

Fuel Pump and Pertronix Ignition Tips

Fuel Pump Update: The mechanical fuel pump (4886) currently being produced by Airtex has had a history of upgrades, all of which made it a more dependable pump. In the '90's the pumps were suddenly supplied with diaphragm material that would split after a short service life. That was corrected but the units supplied up to mid-2011 were produced in Mexico and had a history of failure due to the valves not being pressed in completely and not being staked to prevent them from falling out. Airtex moved their plant from Mexico to Illinois, corrected the production line problem and began turning out a very dependable pump. Those are identified by the hex ¼" head fasteners and a lot number laser etched on the bottom.

2014 Arrived and the Airtex pumps suddenly would exhibit small leaks out of the gasket/diaphragm areas. Apparently the production line torque procedure was slightly less than what was needed to fully tighten the self locking screws and after a period of time the pumps would leak. That has been corrected with a new run that is identified with hex head 5/15" fasteners which also have a screwdriver slot. The newest pumps have a red card in the box suggesting you should tighten the screws but so far I have not found it necessary. If you purchase a pump with the ¼" head fasteners, simply tighten them and you will feel the screws turn down about ¼ to ½ turn. Obviously do not over-tighten and not every pump may need that, but do check yours. I have disassembled the newest pumps being supplied and they have well staked valves and do have the center raised casting to prevent gas from entering the crankcase. Overall I am anticipating good service from these pumps.

Be aware that pumps currently being produced regulate pressure at 9 pounds, not 4 ½ as the original GM pump. A comparison of the springs show a much longer spring with the same wire diameter is now being used. My experience so far has not found the pumps overpowering the standard needle and seat combination.

Pertronix Ignition Systems: I have installed numerous Pertronix systems and no one has experienced a failure to date. However, I have traced two performance problems back to Pertronix systems that were not installed correctly by the owners (or others). Over the years the instruction sheet has been changed to better explain installation but you should check your Pertronix for proper wiring. If you have removed the ballast resistor that is standard on all Corvairs because of some other installation then disregard this advice.

The issue is in wiring the Pertronix unit to the reduced voltage at the end of the resistance wire leading to the coil; this is the red wire from the distributor unit. The Pertronix requires full battery voltage to this red wire and if it is simply hooked to the + side of the coil it will not have battery voltage during run-time, it will be a reduced voltage (less than 6) and can cause running issues. Two recent problems I encountered included one Corvair that died while idling on my driveway and kept stalling until I re-wired the Pertronix to have a constant 12 volts. Another Corvair would miss-fire randomly and also would suddenly have a string of detonations that would come and go. It also was cured by wiring the Pertronix unit for 12 volts instead of the reduced 6 volts from the inline resistor that is the standard wiring for all Corvairs. Read instruction 25 that comes with

the Pertronix unit, it specifically states hooking the red wire to the ignition switch side of the resistance. Also note the nearby copy of the Pertronix furnished diagram of the wiring; it may be a little confusing but it does indicate the hookup should be **before** the resistor. This can be done on the front side of the multi-connector in the forward left side of the engine compartment. Pick the wire that feeds the only fabric covered wire exiting to the rear of the car from the connector. Make a T connection and hide the wire in your harness around to the Pertronix unit. The original wiring to the + side of the coil should be maintained.

A couple of other notes on the Pertronix units: There is a warning in the instructions that you can damage the units by leaving the key on and the engine off for an extended period of time. Also be aware that adding a Pertronix will not compensate for worn distributor bushings, gears, and advance mechanism parts. Occasionally an original Corsa tachometer will not function correctly with a Pertronix unit installed.

FIGURE 3
WIRING DIAGRAM
IGNITOR SYSTEM
WITH BALLAST RESISTOR

