

## Pinpoint Test - DTC: B

### **B0002:11, B0002:12, B0002:13 and B0002:1A**

Refer to Wiring Diagrams Cell 46 for schematic and connector information.

### **Normal Operation and Fault Conditions**

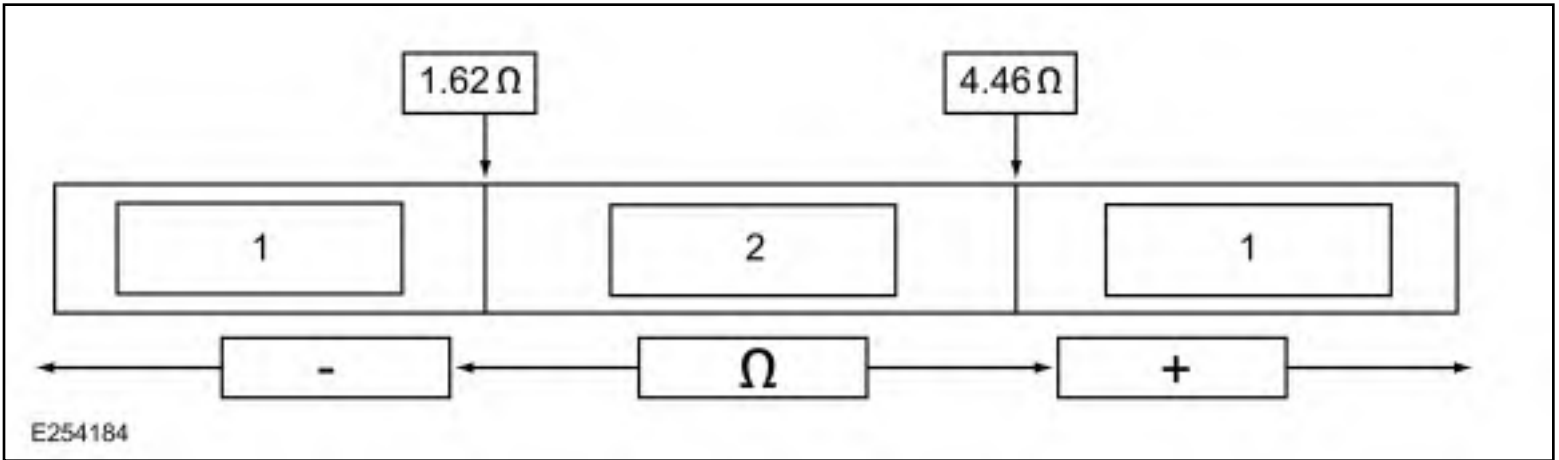
The RCM continuously monitors the driver airbag stage 2 circuits for the following faults:

- Resistance out of range
- Unexpected voltage
- Short to ground
- Faulted driver airbag

If a fault is detected, the RCM stores DTC B0002:11, B0002:12, B0002:13 or B0002:1A in memory and sends a message to the IPC to illuminate the airbag warning indicator.

The RCM analyzes the deployment loop resistance to determine if a fault exists. The value displayed in the PID is the deployment loop resistance measured by the RCM. If the value displayed is lower or higher than the desired range (refer to diagram below), the RCM can set a DTC. As the deployment loop resistance drifts farther outside the desired range, the chance for a DTC increases. Small variations in resistance can occur due to the effect of road vibrations on terminal fit. Crimps and terminals can be affected by stress and harness movement and can cause an increase in resistance due to wire strain. These variables can result in an intermittent fault. For this reason, the test requires the PID value to be within the desired range before the fault is considered repaired, regardless if the module is reporting an on-demand DTC at the time of diagnosis. Following this direction helps make sure that minor changes in resistance do not create a repeat concern. This test uses process of elimination to diagnose each part of the deployment loop circuit including:

- Wiring
- Clockspring
- Driver airbag
- Connections
- RCM



| Item | Description   |
|------|---------------|
| 1    | May set DTC   |
| 2    | Desired range |

