



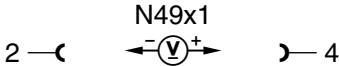
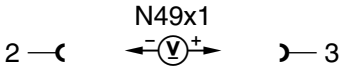

3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	[1000 [1010 [1012	ADS control module (N51) Circuit 87 SA Voltage supply		Ignition: ON	11 – 14 V	⇒ 1.1, W16, Wiring.
1.1		Voltage supply from base module (N16/1)		Ignition: ON	11 – 14 V	Fuse (F3) at N16/1, 1.1 or 23, Wiring.
2.0		Diagnosis output		Ignition: ON	10 – 14 V	Wiring, ADS control module (N51).
3.0	[1505	ADS MIL (A1e27)		Ignition: OFF Disconnect N51. Ignition: ON	11 – 14 V	Wiring, A1e27.
4.0	[1121 [1122 [1123 [1130 [1131	Voltage supply Body acceleration sensors (B24/3, B24/4, B24/6) Front, rear axle level sensors (B22/2, B24/3)		Ignition: ON	4.75 - 5.25 V	ADS control module (N51).



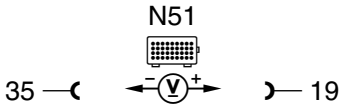

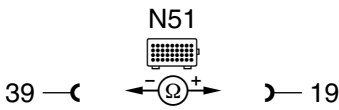

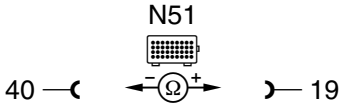
3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0		Steering angle sensor (N49) Voltage supply circuit 30		Ignition: OFF Disconnect steering angle sensor connector (N49x1).	11 - 14 V	Wiring.
5.1		Voltage supply circuit 87		Ignition: ON	11 - 14 V	Wiring.
6.0		Steering angle sensor Initialization		Engine: at Idle Turn steering wheel from right to left stop.	A1e27 goes out.	⇒ 5.0



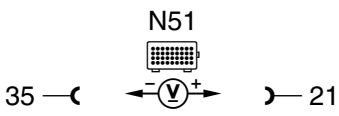

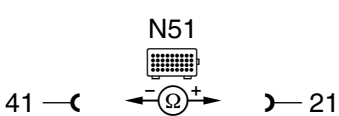

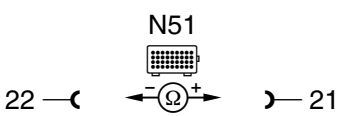
3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		Left front axle damper valve assembly (Y51) Voltage supply		Ignition: ON	11–14 V	Wiring, ADS control module (N51).
7.1		Front axle solenoid valve 1 (Y51y1)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y51
7.2		Front axle solenoid valve 2 (Y51y2)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y51


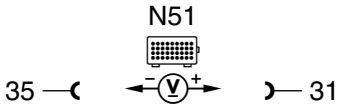
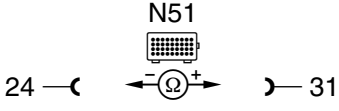
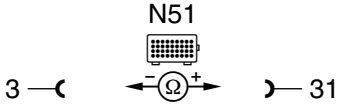
3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		Right front axle damper valve assembly (Y52) Voltage supply		Ignition: ON	11–14 V	Wiring, ADS control module (N51).
8.1		Front axle solenoid valve 1 (Y52y1)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y52
8.2		Front axle solenoid valve 2 (Y52y2)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y52


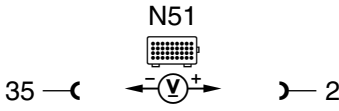
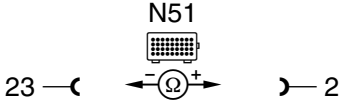
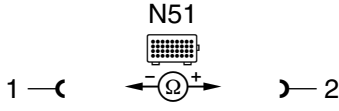
3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.0	[1324 [1325	Left rear axle damper valve assembly (Y53) Voltage supply		Ignition: ON	11–14 V	Wiring, ADS control module (N51).
9.1	[1324	Rear axle solenoid valve 1 (Y53y1)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y53
9.2	[1325	Rear axle solenoid valve 2 (Y53y2)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y53

3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.0	[1326 [1327	Right rear axle damper valve assembly (Y54) Voltage supply		Ignition: ON	11–14 V	Wiring, ADS control module (N51).
10.1	[1326	Rear axle solenoid valve 1 (Y54y1)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y54
10.2	[1327	Rear axle solenoid valve 2 (Y54y2)		Ignition: OFF Disconnect N51.	10 – 16 Ω	Wiring, Y54


