Electrical Test Program – Test

Preparation for Test:

1. Insert model specific module into HHT,
2. Ignition: ON
3. Unlock vehicle via RCL system,
4. Battery voltage 11 – 14 V,
6. Review section 0, 12, 20, 21, 22, 31, 32.

Electrical Wiring Diagrams:

See Electric Troubleshooting Manual, Model 129, Volume 2, group 80,
Model 140, Volume 2, group 80,
Model 170, Volume 2, group 80

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**Interior switch (S6/1s2) (CL)** Model 170	N10-3  49 (C) 	Disconnect combination control module (N10-3) from  S6/1s2: **Rest position** **Press to lock and hold** **Press to unlock and hold**	 >20 kΩ approx. 200 Ω <1 Ω	Wiring, S6/1s2

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⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		**Interior CL switch (S85)** Model 140	A37 6 — V — 7	Disconnect A37 from S85: **Rest position** **Press to lock and hold**	 >1 V 11 – 14 V	Wiring, S85
			A37 21 — V — 6	S85: **Rest position** **Press to unlock and hold**	 >1 V 11 – 14 V	
3.0		**CL interior control switch (S85/5)** Model 129	A37 48 — V — (+) (2.2)	Disconnect A37 from S85/5: **Rest position** **Press to lock and hold**	 >1 V 11 – 14 V	Wiring, S85/5
			A37 ⊥ — V — 48 (2.2)	S85/5: **Rest position** **Press to unlock and hold**	 >1 V 11 – 14 V	

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⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		**CL interior control switch (S85)** Model 129	A37 ⊥ Ω — 49 (2.3)	Disconnect A37 from S85: **Open** **Close**	 >20 kΩ <1 Ω	Wiring, S85
5.0		**Left door actuator (S47) or right door actuator (S48) Activation: PSE** Model 129 only	A37 ⊥ V — 55 (2.9)	Unlock vehicle at driver's door using mechanical key. Lock vehicle at driver's door using mechanical key.	11 – 14 V < 1 V	Wiring, S47
6.0		**Trunk lid lock actuator (S49) Activation: PSE** Model 129 only	A37 ⊥ V — 53 (2.7)	Unlock trunk lid using mechanical key. Lock trunk lid using mechanical key.	11 – 14 V < 1 V	Wiring, S49

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⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		**Door contact status** Model 129 Model 140	A37 47 (2.1) A37 8 — 7	Both doors closed. Lock vehicle using transmitter key, then unlock vehicle again using transmitter key. Elased time: 40 seconds.	< 1 V 11 – 14 V for appox. 0.5 seconds	Wiring, PSE control module (A37), 23 PSE/CL ⇒ 8.0, 23 PSE/CL ⇒ 9.0, 32 PSE ⇒ 3.0, 32 PSE ⇒ 4.0, 32 PSE ⇒ 5.0, 32 PSE ⇒ 6.0
7.1		**Door contact status** Model 170	N10-3 59 — 75	Both doors closed. Lock vehicle using transmitter key, then unlock vehicle again using transmitter key. Elased time: 40 seconds.	< 1 V 11 – 14 V for appox. 0.5 seconds	Wiring, PSE control module (A37), Combination control module (N10-3), 23 PSE/CL ⇒ 8.0, 23 PSE/CL ⇒ 9.0, 32 PSE ⇒ 3.0, 32 PSE ⇒ 4.0, 32 PSE ⇒ 5.0, 32 PSE ⇒ 6.0

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⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		**Left front door switch (S17/3)** Circuit		Vehicle is unlocked via "global" via RCL. Both front doors closed. Vehicle is locked via CL interior switch. Open driver's door.	CL unlocks vehicle.	Wiring, 23 PSE ⇒ 3.0, 23 PSE ⇒ 4.0, 32 PSE/CL ⇒ 1.0, 32 PSE/CL ⇒ 3.0, 32 PSE/CL ⇒ 5.0, 32 PSE/CL ⇒ 7.0, 32 PSE ⇒ 2.0, 32 PSE ⇒ 4.0, 32 PSE ⇒ 6.0, 32 PSE ⇒ 8.0
9.0		**Left front door switch (S17/4)** Circuit		Unlock vehicle via "Global" via RCL. Both front doors closed. Vehicle is locked via CL interior switch. Open right front door	CL unlocks vehicle.	Wiring, 23 PSE ⇒ 3.0, 23 PSE ⇒ 5.0, 32 PSE/CL ⇒ 1.0, 32 PSE/CL ⇒ 3.0, 32 PSE/CL ⇒ 5.0, 32 PSE/CL ⇒ 7.0, 32 PSE ⇒ 2.0, 32 PSE ⇒ 4.0, 32 PSE ⇒ 6.0, 32 PSE ⇒ 8.0

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.0		**Left rear door switch (S17/5)** Circuit Model 140 sedan only		Vehicle is unlocked via RCL. Remove ignition key. All doors are closed. Lock vehicle using RCL, then open left rear door within 30 seconds.	Elapsed time > 40 seconds. Subsequent locking does not function.	Wiring, 23 PSE ⇒ 6.0
11.0		**Right rear door switch (S17/6)** Circuit Model 140 sedan only		Unlock vehicle via RCL. Remove ignition key. All doors are closed. Lock vehicle using RCL, then open right rear door within 30 seconds.	Elapsed time > 40 seconds. Subsequent locking does not function.	Wiring, 23 PSE ⇒ 6.0

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⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.0		**Vehicle speed signal,** **Activation: PSE (A37)** Model 140 Model 129	A37 ⊥ V 10 (1.10) A37 ⊥ V 64 (2.18)	Ignition: ON Raise L/H side of vehicle, rotate left front wheel at 1 rpm/min.	Approx. 5 V	Wiring, Traction systems control module (N47), D.M., Chassis and Drivetrain, section 9.3, 23