

Service Campaign Bulletin

FILE: SERVICE: GROUP 00 OF SERVICE INFORMATION BINDER
PARTS: GROUP I OF INFORMATION _ PARTS & ACCESSORIES BINDER

Campaign No. 2009100001, December 2009

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **Models 170/203, Model Years 2001 - 2004 / 2002 - 2004**
Replace the Camshaft Adjustment Solenoid(s) and Install Adapter Harness (es)

This Service Campaign has been initiated because Daimler AG (DAG), the manufacturer of Mercedes-Benz vehicles, has determined that due to the settling properties of the seal of the camshaft adjustment solenoid specification, oil may enter the engine wiring harness (es) through the electrical connection of the camshaft adjustment solenoid from capillary action. Dealers will replace the camshaft adjustment solenoid(s) and install an additional adapter connector harness (es) at the next workshop visit.

Prior to performing this Service Campaign:

- Please check VMI to determine if the vehicle is involved in the Campaign and if it has been previously repaired.
- Please review the entire Service Campaign bulletin and follow the repair procedure exactly as described.

Please note that Recall and Service Campaigns **do not expire** and may also be performed on a vehicle with a vehicle status indicator.

Approximately 66,113 vehicles are affected.

Order No. P-SC-2009100001

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.

Procedure

A. Replace Camshaft Solenoid (Model 203.747)

1. Remove lower engine panel.
2. Separate engine thermostat housing (A, Figure 1) from engine to allow clearance for removal of camshaft solenoid; refer to WIS: AR20.10-P-2710A.

Note: (regarding above WIS instructions):

- Perform steps 3, 6, 7, 8, 9 only.
- Do not drain coolant at radiator, allow coolant to drain from thermostat housing and engine when separated (drain coolant into drain pan – do not reuse).

3. Disconnect camshaft solenoid connector (B, Figure 1) from camshaft solenoid (C).
4. Remove 3 bolts (arrows, Figure 1) securing camshaft solenoid (C) to engine then remove camshaft solenoid (C).
5. Install new stop plug (D) into new camshaft solenoid (C).
6. Apply sealing material to new camshaft solenoid (C, Figure 1) then install in reverse order (tighten bolts to 8 Nm).
7. Reinstall thermostat housing (A, Figure 1) in reverse order, refer to WIS: AR20.10-P-2710A

Note:

- Install **new** "O"-ring
 - Top off coolant as needed
 - Tighten bolts to: 10 Nm.
8. Install adapter harness:
 - Connect adapter harness between connector on camshaft solenoid (C, Figure 2) and engine harness.
 - Secure adapter harness connector (A, Figure 2) to engine harness sheath (B) with cable tie (arrow).

Note:

Ensure cable tie (arrow) is secured to engine harness sheath (B) as shown otherwise wire chafing may occur.

