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## 1964 FORD Mustang OEM Service and Repair Workshop Manual

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## Possible Sources

- Build-up of dirt or debris on the front bumper upper cover trim panel
- Build-up of dirt or debris on the rear lamp assemblies
- Damage to the front bumper upper cover trim panel
- Damage to the rear lamp assemblies.
- SODCMC (Side Obstacle Detection Control Module C) bracket
- SODCMD (Side Obstacle Detection Control Module D) bracket
- SODCMC (Side Obstacle Detection Control Module C)
- SODCMD (Side Obstacle Detection Control Module D)
- SODL (side obstacle detection control module LH)
- SODR (side obstacle detection control module RH)
- Side obstacle detection control module radar alignment

## Q1 INSPECT THE FRONT BUMPER UPPER COVER TRIM PANEL AND THE REAR LAMP ASSEMBLIES FOR DAMAGE

- Inspect for damage on the front and back of the front bumper upper cover trim panel and the rear lamp assemblies.

### Is the front bumper upper cover trim panel and the rear lamp assemblies damaged?

<b>Yes</b>	INSTALL a new front bumper upper cover trim panel and the rear lamp assemblies as necessary, REFER to: <a href="#">Radiator Grille</a> (501-08 Exterior Trim and Ornamentation, Removal and Installation). REFER to: <a href="#">Rear Lamp Assembly</a> (417-01 Exterior Lighting, Removal and Installation).
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<b>No</b>	GO to <a href="#">Q2</a>
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## Q2 INSPECT THE SODCMC (SIDE OBSTACLE DETECTION CONTROL MODULE C) , SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) , SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) , SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) , FRONT BUMPER UPPER COVER TRIM PANEL AND THE REAR LAMP ASSEMBLIES

- Inspect for debris, mud, moisture, snow or ice on the front and back of the front bumper upper cover trim panel, the rear lamp assemblies and radar sensors.

### Is the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) obstructed or blocked?

<b>Yes</b>	Properly place the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) OR SODR (side obstacle detection control module RH) modules in the bracket.
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<b>No</b>	GO to <a href="#">Q5</a>
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#### **Q5 PERFORM HORIZONTAL ALIGNMENT**

- Drive the vehicle in a straight highway for about 20 minutes to align the horizontal alignment.

**Does horizontal alignment procedure finish successfully without setting DTC (diagnostic trouble code) B129C:97, B129D:97, B13F3:97 OR B13F4:97?**

<b>Yes</b>	The system is operating normally at this time. This condition may have been cause by previous snow or water build up.
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<b>No</b>	GO to <a href="#">Q6</a>
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#### **Q6 CHECK FOR CORRECT SODCMC (SIDE OBSTACLE DETECTION CONTROL MODULE C) , SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) , SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) OR SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) OPERATION**

- Ignition OFF.
- Disconnect and inspect the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) OR SODR (side obstacle detection control module RH) connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins
  - pushed-out pins - install new pins as necessary
- Reconnect the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) OR SODR (side obstacle detection control module RH) connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

Control Module D) B129D:98	Over Temperature	(diagnostic trouble code) if the SODCMD (Side Obstacle Detection Control Module D) detects a temperature above its calibrated range.
SODL (side obstacle detection control module LH) B13F3:98	Left Rear Side Sensor: Component Or System Over Temperature	Set by the SODL (side obstacle detection control module LH) as a continuous memory and on-demand DTC (diagnostic trouble code) if the SODL (side obstacle detection control module LH) detects a temperature above its calibrated range.
SODR (side obstacle detection control module RH) B13F4:98	Right Rear Side Sensor: Component Or System Over Temperature	Set by the SODR (side obstacle detection control module RH) as a continuous memory and on-demand DTC (diagnostic trouble code) if the SODR (side obstacle detection control module RH) detects a temperature above its calibrated range.

#### Possible Sources

- SODCMC (Side Obstacle Detection Control Module C)
- SODCMD (Side Obstacle Detection Control Module D)
- SODL (side obstacle detection control module LH)
- SODR (side obstacle detection control module RH)

#### NOTE

This DTC (diagnostic trouble code) may occur during extremely high ambient temperature. Allow the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) to cool. The BLIS (blind spot information system) / CTA (cross traffic alert) system operation resumes after the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) cools.

**R1 CHECK THE DTC (DIAGNOSTIC TROUBLE CODE) MAY OCCUR DURING EXTREMELY HIGH AMBIENT TEMPERATURE. ALLOW THE SODCMC (SIDE OBSTACLE DETECTION CONTROL MODULE C) , SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) , SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) OR SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) DIAGNOSTIC TROUBLE CODES (DTCS)**

- Ignition ON.

<b>Yes</b>	<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 SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) .</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module C (SODCMC)</a> (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module C (SODCMC)</a> (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module (SODCM)</a> (419-04A Side and Rear Vision, Removal and Installation).</p>
<b>No</b>	<p>The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.</p>

#### PINPOINT TEST S : DTC (DIAGNOSTIC TROUBLE CODE) U2008:08

Refer to Wiring Diagrams Cell 31 for schematic and connector information.

