

Mount Garmin GPS in C7 Cubby AND/OR Apple CarPlay



A Forum Member sent a PM after I mentioned in a Post an item I found to mount a Garmin GPS on the passenger grab bar. He said he had seen one mounted inside the cubby and had purchased a short USB to Garmin cord to power the unit from inside the Cubby. He offered to send it to me “free” since he had changed cars. Great suggestion. Details of the cable are presented below. Thought I could use a suction mount to hold it in the cubby.

However, the floor is covered in fine felt and the suction cup mount would not work. Thought about removing the felt covering but it was no doubt glued down and was the surface smooth. Decided to cut an 1/8-inch-thick piece of aluminum and place it on the floor. But how to keep it secure from bouncing on bumps remained a question. The base is probably plastic so sheet metal screws would not be a good choice. Also, what electrical wires etc. might be under the thin floor?

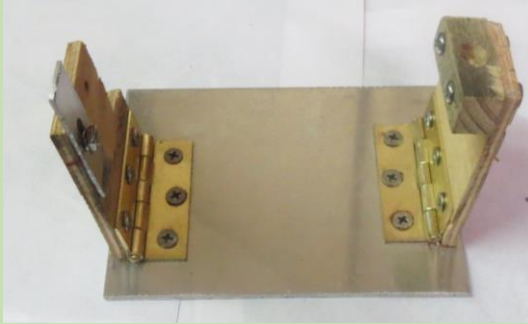
Decided to make an assembly that left the OEM surfaces. Would attach sides to the floor that went to the top and pressed against the roof. That would handle bumps and 1+ “g” stops and side loads.

But the front opening is smaller than the inside so how would it be placed inside?

This picture/text PDF covers the Garmin install and recent use of Apple CarPlay.

To get the floor/sides assembly into the cubby smaller front opening used technique modelers use to get a ship in a bottle! In this case fold the sides down and insert the assembly at an angle. Made patterns from paper and used two small hinges to attach the wood sides.

Planned on using $\frac{1}{4}$ inch brass thread nuts and $\frac{1}{4}$ inch screws to wedge the sides into the roof.

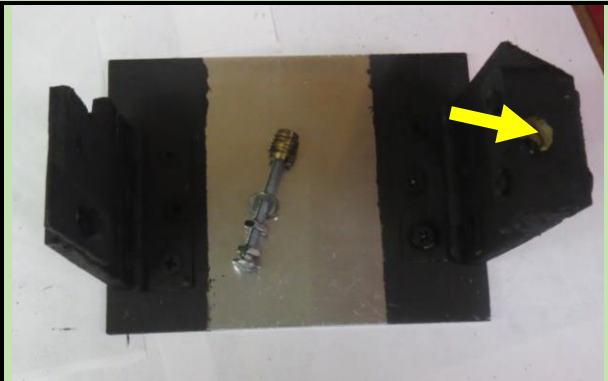


However, to maintain good access to the USB port, the left side was designed to wedge a piece of $\frac{1}{8}$ -inch aluminum upward into the roof. It was slotted so it could be made exactly the right height than secured with a bolt and nut.

The right side used the original idea of employing a brass thread insert in wood.

This is a pic of the finished assembly painted black. The center section was left unpainted to get the best suction cup attachment.

Note a $\frac{1}{4}$ inch brass thread insert is shown in the center with the $\frac{1}{4}$ inch bolt that is turned to press into the roof. The yellow arrow points to the tread insert in a wood block.



This is a picture of the assembly being placed into the cubby. The sides have not been raised to press on the roof.

This approach left room to have easy access to the USB port.

This pic shows the left side extended with the thin aluminum top section pressed into the roof.

Then the 1/4 inch screw on the left side is turned until it presses into the roof and holds the assembly tightly in the cubby.

There are two nuts and a washer on the long 1/4 inch bolt. The top nut with washer are turned against the brass thread insert and tightened with a wrench. The second nut is tightened against the first as a jam nut.



This is the Garmin when the car was started. It searched for satellites.

