

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

1992 FORD Mustang OEM Service and Repair Workshop Manual

[Go to manual page](#)

| | | |
|--|---|--|
| SODCMC (Side Obstacle Detection Control Module C) U3003:17 | Battery Voltage: Circuit Voltage Above Threshold | Sets as a continuous memory DTC (diagnostic trouble code) if the SODCMC (Side Obstacle Detection Control Module C) detects high battery voltage above 16.5 volts for 100 ms. |
| SODCMD (Side Obstacle Detection Control Module D) U3003:17 | Battery Voltage: Circuit Voltage Above Threshold | Sets as a continuous memory DTC (diagnostic trouble code) if the SODCMD (Side Obstacle Detection Control Module D) detects high battery voltage above 16.5 volts for 100 ms. |
| SODL (side obstacle detection control module LH) U3003:17 | Battery Voltage: Circuit Voltage Above Threshold | Sets as a continuous memory DTC (diagnostic trouble code) if the SODL (side obstacle detection control module LH) detects high battery voltage above 16.5 volts for 100 ms. |
| SODR (side obstacle detection control module RH) U3003:17 | Battery Voltage: Circuit Voltage Above Threshold | Sets as a continuous memory DTC (diagnostic trouble code) if the SODR (side obstacle detection control module RH) detects high battery voltage above 16.5 volts for 100 ms. |

Possible Sources

- Generator
- 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)
- PCM (powertrain control module)

NOTE

This DTC (diagnostic trouble code) U3003:17 may be stored in the module memory due to past battery charging or vehicle jump starting events.

AD1 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U3003:17 SET IN OTHER MODULES

- Ignition ON.
- Using a diagnostic scan tool, retrieve the Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC (diagnostic trouble code) U3003:17 set in more than one module?

AD4 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) 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 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) connector. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

| | |
|------------|--|
| 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 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: Side Obstacle Detection Control Module C (SODCMC) (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: Side Obstacle Detection Control Module D (SODCMD) (419-04A Side and Rear Vision, Removal and Installation).</p> <p>REFER to: Side Obstacle Detection Control Module (SODCM) (419-04A Side and Rear Vision, Removal and Installation).</p> |
| No | <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> |

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.

AE2 CHECK FOR SHORT TO GROUND WITH THE SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) DISCONNECTED

- Ignition OFF.
- For Incandescent rear lamps without smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C412B .
- For Incandescent rear lamps with smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C498 .
- For LED (light emitting diode) rear lamps without smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C4483 .
- For LED (light emitting diode) rear lamps with smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C4485 .
- Ignition ON.
- Using a diagnostic scan tool, clear the IPMA (image processing module A) Diagnostic Trouble Codes (DTCs).

NOTE

DTC (diagnostic trouble code) B15EC: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) B15EC:14 present?**Yes**

INSTALL a new SODL (side obstacle detection control module LH) .
REFER to: [Side Obstacle Detection Control Module \(SODCM\)](#)
(419-04A Side and Rear Vision, Removal and Installation).

NoGO to [AE3](#)**AE3 CHECK THE IPMA (IMAGE PROCESSING MODULE A) OUTPUT CIRCUIT FOR A SHORT TO GROUND**

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-14 | Ω | C242B-5 |



Is the resistance greater than 10,000 ohms?

| | |
|------------|---------------------------|
| Yes | GO to AE7 |
|------------|---------------------------|

| | |
|-----------|----------------------|
| No | REPAIR the circuits. |
|-----------|----------------------|

AE5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) B15EC:15 WITH THE SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) CIRCUITS JUMPERED TOGETHER

- Ignition OFF.
- For Incandescent rear lamps without smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C412B .
- For Incandescent rear lamps with smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C498 .
- For LED (light emitting diode) rear lamps without smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C4483 .
- For LED (light emitting diode) rear lamps with smart hitch.
- Disconnect SODL (side obstacle detection control module LH) C4485 .
- For Incandescent rear lamps without smart hitch, Connect:

| Lead 1 | Measurement / Action | Lead 2 |
|---------|---|---------|
| C412B-1 |  | C412B-2 |
| C412B-1 |  | C412B-5 |

- For Incandescent rear lamps with smart hitch, Connect:

INSTALL a new SODL (side obstacle detection control module LH) .
REFER to: [Side Obstacle Detection Control Module \(SODCM\)](#)
(419-04A Side and Rear Vision, Removal and Installation).

