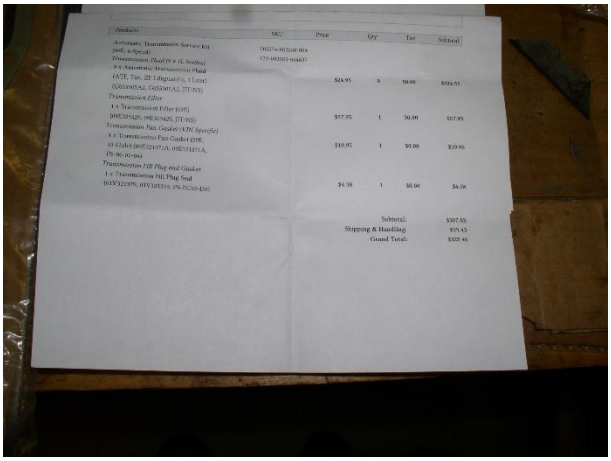
Audi C6 S6 V10 Transmission Fluid Change

This will document my experience changing the ATF Fluid in an ’08 Audi S6. You will need a variety of tools, but I have not documented them here since there was much to move and several different drivers/sockets needed. Suffice it to say you will need a decent set of tools to get this done including extensions, torx bits and sockets. I suggest getting new exhaust hardware that you remove. Additionally, you will need some type of pump to move the fluid from the containers to the transmission. I used a POS Harbor Freight deal, but there are better ones available. You will need something like the VAG-COM VCDS from Ross-Tech to read the TCU and check the temperature of the transmission when adding fluid. There is a very specific procedure for making sure all of the fluid has been added to the transmission, so this is a non-negotiable part of the work. If you don’t have access to something like this, do not attempt this procedure.

First the kit I purchased:



Products	SKU	Price	Qty	Tax	Subtotal
Automatic Transmission Service Kit (ref. 6-Speed)	002274-003268-004				
Transmission Fluid (6 x 1L bottles)	135-003955-004(0)				
9 x Automatic Transmission Fluid (ATF, Tab, ZF Lifeguard 6, 1 Liter) (G052162A2, G052162A2, JT1033)		$24.95	9	$0.00	$224.55
Transmission Filter					
1 x Transmission Filter kit(F) (09E325429, 09E325429, JT1103)		$57.95	1	$0.00	$57.95
Transmission Pan Gasket (VIN Specific)					
1 x Transmission Pan Gasket (OE, 13 Holes) (ref.0AF321371A, 09E321371A, JT-W 10-04)		$10.95	1	$0.00	$10.95
Transmission Fill Plug and Gasket					
1 x Transmission Fill Plug Seal (01V321379, 01V321379, JT-N250-450)		$4.38	1	$0.00	$4.38
				Subtotal:	$297.83
				Shipping & Handling:	$19.63
				Grand Total:	$317.46

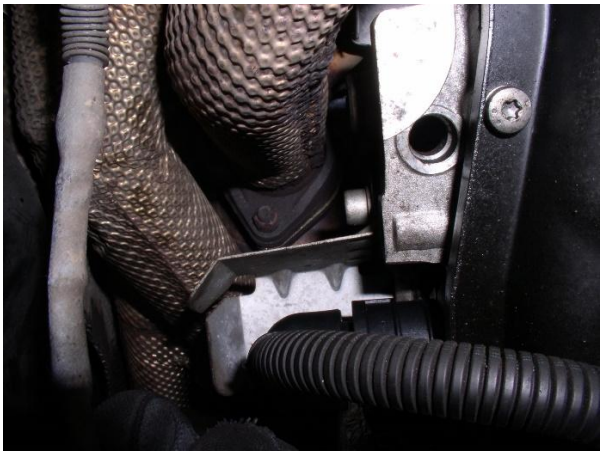
Now the procedure:

1. Jack the car up (in my case I used my new Quickjack – man I like this thing) You can talk to my wife about the bumper scrapes/damage. The key here is to get the pan level. You can use a small level on the bottom of the pan to confirm this. This assures the new fluid will fill properly. Remove the belly pans:

2. First thing you will see is the exhaust is in the way (I took the center sections apart, but did not have to). The passenger side was easier to deal with than the driver side (the bolts were up out of the way and required some extensions and u-joints):

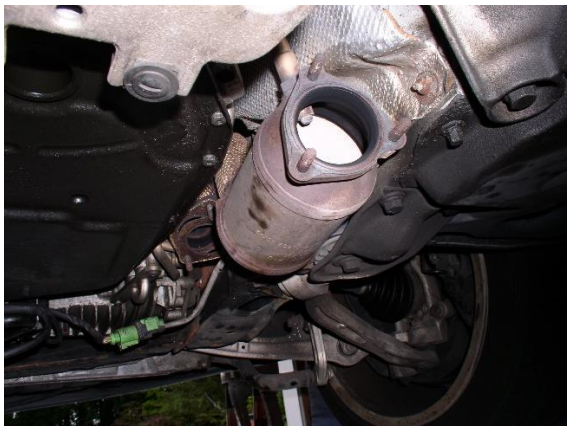
   Exhaust in the way:

