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1972 FORD Mustang OEM Service and Repair Workshop Manual

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detection control module RH) brackets for a loose connection or damage at the connection points.

Is 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) brackets loose, bent or damaged?

Yes	Correctly INSTALL the brackets. ALIGN the sensor.

No	GO to W4

W4 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) FOR EXTREME VERTICAL MISALIGNMENT

- Visually 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) for extreme vertical misalignment. 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) plastic face should be perpendicular to the ground.

Is 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) visually misaligned vertically?

Yes	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.

No	GO to W5

W5 PERFORM HORIZONTAL ALIGNMENT

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

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

No	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.

PINPOINT TEST X : DTC (DIAGNOSTIC TROUBLE CODE) B129C:98, B129D:98, B13F3:98 OR B13F4:98

Refer to Wiring Diagrams Cell 31for schematic and connector information.
Refer to Wiring Diagrams Cell 146for 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) B129C:98	Left Front Side Sensor: Component Or System Over Temperature	Set by the SODCMC (Side Obstacle Detection Control Module C) as a continuous memory and on-demand DTC (diagnostic trouble code) if the SODCMC (Side Obstacle Detection Control Module C) detects a temperature above its calibrated range.
SODCMD (Side Obstacle Detection Control Module D) B129D:98	Right Front Side Sensor: Component Or System Over Temperature	Set by the SODCMD (Side Obstacle Detection Control Module D) as a continuous memory and on-demand DTC (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.

No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to an intermittent fault condition or 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) may have cooled enough allowing the DTC (diagnostic trouble code) to clear.

X2 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?

Yes	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) . REFER to: Side Obstacle Detection Control Module C (SODCMC) (419-04A Side and Rear Vision, Removal and Installation). REFER to: Side Obstacle Detection Control Module C (SODCMC) (419-04A Side and Rear Vision, Removal and Installation). REFER to: Side Obstacle Detection Control Module (SODCM) (419-04A Side and Rear Vision, Removal and Installation).

Possible Sources

- Wiring, terminals or connectors
- Fuse
- 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)
- IPMA (image processing module A)

NOTICE

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

Y1 PERFORM THE NETWORK TEST

- Ignition ON.
- Using a diagnostic scan tool, perform the network test.

Does 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) and IPMA (image processing module A) pass the network test?

Yes	DIAGNOSE all IPMA (image processing module A) Diagnostic Trouble Codes (DTCs) first. REFER to: Lane Keeping System (419-07 Lane Keeping System, Diagnosis and Testing). If DTC (diagnostic trouble code) U2008:08 is set, GO to Y2
No	REFER to: Controller Area Network (CAN) Module Communications Network(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

Y2 CHECK THE PRIVATE CAN (CONTROLLER AREA NETWORK) CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect IPMA (image processing module A) C242C .
- Disconnect IPMA (image processing module A) C242B .
- Disconnect SODCMC (Side Obstacle Detection Control Module C) C1483 .

C412B-3	V⎓	Ground
C412B-4	V⎓	Ground
C415B-3	V⎓	Ground
C415B-4	V⎓	Ground

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

Positive Lead	Measurement / Action	Negative Lead
C498-3	V⎓	Ground
C498-4	V⎓	Ground
C499-3	V⎓	Ground
C499-4	V⎓	Ground

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) (LED (light emitting diode) rear lamps without smart hitch), measure:

Positive Lead	Measurement / Action	Negative Lead

No	GO to Y3

Y3 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	Ω	Ground
C1483-2	Ω	Ground
C1484-3	Ω	Ground
C1484-2	Ω	Ground

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) (Incandescent rear lamps without smart hitch), measure:

Positive Lead	Measurement / Action	Negative Lead
C412B-3	Ω	Ground
C412B-4	Ω	Ground

C4484-6	Ω	Ground
C4484-12	Ω	Ground

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

Positive Lead	Measurement / Action	Negative Lead
C4485-6	Ω	Ground
C4485-12	Ω	Ground
C4484-6	Ω	Ground
C4484-12	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to Y4

No	REPAIR the circuit in question.

Y4 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:

C4483-6	Ω	C4483-12
C4484-6	Ω	C4484-12

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

Positive Lead	Measurement / Action	Negative Lead
C4485-6	Ω	C4485-12
C4484-6	Ω	C4484-12

Is the resistance greater than 10,000 ohms?

Yes	GO to Y5

No	REPAIR the circuits.

Y5 CHECK THE PRIVATE CAN (CONTROLLER AREA NETWORK) CIRCUITS FOR AN OPEN

- 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	Ω	C242C-13

C498-4	Ω	C242B-15
C499-3	Ω	C242B-13
C499-4	Ω	C242B-12

- For SODL (side obstacle detection control module LH) and SODR (side obstacle detection control module RH) (LED (light emitting diode) rear lamps without smart hitch), measure:

Positive Lead	Measurement / Action	Negative Lead
C4483-6	Ω	C242B-16
C4483-12	Ω	C242B-15
C4484-6	Ω	C242B-13
C4484-12	Ω	C242B-12

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

Positive Lead	Measurement / Action	Negative Lead
C4485-6	Ω	C242B-16