1965-66 Chevrolet Impala

Condenser Kit *with* Drier
(021154)

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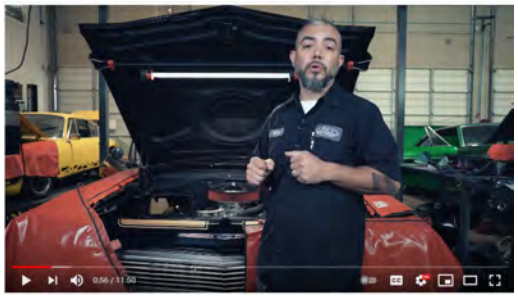
Parts Disclaimer: Please Read

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.



A detailed tech video outlining the installation process is available on Vintage Air's YouTube channel at https://bit.ly/3qEY7uw.
Viewing the tech video along with the written instructions will provide the installer the most detailed installation procedure.

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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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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. For factory A/C vehicles, remove refrigerant from the A/C system before starting the disassembly process (Steps 12 and 13 only apply to factory A/C vehicles).

Perform the following:

1. Disconnect the battery.
2. Remove the battery tray by removing (3) mounting bolts.
3. Drain the radiator.
4. Remove the OEM fan by removing (4) cooling fan bolts (retain) (See Photo 1, below).
5. Remove the OEM fan shroud (if equipped) by removing (4) mounting bolts ((2) bolts on each side) (See Photos 2 and 3, below). **NOTE: Mounting bolt location may vary depending on the radiator and radiator spacer.**
6. If vehicle is equipped with automatic transmission, disconnect the transmission lines from the radiator (See Photo 4, below).
7. Remove the radiator by removing (4) bolts (retain) (See Photos 5 and 6, below).
8. Remove the radiator spacer (if equipped) by removing the (4) mounting bolts and (2) horn mounting bolts (See Photos 7 and 8, below).

Photo 1

Photo 2

Photo 3

Photo 4

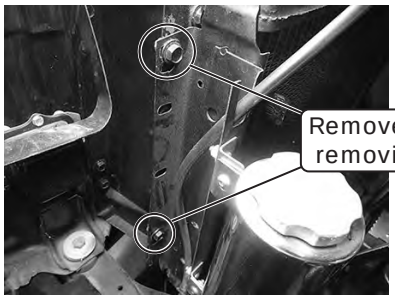
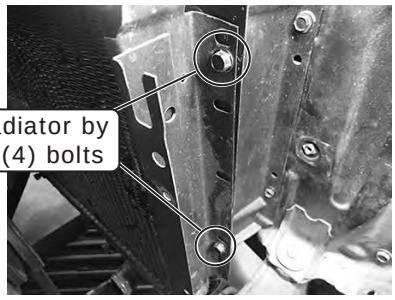


Photo 5



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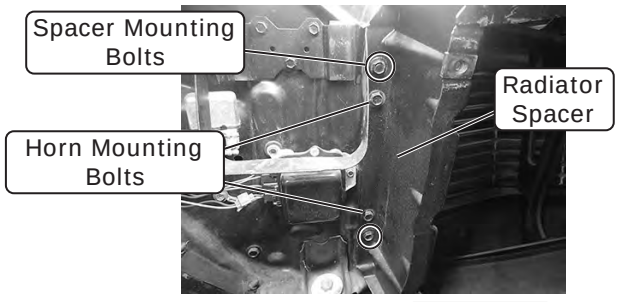


Photo 7

Photo 8

Engine Compartment Disassembly (Cont.)

9. Remove the hood latch mounting bracket by removing (5) bolts (See Photo 9, below).
10. Remove the hood latch/grille bracket by removing (3) bolts (See Photo 10, below).
11. Remove the (2) OEM hood latch U-nuts from the core support (See Photo 11, below).
12. Disconnect the drier hardlines and hoses from the condenser.
13. Remove (4) OEM condenser mounting bolts and remove the condenser from the core support.

