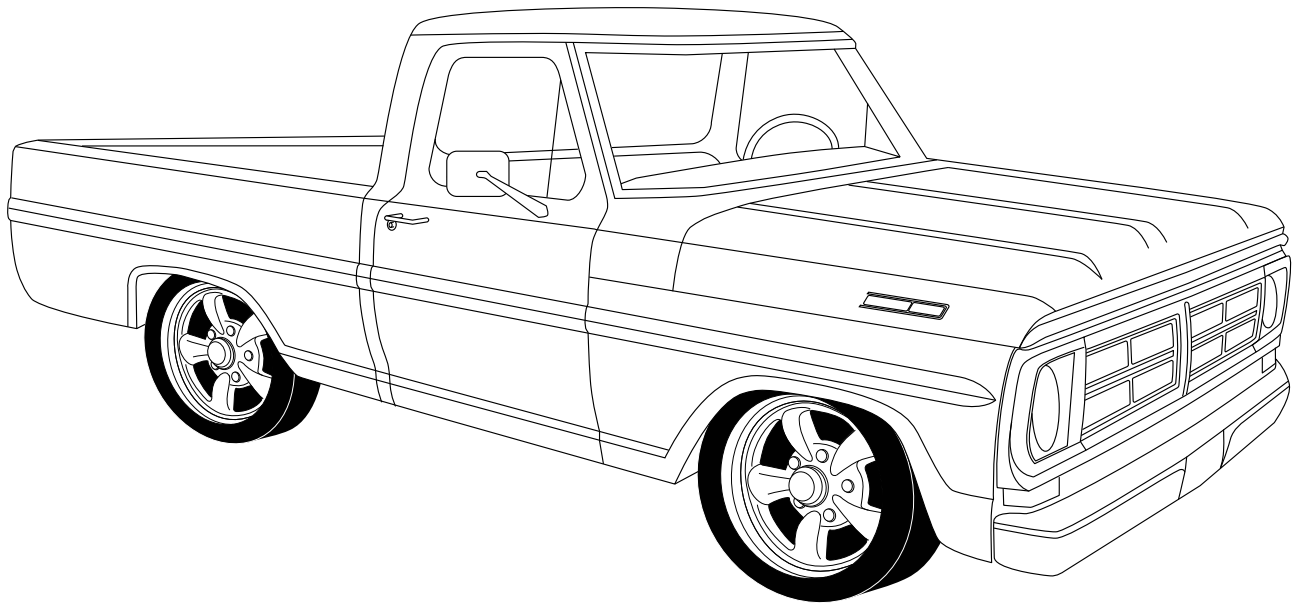




an ISO 9001:2015 Registered Company

1967-72 Ford F-100

Condenser Kit *with* Drier
(011152)



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www.vintageair.com



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Table of Contents

Cover..... 1

Table of Contents..... 2

Packing List/Parts Disclaimer..... 3

Important Notice..... 4

Important Information Before Beginning, Core Support Measurements..... 5

Engine Compartment Disassembly..... 6

Engine Compartment Disassembly (Cont.), Condenser & Drier Removal (Factory Air Vehicles Only)... 7

Condenser and Drier Removal (Factory Air Vehicles Only) (Cont.), Core Support Modification (6-Cylinder Core Support Only)..... 8

Core Support Modification for #6 A/C Condenser/Drier Hardline, Condenser Mounting Bracket Installation..... 9

Condenser Assembly Installation (Standard 6-Cylinder and V8 Core Support)..... 10

Condenser Assembly Installation (Super Cooling Core Support)..... 11

Hardline Installation..... 12

Lubricating O-Rings, Drier and Binary Switch Installation..... 13

Packing List..... 14



A detailed tech video outlining the installation process is available on Vintage Air’s YouTube channel at <http://bit.ly/2kkkojl>.

