# WA Technology

# E-Ray PDI + Info

# **Too Many Pics So Made This PDF**

This PDF is made to show more pictures than logical to post on a Forum. In addition, had planned to have a GM Option of a Scrape Armor Rad/AC Condenser protective mesh installed. BUT it was not available. Will cover the issues where I



was concerned had the dealer installed. After looking at the car, aftermarket options available my current decision.

NOTE: this is what I did BUT is not what I expect

others might consider or do. But if some of the info is useful great!



As with my ~60 other How To/Info PDF's this format is a Picture on one side of a Storyboard type Table and text on the other. Only need to look at what is important to you. Can quickly scan the pics and read text were desired.

# **Photo Sequence**

My E-Ray was built February 7<sup>th</sup>. Was on QC Hold. It left BG on Feb 27. It arrived at the dealer late Feb 28! PDI was done on Feb 29. Had my wife bring me to pick it up March 1 in pouring rain! I drove it ~50 miles home. It had been inside the dealer shop until I drove it out!





Since I have a Lift, Tech was able to use their drive-on Lift. When I arrived he was about to install the spoiler extensions that come with all E-Rays if going to Track.

I said don't put them on as not only don't I Track. I believe they were the cause of my 2017 Grand Sport of getting a dirt rear whenever I drove! Details in pic below.

BTW, the traded "Nutserts" in the spoiler are underneath not visible

My White 2017 Grand Sport got the rear dirty after every drive! Nover had the issue with my 2014 C7 Z51. I installed a shelf between the garage doors where the Grand Sport was parked. Had a waterless cleaner and rags to clean off the dirt!

Now part of the reason was the White color BUT I believe the turbulence caused by the 3" high splitter extensions that came with the Stage 2 Aero Option (I ordered to get full length Side Skirts to stop pebbles on many roads in our rural area from dinging the rocker panels. They no doubt added more turbulence in the rear.

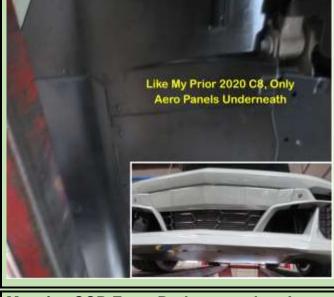
The E-Ray spoiler extensions are smaller BUT why risk the issue and my Cacti color and Peral Nickel wheels fit the "elegant look, why mess it up!





I asked the Corvette tech what the differences were between my 2020 C8 PDI and the E-Ray. He said he had to assemble and install what I call a "Minni Splitter" and the aero panels behind it. But all elce about the same. He was sitting at his desk at one point filling out the GM form. He does everything by the book!

No different that C8 underneath!





Massive CCB Front Brakes stand out!

I have a somewhat unique situation needing excellent stops with ambient Temp brakes most times after I merge into ~70 mph traffic to turn to a narrow rural road. Toss a set of pads good to high temps BUT I (and others) found not good stopping with room temp pads. The Carbotech 1521's replaced them with were great. Max allowed ~900 F not the 1500 F the other pads advertised. There is no free lunch on pads that are good at both ends. See Next Pic for details.

The rear CCB 15.4 inch rotors are now quite as big as the 15.7 inch fronts and don't "fill" the larger 21 inch wheels.

Seeing Carbotech 1521's being used on C7 Z06 CCB's called the Carbotech engineers. They said yep 1521's are compatible with CCB rotors AND stop the same as when on iron rotors! They have very linear modulation and stop great at room and temps to ~900F. But not for Tracking. They have sets to fit the Brembo brakes. They come with a recess to install the electric pad wear warnings.





The large 345/25R21 tires are very large. I'll be going to Discount Tire to buy insurance as I have for my 2017 Grand Sport and C8. The C8 "insurance" in 2020 cost ~\$225. Had one new tire replaced at 6 months with screw near sidewall. One just patched as nail more in center.

Wife's 2018 BMW SUV had two 315 section width tires replaced FREE (~\$400 each) and two flats repair. That insurance only cost \$180, as it is based on replacement tire cost!



Protects Center Engine Rad

#### Protective Rad/AC Condenser Screens

I ordered the E-Ray option # VWE, Scrape Armor screens (\$895.) Was concerned about having the bumper removed for the video's warning about paint chips and alignment issues upon reinstalling.

Many bolts and undertrays brackets require removal and eight 3M tape held brackets to install, as seen in video:

https://www.youtube.com/watch?v=FGM4 CTViN1I&t=806s Paragon also makes screens similar and similar installation to Scrape Armor. They provide some important hits. Smart to watch both video's if planning to install screens requiring bumper removal.

