

Parking Aid

DTC Chart: PAM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

PAM DTC Chart

DTC	Description	Action
B129C:12	Left Front Side Sensor: Circuit Short To Battery	GO to Pinpoint Test A
B129C:14	Left Front Side Sensor: Circuit Short To Ground or Open	GO to Pinpoint Test B
B129C:96	Left Front Side Sensor: Component Internal Failure	GO to Pinpoint Test C
B129D:12	Right Front Side Sensor: Circuit Short To Battery	GO to Pinpoint Test A
B129D:14	Right Front Side Sensor: Circuit Short To Ground or Open	GO to Pinpoint Test B
B129D:96	Right Front Side Sensor: Component Internal Failure	GO to Pinpoint Test C
B129E:11	Enable/Disable Switch - Semi-automatic Advanced Parallel Park: Circuit Short To Ground	GO to Pinpoint Test D

All other PAM Diagnostic Trouble Codes (DTCs)	-	REFER to: Parking Aid (413-13A Parking Aid - Vehicles With: Rear Parking Aid, Diagnosis and Testing).
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Symptom Chart(s)

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Symptom Chart: Active Park Assist

Condition	Possible Sources	Actions
A module does not communicate with the diagnostic scan tool	• Fuse • Wiring, terminals or connectors • Module	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
The active park assist system does not respond when the active park assist switch is pressed	Refer to the Pinpoint Test	GO to Pinpoint Test D
The centerstack infotainment display shows an active park assist fault message	Refer to the Pinpoint Test	GO to Pinpoint Test E
The centerstack infotainment display shows an active park assist not available message	• AdvanceTrac® was off when the system was activated • An ABS or AdvanceTrac® event was in progress when the system was activated	The active park assist system is not available if the AdvanceTrac® is off, if an ABS or AdvanceTrac® event is in progress when the system is being activated by the driver.

The active park assist system does not position the vehicle correctly	Active park assist sensor(s) locked into the bumper incorrectly	REMOVE and correctly INSTALL the active park assist sensor(s) as necessary.
	Dirty or iced over active park assist sensor(s)	CLEAN the bumper covers and active park assist sensors with high-pressure water.
	Active park assist sensors affected by sudden change in ambient air temperature	The temperature of the air around the vehicle can change rapidly, such as the vehicle being driven into a parking garage or car wash. As a result, the air temperature displayed in the vehicle may not be close enough to the actual ambient air temperature. The active park assist system relies on accurately sensing the ambient air temperature to compensate the sensors. No action is required.
	The tires are not inflated to the correct pressure, the tires are not the same size or the tires are not the OE (original equipment) size.	INSPECT the tire condition, pressure and size. A considerably worn tire positions the vehicle far from the curb. A larger size tire positions the vehicle closer to the curb. REPAIR or REPLACE tire(s) as necessary.
	The driver did not wait for steering to finish rotating before moving vehicle	INFORM the customer to allow for the steering wheel to complete its rotation before moving the vehicle after a gear change

	The driver allowed the vehicle to roll in the opposite direction of the transmission, such as rolling forward when the reverse gear is selected	INFORM the customer not to allow the vehicle to roll in the opposite direction when operating the active park assist system. REFER to the Owner's Literature.
	An irregular curb is present along the parking space	The system may not be able to align the vehicle to curbs that are damaged, very shallow or covered by debris. If this is the circumstance, the system aligns the vehicle relative to objects bordering the parking space.
	A vehicle or object bordering the parking space is not aligned with the parking space.	The system aligns the vehicle to the objects bordering the parking space when a curb is not detected.
	One of the parked vehicles has an elevated attachment, such as a salt spreader or moving truck bed that the sensors cannot detect	Elevated attachments may not be detected by the system.
	The parking space length or parked objects position has changed after the vehicle has passed the parking space	The system scans the parking space as the vehicle is driven by the available spaces. Therefore, the system cannot detect if the parked vehicle or objects position has changed after the parking space has been scanned. No action needs to take place at this time.
The active park assist system does not position the vehicle correctly	Active park assist sensor(s) damaged or misaligned	INSTALL a new active park assist sensor(s) as necessary. REFER to: Front Active Park Assist Sensors (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).