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

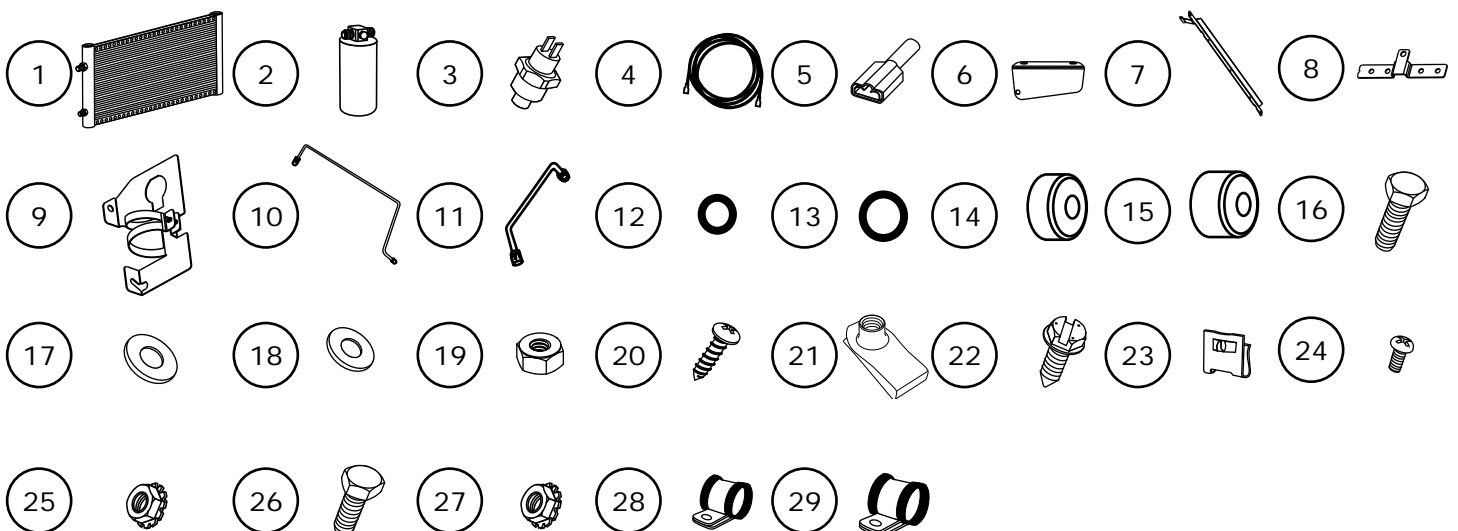


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Packing List: Condenser Kit (011152)

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	23172-VUW	Terminal, 1/4" Female, Insulated
6.	1	646966	Template, #6 Condenser Hardline
7.	1	646955	Bracket, Condenser, Upper Mounting
8.	1	646971	Bracket, Condenser, Lower Mounting
9.	1	646959	Bracket, Drier
10.	1	081162	Hardline, #6 Condenser/Drier
11.	1	081163	Hardline, #8 Condenser/Compressor
12.	2	33857-VUF	O-ring, #6
13.	1	33858-VUF	O-ring, #8
14.	2	180034	Spacer, .313" Length
15.	2	18064-SSR	Spacer, .500" Length
16.	4	183009-DSR	Bolt, 5/16-18 x 1 1/4", Hex
17.	9	18125-VUB	Washer, 5/16", Flat
18.	1	186011	Washer, 9/32", Flat
19.	2	18151-VUB	Locknut, 5/16-18
20.	7	18235-VUB	Screw, #8 x 1/2"
21.	2	18977-VUB	U-nut, 5/16"
22.	1	18247-VUB	Screw, #10 x 1/2", Sheet Metal
23.	7	18979-VUB	J-nut, #8
24.	1	18249-VUB	Screw, 10-24 x 3/8"
25.	1	18260-VUB	Nut with Star Washer, 10-24
26.	1	182871	Bolt, 1/4-20 x 3/4", Hex
27.	1	18152-VUB	Nut with Star Washer, 1/4-20
28.	1	31600-VUD	Adel Clamp, #2
29.	1	31603-VUD	Adel Clamp, #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.



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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.
- The 6-cylinder core support opening is smaller than the V8 core support opening. If the core support opening width is less than 27 5/8" (See Figure 1, below), the core support will need to be modified following the steps on Page 8.
- 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 1971 Ford F-100 without factory air.

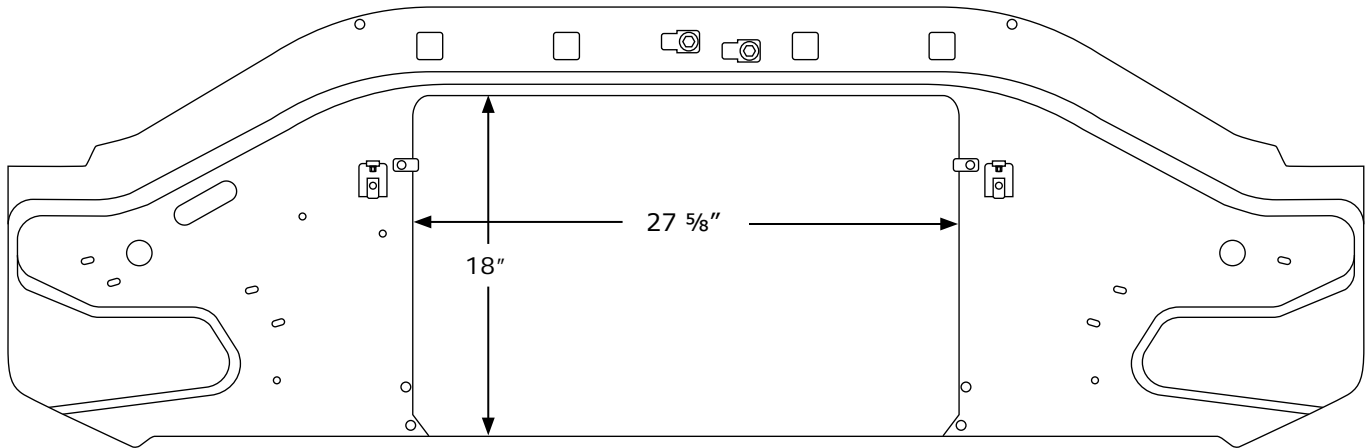


Figure 1



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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.

1. Disconnect the battery.
2. Evacuate the A/C system (if equipped).
3. Place jack stands under the axle bars on each side of the vehicle, and remove the front tires (See Photo 1, below).
4. Remove (4) bolts each on the inside of the driver and passenger side fenders (See Photos 2 & 3, below).
5. Remove the headlight bezels by removing (8) screws, (4) per headlight (See Photo 4, below).
6. Remove the (2) grille mounting bolts ((1) in the top left of the inner headlight bracket on the passenger side and (1) in the top right of the inner headlight bracket on the driver side) (See Photos 5 & 6, below).

