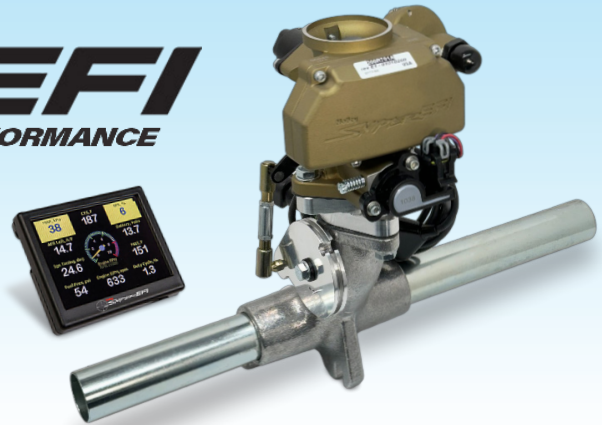


SETUP & INSTALLATION



Step 1 - Pre Installation Procedures

A) Before beginning this installation, read the instructions completely and be certain you understand all aspects of the installation before proceeding. There will also be some necessary tests to perform on the vehicle to ensure a successful install.

Check voltage output of the alternator to make sure it falls within acceptable tolerances. This will be between 12.7-14 volts. Check the battery to make sure it is fully charged and is in good condition.

Standard VW solid core plug wires must **NOT** be used. A high quality suppression core wire is required. **RESISTER SPARK PLUGS ARE REQUIRED!** Ask the tech representative at CB Performance for recommendations.

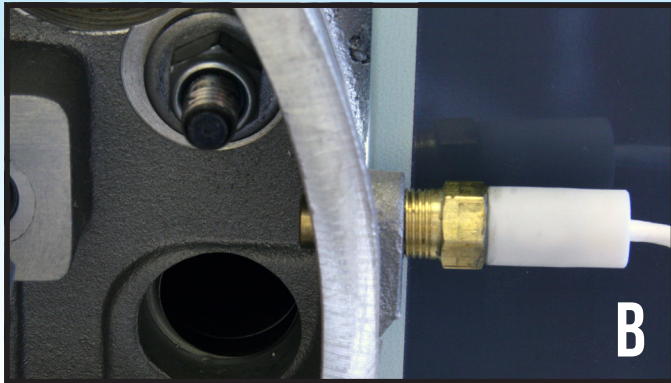
B) Disconnect the battery. **DO NOT** proceed further without doing so. It is advisable after disconnecting the battery to drain the fuel tank and remove it. Disconnect the fuel line at the engine and blow the line clear with compressed air (wear eye protection) to be absolutely certain the fuel line is clear of any foreign material or debris. It is recommended to install two 3/8" fuel lines from the fuel tank to the engine. The larger 3/8" line is needed to prevent fuel starvation to the engine on larger/higher horsepower engines. Make sure the supplied fuel filter is installed. The 1/2" filter is the pre-filter and is installed between the tank outlet and the fuel pump. This is a very high-pressure system. Make sure all hose connections are tight and leak proof.

*NOTE: The fuel pump must be mounted in the horizontal position. Mounting the fuel pump vertically will damage it. **DO NOT** mount the pump at the rear of the vehicle. The fuel pump is designed to be gravity fed from the tank. Trying to pull the fuel through the small diameter stock fuel line will compromise the efficiency of the pump and cause it to run hot or cause it to fail. A pump can tolerate restrictions on the discharge much better than on the suction side.*

