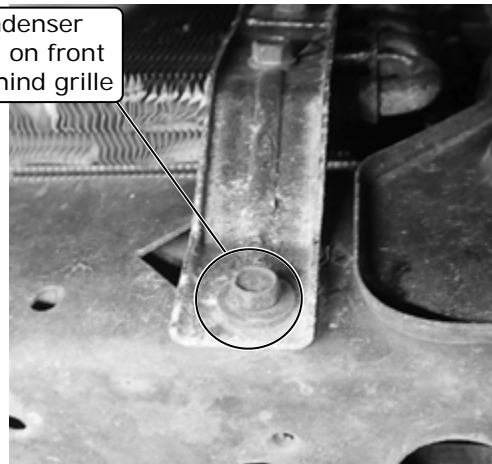
## Engine Compartment Disassembly (Final)

18. Remove the (2) lower condenser mounting bolts located on the front side of the core support, behind the grille (See Photos 9 and 10, below).
19. Remove the (2) upper condenser mounting bolts (See Photos 11 and 12, below). Tilt the condenser back towards the engine to clear the top of the core support, then lift the condenser up and out of the truck.

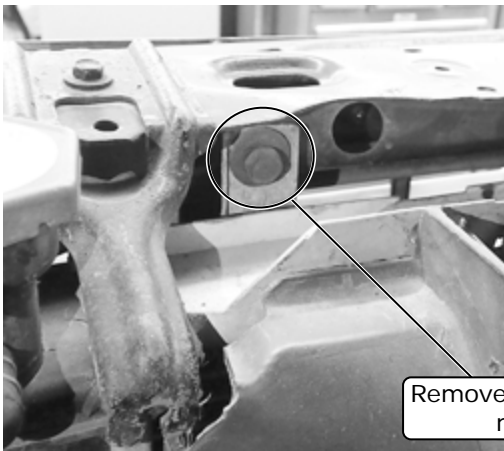


Remove (2) lower condenser mounting bolts, located on front side of core support, behind grille

**Photo 9**

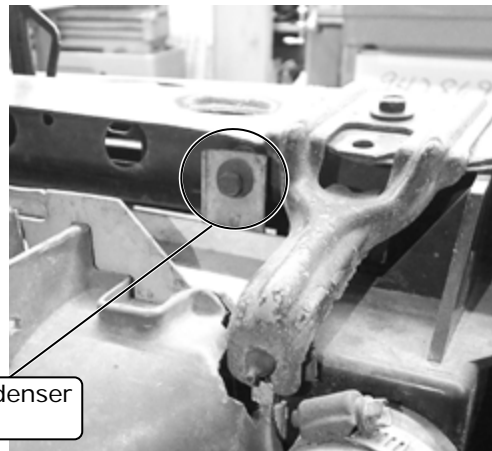


**Photo 10**



Remove (2) upper condenser mounting bolts

**Photo 11**



**Photo 12**



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## Mounting Bracket Installation

1. Place the condenser on a flat working surface with the mounting surfaces facing up. The inlet and outlet of the condenser should be on the right hand side.
2. Attach the passenger- and driver-side condenser brackets loosely to the condenser using (4) 1/4-20 x 3/4" hex bolts, (4) 1/4-20 locknuts, and (8) 9/32" flat washers (See Photo 1, below). **NOTE: The bolt head should be on the condenser side and the nut should be on the bracket side.**

