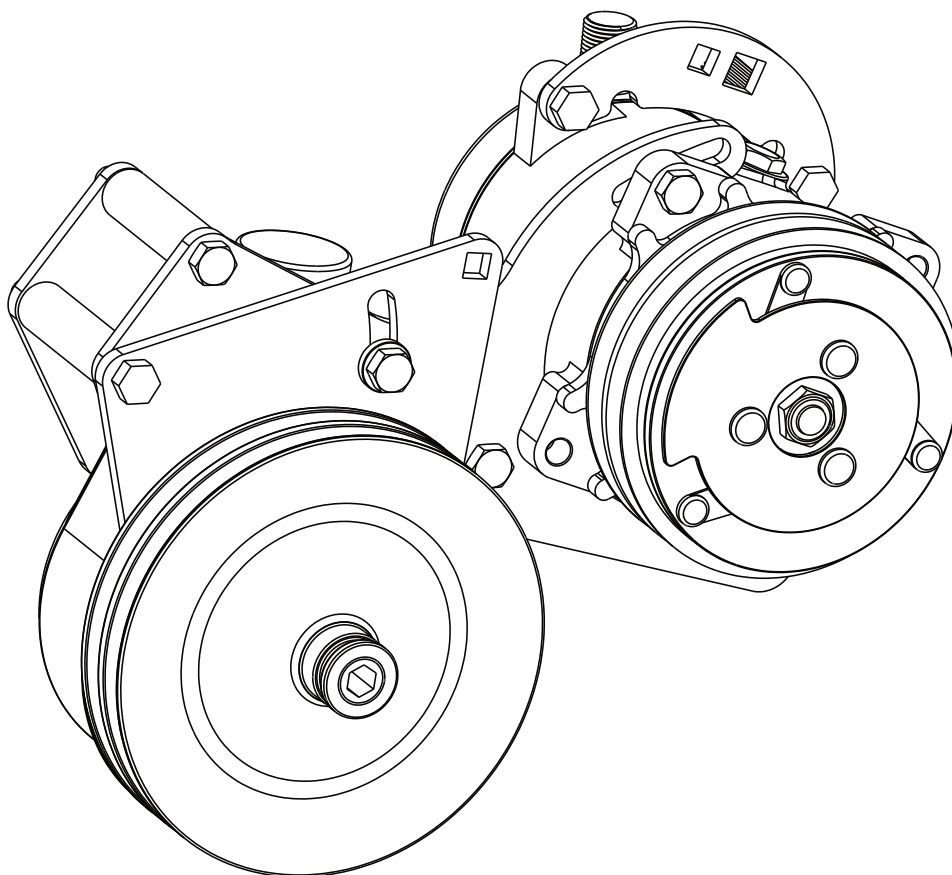




Chevrolet 305 / 350

**Long Pump, Driver-Side Compressor /
Saginaw Power Steering Bracket Kit
(151583)**



18865 Goll St. San Antonio, TX 78266
Phone: 800-862-6658
Sales: sales@vintageair.com
Tech Support: tech@vintageair.com
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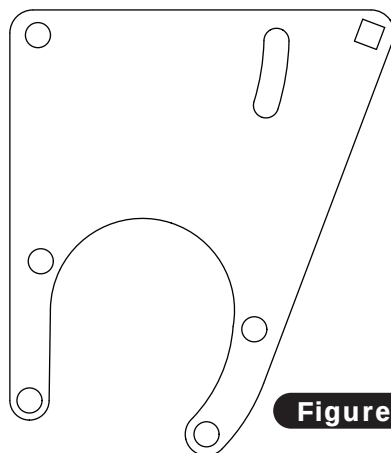
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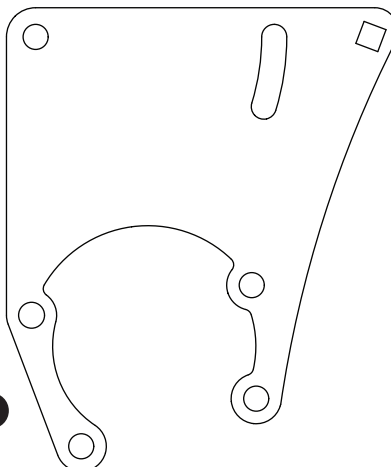
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Additional Info: Please Read Before Beginning

- Before disconnecting any A/C compressor lines, make sure the system is properly evacuated.
- These instructions are based on a 1982-88 Chevrolet Monte Carlo with a 2-groove power steering pulley. The disassembly steps may vary with other OEM bracket setups on Small Block Chevy engines, but the installation instructions will be the same.
- The compressor grounds through the bracket and into the engine, therefore it's important to have a good ground connection. A separate ground wire may also be run to ensure ground continuity.
- This kit is designed to work with or without power steering.
- Vintage Air recommends using only Dayco, Gates or Goodyear brand reinforced V-belts with this compressor bracket kit. A Gates XL 7405 power steering belt and Gates XL 9590 compressor belt were used in this installation. However, belt lengths may vary depending on the accessories present and the diameter of the water pump, crankshaft, alternator and power steering pulleys. Measure your setup to verify the belt lengths.
- This kit includes brackets to accomodate power steering pumps with either clocking (See Figure 1, below).



Standard Bracket for Most Power Steering Pumps.



