



AIC1 Additional Injector Controller

Description:

The AIC1 Additional Injector Controller provides precise fuel delivery over the boosted operating range of an internal combustion engine. It is designed for use with engines that have been converted to forced induction with the addition of turbochargers or superchargers. The AIC1 gives the user a convenient way to set the fuel mixture for proper air/fuel ratio in the boost region.

The AIC1 is a stand alone additional injector controller. It provides three dimensional mapping of additional fuel. Injector pulse width is loaded directly into cell locations on a map defined by boost pressure and RPM. Two independent maps can control up to four injectors. Map A can drive two low or high impedance injectors. Map B can drive two high impedance injectors.

The calibration of the AIC1 is done through a serial interface, which is active while in operation. The AIC1 is programmed with a Windows 95/98 program called R4. The software provides real time display of RPM, manifold pressure, injector on time and duty cycle in percent. A variety of editing tools ease the task of setting up an initial map and quickly fine tuning for optimum performance.

The AIC1 can be order in a variety of configurations. Refer to the ordering information section to see the combination of pressures sensors, number of injectors and injector types that are available. Both absolute and gauge pressure sensors are available. The absolute sensor can read both vacuum and pressure regions and is used to fire the injectors in the vacuum region or when elevation compensation is desired. A gauge pressure sensor reads in the boost region only. In some applications, the gauge pressure sensor can cause an excessively rich fuel mixture at high elevations.

The AIC1 is typically used in conjunction with a precision air/fuel ratio meter such as the Split Second ARM1. The air/fuel ratio meter provides the required information needed to properly set the AIC1 fuel program.

Features:

- Stand alone device
- Two three-dimensional map tables defined by boost pressure and RPM
- Compatible with 2 and 4 stroke engines from 1 to 12 cylinders
- Laptop adjustable
- Programmed directly according to pulse width in milliseconds
- Can be mounted in the engine compartment
- Internal MAP sensor
- Transient surge and battery reversal protection