SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 225
CHILD RESTRAINT ANCHORAGE SYSTEMS
LOWER AND TETHER ANCHORAGES

GENERAL MOTORS OF CANADA, LTD.
2005 BUICK LACROSSE, PASSENGER CAR
NHTSA NO. C50104

GENERAL TESTING LABORATORIES, INC.
1623 LEEDSTOWN ROAD
COLONIAL BEACH, VIRGINIA 22443

OCTOBER 27, 2006

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW
ROOM 6111 (NVS-220)
WASHINGTON, D.C. 20590
This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>225-GTL-06-006</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NHTSA No. C50104</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Author(s)</th>
<th>8. Performing Organ. Rep#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Farrand, Project Engineer</td>
<td>GTL-DOT-06-225-006</td>
</tr>
<tr>
<td>Debbie Messick, Project Manager</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Performing Organization Name and Address</th>
<th>10. Work Unit No. (TRAIS)</th>
<th>11. Contract or Grant No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Testing Laboratories, Inc.</td>
<td>N/A</td>
<td>DTNH22-02-D-01043</td>
</tr>
<tr>
<td>1623 Leedstown Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colonial Beach, Va 22443</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. Sponsoring Agency Name and Address</th>
<th>13. Type of Report and Period Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Transportation</td>
<td>Final Test Report</td>
</tr>
<tr>
<td>Safety Enforcement</td>
<td></td>
</tr>
<tr>
<td>Office of Vehicle Safety Compliance (NVS-220)</td>
<td></td>
</tr>
<tr>
<td>400 7th Street, S.W., Room 6111</td>
<td></td>
</tr>
<tr>
<td>Washington, DC 20590</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15. Supplementary Notes</th>
<th>16. Abstract</th>
</tr>
</thead>
</table>
|                        | Compliance tests were conducted on the subject, 2005 Buick Lacrosse Passenger Car 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. Test failures identified were as follows:
| NONE                  |              |

<table>
<thead>
<tr>
<th>17. Key Words</th>
<th>18. Distribution Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Testing</td>
<td>Copies of this report are available from NHTSA Technical Reference Div., Rm. PL-403 (NPO-230) 400 7th St., S.W. Washington, DC 20590 Telephone No. (202) 366-4946</td>
</tr>
<tr>
<td>Safety Engineering</td>
<td></td>
</tr>
<tr>
<td>FMVSS 225</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCLASSIFIED</td>
<td>UNCLASSIFIED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. No. of Pages</th>
<th>22. Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td></td>
</tr>
<tr>
<td>SECTION</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>Purpose of Compliance Test</td>
</tr>
<tr>
<td>2</td>
<td>Compliance Test Results</td>
</tr>
<tr>
<td>3</td>
<td>Compliance Test Data</td>
</tr>
<tr>
<td>4</td>
<td>Test Equipment List</td>
</tr>
<tr>
<td>5</td>
<td>Photographs</td>
</tr>
</tbody>
</table>

5.1 Left Side View of Vehicle
5.2 Right Side View of Vehicle
5.3 ¾ Frontal Left Side View of Vehicle
5.4 ¾ Rearward Right Side View of Vehicle
5.5 Close-up View of Vehicle Certification Label
5.6 Close-up View of Vehicle Tire Information Label
5.7 Row 2, Left Side, Outboard Lower Anchors Pre-Test
5.8 Row 2, Left Side, Inboard Lower Anchor Pre-Test
5.9 Row 2, Left Side, Top Tether Anchor Pre-Test
5.10 Row 2, Center, Top Tether Anchor, Pre-Test
5.11 Row 2, Right Side, Inboard Lower Anchor Pre-Test
5.12 Row 2, Right Side, Outboard Lower Anchor Pre-Test
5.13 Row 2, Right Side, Top Tether Anchor Pre-Test
5.14 Overall View of Row 2 Seating Positions, Pre-Test
5.15 Row 2, Left Side with CRF
5.16 Row 2, Left Side with 2-D Template
5.17 Row 2, Left Side Top Tether Routing
5.18 Row 2, Right Side with CRF
5.19 Row 2, Right Side with 2-D Template
5.20 Row 2, Right Side Top Tether Routing
5.21 Row 2, Center with CRF
5.22 Row 2, Center with 2-D Template
5.23 Row 2, Center Top Tether Routing
5.24 Row 2, Right Side Inboard CRF Measurement
5.25 Row 2, Right Side Outboard CRF Measurement
5.26 Row 2, Left Side Inboard CRF Measurement
5.27 Row 2, Left Side Outboard CRF Measurement
5.28 Row 2, Center Left Side CRF Measurement
5.29 Row 2, Center Right Side CRF Measurement
5.30 Symbol Measurement
5.31 Row 2, Left Side CRF Pitch Measurement
5.32 Row 2, Right Side CRF Pitch Measurement
5.33 Row 2, Center CRF Pitch Measurement
5.34 Row 2, Left Side Outboard SRP Measurement
5.35 Row 2, Left Side Inboard SRP Measurement
5.36 Row 2, Right Side Outboard SRP Measurement
5.37 Row 2, Right Side Inboard SRP Measurement
5.38 Row 2, Center Left Side SRP Measurement
5.39 Row 2, Center Right Side SRP Measurement
### TABLE OF CONTENTS (continued)

