



## 17305 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 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.

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

Fuel Systems are designed for use with gasoline based fuels only, up to 15% ethanol mix maximum with proper filter.

#### **This kit contains the following parts:**

1ea p/n 14144 Fuel Rails

1ea p/n 13101 Fuel Pressure Regulator

1ea p/n 18676 Fuel Pump Assembly

1ea p/n 12305 Filter Bracket

1ea p/n 12335 Filter Assembly, 40-micron

1ea p/n 16306 Fuel Pump Speed Controller

**(The purchase of a Tach Adapter will be required to operate Pump Speed Controller.)**

1ea p/n 15107 One-Way Check Valve

6ea p/n 15607 ORB-08 to AN-08 Fittings

4ea p/n 15610 ORB-10 to AN-08 Fittings

1ea p/n 15649 ORB-06 to AN-08 Fitting

1ea p/n 15674 Y-Block, AN-08

1ea p/n OR002-2910 AN-10 O-Ring

The enclosed Aeromotive Fuel System Kit is designed to give the end user a basic EFI fuel system, excluding the AN fuel lines and hose-ends. It is intended to support a return style, dual-fuel rail V-8 EFI application. The kit includes an AN-08 Y-Block in order to support dual fuel rail engines, plumbed in parallel, for optimum fuel flow and pressure control.

**A return line of AN-08 or 1/2" minimum must be installed from the regulator back to the tank**, after which base fuel pressure will be adjustable in a range between 30-120 PSI. The included regulator also provides 1:1 ratio vacuum/boost reference, making the system suitable for all EFI engines, both Naturally Aspirated and Forced Induction.

This installation instruction provides a diagram that outlines the overall layout of the fuel system intended with the enclosed components. The system diagram illustrates the components used, their locations relative to each other and in relation to fuel flow, including general fuel line routing and the AN fuel line sizes required. This is a system overview. Please refer to each individual component's installation instructions for detailed installation help with that particular component. Please contact Aeromotive for any recommendations on fuel line or additional fitting requirements.

Failure to follow the above recommendations 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!

**Aeromotive Commonly Used Hose-Ends:**

15650 - AN-06 Straight Hose End  
15651 - AN-06 45-Deg. Hose End  
15652 - AN-06 90-Deg. Hose End

15653 - AN-08 Straight Hose End  
15654 - AN-08 45-Deg. Hose End  
15655 - AN-08 90-Deg. Hose End  
15663 - AN-08 180-Deg. Hose End

**Aeromotive Commonly Used SS Braided Fuel Line:**

15701 - AN-06 4' Length  
15702 - AN-06 8' Length  
15703 - AN-06 12' Length

15704 - AN-08 4' Length  
15705 - AN-08 8' Length  
15706 - AN-08 12' Length  
15711 - AN-08 16' Length

**Aeromotive Replacement Element Part Numbers:**

12601 – 10-M Fabric Element (For all ORB-10 Filters)  
12635 – 40-M SS Element (For all ORB-10 Filters)  
12001 – Filter O-Ring, 10-Pack (For all ORB-10 Filters)

## **General Installation Cautions and Guidelines:**

- **CAUTION:** Insure all components are mounted, and fuel lines are routed through the chassis per the diagram, and in a manner to clear any exhaust system components, especially exhaust headers, turbo charger down-pipes, mufflers and tail-pipes, etc.
- **CAUTION:** Insure all components are mounted, and fuel lines are routed through the chassis per the diagram, and in a manner to safely clear any suspension components in the vehicle.
- **CAUTION:** Insure all components are mounted, and fuel lines are routed through the chassis per the diagram, and in a manner to safely clear any transmission, bell-housing and or drive-line components.
- **CAUTION:** Pressurize the fuel system and thoroughly check for fuel leaks, repairing any leaks found first, before cranking and/or starting the engine. Once the engine is running, again carefully check for fuel leaks, shutting down the vehicle immediately if necessary to perform any required repairs.
- **GUIDELINE:** Mount the fuel pressure regulator in the engine bay, as close to the fuel rail/carb as possible.
- **GUIDELINE:** Terminate the main, 10-gauge power for the included fuel pump wiring harness directly from the back of the alternator charging stud, or directly off the battery (+) post. Terminate the 10-gauge fuel pump ground wire to either end of the battery ground (-) cable, at the battery or chassis connection point.
- **GUIDELINE:** Acquire and install quality AN style hose and hose-ends. Teflon or PTFE based fuel line, though more costly, offers both long service life and resistance to permeation or vapor walk (where fuel vapors can “walk” through the line and contribute fuel smell to the area around where the car is stored).

## Installation Outline:

Use the diagram below as an outline for the system installation. See individual installation instructions for specific recommendations.

