



## EZ Start valve

I have been using fuel injection since I purchased my first one in 1967. I have owned and used every brand of fuel injection made. Every brand of FI has the same problem which we have solved with the EZ Start valve. When I started using fuel injection in drag racing we were push starting the cars to a start like the sprint cars still do. The hard starting characteristic of fuel injection was no problem as the push start was not affected by the problem. Then on board starters became popular in the early 70's and were later mandated by the drag race sanctioning bodies.

With onboard starters simply priming the fuel system has become the normal way to start fuel injection cars unfortunately some fuel injection systems are hard to prime. Stack fuel injection requires a "drink" in each port stack just before starting the engine and some times it requires more than one "drink" to get the engine running normally.

On hat type injection the problem is not as big but still there. Adding extra fuel with the start bottle or primer bottle to assist the engine until it get the fuel to the nozzles is easier because you can just squirt a bit on the throttle plate until the engine is running smoothly. Knowledgeable crew are required for this job as them must know how much to add and when to start and stop the bottle.

The most important question is, why do you have to prime the fuel injection every time to start it? Why is it sometimes it wants more fuel than other times?

When you analyse the fuel system you see that the fuel pump picks up the fuel from the tank and pushes it up to the barrel valve and on to the nozzles. On non supercharged fuel systems when you shut the engine off with the ignition, the fuel is stopped at the nozzles as soon as the engine stops turning. The fuel system is ready to push the fuel out again as soon as the fuel pump is turned by the engine.

What happens while the engine is sitting awaiting a restart is; gravity acts on the fuel in the fuel system and attempts to pull the fuel back to the fuel tank. How quickly it pulls the fuel back to the tank is dependant on the fit of the spool in the barrel valve and the fit of the gears in the fuel pump. Eventually it will pull the fuel back to the tank. Even if you have the fuel shutoff valve closed some of the fuel will be drawn back into the tank just by the action of closing the valve.

The simplest most reliable solution to the problem is to install a **LOWE Fuel System** EZ Start valve in the line on top of the pump or if the fuel shut off is on top of the pump then install the EZ Start valve on top of the fuel shut off. Select the -6 or -8 depending upon your application.

After each race meeting the normal procedure is to clean the methanol out of the fuel system and Triflo all the lines and valves to prevent corrosion. Check the one way action of the EZ Start valve each time and spray the EZ Start valve with lube. At the start of each race because the fuel system is dry of fuel you will still have to prime the fuel system with the start bottle when you first warm the engine up.



With the EZ Start valve in you fuel system the normal starting procedures to crank the engine over with the butterflies closed until the engine starts. Opening the butterflies on a fuel injected engine while cranking to start the engine breaks the vacuum under the butterflies and thus stops the engine from assisting the fuel system from pulling the fuel into the ports with the manifold vacuum

The EZ Start valve has a very low pressure opening point that does not restrict the fuel flow to the engine. Another feature of the EZ Start valve is the positive seal the valve has that prevents the drain back of the fuel to the fuel tank. Made from CNC machined billet aluminium and blue anodised for appearance and corrosion resistance. Comes with o-ring seal.

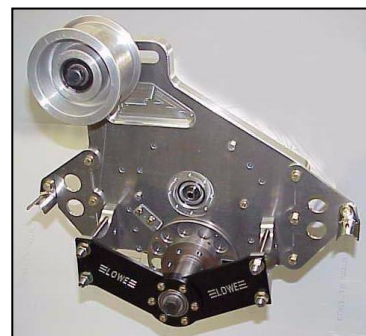
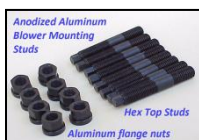
The **EZ Start Valve** must be installed in a **vertical or near vertical direction** with the arrow pointing up. This means the inlet is on the bottom and the discharge is on the top. When held in the correct direction you will not be able to blow back through the valve from the top. It is this action that holds the fuel up in the system preventing it from draining back to the fuel tank. If you wish to install the **EZ Start Valve** in a position other than vertical you may use our 35774-10009 conical spring. With this spring there is an opening pressure of 1.5psi required but the spring insures the poppet stays seated.



**All EZ Start valves are male thread sae o-ring seal thread..**

Dash 6 EASY Start valve pn 35774-10006 List \$ 95.00 + Racer Decal Discount \$ 79.00 +  
 Dash 8 EASY Start valve pn 35774-10008 List \$ 105.00 + Racer Decal Discount \$ 89.00 +  
 EZ start check valve spring (optional) pn 35774-10009 List Price \$ 15.00+ Racer Decal Discount \$ 9.00+

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The 200 page, 31 Chapter, **LOWE Fuel Injection** instruction manual is still only \$99.95 they make great birthday or Christmas gifts. Order early – order now call 0411-699 535 or email ken@kenlowe.com.au