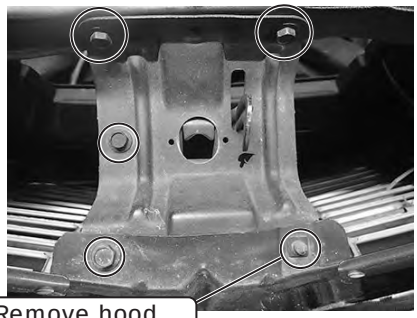
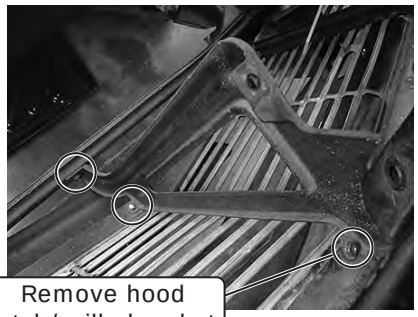


Photo 9



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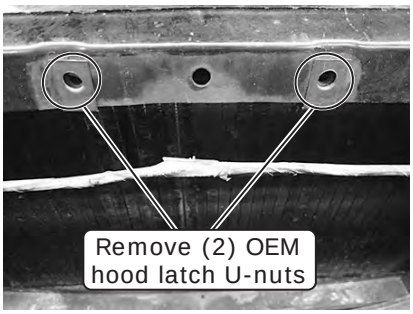

Photo 11

Core Support Modification

1. Attach the hardline template to the back of the core support on the passenger side using (2) OEM bolts (See Photos 1 and 2, below).
2. Use the template to drill a pilot hole using a 1/8" drillbit (See Photo 2, below), then remove the template.
3. Enlarge the pilot hole to 1 ¼" (See Photos 3 and 4, below). Clean and deburr the hole for the hardline grommet.

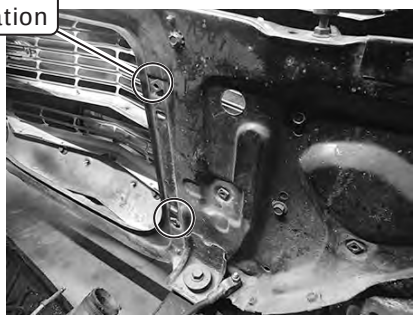

Photo 1

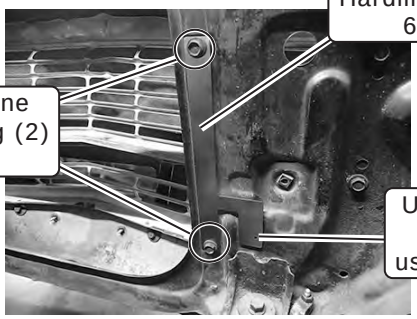

Photo 2

Photo 3

Photo 4

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Drier Bracket Installation

NOTE: Before installing the brackets, verify the condenser #8 fitting is facing up as shown in Photo 1, below.

On a work bench, perform the following:

1. 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 Photos 1 and 2, below). **NOTE: The drier bracket mounts through the 1st and 3rd holes from the left side of the condenser.**