Optional Bracket for Pumps with Alternative Clocking.

Figure 1

A detailed tech video outlining the installation process is available on Vintage Air's YouTube channel at <https://bit.ly/3vgEls0>. Viewing the tech video along with the written instructions will provide the installer the most detailed installation procedure.



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Packing List: Bracket Kit (151583)

No.	Qty.	Part No.	Description
1.	1	145000	Bracket, Compressor, Rear
2.	1	145001	Bracket, Compressor, Front
3.	1	145002	Bracket, Power Steering
4.	1	145004	Bracket, Power Steering, Optional Clocking
5.	1	646983	Compressor Tensioning Tool
6.	1	191111	Hardware Kit

**** 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.**

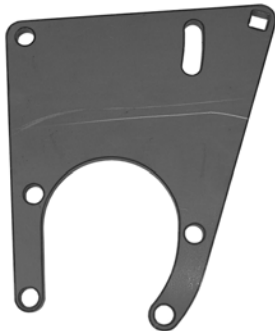
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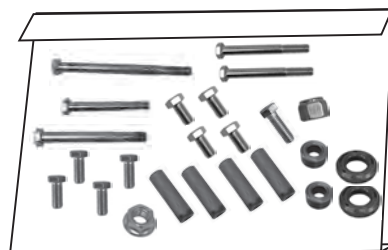
4



5



6



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.

Compressor and Power Steering Bracket Disassembly

1. Disconnect the battery.
2. Evacuate the A/C system.
3. Take note of the factory belt routing and lengths.
4. Loosen the tension on the factory power steering pump and compressor belts.
5. Remove the factory A/C hoses from the A/C compressor.
6. Remove the factory power steering hoses, draining the fluid into a catch pan.
7. Unbolt and remove the brace from the compressor brackets and the intake manifold as shown in Photo 1, below.
8. Remove the factory brackets starting with the (3) bolts on the back of the compressor as shown in Photo 2, below.
9. While supporting the compressor, remove the remaining bolt from the front of the compressor bracket and remove the assembly (See Photo 3, below).
10. Remove (2) bolts from the rear of the power steering pump as shown in Photo 4, below.

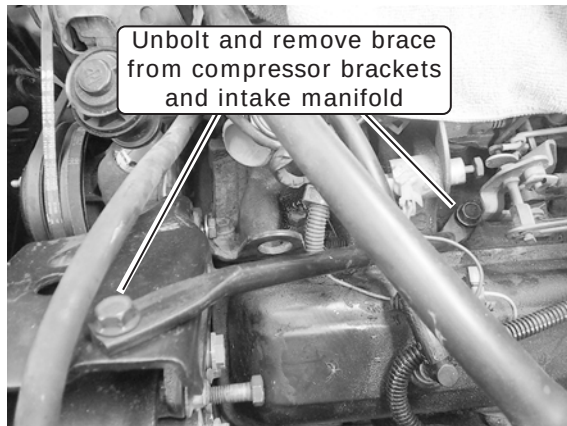


Photo 1

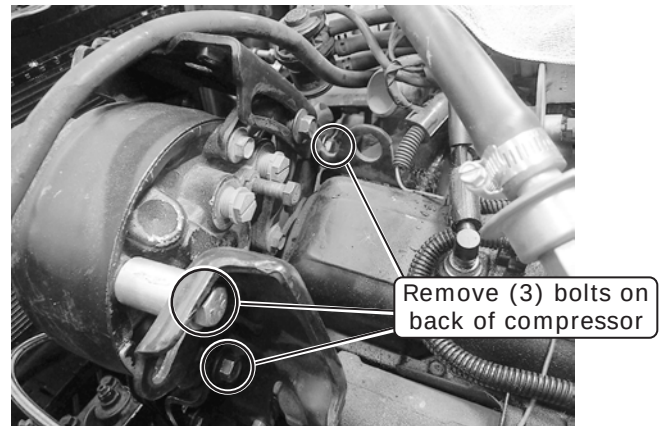


Photo 2

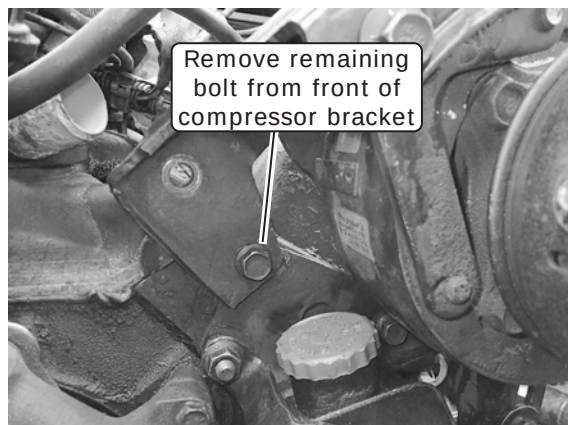


Photo 3

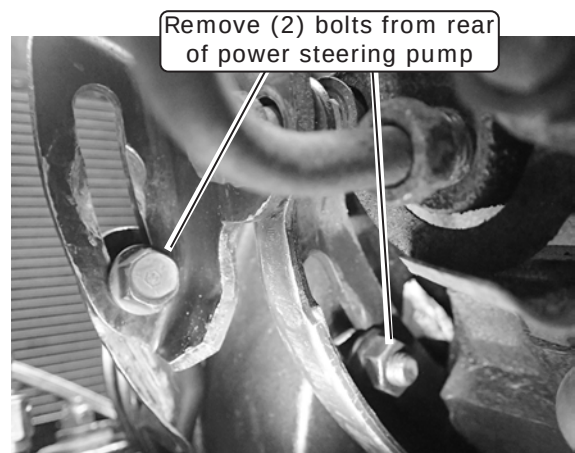


Photo 4

Compressor and Power Steering Bracket Disassembly (Cont.)

