FINAL REPORT NUMBER 225-MGA-08-004

SAFETY COMPLIANCE TESTING FOR FMVSS 225
"Child Restraint Anchorage Systems"

MITSUBISHI MOTORS CORPORATION
2008 MITSUBISHI LANCER
NHTSA No. C85600

MGA RESEARCH CORPORATION
446 Executive Drive
Troy, Michigan 48083

Test Date: October 30, 208
Report Date: December 30, 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

Prepared By: Fern Gatilao, Project Engineer

Brad Reaume, Test Personnel

Helen A. Kaleto, Laboratory Manager

Approved By: P. Michael Miller II, Vice President

Approval Date: 1/16/09

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: Edward E. Chan
Digitally signed by Edward E. Chan
DN: CN = Edward E. Chan, C = US, O = National Highway Traffic Safety Administration, OU = Office of Vehicle Safety Compliance
Date: 2009.01.21 14:38:01 -05'00'

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 Lancer, NHTSA No. C85600		5. Report Date December 30, 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-08-004	
9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083		10. Work Unit No. 11. Contract or Grant No. DTNH22-06-C-00030/0003	
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 Lancer, NHTSA No. C85600, 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 October 30, 2008. Test failures identified were as follows: NONE The data recorded indicates that the 2008 Mitsubishi Lancer tested appears to meet the requirements of FMVSS 225.			
17. Key Words Compliance Testing Safety Engineering FMVSS 225 2008 Mitsubishi Lancer		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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Form DOT F 1700.7 (8-70)

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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 Lancer, NHTSA No. C85600 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 2nd row three-passenger 60/40 split-bench seat. The 2nd row outboard left and right seating positions were equipped with a child restraint anchorage system (one tether and two lower anchorages). The center seating position was equipped with a tether anchorage. The center-to-center spacing between the 2nd row outboard lower anchorages was approximately 660 mm. The 2nd row left and right outboard seating positions were tested with the SFADII fixture.

2.0 COMPLIANCE TEST AND DATA SUMMARY

TEST SUMMARY

The testing was conducted at MGA in Troy, Michigan on October 30, 2008.

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

The SFADII at the 2nd row left seating position sustained a maximum force of 4,976 N and held the required load for 3 seconds and the total displacement was 55 mm. The SFADII at the 2nd row right seating position sustained a maximum force of 4,976 N and held the required load for 3 seconds and the total displacement was 43 mm.

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)
SB8403	SFADII	Lateral Right	2nd Row Left	4,976	55
			2nd Row Right	4,976	43

3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

VEH. MOD YR/MAKE/MODEL/BODY	2008 Mitsubishi Lancer
VEH. NHTSA NO.	C85600
VIN	JA3AU16U48U003091
COLOR	Silver
VEH. BUILD DATE	02/07
TEST DATE	October 30, 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 Corporation

Date of Manufacture: 02/07; VIN: JA3AU16U48U003091

GVWR: 4079 lbs; GAWR FRONT: 2227 lbs

GAWR REAR: 2007 lbs

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 32 psi REAR: 32 psi

Recommended Tire Size: P205/60R16

Recommended Cold Tire Pressure:

FRONT: 32 psi REAR: 32 psi

Size of Tire on Test Vehicle: P205/60R16

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

MGA Research Corporation 446 Executive Drive Troy, Michigan 48083	
Test Equipment Used for Testing	**Calibration Due Date**
MGA Hydraulic Test Frame	N/A
Two (2) Load Cell 10,000 lb Capability	S/N 629 (5/27/09), 659 (9/17/09)
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	TPM866 (7/28/09)
MGA Data Acquisition System	N/A
Digital Calipers	MGA00676
Force Gauge	MGA00014
Inclinometer (Digital)	MGA00711

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	5.97	5.97	N/A
	Ctr		N/A		
	RH		6.0	5.98	
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				
	RH				
Optional Marking: If guidance fixtures are used, the fixture(s) must be installed.	LH	N/A	N/A		N/A
	Ctr				
	RH				
Measure the distance between Point "Z" of the CRF and the front surface of the anchorage bar (mm)	LH	N/A	29		N/A
	Ctr		N/A		
	RH		26		
Measure the distance between the SRP to the front of the anchorage bar (mm)	LH	N/A	155	155	N/A
	Ctr		N/A		
	RH		156	156	

Table 4. Child Restraint Lower Anchorage Configuration (continued)

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION					
			FRONT ROW	SECOND ROW I/B	SECOND ROW O/B	THIRD ROW
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	Req't>25	N/A	28	28	N/A
		Req't<60		29	30	
	Ctr	Req't>25		N/A		
		Req't<60		N/A		
	RH	Req't>25		27	28	
		Req't<60		31	31	
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)
2nd Row Left	7	N/A	-.4
2nd Row Center	N/A	N/A	N/A
2nd Row Right	8	N/A	-.3

N/A indicates that there were no lower anchorages in the 2nd 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	0	9	167	5,000	4,976	64	55
	Ctr.			Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RH			Yes	II	0	7	167	5,000	4,976	50	43
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.