No REMOVE the fused jumper wire. GO to [AE6](#)

AE6 CHECK THE IPMA (IMAGE PROCESSING MODULE A) SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) CIRCUITS FOR AN OPEN

- Ignition OFF.
- Disconnect: IPMA (image processing module A) C242B.
- For Incandescent rear lamps without smart hitch, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-14 | Ω | C412B-1 |
| C242B-5 | Ω | C412B-2 |
| C242B-5 | Ω | C412B-5 |

- For Incandescent rear lamps with smart hitch, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-14 | Ω | C498-1 |
| C242B-5 | Ω | C498-2 |

AE7 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 | <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 IPMA (image processing module A)</p> <p>REFER to: Image Processing Module A (IPMA) (419-07 Lane Keeping System, Removal and Installation).</p> |
| No | <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 AF : DTC (DIAGNOSTIC TROUBLE CODE) B15ED:14, DTC (DIAGNOSTIC TROUBLE CODE) B15ED:15

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 |
|-------------------------------|-------------|-------------------------|
|-------------------------------|-------------|-------------------------|

- For Incandescent rear lamps without smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C415B .
- For Incandescent rear lamps with smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C499 .
- For LED (light emitting diode) rear lamps with or without smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C4484 .
- Ignition ON.
- Using a diagnostic scan tool, clear the IPMA (image processing module A) Diagnostic Trouble Codes (DTCs).

NOTE

DTC (diagnostic trouble code) B15ED: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) B15ED:14 present?

| | |
|-----|---|
| Yes | INSTALL a new SODR (side obstacle detection control module RH) . REFER to: Side Obstacle Detection Control Module (SODCM) (419-04A Side and Rear Vision, Removal and Installation). |
|-----|---|

| | |
|----|---------------------------|
| No | GO to AF3 |
|----|---------------------------|

AF3 CHECK THE IPMA (IMAGE PROCESSING MODULE A) OUTPUT CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: IPMA (image processing module A) C242B.
- For Incandescent rear lamps, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-11 | Ω | Ground |


- For LED (light emitting diode) rear lamps, measure:

No


REPAIR the circuits.

AF5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) B15ED:15 WITH THE SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) CIRCUITS JUMPERED TOGETHER


- Ignition OFF.
- For Incandescent rear lamps without smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C415B .
- For Incandescent rear lamps with smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C499 .
- For LED (light emitting diode) rear lamps with or without smart hitch.
- Disconnect SODR (side obstacle detection control module RH) C4484 .
- For Incandescent rear lamps without smart hitch, Connect:

| Lead 1 | Measurement / Action | Lead 2 |
|---------|---|---------|
| C415B-1 |  | C415B-2 |

- For Incandescent rear lamps with smart hitch, Connect:

| Lead 1 | Measurement / Action | Lead 2 |
|--------|---|--------|
| C499-1 |  | C499-2 |

- For LED (light emitting diode) rear lamps without smart hitch, Connect:

| Lead 1 | Measurement / Action | Lead 2 |
|---------|---|---------|
| C4484-8 |  | C4484-5 |

- For LED (light emitting diode) rear lamps with smart hitch, Connect:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-11 | Ω | C499-1 |
| C242B-2 | Ω | C499-2 |

- For LED (light emitting diode) rear lamps without smart hitch, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-11 | Ω | C4484-8 |
| C242B-2 | Ω | C4484-5 |

- For LED (light emitting diode) rear lamps with smart hitch, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C242B-11 | Ω | C4484-7 |
| C242B-2 | Ω | C4484-5 |

Are the resistances less than 3 ohms?

| | |
|------------|---------------------------|
| Yes | GO to AF7 |
|------------|---------------------------|

| | |
|-----------|------------------------------|
| No | REPAIR the affected circuit. |
|-----------|------------------------------|