XENTRY

# Automatic transmission in limp-home mode, fault codes 0717, 0718, 0722, 0723, 2767, 2768

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| Topic number | LI27.50-P-049710 |
| Version | 6 |
| Design group | 27.50 Gear assembly |
| Date | 03-08-2011 |
| Validity | Transmission 722.9<br>not for controller unit A220 270 12 06 and A220 270 14 06 |
| Reason for change | Instructions and Software revised |
| Reason for block | |

## Complaint:

Automatic transmission 722.9 switches to limp-home while driving (gearshifts no longer possible) and/or one or more of the following fault codes are stored or current: 0717, 0718, 0722, 0723, 2767, 2768

## Cause:

Rpm sensor fault

## Remedy:

Process the speed sensor fault codes completely using the DAS/Xentry guided test (possible as of DVD 01/2011 and add-on 1740). This may or may not entail a replacement of the EHS. In the case of hardware replacement (when SDS instructs to do so) the adaptation data of the old transmission control unit is read out in the DAS/Xentry guided test and transferred to the new control unit after the repair. Subsequently, the transmission control unit, which is bolted onto the electrohydraulic controller unit (EHS), may only be replaced using the EHS repair kit (A000 270 17 00). In other cases SDS will instruct to clear the fault codes.

See also the Akubis direct film:

"Replacement of "fully integrated transmission control" (VGS) controller unit at electrohydraulic controller unit (EHS) on automatic transmission 722.9" The VGS Control Unit (Control Module) only is to be replaced for VGS2 and VGS3 Control Unit versions with these fault codes, when SDS instructs to do so. VGS Control Unit is available as EHS Repair Kit (A000 270 17 00)

Complete valve body “Electrohydraulic Controller Unit (EHS)” replacement is necessary for VGS1 Control Unit versions when SDS instructs to do so.

Control Unit Version is identified from the Transmission Control Unit Log.

Note in Cases where hardware replacement is specified:

This procedure differs from a complete valve body replacement as the adaptation data, coding and valve body calibration data are transferred from the old VGS Control Unit to the new VGS control unit. This data from the old VGS Control Unit is stored in the Star Diagnosis unit by processing one of the above codes. The same Star Diagnosis System unit MUST be used to process the fault code and perform initial startup of the new VGS Control Unit. Failure to do so will result in the necessary data not being transferred and improper transmission functionality after VGS Control Unit replacement.

1. Process the speed sensor fault code completely by following the instructions in DAS/Xentry related to the fault code.

Note:

During the replacement of the VGS Control Unit, it is imperative that the position of the solenoid valves are noted and re-installed in their original positions. Failure to do so will cause a mismatch in the calibration data to respective solenoid valve(s) and subsequent shifting complaints.

2. Replace the VGS Control Unit per WIS instructions For the initial road test following VGS Control Unit replacement the vehicle must be driven gently for the first several shifts in each gear since it will be necessary to bleed the air from the valve body. Until the air is bleed out, irregular shifting will be noticed momentarily and will clear up with subsequent shift processes. Because the adaptation data is transferred from the original VGS Control Unit, performing subsequent shift adaptations is not necessary.

| Symptoms |
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| Power transmission / Automatic transmission / Automatic transmission - function / Limp-home mode |
| Power transmission / Automatic transmission / Automatic transmission - function / Electrical fault/Fault code |

| Control unit/fault code | | |
|---|---|---|
| Control unit | Fault code | Fault text |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | 2768 | Component Y3/8n2 (Internal speed sensor (VGS)) is defective. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS3) (G (463)) | 0722 | The internal electrical check of component B49 (Transmission output speed sensor) has failed. ((BAUREIHE@461) or(BAUREIHE@463)) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | 0722 | The signal from component Y3/8n3 (Output speed sensor (VGS)) is not available. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | 0722 | The signal from component Y3/8n3 (Output speed sensor (VGS)) is not available. ([VGS3_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | 0718 | Component Y3/8n1 (Turbine speed sensor (VGS)) is defective. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | 0718 | Component Y3/8n1 (Turbine speed sensor (VGS)) is defective. ([VGS3_*]) |
| ETC-Electronic transmission control (EGS3) (S (221), CLK (209),CL (215),G (463), | 0717 | Component Y3/6n2 (speed sensor 2) is faulty or the sensor supply has Open circuit. |

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| SL (230),CL (216),SLK (171),S (220),C (203),E (211)) | | |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 0717 | The signal from component Y3/8n1 (Turbine speed sensor (VGS) ) is not available. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 0717 | The signal from component Y3/8n1 (Turbine speed sensor (VGS) ) is not available. ([VGS3_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 2768 | Component Y3/8n2 (Internal speed sensor (VGS)) is defective. ([VGS3_*]) |
| EGS53 - Electronic transmission control (N15/3) (C (204), GLK (204),E (207),E (212)) | 2767 | No signal from component 'Y3/6n3 (Rpm sensor 3)' |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 2767 | The signal from component Y3/8n2 (Internal speed sensor (VGS) ) is not available. ([VGS3_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 2767 | The signal from component Y3/8n2 (Internal speed sensor (VGS) ) is not available. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS3) (S (221), CLK (209),CL (215),G (463), SL (230),CL (216),SLK (171),S (220),C (203),E (211)) | 2767 | Component Y3/6n3 (speed sensor 3) is faulty. |
| ETC-Electronic transmission control (EGS3) (G (463)) | 0723 | The signal from component B49 (Transmission output speed sensor) is implausible. ((BAUREIHE@461)or(BAUREIHE@463)) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS (219),E (211),S (221),CL (215) ,G (463),SLK (171),CL (216)) | 0723 | Component Y3/8n3 (Output speed sensor (VGS)) is defective. ([VGS2_*]) |
| ETC-Electronic transmission control (EGS2) (R (251), M (164),CLK (209),GL (164), SL (230),S (220),C (203),CLS | 0723 | Component Y3/8n3 (Output speed sensor (VGS)) is defective. ([VGS3_*]) |

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| (219),E (211),S (221),CL (215),G (463),SLK (171),CL (216)) | | |

| Parts | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part number | xsl-Par-tEs1 | xsl-Par-tEs2 | Designation | Quantity | Note | EPC | Non-EPC |
| A 000 270 17 00 | 80 | | Controller unit repair kit | 1 | | X | |

| Work units | | | | |
|---|---|---|---|---|
| Op. no. | Operation text | Time | Damage code | Note |
| | | | 53376 73 | |
| | | | 53377 73 | |

| WIS-References | | | |
|---|---|---|---|
| Document number | Title | Note | Allocation |
| AR27.19-P-0220B | Disassemble/assemble electrohydraulic controller unit | Repair kit | Remedy |
| AR27.19-P-0200W | Remove/install electrohydraulic controller unit (transmission installed) | Replacement of complete electrohydraulic controller unit | Remedy |

| Validity | | |
|---|---|---|
| Vehicle | Engine | Transmission |
| * | * | 722.901 |
| * | * | 722.902 |
| * | * | 722.903 |
| * | * | 722.904 |
| * | * | 722.906 |
| * | * | 722.907 |
| * | * | 722.930 |
| * | * | 722.950 |
| * | * | 722.960 |
| * | * | 722.961 |
| * | * | 722.962 |
| * | * | 722.964 |
| * | * | 722.965 |
| * | * | 722.998 |
| * | * | 722.999 |

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| * | * | 722.963 |
| * | * | 722.996 |
| * | * | 722.997 |
| * | * | 722.908 |