### DTC Fault Trigger Conditions

| DTC      | Description                                                                   | Fault Trigger Conditions                                                                                                                          |
|----------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| B0002:11 | Driver Frontal Stage 2 Deployment Control: Circuit Short to Ground            | A fault is indicated when the RCM senses a short to ground on either driver airbag stage 2 circuit for more than 6 seconds.                       |
| B0002:12 | Driver Frontal Stage 2 Deployment Control: Circuit Short to Battery           | A fault is indicated when the RCM senses a short to voltage on either driver airbag stage 2 circuit for more than 6 seconds.                      |
| B0002:13 | Driver Frontal Stage 2 Deployment Control: Circuit Open                       | A fault is indicated when the RCM measures more than the desired resistance range between driver airbag stage 2 circuits for more than 6 seconds. |
| B0002:1A | Driver Frontal Stage 2 Deployment Control: Circuit Resistance Below Threshold | A fault is indicated when the RCM measures less than the desired resistance range between driver airbag stage 2 circuits for more than 6 seconds. |

## Possible Sources

- Wiring, terminals or connectors
- Clockspring
- Driver airbag
- RCM

### PINPOINT TEST A : B0002:11, B0002:12, B0002:13 AND B0002:1A



**WARNING:** Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector.

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

**NOTE:** Only disconnect or reconnect SRS components when instructed to do so within a pinpoint test step. Failure to follow this instruction may result in incorrect diagnosis of the SRS.

**NOTE:** Always make sure the correct SRS component is being installed. Parts released for other vehicles may not be compatible even if they appear physically similar. Check the part number listed in the parts catalog to make sure the correct component is being installed. If an incorrect SRS component is installed, Diagnostic Trouble Codes (DTCs) may set.

**NOTE:** The SRS must be fully operational and free of faults before releasing the vehicle to the customer.

#### A1 RETRIEVE RCM (RESTRAINTS CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

-  **WARNING:** Before beginning any service procedure in this section, refer to Safety Warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

REFER to: [Pyrotechnic Device Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.

**Was DTC B0002:11, B0002:12, B0002:13 or B0002:1A retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | <p>This fault cannot be cleared until it is corrected and the DTC is no longer retrieved on-demand during self-test.</p> <p>If DTC U3003:16 or U3003:17 is retrieved on-demand, DIAGNOSE those Diagnostic Trouble Codes (DTCs) first.</p> <p>REFER to: <a href="#">Pinpoint Test - DTC: AN, Raptor</a> (501-20B Supplemental Restraint System, Diagnosis and Testing).</p> <p>If DTC U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the driver airbag Diagnostic Trouble Codes (DTCs).</p> <p>For DTC B0002:13 or B0002:1A, GO to <a href="#">A2</a></p> <p>For DTC B0002:11, GO to <a href="#">A11</a></p> <p>For DTC B0002:12, GO to <a href="#">A14</a></p> |
| <b>No</b>  | <p>This is an intermittent fault when present as a CMDTC only.</p> <p>If DTC U3003:16 or U3003:17 is retrieved on-demand, DIAGNOSE those Diagnostic Trouble Codes (DTCs) first.</p> <p>REFER to: <a href="#">Pinpoint Test - DTC: AN, Raptor</a> (501-20B Supplemental Restraint System, Diagnosis and Testing).</p> <p>If DTC U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the driver airbag Continuous Memory Diagnostic Trouble Codes (CMDTCs).</p> <p>For DTC B0002:13 or B0002:1A, GO to <a href="#">A19</a></p> <p>For DTC B0002:11, GO to <a href="#">A20</a></p> <p>For DTC B0002:12, GO to <a href="#">A21</a></p>                                  |

**A2 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL RESISTANCE (DEPLOY\_01\_R) PID (PARAMETER IDENTIFICATION)**

- Using a diagnostic scan tool, view RCM Parameter Identifications (PIDs).
- Monitor and record the resistance value displayed by the DEPLOY\_01\_R PID.

**Does the PID value read between 1.62 and 4.46 ohms?**

|            |                           |
|------------|---------------------------|
| <b>Yes</b> | GO to <a href="#">A18</a> |
| <b>No</b>  | GO to <a href="#">A3</a>  |

### **A3 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL RESISTANCE (DEPLOY\_01\_R) PID (PARAMETER IDENTIFICATION) WHILE CARRYING OUT THE HARNESS TEST**

- Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- While monitoring the DEPLOY\_01\_R PID, carry out the harness test of the driver airbag circuits and accessible connectors (including any inline connectors) by wiggling and flexing the wire harness, connectors, tilting and rotating the steering wheel frequently.  
Record the resistance value indicated by the PID.

