Mercedes Benz 722.9 7Gtronic Automatic Transmission Service.

Parts Needed				
Qty.	Description	MB Part #	Link	Price
3	MB Sheet 236.14 ATF	A0019896803	RM European	$123.45
1	MB 722.9 Transmission Oil Filter	A2212770198	RM European	$32.40
1	MB 722.9 Transmission Oil Pan Gasket	A2202710380	RM European	$10.80
1	MB 722.9 Transmission Guide Tube	A2512710097	RM European	$1.30
1	MB 722.9 Transmission Drain Plug Seal	N0077603012102	Mcmaster Carr	$1.00
6	MB 722.9 Transmission Pan Bolts	A0049903512	RM European	$5.04
1	MB 722.9 Torque Converter Drain Plug	A0019901117	MB of Ft Lauderdale	$2.73

MB Specific Tools Needed				
Qty.	Description	Part #	Link	Price
1	Assenmacher Tools MB 722.9 Drive Line Filler Adapter – ATF 129	ATF 129	Tool Source	$37.91
1	MB Drift for Standoff Pipe	A722589031500	MB of Ft. Lauderdale	$14.50

Fluid level check tools				
Qty.	Description	Part #	Link	Price
1	MB STAR Diagnostic System or Clone		Ebay	~$600.00
		OR		
1	Fluke Infrared Thermometer	Fluke 62	Amazon	$89.95
1	Fluid Pump	G2039	AMSOIL	$11.10

Mechanics tools needed		What used for
Qty.	Description	
1	8mm 6pt 3/8” drive socket	6ea bolts for rear engine cover
1	3/8 drive ratchet	Various
1	5mm hex socket LONG 3/8 drive	Torque converter drain plug
1	6mm hex socket 3/8 drive	Transmission pan drain plug
1	E10 3/8” drive external torx socket	Transmission pan bolts
1	36mm 6pt ½” drivesocket	Crankshaft bolt
1	½” drive breaker bar	Crankshaft

Before proceeding, please verify that you have the new updated pan by checking the “Updated Pan” PDF file attached to the thread. If you do have the new pan, continue with the procedure below. If not, make sure you have the updated pan in hand before proceeding.

1)Shift Transmission into neutral and switch off ignition. [1]

Use ramps, jacks, jackstands, etc to get the car up to a comfortable working level. Make sure to get the whole car up so that it is level. [2]

2)Remove the rear engine cover by removing the six 8mm head bolts. Set the bolts and engine cover off to the side.

3)Find a suitable container capable of holding at least 6L of fluid. Place that container under the transmission drain plug, and remove the drain plug with a 6mm hex socket and ratchet. Around a liter or so of fluid will drain from the pan.

4)Using the MB drift or other suitable tool, pry the transmission standoff pipe off its seat in the pan by inserting the drift through the drain plug hole in the transmission pan. [3] About another 3 liters of fluid will drain out.

5)Remove the 6 E10 torx head bolts and sprags holding on the transmission oil pan. Carefully pull down on a corner of the pan to release the pan from the transmission.

6)Grab the transmission filter and pull straight down to remove from transmission.

7)Remove the white standoff pipe from the inside of the transmission pan.

8)Remove the 2 magnets from the inside of the pan that sit on the beveled edge of the pan.

9)Remove and discard the transmission pan gasket. [1]

10)Now the most important part, cleaning. **Thoroughly** clean the transmission pan, magnets, sprags, and pan mounting surface of the transmission. The sealing surfaces of the pan and transmission housing must be absolutely free of any contaminates. Use a quick flashing solvent to clean everything, like Brake Parts Cleaner, Isopropyl Alcohol, Denatured Alcohol, etc. For good measure if you have compressed air, blow off the pan to make sure no lint, etc is left behind.

11)Install new transmission filter. Make sure the filter has a new o-ring installed. To install, just position filter with standoff pointing up, and push into place.

12)Replace the magnets back into the beveled side of the pan in the same way you removed them.

13)Place a NEW transmission pan gasket onto the pan. [1]

14)Place a NEW guide tube onto the inside of the pan above the drain plug hole. Be certain the tube firmly snaps into place and the bottom of it is sitting flush on the pan.