5.40 Left Rear View of Vehicle in Test Rig  
5.41 Right Front View of Vehicle in Test Rig  
5.42 Pre-Test Row 2, Left Side with SFAD 2  
5.43 Pre-Test Row 2, Left Side with SFAD 2  
5.44 Post Test Row 2, Left Side with SFAD 2  
5.45 Post Test Row 2, Left Side with SFAD 2  
5.46 Pre-Test Row 2, Right Side with SFAD 2  
5.47 Post Test Row 2, Right Side with SFAD 2  
5.48 Pre-Test Row 2, Center Position with SFAD 1  
5.49 Pre-Test Row 2, Center Position with SFAD 1  
5.50 Post Test Row 2, Center Position with SFAD 1  
5.51 Post Test Row 2, Center Position with SFAD 1  

6. Plots 79  
6.1 2nd Row Left Side Top Tether, GTL 5647  
6.2 2nd Row Left Side Top Tether, GTL 5647  
6.3 2nd Row Center Position Top Tether, GTL 5648  
6.4 2nd Row Center Position Top Tether, GTL 5648  
6.5 2nd Row Right Side Lower Anchor, GTL 5649  
6.6 2nd Row Right Side Lower Anchor, GTL 5649  

Appendix A – Owner’s Manual Child Restraint Information  
Appendix B – Manufacturer’s Data
SECTION 1

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF COMPLIANCE TEST

A 2005 Buick Lacrosse Passenger Car was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 225 testing to determine if the vehicle was in compliance with the requirements of the standard. The purpose of this standard is to establish requirements for child restraint anchorage systems to ensure their proper location and strength for the effective securing of child restraints, to reduce the likelihood of the anchorage systems’ failure and to increase the likelihood that child restraints are properly secured and thus more fully achieve their potential effectiveness in motor vehicles.

1.1 The test vehicle was a 2005 Buick Lacrosse Passenger Car. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: 2G4WC532451200267

B. NHTSA No.: C50104

C. Manufacturer: GENERAL MOTORS OF CANADA LTD.

D. Manufacture Date: 10/04

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period July 20 through September 27, 2006.
2.0 TEST RESULTS

All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedures, TP-225-01 dated 11 April 2005.

Based on the test performed, the 2005 Buick Lacrosse Passenger Car appeared to meet the requirements of FMVSS 225 testing.
SECTION 3
COMPLIANCE TEST DATA

3.0 TEST DATA

The following data sheets document the results of testing on the 2005 Buick Lacrosse Passenger Car.
DATA SHEET 1
SUMMARY OF RESULTS

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20 – SEPTEMBER 27, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

A. VISUAL INSPECTION OF TEST VEHICLE
   
   Upon receipt for completeness, function, and discrepancies or damage which might influence the testing.
   
   RESULTS: OK FOR TEST

B. REQUIREMENTS FOR CHILD RESTRAINT SYSTEMS AND TETHER ANCHORAGES
   
<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP b</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP c</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

C. LOCATION OF TETHER ANCHORAGES
   
<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP b</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP c</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

D. LOWER ANCHORAGE DIMENSIONS
   
<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP b</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DSP c</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
### E. CONSPICUITY AND MARKING OF LOWER ANCHORAGES

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP b</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>DSP c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### F. STRENGTH OF TETHER ANCHORAGES

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DSP b</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>DSP c</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

### G. STRENGTH OF LOWER ANCHORAGES (Forward Force)

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DSP b</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DSP c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### H. STRENGTH OF LOWER ANCHORAGE (Lateral Force)

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP a</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DSP b</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DSP c</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### I. OWNER’S MANUAL

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS:** DSP a = Left Rear Outboard, DSP b = Center, DSP c = Right Rear Outboard

**RECORDED BY:** G. Farrand  **DATE:** 09/27/06  
**APPROVED BY:** D. Messick
DATA SHEET 2
REQUIREMENTS FOR CHILD RESTRAINT ANCHORAGE SYSTEMS
AND TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

Number of rows of seats: ______ 2 ______
Number of rear, forward-facing designated seating positions: ______ 3 ______
Number of required CRAS (lower anchorages only, for convertibles/school buses): ______ 2 ______
Number of required tether anchorages (can be additional CRAS): ______ 3 ______
Is the vehicle a convertible? ______ NO ______
Is the vehicle a school bus? ______ NO ______

Does the vehicle have a CRAS (lower anchorage only, for convertibles/school buses) installed at a front passenger seating position? ______ NO ______
If NO, skip to next question.
If YES, does the vehicle have rear designated seating positions? ______
If NO, does the vehicle have an air bag on-off switch or a special exemption for no passenger air bag?
  If NO = FAIL  If YES = PASS
If Yes, does the vehicle meet the requirements of S4.5.4.1 (b) of S208 and have an air bag on-off switch or a special exemption for no passenger air bag? ______
  Record the distance between the front and rear seat back: ______
  If Distance < 720 mm and vehicle has an air bag on-off switch or special exemption = PASS
  If Distance ≥ 720 mm or no air bag on-off switch or no special exemption = FAIL