Place Jack Stands
Under Axle Bars



Photo 1

Remove (4) Bolts



Driver Side
Fender View

Photo 2

Remove (4) Bolts



Passenger Side
Fender View

Photo 3

Remove (4) Screws



Photo 4

Remove Passenger Side
Grille Mounting Bolt



Photo 5

Remove Driver Side
Grille Mounting Bolt



Photo 6



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Engine Compartment Disassembly (Cont.)

7. Remove (1) bolt from the lower center of the grille (See Photo 7, below).
8. Remove (3) bolts each from the upper driver and passenger side fenders (See Photos 8 & 9, below).
9. Remove the (2) core support bolts from the hood latch (See Photo 10, below).
10. Carefully pull the grille away from the truck to expose the headlight wiring, and then disconnect the headlights (See Photo 11, below).
11. Remove the grille assembly from the vehicle.

Remove Grille Mounting Bolt

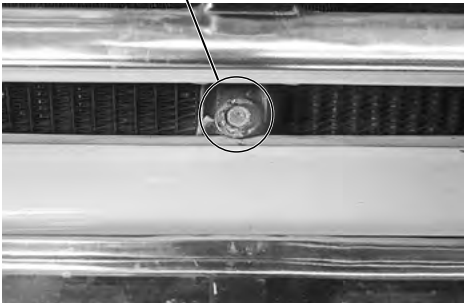


Photo 7 Driver Side View

Remove (3) Upper Fender Mounting Bolts

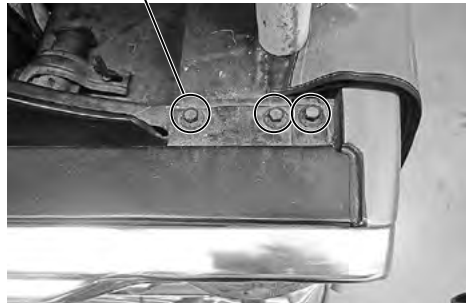


Photo 8 Passenger Side View

Remove (3) Upper Fender Mounting Bolts



Photo 9

Remove Hood Latch Bolts

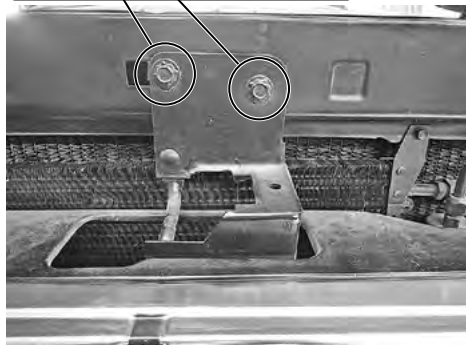


Photo 10

Disconnect Headlights

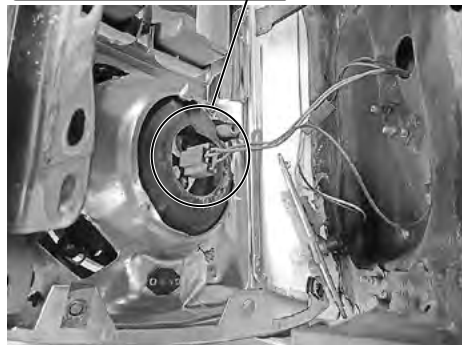


Photo 11

Condenser & Drier Removal (Factory Air Vehicles Only)

1. On the engine side of the core support, disconnect the A/C hose from the condenser (See Photo 1, below).
2. Disconnect the condenser A/C hose from the compressor (See Photo 2, below).

Disconnect A/C Hose from Condenser

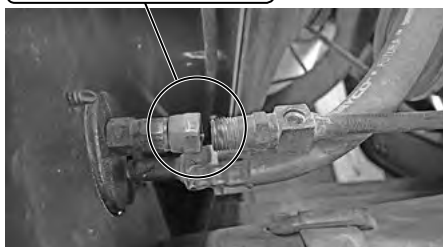


Photo 1

Disconnect Condenser A/C Hose from Compressor



Photo 2

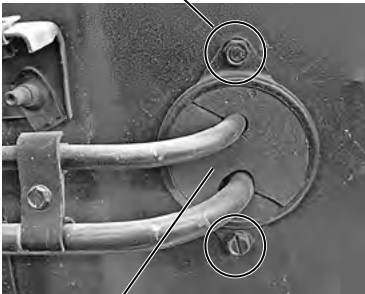


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Condenser & Drier Removal (Factory Air Vehicles Only) (Cont.)

3. Remove (2) screws from the A/C line grommet on the core support (See Photo 3, below).
4. Remove (2) OEM drier bracket bolts from the core support (See Photo 4, below).
5. Remove the upper condenser mounting bolt (See Photo 5, below).
6. Remove (2) passenger side radiator bolts and remove the OEM condenser (discard). Temporarily reinstall the radiator mounting bolts (See Photo 6, below).

