Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
1.0	**Electronic ignition switch control module (N73)** Voltage supply Circuit 30, 31	N73 3 (B) — V — 2 (A) N73 3 (B) — V — 3 (A)		11 – 14 V	Wiring.
2.0	**Electronic ignition switch control module (N73)** Voltage supply Circuit 15	N73 3 (B) — V — 1 (A)	Ignition: **ON**	11 – 14 V	Wiring.
3.0	**Electronic ignition switch control module (N73)** Voltage supply Circuit 15R	A37 3 (B) — V — 4 (A)	Ignition: **Position 1**	11 – 14 V	Wiring.
4.0	**Front driver/passenger-side door control module (N69/1, N69/2),** Voltage supply Circuit 30, 31	N69/1 N69/2 3 (1) — V — 1 (1)		11 – 14 V	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
5.0	**Rear driver/passenger-side door control module (N69/3, N69/4)** Voltage supply Circuit 30, 31	N69/3 N69/4 3 — (V) — 8		11 – 14 V	Wiring.
6.0	**Roof control panel control module (N70)** Voltage supply Circuit 30, 31	N70 1 (A) — (V) — 2 (A)		11 – 14 V	Wiring.
7.0	**Left/right front ESA control module (with memory) (N32/1, N32/2)** Voltage supply Circuit 30, 31	N32/1 N32/2 11 (1) — (V) — 2 (1) N32/1 N32/2 11 (1) — (V) — 3 (1)		11 – 14 V	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
8.0	**Signal pick-up and activation module (SAM) (N10/1)** Voltage supply Circuit 30, 31	N10/1 12 (6) — V — 13 (6)		11 – 14 V	Wiring.
9.0	**Lower control field control module (N72)** Voltage supply Circuit 30, 31	N72 6 (A) — V — 5 (A)		11 – 14 V	Wiring.
10.0	**PSE control module (A37)** Voltage supply Circuit 30, 31	A37 3 (2) — V — 4 (2)		11 – 14 V	Wiring.
11.0	***Non-USA vehicles only, continue to next test step.***				
12.0	**Data line CAN H** PSE control module (A37) –//– (open circuit)	X30/7 1 (10) — Ω — A37 8 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
13.0	**Data line CAN H** PSE control module (A37) ⌜⌝– (short circuit to grnd)	⊥ Ω A37) 8 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	>20 kΩ	Wiring.
14.0	**Data line CAN H** PSE control module (A37) ⌜⌝+ (short circuit to pos.)	+ Ω A37) 8 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	>20 kΩ	Wiring.
15.0	**Data line CAN L** PSE control module (A37) –//– (open circuit)	X30/7 2 ((10) Ω A37) 9 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	<1 Ω	Wiring.
16.0	**Data line CAN L** PSE control module (A37) ⌜⌝– (short circuit to grnd)	⊥ Ω A37) 9 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	>20 kΩ	Wiring.
17.0	**Data line CAN L** PSE control module (A37) ⌜⌝+ (short to pos.)	+ Ω A37) 9 (1)	Disconnect connector 1 of A37 and connector 10 of X30/7	> 20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
18.0	**Data line CAN H/L** PSE control module (A37) ⌜⌝ (short circuit)	N69/1 8 (3) — Ω — 9 (1)	Disconnect connector 1 of N69/1 and connector 10 of X30/7	>20 kΩ	Wiring.
19.0	**Data line CAN H** Front driver-side door control module (N69/1) –//– (open circuit)	X30/7 1 (9) — Ω — N69/1 18 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	<1 Ω	Wiring.
20.0	**Data line CAN H** Front driver-side door control module (N69/1) ⌜⌝– (short circuit to grnd)	⊥ — Ω — N69/1 18 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	>20 kΩ	Wiring.
21.0	**Data line CAN H** Front driver-side door control module (N69/1) ⌜⌝+ (short to pos.)	+ — Ω — N69/1 18 (S3)	Disconnect connector S3 of A37 and connector 10 of X30/7	>20 kΩ	Wiring.
22.0	**Data line CAN L** Front driver-side door control module (N69/1) –//– (open circuit)	X30/7 2 (9) — Ω — N69/1 9 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
23.0	**Data line CAN L** Front driver-side door control module (N69/1) ⌜⌝– (short circuit to grnd)	⊥ Ω N69/1 ❩— 9 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	>20 kΩ	Wiring.