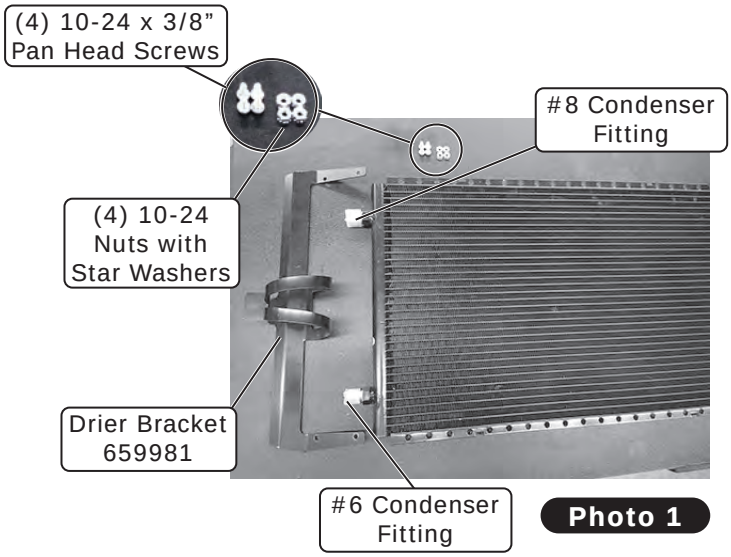

Photo 1

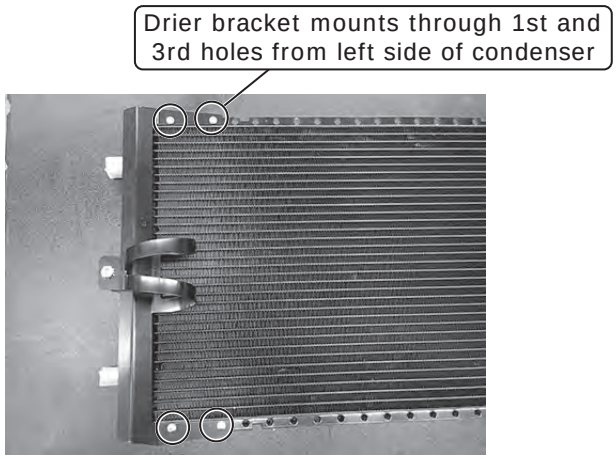

Photo 2

Mounting Bracket Installation

1. Install (2) #8 J-nuts onto the top of the condenser flange in the 7th and 14th holes from the left side of the condenser (See Photo 1, below).
2. Locate the upper mounting condenser bracket, and install (2) 5/16" U-nuts onto the larger holes (See Photo 2, below).
3. Install the upper mounting condenser bracket onto the previously installed #8 J-nuts on the condenser flange, and secure it using (2) #8 x 1/2" pan head screws (See Photo 3, below). **NOTE: The bend in the bracket faces toward the motor.**

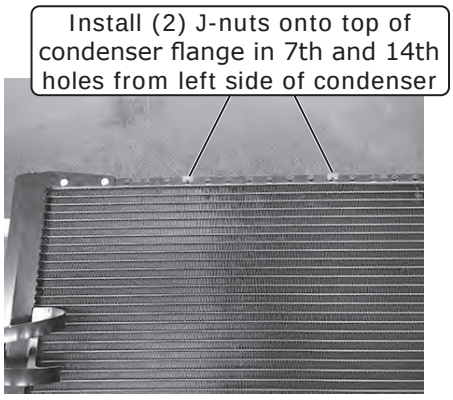

Photo 1

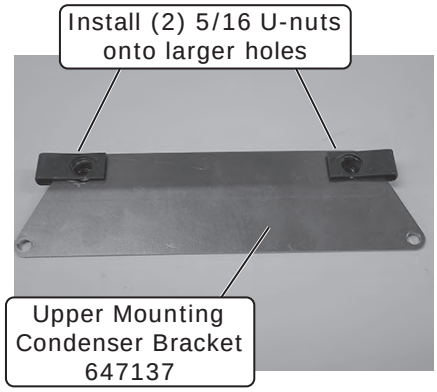

Photo 2

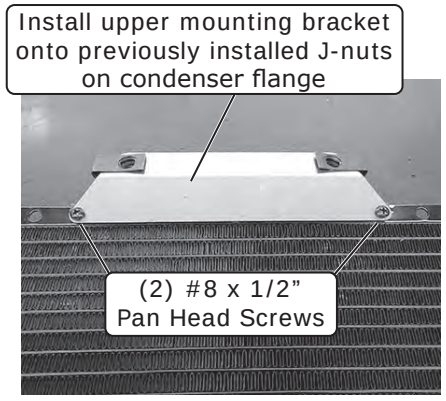

Photo 3

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Mounting Bracket Installation (Cont.)

4. Flip the condenser over, and install (4) #8 J-nuts onto the bottom condenser flange in the 1st, 7th, 14th and 20th holes from the left side of the condenser (See Photo 4, below).

5. Install the lower mounting condenser bracket onto the previously installed #8 J-nuts on the condenser flange, and secure it using (4) #8 x 1/2" pan head screws (See Photo 5, below).

