1. BODY HARDWARE AND TRIM

- 2. EXTERIOR TRIM
- 3. REPAIR INSTRUCTIONS
- 4.

Front Fender Emblem/Nameplate Replacement



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Callout	Component Name
Prelimin	ary Procedure
Front Fe	ender Upper Rear Molding Replacement
	Front Fender Emblem/Nameplate
	Caution:
	Use a plastic, flat-bladed tool to prevent paint damage when removing an emblem/name plate.
	Caution:
	Anytime the emblem/nameplate is removed from the vehicle, it MUST BE REPLACED. The locking tabs that secure the emblem/nameplate to the vehicle WILL BE DAMAGED when the emblem name/plate is removed, and under no circumstances may the emblem/nameplate be re-used.
	Procedure
1	1. Using a suitable flat bladed tool release the eight locking tabs and pull the emblem from the molding.
	 The part and surface should be 21°C (70°F) prior to installation. The vehicle should remain 21°C (70°F) for one hour after assembly to allow adhesive to develop sufficient bond strength.
	3. Use a heat gun or equivalent to remove the liftgate emblem. Use a plastic flat bladed tool to assist in removal.
	 Clean any remaining residue with a 50/50 mixture by volume of isopropyl alcohol and clean drinkable water. Wipe surface dry with a clean lint-free towel.
	5. When removing protective liners from the adhesive tape, be careful not to touch tape with hands and do not allow tape to come in contact with dirt or any foreign matter prior to adhesion.
	6. Using the palm of the hand, wet out the liftgate emblem to ensure full adhesion is made.

1. BODY HARDWARE AND TRIM

- 2. EXTERIOR TRIM
- 3. REPAIR INSTRUCTIONS
- 4.

Front Side Door Lower Molding Replacement



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Callout	Component Name				
	Front Side Door Lower Molding Retainer [9x]				
1	Procedure				
	Replace the front side door lower molding retainers as necessary.				
2	Front Side Door Lower Molding Double Adhesive Tape				
3	Front Side Door Lower Molding				
	Procedure				
	1. Apply two layers of masking tape around the top edge of the service part to prevent paint damage.				
	2. Starting at the front top corner, use a suitable flat-bladed plastic trim tool to release the front side door lower molding retainers.				
	 Remove any remaining adhesive residue with a 50/50 mixture by volume of isopropyl alcohol and clean drinkable water. Wipe the surface dry with a clean lint-free towel. 				

Related Part Information

Part Name	Catalog Name	Part Code
Front Side Door Lower Molding	MOLDING KIT,FRT S/D LV	VR 1849Z
Front Side Door Lower Molding	MOLDING,FRT S/D LWR	1850A
Front Side Door Lower Molding	MOLDING,FRT S/D LWR	1875A
Front Side Door Lower Molding	MOLDING KIT,FRT S/D LV	VR 0259Z
Front Side Door Lower Molding	MOLDING,FRT S/D LWR	0260A
Front Side Door Lower Molding	MOLDING,FRT S/D LWR	0260B
Front Side Door Lower Molding	MOLDING,FRT S/D LWR	SS838



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Number	Procedure	Material	Material Thickness
6	Body Hinge Pillar Panel Reinforcement Replacement	Dual Phase Steel	1.0
7	Body Hinge Pillar Outer Panel Sectioning	Mild Steel	0.65
8	Rocker Outer Panel Sectioning	Mild Steel	0.65
9	Center Pillar Sectioning - Outer	Mild Steel	0.65
10	Quarter Outer Panel Sectioning	Mild Steel	0.65
11 14		Ultra High Strength Steel	1.8
11,14	Center Pillar Replacement	Dual Phase Steel	1.2
12	Rocker Outer Panel Reinforcement Replacement	Ultra High Strength Steel	1.2
13	Front Hinge Pillar Body Replacement	Dual Phase Steel	1.2
15	Rocker Inner Panel Replacement	Ultra High Strength Steel	1.4
	Quarter Inner Lower Panel Replacement		
16,17	Body Side Inner Panel Replacement	<u>Mild Steel</u>	0.6
18	Rear Wheelhouse Inner Panel Replacement	Mild Steel	0.7

Rear End

1. BODY REPAIR

- 2. COLLISION REPAIR
- 3. DESCRIPTION AND OPERATION
- 4.