24.0	**Data line CAN L** Front driver-side door control module (N69/1) ⌜⌝+ (short to pos.)	+ Ω N69/1 ❩— 9 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	>20 kΩ	Wiring.
25.0	**Data line CAN H/L** Front driver-side door control module (N69/1) ⌜⌝(short circuit)	18 —❨ (3) N69/1 Ω ❩— 9 (S3)	Disconnect connector S3 of N69/1 and connector 9 of X30/7	>20 kΩ	Wiring.
26.0	**Data line CAN H** Front passenger-side door control module (N69/2) –//– (open circuit)	X30/7 1 —❨ (8) Ω N69/2 ❩— 18 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
27.0	**Data line CAN H** Front passenger-side door control module (N69/2) ⌜⌝– (short circuit to grnd)	⊥ Ω N69/2 ❩— 18 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	>20 kΩ	Wiring.
28.0	**Data line CAN H** Front passenger-side door control module (N69/2) ⌜⌝+ (short to pos.)	+ Ω N69/2 ❩— 18 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	>20 kΩ	Wiring.
29.0	**Data line CAN L** Front passenger-side door control module (N69/2) –//– (open circuit)	X30/7 1 —❨ (8) Ω N69/2 ❩— 9 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	<1 Ω	Wiring.
30.0	**Data line CAN L** Front passenger-side door control module (N69/2) ⌜⌝– (short circuit to grnd)	⊥ Ω N69/2 ❩— 9 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
31.0	**Data line CAN L** Front passenger-side door control module (N69/2) (open circuit) ⌜⌝+ (short to pos.)	+ ◄–Ω+► N69/2 ❩— 9 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	>20 kΩ	Wiring.
32.0	**Data line CAN H/L** Front passenger-side door control module (N69/2) ⌜⌝ (short circuit)	18 —❨ (S3) N69/2 ◄–Ω+► ❩— 9 (S3)	Disconnect connector S3 of N69/2 and connector 8 of X30/7	>20 kΩ	Wiring.
33.0	**Data line CAN H** Rear driver-side door control module (N69/3) –//– (open circuit)	X30/7 1 —❨ (7) ◄–Ω+► N69/3 ❩— 9	Disconnect connector from N69/3 and connector 7 of X30/7	<1 Ω	Wiring.
34.0	**Data line CAN H** Rear driver-side door control module (N69/3) ⌜⌝– (short circuit to grnd)	⊥ ◄–Ω+► N69/3 ❩— 9	Disconnect connector from of N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
35.0	**Data line CAN H** Rear driver-side door control module (N69/3) ⌜⌝+ (short to pos.)	+ Ω N69/3 ❩— 9	Disconnect connector from N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.
36.0	**Data line CAN L** Rear driver-side door control module (N69/3) –//– (open circuit)	X30/7 2 —❨ (7) Ω N69/3 ❩— 4	Disconnect connector from of N69/3 and connector 7 of X30/7	<1 Ω	Wiring.
37.0	**Data line CAN L** Rear driver-side door control module (N69/3) ⌜⌝– (short circuit to grnd)	⊥ Ω N69/3 ❩— 4	Disconnect connector from of N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.
38.0	**Data line CAN L** Rear driver-side door control module (N69/3) ⌜⌝+ (short to grnd)	+ Ω N69/3 ❩— 4	Disconnect connector from of N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
39.0	**Data line CAN H / L** Rear driver-side door control module (N69/3) ⌜⌝ (short circuit)	N69/3 4 —(⊖)— 9	Disconnect connector from of N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.
40.0	**Data line CAN H** Rear passenger-side door control module (N69/4) –//– (open circuit)	X30/7 1 —(⊖)— N69/4 9 (6)	Disconnect connector from of N69/4 and connector 6 of X30/7	<1 Ω	Wiring.
41.0	**Data line CAN H** Rear passenger-side door control module (N69/4) ⌜⌝– (short to grnd)	⊥ (⊖) N69/4 9	Disconnect connector from of N69/4 and connector 6 of X30/7	>20 kΩ	Wiring.
42.0	**Data line CAN H** Rear passenger-side door control module (N69/4) ⌜⌝+ (short to pos.)	+ (⊖) N69/4 9	Disconnect connector from of N69/4 and connector 6 of X30/7	>20 kΩ	Wiring.
