WA Technology

Installing "C7 Carbon" Side Skirts and Splitter

(Updated 7/1/2025 with Forum Members comments about delivery issues and no predrilled holes!)

The GM "Build-A-C8" website, when first available, listed an option I wanted. It was GM order number 5W8, Side Skirts and Splitter painted Carbon Flash. It had



a MSRP of \$3850. (That is essentially what I had on my 2017 Grand Sport with the GM Stage 2 Aero option.) That was quickly constrained and only the visible Carbon Fiber offered, GM order number 5VM at a cost of \$4850. I ordered since in my rural area "Side Skirts" are essential to stop pebbles and debris on the sides

of our roads (we have few with other than gravel or grass) marking the rocker panels. Part number 5VM was later constrained due to vendor supply issues.

Fortunately, *C7 Carbon* offers what they refer to as the equivalent of GM 5VM in either visible Carbon Fiber OR Painted Carbon Flash. As with their Splitter I added to my 2014 Z51 in Visible Carbon Fiber, their products are made from fiberglass with, if so ordered, a finished layer of real Carbon Fiber.

How To Install:

Of interest, the C7 Carbon Side Skirts are "easier to install" than the OEM 5VM! GM uses a bolt on the winglet rear end of the Side Skirt that requires drilling a 3/8-inch hole on the fender. Some installers of the GM product remove the rear wheel, inner fender well liner for drilling and bolt access! GM also uses 3M automotive tape AND a strong 3M Window-Weld adhesive.

C7 Carbon has a large flat area instead of a bolt. I elected to add two strips of 3M Automotive Double-Sided Tape on that flat area. Probably "Belt and Suspenders."

I discuss alternatives in an Epilogue that also presents details of the GM complex install procedures of their 5VM.



The Following is A Picture/Caption Review of My Install

Photo/Detailed Caption Sequence

Splitter and Side Skirts Arrived

As with prior products I have received from C7 Carbon (2014 C7 Visible Carbon Fiber Splitter and 2017 Grand Sport painted Carbon Flash Rear Diffuser) - they arrived in perfect condition.

They come very well packaged. In this case 3 separate boxes. This is the Splitter, that like the Side Skirts, each wrapped in foam sheets then bubble wrap. Zero damage, all looked great.



Update 7/1/2025 Forum Comments about unreliable delivery. Call before placing an order and verify just when you can expect the product. Good quality from my experience with C7s as well as my C8 Skirts but no good if poor shipping!



7/1/2025! Was informed by Member that C7 Carbon no longer supplies predrilled. Promised a pattern but he had not received!

Note the dirt on the area the side skirts will cover. Used the 2 products shown to clean the area. Alcohol works fine and has less odor! The 3M General Purpose Adhesive Cleaner is great for about anything on the surface. It's sold in automotive paint stores. First issue is raising the car enough to gain access to the rocker panel underside to drill holes and install Rivets, the fasteners supporting the Side Skirts.

I use these stanchions fabricated some years ago that raise the car 6 1/4 inches (details in Appendix.)

Checked and there is about a 3-inch clearance under my right-angle drill so could get by placing the wheels on a stack of 4-inch-high boards or perhaps 4"x 8"x16" solid concrete blocks (~\$2 each from Lowes!)





No longer recommend 3M tape on sides **See Epilogue**.





Drilled in the holes you may have to make in the Side Skirts and installed 6 Rivets, then removed the front "screw," drilled that 3/16-inch hole (from the 1/8-inch hole drilled for the screw) and installed the last rivet on that side.

The Appendix has a discussion of the supplied rivets and what I finally used.

Fit and Finish Look Great. As mentioned, the exact Side Skirt position is defined by the OEM bolt in the rear. The large flat area by the rear "winglet" is sufficient to support the Side Skirt WITHOUT the 3M tape or OEM Skirt Bolt. But the tape installed easily. Bought 15 feet **Finished Install** of ¹/₂ inch wide, 45 mills thick of 3M VHB View: Foam Automotive Tape for ~\$10 from From Side From Rear Amazon. No longer recommend 3M tape on sides. See Epilogue. of 3M Tape Ready to Install. Note - 3inches of th Cover Tail That Is Held With Masking Tape

Splitter Install

The C7 Carbon Splitter is easy to install.

