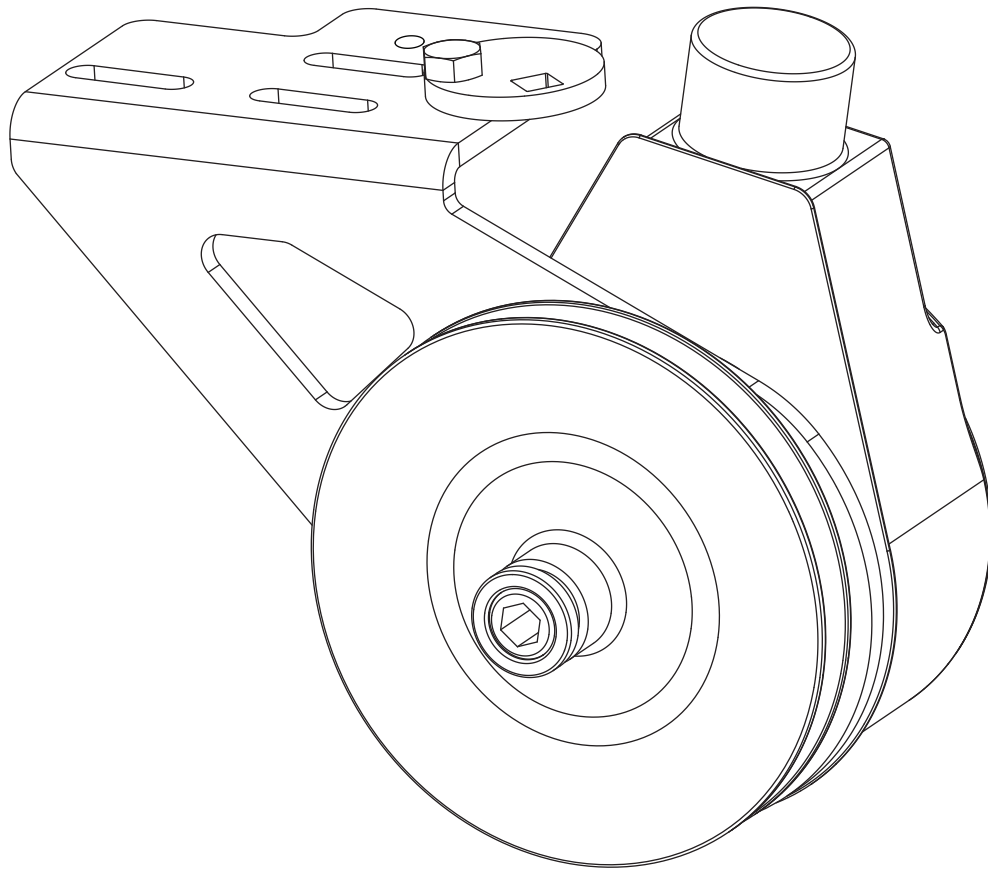




# Ford 351M/460/FE

## Saginaw Power Steering Add-On Kit (137021)



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# Table of Contents

Cover..... 1

Table of Contents/Preliminary Information..... 2

Packing List/Parts Disclaimer..... 3

Important Notice..... 4

OEM Power Steering Bracket Disassembly, Power Steering Pump Installation..... 5

Power Steering Pump Add-On Bracket Installation (137000 & 137020)..... 6

Power Steering Pump Add-On Bracket Installation (137154)..... 7

Power Steering Pump Add-On Bracket Installation (137154) (Cont.)..... 8

Packing List..... 9

## Additional Info: Please Read Before Beginning

- This kit requires compressor bracket kit (137000), (137020) or (137154) for mounting.
- Due to the wide range of accessory options and pulley diameters, you will need to measure your pulleys to get the proper length V-belts.
- Saginaw pumps require single-groove pulley Dorman 300-122 due to larger shaft size. Ford pulley could also be bored out to 0.746" to fit shaft.
- This bracket is designed to be mounted fixed to the compressor bracket. The power steering pump tensions when the compressor is tensioned.

