

Body Control Module (BCM)

DTC Chart: Body Control Module (BCM)

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).

NOTE: Diagnostic Trouble Codes (DTCs) which are not listed in the DTC charts are often retrieved as a result of incorrect repair procedures. Before attempting any repairs for unlisted Diagnostic Trouble Codes (DTCs):

- repair all other Diagnostic Trouble Codes (DTCs).
- if no other Diagnostic Trouble Codes (DTCs) are retrieved, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test.
- if the unlisted Diagnostic Trouble Codes (DTCs) return, VERIFY the correct part number module is installed for the vehicle and if correct, install As-Built data from PTS following the diagnostic scan tool instructions under Module Programming > As-Built.

BCM DTC Chart

DTC	Description	Action
B1046:11	Front Fog Lamp Control Switch: Circuit Short To Ground	REFER to: Fog Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1048:01	Brake Fluid Level Switch: General Electrical Failure	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
B1048:7B	Brake Fluid Level Switch: Low Fluid Level	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
B1051:11	Front Washer Switch: Circuit Short To Ground	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1052:11	Rear Washer Switch: Circuit Short To Ground	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .

B108A:01	Start Button: General Electrical Failure	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B108A:24	Start Button: Signal Stuck High	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B108A:9E	Start Button: Stuck On	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B109F:01	Intrusion Sensor Module: General Electrical Failure	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:02	Intrusion Sensor Module: General Signal Failure	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:08	Intrusion Sensor Module: Bus Signal/Message Failure	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:49	Intrusion Sensor Module: Internal Electronic Failure	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:55	Intrusion Sensor Module: Not Configured	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:97	Intrusion Sensor Module: Component or System Operation Obstructed or Blocked	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B109F:9A	Intrusion Sensor Module: Component or System Operating Conditions	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B10AB:00	Remote Keyless Entry Synchronization: No Sub Type Information	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B10AD:01	Rain Sensor: General Electrical Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B10AD:02	Rain Sensor: General Signal Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B10AD:08	Rain Sensor: Bus Signal/Message Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).

B10AD:49	Rain Sensor: Internal Electronic Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B10AD:55	Rain Sensor: Not Configured	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B10AD:9A	Rain Sensor: Component or System Operating Conditions	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B10C6:01	Exterior Trunk Antenna: General Electrical Failure	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B10C7:01	Interior Trunk Antenna: General Electrical Failure	REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10C8:01	Interior Centre Antenna: General Electrical Failure	REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10D5:13	PATS Antenna: Circuit Open	REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
B10D7:05	PATS Key: System Programming Failure	Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing). With keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10D7:51	PATS Key: Not Programmed	REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
B10D7:55	PATS Key: Not Configured	Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing). With keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10D7:87	PATS Key: Missing Message	REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
B10D7:8F	PATS Key: Erratic	REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).

B10D8:00	PATS Key Less Than Minimum Programmed: No Sub Type Information	Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing). With keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10D9:87	PATS Transponder: Missing Message	REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
B10DA:51	PATS Target Identifier: Not Programmed	Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing). With keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing).
B10F1:14	Key In Switch: Circuit Short To Ground or Open	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
B10F3:11	Left front position light: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B10F3:15	Left front position light: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B10F4:11	Right front position light: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B10F4:15	Right front position light: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1115:11	High Mounted Stop Lamp control: Circuit Short To Ground	REFER to: Stoplamps (417-01 Exterior Lighting) .
B1115:15	High Mounted Stop Lamp control: Circuit Short To Battery or Open	REFER to: Stoplamps (417-01 Exterior Lighting) .
B1131:01	Wiper motor module: General Electrical Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1131:02	Wiper motor module: General Signal Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1131:08	Wiper motor module: Bus Signal / Message Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1131:49	Wiper motor module: Internal Electronic Failure	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1131:55	Wiper motor module: Not Configured	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).

B1131:9A	Wiper motor module: Component or System Operating Conditions	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1142:29	Ignition Status 1: Signal Invalid	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1147:11	Left Front Fog Lamps: Circuit Short To Ground	REFER to: Fog Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1147:15	Left Front Fog Lamps: Circuit Short To Battery or Open	REFER to: Fog Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1148:11	Right Front Fog Lamps: Circuit Short To Ground	REFER to: Fog Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1148:15	Right Front Fog Lamps: Circuit Short To Battery or Open	REFER to: Fog Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B115E:01	Camera Module: General Electrical Failure	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B115E:02	Camera Module: General Signal Failure	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B115E:08	Camera Module: Bus Signal / Message Failure	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B115E:49	Camera Module: Internal Electronic Failure	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B115E:55	Camera Module: Not Configured	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B115E:9A	Camera Module: Component or System Operating Conditions	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
B1175:01	Drivers Door Ajar Switch: General Electrical Failure	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1176:01	Passenger Door Ajar Switch: General Electrical Failure	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1182:00	Tire Pressure Monitoring System: No Sub Type Information	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1182:55	Tire Pressure Monitoring System: Not Configured	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1184:11	Steering Column Lock Output: Circuit Short To Ground	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .

B1184:15	Steering Column Lock Output: Circuit Short To Battery or Open	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B11C0:01	Driver Side Rear Door Ajar Switch: General Electrical Failure	REFER to: Interior Lighting (417-02 Interior Lighting) .
B11C1:01	Passenger Side Rear Door Ajar Switch: General Electrical Failure	REFER to: Interior Lighting (417-02 Interior Lighting) .
B11C6:01	Passenger Door External Antenna: General Electrical Failure	- For a starting concern, with keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing). - For a luggage compartment lid passive entry feature concern, REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B11CA:01	Driver Door External Antenna: General Electrical Failure	- For a starting concern, with keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing). - For a luggage compartment lid passive entry feature concern, REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B11D8:01	Restraint Event Notification: General Electrical Failure	REFER to: Airbag Supplemental Restraint System (SRS) - Raptor (501-20B Supplemental Restraint System, Diagnosis and Testing).
B11D9:09	Vehicle Battery: Component Failure	REFER to: Battery (414-01 Battery, Mounting and Cables, Diagnosis and Testing).
B11D9:16	Vehicle Battery: Circuit Voltage Below Threshold	GO to Pinpoint Test K
B11D9:17	Vehicle Battery: Circuit Voltage Above Threshold	GO to Pinpoint Test L
B11DB:02	Battery Monitoring Module "A": General Signal Failure	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).
B11DB:08	Battery Monitoring Module "A": Bus Signal / Message Failure	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).
B11DB:11	Battery Monitoring Module "A": Circuit Short To Ground	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).

B11DB:49	Battery Monitoring Module "A": Internal Electronic Failure	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).
B11DB:55	Battery Monitoring Module "A": Not Configured	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).
B11DB:9A	Battery Monitoring Module "A": Component or System Operating Conditions	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).
B1218:00	Transmitter Identification Code: No Sub Type Information	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B121A:11	Keypad Illumination Output: Circuit Short To Ground	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B121A:15	Keypad Illumination Output: Circuit Short To Battery or Open	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B121B:01	Keypad Input Switch: General Electrical Failure	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B123A:11	Left Front Turn Indicator: Circuit Short To Ground	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B123A:15	Left Front Turn Indicator: Circuit Short To Battery or Open	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B123B:11	Right Front Turn Indicator: Circuit Short To Ground	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B123B:15	Right Front Turn Indicator: Circuit Short To Battery or Open	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1240:11	Start Button Mode Indicator: Circuit Short To Ground	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1240:15	Start Button Mode Indicator: Circuit Short To Battery or Open	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1247:11	Left Rear Turn Indicator: Circuit Short To Ground	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1247:15	Left Rear Turn Indicator: Circuit Short To Battery or Open	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .

