

# *WA Technology*

## **1st to 4th Skip Shift; *ITEM SFT***

To make the EPA happy the Corvette stick shift forces a 1<sup>st</sup> to 4<sup>th</sup> shift (or said another way, blocks the 1<sup>st</sup> to 2<sup>nd</sup> or 3<sup>rd</sup> shift) at small throttle settings and low speeds. In fairness the 2008 is better than my '93 which was annoying until I disconnected the control solenoid! For a small price for the "Skip Shift" plug this is easily accomplished:

You'll need to jack up the rear of the Corvette. Low ramps are needed to get a jack under the "GM Preferred Lifting Points."



After the car is on Ramps you can push a jack under one end and jack it up sufficiently to install Jack Stands to support that end of the car. You'll need a cross brace to assure your lifting on the "GM Preferred Supports."

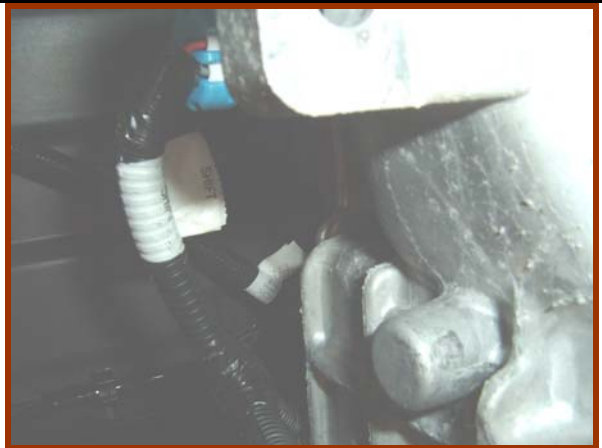
**DO NOT WORK ON THE CAR WITH A WHEEL REMOVED WITHOUT JACK STANDS.**



The Skip Shift kit purchased consists of two Delco connectors. These essential prevent dirt and water from getting into the plug ends that will be disconnected from the skip shift solenoid! Some kits allude to the fact that they stop “throwing a code” by using a resistor. Not sure if this is true or if it just stops water getting in. Maybe they are referring to water getting in and causing a trouble code. The kits are inexpensive, why risk it!



The plug that connects to the solenoid is on the driver’s side top of the transmission. You’ll only be able to access when you jack up the rear and use jack stands. Follow GM and the Jack Stand manufactures Cautions and Warnings regarding jacking and working under jack stand supported car.



The tricky part is installing this connector onto the one in the transmission. Had to reach up and do it with one hand! Be sure it clicks. The other connector is easy to install as the wire can be pulled down for easy access. After installing use wire ties to secure the wire to something that doesn’t move or can touch a hot exhaust etc.



**Have a MIG (Wire) Welder?  
A Friend with a MIG Welder?  
Know Someone with a  
Fabrication Shop?**

**Do Them a Big Favor and Have Them  
Review the Shielding Gas Saving  
Information on Our Web Site:**

**[www.NetWelding.com](http://www.NetWelding.com)**

***If You Have a Home Shop -  
Have You Run Out of Shielding  
Gas on a Saturday or Sunday?  
We Have a Solution:***

**How Much Gas Can Be Saved??**

The best way to show the savings is with an example from one of our industrial customers who tested the system then bought them for all 35 of his MIG welders.



A Texas Truck Box manufacturer evaluated the system on a repetitive job, welding doors. With their

standard gas delivery hose they welded **236 doors** with a full cylinder of shielding gas. Just substituting their gas hose with our patented **GSS** maintaining the same flow settings they welded **632 doors!** That's a 63% reduction in shielding gas use.

**Weld Performance Improvement**

A small shop owner provided this feedback after he purchased a 3 foot **GSS** for his small MIG welder. Al Hackethal reported these findings:



*"Well, I can't believe it. I never thought a hose could make that much of a difference. I had a small job that's been waiting for a while. The weld quality, and even penetration is considerable better. Almost no spatter! The weld seemed to be hotter and I turned my MIG down a notch.*

*Initially thought that my imagination had kicked in, but then realized that the gas I'm buying is actually working the way it's supposed to. Glad I found your website. This is one of the few things that really works better than any info could suggest. I understood the theory, though in practice I understood much better after the first couple of welds. Now I have better looking welds and almost no spatter, which means less grinding and finish work! In addition, the tip was cleaner after the job I just did.*

*This will provide savings in time, labor and maybe even consumables too. As a one man shop there's never enough time for anything.*

Al also has a TIG welder with 300 amp water cooled torch and bought one of our Leather Cable Covers. His email said this about it!

*Oh, the leather wrap for my TIG hoses worked very well and fits perfectly. I'd just replaced the hoses and was looking for something to protect them that was better than the nylon wrap that's available around here. Now I'm "TIGing" again too, and much safer. It's good to know the coolant hoses are well protected. Much better than using a 300 amp TIG and then realizing that I was standing in a puddle of coolant, which is what recently happened. Can't pay the bills if I electrocute myself!*

*Thanks for making products affordable".*

## Another Home Shop Writes About GSS System

Perry Thomasson has a very well equipped home shop. He uses a 175 amp MIG welder. However the small welder cart only held a medium size shielding gas cylinder and Perry



wanted to reduce the number of times he had to have it filled.

