



FMVSS 208 and CMVSS 208 Air Bag System Readiness Indicator 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 define the tests that will determine if a vehicle meets the requirements of Federal Motor Vehicle Safety Standard (FMVSS) FMVSS 208 S4.5.2 and Canadian Motor Vehicle Safety Standard (CMVSS) CMVSS 208 (TSD 208 S4.5.2). See 1.3.1 regarding any updates to the standard(s), and the applicability of this test to such updates.

1.2 Applicability. This specification applies to United States of America (USA) market passenger cars, multipurpose passenger vehicles, trucks, and busses. This specification does not apply to the passenger seat status indicator.

1.3 Remarks. This specification covers the test requirements of FMVSS 208 S4.5.2 for (Driver Side) Air Bag System Readiness Indicator and CMVSS 208 (TSD 208 S4.5.2). It does not apply to the passenger seat status indicator. All components involved must have the latest production intent released level software and production intent Calibrations (Cal).

1.3.1 Legal Requirements. The FMVSS 208 and CMVSS 208 requirements may be found in the GM Automotive Regulation Information Database (ARID). ARID contains the most recent statement of FMVSS and CMVSS requirements and supercedes those listed in any test procedure. Guidance for interpreting FMVSS and CMVSS requirements may be obtained from Safety Regulations and Consumer Information through the Validation Engineering Group.

1.3.2 Uniform Parts Codes (UPC). Comprhended in this procedure include UPC 12F.

2 References

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

2.1 External Standards/Specifications.

CMVSS 101	CMVSS 208	FMVSS 101	FMVSS 208
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2.2 GM Standards/Specifications.

GMW15924 (ID)

(ID) = This standard is limited to internal distribution within General Motors and shall not be distributed outside this company. Contact the GM Lead Engineer for further instructions.

2.3 Additional References.

- GM ARID
- GMW15924 Evaluation Report (FMVSS 101/CMVSS 101 test)

3 Resources

3.1 Facilities. A garage vehicle bay or equivalent is required.

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

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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. A calibrated stopwatch is required. See Data Sheet A1 in Appendix A.

3.3 Test Vehicle/Test Piece. A test vehicle equipped with applicable driver's safety belt system. See 1.3.

3.4 Test Time.

Calendar time: 3 days

Test hours: 1 hour

Coordination hours: 8 hours

3.5 Test Required Information. See Data Sheet B1 in Appendix B.

3.6 Personnel/Skills. The Tester must have doctor-approved vision and be wearing any prescribed corrective lenses.

4 Procedure

4.1 Preparation. The Requester must complete the appropriate data sheet and correct any vehicle issues that may affect the test results. The Requester must verify that the test software/calibration is the latest production intent release per the appropriate software development system. Examples are: GM Electronic Controller (GMEC), Calibration Development System (Cal-DS), and Global Data File Release System (GDFRS). The Requester must obtain approval of the vehicle configuration from the Test Readiness Team (TRT) before testing can commence.

4.2 Conditions.

4.2.1 Environmental Conditions. An ambient garage environment or equivalent is required. The Requester must approve any other environmental conditions used.

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.

4.3.1 Record calibration information for any instrumentation used for this test in Data Sheet A1 in Appendix A.

4.3.2 Read Data Sheet B1 in Appendix B, previously filled out and supplied by the Requester.

4.3.3 Complete Data Sheet C1 in Appendix C based on the information from Data Sheet B1 in Appendix B

5 Data

5.1 Calculations. Not applicable.

5.2 Interpretation of Results. Only "Yes" answers to all questions in Appendix C, constitute passing this procedure. If any "No" answers result, contact the Requester immediately.

5.3 Test Documentation. See the data sheets in appendices.

6 Safety

This Engineering Standard may involve safety requirements for hazardous materials, the method of operations and equipment. This standard does not propose to address all the safety issues associated with its use. It is the responsibility of the user of this standard to ensure compliance with all appropriate safety and health practices. This would include any specific training that may be required. The safety and health standards include site specific rules and procedures, company rules and procedures, and Government Standards. Contact shall be made with the appropriate site Safety and Health personnel for further direction and guidance in these matters.

7 Notes

7.1 Glossary.

Air Bag Control Module or Sensing and Diagnostic Module (SDM): The module that controls the operation of the air bag deployment subsystem. It is identified for this test as the SDM.

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Air Bag System Readiness Indicator: This indicator shows if there is a system performance issue when illuminated. It is generally located in the cluster display and should not be confused with the Passenger Air Bag indicator. See Passenger Air Bag Indicator definition.

Bulb Check: Upon initiation of the vehicle into the "RUN" power mode, the indicators, on the cluster, will illuminate for 2 s to 4 s then extinguish. Typically, the **Air Bag System Readiness Indicator** will flash 6 times or 7 times during this period and then extinguish to indicate no system problems.

Continuous Signal Operation: The chime or visual indicator remains activated constantly with no breaks in operation from when the timing is initiated until the indicator deactivates.

Intermittent Signal Operation: The chime or visual indicator pulses "on" then "off" in a uniform fashion with no other breaks in operation that would be interpreted as non-continuous as described in "Continuous Signal Operation".

Key "On": This position is where the vehicle will stay running after engine start and the initiation point for the safety belt warning system. This position is also known as the "Run" position.

Key "Start": This position is where the vehicle's engine will turn over and start. This position is also known as the "Crank" position.

Keyed System: Ignition system that uses a key as the main means of starting the vehicle and placing the system in the "ON" position for this test.

Keyless System: Ignition system that uses a switch on the dash as the main means of starting the vehicle and placing the system in the "RUN" mode.

Passenger Air Bag Indicator: Is the indicator that shows if the Passenger Air Bag is activated or not. It can be located in the cluster display or remotely, and is sometimes identified with a "2". It should not be confused with the Air Bag System Readiness Indicator. See Air Bag System Readiness Indicator definition.

Test Readiness Team: A team consisting of the following members:

- Validation Engineer (VE)
- Engineering Group Manager (EGM)
- Design Release Engineer (DRE)
- Vehicle Software Integration Engineer (VSIE)
- Assembly Verification Software Engineer (AVSE)/Dynamic Vehicle Testing (DVT)

7.2 Acronyms, Abbreviations, and Symbols.

ARID	Automotive Regulation Information Database
AVSE	Assembly Verification Software Engineer
Cal	Calibration
Cal-DS	Calibration Development System
CMVSS	Canadian Motor Vehicle Safety Standard
DRE	Design Release Engineer
DVT	Dynamic Vehicle Testing
EGM	Engineering Group Manager
FMVSS	Federal Motor Vehicle Safety Standard
GDFRS	Global Data File Release System
GMEC	GM Electronic Controller
SDM	Sensing and Diagnostic Module
TRT	Test Readiness Team
UPC	Uniform Parts Code
USA	United States of America
VE	Validation Engineer
VSIE	Vehicle Software Integration Engineer

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