

1986-87 GM G-Body (Turbo) Condenser Kit with Drier

(025084)



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Additional Info: Please Read Before Beginning

• This kit was designed for the 1982-88 G-Body's. This kit may also fit 1978-81 G-Body's by doing some minor modifications. The main modification needing to be done, will be trimming the core support to allow clearance for the drier mounted on the front of the condenser.



A detailed tech video outlining the installation process is available on Vintage Air's YouTube channel at bit.ly/3e1Fm2o.

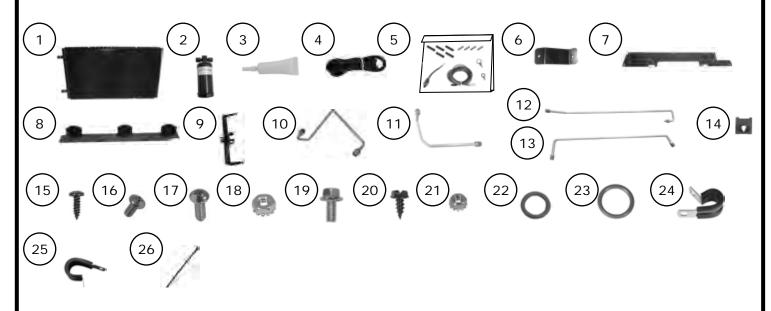
Viewing the tech video along with the written instructions will provide the installer the most detailed installation procedure.



Packing List: Condenser Kit (025084)

No.	Qty.	Part No.	Description		
1.	1	03771-VUC	Condenser, 25 ½" x 14", Parallel Flow		
2.	1	07321-VUC	Drier		
3.	1	41117-VUP	Refrigerant Oil		
4.	48"	238013	Flexo Sleeve, 1/4"		
5.	1	220039	Wiring Kit, Trinary Switch		
6.	1	649632	Bracket, Hardline Support		
7.	1	649602	Bracket, Upper Condenser		
8.	1	649600	Bracket, Lower Condenser		
9.	1	659981	Bracket, Condenser/Drier, Passenger-Side		
10.	1	091154	Hardline, #6 Drier/Condenser		
11.	1	092094	Hardline, #6 Drier/Evaporator		
12.	1	092095	Hardline, #8 Condenser/Compressor		
13.	1	092096	Hardline, #10 Suction Line		
14.	10	18979-VUB	J-Nut, #8		
15.	10	18235-VUB	Screw, #8 x 1/2", Pan Head		
16.	1	18249-VUB	Screw, 10-24 x 3/8", Pan Head		
17.	2	182479	Screw, 10-24 x 1/2", Pan Head		
18.	3	18260-VUB	Nut with Star Washer, 10-24		
19.	3	182870	Bolt, 1/4-20 x 1/2", Flange Hex		
20.	2	18247-VUB	Screw, #10 x 1/2", Sheet Metal		
21.	1	18152-VUB	Nut with Star Washer, 1/4-20		
22.	4	33857-VUF	O-ring, #6		
23.	2	33858-VUF	O-ring, #8		
24.	1	31600-VUD	Adel Clamp, 3/8" I.D.		
25.	5	316050	Adel Clamp, 5/8" I.D.		
26.	4	21301-VUP	Tie Wrap, 4"		

^{**} 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.



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):

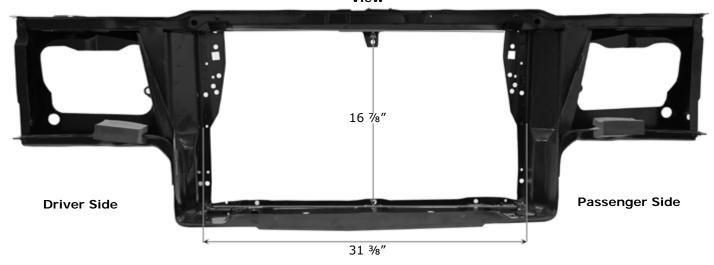
Heater hose may be purchased from Vintage Air (Part#31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.



