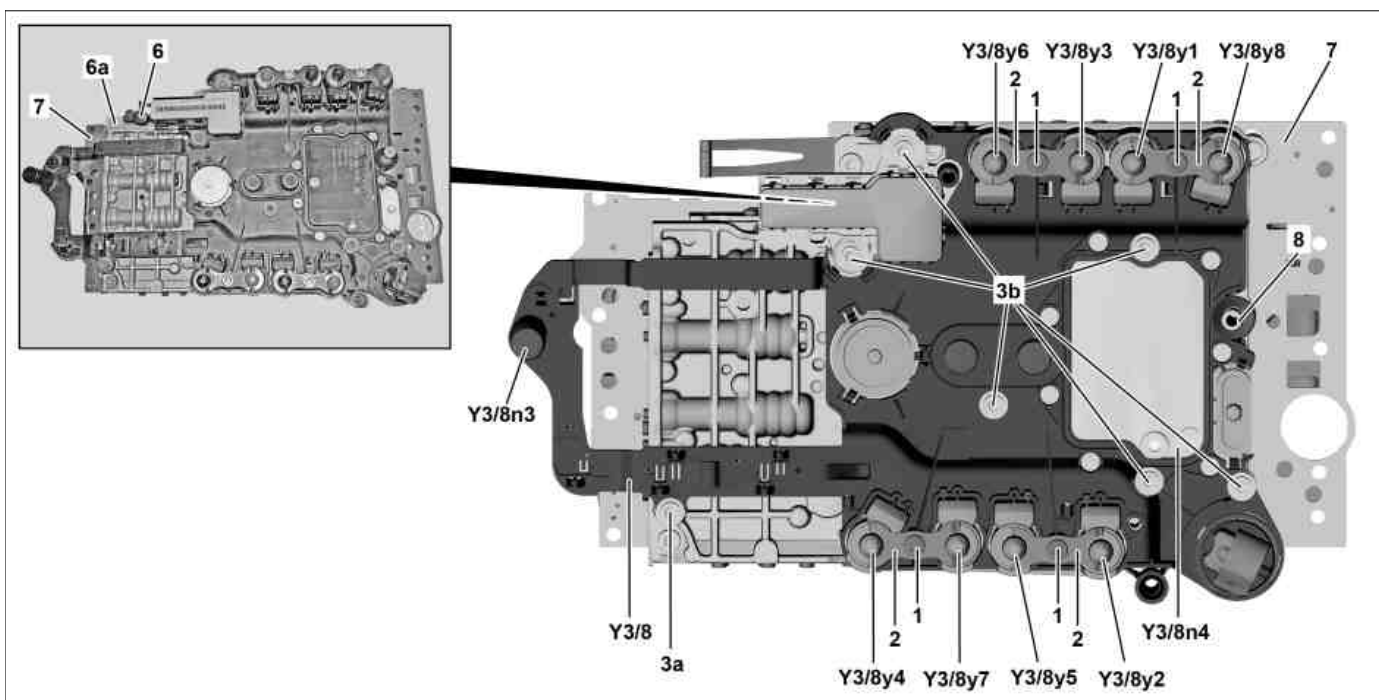


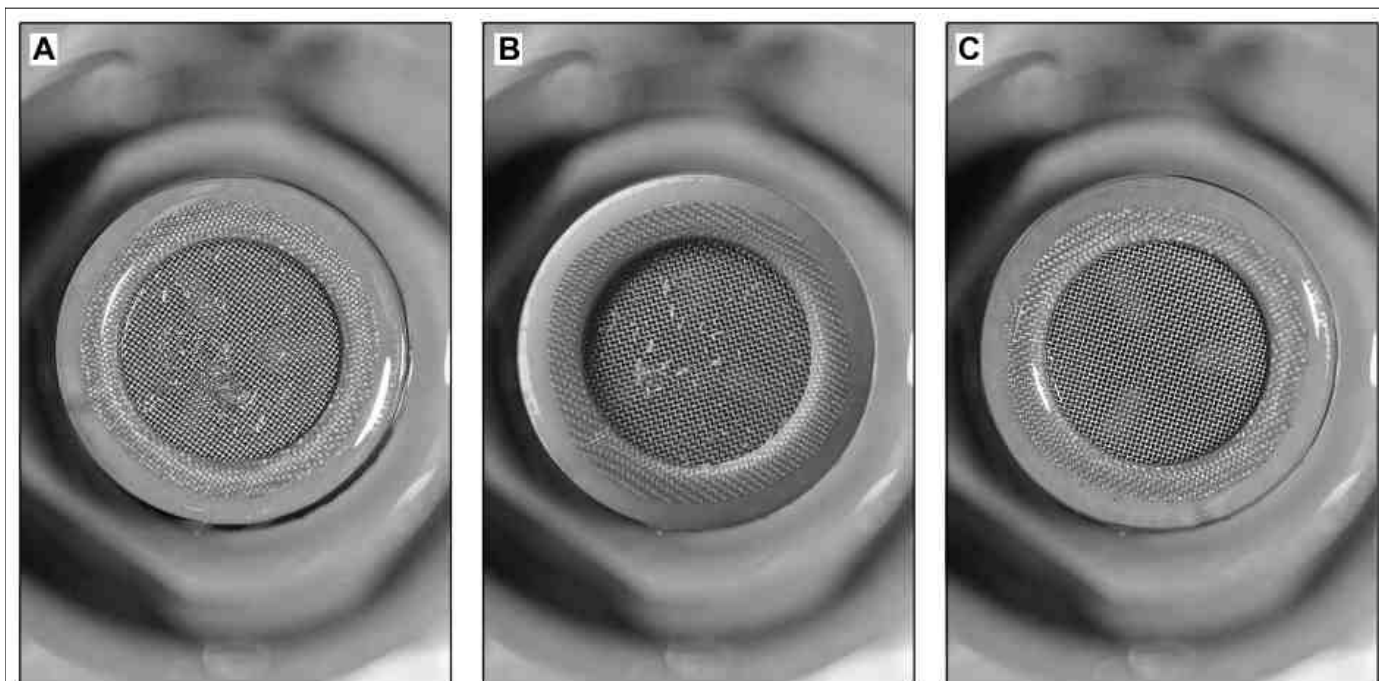
TRANSMISSION 722.9



P27.19-2499-09










Electrohydraulic controller unit, model 221















1	Screw	Y3/8n3	Output speed sensor (VGS)	Y3/8y5	Brake control solenoid valve B1 (VGS)
2	Leaf spring	Y3/8n4	Fully integrated transmission control (VGS) control unit	Y3/8y6	Brake control solenoid valve B2 (VGS)
6	Magnet	Y3/8y1	Working pressure control solenoid valve (VGS)	Y3/8y7	Brake control solenoid valve B3 (VGS)
6a	Shift valve	Y3/8y2	Clutch control solenoid valve K1 (VGS)	Y3/8y8	Torque converter lockup clutch control solenoid valve (VGS)
7	Shift plate	Y3/8y3	Clutch control solenoid valve K2 (VGS)		
Y3/8	Electric control unit (VGS)	Y3/8y4	Clutch control solenoid valve K3 (VGS)		



- A *If the control solenoid valve looks like this after cleaning, it needs to be replaced* B *Clean control solenoid valve; if it looks like this after cleaning, it can be installed again* C *Control solenoid valve OK, can be installed again*

	Notes on automatic transmission		AH27.19-P-0001-01NKB
	Information on preventing damage to electronic components due to electrostatic discharge		AH54.00-P-0001-01A
	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
	Remove		
1	Remove electrohydraulic controller unit		AR27.19-P-0200W
	Disassemble/assemble		
2	Unscrew bolts (1) and remove leaf springs (2)	Bolt, solenoid valve to shift plate	*BA27.19-P-1002-01A
3 BB	Pull control solenoid valves (Y3/8y1 to Y3/8y8) out of the electric controller unit (Y3/8)	TRANSMISSION 722.9 up to 6/18/10 with ENGINE 113 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 152 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 156 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 157 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 271 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 272 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 273 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 274 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 275 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 276 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 278 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 279 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 642 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 651 TRANSMISSION 722.9 with ENGINE 629	BB00.40-P-0236-14A