   Passenger/Driver Exhaust connection to the down pipes When refitting the driver side, I used some tape on the u-joint to stabilize it just enough to guide the bolt back on the stud. It worked pretty well.:

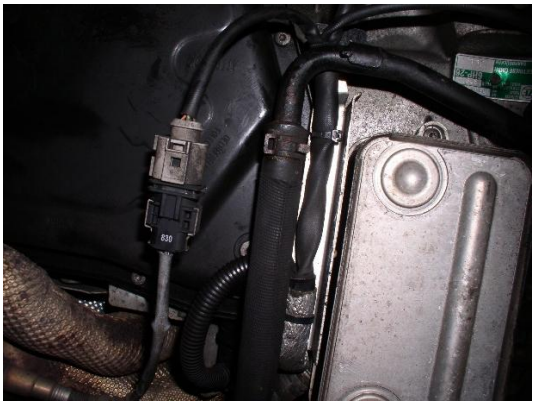


Remove these connections toward the rear as well as the support brackets in the center


Once the front bolts, the rear couplers and the center supports have been removed the exhaust will be free. The passenger side can be lowered to the ground, but for the driver side, since I did not want to disconnect the 02 sensors, I used jack stands to support the exhaust sections that I disconnected. Driver side supported and passenger side removed:

3. There are some wires and coolant hoses you will need to move out of the way by disconnecting the mounting brackets near the oil cooler. I also protected them from the oil draining out with some aluminum foil:

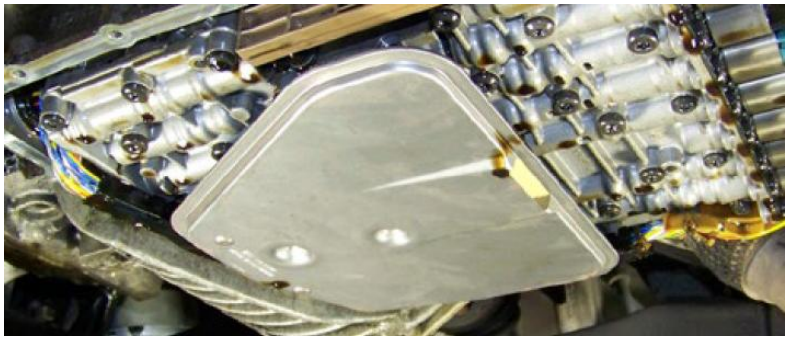



I also pulled the hoses back and tied them off to the front of the car:

4. Once I cleared the way (test remove the filler plug – if you can't remove it, STOP). If you can, then remove the drain plug and drain the oil from the transmission:

5. Remove the pan bolts, I alternated and left opposite sides connected until I was ready to deal with the remaining fluid once I dropped the pan. At the end, I left a few in and allowed the pan to tilt toward the drain hole, allowing as much of the fluid to drain as possible, minimizing the amount that will exit the transmission once the pan is out. Be ready with a large pan under the transmission to catch the rest of the fluid and allow some time for it to drain. I then cleaned the inside of the pan, including the magnets (remove them, clean them and put them back where they were). I was happily surprised there wasn't much metal sludge adhering to the magnets.

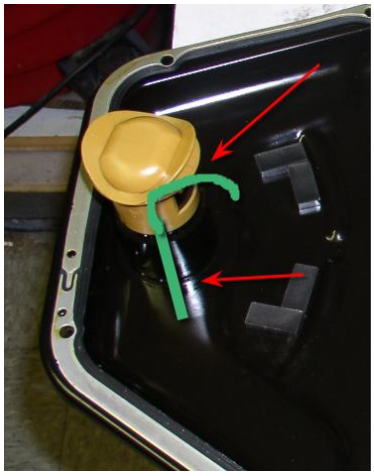
6. Remove the filter (not my filter, forgot to take a shot of it in place). There are no fasteners, just the seal holds it in place. Let the rest of the fluid drain out:



Old filter (right) and new (note the seal at the top of the new filter, this is all that holds it in place):

Transmission without the cover and the filter removed (some foil over the driver side exhaust):