43.0	**Data line CAN L** Rear passenger-side door control module (N69/4) –//– (open circuit)	X30/7 2 —(⊖)— N69/4 4 (6)	Disconnect connector from of N69/4 and connector 6 of X30/7	<1 Ω	Wiring.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
44.0	**Data line CAN L** Rear passenger-side door control module (N69/4) ⌜⌝– (short to grnd)	⊥ Ω N69/4) 4	Disconnect connector from N69/4 and connector 6 of X30/7	>20 kΩ	Wiring.
45.0	**Data line CAN L** Rear passenger-side door control module (N69/4) ⌜⌝+ (short to pos.)	+ Ω N69/4) 4	Disconnect connector from N69/4 and connector 6 of X30/7	>20 kΩ	Wiring.
46.0	**Data line CAN H/L** Rear passenger-side door control module (N69/4) ⌜⌝ (short circuit)	4 — N69/4 Ω) 9	Disconnect connector from of N69/3 and connector 7 of X30/7	>20 kΩ	Wiring.
47.0	**Data line CAN H** Lower control field control module (N72) –//– open circuit	X30/7 1 — (1) Ω N72) 4 (A)	Disconnect connector A from of N72 and connector 1 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
48.0	**Data line CAN H** Lower control field control module (N72) ⌜⌝– (short to grnd)	⊥ ◄–Ω+► N72 ❩— 4 (A)	Disconnect connector A from N72 and connector 1 of X30/7	>20 kΩ	Wiring.
49.0	**Data line CAN H** Lower control field control module (N72) ⌜⌝+ (short to pos.)	⊟+ ◄–Ω+► N72 ❩— 4 (A)	Disconnect connector A from N72 and connector 1 of X30/7	>20 kΩ	Wiring.
50.0	**Data line CAN L** Lower control field control module (N72) –//– open circuit	X30/7 2 —❨ (1) ◄–Ω+► N72 ❩— 3 (A)	Disconnect connector A from N72 and connector 1 of X30/7	<1 Ω	Wiring.
51.0	**Data line CAN L** Lower control field control module (N72) ⌜⌝– (short to grnd)	⊥ ◄–Ω+► N72 ❩— 3 (A)	Disconnect connector A from N72 and connector 1 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
52.0	**Data line CAN L** Lower control field control module (N72) ⌜⌝+ (short to pos.)	N72 + ⟷ Ω ⟷ 3 (A)	Disconnect connector A from N72 and connector 1 of X30/7	>20 kΩ	Wiring.
53.0	**Data line CAN H/L** Lower control field control module (N72) ⌜⌝ (short circuit)	N10/1 4 ⟷ Ω ⟷ 3 (A) (4)	Disconnect connector 4 from N72 and connector 1 of X30/7	>20 kΩ	Wiring.
54.0	**Data line CAN H** Signal pick-up and activation module (SAM) (N10/1) –//– (open circuit)	X30/7 N10/1 1 ⟷ Ω ⟷ 2 (2) (4)	Disconnect connector 4 from of N10/1 and connector 2 of X30/7	<1 Ω	Wiring.
55.0	**Data line CAN H** Signal pick-up and activation module (SAM) (N10/1) ⌜⌝– (short to grnd)	N10/1 ⊥ ⟷ Ω ⟷ 2 (4)	Disconnect connector 4 from of N10/1 and connector 2 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
56.0	**Data line CAN H** Signal pick-up and activation module (SAM) (N10/1) ⌜⌝+ (short to pos.)	+ ⟷ Ω N10/1 ❩— 2 (4)	Disconnect connector 4 from N10/1 and connector 2 of X30/7	>20 kΩ	Wiring.
57.0	**Data line CAN L** Signal pick-up and activation module (SAM) (N10/1) –//– (open circuit)	X30/7 2 —❨ (2) ⟷ Ω N10/1 ❩— 1 (4)	Disconnect connector 4 from N10/1 and connector 2 of X30/7	<1 Ω	Wiring.
58.0	**Data line CAN L** Signal pick-up and activation module (SAM) (N10/1) ⌜⌝– (short to grnd)	⊥ ⟷ Ω N10/1 ❩— 1 (4)	Disconnect connector 4 from N10/1 and connector 2 of X30/7	>20 kΩ	Wiring.
59.0	**Data line CAN L** Signal pick-up and activation module (SAM) (N10/1) ⌜⌝+ (short to pos.)	+ ⟷ Ω N10/1 ❩— 1 (4)	Disconnect connector 4 from N10/1 and connector 2 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
60.0	**Data line CAN H/L** Signal pick-up and activation module (SAM) (N10/1) ⌜⌝ (short circuit)	N10/1 2 (4) — Ω — 1 (4)	Disconnect connector 4 from N10/1 and connector 2 of X30/7	>20 kΩ	Wiring.