Does the vehicle have rear designated seating position(s) where the lower bars of a CRAS are prevented from being located because of transmission and/or suspension component interference? ______ NO ______
If NO, skip to next question.
If YES, does the vehicle have a tether anchorage at a front passenger seating position? ______
  YES = PASS  NO = FAIL (S5(e))

Number of provided CRAS (lower anchorage only, for convertibles/school buses), indicate if a built-in child restraint is counted as a CRAS: ______ 3 ______

Is the number of provided CRAS (lower anchorages only, for convertibles/school buses) greater than or equal to the number of required CRAS (lower anchorages only, for convertibles/school buses)? ______ YES ______
  YES = PASS  NO = FAIL (S4.4(a) or (b) or (c))
DATA SHEET 2 CONTINUED

If the vehicle has 3 or more rows of seats is a CRAS (lower anchorage only for convertibles/school buses) provided in the second row: 

N/A

YES = PASS  NO = FAIL (S4.4(a)(1))

Number of provided tether anchorages (can be additional CRAS) indicate if a built-in child restraint is counted as tether anchorage (NOTE: a built-in child restraint can only be counted toward either the required number of CRAS or tether anchorages, not both): 3

Is the number of provided tether anchorages greater than or equal to the number of required tether anchorages? YES

YES = PASS  NO = FAIL (S4.4 (a) or (b) or (c))

If the vehicle has 3 or more rear dsps and a non-outboard dsp, is a tether anchorage or CRAS provided at a non-outboard dsp? YES

YES = PASS  NO = FAIL (S4.4 (a)(2))

Are all tether and lower anchorages available for use at all times when the seat is configured for passenger use? YES

YES = PASS  NO = FAIL (S4.6 (b))

Provide a diagram showing the location of lower anchorages and/or tether anchorages.

X X X

X

* * * * * * *

C B A

X = Top Tether
* = Lower Anchors

RECORDED BY: G. FARRAND DATE: 07/20/06

APPROVED BY: D. MESSICK
DATA SHEET 3
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

Detailed description of the location of the tether anchorage:
Located on rear shelf behind seat back.

Based on visual inspection, is the tether anchorage within the shaded zone? YES
If YES = PASS, skip to next section
If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?

If YES = PASS, skip to next section
If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?
If YES = FAIL (S6.2.1)
If NO, Is a tether routing device provided?
If YES = PASS
IF NO = FAIL (S6.2.1.2)

Is the tether anchorage recessed? YES
If NO, skip to next question
If YES, is it outside of the tether strap wraparound area? YES
YES = PASS NO = FAIL (S6.2.1)

Does the tether anchorage permit attachment of a tether hook? YES
YES = PASS NO = FAIL (S6.1(a))

Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? YES
YES = PASS NO = FAIL (S6.1(b))

After the tether anchorage is accessed, is it ready for use without the need for tools? YES
YES = PASS NO = FAIL (S6.1(c))

Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = PASS NO = FAIL (S6.1(d))

If the DSP has a tether routing device, is it flexible or rigid? N/A

8
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

If the DSP has a flexible tether routing device, after installing SFAD2 record the tether strap tension: N/A (Must be 60 N ± 5 N)

If the DSP has a flexible tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/A
- Greater than or equal to 65mm = PASS
- Less than 65mm = FAIL

If the DSP has a rigid tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/A
- Greater than or equal to 100mm = PASS
- Less than 100mm = FAIL

COMMENTS:

RECORDED BY: G. FARRAND  DATE: 07/20/06
APPROVED BY: D. MESSICK
DATA SHEET 3A
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ___ROW 2 CENTER POSITION (DSP B)___

Detailed description of the location of the tether anchorage:
Located on shelf behind seat back.

Based on visual inspection, is the tether anchorage within the shaded zone? YES
If YES = PASS, skip to next section
If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?

If YES = PASS, skip to next section
If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?
If YES = FAIL (S6.2.1)
If NO, Is a tether routing device provided?
If YES = PASS
If NO = FAIL (S6.2.1.2)

Is the tether anchorage recessed? YES
If NO, skip to next question
If YES, Is it outside of the tether strap wraparound area? YES
YES = PASS NO = FAIL (S6.2.1)

Does the tether anchorage permit attachment of a tether hook? YES
YES = PASS NO = FAIL (S6.1(a))

Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? YES
YES = PASS NO = FAIL (S6.1(b))

After the tether anchorage is accessed, is it ready for use without the need for tools? YES
YES = PASS NO = FAIL (S6.1(c))

Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = PASS NO = FAIL (S6.1(d))

If the DSP has a tether routing device, is it flexible or rigid? N/A
DESIGNATED SEATING POSITION: __ROW 2 CENTER POSITION (DSP B)___

If the DSP has a flexible tether routing device, after installing SFAD2 record the tether strap tension:  _____ N/A _____ (Must be 60 N ± 5 N)

If the DSP has a flexible tether routing device, record the horizontal distance between the torso reference plane and the routing device:  _____ N/A _____
  Greater than or equal to 65mm = PASS           Less than 65mm = FAIL

If the DSP has a rigid tether routing device, record the horizontal distance between the torso reference plane and the routing device:  _____ N/A _____
  Greater than or equal to 100mm = PASS           Less than 100mm = FAIL

COMMENTS:

RECORDED BY: ___ G. FARRAND ___________  DATE: ___ 07/20/06 ___________

APPROVED BY: ___ D. MESSICK ___________
DATA SHEET 3B
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Detailed description of the location of the tether anchorage:
Located on shelf behind seat back.

