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1973 FORD Mustang OEM Service and Repair Workshop Manual

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- REFER to the Owner's Literature for a list of BLIS (blind spot information system) ® With Trailer Tow compatible trailers.
- Perform the trailer connect diagnostics. REFER to the Owner's Literature.

- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	REFER to the Owner's Literature.

No	The system is operating correctly at this time.

PINPOINT TEST P : THE BLIS (BLIND SPOT INFORMATION SYSTEM) ® WITH TRAILER TOW RECEIVES LATE ALERTS. (NO ALERTING ALONGSIDE TRAILER, ONLY WHEN TARGET IS ALONGSIDE VEHICLE)

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

- Incorrect trailer setup
- Target vehicle is passing at a high relative speed

P1 CHECK THE BLIS (BLIND SPOT INFORMATION SYSTEM) ® WITH TRAILER TOW RECEIVES LATE ALERTS. (NO ALERTING ALONGSIDE TRAILER, ONLY WHEN TARGET IS ALONGSIDE VEHICLE)

- Verify the BLIS (blind spot information system) ® with trailer tow receives late alerts.
- Possible cause:
  - Incorrect trailer setup
  - Target vehicle is passing at a high relative speed
- Repair:
  - Verify the trailer setup measurements. REFER to the Owner's Literature.
  - No action required, the system is operating correctly at this time.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	REFER to the Owner's Literature.

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

- False alerts

R1 CHECK THE BLIS (BLIND SPOT INFORMATION SYSTEM) ® WITH TRAILER TOW SYSTEM RECEIVES FALSE ALERTS.

- Verify the BLIS (blind spot information system) ® with trailer tow system receives false alerts.

Test drive vehicle with trailer to verify if alerts are continuously occurring. If continuously alerting ?

Yes	GO to Pinpoint Test A

No	The system is operating correctly at this time.

PINPOINT TEST S : THE BLIS (BLIND SPOT INFORMATION SYSTEM) ® WITH TRAILER TOW IS MISSING TARGET VEHICLES.

NOTE

The BLIS (blind spot information system) ® With Trailer Tow may miss up to 3% of targets.

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

- Incorrect trailer setup
- Target vehicle is passing at a high relative speed
- Missed targets

S1 CHECK BLIS (BLIND SPOT INFORMATION SYSTEM) ® WITH TRAILER TOW IS MISSING TARGET VEHICLES.

- Verify the BLIS (blind spot information system) ® with trailer tow is missing target vehicles.
- Possible cause:
  - Incorrect trailer setup

- Turn ON the Rear Park Assist feature. If the system cannot be activated, REFER to the Symptom Chart in this section.
- ACTIVATE the CTA (cross traffic alert) . If the system cannot be activated, REFER to: Blind Spot Information System(419-04A Side and Rear Vision, Diagnosis and Testing).
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	GO to T2

No	The system is operating correctly at this time

T2 CHECK FOR PSCM (POWER STEERING CONTROL MODULE) , BLIS (BLIND SPOT INFORMATION SYSTEM) , PCM (POWERTRAIN CONTROL MODULE) , IPMA (IMAGE PROCESSING MODULE A) , ABS (ANTI-LOCK BRAKE SYSTEM) AND BCM (BODY CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) S

- Verify if any PSCM (power steering control module) , BLIS (blind spot information system) , PCM (powertrain control module) , IPMA (image processing module A) , ABS (anti-lock brake system) and BCM (body control module) DTC (diagnostic trouble code) s are present.
- Using a diagnostic scan tool, perform the PSCM (power steering control module) , BLIS (blind spot information system) , PCM (powertrain control module) , IPMA (image processing module A) , ABS (anti-lock brake system) and BCM (body control module) self-tests.

Are DTC (diagnostic trouble code) s present in any of these modules?

Yes	Diagnose all the DTC (diagnostic trouble code) 's for the module in question.

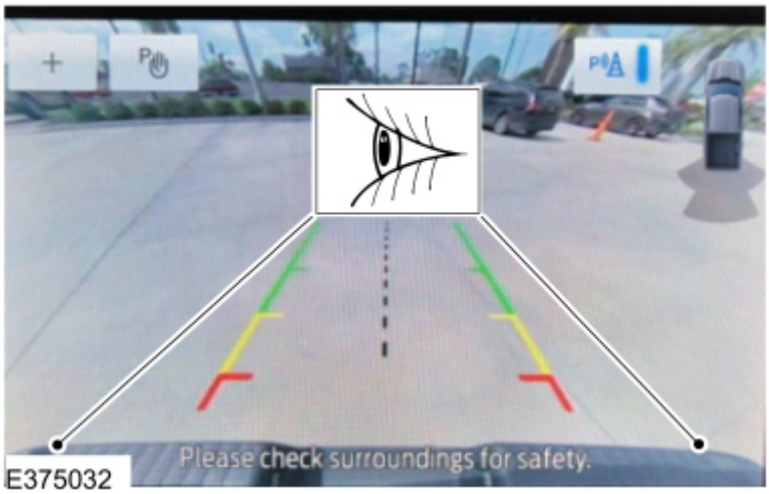
No	GO to T3

T3 CHECK THE IPMA REVERSE BRAKE ASSIST FAULT HISTORY

- Using a diagnostic scan tool,
  Access the IPMA (image processing module A) and monitor the RBA_RCNT_F (Most Recent RBA Fault) PID (parameter identification)

Is the most recent fault "NONE"?

Yes	GO to T4

- 

- Make sure you should not be able to see the license plate or the tailgate mounted Ford emblem as shown in image.

