

## Pre-Case creation for 725.0/.1 Transmissions

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|-------------------|-----------------------------|
| Topic number      | LI27.00-P-075630            |
| Version           | 4                           |
| Function group    | 27.00 - General             |
| Date              | 9/9/24                      |
| Validity          | 725.0 & 725.1 TRANSMISSIONS |
| Reason for change | Add info                    |

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### Complaint

To insure vehicle down time is kept at a minimum and all required information is available when case is escalated, as well as assist technicians with checks that may help lead in resolving issue without case creation.

THIS LI IS NOT TO BE USED AS A REASON FOR CASE CREATION BUT AS A GUIDE IF A CASE IS NEEDED

### Cause

There are, at times, additional steps workshops can do to help diagnose and rectify transmission complaints.

### Remedy

When opening a case for transmissions a EEPROM, Quick Test, and VGS CUL are absolutely necessary

Please also check for any relevant LI's before opening case.

Also, recommend having customer fill out Transmission Drivability Diagnostic Worksheet especially if complaint is hard to reproduce or intermittent

(Work sheet Location: Xentry Portal >> Local Contents >> Diagnostic Info>> Diagnostic Worksheets )

If a previous repair attempt or visit was made for the same concern please include the date, mileage, and case number if applicable of that repair/visit with a short description of what was done.

Follow IPR: ( LI27.00-P-073124 ) All IPR suggestions are covered by warranty and there is no need for cases to confirm IPR. Complete IPR suggestions and close out IPR process. If complaint is not fixed and IPR still suggests the same repair once closed out and run again, then a case may be needed.

Transmission Health page is a good indicator of issues within transmission if clutch or brake pack stays NOK after adaptations and unable to be made to a green OK then an internal fault is present. Proceed with replacing affected clutch pack.

IF more than 3 are red and NOK replace transmission (include printout with warranty claims)

\*\*\*\* FOR 167 chassis with M264 engine B08 may be red and NOK, IGNORE this, B08 is still okay \*\*\*\*

Shift complaints:

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Note: AMG variants are known to have a harsher shift see LI27.60-P-075147

It is always worth comparing to a like vehicle if possible to see if shift is uncharacteristic

Perform Valve flushing procedure

Perform 5 Torque Converter adaptations in a row (Save the results page)

Perform standstill adaptations (Save the results page)

Drive adaptations if necessary:

Drive C mode keep RPM between 2000-2200rpm and lightly let off pedal to force shift wait 2-3 sec then roll on throttle to rpm back up to 2000-2300 rpm repeat for gears 1-3

\*For gears 4-8 allow rpm up to 2700 and let off slightly to force upshift = repeat x 10

\*For downshift - highest gear possible 8 or 9 - allow decel with light brake drag (allow at least 5s between downshifts for trans to adapt. Go down to 2nd and repeat x10

\*Change to sport mode and repeat process again

\*Lock car to allow sleep at least 10min and restart and road test for quality.

After adaptations a new EEPROM should be recorded and included with the original if opening a case

Understand shift complaints need to be reproducible to address. If needed drive with client to reproduce the complaint.

If shift complaint is intermittent a CAN trace of the issue occurring will be useful (see attached instructions)

## Shudder:

If there is a shudder monitor torque convertor actual values to see if it occurs during slipping, Additionally can lock up convertor and drive to see if issue is resolved

## Jolting/Shudder:

If the vehicle is AWD: unplug AWD control unit or drive vehicle in dyno mode to see if transfer case is causing the jolt/harsh shift

If located from transfer case check fluid and perform a flush if needed to try to rectify the issue.

## Vibrations:

NVH trace is needed, what level vibration is being experienced and where is it located?

Is the Vibration felt in neutral? Dyno mode? Does it change with speed? Etc.

## Noise complaint:

Isolate the noise location using chassis ear.

MUST attach a sound recording or video of the noise.

Describe when the noise is present:

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Does it change with gear or speed?

Does it occur with vehicle in neutral or in glide mode?

Does operating temperature effect noise?

Does incline/decline or steering angel effect noise?

Is the noise reproducible on lift in dyno mode?

Etc.

## Pan Debris:

If during diagnosis process the pan is dropped use Xentry Blue book, compare condition to pictures and follow recommend instructions.

(Pictures will need to be submitted with warranty claim)

| Attachments  |   |
|--|---|
| File   | Description   |
| <a href="#">Instruction_XENTRY CAN Tool KIT3_EN_V2 Star 3 Model 223.pdf</a>      | Star3 Models (223, 206...) CAN Trace Instructions       |
| <a href="#">Instruction_XENTRY+CAN+Tool_EN_V4.pdf</a>                            | CAN Trace Instructions                                  |
| <a href="#">Common NAG3M Faults.pdf</a>  | Common Faults for newer 725.1 NAG3M Transmission        |
| <a href="#">Instruction_XENTRY_SD_Scan_Star2x_P-T4_BR213M_BR167M_EN_V3 1.pdf</a> | 725.1 with Star2 (MY24 167, 254) CAN Trace Instructions |

## Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of vehicles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

| Symptoms   |
|--|
| Overall vehicle > Complete vehicle > Modified to |

| Operation numbers/damage codes |                |      |             |      |
|--------------------------------|----------------|------|-------------|------|
| Op. no.                        | Operation text | Time | Damage code | Note |
|                                |                |      |             |      |