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## **2017 FORD Fiesta 3 doors OEM Service and Repair Workshop Manual**

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C218C-10	$\Omega$	Ground
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**Are the resistances greater than 10,000 ohms?**

<b>Yes</b>	GO to <a href="#">B18</a>
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<b>No</b>	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to <a href="#">B23</a>
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**B14 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 (restraints control module) by inducing a different fault condition. If the reported fault changes, this indicates the RCM (restraints control module) is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag - Vehicles Without: Adaptive Steering](#)(501-20B Supplemental Restraint System, Removal and Installation).  
or with adaptive steering, REFER to: [Driver Airbag - Vehicles With: Adaptive Steering](#)(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).
- Disconnect Clockspring C218A (without adaptive steering).
- Disconnect Clockspring C218C (with adaptive steering).
- Repower the SRS (supplemental restraint system) . Do not prove out the SRS (supplemental restraint system) at this time.

Positive Lead	Measurement / Action	Negative Lead
C218C-9		Ground
C218C-10		Ground

#### Is any voltage present?

<b>Yes</b>	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to <a href="#">B23</a>
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<b>No</b>	GO to <a href="#">B18</a>
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#### B16 CONFIRM THE DRIVER AIRBAG FAULT

##### NOTE

Make sure all SRS (supplemental restraint system) components and the RCM (restraints control module) electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
- Prior to reconnecting any previously disconnected SRS (supplemental restraint system) component:
  - inspect connector(s) (including any inline connectors) for pushed-out, loose or spread terminals and loose or frayed wire connections at terminals.
  - inspect wiring harness for any damaged, pinched, cut or pierced wires.
  - inspect RCM (restraints control module) C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.

Make sure all SRS (supplemental restraint system) components and the RCM (restraints control module) electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
- Prior to reconnecting any previously disconnected SRS (supplemental restraint system) component:
  - inspect connector(s) (including any inline connectors) for pushed-out, loose or spread terminals and loose or frayed wire connections at terminals.
  - inspect wiring harness for any damaged, pinched, cut or pierced wires.
  - inspect RCM (restraints control module) C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.
  - repair any concerns found.

Refer to Wiring Diagrams Cell 5for schematic and connector information.

- Connect Clockspring C218A (without adaptive steering).
- Connect Clockspring C218C (with adaptive steering).
- Connect RCM (restraints control module) C310A and C310B .
- Install the driver airbag.

REFER to: [Driver Airbag - Vehicles Without: Adaptive Steering](#)(501-20B Supplemental Restraint System, Removal and Installation).

or with adaptive steering, REFER to: [Driver Airbag - Vehicles With: Adaptive Steering](#)(501-20B Supplemental Restraint System, Removal and Installation).

- Repower the SRS (supplemental restraint system) . Do not prove out the SRS (supplemental restraint system) 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 (restraints control module) self-test.

**Was the original DTC (diagnostic trouble code) retrieved on-demand during self-test?**

Yes	<p>INSTALL a new clockspring.</p> <p>REFER to: <a href="#">Clockspring - Vehicles Without: Adaptive Steering</a> (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>or with adaptive steering, REFER to: <a href="#">Clockspring - Vehicles With: Adaptive Steering</a> (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>GO to <a href="#">B23</a></p>
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- Ignition ON.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.

**Was the original DTC (diagnostic trouble code) retrieved on-demand during self-test?**

Yes	<p>CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new RCM (restraints control module) .</p> <p>REFER to: <a href="#">Restraints Control Module (RCM)</a> (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>GO to <a href="#">B23</a></p>
No	<p>In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS (supplemental restraint system) components at this time. Install SRS (supplemental restraint system) components only when directed to do so in the pinpoint test.</p> <p>For DTC (diagnostic trouble code) B0002:13 or B0002:1A, GO to <a href="#">B19</a> For DTC (diagnostic trouble code) B0002:11, GO to <a href="#">B20</a> For DTC (diagnostic trouble code) B0002:12, GO to <a href="#">B21</a></p>

**B19 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 the diagnostic scan tool,  
Access the RCM (restraints control module) and monitor the DEPLOY\_01\_R (Driver Frontal Stage 2 Deployment Control Resistance) (mOhm) PID (parameter identification)
- While monitoring the PID (parameter identification) , 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.

**Does the PID (parameter identification) value stay between 1.95 and 3.88 ohms?**

Yes	<p>The fault is not present and cannot be recreated at this time. Do not install any new SRS (supplemental restraint system) components at this time. Install SRS (supplemental restraint system) components only when directed to do so in the pinpoint test. GO to <a href="#">B22</a></p>
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- Ignition OFF.
- Depower the SRS (supplemental restraint system) .  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.  
REFER to: [Driver Airbag - Vehicles Without: Adaptive Steering](#)(501-20B Supplemental Restraint System, Removal and Installation).  
or with adaptive steering, REFER to: [Driver Airbag - Vehicles With: Adaptive Steering](#)(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 (supplemental restraint system) . Do not prove out the SRS (supplemental restraint system) 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 wiring harness, tilting and rotating the steering wheel frequently.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.