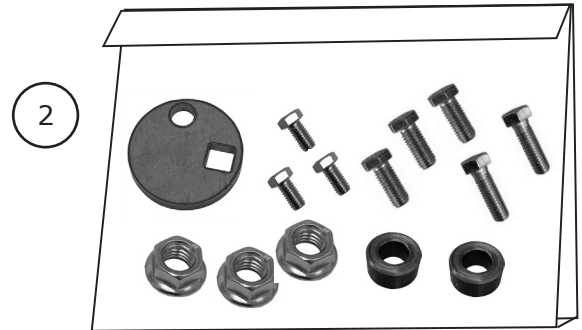
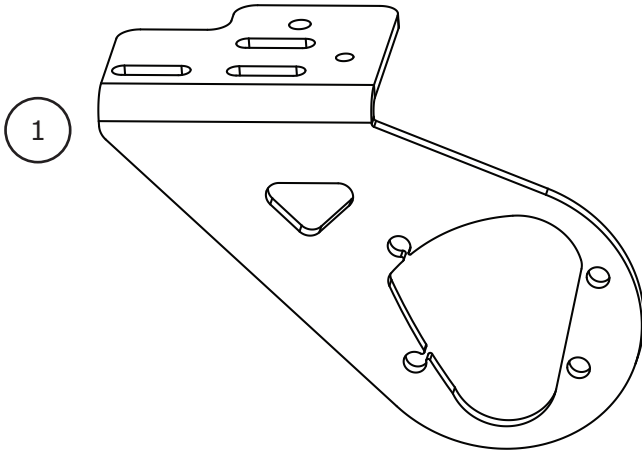


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## Packing List: Power Steering Add-On Kit (137021)

No.	Qty.	Part No.	Description
1.	1	137016	Bracket, Power Steering Pump Add-on
2.	1	191104	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.**



**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:

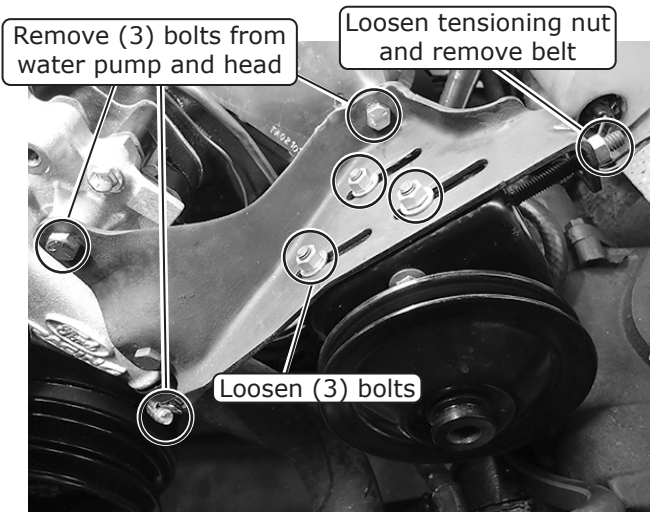
To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the cowl and/or firewall, Vintage Air recommends coating the threads with silicone prior to installation.

### Heater Hose (not included with this kit):

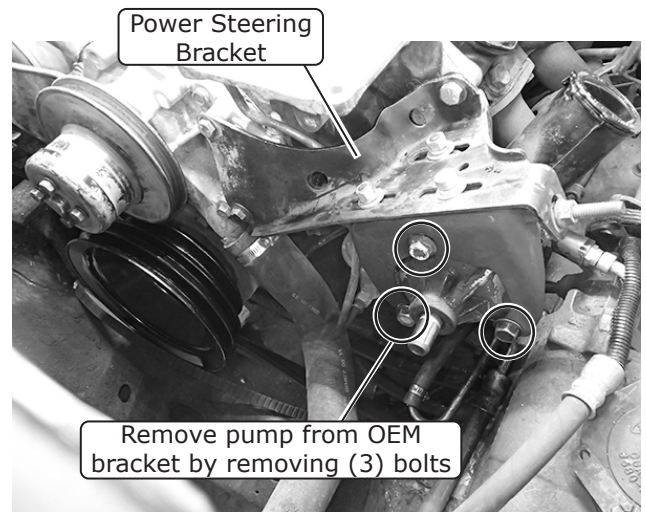
Heater hose may be purchased from Vintage Air (Part#31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.

## OEM Power Steering Bracket Disassembly

1. Disconnect the battery.
2. Disconnect and plug the power steering lines from the OEM pump.
3. Loosen (3) bolts to release tension from the belt (See Photo 1, below).
4. Loosen the tensioning nut and remove the belt (See Photo 1, below).
5. Remove (3) bolts from the water pump and head (See Photo 1, below).
6. Remove the power steering bracket and the pump together.
7. Remove the pulley from the pump using a power steering pulley pulling/installation tool. **NOTE: If using an OEM pulley, see Additional Information on Page 2.**



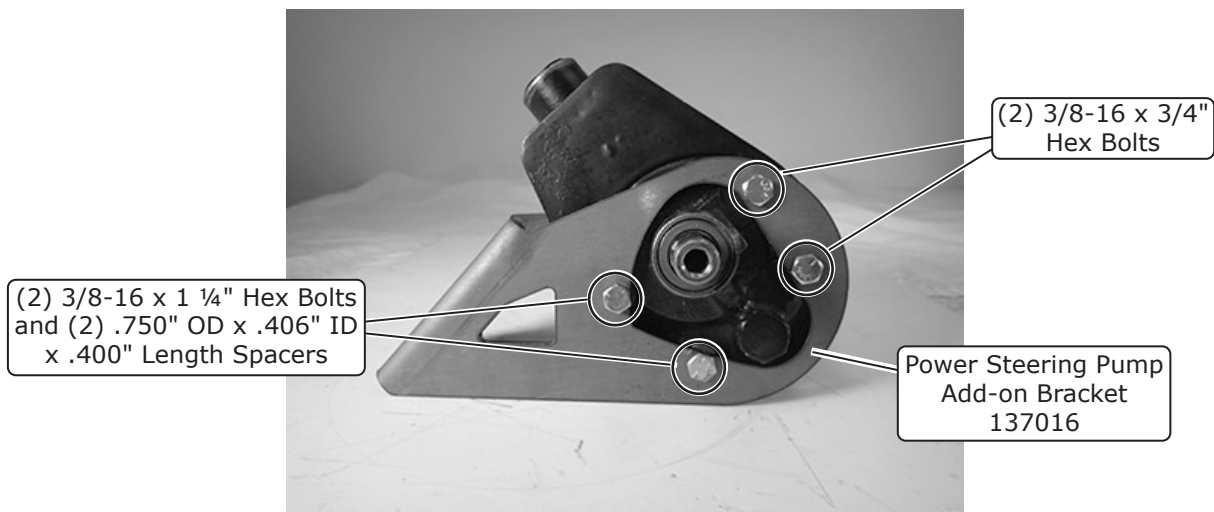
**Photo 1**



**Photo 2**

## Power Steering Pump Installation

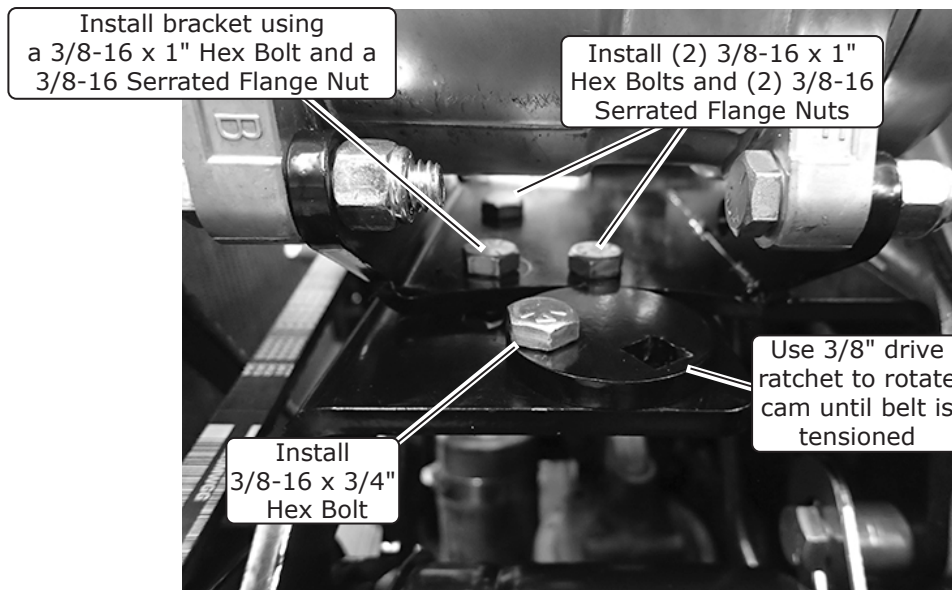
1. Install the pump onto the bracket using (2) 3/8-16 x 1 1/4" hex bolts and (2) .750" OD x .406" ID x .400" length spacers on the left, and (2) 3/8-16 x 3/4" hex bolts on the right (See Photo 1, below).
2. Press the pulley onto the pump shaft using a power steering pulley pulling/installation tool. **NOTE: This kit was designed for the pulley to be pressed flush with the shaft face.**



