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1968 FORD Mustang OEM Service and Repair Workshop Manual

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Sample

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B18 CHECK FOR CORRECT SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) OPERATION

- Ignition OFF.
- Disconnect and inspect the SODL (side obstacle detection control module LH) connector and related in-line 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 SODL (side obstacle detection control module LH) connector and related in-line connectors. Make sure the connectors 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 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	The system is operating correctly at this time. Concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

B19 CHECK FOR CORRECT SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) OPERATION

- Ignition OFF.
- Disconnect and inspect the SODR (side obstacle detection control module RH) connector and related in-line 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 SODR (side obstacle detection control module RH) connector and related in-line connectors. Make sure the connectors seat and latch correctly.

Sample

PDM (passenger door module) B118D:15	Right Blind Spot Warning Indicator: Circuit Short To Battery Or Open	This DTC (diagnostic trouble code) sets in continuous memory and on-demand in the PDM (passenger door module) when a lower than expected current draw (such as a short to voltage) is detected on the RH (right-hand) exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) output circuit.

Possible Sources

- Wiring, terminals or connectors
- DDM (driver door module)
- PDM (passenger door module)

C1 VERIFY THE EXTERIOR MIRROR BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) OPERATION

- Start the engine.
- Observe the exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) Light Emitting Diodes (LEDs) for 10 seconds.

Is the always on condition still present?

Yes	If the LH (left-hand) LED (light emitting diode) is always ON, GO to C2 If the RH (right-hand) LED (light emitting diode) is always ON, GO to C4

No	The system is operating correctly at this time. The concern may have been caused by an intermittent condition.

C2 CHECK THE LH (LEFT-HAND) EXTERIOR MIRROR BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) OUTPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect DDM (driver door module) C501B .
- Ignition ON.

Does the BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) turn off?

Yes	GO to C6

Sample

C5 CHECK FOR A SHORT BETWEEN THE RH (RIGHT-HAND) BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) OUTPUT CIRCUIT AND THE MEMORY POSITION SENSOR SUPPLY CIRCUIT

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C652B-7	Ω	C652B-23

Is the resistance greater than 10,000 ohms?

Yes	GO to C7

No	REPAIR the circuits.

C6 CHECK FOR CORRECT DDM (DRIVER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the DDM (driver door module) connector and related in-line 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 DDM (driver door module) connector and related in-line connectors. Make sure the connectors 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 DDM (driver door module) . REFER to: Driver Door Module (DDM)

Sample

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)

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).

Possible Sources

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

D1 VERIFY THE EXTERIOR MIRROR BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) OPERATION

- Start the engine.
- Observe the exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) Light Emitting Diodes (LEDs) for 10 seconds.

Is the always on condition still present?

Yes	GO to D2

No	The system is operating correctly at this time. The concern may have been caused by an intermittent condition.

D2 CHECK THE EXTERIOR MIRROR BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) SUPPLY CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: IPMA (image processing module A) C242A.
- Ignition ON.
- Measure:

  For LH (left-hand) LED concern

Positive Lead	Measurement / Action	Negative Lead
C242A-2	V	Ground

Sample

- 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).
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 E : AN EXTERIOR MIRROR BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) IS INOPERATIVE (FOR VEHICLE WITH DDM/PDM)

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
IPMA (image processing module A) B11D6:11	Driver Display Alert LED: Circuit Short To Ground	This DTC (diagnostic trouble code) sets in continuous memory and on-demand in the IPMA (image processing module A) when a higher than expected current draw is detected on the LH (left-hand) exterior mirror BLIS (blind spot information system) ®/

Sample

PDM (passenger door module) B118D:15	Right Blind Spot Warning Indicator: Circuit Short To Battery Or Open	This DTC (diagnostic trouble code) sets in continuous memory and on-demand in the PDM (passenger door module) when an open circuit is detected on the RH (right-hand) exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) output circuit.

Possible Sources

- Wiring, terminals or connectors
- Communication network concern
- Exterior mirror
- DDM (driver door module)
- PDM (passenger door module)
- Exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) (part of the exterior mirror glass)

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)

E1 CHECK THE BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) OPERATION

- Start the engine.
- Observe the left and right exterior mirror BLIS (blind spot information system) ®/ CTA (cross traffic alert) Light Emitting Diodes (LEDs).

