

Engine Compartment Cosmetic Mods



Thought, “no need” for a PDF of just cosmetic additions. **WRONG**, saw a problem as soon as I prepared to install the Alternator Cover! American Car Craft supplies several designs but they all mount with two OEM screws. How hard could that be? Downloaded a PDF of the install and saw a missing statement and looked at the car. No wonder “remove two screws” was missing! Looked at the Grand Sport and realized the wrench needed would not be simple!

Bought one that would work, a Long Arm Angled # 30 Hex Wrench.

Reminded Me of My Former Life:

Spent the first half of my career in R&D then Market Development for a large multinational corporation. Spent a lot of time traveling, working with the sales and field engineering force. They were always complaining about the instruction literature for our machines. Not my area but would listen to the problems. When we became a separate company, I oversaw a number of departments, including Product Management, Customer Service, and Communications that included the group that wrote instruction literature.

We had two writers that worked with the engineers who designed the product. They would set up a finished machine from the instructions they wrote. The same writer and the engineer would perform that first assembly and check their work. Changed that so the other writer with an engineer that did not design the product would perform that first assembly! *Amazing difference*, they soon learned they **MUST** cover all items however small they first appeared, including what the writer and design engineer would not even consider!

Installing Alternator Cover:

First thing not covered was the tools needed to start! The American Car Craft Instructions and a Modified Sheet that clarifies the steps are included.

Installing Brake Fluid Reservoir & Fuse Panel Covers

Installation of The Brake Reservoir is straight forward. Pic/text includes an addition made of a C7 Logo Emblem that could be considered.

The Fuse Panel Cover deviates somewhat from the instructions.

Photo Sequence

The first thing needed is to remove the two OEM screws that will hold the cover to the alternator. Note the cover is cantilevered from one end using these two screws. It is a very ridged product with high quality constructions but the screws **MUST** be tight. Those screws also clamp a water outlet and must be installed with the original torque.

Looking at the car it was obvious a special wrench would be needed to get past a hose clamp near one bolt. Bought this set on Amazon for \$10. Only need the # 30 Torx.



Was not sure if the angled long arm Torx key would provide enough leverage to remove the bolts. Drilled out a piece of aluminum I had to add if needed. It wasn't.

Also had an inline #30 Torx bit that worked using a ¼ inch drive ratchet on one bolt and helped for *much* (but not all) of the other partially blocked by a hose clamp.



The hose clamp upper right in pic needs to be unclipped and removed. A large screwdriver can be used to leverage the plastic pin out of the hole in the raised boss.

Wasn't sure what the clearance might be from the cover to the alternator but though it could hit the raised aluminum boss to which the removed hose clamp was attached.

Made this pad from a vibration pad I had. Cut to shape and dilled a hole and attached to the raised boss with a bolt and nylon locking nut.

Turns out it probably is not needed!



To remove the two OEM screws used the right angle Hex Tool # 30 Torx wrench. Did not need the extension I made, was able to get enough force by pulling on the end of the wrench while holding the bottom with my other hand.

The bolt on the passenger side is the most difficult to access. There is a hose clamp that prevents a straight Torx bit from fitting. Once loose the straight bit and ¼ inch drive ratchet fit at a slight angle and allowed turning until fingers could be used to remove and after to assemble.

The alternator cover includes a foam pad on the back side. Turns out this ridged cover, even though it is held with only two bolts on one end does not vibrate or hit the pads attached or the pad I attached to the hose clamp bracket.

In fast could have made a pad I added even higher. However, doesn't look like either are needed as shown in the pic right.



Decided rather than just discard the hose clamp, as recommended in the Instructions, I would use it to stop any rattling of the hoses on the alternator cover. This would only be an issue with a dry sump.

Cut off the attachment plastic and pin and used Velcro on the bottom side. That would help stop any rattle of the hard plastic or the hard-plastic hoses from hitting the cover directly.

Although this shows a rough edge left where the plastic part of the clamp was removed, it was sanded smooth before use.



This is a finished pic of the cover installed. Looks great. The modified clap holding the two hard plastic hoses now has only Velcro in contact to the pad cover.