Core Support Measurements

This kit was developed based on the measurements below, which were taken from a 1984 Chevrolet Monte Carlo with factory air, 1982 Oldsmobile Cutlass with factory air, and a 1987 Buick Grand National with factory air.

Engine Side of Core Support View

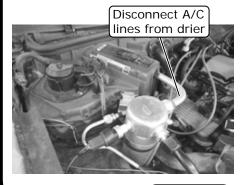


Engine Compartment Disassembly

NOTE: Before starting the installation, check the function of the vehicle (horn, lights, etc.) for proper operation, and study the instructions, illustrations, & diagrams.

Perform the Following:

- 1. Disconnect the battery.
- 2. Evacuate the A/C system if necessary.
- **3.** Drain the radiator.
- 4. Remove the upper and lower radiator hoses.
- 5. Disconnect the A/C lines from the drier, condenser and A/C compressor (See Photos 1, 2 and 3, below).



Disconnect A/C lines from condenser

Disconnect A/C lines from A/C compressor

Photo 1

Photo 2



Engine Compartment Disassembly (Cont.)

- 6. Disconnect the transmission and oil cooler lines from the radiator (See Photo 4, below).
- 7. Remove the (2) mounting nuts that are holding the A/C hardlines to the fan assembly (See Photos 5 and 6, below).

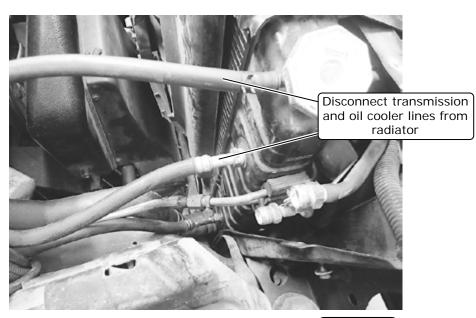
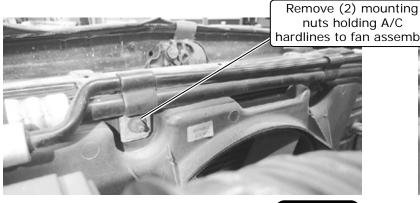


Photo 4



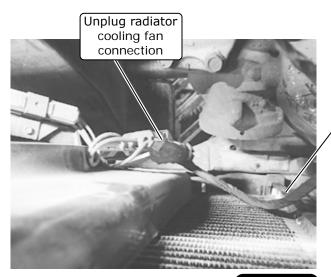
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Photo 5



Engine Compartment Disassembly (Final)

- 8. Unplug the radiator cooling fan connection and remove the (2) lower mounting bolts from the fan assembly (See Photos 7 and 8, below). Remove the fan from the vehicle.
- 9. Remove the radiator hold-down bracket by removing (5) mounting bolts (See Photo 9, below). Remove the radiator from the vehicle.
- 10. Remove the (2) OEM condenser mounts by removing (2) mounting bolts (See Photo 10, below). Remove the condenser from the vehicle.



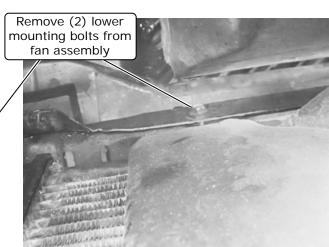
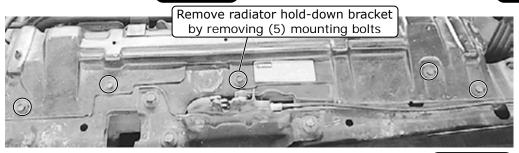


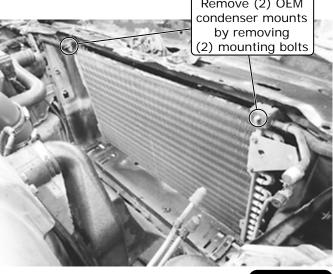
Photo 7

Photo 8



Remove (2) OEM condenser mounts by removing 2) mounting bolts

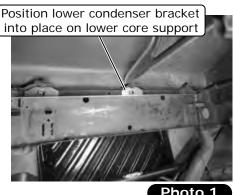


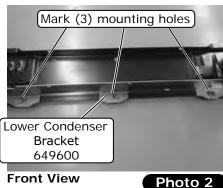


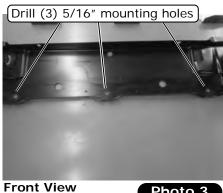


Core Support Modification

- 1. Position the lower condenser bracket into place on the lower core support as shown (See Photo 1, below).
- 2. Mark the (3) mounting holes, then remove the bracket (See Photo 2, below).
- 3. Using a 5/16" drill bit, drill the (3) mounting holes (See Photo 3, below).







Photo

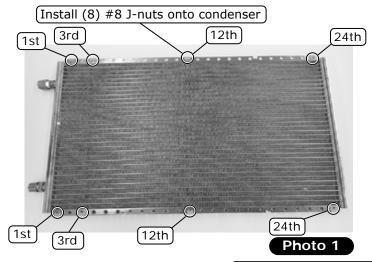
Photo 3

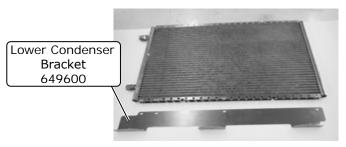
Condenser Bracket Preparation and Installation

NOTE: Do not fully tighten hardware until the assembly is fully assembled.

On a work bench, perform the following:

- 1. Install (8) #8 J-nuts onto the condenser as shown in Photo 1, below.
- 2. Install the lower condenser bracket (See Photo 2, below) onto the condenser using (2) #8 x 1/2" pan head screws in the locations as shown in Photo 3, below.





Install lower condenser bracket onto condenser using (2) #8 x 1/2" pan head screws

Photo 2



Condenser Bracket Preparation and Installation (Cont.)

- 3. Install the upper condenser bracket (See Photo 4, below) onto the condenser using a #8 x 1/2" pan head screw (See Photo 5, below).
- **4.** Install the drier bracket onto the condenser assembly using (3) #8 x 1/2" pan head screws (See Photos 6 and 7, below).

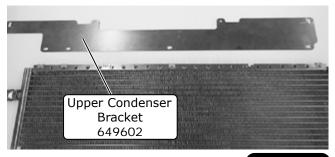
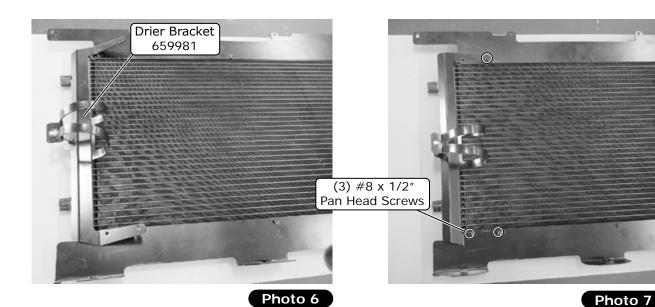
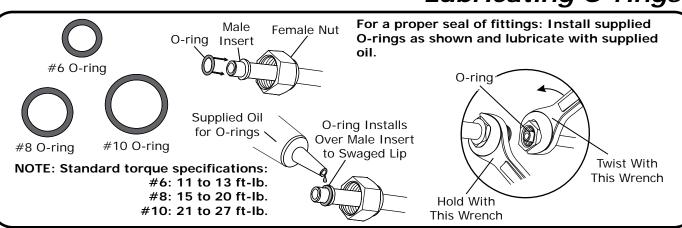


Photo 4





Lubricating O-rings





Drier and 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 remains 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, Page 9).