Based on visual inspection, is the tether anchorage within the shaded zone? YES
If YES = PASS, skip to next section
If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?

If YES = PASS, skip to next section
If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?
If YES = FAIL (S6.2.1)
If NO, Is a tether routing device provided?
If YES = PASS
IF NO = FAIL (S6.2.1.2)

Is the tether anchorage recessed? YES
If NO, skip to next question
If YES, is it outside of the tether strap wraparound area? YES
YES = PASS NO = FAIL (S6.2.1)

Does the tether anchorage permit attachment of a tether hook? YES
YES = PASS NO = FAIL (S6.1(a))

Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? YES
YES = PASS NO = FAIL (S6.1(b))

After the tether anchorage is accessed, is it ready for use without the need for tools? YES
YES = PASS NO = FAIL (S6.1(c))

Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = PASS NO = FAIL (S6.1(d))

If the DSP has a tether routing device, is it flexible or rigid? N/A
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE DSP C)

If the DSP has a flexible tether routing device, after installing SFAD2 record the tether strap tension: __N/A__ (Must be 60 N ± 5 N)

If the DSP has a flexible tether routing device, record the horizontal distance between the torso reference plane and the routing device: __N/A__

Greater than or equal to 65mm = PASS  Less than 65mm = FAIL

If the DSP has a rigid tether routing device, record the horizontal distance between the torso reference plane and the routing device: __N/A__

Greater than or equal to 100mm = PASS  Less than 100mm = FAIL

COMMENTS:

RECORDED BY: __G. FARRAND__

DATE: __07/20/06__

APPROVED BY: __D. MESSICK__
DATA SHEET 4
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

Outboard Lower Anchorage bar diameter: 6.05 mm
6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 5.99 mm
6mm ± 0.1mm = PASS Other size = FAIL (S9.1.1(a))

Are the bars straight, horizontal and transverse? YES
YES = PASS NO = FAIL

Length of the straight portion of the bar (outboard lower anchorage): 35 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 35 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 48 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 42 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

CRF Pitch angle: 17.9º
Angle = 15º±10º = PASS Angle≠15º±10º = FAIL (S9.2.1)

CRF Roll angle: 0.0º
Angle = 0º±5º = PASS Angle≠0º±5º = FAIL (S9.2.1)

CRF Yaw angle: 0.0º
Angle = 0º±10º = PASS Angle≠0º±10º = FAIL (S9.2.1)

Distance between point Z on the CRF and the front surface of outboard anchor bar: 56 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 48 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL
DATA SHEET 4 CONTINUED

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

Distance between SgRP and the front surface of outboard anchor bar: 178 mm
Distance ≥ 120mm = PASS  Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: 170 mm
Distance ≥ 120mm = PASS  Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm? NO

If NO = PASS
If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: G. FARRAND DATE: 07/20/06
APPROVED BY: D. MESSICK
DATA SHEET 4A
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Outboard Lower Anchorage bar diameter: 6.02 mm
6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 6.02 mm
6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Are the bars straight, horizontal and transverse? YES
YES = PASS NO = FAIL

Length of the straight portion of the bar (outboard lower anchorage): 35 mm
Length ≥25mm = PASS Length <25mm = FAIL (S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 35 mm
Length ≥25mm = PASS Length <25mm = FAIL (S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 48 mm
Length ≤60mm = PASS Length >60mm = FAIL (S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 48 mm
Length ≤60mm = PASS Length >60mm = FAIL (S9.1.1(c) (ii))

CRF Pitch angle: 17.8º
Angle = 15º±10º = PASS Angle≠15º±10º = FAIL (S9.2.1)

CRF Roll angle: 0.0º
Angle = 0º±5º = PASS Angle≠0º±5º = FAIL (S9.2.1)

CRF Yaw angle: 0.0º
Angle = 0º±10º = PASS Angle≠0º±10º = FAIL (S9.2.1)

Distance between point Z on the CRF and the front surface of outboard anchor bar: 60 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 58 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL
DATA SHEET 4A CONTINUED

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Distance between SgRP and the front surface of outboard anchor bar: 170 mm
Distance ≥ 120mm = PASS  Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: 170 mm
Distance ≥ 120mm = PASS  Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm?