The active park assist system does not offer available parking spaces	The vehicle is being driven too close or too far from the adjacent vehicle and/or objects	The vehicle must be driven greater than 16 in (40 cm) and less than 60 in (152 cm) from the adjacent vehicle.
	The parking space available is too small	The active park assist system only allows available parking spaces that are larger than 1.2 times the length of the vehicle. The system is operating correctly at this time.
	There may not be enough room to maneuver the vehicle into the available space	There needs to be enough space on the opposite side of the vehicle to allow the front of the vehicle to swing out as the operator backs into the space.
	An obstruction may be covering the active park assist sensor(s)	INSPECT and CLEAN the active park assist sensor(s). REMOVE any obstruction that is covering the sensor(s).
	The active park assist sensor(s) isolator ring is missing, damaged or misaligned	INSTALL a new active park assist sensor. REFER to: Front Active Park Assist Sensors (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).

Pinpoint Test(s)

DTC B129C:12, DTC B129D:12

Refer to Wiring Diagrams Cell 131 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Parking Aid - System Operation and Component Description](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B129C:12	Left Front Side Sensor: Circuit Short To Battery	A continuous and on-demand DTC that sets in the PAM when the left front active park assist sensor signal circuit is shorted to battery voltage.
B129D:12	Right Front Side Sensor: Circuit Short To Battery	A continuous and on-demand DTC that sets in the PAM when the right front active park assist sensor signal circuit is shorted to battery voltage.

Possible Causes

- Wiring, terminals or connectors
- Active park assist sensor
- PAM (integral to the BCM)

NOTE: Before disconnecting any of the active park assist sensors, verify the connectors are properly seated and latched.

PINPOINT TEST A : DTC (DIAGNOSTIC TROUBLE CODE) B129C:12, DTC (DIAGNOSTIC TROUBLE CODE) B129D:12

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)

A1 CHECK THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PAM (PARKING ASSIST CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the PAM self-test.
- Check the PAM Diagnostic Trouble Codes (DTCs) from the self-test.

Are LHandRH front active park assist sensor Diagnostic Trouble Codes (DTCs) recorded?

Yes	GO to A2
No	For DTC B129C:12 or DTC B129D:12, GO to A3 For all other PAM Diagnostic Trouble Codes (DTCs), REFER to: Parking Aid (413-13A Parking Aid - Vehicles With: Rear Parking Aid, Diagnosis and Testing).

A2 CHECK THE ENGINE COMPARTMENT WIRING HARNESS

- Inspect the engine compartment wiring harness for opens, shorts, grounds or corrosion.

Is the engine compartment wiring harness OK?

Yes	GO to A3
No	REPAIR or INSTALL a new engine compartment wiring harness.

A3 CHECK THE SENSOR SIGNAL RETURN CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect suspect active park assist sensor(s) (DTC B129C:12) C1428 or (DTC B129D:12) C1430.
- Disconnect BCM C2280F.
- Ignition ON.
- Measure:

Click to display connectors

DTC B129D:12

Positive Lead	Measurement / Action	Negative Lead
C1430-2		Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to A4

A4 CHECK THE SENSOR VOLTAGE SUPPLY AND SIGNAL RETURN CIRCUITS FOR A SHORT TOGETHER

- Ignition OFF.

- Measure:

Click to display connectors

DTC B129D:12

Positive Lead	Measurement / Action	Negative Lead
C1430-2	Ω	C1430-1

Is the resistance greater than 10,000 ohms?

Yes	GO to A5
No	REPAIR the affected circuits.

A5 CHECK THE ACTIVE PARK ASSIST SENSOR

- Connect BCM C2280F.
- Ignition ON.
- Using a diagnostic scan tool, clear the PAM Diagnostic Trouble Codes (DTCs) and repeat the self-test.

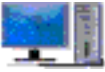
Is DTC B129C:12 or B129D:12 still present?