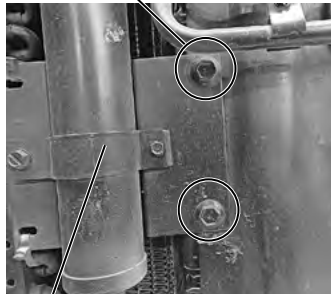
Remove (2) Screws
from A/C Line Grommet



A/C Line
Grommet

Photo 3

Remove (2) Bolts



OEM Drier
Bracket

Photo 4

Remove Upper
Condenser Mounting Bolt

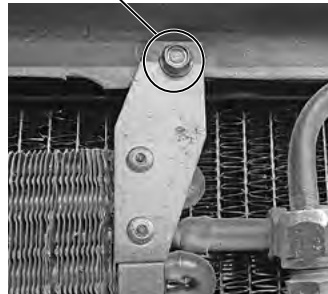


Photo 5

Remove Radiator
Mounting Bolts



Passenger
Side View

Photo 6

Core Support Modification (6-Cylinder Core Support Only)

NOTE: The following steps outline the modification required for 6-cylinder core support openings with a width of less than 27 5/8". For core supports that measure 27 5/8", proceed to Page 9.

1. Drain the coolant.
2. Disconnect the radiator hoses from the radiator.
3. Remove the radiator by removing the (4) radiator mounting bolts, (2) on each side (See Photos 1 & 2, below).
4. Measure 27 5/8" from the passenger side of the core support opening to the driver side (See Figure 1, Page 5).
5. Mark and trim the core support as shown in Photos 3 & 4, below.

Remove OEM Radiator Mounting Bolts

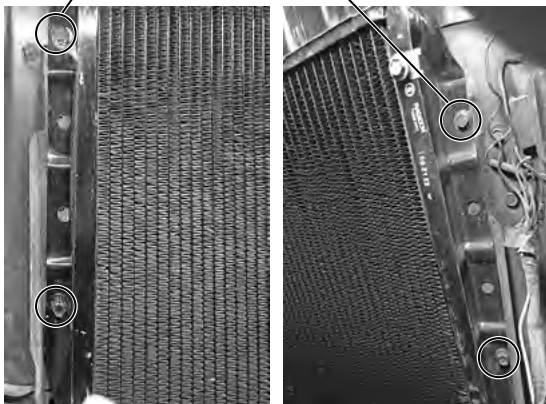


Photo 1

Photo 2

Trim Core Support

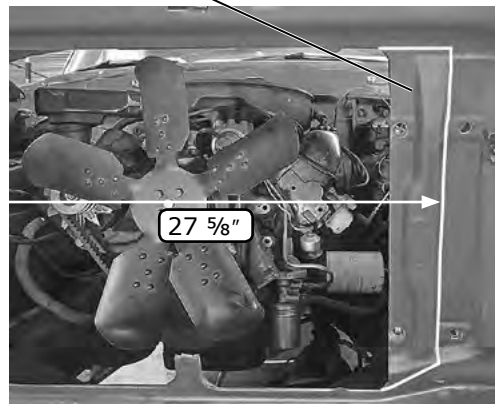


Photo 3



Photo 4



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Core Support Modification for #6 Condenser/Drier Hardline

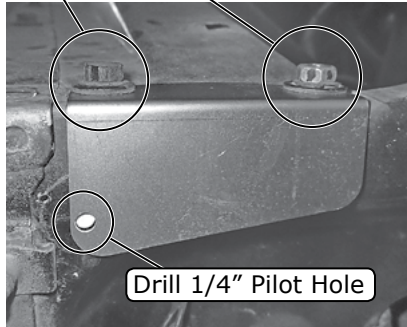
1. Locate the supplied template (See Figure 1, below), and bolt the template into place on the passenger side of the core support using (2) OEM bolts (See Photo 1, below).
2. Mark and drill a 1/4" pilot hole as shown in Photo 1, below.
3. Remove the template, and enlarge the hole to 7/8" (See Photo 2, below).

#6 Condenser Hardline Template
646966



Figure 1

Bolt Template into Place
Using (2) OEM Bolts



Drill 1/4" Pilot Hole

Core Support,
Front Passenger Side View

Photo 1

Enlarge
Hole to 7/8"

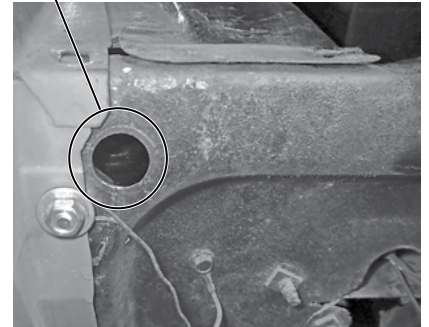


Photo 2

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" screws (See Photo 4, below).
5. Install the lower mounting bracket onto the condenser using (4) #8 x 1/2" screws (See Photo 4, below).

