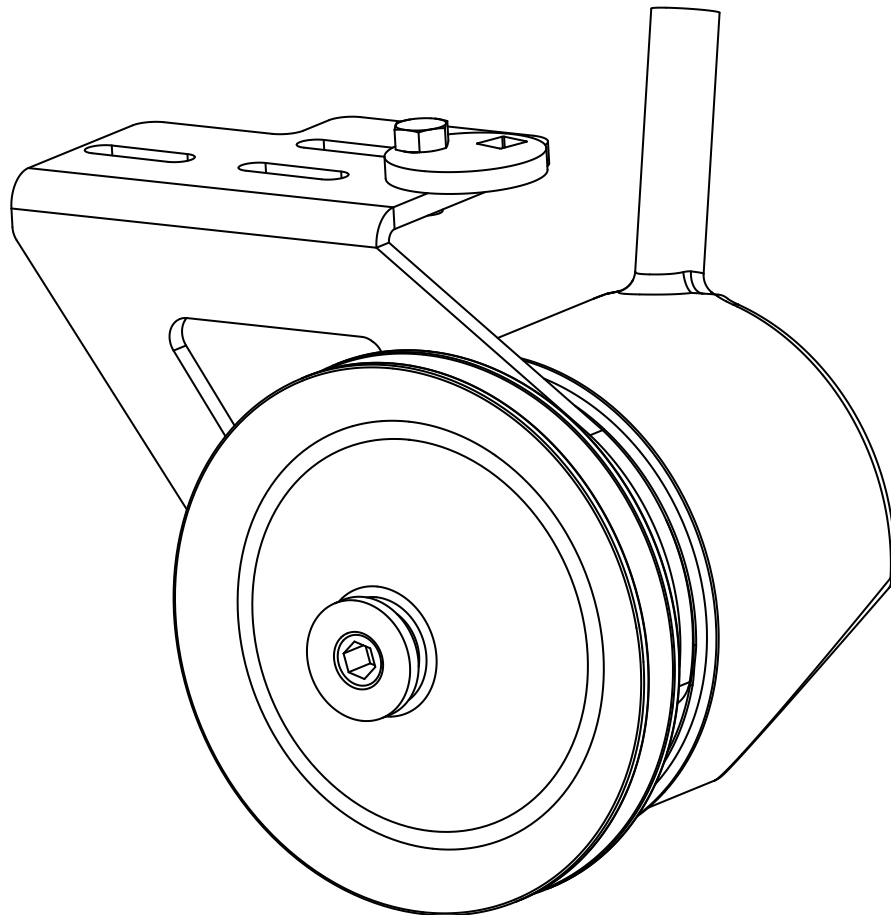




an ISO 9001:2015 Registered Company

# Ford 351M/400/429/460

## OEM Power Steering Add-On Kit (137012)



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## Additional Info: Please Read Before Beginning

- This kit requires compressor bracket kit (137000) or (137020) for mounting.
- This kit supports early Ford pumps (1965-1978) and later (1979-1996) pumps.
- Ford pumps require the pulley part (D0OR-B) or (D0AR-A). These provide the same offset, but different diameters.
- 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.



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## Packing List: Power Steering Add-On Kit (137012)

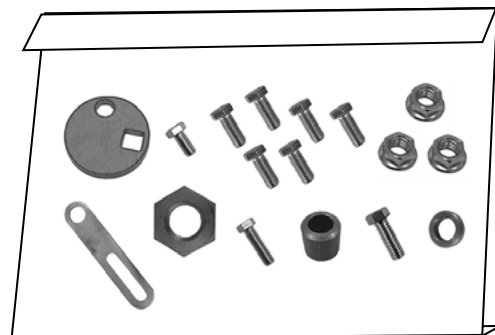
No.	Qty.	Part No.	Description
1.	1	137013	Bracket, Power Steering Pump Add-on
2.	1	191103	Hardware Kit

**\*\* 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.**

1



2



**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.
8. Remove the pump from the OEM bracket by removing (3) bolts (if reusing the pump) (See Photo 2, below).