First remove the OEM Splitter Laying over box the *C7 Carbon* was shipped in) as the new Splitter uses the same OEM bolts.



Note: I used the stanchions on the two front wheels to help with the install. Can be done without but makes access easier.

However, that did mean I had to prop one end up while I started to install screws from the other end.

Most of the C7 Carbon drill holes lined up with the threaded clips they screw into. A few did not so used an Awl to align the clip. They are attached to the rubber like material and moved in line. See inset pic with metal clip in white.



The OEM Splitter screws are T15 Torx. I found a small hand ratchet was easiest to use. The screws are not that tight to require all but that small round ratchet. More effort to use my right-angle drill AND that could overtighten on the install.





Appendix: Rivets

Installed the found it requ old hand Riv Thought it w magnet attra The Rivet G Mandrel well Rivet gun to old (left in Pi The new one larger longer	ired a lot et Gun (r as usual cted the Gun was , it was s replace c.) is from	of force u ight in Pic ly high ar Rivet man also not slipping. one that v Harbor Fr	using my v) d then sa drel! gripping Bought a r vas 25+ ye eight and	ery v a the ew ars
Rivet body Shank – Rivet head	Mandrei be Mandrei Break notch mici gro	at rial ness.	Retained mandrel bead Upset head Rivited material Rivet head Spent mandrel	With the new gun, the force required with the supplied Rivets was still high. Then one Rivet pulled out. Could not put another in that same 3/16 Inch drill hole it just pulled out as well. Appeared the composite rocker panel hole had enlarged, to the upset Rivet head size! Looked at the Rivets I had. Had a 3/16 aluminum Rivet but it had an aluminum Mandrel NOT steel.
Rivet Size	Rivet Body	Mandril	Load	Checked the loads each supply. Note the load is only 320 lbs with the Aluminum Mandrel versus 520 lbs for a steel Mandrel
3/16	AI	Steel	520 lb	for the same 3/16-inch Aluminum Rivet!
3/16	AI	AI	320 lb	520 lbs appears more than the composite rocker can support.
5/32	AI	AI	230 lb	The aluminum Mandrel worked fine!
Checked to	be sure	the steel	Mandrel	My 3/16" Aluminum Rivet w/Aluminum Mandril

the notch break area. It did and so did the aluminum Mandrel. The only issue is mine were not Mushroom Heads.

But addressed that issue before!





I had what are called "Back-Up Plates" for my 3/16-inch alumimum Rivets. They are designed to fit below the smaller Rivet head and provide the same $1/_2$ inch diameter area as the Mushroom Rivets. Therefor the lower unit load on the fiberglass is the same.

Might consider getting Mushroom Rivets with aluminum Mandrels or if you have the Rivets, a box of Back-Up Plates.

Perhaps these pics of how a Blind Rivet works are helpful.

(7/1/2025) Noted an inexpensive ABS Side skirt on the Net, which may work find, recommends drilling small holes and using sheet metal screws. For sure use rivets as a person leaving the car will surely brush against the skirt and break those lose. Like those thinking you can just use 3M tape! NOT!





Note: For the hole where the Rivet pulled out and would not accept another Rivet (probably because the composite rocker panel enlarged to the size of the upset Rivet head) I just installed a Scrivet to fill the hole! Scrivets would NOT be useful to support the Side Skirts, they do not provide a lot of holding force.

I then drilled a new 3/16-inch hole through the Side Skirt and Rocker Panel close to the Scrivet an inserted an Aluminum Rivet with Aluminum Mandrel!

