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1991 FORD Mustang OEM Service and Repair Workshop Manual

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IPMA (image processing module A) B15EE:14	Side Obstacle Detector 'C': Circuit Short To Ground Or Open	An continuous memory DTC (diagnostic trouble code) that sets in the IPMA (image processing module A) if an excessive current draw is detected on the SODCMC (Side Obstacle Detection Control Module C) output circuit.
IPMA (image processing module A) B15EE:15	Side Obstacle Detector 'C': Circuit Short To Battery Or Open	An continuous memory DTC (diagnostic trouble code) that sets in the IPMA (image processing module A) when an open circuit is detected on the SODCMC (Side Obstacle Detection Control Module C) output circuit.

Possible Sources

- Wiring, terminals or connectors
- SODCMC (Side Obstacle Detection Control Module C)
- IPMA (image processing module A)

NOTICE

Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector. Use only Rotunda Flex Probes (NUD105-R025D)

AG1 CHECK THE IPMA (IMAGE PROCESSING MODULE A) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, perform the IPMA (image processing module A) self-test.

Is DTC (diagnostic trouble code) B15EE:14 or DTC (diagnostic trouble code) B15EE:15 present?

Yes	For DTC (diagnostic trouble code) B15EE:14, GO to AG2 For DTC (diagnostic trouble code) B15EE:15, GO to AG5

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.

AG2 CHECK FOR SHORT TO GROUND WITH THE SODCMC (SIDE OBSTACLE DETECTION CONTROL MODULE C) DISCONNECTED

- Ignition OFF.

- Ignition OFF.
- Disconnect: IPMA (image processing module A) C242C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C242C-14	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AG4

No	REPAIR the circuit. After the repair, CLEAR the DTC (diagnostic trouble code) , CYCLE the ignition, and RUN the IPMA (image processing module A) on-demand self-test to re-enable the circuit.

AG4 CHECK IPMA (IMAGE PROCESSING MODULE A) CIRCUITS FOR A SHORT TOGETHER

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C242C-14	Ω	C242C-3

Is the resistance greater than 10,000 ohms?

Yes	GO to AG7

No	REPAIR the circuits.

C242C-14	Ω	C1483-1
C242C-3	Ω	C1483-4
C242C-3	Ω	C1483-8

Are the resistances less than 3 ohms?

Yes	GO to AG7

No	REPAIR the affected circuit.

AG7 CHECK FOR CORRECT IPMA (IMAGE PROCESSING MODULE A) OPERATION

- Disconnect and inspect IPMA (image processing module A) connector.
- 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 IPMA (image processing module A) connector. Make sure it seats and latches correctly.
- Operate the system to 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 IPMA (image processing module A) REFER to: Image Processing Module A (IPMA) (419-07 Lane Keeping System, Removal and Installation).

- Ignition ON.
- Using a diagnostic scan tool, perform the IPMA (image processing module A) self-test.

Is DTC (diagnostic trouble code) B15EF:14 or DTC (diagnostic trouble code) B15EF:15 present?

Yes	For DTC (diagnostic trouble code) B15EF:14, GO to AH2 For DTC (diagnostic trouble code) B15EF:15, GO to AH5

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.

AH2 CHECK FOR SHORT TO GROUND WITH THE SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) DISCONNECTED

- Ignition OFF.
- Disconnect: SODCMD (Side Obstacle Detection Control Module D) C1484.
- Ignition ON.
- Using a diagnostic scan tool, clear the IPMA (image processing module A) Diagnostic Trouble Codes (DTCs).
- **NOTE**

  DTC (diagnostic trouble code) B15EF:15 may be present during this step and can be disregarded at this time.

  Perform the IPMA (image processing module A) self-test.

Is DTC (diagnostic trouble code) B15EF:14 present?

Yes	INSTALL a new SODCMD (Side Obstacle Detection Control Module D) . REFER to: Side Obstacle Detection Control Module D (SODCMD) (419-04A Side and Rear Vision, Removal and Installation).

No	GO to AH3

AH3 CHECK THE IPMA (IMAGE PROCESSING MODULE A) OUTPUT CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

- Ignition OFF.
- Disconnect: SODCMD (Side Obstacle Detection Control Module D) C4184.
- Connect:

Lead 1	Measurement / Action	Lead 2
C1484-1		C1484-4

- Ignition ON.
- Using a diagnostic scan tool, clear the IPMA (image processing module A) Diagnostic Trouble Codes (DTCs).
- Perform the IPMA (image processing module A) self-test.

Is DTC (diagnostic trouble code) B15EF:14 present?

Yes	REMOVE the fused jumper wire. INSTALL a new SODCMD (Side Obstacle Detection Control Module D) . REFER to: Side Obstacle Detection Control Module D (SODCMD) (419-04A Side and Rear Vision, Removal and Installation).

