

# 2003 S-TYPE - Supplemental Restraint System - 501-20B

**D : DTC B2290, B2909: FLASH CODE 17: TRANSDUCER AND/OR CIRCUIT MALFUNCTION, OCM AND/OR CIRCUIT MALFUNCTION**

## **D1 : CHECK THE A PILLAR TRANSDUCER CIRCUIT FOR SHORT CIRCUIT**

1. Disconnect the battery negative terminal.
2. Wait one minute for the system to become safe.
3. Disconnect the OCM electrical connector, SP30.
4. Disconnect the A pillar transducer electrical connector, CR105.
5. Measure the resistance between SP30, pin 05 (BR) and SP30, pin 06 (GW).

**•Is the resistance less than 10,000 ohms?**

**-> Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

Goto <<D2>>

## **D2 : CHECK THE A PILLAR TRANSDUCER CAN - CIRCUIT FOR HIGH RESISTANCE**

1. Measure the resistance between SP30, pin 05 (BR) and CR105, pin 01 (BR).

**•Is the resistance greater than 5 ohms?**

**-> Yes**

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

Goto <<D3>>

## **D3 : CHECK THE A PILLAR TRANSDUCER CAN - CIRCUIT FOR SHORT TO GROUND**

1. Measure the resistance between SP30, pin 05 (BR) and GROUND.

**•Is the resistance less than 10,000 ohms?**

**-> Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

Goto <<D4>>

## **D4 : CHECK THE A PILLAR TRANSDUCER CAN - CIRCUIT FOR SHORT TO HIGH VOLTAGE**

1. Reconnect the battery negative terminal.
2. Measure the voltage between SP30, pin 05 (BR) and GROUND.

**•Is the voltage greater than 3 volts?**

## 2003 S-TYPE - Supplemental Restraint System - 501-20B

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D5>>

### D5 : CHECK THE A PILLAR TRANSDUCER CAN + CIRCUIT FOR HIGH RESISTANCE

1. Measure the resistance between SP30, pin 06 (GW) and CR105, pin 02 (GW).

•Is the resistance greater than 5 ohms?

-> **Yes**

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D6>>

### D6 : CHECK THE A PILLAR TRANSDUCER CAN + CIRCUIT FOR SHORT TO GROUND

1. Measure the resistance between SP30, pin 06 (GW) and GROUND.

•Is the resistance less than 10,000 ohms?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D7>>

### D7 : CHECK THE A PILLAR TRANSDUCER CAN + CIRCUIT FOR SHORT TO HIGH VOLTAGE

1. Measure the voltage between SP30, pin 06 (GW) and GROUND.

•Is the voltage greater than 3 volts?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D8>>

### D8 : CHECK THE ROOF REAR OUTER TRANSDUCER CIRCUIT FOR SHORT CIRCUIT

1. Disconnect the roof rear outer transducer electrical connector, RF18.

2. Measure the resistance between SP30, pin 07 (BO) and SP30, pin 08 (GU).

•Is the resistance less than 10,000 ohms?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST

## 2003 S-TYPE - Supplemental Restraint System - 501-20B

the system for normal operation.

-> **No**

Goto <<D9>>

### **D9 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN - CIRCUIT FOR HIGH RESISTANCE**

1. Measure the resistance between SP30, pin 07 (BO) and RF18, pin 01 (BO).

•Is the resistance greater than 5 ohms?

-> **Yes**

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D10>>

### **D10 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO GROUND**

1. Measure the resistance between SP30, pin 07 (BO) and GROUND.

•Is the resistance less than 10,000 ohms?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D11>>

### **D11 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO HIGH VOLTAGE**

1. Measure the voltage between SP30, pin 07 (BO) and GROUND.

•Is the voltage greater than 3 volts?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D12>>

### **D12 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN + CIRCUIT FOR HIGH RESISTANCE**

1. Measure the resistance between SP30, pin 08 (GU) and RF18, pin 02 (GU).

•Is the resistance greater than 5 ohms?

