

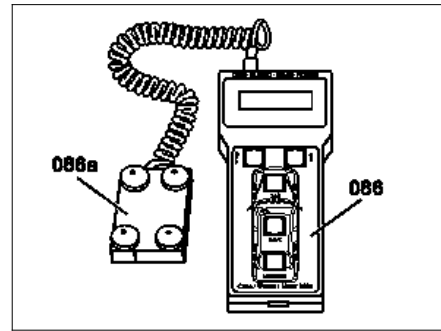


AR40.20-P-03011	Check vehicle level at front and rear axle with electronic inclinometer, adjust if necessary	7.12.05
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**MODEL 215**  
**MODEL 220**  
 except CODE (979) Special protection version  
 except CODE (Z07) Top protection

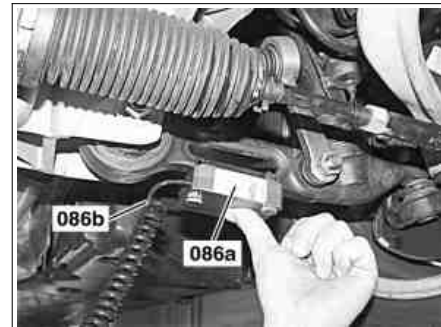
086  Inclinometer  
 086a  Measuring sensor



P40.20-0318-01



**Shown: measurement on front axle on model 220 without 4MATIC**

086a  Measuring sensor  
 086b  Measuring sensor connecting cable



P40.20-2001-01



**Shown: measurement on rear axle on model 220**

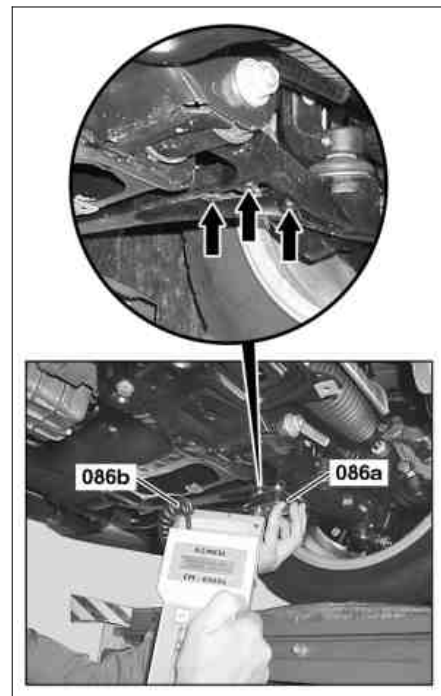
086a  Measuring sensor  
 086b  Measuring sensor connecting cable



P40.20-2002-01

**Shown: measurement on front axle on model 220 with 4MATIC**















086a  Measuring sensor  
 086b  Measuring sensor connecting cable




P40.20-2145-03

## Modification notes

26.10.05	Permissible difference in vehicle level between right and left sides of the vehicle	Model 215, 220	*BE40.20-P-1002-03I
27.10.05	Permissible difference in vehicle level between right and left sides of the vehicle	Model 215, 220	*BE40.20-P-1002-02I