NO

If NO = PASS
If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: G. FARRAND          DATE: 07/20/06

APPROVED BY: D. MESSICK
VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)

Outboard Lower Anchorage bar diameter: 5.99 mm
6 mm ± 0.1 mm = PASS  Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 6.02 mm
6 mm ± 0.1 mm = PASS  Other size = FAIL (S9.1.1(a))

Are the bars straight, horizontal and transverse? YES
YES = PASS  NO = FAIL

Length of the straight portion of the bar (outboard lower anchorage): 30 mm
Length ≥ 25 mm = PASS  Length <25 mm = FAIL (S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 30 mm
Length ≥ 25 mm = PASS  Length <25 mm = FAIL (S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 42 mm
Length ≤ 60 mm = PASS  Length >60 mm = FAIL (S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 42 mm
Length ≤ 60 mm = PASS  Length >60 mm = FAIL (S9.1.1(c) (ii))

CRF Pitch angle: 22.9º
Angle = 15º±10º = PASS  Angle ≠ 15º±10º = FAIL (S9.2.1)

CRF Roll angle: 0.0
Angle = 0º±5º = PASS  Angle ≠ 0º±5º = FAIL (S9.2.1)

CRF Yaw angle: 0.0
Angle = 0º±10º = PASS  Angle ≠ 0º±10º = FAIL (S9.2.1)

Distance between point Z on the CRF and the front surface of outboard anchor bar: 68 mm
Distance ≤ 70 mm = PASS  Distance > 70 mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 68 mm
Distance ≤ 70 mm = PASS  Distance > 70 mm = FAIL
DATA SHEET 4B CONTINUED

DESIGNATED SEATING POSITION:__ROW 2 CENTER (DSP B)___

Distance between SgRP and the front surface of outboard anchor bar: ___164 mm___
  Distance ≥ 120mm = PASS     Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: ___162 mm___
  Distance ≥ 120mm = PASS     Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm? ___NO___
  If NO = PASS
  If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY:  __G. FARRAND_________   DATE:  __07/20/06_________

APPROVED BY:  __D. MESSICK__________
DATA SHEET 5
CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: JULY 20, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A), ROW 2 RIGHT SIDE (DSP C), AND ROW 2 CENTER (DSP B)

MARKING (Circles)

Diameter of the circle: 14 mm
Diameter ≥13mm = PASS Diameter <13mm = FAIL (S9.5(a)(1))

Does the circle have words, symbols or pictograms? YES

Symbol NO skip to next question
YES, are the meaning of the words, symbols or pictograms explained in the owner’s manual?
YES YES = PASS NO = FAIL (S9.5(a)(2))

Where is the circle located? Seat back or seat Cushion: Seat Back

For circles on seat backs, vertical distance from the center of the circle to the center of the anchor bar: 55 mm
Distance between 50&100mm = PASS Other Distance=FAIL (S9.5(a)(3))

For circles on seat cushions, horizontal distance from the center of the circle to the center of the bar: N/A
Distance between 75&125mm= PASS Other Distance=FAIL (S9.5(a)(3))

Lateral distance from the center of the circle to the center of the anchor bar: 0
Distance≤25mm = PASS Distance >25mm = FAIL (S9.5(a)(3))

CONSPICUITY (No Circles)

Is the anchor bar or guide visible when viewed from a point 30° above the horizontal in a vertical longitudinal plane bisecting the anchor bar or guide? N/A
YES = PASS NO = FAIL (S9.5(b))

If there is a guide, is it permanently attached? N/A
YES = PASS NO = FAIL (S9.5(b))
Is there a cap or cover over the anchor bar? N/A
   If YES, Is the cap or cover marked with words, symbols or pictograms? ______
     If NO = FAIL (S9.5(b))
     If YES, is the meaning of the words, symbols or pictograms explained in the owner’s manual?
       YES = PASS   NO = FAIL (S9.5(b))
   If NO, there are no requirements for having a cover. ____________
DATA SHEET 6
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: SEPTEMBER 27, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5647

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
SFAD:  2

Seat Back Angle:  26º FIXED

Location of seat back angle measurement:  2D Template

Head Restraint Position: FIXED

D-ring Position:  N/A

Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N

Lap belt tension: N/A (SFAD 1 only)

Tether strap tension: 55 N

Angle (measured above the horizontal at 500 N): 10º

Separation of tether anchorage at 500 N: NO
NO = PASS
YES = FAIL (S6.3.1)

Force application rate: 575 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (14,950 N ± 50 N): 14,950 N

Tested simultaneously with another DSP? NO

COMMENTS: Displacement at maximum load 88 mm.

RECORDED BY: G. FARRAND DATE: 09/27/06
APPROVED BY: D. MESSICK
DATA SHEET 6A
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: SEPTEMBER 27, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5648

DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)
SFAD: 1

Seat Back Angle: 26º FIXED

Location of seat back angle measurement: 2D Template

Head Restraint Position: N/A

D-ring Position: N/A

Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N

Lap belt tension: 55 N (SFAD 1 only)

Tether strap tension: 55 N

Angle (measured above the horizontal at 500 N): 10º

Separation of tether anchorage at 500 N: NO
NO = PASS YES = FAIL (S6.3.1)

Force application rate: 575 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (14,950 N ± 50 N): 14,936 N

Tested simultaneously with another DSP? NO

COMMENTS: Displacement at maximum load 133.6 mm.