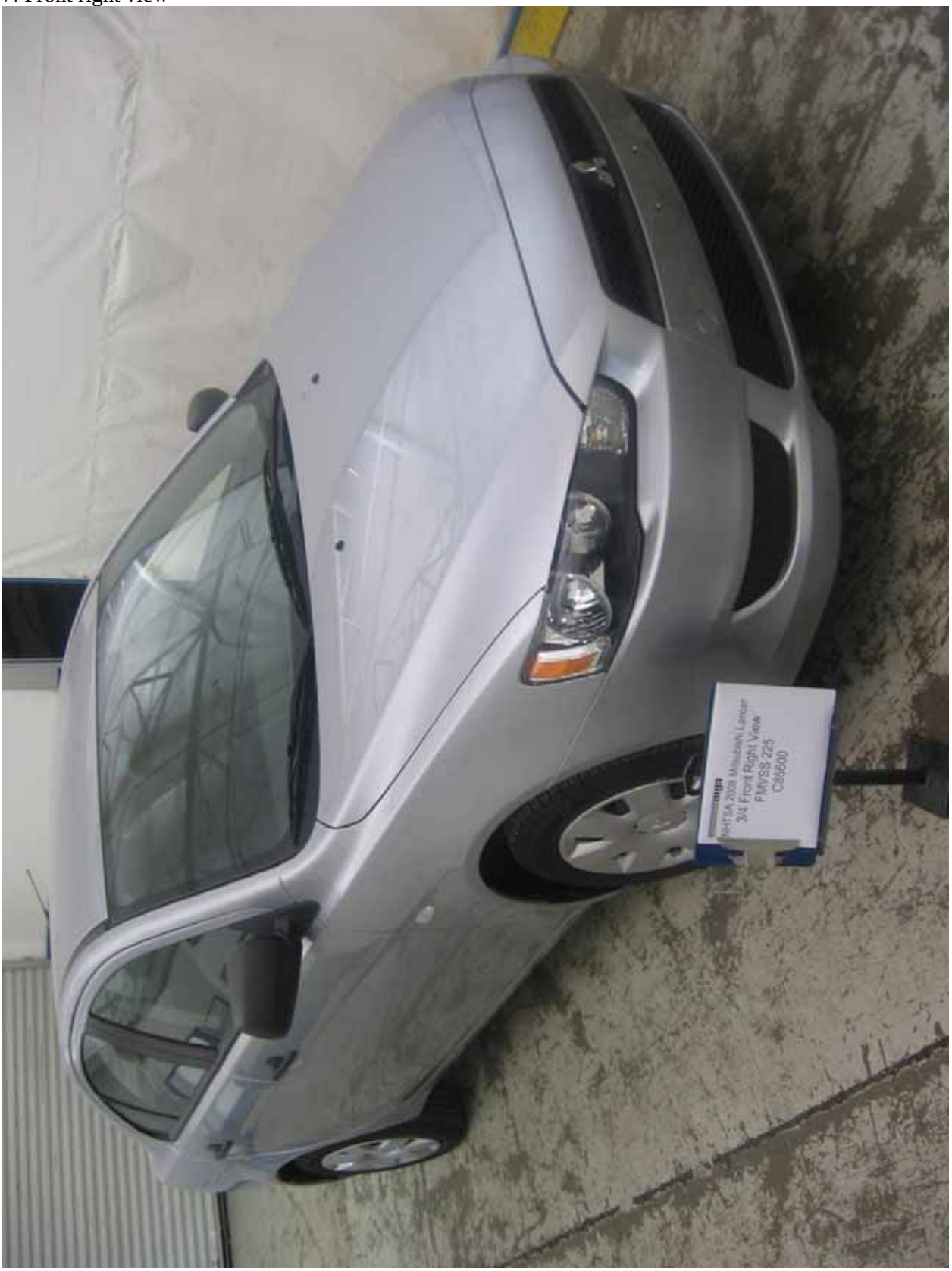
6.0 PHOTOGRAPHS

6.1 Front view

6.2 Rear view

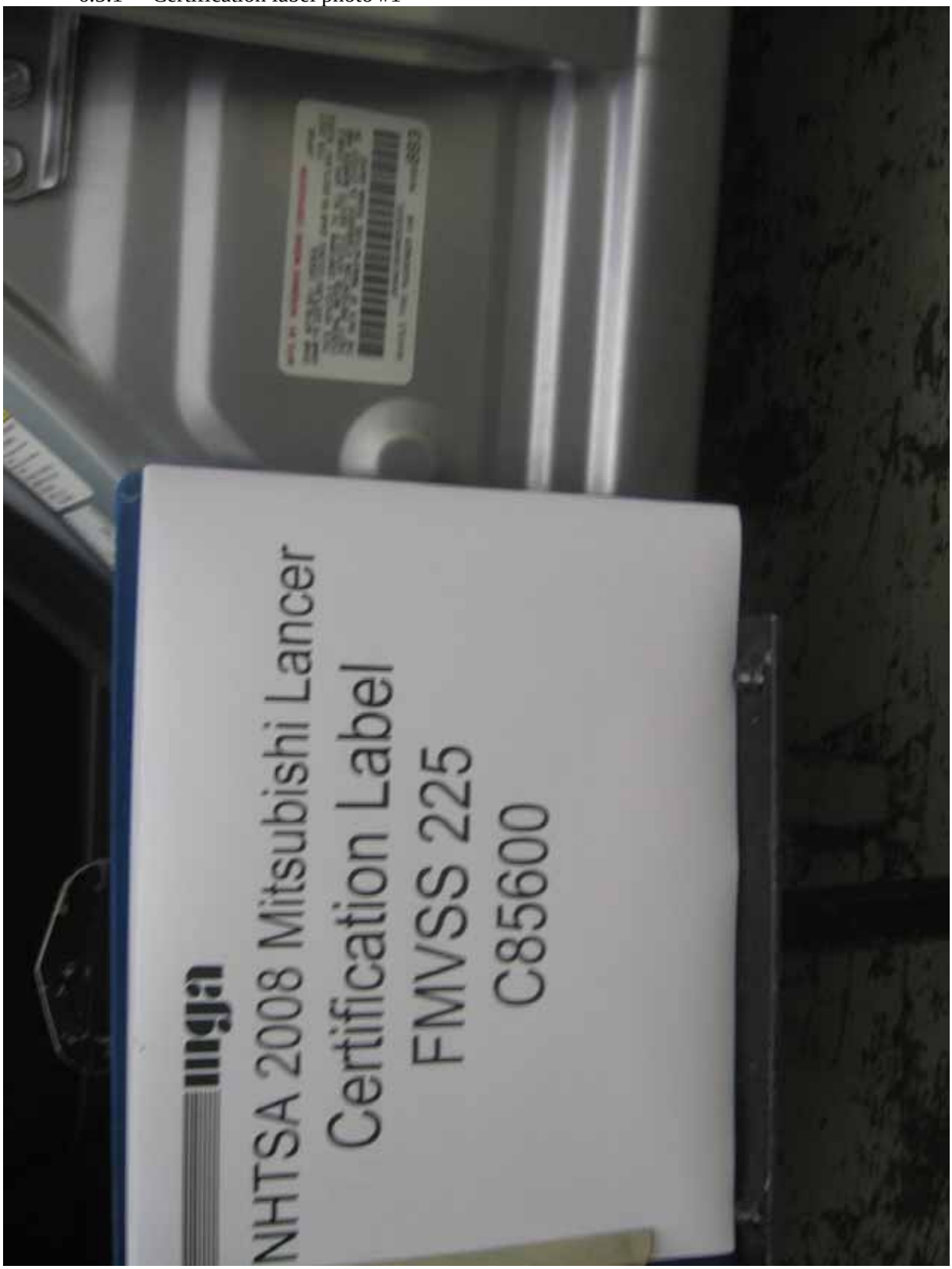
6.3 ¾ Front left view

6.4 ¾ Front right view



6.5 Test vehicle's certification label

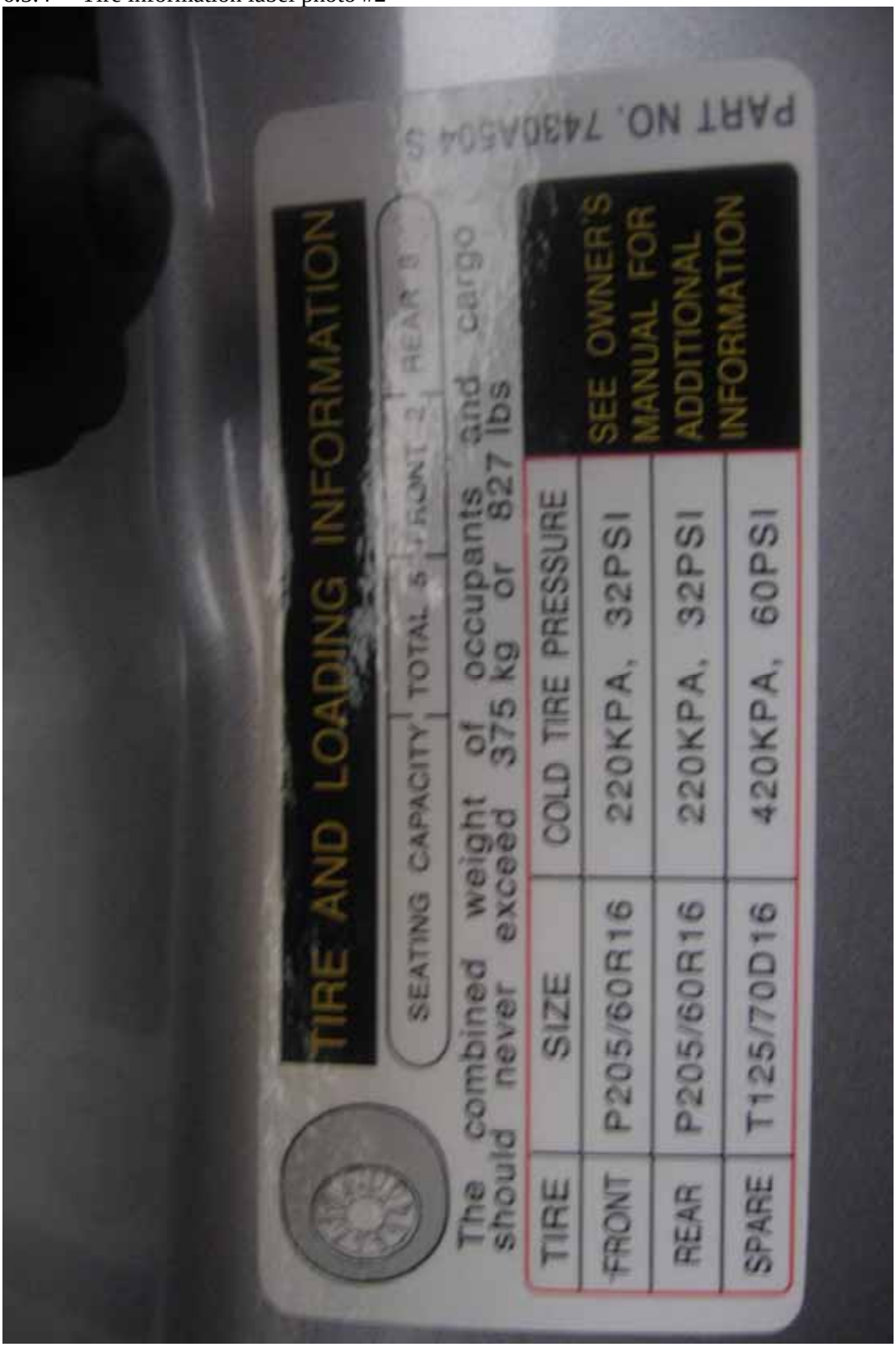
6.5.1 Certification label photo #1



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

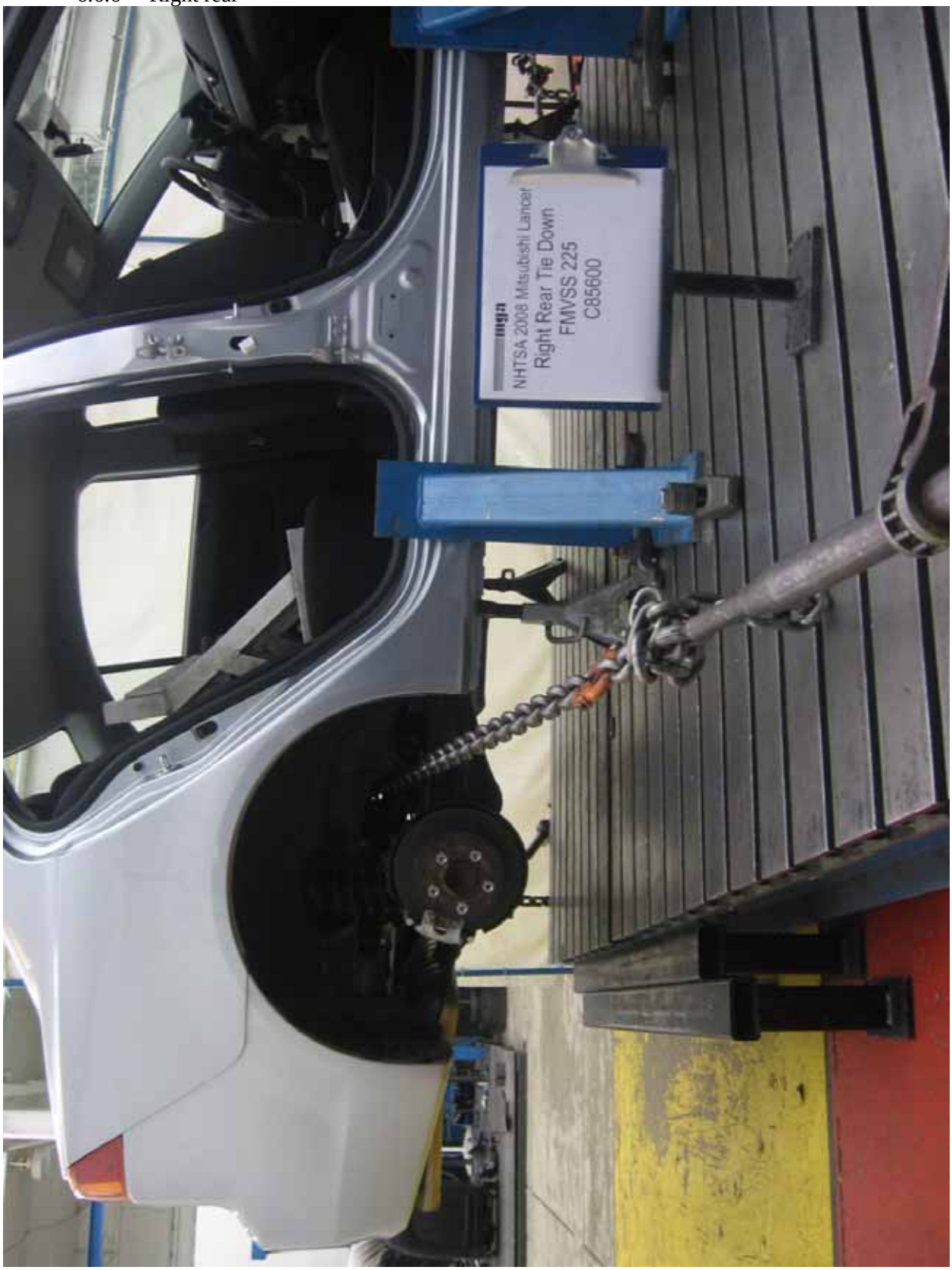
6.6.2 Rear under vehicle

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

6.8 CRF verification

6.8.1 LH position photo

6.8.2 RH position photo

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

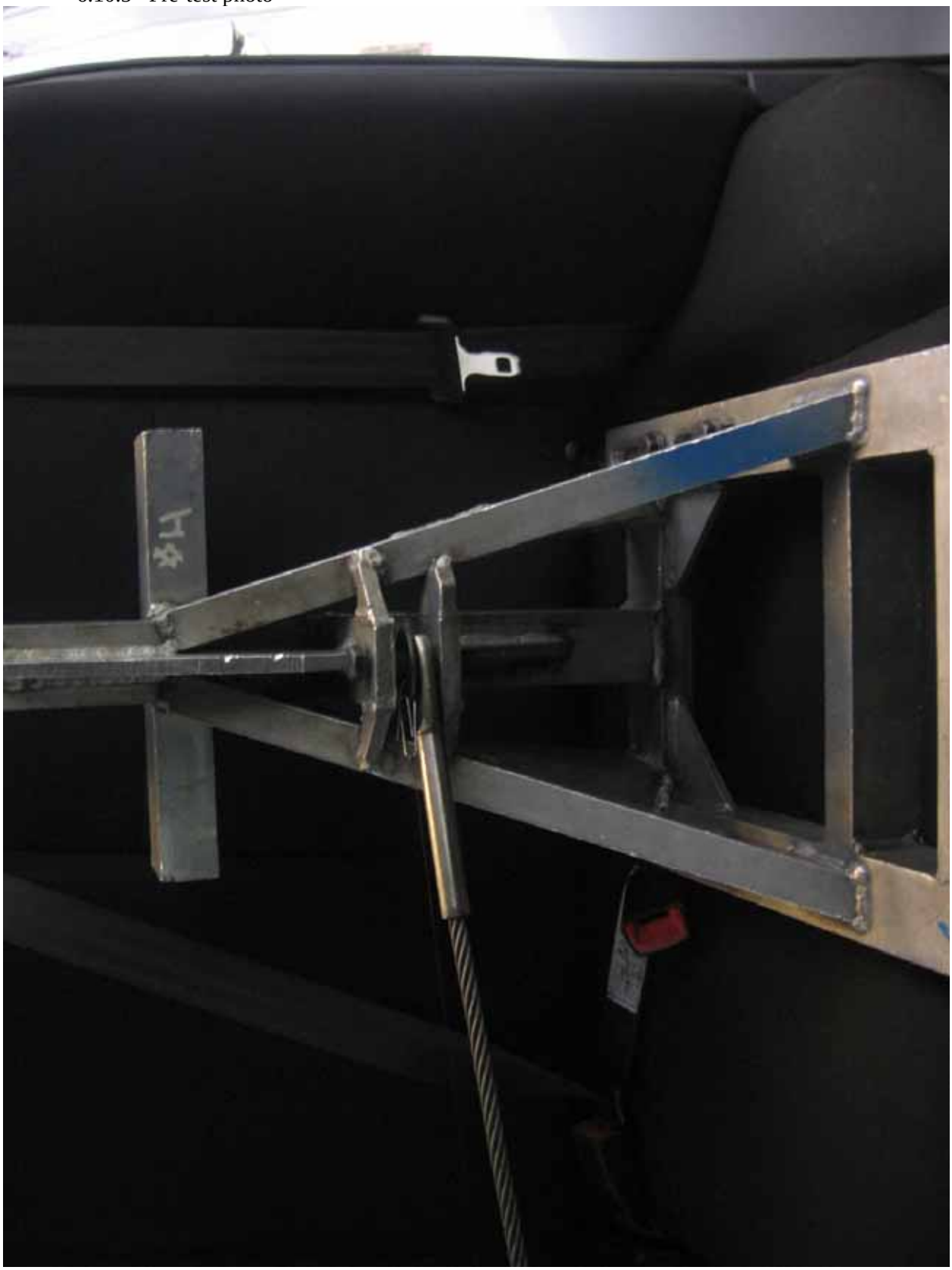
6.10.1 Pre-test photo

6.10.2 Pre-test photo

6.10.3 Pre-test photo

6.10.4 Pre-test photo

6.10.5 Pre-test photo