**Photo 1**

## Power Steering Pump Add-on Bracket Installation (137000 & 137020)

1. Position the bracket with the pump underneath the compressor bracket. Install a 3/8-16 x 1" hex bolt and a 3/8-16 serrated flange nut into the corner slot to support the bracket (See Photo 2, below).
2. Install the remaining (2) 3/8-16 x 1" hex bolts and (2) 3/8-16 serrated flange nuts (See Photo 2, below).  
**NOTE: Leave the assembly loose enough to slide back and forth.**
3. Install a 3/8-16 x 3/4" hex bolt through the tensioner cam and into the threaded boss on the bracket. Tighten the bolt until the cam can rotate with light resistance (See Photo 2, below).
4. Install the power steering hoses onto the pump.
5. Install the belt.
6. Using a 3/8" drive ratchet and the square hole on the cam, rotate the cam until the belt is tensioned (See Photo 2, below). Tighten the cam bolt with the wrench while holding tension. **NOTE: The cam can be rotated either direction based on ease of access.**
7. Tighten all the bolts on the bracket.
8. Replace and tighten the compressor bolts and tension the belt.
9. Check all the hose connections, add power steering fluid and follow the pump manufacturer's bleeding procedure.
10. Reconnect the battery.



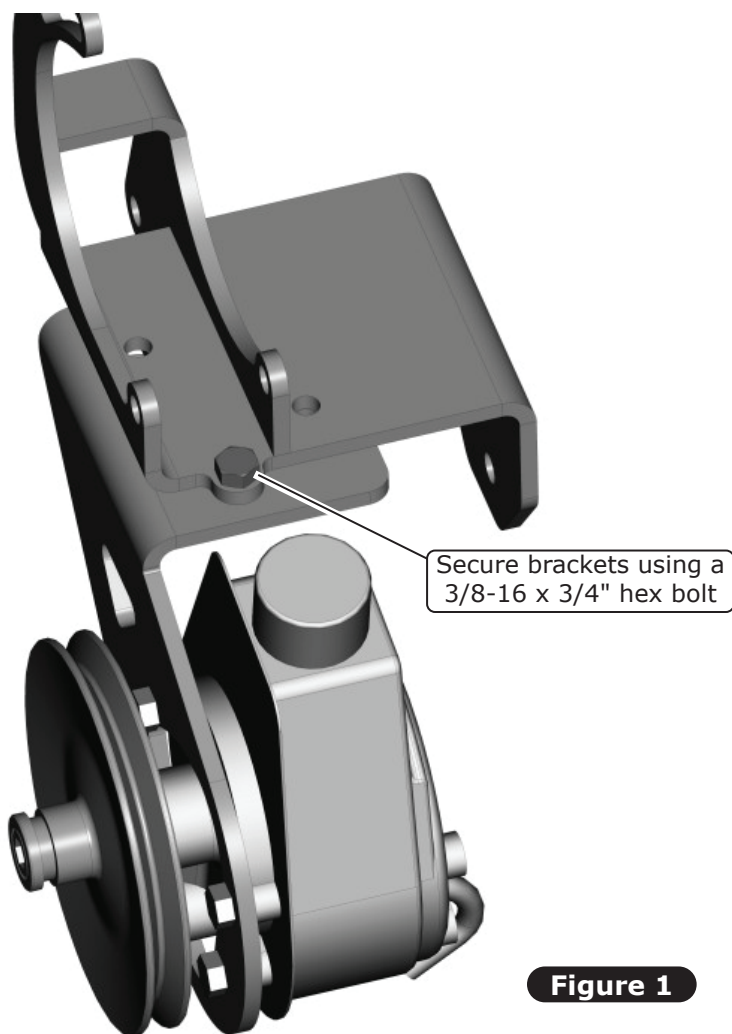
**Photo 2**



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## Power Steering Pump Add-on Bracket Installation (137154)