61.0	**Data line CAN H** Roof control panel control module (N70) –//– (open circuit)	X30/7 1 (3) — Ω — N70 6 (A)	Disconnect connector A from N70 and connector 3 of X30/7	<1 Ω	Wiring.
62.0	**Data line CAN H** Roof control panel control module (N70) ⌜⌝– (short to grnd)	⊥ — Ω — N70 6 (A)	Disconnect connector A from of N70 and connector 3 of X30/7	>20 kΩ	Wiring.
63.0	**Data line CAN H** Roof control panel control module (N70) ⌜⌝+ (short to pos.)	+ — Ω — N70 6 (A)	Disconnect connector A from N70 and connector 3 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
64.0	**Data line CAN L** Roof control panel control module (N70) –//– (open circuit)	X30/7 2 —((3) Ω N70)— 3 (4)	Disconnect connector A from N70 and connector 3 of X30/7	<1 Ω	Wiring.
65.0	**Data line CAN L** Roof control panel control module (N70) ⌜⌝– (short to grnd)	⊥ Ω N70)— 3 (A)	Disconnect connector A from N70 and connector 3 of X30/7	>20 kΩ	Wiring.
66.0	**Data line CAN L** Roof control panel control module (N70) ⌜⌝+ (short to pos.)	+ (battery) Ω N70)— 3 (A)	Disconnect connector A from of N70 and connector 3 of X30/7	>20 kΩ	Wiring.
67.0	**Data line CAN H/L** Roof control panel control module (N70) ⌜⌝ (short circuit)	N32/1 6 —((A) Ω)— 3 (A)	Disconnect connector A from N70 and connector 3 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
68.0	**Data line CAN H** Left front ESA control module (with memory) (N32/1) –//– (open circuit)	X30/7 1 —((4) ⊖Ω⊕ N32/1)— 7 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	<1 Ω	Wiring.
69.0	**Data line CAN H** Left front ESA control module (with memory) (N32/1) ⌜⌝– (short to grnd)	⊥ ⊖Ω⊕ N32/1)— 7 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	>20 kΩ	Wiring.
70.0	**Data line CAN H** Left front ESA control module (with memory) (N32/1) ⌜⌝+ (short to pos.)	⊟+ ⊖Ω⊕ N32/1)— 7 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	>20 kΩ	Wiring.
71.0	**Data line CAN L** Left front ESA control module (with memory) (N32/1) –//– (open circuit)	X30/7 2 —((4) ⊖Ω⊕ N32/1)— 6 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
72.0	**Data line CAN L** Left front ESA control module (with memory) (N32/1) ⌜⌝– (short to grnd)	⊥ Ω N32/1 ❩— 6 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	>20 kΩ	Wiring.
73.0	**Data line CAN L** Left front ESA control module (with memory) (N32/1) ⌜⌝+ (short to pos.)	+ Ω N32/1 ❩— 6 (1)	Disconnect connector 1 from of N32/1 and connector 4 of X30/7	>20 kΩ	Wiring.
74.0	**Data line CAN H/L** Left front ESA control module (with memory) (N32/1) ⌜⌝ (short circuit)	7 —❨ (1) N32/1 Ω ❩— 6 (1)	Disconnect connector 1 from N32/1 and connector 4 of X30/7	>20 kΩ	Wiring.
75.0	**Data line CAN H** Right front ESA control module (with memory) (N32/2) –//– (open circuit)	X30/7 1 —❨ (5) Ω N32/2 ❩— 7 (1)	Disconnect connector 1 from N32/2 and connector 5 of X30/7	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
76.0	**Data line CAN H** Right front ESA control module (with memory) (N32/2) ⌜⌝– (short to grnd)	⊥ Ω N32/2 ❩— 7 (1)	Disconnect connector 1 from of N32/2 and connector 5 of X30/7	>20 kΩ	Wiring.
77.0	**Data line CAN H** Right front ESA control module (with memory) (N32/2) ⌜⌝+ (short to pos.)	+ Ω N32/2 ❩— 7 (1)	Disconnect connector 1 from of N32/2 and connector 5 of X30/7	>20 kΩ	Wiring.
