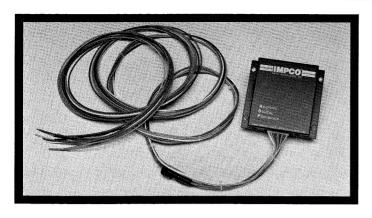
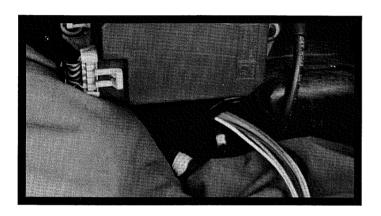
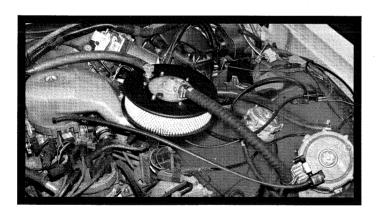
### **MECHANICAL INSTALLATION**



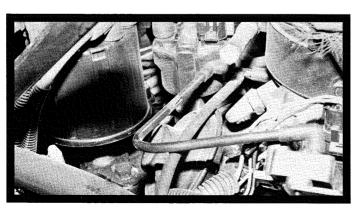
1. The ADP must be installed inside the passenger compartment. Mount the ADP behind a kick panel or other protected area to avoid accidental damage to the unit. Drill four (4) #25 holes to vehicle panel, and secure unit with supplied sheet metal screws. Avoid mounting the unit with the wire connector end facing upward. The LED lamps, and jumper clip must be accessible to the service technician



2. Locate a convenient knockout in the firewall. Pass all wires through, except red wire with fuse. Connect 9 pin white connector to ADP unit. Install 3/16" vacuum line, and line adapter (supplied in kit), to ADP MAP sensor. Connect 1/4" I.D. vacuum hose to 1/4" - 3/16" reducer, and route 1/4" hose through fire wall. Protect ADP wire harness, and vacuum line with properly sized grommet for firewall knockout.



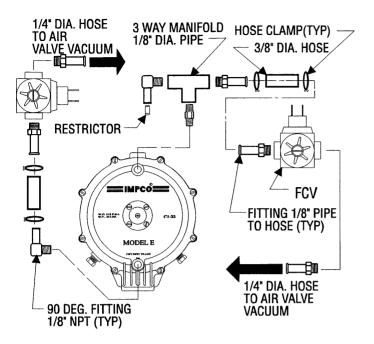
3. Install the recommended IMPCO adapter assembly, and FB series carburetor or mixer. Preset the wide open fuel adjustment at the middle mark of the rich lean scale. On CA 425, adjust the hex head bolt to a measurement of 1 1/4 from the throttlebody to outside edge of hex head bolt. Install secondary fuel regulator/converter as required for your application. Install the IMPCO fuel control valve(s) assembly from appropriate diagrams shown on page 5. If an air valve vacuum source is not available for the FCV assembly tap into the adapter under the IMPCO mixer.



NOTE: THE FCV VALVE MUST HAVE AN INDE-PENDENT AIR VALVE SOURCE. Position assembly as shown in photo at left.

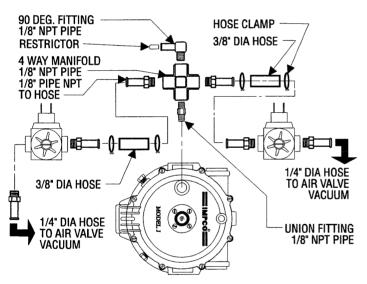
4. Connect vacuum line that has been previously routed through firewall knockout, and connect one end to the ADP units MAP sensor. Connect the other end (engine side) to a manifold vacuum source (below throttle plate). This source must be independent of any other vacuum accessories. Be certain that the line is not pinched, and is free flowing. Be aware, this line becomes warm with engine heat, and may soften.

# FCV VALVE (S) CNG/LPG INSTALLATION



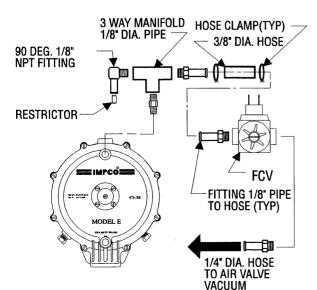
#### MODEL PEV CNG

You must use dual FCVs on the model E or PEV when using CNG. The installation can be accomplished by installing FCVs in both top and bottom holes in the cover. If your cover is not drilled with 2, 1/8" NPT holes you will need to remove the cover and drill out the top hole and tap to 1/8" NPT to accommodate the second FCV. See diagram at left. For wire connections see diagram "DUAL FCV WIRING", pg. 8.