Condenser Upper Mounting Bracket
646955



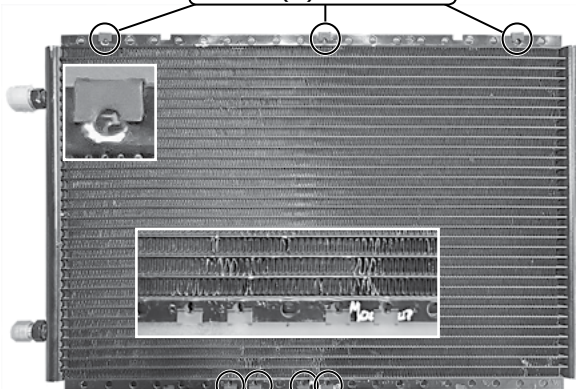
Photo 1

Condenser Lower Mounting Bracket
646971



Photo 2

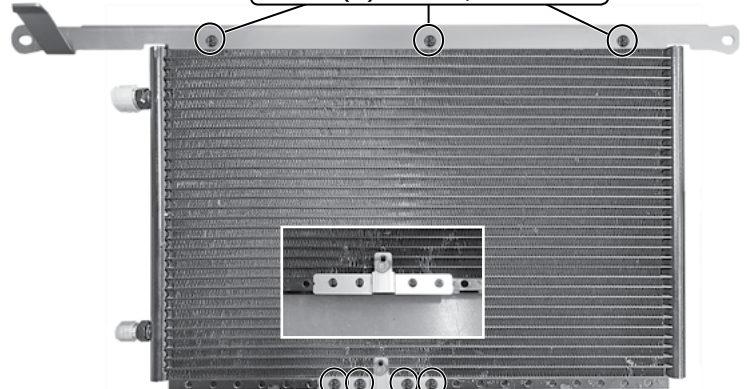
Install (3) #8 J-Nuts



Install (4) #8 J-Nuts

Photo 3

Install (3) #8 x 1/2" Screws



Install (4) #8 x 1/2" Screws

Photo 4



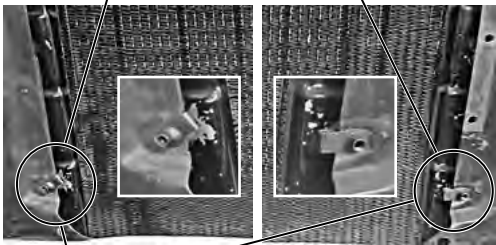
www.vintageair.com

Condenser Assembly Installation (Standard 6-Cylinder and V8 Core Support)

NOTE: This procedure is for 6-cylinder and V8 core supports with a standard radiator mounting configuration. If the vehicle is equipped with a Super Cooling core support, proceed to Page 11 for an alternate Condenser Assembly Installation procedure.

1. Install (2) 5/16" U-nuts onto the lower radiator mounting holes on the core support (See Photo 1, below).
2. Install (2) .500" length spacers between the radiator and the core support as shown in Figure 1, below. Secure the radiator to the lower core support using (2) 5/16-18 x 1 1/4" hex bolts and (2) 5/16" flat washers as shown in Photos 2 & 3, and Figure 1, below.
3. Replace the upper radiator mounting bolts with (2) 5/16-18 x 1 1/4" hex bolts and (2) 5/16" flat washers, and install (2) .313" length spacers between the radiator and the core support as shown in Photo 4 and Figure 2, below.
4. Install the condenser 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 (2) 5/16-18 x 1 1/4" hex bolts. Secure the condenser assembly to the radiator and core support using (2) 5/16" flat washers and (2) 5/16" locknuts as shown in Photo 5 and Figure 2, below. **NOTE: Use caution during this step to prevent damage to the condenser or radiator.**

Install (2) 5/16" U-Nuts onto Lower Radiator Mounting Holes



(2) 5/16" U-Nuts

Photo 1

.500" Length Spacers

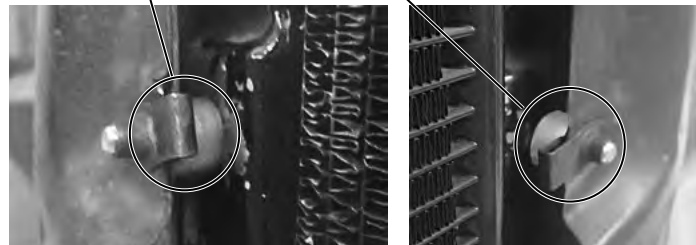


Photo 2

Photo 3

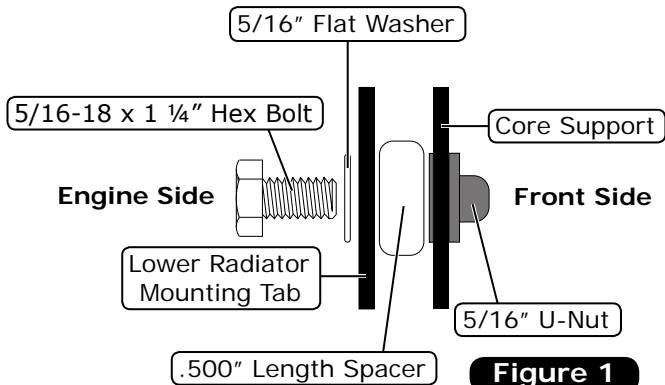
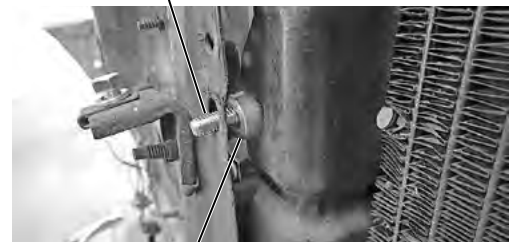