Metal Panel Bonding

This information is intended to provide general guidelines for adhesive bonding of steel panels. Panel bonding of steel is only recommended when the panel is originally bonded to the vehicle. In almost every application adhesive bonding is combined with resistance spot welding, rivet bonding or other types of mechanical fastening. Always refer to service procedure for recommended fastening strategy. The only joints that use adhesive only are joints which have no way to introduce a resistance spot weld or rivet or other mechanical fastener. These will always be outlined in their specified procedure.

The adhesives listed in this document are known to meet the General Motors specifications and requirements for bonding of steel body panels.

Bonding procedures in general are applicable only at factory joints.

The use of adhesive to section steel panels is not recommended by General Motors.

Rivets, or other mechanical fasteners, need to be used in combination with adhesive bonding of steel panels. The specified rivets, or fasteners, should be used with adhesive, when replacing the original panel.

Two types of adhesives are listed here. Impact Resistant Adhesive is used in joints in frame rail assemblies and strut tower assemblies and other body structure joints that have critical strength requirements. The factory applied Impact Resistant Adhesive is purple in color when cured. The Impact Resistant adhesives available for servicing these joints are considerably stronger once cured than panel bonding adhesives. The other bonding adhesives are non-impact resistant, offer a lower strength rating and are only used in door outer panel attachment hem joints.

Note:

Always follow the adhesive manufacturer's instructions for application, handling, and curing for the specific product.

Adhesives currently meeting the performance requirements include the adhesive products listed below meet these guidelines:

Manufacturer and Part Number		Description		
Pliogrip 5770P		Pliogrip 5770P Structural Imp	act Durable Adhesive	
		Available from Ashland 800-PLIOGRIP		
		www.ashland.com/pages/plio	grip-5770	
		Fusor 2098 Impact Resistant	Adhesive	
Fusor 2098		Available from Lord Fusor 80	0-234-3876	
		https://www.lord.com/products-and-solutions/adhesives/fusor-2098-crash-durable-structural- adhesive-%28slow%29		
		3M Impact Resistant Structur	al Adhesive	
3M 07333		Available from 3M		
		www.3MCollision.com/IRSA		
SEM 39757 Structural Impact Resistant Adhesive		www.semproducts.com/prod	uct/dual-mixtm-structural-impact-resistant-adhesive/39757	
Steel Panel Bonding				
Manufacturer and Part Number		Description		
GM P/N 12378566 (US)				
GM P/N 88901674 (Canada) Fast S		t Panel Bonding Adhesive		
Lord Fusor P/N 110B/111B				
GM P/N 12378567 (US)				
GM P/N 88901675 (Canada) Mediu		um Set Panel Bonding Adhesive		
Lord Fusor P/N 108B/109B				
3M P/N 8116 Panel Bo		Bonding Adhesive		
Ashland Plio Grip Panel 60 Panel I		Bonding Adhesive		
SEM 39337	EM 39337 Door Skin and SMC Adhesive			

Steel Panel Bonding Impact Resistant

- 8. Brake Pedal Pushrod (3) @ Brake Pedal (2) >> Connect



9.

- Click here for full size
- 10. Electrical Connector (1) @ Brake Pedal Position Sensor (2) >> Connect



12. Body Wiring Harness Retainer (1) @ Vehicle >> Install [5x]



13. <u>Click here for full size</u>

14. Accelerator Pedal Assembly (1) @ Vehicle >>> Install - Accelerator Pedal Assembly Replacement

- If 2 â, | or greater, repair the open/high resistance in the circuit.
- If less than 2 â,[⊥], replace the K157 Video Processing Control Module.

10.

• If greater than 7.2 V

11.

- 1. Ignition OFF, disconnect the harness connector at the K157 Video Processing Control Module, ignition ON.
- 2. Test for less than 1 V between the 6 V reference circuit and ground.

