

TP-DSP-00  
February 27, 2009

U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
SUPPLEMENTAL LABORATORY TEST PROCEDURE  
FOR  
DETERMINING THE NUMBER OF DESIGNATED SEATING  
POSITIONS (DSPs) IN A ROW



**ENFORCEMENT**  
**Office of Vehicle Safety Compliance**  
**Mail Code: NVS-220**  
**1200 New Jersey Ave. SE**  
**Washington, DC 20590**

## **PREFACE**

The definition for Designated Seating Positions (DSPs) is provided in Title 49, of the Code of Federal Regulation, Part 571.3 (49 CFR 571.3). The definition is not a Federal motor vehicle safety standard (FMVSS), but the term DSP is used in other FMVSSs. The National Highway Traffic Safety Administration (NHTSA) amended the definition for DSPs through a final rule (73 FR 58887) issued on October 8, 2008. The revised definition becomes effective on September 1, 2010.

The Office of Vehicle Safety Compliance (OVSC) has developed this test procedure in response to the final rule and is issuing it as a supplemental procedure for determining the number of seating positions for other FMVSS test procedures for which it is applicable. As such, this supplemental test procedure does not include any of the standardized language or formatting that is normally included in the OVSC test procedures.

**1. PURPOSE**

This document is a supplemental test procedure provided by the National Highway Traffic Safety Administration (NHTSA), Office of Vehicle Safety Compliance (OVSC) for the purpose of presenting specific procedures, in a data sheet type format, for a uniform testing data and information recording format in support of its existing test procedures for other Federal motor vehicle safety standards (FMVSSs). The OVSC test procedures include requirements, but provide flexibility to perform compliance testing and are not intended to limit or restrain the development or utilization of testing techniques or equipment which will assist in collecting the required compliance test data. These test procedures do not constitute an endorsement or recommendation for use of any particular product or testing method.

**NOTE:** The OVSC laboratory test procedures are not rules, regulations or NHTSA interpretations regarding the meaning of a FMVSS or regulation. The laboratory test procedures are not intended to limit the requirements of the applicable FMVSS(s) or regulations. In some cases, the OVSC laboratory test procedures do not include all of the various minimum performance requirements of a FMVSS or regulation. Recognizing applicable test tolerances, the laboratory test procedures may specify test conditions that are less severe than the minimum requirements of the FMVSS or regulation. In addition, the laboratory test procedures may be modified by the OVSC at any time without notice, and the COTR may direct or authorize contractors to deviate from these procedures, as long as the tests are performed in a manner consistent with the FMVSS or regulation itself and within the scope of the contract. Laboratory test procedures may not be relied upon to create any right or benefit in any person. Therefore, compliance of a vehicle or item of motor vehicle equipment is not necessarily guaranteed if the manufacturer limits its certification tests to those described in the OVSC laboratory test procedures.

**2. PROCEDURE**

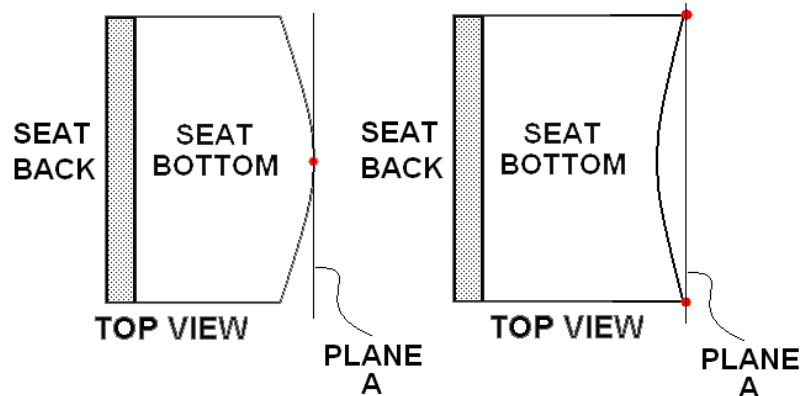
The following procedure is formatted as a data sheet for ease of use with other test procedures.

