



## **Front Passenger Occupancy Detection Diagnostic Recorder Test Procedure**

### **1 Introduction**

**Note:** Nothing in this standard supercedes applicable laws and regulations.

**Note:** In the event of conflict between the English and domestic language, the English language shall take precedence.

**1.1 Purpose.** The purpose of this procedure is to test the Front Passenger Occupancy Detection Diagnostic Recorder feature. This feature is part of the Occupant Protection/Detection subsystem - Vehicle Partitioning and Product Structure (VPPS) 811, 813, 814, 817 Subsystem Technical Specifications (SSTS). The supplier shall work with the GM Design Responsible Engineer to comprehend this requirement.

**1.2 Applicability.** This procedure applies to all Global A electrical architecture vehicles having the Front Passenger Occupancy Detection Diagnostic Recorder.

**1.3 Remarks.** This is a multi-level test procedure that can be run on a vehicle, system bench, or subsystem bench. The components within this subsystem should have successfully completed component level testing prior to executing this test.

### **2 References**

**Note:** Only the latest approved standards are applicable unless otherwise specified.

#### **2.1 External Standards/Specifications.**

None

#### **2.2 GM Standards/Specifications.**

None

#### **2.3 Additional References.**

- CG2203, Front Passenger Occupancy Detection Diagnostic Recorder
- Occupant Protection/Detection - Vehicle Partitioning and Product Structure (VPPS) 811, 813, 814, 817 Subsystem Technical Specifications (SSTS), Revision 2.16

### **3 Resources**

**3.1 Facilities.** Electrical Development Lab with system and/or subsystem level bench with appropriate subsystem components and/or loads.

**3.1.1 Calibration.** The test facilities and equipment shall be in good working order and shall have a valid calibration label.

**3.1.2 Alternatives.** Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

**3.2 Equipment.** The minimum required set of equipment to perform this test procedure includes:

**3.2.1** Direct Current (DC) power supply.

**3.2.2** Serial data interface tool set.

**3.2.3** Additional real and/or simulated loads (if not part of bench setup).

**3.2.4** Personal computer with software to monitor data bus and capture trace files.

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**3.3 Test Vehicle/Test Piece.** Program system and/or subsystem bench fully populated with necessary subsystem input/output with the appropriate revisions of hardware and software for each relevant module.

**3.4 Test Time.**

Calendar time: 1 day  
Test hours: 6 hours  
Coordination hours: 2 hours

**3.5 Test Required Information.** Not applicable.

**3.6 Personnel/Skills.** The minimum required skill set to fully understand and execute this test procedure includes familiarity with General Motors Local Area Network (GMLAN) and with the chosen serial data interface tool's hardware and software.

## 4 Procedure

**4.1 Preparation.** All components involved must have the latest production intent hardware, software, and production intent calibrations. Document the hardware and software.

**4.2 Conditions.** Battery voltage  $\geq 9.0$  V and  $\leq 16.0$  V.

**4.2.1 Environmental Conditions.** Not applicable.

**4.2.2 Test Conditions.** Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

**4.3 Instructions.** For each applicable front passenger occupancy detection feature/function type, perform the applicable steps in CG2203. The supplier shall work with the GM Design Responsible Engineer to comprehend this requirement.

**4.3.1** No Electrical Diagnostic Requirements (EDR) Records.

**4.3.2** EDR Scenarios.

**4.3.3** Event Initiation.

**4.3.4** Overwriting EDR.

**4.3.5** EDR Data.

## 5 Data

**5.1 Calculations.** Not applicable.

**5.2 Interpretation of Results.** Not applicable.

**5.3 Test Documentation.** Prepare an evaluation report including any unusual observations, and attach the completed CG2203.

## 6 Safety

This standard may involve hazardous materials, operations, and equipment. This standard does not propose to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

## 7 Notes

**7.1 Glossary.** Not applicable.

**7.2 Acronyms, Abbreviations, and Symbols.**

|              |                                      |
|--------------|--------------------------------------|
| <b>DC</b>    | Direct Current                       |
| <b>EDR</b>   | Electrical Diagnostic Requirements   |
| <b>GMLAN</b> | General Motors Local Area Network    |
| <b>HVAC</b>  | Heating Ventilation Air Conditioning |

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