-> **Yes**

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

# 2003 S-TYPE - Supplemental Restraint System - 501-20B

Goto <<D13>>

## D13 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO GROUND

1. Measure the resistance between SP30, pin 08 (GU) and GROUND.

•Is the resistance less than 10,000 ohms?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D14>>

## D14 : CHECK THE ROOF REAR OUTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO HIGH VOLTAGE

1. Measure the voltage between SP30, pin 08 (GU) and GROUND.

•Is the voltage greater than 3 volts?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D15>>

## D15 : CHECK THE ROOF REAR CENTER TRANSDUCER CIRCUIT FOR SHORT CIRCUIT

1. Disconnect the roof rear center transducer electrical connector, RF16.

2. Measure the resistance between SP30, pin 01 (BG) and SP30, pin 02 (OG).

•Is the resistance less than 10,000 ohms?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D16>>

## D16 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR HIGH RESISTANCE

1. Measure the resistance between SP30, pin 01 (BG) and RF16, pin 01 (BG).

•Is the resistance greater than 5 ohms?

-> Yes

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D17>>

## D17 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO GROUND

1. Measure the resistance between SP30, pin 01 (BG) and GROUND.

•Is the resistance less than 10,000 ohms?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D18>>

## D18 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO HIGH VOLTAGE

1. Measure the voltage between SP30, pin 01 (BG) and GROUND.

•Is the voltage greater than 3 volts?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D19>>

## D19 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR HIGH RESISTANCE

1. Measure the resistance between SP30, pin 01 (BG) and RF16, pin 01 (BG).

•Is the resistance greater than 5 ohms?

-> Yes

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D20>>

## D20 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO GROUND

1. Measure the resistance between SP30, pin 01 (BG) and GROUND.

•Is the resistance less than 10,000 ohms?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D21>>

## **D21 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO HIGH VOLTAGE**

1. Measure the voltage between SP30, pin 01 (BG) and GROUND.

•Is the voltage greater than 3 volts?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D22>>

## **D22 : CHECK THE LOWER STACK TRANSDUCER CIRCUIT FOR SHORT CIRCUIT**

1. Disconnect the lower stack transducer electrical connector, CL06.

2. Measure the resistance between SP30, pin 03 (NW) and SP30, pin 04 (Y).

•Is the resistance less than 10,000 ohms?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D23>>

## **D23 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR HIGH RESISTANCE**

1. Measure the resistance between SP30, pin 03 (NW) and CL06, pin 01 (NW).

•Is the resistance greater than 5 ohms?

-> **Yes**

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D24>>

## **D24 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO GROUND**

1. Measure the resistance between SP30, pin 03 (NW) and GROUND.

•Is the resistance less than 10,000 ohms?

-> **Yes**

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

Goto <<D25>>

## D25 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN - CIRCUIT FOR SHORT TO HIGH VOLTAGE

1. Measure the voltage between SP30, pin 03 (NW) and GROUND.

•Is the voltage greater than 3 volts?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D26>>

## D26 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR HIGH RESISTANCE

1. Measure the resistance between SP30, pin 01 (BG) and RF16, pin 01 (BG).

•Is the resistance greater than 5 ohms?

-> Yes

REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D27>>

## D27 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO GROUND

1. Measure the resistance between SP30, pin 01 (BG) and GROUND.

•Is the resistance less than 10,000 ohms?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

Goto <<D28>>

## D28 : CHECK THE ROOF REAR CENTER TRANSDUCER CAN + CIRCUIT FOR SHORT TO HIGH VOLTAGE

1. Measure the voltage between SP30, pin 01 (BG) and GROUND.

•Is the voltage greater than 3 volts?

-> Yes

REPAIR the short circuit. For additional information, refer to the wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> No

INSTALL a new occupant classification module. <<Front Passenger Seat Occupant Classification Sensor - >> CLEAR the DTC, allow a self-test to complete. TEST the system for normal operation. If the

## 2003 S-TYPE - Supplemental Restraint System - 501-20B

DTC reoccurs, contact dealer technical support for advice on possible transducer failure.