11. Remove (2) bolts from the front of the power steering pump as shown in Photo 5, below, then remove the pump.
12. Remove the stud and bolt from the bracket as shown in Photo 6, below, then remove the bracket.
13. Remove the remaining bolt from the lower bracket as shown in Photo 7, below.
14. Remove and retain the exhaust manifold bolt and nut, then remove both remaining brackets as shown in Photo 8, below.
15. After removing the brackets, install the manifold bolt that was removed in the previous step as shown in Photo 9, below.
16. If using an OEM pump and/or pulley, remove the pulley from the OEM pump using a power steering pulley pulling/installation tool. Remove the (3) bolts from the bracket as shown in Photo 10, below.

Remove (2)
bolts from
front of power
steering pump

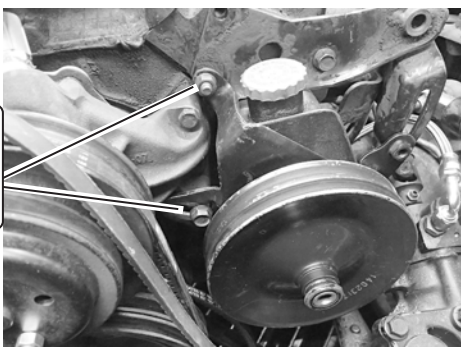


Photo 5

Remove stud and
bolt from bracket

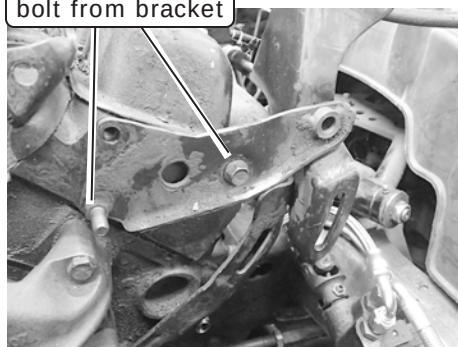


Photo 6

Remove remaining
bolt from lower
bracket

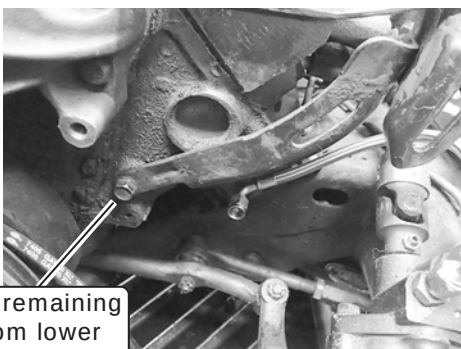


Photo 7

Remove and retain
exhaust manifold
bolt and nut

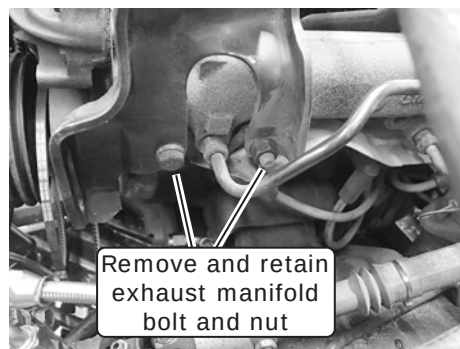


Photo 8

Reinstall
manifold bolt

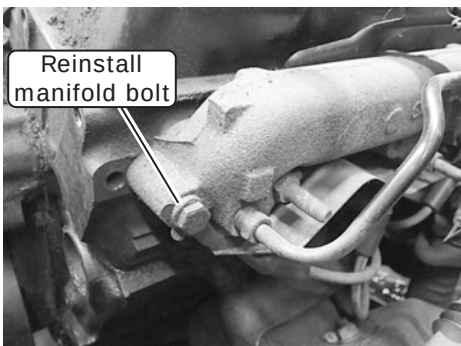


Photo 9

Remove (3) bolts
from bracket

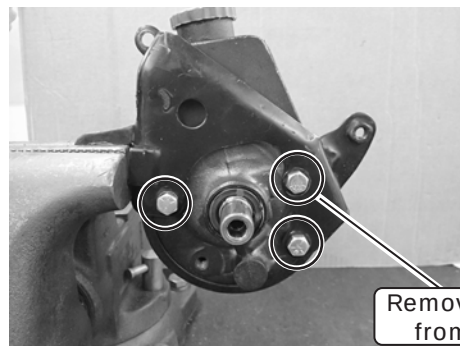


Photo 10

Compressor and Power Steering Bracket Installation

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1. Install the power steering bracket onto the power steering pump using (2) 3/8-16 x 1" hex bolts, (2) .750" OD x .406" ID x .400" length spacers and (2) 3/8-16 x 3/4" hex bolts as shown in Photos 1 and 2, below.
NOTE: Most power steering pumps will have mounting holes with the same orientation as the pump shown in Photo 1, below. In the event that it has the alternative clocking, use bracket (145004) instead.
2. Press the pulley onto the pump shaft using a power steering pulley pulling/installation tool (See Photo 3, below). **NOTE: This kit was designed for the pulley to be pressed flush with the shaft face.**
3. Install the rear compressor bracket into the right bolt hole on the head using a 3/8-16 x 3/4" hex bolt as shown in Photo 4, below.
4. Install the front compressor bracket to the rear compressor bracket using a 3/8-16 x 3 1/4" hex bolt and a .750" OD x .406" ID x 2.625" length spacer into the threaded boss as shown in Photo 5, below.
5. Install a 3/8-16 x 3 1/2" hex bolt and a .750" OD x .406" ID x 2.625" length spacer into the top left hole on the head (See Photo 6, below).