RECORDED BY: G. FARRAND DATE: 09/27/06
APPROVED BY: D. MESSICK
DATA SHEET 7
STRENGTH OF LOWER ANCHORAGES (Forward Force)

VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: SEPTEMBER 27, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5649

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Seat Back Angle: 26º FIXED

Location of seat back angle measurement: 2D Template

Head Restraint Position: FIXED

Force at lower front crossmember for SFAD2 while tightening rearward extensions: 135 N
Angle (measured above the horizontal at 500 N): 10º

Force application rate: 421 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (10,950 N ± 50 N): 10,969 N

Displacement, H1 (at 500 N): 0.0

Displacement, H2 (at maximum load): 71.4 mm

Displacement of Point X: 71.4 mm (H2-H1)
Displacement > 175 mm = FAIL (S9.4.1(a))

Tested simultaneously with another DSP? NO
Distance between adjacent DSP's: 380 mm

COMMENTS:

RECORDED BY: G. FARRAND DATE: 09/27/06
APPROVED BY: D. MESSICK
VEH. MOD YR/MAKE/MODEL/BODY: 2005 BUICK LACROSSE PASSENGER CAR
VEH. NHTSA NO: C50104; VIN: 2G4WC532451200267
VEH. BUILD DATE: 10/04; TEST DATE: SEPTEMBER 27, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

Description of which DSP’s are equipped with tether anchorages and child restraint anchorage systems: YES

PASS   X   FAIL

Step-by-step instructions for properly attaching a child restraint system’s tether strap to the tether anchorage. Diagrams are required. YES

PASS   X   FAIL

Description of how to properly use the tether anchorage and lower anchor bars: YES

PASS   X   FAIL

If the lower anchor bars are marked with a circle, an explanation of what the circle indicates as well as any words or pictograms: YES

PASS   X   FAIL

COMMENTS:

RECORDED BY:  G. FARRAND               DATE:  09/27/06
APPROVED BY:  D. MESSICK

25
### TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>DESCRIPTION</th>
<th>MODEL/ SERIAL NO.</th>
<th>CAL. DATE</th>
<th>NEXT CAL. DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER</td>
<td>AT&amp;T</td>
<td>486DX266</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>LOAD CELL</td>
<td>INTERFACE</td>
<td>215709</td>
<td>09/06</td>
<td>09/07</td>
</tr>
<tr>
<td>LINEAR TRANSDUCER</td>
<td>SERVO SYSTEMS</td>
<td>20</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>SEAT BELT LOAD CELL</td>
<td>TRANSDUCER</td>
<td>135</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>SEAT BELT LOAD CELL</td>
<td>TRANSDUCER</td>
<td>137</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>LEVEL</td>
<td>STANLEY</td>
<td>42-449</td>
<td>02/06</td>
<td>02/07</td>
</tr>
<tr>
<td>FORCE GAUGE</td>
<td>CHATILLON</td>
<td>8761</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>CALIPER</td>
<td>N/A</td>
<td>Q9322365</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>CRF</td>
<td>MEASUREMENT FIXTURE</td>
<td>GTL CRF</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>SFAD 1</td>
<td>FORCE APPLICATION DEVICE</td>
<td>GTL SFAD 1</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>SFAD 2</td>
<td>FORCE APPLICATION DEVICE</td>
<td>GTL SFAD 2</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
</tbody>
</table>
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.1
LEFT SIDE VIEW OF VEHICLE
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.2
RIGHT SIDE VIEW OF VEHICLE
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.3
¾ FRONTAL VIEW OF LEFT SIDE OF VEHICLE
FIGURE 5.4
¼ REAR VIEW FROM RIGHT SIDE OF VEHICLE
MFD BY GENERAL MOTORS OF CANADA LTD.

DATE          GVWR           GAWR FRT          GAWR RR
10/04          2019 KG       1099 KG           920 KG
             4450 LB       2422 LB           2028 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

2G4WC532451200267         TYPE: PASS CAR

FIGURE 5.5
VEHICLE CERTIFICATION LABEL
### Figure 5.6

**Vehicle Tire Information Label**

The combined weight of occupants and cargo should never exceed 416 kg or 917 lbs.

<table>
<thead>
<tr>
<th>Original Tire Size</th>
<th>Cold Tire Inflation Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>P225/60R16</td>
<td>FRONT 210 kPa, 30 PSI</td>
</tr>
<tr>
<td>P225/60R16</td>
<td>REAR 210 kPa, 30 PSI</td>
</tr>
<tr>
<td>T125/70D16</td>
<td>SPARE 420 kPa, 60 PSI</td>
</tr>
</tbody>
</table>

See owner's manual for additional information.
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.8
ROW 2, LEFT SIDE, INBOARD LOWER ANCHOR, PRE-TEST
FIGURE 5.9
ROW 2, LEFT SIDE, TOP TETHER ANCHOR, PRE-TEST
FIGURE 5.12
ROW 2, RIGHT SIDE, OUTBOARD LOWER ANCHOR, PRE-TEST

2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.14
OVERALL VIEW OF ROW 2, SEATING POSITIONS,
PRE-TEST
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.16
ROW 2, LEFT SIDE WITH 2-D TEMPLATE
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.18
ROW 2, RIGHT SIDE WITH CRF
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.20
ROW 2, RIGHT SIDE TOP TETHER ROUTING
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.26
ROW 2, LEFT SIDE INBOARD CRF MEASUREMENT
FIGURE 5.27
ROW 2, LEFT SIDE OUTBOARD CRF MEASUREMENT