He purchased the largest cylinder his distributor offered for sale and chained it to a wall in his shop. He needed a much

longer gas delivery hose so he added a 50 foot conventional 1/4 inch ID hose. He found he was using a lot of gas.

He purchased a 50 foot long **GSS** and saved a significant amount of shielding gas while improving his weld starts by reducing the starting gas surge. Since his regulator/flowgauge had a hose barb on the output, we supplied Perry with a splice connection on the supply end of the **GSS**. He simply cut the existing gas delivery hose close to the regulator and spliced in the **GSS** hose. The welder end uses a standard CGA fitting that is supplied with the system.

Perry emailed a picture and said;

*" The system works great. Thanks for the professional service and a great product."*

## A Professional Street Rod Builder Had This to Say About the GSS:

They use a 250 amp MIG welder with built in feeder and a 6 foot gas delivery hose. With their standard

gas delivery hose the peak shielding flow at weld start was measured at 150 CFH, far more than needed and enough to pull air into the shielding stream. Air is then sucked into the gas stream causing poor weld starts and possibly weld porosity.

With the **GSS** replacing their existing hose, the peak flow surge at the weld start was about 50 CFH and it quickly reduced to the 25 CFH setting. With the many short welds made and frequent inching of the wire, they used less than half the gas and had better starts.

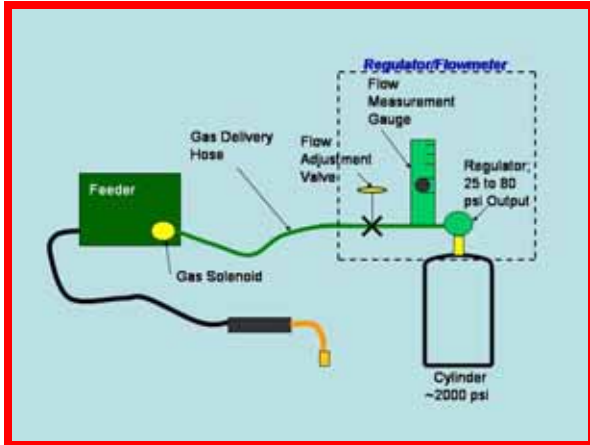


Kyle Bond, President, indicated a big benefit is the reduced time and effort

changing cylinders since it's required less frequently. He quickly saw the improvement achieved in weld start quality as a significant advantage! Kyle, an excellent automotive painter, was well aware of the effects of gas surge caused by pressure buildup in the delivery hose when stopped. He has to deal with the visible effects in the air hose lines on the spray gun in his paint booth! It's too bad we can't see the shielding gas waste as Kyle can the effects of excess pressure when he triggers his spray gun! The paint surge is visible and creates defects unless the gun is triggered off the part being painted! Kyle can manage the surge by triggering the paint gun off the part; unfortunately we can't start our weld with the MIG gun off the part ! The **GSS** has a built in surge flow limiting orifice that keeps the peak flow from becoming excessive. So you not only save gas you improve your weld starts!

## How Does The GSS Work?

Gas waste occurs every time you pull the MIG torch trigger even if it's only to inch the wire to cut off the end.



To keep flow at the preset level the gas pressure in the cylinder regulator will be between 25 and 80 psi. Flowgauge regulators (those with a flow calibrated pressure gauge) operate in this pressure range as well.) However to flow shielding gas though the welder and torch typically requires 3 to 5 psi depending on restrictions. Therefore every time



welding stops the pressure in the gas hose raises to the regulator pressure of 25 to 80 psi. That stores up to 7 times the hose volume of gas in the hose. This is similar to your shielding gas cylinder which holds about 150 times the volume of gas as the physical volume of the cylinder due to the high pressure!

The patented **GSS** stores over 80% less gas than typical shielding gas hoses. In addition to the wasted gas (which you can hear when you pull the torch trigger) the high flow also

causes air to be pulled into the turbulent shielding gas stream! This is like starting with the gas cylinder shut off! You have probably experienced that before when you forgot to open the valve!

It takes a short time for the shielding gas flow to return to a smooth less turbulent (laminar) flow even when the start gas surge flow reduces. That can take several seconds so when making short welds or tack welds you're not getting all the benefits of the shielding gas you're purchasing!

## SUMMARY:

The **GSS** can cut your gas use in half or more. It also has a surge restriction orifice built into the fitting at the welder- wire feeder end. That limits peak flow (*but not your set flow*) to a level that avoids excess turbulence for better starts. It allows a controlled amount of shielding gas to quickly purge the weld start area.

**All you need to do is replace the exiting gas hose from cylinder regulator to welder with our patented GSS. It is available in various lengths at [www.NetWelding.com](http://www.NetWelding.com).**

There are more testimonials at:

[http://www.netwelding.com/product/on\\_test\\_results.htm](http://www.netwelding.com/product/on_test_results.htm)

Have more questions? See:

[http://www.netwelding.com/Overview\\_GSS.htm](http://www.netwelding.com/Overview_GSS.htm)

Or email us at:

[TechSupport@NetWelding.com](mailto:TechSupport@NetWelding.com)