Refer to Wiring Diagrams Cell 146 for schematic and connector information.

**Normal Operation and Fault Conditions** REFER to: [Blind Spot Information System - System Operation and Component Description](#)

(419-04A Side and Rear Vision, Description and Operation).

#### DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
SODCMC (Side Obstacle Detection Control Module C) U2008:08	Sensor Cluster: Bus Signal/Message Failures	This continuous memory DTC (diagnostic trouble code) sets in the SODCMC (Side Obstacle Detection Control Module C) when communication messages from the IPMA (image processing module A) on the private CAN (controller area network) are missing.
SODCMD (Side Obstacle Detection	Sensor Cluster: Bus Signal/Message	This continuous memory DTC (diagnostic trouble code) sets in the SODCMD (Side Obstacle Detection Control Module D)

REFER to: [Lane Keeping System](#)




(419-07 Lane Keeping System, Diagnosis and Testing).

If DTC (diagnostic trouble code) U2008:08 is set, GO to [S2](#)

No

## S2 CHECK THE PRIVATE CAN (CONTROLLER AREA NETWORK) CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect SODCMC (Side Obstacle Detection Control Module C) C1483 .
- Disconnect SODCMD (Side Obstacle Detection Control Module D) C1484 .
- For Incandescent rear lamps.
- Disconnect SODL (side obstacle detection control module LH) C412B .
- Disconnect SODR (side obstacle detection control module RH) C415B .
- For LED (light emitting diode) rear lamps.
- Disconnect SODL (side obstacle detection control module LH) C4483 .
- Disconnect SODR (side obstacle detection control module RH) C4484 .
- Disconnect IPMA (image processing module A) C242C .
- Disconnect IPMA (image processing module A) C242B .
- Ignition ON.
- For SODCMC (Side Obstacle Detection Control Module C) and SODCMD (Side Obstacle Detection Control Module D) , measure:

Positive Lead	Measurement / Action	Negative Lead
C1483-3		Ground
C1483-2		Ground
C1484-3		Ground

C4484-12	$\bar{v}$	Ground
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**Is any voltage present?**

<b>Yes</b>	REPAIR the circuit in question.
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<b>No</b>	GO to <a href="#">S3</a>
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### S3 CHECK THE PRIVATE CAN (CONTROLLER AREA NETWORK) CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- For SODCMC (Side Obstacle Detection Control Module C) and SODCMD (Side Obstacle Detection Control Module D), measure:

Positive Lead	Measurement / Action	Negative Lead
C1483-3	$\Omega$	Ground
C1483-2	$\Omega$	Ground
C1484-3	$\Omega$	Ground
C1484-2	$\Omega$	Ground

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) (Incandescent rear lamps), measure:

Positive Lead	Measurement / Action	Negative Lead
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**No** REPAIR the circuit in question.

#### **S4 CHECK THE PRIVATE CAN (CONTROLLER AREA NETWORK) CIRCUITS FOR A SHORT TOGETHER**

- For SODCMC (Side Obstacle Detection Control Module C) and SODCMD (Side Obstacle Detection Control Module D) , measure:

Positive Lead	Measurement / Action	Negative Lead
C4183-3	$\Omega$	C4183-2
C4184-3	$\Omega$	C4184-2

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) (Incandescent rear lamps), measure:

Positive Lead	Measurement / Action	Negative Lead
C412B-3	$\Omega$	C412B-4
C415B-3	$\Omega$	C415B-4

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) ( LED (light emitting diode) rear lamps), measure:

Positive Lead	Measurement / Action	Negative Lead
C4483-6	$\Omega$	C4483-12



C412B-3	$\Omega$	C242B-16
C412B-4	$\Omega$	C242B-15
C415B-3	$\Omega$	C242B-13
C415B-4	$\Omega$	C242B-12

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) ( LED (light emitting diode) rear lamps), measure:

Positive Lead	Measurement / Action	Negative Lead
C4483-6	$\Omega$	C242B-16
C4483-12	$\Omega$	C242B-15
C4484-6	$\Omega$	C242B-13
C4484-12	$\Omega$	C242B-12

**Are the resistances less than 3 ohms?**

<b>Yes</b>	GO to <a href="#">S6</a>
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- Disconnect and inspect the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins
  - pushed-out pins - install new pins as necessary
- Reconnect the SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

<p><b>Yes</b></p>	<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 SODCMC (Side Obstacle Detection Control Module C) , SODCMD (Side Obstacle Detection Control Module D) , SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) .</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module C (SODCMC)</a> (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module D (SODCMD)</a> (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: <a href="#">Side Obstacle Detection Control Module (SODCM)</a> (419-04A Side and Rear Vision, Removal and Installation).</p> <p>If the concern is still present, GO to <a href="#">S7</a></p>
<p><b>No</b></p>	<p>The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.</p>

**S7 CHECK FOR CORRECT IPMA (IMAGE PROCESSING MODULE A) OPERATION**

- Disconnect and inspect the IPMA (image processing module A) connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins