

FINAL REPORT NUMBER 225-MGA-08-005

**SAFETY COMPLIANCE TESTING FOR FMVSS 225**  
*“Child Restraint Anchorage Systems”*

**MITSUBISHI MOTORS NORTH AMERICA, INC.**  
**2008 MITSUBISHI GALANT**  
**NHTSA No. C85601**

**MGA RESEARCH CORPORATION**  
**446 Executive Drive**  
**Troy, Michigan 48083**



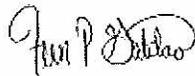
**Test Date: November 5, 2008**  
**Report Date: December 31, 2008**

**FINAL REPORT**

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
ENFORCEMENT  
OFFICE OF VEHICLE SAFETY COMPLIANCE  
400 SEVENTH STREET, SW  
ROOM 6111 (NVS-220)  
WASHINGTON, D.C. 20590

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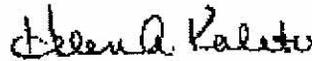


Prepared By:

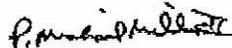
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Fern Gatilao, Project Engineer



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Brad Reaume, Test Personnel



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Helen A. Kaleto, Laboratory Manager



Approved By:

\_\_\_\_\_  
P. Michael Miller II, Vice President

1/14/09

Approval Date:

FINAL REPORT ACCEPTANCE BY OVSC:

**Edward E. Chan**

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DN: CN = Edward E. Chan, C = US, O =  
National Highway Traffic Safety Administration,  
OU = Office of Vehicle Safety Compliance  
Date: 2009.01.16 14:17:12 -05'00'

Accepted By:

Acceptance Date: \_\_\_\_\_

**TECHNICAL REPORT STANDARD TITLE PAGE**

1. Report No. 225-MGA-08-003		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 225 Compliance Testing of a 2008 Mitsubishi Galant, NHTSA No. C85601				5. Report Date December 31, 2008	
				6. Performing Organization Code MGA	
7. Author(s) Helen A. Kaleto, Laboratory Manager Fern Gatilao, Project Engineer Brad Reaume, Test Personnel				8. Performing Organization Report No. 225-MGA-08-005	
9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083				10. Work Unit No.	
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12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-220) 400 Seventh Street, SW Room 6111 Washington, DC 20590				13. Type of Report and Period Covered Final Test Report	
				14. Sponsoring Agency Code NVS-220	
15. Supplementary Notes					
16. Abstract A compliance test was conducted on the subject 2008 Mitsubishi Galant, NHTSA No. C85601, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-225-01 for the determination of FMVSS 225 compliance. The tests were conducted at MGA Research Corporation in Troy, Michigan on November 5, 2008. Test failures identified were as follows:  NONE  The data recorded indicates that the 2008 Mitsubishi Galant tested appears to meet the requirements of FMVSS 225.					
17. Key Words Compliance Testing Safety Engineering FMVSS 225 2008 Mitsubishi Galant				18. Distribution Statement Copies of this report are available From: NHTSA Technical Reference Division, Mail Code: NPO-230 400 Seventh Street, SW, Room PL-403 Washington, D.C. 20590 Telephone No. (202) 366-4946	
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## 1.0 PURPOSE AND PROCEDURE

### PURPOSE

The child restraint anchorage testing results presented in this report are part of the Federal Motor Vehicle Safety Standard (FMVSS) No. 225 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-06-C-00030/0003. The purpose of the testing was to determine if the subject vehicle, a 2008 Mitsubishi Galant, NHTSA No. C85601 meets the performance requirements of FMVSS No. 225, “Child Restraint Anchorage Systems.”

### PROCEDURE

This testing was conducted in accordance with NHTSA’s Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure TP-225-01 (4/11/05) and MGA’s Laboratory Test Procedure, MGATP225GOV (6/23/06).

The rear occupant compartment consisted of a 2<sup>nd</sup> row three-passenger split-bench seat. The 2<sup>nd</sup> row outboard left and right seating positions were equipped with a child restraint anchorage system (one tether and two lower anchorages) and the center seating position was equipped with a tether anchorage. The center-to-center spacing between the 2<sup>nd</sup> row outboard lower anchorages was approximately 760 mm. The 2<sup>nd</sup> row left and right outboard seating positions were tested with the SFADII fixture and the center seating position were tested with a SFADI fixture.

## 2.0 COMPLIANCE TEST AND DATA SUMMARY

### TEST SUMMARY

The testing was conducted at MGA in Troy, Michigan on November 5, 2008.

Based on the test results, the 2008 Mitsubishi Galant appears to meet the requirements of FMVSS No. 225 for this testing.

The SFADII at the 2<sup>nd</sup> row left seating position sustained a maximum force of 11,102 N and held the required load for 3 seconds and the total displacement was 46 mm. The SFADII at the 2<sup>nd</sup> row right seating position sustained a maximum force of 11,029 N and held the required load for 3 seconds and the total displacement was 73 mm. The SFADI at the 2<sup>nd</sup> row center seating position sustained a maximum force of 15,176 N and held the required load for 3 seconds.

DATA SUMMARY

Strength and displacement summary data are provided below. Data for the configuration and the location of each child restraint anchorage system are provided in Section 5.0. Photographs are found in Section 6.0 and test plots are found in Section 7.0.

Table 1. Summary Data for Strength and Displacement

MGA Test #	Fixture Type	Test Configuration	Seating Position	Max. Load (N)	Displacement (mm)
SB8404	SFADII	Lower Only	2 <sup>nd</sup> Row Left	11,102*	46
			2 <sup>nd</sup> Row Right	11,029*	73
SB8405	SFADI	Top Tether	2 <sup>nd</sup> Row Center	15,176*	--

REMARKS: \* Applied force exceeded the force specified in the test procedure.

3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

VEH. MOD YR/MAKE/MODEL/BODY	2008 Mitsubishi Galant
VEH. NHTSA NO.	C85601
VIN	4A3AB26F88E010910
COLOR	Black
VEH. BUILD DATE	07/07
TEST DATE	November 5, 2008
TEST LABORATORY	MGA Research Corporation
OBSERVERS	Fern Gatilao , Brad Reaume, Kenney Godfrey

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: Mitsubishi Motors North America, Inc.

Date of Manufacture: 07/07; VIN: 4A3AB26F88E010910

GVWR: 4365 lbs GAWR FRONT: 2337 lbs

GAWR REAR: 2072 lbs

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 32 psi REAR: 32 psi

Recommended Tire Size: P215/60R16

Recommended Cold Tire Pressure:

FRONT: 32 psi REAR: 32 psi

Size of Tire on Test Vehicle: P215/60R16

Size of Spare Tire: T125/70D16

VEHICLE CAPACITY DATA:

Type of Front Seats: Bench \_\_\_\_; Bucket X; Split Bench \_\_\_\_

Number of Occupants: Front 2; Middle 0; Rear; 3 TOTAL 5.

4.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

<b>MGA Research Corporation 446 Executive Drive Troy, Michigan 48083</b>	
<b>Test Equipment Used for Testing</b>	<b>Calibration Due Date</b>
MGA Hydraulic Test Frame	N/A
Two (2) Load Cell 10,000 lb Capability	S/N 607 & 304 (11/27/08)
String Potentiometer Calibrated at each use	S/N A1600462A/F1603964A
Hydraulic Pump	N/A
MGA CRF Fixture	N/A
MGA SFADI	N/A
MGA SFADII	N/A
MGA 2-Dimensional Template	N/A
Linear Scale	TPM872 (7/28/09)
MGA Data Acquisition System	N/A
Digital Calipers	04456455 (3/19/09)
Force Gauge	MGA00648 (7/8/09)
Inclinometer (Digital)	MGA00764 (1/10/09)

5.0 DATA

Table 3. Child Restraint Tether Anchorage Configuration

Seating Position		Permit the attachment of a tether hook	Accessible without the need for any tool other than a screwdriver or coin	Ready for use without the need for any tools	Sealed to prevent the entry of exhaust fumes
Front Row		N/A	N/A	N/A	N/A
Second Row	LH	Yes	Yes	Yes	Yes
	Ctr.	Yes	Yes	Yes	Yes
	RH	Yes	Yes	Yes	Yes
Third Row		N/A	N/A	N/A	N/A

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

REMARKS: NONE.

Table 4. Child Restraint Lower Anchorage Configuration

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION				
		FRONT ROW	SECOND ROW		THIRD ROW
			I/B	O/B	
Above anchorage, permanently marked with a circle not less than 13 mm in Dia.; and whose color contrasts with its background; and its center is not less than 50 mm and not more than 100 mm above the bar, and in the vertical longitudinal plane that passes through the center of the bar.	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
Each of the bars is visible, without the compression of the seat cushion or seat back, when the bar is viewed, in a vertical longitudinal plane passing through the center of the bar, along a line marking an upward 30 degree angle with a horizontal plane.	LH	N/A	N/A		N/A
	Ctr		N/A		
	RH		N/A		
Diameter of the bar (mm)	LH	N/A	6.0	5.97	N/A
	Ctr		N/A		
	RH		5.98	5.97	
Inspect if the bars are straight, horizontal and transverse	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
Optional Marking: At least one anchorage bar (when deployed for use, if storable anchorages), one guidance fixture, or one seat marking is visible.	LH	N/A	N/A		N/A
	Ctr		N/A		
	RH		N/A		
Optional Marking: If guidance fixtures are used, the fixture(s) must be installed.	LH	N/A	N/A		N/A
	Ctr		N/A		
	RH		N/A		
Measure the distance between Point “Z” of the CRF and the front surface of the anchorage bar (mm)	LH	N/A	48		N/A
	Ctr		N/A		
	RH		47		
Measure the distance between the SRP to the front of the anchorage bar (mm)	LH	N/A	180	180	N/A
	Ctr		N/A		
	RH		170	170	

Table 4. Child Restraint Lower Anchorage Configuration (continued)

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION					
		FRONT ROW	SECOND ROW		THIRD ROW	
			I/B	O/B		
Inspect if the centroidal longitudinal axes are collinear within 5 degrees	LH	N/A	Yes		N/A	
	Ctr		N/A			
	RH		Yes			
Inspect if the inside surface of the bar that is straight and horizontal section of the bars, and determine they are not less than 25 mm, but not more than 60 mm in length (mm).	LH	N/A	Req't>25	29	29	N/A
			Req't<60	33	33	
	Ctr		Req't>25	N/A		
			Req't<60	N/A		
	RH		Req't>25	28	28	
			Req't<60	33	33	
Inspect if the bars can be connected to, over their entire inside length by the connectors of child restraint system.	LH	N/A	Yes		N/A	
	Ctr		N/A			
	RH		Yes			
Inspect if the bars are an integral and permanent part of the vehicle.	LH	N/A	Yes		N/A	
	Ctr		N/A			
	RH		Yes			
Inspect if the bars are rigidly attached to the vehicle. If feasible, hold the bar firmly with two fingers and gently pull.	LH	N/A	Yes		N/A	
	Ctr		N/A			
	RH		Yes			

**PITCH, YAW, & ROLL INFORMATION**

SEAT POSITION	PITCH (deg)	YAW (deg)	ROLL (deg)
2 <sup>nd</sup> Row Left	9.0	N/A	0.7
2 <sup>nd</sup> Row Center	N/A	N/A	N/A
2 <sup>nd</sup> Row Right	9.2	N/A	0.2

N/A indicates that there were no lower anchorages in the 2<sup>nd</sup> row center seating position.

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

REMARKS: NONE

Table 5. Tether Location and Dimensional Measurements

SEAT POSITION FOR TETHER	TETHER ANCHORAGE LOCATION Located in the required zone?	
Front Row	N/A	
Second Row	LH	Yes
	Ctr.	Yes
	RH	Yes
Third Row	N/A	

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

REMARKS: NONE

Table 6. Tether Anchorage Static Loading and Displacement

SEAT POSITION	Seat, Seat Back, & Head Restraint Positions			Type of SFAD Used	Angle (deg)	Initial Location (mm)	Onset Rate (N/sec.)	Force Applied (kN)	Max. Load (N)	Final Location (mm)	Horiz. Displ. (mm)	
	Seat	Seat Back	Is There a H/R?									
Front Row	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Second Row	LH	Fixed	Fixed	Yes	II	10	27	389	11,000	11,102*	73	46
	Ctr.			N/A	I	10	N/A	537	15,000	15,176*	N/A	N/A
	RH			Yes	II	10	41	389	11,000	11,030*	114	73
Third Row	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

REMARKS: \* Applied force exceeded the force specified in the test procedure.

6.0 PHOTOGRAPHS

6.1 Front view



6.2 Rear view



6.3 3/4 Front left view



6.4 3/4 Front right view

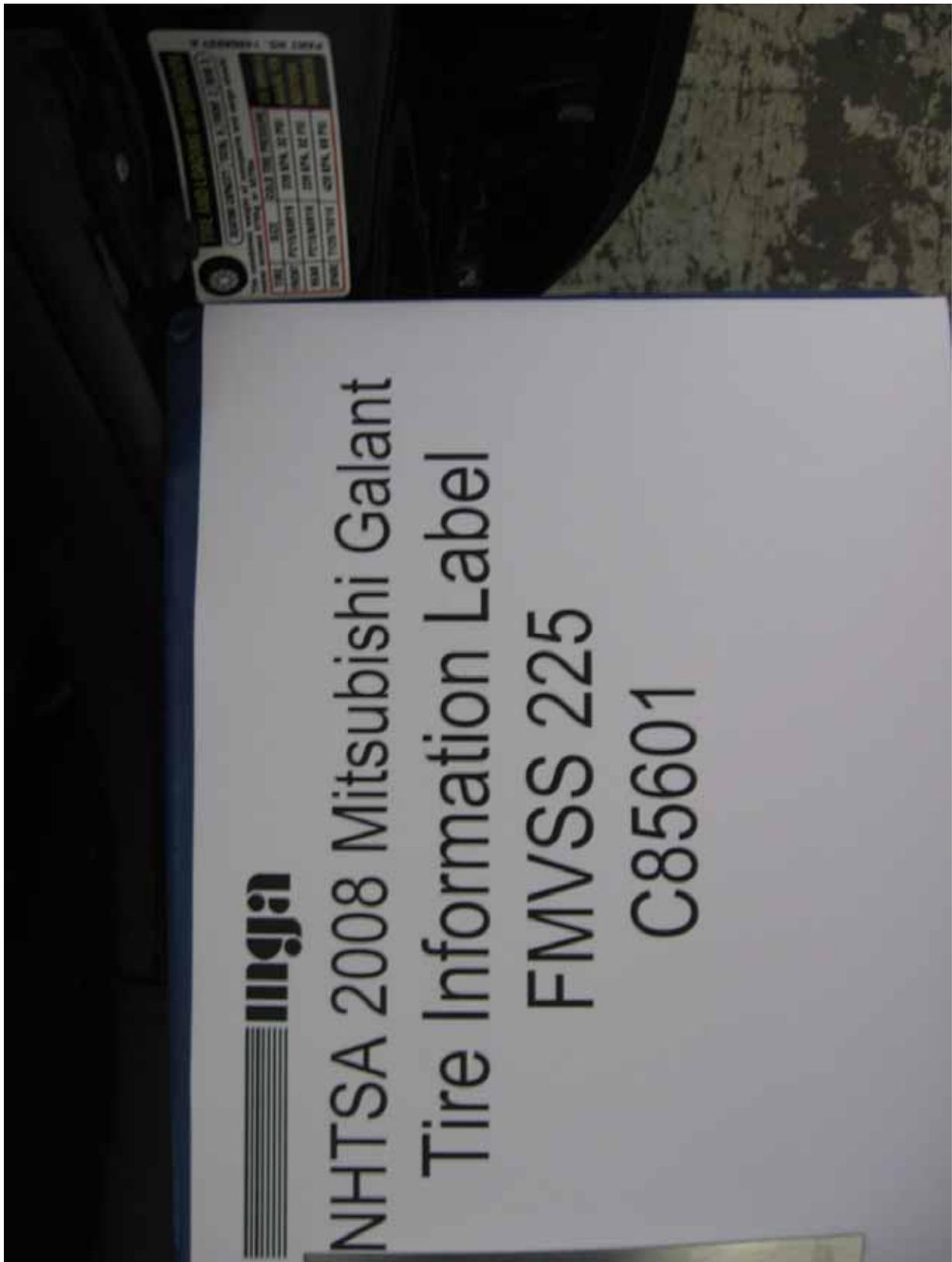




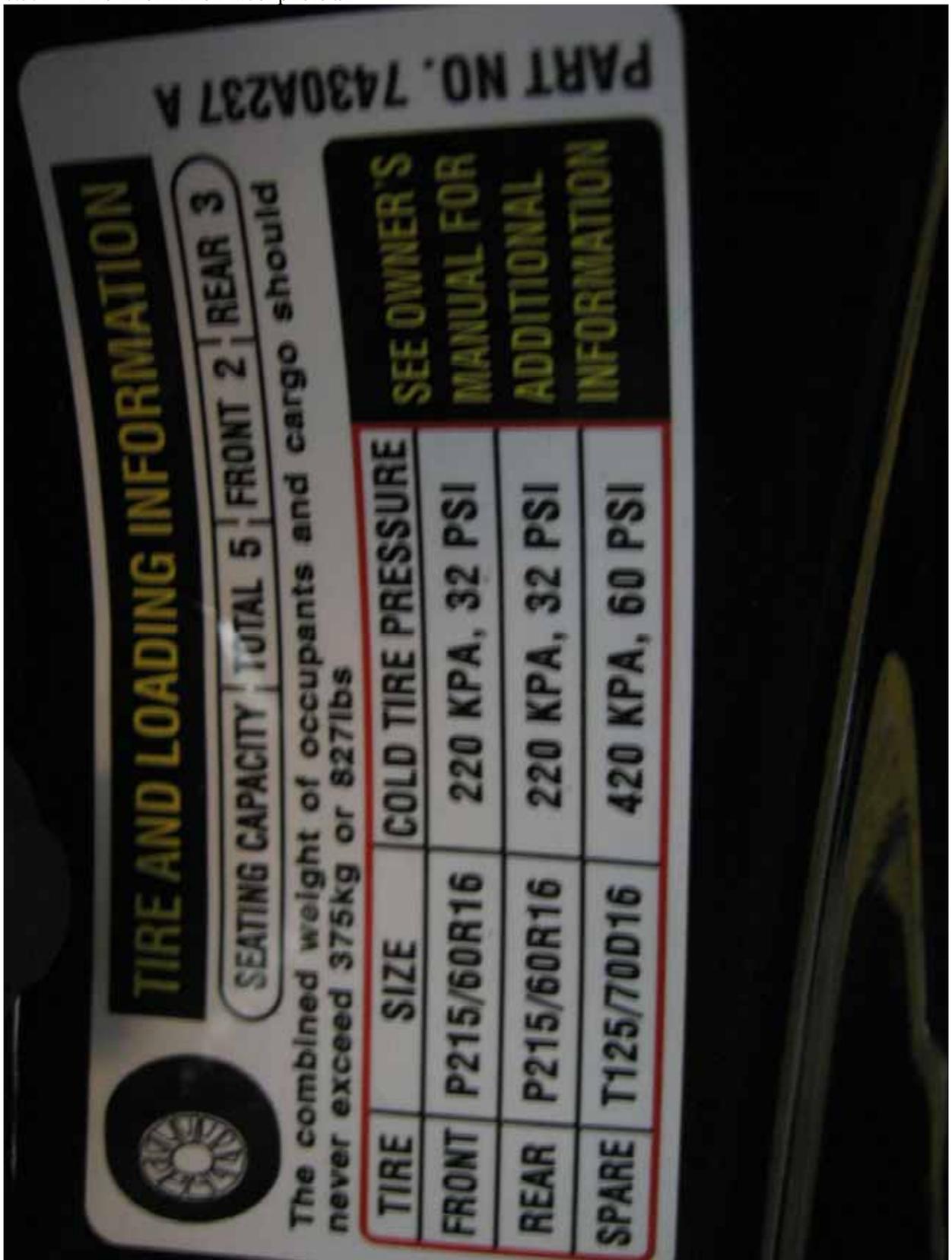
6.5.2 Certification label photo #2



6.5.3 Tire information label photo #1



6.5.4 Tire information label photo #2



- 6.6 Vehicle tie down at each tie down location
  - 6.6.1 Front under vehicle



6.6.2 Rear under vehicle



6.6.3 Left front



6.6.4 Left rear



6.6.5 Right front



6.6.6 Right rear



- 6.7 2-dimensional template
  - 6.7.1 LH position photo #1



6.7.2 LH position photo #2



6.7.3 RH position photo #1



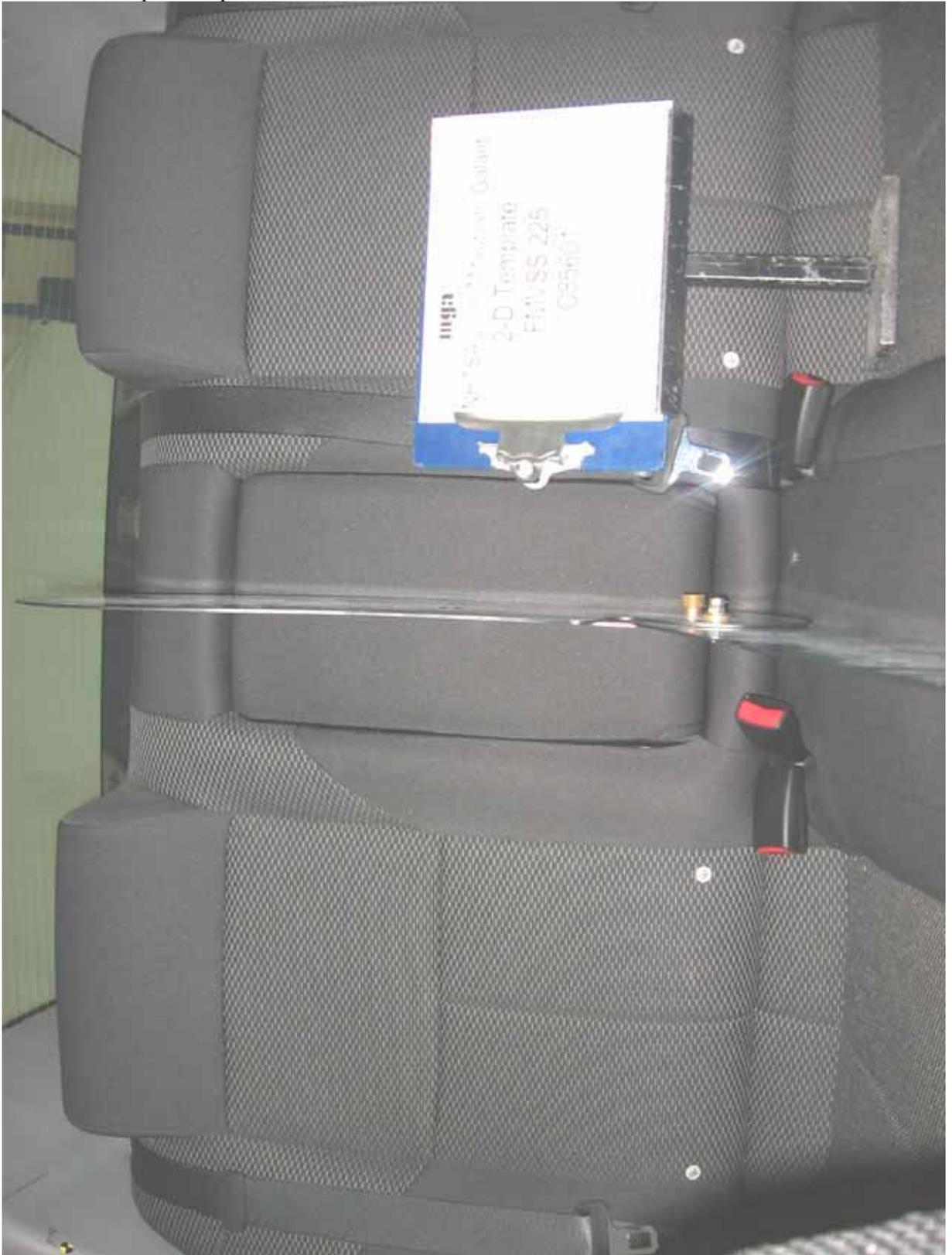
6.7.4 RH position photo #2



6.7.5 Center position photo #1



6.7.6 Center position photo #2



6.8 CRF verification  
6.8.1 LH position photo



6.8.2 RH position photo



- 6.9 Front view of test vehicle with test apparatus in place
- 6.9.1 SFAD II LH & RH



6.9.2 SFAD I Center



- 6.10 Pre-test views of each child restraint anchorage system installed in the vehicle
  - 6.10.1 Pre-test photo



6.10.2 Pre-test photo



6.10.3 Pre-test photo



6.10.4 Pre-test photo



6.10.5 Pre-test photo



6.10.6 Pre-test photo



6.11 Post-test condition of each child restraint anchorage system  
6.11.1 Post-test photo



6.11.2 Post-test photo



6.11.3 Post-test photo



6.11.4 Post-test photo



6.11.5 Post-test photo



6.11.6 Post-test photo



6.11.7 Post-test photo



6.11.8 Post-test photo



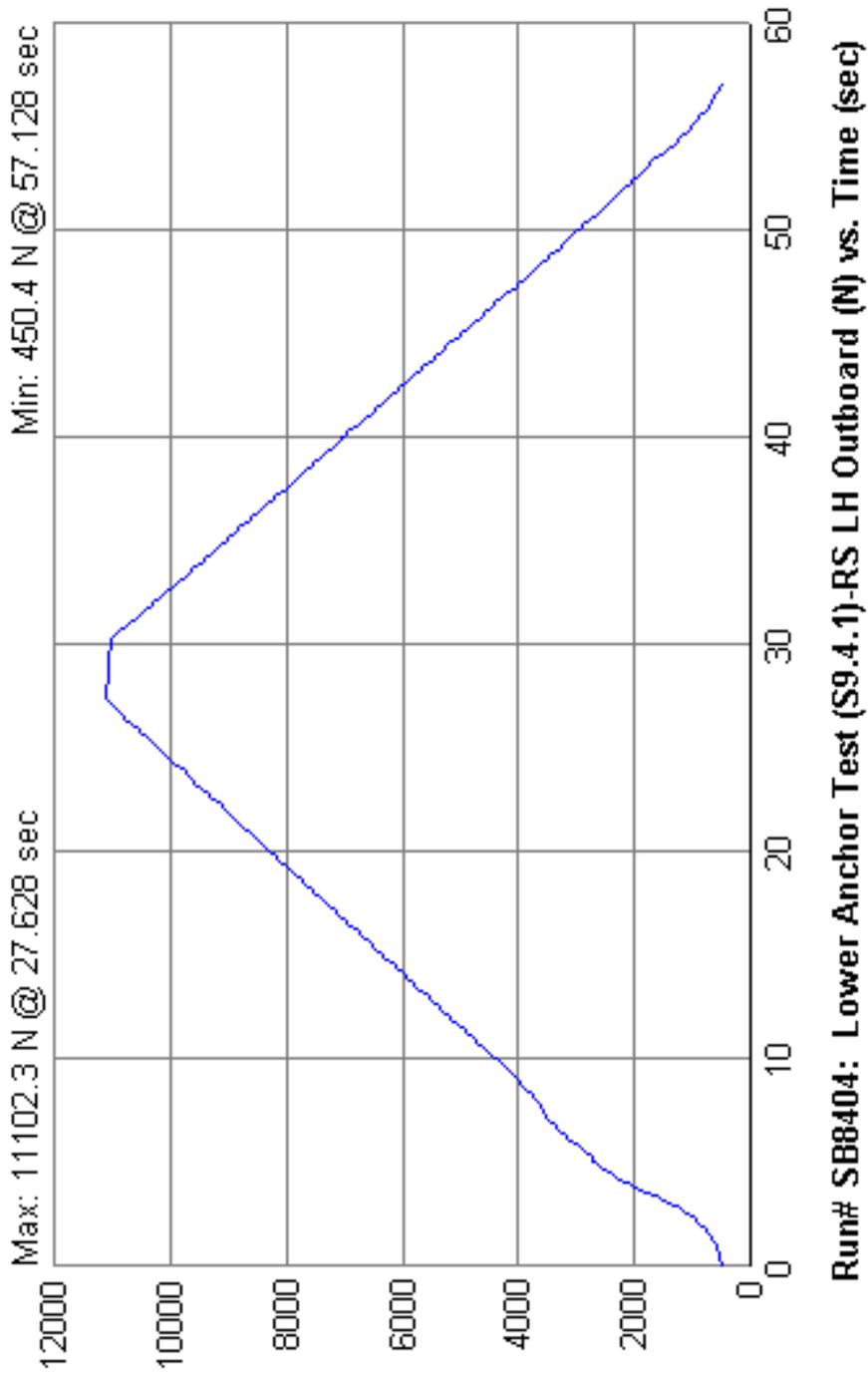
6.11.9 Post-test photo

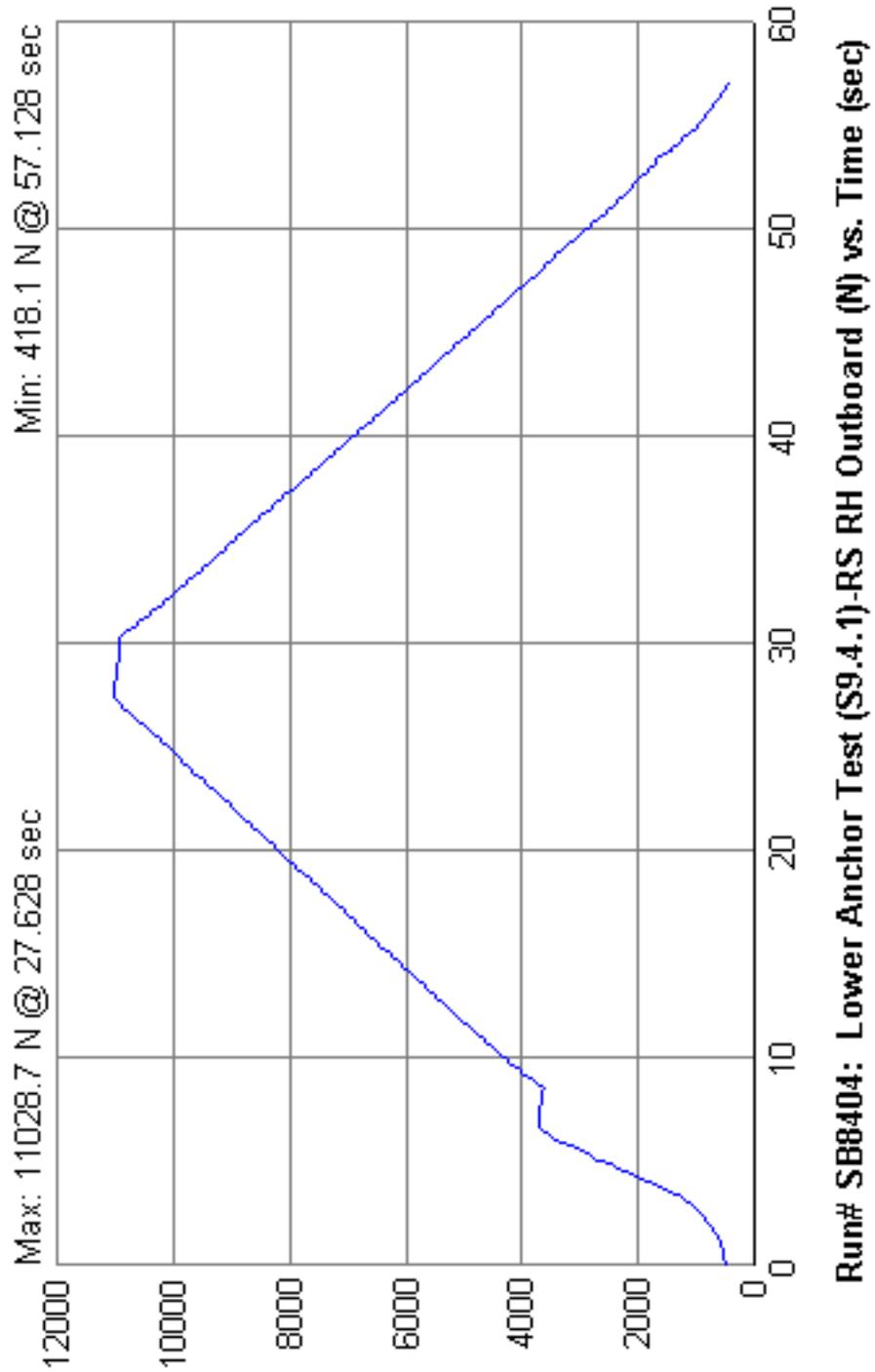


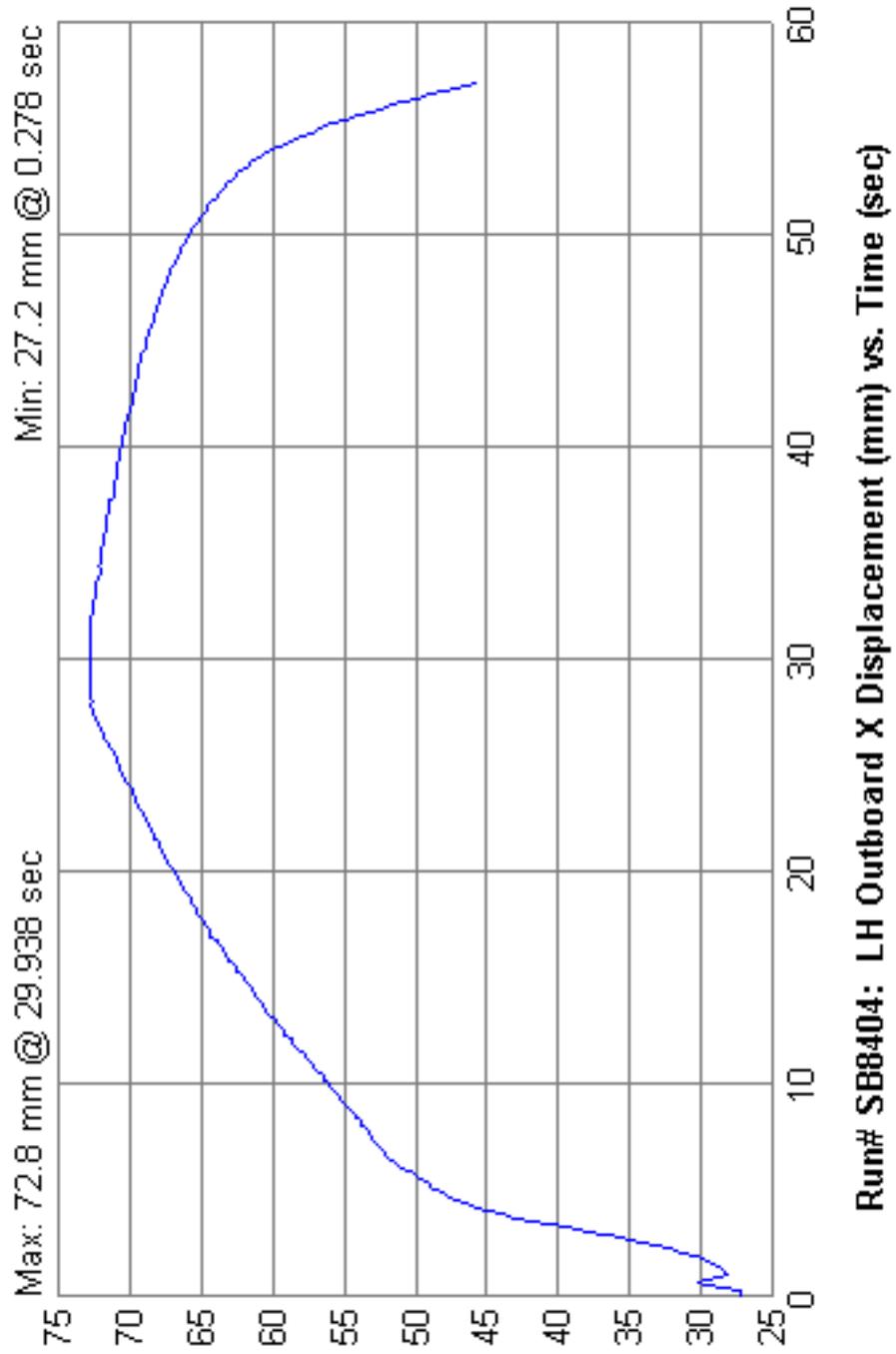
6.11.10 Post-test photo

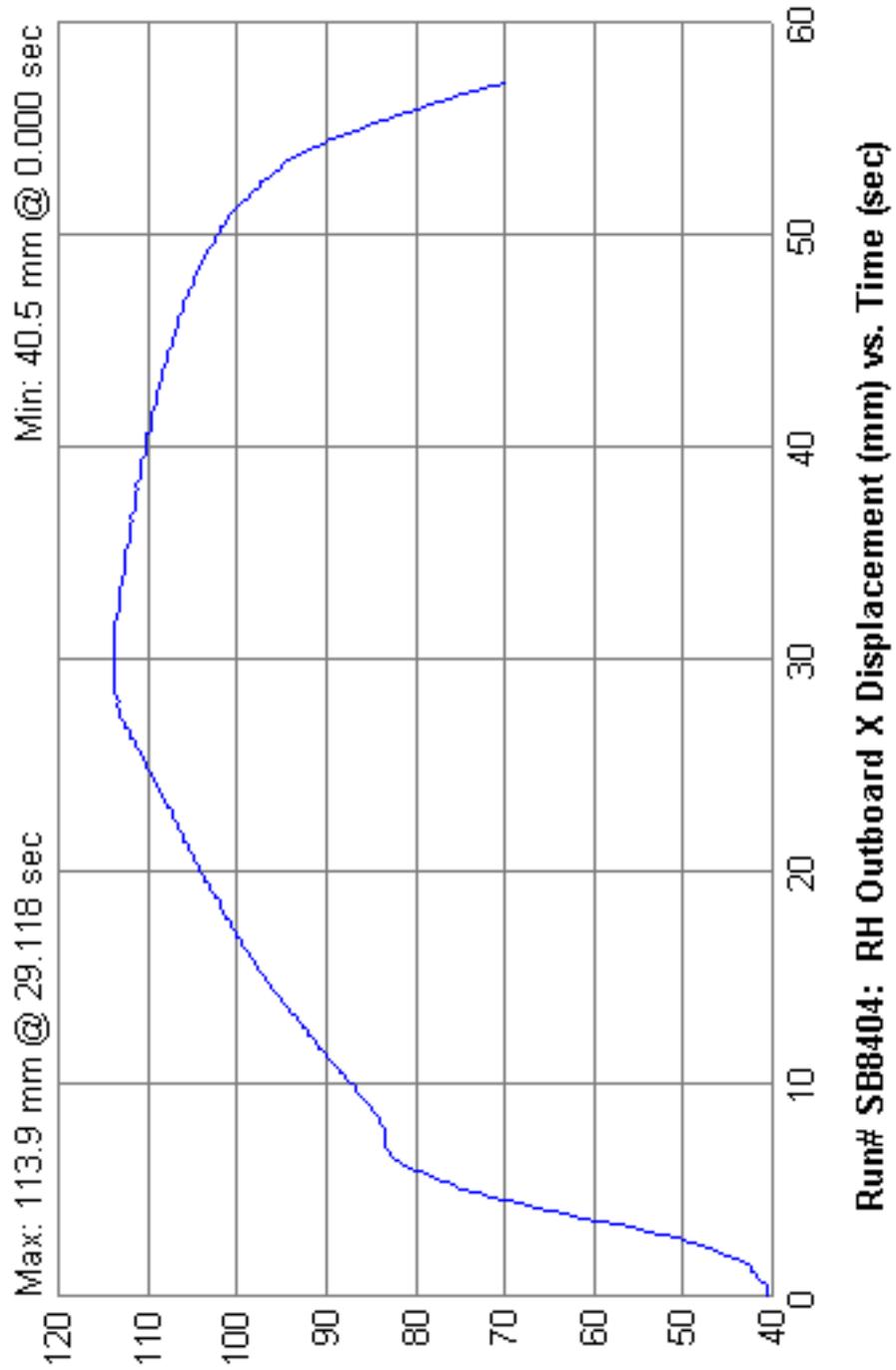


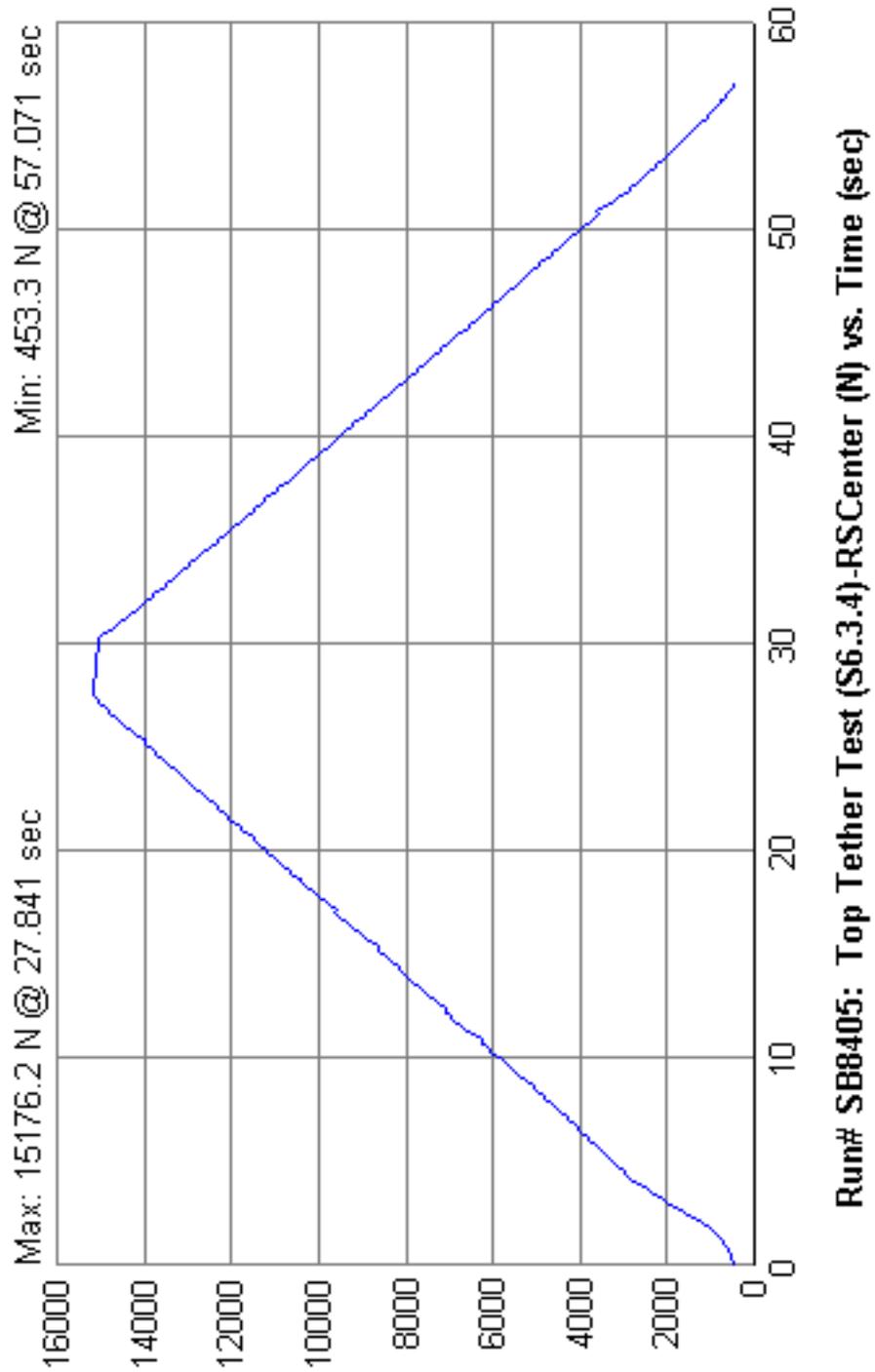
7.0 PLOTS











8.0 REPORT OF VEHICLE CONDITION

**REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING**

CONTRACT No.: DTNH22-06-C-00030/0003

DATE: November 5,2008

From: MGA Research Corporation, 446 Executive Drive, Troy, MI 48083

To: NHTSA, OVSC, NVS-220

The following vehicle has been subjected to compliance testing for FMVSS No. 201U and 225

The vehicle was inspected upon arrival at the laboratory for the test and found to contain all of the equipment listed below. All variances have been reported within 2 working days of vehicle arrival, by letter, to the NHTSA Industrial Property Manager (NAD0-30), with a copy to the OVSC COTR. The vehicle is again inspected, after the above test has been conducted, and all changes are noted below. The final condition of the vehicle is also noted in detail.

VEH. MOD YR/MAKE/MODEL/BODY: 2008 Mitsubishi Galant

VEH. NHTSA NO.: C85601

VIN: 4A3AB26F88E010910

COLOR: Black

ODOMETER READINGS: ARRIVAL 488 miles Date: 7/9/08

COMPLETION 488 miles Date: 11/5/08

PURCHASE PRICE: \$17,559 DEALER'S NAME: Roby Mitsubishi

ENGINE DATA: 4 Cylinders 2.4 Liters      Cubic Inches

TRANSMISSION DATA: X Automatic      Manual No. of Speeds

FINAL DRIVE DATA:      Rear Drive X Front Drive      4 Wheel Drive

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Fern Gatilao, Brad Reaume, Kenney Godfrey

<input checked="" type="checkbox"/>	Air Conditioning		Traction Control	<input checked="" type="checkbox"/>	Clock
	Tinted Glass		All Wheel Drive		Roof Rack
<input checked="" type="checkbox"/>	Power Steering	<input checked="" type="checkbox"/>	Speed Control	<input checked="" type="checkbox"/>	Console
<input checked="" type="checkbox"/>	Power Windows	<input checked="" type="checkbox"/>	Rear Window Defroster	<input checked="" type="checkbox"/>	Driver Air Bag
<input checked="" type="checkbox"/>	Power Door Locks		Sun Roof or T-Top	<input checked="" type="checkbox"/>	Passenger Air Bag
	Power Seat(s)	<input checked="" type="checkbox"/>	Tachometer	<input checked="" type="checkbox"/>	Front Disc Brakes