		<p>TRANSMISSION 722.9 as of 6/21/10 with ENGINE 113 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 152 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 156 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 157 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 271 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 272 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 273 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 274 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 275 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 276 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 278 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 279 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 642 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 651</p> <p> Assembly: The Specifications for Operating Fluids must be observed. Otherwise damage will occur.</p> <p> Assembly: Always install each control solenoid valve (Y3/8y1 to Y3/8y8) at its original installation location again. Moisten O-rings with transmission oil.</p>	BB00.40-P-0236-15A
	Check		
4	Determine extent of soiling on control solenoid valves (Y3/8y1 to Y3/8y8)	<p> If more than 4 control solenoid valves (Y3/8y1 to Y3/8y8) are damaged or soiled, the Market Performance Center (MPC) or the general distributor (GV) must be notified, they will then determine how to proceed further.</p> <p> If there are any traces of abrasion or soiling (picture A, picture B), the control solenoid valves (Y3/8y1 to Y3/8y8) must be flushed.</p> <p> If there are no traces of abrasion or soiling (picture C), flushing is not required.</p>	
	Clean		
5 	Clean sieves of control solenoid valves (Y3/8y1 to Y3/8y8)	TRANSMISSION 722.9 up to 6/18/10 with ENGINE 113 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 152 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 156 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 157 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 271 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 272 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 273 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 274 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 275 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 276 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 278 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 279 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 642 TRANSMISSION 722.9 up to 6/18/10 with ENGINE 651 TRANSMISSION 722.9 with ENGINE 629	BB00.40-P-0236-14A

		<p>TRANSMISSION 722.9 as of 6/21/10 with ENGINE 113 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 152 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 156 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 157 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 271 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 272 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 273 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 274 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 275 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 276 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 278 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 279 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 642 TRANSMISSION 722.9 as of 6/21/10 with ENGINE 651</p> <p> To clean, use only fresh transmission oil and do not use compressed air, rags, brake cleaner, etc.. The Specifications for Operating Fluids must be observed. Otherwise damage will occur.</p> <p> Clean sieves of control solenoid valves (Y3/8y1 bis Y3/8y8) carefully using magnet. Then clean the sieves by rinsing them in fresh transmission oil until the wear debris and dirt are removed.</p>	BB00.40-P-0236-15A
	Check		
6	Check control solenoid valves (Y3/8y1 to Y3/8y8) for cleanliness and damage	 If soiling or damage is not apparent (picture B, picture C), the control solenoid valves (Y3/8y1 to Y3/8y8) can be used again. If soiling or damage is visible (picture A), the corresponding control solenoid valves (Y3/8y1 to Y3/8y8) must be replaced.	
	Clean		
7	Clean seats of control solenoid valves (Y3/8y1 to Y3/8y8) and shifting channels in the valve body assembly (7)	 Pulling the control solenoid valves (Y3/8y1 to Y3/8y8) out of the valve body assembly (7) cause abrasion or dirt particles to drop into the channel below. This abrasion must be removed from the valve body assembly (7) with the aid of magnets and/or using a pipette.	
8	Pull magnet (6) of shift valve (6a) out slightly and clean	 Use a lint-free rag to remove shavings and abrasion from magnet (6) of shift valve (6a).  Assembly: Check shift valve (6a) is correctly seated in valve body assembly (7).	
9	Assemble in the reverse order		
	Install		
10	Install electrohydraulic controller unit	 Installation: Thoroughly clean oil pan and magnet, then replace oil filter.	AR27.19-P-0200W
11  	Conduct gear selection adaptation of renewed control solenoid valves (Y3/8y1 to Y3/8y8) using STAR DIAGNOSIS	After replacing control solenoid valves (Y3/8y1 to Y3/8y8) TRANSMISSION 722.9 in MODEL 222 TRANSMISSION 722.9 in MODEL 164, 166, 171, 172, 203, 204, 207, 209, 211, 212, 215, 216, 218, 219, 220, 221, 230, 231, 251  The adaptation values for the electric controller unit (VGS) (Y3/8) may not be reset.	 AD00.00-P-2000-04B AD00.00-P-2000-04A

i After replacing the control solenoid valves (Y3/8y1 to Y3/8y8) the corresponding gears have to then be adapted:
 → Clutch control solenoid valve K1 (VGS) (Y3/8y2) gear 6 to 5 and gear 2 to 3
 → Clutch control solenoid valve K2 (VGS) (Y3/8y3) gear 3 to 4
 → Clutch control solenoid valve K3 (VGS) (Y3/8y4) gear 4 to 3 and gear 4 to 5
 → Brake control solenoid valve B1 (VGS) (Y3/8y5) gear 3 to 2 and gear 1 to 2
 → Brake control solenoid valve B2 (VGS) (Y3/8y6) gear 5 to 4 and electric seat adjustment to R and D
 → Brake control solenoid valve B3 (VGS) (Y3/8y7) gear 2 to 1
 → Control solenoid valve (KÜB) torque converter lockup clutch (VGS) (Y3/8y8)

Nm Electrohydraulic controller unit

Number	Designation		TRANSMISSION 722.9
BA27.19-P-1002-01A	Bolt, solenoid valve to shift plate	Nm	8