3.

- If 1 V or greater, repair the short to voltage on the circuit.
- If less than 1 V, replace the K157 Video Processing Control Module.

12.

If between 4.8–7.2 V

13. Ignition ON.

14. Test for less than 10 V between the signal circuit terminals listed below and ground:

15.

- Vision Signal + signal circuit terminal 1
- Vision Signal signal circuit terminal 4

16.

• If 10 V or greater

17.

- 1. Ignition OFF, disconnect the X1 harness connector at the K157 Video Processing Control Module, ignition ON.
- 2. Test for less than 1 V between the signal circuit and ground.

3.

- If 1 V or greater, repair the short to voltage on the circuit.
- If less than 1 V, replace the K157 Video Processing Control Module.

18.

• If less than 10 V

- 19. Ignition OFF.
- 20. Test for greater than 100 â, between the signal circuit terminals listed below and ground:

21.

- Vision Signal + signal circuit terminal 1
- Vision Signal signal circuit terminal 4

22.

If less than 100 â,,

23.

1. Disconnect the X1 harness connector at the K157 Video Processing Control Module.



- Click here for full size
- 9. Retainer (1>) >> Remove
- 10. Drive Motor Battery Coolant Cooler Inlet Hose (2>) >> Remove



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Click here for full size
```

12. Clip (1>) >> Release

11.

13. Drive Motor Battery Coolant Cooler Inlet Hose (2>)>> Remove

Installation Procedure



- 2. Drive Motor Battery Coolant Cooler Inlet Hose (2>) >> Install
- 3. Clip (1>)>> Install

Blower Motor Control Module - Control Circuit = Voltage Out of Range - High

DTC B0193 06

Blower Motor Control Module - Control Circuit = Voltage Out of Range - Low

Actions Taken When the DTC Sets

Blower Motor = Inoperative

Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

Reference Information

Schematic Reference

HVAC Schematics

Connector End View Reference

Master Electrical Component List

Electrical Information Reference

- Circuit Testing
- <u>Connector Repairs</u>
- <u>Testing for Intermittent Conditions and Poor Connections</u>
- <u>Wiring Repairs</u>

DTC Type Reference

Powertrain Diagnostic Trouble Code (DTC) Type Definitions

Scan Tool Reference

Control Module References

Circuit/System Testing

1. Note:

It may take up to 2> min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.

- 2. Ignition/Vehicle & amp; All vehicle systems >> Off
- 3. Disconnect the electrical connector: X1 @ K8 Blower Motor Control Module
- 4. Test for less than 10 Ω between the test points:Ground circuit terminal 5> & Ground

5.