**Does the PID value read between 1.62 and 4.46 ohms while carrying out the harness test?**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | DEPOWER the SRS.<br>REFER to: <a href="#">Supplemental Restraint System (SRS) Depowering</a> (501-20B Supplemental Restraint System, General Procedures).<br>REPAIR the connector, terminals or wire harness or INSTALL a new clockspring as needed. REFER to: <a href="#">Clockspring</a> (501-20B Supplemental Restraint System, Removal and Installation).<br><br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a> |
| <b>No</b>  | For PID value less than 1.62 ohms, GO to <a href="#">A4</a><br>For PID value greater than 4.46 ohms, GO to <a href="#">A7</a>                                                                                                                                                                                                                                                                                                                                              |

#### A4 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (LOW RESISTANCE INDICATED)

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the driver airbag disconnected, open circuit faults are normally retrieved on stages 1 and 2.

**Did the on-demand DTC change from B0002:1A to B0002:13?**

|            |                           |
|------------|---------------------------|
| <b>Yes</b> | GO to <a href="#">A16</a> |
| <b>No</b>  | GO to <a href="#">A5</a>  |

#### A5 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (LOW RESISTANCE INDICATED) (CLOCKSPRING DISCONNECTED)

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect Clockspring C218A.
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the driver airbag / clockspring disconnected, open circuit faults are normally retrieved on stages 1 and 2.

**Did the on-demand DTC change from B0002:1A to B0002:13?**

|            |                           |
|------------|---------------------------|
| <b>Yes</b> | GO to <a href="#">A17</a> |
| <b>No</b>  | GO to <a href="#">A6</a>  |

## **A6 CHECK FOR A SHORT BETWEEN DRIVER AIRBAG STAGE 2 CIRCUITS**

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect RCM C310A and C310B.

**Is the resistance greater than 10,000 ohms?**

|            |                                                                                                                               |
|------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | GO to <a href="#">A18</a>                                                                                                     |
| <b>No</b>  | REPAIR the circuits.<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a> |

#### **A7 CHECK THE DRIVER AIRBAG STAGE 2 CIRCUITS FOR AN OPEN**

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect RCM C310A and C310B.

**Are the resistances less than 1 ohm?**

|            |                          |
|------------|--------------------------|
| <b>Yes</b> | GO to <a href="#">A9</a> |
| <b>No</b>  | GO to <a href="#">A8</a> |



## A8 CHECK THE DRIVER AIRBAG STAGE 2 CIRCUITS FOR AN OPEN (CLOCKSPRING DISCONNECTED)

- Disconnect Clockspring C218A.

Are the resistances less than 0.5 ohm?

|     |                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------|
| Yes | GO to <a href="#">A17</a>                                                                                                       |
| No  | REPAIR the circuit(s).<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a> |

## A9 CHECK THE DRIVER AIRBAG STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (OPEN INDICATED)

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Connect RCM C310A and C310B.
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the driver airbag stage 2 circuits shorted together, a low resistance fault is normally retrieved on stage 2. Stage 1 shows an open circuit fault because the driver airbag is disconnected.

Was DTC B0002:1A retrieved on-demand during self-test?

|     |                                                            |
|-----|------------------------------------------------------------|
| Yes | REMOVE the fused jumper wire and GO to <a href="#">A16</a> |
|-----|------------------------------------------------------------|

|           |                                                            |
|-----------|------------------------------------------------------------|
| <b>No</b> | REMOVE the fused jumper wire and GO to <a href="#">A10</a> |
|-----------|------------------------------------------------------------|

## **A10 CHECK THE DRIVER AIRBAG STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (OPEN INDICATED)**

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect Clockspring C218A.
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the driver airbag stage 2 circuits shorted together, a low resistance fault is normally retrieved on stage 2. Stage 1 shows an open circuit fault because the driver airbag is disconnected.

**Was DTC B0002:1A retrieved on-demand during self-test?**

|            |                                                            |
|------------|------------------------------------------------------------|
| <b>Yes</b> | REMOVE the fused jumper wire and GO to <a href="#">A17</a> |
|------------|------------------------------------------------------------|

|           |                                                            |
|-----------|------------------------------------------------------------|
| <b>No</b> | REMOVE the fused jumper wire and GO to <a href="#">A18</a> |
|-----------|------------------------------------------------------------|

## A11 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (SHORT TO GROUND INDICATED)

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the driver airbag disconnected, open circuit faults are normally retrieved on stages 1 and 2.

