



1987-95 Jeep YJ

Condenser Kit *with* Drier
(051005)



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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.



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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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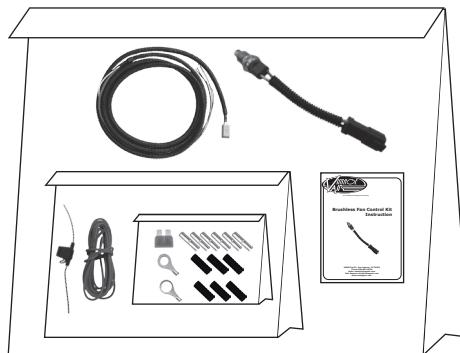
Additional Components

To ensure the air conditioning system operates at its best, Vintage Air recommends upgrading to a brushless electric cooling fan. The additional heat introduced by the A/C system—especially at idle and low vehicle speeds—benefits from improved airflow through the radiator and condenser. A brushless electric fan delivers more consistent and efficient airflow than traditional mechanical or brushed fans, helping stabilize engine temperatures and improve A/C performance. This fan includes four flaps that optimize airflow, closing at low speeds for better cooling and opening at higher speeds to reduce restriction. This upgrade supports long-term reliability, protects the performance of the A/C system, and reduces the likelihood of overheating in traffic or warm conditions. This recommendation aligns with Vintage Air's guidelines for achieving optimal cooling performance and system longevity.

- This kit was developed using the OEM Radiator. If using an aftermarket radiator, modifications to the shroud may be necessary. Before purchasing the fan and shroud assembly, verify shroud and mounting hole dimensions shown in Brushless Fan instructions.
- A trinary switch (11086-VUS) must be used when installing an electric fan in an A/C equipped vehicle.
- This kit requires the purchase of a fan controller rated for the engine thermostat setting. The controller is not included in this kit due to engine swaps or upgraded settings on OEM.
- The OEM thermostast for the 1987-95 Jeep YJ is 195°, therefore the 500 watt 195° controller kit is recommended (Vintage Air Part # 113014).
- Vintage Air also offers 500 watt 165° thermostast controller kit (113016) and 500 watt 180° thermostast controller kit (113015) (As written above).



1987-95 Jeep YJ
16" LoPro 500-Watt
Brushless Fan/Shroud Kit
372035
(SOLD SEPARATELY)



195° Thermostat
500-Watt Brushless Fan
Controller Kit
113014
(SOLD SEPARATELY)