6.11 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

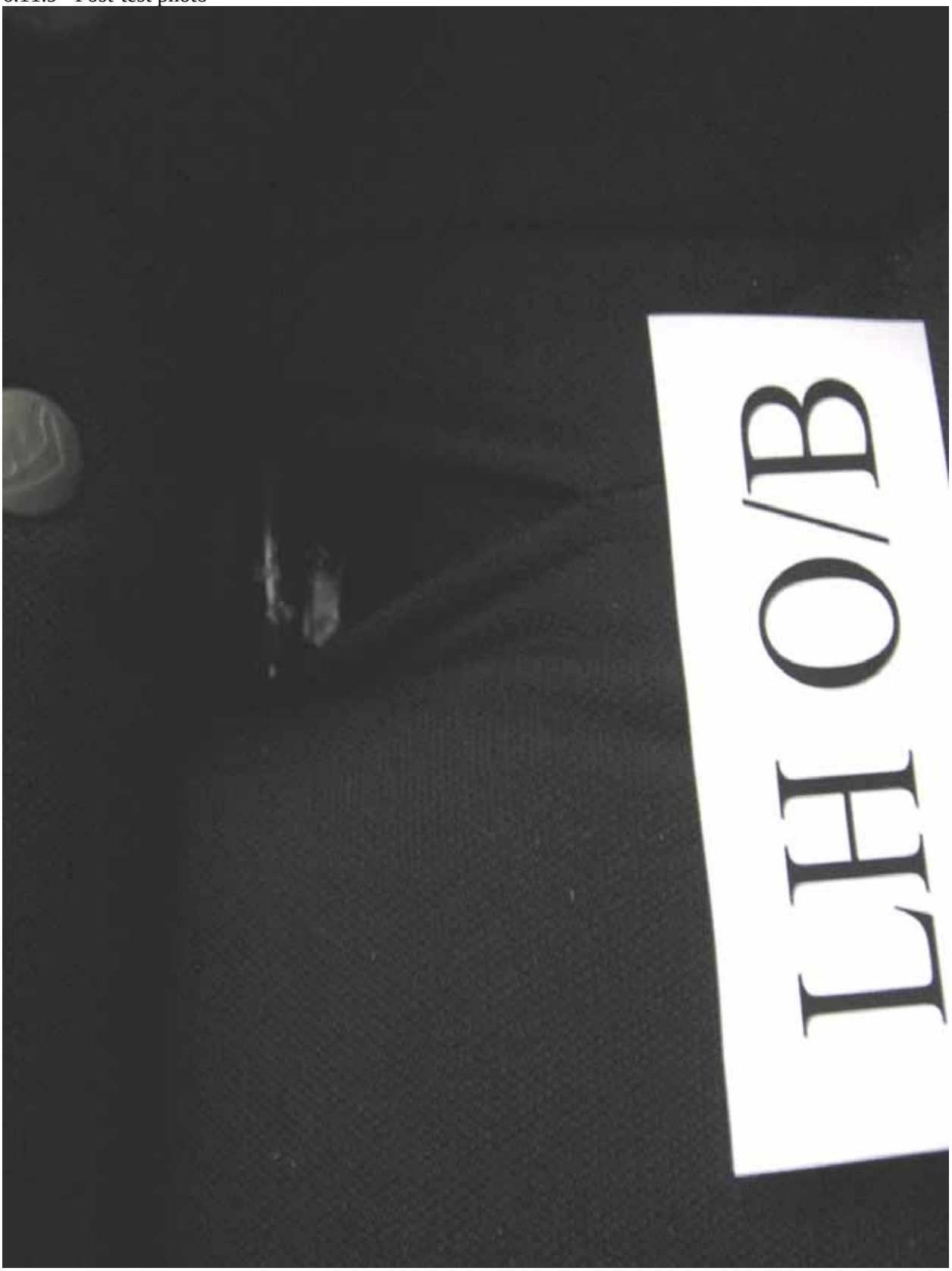
6.11.5 Post-test photo

6.11.6 Post-test photo

6.11.7 Post-test photo

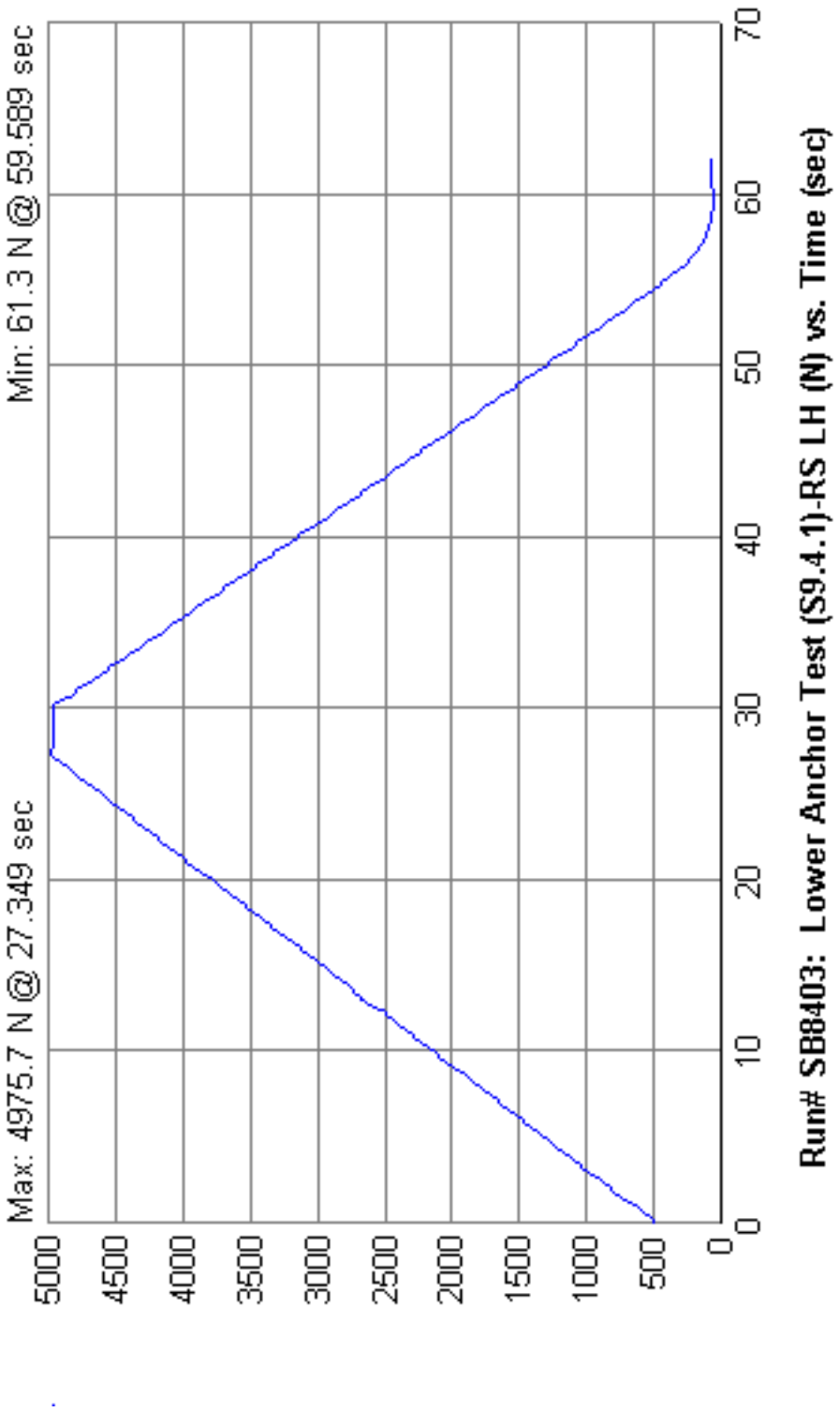
6.11.8 Post-test photo

6.11.9 Post-test photo



6.11.10 Post-test photo

7.0 PLOTS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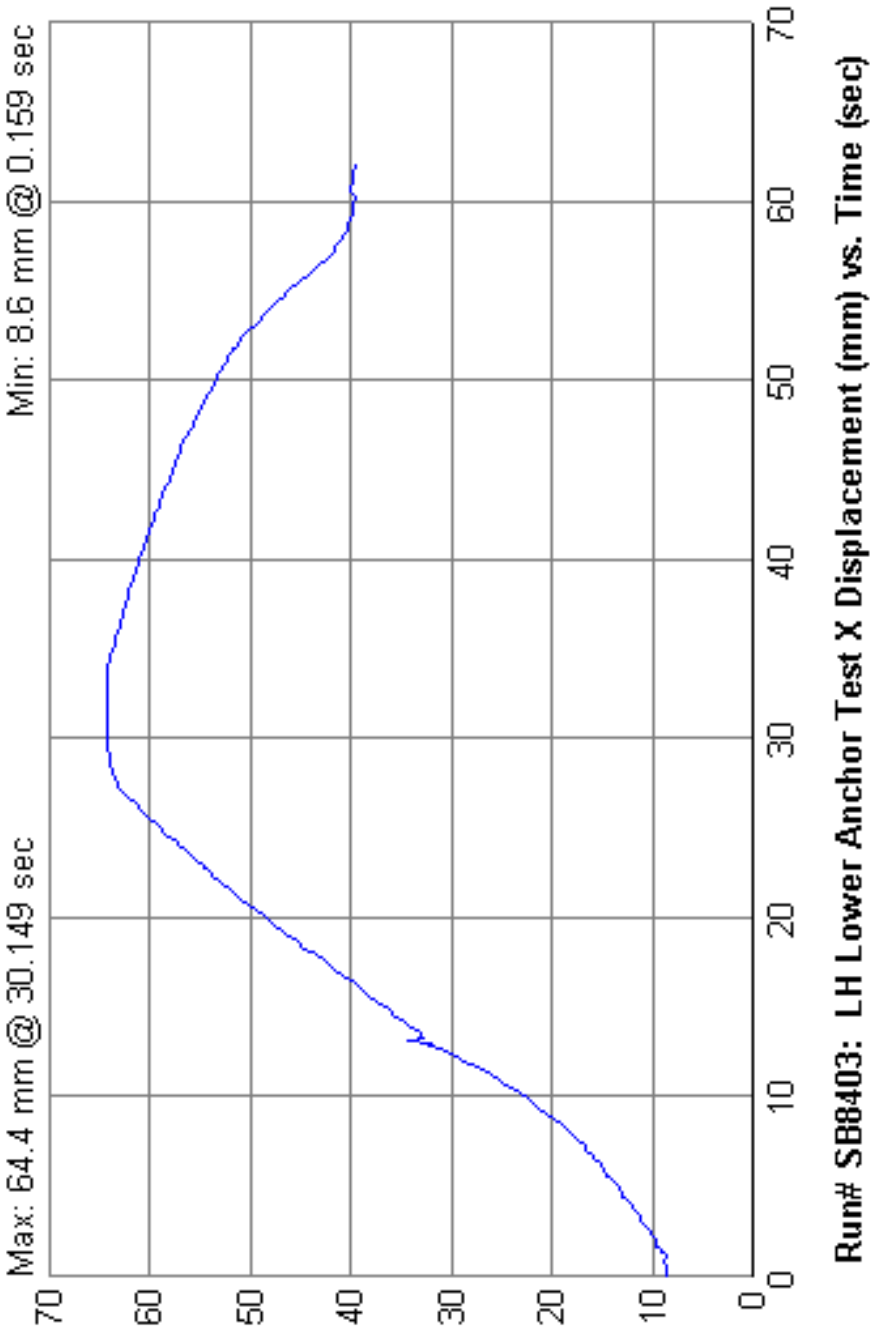