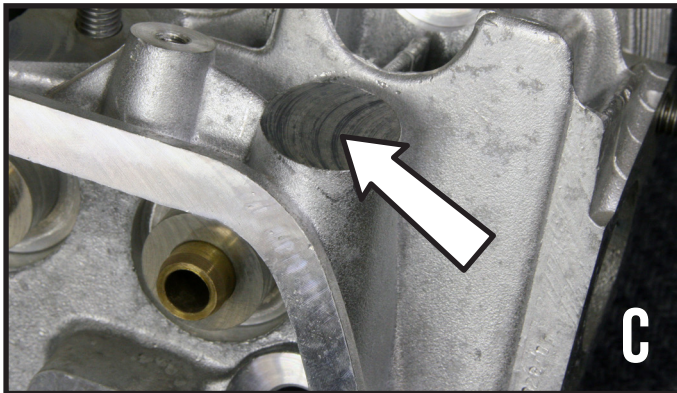
Step 2 - Hardware Installation



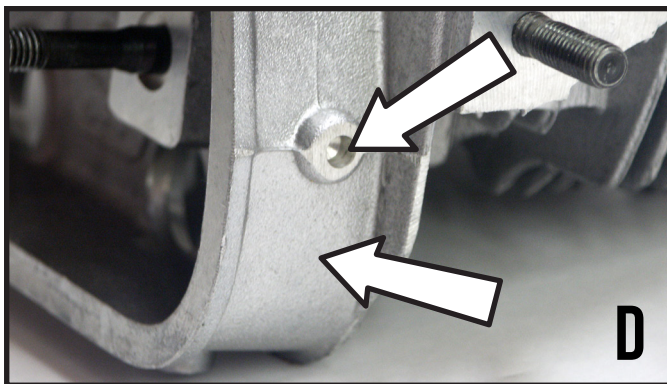
WARNING: Under no circumstances should Teflon tape be used on any threads in this kit. Use only Blue Loctite for threaded sealant. Teflon tape will find it's way into the fuel injectors and or the fuel pump and damage them [A].



The cylinder head temp sensor is to be installed in the 3-4 cylinder area. If using bolt-on valve covers, we recommend that it be installed in the valve cover bail boss [B].



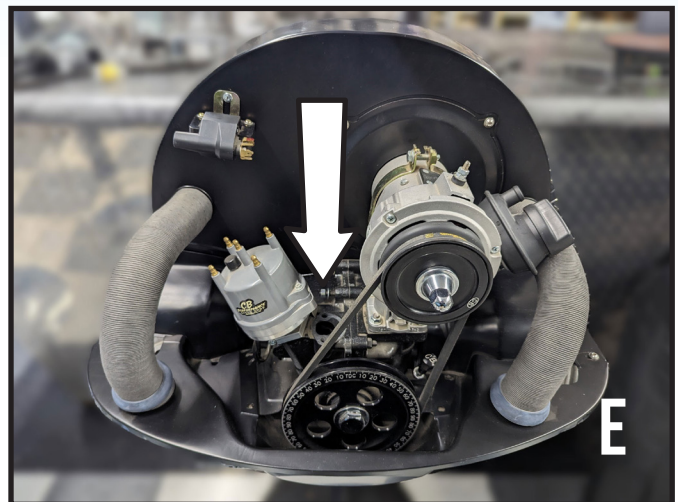
If you have an available boss cast into the cylinder head (New-Style CB 044's or Panchito 044's), you can use the boss [C].



If using clip-on style valve covers, we recommend that it be installed below the boss [D]. **WARNING: Before drilling into your cylinder head, confirm that there is NO interference from push rods or head studs and the sensor.**

Use an 11/32" drill and an 1/8" NPT pipe tap. You will break through into the rocker box of the head, so be prepared to catch the shavings to prevent entry into the engine. Clean the shavings from the tapped hole and install the sensor using blue loctite for thread sealant.

Step 3 - EFI Installation



Remove any previously installed carburetor systems - Clean all gaskets surfaces. Remove center case nut and washer [E].



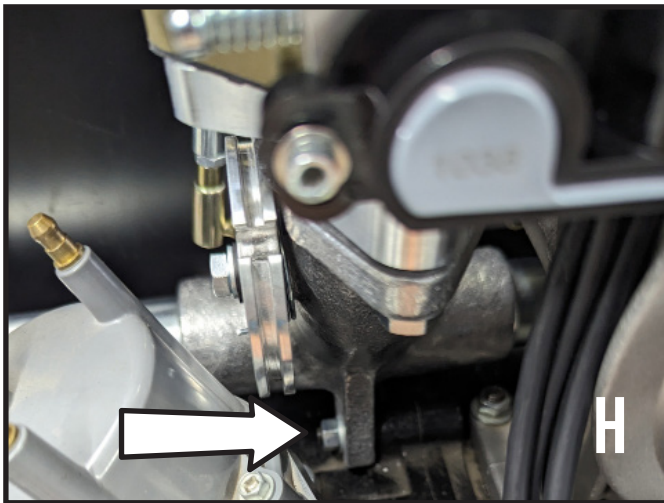
Install 1-2 side end casting with new provided boot and clamps. Leave it loose at this time [F].