The aFe low restriction air filter is also visible. You can see the clear plastic window that allows observation of the filter cleanliness.

Cleaning Stainless

**Useful for all
Stainless Steel
Cosmetic Additions**

American Car Craft Supplied Great Info on Stainless Care and Maintenance

General Cleaning:

Best method to start is with compressed air. Blow off dirt! Stainless is soft so be careful not to scratch the surface. It's absolutely necessary NOT to wipe the surface back and forth or worse in a circle. Wipe only in one direction.

Best cleaning products to use are a foamy glass cleaner like "SPRAYAWAY or DIRTEX. Apply to a microfiber cloth not the stainless.

A wax glaze is recommended like Meguiar's Quick Wax.

Remove Water Stains:

Apply a chemical called "CLR" (calcium/lime & rust remover.) Apply with a paper towel, let soak for a few minutes and wipe away. Finish with above glass cleaner.

Remover Fingerprints & Oil Stains:

If glass cleaner doesn't work, use 3M Adhesive Cleaner on a paper towel. (*Use this product on the car finish when needed. It's available in auto-paint stores.*)



AMERICAN CAR CRAFT INSTRUCTIONS

C7 Corvette Crossed Flags Alternator Cover

Part #053091 Patent Pending



PARTS INCLUDED:

2-10MM Bolt Head Caps

Your new accessory comes to you with a clear protective liner. This liner will help to keep your new parts clean during installation. You will be instructed when to remove the liner during the detailed installation.

1. Before you install this cover you will need to allow the car to cool down in order to remove the two top thermostat housing bolts.
2. You will notice that there is a wire harness connector attached to the alternator bracket. Remove this connector and simply tuck the harness down in close into the intake manifold. This will allow the harness to be safely tucked out of the way and secured.
3. You will also notice that there will be a plastic vacuum hose clip attached to the alternator bracket. Remove the clip from the bracket and detach it from the vacuum lines. (Note: This clip will not be reused!)
4. Set the new cover into place over the thermostat housing and align the two holes. At this time take a look at the rap around the alternator to determine if the new cover is snugly formed around the alternator. This will prevent rattling. If the cover seems to be loose or if you can tap the cover and create a rattle, tweak the shape of the rap more aggressively so that it will be snug to the alternator. Once everything is nice and snug simply remove the protective liner and then reinstall the two top factory bolts nice and tight.
5. You have been provided with two 10MM decorative chrome bolt head caps to be pressed over the two bolt heads creating a nice finished look.

Thank you and enjoy your purchase!
If any questions occur during installation please contact
AMERICAN CAR CRAFT
18924 SAKERA ROAD-HUDSON FLORIDA 34667
Phone # 727-861-1500 Fax # 727-861-1520
www.americancarcraft.com

MY *INSTRUCTIONS*



Includes Comments on the Manufacturers Instruction Step Numbers; Steps with Red #'s are Added:

1) Obvious

2) Not sure what model-was not on Grand Sport. MAF wire and remains under where cover no need to remove??

3) The clip attaches to two hoses, need to release clip on left side then use large screwdriver to pry out attachment to alternator.

3a) Remove the two screws on alternator housing where cover will attach. Easy if a right angle # 30 Torx wrench is used. Note the approximate torque (force) required to remove.

4) Remove the plastic protective cover only over the end with the two holes. Align the two cover holes and insert the removed screws by hand about 1/4 inch to be sure threads are NOT **CROSSED**. Continue to thread screws as far as possible by hand.

4a) The cover holes are a very close fit with the screws. Screws may catch on the cover and cause some difficulty when screwing in. Just be sure they are not crossed and use the wrench to fully screw in. They are a fine pitch and you will only be able to turn the wrench perhaps 15 degrees so **BE Patient!** Tighten with about the same torque (force) needed to remove them.

5) Can use the supplied bolt covers, I did not. I also modified the hose clamp (see pic/text) and attached it to the hoses where it was removed.

Brake Fluid Reservoir & Fuse Panel Cover

Brake Fluid Reservoir Cover

The brake fluid reservoir cover install is straight forward. The polished stainless comes covered with plastic protection and adhesive strips on the bottom inside.