<input checked="" type="checkbox"/>	Power Brakes	<input checked="" type="checkbox"/>	Tilt Steering Wheel	<input checked="" type="checkbox"/>	Rear Disc Brakes
<input checked="" type="checkbox"/>	Antilock Brake System	<input checked="" type="checkbox"/>	AM/FM/Compact Disc		Other

**REMARKS:**

Salvage only.

**Equipment that is no longer on the test vehicle as noted on previous pages:**

All equipment inventoried and placed in vehicle.

**Explanation for equipment removal:**

Windshield and front seats were removed before conducting the testing.

**Test Vehicle Condition:**

Salvage only.

RECORDED BY: Fern Gatilao, Kenney Godfrey

DATE: November 5, 2008

APPROVED BY: Brad Reaume

APPENDIX A  
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

Seat and restraint systems

The pre-tensioner seat belts will operate only when the ignition switch is in the "ON" or "START" position. When the seat belt pre-tensioners activate, some smoke is released and a loud noise will be heard. The smoke is not harmful, but care should be taken not to intentionally inhale it, as it may cause some temporary irritation to people with respiratory problems.

Even in the event of a severe frontal impact, the pre-tensioners will not operate if the seat belts are not fastened. The seat belt pre-tensioners may not activate in certain frontal collisions, even though the vehicle may appear to be severely damaged. Such non-activation does not mean something is wrong with the seat belt pre-tensioner system, but rather that the collision forces were not severe enough or not of the type to activate the system.

**⚠ WARNING**

● The seat belt pre-tensioner system is designed to work only once. After the seat belt pre-tensioners have been activated, they will not work again. They must promptly be replaced and the entire seat belt pre-tensioner system inspected by an authorized Mitsubishi Motors dealer.

**SRS warning light**

This warning light tells you if there is a problem involving the SRS air bags and the pre-tensioner seat belts. Refer to "SRS warning light" on page 2-49.

**Force limiter system**

In the event of an accident, the seat belt force limiter system will help reduce the force applied to the driver and front seat passenger.

2

2-27

Seat and restraint systems

**Child restraints**

When transporting infants or small children in your vehicle, an appropriate child restraint system must always be used. This is required by law in the U.S. and Canada.

Child restraints specifically designed for infants and small children are offered by several manufacturers. Choose only a child restraint system with a label certifying that it complies with Federal Motor Vehicle Safety Standard 213 (FMVSS 213) or Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations (RSSR). Look for the manufacturer's statement of compliance on the box and child restraint itself.

