

CAR TALK

CORVETTE TALK:

I know some of our members have done extensive restoration work on one Corvette or more. Those members are well aware of all the work that goes into bringing a classic back to life and making it something his wife will actually agree to ride in.

But I also know that many of our members aren't so inclined to dig into a restoration project themselves, so probably don't have a real appreciation of all the steps involved in putting a tired Vette back on the road.

So, let's say your long lost uncle willed you his classic mid-year Corvette and you find that it hasn't seen the light of day for several years, although it looks nice inside and out. What do you need to do to get it going and ensure that it's not going to strand you somewhere on your first happy outing? Get a load of this list from an expert:

- Drain all the fuel out of the tank, lines, pump and carburetor.
- Inspect the fuel lines and hoses and replace any that appear bad.
- Confirm that the gas tank is clean and rust-free on the inside (on a mid-year you can do this by just looking down the filler neck into the tank)
- Carburetors that sit idle for several years often leak because their gaskets dry up and shrink; so if you want to play it safe, rebuild the carburetor.
- Install a new battery, making sure to clean the cables before tightening.
- Inspect all wiring for signs of trouble, such as spots where rodents may have lunched on the insulation.
- Clean all major electrical connections.
- Play it safe and rebuild all four wheel calipers (or cylinders if you have drum brakes) and the master cylinder.
- Flush all of the old brake fluid out of the system and inspect all lines and hoses for any sign of damage or deterioration.
- Inflate the tires so the pressure is at or near the maximum as indicated on the sidewall.
- Drain all coolant out of the cooling system, including the coolant that usually remains in the engine block when the radiator is drained.

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- Now flush the cooling system and inspect all hoses for problems.
 - Fill the cooling system with a 50/50 mix of anti-freeze and distilled water.
 - Change the engine oil and filter.
 - Remove each spark plug and take a look at the electrodes and spark gap; adjust as necessary. Now put a squirt or two of light engine oil or penetrating oil into each cylinder.
 - Remove the distributor and use the appropriate tool and an electric drill to spin the oil pump until you see pressure build up on the gauge.
 - Rotate the engine by hand and bring the oil pressure up again with the drill.
 - Reinstall the distributor.
 - Get a couple of drain pans and a couple of fully-charged fire extinguishers within easy reach.
 - Prime the carburetor with a little bit of gas.
 - NOW.....Say a prayer and turn the key to start her up.
 - If, by chance, that engine starts and actually runs, check around for any sort of leaks and remedy as needed.
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TECH STUFF:

I was watching Motorweek the other day and they ran a segment on the right way to change a set of spark plugs. Now this is something that most of us have done; at least the guys. And it's something that many of us find ourselves doing every couple of years or so.

So, as part of Car Talk, I thought it might be worth a couple of minutes to review at least one approach to properly change a set of plugs. We're going to assume that we're doing this on a Corvette or other vehicle that's equipped with aluminum heads, since these are so very common now days.

Late model Corvettes, and many other models, have a small coil mounted right on top of each spark plug wire. To remove one simply disconnect the wiring connector on the coil, unscrew the small bolt that holds it to the head and then pull the coil and plug wire off the plug using a twisting motion.

Ok, using the appropriate sized deep socket, crack all plugs loose only about 1/8 turn. This breaks the layer of carbon loose that inevitably has built up on the end of the plugs.

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Now, start the engine and rev it up once and shut it off. This blows those small pieces of carbon out the tail pipe and keeps them from getting into the threads in the heads as you remove the plugs.

Remove the plugs. If you remove them all at once, be sure the plug wires are marked to ensure you get them all back on the right cylinders.

Check the gap on the new spark plugs. They may be right when you take them out of the box, but don't bet on it. Be absolutely sure you apply an anti-seize compound to the threads of the new plugs before installing, to prevent the plugs from becoming stuck to the threads in the aluminum heads.

It's a good idea to start threading the new plugs using a piece of fuel hose pushed onto the top of the plug. This allows you to get the plugs down into the deep holes that some engines have and will prevent you from cross-threading the plug. If you just start cranking a plug into the hole with your socket and wrench, you may ruin some threads before you even realize it.

Do not over tighten! Use an appropriate torque wrench or just snug them down firmly, without leaning on 'em.

Here's one last tip that I'd like to offer, learned from years of plug changes. You can make the job a lot easier if you use your head. Have two deep sockets on hand; one with a foam or neoprene insert to hold onto the plug when you're trying to lift it out of the head and another without an insert for use in installing the plug. It's very frustrating to tighten a spark plug, only to have your socket hang onto the plug and come off of your wrench extension. You can usually fish it out using some long needle-nosed pliers, but if you use a socket without the insert the socket stays where you want it - on the wrench.

I'm sure some of you have other tricks you've learned over the years, but these are mine.

TRUE STORY:

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Dominick in Virginia offers his story for us to learn from.

I had a 1994 Dodge Stealth Twin Turbo that I pampered like my baby. Cleaning it every weekend and doing most of my own maintenance as I didn't trust most mechanics to even change my oil. So.....as I dutifully did every other week, I pulled her outside my garage in the morning to beat the heat and washed, waxed and Armor-all'd her inside and out. Before taking her back into my garage to beat the afternoon heat (it was about 100 degrees that day), I hit the buttons to raise the windows. To my utter horror, the passenger side refused to move. I got out of the car and went around to the passenger door to try the passenger button. NADA! So, I got out my trusty manual and found the circuit breakers. I checked all that applied, to no avail. Now what to do?

Pulling and replacing the fuses and slamming/banging on the passenger door did nothing. The remainder of the week was to have rain showers and there was no way I could take my baby out in the rain like this. I was perplexed! Luckily I had purchased the maintenance manuals, so out came the Electrical manual. I searched and read.....but the problem quickly became "over my pay-grade". Then I thought, "Hey my neighbor is a wiz with electronics, taught it at West Point and has been an engineer for eons! He'll be able to understand this wiring."

So, over to my friend John's and, yes, he could read the wiring diagrams. I only needed to supply the cold beverages!

Well, we tried to no avail. We rechecked fuses. We retried using the passenger door button. We tried slamming doors. Nothing! So now it was time for disassembly. Off came both door panels. All possible switches and wiring that could have had anything to do with the window motor were tested. Two hours of sweat and beer in 99 degree garage heat and nothing to show for it. Then....John looked at me and said, "It looks as if you have an open switch between the driver's and passenger's doors! Is there any chance you've broken a wire or thrown a switch that I don't know about?"

All of a sudden I got a "Blinding Glimpse of the Obvious"! "Give me one minute, John", I said as I walked around to the driver's door.

"Now try it, John". Voila, it worked! So he said, "Ok, what did you just do?"

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I grinned at him sheepishly and said, "The window lock for the passenger's door was depressed!" This was a button I had never used and totally forgot about. Of course, there were no obvious lights or warnings to indicate that the switch had been pushed. Guess the engineers must have made a mistake in the car's design.....at least that's my story, and I'm sticking to it!!