

# AEROMOTIVE Part # 13146 & 13147 INSTALLATION INSTRUCTIONS

This product is not legal for sale or use on emission-controlled vehicles except when used as a direct replacement part matching OEM specification.

#### **WARNING!**



Always be aware of flammable situations. Drilling and grinding can be potential ignition sources. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition in the area of the vehicle and workspace before proceeding with the installation. Ensure you are working in a well ventilated area with an approved fire extinguisher nearby.

#### **WARNING!**



Installation of this product requires modification to a fuel tank/ the fuel system, failure to satisfy all safety considerations will result in fire, explosion, injury and/or loss of life to yourself and/or others. All fuel system components MUST be located as far from heat sources as possible, like exhaust, engine block, etc.

## **WARNING!**



Mechanical and hydraulic lifting devices can tip over or lower accidentally due to incorrect maneuvering or technical errors. A falling object can cause injury and/or loss of life to yourself and/or others. When working under the vehicle, always use stands, and ensure that the ground or floor is stable and level. Never crawl under a vehicle which is only supported by a jack.

#### **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.

#### **CAUTION!**



When installing this product always wear safety glasses and other appropriate safety apparel. A drilling operation will cause flying metal chips. Flying metal chips can cause eye injury.

#### **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. Careless installation of this product can result in damage to the product, injury or loss of life to yourself and/or others.

## **Compatible Fuels:**

Pump Gas Race Gas E85 Alcohol/Ethanol

The Aeromotive regulator, Part #13146 (AN-10), utilize two o-ring sealed ORB-10 inlet/outlet ports, and an o-ring sealed ORB-06 style return port.

ORB ports are <u>NOT PIPE THREAD</u> and utilize <u>NO THREAD SEALANT</u>. You must install ORB port fittings with orings, high pressure fuel lines and/or fuel injector rails to use this regulator. Each regulator has a 1/8" NPT gauge port which does requires thread sealant to seal.

For applications which require a boost reference, this regulator features a 1/16" NPT vacuum/boost reference port. To utilize this feature, replace the factory bronze filter fitting in the cover with a, 1/16-NPT to barb adapter fitting, Aeromotive 15630. If connected to the manifold pressure, fuel pressure will increase with boost and decrease with vacuum. It works on a ratio of 1:1 with PSI.

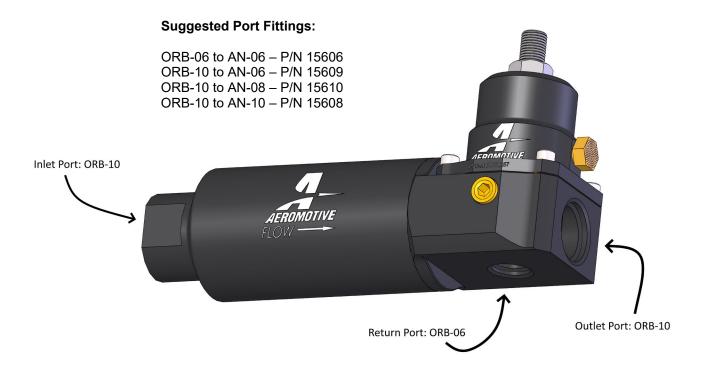
Base Adjustment Range: 35-75 PSI

Boost Reference Range: Limited only by pump capability.

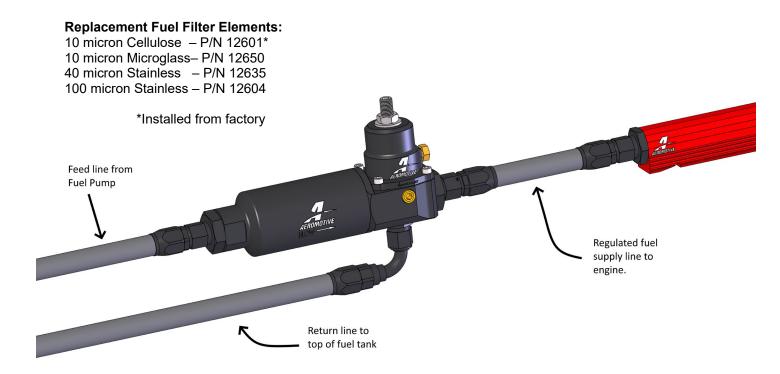
Max Fuel Flow Range: Up to 150 GPH (900 lb/hr or 550 LPH)