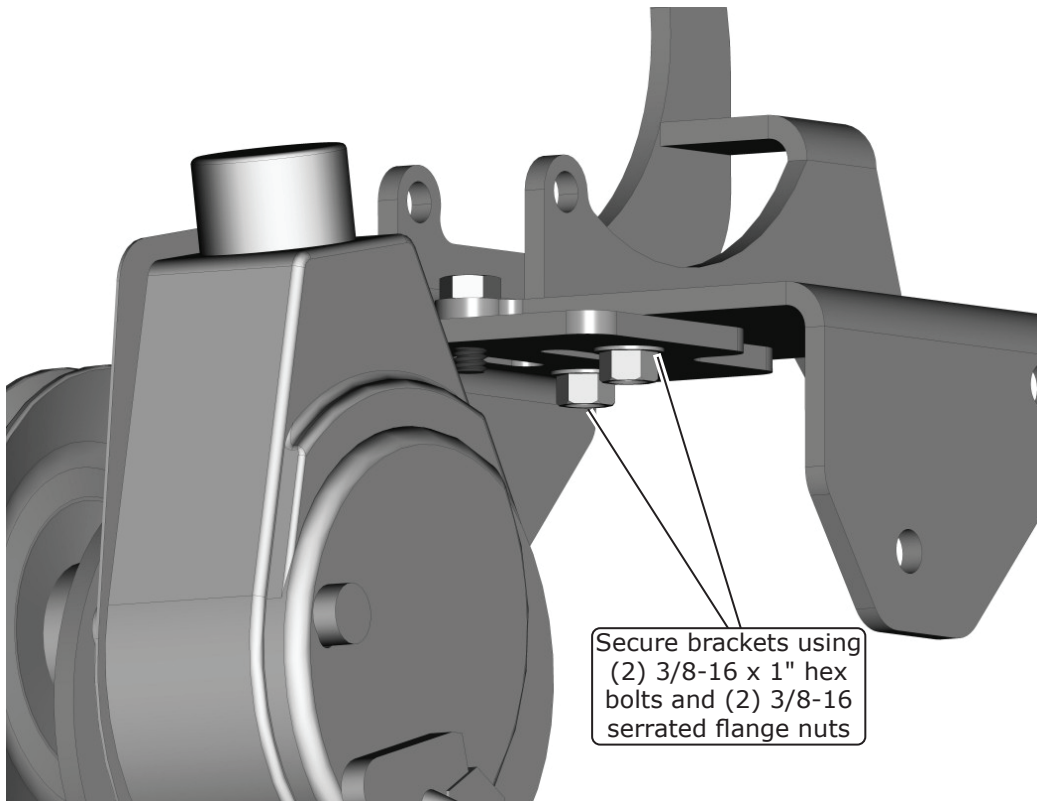
1. Loosen the compressor bolts and remove the compressor belt. **NOTE: Compressor may need to be rotated to gain access to the mounting bolts.**
2. Install the bracket and pump assembly under the compressor bracket. **NOTE: Compressor is not shown on bracket for illustration purposes.**
3. Secure the brackets using a 3/8-16 x 3/4" hex bolt through the compressor bracket and into the threaded boss of the power steering bracket (See Figure 1, below).



**Figure 1**

## Power Steering Pump Add-on Bracket Installation (137154) (Cont.)

4. Finish securing the brackets using (2) 3/8-16 x 1" hex bolts and (2) 3/8-16 serrated flange nuts into the two remaining holes in the compressor bracket.
5. Tighten all the bolts on the bracket.
6. Install the power steering hoses onto the pump.
7. Install the belt and check alignment.
8. Replace and tighten the compressor bolts and tension the belt.
9. Check all the hose connections, add power steering fluid and follow the pump manufacturer's bleeding procedure.
10. Reconnect the battery.