Max: 4975.7 N @ 27.349 sec
Min: 61.3 N @ 59.589 sec
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50
60
70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Min: 8.6 mm @ 0.159 sec
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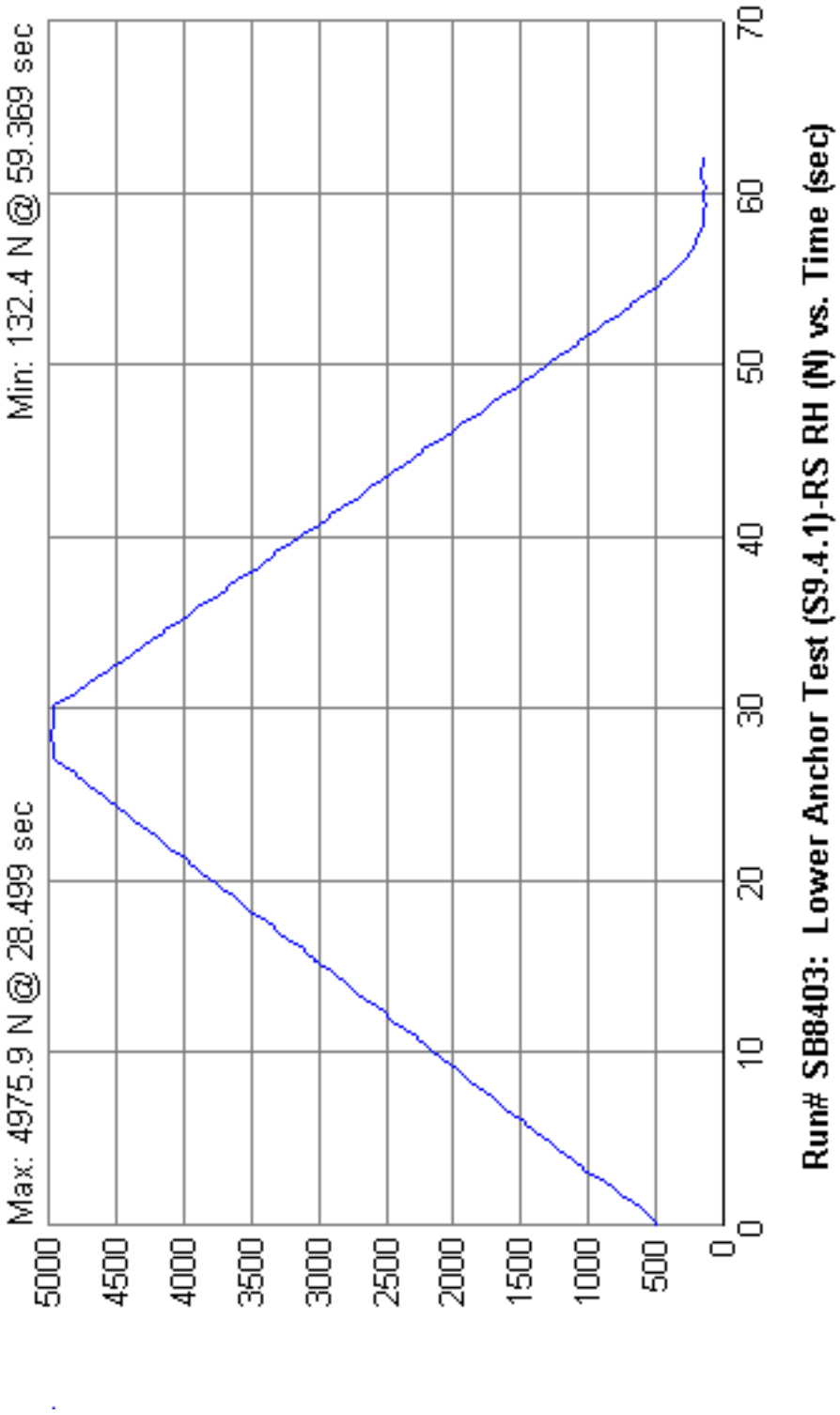
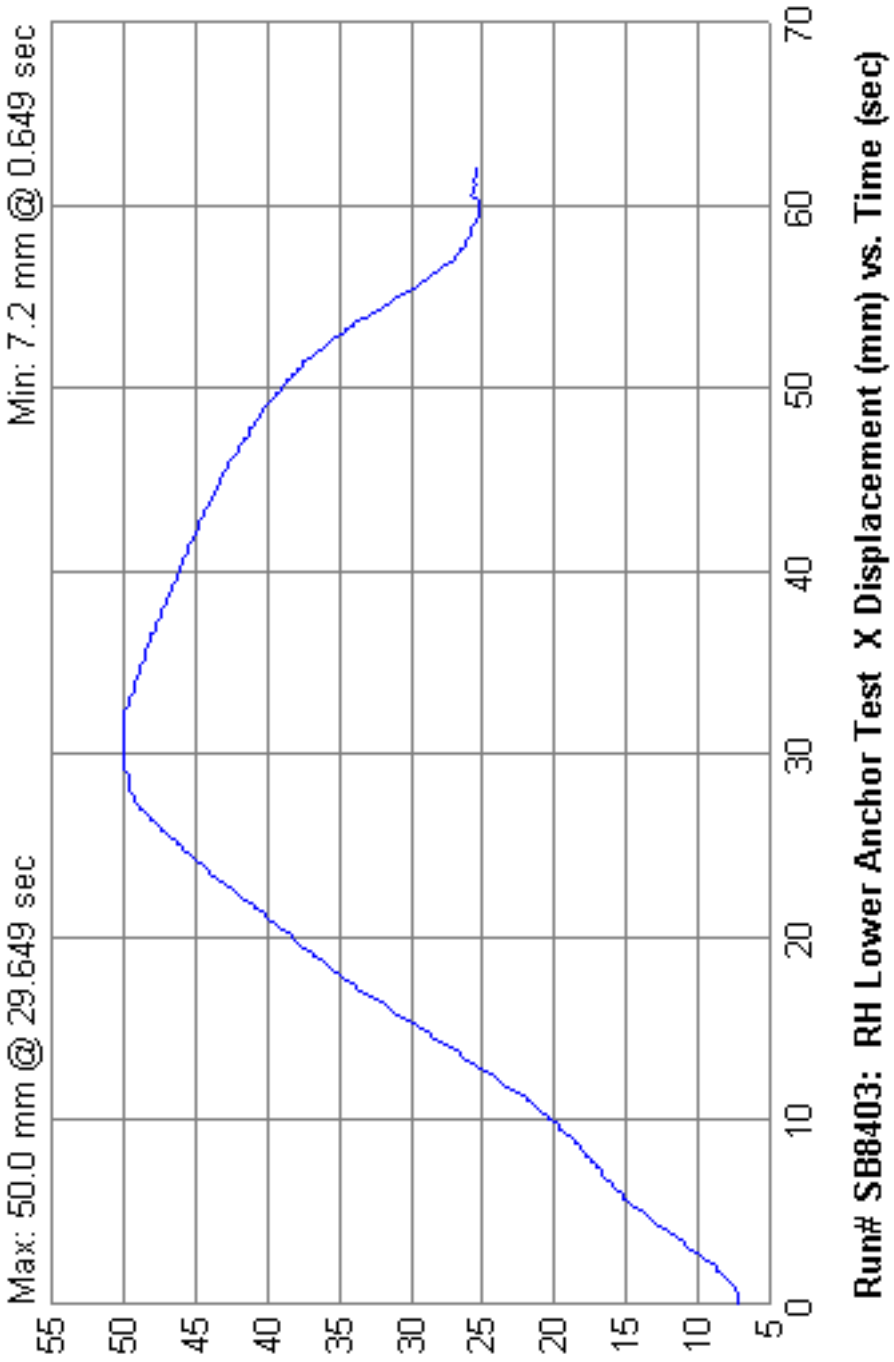
10
20
30
40
50
60
70