Figure 1

5/16-18 x 1 1/4" Hex Bolt



.313" Length Spacer

Photo 4

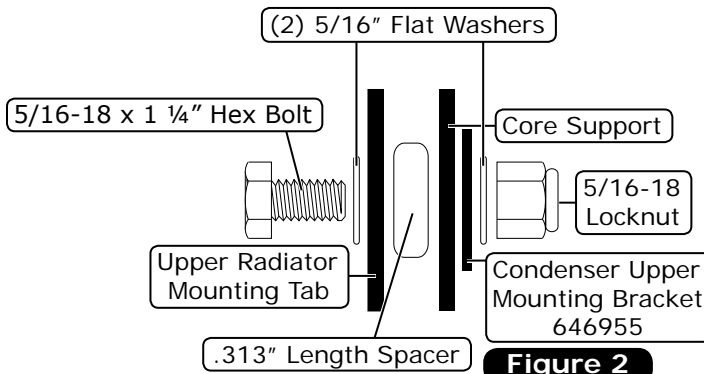


Figure 2



Completed Installation

Photo 5

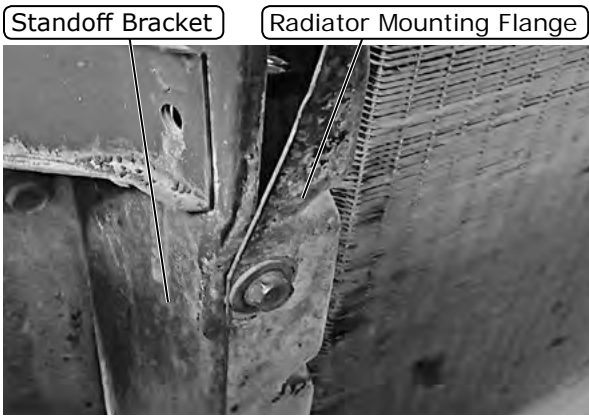


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Condenser Assembly Installation (Super Cooling Core Support)

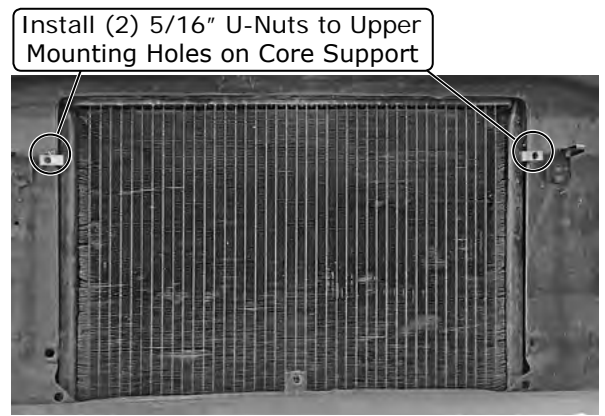
NOTE: Super Cooling core supports, including those found on 4 x 4 trucks, have a different radiator mounting configuration than the standard configuration, with the radiator mounted to standoff brackets as shown in Photo 1, below, rather than directly to the core support.

1. Remove the upper radiator mounting bolts.
2. Install (2) 5/16" U-nuts onto the upper radiator mounting holes on the front of the core support (See Photo 2, below).
3. Install the condenser in front of the radiator, bottom first, locating the lower condenser mounting bracket behind the grille mounting bracket (See Photo 3, below).
4. Secure the condenser to the radiator and core support using (2) 5/16-18 x 1 1/4" hex bolts and (2) 5/16" flat washers through the U-nuts as shown in Photo 4 and Figure 1, below. **NOTE: Use caution during this step to prevent damage to the condenser or radiator.**



