

Electrical Test Program – Test

Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 1.0	Electric mirror/steering column adjustment control module (N32/9) Voltage supply		Disconnect connector (2) from control module (N32/9)	11–14 V	Wiring
⇒ 2.0	Outside mirror control switch (S50) Resistance	see Table I (23)	Disconnect connector (1) from control module (N32/9)	see Table I	Wiring Outside mirror control switch (S50)
⇒ 3.0	Electrically adjustable and heated driver's side outside rearview mirror (M21/1) Voltage supply	 	Disconnect connector (1) from control module (M21/1) Mirror control switch (S50) in left position Move switch (S50): forward back Move switch (S50): left right	11–14 V -11 to -14 V 11–14 V -11 to -14 V	Wiring Electric mirror/steering column adjustment control module (N32/9)

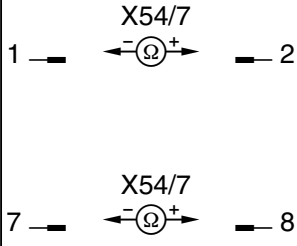
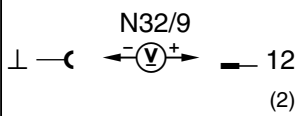
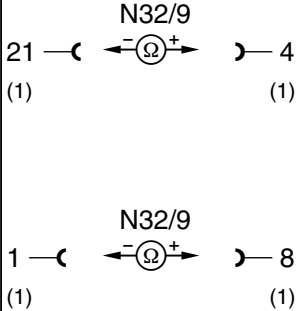
Electrical Test Program – Test

Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 4.0	Electrically adjustable and heatedpassenger side outside rearview mirror (M21/2) Voltage supply		Disconnect connector (1) from control module (M21/2) Mirror control switch (S50) in right position Move switch (S50): forward back	11–14 V -11 to -14 V	Wiring Electric mirror/steering column adjustment control module (N32/9)
			Move switch (S50): right left	11–14 V -11 to -14 V	
⇒ 5.0	Electrically adjustable inside rearview mirror (M21/3) Voltage supply		Remove inside mirror (M21/3) and disconnect connector Mirror control switch (S50) in center position Move switch (S50): right left	11–14 V -11 to -14 V	Wiring Electric mirror/steering column adjustment control module (N32/9)
			Move switch (S50): forward back	11–14 V -11 to -14 V	

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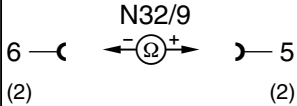
Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 6.0	Adjustable steering column switch (S59) Resistance	N32/9 N32/9 N32/9 N32/9 	Disconnect connector (2) from control module (N32/9) Move mirror control switch (S59) forward Move switch (S59) back Move switch (S59) left Move switch (S59) right	< 1 Ω < 1 Ω < 1 Ω < 1 Ω	Wiring Adjustable steering column switch (S59)
⇒ 7.0	Adjustable steering column motor (M20) Voltage supply	X54/7 X54/7 	Disconnect connector (X54/7) Move steering column switch (S59): right left Move switch (S50): forward back	11–14 V -11 to -14 V 11–14 V -11 to -14 V	Wiring Electric mirror/steering column adjustment control module (N32/9)

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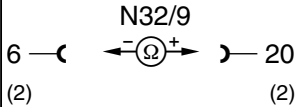
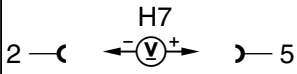
Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 8.0	Adjustable steering column motor (M20) Voltage supply		Disconnect connector (X54/7)	0.1–15 Ω 0.1–15 Ω	Wiring Adjustable steering column motor (M20)
⇒ 9.0	Serial Data Exchange ¹⁾ from Left front power seat control module (N32/1) to Electric mirror/steering column adjustment control module (N32/9)		Disconnect connector (2) from control module (N32/9) Press one of the memory position buttons on left front power seat switch group (S91)	0–1 V 4–7 V	Wiring Left front power seat control module (N32/1)
⇒ 10.0	Electrically adjustable and heated driver's side outside rearview mirror (M21/1) Potentiometer resistance		Disconnect connector (1) from control module (N32/9) Manually move mirror glass in all directions	approx. 1000 Ω value changes from 300–1200 Ω	Wiring Electrically adjustable and heated driver's side outside rearview mirror (M21/1)

¹⁾ Serial Data Exchange=data cable over which digital data is transmitted in sequence.

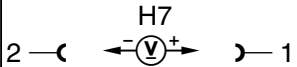
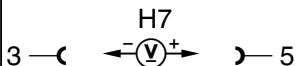
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Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 13.1	Potentiometer resistance		Connect connector (2) to control module (N32/9) Adjust steering column through complete range: up/back/down/forward Disconnect connector (2) from control module (N32/9) Connect connector (2) to control module (N32/9) Adjust steering column to full rear stop Disconnect connector (2) from control module (N32/9)	record value 600±300 Ω difference from recorded value	Wiring Adjustable steering column motor (M20) ⇒ 13.2

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Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 13.2	Potentiometer resistance		Disconnect connector (2) from control module (N32/9) Connect connector (2) to control module (N32/9) Adjust steering column to full up stop Disconnect connector (2) from control module (N32/9)	record value 600±300 Ω difference from recorded value	Wiring Adjustable steering column motor (M20)
⇒ 14.0	Automatic dimming inside rearview mirror (H7) Voltage supply		Disconnect connector from mirror (H7) Ignition: ON	11–14 V	Wiring ⇒ 14.1

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Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 14.1	Function		Ignition: ON Cover forward light sensor (daylight) Shine a flashlight onto rear sensor (headlamp) Cover forward light sensor (daylight) and turn on dome lamp or engage transmission range “R”	mirror reflection adjusts mirror reflection adjusts mirror reflection adjusts to normal position	Automatic dimming inside rearview mirror (H7)
⇒ 15.0	Backup lamp switch (S16/2) Voltage supply		Disconnect connector from mirror (H7) Ignition: ON Transmission range “R” engaged	0–1 V 11–14 V	Wiring Backup lamp switch (S16/2) Exterior lamp failure monitoring module (N7)
⇒ 16.0	Dome lamp (E15) Voltage supply		Disconnect connector from mirror (H7) Ignition: ON Dome lamp: ON	0–5 V 11–14 V	Wiring Dome lamp (E15)

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Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 17.0	Electrically adjustable and heated driver's side outside rearview mirror (M21/1) Voltage supply (heating)		Disconnect connector (1) from mirror (M21/1) Ignition: ON	11–14 V	Wiring
⇒ 18.0	Electrically adjustable and heated passenger side outside rearview mirror (M21/2) Voltage supply (heating)		Disconnect connector (1) from mirror (M21/2) Ignition: ON	11–14 V	Wiring