Yes	GO to A6
No	INSTALL a new active park assist sensor for the one in question. REFER to: Front Active Park Assist Sensors (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).

A6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors 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 BCM connectors and related in-line 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (BCM).
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No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.
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DTC B129C:14, DTC B129D:14

Refer to Wiring Diagrams Cell 131 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Parking Aid - System Operation and Component Description](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B129C:14	Left Front Side Sensor: Circuit Short To Ground Or Open	A continuous and on-demand DTC that sets in the PAM when any of the left front active park assist sensor circuits are open or the sensor signal line is shorted to ground.
B129D:14	Right Front Side Sensor: Circuit Short To Ground Or Open	A continuous and on-demand DTC that sets in the PAM when any of the right front active park assist sensor circuits are open or the sensor signal line is shorted to ground.

Possible Causes

- Wiring, terminals or connectors
- Active park assist sensor
- PAM (integral to the BCM)

NOTE: Before disconnecting any of the active park assist sensors, verify the connectors are properly seated and latched.

PINPOINT TEST B : DTC (DIAGNOSTIC TROUBLE CODE) B129C:14, DTC (DIAGNOSTIC TROUBLE CODE) B129D:14

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)

B1 CHECK THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PAM (PARKING ASSIST CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the PAM self-test.
- Check the PAM Diagnostic Trouble Codes (DTCs) from the self-test.

Are LHandRH front active park assist sensor Diagnostic Trouble Codes (DTCs) recorded?

Yes	GO to B2
No	For DTC B129C:14 or DTC B129D:14, GO to B3 For all other PAM Diagnostic Trouble Codes (DTCs), REFER to: Parking Aid (413-13A Parking Aid - Vehicles With: Rear Parking Aid, Diagnosis and Testing).

B2 CHECK THE ENGINE COMPARTMENT WIRING HARNESS

- Inspect the engine compartment wiring harness for opens, shorts, grounds or corrosion.

Is the engine compartment wiring harness OK?

Yes	GO to B3
No	REPAIR or INSTALL a new engine compartment wiring harness.

B3 CHECK FOR VOLTAGE AND GROUND AT THE SUSPECT SENSOR

- Ignition OFF.
- Disconnect suspect active park assist sensor(s): C1428 (DTC B129C:14) or C1430 (DTC B129D:14) .
- Ignition ON.
- Measure:

Click to display connectors

DTC B129D:14

Positive Lead	Measurement / Action	Negative Lead
C1430-1		C1430-3

Is the voltage greater than 11 volts?

Yes	GO to B5
No	GO to B4

B4 CHECK FOR VOLTAGE AT THE SUSPECT SENSOR

- Measure:

Click to display connectors

DTC B129D:14

Positive Lead	Measurement / Action	Negative Lead
C1430-1		Ground

Is the voltage greater than 11 volts?

Yes	REPAIR the suspect active park assist sensor ground circuit.
No	REPAIR the suspect active park assist sensor voltage supply circuit.

B5 CHECK THE SUSPECT SENSOR SIGNAL RETURN CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BCM C2280F.
- Measure:

Click to display connectors

DTC B129D:14

Positive Lead	Measurement / Action	Negative Lead
C2280F-1	Ω	C1430-2

Is the resistance less than 3 ohms?

Yes	GO to B6
No	REPAIR the circuit.

B6 CHECK THE SUSPECT SENSOR SIGNAL RETURN CIRCUIT FOR A SHORT TO GROUND

- Measure:

Click to display connectors

DTC B129D:14

Positive Lead	Measurement / Action	Negative Lead
C1430-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to B7
No	REPAIR the circuit.

B7 CHECK THE ACTIVE PARK ASSIST SENSOR

- Connect BCM C2280F.
- Install a known good active park assist sensor for the suspect sensor.
REFER to: [Front Active Park Assist Sensors](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).
- Ignition ON.
- Using a diagnostic scan tool, clear the PAM Diagnostic Trouble Codes (DTCs).
- Perform the PAM self-test.

Is DTC B129C:14 or B129D:14 still present?

