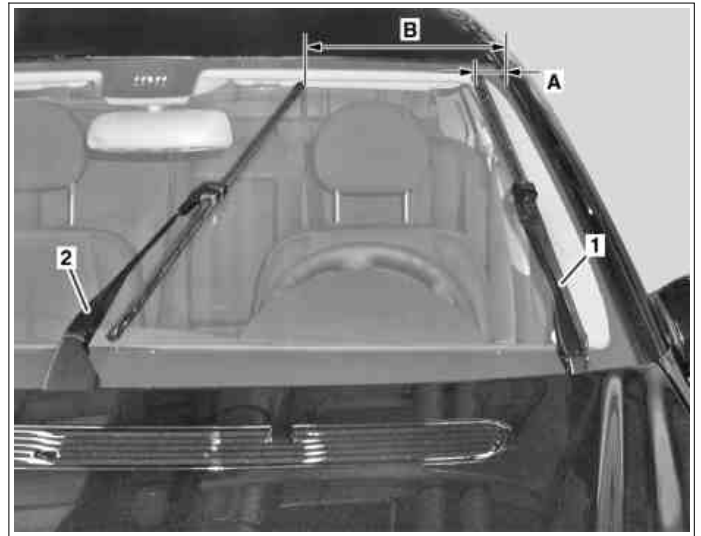


MODEL 211, 215, 220, 222, 230, 231, 240








Shown on model 211, wiper system in reversing position

- 1 Driver-side wiper arm
 2 Passenger-side wiper arm
 A Distance between driver-side wiper blade and A-pillar
 B Distance between front passenger side wiper blade and A-pillar



P82.30-2318-11

☞	Check		
⚠ Danger !	Injury hazard from pinching and crushing, in extreme cases extremities can even be cut off when caught in windshield wiper mechanism.	Always remove ignition key when working on windshield wiper mechanism.	AS82.30-Z-0001-01A
1	Move wiper system from parked position	<p>☞ To do this, turn on ignition (circuit 15 or circuit 15R) and move wiper switch to position "Two". After the wiper system has left the park position, turn off ignition and move wiper switch back to position "Zero".</p>	
2	Manually position wiper system into reversing position	<p>☞ Distance between wiper blade on driver-side to A-pillar (A): Model 211, 215, 220, 230, 231 approx. 50 mm, Model 240 approx. 70 mm.</p> <p>☞ Distance between passenger-side wiper blade and A-pillar (B): MODEL 211 approx. 350 mm, MODEL 231 approx. 600 mm, In MODEL 215, 220, 230 and 240 the distance between the passenger-side wiper blade and the A-pillar (B) results from the distance between the driver-side wiper blade and the A-pillar (A). For left-hand drive vehicles, measured from the upper wiper blade end of the driver-side wiper blade (1) and the front passenger side wiper blade (2) to the inside of the left A-pillar. For right-hand drive vehicles, measured from the upper wiper blade end of the driver-side wiper blade (1) and the front passenger side wiper blade (2) to the inside of the right A-pillar.</p>	
3	Remove wiper blades	<p>⚠ When working on raised driver-side wiper arm (1) or passenger side wiper arm (2), ensure that they do not fold back onto the windshield uncontrolled. Otherwise the windshield is damaged.</p> <p>☞ See owner's manual.</p>	
4	Measure angle of incidence of driver-side wiper blade (1) and front passenger side wiper blade (2) to windshield and record		AR82.30-P-6000-01T