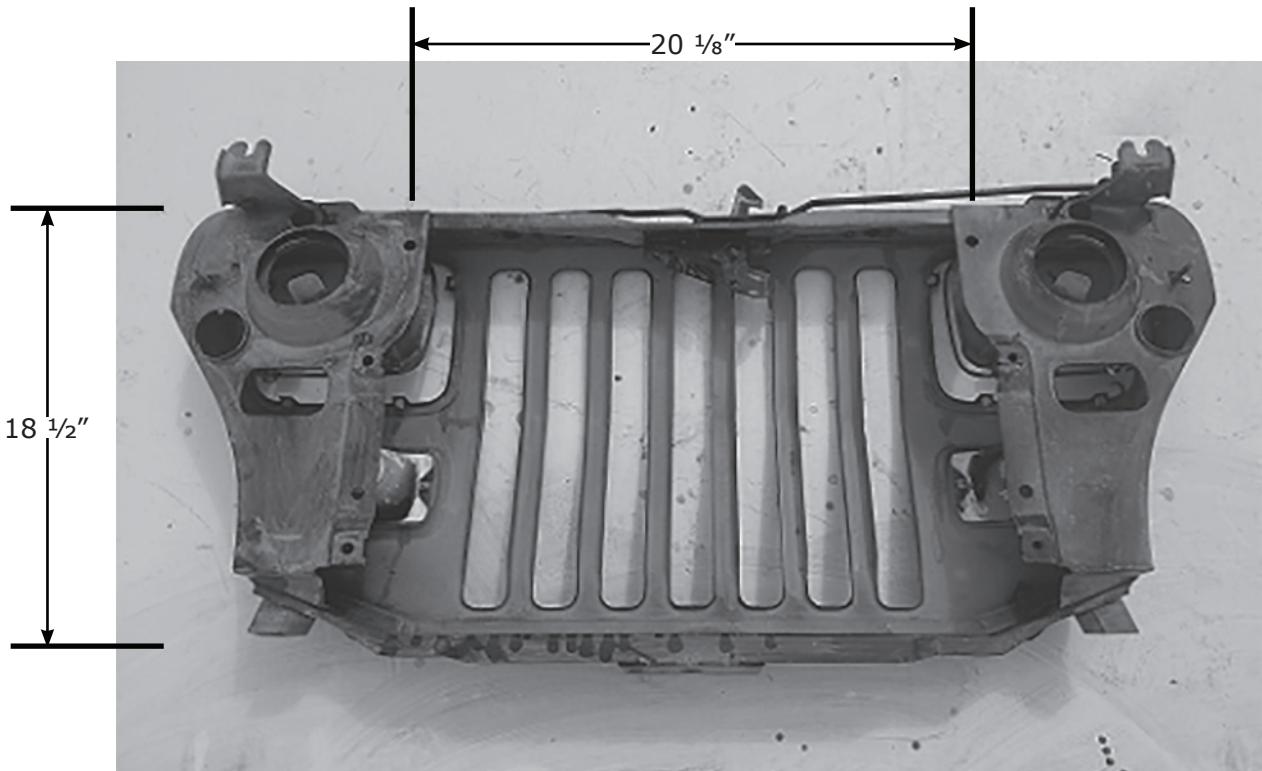


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Core Support Measurements

1. Dimensions shown below are approximated. **NOTE: These are core dimensions. The radiator and the mounting brackets are larger, and overall radiator sizes will vary depending on the manufacturer and specific design features (e.g. number of rows or integrated transmission coolers).**

This kit was developed based on the measurements below, which were taken from a 1994 Jeep YJ 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, photos & diagrams.

Perform the following:

1. Disconnect the battery (See Photo 1, below).
2. Drain the radiator.
3. Remove the upper radiator hose (See Photo 2, below).
4. Remove the cooling fan and shroud (retain) (See Photo 3, below).
5. Remove the lower radiator hose.
6. Remove the radiator.
7. Remove the hood latch assembly bolt and retain it (See Photo 4, below). **NOTE: This will be used to mount the top of the condenser.**