Do the left and right BLIS (blind spot information system) ®/ CTA (cross traffic alert) Light Emitting Diodes (LEDs) illuminate and turn off after 3 seconds?

Yes	The system is operating correctly at this time. The concern may have been caused by an intermittent fault condition. VERIFY the operation of the BLIS (blind spot information system) ® and CTA (cross traffic alert) system.

No	GO to E2

E2 VERIFY THE SODL (SIDE OBSTACLE DETECTION CONTROL MODULE LH) AND SODR (SIDE OBSTACLE DETECTION CONTROL MODULE RH) PASS THE NETWORK TEST

Sample

No	If the LH (left-hand) BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) is inoperative, GO to E8 If the RH (right-hand) BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) is inoperative, GO to E14

E5 CHECK THE DDM (DRIVER DOOR MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH THE LH (LEFT-HAND) BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) DISCONNECTED

- Using the diagnostic scan tool, clear the DDM (driver door module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Disconnect: LH (left-hand) BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) C576
- Ignition ON.

NOTE

DTC (diagnostic trouble code) B118C:11 may be set during this step, it can be ignored.

- Using the diagnostic scan tool, perform the DDM (driver door module) self-test.

Is DTC (diagnostic trouble code) B118C:15 present?

Yes	INSTALL a new LH (left-hand) exterior mirror glass. REFER to: Exterior Mirror - Vehicles With: Long Arm Mirrors (501-09 Rear View Mirrors, Removal and Installation). REFER to: Exterior Mirror - Vehicles With: Short Arm Mirrors (501-09 Rear View Mirrors, Removal and Installation).
No	GO to E6

E6 CHECK THE EXTERIOR MIRROR HARNESS FOR A SHORT TO GROUND

- Using the diagnostic scan tool, clear the DDM (driver door module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Disconnect: LH (left-hand) Exterior Mirror C521.
- Ignition ON.

NOTE

Sample

DIODE) CIRCUITS JUMPED TOGETHER

- Ignition OFF.
- Disconnect: LH (left-hand) BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) C576.
- Connect:

Positive Lead	Measurement / Action	Negative Lead
C576-1		C576-2

- Ignition ON.
- Using a diagnostic scan tool, perform the DDM (driver door module) self-test.

Is DTC (diagnostic trouble code) B118C:11 present?

Yes	REMOVE the fused jumper wire. INSTALL a new LH (left-hand) exterior mirror glass. REFER to: Exterior Mirror - Vehicles With: Long Arm Mirrors (501-09 Rear View Mirrors, Removal and Installation). REFER to: Exterior Mirror - Vehicles With: Short Arm Mirrors (501-09 Rear View Mirrors, Removal and Installation).

No	REMOVE the fused jumper wire. GO to E9

E9 CHECK THE DDM (DRIVER DOOR MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH THE LH (LEFT-HAND) BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) CIRCUITS JUMPED TOGETHER AT THE LH (LEFT-HAND) EXTERIOR MIRROR

- Ignition OFF.
- Disconnect: LH (left-hand) Exterior Mirror C521.
- Connect

Positive Lead	Measurement / Action	Negative Lead
C521-13		C521-20

Sample

- Ignition OFF.
- Disconnect: DDM (driver door module) C501B.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C521-13	Ω	C501B-23
C521-20	Ω	C501B-19

Is the resistance less than 3 ohms?

Yes	GO to E17

No	REPAIR the affected circuit.

E11 CHECK THE PDM (PASSENGER DOOR MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH THE RH (RIGHT-HAND) BLIS (BLIND SPOT INFORMATION SYSTEM) ®/ CTA (CROSS TRAFFIC ALERT) LED (LIGHT EMITTING DIODE) DISCONNECTED

- Using the diagnostic scan tool, clear the PDM (passenger door module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Disconnect: RH (right-hand) BLIS (blind spot information system) ®/ CTA (cross traffic alert) LED (light emitting diode) C676.
- Ignition ON.

NOTE

DTC (diagnostic trouble code) B118D:11 may set during this step, it can be ignored.

- Using the diagnostic scan tool, perform the PDM (passenger door module) self-test.

Is DTC (diagnostic trouble code) B118D:15 present?

Sample