Epilogue

The side skirts and splitter look great. Commented on the Corvette Forum that the GM install procedure requiring drilling a 3/8-inch hole in the fender and installing a bolt was excessive. Several members questioned the lack of using a bolt. I talked with a company who makes the equivalent of the GM 5VM in carbon fiber and asked their opinion of the GM use of a bolt, the use of a very strong adhesive in addition to 3M Double Side Tape and the rivets under the side skirts. The comments were interesting.

They said although they suggest using the GM procedures, some customers have asked about the need for the bolt and adhesive. Their response was they believe their product can be installed without drilling into the fender and using a bolt! Asked their opinion if the install procedure was defined by the manufacturer of the GM 5VM or GM. They thought both. The bolt perhaps fit with the vendors product construction method, but the strong adhesive was probably GM, using the common construction of the C8 where a great deal of adhesive is used. I said perhaps if going 180 mph it might be advantageous and they said they have had their C8 up to 140 mph with no issues.

BOTTOM LINE: I believe the C7 Carbon install with just rivets and one OEM bolt on the bottom of the rocker would work fine. It's because of their thicker, more ridged fiberglass product versus all carbon fiber construction. I think my adding two strips of 3M Automotive Tape on the large rectangular area behind the rear winglet is helpful, reducing a possible issue with vibration but is probably belt and suspenders. However, I don't think the 3M tape along the top long sides (which I used in 2 strips and GM uses along the whole top edge) or the 3M strong adhesive below the tape all along the top side is needed. The tape is 0.045 inches thick that is somewhat noticeable on the long side.

I base that opinion on several observations:





Installed full length side skirts on my 2014 The full-length OEM side skirts on my 2017 Z51 only using the rivets as recommended Grand Sport were installed with only rivets

The *C7 Carbon* side skirt installed on my C8 are very solid, no vibration and are held tightly to the body. Can pull on the winglet and there is no movement. There will be no vibration issues that "might occur" without the two strips of 3M tape.

Pics of GM instructions for the install of their 5VM side skirts are shown below.

SUMMARY INSTALL SUGGESTIONS: 1) The *C7 Carbon* Instructions of only using rivets on the Bottom of the Side Skirts is probably all that is required. 2) If further hold force is used, the GM recommended 3M Urethane Adhesive (#08695) and promoter would provide the thinnest extra attachment. 3) The use of 3M Automotive tape is simple to apply on the large flat surface behind the rear winglet- and suggest not using along the top sides.



Following the GM Install Procedure by number:

- 1. First the car needs to be lifted and the rear wheel removed. Then the front of the inner wheel well, unscrewed and pulled back.
- 2. Some folks remove the electronic control module behind the passenger fender where a hole will be drilled and access to install a bolt is needed.
- 3. A template is placed, and a 3/8-inch hole drilled.
- 4. A very strong 3M window adhesive is used with their primer, below the 3M tape.
- 5. It's applied along the top edge of the side skirts. Note the 3M Tape also used.
- 6. The skirt is installed, and the bolt torqued to 22 ft-lbs. Then the bottom holes are drilled, and 3/16-inch rivets installed.

These pics of the inside of the GM and C7 Carbon side skirts provide a perspective why each can (*must*) use different GM has thin area where winglet end bolts attachment methods. to fender. They have a treaded insert. olt goes from inside rear fender Note the carbon fiber GM side skirts have thin edges and in some areas like the top pic and furthest most rear (right) in this pic. It's only a few layers of carbon fiber. The manufacturer again had only a thin surface to attach the winglet area to the fender. They used a threaded insert (Yellow circle) to accept a bolt inserted from inside the fender. The need to drill the C7 Carbon uses wide flat area that large 3/8-inch hole is no doubt to allow Winglet contacts fender. Thicker fiberglass room for alignment. needs no extra support. I elected to The C7 thicker fiberglass is very ridged, **3M tape strips.** and they used a large area (outlined in Yellow) that fits flat with the fender. elected to add the 3M Automotive doublesided tape (as it's called.) Probably not needed and not in the C7 Carbon instructions but keeps the winglet tight to the fender. No vibration. When I built my street rod in 2000 (when I semi-retired) installed my rear windows with similar window adhesive used to install windshields. I used it to attach the rear side windows in recesses in the body prior to the interior trim install. The adhesive, like that GM recommends be used with their 5VM, came in a cartridge. It was very viscous and had a hard time getting applied. Talked with a "pro" window installer who said he places the cartridge on a hot engine, so it flows easier! In shops they use and air powered gun. Also, any excess was vey hard to remove. I wedged a carefully cut 2X4 and a wood wedge between the windows and had it in place for a day as the adhesive cured. Not sure how the GM adhesive applies. It is 20 years later, and adhesive technology has advanced!

