

# Instruction Manual



## 25-392 AEM Fuel Pressure Regulator Rebuild Kit



### STOP!

**THIS PRODUCT HAS LEGAL RESTRICTIONS.**  
**READ THIS BEFORE INSTALLING/USING!**

**WARNING!** THIS IS A RACE ONLY PRODUCT MANUFACTURED AND SOLD FOR INSTALLATION ON VEHICLES DESIGNED TO BE USED SOLELY FOR COMPETITION PURPOSES. ONCE THIS PART IS INSTALLED, THE VEHICLE MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, ON A PUBLIC ROAD OR HIGHWAY. IF YOU INSTALL THIS PART ON YOUR VEHICLE AND USE THE VEHICLE ON A PUBLIC ROAD OR HIGHWAY, YOU WILL VIOLATE THE CLEAN AIR ACT AND MAY BE SUBJECT TO PERSONAL CIVIL OR CRIMINAL LIABILITY, INCLUDING FINES OF UP TO \$4,819 PER DAY.

IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IF THIS PRODUCT WAS PURCHASED IN ERROR, DO NOT INSTALL AND/OR USE IT. THE PURCHASER MUST ARRANGE TO RETURN THE PRODUCT FOR A FULL REFUND.

THIS POLICY ONLY APPLIES TO INSTALLERS AND/OR USERS WHO ARE LOCATED IN THE UNITED STATES; HOWEVER CUSTOMERS WHO RESIDE IN OTHER COUNTRIES SHOULD ACT IN ACCORDANCE WITH THEIR LOCAL LAWS AND REGULATIONS.

### **WARNING!**

**Improper installation and/or adjustment of this product can result in major engine/vehicle damage. For technical assistance visit our dealer locator to find a professional installer/tuner near you.**

**Note: AEM holds no responsibility for any engine damage or personal injury that results from the misuse of this product, including but not limited to injury or death.**

**ADVANCED ENGINE MANAGEMENT INC.**  
2205 126<sup>TH</sup> Street, Unit A Hawthorne, CA. 90250  
Phone: (310) 484-2322 Fax: (310) 484-0152  
[Http://www.aempower.com](http://www.aempower.com)  
Part Number: 10-7054  
© 2004 Advanced Engine Management, Inc.

This part is legal in California for racing vehicles **ONLY** and should **NEVER** be used on public highways.

**Congratulations!** You have purchased the finest adjustable fuel pressure regulator for your car at any price!

**AEM billet aluminum adjustable pressure regulator.**

The AEM adjustable regulator is CNC machined from 6061 T-6 aluminum. The fuel outlet port is tapped to 9/16-18 threads, which allows the use of several different hoses up to -8 AN hose. The vacuum reference is 1:1 ratio so for every pound of boost on a turbocharged or supercharged application yields a 1-pound rise in fuel pressure. The range of adjustability is from 20 PSI to the maximum the fuel pump can deliver.

**Bill of Materials for 25-392:**

Qty	Part Number	Description
1	2-301	Diaphragm, Fuel Pressure Regulator
1	2-698	.250 Orifice, Ball Press Reg
1	1-3010	O Ring, Fuel Pressure Regulator
1	10-7054	Instructions, 25-392

**Note:** There are two different styles of AEM adjustable fuel pressure regulator diaphragm/orifice sets- a flat seat and a ball seat. Parts from the two different styles are not interchangeable. When replacing an old diaphragm with a new one from this rebuild kit, the fuel return orifice **MUST** be changed to the ball seat style (included in this rebuild kit) if your regulator is not already so equipped.

Read and understand these instructions **BEFORE** attempting to install this product

**WARNING!!!**

- **Do not smoke while working on the fuel system.**
- **Keep open flames or sparks away from your work area.**
- **Be sure to relieve fuel pressure while engine is off.**

**1) Getting started**

- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) **Disconnect the negative cable from the negative battery terminal.**
- d) If engine has run within the past two hours let it cool down.
- e) Clean the area on the fuel rail adjacent to the regulator.
- f) **Relieve fuel pressure. Refer to factory service manual for proper procedure.**

