

P27.19-2293-09

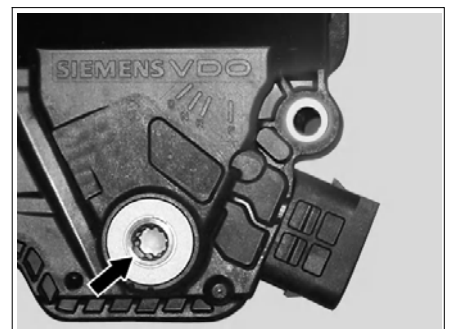
**Illustrated on model 221.171**

- 1 Transmission
- 2 Engine crossmember
- 3 Range selector shaft
- 4 Bolts

- 5 Engine mount
- 6 Exhaust bracket
- 7 Bolts
- 10 Bolts

A80 Intelligent servo module for DIRECT SELECT

Arrow: Position "D"





















P27.19-2288-01

**Modification notes**

29.6.10	Value modified: Self-locking nut of flex disk to transmission or front propeller shaft, M12	*BA41.10-P-1001-01H
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Icons	Remove/install		
⚠	<b>Risk of death</b> caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
⚠	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
1	Release parking brake		
2	Disconnect ground lines from batteries	⚠ Insulate terminals of ground lines to prevent accidental contact with the ground points of the batteries.	AR54.10-P-0003SX
⚠	Notes on battery		AH54.10-P-0001-01A
3	Remove bottom engine compartment paneling	Vehicles without top protection	AR61.20-P-1105SX
		Vehicles with code (Z07) Top protection	AR61.20-P-1105SXS

4	Support and secure transmission (1)	 Secure the transmission (1) with a tensioning strap to prevent it from tilting or slipping off.	
5	Remove rear engine cross member (2)	 The engine mount (5) must also be removed on vehicles without 4-MATIC. Without 4-MATIC With 4-MATIC	AR22.10-P-1180SX AR22.10-P-1180SW
6	Mark position of front flexible coupling relative to output flange and propeller shaft	 This is to ensure reinstallation at the ex-factory installation position, otherwise drive line vibrations can be produced.	
7	Detach propeller shaft from transmission (1)   WF Drift for loosening fitting sleeves in flex disks.	 If the fitted sleeves are jammed: ↓ Release the guide sleeves on   <b>Installation:</b> Attach the propeller shaft. 	AR41.10-P-0050-02SX AR41.10-P-0050-09SX WF58.50-P-4110-01A AR41.10-P-0050-07SX *BA41.10-P-1001-01H
8	Detach front exhaust bracket (6) from transmission (1)	Without 4-MATIC   Engine 156, 272, 273  Engine 629  Engine 642	*BA49.10-P-1008-01Z *BA49.10-P-1004-01AA *BA49.10-P-1002-01V
9.1	Remove exhaust system from flange connections (center muffler to catalytic converters)	without 4-MATIC  Engine 156, 272, 273 Engine 629, 642	AR49.10-P-7100SX AR49.10-P-7100SX1
9.2	Detach exhaust system from exhaust manifolds	Engine 273 with 4-MATIC	AR49.10-P-7100SX
9.3	Detach exhaust system from diesel particulate filter	Engine 642 with 4-MATIC	AR49.10-P-7100SX1
10	Detach front exhaust system from rubber retainers		
11	Disconnect electrical connector from intelligent servo module (A80)		
12	Lower transmission (1) slightly	 When the engine is being lowered, it must not rest on the front axle carrier, otherwise the engine oil pan will be damaged.	
13	Remove the bolts (10) on the intelligent servo module (A80)	 <b>Installation:</b> Replace bolts (10).  	*BA27.40-P-1021-01A
14	Remove intelligent servo module (A80) with bleed hose	 When <b>reusing</b> the intelligent servo module (A80) do <b>not</b> detach bleed hose. Leaky separation points result in water entry.	
15	Rotate the range selector shaft (3) of the transmission (1) <b>counterclockwise</b> up to the end stop at position "D" (arrow)	When replacing the intelligent servo module (A80).   <b>the new</b> intelligent servo module (A80) is on position "D" (arrow). (condition as supplied)  When <b>replacing</b> intelligent servo module (A80) replace bleed hose.  <b>installation:</b> The positions of the range selection shaft (3) and intelligent servo module (A80) must match up, rotate range selection shaft (3) if necessary. 	*722589030900
16	Install in the reverse order		
17	Connect STAR DIAGNOSIS, read out fault memory and erase if necessary		
18	Using STAR DIAGNOSIS, perform initial startup of intelligent servo module (A80)	After <b>replacing</b> intelligent servo module (A80)	

## Housing

Number	Designation	Trans- mission 722.9
BA27.40-P-1021-01A	Standard bolt/hexagon-spacer bolt, shift module (ISM) to transmission housing	Stage 1 Nm 4

**Nm** Propeller shaft

Number	Designation	Model 216	Model 221
BA41.10-P-1001-01H	Self-locking nut of flex disk to transmission or front propeller shaft	M12 Nm 68	68

**Nm** Exhaust system

Number	Designation	Engine 642 in model 221
BA49.10-P-1002-01V	Bolt connecting bracket of front exhaust system to transmission	Nm 20

**Nm** Exhaust system

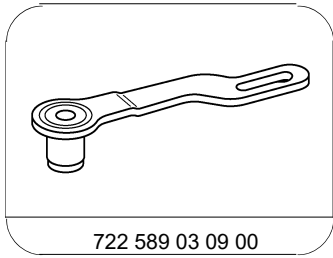
Number	Designation	Engine 273 in model 216	Engine 272 in model 221	Engine 273 in model 221
BA49.10-P-1008-01Z	Bolt, catalytic converter bracket to transmission	Nm 20	20	20

**Nm** Exhaust system

Number	Designation	Engine 156 in model 216	Engine 156 in model 221
BA49.10-P-1008-01Z	Bolt, catalytic converter bracket to transmission	Nm 20	20

**Nm** Exhaust system

Number	Designation	Engine 629
BA49.10-P-1004-01AA	Nut, catalytic converter to transmission bracket	Nm 20



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Assembly tool