**PROCEDURE TO DETERMINE NUMBER OF DESIGNATED SEATING POSITIONS IN A ROW**

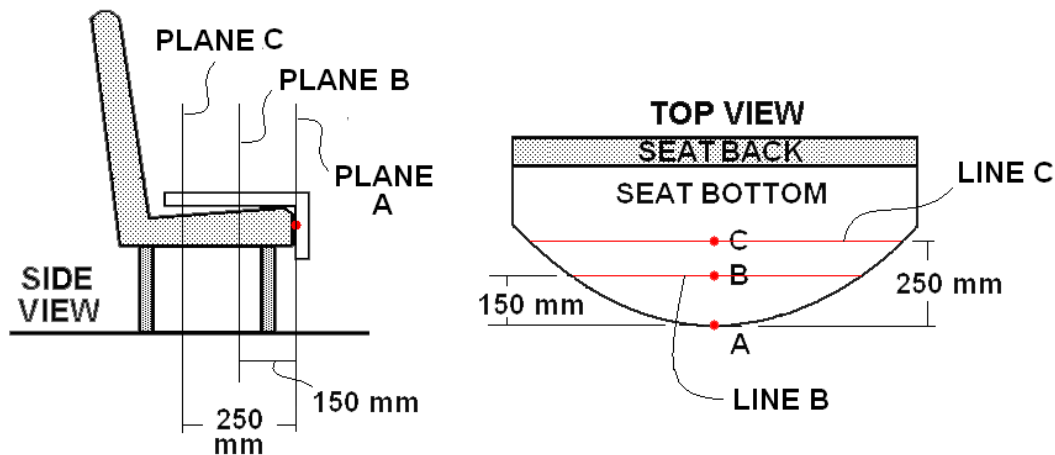
- A. Vehicle Model Year: \_\_\_\_\_
- B. Vehicle Make: \_\_\_\_\_
- C. Vehicle Model: \_\_\_\_\_
- D. Vehicle Body Style: \_\_\_\_\_
- E. Vehicle Identification Number: \_\_\_\_\_
- F. Row or Seat Position: \_\_\_\_\_
- G. NHTSA Number: \_\_\_\_\_
- H. Date testing conducted: \_\_\_\_\_
- I. Technician(s) conducting testing: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

This procedure applies to forward, rearward and side facing, folding and jump seats in passenger cars, trucks, multipurpose passenger vehicles, and buses manufactured on or after September 1, 2010. It does not apply to trucks and multipurpose passenger vehicles with a gross vehicle weight rating greater than 10,000 lbs, school buses, police vehicles as defined in S7 of Standard No. 208 (49 CFR 571.208), firefighting vehicles, ambulances (any vehicle manufactured primarily for use by the United States or by a State or local government for police or other law enforcement purposes), or motor homes (as specified in 571.10(a)). To determine the number of passenger seating positions in school buses, see S4.1 of Standard 222 (49 CFR 571.222).

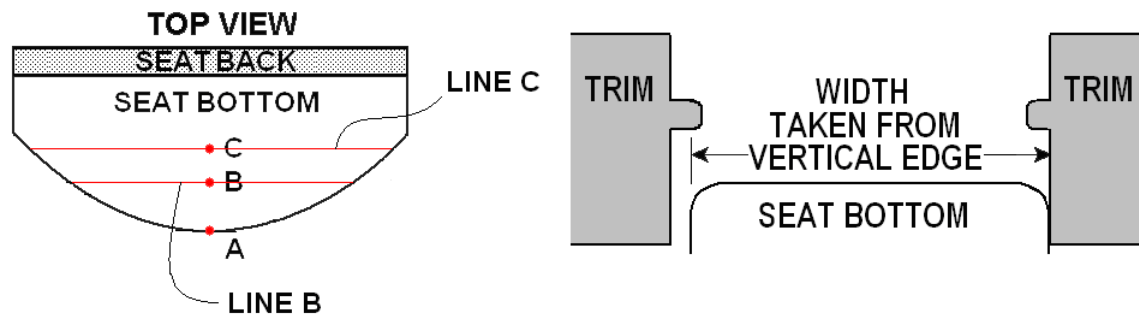
1. Determine Plane A, the transverse vertical plane that passes through the most forward edge of the seat cushion in a row of seats. (571.10(c)). Possible testing equipment could be a t-square and level for determination.



2. Determine Plane B, the transverse vertical plane that is 150 mm (5.9 inches) horizontally rearward of Plane A and mark this plane on the upper surface of the seat cushion (line B). Determine Plane C, the transverse vertical plane that is 250 mm (9.8 inches) horizontally rearward of Plane A and mark this plane on the upper surface of the seat cushion (line C). (571.10(c)).