No	REMOVE the fused jumper wire. GO to AH6

AH6 CHECK THE IPMA (IMAGE PROCESSING MODULE A) SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) CIRCUITS FOR AN OPEN

- Ignition OFF.
- Disconnect: IPMA (image processing module A) C242C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C242C-11	Ω	C1484-1

Side Obstacle Detection Control Module (SODCM) - Electric

419-04A Side and Rear Vision	***2022 F-150***
Removal and Installation	***Procedure revision date: 04/22/2022***

Side Obstacle Detection Control Module (SODCM) - Electric

Removal

NOTE

Removal steps in this procedure may contain installation details.

1. **NOTE**

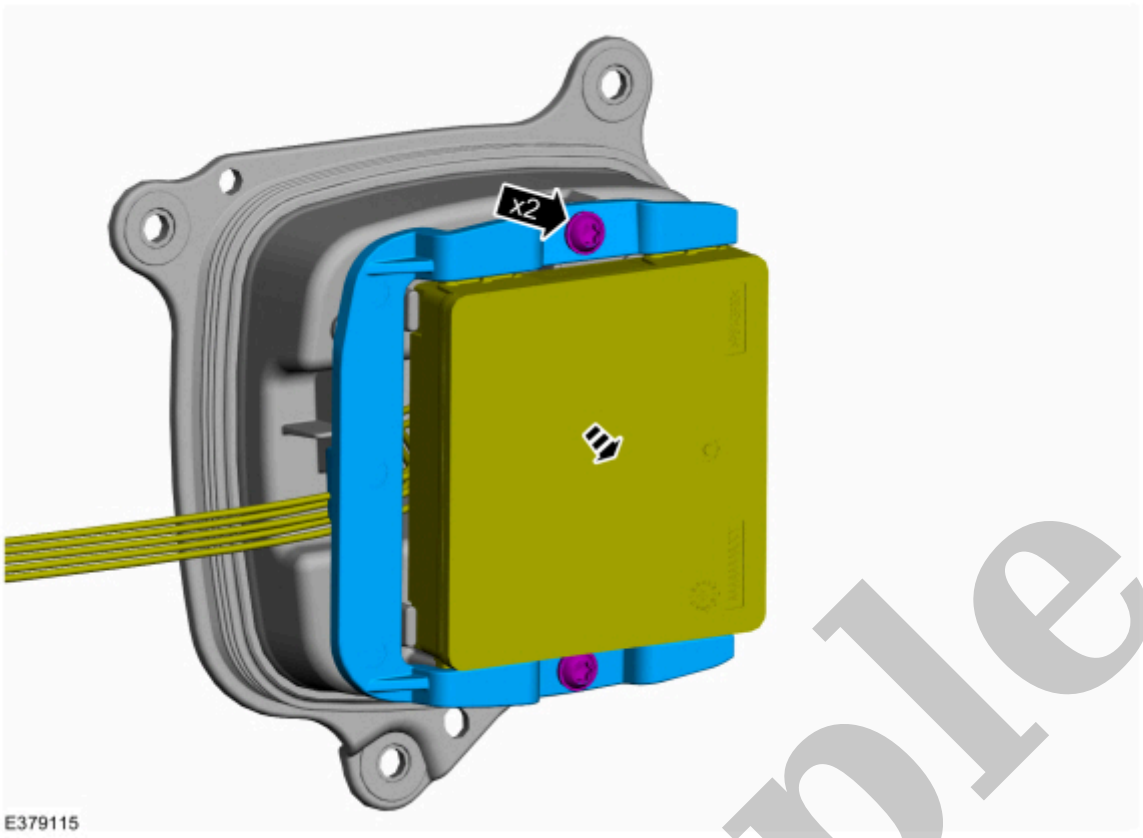
   If installing a new SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) , it is necessary to upload the module configuration information to the scan tool prior to removing the module. This information must be downloaded into the new SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) after installation.

   Using a diagnostic scan tool, begin the PMI (programmable module installation) process for the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) following the onscreen instructions.

2. Remove the rear lamp assembly.

   Refer to: Rear Lamp Assembly(417-01 Exterior Lighting, Removal and Installation).

3. Remove the screws and position the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) cover aside.



Click here to learn about symbols, color coding, and icons used in this manual.

5. Disconnect the electrical connector and remove the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) .

Side Obstacle Detection Control Module (SODCM)

419-04A Side and Rear Vision	***2022 F-150***
Removal and Installation	***Procedure revision date: 10/2/2020***

Side Obstacle Detection Control Module (SODCM)

Removal

1. **NOTE**

   If installing a new SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) , it is necessary to upload the module configuration information to the scan tool prior to removing the module. This information must be downloaded into the new SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) after installation.

   Using a diagnostic scan tool, begin the PMI (programmable module installation) process for the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) following the onscreen instructions.

2. Remove the rear lamp assembly.

   Refer to: Rear Lamp Assembly(417-01 Exterior Lighting, Removal and Installation).

3. Remove the screws and position the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) cover aside.

Click here to learn about symbols, color coding, and icons used in this manual.

Installation

1. To install, reverse the removal procedure.
2. **NOTE**

   This step is only necessary when installing a new component.

   Using a diagnostic scan tool, complete the PMI (programmable module installation) process for the SODL (side obstacle detection control module LH) or SODR (side obstacle detection control module RH) following the on-screen instructions.