B1248:11	Right Rear Turn Indicator: Circuit Short To Ground	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1248:15	Right Rear Turn Indicator: Circuit Short To Battery or Open	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B124D:02	Tire Pressure Sensor: General Signal Failure	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1251:00	Tire Pressure Sensor Low Battery: No Sub Type Information	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1254:51	Right Rear (Outside on Dual Wheel) Tire Pressure Sensor and Transmitter Assembly: Not Programmed	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1255:51	Left Rear (Outside On Dual Wheel) Tire Pressure Sensor and Transmitter Assembly: Not Programmed	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
B1265:01	Left Rear Turn Lamp Feedback: General Electrical Failure	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1266:01	Right Rear Turn Lamp Feedback: General Electrical Failure	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1277:11	Reverse Lamp: Circuit Short To Ground	REFER to: Reversing Lamps (417-01 Exterior Lighting) .
B1277:15	Reverse Lamp: Circuit Short To Battery or Open	REFER to: Reversing Lamps (417-01 Exterior Lighting) .
B12C2:11	Puddle Lamp: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B12C2:15	Puddle Lamp: Circuit Short To Battery or Open	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1305:01	Hood Switch: General Electrical Failure	REFER to: Perimeter Anti-Theft Alarm (419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).
B130C:12	Load Shed Control: Circuit Short To Battery	Refer to the appropriate section in Group 414 for the procedure.
B130C:14	Load Shed Control: Circuit Short To Ground or Open	Refer to the appropriate section in Group 414 for the procedure.
B130F:12	Run Accessory Control: Circuit Short To Battery	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B130F:14	Run Accessory Control: Circuit Short To Ground or Open	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).

B1310:12	Run/Start Control: Circuit Short To Battery	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1310:14	Run/Start Control: Circuit Short To Ground or Open	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1313:11	Interior Lighting Output: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1313:15	Interior Lighting Output: Circuit Short To Battery or Open	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1314:11	White Lighting (Reflective Controls) Illumination Output: Circuit Short To Ground	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination) .
B1314:15	White Lighting (Reflective Controls) Illumination Output: Circuit Short To Battery or Open	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination) .
B1315:11	Backlighting (Non Reflective Controls) Illumination Output: Circuit Short To Ground	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination) .
B1315:15	Backlighting (Non Reflective Controls) Illumination Output: Circuit Short To Battery or Open	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination) .
B1319:11	Shift Interlock (BSI) Output Circuit: Circuit Short To Ground	REFER to: External Controls (307-05 Automatic Transmission External Controls) .
B1319:15	Shift Interlock (BSI) Output Circuit: Circuit Short To Battery or Open	REFER to: External Controls (307-05 Automatic Transmission External Controls) .
B1323:11	Horn Switch: Circuit Short To Ground	REFER to: Horn (413-06 Horn) .
B132B:12	Left Stop/Turn Lamp: Circuit Short To Battery	REFER to: Stoplamps (417-01 Exterior Lighting) .
B132B:14	Left Stop/Turn Lamp: Circuit Short To Ground or Open	REFER to: Stoplamps (417-01 Exterior Lighting) .
B132C:12	Right Stop/Turn Lamp: Circuit Short To Battery	REFER to: Stoplamps (417-01 Exterior Lighting) .
B132C:14	Right Stop/Turn Lamp: Circuit Short To Ground or Open	REFER to: Stoplamps (417-01 Exterior Lighting) .
B1330:01	DC/AC Inverter Module: General Electrical Failure	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .

B1330:02	DC/AC Inverter Module: General Signal Failure	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .
B1330:08	DC/AC Inverter Module: Bus Signal/Message Failure	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .
B1330:49	DC/AC Inverter Module: Internal Electronic Failure	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .
B1330:55	DC/AC Inverter Module: Not Configured	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .
B1330:9A	DC/AC Inverter Module: Component or System Operating Conditions	REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/ Inverter) .
B1336:01	Left Front Door External Antenna: General Electrical Failure	For a no start concern, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing). ; For a passive entry concern, REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1337:01	Right Front Door External Antenna: General Electrical Failure	For a no start concern, REFER to: Passive Anti-Theft System (PATS) (419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System, Diagnosis and Testing). ; For a passive entry concern, REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1381:11	Left Front Door Handle Proximity Sensor: Circuit Short To Ground	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1381:15	Left Front Door Handle Proximity Sensor: Circuit Short To Battery or Open	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1381:29	Left Front Door Handle Proximity Sensor: Signal Invalid	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1382:11	Right Front Door Handle Proximity Sensor: Circuit Short To Ground	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B1382:15	Right Front Door Handle Proximity Sensor: Circuit Short To Battery or Open	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

B1382:29	Right Front Door Handle Proximity Sensor: Signal Invalid	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
B139A:11	Front Wiper Slow Mode Input Signal: Circuit Short To Ground	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B139B:11	Front Wiper Intermittent Mode Input Signal: Circuit Short To Ground	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B139C:15	Front Wiper Variable Intermittent Mode Input Signal: Circuit Short To Battery or Open	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B13A4:11	Front Wiper Fast Mode Input: Circuit Short To Ground	REFER to: Wipers and Washers (501-16 Wipers and Washers, Diagnosis and Testing).
B1430:12	Power Point Relay Reset Output: Circuit Short To Battery	GO to Pinpoint Test U
B1430:14	Power Point Relay Reset Output: Circuit Short To Ground or Open	GO to Pinpoint Test U
B1435:12	Power Point Relay Set Output: Circuit Short To Battery	GO to Pinpoint Test U
B1435:14	Power Point Relay Set Output: Circuit Short To Ground or Open	GO to Pinpoint Test U
B1436:01	Digital Dimmer Switch Input: General Electrical Failure	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
B1438:03	Battery Current Sensor: FM (Frequency Modulated)/PWM (Pulse Width Modulated) Failure	REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
B143A:11	Crash Event Detection Output : Circuit Short To Ground	GO to Pinpoint Test N
B143B:11	Autolamp On Input: Circuit Short To Ground	REFER to: Autolamps (417-01 Exterior Lighting, Diagnosis and Testing).
B143C:11	Headlamp Off Input: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B143D:11	Headlamp On Input: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B143E:11	Headlamp Switch Input: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B143E:15	Headlamp Switch Input: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1444:11	Left Rear Stop/Position Lamp Output: Circuit Short To Ground	REFER to: Stoplamps (417-01 Exterior Lighting) .

B1444:15	Left Rear Stop/Position Lamp Output: Circuit Short To Battery or Open	REFER to: Stoplamps (417-01 Exterior Lighting) .
B1445:11	Rear Park Lamps Output: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1445:15	Rear Park Lamps Output: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1446:11	Front Park Lamps Output: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1446:15	Front Park Lamps Output: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1447:11	Parklamp On Switch Input: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1448:11	Right Rear Stop/Position Lamp Output: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1448:15	Right Rear Stop/Position Lamp Output: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B1449:12	Trailer Tow Park/Tail Lamp Output: Circuit Short To Battery	REFER to: Trailer Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1449:14	Trailer Tow Park/Tail Lamp Output: Circuit Short To Ground or Open	REFER to: Trailer Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B145C:11	Ambient Lighting Power Supply Output: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B145C:15	Ambient Lighting Power Supply Output: Circuit Short To Battery or Open	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1465:00	Ambient Lighting Bus 1: No Sub Type Information	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1467:00	Ambient Lighting Bus 3: No Sub Type Information	REFER to: Interior Lighting (417-02 Interior Lighting) .
B1472:12	Ignition Key Removal Inhibit: Circuit Short To Battery	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1472:14	Ignition Key Removal Inhibit: Circuit Short To Ground or Open	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
B1489:11	Battery Monitoring System (BMS) Sensor Power: Circuit Short To Ground	REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing).