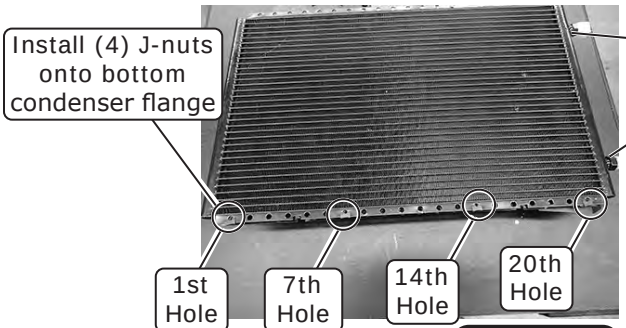


Photo 4

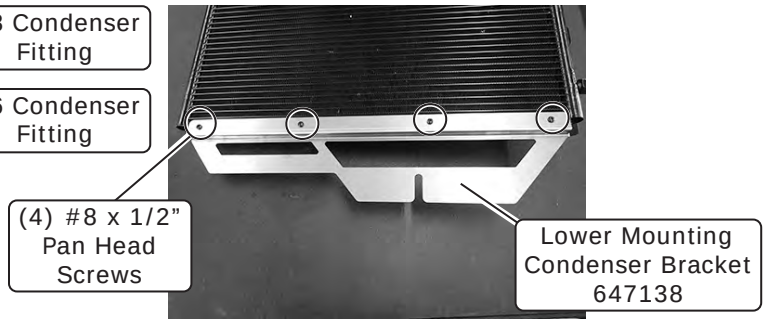
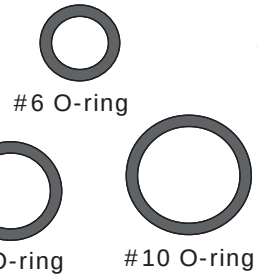
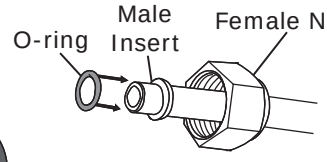


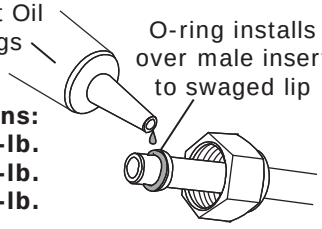
Photo 5

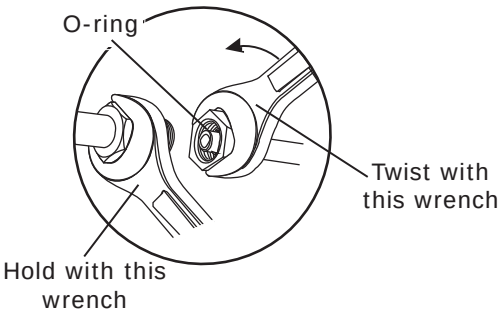
Lubricating O-rings





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.

Drier and #6 Drier/Condenser Hardline 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 remain capped until the installer is ready to evacuate the system. The use of a backup wrench is important when installing the hardlines to avoid damage to the condenser (See Lubricating O-rings, above).

Perform the Following:

1. Insert the drier into the drier bracket (See Photo 1, below). **NOTE: Refrigerant flow through the drier is in from the condenser, out to the evaporator.**

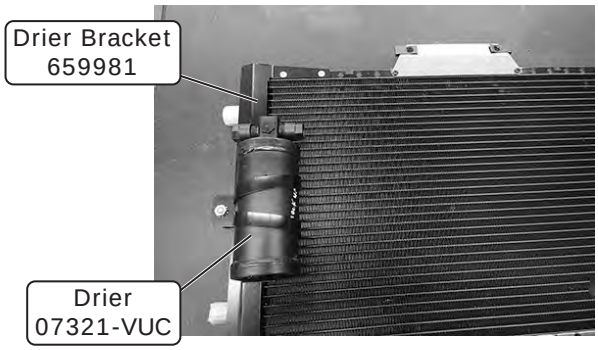


Photo 1

Drier and #6 Drier/Condenser Hardline Installation (Cont.)