Max: 4975.9 N @ 28.499 sec
Min: 132.4 N @ 59.369 sec
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50
60
70
Run# SB8403: Lower Anchor Test (S9.4.1)-RS RH (N) vs. Time (sec)


Run# SB8403: RH Lower Anchor Test X Displacement (mm) vs. Time (sec)
Max: 50.0 mm @ 29.649 sec
Min: 7.2 mm @ 0.649 sec
55
50
45
40
35
30
25
20
15
10
5
0
10
20
30
40
50
60
70

8.0 REPORT OF VEHICLE CONDITION

REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

CONTRACT No.: DTNH22-06-C-00030/0003 DATE: October 30,2008

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 Lancer

VEH. NHTSA NO.: C85600 VIN: JA3AU16U48U003091

COLOR: Silver

ODOMETER READINGS: ARRIVAL 624 miles Date: 7/9/08

COMPLETION 626 miles Date: 10/30/08

PURCHASE PRICE: $15,965 DEALER'S NAME: ADSCO

ENGINE DATA: 4 Cylinders 2.0 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

X	Air Conditioning		Traction Control		Clock
	Tinted Glass		All Wheel Drive		Roof Rack
X	Power Steering		Speed Control	X	Console
X	Power Windows	X	Rear Window Defroster		Driver Air Bag
X	Power Door Locks		Sun Roof or T-Top		Passenger Air Bag
	Power Seat(s)		Tachometer	X	Front Disc Brakes
	Power Brakes		Tilt Steering Wheel	X	Rear Disc Brakes
X	Antilock Brake System	X	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: October 30, 2008

APPROVED BY: Brad Reaume

APPENDIX A
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

Child restraint systems

N00407100554

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 restraint systems 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 system 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.

⚠ WARNING

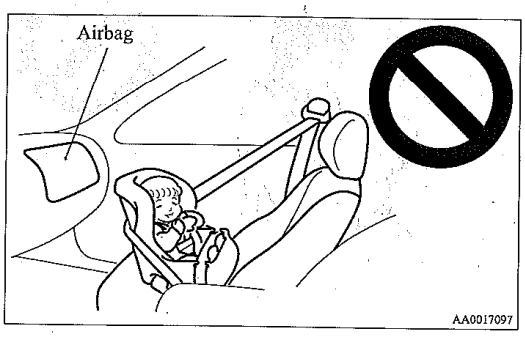
- **Any child who is too large to use a child restraint system should ride in the rear seat and wear the lap and shoulder belt properly. The shoulder belt must be positioned over the shoulder and across the chest, not across their neck, and with the lap belt positioned low on the child's hips, not across 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.**

⚠ 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.**

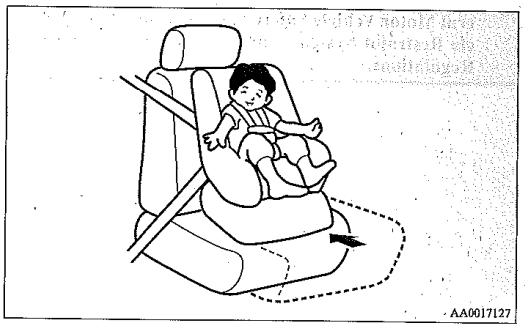
⚠ WARNING

- **Your vehicle is also equipped with a front passenger airbag.**
  Never put REAR-FACING CHILD RESTRAINT SYSTEMS or INFANT RESTRAINT SYSTEMS in the front passenger seat. This places the infant too close to the passenger airbag. During deployment of the airbag, the infant can be seriously injured or killed. Rear-facing child restraint systems or infant restraint systems must only be used in the rear seat.



⚠ WARNING

- **FRONT-FACING CHILD RESTRAINT SYSTEMS should be used in the rear seat whenever possible. If they 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 system, properly restrained. Failure to follow these instructions could result in serious injury or death to the child.**



⚠ 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.**

NOTE

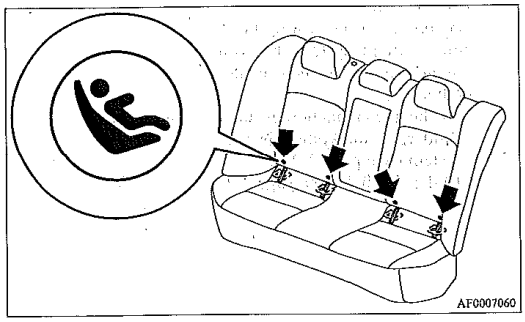
- Before purchasing a child restraint system, try installing it in the rear seat to make sure there is a good fit. Because of the location of the seat belt buckles and the shape of the seat cushion, it may be difficult to securely install some manufacturer's child restraint systems.
  If the child restraint 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 system can be attached using one of the following two methods:
  - To the lower anchorage in the rear seat ONLY if the child restraint system is compatible with the LATCH system (See page 2-26).
  - To the seat belt (See page 2-29).

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

N00418800102

Lower anchor locations

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

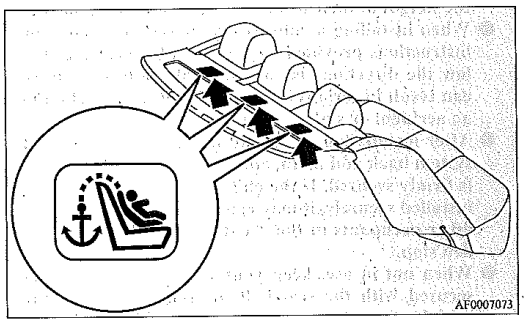


NOTE
- The symbols on the seatback show the location of the lower anchor points.

Tether anchor locations

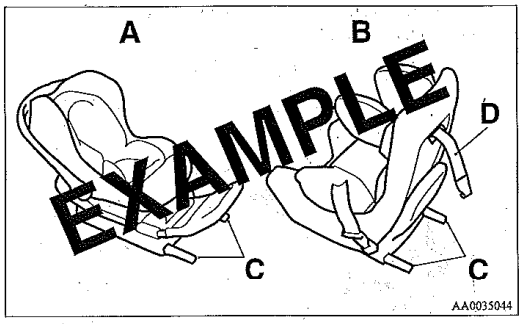
N00418900116

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.