Clean the reservoir surface of grease and oil, I used 3M Adhesive Cleaner. Then wiped the surface with the supplied alcohol pad and waited 5 minutes as instructed. Removed the inside adhesive film and pressed the stainless cover on the reservoir top.

But, bit too much Shiny Stainless!



Thought this carbon flash logo emblem would be a perfect complement to the Stainless Cover. Had purchased two from eBay. It comes with an adhesive back.

Removed the adhesive protective film, centered and pressed in place.

It matches the carbon flash badge option package on the car!



That's Much Better!



FUSE PANNEL COVER

The American Car Craft Fuse Box cover for the Grand Sport has very high quality construction. Test fit the “as received” cover with its plastic protection.

Instructions are simple. Two steps:

- 1) Clean top with alcohol (I used 3M Adhesive Remover first.) Follow with the supplied 3M “adhesive promotor.”
- 2) Apply the 4 round Velcro “cookies” (as they are called, both parts stuck to together) on the 4 corners by removing the plastic adhesive film protector and press the cover on.

What could be easier? Well found a few more steps helped with the dry sump!

In a test fit found the hoses would get in the way of pressing the cover on to the sticky side of the top Velcro pieces.

Disconnected the hose from the air intake tube to dry sump tank, at the dry sump tank. Easy, just turn the hose connection to access and press the white button in while pulling the hose from the barb.

Then tied the hoses with string to the driver’s side hood latch to keep them out of the way.



As suggested in the instructions placed the 4 pairs of Velcro as recommended in the corners. But was concerned as the top is NOT flat and would the Stainless Cover be able to press evenly on both sides?

Also, a hose from the radiator surge tank was in a clip that prevented the cover from fitting all the way down on the passenger side.

The solutions:

- 1) Take the plastic hose out of the clip (Yellow Arrow.)
- 2) Move the two “cookies” (as there are referred) to the edge in the center of the flat section of OEM cover (Green Arrows.)

That would be plenty of strength to hold the cover. When needed the cover can be removed as the Velcro pieces will come apart.



Pressed the cover down on the 4 Velcro pads. It held well. Would not try to remove the cover until the adhesive on the Velcro pads had a chance to fully harden.

Reconnected the removed hose and adjusted the dry sump hose clips so they are not touching the cover.

The combo Grand Sport Fuse Box Cover and Alternator cover from American Car Craft look great!

**Engine Compartment
Ready for a Car Show!**



Other 2017 Grand Sport & 2014 Stingray PDF's Available:



Some 40 items discuss improvements or information about a 2017 Grand Sport and 2014 Stingray function and/or esthetics. Some are minor and others, like the installing ceramic brake pads, include detailed install information.

Below are the PDF's available. Click on picture (may need Ctrl pressed.) Or just copy and paste the PDF info (Blue type) into your browser. Or email me at GUtrachi@aol.com and state the title desired, shown in Yellow:

Note: GS indicates the info was updated from that available for the C7 Z51 PDFs.

Rusty GS/C7 Muffler

*Why the C7 muffler is rusted and a simply way to make rust turn matte black.
Bottom pic rusted, top pic treated*

http://netwelding.com/Muffler_Rust.pdf



Change GS/C7 Oil

*WHY change your own oil and HOW to do it
Revised, includes C7 Lifting Methods*

http://netwelding.com/Changing_Oil.pdf



C7 Carbon Fiber Side Skirts

*How to install side skirts with jacking information for
DIY's without lifts*

http://netwelding.com/Side_Skirts.pdf



C7 Carbon Fiber Splitter w/End Plates

How to install Splitter & Nylon bra fit

http://netwelding.com/CF_Splitter.pdf



C7 Removing GM Plastic Film

How To Remove The Rocker Panel Film

http://netwelding.com/Rocker_Panel_Film.pdf



GS/C7 Mirror Proximity Alarm

Limit switch alarm warns when passenger mirror is too close to door frame

http://netwelding.com/Mirror_Proximity_Alarm.pdf



Jacking Pads for GS/C7

Jacking Pads must 2 1/2 inch max OD. Made four. Bought 2 1/2 inch OD x 2 inch high pads after installing side skirts; Bought pads right for the GS.