```
• If 10 Ω or greater
```

- 6.
- 1. Test for less than 2> Ω between the test points:Ground circuit terminal 5> & The other end of the circuit

2.

- If 2> Ω or greater >> Repair the open/high resistance in the circuit.
- If less than 2> Ω >>> Repair the open/high resistance in the ground connection.

Figure 189: K68 Trailer Lighting Control Module X1 Figure 190: K68 Trailer Lighting Control Module X2 Figure 191: K73 Telematics Communication Interface Control Module X1 Figure 192: K73 Telematics Communication Interface Control Module X2 Figure 193: K73 Telematics Communication Interface Control Module X3 Figure 194: K77 Remote Control Door Lock Receiver Figure 195: K84 Keyless Entry Control Module X1 Figure 196: K84 Keyless Entry Control Module X2 Figure 197: K85 Passenger Presence Module Figure 198: K89 Immobilizer Control Module Figure 199: K114B Hybrid/EV Powertrain Control Module 2 X1 Figure 200: K114B Hybrid/EV Powertrain Control Module 2 X2 Figure 201: K118 Electric A/C Compressor Control Module X1 Figure 202: K118 Electric A/C Compressor Control Module X2 Figure 203: K132 Pedestrian Alert Sound Control Module Figure 204: K157 Video Processing Control Module X1 (UV2) Figure 205: K157 Video Processing Control Module X3 (UV2) Figure 206: K157 Video Processing Control Module X4 Figure 207: K157 Video Processing Control Module X5 Figure 208: K173 Transmission Range Control Module Figure 209: K177 Brake Booster Control Module Figure 210: K182 Parking Assist Control Module X1 Figure 211: K182 Parking Assist Control Module X2 Figure 212: K182 Parking Assist Control Module X3 Figure 213: K183 UHF Short Range Low Energy Remote Control Access Transceiver (-BOP) Figure 214: K183 UHF Short Range Low Energy Remote Control Access Transceiver (BOP) Figure 215: K190 Power Line Communication Module X1 (CBT) Figure 216: K190 Power Line Communication Module X2 (CBT) Figure 217: M6 Air Temperature Door Actuator Figure 218: <u>M8 Blower Motor</u> Figure 219: M15 Drive Motor Figure 220: M37 Mode Door Actuator Figure 221: M45 Rear Wiper Motor Figure 222: M46 Air Recirculation Door Actuator Figure 223: M74D Window Motor - Driver Figure 224: M74LR Window Motor - Left Rear Figure 225: M74P Window Motor - Passenger Figure 226: M74RR Window Motor - Right Rear Figure 227: M75L Windshield Wiper Motor Module - Left Figure 228: M75R Windshield Wiper Motor Module - Right Figure 229: M96A Active Grille Air Shutter 1 Actuator Figure 230: M104L Park Brake Actuator - Left Figure 231: M104R Park Brake Actuator - Right Figure 232: P12L Horn - Left Figure 233: P12R Horn - Right Figure 234: P14 Passenger Air Bag Disabled Indicator Figure 235: P16 Instrument Cluster Figure 236: P17 Info Display Module X1 (-MAH) Figure 237: P17 Info Display Module X1 (MAH) Figure 238: P17 Info Display Module X3 (MAH) Figure 239: P17 Info Display Module X4 (MAH) Figure 240: P19AC Speaker - Subwoofer (UQA) Figure 241: P19AG Speaker - Left Front Door (UQ3) Figure 242: P19AG Speaker - Left Front Door (UQA) Figure 243: P19AH Speaker - Right Front Door (UQ3) Figure 244: P19AH Speaker - Right Front Door (UQA) Figure 245: P19AL Speaker - Left Rear Door (UQ3) Figure 246: P19AL Speaker - Left Rear Door (UQA) Figure 247: P19AM Speaker - Right Rear Door (UQ3) Figure 248: P19AM Speaker - Right Rear Door (UQA) Figure 249: P19H Speaker - Left Front Tweeter Figure 250: P19V Speaker - Right Front Tweeter Figure 251: P43 Collision Alert Indicators (UEU/UHX/UHY) Figure 252: P48F Pedestrian Alert Sound Speaker - Front Figure 253: P48R Pedestrian Alert Sound Speaker - Rear