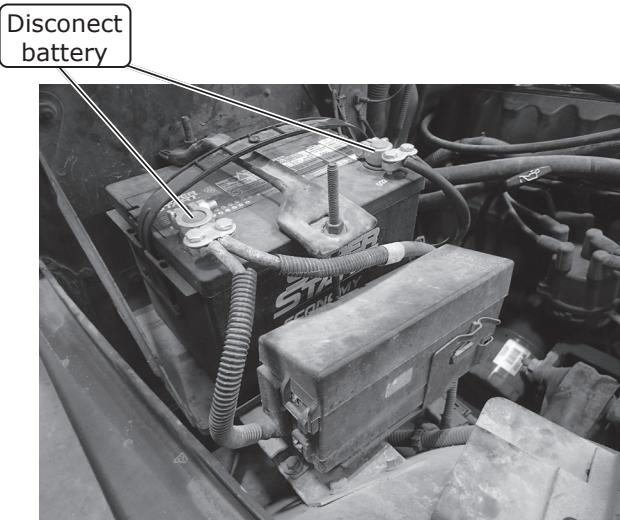


Photo 1

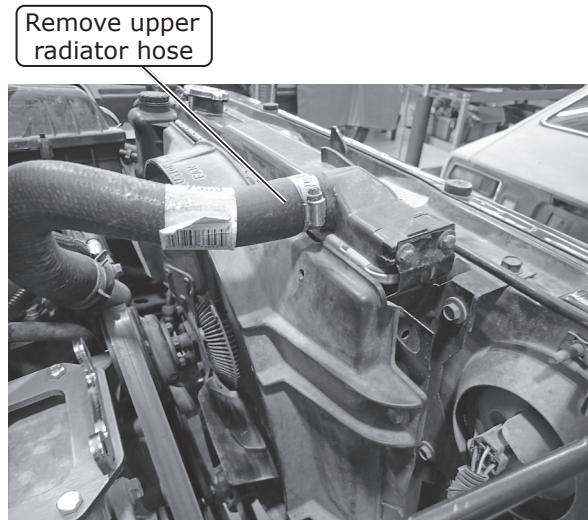


Photo 2

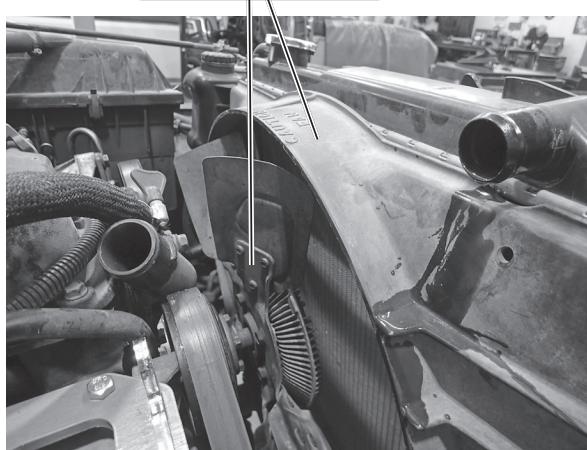


Photo 3



Photo 4



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Core Support Modification

1. Remove the (6) OEM radiator mounting U-nuts (discard), then install (6) 5/16" U-nuts onto the core support radiator mounting brackets as shown in Photo 1, below.
2. Install (4) 5/16-18 x 1" full-threaded studs into the (4) 5/16" U-nuts (See Photo 2, below).

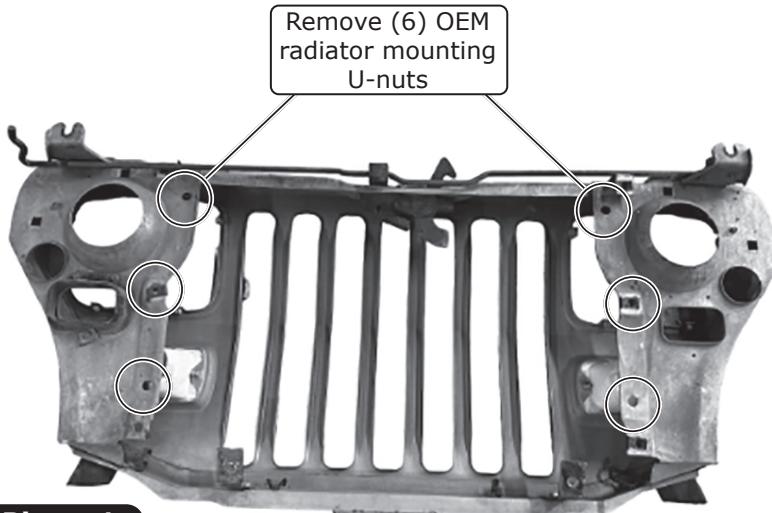


Photo 1

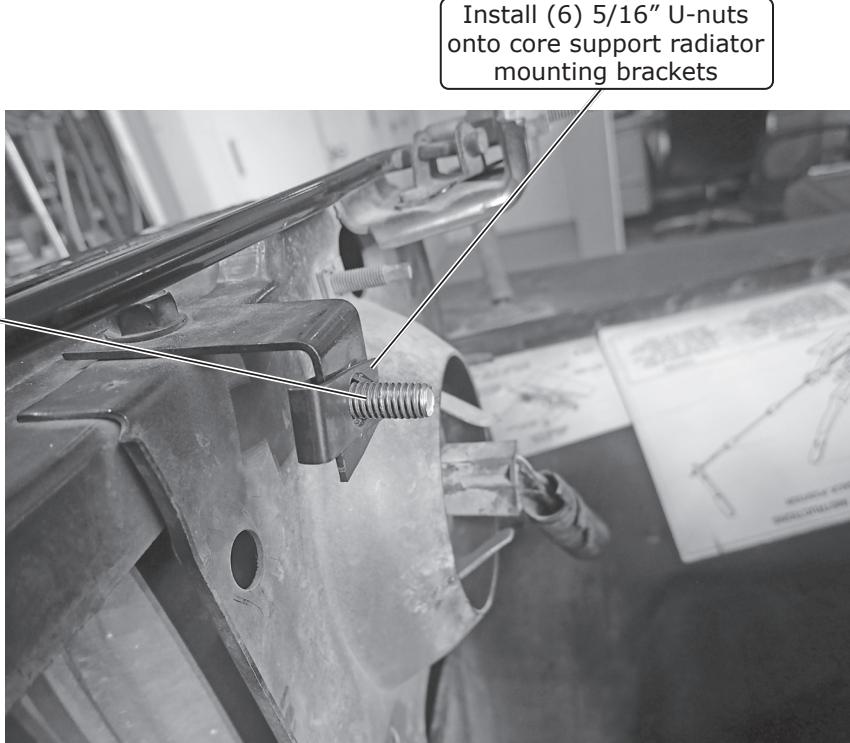


Photo 2

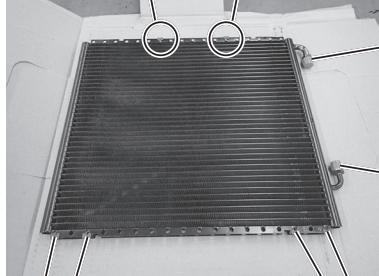


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Condenser Mounting Bracket Installation