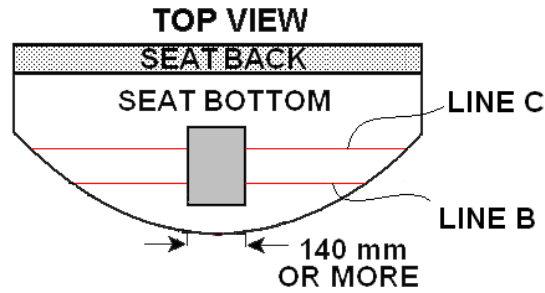
3. Determine the longest transverse distance from the side of the seat cushion within the zone defined by lines B and C. (571.10(c)).



4. DETERMINE IF A COUNTERMEASURE IS PRESENT - A countermeasure is present if one of the following conditions is met. (571.10(c)(2)(i)):

4.1 Adjacent Seating Surfaces.

- 4.1.1 Trim Surface. Is the seating surface separated by a fixed trimmed surface whose top surface is unpadding and that has a width not less than 140 mm (5.5 inches), as measured within the zone defined by line B and C? (571.10(c)(2)(i)(A)).



Yes

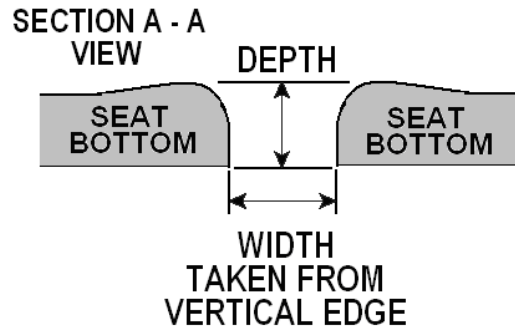
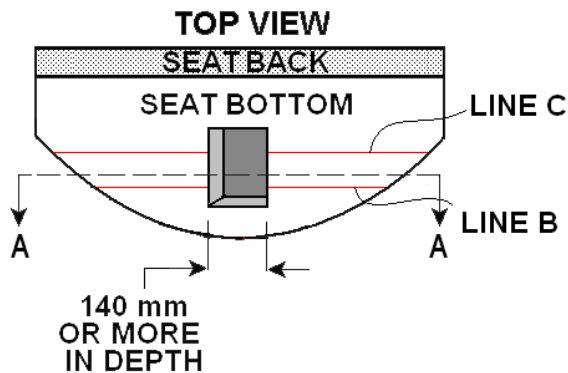
Measure and record the width of the unpadded fixed trim surface. \_\_\_\_\_mm (140 mm minimum)

The seating surfaces are not considered adjacent and the width must be measured separately for each seating surface to determine the number of designated seating positions (DSPs). Complete a data sheet for each seating surface by performing items 1, 2, 3, 5, and 6 of this data sheet.

**Note:** Folding, removable, and adjustable seats are measured in the configuration that results in the single largest maximum width (571.10(c)(3)). For example, if seats are removable, measurements will be taken with seats installed.

No Proceed to Section 4.1.2.

4.1.2 Void. Is there a void whose cross section in each transverse vertical plane within the zone defined by lines B and C is not less than 140 mm (5.5 inches) wide and not less than 140 mm (5.5 inches) deep? (571.10(c)(2)(i)(B))



Yes - measure and record the width and depth

Width \_\_\_\_\_ mm (140 mm minimum)

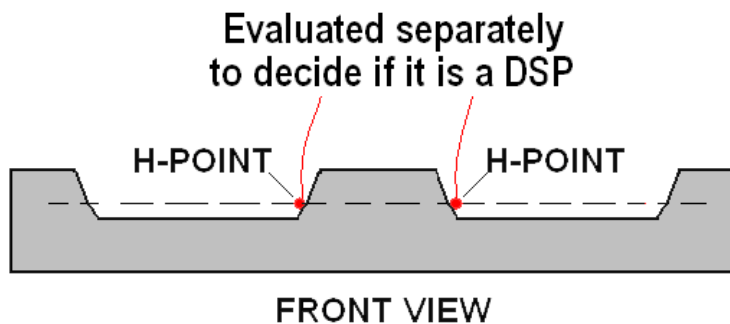
Depth \_\_\_\_\_ mm (140 mm minimum)

The seating surfaces are not considered adjacent and the width must be measured separately for each seating surface to determine the number of designated seating positions (DSPs). Complete a data sheet for each seating surface by performing items 1, 2, 3, 5, and 6 of this data sheet.

No - Proceed to item 4.2.

**Note:** Folding, removable, and adjustable seats are measured in the configuration that results in the single largest maximum width (571.10(c)(3). For example, if seats are removable, measurements will be taken with seats installed.