**Figure 2**



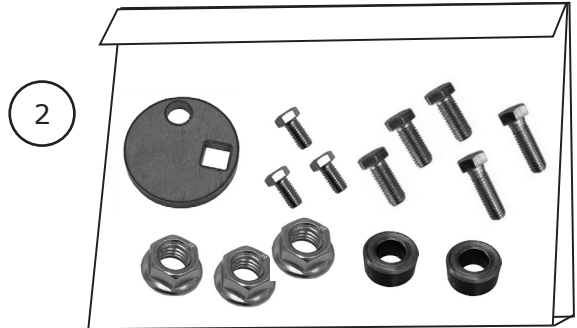
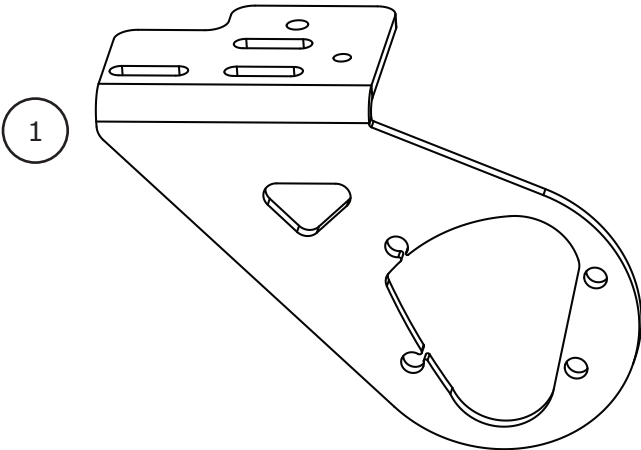


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# Packing List: Power Steering Add-On Kit (137021)

No.	Qty.	Part No.	Description
1.	1	137016	Bracket, Power Steering Pump Add-on
2.	1	191104	Hardware Kit

Checked By: \_\_\_\_\_  
 Packed By: \_\_\_\_\_  
 Date: \_\_\_\_\_



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

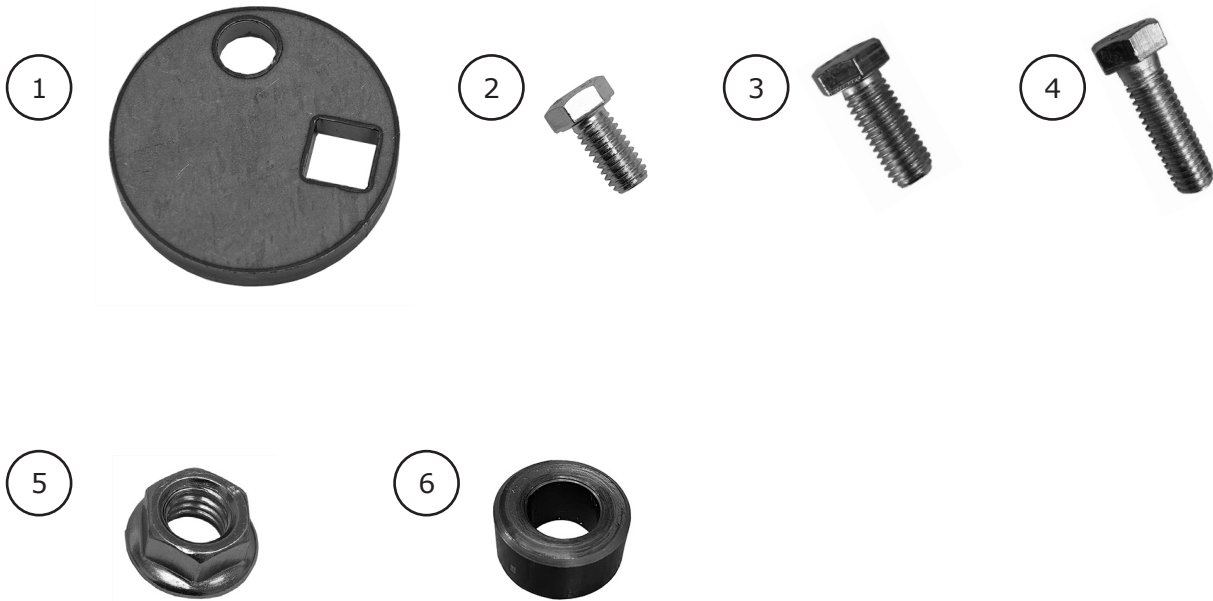


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# Packing List: Ford 351M/460/FE Saginaw Power Steering Add-On Hardware Kit (191104)

No.	Qty.	Part No.	Description
1.	1	137014	Power Steering Add-On Tensioner Cam
2.	3	18358-VUB	Bolt, 3/8-16 x 3/4", Hex
3.	3	18359-VUB	Bolt, 3/8-16 x 1", Hex
4.	2	18360-VUB	Bolt, 3/8-16 x 1 1/4", Hex
5.	3	181560	Nut, 3/8-16, Serrated Flange
6.	2	182023	Spacer, .750" OD x .406" ID x .400" Length

Checked By: \_\_\_\_\_  
 Packed By: \_\_\_\_\_  
 Date: \_\_\_\_\_



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