B1493:11	Daytime Running Light: Circuit Short To Ground	REFER to: Daytime Running Lamps (DRL) (417-01 Exterior Lighting, Diagnosis and Testing).
B1493:15	Daytime Running Light: Circuit Short To Battery or Open	REFER to: Daytime Running Lamps (DRL) (417-01 Exterior Lighting, Diagnosis and Testing).
B1497:01	Left Front Turn Lamp Feedback: General Electrical Failure	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B1498:01	Right Front Turn Lamp Feedback: General Electrical Failure	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
B149E:11	Left Front Position/Sidemarker: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B149E:15	Left Front Position/Sidemarker: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B149F:11	Right Front Position/Sidemarker: Circuit Short To Ground	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B149F:15	Right Front Position/Sidemarker: Circuit Short To Battery or Open	REFER to: Parking, Rear and License Plate Lamps (417-01 Exterior Lighting) .
B14A3:11	Signature Lamps: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B14A3:15	Signature Lamps: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B14A7:11	Puddle/Cargo Switch Input: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B14AA:11	Demand Lamp Output: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B14AA:15	Demand Lamp Output: Circuit Short To Batter or Open	REFER to: Interior Lighting (417-02 Interior Lighting) .
B14AB:11	Spotlight Mirror Output: Circuit Short To Ground	REFER to: Spot Lamps (417-01 Exterior Lighting, Diagnosis and Testing).
B14B6:12	Snow Plow Output: Circuit Short To Battery	REFER to: Snow Plow Package (419-10 Multifunction Electronic Modules) .
B14B6:14	Snow Plow Output: Circuit Short To Ground or Open	REFER to: Snow Plow Package (419-10 Multifunction Electronic Modules) .
B14D8:11	Bed Lamp Output: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting) .
B14D8:15	Bed Lamp Output: Circuit Short To Battery or Open	REFER to: Interior Lighting (417-02 Interior Lighting) .

B14DB:55	Left Headlamp Driver Control System: Not Configured	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B14DC:55	Right Headlamp Driver Control System: Not Configured	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B153E:01	Trailer Hitch Light Output: General Electrical Failure	REFER to: Interior Lighting (417-02 Interior Lighting, Diagnosis and Testing).
B153E:08	Trailer Hitch Light Output: Bus Signal/Message Failure	REFER to: Interior Lighting (417-02 Interior Lighting, Diagnosis and Testing).
B153E:49	Trailer Hitch Light Output: Internal Electronic Failure	REFER to: Interior Lighting (417-02 Interior Lighting, Diagnosis and Testing).
B1537:11	Engine Stop-Start Button Backlight: Circuit Short To Ground	REFER to: Interior Lighting (417-02 Interior Lighting, Diagnosis and Testing).
B1537:15	Engine Stop-Start Button Backlight: Circuit Short To Battery or Open	REFER to: Interior Lighting (417-02 Interior Lighting, Diagnosis and Testing).
B1542:11	Right Stop/Turn Auxiliary Lamp: Circuit Short To Ground	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1542:15	Right Stop/Turn Auxiliary Lamp: Circuit Short To Battery or Open	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1543:11	Left Stop/Turn Auxiliary Lamp: Circuit Short To Ground	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1543:15	Left Stop/Turn Auxiliary Lamp: Circuit Short To Battery or Open	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1A85:11	Ambient Light Sensor: Circuit Short To Ground	REFER to: Autolamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1A85:13	Ambient Light Sensor: Circuit Open	REFER to: Autolamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1C55:12	Horn Relay: Circuit Short To Battery	REFER to: Horn (413-06 Horn) .
B1C55:14	Horn Relay: Circuit Short To Ground or Open	REFER to: Horn (413-06 Horn) .
B1D00:11	Left Low Beam: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D00:15	Left Low Beam: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D01:11	Right Low Beam: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).

B1D01:15	Right Low Beam: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D02:11	Left High Beam Circuit: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D02:15	Left High Beam Circuit: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D03:11	Right High Beam Circuit: Circuit Short To Ground	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D03:15	Right High Beam Circuit: Circuit Short To Battery or Open	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
B1D35:11	Hazard Switch: Circuit Short To Ground	REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting) .
C0040:12	Brake Pedal Switch "A": Circuit Short To Battery	REFER to: Stoplamps (417-01 Exterior Lighting) .
C1017:11	Boot/Trunk Primary Switch: Circuit Short To Ground	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
C113A:11	Wakeup Control: Circuit Short To Ground	• With keyless vehicle system, Refer to the appropriate section in Group 303 for the procedure. • Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
C113A:15	Wakeup Control: Circuit Short To Battery or Open	• With keyless vehicle system, Refer to the appropriate section in Group 303 for the procedure. • Without keyless vehicle system, REFER to: Passive Anti-Theft System (PATS) (419-01B Passive Anti-Theft System (PATS), Diagnosis and Testing).
C1A56:51	Left Front Tire Pressure Sensor and Transmitter Assembly: Not Programmed	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
C1A58:51	Right Front Tire Pressure Sensor and Transmitter Assembly: Not Programmed	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
C1D00:11	Park Brake Apply Switch : Circuit Short To Ground	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
P0230:12	Fuel Pump Primary Circuit: Circuit Short To Battery	GO to Pinpoint Test J

P0230:14	Fuel Pump Primary Circuit: Circuit Short To Ground or Open	GO to Pinpoint Test J
U0100:87	Lost Communication With ECM/PCM "A": Missing Message	GO to Pinpoint Test A
U0101:87	Lost Communication with TCM: Missing Message	GO to Pinpoint Test B
U0121:87	Lost Communication With Anti-Lock Brake System (ABS) Control Module: Missing Message	GO to Pinpoint Test C
U0131:87	Lost Communication With Power Steering Control Module: Missing Message	GO to Pinpoint Test D
U0137:87	Lost Communication With Trailer Brake Control Module: Missing Message	GO to Pinpoint Test V
U0151:87	Lost Communication With Restraints Control Module: Missing Message	GO to Pinpoint Test E
U0155:87	Lost Communication With Instrument Panel Cluster (IPC) Control Module: Missing Message	GO to Pinpoint Test F
U0184:87	Lost Communication With Radio: Missing Message	GO to Pinpoint Test G
U0199:87	Lost Communication With "Door Control Module A": Missing Message	GO to Pinpoint Test H
U0200:87	Lost Communication With "Door Control Module B": Missing Message	GO to Pinpoint Test I
U0208:87	Lost Communication With "Seat Control Module A": Missing Message	GO to Pinpoint Test M
U0212:87	Lost Communication With Steering Column Control Module: Missing Message	GO to Pinpoint Test O
U023A:87	Lost Communication With Image Processing Module A: Missing Message	GO to Pinpoint Test P
U0253:87	Lost Communication With Accessory Protocol Interface Module: Missing Message	GO to Pinpoint Test Q
U0256:87	Lost Communication With Front Controls Interface Module "A" : Missing Message	GO to Pinpoint Test R
U0258:87	Lost Communication With Radio Transceiver: Missing Message	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
U0559:56	Invalid Data Received From Radio Transceiver: Invalid / Incompatible Configuration	REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).
U1000:00	Solid State Driver Protection Active: Driver Disabled: No Sub Type Information	GO to Pinpoint Test S

