

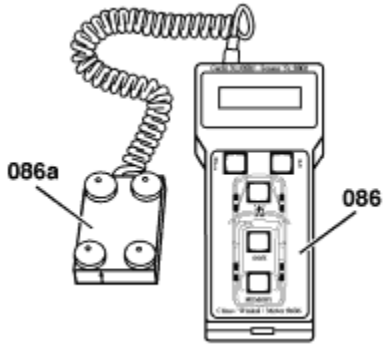


AR40.20-P-0301T	Check vehicle level at front and rear axle with electronic inclinometer, adjust if necessary	7.12.05
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MODEL 211

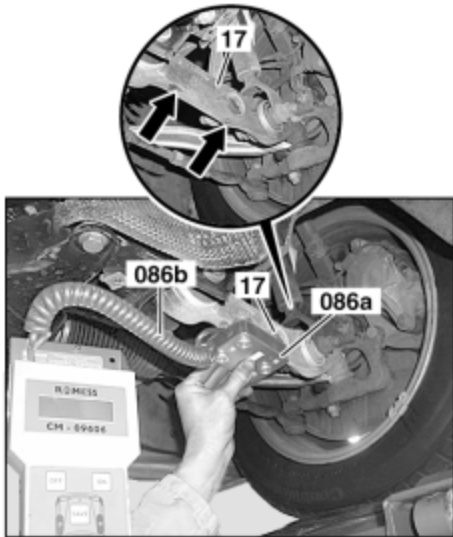
- 086  Inclinometer
- 086a  Measuring sensor



P40.20-0318-01

**Illustration shows measuring point 1 (left front)**


- 17 Spring control arm
- 086a  Measuring sensor
- 086b  Measuring sensor connecting cable





P40.20-2126-02

**Illustration shows measuring point 3 (left rear)**














65  Rear axle shaft


086a  Measuring sensor

086b  Measuring sensor connecting cable

P40.20-2127-01

	Checking		
1	Carry out preconditions and tests for vehicle level measurement		<a href="#">AR40.00-P-0202A</a>
2	Clean measuring points	 This prevents any measuring errors.	
3	Mount measuring sensor (086a) on spring link (17) between the cast-in humps and read off the vehicle level on the inclinometer (86)	 The measuring sensor connecting cable (086b) must point towards the center of the vehicle, otherwise the measurement will be incorrect.	
		 Measure vehicle level at <ul style="list-style-type: none"><li>● Measuring point 1 (left front) and</li><li>● measuring point 2 (right front) and store measured values.</li></ul>	
		Vehicle level - front axle	<a href="#">BE40.20-P-1001-02I</a>
		 Electronic inclinometer (CM 9606)	<a href="#">WH58.30-Z-1001-31A</a>
4	Mount measuring sensor (086a) on rear axle shaft (65) and read off vehicle level on the inclinometer (86)	 The measuring sensor connecting cable (086b) must point towards the center of the vehicle, otherwise the measurement will be incorrect.	
		 Measure vehicle level at <ul style="list-style-type: none"><li>● Measuring point 3 (left rear) and</li><li>● measuring point 4 (right rear) and store measured values.</li></ul>	

		Vehicle level - rear axle	<a href="#">BE40.20-P-1001-03I</a>
		 Electronic inclinometer (CM 9606)	<a href="#">WH58.30-Z-1001-31A</a>
5	Check the maximum permissible difference in vehicle level between the left and right side of the vehicle	 The specified test tolerance applies only when checking the vehicle level but not for calibration.	
		Permissible difference in vehicle level at front axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-02I</a>
		Permissible difference in vehicle level at rear axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-03I</a>
6.1	Adjust the vehicle level by changing the springs or spring rubber mounts	Vehicles without code (489) Active Body Control (ABC) and if the vehicle level is outside the test tolerance.	
		Permissible difference in vehicle level at front axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-02I</a>
		Permissible difference in vehicle level at rear axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-03I</a>
6.2	Use STAR DIAGNOSIS to calibrate vehicle level	Vehicles with code (489) Airmatic (semi-active air suspension) and if the vehicle level is outside the test tolerance.	
 AD	Connect STAR DIAGNOSIS and read out fault memory		<a href="#">AD00.00-P-2000-04A</a>
		STAR DIAGNOSIS diagnosis system	<a href="#">WE58.40-Z-1013-06A</a>
		Permissible difference in vehicle level at front axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-02I</a>
		Permissible difference in vehicle level at rear axle between right and left sides of the vehicle	<a href="#">BE40.20-P-1002-03I</a>
		 Possible cause, if the vehicle level	

		is not OK after calibration: ● Attachment of level sensor is deformed.	
7.1	Adjust headlamps	Only if the vehicle level has been calibrated.	
 SAP	Check and correct headlamp adjustment	Model 211	<a href="#">AP82.10-P-8260T</a>

**Check values for vehicle level at front axle**

Number	Designation			Model 211.0/2 ECE with 4MATIC, AIRmatic (code 489) and suspension with increased ground clearance (code 482)	Model 211.0/2 ECE with 4MATIC, AIRmatic (code 489) except suspension with increased ground clearance (code 482)
BE40.20-P-1001-02I	Vehicle level - front axle		∟°	+6,5	+1.6 (±1.5)
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	∟°	1	1
		When calibrating with Star Diagnosis	∟°	0.5	0.5