2. Loosely secure the drier into the drier bracket using a 1/4-20 nut with star washer (See Photo 2, below). **NOTE: Do not fully tighten the nut at this time. Refrigerant flow through the drier is in from the condenser, out to the evaporator as shown in Photo 2, below.**

3. Properly lubricate (2) #6 O-rings, and install the #6 drier/condenser hardline onto the #6 condenser fitting and the drier (See Photo 3, below).

4. Tighten the 1/4-20 nut with star washer on the drier bracket clamp at this time.

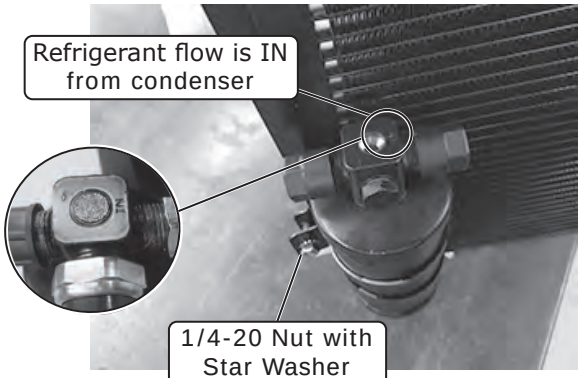


Photo 2

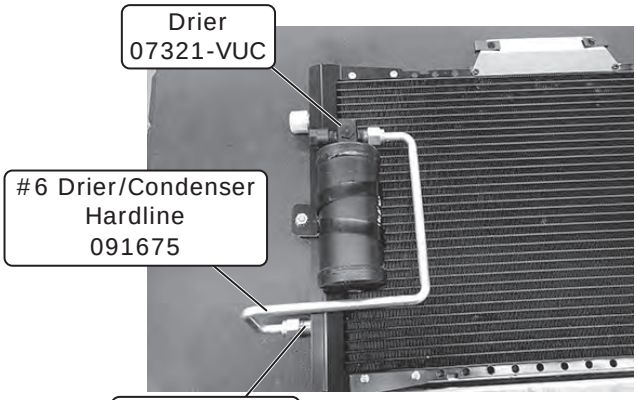


Photo 3

Binary Switch Installation

1. Lubricate the binary switch O-ring (See Lubricating O-rings, Page 7) and install it onto the drier (See Photos 1 & 2, below). **NOTE: The binary switch and the drier each come with an O-ring. Only use the binary switch O-ring.**

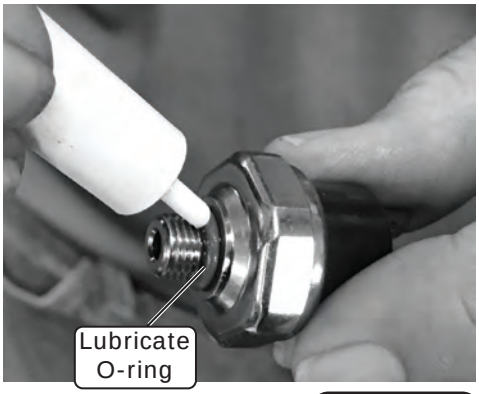


Photo 1

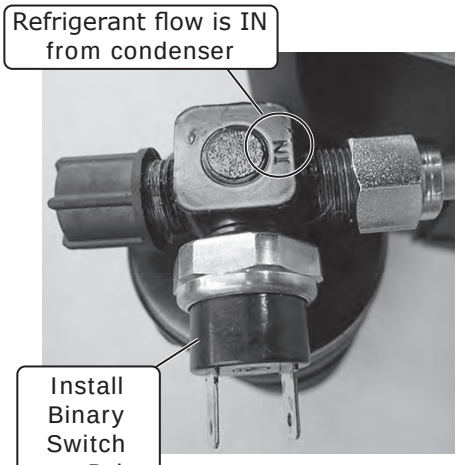


Photo 2

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Condenser Installation

1. Lower the condenser assembly into the vehicle between the grille and core support. **NOTE: The upper mounting condenser bracket mounts on the inside of the core support.**
2. Temporarily secure the upper mounting condenser bracket to the core support using (2) OEM bolts (See Photo 1, below).
3. Secure the lower mounting condenser bracket and the hood latch/grille bracket to the core support using an OEM bolt (See Photo 2, below).
4. Reattach the grille to the bracket using the OEM hardware (See Photo 3, below).
5. Remove the (2) OEM upper core support bracket bolts, and reinstall the hood latch bracket using the OEM hardware (See Photo 4, below).