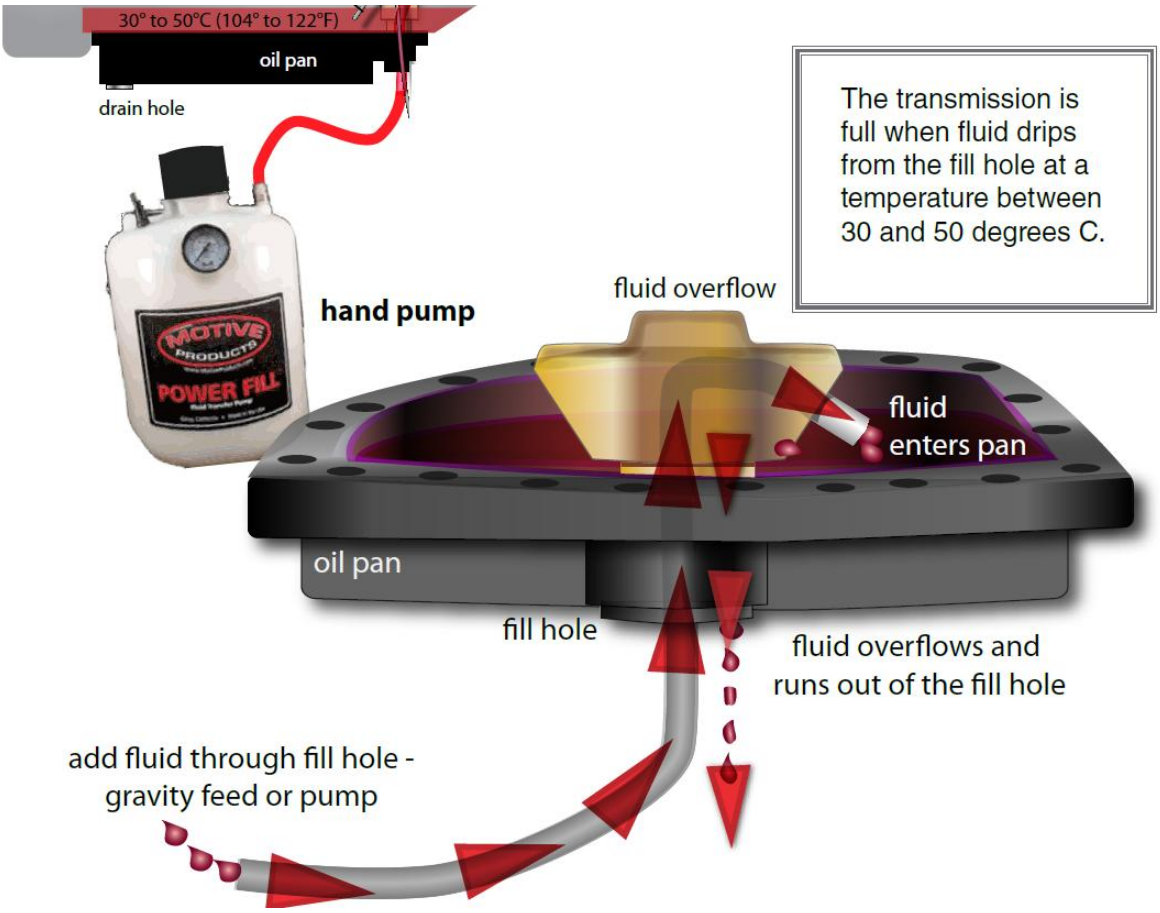
7. Remove the gasket, clean the surface and install the new filter and the new gasket. You can secure the gasket with a small drop of RTV at a few places along the pan to keep it in place, but I just used the two pan bolts I started with as I replaced the pan. Replace the pan. The torque on the pan bolts is only 7nm, so do not overtighten. Replace the drain plug, using a new seal. At this point I stopped taking pictures, so what you will see are from things I cobbled together, but they will give you a good idea of what to do.
8. Now the fun part. Your fill tube will have to make it up and over in the fill guide that is positioned above the fill hole:



Poor attempt at drawing the path the fill tube has to take

Place the other end of the tube in one of the bottles and start pumping. Do this bottle after bottle until you seem some draining out of the fill hole. I think I pit about 4-5 bottles in for this step (not a picture of the V10):

9. Start the car, shift from park to reverse, from reverse to drive, pausing 3-5 seconds in each gear allowing the fluid to pump through the transmission. Put the transmission back into park. Go back under the car and pump more fluid in. Use your scan tool to monitor the transmission temperature. DO NOT ALLOW IT TO GO OVER 50^0c. If it does, replace the fill plug (if you don't when you shut off the engine fluid will flow out of the fill hole), shut down, wait for it to cool and then continue. The transmission is full when the temperature is between 30^0c and 50^0c and fluid is dripping out of the fill hole. I had to do the shutdown - fill cycle a couple of times to assure myself the transmission was full.
10. This is a nice graphic of the overview of this project:



11. As they say, installation Is the reverse of removal. Get the coolant/electrical bracket back in place. Replace both exhausts and install the belly pans.