

## AEROMOTIVE Part # 13224 INSTALLATION INSTRUCTIONS



## **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.

When installing this product, wear eye goggles and other safety apparel as needed to protect yourself from debris and sprayed gasoline.

## **WARNING!**

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

NOTE: Testing the enclosed regulator by applying air pressure or vacuum to the vacuum port with a handheld pump will yield poor results, due to the slight air leakage through the adjustment screw threads. This minimal leakage, which is typical of all adjustable fuel pressure regulators, does not, in any way, affect the performance of the regulator.

The enclosed Aeromotive regulator utilizes one o-ring sealed AN-10 style inlet port, four o-ring sealed AN-06 style outlet ports and one o-ring sealed AN-08 style bypass port (Both the inlet and bypass ports require cutoff AN style fittings, Aeromotive P/N's 15608 and 15607 or equiv.); these regulator ports are NOT PIPE THREAD and utilize NO THREAD SEALANT.

The enclosed Aeromotive regulator was designed to be used with fuel pumps up to 250 gph, similar to Aeromotive P/N 11101 or 11104. Performance may be degraded if a similar pump is not used.

The Vacuum / Boost reference port is provided for fuel pressure compensation at a 1:1 rate, this is primarily used in blow-thru centrifugal supercharged applications or factory EFI vacuum referenced regulators. In most cases this port is left open to reference atmospheric pressure.

Performance Specifications: Model 13224 Outlet Fuel Pressure, adjustable

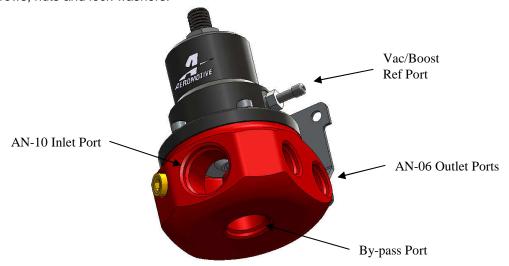
Max Pump Flow Rate

3-15 psi 250 GPH

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 any fuel system pressure.
- 2. Place shop towels around the existing 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 existing regulator.
- 3. Find a suitable place in the vehicle's engine compartment to mount the Aeromotive regulator. Using the supplied mounting bracket as a template, mark the bracket mounting holes and drill to accept a #10 screw.
- 4. With the bracket attached to the regulator, mount the bracket and regulator to the vehicle using two #10 screws, nuts and lock washers.



- 5. Attach the fuel supply line to the AN-10 inlet port located in the front of the regulator using a cutoff AN-10 style fitting (Aeromotive P/N 15608 or equivalent) and o-ring.
- 6. Measure the length of the required bypass line. Using the chart below, determine the minimum required return line ID based this length. Attach the fuel return line to the AN-08 bypass port located at the bottom of the regulator using the appropriately sized fitting, Aeromotive p/n 15605 for an AN-06 line, p/n 15607 for a AN-08 line, p/n 15641 for a AN-10 line.

Minimum Return Fuel Line ID Chart

	Fuel Pump Free Flow Rating (GPH)			
Return Line	1 to 60	60 to 120	120 to 180	180 to 250
Length (ft.)	GPH	GPH	GPH	GPH
0-5 feet	3/8"	3/8"	1/2"	1/2"
5-10 feet	3/8"	1/2"	1/2"	5/8"
10-15 feet	3/8"	1/2"	5/8"	3/4"
15-20 feet	1/2"	1/2"	5/8	3/4"

Note: An undersized return line will prevent the fuel pressure regulator from functioning properly.

- 7. Attach the carburetor supply lines to the regulator using AN-06 style fittings and o-rings (Aeromotive p/n 15606). Install AN-06 style plugs and o-rings into the outlet ports not used.
- 8. The Vacuum / Boost reference port is provided for fuel pressure compensation at a 1:1 rate, this is primarily used in blow-thru centrifugal supercharged applications. In most cases this port is left open to reference atmospheric pressure.
- 9. Tighten all connections.
- 10. Once the regulator is installed, attach a suitable fuel pressure gauge to the 1/8 NPT port on the fuel pressure regulator (Aeromotive p/n 15632).
- 11. Ensure that any spilled gasoline and any gasoline soaked shop towels are cleaned up and removed from the vicinity of the vehicle!
- 12. Reconnect the battery and turn the fuel pump ON **WITHOUT** starting the car. After several seconds, check the fuel pressure. If there is no fuel pressure, turn the fuel pump OFF, wait one minute, turn the fuel pump ON, and recheck the fuel pressure. Repeat this OFF and ON procedure until the fuel pressure gauge registers fuel pressure.
- 13. With the fuel pressure gauge registering fuel system pressure, check for fuel leaks from and around the Aeromotive regulator and all fuel lines and connections near the regulator! If any fuel leaks are found, turn the fuel pump OFF, remove any spilled fuel and repair the leak before proceeding!
- 14. Once the fuel pressure gauge registers fuel system pressure and there are no fuel leaks, start the engine and adjust the regulator to the desired fuel pressure (Regulator is adjustable from 3-15 psi). Turning the adjustment screw clockwise will increase fuel pressure.
- 15. Once the desired fuel pressure is achieved, tighten the regulator adjustment jam nut.
- 16. 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. Remove the fuel pressure gauge and reinstall the 1/8 NPT pipe plug into the regulator gauge port, using thread sealant.
- 17. 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)!