1. Install (2) #8 J-nuts onto the top of the condenser in the 7th and 13th mounting holes from the left as shown in Photo 1, below.
2. Install (4) #8 J-nuts onto the bottom of the condenser in the 1st, 3rd, 16th and 18th mounting holes from the left (See Photo 1, below).
3. Secure the center condenser bracket to the condenser using (2) #8 x 1/2" pan head screws (See Photo 2, below).
4. Place (2) 3/16" x 1/2" flat washers on the 1st and 3rd mounting #8 J-nuts (See Photo 3, below), then install the driver-side condenser bracket using (2) #8 x 1/2" pan head screws (See Photos 5, below).
5. Place (2) 3/16" x 1/2" flat washers on the 16th and 18th mounting #8 J-nuts (See Photo 4, below), then install the passenger-side condenser bracket using (2) #8 x 1/2" pan head screws (See Photo 6, below).

Install (2) #8 J-nuts onto top of condenser in 7th and 13th mounting holes from left

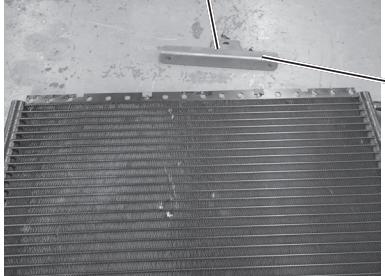


#8 Fitting

#6 Fitting

Photo 1

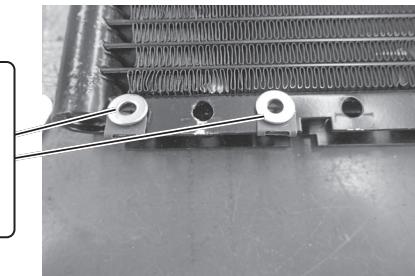
Secure center condenser bracket to condenser using (2) #8 x 1/2" pan head screws



Center Condenser Bracket 643283

Photo 2

Install (4) J-nuts onto condenser in 1st, 3rd, 16th and 18th mounting holes from left



Place (2) 3/16" x 1/2" flat washers on 1st and 3rd mounting #8 J-nuts

Photo 3

Place (2) 3/16" x 1/2" flat washers on 16th and 18th mounting #8 J-nuts

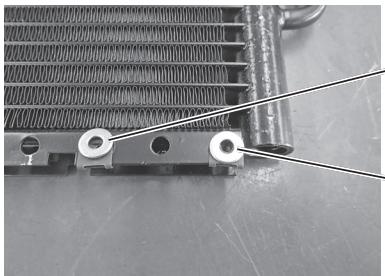
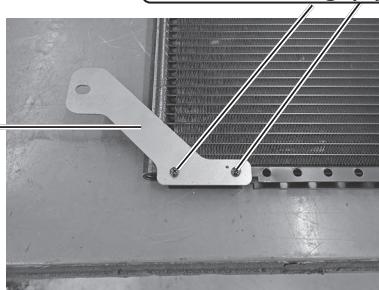
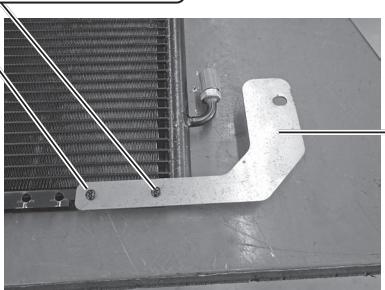


Photo 4

Install driver-side and passenger-side condenser brackets using (4) #8 x 1/2" pan head screws



Driver-Side Condenser Bracket 643282



Passenger-Side Condenser Bracket 643281

Photo 5

Photo 6



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Condenser Installation

1. Install the driver-side and passenger-side condenser brackets over the 5/16-18 x 1" full-threaded studs on the core support (See Photos 1 and 2, below).
2. Secure the center condenser bracket with the OEM hood latch bolt (See Photo 3, below).