2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225
FIGURE 5.28
ROW 2, CENTER LEFT SIDE CRF MEASUREMENT
FIGURE 5.31
ROW 2, LEFT SIDE CRF PITCH MEASUREMENT
FIGURE 5.32
ROW 2, RIGHT SIDE CRF PITCH MEASUREMENT
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.34
ROW 2, LEFT SIDE OUTBOARD SRP MEASUREMENT
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.35
ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.37
ROW 2, RIGHT SIDE INBOARD SRP MEASUREMENT
FIGURE 5.38
ROW 2, CENTER LEFT SRP MEASUREMENT
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.40
¾ LEFT REAR VIEW OF VEHICLE IN TEST RIG
FIGURE 5.42
PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2
FIGURE 5.43
PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.44
POST TEST ROW 2, LEFT SIDE WITH SFAD 2
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.45
POST TEST ROW 2, LEFT SIDE WITH SFAD 2
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.46
PRE-TEST ROW 2, RIGHT SIDE WITH SFAD 2
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.47
POST TEST ROW 2, RIGHT SIDE WITH SFAD 2
2005 BUICK LACROSSE
NHTSA NO. C50104
FMVSS NO. 225

FIGURE 5.51
POST TEST ROW 2, CENTER POSITION WITH SFAD 1
SECTION 6
PLOTS
GTL 5647, NHTSA C50104

225, Child Restraint, Top Tether, Driver
APPENDIX A
OWNER'S MANUAL CHILD RESTRAINT INFORMATION
**CAUTION:**

The body structure of a young child is quite unlike that of an adult or older child, for whom the safety belts are designed. A young child’s hip bones are still so small that the vehicle’s regular safety belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child’s abdomen. In a crash, the belt would apply force on a body area that is unprotected by any bony structure. This alone could cause serious or fatal injuries. Young children always should be secured in appropriate child restraints.

An infant car bed (A), a special bed made for use in a motor vehicle, is an infant restraint system designed to restrain or position a child on a continuous flat surface. Make sure that the infant’s head rests toward the center of the vehicle.
A rear-facing infant seat (B) provides restraint with the seating surface against the back of the infant. The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.

A forward-facing child seat (C-E) provides restraint for the child’s body with the harness and also sometimes with surfaces such as T-shaped or shelf-like shields.
Q: How do child restraints work?

A: A child restraint system is any device designed for use in a motor vehicle to restrain, seat, or position children. A built-in child restraint system is a permanent part of the motor vehicle. An add-on child restraint system is a portable one, which is purchased by the vehicle's owner.

For many years, add-on child restraints have used the adult belt system in the vehicle. To help reduce the chance of injury, the child also has to be secured within the restraint. The vehicle’s belt system secures the add-on child restraint in the vehicle, and the add-on child restraint's harness system holds the child in place within the restraint.

One system, the three-point harness, has straps that come down over each of the infant's shoulders and buckle together at the crotch. The five-point harness system has two shoulder straps, two hip straps and a crotch strap. A shield may take the place of hip straps. A T-shaped shield has shoulder straps that are attached to a flat pad which rests low against the child's body. A shelf- or armrest-type shield has straps that are attached to a wide, shelf-like shield that swings up or to the side.
When choosing a child restraint, be sure the child restraint is designed to be used in a vehicle. If it is, it will have a label saying that it meets federal motor vehicle safety standards.

Then follow the instructions for the restraint. You may find these instructions on the restraint itself or in a booklet, or both. These restraints use the belt system or the LATCH system in your vehicle, but the child also has to be secured within the restraint to help reduce the chance of personal injury. When securing an add-on child restraint, refer to the instructions that come with the restraint which may be on the restraint itself or in a booklet, or both, and to this manual. The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Where to Put the Restraint

Accident statistics show that children are safer if they are restrained in the rear rather than the front seat. We, therefore, recommend that child restraints be secured in a rear seat, including an infant riding in a rear-facing infant seat, a child riding in a forward-facing child seat and an older child riding in a booster seat. *Never* put a rear-facing child restraint in the front passenger seat.

Here is why:

⚠️ CAUTION:

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger's airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag.

Even though the passenger sensing system is designed to turn off the passenger's frontal airbag if the system detects a rear-facing child restraint, no system is fail-safe, and no one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off. General Motors recommends that rear-facing child restraints be secured in the rear seat, even if the airbag is off.

If you need to secure a forward-facing child restraint in the right front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.
**CAUTION:**

A child in a child restraint in the center front seat can be badly injured or killed by the right front passenger’s airbag if it inflates. Never secure a child restraint in the center front seat. It is always better to secure a child restraint in the rear seat.

If you need to secure a forward-facing child restraint in the right front passenger seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

Wherever you install it, be sure to secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in your vehicle — even when no child is in it.