The child restraint system should be appropriate for your child's weight and height, and should properly fit your vehicle's seat. For detail information, refer to the instruction manual accompanying the child restraint system.

**Guidelines for child restraint system selection**

All children should be properly restrained in a restraint device that offers the maximum protection for their size and age. Be sure to check local, state, or provincial requirements for child size and age that may vary from the recommendations listed below.

- Children less than 1 year old and children less than 20 pounds (9 kg) MUST ride in a rear-facing child safety seat that MUST ONLY be used in the rear seat.

- Children older than 1 year of age and who weigh less than 40 pounds (18 kg) or who are less than 40 inches (100 cm) tall must be in a forward-facing restraint used only in the rear seat.
- Children who weigh more than 40 pounds (18 kg) or who are more than 40 inches (100 cm) tall, regardless of age, should use a suitable child seat or a booster seat in the rear seat until the vehicle's lap/shoulder belt fits them properly.

**⚠ WARNING**

- All children must be seated in the rear seat, and properly restrained. Accident statistics show that children of all sizes and ages are safer when properly restrained in the rear seat, rather than in the front seat.
- Any child who is too large to use a child restraint should ride in the rear seat and wear the lap and shoulder belt properly. The shoulder belt must be positioned over the shoulder and across the chest, not across their neck, and with the lap belt positioned low on the child's hips, not across their stomach. If necessary, a booster seat should be used to help achieve a proper seat belt fit. Follow the booster seat manufacturer's instructions. Only use a booster seat that is certified as complying with Federal Motor Vehicle Safety Standards or Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations.

2-28

Seat and restraint systems

**⚠ WARNING**

● Never hold an infant or child in your arms or on your lap when riding in this vehicle, even when you are wearing your seat belt. Never place any part of the seat belt you are wearing around an infant or child. Failure to follow these simple instructions creates a risk of serious injury or death to your child in the event of an accident or sudden stop.



**⚠ WARNING**

● Your vehicle is also equipped with a front passenger air bag. Never put REAR-FACING CHILD RESTRAINTS or INFANT RESTRAINTS in the front passenger seat. This places the infant too close to the passenger air bag. During deployment of the air bag, the infant can be seriously injured or killed. Rear-facing child restraints or infant restraints must only be used in the rear seat.



