WARNING!

The fuel system is under pressure. Do not open the fuel system until the pressure has been relieved. Refer to the appropriate vehicle service manual for the procedure and precautions for relieving the fuel system pressure.

To use this pump in your vehicle's fuel system, you must do the following:

- A by-pass style fuel pressure regulator must be used in the system.
- Utilize AN-10 size high pressure fuel lines, fittings and o-rings for all connections from the fuel tank pickup to the fuel pump.
- Mount pump level or lower and as close to the bottom of the tank as possible.
- Install a 12304 pre-filter and 12301 post filter.
- If you are using a stock fuel tank, install a reservoir sump in the bottom-rear of your fuel tank. Exercise extreme caution and follow all manufacturers’ recommendations when installing a reservoir sump. (Sump part # 15650)
- Tank/Fuel cell must have at least a ½” tank vent.
- If you choose not to install a reservoir sump, then you must install a high flow capacity fuel tank pickup (1/2” to 5/8” inner tube diameter). (Installing pickup instead of a reservoir sump may shorten the fuel pump life and cause drivability problems. When using a pickup, you should maintain at least ½ tank of fuel in the vehicle at all times, to avoid possible engine &/or fuel pump damage.)
- For long term driving applications where continuous run times exceed 30 minutes and fuel capacity is less then 10 gallons, Aeromotive recommends the installation of a pump voltage control module, Aeromotive p/n 16302.

Failure to follow the above may result in fuel leakage, bursting of the fuel lines, poor vehicle performance and/or decreased fuel pump life! Improper installation will void all warranties for this product!

CAUTION:

Installation of this product requires detailed knowledge of automotive systems and repair procedures. We recommend that this installation be carried out by a qualified automotive technician.

Installation of this product requires handling of gasoline. Ensure you are working in a well ventilated area with an approved fire extinguisher nearby. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition in the area of the vehicle before proceeding with the installation.

The enclosed Aeromotive fuel pump utilizes AN-10 ORB (O-ring Boss Ports) style inlet and outlet ports; these ports are NOT PIPE THREAD and utilize NO THREAD SEALANT.
Compatible Fuels:

<table>
<thead>
<tr>
<th>Pump Gas</th>
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<tr>
<td>Race Gas</td>
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<tr>
<td>E85</td>
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<tr>
<td>Diesel</td>
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<tr>
<td>Alcohol/Ethanol</td>
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The following steps are typical of most installations:

1. Referring to the appropriate vehicle service manual for instructions, remove the OEM fuel pump.

2. Install an after-market sumped high flow capacity fuel tank or fuel cell, per the manufacturer’s instructions.

3. Find a suitable place on the vehicle chassis to mount the fuel pump. Make sure the location will accommodate the pump mounting bolts. Make sure to position the pump at or below the bottom of the tank. Make sure that the pump is clear of the exhaust, is clear of any moving suspension or drivetrain components and will keep the pump clear of road obstructions or debris.

4. Using the enclosed template, mark and drill four mounting holes to accept ¼” bolts. Mount the fuel pump using four ¼” bolts, nuts and lock washers. For quieter fuel pump operation use Aeromotive p/n 11601 fuel pump vibration dampening mounting kit.

   **Note:** Be sure to route all fuel lines clear of any moving suspension or drive train components, and any exhaust components! Protect fuel lines from abrasion and road obstructions or debris.

5. Using minimum of ½” ID or AN-10 fuel line, connect the fuel tank sump outlet to a 12304 fuel filter. Using the same size fuel line connect the fuel filter outlet to the fuel pump inlet, or if you are using an Aeromotive fuel filter you can attached the filter directly to the fuel pump utilizing an AN-10 fitting (15608) and 2 sealing o-rings (10AN o-ring pack 15623).

   **Note:** It is recommended that a fuel shut off valve be installed between the fuel tank outlet and the fuel pump. Use Aeromotive part # 12331 shutoff valve fuel filter and 15640 swivel fitting to make the connection.
6. Using AN-10 fuel line, connect the fuel pump outlet to the 12301 fuel filter. You can attached the filter directly to the fuel pump utilizing an AN-10 fitting (15608) and 2 sealing o-rings (10AN o-ring pack 15623). **Make sure you use high pressure (150 psi minimum) fuel line for this connection!**

7. Using AN-10 fuel line, connect the fuel filter outlet to the “Y” block (15620). From the “Y” block use AN-08 lines to make the connection to the fuel rails. **Make sure you use high pressure (150 psi minimum) fuel line for this connection!** For optimum fuel system performance in EFI applications, Aeromotive recommends a balanced system with the fuel pressure regulator as the last component in the system as shown in the following diagram.

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**Note:** Be sure to route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.
8. Make sure you use stranded, insulated copper wire, in the sizes shown, with matching crimp-type connectors for all connections.

9. Locate the OEM fuel pump supply wires, located near the OEM fuel pump mounting location. Using that supply wire, connect the Aeromotive fuel pump as shown in the following diagram.

10. Attach a suitable fuel pressure gauge to the fuel system schrader valve, fuel rail or fuel pressure regulator.

   P/N 15632 0-15 PSI (1 ½") “Dry” Fuel Pressure Gauge
   P/N 15633 0-100 PSI (1 ½") “Dry” Fuel Pressure Gauge

   Ensure that any spilled fuel and any fuel soaked shop towels are cleaned up and removed from the vicinity of the vehicle.

   **CAUTION:** While performing the following steps, if any fuel leaks are detected, immediately turn the ignition to OFF, remove any spilled fuel and repair the leak(s) before proceeding!