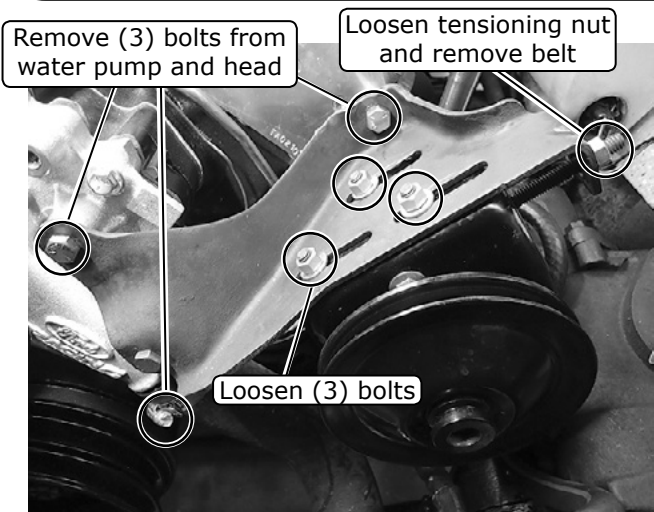


Photo 1

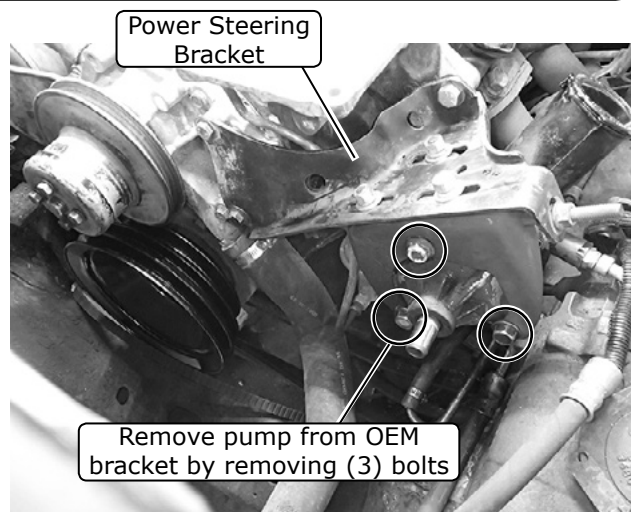


Photo 2

## Power Steering Pump Add-on Bracket Installation

**NOTE: If using late style pump (1979-96), skip Steps 7-9. For 351M/400 engines, skip Steps 3 and 14.**

1. Install the pump onto the bracket using (3) 3/8-16 x 1" hex bolts (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.**

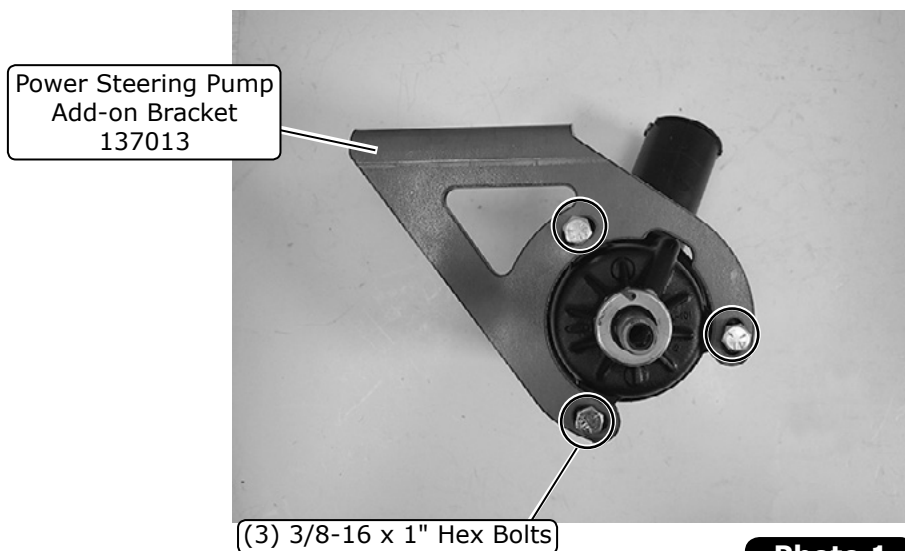
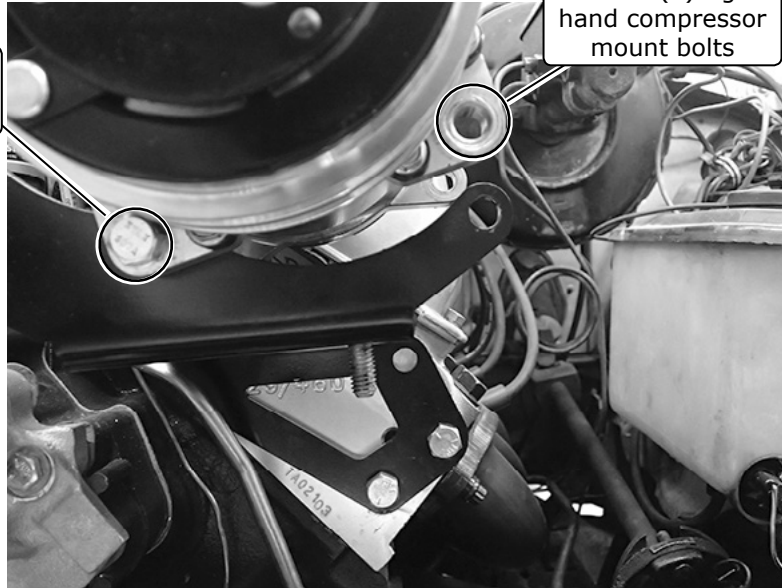