#### MODEL PJ & PK CNG

This model requires a 4 way manifold tee as shown in diagram at left. NEVER ATTEMPT TO DRILL THE COVER AS DESCRIBED IN MODEL E DIA. THIS WILL RESULT IN DIAPHRAGM DAMAGE, AND CAUSE A SEVERE FUEL LEAK. For wire connections see diagram "DUAL FCV WIRING", pg. 8.



#### MODEL E, L, J, & K LPG

These models require use of a 3 way tee as shown in diagram at left when used on LPG conversions.

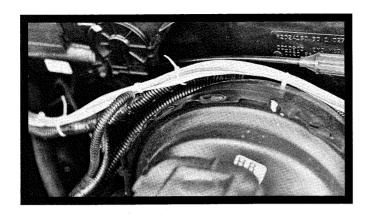
# **AIR INJECTION SYSTEM IDENTIFICATION**

Before proceeding to the electrical section of this manual it is important to understand the type and configuration of the AIR system that may be installed on your vehicle. Some vehicle applications do not have an AIR system. In this case, the diagrams on page 9 do not apply. This information applies to the ADP wire harness **GRAY** wire. If your vehicle does not have a AIR system, **DO NOT CONNECT THE GRAY WIRE**, as it will not be used. The purpose of this gray wire is to signal the ADP processor if the AIR system is pumping air into the exhaust manifold. If the AIR pump starts injecting oxygen into the exhaust manifold, the oxygen sensor will read a false lean condition. The ADP will try to compensate for this. However, this condition will be out of the ADP unit's range of authority. This will scramble the block learn memory. The purpose of the gray wire is to signal the ADP to ignore the oxygen sensor signal which is known as the "**OPEN LOOP**" mode. When operating in open loop mode, the duty cycle will be determined from block learn memory. This will occur when the gray wire is grounded. The system diagrams will show the ADP gray wire to the air pump diverter ECM ground.

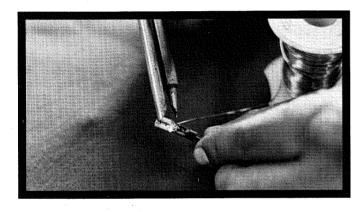
Many AIR systems are dual function. The AIR will sometimes pump to the exhaust manifold. Other times it will by pass the manifold, and inject directly into the catalytic converter. Some vehicles have AIR injected to only one side of the engine. The main concern at this point is that any time air is being pumped past the oxygen sensor, the gray wire must be grounded. If air is not injected before the oxygen sensor, do not connect the gray wire.

Please pay special attention to the mixture set up instructions described in this manual on page 11. These instructions pertain to the ADP gray wire. Be certain you use a connector that will be easy to disconnect for the idle mixture adjustment procedure. Use the diagrams on the page 10 to identify your application.

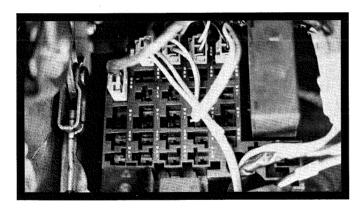
### **ELECTRICAL WIRE HARNESS INSTALLATION**



1. Route ADP wire harness leads to approximate terminations using wiring diagram page. Recheck white connector at ADP unit, and be sure to allow some slack to strain relief the harness. Use tie wraps to secure harness away from sources of high heat or mechanical abrasions.



2. Now that the ADP wire harness is in place and secure; prepare to cut leads to required length for final terminations. Use supplied connectors, and solder terminal connections whenever possible. Follow text, and refer to ADP wiring diagram on page 8.



3. Connect ADP red wire with fuse to a switched +12 V power source. This source must be hot with key in the "ON" position, and remain hot in the cranking position. This source must *not* supply power with ignition key in "Accessory" position. For dual fuel vehicle installations the switched +12V source must be wired through the fuel selection switch. This is to cut +12V power to ADP during gasoline operation.



4. Connect ADP violet, and yellow wires to IMPCO fuel control valve.

NOTE: THE IMPCO FCV VALVE HAS NO POLARITY. THE PURPLE AND YELLOW WIRES CAN BE INSTALLED TO THE VALVE IN ANY ORDER.

Connect ADP green wire to EGO sensor or computer support unit EGO sensor output. See manufacturer's recommendations for specific wire color. Connect ADP white wire to vehicle tachometer signal that applies to your vehicle as shown on page 9. Connect ADP gray wire to air diverter signal that applies to your vehicle as shown in diagram on page 10.