78.0	**Data line CAN L** Right front ESA control module (with memory) (N32/2) –//– (open circuit)	X30/7 2 —❨ (5) Ω N32/2 ❩— 6 (1)	Disconnect connector 1 from of N32/2 and connector 5 of X30/7	<1 Ω	Wiring.
79.0	**Data line CAN L** Right front ESA control module (with memory) (N32/2) ⌜⌝– (short to grnd)	⊥ Ω N32/2 ❩— 6 (1)	Disconnect connector 1 from of N32/2 and connector 5 of X30/7	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
80.0	**Data line CAN L** Right front ESA control module (with memory) (N32/2) ⌐¬+ (short to pos.)	+ — Ω — N32/2) 6 (1)	Disconnect connector 1 from of N32/2 and connector 5 of X30/7	>20 kΩ	Wiring.
81.0	**Data line CAN H/L** Right front ESA control module (with memory) (N32/2) ⌐¬ (short circuit)	7 ((1) — Ω — N32/2) 6 (1)	Disconnect connector 1 from N32/1	>20 kΩ	Wiring.
82.0	***Non-USA vehicles only, continue to next test step.***				
83.0	***Non-USA vehicles only, continue to next test step.***				

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
84.0	***Non-USA vehicles only, continue to next test step.***				
85.0	***Non-USA vehicles only, continue to next test step.***				
86.0	***Non-USA vehicles only, continue to next test step.***				
87.0	***Non-USA vehicles only, continue to next test step.***				
88.0	***Non-USA vehicles only, continue to next test step.***				
89.0	**Data line CAN H** Electronic ignition switch control module (N73) –//– (open circuit)	N10/1 6 (2) — Ω — N73 10 (B)	Disconnect connector B from N73 and connector 2 of N10/1	<1 Ω	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
90.0	**Data line CAN H** Electronic ignition switch control module (N73) ⌜⌝– (short to grnd)	⊥ Ω N73 — 10 (B)	Disconnect connector B from N73 and connector 2 from N10/1	>20 kΩ	Wiring.
91.0	**Data line CAN H** Electronic ignition switch control module (N73) ⌜⌝+ (short to pos.)	+ Ω N73 — 10 (B)	Disconnect connector B from N73 and connector 2 from N10/1	>20 kΩ	Wiring.
92.0	**Data line CAN L** Electronic ignition switch control module (N73) –//– (open circuit)	N10/1 7 (2) Ω N73 — 11 (B)	Disconnect connector B from N73 and connector 2 from N10/1	<1 Ω	Wiring.
93.0	**Data line CAN L** Electronic ignition switch control module (N73) ⌜⌝– (short to grnd)	⊥ Ω N73 — 11 (B)	Disconnect connector B from N73 and connector 2 from N10/1	>20 kΩ	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
94.0	**Data line CAN L** Electronic ignition switch control module (N73) ⌐¬+ (short to pos.)	N73 + ⊟ Ω ☽— 11 (B)	Disconnect connector B from N73 and connector 2 from N10/1	>20 kΩ	Wiring.
95.0	**Data line CAN H/L** Electronic ignition switch control module (N73) ⌐¬ (short circuit)	N73 10 (B) ⊂— Ω ☽— 11 (B)	Disconnect connector B from N73 and connector 2 of N10/1	>20 kΩ	Wiring.
96.0	**Wiper motor (M6/1)** **Stage: Interval wipe** Voltage supply	M6/1 5 ⊂— V ☽— 1	Ignition: **ON** Disconnect connector from M6/1, Set combination switch (S4) to: Stage: Interval wipe	11 – 14 V, approx. 10 seconds are measureable.	Wiring, ⇒ 100.0, 102.0, 106.0, 110.0, Driver-side fuse and relay module box (K40/2), Wiper stage 1 relay (K40/2k1)
97.0	**Wiper motor (M6/1)** **Stage 1** Voltage supply	M6/1 5 ⊂— V ☽— 1	Ignition: **ON** Disconnect connector from M6/1, Set combination switch (S4) to: Stage 1	11 – 14 V, approx. 10 seconds are measureable.	Wiring, ⇒ 100.0, 102.0, 106.0, 110.0, K40/2, K40/2k1

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
98.0	**Wiper motor (M6/1)** **Stage 2** Voltage supply	M6/1 5 (M7) — V — 3 (M7)	Ignition: **ON** Disconnect connector from M6/1, Set combination switch (S4) to: Stage 2	11 – 14 V, approx. 5 seconds are measureable.	Wiring, ⇒ 100.0, 103.0, 107.0, 110.0, K40/2, Wiper stage 2 relay (K40/2k2).