2-29

Seat and restraint systems

**⚠ WARNING**

● FRONT-FACING CHILD RESTRAINTS should always be used in the rear seat whenever possible. If one must be used in the front passenger seat, move the seat to the most rearward position and make sure the child stays in the child restraint, properly restrained. Failure to follow these instructions could result in serious injury or death to the child.



2-30

**⚠ WARNING**

● It is important to use an approved rear-facing infant restraint until the infant is one year old (unless the infant outgrows the seat sooner). This allows the infant's neck and spine to develop enough to support the weight of their head in the event of an accident.

● When installing a child restraint system, follow the instructions provided by the manufacturer and follow the directions in this manual. Failure to do so can result in serious injury or death to your child in an accident or sudden stop.

● After installation, push and pull the child restraint system back and forth, and side to side, to see that it is firmly secured. If the child restraint system is not installed securely, it may cause injury to the child or other occupants in the event of an accident or sudden stop.

● When not in use, keep your child restraint system secured with the seat belt, or remove it from the vehicle, in order to prevent it from being thrown around inside the vehicle during an accident.

Seat and restraint systems

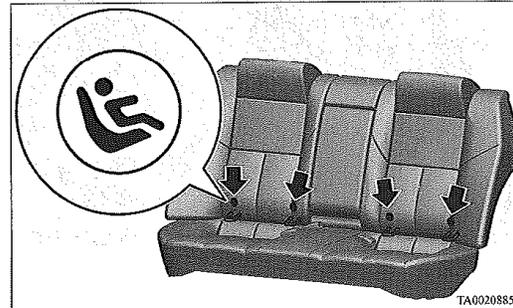
NOTE

- Before purchasing a child restraint system, try installing it in the rear seat to make sure there is a good fit. Because of the location of the seat belt buckles and the shape of the seat cushion, it may be difficult to securely install some manufacturer's child restraint systems. If the child restraint system can be pulled forward or to either side easily on the seat cushion after the seat belt has been tightened, choose another manufacturer's child restraint system.
- Depending on the seating position in the vehicle and the child restraint system that you have, the child restraint can be attached using one of the following two methods:
  - To the lower anchorage in the rear seat **ONLY** if the child restraint is compatible with the LATCH system (See page 2-31).
  - To the seat belt (See page 2-35).

Installing a child restraint system using the **LATCH (Lower Anchors and Tethers for children) system**

**Lower anchor locations**

The outboard seating positions in rear seat of your vehicle are equipped with lower anchors for attaching child restraint systems compatible with the LATCH system.



NOTE

- The symbols on the seatback show the location of the lower anchor points.

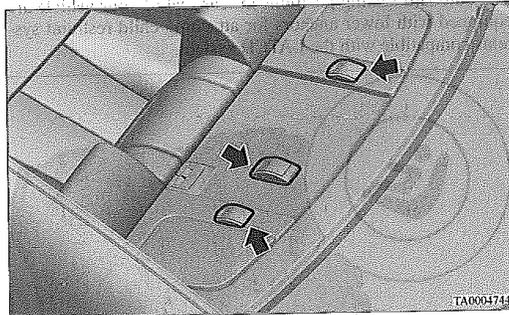
2-31

Seat and restraint systems

**Tether anchor locations**

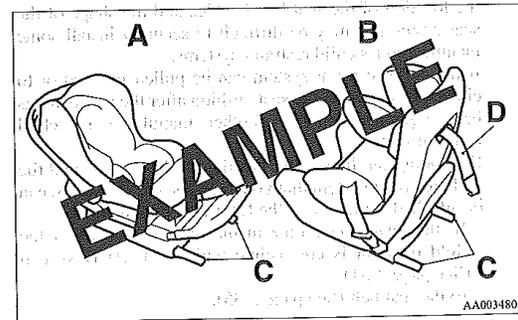
Your vehicle has 3 attachment points on the rear shelf, located behind the top of your rear seat. These are for securing a child restraint system tether strap to each of the 3 rear seating positions in your vehicle.

2



2-32

**Examples of child restraint systems compatible with the LATCH system**

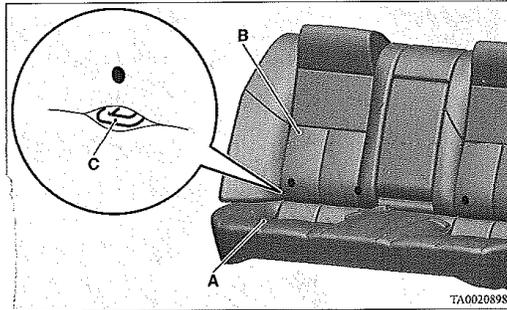


- A- Rear-facing child restraint
  - B- Front-facing child restraint
  - C- Child restraint system lower anchor connectors
  - D- Tether strap
- (These are only examples.)

Seat and restraint systems

Using the LATCH system

1. Open the gap a little between the seat cushion (A) and the seatback (B) with your hand to locate the lower anchors (C).



2. Push the anchor connectors on the child restraint system into the lower anchors (C) in accordance with the instructions provided by the child restraint system manufacturer. Remember, the lower anchors provided with your vehicle are designed to secure suitable child restraint systems compatible with the LATCH system in the outboard positions of the rear seat only. The anchor connectors are NOT designed to secure a suitable child restraint system in the center position of the rear seat.

2

2-33

Seat and restraint systems

**NOTE**

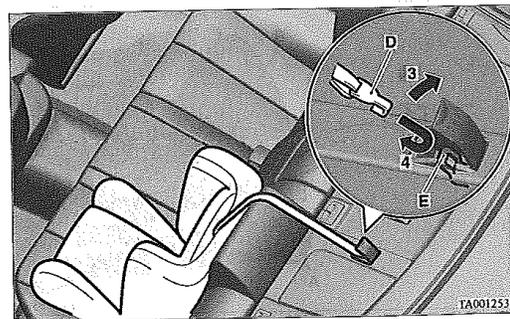
- In order to secure a child restraint systems compatible with the LATCH system, use the lower anchor points in the outboard positions of the rear seat. It is not necessary to use the vehicle's seat belt. The vehicle's seat belt, however, **MUST** be used to secure a child restraint system in the center position of the rear seat.

2

**WARNING**

- If there is any foreign material in or around the lower anchors, remove it before installing the child restraint system. Also, make sure the seat belt is away from, not looped through or otherwise interfering with, the child restraint system. If foreign matter is not removed and/or the seat belt interferes with the child restraint system, the child restraint system will not be secured properly, could detach and move forward in the event of sudden braking or an accident and could result in injury to the child or other vehicle occupants.
- When the vehicle is moving, do not adjust the seat where the child restraint system is installed.

3. Open the cover for the tether anchor by pulling it back with your hand as illustrated below (3).
4. Latch the tether strap hook (D) of the child restraint system to the anchor (E) as illustrated below (4) and tighten the top tether strap so it is securely fastened.



2-34

Seat and restraint systems

5. Push and pull the child restraint system in all directions to be sure it is firmly secured.

**⚠ WARNING**

● Child restraint tether anchors are designed only to withstand loads from correctly fitted child restraint systems. Under no circumstances are they to be used for adult seat belts, or harnesses, or for attaching other items or equipment to the vehicle.

**Installing a child restraint system using the seat belt (with emergency/automatic locking mechanism)**

NO0407300325

With the exception of the driver, the seat belt in all other seating positions can be converted from normal Emergency Locking Retractor (ELR) mode to Automatic Locking Retractor (ALR) mode. This means that when you pull the seat belt fully out of the retractor, the retractor will switch to its ALR child restraint installation function. Always use the ALR child restraint installation function when you install a child restraint system using the seat belt.

Children 12 years old and under should always be restrained in the rear seat, whenever possible, although the front passenger seat belt can also be converted to ALR mode.

2-35

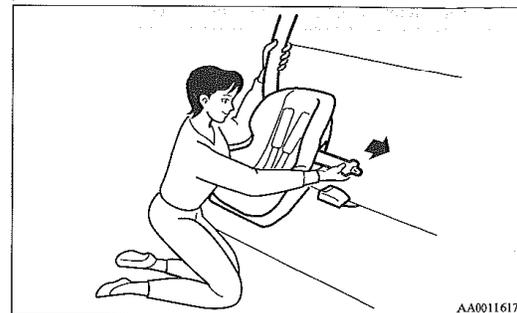
Seat and restraint systems

**⚠ WARNING**

● When you install a child restraint system using the seat belt, always make sure the retractor has been switched to the ALR child restraint installation function. The ALR function will keep the child restraint system tightly secured to the seat. Failure to convert the retractor to the ALR function may allow the child restraint system to move forward during sudden braking or an accident, resulting in serious injury or death the child or other occupants.

**Installation:**

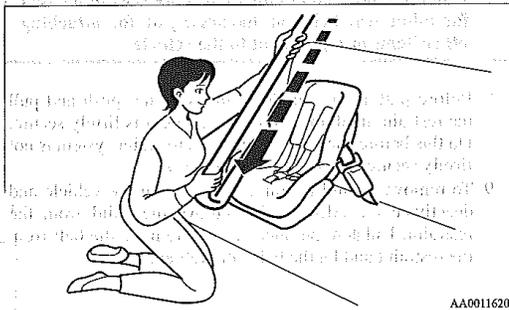
1. Place the child restraint system in the rear seating position.
2. Route the seat belt through the child restraint system according to the instructions provided by the child restraint manufacturer. Then insert the seat belt latch plate into the buckle. Make sure you hear a "click" when you insert the latch plate into the buckle.



2-36

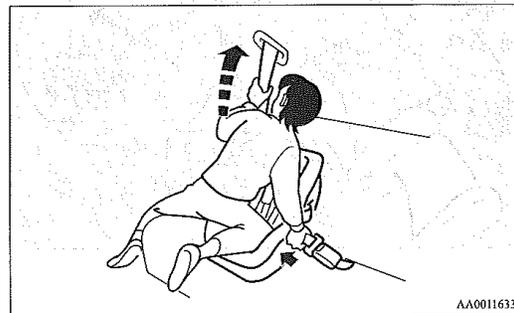
Seat and restraint systems

3. To activate the ALR child restraint installation function, slowly pull the shoulder part of the belt all the way out of the retractor until it stops. Then let the belt feed back into the retractor.



4. After the belt has retracted, tug on it. If the belt is in the ALR function, you will not be able to pull it out. If the webbing can be pulled out from retractor, the ALR function has not been activated and you will need to repeat steps 3 and 4.