9. Reinstall remaining components in reverse order.

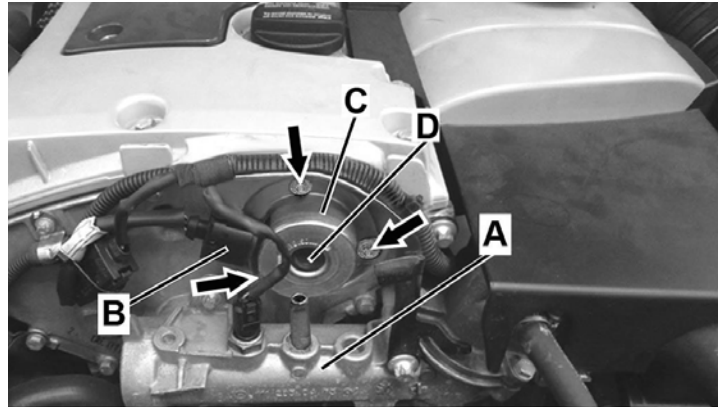


Figure 1

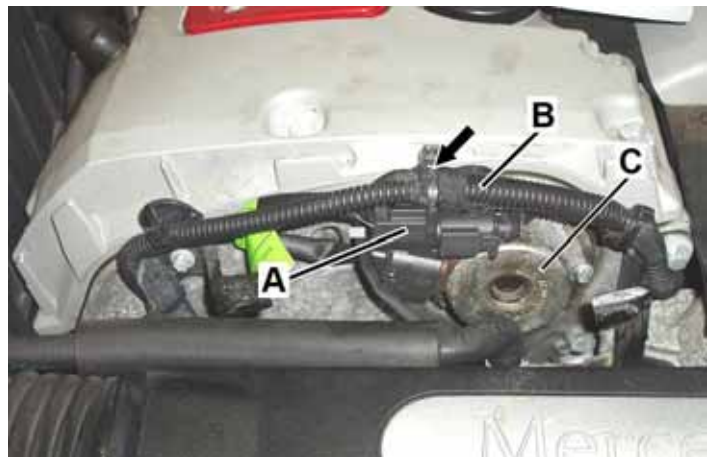


Figure 2

B. Replace Camshaft Solenoid (Model 170.449 With Vacuum Pump)

1. Disconnect vacuum hose connector (A, Figure 3) from vacuum pump fitting.
 2. Bend vacuum line (B, Figure 3) away from camshaft solenoid (D) enough to allow clearance for removal of camshaft solenoid (D).
 3. Disconnect engine harness connector (C, Figure 3) from camshaft solenoid (D).
 4. Remove 3 bolts (arrows, Figure 3) securing camshaft solenoid (D) to engine then remove camshaft solenoid (D).
 5. Install new stop plug (E, Figure 3) into new camshaft solenoid (D).
 6. Apply sealing material to new camshaft solenoid (D, Figure 3) then install in reverse order (tighten bolts to: 8 Nm).
 7. Install new adapter harness (A, Figure 4):
 - Connect adapter harness (A) between connector on camshaft solenoid and engine harness (C, Figure 4).
 - Secure adapter harness connector (B, Figure 4) to existing engine harness sheath with cable tie (arrow).
- Note:**
Ensure cable tie (arrow) is secured to engine harness sheath as shown otherwise wire chafing may occur.
8. Reinstall remaining components in reverse order.