		<p>⚠ When changing from reversing position to parked position, make sure that driver-side wiper arm (1) and passenger-side wiper arm (2) do not make direct contact with windshield. Otherwise the windshield may be scratched.</p> <p>i Cover driver-side wiper arm (1) and passenger-side wiper arm (2) with appropriate means (scratch protection).</p> <p> Adjusting tool set</p>	*211589022100
5	<p>i</p> <p>Compare test values with adjustment values and select correct adjustment measure</p> <p>Notes on wiper arm adjustment</p>	<p>MODEL 222</p> <p>MODEL 222</p> <p>MODEL 222</p> <p>MODEL 222</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 231</p> <p>MODEL 231</p> <p>MODEL 231</p> <p>MODEL 231</p>	<p>AH82.30-P-0001-01A</p> <p>*BE82.30-P-1001-01M</p> <p>*BE82.30-P-1002-01M</p> <p>*BE82.30-P-1003-01M</p> <p>*BE82.30-P-1004-01M</p> <p>*BE82.30-P-1001-01E</p> <p>*BE82.30-P-1002-01E</p> <p>*BE82.30-P-1003-01E</p> <p>*BE82.30-P-1004-01E</p> <p>*BE82.30-P-1001-01L</p> <p>*BE82.30-P-1002-01L</p> <p>*BE82.30-P-1003-01L</p> <p>*BE82.30-P-1004-01L</p>
6	<p>Adjust angle of incidence of driver-side wiper arm (1) or front passenger side wiper arm (2) in park position</p>	<p>In the event that the test values deviate from the tolerance range in reversing position or in parked position and reversing position.</p> <p>i Distort driver-side wiper arm (1) or front passenger side wiper arm (2) by at least the value of the tolerance deviation in reversing position.</p> <p>MODEL 222</p> <p>MODEL 222</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 231</p> <p>MODEL 231</p> <p> Adjusting tool set</p>	<p>AR82.30-P-6100-01T</p> <p>*BE82.30-P-1003-01M</p> <p>*BE82.30-P-1004-01M</p> <p>*BE82.30-P-1003-01E</p> <p>*BE82.30-P-1004-01E</p> <p>*BE82.30-P-1003-01L</p> <p>*BE82.30-P-1004-01L</p> <p>*211589022100</p>
7	<p>Adjusting wiper system</p>	<p>If the test values of the driver-side wiper arm (1) and front passenger side wiper arm (2) deviate from the tolerance range in park position.</p> <p>MODEL 211</p> <p>MODEL 215, 220</p> <p>MODEL 222</p> <p>MODEL 230</p> <p>MODEL 240</p> <p>MODEL 222</p> <p>MODEL 222</p> <p>MODEL 211, 215, 220, 230, 240</p> <p>MODEL 211, 215, 220, 230, 240</p> <p></p> <p>MODEL 222</p> <p></p> <p>MODEL 215, 220, 230</p> <p></p> <p>MODEL 211.0/2/6, 230, 240</p> <p> Mounting wedge</p> <p> Extraction hook</p> <p> Adjusting tool set</p>	<p>AR82.30-P-6400-01T</p> <p>AR82.30-P-6400-01M</p> <p>AR82.30-P-6400-01CW</p> <p>AR82.30-P-6400-01R</p> <p>AR82.30-P-6400-01H</p> <p>*BE82.30-P-1003-01M</p> <p>*BE82.30-P-1004-01M</p> <p>*BE82.30-P-1003-01E</p> <p>*BE82.30-P-1004-01E</p> <p>*BA82.30-P-1001-01P</p> <p>*BA82.30-P-1005-01A</p> <p>*BA82.30-P-1007-01A</p> <p>*110589035900</p> <p>*140589023300</p> <p>*211589022100</p>
8	<p>Cover driver-side wiper arm (1) and passenger-side wiper arm (2) using suitable aids and move wiper system out of park position</p>	<p>⚠ When moving wiper system out of park position, make sure that driver-side wiper arm (1) and passenger-side wiper arm (2) do not make direct contact with windshield. Otherwise the windshield may be scratched.</p>	

		i To do this, turn on ignition (circuit 15 or circuit 15R) and move wiper switch to position "Two". After the wiper system has left the park position, turn off ignition and move wiper switch back to position "Zero".	
9	Install wiper blades	! When working on raised driver-side wiper arm (1) or passenger side wiper arm (2), ensure that they do not fold back onto the windshield uncontrolled. Otherwise the windshield is damaged. i See owner's manual.	
10	Perform wiper system function check		