U1A4C:55	Build/End of Line mode Active: Not Configured	- If the IPC message center indicates the vehicle has entered factory mode, REFER to: Factory Mode Deactivation (419-10 Multifunction Electronic Modules, General Procedures). - If the IPC message center does not indicate the vehicle has entered factory mode, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (BCM).
U2005:85	Vehicle Speed: Signal Above Allowable Range	Make sure the vehicle is stationary and the BCM entry level requirements (found on the diagnostic scan tool self-test screen) are met prior to performing the self-test. A speed signal is detected during the self-test. DIAGNOSE any observable symptoms that are present. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the BCM self-test. If the DTC returns, diagnose any PCM or ABS Diagnostic Trouble Codes (DTCs) causing a false vehicle speed signal.
U2100:00	Initial Configuration Not Complete: No Sub Type Information	CHECK the vehicle service history for recent service actions related to this module. This DTC sets due to incomplete or incorrect PMI procedures. INSTALL As-Built data from Professional Technician Society (PTS) following diagnostic scan tool instructions under Module Programming>As-Built.
U2101:00	Control Module Configuration Incompatible: No Sub Type Information	CHECK the vehicle service history for recent service actions related to this module. This DTC sets due to incomplete or incorrect PMI procedures. INSTALL As-Built data from Professional Technician Society (PTS) following diagnostic scan tool instructions under Module Programming>As-Built.
U2200:00	Control Module Configuration Memory Corrupt: No Sub Type Information	INSTALL As-Built data from Professional Technician Society (PTS) following diagnostic scan tool instructions under Module Programming>As-Built. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If BCM U2200:00 is retrieved again,   Click here to access Guided Routine (BCM).
U3000:49	Control Module: Internal Electronic Failure	ADDRESS all other Diagnostic Trouble Codes (DTCs) first. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If no BCM Diagnostic Trouble Codes (DTCs) are retrieved,   Click here to access Guided Routine (BCM).
U3006:16	Control Module Input Power "A": Circuit Voltage Below Threshold	GO to Pinpoint Test K
U3006:17	Control Module Input Power "A": Circuit Voltage Above Threshold	GO to Pinpoint Test L
U3006:1C	Control Module Input Power "A": Circuit Voltage Out of Range	GO to Pinpoint Test T
U3007:16	Control Module Input Power "B": Circuit Voltage Below Threshold	GO to Pinpoint Test K
U3007:17	Control Module Input Power "B": Circuit Voltage Above Threshold	GO to Pinpoint Test L

U300A:01	Ignition Switch: General Electrical Failure	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
U3013:16	Control Module Input Power "C": Circuit Voltage Below Threshold	GO to Pinpoint Test K
U3013:17	Control Module Input Power "C": Circuit Voltage Above Threshold	GO to Pinpoint Test L
U3014:16	Control Module Input Power "D": Circuit Voltage Below Threshold	GO to Pinpoint Test K
U3014:17	Control Module Input Power "D": Circuit Voltage Above Threshold	GO to Pinpoint Test L

Symptom Chart

Symptom Chart: Multifunction Electronic Modules

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).

Condition	Possible Sources	Action
A module does not respond to the diagnostic scan tool	• Fuse • Wiring, terminals or connectors • Module	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Pinpoint Tests

U0100:87

Normal Operation and Fault Conditions

The BCM communicates with the PCM over the HS-CAN.

REFER to: Communications Network (418-00 Module Communications Network) .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0100:87	Lost Communication With ECM/PCM "A": Missing Message	A continuous memory DTC that sets in the BCM if powertrain data messages received from the PCM over the HS-CAN are missing.

Possible Sources

- Communication network concern
- Charging system concern
- PCM
- BCM

PINPOINT TEST A : U0100:87

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.*

A1 VERIFY THE DIAGNOSTIC SCAN TOOL COMMUNICATES WITH THE PCM (POWERTRAIN CONTROL MODULE)

- Ignition ON.
- Connect the diagnostic tool.
- Check that a vehicle session can be established using the diagnostic scan tool.

Can a vehicle session be established?

Yes	GO to A2
No	DIAGNOSE the PCM not communicating with the diagnostic scan tool. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

A2 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0100:87 retrieved again?

Yes	GO to A3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

A3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PCM (POWERTRAIN CONTROL MODULE)

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

Are any voltage system related Diagnostic Trouble Codes (DTCs) present?

Yes	Refer to the appropriate section in Group 303 for the procedure.
No	GO to A4

A4 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE BCM (BODY CONTROL MODULE) SELF-TEST

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to the BCM DTC Chart.
No	GO to A5

A5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0100 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0100 set in any other module?

Yes	GO to A6
No	GO to A7

A6 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Disconnect and inspect the PCM and all 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 PCM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PCM. Refer to the appropriate section in Group 303 for the procedure.
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.

A7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U0101:87

Normal Operation and Fault Conditions

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0101:87	Lost Communication with TCM: Missing Message	Sets in the BCM if transmission data messages from the TCM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- TCM
- BCM

B1 CHECK THE COMMUNICATION NETWORK

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

Does the TCM pass the network test?

Yes	GO to B2
No	DIAGNOSE no communication with the TCM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

B2 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE BCM (BODY CONTROL MODULE) SELF-TEST

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

Is DTC U3003:16 or U3003:17 recorded?

Yes	For DTC U3003:16, GO to Pinpoint Test K For DTC U3003:17, GO to Pinpoint Test L
No	GO to B3

B3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE TCM (TRANSMISSION CONTROL MODULE)

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

Are any TCM Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Diagnostic Trouble Code (DTC) Charts and Pinpoint Tests - 3.5L EcoBoost (272kW/370PS) (307-01B Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Diagnosis and Testing).
No	GO to B4

B4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

NOTE: If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.

- Clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC U0101:87 still present?

Yes	GO to B5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

B5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0101:87 SET IN OTHER MODULES

- Clear all Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0101:87 set in any other module?

Yes	GO to B6
No	GO to B7

B6 CHECK FOR CORRECT TCM (TRANSMISSION CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the TCM and all related in-line 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
- Connect the TCM and all related in-line connector. Make sure it seats and latches 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TCM. REFER to: Transmission Control Module (TCM) - 3.0L Power Stroke Diesel/3.5L EcoBoost (272kW/370PS) (307-01B Automatic Transmission - 10-Speed Automatic Transmission - 10R80, 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.

B7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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
- Connect the BCM and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U0121:87

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

Normal Operation and Fault Conditions

The BCM communicates with the ABS module through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0121:87	Lost Communication With Anti-Lock Brake System (ABS) Control Module: Missing Message	A continuous memory DTC that sets in the BCM if ABS messages received from the ABS module through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- ABS module
- BCM

PINPOINT TEST C : U0121:87

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.*

C1 CHECK THE COMMUNICATION NETWORK

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

Does the ABS module pass the network test?

Yes	GO to C2
No	DIAGNOSE no communication with the ABS module. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

C2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to C3

C3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE

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

Are any voltage system related 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) .
No	GO to C4

C4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0121:87 still present?

Yes	GO to C5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

C5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0121:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0121:87 set in other modules?

Yes	GO to C6
No	GO to C7

C6 CHECK FOR CORRECT ABS (ANTI-LOCK BRAKE SYSTEM) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the ABS module and all 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 ABS module and all related in-line connectors. Make sure it seats and latches 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ABS module. REFER to: Anti-Lock Brake System (ABS) Module (206-09 Anti-Lock Brake System (ABS) and Stability Control, 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.

C7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U0131:87

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

Normal Operation and Fault Conditions

The BCM communicates with the PSCM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0131:87	Lost Communication With Power Steering Control Module: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the PSCM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- PSCM
- BCM

PINPOINT TEST D : U0131:87

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.*

D1 CHECK THE COMMUNICATION NETWORK

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

Does the PSCM pass the network test?

Yes	GO to D2
No	DIAGNOSE no communication with the PSCM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

D2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to D3

D3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PSCM (POWER STEERING CONTROL MODULE)

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

Is there any DTC recorded?

Yes	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
No	GO to D4

D4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0131:87 still present?

Yes	GO to D5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

D5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0131:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0131:87 set in other modules?

Yes	GO to D6
No	GO to D7

D6 CHECK FOR CORRECT PSCM (POWER STEERING CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PSCM and all 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 PSCM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (EPAS).
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.

D7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0151:87

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

Normal Operation and Fault Conditions

The BCM communicates with the RCM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0151:87	Lost Communication With Restraints Control Module: Missing Message	A continuous memory DTC that sets in the BCM if SRS messages received from the RCM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- RCM
- BCM

PINPOINT TEST E : U0151:87

NOTE: If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.

E1 CHECK THE COMMUNICATION NETWORK

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

Does the RCM pass the network test?

