

ECS Stage I Fuel System Instructions

The ECS Stage I fuel System is designed for late model Corvettes not exceeding 750 RWHP.

The System comes with a ECS Made custom in tank fitting, A Bosch 044 fuel pump, braided 8 AN fuel line, an assortment of anodized fittings, a check valve, and a fuel line adapter. The entire system installs in the rear of the car without the need to drop the tank.

You are working with Fuel. Be mindful of any sources of heat, sparks or any other conditions that could cause a fire. ECS cannot and will not be held responsible for any damages caused by installation.

Start with an empty fuel tank.

Disconnect the negative battery cable.

With the car on a lift or jackstands, remove the driver's side rear wheel and inner fender liner.

Using a file or wiz wheel with a Roll Lock sanding disk, prepare the exterior surface of the driver's side tank to be sure that the surface is flush and true.



Approximately 3 inches from seam and 2 $\frac{3}{4}$ inches from bottom of tank make a mark where you will be drilling for the ECS in tank auxiliary fuel pick up assembly.



With a 90 degree drill, or a long drill extension, Use the supplied 1 3/4 hole saw, drill tank as shown being sure to de burr tank and clean any residual debris from tank afterwards.



Installing ECS Auxiliary Fuel Pick Up Assembly

With the Brass wire tool provided, insert fuel backer plate into tank as shown.





Suspend backer plate freely in tank.

Insert fuel sock with fuel sock being careful not to hit backer plate.



Slide backer plate over fuel pick up tube

Pull fuel pick up tube to hold backer plate to back of tank rotating fuel block so the return is at the 12 o'clock position.





Reinsert wire tool into backer plate through return opening or one of the screw holes to support backer plate holding it against the back of the tank.

Begin threading one of the provided allen bolts with o-ring through pick up and into backer plate.



Install second allen bolt (with o-ring) and snug down. Torque bolts down to 12 ft/pounds.

Install the supplied 6AN block off cap on the upper fitting on the fuel block. (this is set up as a fuel return should you ever upgrade your fuel system)



It is your responsibility to make sure that your connections are correct and leak free. If you are unsure of how to properly install AN fittings be sure to look it up as this is critical to your safety and the performance and reliability of your fuel system.)



Measure and cut 24 inches of the provided 8AN Fuel Line. Install a 8AN 120deg fitting on both ends of the line. One end of this line will attach to the new fuel block, and the other to the inlet side of the Bosch 044 pump.

Take approximately 14" of the Provided 6AN Braided Fuel Line and Install a 45deg fitting on each end. This line will run from the outlet side of the pump to factory fuel line. On the fuel line side, install the provided male/male 6an union, and the provided fuel line adapter as shown.



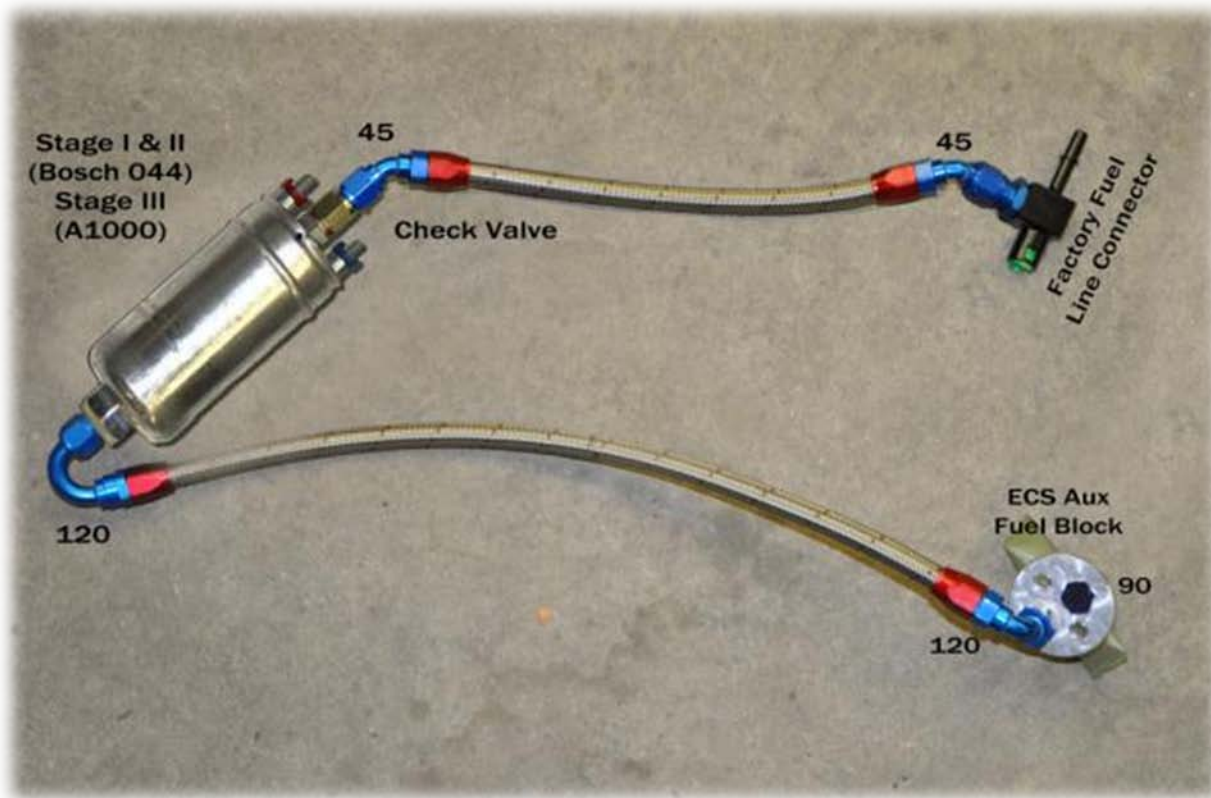


The Fuel Line adapter will snap in place between the factory fuel pump outlet and the factory fuel feed line as shown below.

With a second length of 24 in 8 AN hose, we will assemble the line from the ECS auxiliary fuel block to the Pump inlet using a 120 degree fitting on either end.

The Check valve will be inserted on the feed side of the pump.

When assembled, this system will look like this.



Wiring the system

Wiring the ECS fuel system is very simple.

Wire the provided 3 wire relay as follows:

Fused Power to 12v power on back of alternator.

Fuel Pump power to non fused red power on relay

Black ground to one side of Hobbs.

Other side of Hobbs to Ground.

Fuel Pump negative to ground.

Follow the diagram below being certain that all connections are to clean ground sources on the frame and soldering and/or shrink wrapping all connections.