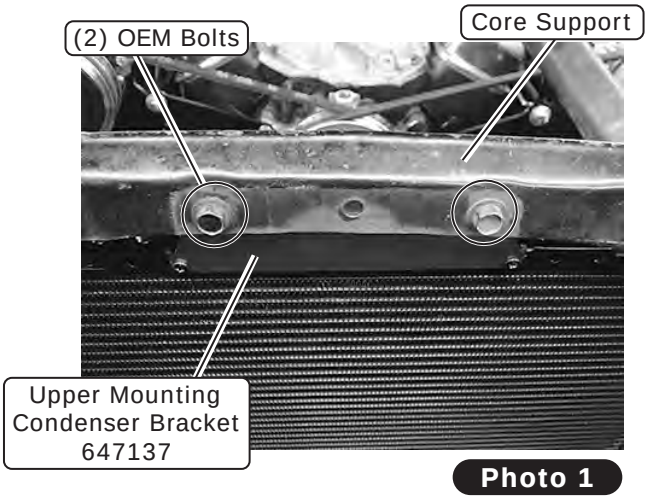


Photo 1

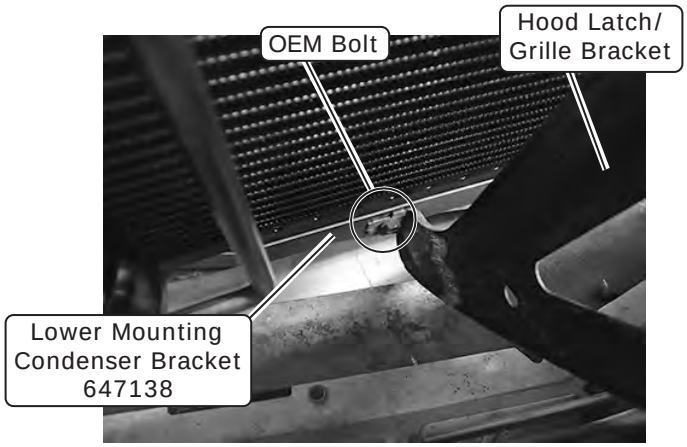


Photo 2

Photo 3

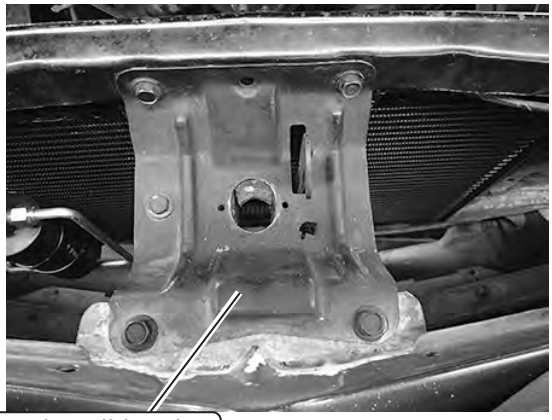


Photo 4

Hardline Installation

1. Properly lubricate a #8 O-ring (See Lubricating O-rings, Page 7), and loosely install the #8 condenser/compressor hardline through the 1 ¼" hole on the core support and onto the #8 condenser fitting (See Photos 1 and 2, below).
2. Properly lubricate a #6 O-ring (See Lubricating O-rings, Page 7), and loosely install the #6 drier/evaporator hardline through the 1 ¼" hole on the core support and onto the other end of the drier (See Photos 3 and 4, below).
3. Install the 2-hole grommet onto the #8 and #6 condenser hardlines and into the 1 ¼" hole in the core support (See Photo 5, below).
4. Tighten both hardline connections at this time. **NOTE: Be sure to use a backup wrench to avoid damaging the condenser fittings.**