Yes	GO to E2
No	DIAGNOSE no communication with the RCM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

E2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to E3

E3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE RCM (RESTRAINTS CONTROL MODULE)

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

Are any voltage system related Diagnostic Trouble Codes (DTCs) present?

Yes	Refer to the appropriate section in Group 501 for the procedure.
No	GO to E4

E4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0151:87 still present?

Yes	GO to E5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

E5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0151:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0151:87 set in other modules?

Yes	GO to E6
No	GO to E7

E6 CHECK FOR CORRECT RCM (RESTRAINTS CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the RCM and all 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 RCM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new RCM. REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint 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.

E7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0155:87

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

Normal Operation and Fault Conditions

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0155:87	Lost Communication With Instrument Panel Cluster (IPC) Control Module: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the IPC through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- IPC
- BCM

PINPOINT TEST F : U0155:87

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.*

F1 CHECK THE COMMUNICATION NETWORK

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

Does the IPC pass the network test?

Yes	GO to F2
No	DIAGNOSE no communication with the IPC. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

F2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to F3

F3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE IPC (INSTRUMENT PANEL CLUSTER)

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

Are any voltage system related Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
No	GO to F4

F4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0155:87 still present?

Yes	GO to F5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

F5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0155:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0155:87 set in other modules?

Yes	GO to F6
No	GO to F7

F6 CHECK FOR CORRECT IPC (INSTRUMENT PANEL CLUSTER) OPERATION

- Ignition OFF.
- Disconnect and inspect the IPC and all 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 IPC and all related in-line connectors. Make sure it seats and latches 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (IPC).
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.

F7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0184:87

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

Normal Operation and Fault Conditions

The BCM communicates with the ACM through the GWM.
 REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0184:87	Lost Communication With Radio: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the ACM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- ACM
- BCM

PINPOINT TEST G : U0184:87

NOTE: <i>If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.</i>	
G1 CHECK THE COMMUNICATION NETWORK	

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

Does the ACM pass the network test?

Yes	GO to G2
No	DIAGNOSE no communication with the ACM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

G2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to G3

G3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE ACM (AUDIO FRONT CONTROL MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	Refer to the appropriate section in Group 415 for the procedure.
No	GO to G4

G4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0184:87 still present?

Yes	GO to G5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

G5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0184:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0184:87 set in other modules?

Yes	GO to G6
No	GO to G7

G6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the ACM and all 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 ACM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. Refer to the appropriate section in Group 415 for the procedure.
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.

G7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0199:87

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

Normal Operation and Fault Conditions

The BCM communicates with the DDM through the GWM.
 REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0199:87	Lost Communication With "Door Control Module A": Missing Message	A continuous memory DTC that sets in the BCM if messages received from the DDM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- DDM
- BCM

PINPOINT TEST H : U0199:87

NOTE: <i>If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.</i>
H1 CHECK THE COMMUNICATION NETWORK

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

Does the DDM pass the network test?

Yes	GO to H2
No	DIAGNOSE no communication with the DDM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

H2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to H3

H3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE DDM (DRIVER DOOR MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
No	GO to H4

H4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0199:87 still present?

Yes	GO to H5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

H5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0199:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0199:87 set in other modules?

Yes	GO to H6
No	GO to H7

H6 CHECK FOR CORRECT DDM (DRIVER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the DDM and all 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 and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new DDM. REFER to: Driver Door Module (DDM) (419-10 Multifunction Electronic Modules, 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.

H7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0200:87

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

Normal Operation and Fault Conditions

The BCM communicates with the PDM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0200:87	Lost Communication With "Door Control Module B": Missing Message	A continuous memory DTC that sets in the BCM if messages received from the PDM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- PDM
- BCM

PINPOINT TEST I : U0200:87

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.*

I1 CHECK THE COMMUNICATION NETWORK

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

Does the PDM pass the network test?

Yes	GO to I2
No	DIAGNOSE no communication with the PDM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

I2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCS).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to I3

I3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PDM (PASSENGER DOOR MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).
No	GO to I4

I4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0200:87 still present?

Yes	GO to 15
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

I5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0200 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0200:87 set in other modules?

Yes	GO to 16
No	GO to 17

I6 CHECK FOR CORRECT PDM (PASSENGER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PDM and all 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 PDM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PDM. REFER to: Passenger Door Module (PDM) (419-10 Multifunction Electronic Modules, 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.

I7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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P0230:12, P0230:14

Refer to Wiring Diagrams Cell 23 for schematic and connector information.

Normal Operation and Fault Conditions

The BCM provides a ground to the coil side of the BJB fuel pump relay.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
P0230:12	Fuel Pump Primary Circuit: Circuit Short To Battery	A continuous and on-demand DTC that sets when the BCM detects a short to voltage from the fuel pump relay coil circuit.
P0230:14	Fuel Pump Primary Circuit: Circuit Short To Ground or Open	A continuous DTC that sets when the BCM detects a short to ground or open from the fuel pump relay coil circuit.

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Fuel pump relay
- BCM

Visual Inspection and Diagnostic Pre-Checks

Inspect BJB fuse 56 (20A).

PINPOINT TEST J : P0230:12, P0230:14

J1 CHECK THE FUEL PUMP RELAY

- Ignition OFF.
- Swap the fuel pump relay with a known good relay.
- Ignition ON.
- Using a diagnostic scan tool, clear the BCM Diagnostic Trouble Codes (DTCs).
- Perform the BCM self-test.

Is DTC P0230:12 or DTC P0230:14 still present?

Yes	For DTC P0230:12, GO to J2 For DTC P0230:14, GO to J3
No	REPLACE the fuel pump relay.

J2 CHECK FOR A SHORT TO VOLTAGE ON THE FUEL PUMP RELAY COIL CONTROL CIRCUIT

- Ignition OFF.
- Remove fuel pump relay.
- Disconnect BCM C2280F.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to J4

J3 CHECK FOR VOLTAGE AT THE BCM (BODY CONTROL MODULE)

- Ignition OFF.
- Disconnect BCM C2280F.
- Using the Terminal Release Kit, release and temporarily remove BCM C2280F-26.
- Connect BCM C2280F.
- Ignition ON.

Is the voltage greater than 11 volts?

Yes	GO to J4
No	VERIFY BJB fuse is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagram manual to identify the possible causes for the short circuit.

J4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

Vehicle Ground Information

Refer to Wiring Diagrams Cell 10 for schematic and connector information.

Vehicle Power Information

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

The BCM receives voltage at all times from the BJB.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B11D9:16	Vehicle Battery: Circuit Voltage Below Threshold	A continuous and on-demand DTC that sets in the BCM if the BCM detects lower than expected battery voltage on the voltage supply input circuit.
U3006:16	Control Module Input Power "A": Circuit Voltage Below Threshold	A continuous and on-demand DTC that sets in the BCM if the BCM detects lower than expected battery voltage on the voltage supply input circuit.
U3007:16	Control Module Input Power "B": Circuit Voltage Below Threshold	A continuous DTC that sets in the BCM if the BCM detects lower than expected battery voltage on the voltage supply input circuit.
U3013:16	Control Module Input Power "C": Circuit Voltage Below Threshold	A continuous DTC that sets in the BCM if the BCM detects lower than expected battery voltage on the voltage supply input circuit.
U3014:16	Control Module Input Power "D": Circuit Voltage Below Threshold	A continuous DTC that sets in the BCM if the BCM detects lower than expected battery voltage on the voltage supply input circuit.

Possible Sources

- Wiring, terminals or connectors
- Charging system concern
- Battery concern
- BJB
- BCM

PINPOINT TEST K : BCM (BODY CONTROL MODULE) INPUT POWER VOLTAGE BELOW THRESHOLD

K1 RECHECK THE BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC U3006:16, U3007:16, U3013:16 or U3014:16 still present?

Yes	GO to K2
No	The system is operating correctly at this time. The DTC may have been set due to a previous low battery voltage condition. CLEAR the DTC.