Aeromotive system components are not legal for sale or use on emission controlled motor vehicles. The following steps are typical of most installations:

- 1. Once the engine has been allowed to cool, disconnect the negative battery cable and relieve the fuel system pressure.
- Remove any cosmetic covers necessary to allow access to the fuel pressure regulator.
- 3. Remove the vacuum line from the regulator (some vehicles do not have vacuum operated regulators).
- 4. Place shop towels around the regulator to catch any gasoline that is spilled during this step of the installation. Remove any regulator mounting hardware and connecting fuel lines, then carefully remove the regulator.
- 5. Find a suitable place in the vehicle's engine compartment to mount the Aeromotive regulator. If a mounting bracket is required for your application use filter mounting bracket Aeromotive 12701 or 12305.
- 6. Attach the fuel line from the fuel pump outlet to the filter inlet port of the fuel filter regulator combo using an ORB-10 style fitting and o-ring.
- 7. Attach the fuel line from the fuel pressure regulator outlet port of the fuel filter regulator combo using an ORB-10 style fitting and o-ring.



8. Attach the fuel return line to the regulator return port located on the **bottom** of the regulator, using an ORB-06 style fitting and o-ring. Tighten all connections.



- 9. Once the regulator is installed, attach a suitable fuel pressure gauge to the 1/8 NPT port on the fuel pressure regulator (0-100psi 1.5" fuel pressure gauge, part # 15633). Requires thread sealant.
- 10. Ensure that any spilled gasoline and any gasoline soaked shop towels are cleaned up and removed from the vicinity of the vehicle!

- 11. Reconnect the battery and turn the ignition to the ON position **WITHOUT** starting the car. After several seconds, check the fuel pressure. If there is no fuel pressure, turn the ignition key to the OFF position, wait one minute, return the ignition to the ON position, and recheck the fuel pressure. Repeat this ignition OFF and ON procedure until the fuel pressure gauge registers fuel pressure.
- 12. With the fuel pressure gauge registering fuel system pressure, check for fuel leaks from and around the Aeromotive regulator. If any fuel leaks are found, turn the ignition key to the OFF position, remove any spilled fuel and repair the leak before proceeding!
- 13. Once the fuel pressure gauge registers fuel system pressure and there are no fuel leaks, disconnect the vacuum/boost line, start the engine and adjust the regulator to the desired fuel pressure. Turning the adjustment screw clockwise will increase fuel pressure. OEM EFI return style engines run at approximately 43 psi vacuum off, returnless engines at 60 psi, vacuum off. The base pressure adjustment range is from 35-75 psi. Boost reference pressure is over and above base pressure.
- 14. If you do not want to keep the fuel pressure gauge on the vehicle, relieve the fuel system pressure as instructed in the appropriate vehicle service manual and remove the fuel pressure gauge.
- 15. Test drive the car to insure proper operation and re-check the fuel system for leaks. If any leaks are found, immediately shut off the engine and repair the leak(s)!

# **Contact US**

RGA NUMBER REQUIRED FOR ALL RETURNS TO AEROMOTIVE. To obtain an RGA number, please call (913) 647–7300 and ask for the Returns and Repairs department.

Shipping & Returns
 Aeromotive Inc.
 10955 Mill Creek Road
 Lenexa, KS 66219

General Inquiries and Tech Line: (913) 647-7300

General Email: <a href="mailto:info@aeromotiveinc.com">info@aeromotiveinc.com</a>
Tech Email: <a href="mailto:tech@aeromotiveinc.com">tech@aeromotiveinc.com</a>

The Aeromotive Tech Lines are open Monday through Friday from 9:30AM to 5:00PM Central Standard Time.



**WARNING**: This product can expose you to chemicals, including chromium, which is known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, visit: <a href="https://www.p65Warnings.ca.gov">www.p65Warnings.ca.gov</a>

# 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 it's 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.