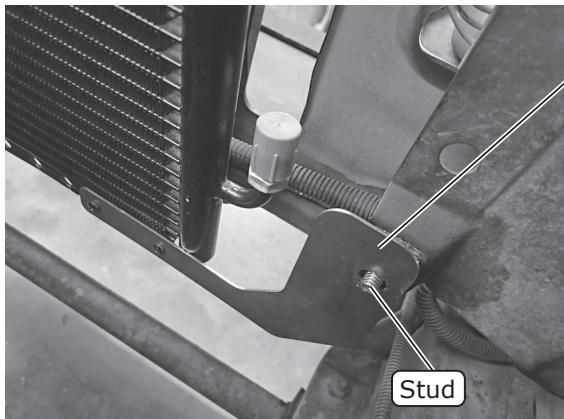


Photo 1

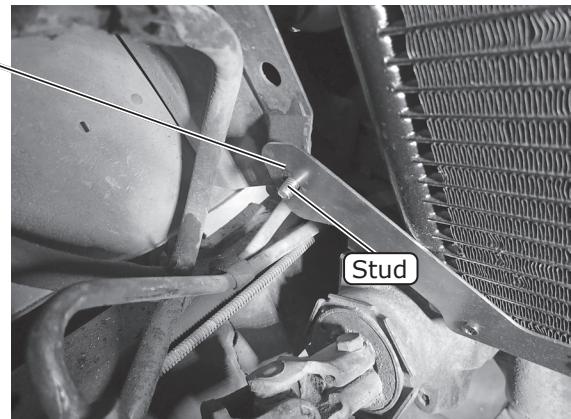


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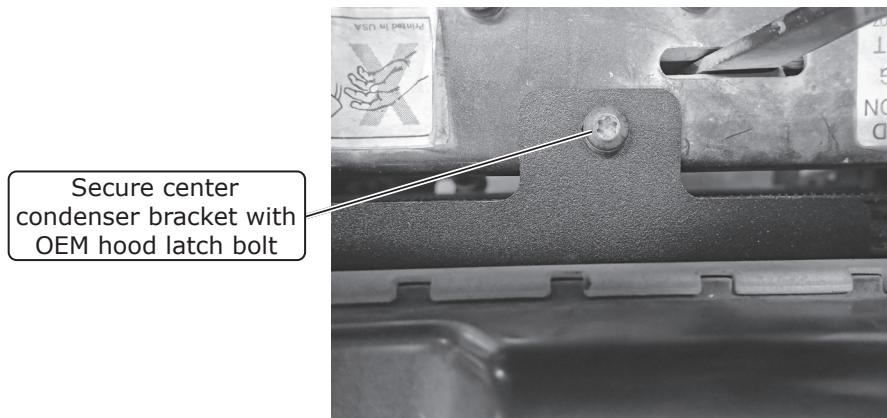
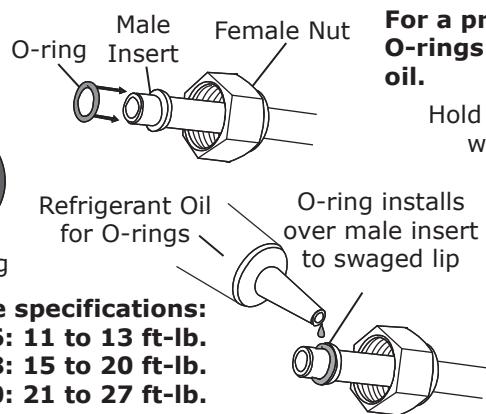
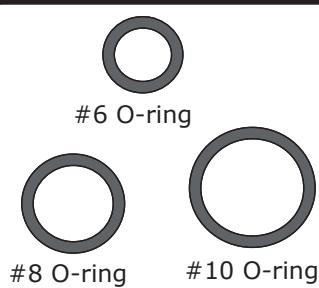


Photo 3

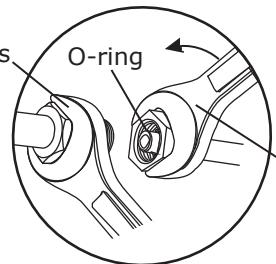
Lubricating O-rings & Fitting Torque Specs



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 refrigerant oil.

Hold with this wrench



Twist with this wrench

The use of a backup wrench is recommended to reduce the chance of damaging the fittings/hardline.



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Hardline and Drier Installation

NOTE: Drier contains a desiccant that will quickly absorb moisture from the atmosphere and can lose effectiveness in less than 30 minutes. Remove caps and plugs only long enough to install safety switch and hardlines onto a sealed condenser assembly. Do not uncap again until ready to connect hoses and evacuate system before charging. Use backup wrenches when tightening these connections to avoid damaging the condenser fittings.

1. With a properly lubricated #8 O-ring (See Lubricating O-rings & Fitting Torque Specs, Page 9), route the #8 condenser/compressor hardline through the core support and connect it to the #8 condenser fitting (See Photo 1, below).
2. With a properly lubricated #6 O-ring (See Lubricating O-rings & Fitting Torque Specs, Page 9), route the #6 condenser/drier hardline through the core support and connect it to the #6 condenser fitting (See Photo 2, below).
3. Place the drier into the drier clamp as shown in Photo 3, below.
4. Using a properly lubricated #6 O-ring (See Lubricating O-rings & Fitting Torque Specs, Page 9), loosely connect the #6 condenser/drier hardline to the drier (See Photo 4, below). Take note of the flow arrow.