Test and adjustment values of wiper arms

Number	Designation			MODEL 211.2	MODEL 211.0/6
BE82.30-P-1001-01E	Angle of incidence of wiper arm on driver-side in reversing position	Left-hand drive vehicle	∠°	-0,5...-3,5	-0,5...-3,5
		Right-hand drive vehicle	∠°	+0,5...+3,5	+0,5...+3,5

Test and adjustment values of wiper arms

Number	Designation			MODEL 215	MODEL 220
BE82.30-P-1001-01E	Angle of incidence of wiper arm on driver-side in reversing position	Left-hand drive vehicle	∠°	-1,0...-6,0	-1,0...-6,0
		Right-hand drive vehicle	∠°	+1,0...+6,0	+1,0...+6,0

Test and adjustment values of wiper arms

Number	Designation			MODEL 230	MODEL 240
BE82.30-P-1001-01E	Angle of incidence of wiper arm on driver-side in reversing position	Left-hand drive vehicle	∠°	-1,0...-6,0	-1,0...-4,0
		Right-hand drive vehicle	∠°	+1,0...+6,0	+1,0...+4,0

Wiper arm test and adjustment values

Number	Designation			MODEL 231
BE82.30-P-1001-01L	Angle of incidence of wiper arm on driver-side in reversing position	Left-hand drive vehicle	∠°	-2...-4
		Right-hand drive vehicle	∠°	+2...+4

Test and adjustment values for wiper arms

Number	Designation			MODEL 222
BE82.30-P-1001-01M	Angle of incidence of driver-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-2,4...-3,0
		Right-hand drive vehicle	∠°	+2,4...+3,0

Test and adjustment values of wiper arms

Number	Designation			MODEL 211.2	MODEL 211.0/6
BE82.30-P-1002-01E	Angle of incidence of passenger-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-0,5...-3,5	-0,5...-3,5
		Right-hand drive vehicle	∠°	+0,5...+3,5	+0,5...+3,5

Test and adjustment values of wiper arms

Number	Designation			MODEL 215	MODEL 220

BE82.30-P-1002-01E	Angle of incidence of passenger-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-0,5...-4,0	-0,5...-4,0
		Right-hand drive vehicle	∠°	+0,5...+4,0	+0,5...+4,0

Test and adjustment values of wiper arms

Number	Designation			MODEL 230	MODEL 240
BE82.30-P-1002-01E	Angle of incidence of passenger-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-0,5...-4,0	0,0...-3,0
		Right-hand drive vehicle	∠°	+0,5...+4,0	+0,0...+3,0

Wiper arm test and adjustment values

Number	Designation			MODEL 231
BE82.30-P-1002-01L	Angle of incidence of passenger-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-1...-3
		Right-hand drive vehicle	∠°	+1...+3

Test and adjustment values for wiper arms

Number	Designation			MODEL 222
BE82.30-P-1002-01M	Angle of incidence of passenger-side wiper arm in reversing position	Left-hand drive vehicle	∠°	-4,0...-4,2
		Right-hand drive vehicle	∠°	+4,0...+4,2

Test and adjustment values of wiper arms

Number	Designation			MODEL 211.2	MODEL 211.0/6
BE82.30-P-1003-01E	Angle of incidence of driver-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,5...+6,5	+2,5...+6,5
		Right-hand drive vehicle	∠°	-2,5...-6,5	-2,5...-6,5

Test and adjustment values of wiper arms

Number	Designation			MODEL 215	MODEL 220
BE82.30-P-1003-01E	Angle of incidence of driver-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,0...+6,0	+2,0...+6,0
		Right-hand drive vehicle	∠°	-2,0...-6,0	-2,0...-6,0

Test and adjustment values of wiper arms

Number	Designation			MODEL 230	MODEL 240
BE82.30-P-1003-01E	Angle of incidence of driver-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,0...+6,0	+3,0...+5,0
		Right-hand drive vehicle	∠°	-2,0...-6,0	-3,0...-5,0

