

R1200GS Adventure

Charcoal Canister Removal

Tony DeLorenzo (Hotspice)
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Note: This article was written based on my personal experience during the installation. Therefore I assume no liability or responsibility for anything in this document. Consult with OEM maintenance manual or your local dealership before doing any work.

R1200GS Adventure Charcoal Canister Removal

The purpose of this modification is two fold. First I'll be installing Ohlins and wanted to free up some space for the installation. Secondly, and more importantly, if the gas tank is filled too high the overflow will route the excess gas into the charcoal canister. If this happens the bike might run poorly or even stall on you until the surplus gas drains from the canister.

Below is the process I went through to remove my canister. ***Do so at your own risk and check with your dealer if you are unsure of warranty coverage.***



Remove clamps holding canister and the two top and one bottom hose

The charcoal canister is located on the left (shifter) side of the bike just before the passenger peg.

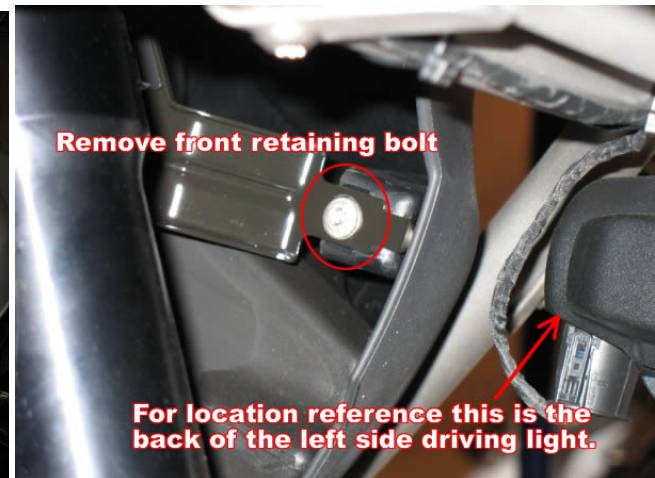
Before Removing the canister I removed the two top hoses and the one bottom hose. The reason for this is the canister is still firmly mounted and easier to work with.

After removing all hoses I removed the three clamps that held the charcoal canister to the frame using the Torx bit that comes in the toolkit.

After the canister is removed you need to remove some body panels to gain access to the Fuel Tank Breather Valve. On the GSA there is the top cover that is attached in two places. Again using the Torx bit supplied in the tool kit you need to remove the visible retaining bolt and then the front bolt which is not visible unless you get under the the shroud a little. In the photo below I've kept the driving light in the shot as a reference point of where to look for the front retaining bolt.



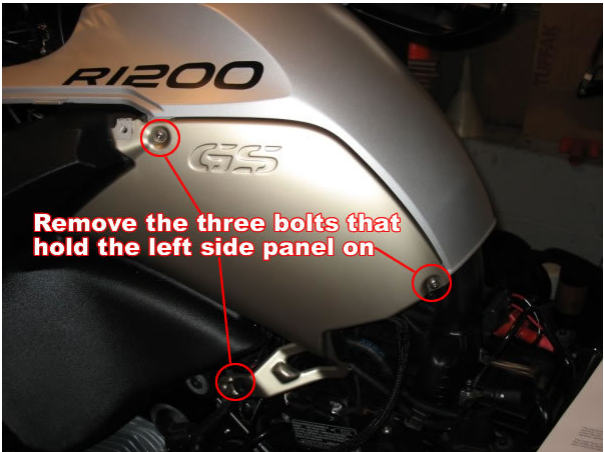
Remove rear retaining bolt



Remove front retaining bolt

For location reference this is the back of the left side driving light.

Once the decorative shroud was removed I removed the small black side cover that helps you gain access to the Fuel Tank Breather Valve. By removing this side cover you now have access to all three of the bolts that hold the tank cover side panel. Remove these three Torx bolts that hold the tanks decorative side cover. Once removed you will have all the access to the valve and hoses that you need to complete the job.



With the cover removed you will see the Fuel Tank Breather Valve (FTBV) and the two hoses that are connected to it.