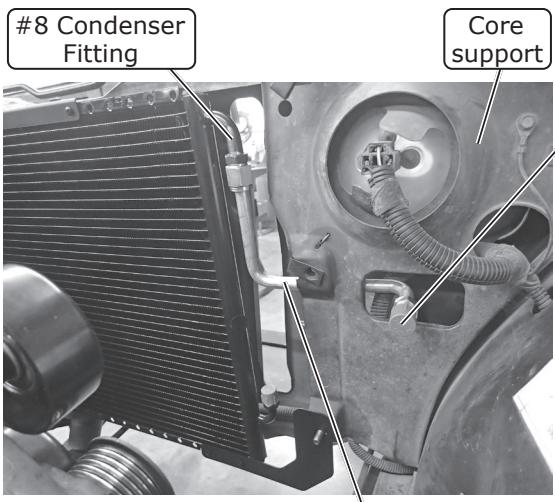


Photo 1

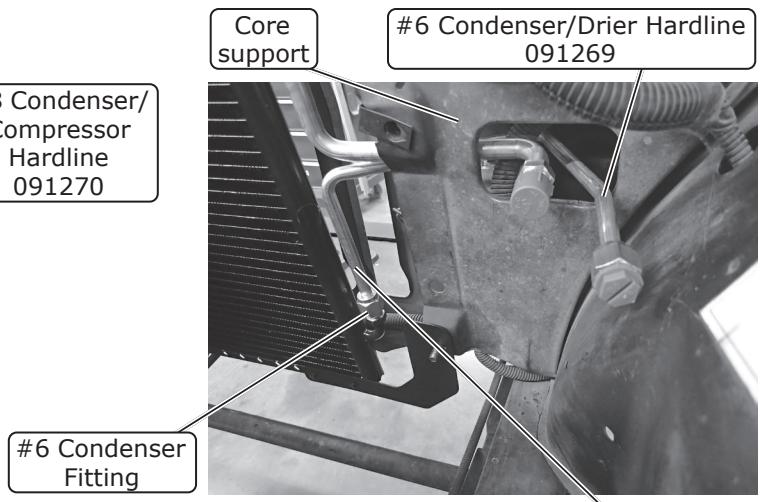


Photo 2



Photo 3



Photo 4



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Hardline and Drier Installation (Cont.)

5. Place the drier clamp against the inner fender and mark the (2) mounting holes of the clamp (See Photo 5, below). Remove the drier and drier clamp. Recap the drier.
6. Drill the (2) mounting holes using a 7/32" drill bit (See Photo 6, below).
7. Uncap the drier and loosely reconnect the #6 hardline, then secure the drier clamp to the inner fender using (2) 10-32 x 1/2" pan head screws and (2) 10-32 nuts with star washers (See Photo 7, below).
8. Adjust the drier in the drier clamp so there is no stress on the hardline, then tighten the clamp hardware. Tighten the hardline to the condenser and the drier connections.

