Electrical Test Program – Test

⇒	📱	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**ATA Armed** HHT actual values	📱	All doors are closed and locked. Arm ATA using transmitter key.	YES	All-Activity Module (N10).
1.1		ATA status indication HHT actual values	📱	All doors are closed and locked. Arm ATA using transmitter key.	On	If values are OK: 23 ⇒ 2.0, If values are not OK: ⇒ 1.2 N10

1.2		ATA
		Rotary tumbler microswitch and CL confirmation signal
		HHT actual values
			📱	All doors are closed and locked. Arm ATA using transmitter key.	Both actual values are:
					Closed
						Check the corresponding microswitch:
						  23 ⇒ 4.0,
						see WIS, 20.1, 23.
						Front doors:
						  23 ⇒ 5.0,
						see WIS, 20.1, 23.
						Tailgate:
						  23 ⇒ 6.0,
						see WIS, 20.1, 23.
						Engine hood:
						  23 ⇒ 3.0

Electrical Test Program – Test

⇒	🖳	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		**ATA status indicator (E33)** Activation	S97/6 B —◖ ◄–Ⓥ⁺ ◗— E	HHT activation: ATA status indicator ON	11 – 14 V	If the values are OK: E33 Wiring –//– ⊥ If the values are not OK: Wiring –//– N10
3.0		**Engine hood switch (S62)** Function	S62 ◄–Ⓞ⁺ — —	Switch not pressed: Switch pressed:	< 1 Ω >20 kΩ	S62
4.0		**Left/right front door rotary microswitch CLOSED** HHT actual values	🖳	Door is closed (left or right being checked).	CLOSED	If the values are OK: ⇒ 4.1 If the values are not OK: ⇒ 4.2
4.1		Left/right front door rotary microswitch OPEN HHT actual values	🖳	Open door.	OPEN	If the values are OK; No fault If the values are not OK: ⇒ 4.3
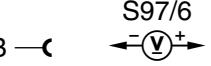
Electrical Test Program – Test

⇒	📟	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.2		Left/right front door rotary microswitch Separation point connector disconnected HHT actual values	📟	Open door, disconnect (X35/1, X35/2) left/right front door separation connector.	CLOSED	If the values are OK: Left front door rotary tumbler microswitch (S87/7), Right front door rotary tumbler microswitch (S87/6) Wiring ⌐⌐– If the values are not OK: Wiring ⌐⌐– N10
4.3		Left/right front door rotary microswitch Switch bridged HHT actual values	X35/1 (X35/2) 2 —**(** –**(——)**– **)**— 1 (A) 📟 (A)	Connectors of X35/1, X35/2, see end of 23	OPEN	If the values are OK: S87/7, S87/7 Wiring –//– If the values are not OK: Wiring –//– N10
5.0		**Rotary tumbler microswitch for rear doors CLOSED** HHT actual values	📟	Both rear doors are closed.	CLOSED	If the values are OK: ⇒ 5.1 If the values are not OK: ⇒ 5.5
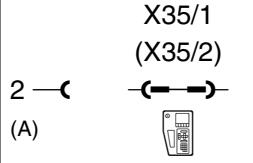
Electrical Test Program – Test

⇒	📟	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.1		Left rear door rotary tumbler microswitch OPEN HHT actual values	📟	Open left rear door.	OPEN	If the values are OK: ⇒ 5.2 If the values are not OK: ⇒ 5.3
5.2		Right rear door rotary tumbler microswitch OPEN HHT actual values	📟	Close left rear door. Open right rear door.	OPEN	If the values are OK: No fault If the values are not OK: ⇒ 5.4
5.3		Left rear door rotary tumbler microswitch Switch bridged HHT actual values	X35/3 2 —(—(■—■)—)— 1 (A) 📟 (A)	Disconnect connector X35/3	OPEN	If the values are OK: S87/2 Wiring –//– If the values are not OK: Wiring –//–
5.4		Right rear door rotary tumbler microswitch Switch bridged HHT actual values	X35/4 2 —(—(■—■)—)— 1 (A) 📟 (A)	Disconnect connector X35/4	OPEN	If the values are OK: S87/3 Wiring –//– If the values are not OK: Wiring –//–
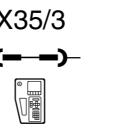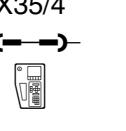
Electrical Test Program – Test

⇒	📱	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.5		Left rear door rotary tumbler microswitch Switch disconnected HHT actual values	📱	Both rear doors are closed. Disconnect connector X35/3	CLOSED	If the values are OK: S87/2 Wiring ⌐⌐– If the values are not OK: ⇒ 1.6
5.6		Right rear door rotary tumbler microswitch Switch disconnected HHT actual values	📱	Both rear doors are closed. Disconnect connector X35/4	CLOSED	If the values are OK: S87/3 Wiring ⌐⌐– If the values are not OK: Wiring ⌐⌐– N10
6.0		**Tailgate rotary tumbler microswitch** **CLOSED** HHT actual values	📱	Tailgate is closed.	CLOSED	If the values are OK: ⇒ 6.1 If the values are not OK: ⇒ 6.2
6.1		Tailgate rotary tumbler microswitch OPEN HHT actual values	📱	Tailgate is open.	OPEN	If the values are OK: No fault If the values are not OK: ⇒ 6.3

Electrical Test Program – Test

⇒	📟	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.1		Tailgate rotary tumbler microswitch OPEN HHT actual values	📟	Open tailgate.	OPEN	If the values are OK: No fault If the values are not OK: ⇒ 6.3
6.2		Tailgate rotary tumbler microswitch Switch disconnected HHT actual values	📟	Disconnect connector X18/1 Tailgate open.	CLOSED	If the values are OK: S88/1 Wiring ⌐⌐– If the values are not OK: N10 Wiring ⌐⌐–
6.3		Tailgate rotary microswitch Switch bridged HHT actual values	X18/1 2 —(—(■—■)—)— 1 (A) (A)		OPEN	If the values are OK: S88/1 Wiring –//– If the values are not OK: N10 Wiring –//–
7.0		**ATA Alarm Horn (H3)**	📟	ATA alarm triggered.	ON	N10

Electrical Test Program – Test

⇒	🖳	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.1		ATA Alarm Horn (H3) Function	H3 ▬ ←−(V)+→ ▬	HHT activation: Alarm horn (H3)	11 – 14 V	If the values are OK: H3 If the values are not OK: Wiring, ⇒ 7.2
7.2		Alarm horn relay (F1k31) Activation	F1K31 86 ▬ ←−(V)+→ ▬ 85	HHT activation: alarm horn (H3)	11 – 14 V	If the values are OK: F1K13 If the values are not OK: N10

Electrical Test Program – Test

⇒	📟	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		**ATA Anti-tow protection/interior motion sensor Installed** HHT actual values	📟	ATA armed using transmitter key.	YES	Check version coding of ATA, see 31
8.1		ATA Anti-tow protection/interior motion sensor Signal HHT actual values	📟	ATA armed using transmitter key.	ON	Trip computer control module (N41).
8.2		ATA Anti-tow protection/interior motion sensor Pulse signal HHT actual values	📟	ATA armed using transmitter key.	√	Data line to N10, N41

Electrical Test Program – Test

Connector Layout - Left front door separation point (X35/1), Right front door separation point (X35/2), Left rear door separation point (X35/3), Right rear door separation point (X35/4)

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