Yes	GO to B8
No	INSTALL a new active park assist sensor for the one in question. REFER to: Front Active Park Assist Sensors (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).

B8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors 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 BCM connectors and related in-line 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,  Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

DTC B129C:96, DTC B129D:96

Normal Operation and Fault Conditions

REFER to: [Parking Aid - System Operation and Component Description](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B129C:96	Left Front Side Sensor: Component Internal Failure	A continuous and on-demand DTC that sets in the PAM when the left front active park assist sensor has internally failed or has an incorrect attenuation time.
B129D:96	Right Front Side Sensor: Component Internal Failure	A continuous and on-demand DTC that sets in the PAM when the right front active park assist sensor has internally failed or has an incorrect attenuation time.

Possible Causes

- Active park assist sensor
- PAM (integral to the BCM)

NOTE: Before disconnecting any of the active park assist sensors, verify the connectors are properly seated and latched.

PINPOINT TEST C : DTC (DIAGNOSTIC TROUBLE CODE) B129C:96, DTC (DIAGNOSTIC TROUBLE CODE) B129D:96

C1 CHECK THE CONTINUOUS AND ON-DEMAND PAM (PARKING ASSIST CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, retrieve the PAM Diagnostic Trouble Codes (DTCs).

Are Diagnostic Trouble Codes (DTCs) other than B129C:96 or B129D:96 present?

Yes	DIAGNOSE all other PAM Diagnostic Trouble Codes (DTCs) first. REFER to the PAM DTC Chart in this section.
No	GO to C2

C2 CHECK THE ACTIVE PARK ASSIST SENSOR OPERATION

- Clean the front bumper and sensors with high-pressure water.
- Make sure the suspect active park assist sensor(s) is flush-mounted in the bezel.
- Perform the azimuth system check.
REFER to: [Azimuth System Check](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, General Procedures).

Does the system pass the azimuth system check?

Yes	The system is operating correctly at this time, the concern may have been caused by a dirty, blocked or incorrectly mounted active park assist sensor.
No	GO to C3

C3 INSTALL A KNOWN GOOD SENSOR

- Ignition OFF.
- Install a known good sensor for the suspect active park assist sensor.
REFER to: [Front Active Park Assist Sensors](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).
- Ignition ON.
- Using a diagnostic scan tool, clear the PAM Diagnostic Trouble Codes (DTCs) and repeat the self-test.

Is DTC B129C:96 or DTC B129D:96 still present?

Yes	GO to C4
No	INSTALL a new active park assist sensor for the suspect sensor. REFER to: Front Active Park Assist Sensors (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).

C4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors 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 BCM connectors and related in-line 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,  Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

The Active Park Assist System Does Not Activate When The Active Park Assist Switch Is Pressed

Refer to Wiring Diagrams Cell 131 for schematic and connector information.

Normal Operation and Fault Conditions

To activate, the active park assist system relies on several messaged inputs and driver input through the active park assist switch.

REFER to: [Parking Aid - System Operation and Component Description](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B129E:11	Enable/Disable Switch - Semi-automatic Advanced Parallel Park: Circuit Short To Ground	A continuous and on-demand DTC that sets in the PAM when the PAM detects a short to ground on the active park assist switch input circuit.

Possible Causes

- Wiring, terminals or connectors
- Communication network concern
- Active park assist switch
- PAM (integral to the BCM)

PINPOINT TEST D : THE ACTIVE PARK ASSIST SYSTEM DOES NOT ACTIVATE WHEN THE ACTIVE PARK ASSIST SWITCH IS PRESSED

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)

D1 VERIFY THE CONCERN

- Verify the operation of the active park assist system.

Does the active park assist system operate correctly?

Yes	The system is operating correctly at this time. The concern may have been caused by high network traffic or the driver's perception of how the active park assist system operate. REFER to the Owner's Manual.
No	GO to D2

D2 PERFORM A NETWORK TEST

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

Do all modules pass the network test?

Yes	GO to D3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

D3 CHECK THE ACTIVE PARK ASSIST SWITCH CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect Active Park Assist Switch C3466.
- Disconnect BCM C2280B.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3466-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to D4
No	REPAIR the circuit.