- 

- As seen in image, camera is not centred correctly, the rear bumper corners should also be centered in the image. If the camera is pointing too far downward, apply some flock tape in between it and the tailgate handle, resecure the camera and note the effect on the image.

	system concern, REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).

PINPOINT TEST U : BLIS (BLIND SPOT INFORMATION SYSTEM) SENSOR CALIBRATION CONCERNS - MULTIPLE DTC (DIAGNOSTIC TROUBLE CODE) 'S

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:54	Left Front Side Sensor: Missing Calibration	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 misalignment of the radar due to the radar has not been aligned in factory or in service or service alignment failed or factory alignment failed. ACC (adaptive cruise control) is disabled and request sent to display 'Driver Intervene' or 'Cruise Malfunction' message. Collision Warning and Mitigation is disabled and request sent to display 'Collision Warning Malfunction'.
SODCMD (Side Obstacle Detection Control Module D) B129D:54	Right Front Side Sensor: Missing Calibration	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 misalignment of the radar due to the radar has not been aligned in factory or in service or service alignment failed or factory alignment failed.
SODL (side obstacle detection	Left Rear Side Sensor: Missing Calibration	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

control module RH) B159C:78	Adjustment Incorrect	(factory, service or drive) has converged and FLR horizontal alignment angle is out of range.
SODL (side obstacle detection control module LH) B15D9:78	Left Rear Side Sensor Horizontal Alignment: Alignment Or Adjustment Incorrect	Set by the SODL (side obstacle detection control module LH) as a continuous memory DTC (diagnostic trouble code) if the SODL (side obstacle detection control module LH) detects a auto alignment (factory, service or drive) has converged and FLR horizontal alignment angle is out of range.
SODCMD (Side Obstacle Detection Control Module D) B15DC:78	Right Front Side Sensor Vertical Alignment: Alignment Or Adjustment Incorrect	Set by the SODCMD (Side Obstacle Detection Control Module D) as a continuous memory DTC (diagnostic trouble code) if the SODCMD (Side Obstacle Detection Control Module D) detects a vertical alignment relative to ground during factory alignment is out side of limits.
SODL (side obstacle detection control module LH) B15DD:78	Left Rear Side Sensor Vertical Alignment: Alignment Or Adjustment Incorrect	Set by the SODL (side obstacle detection control module LH) as a continuous memory DTC (diagnostic trouble code) if the SODL (side obstacle detection control module LH) detects a vertical alignment relative to ground during factory alignment is out side of limits.

Possible Sources

- Side obstacle detection control module alignment
- SODCMC (Side Obstacle Detection Control Module C) bracket
- SODCMD (Side Obstacle Detection Control Module D) bracket
- Rear lamp assembly LH (left-hand)
- Rear lamp assembly RH (right-hand)
- 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)

U1 INSPECT THE SODCMC (SIDE OBSTACLE DETECTION CONTROL MODULE C) , SODCMD (SIDE OBSTACLE DETECTION CONTROL MODULE D) BRACKETS AND REAR LAMP ASSEMBLY LH (LEFT-HAND) , REAR LAMP ASSEMBLY RH (RIGHT-HAND)

- Remove the front bumper upper cover trim panel and the rear lamp assemblies.

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

No	The system is operating correctly at this time. The concern was caused by a misaligned sensor.

U3 PERFORM THE HORIZONTAL ALIGNMENT

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

Are any missing calibration and alignment or adjustment incorrect DTCs set ?

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 D (SODCMD) (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).

No	The system is operating correctly at this time. The concern was caused by a misaligned sensor.

PINPOINT TEST V : DTC (DIAGNOSTIC TROUBLE CODE) B129C:96, B129D:96, B13F3:96 OR B13F4:96

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).

- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, perform 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) self-test.
- Check 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) DTCs from the continuous and on-demand self-tests.

Is DTC (diagnostic trouble code) B129C:96, B129D:96, B13F3:96 OR B13F4:96 recorded?

Yes	GO to V2

No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to an intermittent fault condition. CHECK 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) connectors and the HS-CAN2 (high-speed controller area network 2) wires for corrosion.

V2 CHECK FOR CORRECT 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) 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) AND 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) AND 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?

SODCMD (Side Obstacle Detection Control Module D) B129D:97	Right Front Side Sensor: Component Or System Operation Obstructed Or Blocked	Set by the SODCMD (Side Obstacle Detection Control Module D) as a continuous memory DTC (diagnostic trouble code) if the SODCMD (Side Obstacle Detection Control Module D) detects an obstruction or if the sensor is blocked. This DTC (diagnostic trouble code) may also set when the SODCMD (Side Obstacle Detection Control Module D) does not see a vehicle or object on the road for an extended period.
SODL (side obstacle detection control module LH) B13F3:97	Left Rear Side Sensor: Component Or System Operation Obstructed Or Blocked	Set by the SODL (side obstacle detection control module LH) as a continuous memory DTC (diagnostic trouble code) if the SODL (side obstacle detection control module LH) detects an obstruction or if the sensor is blocked. This DTC (diagnostic trouble code) may also set when the SODL (side obstacle detection control module LH) does not see a vehicle or object on the road for an extended period.
SODR (side obstacle detection control module RH) B13F4:97	Right Rear Side Sensor: Component Or System Operation Obstructed Or Blocked	Set by the SODR (side obstacle detection control module RH) as a continuous memory DTC (diagnostic trouble code) if the SODR (side obstacle detection control module RH) detects an obstruction or if the sensor is blocked. This DTC (diagnostic trouble code) may also set when the SODR (side obstacle detection control module RH) does not see a vehicle or object on the road for an extended period.

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

W1 INSPECT THE FRONT BUMPER UPPER COVER TRIM PANEL AND THE REAR LAMP ASSEMBLIES FOR DAMAGE