Place drier clamp against inner fender and mark (2) mounting holes of clamp

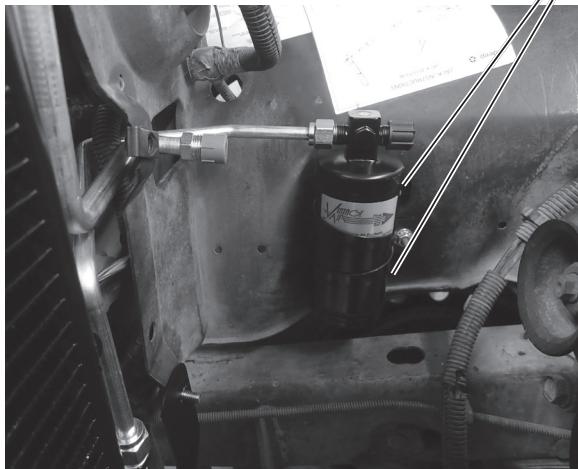


Photo 5

Drill (2) mounting holes using a 7/32" drill bit

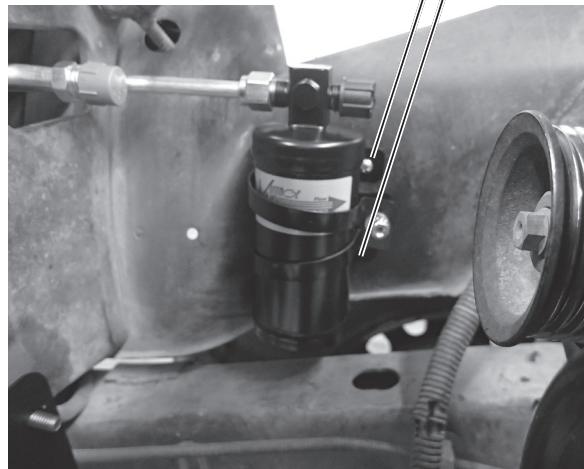


Photo 6

Loosely connect #6 hardline to drier

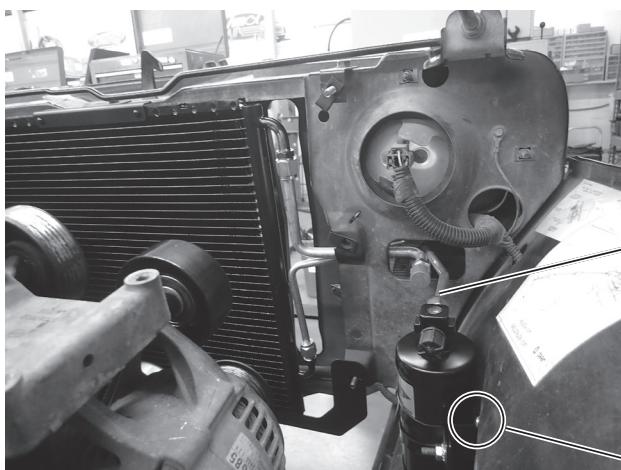


Photo 7

Secure drier clamp to inner fender using (2) 10-32 x 1/2" pan head screws and (2) 10-32 nuts with star washers



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Binary Switch Installation

NOTE: The binary safety switch is used on mechanical fan applications. If your vehicle is equipped with electric fans, a trinary safety switch will need to be installed. When installing the binary switch use the O-ring that is supplied on the switch.

1. Remove the drier plug from the drier, and with a properly lubricated O-ring (See Lubricating O-rings & Fitting Torque Specs, Page 9), install the binary safety switch onto the drier (See Photos 1 and 2, below).
2. Install the binary switch boot onto the binary switch (See Photo 3, below)



Photo 1



Photo 2

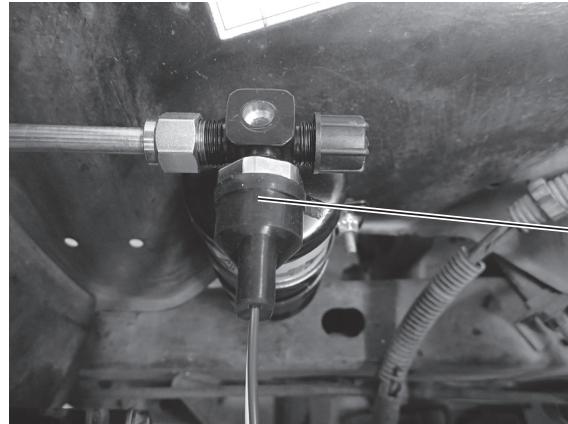


Photo 3



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Final Steps

1. Install the radiator over the 5/16-18 x 1" full-threaded studs, then install (2) 5/16-18 x 1" hex bolts into the center radiator mounts as shown in Photo 1, below.
2. Replace the remaining 5/16-18 x 1" full-threaded studs with the supplied 5/16-18 x 1" hex bolts.
3. Reinstall and/or reconnect all remaining items removed or disconnected in the Engine Compartment Disassembly instructions on Page 6.

Install the radiator over 5/16-18 x 1 full-threaded studs, then install (2) 5/16-18 x 1" hex bolts into center radiator mounts