99.0	**Windshield washer pump (M5/1)** Voltage supply	M5/1 1 — V — 2	Disconnect connector from M5/1, Set combination switch (S4) to: Wash	11 – 14 V	Wiring, ⇒ 100.0, 104.0, 108.0, 111.0, K40/2, Windshield washer relay (K40/2k3).
100.0	**Wiper motor (M6/1)** **Circuit 31**	M6/1 5 — V — +	Ignition: **OFF**	11 – 14 V	Wiring, ⇒ 100.1
100.1	**Circuit 31**	K40/2 4 (M7) — V — +	Ignition: **OFF**	11 – 14 V	Wiring, ⇒ 100.2, K40/2
100.2	**Circuit 31**	K40/2 4 (C1) — V — +	Ignition: **OFF**	11 – 14 V	Wiring.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
101.0	**Windshield wiper system Circuit 31b** Activation of: Signal pick-up and activation module (SAM) (N10/1) by wiper motor (M6/1)	⊥ ◄–Ⓥ+► K40/2 ❩— 5 (6)	Remove N10/1 from K40/2 Ignition: **ON** Wiper arm "parked"	<1 V	Wiper motor (M6/1)
102.0	**Wiper stage 1 relay (K40/2k1)** Voltage supply Circuit 15R	⊥ ◄–Ⓥ+► K40/2k1 ❩— 5	Remove wiper stage 1 relay (K40/2k1). Ignition: **ON**	11 – 14 V	Wiring, ⇒ 105.0, K40/2
103.0	**Wiper stage 2 relay (K40/2k2)** Voltage supply Circuit 15R	⊥ ◄–Ⓥ+► K40/2k2 ❩— 1	Remove wiper stage 2 relay (K40/2k2). Ignition: **ON**	11 – 14 V	Wiring, ⇒ 105.0, K40/2
104.0	**Windshield washer relay (K40/2k3)** Voltage supply Circuit 15R	⊥ ◄–Ⓥ+► K40/2k3 ❩— 1 (15)	Remove windshield washer relay (K40/2k3). Ignition: **ON**	11 – 14 V	Wiring, ⇒ 105.0, K40/2

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
105.0	**Driver-side fuse and relay module box (K40/2)** Voltage supply Circuit 15R	⊥ – V + K40/2 ❩— 1 (C1)	Remove connector C1 from K40/2 Ignition: **ON**	11 – 14 V	Wiring.
106.0	**Windshield wiper system Interval wipe** Activation of: Wiper stage 1 relay (K40/2k1) by Signal pick-up and activation module (SAM) (N10/1)	K40/2k1 2 —☾ – V + 🔋 +	Remove wiper stage 1 relay (K40/2k1). Ignition: **ON** Combination switch (S4) set to: Interval wipe	Cycled voltage: 11 – 14 V	⇒ 110.0, N10/1, K40/2, Electronic ignition switch control module (N73).
107.0	**Wiper stage 1** Activation of: Wiper stage 1 relay (K40/2k1) by Signal pick-up and activation module (SAM) (N10/1)	K40/2k1 1 —☾ – V + 🔋 +	Remove wiper stage 1 relay (K40/2k1). Ignition: **ON** Combination switch (S4) set to: Stage 1	11 – 14 V	⇒ 110.0, N10/1, K40/2, Electronic ignition switch control module (N73).
108.0	**Wiper stage 2** Activation of: Wiper stage 2 relay (K40/2k2) by Signal pick-up and activation module (SAM) (N10/1)	K40/2k2 1 —☾ – V + 🔋 +	Remove wiper stage 2 relay (K40/2k2). Ignition: **ON** Combination switch (S4) set to: Stage 2	11 – 14 V	⇒ 110.0, N10/1, K40/2, Electronic ignition switch control module (N73).

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
109.0 B14B4	**Windshield wiper system Wash** Activation of: windshield washer relay (K40/2k3) by Signal pick-up and activation module (SAM) (N10/1)	⊥ ◄–(V)+► K40/2k3 ❩— 86	Remove windshield washer relay (K40/2k3). Ignition: **ON** Combination switch (S4) set to: Wash	11 – 14 V	⇒ 111.0, N10/1, K40/2, Electronic ignition switch control module (N73).