D4 CHECK THE ACTIVE PARK ASSIST SWITCH CIRCUIT FOR AN OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3466-2	Ω	C2280B-17

Is the resistance less than 3 ohms?

Yes	GO to D5
No	REPAIR the circuit.

D5 CHECK THE ACTIVE PARK ASSIST SWITCH GROUND CIRCUIT FOR AN OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3466-3	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to D6
No	REPAIR the circuit.

D6 CHECK THE ACTIVE PARK ASSIST SYSTEM SWITCH OPERATION

- Connect Active Park Assist Switch C3466.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280B-17	Ω	Ground

Is the resistance less than 3 ohms with the switch pressed and greater than 10,000 ohms with the switch released?

Yes	INSTALL a new active park assist system switch. REFER to: Active Park Assist Switch (413-13C Parking Aid - Vehicles With: Active Park Assist, Removal and Installation).
No	GO to D7

D7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors 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 BCM connectors and related in-line 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,  Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

There Is An Active Park Assist Fault Message Shown In The Centerstack Infotainment Display

Refer to Wiring Diagrams Cell 131 for schematic and connector information.

Refer to Wiring Diagrams Cell 14 for schematic and connector information.

Normal Operation and Fault Conditions

In addition to possible vehicle faults, certain driver actions and vehicle operating conditions can cause the active park assist system to be temporarily disabled.

REFER to: [Parking Aid - System Operation and Component Description](#) (413-13C Parking Aid - Vehicles With: Active Park Assist, Description and Operation).

Possible Causes

- Communication network concern
- PAM (integral to the BCM) concern
- PSCM concern
- SCCM concern
- ABS concern
- PCM concern
- RCM concern
- GWM concern
- BCM concern

PINPOINT TEST E : THERE IS AN ACTIVE PARK ASSIST FAULT MESSAGE SHOWN IN THE CENTERSTACK INFOTAINMENT DISPLAY

E1 VERIFY THE PSCM (POWER STEERING CONTROL MODULE) CALIBRATION

- Start the engine.
- Using a diagnostic scan tool, monitor the PSCM PID: SSHFT_TQ_S2.
- Turn the steering wheel to the full LH lock position and hold for at least 2 seconds using at least 6.5 Nm of force. Monitor the SSHFT_TQ_S2 PID during this procedure to confirm the correct torque is being applied to the steering wheel at the full LH lock position.
- Turn the steering wheel to the full RH lock position and hold for at least 2 seconds using at least 6.5 Nm of force. Monitor the SSHFT_TQ_S2 PID during this procedure to confirm the correct torque is being applied to the steering wheel at the full RH lock position.
- Verify if the concern is still present.

Is the concern still present?

Yes	GO to E2
No	The concern was corrected by performing the PSCM calibration procedure.

E2 PERFORM A NETWORK TEST

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

Do all modules pass the network test?

Yes	GO to E3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

E3 CHECK THE PAM (PARKING ASSIST CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the PAM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the PAM DTC chart in this section.
No	GO to E4

E4 CHECK THE PSCM (POWER STEERING CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the PSCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Power Steering (211-02 Power Steering, Diagnosis and Testing).
No	GO to E5

E5 CHECK THE SCCM (STEERING COLUMN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the SCCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).
No	GO to E6

E6 CHECK THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the ABS module self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).
No	GO to E7

E7 CHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the PCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	Refer to the appropriate section in Group 303 for the procedure. (Electronic Engine Controls)
No	GO to E8

E8 CHECK THE RCM (RESTRAINTS CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the RCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Airbag Supplemental Restraint System (SRS) - Raptor (501-20B Supplemental Restraint System, Diagnosis and Testing).
No	GO to E9

E9 CHECK THE GWM (GATEWAY MODULE A) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, check the GWM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any Continuous Memory Diagnostic Trouble Codes (CMDTCs) present?

Yes	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No	GO to E10

E10 CHECK THE BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform the BCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).
No	GO to E11

E11 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors 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 BCM connectors and related in-line 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.