Paragon has similar screens to Scrape Armor. Their Install video has helpful hits if contemplating installing your own requiring bumper removals, watch both. C8 Corvette Z06 Radiator/Grill Guard Install - Bolt In - Paragon Performance (youtube.com)

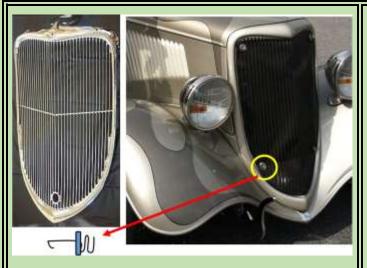




A good example of where the Paragon video is clearer is where they remove the wheels and wheel well and you can see the bolt that has to be removed, not visible in the Scrape Armor video

For those planning a non-bumper removal installation or Radiator Grill Store plastic OR Custom Car Grill aluminum (many of us installed on our early C8s) This is a great video. BUT it's not easy AND you'll see he bends their plastic mesh to get in. CCG mesh does not bend. They only have written instructions and recommend a pro install.





Knew a few weeks ago the GM VME would not be on my order! Started to look at alternatives. Thought, perhaps the CCG power coated aluminum mesh in the 1/4 " Used for my 2020 8. Or their larger mesh like Scrape Armor. But their install text and the fact that RGS bends their plastic to install, and both use visible wire tires (I avoided with my 2020 install- must be a better way. My street rod grill bars are so narrow can't get anything between to clean bugs. Removing the grill is a major task. So I use an external fine mesh grill guard and only remove at Car Shows.

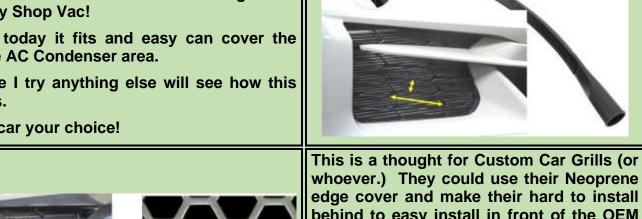
23 inch Flexible Shop Vac Attachment

But the E-Ray grill has very wide openings. Yep some bugs will get in BUT I can suck them out with this attachment I bought that fits my Shop Vac!

Tried today it fits and easy can cover the whole AC Condenser area.

Before I try anything else will see how this works.

Your car your choice!



CCG = \$150 Perhaps CCG could add their edging and External Screens and a simple 0 018/84" D3/8" device that clips behind the plastic grill. Neoprene

whoever.) They could use their Neoprene edge cover and make their hard to install behind to easy install in front of the OEM **Grill!** 

Just use a "clip" similar to what holds the fine mesh screen in place on my Street Rod. They are quick, easy to install and remove wire clips that hook behind the grill bars with a simple 90 degree turn. Because Custom Car Grill Aluminum screens are so ridged, two clips might be all that are needed. But even four are not a problem because they could be made not much bigger ten their mesh! Would not be very noticeable.

Just A Thought!



# My Part Of PDI!

I told the dealer not to wash the new car. If anyone is going to put swirl makes from rags etc., it will be me!

The Service Manager's told me his wife did the same with her new C7!

Yep their folks who wash cars who they service (if they request) are not high paid detailers. They are using rags washed many times and NOT after each wash.

I bought a new Mitt and a Groti's synthetic clay bar and used a two bucket method with a mesh bottom, so dirt stays in the bottom and my Mitt never touches.

started to use a method with Zaino products for my 2014 C7 Z51 4 Vettes ago! My Plasma Cutting Business Manager parked his Vettes close to mine in our 1000 car company lot- at the far end, away from others. His always looked better than mine. But he used 3 layers of Zaino polish that required mixing with an accelerator. My method, approved by Sal the owner, is one layer of polish (no accelerator) followed immediately with an application of Clear Seal. Sal said the CS sets the polish. Love CS as it's APPLY (sparing like all their products) and LET DRY! I start with my hose sprayer and a small amount of Dawn. As Sal notes great for the first wash. Then I Claybar'd, rinsed, Zaino Polish the CS!

I know it's Old "stuff" but so am !! I use their applicator and no border towels.





No sun at all today. This is when finished at ~4 PM. And all day effort that included setting my driving preference, locking, mirror control. Also install the radar detector removed from my 2020 C8 and Deer Whistles! Know that is controversial so will show why I use!