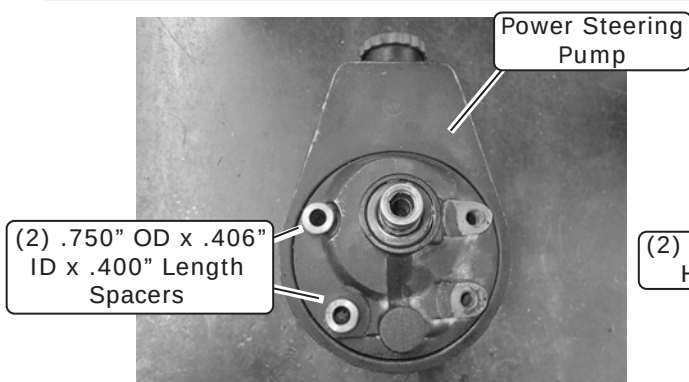


Photo 1

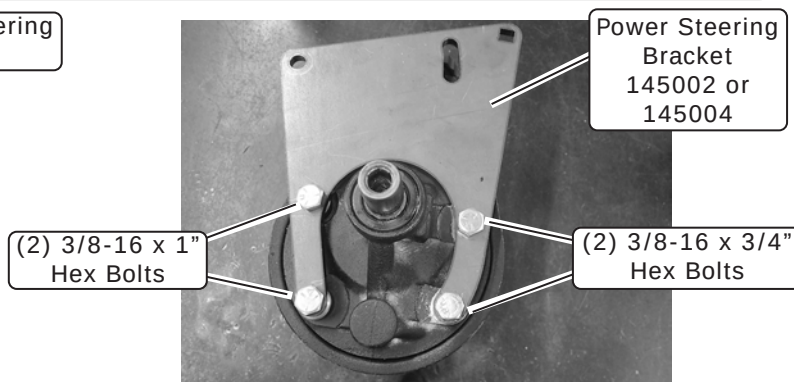


Photo 2

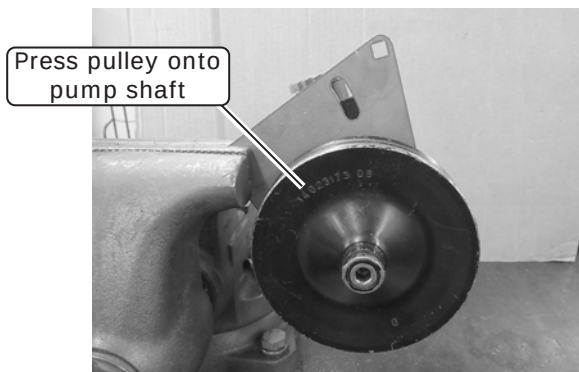


Photo 3

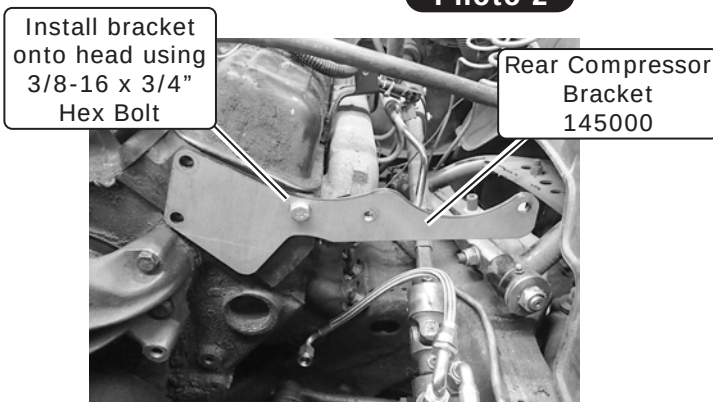


Photo 4

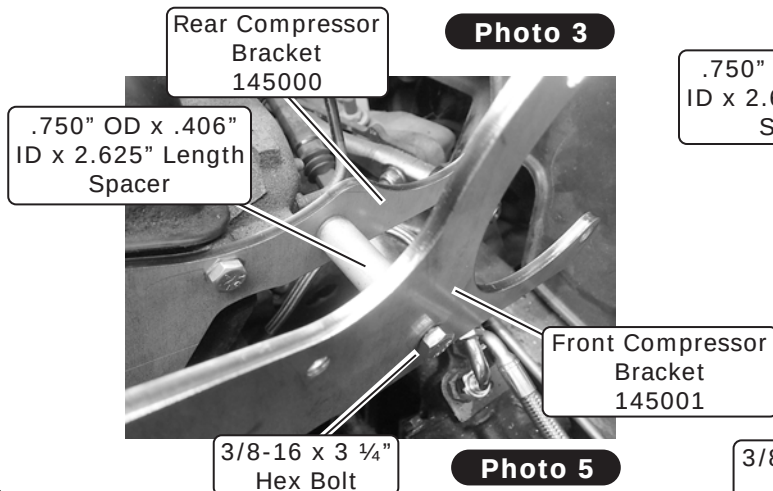


Photo 5

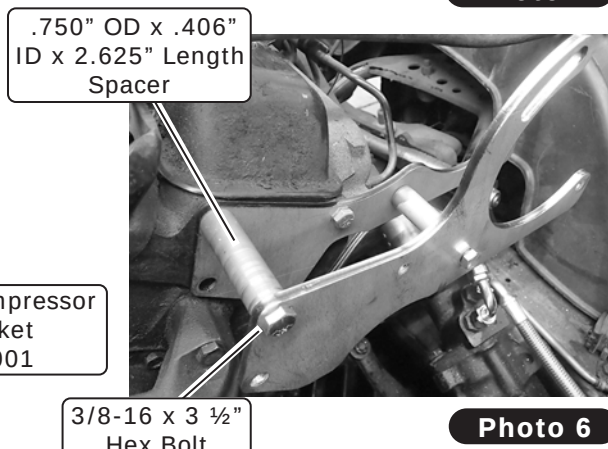
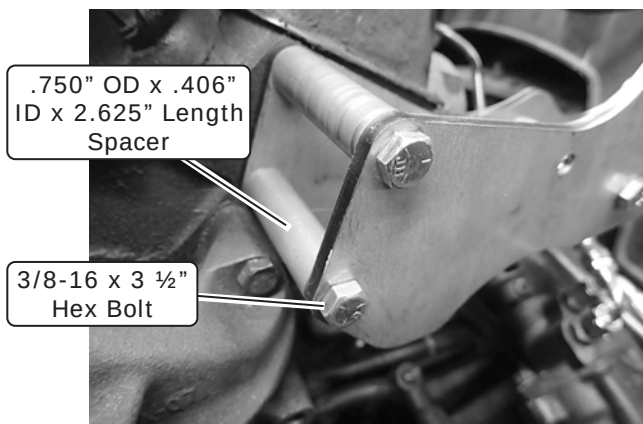


Photo 6

Compressor and Power Steering Bracket Installation (Cont.)

6. If installing this kit without power steering, install a 3/8-16 x 3 1/2" hex bolt and a .750" OD x .406" ID x 2.625" length spacer into the bracket assembly as shown in Photo 7, below, then skip to Step 9. **NOTE: The 3/8-16 x 3 3/4" hex bolt, 3/8-16 x 3/4" hex bolt and a .750" OD x .406" ID x .150" length spacer will not be used.**
7. Install the power steering pump assembly onto the front compressor bracket as shown in Photo 8, below. Hold the pump with a 3/8-16 x 3/4" hex bolt and a .750" OD x .406" ID x .150" length spacer as shown in Photo 8, below.
8. With a .750" OD x .406" ID x 2.625" spacer between the rear and front compressor brackets, install a 3/8-16 x 3 3/4" hex bolt through the power steering bracket, front compressor bracket and rear compressor bracket, then into the head as shown in Photo 9, below. **NOTE: Removing the 3/8-16 x 3/4" hex bolt from the previous step may allow easier installation of the power steering belt onto the rear groove of the pump pulley.**
9. Install the compressor into the bracket cradle (See Photo 10, below). **NOTE: This is an ideal time to measure and install your belt onto the rear groove of the compressor pulley.**