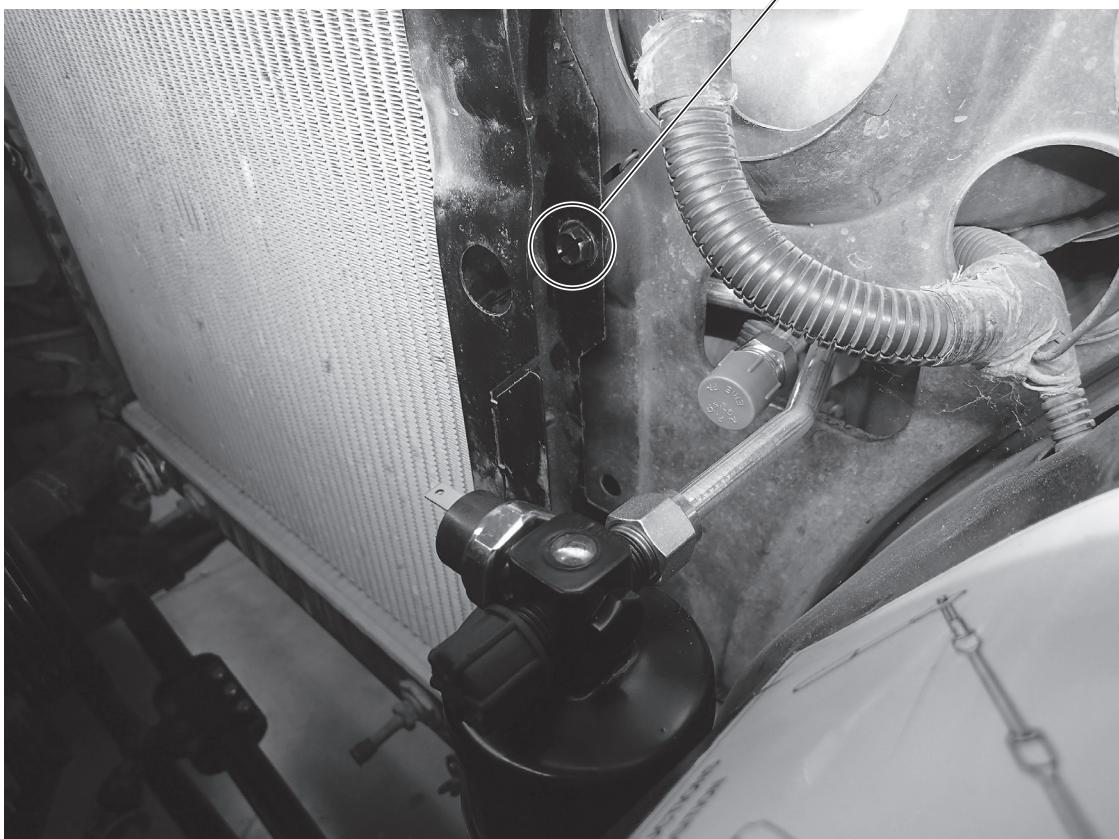


Photo 1



Packing List: Condenser Kit (051005)

O-rings/Refrigerant Oil

	Qty		Part No	Description
	1	<input type="checkbox"/>	11079-VUS	Binary Switch, Male
	1	<input type="checkbox"/>	110790	Boot, Binary Switch
	4	<input type="checkbox"/>	180881	Stud, 5/16-18 x 1", Full-Threaded
	4	<input type="checkbox"/>	18123-VUB	Washer, 3/16" x 1/2", Flat
	6	<input type="checkbox"/>	18235-VUB	Screw, #8 x 1/2", Pan Head
	2	<input type="checkbox"/>	18250-VUB	Screw, 10-32 x 1/2", Pan Head
	2	<input type="checkbox"/>	18251-VUB	Nut with Star Washer, 10-32
	6	<input type="checkbox"/>	18308-VUB	Bolt, 5/16-18 x 1", Hex
	6	<input type="checkbox"/>	18977-VUB	U-nut, 5/16"
	6	<input type="checkbox"/>	18979-VUB	J-Nut, #8
	1	<input type="checkbox"/>	23131-VUW	Compressor Lead, 13"

Packed By: _____

	Qty		Part No	Description
	4	<input type="checkbox"/>	33857-VUF	O-ring, #6
	3	<input type="checkbox"/>	33858-VUF	O-ring, #8
	1	<input type="checkbox"/>	41117-VUP	Refrigerant Oil

Packed By: _____

Brackets

	Qty		Part No	Description
	1	<input type="checkbox"/>	071131	Drier Clamp
	1	<input type="checkbox"/>	643281	Bracket, Condenser, Passenger-Side
	1	<input type="checkbox"/>	643282	Bracket, Condenser, Driver-Side
	1	<input type="checkbox"/>	643283	Bracket, Condenser, Center

Packed By: _____

Hardlines/Hoses

	Qty		Part No	Description
	1	<input type="checkbox"/>	091269	Hardline, #6 Condenser/Drier
	1	<input type="checkbox"/>	091270	Hardline, #8 Condenser/Compressor

Packed By: _____

Condenser/Drier

	Qty		Part No	Description
	1	<input type="checkbox"/>	037036	Condenser, 17" x 19"
	1	<input type="checkbox"/>	07321-VUC	Drier

Packed By: _____

Inspected By: _____
Date: _____