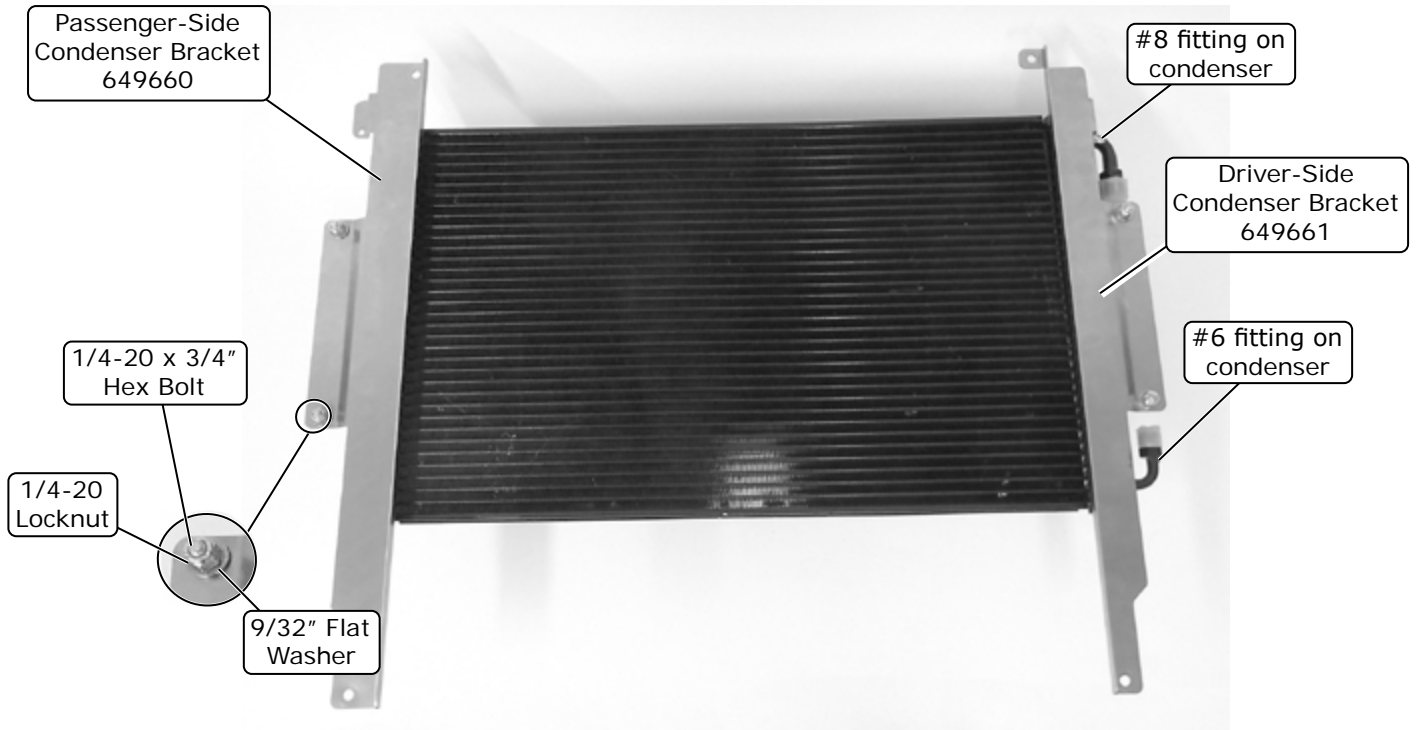
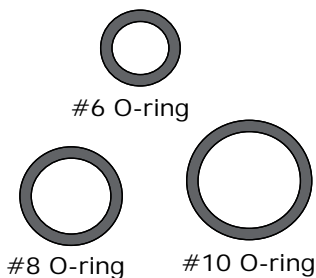
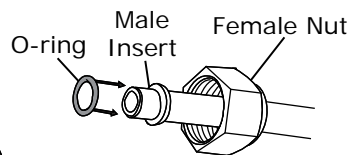


Photo 1

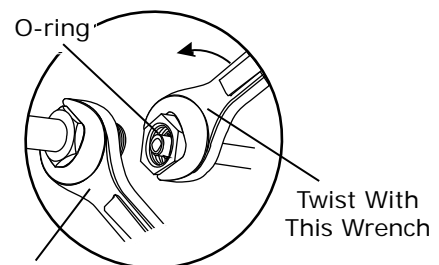
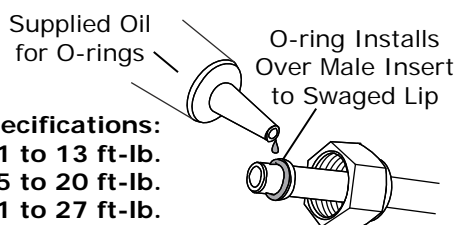
## Lubricating O-rings