Appendix: Fabricating Wood Stanchions

The car needs to be raised to have access to the bottom for drilling the rocker panels. I made 2 stanchions as I will only use Jack Stands on one end of a car (*in fact, one set* of my jack stands warnings: "Use Only To Support One End Of The Car At A Time!")

Made wood stanchions to place under the tires one end of the car and use jack stands on the other end. They would also be useful for oil changes etc.

Purchased a 2X6 twelve feet long for under \$8. Lowes cut them in half so the two pieces would fit in our SUV. Look for a straight, low knot board!

Note for a C8 could use a 2X8 if you desire to do your own engine oil changes.

Cut four pieces each, 21 inches and 9 $\frac{1}{2}$ inches long and assembled the bases shown using 3-inch-long wood screws. Used 3 screws to fasten the ~6-inch sides. Cut pieces of some scrap $\frac{3}{4}$ inch thick plywood I had in my "might use someday pile" and screwed it into the base. This made the total height slightly over 6.25 inches for the stanchions. With 12 foot 2x8 it would be 7 $\frac{3}{4}$ with plywood top.







Added some scrap 2-inch square wood sections at two edges. These were not really needed to secure the car since I always use wheel chocks on the wheels opposite the end being jacked but just in case they provide a tire stop.

NOTE: BUILD AT YOUR OWN RISK AND CONSIDER YOUR WOOD WORKING SKILLS.

For fun, calculated safety factors. Even with inferior construction and minimum was ~4X. Have used for 11 years.

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"60" E-Ray, C8 Z51, 2017 Grand Sport & 2014 Z51 Stingray Mods or Info Available As PDFs:



60 PDFs discuss improvements or info about a E-Ray, C8, 2017 Grand Sport, 2014 Z51 Stingray function and/or esthetics. Some are minor and others, like installing "Low Dust Brake Pads" on C8 & C7s, have detailed information.

Below are the PDF's available. Click Blue PDF link or copy and paste the PDF link (Blue type) into your browser. Or email me at <u>TechSupport@NetWelding.com</u> and state the title desired, shown in Yellow:

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E-Ray Need Lift? Yep, How I Scraped My Front Aero Panel http://netwelding.com/E-Ray_Lift.pdf

E-Ray PPF Bottom Of Rocker Panels Small Amount of PPF Added To Rocker Panels http://netwelding.com/E-Ray_PPF.pdf

E-Ray Tire Slide & Rear Mesh Safe way to remove and install wheels http://netwelding.com/E-Ray_Tire_Slide.pdf

E-Ray 12 Volt Battery http://netwelding.com/E-Ray_12_Volt.pdf



C8 & E-Ray Brakes C8 Brakes Are Anemic Compared to Other MEs http://netwelding.com/C8_Big_Brakes.pdf

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C8 & E-Ray PDR SD Card Selection Things to Consider When Buying SD Card http://netwelding.com/PDR_SD_Card.pdf

E-Ray, C8, C7 eLSD vs Positraction eLSD is a Modern Dif; Positraction is from 1960s http://netwelding.com/eLSD_VS_Posi.pdf

E-Ray, C8 FWD Hybrid WFWD Hybrid Provides More Power & MPG http://netwelding.com/C8_FWD_Hybrid.pdf