Figure 254: S3 Transmission Shift Lever Figure 255: S13D Door Lock Switch - Driver Figure 256: S13P Door Lock Switch - Passenger Figure 257: S30 Headlamp Switch Figure 258: S32LR Seat Heating Switch - Left Rear (KA6) Figure 259: S32RR Seat Heating Switch - Right Rear (KA6) Figure 260: S33 Horn Switch Figure 261: S46B Liftgate Unlatch Switch Figure 262: S48C Multifunction Switch 1 - Instrument Panel Figure 263: S48D Multifunction Switch 2 - Instrument Panel Figure 264: S51 Telematics Button Assembly (UE1) Figure 265: STOE Steering Wheel Controls Switch - Radio Presets Figure 266: S70F Steering Wheel Controls Switch - Radio Volume Figure 267: STOL Steering Wheel Controls Switch - Left Figure 268: S70R Steering Wheel Controls Switch - Right Figure 269: S78 Turn Signal/Multifunction Switch Figure 270: S79LR Window Switch - Left Rear Figure 271: S79P Window Switch - Passenger Figure 272: S79RR Window Switch - Right Rear Figure 273: S82 Windshield Wiper/Washer Switch Figure 274: S83 Vehicle On/Off Switch Figure 275: S91 Park Brake Control Switch Figure 276: S146 Window/Outside Rearview Mirror Switch - Driver Figure 277: S151 Regenerative Braking On-Demand Switch Figure 278: T2RR Antenna - Roof Rear X1 Figure 279: T2RR Antenna - Roof Rear X2 Figure 280: T3 Audio Amplifier X1 (UOA) Figure 281: T3 Audio Amplifier X2 (UOA) Figure 282: T3 Audio Amplifier X3 (UOA) Figure 283: <u>T6 Power Inverter Module X1</u> Figure 284: T6 Power Inverter Module X2 Figure 285: T6 Power Inverter Module X3 Figure 286: T10E Keyless Entry Antenna - Rear Compartment Figure 287: T10G Keyless Entry Antenna - Rear Fascia Figure 288: T10J Keyless Entry Antenna - Center Console Front Figure 289: T10K Keyless Entry Antenna - Center Console Rear Figure 290: T12 Automatic Transmission Assembly X1 Figure 291: T12 Automatic Transmission Assembly X2 Figure 292: T12 Automatic Transmission Assembly X3 Figure 293: T12 Automatic Transmission Assembly X4 Figure 294: T18 Battery Charger X1 Figure 295: T18 Battery Charger X2 Figure 296: T18 Battery Charger X3 Figure 297: T22 Mobile Device Wireless Charger Module (K4C) Figure 298: T24 Battery Charger - DC X1 Figure 299: T24 Battery Charger - DC X2 Figure 300: T24 Battery Charger - DC X3 Figure 301: T24 Battery Charger - DC X4 Figure 302: T24 Battery Charger - DC X5 Figure 303: T24 Battery Charger - DC X6 Figure 304: T24 Battery Charger - DC X7 Figure 305: T24 Battery Charger - DC X8 Figure 306: T24 Battery Charger - DC X9 (-CBT) Figure 307: T24 Battery Charger - DC X9 (CBT) Figure 308: V1 Air Ionizer X1 (KEM) Figure 309: X80 Accessory Power Receptacle Figure 310: X83 Auxiliary Audio Input X1 Figure 311: X83 Auxiliary Audio Input X2 Figure 312: X84 Data Link Connector Figure 313: X85 Steering Wheel Air Bag Coil X1 Figure 314: X85 Steering Wheel Air Bag Coil X2 Figure 315: X92 USB Receptacle (USS) Figure 316: X98 Hybrid/EV Battery Charger Receptacle X1 Figure 317: X98 Hybrid/EV Battery Charger Receptacle X2 Figure 318: X98 Hybrid/EV Battery Charger Receptacle X4

- 1. Power and Signal Distribution
- 2. Electrical Component and Inline Harness Connector End Views
- 3. Visual Identification
- 4.

Component Connector End Views

Figure 1: A4 Hybrid/EV Battery Pack X3 Figure 2: A4 Hybrid/EV Battery Pack X4 Figure 3: A10 Inside Rearview Mirror X1 Figure 4: A10 Inside Rearview Mirror X2 (DRZ) Figure 5: <u>A11 Radio X1</u> Figure 6: A11 Radio X2 Figure 7: All Radio X3 Figure 8: A11 Radio X4 (U2K) Figure 9: A11 Radio X5 (-MAH) Figure 10: All Radio X5 (MAH) Figure 11: A11 Radio X6 (U2K) Figure 12: All Radio X9 Figure 13: A20 Radio/HVAC Controls Figure 14: <u>A23C Liftgate Latch Assembly</u> Figure 15: A23D Door Latch Assembly - Driver Figure 16: A23LR Door Latch Assembly - Left Rear Figure 17: A23P Door Latch Assembly - Passenger Figure 18: A23RR Door Latch Assembly - Right Rear Figure 19: A24D Door Handle Assembly - Driver Exterior Figure 20: A24P Door Handle Assembly - Passenger Exterior Figure 21: B1 A/C Refrigerant Pressure Sensor Figure 22: B1C A/C Low Side Pressure Sensor Figure 23: B5LF Wheel Speed Sensor - Left Front Figure 24: B5LR Wheel Speed Sensor - Left Rear Figure 25: B5RF Wheel Speed