Without Power Steering

Photo 7

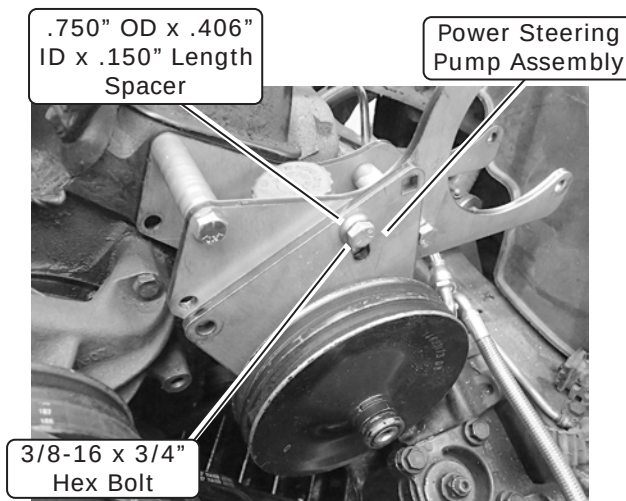


Photo 8

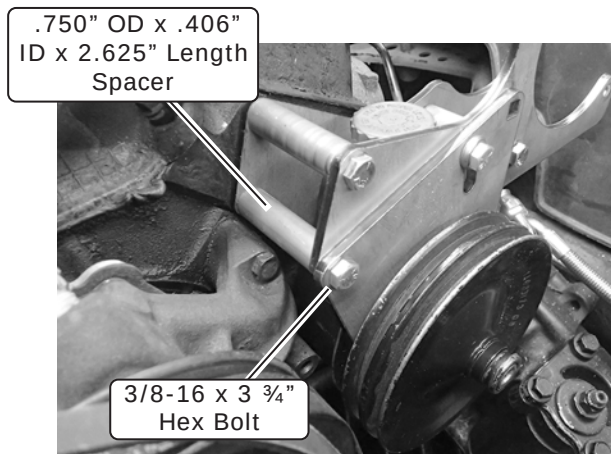


Photo 9

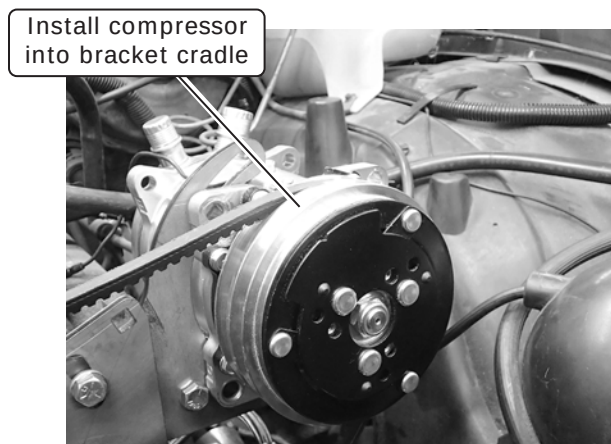


Photo 10

Compressor and Power Steering Bracket Installation (Final)

10. Secure the compressor using a 3/8-16 x 5" hex bolt through the front of the bottom-right compressor ear, front compressor bracket, .750" OD x .406" ID x 2.625" length spacer, rear compressor bracket, .750" OD x .406" ID x .150" length spacer, rear compressor ear, and 3/8-16 locknut as shown in Photo 11, below.
11. Install a 3/8-16 x 1 1/4" hex bolt into the top-left compressor ear, then the front compressor bracket tensioning slot and secure with a 3/8-16 serrated flange hex nut (See Photo 12, below).
12. Install the compressor tensioning tool using (2) 3/8-16 x 1" hex bolts threaded into the top-rear compressor ears as shown in Photo 13, below. **NOTE: This tool may be removed after tensioning or left on compressor as needed.**
13. Tension the compressor and power steering pump using a 3/8" drive ratchet or breaker bar and a 9/16" wrench (See Photo 14, below).
14. Reconnect the hoses and follow the manufacturer procedure for filling and priming the power steering system.