Hard to see the improvement in "shine" without sun. Here is a comparison inside the garage when I pulled in after driving `50 miles from Dealer in moderate to heavy rain. Hit some big puddles where water splashed higher than the fenders. Wheels and side skirts looked very dirty.

Having spend a day washing, claybar, rise, applying Zaino's new Pro Polish #2 and new bottle of their Clear Seal (that Sal, owner of Zaino) says sets the one layer of polish so no need to add accelerator. But can only one layer of polish.

Wheels look great!





Wheels look great cleaned. Were a mess from the ~50 miles drive on back roads from the dealer in moderate to heavy rain.

Far fewer Sports than on my 2020 C8. BUT still, some in engine compartment. As it did for my 2020, Meguiar's Water Sport Remover worked great, far better than vinegar etc and not hash chemicals.

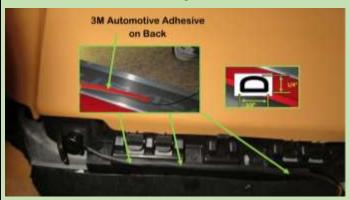
In 3  $\frac{1}{2}$  years only had to use on my 2020 one more time prior to applying their Ultimate Black polish. Did not need on the E-Ray!





No Sun all day but can see it is shinier!

# Install on my 2020 C8



# **Install Radar Detector in 5 Minutes!**

Had removed my dash install 10 year old radar detector from my sold 2020 C8. Had tapped the mirror for power and used with suction cup mount to right of mirror for 2-1/2 years. Decided to try dash mount when mirror was being replaced (took a month to get parts.) Like the dash location so made it the permanent mount with 90 degree power plug. All wires hidden.

Reinstalled wires and Detector from my 2020 C8. Trim tool lifted small side trim behind door so wires could be hidden on way to the Side "Wing" on the dash. Just pushed it under the Dash wing.

Had a block to raise the Detector on the C8. Not needed. Used 2 pieces back to back of 3M Dual Lock on top of ¼ inch piece the same width. Also, two on bottom. So, in front, 4 pieces of Dual Lock with ¼ inch block and in the rear just two pieces of Dual Lock. Perfectly level!



Compare to my 2020 install, eliminated the block the Radar Detector was on. Just added a 1/4 inch piece the same size as the 3M Dual Lock. Side molding was easy to remove with Trim Tool so wires were under it and Dash Side "Wings."



# No Spilled Milk!

As I added to my 2020 C8 after a Doogie box we were talking home from a restaurant spilled a sauce in the Trunk. I took a device made for my C7s and modified.

It fits unassembled in the rear net. But when needed, it slips together in 30 seconds to avoid Spilled Milk!

Her it is installed in mu 2020 but tested in the E-Ray and fits fine. Was easier to see in the C8 before as one extra patrician was painted Block.

Had bought a commercial narrow carrier but the funny truck shape did not allow to fit. Custom cut partisans fit fine.



#### Deer Whistle Install

Understand this will be controversial but have used for years and have a very compelling statistically should one year test run by a rural California County! Full details are my PDF, now updated. netwelding.com/Deer\_Whistle.pdf

Basically, a rural County in California, Modac had many deer collisions. They offered FREE deer whistles to anyone in the county. Only 1648 out of 8300 took advantage. In the year after 29 folks without deer whistles hit deer. Should have hit 1648 ~7.5. They hit known!

The average math would say 1648/6652 X 29 = 7.2 should have hit deer. But statically you must consider chance was the reason. There is a Statistical Test called the Chi Squared Test. Crunch the #'s and it says there is a 99.6% probability this result was NOT just random occurrence! Pretty compelling.

There is a Canadian woman responsible for reducing deer collision sand a State Tropper that suggest *Deer Whistles may work because folks using them pay more attention in mating season, when they see deer crossing signs etc.* 

In my case, having lived 2 miles down a twisty narrow road mostly homes one side on a Lake (*like mine*) and woods the other see many deer crossings every night to eat out year plants! Some hit and killed (even though our CC street speed limit is 25 mph. I have seen deer look right at me standing on the side of the road, ears tuned in my direction. Was it the deer whistle I have had on all Vettes and my wife's SUV? For \$10 who cares. I install and keep a carful watch!



# Few More Pics of E-Ray





Interior at Dealer before I installed my GM Jake Weather Matts for the rainy trip home.