- 1. Insert the drier into the drier bracket (See Photo 1, below). Loosely secure the drier into the drier bracket using a 1/4-20 nut with star washer (See Photo 1, below). NOTE: Do not fully tighten the nut at this time. Refrigerant flow through the drier is IN from condenser, OUT to evaporator (See Photo 2, below).
- 2. Lubricate (2) #6 O-rings (See Lubricating O-rings, Page 9). Install the #6 drier/condenser hardline onto the drier and the #6 fitting on the condenser (See Photo 3, below). Tighten the fittings as shown in Lubricating O-rings, Page 9. **NOTE: Tighten the drier bracket nut at this time**.
- 3. With a properly lubricated #8 O-ring, loosely install the #8 condenser/compressor hardline onto the #8 fitting on the condenser (See Photo 4, below). Install (2) 5/8" I.D. Adel clamps onto the hardline, and secure them to the upper condenser bracket using (2) #8 x 1/2" pan head screws (See Photos 4 and 5, below). Tighten the hardline at this time.
- 4. Flip the condenser assembly over and install (2) #8 J-nuts as shown in Photos 6 and 7, below.

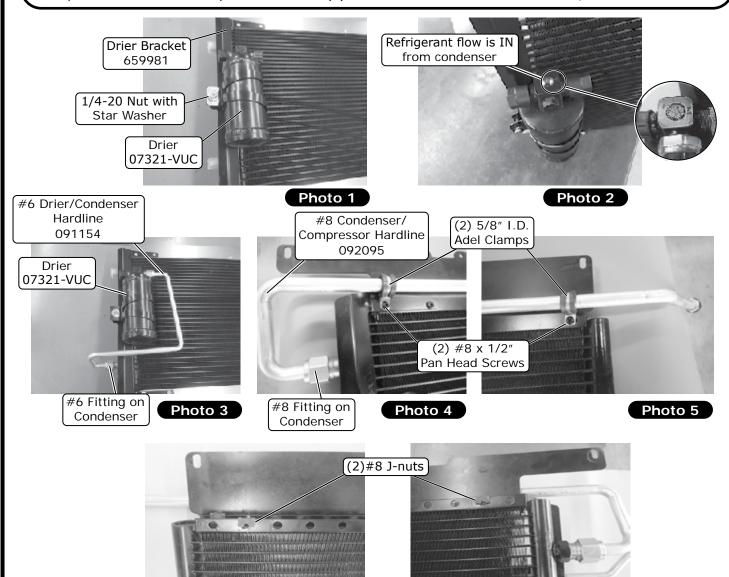
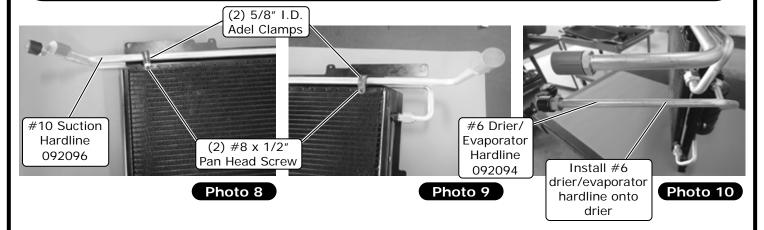


Photo 6



Drier and Hardline Installation (Cont.)

- **5.** Install (2) 5/8" I.D. Adel clamps onto the #10 suction hardline, and secure it to the condenser assembly using (2) #8 x 1/2" pan head screws (See Photos 8 and 9, below).
- **6.** With a properly lubricated #6 O-ring, install the #6 drier/evaporator hardline onto the drier (See Photo 10, below). **NOTE: The #6 and #10 hardlines should be in line before tightening.**



Trinary Switch Installation

- Lubricate the trinary switch O-ring (See Lubricating O-rings, Page 9), and install it onto the drier (See Photos 1 and 2, below). NOTE: The trinary switch and the drier each come with an O-ring. Only use the trinary switch O-ring.
- 2. Route the trinary switch plug along the #6 drier/evaporator hardline, and secure it using the supplied tie wrap (See Photo 3, below).