Sensor - Right Front Figure 26: B5RR Wheel Speed Sensor - Right Rear Figure 27: B7B Air Temperature Sensor - Duct Lower Figure 28: B7F Air Temperature Sensor - Duct Upper Figure 29: B9 Ambient Air Temperature Sensor Figure 30: <u>B18 Battery Current Sensor</u> Figure 31: B20 Brake Fluid Level Switch Figure 32: B22 Brake Pedal Position Sensor Figure 33: B24 Mobile Telephone Microphone Figure 34: B55 Engine Hood Switch Figure 35: B59 Front Impact Sensor (AY0) Figure 36: <u>B59L Front Impact Sensor - Left (AYF/AYG)</u> Figure 37: B59R Front Impact Sensor - Right (AYF/AYG) Figure 38: B60 Passenger Presence Sensor (-AL0) Figure 39: B61P Seat Belt Tension Sensor - Passenger (AL0) Figure 40: B63L Side Impact Sensor - Left (AY0) Figure 41: B63LF Side Impact Sensor - Left Front (AYF/AYG) Figure 42: B63LR Side Impact Sensor - Left Rear (AYF/AYG) Figure 43: B63R Side Impact Sensor - Right (AY0) Figure 44: B63RF Side Impact Sensor - Right Front (AYF/AYG) Figure 45: B63RR Side Impact Sensor - Right Rear (AYF/AYG) Figure 46: B87 Rearview Camera (UV2) Figure 47: B87 Rearview Camera (UVB) Figure 48: <u>B88D Seat Belt Switch - Driver (AY0/AYF)</u> Figure 49: B88P Seat Belt Switch - Passenger (AL0+(AY0/AYF)) Figure 50: B107 Accelerator Pedal Position Sensor Figure 51: B160 Windshield Temperature and Inside Moisture Sensor Figure 52: <u>B174G Frontview Camera - Grille (UV2)</u> Figure 53: B174W Frontview Camera - Windshield (UHX/UHY/UEU) Figure 54: B197 Charge Port Door Position Switch Figure 55: B200 Rain Sensor Module (CE1) Figure 56: B201 Brake Control Brake Pedal Position Sensor Figure 57: B202 Hybrid/EV Electronics Coolant Temperature Sensor Figure 58: B218L Side Object Sensor Module - Left (UKC)

1. POWER AND SIGNAL DISTRIBUTION

- 2. WIRE AND CONNECTOR REPAIR
- 3. REPAIR INSTRUCTIONS
- 4.

Yazaki Connectors (16-Way)

Special Tools

- EL-38125-550 Terminal Release Tool Kit
- EL-38125-580 Terminal Release Tool Kit
- J-38125-215 Terminal Release Tool

For equivalent regional tools, refer to Special Tools.

Terminal Removal Procedure

1.

Click here for full size

- 2. While depressing the lock, pull the two connector halves apart.
- 3. Note:

The terminal position assurance (TPA) is fragile and may break if not done carefully.

- 4. Use a small flat-blade tool to very carefully push the TPA towards the face of the connector on both sides of the connector.
- 5.

Click here for full size

- 6. View of the male half of the connector with female terminals.
- 7.

Click here for full size

- 8. View of the female half of the connector with male terminals.
- 9. Use the J-38125-215 tool to release the terminals by inserting the tool into the terminal release cavity.
- 10.

Click here for full size

- 11. View of the female half of the connector with male terminals.
- 12.

Click here for full size

- 13. View of the male half of the connector with female terminals.
- 14. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
- 15. Repair the terminal by following the Repairing Connector Terminals procedure.
- 16. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

1. POWER AND SIGNAL DISTRIBUTION

- 2. WIRING SYSTEMS AND POWER MANAGEMENT
- 3. SPECIAL TOOLS AND EQUIPMENT
- 4.

Special Tools

Illustration	Tool Number / Description
SP DID DID DID	EL-38125-5A J-38125-5A Ultra Torch
<u>Click here for full size</u>	
Click here for full size	EL-25070 J-25070 Heat Gun 500–700 F

1. SAFETY AND SECURITY

- 2. REMOTE FUNCTIONS
- 3. DIAGNOSTIC INFORMATION AND PROCEDURES
- 4.

Remote Vehicle Start Malfunction

Diagnostic Instructions

- Perform the Diagnostic System Check Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of each diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

Circuit/System Description