# WA Technology

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



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

Below are the PDF's available. Click on picture or Blue PDF link or copy and paste the PDF link (Blue type) into your browser. Or email me at GUttrachi@aol.com and state the title desired, shown in Yellow:

## E-Ray PDI & Onfo

Details of My E-Ray PDI

http://netwelding.com/E-Ray\_PDI.pdf

# **C8 Install High Wing**

How To Remove Rear Bumper- Install Wing

http://netwelding.com/C8\_High\_Wing.pdf

#### **C8** Bigger Brakes

C8 Brakes Are Anemic Compared to Other MEs http://netwelding.com/C8\_Big\_Brakes.pdf

#### **C8 PDR SD Card Selection**

Things to Consider When Buying SD Card

http://netwelding.com/PDR\_SD\_Card.pdf

#### C8, C7 eLSD vs Positraction

eLSD is a Modern Dif; Positraction is from 1960s http://netwelding.com/eLSD\_VS\_Posi.pdf

#### **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 Covers 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 Z51Ceramic 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 C8/GS/C7 Vette

Safely jacking either front only or back & front

http://netwelding.com/Jacking\_A\_C7.pdf



#### C8 & C7 Plates & Frame;

Must Meet South Carolina Law http://netwelding.com/License\_Plate\_Frame.pdf



#### Change GS/C7 Oil

WHY change your own oil and C7 Lifting Methods http://netwelding.com/Changing\_Oil.pdf



# **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 C8/GS/C7**

Manual says Jacking Pads 2 1/2-inch max OD.. http://netwelding.com/Jacking\_pads.pdf



#### **C8/GS/C7 Radar Power**

For C7 tapped rear fuse panel. For GS tapped mirror http://netwelding.com/Radar\_Detector\_Power.pdf



# C8 & C7 Wheel Chatter/Hop

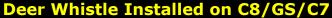
Why sharp, low speed turns with cold tires causes the front tires to chatter/hop.

http://netwelding.com/Wheel\_Chatter.pdf



### C8/GS/C7 Wheel Locks

Wheel locks, help protect your expensive wheels. http://netwelding.com/Wheel\_Locks.pdf



Do they work? Plus Install Info http://netwelding.com/Deer\_Whistle.pdf

#### **C8 & C7 Splitter Protector**

Scrape Armor Protection for Splitter <a href="http://netwelding.com/Splitter\_Protectors.pdf">http://netwelding.com/Splitter\_Protectors.pdf</a>

# C8 & C7 Cargo Area

Rear cargo area storage device and rear protector http://netwelding.com/Rear\_Cargo\_Area.pdf

#### **C8 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 C7 Chassis and Weld 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 & Cargo Lights**

LED license plate light & cargo area bulbs http://netwelding.com/License\_Plate\_Light.pdf

#### **GS/C7 Door Panel Protector**

Black plastic protector prevents scuffing of door <a href="http://netwelding.com/Door\_Panel\_Protector.pdf">http://netwelding.com/Door\_Panel\_Protector.pdf</a>

# **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

### **Replacing C7 Battery**

Tricks for installing battery! <a href="http://netwelding.com/Battery\_Issues.pdf">http://netwelding.com/Battery\_Issues.pdf</a>





























#### **GS/C7 Window Valet**

Lower Windows With FOB Helps Latch Hatch http://netwelding.com/Hatch\_Latch.pdf



### **GS/C7 Blind Spot Mirror**

Smaller rear and side windows cause C7 blind spots.

Small "blind spot mirrors" help

<a href="http://netwelding.com/Blind\_Spot.pdf">http://netwelding.com/Blind\_Spot.pdf</a>



#### **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



# **C7 Carbon Fiber Hood Vent**

Replaces Plastic Hood Vent http://netwelding.com/Hood\_Vent.pdf



#### **GS/C7 Cold Air Intake**

Low Restriction Air Filter & Duct http://netwelding.com/Cold\_Air\_Intake.pdf



# **GS/C7 Soler Modified Throttle Body**

For Improved Throttle Response http://netwelding.com/Soler\_Mod\_TB.pdf



#### Garmin GPS for GS Cubby

Garmin Mounts in GS Cubby & Apple CARPLAY http://netwelding.com/GPS\_In\_Cubby.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



#### **GS Vitesse Throttle Controller: Fits All C7s**

Adjustable Throttle-by-Wire Control http://netwelding.com/Throttle\_Control.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%20R od%203-08.pdf



# Motorsports Welding Article

Wrote Article on NHRA and NASCAR Chassis Design http://netwelding.com/Motorsports\_Welding\_2018.pdf