110.0	**Combination switch (S4)** Activation of electronic ignition switch control module (N73)	⊥ ◄–(Ω)+► N73 ❩— 1 (B)	Disconnect connector B from N73 Ignition: **ON** **Interval wipe:** **Stage 1:** **Stage 2:**	 31.5 – 31.7 Ω 31.0 – 31.1 Ω 30.8 – 30.9 Ω	Wiring, S4
111.0	**Combination switch (S4) Wash function** Activation of electronic ignition switch control module (N73)	⊥ ◄–(Ω)+► N73 ❩— 2 (B)	Remove connector B from N73 Ignition: **ON** Combination switch (S4) set to: Single wipe: Wash:	 31.0 – 31.1 Ω 30.8 – 30.9 Ω	Wiring, S4

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
112.0 B1484 B1643	**Rain sensor (B38)** Actuation line for rain sensor (B38) –//– (open circuit)	B38 3 —( N70) — 3 (E)	Disconnect connector (E) from N70 and connector from B38	<1 Ω	Wiring.
113.0 B1217 B1643	**Rain sensor (B38)** Actuation line for rain sensor (B38) ⌐¬+ (short circuit to pos.)	B38 3 —( +	Disconnect connector (E) from N70 and connector from B38	>20 kΩ	Wiring.
114.0 B1217 B1643	**Rain sensor (B38)** Actuation line for rain sensor (B38) ⌐¬- (short circuit to grnd)	B38 3 —( N70 ⊥	Disconnect connector (E) from N70 and connector from B38	>20 kΩ	Wiring.
115.0	**Rear window wiper motor (M6/4)** Activation by PSE control module (A37)	M6/4 3 —( + (1)	Disconnect connector from M6/4 Tailgate window wiper switch (S6/1s4): **Activate Wipe**	11 – 14 V	Wiring, ⇒ 118.0, A37, Signal pick-up and activation module (SAM) (N10/1).

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
116.0 B1483	**Windshield washer pump (M5/1)** **Model 210 Wagon** **Activate relay: Wash function**	M5/1 1 — ◄ –V+ ► — 4	Tailgate window wiper switch (S6/1s4): **Activate Wash**	11 – 14 V	Wiring, ⇒ 117.0, 118.0, N10/1, K40/2
117.0 B1483	**Windshield washer relay (K40/2k3)** Activation by: Signal pick-up and activation module (SAM) (N10/1)	K40/2k23 88.1 — ◄ –V+ ► — +	Remove windshield washer relay (K40/2k3) Tailgate window wiper switch (S6/1s4): **Activate Wash**	11 – 14 V	Wiring, ⇒ 111.0, N10/1, K40/2
118.0 B1142	**Tailgate window wiper switch (S6/1s4)** Activation by: Signal pick-up and activation module (SAM) (N10/1)	⊥ ◄ –Ω+ ► N10/1 — 4 (1)	Disconnect connector 2 from N10/1 Switch (S6/1s4): **Rest position:** **Press wipe and keep depressed:** **Press wash and keep depressed:**	 >20 kΩ 200 Ω <1 Ω	Wiring, (S6/1s4).

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
119.0	**Headlamp washer pump (M5/2)** Activation of HCS pump relay (K40/2k5)	M5/2 2 — ◄ –V+ ► — 1	Press HCS switch (S4/1).	11 – 14 V, measurable for approx. 1 second.	Wiring, ⇒ 121.0, N10/1, K40/2
120.0	**HCS pump relay (K40/2k5)** Activation of: Signal pick-up and activation module (SAM) (N10/1)	K40/2k5 1 — ◄ –V+ ► — +	Remove HCS pump relay (K40/2k5). Press HCS switch (S4/1).	11 – 14 V, measurable for approx. 1 second.	Wiring, ⇒ 121.0, N10/1, K40/2
121.0 BII4I	**HCS switch (S4/1)** Activation of: Signal pick-up and activation module (SAM) (N10/1)	N10/1 7 — ◄ –V+ ► — + (1)	Disconnect connector 1 from N10/1. Press HCS switch (S4/1).	11 – 14 V	Wiring, N10/1, K40/2
122.0	**Dome lamp with delay/front reading lamp (N70e1)** Activation by PSE control module (A37)		Ignition: **OFF** Door switch ON/OFF (N70s2) Driver/passenger door: **OPEN** **CLOSED**	N70e1 **ON** **OFF**	DM, B&A, Vol. 1, 3.4 PSE, 23, N70, A37

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