Engine Side View

Photo 1



Front View

Photo 2

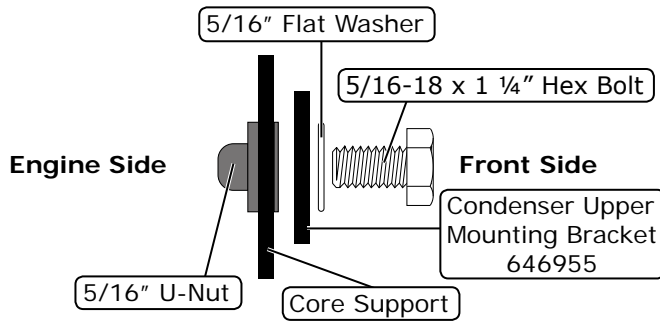


Figure 1



Photo 3



Completed Installation

Photo 4

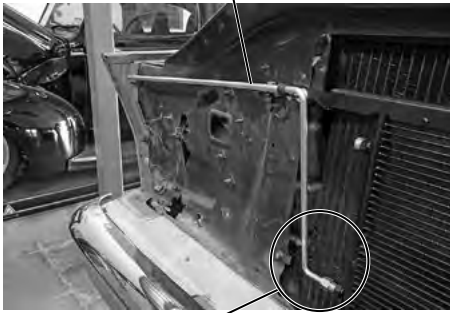


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Hardline Installation

1. Lubricate and install a #6 O-ring onto the #6 condenser/drier hardline (See Figure 1, Page 13). Connect the #6 condenser/drier hardline to the #6 condenser fitting as shown in Photo 1, below.
2. Install a #2 Adel clamp onto the #6 condenser/drier hardline, and secure it to the condenser upper mounting bracket using a 10-24 x 3/8" screw and a 10-24 nut with star washer (See Photos 2 & 3, below).
3. Insert the #6 condenser/drier hardline into the 7/8" hole in the core support. Install the hardline grommet into the 7/8" hole (See Photo 4, below).
4. Lubricate and install a #8 O-ring onto the #8 condenser/compressor hardline (See Figure 1, Page 13). Install the #8 condenser/compressor hardline onto the #8 condenser fitting (See Photo 5, below).
5. Install a #4 Adel clamp onto the #8 condenser/compressor hardline. Mark and drill a 9/64" hole into the core support as shown in Figure 1 and Photo 6, below.
6. Secure the #4 Adel clamp to the core support using a #10 x 1/2" sheet metal screw (See Photo 6, below).

#6 Condenser/Drier Hardline
081162



Install #6 Condenser/
Drier Hardline onto #6
Condenser Fitting

Photo 1

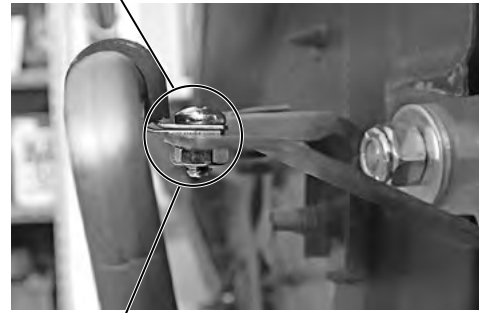
#2 Adel Clamp



#6 Condenser/
Drier Hardline
081162

Photo 2

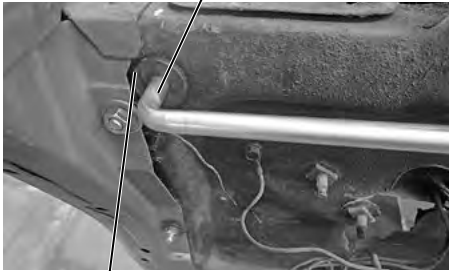
10-24 x 3/8" Screw



(1) 10-24 Nut
with Star Washer

Photo 3

Insert #6 Condenser/Drier
Hardline into 7/8" Hole



Install Hardline
Grommet into
7/8" Hole

Photo 4

#8 Condenser/Compressor Hardline
081163



Install #8 Condenser/
Compressor Hardline onto
#8 Condenser Fitting

Photo 5

#4 Adel Clamp Mark and Drill
9/64" Hole

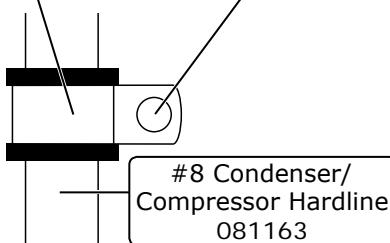


Figure 1

#8 Condenser/
Compressor Hardline
081163

#4 Adel Clamp



Core Support

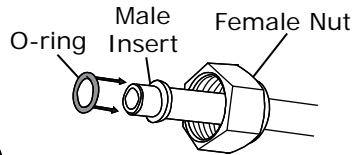
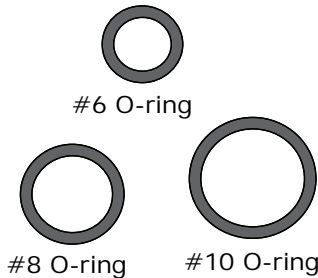
#10 x 1/2"
Sheet Metal Screw

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.

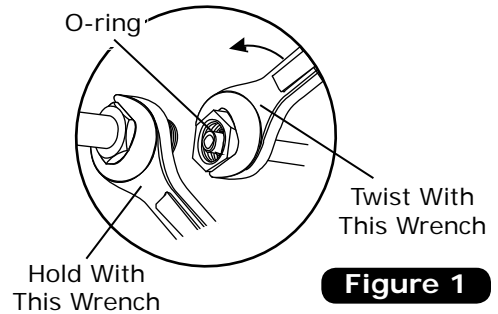
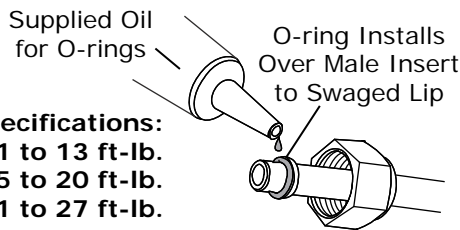


Figure 1

NOTE: Standard torque specifications:

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

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. Lubricate the O-ring on the binary switch (See Photo 1, below).
2. Thread the binary switch onto the drier (See Photo 2, below). **NOTE: The binary switch and the drier each come with an O-ring. Only one of the (2) O-rings will be used.**
3. Install the drier bracket onto the core support under the passenger side fender using (2) OEM bolts (See Photo 3, below).
4. From under the passenger side fender, install the drier into the drier bracket clamp, and secure it using a 9/32" flat washer and a 1/4-20 nut with star washer (See Photo 4, below). **NOTE: Refrigerant flow through the drier is IN from the condenser, OUT to the evaporator (See Photo 2, below). Do not fully tighten the nut until the hardline has been fully tightened.**
5. Remove the #6 condenser/drier hardline cap. Lubricate a #6 O-ring, and install it onto the #6 condenser/drier hardline (See Figure 1, above).
6. Remove the drier cap, and install the #6 condenser/drier hardline onto the drier (See Photo 5, below).
7. Tighten the drier clamp's 1/4-20 nut with star washer at this time. **NOTE: If installing the Vintage Air evaporator kit, do not tighten the nut at this time.**

