

Installing Painted Rear Spoiler and 3rd Brake Light Pulser *Item LED*

Selection of Spoiler:



There are several types of painted spoilers available. The one available from GM is the same as the original but in Corvette colors instead of the “wart” black! There are two that were available with much longer area of LED’s; one with 44 LED’s and a newer one with 39 LED’s from Philips which

some Internet Forums reported were brighter. Both have the LED’s across the full length of the spoiler versus the short length in the original.

There are also a number of full length spoilers available. One from GM and a number in the aftermarket. A full length spoiler was considered but it changed the look of the car and not necessarily for the better! It was not adding anything functionally and most had a small number of LED’s.

It was decided the 39 LED product sold by Southern Car Parts (www.southernCarparts.com) looked good and provided a more visible 3rd brake light.

Although Southern Car Parts offered a pulse option, at the time it did not appear it had the advanced features of one sold by several others. The one purchased was sold by High Horsepower Performance, in California. It has features that do not annoy the drivers behind you, especially when in bumper to bumper traffic! With their Pulser, the 3rd brake light pulses rapidly 3 times making it much more visible. Then it stays on as a normal brake light. In addition if the brakes are released and reapplied within 15 seconds the LED’s don’t pulse! Great idea.





Installation:

Tools:

You’ll need a

1. 10mm deep socket and a 3/8 ratchet.
2. # 15 Torx screw drive to remove the taillight lenses. (No not try to use any other tool and be sure it is a good quality.)
3. Small round tail file.

Picture Sequence of Assembly

<p>First remove the two inner taillights. Just let them hang by their wires.</p> <p>There are sheet metal screws that retain the taillights. Be sure the screwdriver is inserted properly and perpendicular so you do not round the Torx slot.</p>	
<p>Reach in through the taillight opening with the deep socket and loosen the 4 nuts on the spoiler studs. After they are loosened you can unscrew them by hand. Don't drop them as they are needed and you'll have a hard time fishing them out!</p>	 
<p>You can unplug the connector to the original spoiler through the opening in the center. Look at how it connects carefully since you have to plug the bottom of the Pulser into the plug in the car without being able to see it! The Pulser simply plugs between the original plug on the wire harness and the new spoiler.</p>	

You can plug one side of the Pulser into the new spoiler plug through the hole but you'll have to use one hand! Good practice because now the tricky part! You must reach into the taillight opening and with one hand plug the connector at the bottom of the Pulser into the plug in the car harness (the one you removed initially.) Just be sure they are properly aligned than use your thumb to pull together until the connection snaps!



Optional: Since the Pulser will be hanging in the rear bumper cavity; to help protect it and to prevent it from making noise, two sided tape and some packing foam was wrapped around the body before it was installed. Duct tape was then wrapped around the assembly.



As mentioned in the instructions, most holes in the bumper are slotted so the new spoiler will fit easily; all except the round hole shown in the photo. Note the small round tail file on the pad.



You don't need much filing to have the spoiler fit into the recess. 1/8 inch down toward the back of the car was all that was needed. The "plastic" bumper files easily.