Examples of child restraint systems compatible with the LATCH system

N00419000169

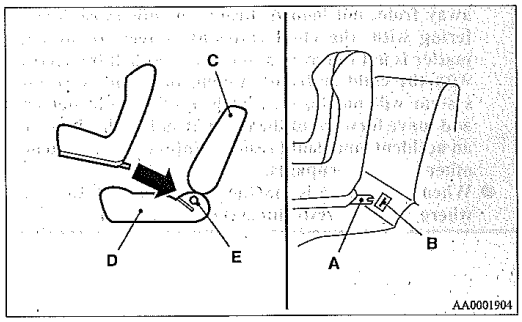


A- Rear-facing child restraint system
B- Front-facing child restraint system
C- Child restraint system lower anchor connectors
D- Tether strap
(These are only examples.)

Using the LATCH system

N00419100157

1. In order to securely fasten the tether strap, remove the head restraint from the location where you wish to install the child restraint system.
2. Push the anchor connectors (A) on the child restraint system into the slits (B) in accordance with the instructions provided by the child restraint system manufacturer. Remember, the lower anchors (E) provided with your vehicle are designed to secure suitable child restraint systems compatible with the LATCH system in the rear seat only.

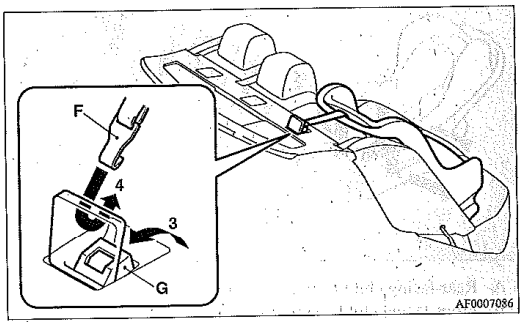


A- Connector
B- Slit
C- Vehicle seatback
D- Vehicle seat cushion
E- Lower anchor

NOTE
- In order to secure a child restraint system 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.

⚠ 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 (F) of the child restraint system to the anchor (G) as illustrated below (4) and tighten the top tether strap so it is securely fastened.



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

⚠ WARNING
- **Child restraint system 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)

N00407300367

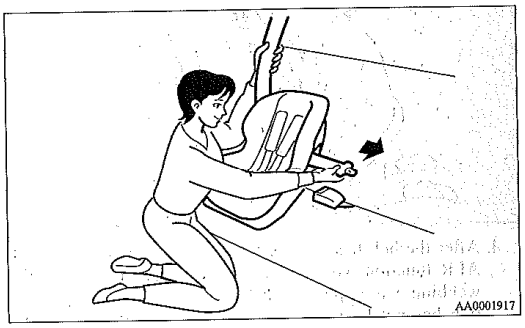
With the exception of the driver, the seat belt in all other seating positions can be converted from normal Emergency Locking Retractor (ELR) mode to Automatic Locking Retractor (ALR) mode. This means that when you pull the seat belt fully out of the retractor, the retractor will switch to its ALR child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

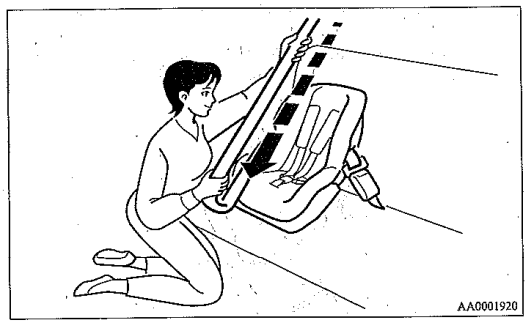
⚠ WARNING
- **When you install a child restraint system using the seat belt, always make sure the retractor has been switched to the ALR child restraint installation function. The ALR function will keep the child restraint system tightly secured to the seat.**
  Failure to convert the retractor to the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

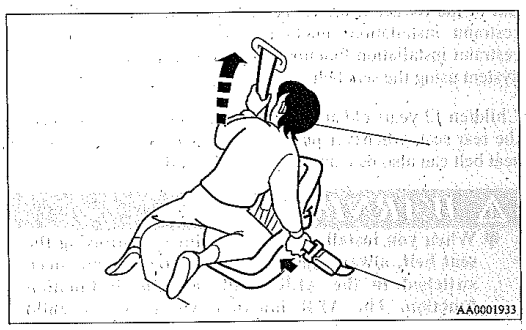


3. To activate the ALR child restraint installation function, slowly pull the shoulder part of the belt all the way out of the retractor until it stops. Then let the belt feed back into the retractor.



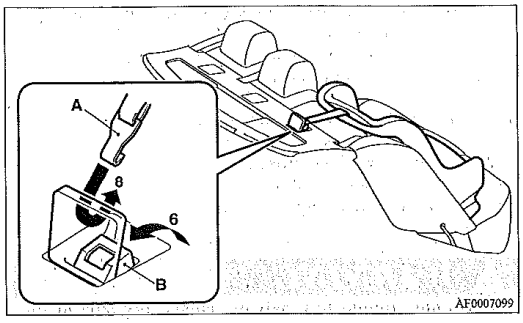
4. After the belt has retracted, tug on it. If the belt is in the ALR function, you will not be able to pull it out. If the webbing can be pulled out from retractor, the ALR function has not been activated and you will need to repeat steps 3 and 4.

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.

6. Open the cover from the tether anchor installation point by pulling it back with your hand as illustrated below (6).
7. Remove the head restraint from the location in which you wish to install a child restraint system.
8. Latch the tether strap hook (A) of the child restraint system to the tether anchor (B) as illustrated below (8) and tighten the top tether strap so it is securely fastened.



⚠ WARNING

- **Child restraint system 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.**

9. Before putting your child in the restraint, push and pull the restraint in all directions to be sure it is firmly secured. Do this before each use. If the child restraint system is not firmly secure, repeat steps 1 through 8.
10. 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.

Children who have outgrown child restraint systems

N00407600445

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.

2

⚠ 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

N00407000221

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.**

Supplemental Restraint System (SRS) - airbag

N00407700521

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

The SRS front airbags 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 front airbags, together with sensors at the front of the vehicle and sensors attached to the front seats, form an advanced airbag system.

The SRS driver's knee airbag is designed to supplement the primary protection of the driver's seat belt system. It can stop the forward movement of the driver's lower legs and provide increased overall body protection in certain moderate to severe frontal collisions.

The SRS side airbags (if so equipped) and the curtain airbags (if so equipped) are also designed to supplement the seat belts. The SRS side airbags provide the driver and front passenger with protection against chest injuries by deploying the bag on the side impacted in moderate to severe side impact collisions. The SRS curtain airbags provide the driver and passengers on the front seat and rear outboard seat with protection against head injuries by deploying a bag on the side impacted in moderate to severe side impact collisions.

The SRS airbags 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 system in the rear seat, and older children buckled in the rear seat). Refer to "Child restraint systems" on page 2-22.

⚠ WARNING

- **IT IS VERY IMPORTANT TO ALWAYS WEAR YOUR SEAT BELT PROPERLY EVEN WITH AN AIRBAG.**
  - **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 airbags 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 airbag when it begins to inflate.**
  - **The beginning stage of airbag inflation is the most forceful and can cause serious injuries or death if the occupant comes in contact with the airbag at this time.**
  - **Seat belts reduce the risk of injury in rollovers, rear impact collisions, and in lower-speed frontal collisions, because the airbags 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

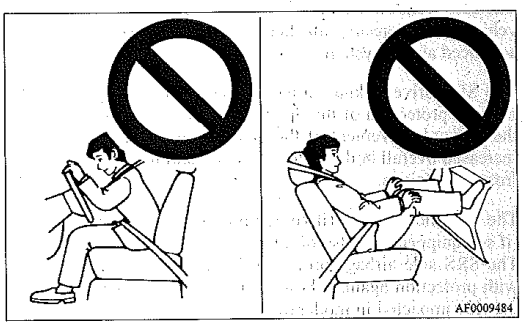
⚠ WARNING

- IT IS VERY IMPORTANT TO BE PROPERLY SEATED.
  - A driver or front passenger sitting too close to the steering wheel or instrument panel during airbag deployment can be seriously injured or killed.
  - Airbags inflate very quickly and with great force. If the driver and front passenger are not properly seated and restrained, the airbag may not provide the proper protection and can cause serious injuries or death when it inflates.
  - To reduce the risk to the driver of serious injury or death due to a deploying driver's airbag, always properly wear your seat belt and adjust the driver's seat as far back as possible, maintaining a position that still allows the driver to have good control of the steering wheel, brake, accelerator, and other vehicle controls.
  - To reduce the risk to the front passenger of serious injury or death from a deploying passenger's airbag, make sure the passenger always wears the seat belt properly, remains seated upright and all the way back in the seat, and positions the seat as far back as possible.
  - Seat all infants and children in the rear seat, properly restrained in an appropriate child restraint system.