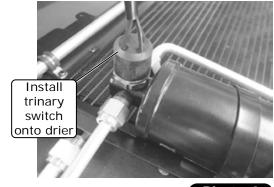
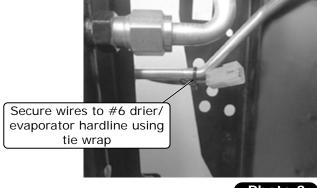


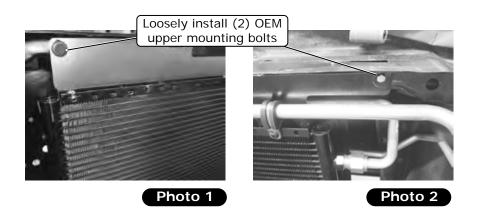
Photo 2





Condenser Installation

- 1. Lower the condenser assembly into the core support, and loosely install the (2) OEM upper mounting bolts (See Photos 1 and 2, below).
- 2. Install (3) 1/4-20 x 1/2" flange hex bolts into the lower condenser assembly bracket through the previously drilled holes on the core support, then tighten (See Photos 3, 4, and 5, below).
- 3. Tighten the upper OEM hardware at this time.
- 4. Using the upper condenser bracket as a template, drill (2) mounting holes using a 9/64" drillbit. Install (2) #10 x 1/2" sheet metal screws into the (2) previously drilled holes for added support (See Photo 6, below).





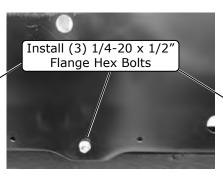
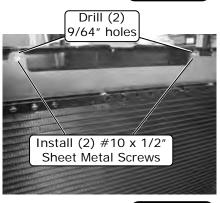




Photo 3

Photo 4

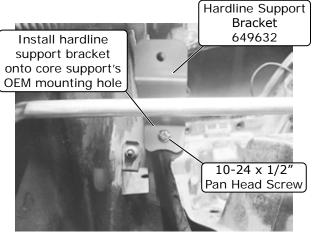
Photo 5





Hardline Support Bracket Installation

- Install the hardline support bracket onto the core support's OEM mounting hole, and secure it using a 10-24 x 1/2" pan head screw and a 10-24 nut with star washer (See Photos 1 and 2, below).
- 2. Install a 3/8" I.D. Adel clamp onto the #6 drier/evaporator hardline (See Photo 3, below) and a 5/8" I.D. Adel clamp onto the #10 suction hardline (See Photo 3, below).
- **3.** Secure both Adel clamps onto the hardline support bracket using a 10-24 x 3/8" pan head screw and a 10-24 nut with star washer (See Photo 4, below).



Install 5/8" I.D. Adel clamp onto #10 hardline

Photo 1



Photo 2

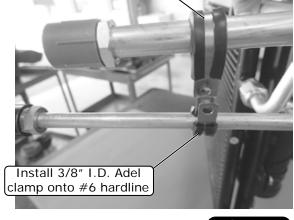
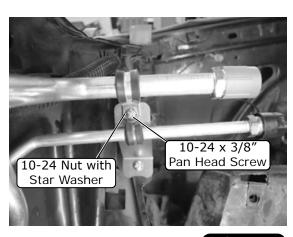


Photo 3





Final Installation

Pasenger Side Driver Side



Final Installation

(Front View)

Driver Side Pasenger Side



Final Installation

(Engine Side View)

Final Steps

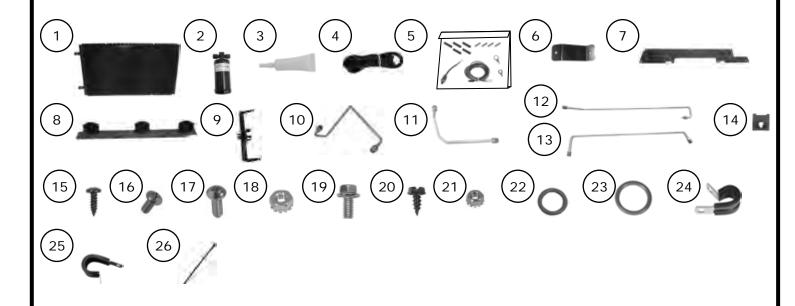
 Reinstall and/or reconnect all remaining items removed or disconnected in the engine compartment disassembly instructions. This concludes the condenser kit portion of your installation. NOTE: If proceeding to the evaporator installation portion of the install, do not reinstall and/or reconnect all items removed or disconnected.



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Checked By: ______
Packed By: _____
Date: _____



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