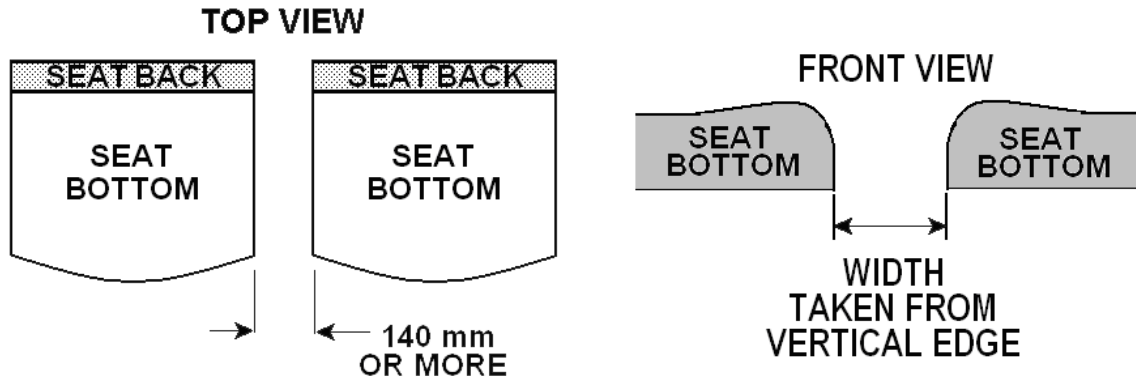
- 4.2 Does the H-point (as measured in SAE Practice J826) projection laterally intersect the seat cushion (e.g. a deep bucket seat that rides over the h-point) (571.10(c)(2)(ii)) between adjacent seating positions?



Yes - Each seating surface width must be measured separately to determine the number of designated seating positions (DSPs). Complete a data sheet for each seating surface by performing items 1, 2, 3, 5, and 6 of this data sheet.

No - Proceed to item 4.3

- 4.3 Are the seating surfaces adjacent outboard seats and the lateral distance between any point on the seat cushion of one seat and any point on the other seat is not less than 140 mm (5.5 inches)? (571.10(c)(2)(iii))

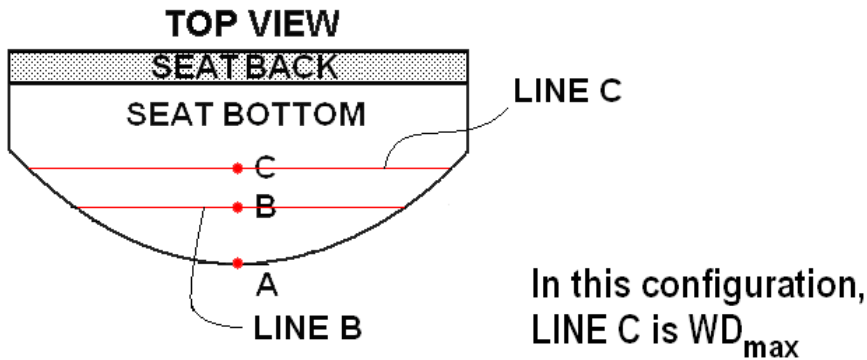


Yes – measure and record the minimum lateral distance between seat cushions

Minimum lateral distance between seat cushions = \_\_\_\_\_mm (140 mm minimum). Each seating surface must be measured separately to determine the number of designated seating positions (DSPs). Complete a data sheet for each seating surface by performing items 1, 2, 3, 5, and 6 of this data sheet.

No - Proceed to 5

5. DETERMINATION OF THE LONGEST TRANVERSE DISTANCE  
 Determine and record the longest transverse distance (WD) from the side of the seat cushion within the zone defined by lines B and C. (571.10(c)).



Longest transverse distance WD = \_\_\_\_\_mm.



6. Determine the number of designated seating positions

6.1 If WD is less than 1400 mm (55 inches), divide the width measurement (in millimeters by 350 mm. Round down to get the whole number (N) of seating positions (SP)). (571.10(b)(1)).

$N = WD \text{ (mm)} / 350 \text{ (mm)} = SP + \text{any fractional part of a whole number}$

$N = \underline{\hspace{2cm}} / \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6.2 If WD is equal to or larger than 1400 mm (55 inches), divide the width measurement (in millimeters) by 450 mm. Round down to get the whole number (N) of SPs (571.10(b)(2)).

$N = WD \text{ (mm)} / 450 \text{ (mm)} = SP + \text{any fractional part of a whole number}$

$N = \underline{\hspace{2cm}} / \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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I certify that I have read and performed each instruction.

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Date