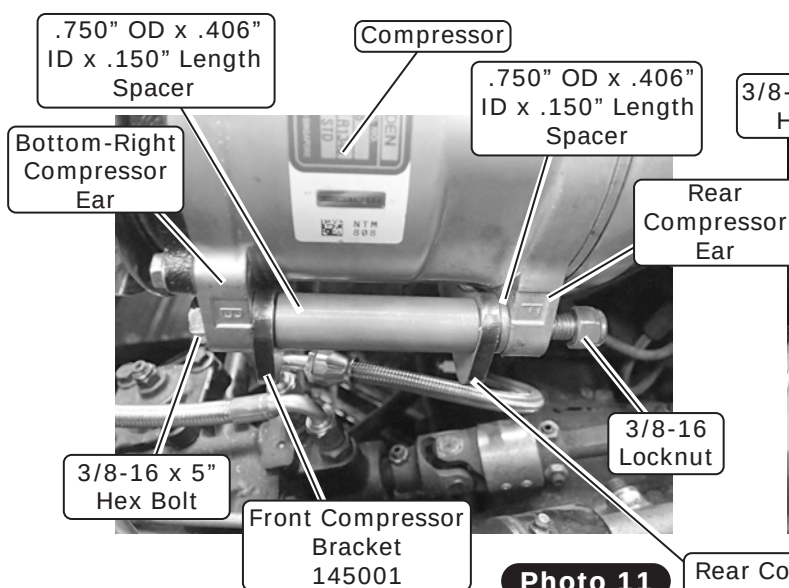


Photo 11

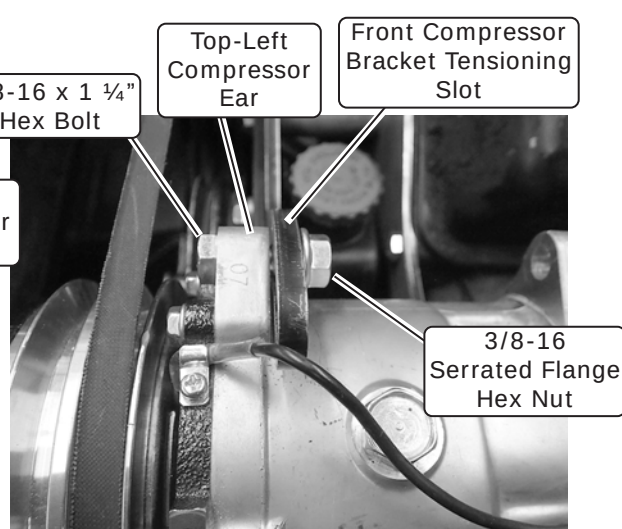


Photo 12

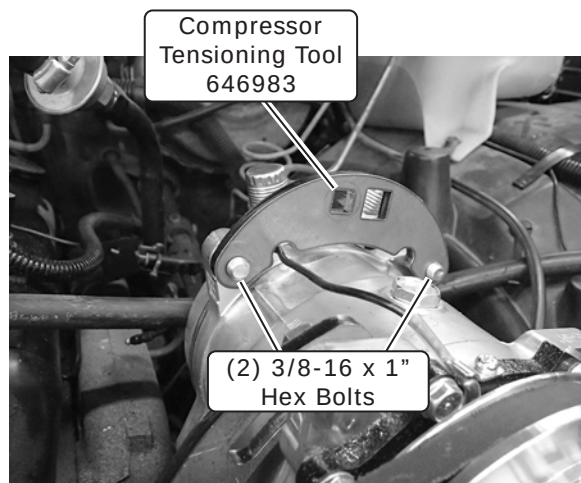


Photo 13

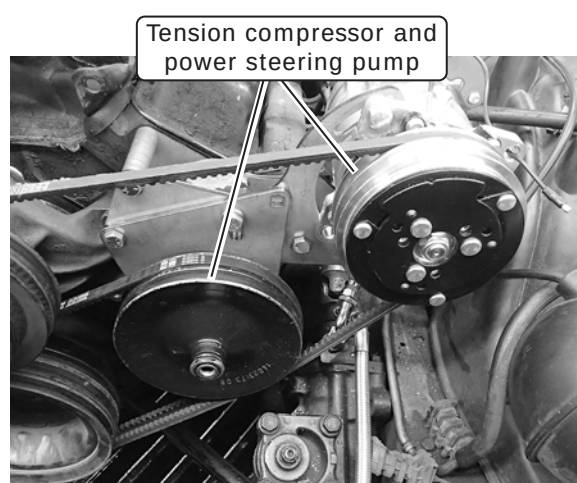
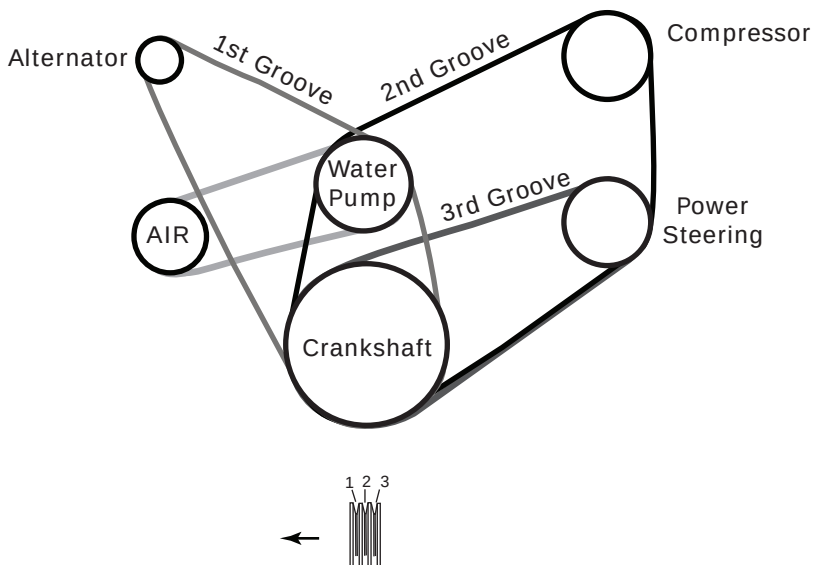


Photo 14

Belt Routing Diagram

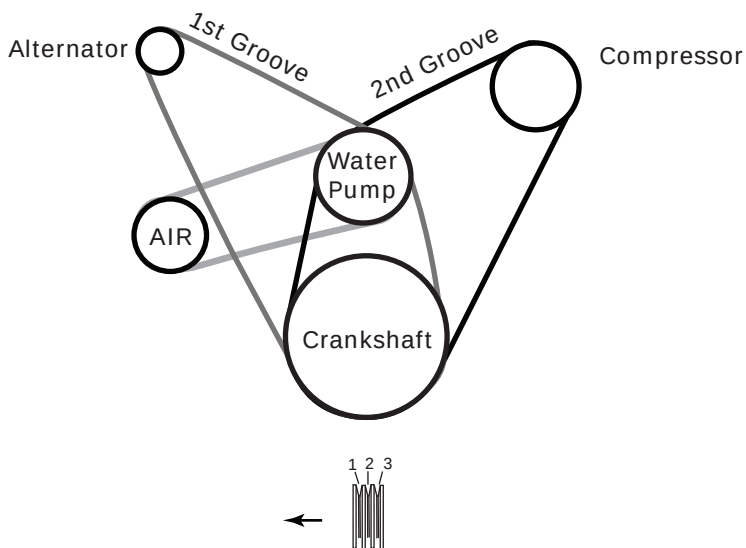
with Power Steering



Crankshaft Pulley Grooves:

1. Crankshaft, Alternator & Water Pump
2. Crankshaft, Water Pump, Compressor & Power Steering
3. Crankshaft, Power Steering

without Power Steering



Crankshaft Pulley Grooves:

1. Crankshaft, Alternator & Water Pump
2. Crankshaft, Water Pump & Compressor
3. Unused



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Packing List: Bracket Kit (151583)