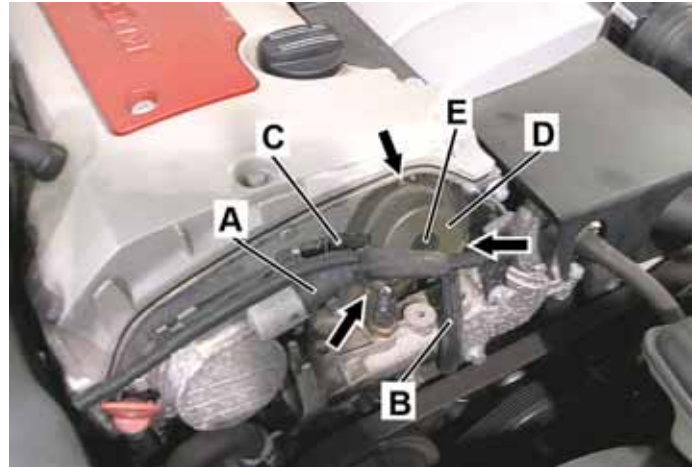


Figure 3

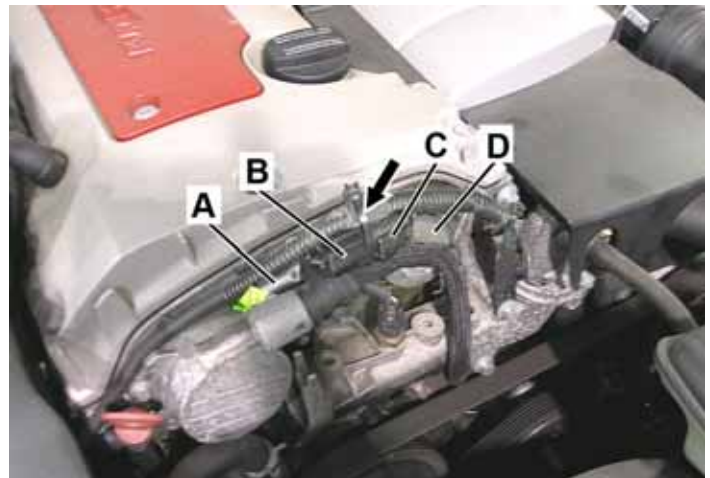


Figure 4

C. Replace Camshaft Solenoid (Model 170.449)

1. Disconnect engine harness connector (A, Figure 5) from camshaft solenoid (B).
2. Remove 3 bolts (arrows, Figure 5) securing camshaft solenoid (B) to engine then remove camshaft solenoid (B).
3. Install new stop plug (C, Figure 5) into new camshaft solenoid (B).
4. Apply sealing material to new camshaft solenoid (B, Figure 5) then install new camshaft solenoid (B) in reverse order (tighten bolts [arrows, Figure 5] to 8 Nm).
5. Install camshaft solenoid adapter harness:
 - Connect camshaft solenoid adapter harness to connector on camshaft solenoid and to engine harness connector (C, Figure 6).
 - Secure adapter harness connector (A, Figure 6) to engine harness sheath (B, Figure 6) with cable tie (arrow).

Note:

Ensure cable tie (arrow, Figure 6) is secured to engine harness sheath (B, Figure 6) as shown otherwise wire chafing may occur.

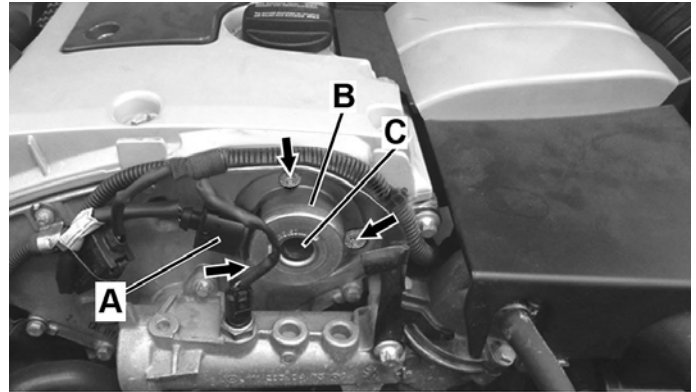


Figure 5

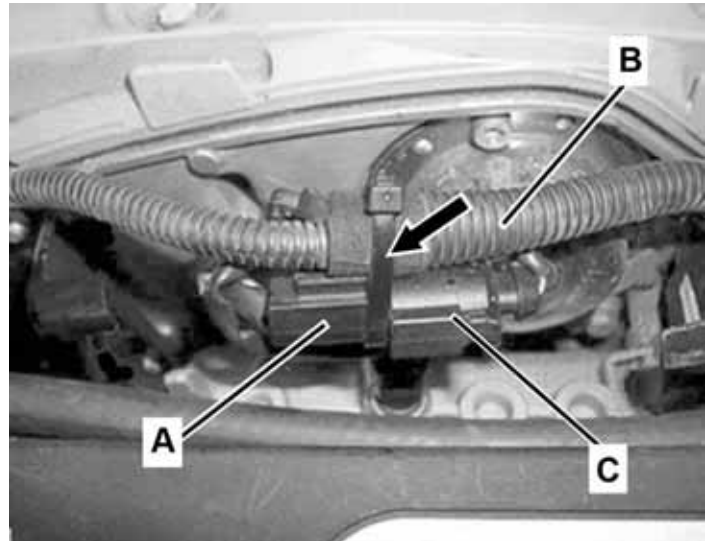


Figure 6

D. Replace Camshaft Solenoid (Models 203.040/740)

1. Replace left and right camshaft solenoids (A, Figure 7):

Refer to WIS: AR05.20-P-7295PK.

