

AMERICAN CAR CRAFT INSTRUCTIONS

Camaro Replacement Fuel Rail Covers Perforated Part #103038



PARTS INCLUDED:

- 4-1/4" #20Washer Head Style Elevator Bolts
- 4-Small Stainless Flat Washer Spacers
- 4-Yellow Spacers
- 4-1/4 20 Clip Nuts

<u>Introduction:</u> These new accessories are designed to fit the 2010-2012 Camaro LS3 engine. The accessories require you to perform our wire tuck instructions before you attempt to install these parts. **SEE BELOW**

<u>Liner Information:</u> Your new accessories will come to you with a protective surface liner. Leave this liner in place until the installation is complete to prevent finger prints and or possible scratches during installation.

INSTALLATION INSTRUCTIONS FOR WIRE HARNESS AND LINE TUCK

This instruction is to allow you to rearrange the factory placement of wire harnesses, vacuum lines and heater hoses to allow the installation of American Car Crafts New Camaro Engine Bay Dress up Accessories. Providing an alternative to the factory engine shroud cover, the procedure for rearranging the factory placement of these items are relatively simple and straight forward. Designed to clean up the look of the engine and will allow you a more direct access to the coil packs, fuel injectors and fuel lines much in the same way you would be able to in a Corvette.

This procedure is completely reversible and in no way will it void any warranty or permanently alter or damage the engine and or its performance.

You will need to purchase:

3' of 5/8 Heater Hose

3' of 3/4 Heater Hose

8' of 3/8 Standard Vacuum Hose

1-Vacuum Quick Connect Release Disk

- 1. Remove the factory engine cover and save for restoration purposes.
- 2. Now that the engine is uncovered take a minute to look over the engine to identify the areas we will rearrange. You will notice the two heater hoses strung over the engine as well as hard plastic vacuum lines and top mounted wire harnesses. You will also notice the factory fuel line strung across the engine leaping over to a wheel well bracket. In the next several steps we will reposition these things into a more appealing arrangement.
- **3.** The first thing you will need to do will be to temporarily remove the factory air tube, releasing the two attached clamps, and vacuum line protruding from the left side of the tube. This vacuum tube is a quick release and need only be examined to see how to release it.
- **4.** Next remove the four 10mm bolts securing the aluminum throttle body and remove it for now. At this time you may want to think about polishing the throttle body while it is detached from the engine. This is a relatively easy thing to do and will look great with your new accessories.
- 5. The next thing we will do is to remove the factory heater hoses and save them. You will notice that the two heater hoses contain a quick disconnect joint at the front side of the motor. Remove the steel clip at the center of the two connectors. Place a drain bucket at this area to catch the antifreeze. Clamp the hose as to not allow the fluid to escape when you are ready to separate the hose. You can do this easily by clamping a couple of vise grips on either side of the connector. When you are ready simply pull the connecter apart. A limited amount of fluid will escape into your bucket. Tip the end of the connector into the bucket and release the fluid by unclamping the vise grip. Release the fluid from both ends of the hose until the fluid is completely drained. Perform this same procedure for the other hose as well. With the fluid drained completely remove the factory heater hoses from the car and save. Remove the four spring clams from the hoses as you will be using them on the new replacement hoses.
- 6. Now that the factory hoses have been removed we can now route the new hoses. Starting with the 5/8 hose route the end of the hose behind the passenger side heat shield attached to the wheel well. Route the hose up to the fire wall so that you are nice and tight to the brake lines located there and up to the 5/8 pipe connection. Slide the factory hose clamp onto the end and then attach it to the pipe. Be sure to arrange the hose so that there are no kinks and/or bad twists in the hose. Then simply cut the hose at the other end so that it will line up nicely to the water pump location at the engine and clamp it there as well. Perform the same exact procedure with the 3/4° hose. Secure the two hoses at the fire wall where they cross the brake lines with a good zip tie to finish this part of the engine tuck.
- 7. The next step in our procedure will be to reroute the two black plastic vacuum lines running over the top of the throttle body area. To do this detach each of the quick connect tubes and save. Replace the tubes with your 3/8" vacuum line only rout the tubes under the throttle body opening. You will see that there is plenty of room to do this and the new rubber vacuum hose will slip perfectly over the quick connector tube on the motor providing a perfectly alternate routing. Change each of the two tubes separately to make sure you don't crisscross the connections. Route the long vacuum tube under the driver side coil pack bracket completely concealing this tube until it comes up to the rear vacuum line connection point.
- **8.** Remove the last vacuum line from the valve at the front of the passenger side engine head completely and replace this line as well routing it along the wire harness that stenches across to the wheel well bracket. You will need a small plastic release tool for this line. This can be found at any auto parts store costing less than a dollar.
- **9.** Next remove the plastic engine cover retainer by removing the single 10mm bolt securing the one end. Once removed lift the bracket off the fuel line and then replace the bolt. Save this bracket for restoration.
- **10.** The next step will be to reposition the engine fuel line. Remove the 10mm bolt holding the single line clamp to the engine. Once this is released snip the end of this bracket so that the hole will become a notch using a common tin snip. Rotate the entire line so that it will be rerouted behind the engine. This line will rotate

easily at both connection points allowing you to relocate the line bracket at the rear passenger side plenum bolt location. Loosen this bolt and then slide the bracket you snipped earlier and then secure. Because the metal line is very stiff you will need to manipulate the line a little to get the right placement. Tip the passenger side end so the line will be able to be routed in back of the heat shield you routed the heater hosed earlier and then zip tie its position to the brake line there so that it is nice and secure.

- 11. The last thing you will need to do is tuck the three main wire harnesses so that they will no longer be stung over the top of the coil packs. To do this removes all the fasteners of the harness. Detach each of the spark plug wires on the passenger side and route the lower harness under the coil pack bracket. You will notice a hole in this bracket. Use this hole to secure the harness using a zip tie. Reinstall the spark plug wires. The two remaining wire harnesses can be tucked just below the fuel injectors by unplugging each of the injectors and tucking the two harnesses below the injectors and then simply reinstall the injector connectors to finish the engine line tucking procedure.
- **12.** Replace the factory air tube assembly.

INSTALLATION INSTRUCTION FOR FUEL RAIL COVER

- 1. You will notice two exposed holes directly on the fuel rails. These two holes will be fitted with a special washer head bolt and flat washer provided in your kit, your kit will have four 1/4 20 clip nuts. Place these clip nuts over the exposed holes in the fuel rails with the nut part facing in towards the plenum. Place the new plenum cover over the two fuel rails and line up the holes. Peel the protective liner away from the holes and the entire length of the side. Place the small stainless flat washer over the nut hole and install the special bolt and snug down. It will not be necessary to make these bolts very tight just snug will work fine. You have now created an attachment anchor for your new fuel rail covers. The flat washer will provide clearance and has been added to allow the new cover to slide over the bolt head. You have been provided with four yellow spacers. These spacers may only be used to allow you to attach the plenum cover under any of the four holes should they be necessary. (With the fuel rails you have been provided with a second base plate section for each fuel rail.)
- 2. Unplug the spark plug wire from all four coil packs. Loosen the lower bolts of all four coil packs and then place the spark plug wires though the holes of the base plate and reattach them to the coil packs then slide the fuel rail base plate under the loosened bolts and then retighten. The bottom of this section will rest directly on the lower ridge of the engine.
- **3.** Your new fuel rail covers can now be mounted over the washer head bolts and the bottom section of the covers will fit snug over the top of the lower section. This area will also contain a hook and loop fastener attachment strip to keep the bottom of the fuel rails secure.