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



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



Hold With This Wrench

Twist With This Wrench



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## Hardline Installation

1. Flip the condenser over so that the brackets are facing down and the inlet and outlet are on the right hand side. Lubricate a #8 O-ring (See Lubricating O-rings, Page 10) and install it onto the #8 compressor/condenser hardline. Connect the hardline to the #8 fitting on the condenser.
2. Lubricate a #6 O-ring (See Lubricating O-rings, Page 10) and install it onto the #6 condenser/drier hardline. Connect the hardline to the #6 fitting on the condenser.
3. Using a 3/8" I.D. and 1/2" I.D. Adel clamp, attach the #6 condenser/drier hardline and #8 compressor/condenser hardline to the tab on the driver-side bracket using a #10 x 1/2" sheet metal screw (See Photo 1, below).
4. Lubricate a #6 O-ring, (See Lubricating O-rings, Page 10), then connect the straight fitting end of the #6 condenser/drier A/C hose to the #6 condenser/drier hardline (See Photo 2, below). **NOTE: Ensure the fitting on the other end of the hose is pointing down to allow it to line up with the drier, when installed later.**

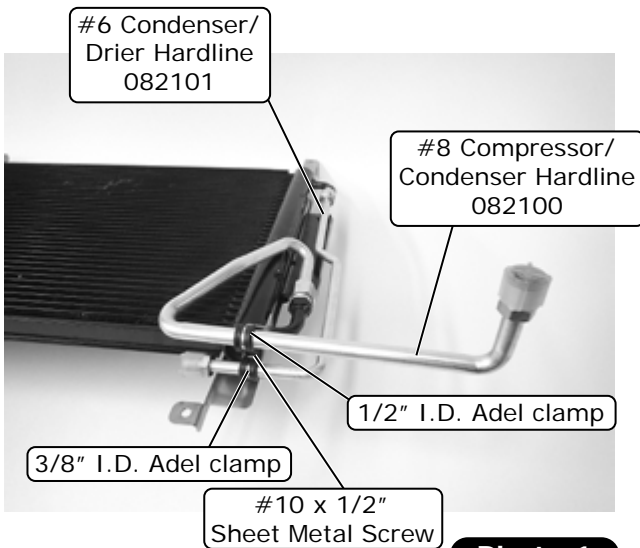


Photo 1

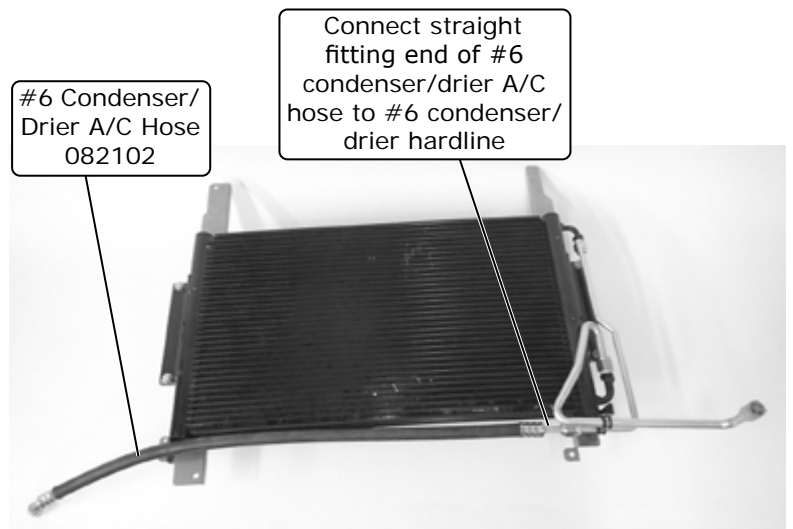


Photo 2

## Condenser Installation

1. Remove the factory U-nuts from the (2) outer condenser mounting locations (if present). Install the (2) 1/4-20 U-nuts in the same locations (See Photo 1, below), on the outer most holes on the driver and passenger sides.