Photo 1

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

3. On 429/460 engines only, loosen the A/C compressor belt tension. Remove the (2) right-hand compressor mount bolts (See Photo 2, below) and loosen the (2) left-hand compressor mount bolts, to allow the compressor to swing up. **NOTE: This gains access to the power steering mounting holes under the compressor.**
4. 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 3, below).
5. Install the remaining (2) 3/8-16 x 1" hex bolts and (2) 3/8-16 serrated flange nuts (See Photo 3, below). **NOTE: Leave the assembly loose enough to slide back and forth.**
6. 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 3, below).

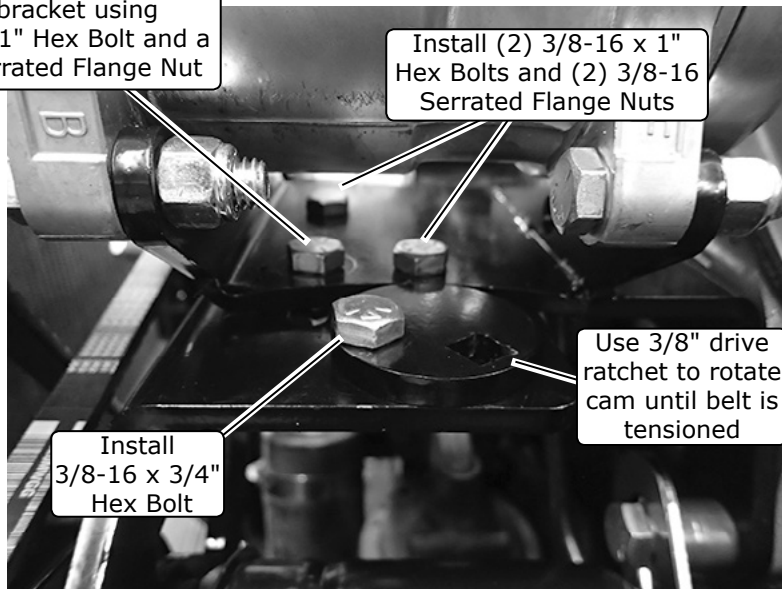
Loosen (2) left-hand compressor mount bolts