K2 CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCS) SET IN OTHER MODULES

- Using a diagnostic scan tool, retrieve all Diagnostic Trouble Codes (DTCs).

Are any charging system Diagnostic Trouble Codes (DTCs) recorded?

Yes	DIAGNOSE the charging system concern. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
No	GO to K3

K3 CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Check the battery condition and verify the battery is fully charged.
REFER to: [Battery](#) (414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Is the battery OK and fully charged?

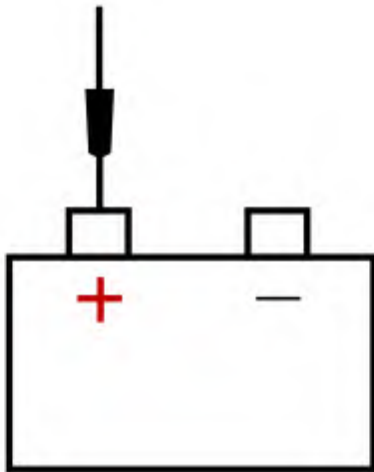
Yes	GO to K4
No	If the battery is discharged, DIAGNOSE the cause of the low battery condition. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing). If the battery condition fails, INSTALL a new battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

K4 COMPARE THE BCM (BODY CONTROL MODULE) BATTERY VOLTAGE (V_BATT_BCM) PID (PARAMETER IDENTIFICATION) WITH THE ACTUAL BATTERY VOLTAGE

- Start the engine.
- Turn on accessories (climate control blower on high speed, exterior lights).
- With the engine running at idle, measure and record battery voltage:

Positive Lead	Measurement / Action	Negative Lead

E148840



- Using a diagnostic scan tool, view the BCM PID V_BATT_BCM.

Is the recorded battery voltage within 0.2 volt of the PID?

Yes	TURN the engine off, GO to K7
No	GO to K5

K5 CHECK THE BCM (BODY CONTROL MODULE) VOLTAGE SUPPLY CIRCUITS

- Ignition OFF.
- Disconnect BCM C2280G.
- Disconnect BCM C2280H.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280G-17		Ground
C2280G-21		Ground
C2280G-22		Ground

Positive Lead	Measurement / Action	Negative Lead
C2280H-1		Ground

Are the voltages within 0.2 volt of the recorded battery voltage?

Yes	GO to K6
No	REPAIR the circuit in question for high resistance.

K6 CHECK THE BCM (BODY CONTROL MODULE) PROCESSOR GROUNDS

- Ignition OFF.
- Disconnect BCM C2280C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280C-6	Ω	Ground
C2280C-10		Ground

Are the resistances less than 3 ohms?

Yes	GO to K7
No	REPAIR the circuit in question for high resistance.

K7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect the BCM and all 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 all BCM and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

BCM Input Power Voltage Above Threshold

Vehicle Ground Information

Refer to Wiring Diagrams Cell 10 for schematic and connector information.

Vehicle Power Information

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B11D9:17	Vehicle Battery: Circuit Voltage Above Threshold	A continuous and on-demand DTC that sets in the BCM if the BCM detects higher than expected battery voltage on the voltage supply input circuit.
U3006:17	Control Module Input Power "A": Circuit Voltage Above Threshold	A continuous and on-demand DTC that sets in the BCM if the BCM detects higher than expected battery voltage on the voltage supply input circuit.
U3007:17	Control Module Input Power "B": Circuit Voltage Above Threshold	A continuous DTC that sets in the BCM if the BCM detects higher than expected battery voltage on the voltage supply input circuit.
U3013:17	Control Module Input Power "C": Circuit Voltage Above Threshold	A continuous DTC that sets in the BCM if the BCM detects higher than expected battery voltage on the voltage supply input circuit.
U3014:17	Control Module Input Power "D": Circuit Voltage Above Threshold	A continuous DTC that sets in the BCM if the BCM detects higher than expected battery voltage on the voltage supply input circuit.

Possible Sources

- Charging system concern
- BCM

PINPOINT TEST L : BCM (BODY CONTROL MODULE) INPUT POWER VOLTAGE ABOVE THRESHOLD

NOTE: U3006:17, U3007:17, U3013:17 or U3014:17 may be stored in the module memory due to previous battery charging or vehicle jump starting events.

L1 CHECK FOR OVERCHARGING DIAGNOSTIC TROUBLE CODES (DTCS) SET IN OTHER MODULES

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

Are any charging system Diagnostic Trouble Codes (DTCs) recorded?

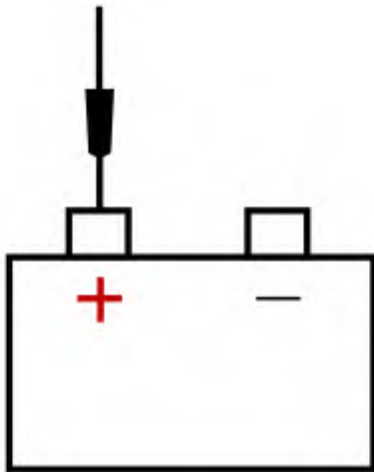
Yes	DIAGNOSE the charging system concern. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
No	GO to L2

L2 CHECK THE BATTERY VOLTAGE

- Turn off all interior/exterior lights and accessories.
- Start and run the engine at approximately 2,000 rpm for 3 minutes while monitoring the battery voltage.

Positive Lead	Measurement / Action	Negative Lead

E148840



Does the battery voltage rise to 16 volts or higher?

Yes	DIAGNOSE the over-charging system concern. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
No	GO to L3

L3 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:17, U3007:17, U3013:17 or U3014:17 present?

Yes	GO to L4
No	The system is operating correctly at this time. The DTC may have been caused by module connections or may have been set previously during battery charging or while jump starting the vehicle. ADDRESS the root cause of any connector or pin issues.

L4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U0208:87

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

Normal Operation and Fault Conditions

The BCM communicates with the DSM through the GWM.
REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0208:87	Lost Communication With "Seat Control Module A": Missing Message	A continuous memory DTC that sets in the BCM if messages received from the DSM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- DSM
- BCM

PINPOINT TEST M : U0208:87

NOTE: <i>If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been performed.</i>	
M1 CHECK THE COMMUNICATION NETWORK	
• Using a diagnostic scan tool, perform a network test.	
Does the PDM pass the network test?	
Yes	GO to M2
No	DIAGNOSE no communication with the DSM. REFER to: Communications Network (418-00 Module Communications Network) .
M2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)	

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to M3

M3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE DSM (DRIVER FRONT SEAT MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Front Seats (501-10A Front Seats, Diagnosis and Testing).
No	GO to M4

M4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0208:87 still present?

Yes	GO to M5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

M5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0208:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0208:87 set in other modules?

Yes	GO to M6
No	GO to M7

M6 CHECK FOR CORRECT DSM (DRIVER FRONT SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the DSM and all 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 DSM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, 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.

M7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

B143A:11

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

The BCM transmits an event notification signal which communicates crash status and SRS deployment status to the PCM. When the PCM receives an event notification signal which indicates a crash, it initiates fuel cut-off.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B143A:11	Crash Event Detection Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets in the BCM if the BCM senses a short to ground on the event notification signal circuit to the PCM.

Possible Sources

- Wiring, terminals or connectors
- PCM
- BCM

PINPOINT TEST N : B143A:11

N1 CONFIRM THE DTC (DIAGNOSTIC TROUBLE CODE) RESETS

- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC B143A:11 still present?

Yes	GO to N2
No	The system is operating correctly at this time. The DTC may have been falsely set by a BCM self-test, causing the signal to momentarily stop and set the DTC.

N2 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect PCM.
- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC B143A:11 still present?

Yes	GO to N3
No	GO to N4

N3 CHECK THE EVENT NOTIFICATION SIGNAL CIRCUIT FOR A SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
C2280F-29	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to N5
No	REPAIR the circuit.