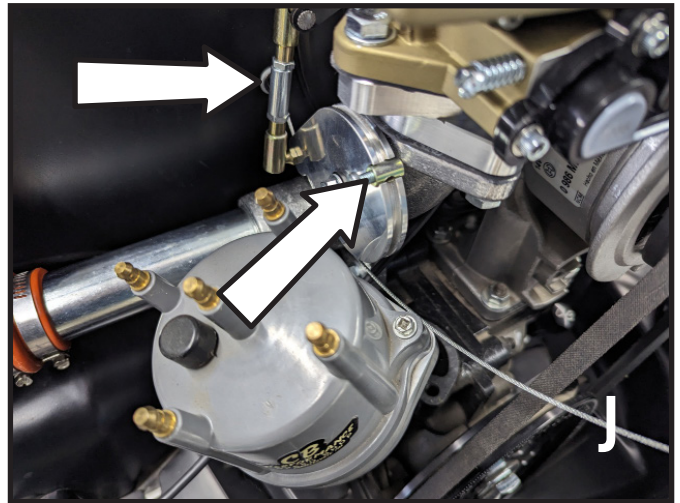
Feed the wires for the Sniper EFI kit underneath the alternator stand. Leave the temp sensor pigtail out of this bundle. Slide the intake tube into the boot for the 1-2 side end casting and position the intake manifold over the case stud [G].



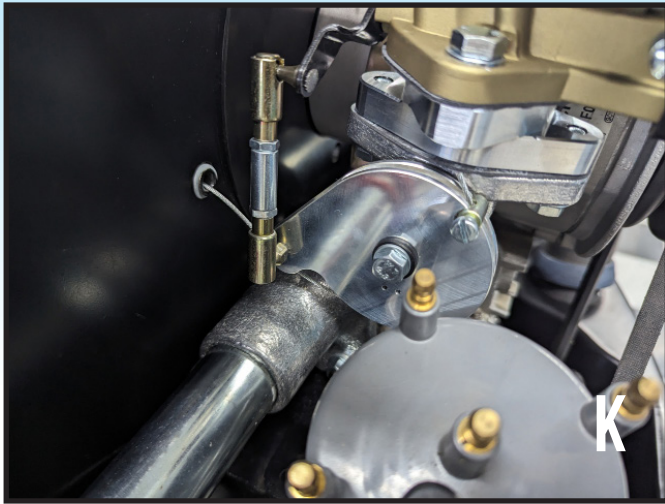
Install the 3-4 side end casting and boot/clamps on to the intake manifold. Go ahead and tighten the end castings and intake boot clamps at this time [I].



Re-install the bolt and washer on the case stud and torque to 15 ft. lbs. Take care to keep the connector for the IAC motor on the throttle body just slightly off of the fan shroud [H].



Install the provided throttle cable and feed it through the factory opening in the shroud. Pull it through the provided barrel clamp [J].



Tighten the barrel clamp onto the throttle cable, leaving a little bit of slack in the cable to avoid pulling the throttle open. Cut off the excess cable $\frac{1}{2}$ " past the barrel clamp [K].

Step 10 - Fuel Line Connections

A) It is desirable to mount the pump as close to the tank as possible. It uses a rather large 15mm hose attachment on the suction side, along with a similar sized filter. A new tank bung is provided with a $\frac{1}{2}$ " hose barb as well. The filter goes in-line between the tank and pump, and is marked with an arrow for direction of flow. Make sure it points the correct way. Two "P" clamps are used to attach the pump to any flat surface. Mount the pump below tank level and in the horizontal position. Make sure there are no kinks in the hose. Connect the discharge end to the fuel line in the chassis.

B) On all engines, two fuel lines need to be installed in your vehicle. One is for pressure and one is for return. Use a $\frac{3}{8}$ " ID Fuel line for each. Make sure the $\frac{1}{2}$ " Fuel filter is installed before the fuel pump.

Step 11 - Finish w/ Holley Instructions

Follow the provided instructions from the Holley Sniper Kit to finish with the installation of the oxygen sensor, fuel lines and electrical connections. [Sniper-Installation](#)

WARNING!