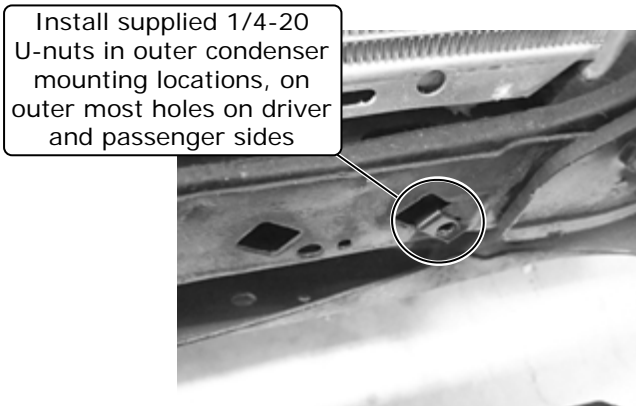


Photo 1



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## Condenser Installation (Cont.)

2. Remove the driver-side top radiator mount and push the top corner of the radiator back to provide clearance to route the #8 compressor/condenser hardline (See Photo 2, below).
3. Install (2) 1/4-20 x 3/4" hex bolts with 9/32" flat washers into the holes on the core support (See Photo 3, below). **NOTE: Install bolts from the backside, with the threads of the bolts pointing forward.**
4. Position the condenser assembly in place by feeding the bottom of the mounting brackets behind the front bumper. Move the assembly towards the passenger side until the #8 compressor/condenser hardline can clear the edge of the core support opening. Route the hardline through the opening between the radiator and the core support. Leave the #6 condenser/drier A/C hose hanging in front of the condenser (See Photo 4, below).
5. Secure the condenser assembly mounting bracket onto one of the previously installed 1/4-20 x 3/4" hex bolts, then install the 9/32" flat washer and 1/4-20 locknut loosely. Install the other side onto the remaining 1/4-20 x 3/4" hex bolt, then loosely install the 9/32" flat washer and 1/4-20 locknut (See Photo 5, below).

Push top corner of radiator back to provide clearance to route #8 compressor/condenser hardline

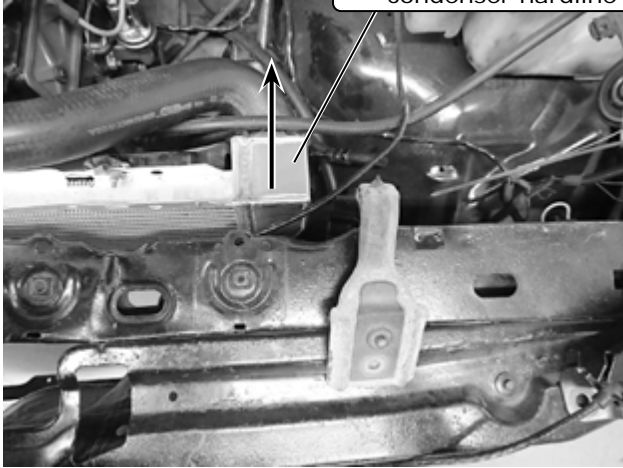
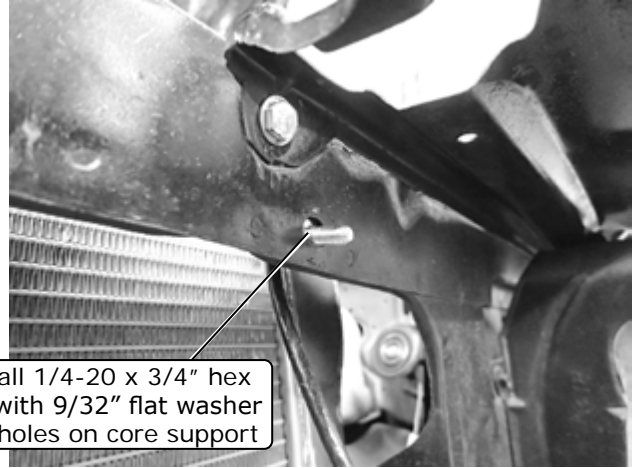


