

Selecting a Return or Returnless Fuel System

The Atomic EFI has the option of working as either a return or returnless style fuel system. While many users will have the option to choose whether or not to install a return line, there are a number of factors that need to be considered in making this decision. NOTE: If you are planning to use metal tubing for your fuel system, then a fuel system with a return to the tank is recommended. Using the chart below, consider the conditions under which the vehicle with the Atomic EFI will be used on a regular basis. For best results, always plan for the worst case scenario (in this case, the hottest daytime temperatures where you will drive the vehicle using the lowest grade gasoline you will purchase). After taking all sections into consideration, at least five points should be accumulated to ensure reliable drivability with a returnless style fuel system.

Condition		Your Points	Points
Daytime Temperatures	81°F or greater		+0
	71 - 80°F		+2
	61 – 70°F		+3
	60°F or lower		+4
Quality of Fuel	Low (less than 89 octane)		+0
	Medium (89 – 90 octane)		+1
	High (91 octane or greater)		+2
Fuel Pump Installation	Greater than 2 feet from tank		+0
	Less than 2 feet from tank		+2
	In-tank		+5
A minimum of 5 points is recommended to use a returnless fuel system			

The Atomic EFI with a returnless fuel system is NOT meant to be a solution to fuel vapor lock issues that already exist on a carbureted engine. The Atomic EFI with a returnless fuel system is equally as susceptible to vapor locking as a carbureted system would be. Therefore, if vapor lock has been an issue on your vehicle in the past, it is not recommended to use a returnless fuel system with the Atomic EFI. Instead, use a fuel regulator with a return line to correct the issue.