



USA Federal and Canada MVSS 208 Safety Belt Warning System 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 conduct an assessment of the vehicle relative to the requirements of Federal Motor Vehicle Safety Standard (FMVSS) FMVSS 208 S7.3 and Canadian Motor Vehicle Safety Standard (CMVSS) CMVSS 208 (TSD 208 S7.3). 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.

1.3 Remarks. This specification covers the test requirements of FMVSS 208 S7.3 for Safety Belt Warning Systems and CMVSS 208 (TSD 208 S7.3). It does not apply to any type of automatic or motorized belting restraint system. If an automatic or motorized belting restraint system requires testing, contact the test information owner. 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 Global Legal Database. The GM Global Legal Database 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

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 Global Legal Database
- 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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October 2017

Page 1 of 13



Documents

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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: 5 days

Test time: 2 h

Coordination time: 16 h

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. Tester must also have no hearing impairments.

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 stopwatch calibration information and any other 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 Apply the following criteria to all tests:

4.3.3.1 All visual and audible signals must activate once the initiating action has been performed. Record if there are any gaps, delays, or pauses in the signal, other than normal intermittent signal operations. See 7.1. The Requester shall be contacted as soon as possible.

4.3.3.2 The passenger seat must remain unoccupied during the test to avoid potential confusion of indicator chimes during the test.

4.3.3.3 A combination of both a flashing and non-flashing visual indicator is permissible, so record the complete time of both as long as they are deemed continuous. See 7.1. If the indicator, audible or visual, stays on continuously, write "continuous" for the time, and answer the question pertaining to that section appropriately.

4.3.4 Based on the ignition type, fill out the appropriate data sheets as specified: For Keyed systems (including Easy Key) use Data Sheet C1 in Appendix C, and for Keyless systems use Data Sheet D1 in Appendix D. Multiple copies of Data Sheet D1 may be utilized, corresponding to the number of "run" power mode operations the Requester specifies in Data Sheet B1.

4.3.5 If vehicle platform has remote start, the Tester must complete the appropriate data sheet specific to remote start in either Appendix C or Appendix D. This means a vehicle with remote start must be provided to the Tester.

5 Data

5.1 Calculations. Not applicable.

5.2 Interpretation of Results. A "Yes" response is required on the last question on Data Sheet B1 in Appendix B regarding passing the GMW15924 (FMVSS 101 and CMVSS 101) test, and only "Yes" answers to all questions

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October 2017

Page 2 of 13



Documents

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in either Appendix C or Appendix D 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.

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.

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/Dynamic Vehicle Testing (AVSE/DVT)

7.2 Acronyms, Abbreviations, and Symbols.

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
RPO	Regular Production Option
TRT	Test Readiness Team
UPC	Uniform Parts Code

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October 2017

Page 3 of 13



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USA United States of America
VE Validation Engineer
VSIE Vehicle Software Integration Engineer

8 Coding System

This standard shall be referenced in other documents, drawings, etc., as follows:

Test to GMW14614

9 Release and Revisions

This standard was originated in October 2005. It was first approved by Electrical Vehicle Integration and Development of Electrical Development and Validation in January 2009. It was first published in January 2009.

Issue	Publication Date	Description (Organization)
1	JAN 2009	Initial publication.
2	DEC 2011	Improvements to test wording and minor changes to regulatory wording. (Electrical Test and Development)
3	MAR 2016	5 year refresh. No technical changes. (Electrical - Display Controls and Audio Systems)
4	OCT 2017	Corrected "Not in Use" to "In Use" in Test 5 of Data Sheet C1. (Electrical - Display Controls and Audio Systems)

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Page 4 of 13



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