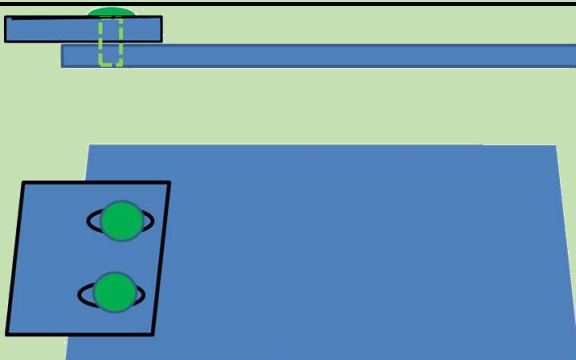
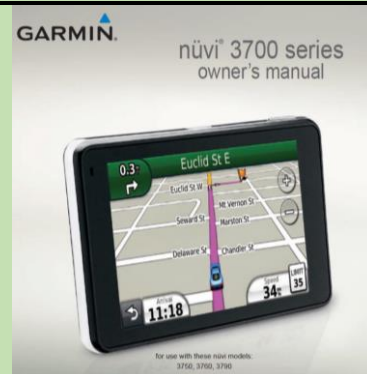
Once the satellites were found it was "Ready to Navigate" as the display shows. I set it for Maps, which will be the typical setting used. When setting a destination is needed, easy to use the touch screen to press in the address. Can also use voice commands.



My Garmin has a 5-inch diagonal measurement and fits fine.

The power cord that plugs into the USB that was sent to be by a Forum Member is Redband USB Cable for Garmin Novi Power-9 inches Long. Part number 202-0063-09

See USB cable details below.9



Alternate Idea for Base

After making the base shown above and having to alter the left side for better access to the USB port using a sliding section thought this idea might work well. It would be easier to build and would look cleaner!

If you try please send a pic!



APPLE CARPLAY

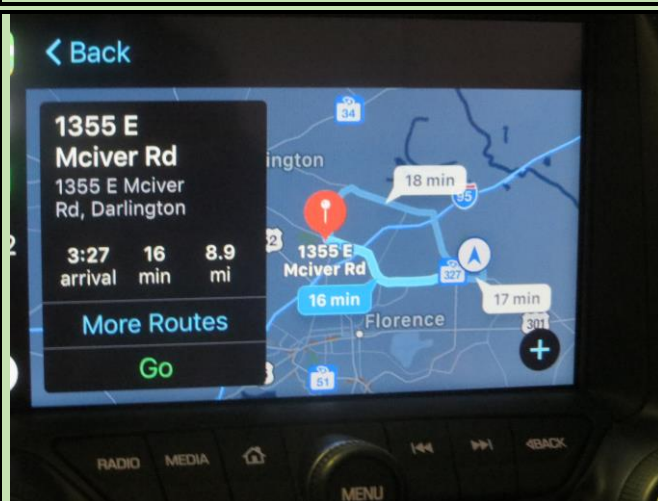
Recently replaced my Samsung Cell Phone with an Apple iPhone 7 Plus. My 2017 Grand Sport has Apple *CarPlay*.

After connecting the phone with a USB cable in the console, Apple *CarPlay* ICON pops up. (I outlined in Yellow in pic.)

Pressing that ICON brings up ICONS from my phone-including MPS.

Pressing MAPS allows an address to be typed in OR just tell Siri where you want to go! In this case the whole Vette screen is displayed with the MAP and directions.

Press GO and the MAP shows where to turn, and you get turn by turn instructions from the car's speaker. Appears to be the same speaker used for the phone or OnStar (which I do not have.)

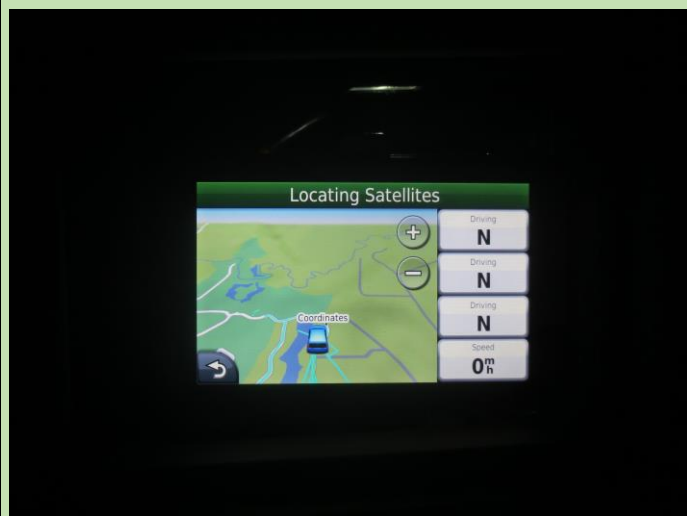


Benefit over Garmin?