123.0	**Rear dome lamp (E15/3)** Activation of PSE (A37) via Roof control panel control module (N70) **Except Model 208.4**	E15/3 2 — (–V+) — 1	Rear dome lampswitch on/off (N70s2): **ON**	11 – 14 V	Wiring, N70, A37
124.0	**Rear dome lamp (E15/3)** Activation via PSE control module (A37)	E15/3 2 — (–V+) — 1	Rear dome lampswitch on/off (N70s2): **OFF** Dome lamp switch on/off (N70s4): **ON** Left/right rear door: **OPEN** Left/right rear door: **CLOSED**	11 – 14 V 11 – 14 V <1 V	Wiring, DM, B&A, Vol. 1, 3.4 PSE, 23, N70, PSE control module (A37)
125.0	**Left/right D-pillar interior lamp (E25/3, E15/4), Model 210 Wagon** Activation of PSE control module (A37) by roof control panel control module (N70)	E25/3 E25/4 2 — (–V+) — 1	Rear dome lampswitch on/off (N70s2): **ON**	11 – 14 V	Wiring, N70, A37

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
126.0		**Left/right D-pillar interior lamp (E25/3, E15/4), Model 210 Wagon** Activation of rear dome lamp (E15/3) by PSE control module (A37)	E25/3 E25/4 2 —(–V+)— 1	Rear dome lampswitch on/off (N70s2): **OFF** Dome lamp switch on/off (N70s4): **ON** **Rear door left/right:** **OPEN** **CLOSED** **Tailgate:** **OPEN** **CLOSED**	 11 – 14 V <1 V 11 – 14 V <1 V	Wiring, DM, B&A, Vol. 1, 3.4 PSE, 23, Tailgate closing assist switch/interior illumination switch (A12s1), A37, N70
127.0 B1407		**Left/right front door entrance/exit lamp (E17/9, E17/10)** Activation from frontdriver/passenger-side door control module (N69/1, N69/2)	E17/9 E17/10 1 —(–V+)— 2	Ignition: **OFF** Rear dome lamp switch on/off (N70s2): **ON** **Driver/passenger door:** **OPEN** **CLOSED**	 11 – 14 V <1 V	Wiring, DM, B&A, Vol. 1, 3.4 PSE, 23, A37, N70, N69/1, N69/2

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
128.0 B140 7	**Left/right rear door entrance/exit lamp (E17/5, E17/6)** Activation from rear driver/passenger-side door control module (N69/3, N69/4)	E17/5 E17/6 1 — ◄ –V+ ► — 2	Ignition: **OFF** Rear dome lampswitch on/off (N70s2): **ON** **Left/right rear door:** **OPEN** **CLOSED**	11 – 14 V, 11 – 14 V, <1 V	Wiring, DM, B&A, Vol. 1, 3.4 PSE, 23, A37, N70, N69/3, N69/4
129.0	**Front dome lamp with delay/reading lamp (N70e1)** **Delay: 5 min.** Roof control panel control module (N70)		Ignition: **OFF** Door: **OPEN** After approx. 5 minutes:	 N70 illuminated. N70 goes out.	N70
130.0	**Entrance/exit lamps (E17/5, E17/6, E17/9, E17/10)** Roof control panel control module (N70)		Ignition: **OFF** Door: **OPEN** After approx. 5 minutes:	 Entrance/exit lamps illuminated. Entrance/exit lamps go out.	N70

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy [1]
131.0 B1212	**Left and right vanity mirror (E14/5)** Voltage supply Activation by Roof control panel control module (N70)	N70 1 (D) – V – 3 (D) N70 2 (D) – V – 3 (D)	Ignition: **OFF** Disconnect connector D from N70	11 – 14 V	⇒ 6.0 N70
132.0 B1115	**Heated rear window** Activation of signal pick-up and activation module (SAM) (N10/1) by switch in A/C pushbutton control module (Automatic A/C) (N22)	⊥ – V – N10/1 (2) 1	Ignition: **ON** Heated rear window on, keep button depressed: Switch not pressed: Heated rear window off, keep button depressed:	 6.2 – 8.0 V <1 V 6.2 – 8.0 V	Wiring, N22
133.0	**Heated rear window** Activation of relays in A37	A37 ⊥ – V – 3	Ignition: **ON** Heated rear window on.	11– 14 V	Wiring, A37

[1] Observe Preparation for Test, see 22.