	Checking		
1	Carry out preconditions and tests for vehicle level measurement		AR40.00-P-0202A
2	Clean measuring points	 This prevents any measuring errors.	
3.1	Mount measuring sensor (086a) on spring link between the cast-in humps and read off the vehicle level on the inclinometer (86)	<p>Model 215, 220 without 4MATIC</p> <p> The measuring sensor connecting cable (086b) must point towards the center of the vehicle, otherwise the measurement will be incorrect.</p> <p> Measure vehicle level at</p> <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> <p>Vehicle level - front axle</p> <p> Electronic inclinometer (CM 9606)</p>	<p>*BE40.20-P-1001-02I</p> <p>*WE58.40-Z-1002-15A</p>
3.2	Mount measuring sensor (086a) on transverse control arm (arrow) and read off vehicle level on the inclinometer (86)	<p>Model 220 with 4MATIC</p> <p> The measuring sensor connecting cable (086b) must point towards the center of the vehicle, otherwise the measurement will be incorrect.</p> <p> Measure vehicle level at</p> <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> <p>Vehicle level - front axle</p> <p> Electronic inclinometer (CM 9606)</p>	<p>*BE40.20-P-1001-02I</p> <p>*WE58.40-Z-1002-15A</p>
4	Mount measuring sensor (086a) on rear axle shaft and read off vehicle level on the inclinometer (86)	<p> The measuring sensor connecting cable (086b) must point towards the center of the vehicle, otherwise the measurement will be incorrect.</p> <p> Measure vehicle level at</p> <ul style="list-style-type: none"> <li>● Measuring point 3 (left front) and</li> <li>● measuring point 4 (right front) and store measured values.</li> </ul> <p>Vehicle level - rear axle</p> <p> Electronic inclinometer (CM 9606)</p>	<p>*BE40.20-P-1001-03I</p> <p>*WE58.40-Z-1002-15A</p>
5	Check the maximum permissible difference in vehicle level between the left and right side of the vehicle	<p> The specified test tolerance applies only when checking the vehicle level but not for calibration.</p> <p>Permissible difference in vehicle level at front axle between right and left sides of the vehicle</p> <p>Permissible difference in vehicle level at rear axle between right and left sides of the vehicle</p>	<p>*BE40.20-P-1002-02I</p> <p>*BE40.20-P-1002-03I</p>
6.1	<p>Use STAR DIAGNOSIS to calibrate vehicle level</p> <p> AD Connect STAR DIAGNOSIS and read out fault memory</p>	<p>Only if the vehicle level is outside the test tolerance.</p> <p>STAR DIAGNOSIS diagnosis system</p> <p>Permissible difference in vehicle level at front axle between right and left sides of the vehicle</p> <p>Permissible difference in vehicle level at rear axle between right and left sides of the vehicle</p> <p> Do not adjust the vehicle level using the level sensor control rod.</p>	<p>AD00.00-P-2000-04A</p> <p>*WH58.30-Z-1048-13A</p> <p>*BE40.20-P-1002-02I</p> <p>*BE40.20-P-1002-03I</p>

		Possible causes and remedies when the vehicle level is not OK after calibration: <ul style="list-style-type: none"> <li>● Attachment of level sensor is deformed. On model 220 without code (487) Active Body Control (ABC).</li> <li>● The length of the link rod to the stabilizer bar of the spring link or transverse control arm is incorrect.</li> <li>● The fastening of the link rod at the stabilizer bar of the spring link or transverse control arm is loose or bent.</li> </ul>	
7.1 	Adjust headlamps Check and correct headlamp adjustment	Only if the vehicle level has been calibrated.	AP82.10-P-8260M

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

Number	Designation		Model 215 except <sup>(USA)</sup>	Model 215 <sup>(USA)</sup>
BE40.20-P-1001-02I	Vehicle level - front axle	∠°	+2.8 (±1.5)	+4.5 (±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 220 except <sup>(USA)</sup> except 4MATIC	Model 220 except <sup>(USA)</sup> with 4MATIC
BE40.20-P-1001-02I	Vehicle level - front axle	∠°	+5.2 (±1.5)	-0.8 (±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 220 <sup>(USA)</sup> except 4MATIC	Model 220 <sup>(USA)</sup> with 4MATIC
BE40.20-P-1001-02I	Vehicle level - front axle	∠°	+6.9 (±1.5)	0.0 (±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 rear axle vehicle level control

Number	Designation		Model 215 except <sup>(USA)</sup>	Model 215 <sup>(USA)</sup>
BE40.20-P-1001-03I	Vehicle level - rear axle	∠°	-3.3 (±1.0)	-2.3 (±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 220 except <sup>(USA)</sup> except 4MATIC	Model 220 <sup>(USA)</sup> except with 4MATIC	Model 220 <sup>(USA)</sup> except 4MATIC	Model 220 <sup>(USA)</sup> with 4MATIC
BE40.20-P-1001-03I	Vehicle level - rear axle	∠°	-1.9 (±1.0)	-1.1 (±1.0)	-0.6 (±1.0)	-0.6 (±1.0)
BE40.20-P-1002-03I	Permissible difference in vehicle level between right and left sides of the vehicle	When checking	∠° 1	1	1	1
		When calibrating with Star Diagnosis	∠° 0.5	0.5	0.5	0.5

### Commercially available tools

Number	Designation	
WH58.30-Z-1048-13A	STAR DIAGNOSIS diagnosis system, Compact Passenger Car	6511 1801 00

### Workshop equipment

WE58.40-Z-1002-15A	Electronic clinometer
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