2

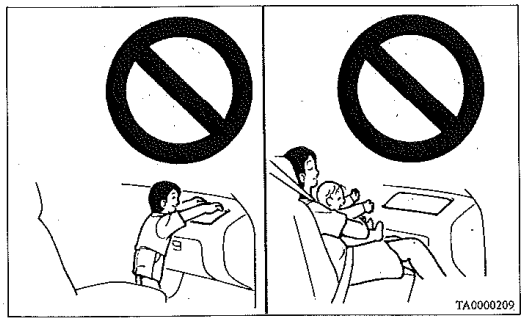
⚠ WARNING

- Airbags inflate very quickly and with great force. Do not sit on the edge of the seat or sit with your lower legs too close to the instrument panel, or lean your head or chest close to the steering wheel or the instrument panel.
- Do not put your feet or legs on or against the instrument panel.



⚠ WARNING

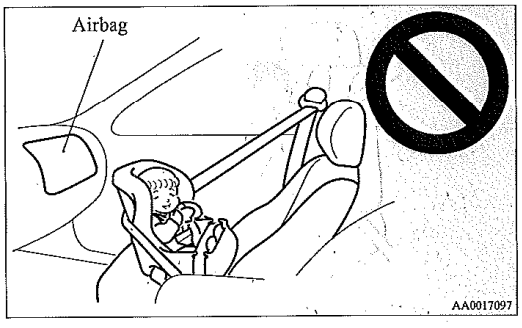
- Infants and small children should never ride unrestrained, or lean against the instrument panel. They should never ride held in your arms or on your lap. They can be seriously injured or killed in an accident, especially when the airbags inflate. Infants and children should be properly seated in the rear seat in an appropriate child restraint system. Refer to "Child restraint systems" on page 2-22.



⚠ WARNING

- NEVER put REAR-FACING CHILD RESTRAINT SYSTEMS or INFANT RESTRAINT SYSTEMS in the front passenger seat. This places the infant too close to the passenger airbag. During deployment of the airbag, the infant can be seriously injured or killed.
  Rear-facing child restraint systems or infant restraint systems must only be used in the rear seat.

2



⚠ WARNING

- **FRONT-FACING CHILD RESTRAINT SYSTEMS should be used in the rear seat whenever possible. If they 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 system, properly restrained. Failure to follow these instructions could result in serious injury or death to the child.**

⚠ WARNING

- **Older children should be seated in the rear seat with their seat belt properly worn, and with an appropriate booster seat if needed.**
  Refer to "Children who have outgrown child restraint systems" on page 2-32.

2

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[1])

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

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

LEFT SIDE VIEW OF TEST VEHICLE

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

Table 1. Seating Positions[1] and Torso Angles

		Left (Driver Side)	Center (if any)	Right
A1		(Driver) 182	N/A	(Front Passenger) 182
A2		207	237 (With ARMREST) 242(W/O ARMREST)	207
A3		N/A	N/A	N/A
B		355	N/A	355
C		1149	1139 (With ARMREST) 1154 (W/O ARMREST)	1149
D		N/A	N/A	N/A
Torso Angle (degree)	Front Row	19	N/A	19
	Second Row	27	18 (With ARMREST) 27 (W/O ARMREST)	27
	Third Row	N/A	N/A	N/A

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

FORM – 225

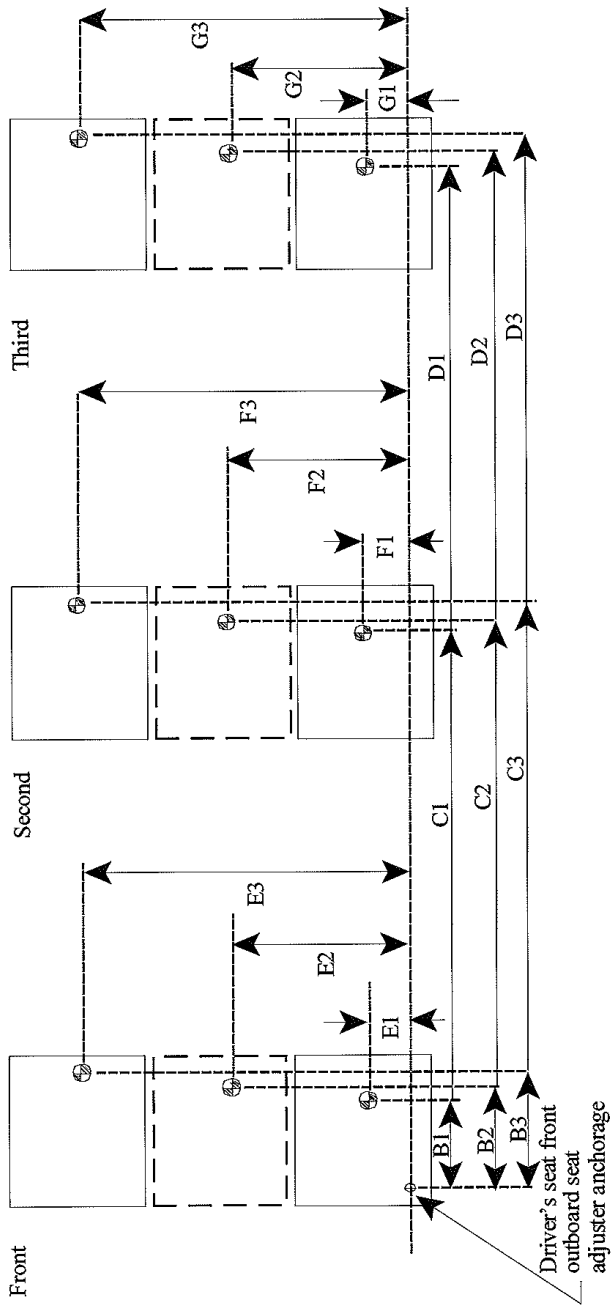
3

SEATING REFERENCE POINT

FMVSS No. 225
(All dimensions in mm)

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

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



FORM – 225

4

Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage[1]
Front Row	B1	355
	E1	217.5
	B2	N/A
	E2	N/A
	B3	355
	E3	932.5
Second Row	C1	1149
	F1	240
	C2	1139 (With ARMREST) 1154 (W/O ARMREST)
	F2	575
	C3	1149
	F3	910
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.

TETHER ANCHORAGE LOCATIONS

FMVSS No. 225
(All dimensions in mm)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Lancer / 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.

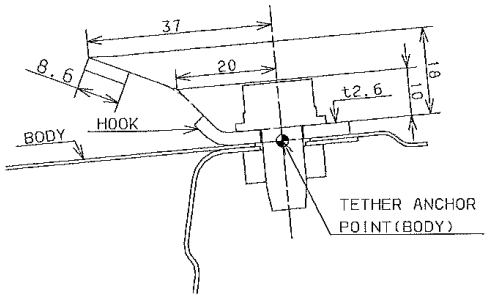
FORM – 225

6

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	641
	L1	-5
	I2	651 (With ARMREST) 636 (W/O ARMREST)
	L2	0
	I3	641
	L3	-5
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.

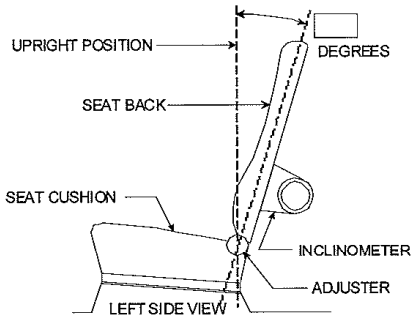


FORM – 225

7

NOMINAL DESIGN RIDING POSITION

For adjustable driver, passenger, 2nd row and 3rd 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 2nd 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 2nd row seat = N/A degrees.

Measurement Instructions:

Not applicable (2nd row seat is not adjustable for seat back angle.)

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

Measurement Instructions:

Not applicable

8

TETHER ANCHORAGE LOCATIONS - VERTICAL

FMVSS No. 225
(All dimensions in mm)

MODEL YEAR: 2008 MY / MAKE: Mitsubishi / MODEL: Lancer / 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)	N/A
	N2 (Center)	N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	500
	O2 (Center)	470 (With ARMREST) 465 (W/O ARMREST)
	O3 (Right)	500
Third Row	P1 (Left)	N/A
	P2 (Center)	N/A
	P3 (Right)	N/A

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, 2nd row LH & RH side

3. How many designated seating positions are equipped with tether anchorages? Specify which positions(s).
   Answer: 3 positions, 2nd 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)