5. After confirming that the belt is locked, grab the shoulder part of the belt near the buckle and pull up to remove any slack from the lap part of the belt allowing the slack to feed into the retractor. Remember, if the lap belt portion is not tight, the child restraint system will not be secure. It may help to put your weight on the child restraint system and/or push on its seatback while pulling up on the belt (see illustration).

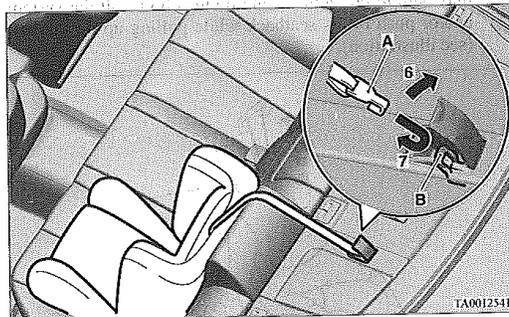


If your child restraint system requires the use of a tether strap, fasten the tether strap in accordance with the following procedures.

2-37

Seat and restraint systems

6. Open the cover from the tether anchor installation point by pulling it back with your hand as illustrated below (6).
7. Latch the tether strap hook (A) of the child restraint system to the tether anchor (B) as illustrated below (7) and tighten the top tether strap so it is securely fastened.



**WARNING**

● Child restraint tether anchors are designed only to withstand loads from correctly fitted child restraint systems. Under no circumstances are they to be used for adult seat belts, or harnesses, or for attaching other items or equipment to the vehicle.

8. Before putting your child in the restraint, push and pull the restraint in all directions to be sure it is firmly secure. Do this before each use. If the child restraint system is not firmly secure, repeat steps 1 through 7.
9. To remove a child restraint system from the vehicle and deactivate the ALR mode, remove the child from the restraint. Unlatch the buckle. Then remove the belt from the restraint and let the belt fully retract.

2-38

Seat and restraint systems

Children who have outgrown child restraint systems

N09407603458

Children who have outgrown a child restraint system should be seated in the rear seat and wear the seat belt. If the shoulder belt crosses their face or neck, and/or the lap belt crosses their stomach, a commercially available booster seat must be used, to raise the child so that the shoulder belt crosses their shoulder and the lap belt remains positioned low across their hips. The booster seat should fit the vehicle seat and have a label certifying compliance with Federal Motor Vehicle Safety Standards or Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations.

**⚠ WARNING**

- Any child who is too small to properly wear a seat belt must be properly restrained in an appropriate child restraint system, to reduce their risk of serious injury or death in an accident.
- A child should never be left unattended in, or unsupervised, around your vehicle. When you leave the vehicle always take the child out as well.
- Children can die from heat stroke if left or trapped inside the vehicle, especially on hot days.
- Keep your vehicle locked and the trunk lid closed when not in use. Keep your vehicle keys away from children.
- Never allow children to play in the trunk of your vehicle.

Maintenance and inspection of seat belts

N0040700221

The seat belt webbing may be cleaned with mild soap or detergent solution. Do not use an organic solvent. Allow the belts to dry in the shade. Do not allow them to retract until completely dry. Do not attempt to bleach or re-dye the belts. The color may rub off and the webbing strength may be affected.

Regularly check your seat belt buckles and their release mechanisms for positive engagement and release of the latch plate. Check the retractors for automatic locking when in the Automatic Locking Retractor function.

The entire seat belt assembly should be replaced if the webbing shows any obvious cuts, tears, increase in thickness in any section of the webbing from broken fibers, or severe fading from sunlight. All of these conditions indicate a weakening of the belt, which may adversely affect seat belt performance in an accident.

**⚠ WARNING**

- Do not attempt to repair or replace any part of the seat belt assemblies. This work should be done by an authorized Mitsubishi Motors dealer. Failure to have an authorized Mitsubishi Motors dealer perform the work could reduce the effectiveness of the belts and could result in a serious injury or death in an accident.

2-39

Seat and restraint systems

Supplemental Restraint System (SRS) - air bag

N00407700127

This vehicle is equipped with a Supplemental Restraint System (SRS), which includes air bags for the driver and passengers.

The SRS front air bags are designed to supplement the primary protection of the driver and front passenger seat belt systems by providing those occupants with protection against head and chest injuries in certain moderate to severe frontal collisions.

The SRS driver and front passenger air bags, together with sensors at the front of the vehicle and sensors attached to the front seats, form an advanced air bag system.

The SRS side air bags are also designed to supplement the seat belts and provide the driver and front passenger with protection against chest and abdomen injuries in certain moderate to severe side impact collisions.

The SRS curtain air bags are designed to supplement the seat belts and provide the driver and passengers with protection against head injuries in certain moderate-to-severe side impact collisions.

The SRS air bags are NOT a substitute for use of the seat belts. For maximum protection in all types of accidents, seat belts must ALWAYS be worn by everyone who drives or rides in this vehicle (with infants and small children in an appropriate

child restraint in the rear seat, and older children buckled in the rear seat). Refer to "Child restraints" on page 2-28.

**⚠ WARNING**

● IT IS VERY IMPORTANT TO ALWAYS WEAR YOUR SEAT BELT PROPERLY EVEN WITH AN AIR BAG.

• Seat belts help keep the driver and passengers properly positioned. This reduces the risk of injury in all collisions, and reduces the risk of serious injuries or death when the air bags inflate.

During sudden braking just before a collision, an unrestrained or improperly restrained driver or passengers can move forward into direct contact with, or within close proximity to, the air bag when it begins to inflate.

The beginning stage of air bag inflation is the most forceful and can cause serious injuries or death if the occupant comes in contact with the air bag at this time.

• Seat belts reduce the risk of injury in rollovers, rear impact collisions, and in lower-speed frontal collisions, because the air bags are not designed to inflate in those situations.

• Seat belts reduce the risk of being thrown from your vehicle in a collision or rollover.

2-40

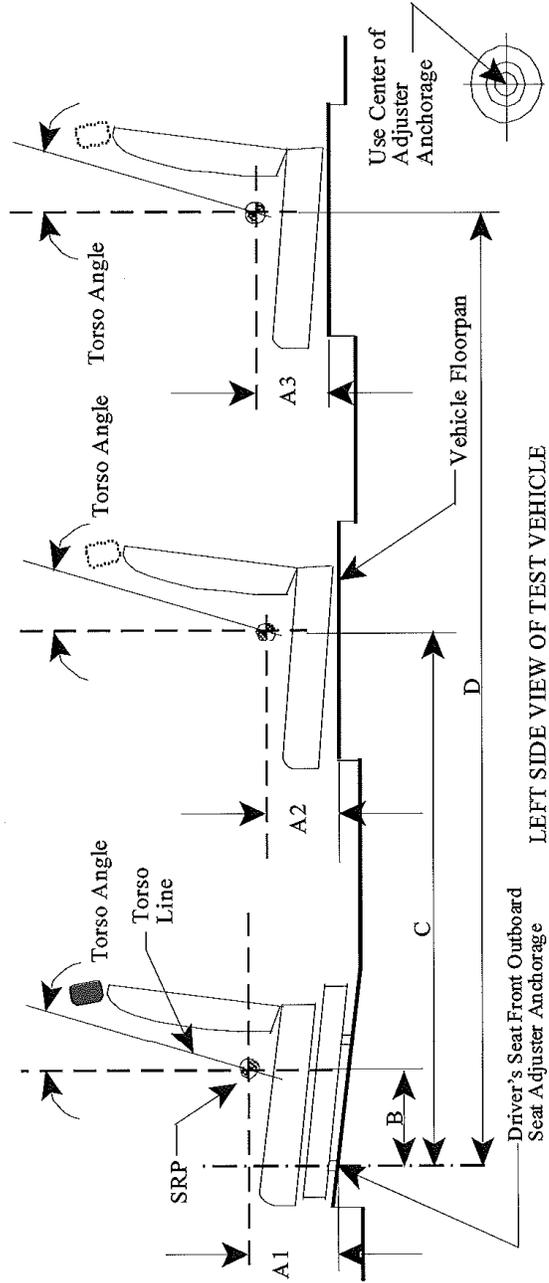
APPENDIX B  
MANUFACTURER’S DATA (OVSC FORM 14)

FORM - 225  
 Rev. 03/20/07

### SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA

FMVSS No. 225  
 (All dimensions in mm<sup>1</sup>)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Galant / BODY STYLE: 4-Door Sedan  
 SEAT STYLE: FRONT ROW: Bucket / SECOND ROW: Bench / THIRD ROW: Not applicable



#. As for accessible point, please refer to attachment 6.

2

Table 1. Seating Positions<sup>1</sup> and Torso Angles

	Left (Driver Side) (Driver) 174.5	Center (if any)	Right (Front Passenger) 174.5
A1	99	N/A	99
A2	N/A	149	N/A
A3	390	N/A	390
B	1220	1205	1220
C	N/A	N/A	N/A
D	25	N/A	25
Torso Angle (degree)	Front Row		
	Second Row	23	26
	Third Row	N/A	N/A

Note: All dimensions are in mm. If not, provide the unit used.