It's a much larger screen! The same as if I had Navigation, as I did in my 3LT 2014 C7! This is a comparison view of my Garmin at the same distance from the camera.

Will Apple *CarPlay* replace the Garmin? Mostly, but if I am in an area without cell phone coverage the Garmin will still work just fine!

I plan to keep both but as long as I am in an area with Cell Phone service believe Apply MAPS is better because of the larger view.



How Garmin GPS Works:

The GPS works great. When the car starts the USB is powered and the Garmin turns on. Have it set for maps. Initial test was a short run where it did display my speed. Need to get to some bigger streets to see in the "Speed Limit" is displayed.

When the car is shut off, when the map lights turn off so does the USB power. The Garmin warns that it will shut off in 15 seconds if you don't override (then it will operate on battery.)

Of interest thought I would have to raise the screen when I backed out of the driveway to see the rear camera. No need when I put it in reverse the screen comes up atomically, when I move forward it stays up and the front camera takes over. Once moving, the Menu screen comes up and to see the GPS have to lower the screen.

On the first trip to town found it took about 5 minutes for the Garmin to acquire satellites. Had to press the "*Do you want to continue with searching,*" once.

Once they were found it stayed in contact even after several stops where they were acquired instantly when starting. When I pull out of the garage where the signal was lost when I pulled in it takes 1 to 2 minutes to find them.

Have it mostly set for MAPS and It's nice to be able to glance at the speed limit, something I did look at in my 2014 C7 3LT with NAV.

Garmin USB Cable Details:

Found this info on the net re the USB cable:

"GPS devices such as Garmin come equipped with a USB cable. It's primarily intended for connecting the GPS to a computer, enabling users to install or back up new maps, points of interest, and tracks or routes. The supplied USB cable won't power the GPS directly, but there are alternative methods.

Various companies manufacture aftermarket chargers and cables wired to power Garmin GPS devices."

The power cord I use that plugs into the USB in the cubby was sent to me by a Forum Member: Redband USB Cable for Garmin Novi Power 9 inches Long. Part number 202-0063-09

Comparing Directions with Apple *CarPlay*.

Had a trip to make so decided to set both the Garmin and the Apply CarPlay and see what the differences were.

Put the final destination in both systems. As mentioned above when leaving from my garage the Garmin may take 5 minutes to "Acquire Satellites." It did in this case actually more than 5 minutes.

Apply CarPlay was connected instantly, first though the Wi-Fi in my home and then switching to a Cell tower as I drove.

So initially the Apple *CarPlay* MAPS was better as the Garmin was still searching. The Apple *CarPlay* gave clear voice commands and the map showed the routes.

When the Garmin finally picked up the needed satellites it was fine. Both told me I had reached my destination in the correct location.

I'll Keep Both:

I live in a rural area and cell phone coverage is far from perfect. When using the phone and irritant but if the directions stop that could be a major issue! Since the Garmin uses several satellites it does NOT need cell service. The only issues would be the quality of the Garmin maps. I get free updates so that should not be a problem,

Guess I could use the Wi-Fi Hot Spot in the Vette for the phone. But that uses OnStar and there is a monthly fee. OnStar also uses Cell Towers but they use various providers and have good overall coverage. In addition, the OnStar connection is much more powerful than a cell phone. It should have better reception but I'll pass!

Will update as I get more information.

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.

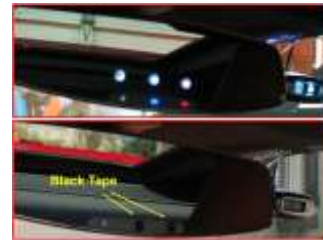
http://netwelding.com/Wheel_Locks.pdf



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>