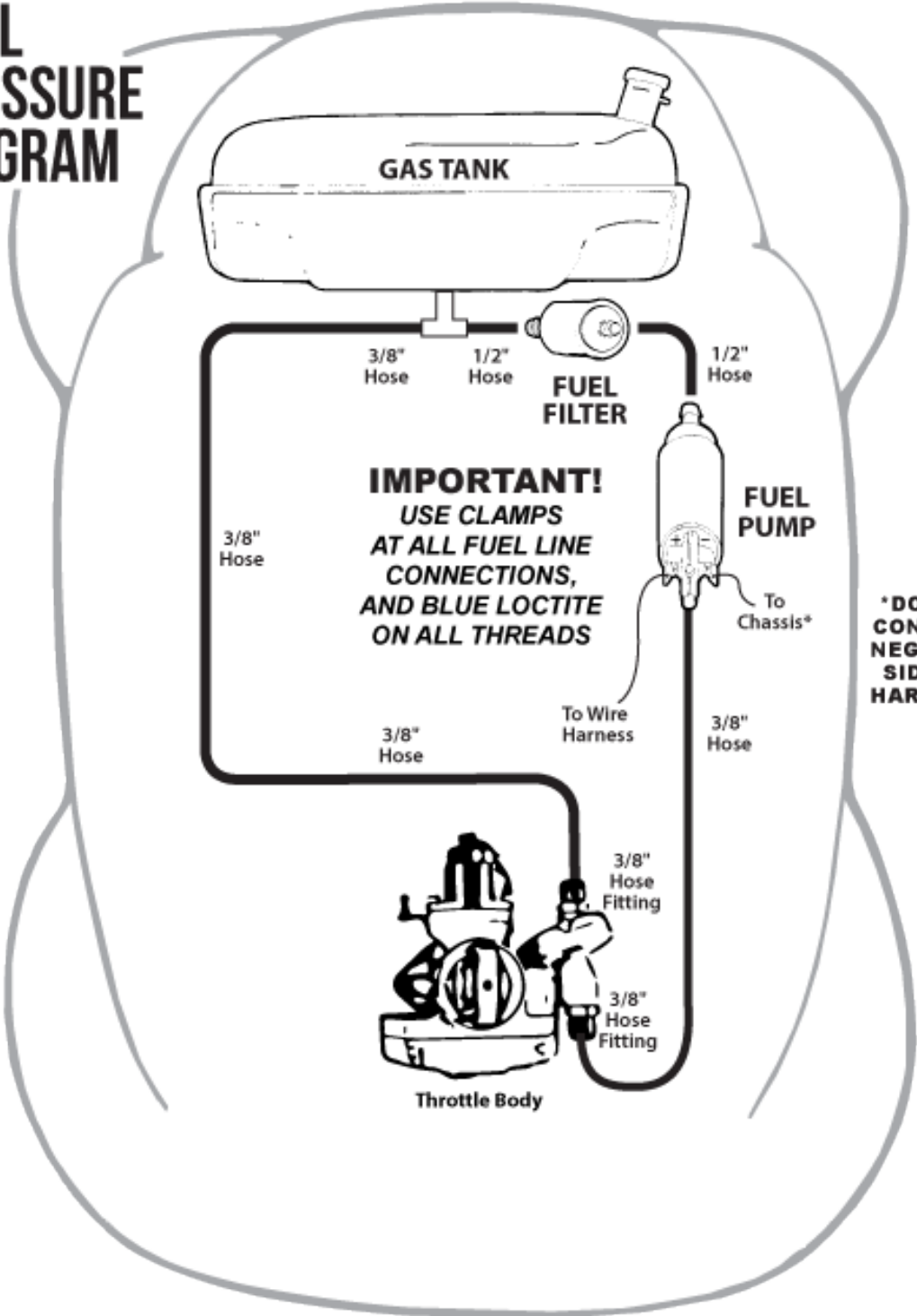
**NEVER, UNDER ANY
CIRCUMSTANCES SHOULD
YOU RUN LEADED RACING FUEL!**

**ONLY UNLEADED RACING FUEL
IS ACCEPTABLE TO RUN IN YOUR
CBP SNIPER EFI SYSTEM**

**SERIOUS DAMAGE TO
OXYGEN SENSOR AND/OR
ENGINE WILL OCCUR
WITH LEADED FUEL.**

CAUTION - CLEAN AND FLUSH YOUR GAS TANK BEFORE INSTALLING YOUR NEW FUEL LINES. THIS IS AN ABSOLUTE MUST! YOUR FUEL SYSTEM MUST BE CLEAN TO OPERATE CORRECTLY!

FUEL PRESSURE DIAGRAM



Engine Run-On

In some applications, a situation referred to as "Run-On" will occur. This is where the engine continues to run after the ignition switch is shut off. In a run on situation, a diode can be put in line with the alternator field wire. This diode will keep voltage from leaking through to the fuel injection system.

(Replacements can be purchased at Radio Shack.)



1N 4001 DIODE
secure diode with stripe
facing towards the alternator.