FORM -- 225

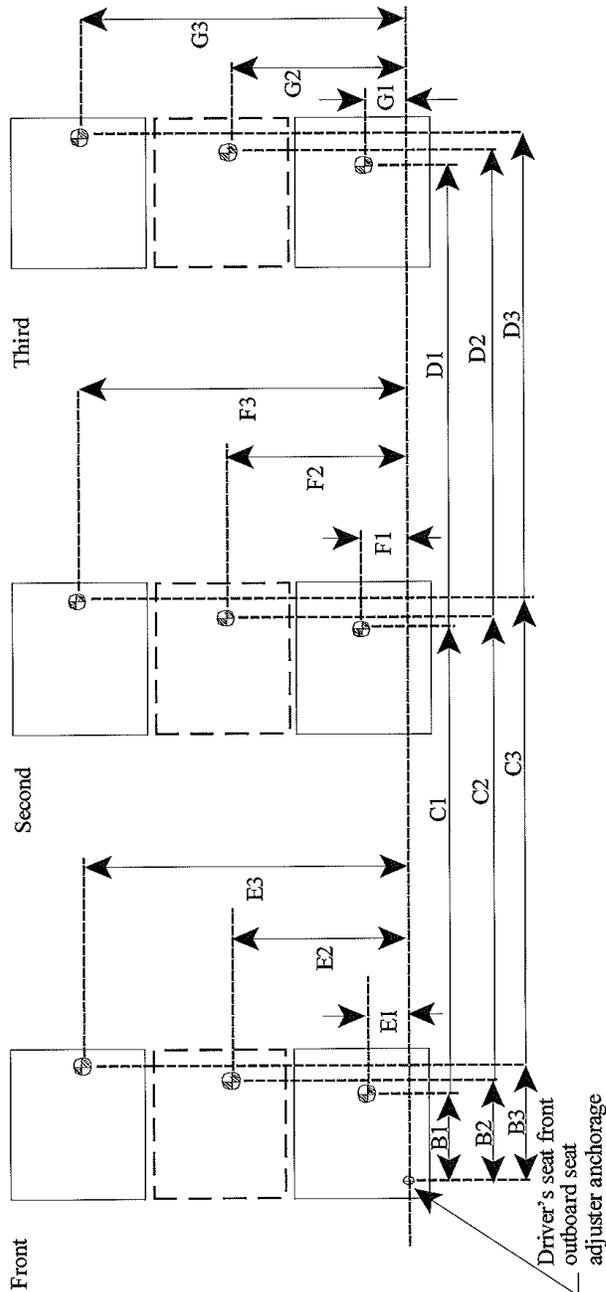
3

### SEATING REFERENCE POINT

FMVSS No. 225  
 (All dimensions in mm)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Galant / BODY STYLE: 4-Door Sedan

SEAT STYLE: FRONT ROW: Bucket / SECOND ROW: Bench / THIRD ROW: Not applicable



FORM - 225

Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage <sup>1</sup>
Front Row	B1	390
	E1	227
	B2	N/A
	E2	N/A
	B3	390
	E3	987
Second Row	C1	1220
	F1	237
	C2	1205
	F2	607
	C3	1220
	F3	977
Third Row	D1	N/A
	G1	N/A
	D2	N/A
	G2	N/A
	D3	N/A
	G3	N/A

Note: Use the center of anchorage.

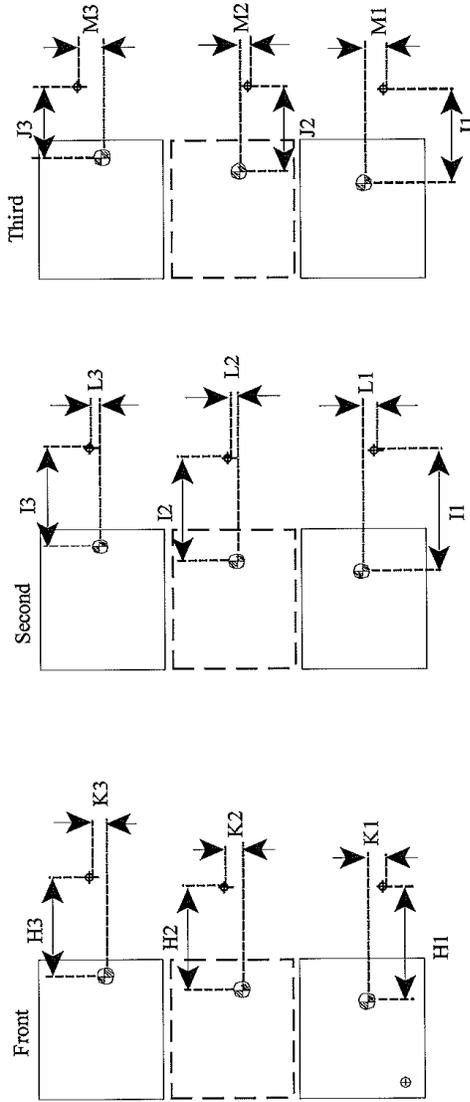
5

### TETHER ANCHORAGE LOCATIONS

FMVSS No. 225  
 (All dimensions in mm)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Galant / BODY STYLE: 4-Door Sedan

SEAT STYLE: FRONT ROW: Bucket / SECOND ROW: Bench / THIRD ROW: Not applicable



⊕: SRP  
 ◊: Tether anchorage

Note: The location shall be measured at the center of anchorage.

FORM - 225

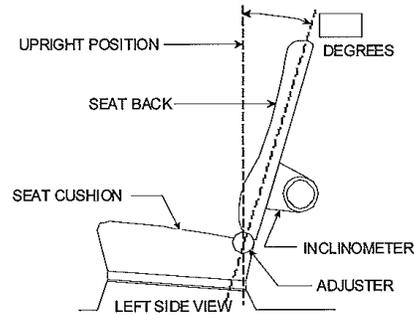
Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	H3	N/A
	K3	N/A
Second Row	I1	753
	L1	-112
	I2	753
	L2	-82
	I3	753
	L3	-112
Third Row	J1	N/A
	M1	N/A
	J2	N/A
	M2	N/A
	J3	N/A
	M3	N/A

Note: Use the center of anchorage.

**NOMINAL DESIGN RIDING POSITION**

For adjustable driver, passenger, 2<sup>nd</sup> row and 3<sup>rd</sup> row seat backs, describe how to position the inclinometer to measure the seat back angle. Include a description of the location of the seat back adjustment latch detent if applicable. Indicate if applicable, how the detents are numbered (Is the first detent "0" or "1"?). Indicate if the seat back angle is measured with the dummy in the seat.



Seat back angle for driver's seat = N/A (\*) degrees.

(\*) There is no plane or straight portion to position the inclinometer on seat properly.

Measurement Instructions:

Adjust to 7<sup>th</sup> latch detent, counting the first forward detent as "0"

Seat back angle for passenger's seat = N/A (\*) degrees.

Measurement Instructions:

Same as driver's seat.

Seat back angle for 2<sup>nd</sup> row seat = N/A degrees.

Measurement Instructions:

Not applicable (2<sup>nd</sup> row seat is not adjustable for seat back angle.)

Seat back angle for 3<sup>rd</sup> row seat = N/A degrees.

Measurement Instructions:

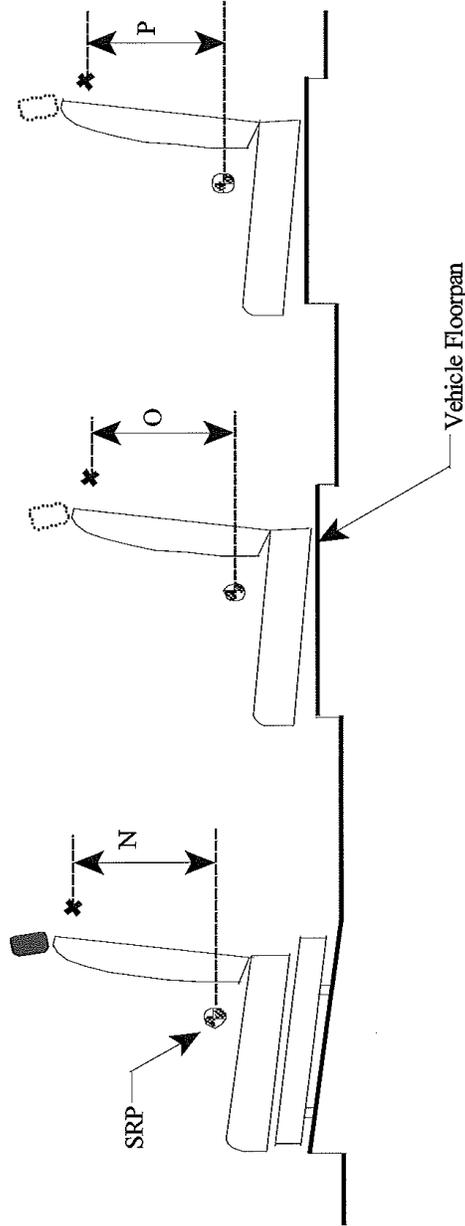
Not applicable

### TETHER ANCHORAGE LOCATIONS - VERTICAL

FMVSS No. 225  
(All dimensions in mm)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Galant / BODY STYLE: 4-Door Sedan

SEAT STYLE: FRONT ROW: Bucket / SECOND ROW: Bench / THIRD ROW: Not applicable



LEFT SIDE VIEW OF TEST VEHICLE

FORM - 225

Table 4. Vertical Dimension For The Tether Anchorage

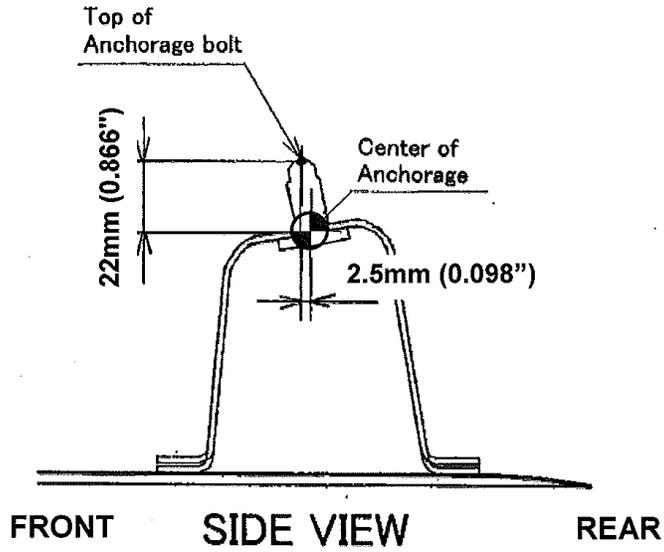
Seating Row	Vertical Distance from Seating Reference Point
Front Row	N1 (Driver)
	N2 (Center)
	N3 (Right)
Second Row	O1 (Left)
	O2 (Center)
	O3 (Right)
Third Row	P1 (Left)
	P2 (Center)
	P3 (Right)

Note: All dimensions are in mm. If not, provide the unit anchorage.

For each vehicle, provide the following information:

1. How many designated seating positions exist in the vehicle?  
 Answer: 5 positions
2. How many designated seating positions are equipped with lower anchorages and tether anchorages? Specify which position(s).  
 Answer: 2 positions, 2<sup>nd</sup> row LH & RH side
3. How many designated seating positions are equipped with tether anchorages? Specify which positions(s).  
 Answer: 3 positions, 2<sup>nd</sup> row LH, Center & RH side
4. Lower Anchorages Marking and Conspicuity: Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS No. 225.  
 Answer: S9.5(a)

Attachment 6



Driver's Seat Front Outboard  
Seat Adjuster Anchorage