N4 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PCM and all 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 PCM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PCM. Refer to the appropriate section in Group 303 for the procedure.
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.

N5 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U0212:87

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

Normal Operation and Fault Conditions

The BCM communicates with the SCCM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions

U0212:87	Lost Communication With Steering Column Control Module: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the SCCM through the GWM are missing.
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Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- SCCM
- BCM

PINPOINT TEST O : U0212:87

O1 CHECK THE COMMUNICATION NETWORK

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

Does the SCCM pass the network test?

Yes	GO to O2
No	DIAGNOSE no communication with the SCCM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

O2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCS).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to O3

O3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE SCCM (STEERING COLUMN CONTROL MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components) .
No	GO to O4

O4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0212:87 still present?

Yes	GO to O5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

O5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0212:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0212:87 set in other modules?

Yes	GO to O6
No	GO to O7

06 CHECK FOR CORRECT SCCM (STEERING COLUMN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the SCCM and all 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 SCCM and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, 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.

07 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

U023A:87

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

Normal Operation and Fault Conditions

The BCM communicates with the SCCM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U023A:87	Lost Communication With Image Processing Control Module A: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the IPMA through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- IPMA
- GWM concern
- BCM

PINPOINT TEST P : U0212:87

P1 CHECK THE COMMUNICATION NETWORK

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

Does the IPMA pass the network test?

Yes	GO to P2
No	DIAGNOSE no communication with the IPMA. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

P2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCS).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to P3

P3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE IPMA (IMAGE PROCESSING MODULE A)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Lane Keeping System (419-07 Lane Keeping System, Diagnosis and Testing).
No	GO to P4

P4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U023A:87 still present?

Yes	GO to P5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

P5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U023A:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U023A:87 set in other modules?

Yes	GO to P6
No	GO to P7

P6 CHECK FOR CORRECT IPMA (IMAGE PROCESSING MODULE A) OPERATION

- Ignition OFF.
- Disconnect and inspect the IPMA and all 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 IPMA and all 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new IPMA. 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.

P7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0253:87

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

Normal Operation and Fault Conditions

The BCM communicates with the IPMA through the GWM.
 REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0253:87	Lost Communication With Accessory Protocol Interface Module: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the APIM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- APIM
- BCM

PINPOINT TEST Q : U0253:87

Q1 CHECK THE COMMUNICATION NETWORK

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

Does the APIM pass the network test?

Yes	GO to Q2
No	DIAGNOSE no communication with the APIM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Q2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to Q3

Q3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE APIM (SYNC MODULE) SELF-TEST

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	Refer to the appropriate section in Group 415 for the procedure.
No	GO to Q4

Q4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0253:87 still present?

Yes	GO to Q5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

Q5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0253:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0253:87 set in other modules?

Yes	GO to Q6
No	GO to Q7

Q6 CHECK FOR CORRECT APIM (SYNC MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the APIM and all related in-line 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 APIM and all related in-line connector. Make sure it seats and latches 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (APIM).
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.

Q7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U0256:87

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

Normal Operation and Fault Conditions

The BCM communicates with the APIM through the GWM.
 REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0256:87	Lost Communication With Front Controls Interface Module "A" : Missing Message	A continuous memory DTC that sets in the BCM if messages received from the FCIM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM concern
- FCIM
- BCM

PINPOINT TEST R : U0256:87

R1 CHECK THE COMMUNICATION NETWORK

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

Does the FCIM pass the network test?

Yes	GO to R2
No	DIAGNOSE no communication with the FCIM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

R2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to R3

R3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE FCIM (FRONT CONTROLS INTERFACE MODULE)

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	Refer to the appropriate section in Group 415 for the procedure.
No	GO to R4

R4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0256:87 still present?

Yes	GO to R5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

R5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0256:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0256:87 set in other modules?

Yes	GO to R6
No	GO to R7

R6 CHECK FOR CORRECT FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCIM and all related in-line 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 FCIM and all related in-line connector. Make sure it seats and latches 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 TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (FCIM).
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.

R7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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U1000:00

Normal Operation and Fault Conditions

The BCM uses a solid state driver (Field Effect Transistor (FET)) to control the output of several vehicle systems. When an overload occurs on any of these drivers, the BCM disables the output and tracks the number of repetitive faults on each of these circuits. The module compares this number of overloads to 3 progressive thresholds established for each circuit. At each threshold, DTC U1000:00 sets along with the DTC associated with the affected circuit.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U1000:00	Solid State Driver Protection Active; Driver Disabled; No Sub Type Information	A continuous memory DTC that sets when the BCM has disabled a circuit due to a repetitive circuit overload and a progressive threshold is met.

Possible Sources

- BCM output circuit short
- BCM

PINPOINT TEST S : U1000:00

S1 REVIEW THE DIAGNOSTIC TROUBLE CODES (DTCS)	
• Ignition ON. • Perform the BCM self-test. • Review the Diagnostic Trouble Codes (DTCs) from the BCM self-test.	
Are any Diagnostic Trouble Codes (DTCs) present besides U1000:00?	
Yes	CORRECT the Diagnostic Trouble Codes (DTCs). REFER to the BCM DTC Chart in this section.
No	GO to S2

S2 REPEAT THE BCM (BODY CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Repeat the BCM self-test.

Is DTC U1000:00 still present?

Yes	 Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The circuit short has been repaired.

U3006:1C

Vehicle Ground Information

Refer to Wiring Diagrams Cell 10 for schematic and connector information.

Vehicle Power Information

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Charging System - 2.7L EcoBoost \(238kW/324PS\)/3.5L EcoBoost \(272kW/370PS\) - System Operation and Component Description](#) (414-00 Charging System - General Information, Description and Operation).

REFER to: [Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT - System Operation and Component Description](#) (414-00 Charging System - General Information, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions

U3006:1C	Control Module Input Power "A": Circuit Voltage Out of Range	A continuous memory DTC that sets in the BCM if the BCM detects out of range voltage on the voltage supply input circuits.
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Possible Sources

- Wiring, terminals or connectors
- Charging system concern
- Battery concern
- BJB
- BCM

PINPOINT TEST T : U3006:1C

T1 CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCs) IN THE BCM (BODY CONTROL MODULE)

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

Are any charging system Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to the BCM DTC Chart.
No	GO to T2

T2 CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCs) SET IN OTHER MODULES

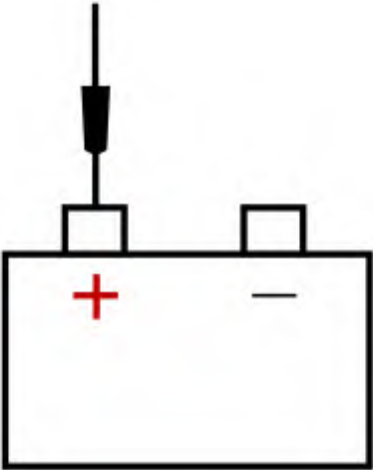
- Ignition ON.
- Using a diagnostic scan tool, retrieve all Diagnostic Trouble Codes (DTCs).

Are any charging system Diagnostic Trouble Codes (DTCs) recorded?

Yes	DIAGNOSE the charging system concern. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
No	GO to T3

T3 CHECK THE BATTERY VOLTAGE

- Turn off all interior/exterior lights and accessories.
- Start and run the engine at approximately 2,000 rpm for 3 minutes while monitoring the battery voltage.

Positive Lead	Measurement / Action	Negative Lead
E148840 		

Does the battery voltage rise to 16 volts or higher?

Yes	DIAGNOSE the charging system concern. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing).
No	GO to T4

T4 RECHECK THE BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Diagnostic Trouble Codes (DTCs).

Is DTC U3006:1C present?

Yes	GO to T5
No	The system is operating correctly at this time. The DTC may have been caused by module connections or may have been set previously during battery charging or while jump starting the vehicle. ADDRESS the root cause of any connector or pin issues.