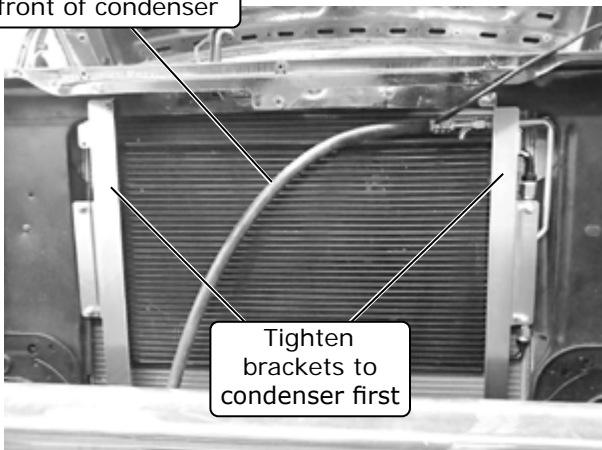
Photo 2



Install 1/4-20 x 3/4" hex bolt with 9/32" flat washer into holes on core support

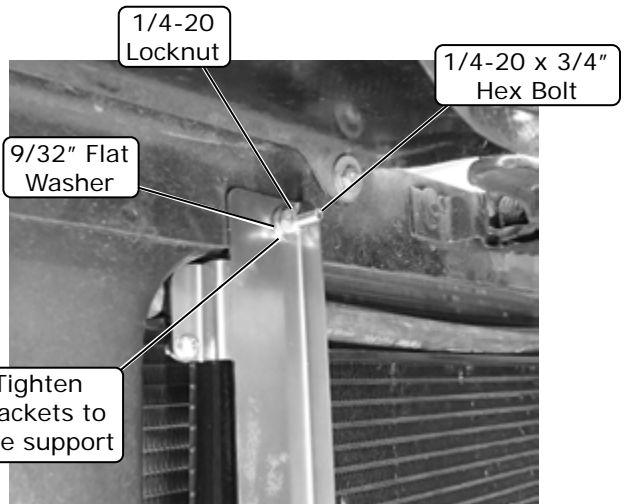
Photo 3

Leave #6 condenser/drier A/C hose hanging in front of condenser



Tighten brackets to condenser first

Photo 4



Tighten brackets to core support

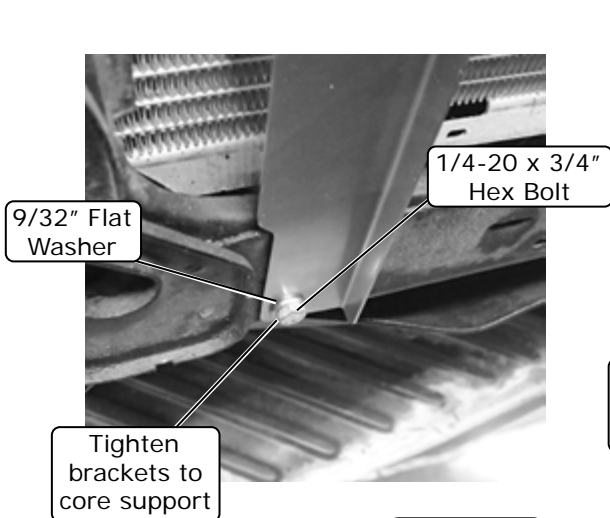
Photo 5



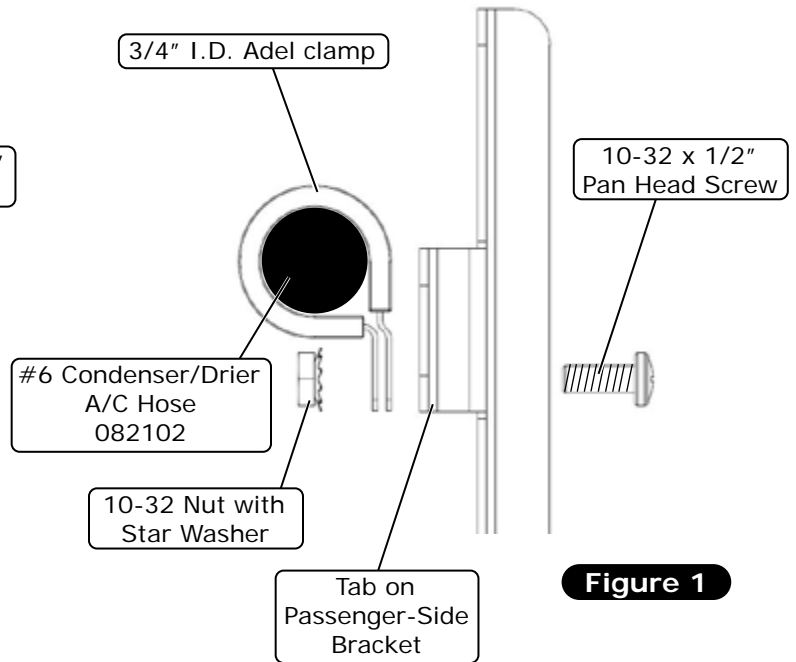
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## Condenser Installation (Final)

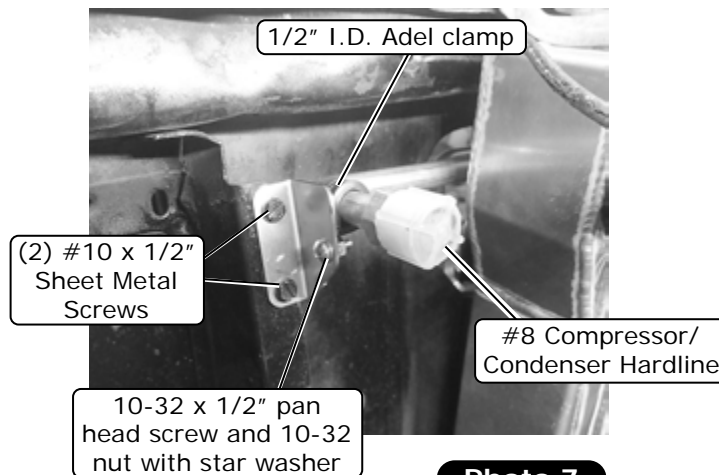
6. Using a 9/32" flat washer and a 1/4-20 x 3/4" hex bolt, insert bolt through the mounting bracket and into the previously installed U-nuts at the bottom of the core support (See Photo 6 below).
7. The mounting hardware can be fully tightened at this time. First tighten the brackets to the condenser (See Photo 4, Page 12), then the brackets to the core support (See Photo 5, Page 12 and Photo 6, below). Reinstall the driver-side upper radiator mount.
8. Route the #6 condenser/drier A/C hose through the opening between the core support and the radiator. Secure the hose to the tab on the passenger-side bracket using a 3/4" I.D. Adel clamp, 10-32 x 1/2" pan head screw and a 10-32 nut with star washer (See Figure 1, below).
9. Position a 1/2" I.D. Adel clamp on the end of the #8 compressor/condenser hardline, then loosely secure it to the #8 hardline bracket using a 10-32 x 1/2" pan head screw and a 10-32 nut with star washer. Position the bracket on the flange of the core support brace and clamp in place. Using the bracket as a template, drill (2) 9/64" mounting holes. Secure the bracket to the core support using (2) #10 x 1/2" sheet metal screws. Tighten the screws to secure the 1/2" I.D. Adel clamp (See Photo 7, below).