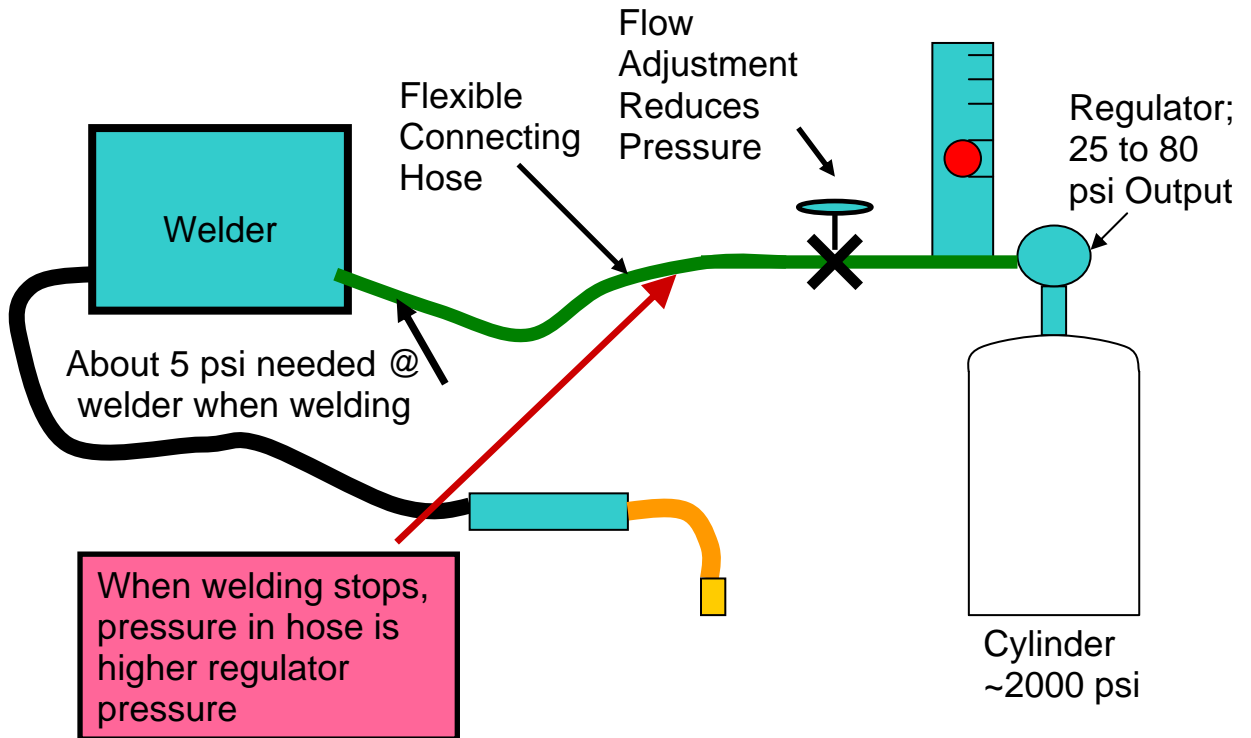
Simply put the spoiler in place and run the nuts (those you removed) up by hand. Use the 13mm deep socket to tighten. When reinstalling the taillights you may need to reposition the metal clip so it aligns with the screw.



WA Technology

Have a MIG Welder?

Our Patented Gas Saver System not only cuts shielding gas use in half or more by reducing waste - it improves weld start quality.



The schematic shows why there is a surge of high gas flow at each weld start. Shielding gas pressure builds in the gas delivery hose when welding stops. When welding starts the pressure reduces to that needed for the low shielding gas flow rate. The extra gas surge at the start not only wastes gas but the high surge flow rate pulls air into the shielding gas stream. This air makes inferior weld starts in addition to wasting gas.

Our patented Gas Saver System (**GSS**[™]) solves both problems by limiting the volume of extra gas stored when welding stops and using a flow control restrictor to limit maximum surge flow. With thousands in use, some commercial applications have saved 60%! A small shop or home user will save even more since many short and small welds are made. The more often the torch switch is pulled the more gas is wasted and the more our **GSS** can save!

**Our Patented Product is Only Available from our Web Site.
It is "NOT Available in Stores."**

CUSTOMER TESTIMONIALS



Perry Thomasson Purchased a 50 foot Gas Saver System (GSS™) For His Home Shop

Perry has a very well equipped home shop. For a MIG welder he uses a Millermatic 175. However the small welder cart only held a medium size shielding gas cylinder and he 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 great deal of gas.

He bought our patented Gas Saver System (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 he used a splice connector we supplied him with the **GSS** (See Photo Right.) 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 these pictures and said; **" The system works great. Thanks for the professional service and a great product."**

A Professional Street Rod Builder Had This to Say: 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 porosity.

With the **GSS** replacing their existing hose, the peak flow surge at the weld start was about 50 CFH. **With the many short welds made and frequent inching of the wire at this shop, 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! We can't do that with our MIG gun!