## 16.6 Airbag (AB)

# Diagnosis - Diagnostic Trouble Code (DTC) Memory (driver/passenger-side airbag/side airbag/windowbag)

#### **Preparation for DTC readout**

- 1. Review 11, 12, 13, 20, 22, 31,
- 2. Connect Hand-Held Tester (HHT) as per connection diagram, see section 0, and readout DTC memory,
- 3. Fuses OK,
- 4. Battery voltage 11 14 V.

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Do not connect battery trickle charger.

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**Risk of Injury** when performing Diagnostic Tests and repairs on components of the SRS system and/or the ETR.

Store both airbags and side airbags with opening surface pointing upward.

Do not expose to temperatures above 100°C.

Interrupt any electrical current from reaching the airbag unit.

Review pages: 11/1 and 11/2

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Diagnostic trouble codes (DTC's) can only be read out and erased **using the Hand-Held Tester (HHT)**.

When installing additional accessories, observe harness clearances near SRS sensor lines.

#### Test equipment; See MBUSA Standard Service Equipment Program

Hand-Held Tester (HHT) 1)

<sup>1)</sup> Available through the MBUSA Standard Equipment Program.

See S.I. in groups 58 and 99.

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A current fault is indicated by the DTC being highlighted in black. Additional detailed information is given with most DTC's, which will indicate possible faults conditions or portions thereof:

- $> \Omega$  Resistance too great.
- $< \Omega$  Resistance too low.
- Γ1– Short circuit to ground (GND)
- Γ1+ Short circuit to positive (POS).
- -//- Open circuit.

Fault frequency and time span of the fault can be read by pressing the

key.

#### Fault frequency:

Faults are noted by frequency of occurrence, i.e.: 5 periodic faults, 5 occurances, eliminated 5 times.

#### Time span:

The amount of time elapsed since last fault, or since fault eliminated itself.

#### Actual values:

- $\sqrt{}$ : Noted values are within the nominal values.
- F: Noted values are **outside** the nominal values.
- In: Seat belt buckle latched, front passenger seat **occupied**.
- OFF: Seat belt buckle not latched, front passenger seat not occupied.

Contrary to the DTC memory, actual values are updated continuously, even during diagnosis, so that, e.g.: by moving components, or connections and wiring harnesses, intermittent failures may be indicated, recognized.

#### **Additional Actual Values:**

If so equipped, with Seat Occupied Recognition (SOR) with Automatic Child Seat Recognition (ACSR) the additional information is shown: Function: F / SOR / RESR (SOR continues to be active regardless if MB Child seat "Babysafe" is not used or recognized). Passenger seat: OCCUPIED / not occupieD Child seat: F / recognized / not used Facing direction of child seat: F / forwards / backwards

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The actual values: SOR/ACSR are updated approx. every 15 seconds.

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DTC	Possible cause	Hints	Test step/Remedy 1)
No communication with HHT	Diagnostic line		23⇒ 34.0
No fault codes	No fault codes recognized.	In case of complaint; Perform Electrical Test: 23	23
81000	ARMIN control module (N2/7)		N2/7
81476	SRS MIL (A1e15)		23⇒2.0
81010	Voltage supply		23⇒ 1.0
81859	Driver airbag squib (R12/3)		$23 \Rightarrow 4.0, \\ 23 \Rightarrow 3.0$
81861	Front passenger AB squib (R12/8)		$23 \Rightarrow 6.0, \\ 23 \Rightarrow 5.0$
81863	Driver ETR squib (R12/1)		$23 \Rightarrow 18.0,$ $23 \Rightarrow 17.0$
81864	Front passenger ETR squib (R12/2)		$23 \Rightarrow 20.0, \\ 23 \Rightarrow 19.0$
81865	LR ETR squib (R12/6)		$23 \Rightarrow 24.0, \\ 23 \Rightarrow 23.0$
81866	RR ETR squib (R12/7)		$23 \Rightarrow 26.0,$ $23 \Rightarrow 25.0$

<sup>1)</sup> Observe Preparation for Test, see 22.

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	Possible cause	Hints	Test step/Remedy 1)
81867	Left front side airbag squib (R12/20)		$23 \Rightarrow 8.0, \\ 23 \Rightarrow 7.0$
81868	Left rear windowbag squib (R12/22)		$23 \Rightarrow 28.0,$ $23 \Rightarrow 27.0$
81869	RR side airbag squib (R12/12)		23⇒ 12.0, 23⇒ 11.0
81811	Right front side airbag squib (R12/21)		$23 \Rightarrow 10.0, \\ 23 \Rightarrow 9.0$
81872	Right rear side airbag squib (R12/23)		$23 \Rightarrow 30.0,$ $23 \Rightarrow 29.0$
81813	RR side airbag squib (R12/12)		$23 \Rightarrow 14.0,$ $23 \Rightarrow 13.0$
81321	Left front seat belt buckle switch (AB/ETR) (S68/3)		23⇒21.0
81322	Right front seat belt buckle switch (AB/ETR) (S68/4)		23⇒22.0
81310	Left side airbag sensor (A53/1)		23⇒ 15.0
81311	Right side airbag sensor (A54/1)		23⇒ 16.0

<sup>1)</sup> Observe Preparation for Test, see 22.

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DTC	Possible cause	Hints	Test step/Remedy 1)
81315	Front passenger seat occupied recognition with automatic child seat recognition (ACSR (B48)		23⇒ 31.0
81875	Digital crash output		23⇒ 35.0
81876	Analoge crash output		23⇒ 36.0
81878	Automatic child seat recognition warning lamp (N72e1) (AIRBAG OFF)		23⇒ 33.0

<sup>1)</sup> Observe Preparation for Test, see 22.