Male Binary Switch
11079-VUS

Drier
07321-VUC

(2) OEM
Bolts

Drier Bracket
646959

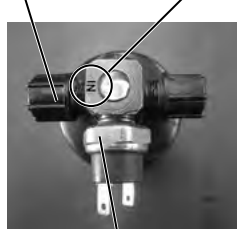
1/4-20 Nut with
Star Washer

Remove Drier Cap
and Install Hardline



Lubricate
O-ring

Photo 1



Install Male Binary
Switch on Drier

Photo 2



Install Drier Bracket
onto Core Support

Photo 3



9/32" Flat Washer

Photo 4



Photo 5

Final Steps

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

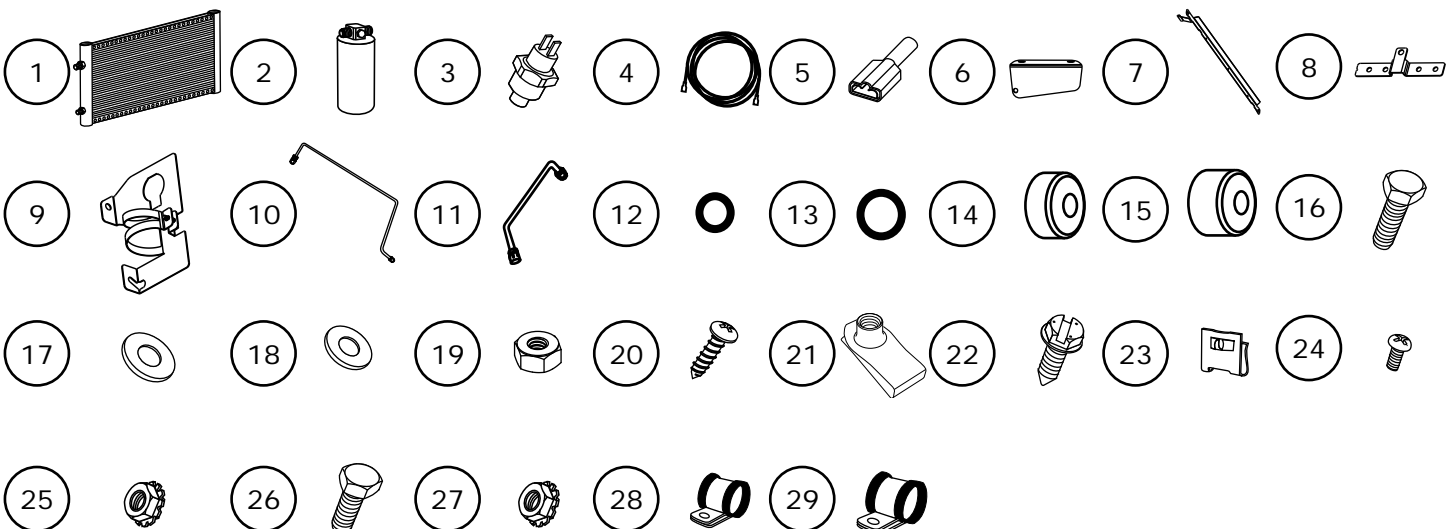


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Packing List: Condenser Kit (011152)

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	23172-VUW	Terminal, 1/4" Female, Insulated
6.	1	646966	Template, #6 Condenser Hardline
7.	1	646955	Bracket, Condenser, Upper Mounting
8.	1	646971	Bracket, Condenser, Lower Mounting
9.	1	646959	Bracket, Drier
10.	1	081162	Hardline, #6 Condenser/Drier
11.	1	081163	Hardline, #8 Condenser/Compressor
12.	2	33857-VUF	O-ring, #6
13.	1	33858-VUF	O-ring, #8
14.	2	180034	Spacer, .313" Length
15.	2	18064-SSR	Spacer, .500" Length
16.	4	183009-DSR	Bolt, 5/16-18 x 1 1/4", Hex
17.	9	18125-VUB	Washer, 5/16", Flat
18.	1	186011	Washer, 9/32", Flat
19.	2	18151-VUB	Locknut, 5/16-18
20.	7	18235-VUB	Screw, #8 x 1/2"
21.	2	18977-VUB	U-nut, 5/16"
22.	1	18247-VUB	Screw, #10 x 1/2", Sheet Metal
23.	7	18979-VUB	J-nut, #8
24.	1	18249-VUB	Screw, 10-24 x 3/8"
25.	1	18260-VUB	Nut with Star Washer, 10-24
26.	1	182871	Bolt, 1/4-20 x 3/4", Hex
27.	1	18152-VUB	Nut with Star Washer, 1/4-20
28.	1	31600-VUD	Adel Clamp, #2
29.	1	31603-VUD	Adel Clamp, #4

Checked By: _____
 Packed By: _____
 Date: _____



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