Install new camshaft solenoid stop plugs (C, Figure 7) into new camshaft solenoids (A, Figure 7).

2. Install camshaft solenoid adapter harnesses (B, Figure 7):

Connect adapter harness between connector on camshaft solenoid and engine harness.

Secure adapter cable (B, Figure 7) to engine with cable ties (arrows).

Note:

Ensure cable ties (arrows) are secured to engine as shown otherwise cover will not properly fit over camshaft solenoids (A) and wire chafing may occur.



Figure 7

Parts information (Model 203.747 with Engine 111.981)

Qty	Part Name	Part No.	Estimated Replacement Rate
1	Solenoid	A 111 051 01 77 05	100%
1	Stop plug	A 111 997 01 86	
1	Adapter connector (harness)	A 271 150 27 33 05	
1	Cable tie	A 002 997 24 90	
1	Thermostat housing "O"-ring	A 021 997 07 48	
1 ¹⁾	Sealing material	A 003 989 98 20 10	
1 ²⁾ .Gal.	Engine coolant	BQ 1 03 0002	

¹⁾ 1 container of sealing material is sufficient for 25 vehicles submit as local purchase SMT00067 qty of 1, handling is included.

²⁾ 1 Gallon of engine coolant is sufficient for 4 vehicles submit as local purchase CLT00409 qty of 1, handling is included.

Parts information (Model 170.449 with Engine 111.983)

Qty	Part Name	Part No.	Estimated Replacement Rate
1	Solenoid	A 111 051 01 77 05	100%
1	Stop plug	A 111 997 01 86	
1	Adapter connector (harness)	A 271 150 27 33 05	
1	Cable tie	A 002 997 24 90	
1 ¹⁾	Sealing material	A 003 989 98 20 10	

¹⁾ 1 container of sealing material is sufficient for 25 vehicles submit as local purchase SMT00067 qty of 1, handling is included.

Parts information engine (Model 203.040/740 with Engine 271.948)

Qty	Part Name	Part No.	Estimated Replacement Rate
2	Solenoid	A 271 051 01 77 05	100%
2	Stop plug	A 271 051 00 32	
2	Adapter connector (harnesses)	A 271 150 27 33 05	
2	Cable tie	A 002 997 24 90	
2	Seal ring	A 010 997 23 48 05	

Note:

- Please be aware that only the part number(s) referenced in the Campaign Bulletin is/are approved for use to repair the vehicle. Repairs performed using any other part(s) will not have been performed in accordance with the campaign. Accordingly, warranty claims submitted with reference to an improper part number(s) will be denied.
- The following allowable labor operation should be used when submitting a warranty claim for this repair:

Warranty Information**Repair 1 (Model 203.747 with Engine 111.981)**

Operation: Replace camshaft adjustment solenoid and install adapter harness (02-6628)

Damage Code	Operation Number	Labor Time (hrs.)	Model Indicator(s)
05 900 10 7	02-6628 ¹⁾	1.7 hrs.	P5

¹⁾ Includes separate thermostat housing from engine.

Repair 2 (Model 170.449 with Engine 111.983)

Operation: Replace camshaft adjustment solenoid and install adapter harness (02-6628)

Damage Code	Operation Number	Labor Time (hrs.)	Model Indicator(s)
05 900 10 7	02-6628 ¹⁾	0.4	G2

¹⁾ Includes disconnect/connect vacuum line from engine (if required).

Repair 3 (Model 203.040/740 with Engine 271.948)

Operation: Replace camshaft adjustment solenoids and install adapter harnesses (02-6628)

Damage Code	Operation Number	Labor Time (hrs.)	Model Indicator(s)
05 900 10 7	02-6628	0.8	Q1, Q3

Note- Consequential Damage:

If the vehicle requires additional repairs due to damage from the oil leak, submit all necessary labor operations and parts on the same Repair Order Line as the Campaign. Do not submit an additional repair. These additional operations and parts **cannot** be submitted as a Sublet. Additional repairs require dealer text explaining the extent of additional damage.