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## TECHNICAL STANDARDS DOCUMENT No. 212, Revision 0R

### Windshield Mounting

The text of this document is based on  
*Federal Motor Vehicle Safety Standard No. 212,*  
*Windshield Mounting,* as published in  
the United States *Code of Federal Regulations,*  
Title 49, Part 571, revised as of October 1, 2012.

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*(Ce document est aussi disponible en français)*

## Introduction

As defined by section 12 of the *Motor Vehicle Safety Act*, a Technical Standards Document (TSD) is a document that reproduces an enactment of a foreign government (e.g. a Federal Motor Vehicle Safety Standard issued by the U.S. National Highway Traffic Safety Administration). According to the Act, the [\*Motor Vehicle Safety Regulations\*](#) (MVSR) may alter or override some provisions contained in a TSD or specify additional requirements; consequently, it is advisable to read a TSD in conjunction with the Act and its counterpart Regulation. As a guide, where the corresponding Regulation contains additional requirements, footnotes indicate the amending subsection number.

TSDs are revised from time to time in order to incorporate amendments made to the reference document, at which time a Notice of Revision is published in the *Canada Gazette*, Part I. All TSDs are assigned a revision number, with “Revision 0” designating the original version.

## Identification of Changes

In order to facilitate the incorporation of a TSD, certain non-technical changes may be made to the foreign enactment. These may include the deletion of words, phrases, figures, or sections that do not apply under the Act or Regulations, the conversion of imperial to metric units, the deletion of superseded dates, and minor changes of an editorial nature. Additions are underlined, and provisions that do not apply are ~~stroked through~~. Where an entire section has been deleted, it is replaced by: “[CONTENT NOT REPRODUCED]”. Changes are also made where there is a reporting requirement or reference in the foreign enactment that does not apply in Canada. For example, the name and address of the United States Department of Transportation are replaced by those of the Department of Transport.

## Effective Date and Mandatory Compliance Date

The effective date of a TSD is the date of publication of its incorporating regulation or of the notice of revision in the *Canada Gazette*, and the date as of which voluntary compliance is permitted. The mandatory compliance date is the date upon which compliance with the requirements of the TSD is obligatory. If the effective date and mandatory compliance date are different, manufacturers may follow the requirements that were in force before the effective date, or those of the TSD, until the mandatory compliance date.

In the case of an initial TSD, or when a TSD is revised and incorporated by reference by an amendment to the Regulations, the mandatory compliance date is as specified in the Regulations, and it may be the same as the effective date. When a TSD is revised with no corresponding changes to the incorporating Regulations, the mandatory compliance date is six months after the effective date.

## **Official Version of Technical Standards Documents**

The PDF version is a replica of the TSD as published by the Department and is to be used for the purposes of legal interpretation and application.

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## S1. Scope

This Technical Standards Document (TSD) standard establishes windshield retention requirements for motor vehicles during crashes.

## S2. Purpose

The purpose of this TSD standard is to reduce crash injuries and fatalities by providing for retention of the vehicle windshield during a crash, thereby utilizing fully the penetration-resistance and injury-avoidance properties of the windshield glazing material and preventing the ejection of occupants from the vehicle.

## S3. Application

[CONTENT NOT REPRODUCED]

## S4. Definition

**Passive restraint system** means a system meeting the occupant crash protection requirements of S5. of Standard No. 208 of the United States Code of Federal Regulations, Title 49, Part 571, by means that require no action by vehicle occupants (Système de retenue passive).

## S5. Requirements

When the vehicle travelling longitudinally forward at any speed up to and including 48 kilometers per hour impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, under the conditions of S6, the windshield mounting of the vehicle shall retain not less than the minimum portion of the windshield periphery specified in S5.1 and S5.2.

### S5.1 Vehicles equipped with passive restraints

Vehicles equipped with passive restraint systems shall retain not less than 50 percent of the portion of the windshield periphery on each side of the vehicle longitudinal centerline.

### S5.2 Vehicles not equipped with passive restraints

Vehicles not equipped with passive restraint systems shall retain not less than 75 percent of the windshield periphery.

## S6. Test conditions

The requirements of S5. shall be met under the following conditions:

### S6.1 Untitled

The vehicle, including test devices and instrumentation, is loaded as follows:

- (a) Except as specified in S6.2, a passenger car is loaded to its unloaded vehicle weight plus its cargo-carrying and luggage capacity weight, secured in the luggage area, plus a 50th-percentile test dummy as specified in Title 49, part 572 of the United States Code of Federal Regulations this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. section 208 of Schedule IV of the MVSR. Each dummy is restrained only by means that are installed for protection at its seating position.
- (b) Except as specified in S6.2, a multipurpose passenger vehicle, truck or bus is loaded to its unloaded vehicle weight, plus 136 kilograms or its rated cargo-carrying and luggage capacity, whichever is less, secured to the vehicle, plus a 50th-percentile test dummy as specified in Title 49, part 572 of the United States Code of Federal Regulations this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. section 208 of Schedule IV of the MVSR. Each dummy is restrained only by means that are installed for protection at its seating position. The load is distributed so that the weight on each axle as measured at the tire-ground interface is in proportion to its Gross Axle Weight Rating (GAWR). If the weight on any axle when the vehicle is loaded to its unloaded vehicle weight plus dummy weight exceeds the axle's proportional share of the test weight, the remaining weight is placed so that the weight on that axle remains the same. For the purposes of this section, unloaded vehicle weight does not include the weight of work-performing accessories. Vehicles are tested to a maximum unloaded vehicle weight of 2,495 kilograms.

### S6.2 Untitled

The fuel tank is filled to any level from 90 to 95 percent of capacity.

### S6.3 Untitled

The parking brake is disengaged and the transmission is in neutral.

**S6.4 Untitled**

Tires are inflated to the vehicle manufacturer's specifications.

**S6.5 Untitled**

The windshield mounting material and all vehicle components in direct contact with the mounting material are at any temperature between -9 degrees Celsius and +43 degrees Celsius.