**Photo 6**



**Figure 1**



**Photo 7**



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## Drier and 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. 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. Do not tighten the drier clamp hardware at this time.**
2. 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.**
3. Thread the binary switch onto the drier (See Photo 2, below). **NOTE: Install the binary switch on the drier port, that when installed on the truck, is towards the core support and the inlet marked with "IN", is pointing to the driver side.**
4. Lubricate a #6 O-ring and connect the #6 condenser/drier A/C hose coming from the condenser to the "IN" port of the drier (See Photo 3, below).
5. Position the drier and clamp so that the mounting pads of the clamp sit on the flange of the core support brace and the bottom of the drier, about a 1/2" above the brace for the inner fender. Use a clamp to hold the drier clamp and drier assembly in place, then use it as a template to drill (2) 9/64" mounting holes. Secure the drier assembly using (2) #10 x 1/2" sheet metal screws (See Photo 3, below). **NOTE: Drier clamp hardware can be fully tightened at this time.**

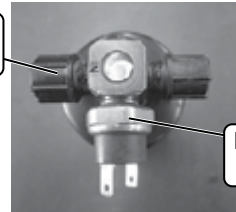
Male Binary Switch  
11079-VUS

Lubricate  
O-ring



Photo 1

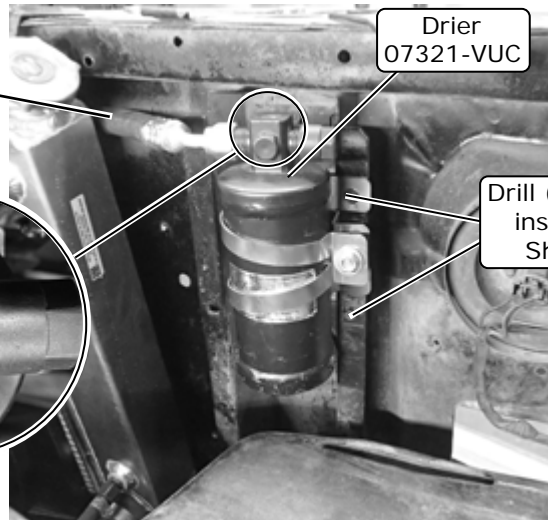
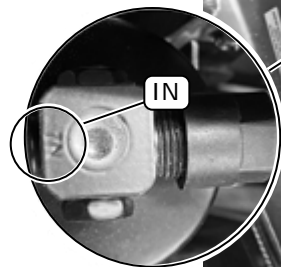
Drier  
07321-VUC



Install male binary  
switch on drier

Photo 2

#6 Condenser/  
Drier A/C Hose



Drier  
07321-VUC

Drill (2) 9/64" holes, then  
install (2) #10 x 1/2"  
Sheet Metal Screws

Photo 3

## Final Steps

1. Reinstall and/or reconnect all remaining items removed or disconnected in these instructions. This concludes the condenser kit portion of your installation.



