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

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Preliminary work:
Diagnosis - Function Test 11

Preparation for DTC readout

1. Review 11, 12, 13, 20, 21, 22, 23, 31, 32
2. Fuses OK.
3. Battery voltage 11 – 14 V
4. SRS MIL (A1e15) illuminates.
5. Connect Hand-Held Tester (HHT) as per connection diagram, see section 0, and readout DTC memory.

⚠ **CAUTION!**

Do not connect battery trickle charger.

⚠ **CAUTION!**

Risk of Injury when prforming Diagnostic Tests and repairs on components of the SRS system.
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.

Note:

As of 07/93, diagnostic trouble codes (DTC's) can only be read out and erased **using the Hand-Held Tester (HHT)**.

Determine MB number of the SRS control module via HHT
(see DTC chart on page 12/3):
The SRS control modules beginning with the number **000,**
the fault code**1** is valid.
Those beginning with **001**, the fault code **2** is valid.

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

DTC's for Lower Control Field Control Module (N72) see 12/6

Test equipment; See MBUSA Standard Service Equipment Program

Hand-Held Tester (HHT) 1)	See S.I. in groups 58 and 99.

1) Available through the MBUSA Standard Equipment Program.

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

i

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:

> Ω Resistance too great.
< Ω Resistance too low.
⌜⌝– Short circuit to ground (GND)
⌜⌝+ Short circuit to positive (POS).
–//– Open circuit.

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

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

DTC with fault code 1	with fault code 2	Possible cause	Test step/Remedy [1]
001	001	SRS control module (N2/2)	23 ⇒ 2.0
002	004	Driver AB squib (R12/3)	23 ⇒ 3.0, 4.0
003	005	Left front ETR squib (R12/1)	23 ⇒ 5.0, 6.0
004	006	Right front ETR squib (R12/2)	23 ⇒ 7.0, 8.0
005	007	Front passenger AB squib (R12/8)	23 ⇒ 9.0, 10.0
	008	Left side airbag squib (R12/9)	23 ⇒ 15.0, 16.0
	009	Right side airbag squib (R12/10)	23 ⇒ 17.0, 18.0
010	004-009 016, 017 026, 029 034	Programming does not comply with vehicle version	31.0, verify vehicle version, repeat programming.
017	003	Circuit 15R, voltage supply (low voltage)	23 ⇒ 1.0
019	002	SRS MIL (A1e15)	23 ⇒ 11.0
020	025	Front passenger seat occupied recognition sensor (B41/1) [2] or (B48)	23 ⇒ 19.0

1) Observe Preparation for Test, see 22.

2) As of model introduction (USA), other models as of approx. 06/96

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

DTC with fault code 1	DTC with fault code 2	Possible cause	Test step/Remedy [1]
024 (USA)	016 (USA)	Left front seat belt buckle switch (AB/ETR) (S68/3)	23 ⇒ 12.0
025 (USA)	017 (USA)	Right front seat belt buckle switch (AB/ETR) (S68/4)	23 ⇒ 13.0
073		Squib short circuit (Γ) (to each other)	23 ⇒ 14.0
	018	Left side airbag (A53), harness fault	23 ⇒ 16.0
	019	Left side air bag (A53), sensor defective	Replace sensor
	020	Left side air bag (A53), sensor defective	Replace sensor
	021	Right side airbag (A54)	23 ⇒ 18.0
	022	Right side airbag (A54), sensor defective	Replace sensor
	023	Right side airbag (A54), sensor defective	Replace sensor
	027	Front passenger seat occupied recognition with automatic child seat recognition (B48) (ACSR), communication, –//–, Γ	23 ⇒ 20.0
	028	Front passenger seat occupied recognition with automatic child seat recognition (B48) (ACSR), Improperly positioned child seat or faulty, Connection between passenger seat and child seat faulty, B48, Metallic objects on passenger seat or child seat, Short term electromagnetic interference in immediate area such as electronic transmitters, telephones etc.	Position child seat properly or replace, Replace B48

[1] Observe Preparation for Test, see 22.

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

DTC  with fault code 1	DTC with fault code 2	Possible cause	Test step/Remedy [1]
	031	Front passenger seat occupied recognition with automatic child seat recognition (B48) (ACSR)	Replace B48
	032	Left side airbag (A53), communication interference	Electromagnetic interference, check harness routing if accessories installed [2]
	033	Right side airbag (A54), communication interference	Electromagnetic interference, check harness routing if accessories installed [2]
	034	Digital crash output, harness fault (TELE AID) [3]	
	035	Analoge crash output, harness fault (model 170 Kompressor)	

1) Observe Preparation for Test, see 22.
2) Observe clearances near sensors, if additional accessories are being installed.
3) Currently only on model 170

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

⚠ **CAUTION!**

Risk of Injury when performing Diagnostic Tests and repairs on components of the SRS system.
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.

⚠ **CAUTION!**

Risk of injury if airbag units and ETR units are ignited accidentally or if stored with the opening end facing downward which may cause the accidentally ignited components to fly about causing injury. Danger to persons also exists if the components are disposed of by cutting apart with cutting torches or other cutting/separation devices. Danger also exists if disposing the untriggered units via refuse collection or via smelting/carbonizing companies.

Protective measures/Supervision

- Place removed airbag unit with the opening side facing upward.
- Allow only **properly trained dealer staff** to supervise, purchase, transport, store, test/replace any of the SRS components.
- Install all airbag or ETR units once pulled from the parts department.
- Protect all airbag or ETR units from any sparks, open flame, or temperatures above 100°C.
- Do not transport airbag or ETR units in the passenger compartment, rather transport securely in their **original packaging** in the trunk.
- Do not allow oil, grease or cleaning agents come in contact with the airbag or ETR units
- Perform SRS tests only with approved test equipment (such as HHT), while installed in the vehicle **without** occupants.
- When reconnecting the vehicle battery or any outside electrical source, with the ignition turned ON, do not allow any occupants inside the vehicle.
- Airbag or ETR units which have been dropped from a height greater than 18 inches must be replaced.
- Prior to disposing the airbag or ETR units, the units must be made un-useable by discharging.
- In order to render the airbag and ETR unit un-useable, the specially made discharge harness must be used and at the same time maintain a **safe distance of at least 33 feet** from the units being discharged.

Prior to undertaking any chassis/body repairs, installation/repair work on airbag and ETR units, or any components which come in contact with the airbag and ETR units, or are part of the electrical circuit of airbag and ETR units (such as installation of the steering wheel), the following conditions must be met:

- Remove ignition key.
- Disconnect any outside source of elctrical circuit (i.e. battery charger).
- When performing interior repairs or welding operations, disconnect the connector from the SRS control module.

Preparation for DTC readout for Lower Control Field Control Module (N72) follows on next page.

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

Preparation for DTC readout for Lower Control Field Control Module (N72) only

1. Connect Hand-Held Tester (HHT) as per connection diagram, see section 0, and readout DTC memory for lower control field control module (N72),
2. Review 12, 13,
2. Listed below are only the DTC's pertaining to SRS,
3. Fuses OK,
4. Battery voltage 11 – 14 V,
5. SRS MIL (A1e15) illuminates.

DTC	Possible cause	Test step/Remedy [1]
B 1558	Automatic child seat recognition warning lamp (N72e1) ⌜⌝– short circuit to ground, –//– open circuit	23 ⇒ 22.0
B 1559	ACSR signal line ⌜⌝– short circuit to ground	23 ⇒ 20.0

[1] Observe Preparation for Test, see 22.