## 2) Fuel pressure regulator removal

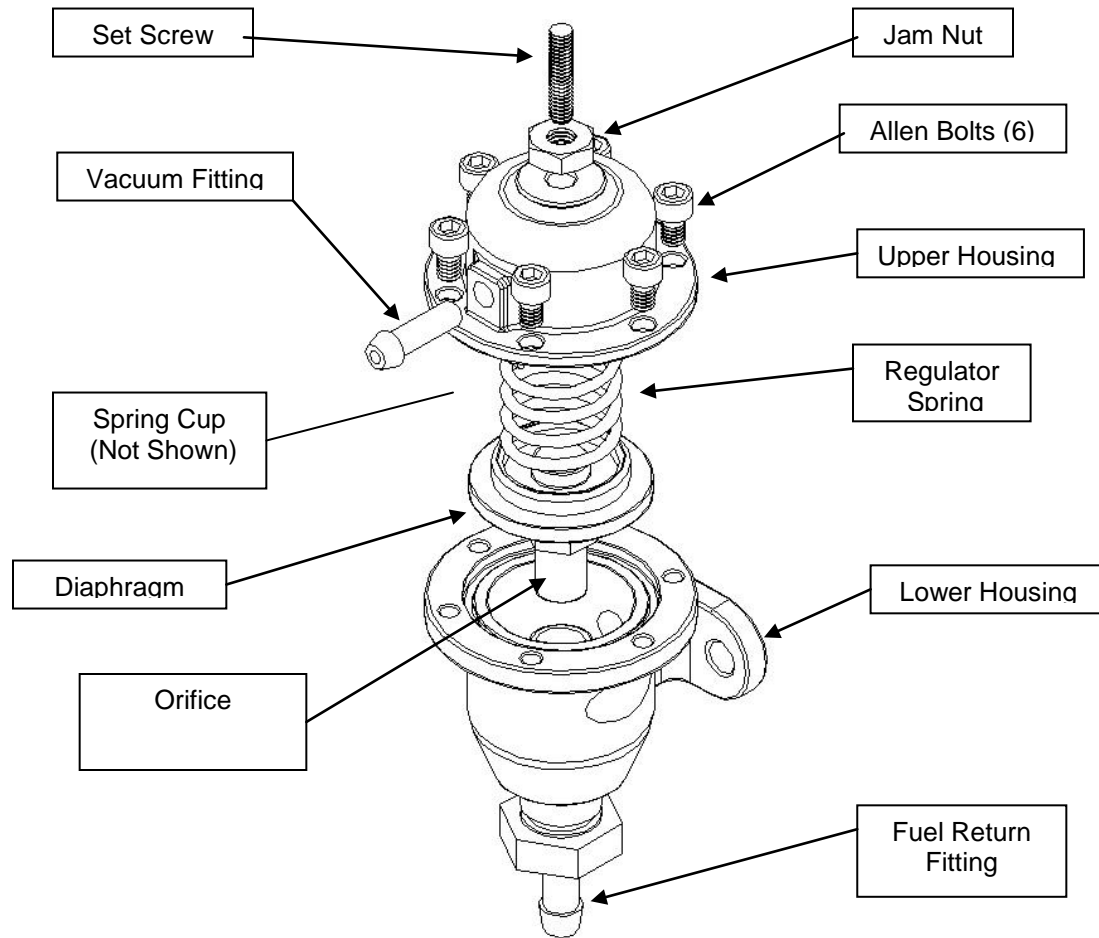
- a) Place a rag or shop towel under the fuel pressure regulator return line.
- b) Disconnect the fuel return line at the bottom of the fuel pressure regulator.
- c) Disconnect the vacuum hose from the fuel pressure regulator.
- d) Place a rag or shop towel over the fuel pressure regulator.
  - i) Remove the two 6mm retaining bolts if regulator is mounted to a factory fuel rail.
    - (1) If using an AEM universal fuel pressure regulator, remove fuel inlet hose.
  - ii) Remove the fuel pressure regulator from the vehicle.

## 3) Changing the diaphragm/orifice

- a) Remove the six bolts from the top of the fuel pressure regulator.
  - i) When removing the six bolts from the top of the fuel pressure regulator a 9/64" allen key should be used.
    - (1) Torque to 24 **lbf-in**.
    - (2) There is a constant pressure applied to the diaphragm by the spring inside the fuel regulator. Make sure parts do not get lost upon removal of these bolts.
  - ii) When removing the orifice a 3/8" socket should to be used.
    - (1) Note: **Be careful not to scratch or damage the surface of the orifice in any way, as it is a precision ground surface for the diaphragm to seal on.**
    - (2) Torque to 10 **lbf-ft**.
    - (3) Upon re-installation of the orifice use a light coat of oil on the threads to prevent galling.
  - iii) Re-assemble the fuel pressure regulator. Assembly diagram at the end of the instructions. Make sure the diaphragm is properly seated in its groove. Use care to avoid pinching the diaphragm between the top and bottom regulator housing.

## 4) Finishing touches

- a) Reinstall the regulator by reversing the removal procedures from step 2.
- b) Connect the negative battery terminal.
- c) Turn the ignition switch to the on position for approximately two seconds. **Do not operate the starter.** Then turn the ignition switch to the off position.
- d) Repeat this procedure three times, and then check all components that were removed during installation for any signs of fuel leakage.
- e) If there are signs of leakage you **MUST** correct the leak before proceeding.
- f) If there are no signs of leakage, then start engine and again check for leaks. If there is any sign of leaking you **MUST** repair the leak before driving the vehicle.
- g) **Note: To check the fuel pressure, start the engine. Measure the fuel pressure with the engine idling and vacuum hose of the fuel pressure regulator disconnected from the fuel pressure regulator and pinched.**



**ADVANCED ENGINE MANAGEMENT INC.**  
2205 126<sup>TH</sup> Street, Unit A Hawthorne, CA. 90250  
Phone: (310) 484-2322 Fax: (310) 484-0152  
[Http://www.aempower.com](http://www.aempower.com)  
Part Number: 10-7054  
© 2004 Advanced Engine Management, Inc.

**For Technical Inquiries  
Please E-Mail us at  
[tech@aempower.com](mailto:tech@aempower.com)**