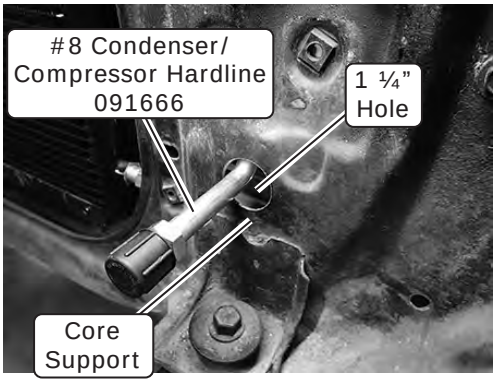
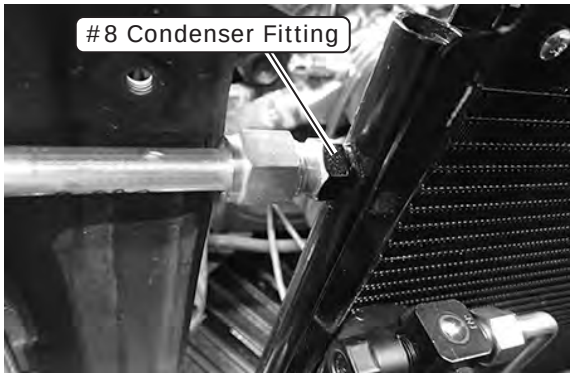


Photo 1



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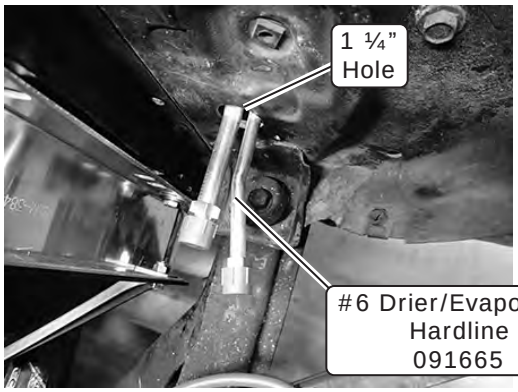

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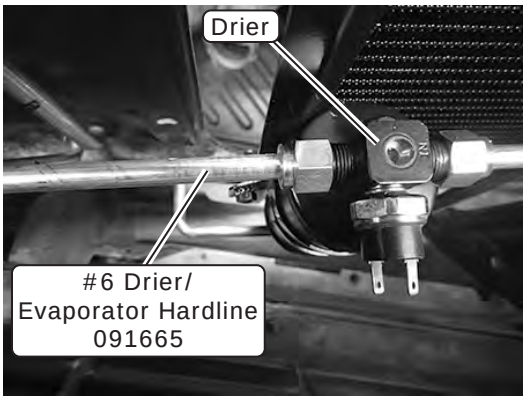

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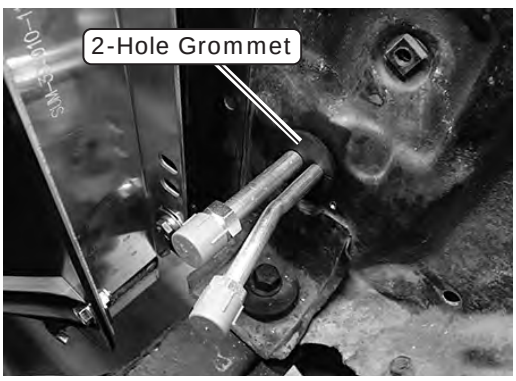

Photo 5

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Hardline Support Bracket Installation

1. Locate the hardline support bracket and the (2) Adel clamps.
2. Install the 1/2” Adel clamp onto the #8 condenser/compressor hardline and the 3/8” Adel clamp onto the #6 drier/evaporator hardline (See Photo 1, below).
3. Secure both Adel clamps onto the hardline support bracket using (2) 10-24 x 3/8” pan head screws and (2) 10-24 nuts with star washers (See Photo 2, below).
4. Using the hardline support bracket as a template, drill a mounting hole using a 5/32” drill bit (See Photo 3, below). Secure the bracket to the core support using a #10 x 1/2” sheet metal screw (See Photo 4, below).