**Check values for vehicle level at front axle**

Number	Designation			Model 211.08/28 with steel suspension (standard)	Model 211.0/2 USA with 4MATIC, AIRmatic (code 489) and suspension with increased ground clearance (code 482)
BE40.20-P-1001-02I	Vehicle level - front axle		∟°	+3.0 (±1.5)	+3.0
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	∟°	1	1
		When calibrating with Star Diagnosis	∟°	0.5	0.5

**Check values for vehicle level at front axle**

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Number	Designation			Model 211.0/2 USA with 4MATIC, AIRmatic (code 489) except suspension with increased ground clearance (code 482)	Model 211.02/05/06/07 with steel suspension (standard)
BE40.20-P-1001-02I	Vehicle level - front axle		4°	+1.1 (±1.5)	+6.5 (±1.5)
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

**Check values for vehicle level at front axle**

Number	Designation			Model 211.0 except 4matic, except steel suspension, except suspension with increased ground clearance (code 482), with MB sports suspension (code 486) or AMG	Model 211.0 except 4matic, except AMG except MB sports suspension (code 486), except Airmatic (code 489), with steel suspension and suspension with increased ground clearance (code 482)
BE40.20-P-1001-02I	Vehicle level - front axle		4°	+3.9 (±1.5)	+9.1 (±1.5)
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

**Check values for vehicle level at front axle**

Number	Designation			Model 211.0/2 except 4matic, except AMG except MB sports suspension (code 486), except steel suspension, except suspension with	Model 211.25/26/27 with steel suspension (standard)

				<b>increased ground clearance (code 482), with Airmatic (code 489)</b>	
BE40.20-P-1001-02I	Vehicle level - front axle		4°	+3.6 (±1.5)	+6.8 (±1.5)
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

#### Check values for vehicle level at front axle

Number	Designation			<b>Model 211.2 except 4matic, except suspension with increased ground clearance (code 482), with MB sports suspension (code 486) or AMG</b>	
BE40.20-P-1001-02I	Vehicle level - front axle		4°	+3.9 (±1.5)	
BE40.20-P-1002-02I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	
		When calibrating with Star Diagnosis	4°	0.5	

#### Check values for rear axle vehicle level control

Number	Designation			<b>Model 211.0, with 4matic and steel suspension (standard)</b>	<b>Model 211.0/2 ECE, with 4matic and Airmatic (code 489)</b>
BE40.20-P-1001-03I	Vehicle level - rear axle		4°	+1.8 (±1.0)	-0.1 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

#### Check values for rear axle vehicle level control

Number	Designation	Model 211.0/2 ECE	Model 211.0/2 USA,
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				<b>with 4matic, Airmatic (code 489) and suspension with increased ground clearance (code 482)</b>	<b>with 4matic, with Airmatic (code 489), with suspension with increased ground clearance (code 482)</b>
BE40.20-P-1001-03I	Vehicle level - rear axle		4°	+3.35	+0.8
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

#### Check values for rear axle vehicle level control

Number	Designation			Model 211.2 ECE/USA with 4matic, with rear air suspension and front steel suspension	Model 211.0/2 USA, with Airmatic (code 489), except 4matic
BE40.20-P-1001-03I	Vehicle level - rear axle		4°	+0.2 (±1.0)	-1.1 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

#### Check values for rear axle vehicle level control

Number	Designation			Model 211.0 except 4matic, with steel suspension (standard)	Model 211.0 except 4matic, with MB sports suspension (code 486) or AMG,
BE40.20-P-1001-03I	Vehicle level - rear axle		4°	-0.8 (±1.0)	-2.7 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	4°	1	1
		When calibrating with Star Diagnosis	4°	0.5	0.5

**Check values for rear axle vehicle level control**

Number	Designation			Model 211.0 with steel suspension and suspension with increased ground clearance (code 482), except 4matic, except MB sports suspension (code 486), except AMG	Model 211.0 ECE, except 4matic, with Airmatic (code 489)
BE40.20-P-1001-03I	Vehicle level - rear axle		±°	+3.6 (±1.0)	-1.0 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	±°	1	1
		When calibrating with Star Diagnosis	±°	0.5	0.5

**Check values for rear axle vehicle level control**

Number	Designation			Model 211.2 with steel suspension (standard), except 4matic	Model 211.2 with MB sports suspension (code 486) or AMG, except 4matic
BE40.20-P-1001-03I	Vehicle level - rear axle		±°	-0.8 (±1.0)	-2.1 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	±°	1	1
		When calibrating with Star Diagnosis	±°	0.5	0.5

**Check values for rear axle vehicle level control**

Number	Designation			Model 211.2 ECE with Airmatic (code 489)
BE40.20-P-1001-03I	Vehicle level - rear axle		±°	-0.8 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	±°	1
		When calibrating with	±°	0.5



	Star Diagnosis	
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**Commercially available tools** (see Workshop Equipment Manual)

Number	Designation	Make (e.g.)	Order number
WH58.30-Z-1001-31A	Electronic inclinometer (CM 09606)	Romess Rogg Apparatus+Electronics GmbH&Co. D-78024 Villingen-Schwenningen	09606

**Workshop equipment/MB testers** (see Workshop Equipment Manual)

WE58.40-Z-1013-06A	STAR DIAGNOSIS Compact diagnosis system for passenger cars, order number 6511 1801 00
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