**Did the on-demand DTC change from B0002:11 to B0002:13?**

|            |                           |
|------------|---------------------------|
| <b>Yes</b> | GO to <a href="#">A16</a> |
| <b>No</b>  | GO to <a href="#">A12</a> |

## A12 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (SHORT TO GROUND INDICATED) (CLOCKSPRING DISCONNECTED)

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Disconnect Clockspring C218A.
  - Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the clockspring disconnected, open circuit faults are normally retrieved on stages 1 and 2.

**Did the on-demand DTC change from B0002:11 to B0002:13?**

|     |                           |
|-----|---------------------------|
| Yes | GO to <a href="#">A17</a> |
| No  | GO to <a href="#">A13</a> |

### **A13 CHECK THE DRIVER AIRBAG STAGE 2 CIRCUITS FOR A SHORT TO GROUND**

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect RCM C310A and C310B.

**Are the resistances greater than 10,000 ohms?**

|     |                           |
|-----|---------------------------|
| Yes | GO to <a href="#">A18</a> |
|-----|---------------------------|

|           |                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>No</b> | REPAIR the circuit(s).<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a> |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|

#### **A14 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (SHORT TO BATTERY INDICATED) (CLOCKSPRING DISCONNECTED)**

**NOTE:** This pinpoint test step attempts to change the fault reported by the RCM by inducing a different fault condition. If the reported fault changes, this indicates the RCM is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect Clockspring C218A.
  - Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.
- **DIAGNOSTIC TIP:** When viewing Diagnostic Trouble Codes (DTCs) with the clockspring disconnected, open circuit faults are normally retrieved on stages 1 and 2.

**Did the on-demand DTC change from B0002:12 to B0002:13?**

|            |                           |
|------------|---------------------------|
| <b>Yes</b> | GO to <a href="#">A17</a> |
| <b>No</b>  | GO to <a href="#">A15</a> |

## A15 CHECK THE DRIVER AIRBAG STAGE 2 CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect RCM C310A and C310B.
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.

**Is any voltage present?**

|            |                                                                                                                                 |
|------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | REPAIR the circuit(s).<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a> |
| <b>No</b>  | GO to <a href="#">A18</a>                                                                                                       |

## A16 CONFIRM THE DRIVER AIRBAG FAULT

**NOTE:** Make sure all SRS components and the RCM electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Connect Clockspring C218A (if previously disconnected).
- Install the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.

**Was the original DTC retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | INSTALL a new driver airbag.<br>REFER to: <a href="#">Driver Airbag</a> (501-20B Supplemental Restraint System, Removal and Installation).<br>GO to <a href="#">A23</a>                                                                                                                                                                                                    |
| <b>No</b>  | In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test.<br>For DTC B0002:13 or B0002:1A, GO to <a href="#">A19</a><br>For DTC B0002:11, GO to <a href="#">A20</a><br>For DTC B0002:12, GO to <a href="#">A21</a> |

**A17 CONFIRM THE CLOCKSPRING FAULT**

**NOTE:** Make sure all SRS components and the RCM electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Connect Clockspring C218A.
- Connect RCM C310A and C310B.
- Install the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.

**Was the original DTC retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | INSTALL a new clockspring.<br>REFER to: <a href="#">Clockspring</a> (501-20B Supplemental Restraint System, Removal and Installation).<br>GO to <a href="#">A23</a>                                                                                                                                                                                                        |
| <b>No</b>  | In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test.<br>For DTC B0002:13 or B0002:1A, GO to <a href="#">A19</a><br>For DTC B0002:11, GO to <a href="#">A20</a><br>For DTC B0002:12, GO to <a href="#">A21</a> |



## A18 CONFIRM THE RCM (RESTRAINTS CONTROL MODULE) FAULT

**NOTE:** Make sure all SRS components and the RCM electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Install the driver airbag (if previously removed).  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Connect Clockspring C218A (if previously disconnected).
- Connect RCM C310A and C310B (if previously disconnected).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform RCM self-test.