11. Turn the ignition to ON without starting the engine, allow the pump to run for several seconds and check the fuel pressure. If there is no pressure, turn the ignition to OFF, wait one minute, then turn the ignition to ON and recheck the pressure. Repeat this ignition OFF and ON procedure until the gauge registers pressure or you detect a fuel leak. If no pressure is registered on the gauge after running the pump for several seconds and you have found no leaks, check all fuel and electrical connections to determine the cause.

12. Once the fuel pressure gauge registers pressure, start the engine. The fuel pressure gauge should register between 40 and 70 psi. If you have installed an adjustable fuel pressure regulator, adjust it to the desired setting. (For maximum fuel system performance, we recommend using an Aeromotive adjustable fuel pressure regulator; call us for info.)

13. Shut the engine off. Using suitable clips and other mounting hardware, secure the newly installed fuel lines and electrical wires by attaching them to the vehicle chassis.

14. Test-drive the vehicle to insure proper operation and re-check the fuel system for leaks. If any leaks are found, immediately discontinue use of the vehicle and repair the leak(s)!

Aeromotive system components are not legal for sale or use on emission controlled motor vehicles.

Thanks for purchasing another quality product designed, engineered and manufactured in Kansas City, USA!
**Fuel System Troubleshooting**

**Pump does not run at all.**

- Do you have voltage at the pump terminals?
  - No
  - Check all electrical connections.
  - Yes
  - Is the “+” terminal connected to +12 V and the “-” terminal connected to a clean ground?
    - No
    - Is the fuel line going to the engine compartment connected to the same side of the fuel pump as the power terminals?
      - Yes
      - Plumb the fuel pump in the proper orientation.
      - No
      - Do you have a 100-micron fuel filter installed on the inlet side of the fuel pump?
        - Yes
        - This fuel pump is not compatible with alcohol or alcohol-based fuel additives.
        - No
        - Are you running alcohol or any alcohol-based additives?
          - Yes
          - Contact Aeromotive
          - No
    - No
    - Debris may have entered the fuel pump and locked it up, Contact Aeromotive.

**Pump performs poorly or runs intermittently**

- Is the fuel pressure regulator you are using a by-pass style?
  - No
  - A by-pass style regulator is required for proper operation of this product. For EFI we recommend Aeromotive p/n 13101 or 13109, for carb. we recommend Aeromotive p/n 13204.
  - Yes
  - Are you using a sumped fuel tank or a fuel cell?
    - Yes
    - Clean non-restrictive inlet plumbing is required for proper pump operation, a min. of ½” ID or AN-10 fuel line is required on the fuel pump inlet side.
    - No
    - The fuel pump must be mounted such that it is gravity feed to insure a long and healthy life.
  - No
  - Is the fuel line between the fuel tank / fuel cell a minimum of ½” ID or AN-10?
    - Yes
    - The fuel pump must be mounted at or below the half tank fuel level?
      - Yes
      - Does the fuel filter on the inlet side of the pump have a 100-micron filtration rating and have a min. of 60 in² area?
        - Yes
        - Are the fuel filters in the system been clean or new?
          - Yes
          - Are you driving the vehicle for periods of time greater then 30 minute with less the 10 gallons of fuel in the tank?
            - Yes
            - Contact Aeromotive
            - No
          - Insure that all your fuel filters are clean or new, fuel filters are an inexpensive cure to a lot of fuel system problems.
        - No
        - As the fuel level falls in your tank it is being recirculated at an increasing rate, allowing less time for fuel cool down, in these cases it is recommended to use a pump step down controller, we recommend Aeromotive p/n 16302.
      - No
      - A sumped fuel tank or fuel cell is required for proper product performance, refer to Aeromotive tech bulletin #802 “Pickup tubes -vs- sump feed” for specific details.
    - No
    - Are you driving the vehicle for periods of time greater then 30 minute with less the 10 gallons of fuel in the tank?
AEROMOTIVE, INC. LIMITED WARRANTY

This Aeromotive Product, with proof of purchase dated on or after January 1, 2003, is warranted to be free from defects in materials and workmanship for a period of one year from the original date of purchase. No warranty claim will be valid without authentic, dated proof of purchase.

This warranty is to the original retail purchaser and none other and is available directly from Aeromotive and not through any point of distribution or purchase.

If a defect is suspected, the retail purchaser must contact Aeromotive directly to discuss the problem, possible solutions and obtain a Return Goods Authorization (RGA), if deemed necessary by the company. Please call 913-647-7300 and dial option 3 for the technical service dept. All returns must be shipped freight pre-paid to the company and with valid RGA before they will be processed.

Aeromotive will examine any product returned with the proper authorization to determine if the failure resulted from a defect or from abuse, improper installation, misapplication or alteration. Aeromotive will then, at its sole discretion, return, repair or replace the product.

If any Aeromotive product is determined defective, buyer’s exclusive remedy is limited in value to the sale price of the good. In no event shall Aeromotive be liable for incidental or consequential damages.

Aeromotive expressly retains the right to make changes and improvements in any product it manufactures and sells at any time. These changes and improvements may be made without notice at any time and without any obligation to change the catalogs or printed materials.

Aeromotive expressly retains the right to discontinue at any time and without notice any Aeromotive product that it manufactures or sells.

This warranty is limited and expressly limits any implied warranty to one year from the date of the original retail purchase on all Aeromotive products.

No person, party or corporate entity other than Aeromotive shall have the right to: determine whether or not this Limited Warranty is applicable to any Aeromotive product, authorize any action whatsoever under the terms and conditions of this Limited Warranty, assume any obligation or liability of any nature whatsoever on behalf of Aeromotive under the terms and conditions of this Limited Warranty.

This Limited Warranty covers only the product itself and not the cost of installation or removal.

This Limited Warranty is in lieu of and expressly excludes any and all other warranties, expressed or implied. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.