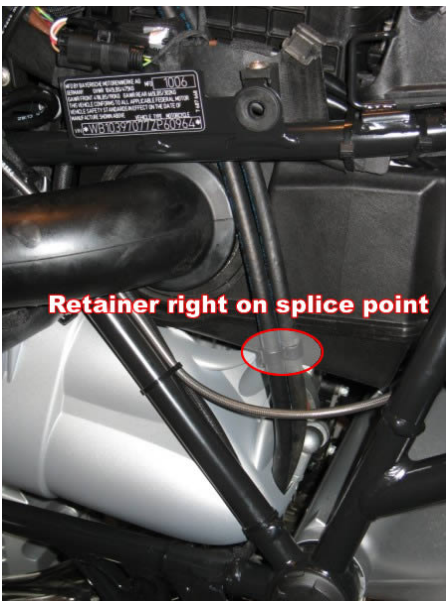
The lower hose is one of the hoses that you disconnected from the charcoal canister so once you remove it you can set it to the side because you will not need it any more.

The upper hose runs to the left throttle assembly. You will need to remove this hose from both the FTBV and the throttle body. Once again this hose will no longer be used for anything so you can set it to the side.

With the hoses removed you now need to use some rubber caps to seal off the vacuum openings. I used two 1/4" vacuum caps that I purchased at my local auto parts store to seal off the FTBV openings. The reason I place caps on the valve openings is to keep moisture and dirt out of them.

For the Throttle body opening I used the BMW cap # 13541460594 since it seems a little more durable than the auto parts store covers.





Technically at this point you have removed all of the hoses you need to remove and you can just use a plastic hose connector to join these two hoses and you are done.

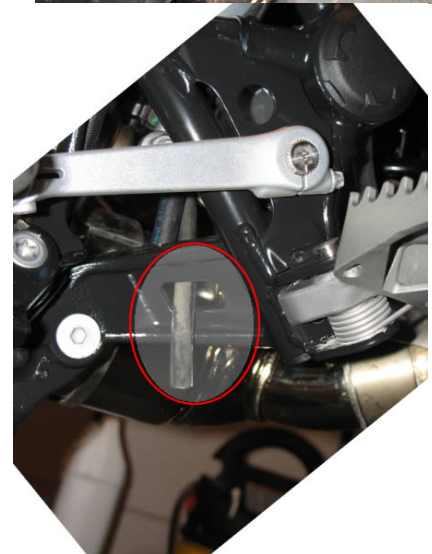
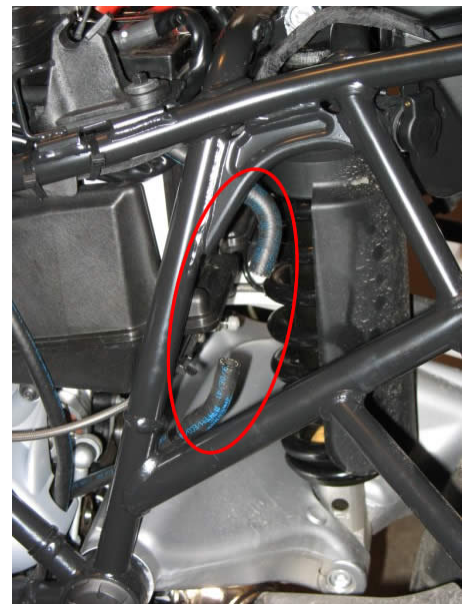
Personally I didn't like the way the hose was routed so I removed the line that had the 90' bend & its connector, and replaced it with standard fuel line from my local auto parts store and can be seen at the **picture on the right**.

I also used the stock hose retainer and positioned it in such a way that by looking at the bike you would not notice I had a connector joining two sections of fuel line.

This isn't necessary, just something I do to keep everything looking clean and tidy and can be seen at the **picture to the left**.

Finally I routed the lower section of the overflow line a little differently than the manufacturer. For me it seemed to be run too close to the exhaust system and now that the canister wasn't there to catch the majority of the overflow I wanted to route the line farther to the outside of the bike.

There happens to be a nice slot in the frame near the left footpeg and shifter so this is where I ran my overflow hose to get it a little farther away from the exhaust.



And there you have it, a pretty straightforward, simple charcoal canister removal for the R1200 GS Adventure that can usually be done with just what you have in your toolkit and a couple small vacuum caps and hose connector.

Total time on this project was about 90 minutes and that included taking time to take pictures for this writeup.