Wiper arm test and adjustment values

Number	Designation			MODEL 231
BE82.30-P-1003-01L	Angle of incidence of driver-side wiper arm in parked position	Left-hand drive vehicle	∠°	+3...+5
		Right-hand drive vehicle	∠°	-3...-5

Test and adjustment values for wiper arms

Number	Designation			MODEL 222
BE82.30-P-1003-01M	Angle of incidence of driver-side wiper arm in park position	Left-hand drive vehicle	∠°	+3,6...+5,4
		Right-hand drive vehicle	∠°	-3,6...-5,4

Test and adjustment values of wiper arms

Number	Designation			MODEL 211.2	MODEL 211.0/6
BE82.30-P-1004-01E	Angle of incidence of passenger-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,5...+6,5	+2,5...+6,5
		Right-hand drive vehicle	∠°	-2,5...-6,5	-2,5...-6,5

Test and adjustment values of wiper arms

Number	Designation			MODEL 215	MODEL 220
BE82.30-P-1004-01E	Angle of incidence of passenger-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,0...+6,0	+2,0...+6,0
		Right-hand drive vehicle	∠°	-2,0...-6,0	-2,0...-6,0

Test and adjustment values of wiper arms

Number	Designation			MODEL 230	MODEL 240
BE82.30-P-1004-01E	Angle of incidence of passenger-side wiper arm in parked position	Left-hand drive vehicle	∠°	+2,0...+6,0	+3,0...+5,0
		Right-hand drive vehicle	∠°	-2,0...-6,0	-3,0...-5,0

Wiper arm test and adjustment values

Number	Designation			MODEL 231
BE82.30-P-1004-01L	Angle of incidence of passenger-side wiper arm in parked position	Left-hand drive vehicle	∠°	+3...+5
		Right-hand drive vehicle	∠°	-3...-5

Test and adjustment values for wiper arms

Number	Designation			MODEL 222
BE82.30-P-1004-01M	Angle of incidence of passenger-side wiper arm in park position	Left-hand drive vehicle	∠°	+3,4...+5,6
		Right-hand drive vehicle	∠°	-3,4...-5,6

 Windshield wiper

Number	Designation			MODEL 222
BA82.30-P-1001-01P	Screw/bolt, wiper system to body	M8	Nm	11

 Windshield wiper

Number	Designation			MODEL 215	MODEL 220
BA82.30-P-1005-01A	Nut, wiper system		Nm	20	20

 Windshield wiper

Number	Designation			MODEL 230
BA82.30-P-1005-01A	Nut, wiper system		Nm	10

Nm Windshield wiper

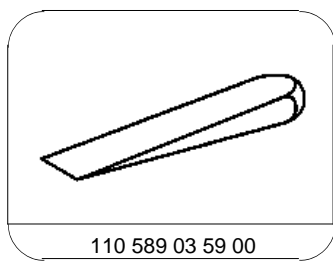
Number	Designation		MODEL 211.0	MODEL 211.2
BA82.30-P-1007-01A	Nut/bolt, wiper system to partition wall	Nm	11	11

Nm Windshield wiper

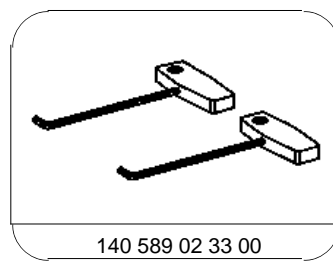
Number	Designation		MODEL 211.6	MODEL 230
BA82.30-P-1007-01A	Nut/bolt, wiper system to partition wall	Nm	11	10

Nm Windshield wiper

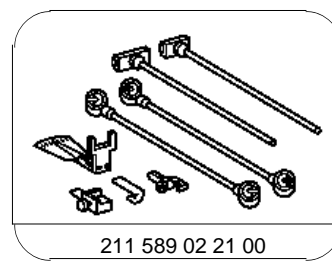
Number	Designation		MODEL 240
BA82.30-P-1007-01A	Nut/bolt, wiper system to partition wall	Nm	10



Mounting wedge



Extraction hook



Adjusting tool set