

2016 Ford Mustang V8-5.0L
Vehicle > Technical Service Bulletins

STEERING - POWER STEERING CONTROL MODULE HARNESS INFORMATION

General Service Bulletin (GSB):
PSCM WIRING HARNESS INSPECTION CHECKLIST

GSB Overview:

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Note: The Checklists provided in this bulletin are intended to assist you in locating the source of concerns identified through normal Diagnosis and Pin Point Tests found in the appropriate Workshop Manual.

PSCM WIRING HARNESS INSPECTION CHECKLIST

A. Wiring Harness Inspection Checklist



Sample Harness: 2014 Escape PSCM Wiring Harness

NOTE: The following list contains circuit and connector names used on the 2014 Escape Power Steering Control Module (PSCM). Refer to Wiring Diagrams for the specific vehicle under consideration.

Harness Damage Near PSCM Power/Ground Connector C1463A (SBF01/GD120)

- Harness rubbing on frame or power steering gear housing
- Harness retaining/routing joints came loose, allowing harness additional motion

Harness Damage Near PSCM HSCAN Connector C1463B (CBB40/VDB04/VDB05)

- Harness rubbing on frame or power steering gear housing
- Harness retaining/routing joints came loose, allowing harness additional motion

Harness Damage Near GROUND Connector G108 (GD120)

- Rubbing on frame, brackets, or other components
- Harness retaining/routing joints came loose, allowing harness additional motion

Harness Damage Near Inline To Vehicle CAN Network Connector C133 (CBB40/VDB04/VDB05)

- Harness wiring pinched between battery trays/brackets
- Harness wiring rubbed on by nearby battery tray fasteners
- Harness wiring rubbing on engine/ transmission castings and/or associated brackets
- Harness retaining/routing joints came loose, allowing harness additional motion

Harness Damage Near Battery At Battery Junction Box Connection C1617C (SBF01)

- Harness wiring damaged by leaking battery
- Harness wiring rubbing on battery tray bracket
- Harness wiring rubbing on frame cross members and/or frame weld joints
- Harness retaining/routing joints came loose, allowing harness additional motion

PSCM WIRING HARNESS INSPECTION CHECKLIST

B. High Current Battery Junction Box Connector Inspection Checklist



Figure 1: Example Threaded Connector at High Current Battery Junction Box 2014 Escape



Figure 2: Example eyelet type connector at High Current Battery Junction Box 2014 F150



Figure 3: Sample High Current Battery Junction Box using a blue hardshell connector [2014 Explorer]

Threaded/Eyelet Type Connections @ High Current Battery Junction Box

- Look for corrosion and/or debris on mating threads and surfaces
- Ensure eyelet not coming loose from attaching wiring
- Ensure nut not coming loose from nut cage
- Ensure attached wiring harness not making hard contact with any sharp bracket edges
- Confirm nut, eyelet is firmly contacting mating surface without gaps

Hardshell Type Connections @ High Current Battery Junction Box

- Inspect for dirt, corrosion, water, inside the connector pin slots
- Ensure wiring not coming loose from back of connector
- Reconnect & fully seat - ensuring harness not making hard contact with any sharp bracket edges, etc.
- Ensure connector does not come unseated (wiggle harness)

PSCM WIRING HARNESS INSPECTION CHECKLIST

C. High Amp Fuse Inspection Checklist



Figure 4: Example High Amp Fuse at High Current Battery Junction Box on 2014 F150.

High Amp Fuse Connection

- Verify fuse fully seated or pushed fully into its' compartment; not distorted, pushed out or wiggling
- Ensure Fuse locking features or fasteners are not loose or missing or distorted
- Ensure fuse not corroded
- Inspect for spread, loose or pushed out terminals

PSCM WIRING HARNESS INSPECTION CHECKLIST

D. Low Amp (Ignition) Fuse Inspection Checklist



Figure 5: SAMPLE BJB FOR 2014 Escape - contains the IGNITION FUSE for the EPAS gear

Low Amp Fuse Connection

- Fuse seated or pushed fully into position, fuse in its' compartment; not pushed out or wiggling
- Fuse prongs not corroded, bent, spread apart (where applicable)
- Ensure good pin fit between pronged fuse and it's mating terminals (where applicable)
- Harness Damage leading into the fuse box due to rubbing on frame, brackets, or other components

PSCM WIRING HARNESS INSPECTION CHECKLIST

E. Power/Ground Connector Inspection Checklist

		
Power Connector [Power & Ground] with-out red locking tabs	Power Connector [Power & Ground] with red locking tabs	Power Connector Back: showing wiring + white rubber seals

Pins

Look for dislodged / pulled out / pushed back, spread out pins/terminals or corrosion inside connector.

Water/Oil

Ensure connector not full of water or oil.

Connector Wiring

Ensure wiring not coming loose from back of connector. Inspect for wiring chaffing due to being pulled tightly across the power steering gear housing.

Connector Rubber Seals

Ensure rubber seals in back of connector are not missing, loose or damaged.

Connection Housings

Ensure connector housings not cracked or broken.