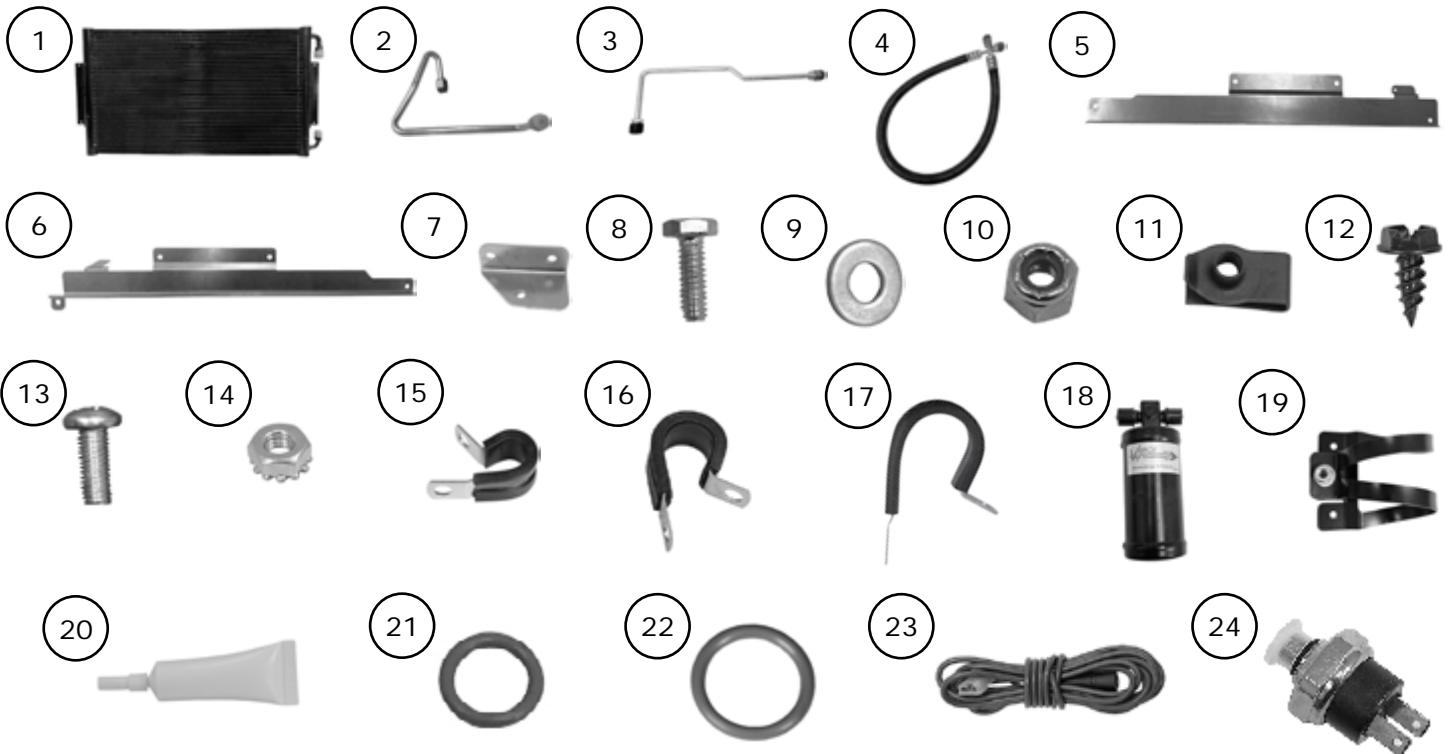


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## Packing List: Condenser Kit (011155)

No.	Qty.	Part No.	Description
1.	1	037035	Condenser, 14" x 25", Parallel Flow
2.	1	082100	Hardline, #8 Compressor/Condenser
3.	1	082101	Hardline, #6 Condenser/Drier
4.	1	082112	Hose, #6 A/C, Condenser/Drier
5.	1	649660	Bracket, Passenger-Side Condenser
6.	1	649661	Bracket, Driver-Side Condenser
7.	1	649666	Bracket, #8 Hardline
8.	8	182871	Bolt, 1/4-20 x 3/4", Hex
9.	14	186011	Washer, 9/32", Flat
10.	6	181490	Locknut, 1/4-20
11.	2	18978-VUB	U-nut, 1/4-20
12.	5	18247-VUB	Screw, #10 x 1/2", Sheet Metal
13.	2	18250-VUB	Screw, 10-32 x 1/2", Pan Head
14.	2	18251-VUB	Nut with Star Washer, 10-32
15.	1	31600-VUD	Adel Clamp, 3/8" I.D.
16.	2	31603-VUD	Adel Clamp, 1/2" I.D.
17.	1	31602-VUD	Adel Clamp, 3/4" I.D.
18.	1	07321-VUC	Drier
19.	1	071130	Clamp, Drier
20.	1	41117-VUP	Refrigerant Oil
21.	3	33857-VUF	O-ring, #6
22.	2	33858-VUF	O-ring, #8
23.	1	23135-VUW	Compressor Lead
24.	1	11079-VUS	Switch, Binary

Checked By: \_\_\_\_\_  
Packed By: \_\_\_\_\_  
Date: \_\_\_\_\_



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