C8 Edge Red Engine Cover Engine Cover Matches Valve Cover http://netwelding.com/Engine_Cover.pdf

C8 Engine Compartment Lights Multicolor Lights Remote operated http://netwelding.com/Engine_Lights.pdf

C8 Side Skirts & Splitter Install C7 Carbon side skirts & splitter on C8 http://netwelding.com/Side_Skirts.pdf

C8 Z51, GS/C7 Z51 Ceramic Brake Pads Performance Vettes have dusty brakes. These help! http://netwelding.com/Ceramic_Pads.pdf

C8 Low Restriction Air Intake

Low Restriction Air Filter Why & How To

http://netwelding.com/C8_Air_Intake.pdf

C8 & C7 Splitter & C8 Condenser Mesh Mesh Protects AC Condenser & Splitter Install http://netwelding.com/CF_Splitter.pdf

C8 NAV SD Card Removed Error *Error When SD Card and Reader Are Fine* http://netwelding.com/NAV_SD_Card.pdf

C8/GS/C7 Splash Guards GM splash guards. ACS Best Front Guards for GS. http://netwelding.com/Splash_Guard.pdf

Jacking a E-Ray/C8/GS/C7 Vette Safely jacking either front only or back & front

http://netwelding.com/Jacking_A_C7.pdf

E-Ray, C8 & C7 Plates & Frame; Must Meet South Carolina Law http://netwelding.com/License_Plate_Frame.pdf

Change C8/GS/C7 Oil WHY change your own oil and C7 Lifting Methods http://netwelding.com/Changing_Oil.pdf



























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E-Ray/C8/GS/C7 Mirror Proximity Alarm Limit switch alarm warns when close to door frame http://netwelding.com/Mirror_Proximity_Alarm.pdf

Jacking Pads for E-Ray/C8/GS/C7 Manual says Jacking Pads 2 1/2-inch max OD.. http://netwelding.com/Jacking_pads.pdf

E-Ray/C8/GS/C7 Radar Power For C7 tapped rear fuse panel. For GS tapped mirror http://netwelding.com/Radar_Detector_Power.pdf

E-Ray, C8 & C7 Wheel Chatter/Hop Why sharp, low speed turns with cold tires causes the front tires to chatter/hop. http://netwelding.com/Wheel_Chatter.pdf

E-Ray/C8/GS/C7 Wheel Locks Wheel locks, help protect your expensive wheels. http://netwelding.com/Wheel_Locks.pdf

Deer Whistle Installed on E-Ray/C8/GS/C7 Do they work? Plus Install Info <u>http://netwelding.com/Deer_Whistle.pdf</u>

C8 & C7 Splitter Protector Scrape Armor Protection for Splitter http://netwelding.com/Splitter_Protectors.pdf

E-Ray, C8 & C7 Cargo Area Rear cargo area storage device and rear protector http://netwelding.com/Rear_Cargo_Area.pdf

C8 Front Coilover Tower Covers Prevent water from filling Cast aluminum cavities http://netwelding.com/Tower_Covers.pdf

C8.R Info & GS Rear Diffuser (Fits Any C7) Rear Carbon Flash Composite Diffuser http://netwelding.com/Rear_Diffuser.pdf

GS/C7 Belt Rattle Passenger seat belt rattles against the seat back. http://netwelding.com/Eliminate_Rattle.pdf

Aluminum C8 & C7 Chassis and Repair The C7 aluminum chassis. Includes weld repair info. http://netwelding.com/Aluminum_Chassis.pdf

Manage GS/C7 Spilled Gas & Door Lock Protect when filling gas. Preventing door lock failure. http://netwelding.com/Manage_Spilled_Gas.pdf

GS/C7 License Plate Light LED license plate light & cargo area bulbs http://netwelding.com/License_Plate_Light.pdf



