No.	Qty.	Part No.	Description	
1.	1	145000	Bracket, Compressor, Rear	_____
2.	1	145001	Bracket, Compressor, Front	_____
3.	1	145002	Bracket, Power Steering	_____
4.	1	145004	Bracket, Power Steering, Optional Clocking	_____
5.	1	646983	Compressor Tensioning Tool	_____
6.	1	191111	Hardware Kit	_____

Checked By: _____
Packed By: _____
Date: _____

1



2



3



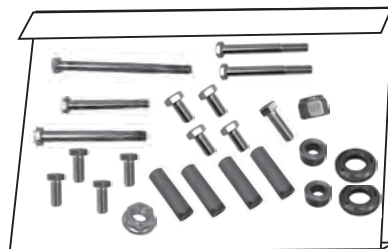
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6



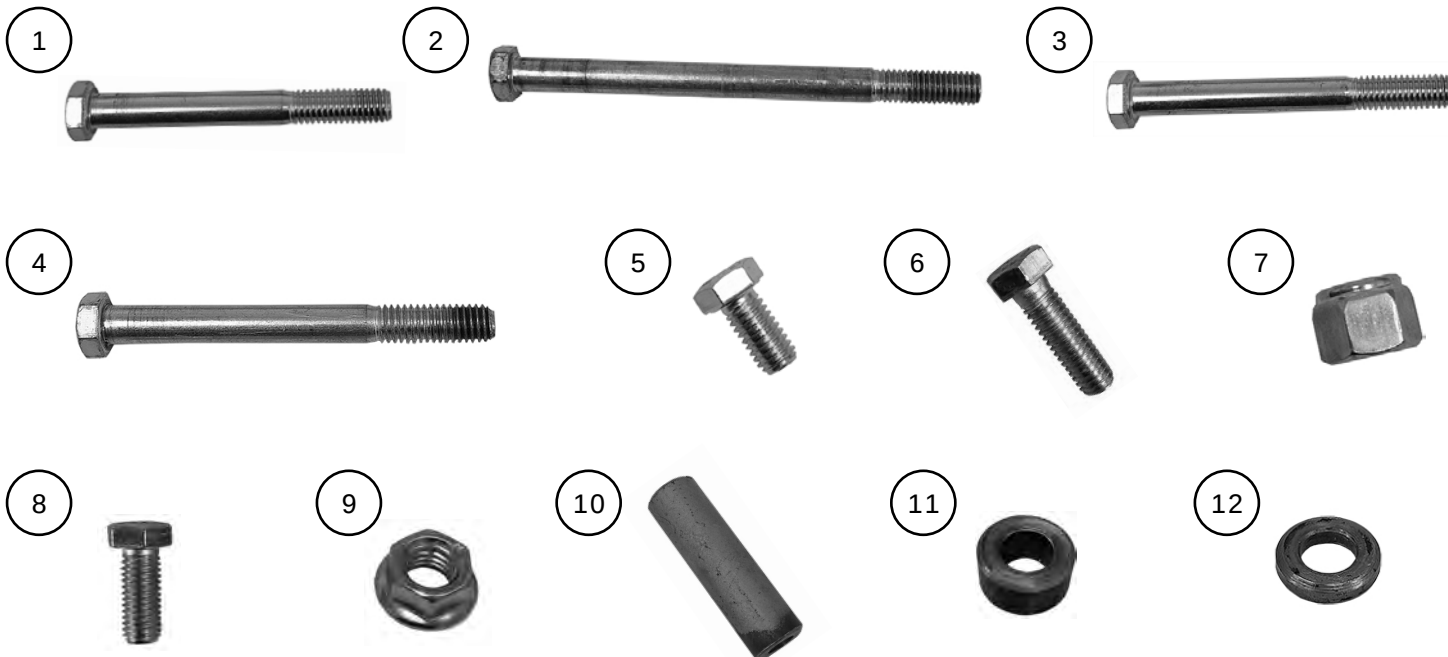
**NOTE: Images may not depict actual parts and quantities.
Refer to packing list for actual parts and quantities.**

Packing List:

Chevrolet 305/350 Driver-Side Compressor/Saginaw Power Steering Bracket Hardware Kit (191111)

No.	Qty.	Part No.	Description	
1.	1	18599-VUB	Bolt, 3/8-16 x 3 1/4", Hex	_____
2.	1	18376-VUB	Bolt, 3/8-16 x 5", Hex	_____
3.	2	18369-BHA	Bolt, 3/8-16 x 3 1/2", Hex	_____
4.	1	18371-DSR	Bolt, 3/8-16 x 3 3/4", Hex	_____
5.	4	18358-VUB	Bolt, 3/8-16 x 3/4", Hex	_____
6.	1	18360-VUB	Bolt, 3/8-16 x 1 1/4", Hex	_____
7.	1	18155-VUB	Locknut, 3/8-16	_____
8.	4	18359-VUB	Bolt, 3/8-16 x 1", Hex	_____
9.	1	181560	Nut, 3/8-16, Hex with Serrated Flange	_____
10.	4	180163	Spacer, .750" OD x .406" ID x 2.625" Length	_____
11.	2	182023	Spacer, .750" OD x .406" ID x .400" Length	_____
12.	2	181551	Spacer, .750" OD x .406" ID x .150" Length	_____

Checked By: _____
Packed By: _____
Date: _____



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