Mercedes Benz Pagoda SL 230, 250 SL and 280SL 5-speed conversion kit W113 Body Style

MBPA-00001 Mercedes Benz Pagoda SL 230, 250 SL and 280SL 5-speed conversion kit W113 body style Install Manual, REV A- MG 090924

During this conversion you may wish to install a new Mercedes spec pressure plate, throw out bearing and replace or resurface the flywheel since these components will all be accessed during installation.

Before starting the conversion, we recommend all engine mounts be replaced with new engine mounts as the 5 speed kit is designed to work with the engine in the original factory position. The SL Pagoda series cars have very close tolerances so everything must be to original specification before starting.

** When our instructions do not specify otherwise; follow factory service manual for the removal and installation of components

**** Read ALL of the instructions BEFORE starting the installation. It will save you time and make for a much easier installation! ****

1. Disconnect battery

2. Remove starter and secure out of the way.

3. Unbolt the slave cylinder from the bellhousing and secure out of the way for later reinstallation.

4. Remove the gearbox and propshaft per the Mercedes Factory workshop manual. Neither the original gearbox nor the propshaft are used for the 5-speed installation.

5. The plastic Mercedes gear lever opening cover, and the original Mercedes gear lever boot (gator) are used with the 5-speed. The 4-speed gear lever will NOT be reused

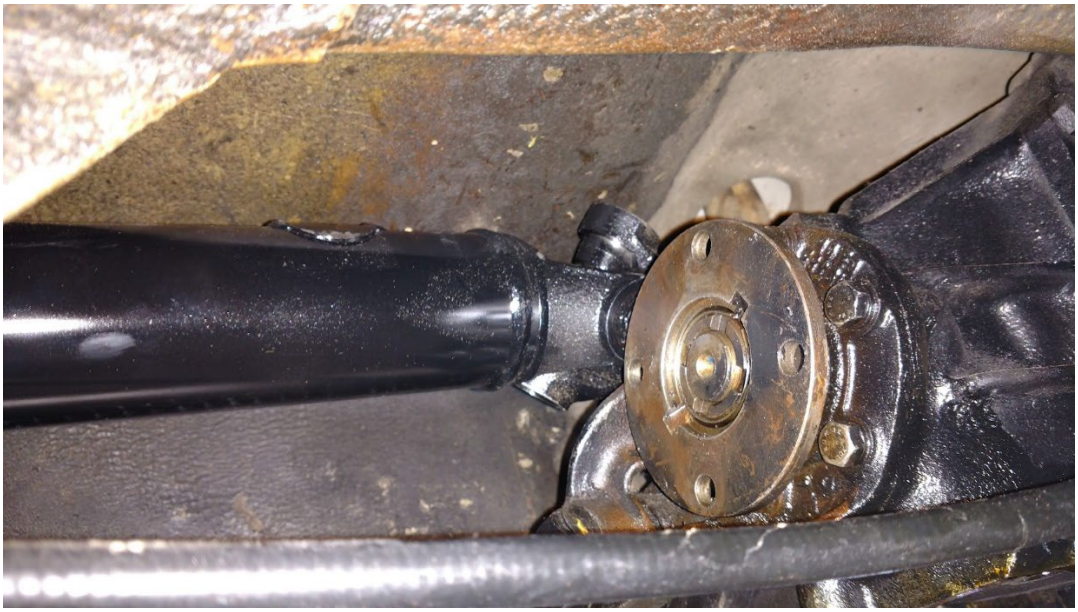
6.. Remove the bellhousing (clutch cover) including the release bearing guide tube from the gearbox, because they will be used with the 5-speed gearbox

8. Remove clutch assembly from flywheel.

The clutch disc will NOT be reused, but the clutch cover (pressure plate) will be reused.

The original Mercedes fork and release bearing will be reused.

9. At this time insert the new one-piece propshaft into propshaft tunnel but do not attach the differential. The propshaft will need to be located off to the right-hand side of the differential.



10. Attach the CNC machined billet aluminum gearbox adapter plate to the bellhousing using the provided hardware.

11. Attach the bellhousing to the gearbox using hardware provided.

12. Install original Mercedes bearing guide tube using original Mercedes fasteners.

13. Reinstall original clutch fork on the new pivot stud.

14. Confirm nylon shifter bushing is in place on the shifter rail on top of the gearbox.

15. Lightly lubricate the rail and bushing with grease.

16. You may fill the gearbox with 2.7 quarts of Dexron 3 automatic transmission fluid at this time, or you may fill it once the gearbox is installed***. It is easier to fill the gearbox on a bench, but one must be careful to keep the gearbox as level as possible during installation as fluid will pour out through the tail housing if the gearbox is tilted rearward too much.***

17. Secure the gearbox and bell housing assembly to a transmission lift and offer up the gearbox into the gearbox tunnel.

Push gearbox as far rearward as possible***. This needs to be done without the clutch assembly in place.***

This installation is easier without the mount (isolator) attached to the gearbox

18. Reinstall an original Mercedes pressure plate and the 5-speed clutch disc included in the kit, using the provided clutch alignment tool to align the clutch disc. Be sure to install pressure plate bolts in a star pattern per the original Mercedes service manual and torque to manufacturer specs.

19. Reinstall bellhousing to the engine block using original Mercedes fasteners.

20. Do preliminary clutch adjustment per factory service manual.

21. Install reverse lamp switch pigtail to the left-hand side of the gearbox. Splice into Mercedes reverse lamp harness. This is a non-polarized switch, so it does not matter which wire receives current and which one is ground.