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E-Ray/GS/C7 Door Panel Protector Black plastic protector prevents scuffing of door http://netwelding.com/Door_Panel_Protector.pdf

GS/C7 Improved Cup Holder *A solution to the cup holder spilling* http://netwelding.com/Improved_cup_Holder.pdf

C7 Carbon Fiber Grille Bar Install genuine carbon fiber grille bar overlay

http://netwelding.com/CF_Grille_Bar.pdf

GS/C7 Blind Spot Mirror Smaller rear and side windows cause C7 blind spots. http://netwelding.com/Blind_Spot.pdf

GS/C7 Skid Pad Protector After the air dam, the aluminum "skid pad" hits http://netwelding.com/Skid_Pad_Protector.pdf

GS/C7 OnStar Lights Rear view mirror OnStar LED's, at a quick glance, look like a police car flashing light! This is a fix. http://netwelding.com/OnStar_Lights.pdf

GS/C7 Skip Shift Eliminator Skip Shift Eliminator install http://netwelding.com/Skip_shift_Eliminator.pdf

GS/C7 Catch Can & Clean Oil Separator What is Coking and how to reduce the potential http://netwelding.com/Catch_Can.pdf

GS MGW Flat Stick Shifter The MGW shifter shortens throw and is more precise http://netwelding.com/MGW_Shifter.pdf

GS/C7 Round Shift Knob A round shift knob shortens throw on OEM shifter http://netwelding.com/Shift_Knob.pdf

> **GS/C7 Stingray Sill Plate** *Stingray sill plate replaces original.* http://netwelding.com/Sill_Plate.pdf

GS/C7 Nylon Bra Nylon Bra Stops Bugs. Fits with Stage 3 Winglets http://netwelding.com/Nylon_Bra.pdf

GS/C7 Clutch Fluid Change *Clutch fluid after 3000 miles gets dirty* http://netwelding.com/Clutch_Fluid.pdf

GS/C7 Cold Air Intake Low Restriction Air Filter & Duct http://netwelding.com/Cold_Air_Intake.pdf

























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GS/C7 Soler Modified Throttle Body For Improved Throttle Response http://netwelding.com/Soler_Mod_TB.pdf

GS Splitter Stage 3 Winglet Stage 3 Winglets Integrate with Spats http://netwelding.com/Stage_3_Winglets.pdf

C7 Removing GM Plastic Film How To Remove The Rocker Panel Film http://netwelding.com/Rocker_Panel_Film.pdf

GS 2LT to 2.5 LT Red Upper Dash Pad Like 3LT http://netwelding.com/Red_Dash_Pad.pdf

Jake Emblem/Decals for GS Jake Symbols Support GS Racing Image http://netwelding.com/Jake_Emblems.pdf

Rusty GS/C7 Muffler Why the C7 muffler rusts way to turn matte black. http://netwelding.com/Muffler_Rust.pdf

GS Engine Compartment Mods *Cosmetic Additions in Engine Compartment* http://netwelding.com/Engine_Compartment.pdf

Boomy Bass Solution Use Presets to Adjust Bass etc. Tone/Balance http://netwelding.com/Boomy_Bass

GS/C7 Air Dam, Functions Why Missing from Z51, Some GS & Z06 http://netwelding.com/Air_Dam.pdf

Rusty GS/C7 Muffler Why the C7 muffler rusts way to turn matte black. http://netwelding.com/Muffler_Rust.pdf

Engineering a ProStreet Rod How Our '34 ProStreet Rod Was Designed and Built http://netwelding.com/Engineering%20Street%20Rod %203-08.pdf

Motorsports Welding Article Wrote Article on NHRA and NASCAR Chassis Design http://netwelding.com/Motorsports_Welding_2018.pdf

Write Flyer Build: Fun Winter Project http://netwelding.com/Wright_Brothers_First_Airplane.pdf

Chris Craft Build: Fun Winter Project http://netwelding.com/Building_Dumas_Chris_Craft_Boat_Model.pdf





























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