Remove (2) right-hand compressor mount bolts

**Photo 2**

Install bracket using a 3/8-16 x 1" Hex Bolt and a 3/8-16 Serrated Flange Nut



Install (2) 3/8-16 x 1" Hex Bolts and (2) 3/8-16 Serrated Flange Nuts

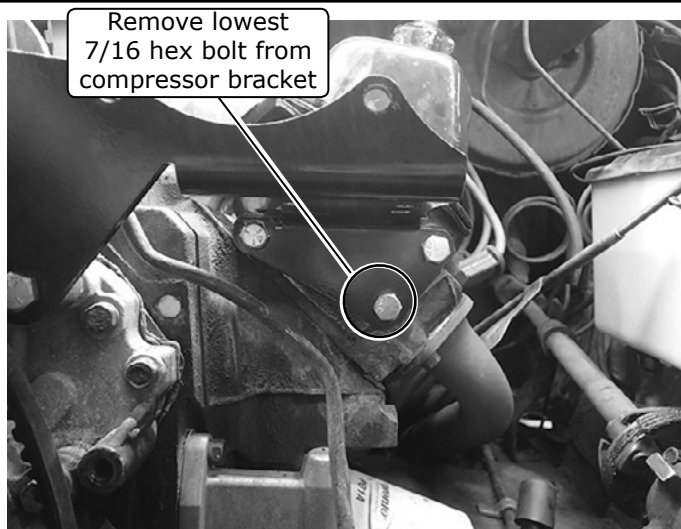
Use 3/8" drive ratchet to rotate cam until belt is tensioned

Install 3/8-16 x 3/4" Hex Bolt

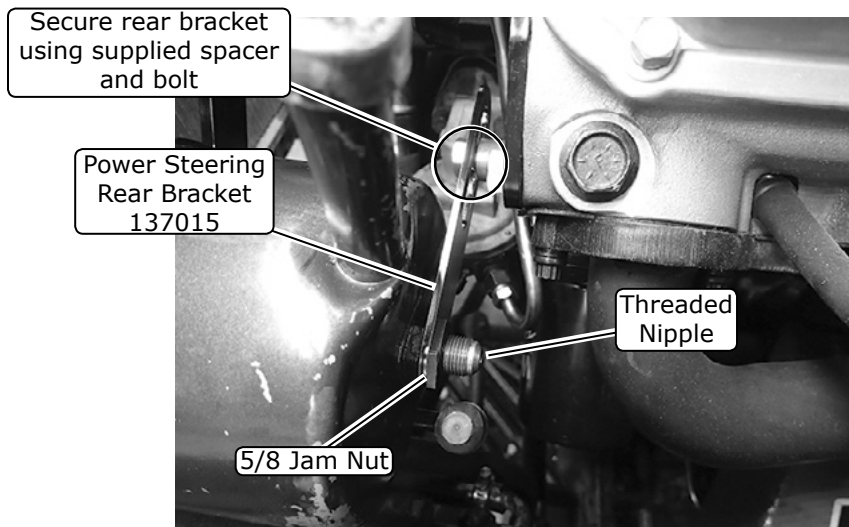
**Photo 3**

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

7. Remove the lowest 7/16 hex bolt from the compressor bracket (See Photo 4, below).
8. Install the rear bracket onto the threaded nipple using a 5/8-18 jam nut (See Photo 5, below).
9. Secure the rear bracket to the head using the supplied spacer and bolt (See Photo 4, below). Use a 3/4" spacer and 7/16-14 x 1 1/2" hex bolt for 429/460 engines. Use a 1/4" spacer and 7/16-14 x 1 1/4" hex bolt for 351M/400 engines. **NOTE: Leave the bolt loose enough to allow for adjustment while tensioning.**
10. Install the power steering hoses onto the pump.
11. Install the belt.
12. Using a 3/8" drive ratchet and the square hole on the cam, rotate the cam until the belt is tensioned (See Photo 3, Page 6). Tighten the cam bolt with the wrench while holding tension. **NOTE: The cam can be rotated either direction based on ease of access.**
13. Tighten all the bolts on the bracket.
14. Replace and tighten the compressor bolts and tension the belt.
15. Reconnect the battery.
16. Check all the hose connections, add power steering fluid and follow the pump manufacturer's bleeding procedure.



**Photo 4**



**Photo 5**



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# Packing List: Power Steering Add-On Kit (137012)

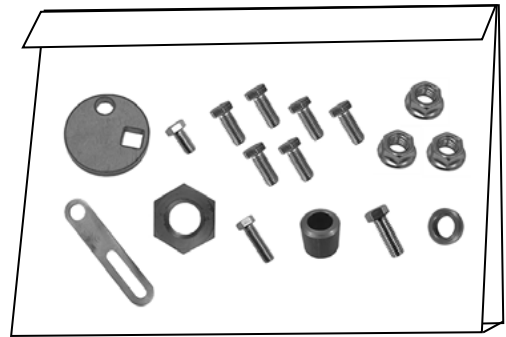
No.	Qty.	Part No.	Description
1.	1	137013	Bracket, Power Steering Pump Add-on
2.	1	191103	Hardware Kit

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

1



2



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