Red Locking Tabs

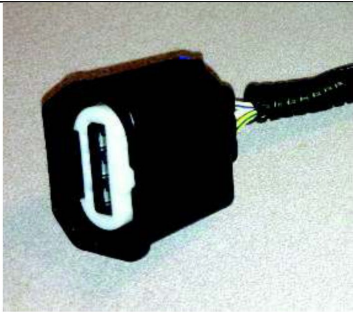
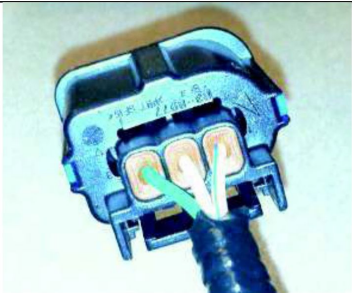
Ensure Red locking tab present, engaged and not damaged (when included in design).

Connector Properly Seated

Ensure you feel & hear a click when putting C1463A and C1463B together.

PSCM WIRING HARNESS INSPECTION CHECKLIST

F. Ignition/HSCAN Connector Inspection Checklist

	
HS CAN + Ignition Connector [Ignition, HS-CAN Hi/Low]	HSCAN + Ignition Connector Back: Showing wiring + rubber seals

Pins

Look for dislodged / pulled out / pushed back, spread out pins/terminals or corrosion inside connector.

Water/Oil

Ensure connector not full of water or oil.

Connector Wiring

Ensure wiring not coming loose from back of connector. Inspect for wiring chaffing due to being pulled tightly across the power steering gear housing.

Connector Rubber Seals

Ensure rubber seals in back of connector are not missing, loose or damaged.

Connection Housings

Ensure connector housings not cracked or broken.

Red Locking Tabs


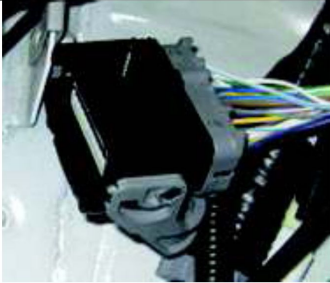

Ensure Red locking tab present, engaged and not damaged (when included in design).

Connector Properly Seated

Ensure you feel & hear a click when putting C1463A and C1463B together.

PSCM WIRING HARNESS INSPECTION CHECKLIST

G. Inline Connector Inspection Checklist

		
Figure 6: Sample multi pin inline connector with more than 6 pins	Figure 7: Sample multi pin inline connector with more than 6 pins	Figure 8: Sample 6 pin inline connector (on 2014 Escape)

Pins

Look for dislodged / pulled out / pushed back, spread out pins/terminals or corrosion inside connector.

Water/Oil

Ensure connector not full of water or oil.

Connector Wiring

Ensure wiring not coming loose from back of connector. Inspect for wiring chaffing due to being pulled tightly across the power steering gear housing.

Connector Rubber Seals

Ensure rubber seals in back of connector are not missing, loose or damaged.

Connection Housings

Ensure connector housings not cracked or broken.

Red Locking Tabs


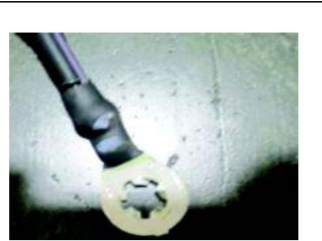
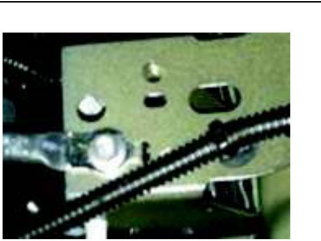



Ensure Red locking tab present, engaged and not damaged (when included in design).

Connector Properly Seated

Ensure you feel & hear a click when putting C1463A and C1463B together.

PSCM WIRING HARNESS INSPECTION CHECKLIST

H. Threaded Ground Connection Inspection Checklist

 <p>Figure 9: Sample Ground Eyelet Joint</p>	 <p>Figure 10: Sample Ground Eyelet Joint</p>	 <p>Figure 11: Sample Ground Eyelet Joint</p>
 <p>Figure 12: Sample Ground Eyelet Joint</p>	 <p>Figure 13: Sample Ground Eyelet Joint</p>	 <p>Figure 14: Sample Ground Eyelet Joint</p>

Threads

Inspect mating threads for paint and/or corrosion.

Mating Surfaces

Inspect mating surfaces (eyelet, bolt flange, brackets) for paint and/or corrosion.

Eyelet Attachment to Wiring

Ensure eyelet not coming detached from wiring harness.

Ground Harness Damage

Ensure ground harness not making damaging contact with any sharp brackets or engine/transmission castings.

Joint Integrity

Ensure joint is not cross threaded; confirm eyelet is firmly contacting mating surface, wiggle harness to verify joint is tight.

Visual aid to provide pictures of PSCM wiring harness and wiring harness joints along with a list of items for review when checking wiring harness joints for communication fault root cause.

NOTE: This information is not intended to replace or supersede any warranty, parts and service policy, Work Shop Manual (WSM) procedures or technical training or wiring diagram information

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle.

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