Remote start begins as a radio frequency message sent from a keyless entry transmitter to the remote control door lock receiver. The message is then transferred to the body control module (BCM). The BCM monitors system conditions such as content theft deterrent, hood ajar status, and body DTCs to determine if a remote start event will occur. If conditions are determined to be acceptable, the BCM will activate the appropriate vehicle systems.

Diagnostic Aids

- The scan tool Body Control Module Remote Vehicle Start Disable History 1 Data and Remote Vehicle Start Disable History 2 Data lists can be used to help isolate an intermittent malfunction with remote vehicle starting. These data lists identify the status of various items that may disable remote vehicle starting during the past two remote vehicle start attempts. Any parameters that does not equal the expected result required for remote vehicle starting should be diagnosed in their respective subsection.
- Only the first and second vehicle transmitters are able to control the remote vehicle start function.
- Unwanted or inadvertent door lock/unlock activation may be requested by the OnStar® Remote Link application. It is possible that a customer may be unaware of account usage, resulting in an unwanted or phantom door lock/unlock. If normal system diagnosis results in an inability to verify the customer's concern, contact Technical Assistance Center (TAC).
- If the vehicle has a current vehicle DTC that illuminates the malfunction indicator lamp, the cause of the DTC must be diagnosed before proceeding with the remote start malfunction diagnostic.

Reference Information

Schematic Reference

Remote Function Schematics

Connector End View Reference

Master Electrical Component List

Description and Operation

Keyless Entry System Description and Operation

Electrical Information Reference

- Circuit Testing
- <u>Connector Repairs</u>
- <u>Testing for Intermittent Conditions and Poor Connections</u>
- <u>Wiring Repairs</u>

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

1. Verify the scan tool Body Control Module Push Button Ignition Switch parameter changes between Active and Inactive when pressing and

- 1. SUSPENSION
- 2. TIRE PRESSURE MONITORING
- 3. DIAGNOSTIC INFORMATION AND PROCEDURES
- 4.

DTC C0775

Diagnostic Instructions

- Perform the Diagnostic System Check Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- <u>Diagnostic Procedure Instructions</u> provides an overview of each diagnostic category.

DTC Descriptor

DTC C0775

Tire Pressure Monitoring System Sensors = Malfunction

Circuit/System Description

For an overview of the component/system, refer to: Tire Pressure Monitor Description and Operation

Conditions for Running the DTC

Ignition On/Vehicle in Service Mode.

Ignition Voltage 9–16 volts.

Conditions for Setting the DTC

Incomplete or failed Manual Learn (due to either timing out after learning at least one sensor and not learning all four sensors or exiting learn mode after learning at least one sensor and vehicle being out of PARK or vehicle power mode not in RUN/Propulsion).

Action Taken When the DTC Sets

- The tire pressure monitor indicator icon on the instrument panel cluster (IPC) flashes 60 to 90 seconds and then remains illuminated after the ignition switch is cycled ON and the IPC bulb check is complete.
- If equipped, the DIC displays a service tire monitor type message and dashes for all 4 tires.

Conditions for Clearing the DTC

A current DTC will be cleared after tire pressure sensors are learned through a manual learn, autolearn, or sensor ID write using EL-52545 tool.

A history DTC will clear after 40 ignition cycles.

Reference Information

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

Perform the following learn procedure: Tire Pressure Indicator Sensor Learn.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

Control Module References for control module replacement, programming, and setup.