http://netwelding.com/Jacking_pads.pdf



GS/C7 Radar Power

For C7 tapped rear fuse panel. For GS tapped mirror

http://netwelding.com/Radar_Detector_Power.pdf



GS/C7 Belt Rattle

Passenger seat belt rattles against the seat back. The solution, add a shoulder belt pad.

http://netwelding.com/Eliminate_Rattle.pdf



Aluminum C7 Chassis and Weld Repair

The C7 has an all aluminum chassis, made from 117 welded pieces

http://netwelding.com/Aluminum_Chassis.pdf



GS/C7 Ceramic Brake Pads

The Z51 has very dusty brakes. These pads help!

http://netwelding.com/Ceramic_Pads.pdf



GS/C7 License Plate Frame;

Must Meet South Carolina Law

http://netwelding.com/License_Plate_Frame.pdf



Manage GS/C7 Spilled Gas

Protect the side of the Vette when filling up with gas

http://netwelding.com/Manage_Spilled_Gas.pdf



GS/C7 License Plate & Cargo Lights

LED license plate light & cargo area bulbs are brighter and whiter

http://netwelding.com/License_Plate_Light.pdf



GS/C7 Rear Cargo Area

Rear cargo area needs storage device and rear protector

http://netwelding.com/Rear_Cargo_Area.pdf



GS/C7 Door Panel Protector

Black plastic protector added to prevent scuffing of door when exiting

http://netwelding.com/Door_Panel_Protector.pdf



GS/C7 Improved Cup Holder

A solution to the cup holder spilling under hard braking or sharp turns.

http://netwelding.com/Improved_cup_Holder.pdf



GS/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



C7 Carbon Fiber Grille Bar

Install genuine carbon fiber grille bar overlay

http://netwelding.com/CF_Grille_Bar.pdf



Jacking a GS/C7 Vette

Safely jacking either front only or back & front

http://netwelding.com/Jacking_A_C7.pdf



Deer Whistle Installed on GS/C7

Do they work? Plus Install Info

http://netwelding.com/Deer_Whistle.pdf



Replacing C7 Battery

After using a GM type charger and showing fully charged a voltage low, replaced battery with AGM!

http://netwelding.com/Battery_Issues.pdf



GS/C7 Window Valet

Lower Windows with FOB

Window Valet Helps 2014/2015 Latch Hatch

http://netwelding.com/Hatch_Latch.pdf



GS/C7 Splash Guards

GM offers splash guards for the C7 Corvette. An easy DIY installation. ACS Best Front Guards for GS.

http://netwelding.com/Splash_Guard.pdf



GS/C7 Blind Spot Mirror

Smaller rear and side windows cause C7 blind spots. Small "blind spot mirrors" help

http://netwelding.com/Blind_Spot.pdf



GS/C7 Skid Pad Protector

After the air dam, the aluminum "skid pad" hits driveway ramps etc. Plastic protector helps.

http://netwelding.com/Skid_Pad_Protector.pdf



GS/C7 Wheel Locks

Wheel locks, torqued to required 100 ft-lbs, help protect your expensive wheels from theft.

http://netwelding.com/Wheel_Locks.pdf



GS/C7 OnStar Lights

The OnStar LED's in the rear view mirror, 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 with suggestions on jacking a C7.

http://netwelding.com/Skip_shift_Eliminator.pdf



C7 Catch Can & Clean Oil Separator

Direct inject engines like the LT1, are particularly subject to "coking." What is Coking and how to reduce the potential?

http://netwelding.com/Catch_Can.pdf



GS/C7 Round Shift Knob

A round shift knob shortens throw.

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 on Front and Grill. 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



Garmin GPS for GS Cubby

Garmin Mounts in GS Cubby

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



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



GS Splitter Protector

Rugged Plastic Protection for Splitter

http://netwelding.com/Splitter_Protectors.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



May Be Of Interest:

Engineering a ProStreet Rod

*How Our '34 ProStreet Rod Was Designed and Built
8.2 Liter Engine, 4 Wheel Disk Brakes & Coilovers*

<http://netwelding.com/Engineering%20Street%20Rod%203-08.pdf>