22. Confirm speedometer driven gear housing has o-ring in place and confirm the colored nylon gear is clipped firmly in place on the gearbox end of the speedometer cable.

23. Put a thin coat of motor oil or gearbox oil on the speedometer cable gear housing and install it into tail housing.

24. Secure the speedometer cable with its attached clamp and bolt into the side of the tail housing.

Shifter Tower assembly installation:

25. Test fit shifter tower onto the gearbox to see mating surface.

26. From the underside of the car put a light coat of silicone sealer on the shifter housing mating surface of the tail housing.

27. From inside the car install the shifter housing onto the gearbox and secure with the 4 Fasteners included in the kit. Torque to 15 lb/ft

28. Using gearbox shift lever cover spacers supplied with the kit find suitable height to reinstall Mercedes gearbox shifter cover. It should fit securely but not touch the metal shift tower on the gearbox. Once you achieve the desired height you may reinstall the original shifter boot and carpet.

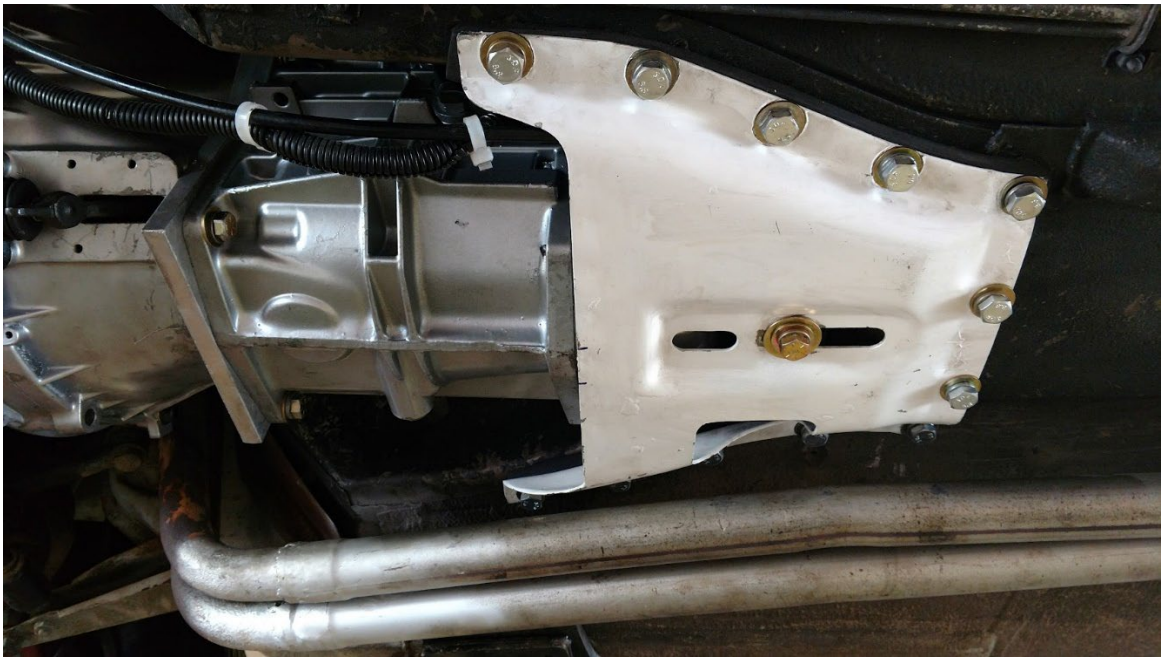
29. Install 5-speed gear knob on the gear lever using the supplied jam nut to set and secure the knob at correct orientation.

Install jam nut then small washer to top of gear shift lever thread on gear shift knob until all threads are concealed and nob is in correct orientation.

Tighten Jam nut up against the underside of the knob.

30. Take the original Mercedes gearbox support crossmember and remove the stiffening plate which runs left to right across the front portion of the mount.

31. Reinstall modified original Mercedes gearbox support crossmember with included spacers to lower crossmember from body.



32. Secure gearbox to cross member support with the included fasteners offered up through plate into bottom of 5 speed gearbox mount.

33. Install the propshaft by engaging the splined yoke into the tailhousing and carefully pushing it far enough to allow you to attach propshaft to the differential using original Hardware.

Confirm a minimum of three quarters of an inch of prop shaft yoke is exposed outside of tail housing dust boot.

34. Reinstall starter.

35. Carefully confirm there is no contact between gearbox or gearbox shifter and the body of the car***. Even minor contact will transmit very noticeable noise and vibration to the interior of the vehicle.***

36. Check all fluid levels including gearbox, differential, engine oil and engine coolant.

Gearbox fluid should reach the bottom of the fill plug opening.

Take a test drive. Allow the gearbox 1,000 miles to break in. During this time make your shifts slowly and deliberately until your gearbox is fully up to operating temperature then gear changes may be taken at normal speeds. During the break in period make gear changes often and use all the gears. For example, several drives in traffic and on secondary roads are much better than a 1,000-mile drive in 5th gear. After the first 1,000 miles of driving, drain your gearbox and refill. Very noticeable metal flakes in the fluid and discoloration of the fluid are expected in this initial fluid change. This is part of the break in process and the reason the fluid is changed after so few miles.

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