**Was the original DTC retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new RCM.<br>REFER to: <a href="#">Restraints Control Module (RCM)</a> (501-20B Supplemental Restraint System, Removal and Installation).<br>GO to <a href="#">A23</a> |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|           |                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No</b> | <p>In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test.</p> <p>For DTC B0002:13 or B0002:1A, GO to <a href="#">A19</a></p> <p>For DTC B0002:11, GO to <a href="#">A20</a></p> <p>For DTC B0002:12, GO to <a href="#">A21</a></p> |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **A19 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL RESISTANCE (DEPLOY\_01\_R) PID (PARAMETER IDENTIFICATION) FOR AN INTERMITTENT LOW RESISTANCE OR OPEN CIRCUIT FAULT**

- Ignition OFF.
- Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- Ignition ON.
- Using a diagnostic scan tool, view RCM Parameter Identifications (PIDs).
- While monitoring the DEPLOY\_01\_R PID, attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness, tilting and rotating the steering wheel frequently. Record the resistance value indicated by the PID.

**Does the PID value read between 1.62 and 4.46 ohms?**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | <p>The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to <a href="#">A22</a></p>                                                                                                                                                                                                     |
| <b>No</b>  | <p>If the driver airbag PID indicates incorrect resistance only when the steering wheel is rotated, INSTALL a new clockspring.<br/>REFER to: <a href="#">Clockspring</a> (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>For all other faults, DEPOWER the SRS and REPAIR as necessary.<br/>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br/>GO to <a href="#">A23</a></p> |

## A20 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL CIRCUITS FOR AN INTERMITTENT SHORT TO GROUND FAULT

- Ignition OFF.
- Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- Ignition ON.
- Attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness, tilting and rotating the steering wheel frequently.
- Using a diagnostic scan tool, perform RCM self-test.

### Was DTC B0002:11 retrieved on-demand during self-test?

|            |                                                                                                                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | DEPOWER the SRS and REPAIR as necessary.<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a>                                                                     |
| <b>No</b>  | The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to <a href="#">A22</a> |

## A21 CHECK THE DRIVER FRONTAL STAGE 2 DEPLOYMENT CONTROL CIRCUITS FOR AN INTERMITTENT SHORT TO BATTERY FAULT

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Remove the steering column shrouds to access the clockspring connectors.  
REFER to: [Steering Column Shrouds](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
- Repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness, tilting and rotating the steering wheel frequently.
- Using a diagnostic scan tool, perform RCM self-test.

**Was DTC B0002:12 retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | DEPOWER the SRS and REPAIR as necessary.<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a>                                                                     |
| <b>No</b>  | The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to <a href="#">A22</a> |

**A22 CHECK THE HARNESS AND CONNECTORS**

- Ignition OFF.
- Depower the SRS.  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
  - Inspect connector(s) (including any inline connectors) for corrosion, loose or spread terminals and loose or frayed wire connections at terminals.
  - Inspect wire harness for any damage, pinched, cut or pierced wires.
  - Inspect RCM C216B Connector Position Assurance (CPA) lever/lock for correct operation.
  - Inspect Driver Airbag C216B Connector Position Assurance (CPA) tab to verify that it is correctly seated and free of damage.

#### Were any concerns found?

|            |                                                                                                                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | REPAIR as necessary.<br>Refer to Wiring Diagrams Cell 5 for schematic and connector information.<br>GO to <a href="#">A23</a>                                                                                         |
| <b>No</b>  | The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to <a href="#">A23</a> |

#### A23 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Reconnect all SRS components (if previously disconnected).
- If previously directed to depower the SRS, repower the SRS. Do not prove out the SRS at this time.  
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- **NOTE:** When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM, OCSM and BECMB.

Using a diagnostic scan tool, carry out RCM self-test.

**Are any RCM, OCSM and/or BECMB Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | Do not clear any Diagnostic Trouble Codes (DTCs) until all Diagnostic Trouble Codes (DTCs) have been resolved. DIAGNOSE and REPAIR the Diagnostic Trouble Codes (DTCs).<br>REFER to: <a href="#">Airbag Supplemental Restraint System (SRS)</a> (501-20B Supplemental Restraint System, Diagnosis and Testing).<br>REFER to: <a href="#">Airbag Supplemental Restraint System (SRS) - Raptor</a> (501-20B Supplemental Restraint System, Diagnosis and Testing). |
| <b>No</b>  | The repair is complete. RETURN the vehicle to the customer.                                                                                                                                                                                                                                                                                                                                                                                                      |