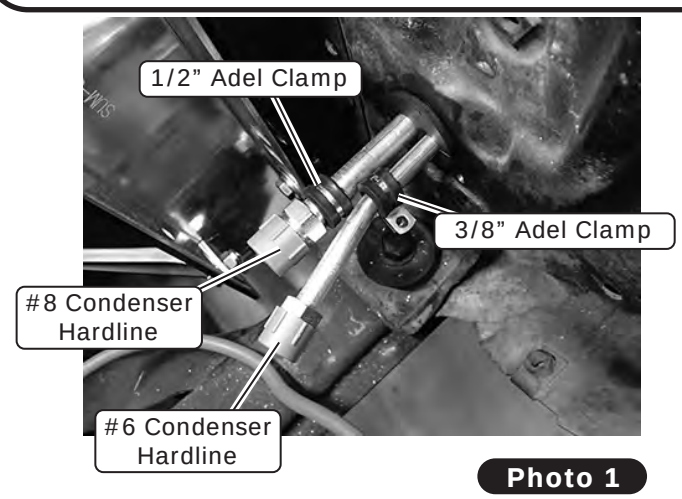

Photo 1

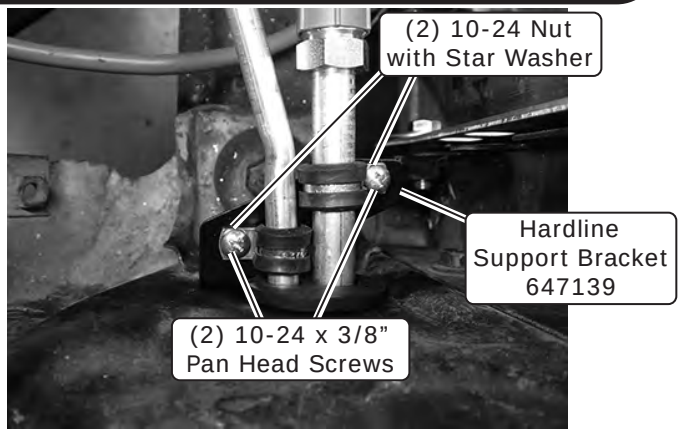

Photo 2

Photo 3

Photo 4

Final Steps

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

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Packing List: Condenser Kit (021154)

	Qty		Part No	Description
	1	☐	11079-VUS	Binary Switch, Male
	1	☐	18152-VUB	Nut with Star Washer, 1/4-20, Hex
	6	☐	18235-VUB	Screw, #8 x 1/2", Pan Head
	1	☐	18247-VUB	Screw, #10 x 1/2", Sheet Metal
	6	☐	18249-VUB	Screw, 10-24 x 3/8", Pan Head
	6	☐	18260-VUB	Nut with Star Washer, 10-24
	2	☐	18977-VUB	U-nut, 5/16"
	6	☐	18979-VUB	J-nut, #8
	1	☐	23135-VUW	Compressor Lead
	1	☐	31600-VUD	Adel Clamp, 3/8" I.D.
	1	☐	31603-VUD	Adel Clamp, 1/2" I.D.
	1	☐	33134-VUI	Grommet, 2-Hole

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
	1	☐	647136	Template, Hardline
	1	☐	647137	Bracket, Condenser, Upper Mounting
	1	☐	647138	Bracket, Condenser, Lower Mounting
	1	☐	647139	Bracket, Hardline Support
	1	☐	659981	Bracket, Drier

Packed By: _____

Hardlines

	Qty		Part No	Description
	1	☐	091665	Hardline#6, Drier/Evaporator
	1	☐	091666	Hardline#8, Condenser/Compressor
	1	☐	091675	Hardline, #6 Drier/Condenser

Packed By: _____

Condenser/Drier

	Qty		Part No	Description
	1	☐	03766-VUC	Condenser, 14" x 22", 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.