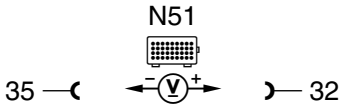
3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
11.0	[1328 [1329 [1330 [1331	Rear axle height reduction valve (Y36/6) Voltage supply	35 — — 37	Ignition: ON	11–14 V	Wiring, ADS control module (N51).
11.1	[1328	Valve (raise front axle) (Y36/6y1)	16 — — 37	Ignition: OFF Disconnect N51.	7.5 – 12 Ω	Wiring, Y36/6y1
11.2	[1329	Valve (raise rear axle) (Y36/6y2)	20 — — 37	Ignition: OFF Disconnect N51.	7.5 – 12 Ω	Wiring, Y36/6y2
11.3	[1330	Valve (lower front axle) (Y36/6y3)	11 — — 37	Ignition: OFF Disconnect N51.	7.5 – 12 Ω	Wiring, Y36/6y3
11.4	[1331	Valve (lower rear axle) (Y36/6y4)	12 — — 37	Ignition: OFF Disconnect N51.	7.5 – 12 Ω	Wiring, Y36/6y4

3.4 Adaptive Damping System (ADS II) with electronic level control

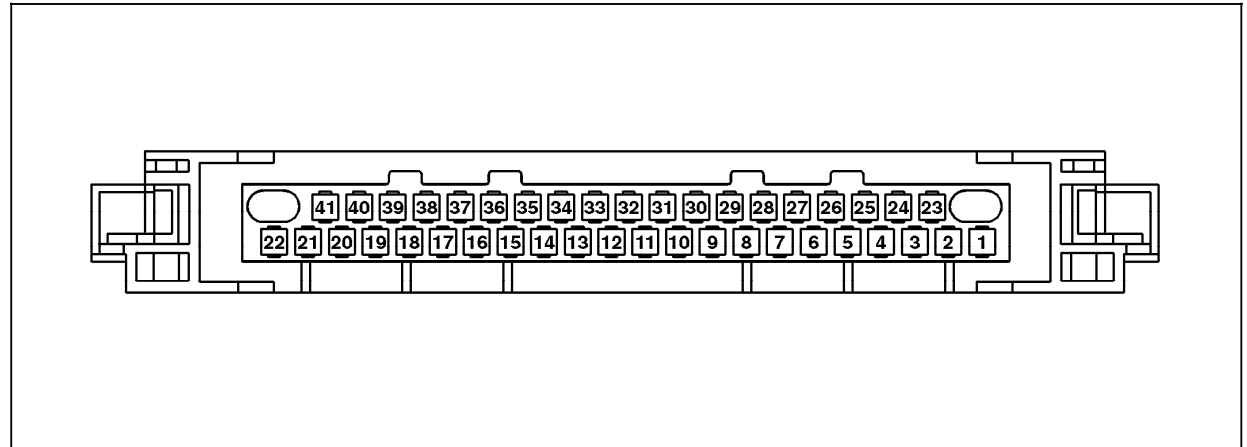
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.0		Circuit 30 voltage supply		Engine: OFF	11 – 14 V	Fuse 23 in fuse and relay box F1, Wiring.

3.4 Adaptive Damping System (ADS II) with electronic level control

Electrical Test Program – Test

Connector Layout - ADS Control Module (N51)



P32.31-0218-04

F23/1	Control module box	15	Left front body lateral acceleration sensor (B24/3) (signal)	29	Voltage supply for sensors
1	Rear axle solenoid valve 2 (Y54y2) (-)	16	Valve (raise front axle) (Y36/6y1)	30	Ground for sensors
2	Rear axle solenoid valve 1 (Y54y1, Y54y2) (+)	17	Front axle level sensor (B22/2) (signal 2)	31	Rear axle solenoid valves (Y53y1, Y53y2) (+)
3	Rear axle solenoid valve 2 (Y53y2) (-)	18	Rear axle level sensor (B22/3) (signal 2)	32	Circuit 30
4	Steering angle sensor (N49)	19	Front axle solenoid valve 1 (Y51y1, Y51y2) (+)	33	Processed right front VSS signal from traction system control module (N47-1 or N47-2 or N47-5)
5	Processed left front VSS signal from traction system control module (N47-1 or N47-2 or N47-5)	20	Valve (raise rear axle) (Y36/6y2)	34	Right front body lateral acceleration sensor (B24/4) (signal)
6	Comfort/sport switch (S45/1), indicator lamp LED	21	Front axle solenoid valve2 (Y52y1, Y52y2) (+)	35	Ground, component compartment (W16)
7	Stop lamp switch (S9/1) (4-pole)	22	Front axle solenoid valve 2 (Y52y2) (-)	36	Level adjustment switch (S77/1) LED stage 1
8	ADS MIL (A1e27)	23	Rear axle solenoid valve 1 (Y54y1) (-)	37	Voltage supply for level control valves
9	Right rear body lateral acceleration sensor (B24/6) signal	24	Rear axle solenoid valve 1 (Y53y1) (-)	38	Circuit 61
10	Level adjustment switch (S77/1) (signal)	25	Diagnosis output	39	Front axle solenoid valve 1 (Y51y1) (-)
11	Valve (lower front axle) (Y36/6y3)	26	Circuit 87 voltage supply	40	Front axle solenoid valve 2 (Y51y2) (-)
12	Valve (lower rear axle) (Y36/6y4)	27	Comfort/sport switch (S45/1)	41	Front axle solenoid valve 1 (Y52y1) (-)
13	Front axle level sensor (B22/2) (signal 1)	28	Level adjustment switch (S77/1) LED stage 2		
14	Rear axle level sensor (B22/3) (signal 1)				