T5 CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Check the battery condition and verify the battery is fully charged.
REFER to: [Battery](#) (414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Is the battery OK and fully charged?

Yes	GO to T6
No	If the battery is discharged, DIAGNOSE the cause of the low battery condition. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (272kW/370PS) (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 3.3L Duratec - V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing). If the battery condition fails, INSTALL a new battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

T6 COMPARE THE BCM (BODY CONTROL MODULE) BATTERY VOLTAGE (V_BATT_BCM) PID (PARAMETER IDENTIFICATION) WITH THE ACTUAL BATTERY VOLTAGE

- Start the engine.
- Turn on accessories (climate control blower on high speed, exterior lights).
- With the engine running at idle, measure and record battery voltage:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
		

- Using a diagnostic scan tool, view the BCM PID V_BATT_BCM.

Is the recorded battery voltage within 0.2 volt of the PID?

Yes	GO to T9
No	GO to T7

T7 CHECK THE BCM (BODY CONTROL MODULE) VOLTAGE SUPPLY CIRCUIT

- Ignition OFF.
- Disconnect BCM C2280G.
- Disconnect BCM C2280H.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280G-17		Ground
C2280G-21		Ground

C2280G-22		Ground
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Positive Lead	Measurement / Action	Negative Lead
C2280H-1		Ground

Is the voltage within 0.2 volt of the recorded battery voltage?

Yes	GO to T8
No	REPAIR the circuit for high resistance.

T8 CHECK THE BCM (BODY CONTROL MODULE) PROCESSOR GROUNDS

- Ignition OFF.
- Disconnect BCM C2280C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280C-6	Ω	Ground
C2280C-10		Ground

Are the resistances less than 3 ohms?

Yes	GO to T9
No	REPAIR the circuit in question for high resistance.

T9 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.

B1430:12, B1430:14, B1435:12, B1435:14

Refer to Wiring Diagrams Cell 44 for schematic and connector information.

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Module Controlled Functions - System Operation and Component Description](#) (419-10 Multifunction Electronic Modules, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1430:12	Power Point Relay Reset Output: Circuit Short To Battery	A continuous and on-demand DTC that sets when the BCM detects a short to voltage on the power point relay coil circuit.
B1430:14	Power Point Relay Reset Output: Circuit Short To Ground or Open	A continuous and on-demand DTC that sets when the BCM detects a short to ground or open on the power point relay coil circuit.
B1435:12	Power Point Relay Set Output: Circuit Short To Battery	A continuous and on-demand DTC that sets when the BCM detects a short to voltage on the power point relay coil circuit.
B1435:14	Power Point Relay Set Output: Circuit Short To Ground or Open	A continuous and on-demand DTC that sets when the BCM detects a short to ground or open on the power point relay coil circuit.

Possible Sources

- BCM
- BJB
- Power point
- Wiring, terminals or connectors

Visual Inspection and Diagnostic Pre-Checks

Inspect BJB fuse 89 (20A), fuse 90 (20A) and if equipped, fuse 91 (20A) and fuse 92 (20A).

PINPOINT TEST U : B1430:12, B1430:14, B1435:12, B1435:14

U1 VERIFY BATTERY

- Perform battery check.
REFER to: [Battery](#) (414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Did battery pass test?

Yes	GO to U2
No	REPLACE battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

U2 CHECK BJB (BATTERY JUNCTION BOX) FUSES

- Check the BJB fuses.

Are fuses OK?

Yes	GO to U4
No	REPLACE fuses as necessary. GO to U3

U3 RECHECK BJB (BATTERY JUNCTION BOX) FUSES

- Check the BJB fuse

Are fuses OK?

Yes	GO to U4
No	REPAIR the circuit short.

U4 CHECK THE POWER POINT WITH KEY OFF

- Ignition OFF.
- Connect a known good device to each power point.

Are all power points off?

Yes	GO to U5
No	GO to U6

U5 CHECK THE POWER POINT OPERATION WITH KEY ON

- Ignition ON.
- Connect a known good device to each power point and verify the device works.

Are all the power points operational?

Yes	GO to U6
No	If no power points are operational, GO to U6 If some but not all power points are operational, Refer to Wiring Diagrams Cell 13 for schematic and connector information.

U6 CHECK FOR BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

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

Is BCM DTC B1430:12 , B1430:14, B1435:12 or B1435:14 present?

Yes	For BCM DTC B1430:12 or B1435:12, GO to U7 For BCM DTC B1430:14 or B1435:14, GO to U9
No	For all other BCM Diagnostic Trouble Codes (DTCs) BCM DTC Chart in this section. If no BCM Diagnostic Trouble Codes (DTCs) are found, the system is operating correctly at this time.

U7 CHECK THE BJB (BATTERY JUNCTION BOX) FOR INTERNAL SHORT

- Ignition OFF.
- Disconnect BJB C1035C.
- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs) the and repeat the BCM self-test.

Is DTC B1430:12 or B1435:12 still present?

Yes	GO to U8
No	INSTALL a new BJB.

U8 CHECK THE POWER POINT CONTROL CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280F.
- Using the Terminal Release Kit, release and temporarily remove BCM C2280F-23 and C2280F-33.
- Connect BCM C2280F.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	Install C2280F-23 and C2280F-33 and   Click here to access Guided Routine (BCM).

U9 CHECK THE POWER POINT CONTROL CIRCUITS FOR OPENS

- Ignition OFF.
- Disconnect BCM C2280F.

Are voltages greater than 11 volts?

Yes	  Click here to access Guided Routine (BCM).
No	GO to U10

U10 CHECK THE POWER POINT CONTROL CIRCUITS FOR SHORT TO GROUND

- Disconnect BJB C1035C.

Is the resistance greater than 10,000 ohms?

Yes	GO to U11
No	Repair the circuit.

U11 CHECK THE POWER POINT CONTROL CIRCUITS FOR OPENS

Are the resistances less than 3 ohms?

Yes	INSTALL a new BJB.
No	Repair the circuit.

U0137:87

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

Normal Operation and Fault Conditions

The BCM communicates with the TBM through the GWM.

REFER to: [Communications Network](#) (418-00 Module Communications Network, Diagnosis and Testing).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0137:87	Lost Communication With Trailer Brake Control Module: Missing Message	A continuous memory DTC that sets in the BCM if messages received from the TBM through the GWM are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- TBM
- BCM

PINPOINT TEST V : U0137:87

V1 CHECK THE COMMUNICATION NETWORK

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

Does the TBM pass the network test?

Yes	GO to V2
No	DIAGNOSE no communication with the TBM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

V2 CHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U3006:16, U3006:17, U3007:16, U3007:17, U3013:16, U3013:17, U3014:16 or U3014:17 recorded?

Yes	For DTC U3006:16, U3007:16, U3013:16 or U3014:16, GO to Pinpoint Test K For DTC U3006:17, U3007:17, U3013:17 or U3014:17, GO to Pinpoint Test L
No	GO to V3

V3 RETRIEVE THE DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE TBM (TRAILER BRAKE CONTROL MODULE)

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

Is any DTC recorded?

Yes	REFER to: Auxiliary Brake System - Vehicles With: Trailer Brake Control (206-10 Auxiliary Brake System, Diagnosis and Testing).
No	GO to V4

V4 RECHECK THE BCM (BODY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCM Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0137:87 still present?

Yes	GO to V5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

V5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0137:87 SET IN OTHER MODULES

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve **all** Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0131:87 set in other modules?

Yes	GO to V6
No	GO to V7

V6 CHECK FOR CORRECT TBM (TRAILER BRAKE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the TBM and all 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 TBM and all related in-line connectors. Make sure it seats and latches 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, follow TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TBM. REFER to: Trailer Brake Control Module (TBM) (206-10 Auxiliary Brake 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.

V7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCM and all 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 and all 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, follow 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 module connections. ADDRESS the root cause of any connector or pin issues.
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