**Was DTC (diagnostic trouble code) B0002:12 retrieved on-demand during self-test?**

<b>Yes</b>	DEPOWER the SRS (supplemental restraint system) and REPAIR as necessary. Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to <a href="#">B23</a>
<b>No</b>	The fault is not present and cannot be recreated at this time. Do not install any new SRS (supplemental restraint system) components at this time. Install SRS (supplemental restraint system) components only when directed to do so in the pinpoint test. GO to <a href="#">B22</a>

**B22 CHECK THE HARNESS AND CONNECTORS**

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .  
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
- Remove the driver airbag.

When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM (restraints control module) and OCSM (occupant classification system module) .

Using a diagnostic scan tool, perform

### Restraints

self-test.

**Are any RCM (restraints control module) or OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?**

<b>Yes</b>	Do not clear any Diagnostic Trouble Codes (DTCs) until <b>all</b> Diagnostic Trouble Codes (DTCs) have been resolved. DIAGNOSE and REPAIR the SRS (supplemental restraint system) Diagnostic Trouble Codes (DTCs). REFER to the DTC (diagnostic trouble code) Chart in this section.
<b>No</b>	The repair is complete. RETURN the vehicle to the customer.

### PINPOINT TEST C : B0004:11, B0004:12, B0004:13, B0004:1A

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

**Normal Operation and Fault Conditions** REFER to: [Airbag and Seatbelt Pretensioner Supplemental Restraint System \(SRS\) - System Operation and Component Description](#) (501-20B Supplemental Restraint System, Description and Operation).

The RCM (restraints control module) continuously monitors the driver knee airbag circuits for the following faults:

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

If a fault is detected, the RCM (restraints control module) stores DTC (diagnostic trouble code)

B0004:11, B0004:12, B0004:13 or B0004:1A in memory and sends a message to the IPC (instrument panel cluster)

to illuminate the airbag warning indicator.

The RCM (restraints control module)

analyzes the deployment loop resistance to determine if a fault exists. The value displayed in the PID (parameter identification)

is the deployment loop resistance measured by the RCM (restraints control module)

RCM (restraints control module) B0004:12	Driver Knee Bolster Deployment Control: Circuit Short To Battery	A fault is indicated when the RCM (restraints control module) senses a short to voltage on either driver knee airbag circuit for more than 6 seconds.
RCM (restraints control module) B0004:13	Driver Knee Bolster Deployment Control: Circuit Open	A fault is indicated when the RCM (restraints control module) measures more than the desired resistance between the driver knee airbag circuits for more than 6 seconds.
RCM (restraints control module) B0004:1A	Driver Knee Bolster Deployment Control: Circuit Resistance Below Threshold	A fault is indicated when the RCM (restraints control module) measures less than the desired resistance between the driver knee airbag circuits for more than 6 seconds.

#### Possible Sources

- Wiring, terminals or connectors
- Driver knee airbag
- RCM (restraints control module)

#### 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



No	<p>This is an intermittent fault when present as a CMDTC (continuous memory diagnostic trouble code) only.</p> <p>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is also retrieved on-demand, <a href="#">GO to Pinpoint Test BD</a></p> <p>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the driver knee airbag Continuous Memory Diagnostic Trouble Codes (CMDTCs).</p> <p>For DTC (diagnostic trouble code) B0004:13 or B0004:1A, GO to <a href="#">C13</a> For DTC (diagnostic trouble code) B0004:11, GO to <a href="#">C14</a> For DTC (diagnostic trouble code) B0004:12, GO to <a href="#">C15</a></p>
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## C2 CHECK THE DRIVER KNEE BOLSTER DEPLOYMENT CONTROL (DEPLOY\_02\_R) PID (PARAMETER IDENTIFICATION)

- Using the diagnostic scan tool,  
Access the RCM (restraints control module) and monitor the DEPLOY\_02\_R (Driver Knee Bolster Deployment Control) (mOhm) PID (parameter identification)
- Monitor and record the value of the PID (parameter identification) .

**Does the PID (parameter identification) value read between 1.7 and 2.98 ohms?**

Yes	GO to <a href="#">C12</a>
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No	GO to <a href="#">C3</a>
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## C3 CHECK THE DRIVER KNEE BOLSTER DEPLOYMENT CONTROL (DEPLOY\_02\_R) PID (PARAMETER IDENTIFICATION) WHILE CARRYING OUT THE HARNESS TEST

- Using the diagnostic scan tool,  
Access the RCM (restraints control module) and monitor the DEPLOY\_02\_R (Driver Knee Bolster Deployment Control) (mOhm) PID (parameter identification)
- While monitoring the PID (parameter identification) , carry out the harness test of the driver knee airbag circuits and accessible connectors (including any inline connectors) by wiggling and flexing the wire harness and connectors frequently.

**Does the PID (parameter identification) value stay between 1.7 and 2.98 ohms while carrying out the harness test?**

Yes	DEPOWER the SRS (supplemental restraint system) and REPAIR the connector, terminals or wire harness as needed.
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<b>No</b>	GO to <a href="#">C5</a>
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#### C5 CHECK FOR A SHORT BETWEEN THE DRIVER KNEE AIRBAG CIRCUITS

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

Positive Lead	Measurement / Action	Negative Lead
C2432-1	$\Omega$	C2432-2

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

<b>Yes</b>	GO to <a href="#">C12</a>
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<b>No</b>	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to <a href="#">C17</a>
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#### C6 CHECK THE DRIVER KNEE AIRBAG CIRCUITS FOR AN OPEN

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