15)Grab the NEW transmission bolts, the sprags, and hold transmission pan in place, while inserting bolts through each sprag and hand tighten the 6 bolts. Now using a torque wrench tighten the 6 bolts to 4Nm. Once all are tightened to 4Nm, now tighten each bolt an additional 180°. [5]

16)Now, remove the black rubber plug from the transmission bell housing forward of the pan. This is the access hole for the torque converter. Now unplug the 2 electrical connectors running across the front part of the transmission pan. Then unclip the connectors from the bracket holding them in place, and tuck the wiring and connectors up out of the way.

17)Using a 36mm socket and breaker bar on the engine crankshaft pulley bolt, turn the engine little by little, until you can see the torque converter drain plug in the center of the access hole.

18)Dump the container you used to catch the fluid drained from the pan, and measure how much fluid was in the container, and make a note of it. Now place that container under the access hole. Now, using a 5mm LONG hex socket, remove the torque converter drain plug and let the fluid drain out. [1]

19)Once the fluid has completely drained out, install a NEW torque converter drain plug and torque to 10Nm if 8mm and 15Nm if 10mm.

20)Snap the electrical connectors back into place on the bracket and reconnect them.

21)Install rubber plug back in torque converter access hole.

22)Dump the container you used to collect the fluid from the torque converter and measure how much fluid there was, and make a note.

23)Attach the Assenmacher adapter to the hose of the fluid pump and add a hose clamp to hose by the adapter and at the other end of the pump and tighten. Then screw the adapter into the transmission pan drain plug hole. [4]

24)Add up the measured fluid amounts from steps 18 and 22. Add 1L to that, and that is the amount of fluid you need to pump into the transmission pan. Leave the adapter, pump, and bottle in place. [6]

25)Once you have pumped all the fluid in the transmission pan, start the engine. DO NOT SHUT OFF THE ENGINE UNTIL INSTRUCTED TO IN STEP 29.

26)With the engine running and your foot on the brake, run the transmission through all the gear positions a few times. Put the transmission in pack and keep the engine running.

27)If you have a MB STAR system, bring up the transmission oil temperature screen. Instructions are in the PDF attachment “STAR Transmission Temperature” in the thread. If not go the step 28.

28)While watching the transmission temperature via STAR or by reading the pan temperature with the Fluke Infrared thermometer, wait until the temp hits just under 45°C/113°F.

29)Quicky get under the car and remove the adapter and allow the excess fluid to drain out until a small quantity still drains out. Make sure the temp is 45°C/113°F exactly not over or under. Then reinstall the transmission pan drain plug and tighten to 22Nm. The transmission is now at the correct level. Shut off the engine. Clean any excess fluid off of pan and drain plug. [8]

30)Reinstall the engine cover you removed in step 2.

31)Final and most important step. Pat yourself on the back and crack open an ice cold beer! You just saved yourself a bundle vs. taking it to the dealer, and you got some great bonding time with your car.

NOTES:

[1] The latest MB WIS document makes the following changes: 1)The transmission filter gasket must be replaced. It is no longer acceptable to be reused. 2)You must shift the transmission into neutral and shut off ignition before starting the service. 3)You must drain the torque converter as part of the transmission service.

[2] It is very important that the car is perfectly level front to back, and side to side when checking fluid level. It does not need to be level while draining the fluid, changing the filter, etc. You can use any method you choose to level it. But, the easiest way to verify level is by using a magnetic level on the transmission pan.

[3] The standoff pipe doesn’t need to come completely off its seat. Just dislodged enough so the rest of the transmission fluid will drain out.

[4] If you are so inclined, you can make your own adapter instead of buying the Assenmacher adapter. Just get a 12mm x 1.5mm bolt, cut the head off and drill a hole through the center. Frankly, though, the Assenmacher tool is worth the $40. It is well built and fits perfect.

[5] You MUST replace the transmission pan bolts. They are aluminum ONE TIME USE bolts. The 722.9 transmission housing is made from magnesium, so the aluminum bolts are used to mitigate corrosion and expansion issues.

[6] The ATF can be purchased in quarts, but the 4L jugs are cheaper and easier to pump over 9L of fluid into the transmission from 3 bottles vs. 10.

[7] I have found that the Fluke Infrared reads within 1-2°C of what STAR does, so that is a perfectly fine substitute for the STAR system.

[8] The seal ring for the drain plug must be replaced. The ring is a 12mm x 16mm x 1.5mm ring. Any standard copper 12mm sealing ring can be used. These can be had at most hardware stores. If you plan on doing a few changes, pick up the 25pack from McMaster Carr I posted the link to.