---

**Top Strap**

Some child restraints have a top strap, or “top tether.” It can help restrain the child restraint during a collision. For it to work, a top strap must be properly anchored to the vehicle. Some top strap-equipped child restraints are designed for use with or without the top strap being anchored. Others require the top strap always to be anchored. Be sure to read and follow the instructions for your child restraint. If yours requires that the top strap be anchored, do not use the restraint unless it is anchored properly.

If the child restraint does not have a top strap, one can be obtained, in kit form, for many child restraints. Ask the child restraint manufacturer whether or not a kit is available.
In Canada, the law requires that forward-facing child restraints have a top strap, and that the strap be anchored. In the United States, some child restraints also have a top strap. If your child restraint has a top strap, it should be anchored.

Anchor the top strap to an anchor point specified in *Top Strap Anchor Location on page 1-43*. Be sure to use an anchor point located on the same side of the vehicle as the seating position where the child restraint will be placed.

⚠️ CAUTION:

Each top tether bracket is designed to anchor only one child restraint. Attaching more than one child restraint to a single bracket could cause the anchor to come loose or even break during a crash. A child or others could be injured if this happens. To help prevent injury to people and damage to your vehicle, attach only one child restraint per bracket.

Once you have the top strap anchored, you will be ready to secure the child restraint itself. Tighten the top strap when and as the child restraint manufacturer's instructions say.
Top Strap Anchor Location

The vehicle has top strap anchors installed for the rear seating positions.

They are located under trim covers on the rear seatback filler panel.

Do not secure a child restraint with a top strap in the right front passenger's position if a national or local law requires that the top strap be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored. There is no place to anchor the top strap in this position.

If your child restraint is equipped with the LATCH system, Lower Anchorages and Top Tethers for Children (LATCH System) on page 1-43.

Lower Anchorages and Top Tethers for Children (LATCH System)

The vehicle has the LATCH system. You will find anchors in all three rear seating positions.

This system, designed to make installation of child restraints easier, does not use the vehicle’s safety belts. Instead it uses vehicles anchors and child restraint attachments to secure the restraints. Some restraints also use another vehicle anchor to secure a top tether strap.
A. Lower Anchorage
B. Lower Anchorage
C. Top Tether

A. Lower Anchorage
B. Lower Anchorage

In order to use the LATCH system in your vehicle, you need a child restraint designed for that system.
To assist you in locating the lower anchors for this child restraint system, each seating position with the LATCH system has a label on the seatback at each lower anchor position.

The labels are located near the base of all three rear seating positions.

⚠️ CAUTION:

If a LATCH-type child restraint is not attached to its anchorage points, the restraint will not be able to protect the child correctly. In a crash, the child could be seriously injured or killed. Make sure that a LATCH-type child restraint is properly installed using the anchorage points, or use the vehicle's safety belts to secure the restraint, following the instructions that came with that restraint, and also the instructions in this manual.

Securing a Child Restraint Designed for the LATCH System

1. Find the LATCH anchorages for the seating position you want to use, where the bottom of the seatback meets the back of the seat cushion. See Lower Anchorages and Top Tethers for Children (LATCH System) on page 1-43.

2. Put the child restraint on the seat.

3. Attach and tighten the LATCH attachments on the child restraint to the LATCH anchorages in the vehicle. The child restraint instructions will show you how. Also see Top Strap on page 1-41.

4. If the child restraint is forward-facing, attach and tighten the top tether to the top tether anchorage. The child restraint instructions will show you how.

5. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, simply unhook the top tether from the top tether anchorage and then disconnect the LATCH attachments from the LATCH anchorages.
SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2005; Make: Buick; Model: LaCrosse; Body Style: GMT 365
Seat Style: Front row: n/a; Second row: 60/40 Bench; Third row: n/a

Use Center of Adjuster Anchorage

LEFT SIDE VIEW OF TEST VEHICLE
Table 1. Seating Positions\textsuperscript{1} and Torso Angles

<table>
<thead>
<tr>
<th></th>
<th>Left (Driver Side)</th>
<th>Center (if any)</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>A2</td>
<td>202.5mm</td>
<td>202.5mm</td>
<td>202.5mm</td>
</tr>
<tr>
<td>A3</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>B</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>C</td>
<td>1206.5mm</td>
<td>1198.5 mm</td>
<td>1206.5 mm</td>
</tr>
<tr>
<td>D</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Torso Angle (degree)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front Row</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Second Row</td>
<td>26°</td>
<td>26°</td>
<td>26°</td>
</tr>
<tr>
<td>Third Row</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Note: 1. All dimensions are in mm. If not, provide the unit used.
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 description of the location of the 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

Measurement Instructions:

n/a

Seat back angle for passenger’s seat = n/a degrees

Measurement Instructions:

n/a

Seat back angle for 2nd row seat = ______ degrees

Measurement Instructions:

n/a Seat does not adjust

Seat back angle for 3rd row seat = n/a degrees

Measurement Instructions:

n/a
SEATING REFERENCE POINT
FOR FMVSS 225
(All dimensions in mm)
(Note: The Child Restraint Anchorage Location determines the 225 SRP locations)

Model Year: 2005; Make: Buick; Model: LaCrosse; Body Style: 4 door
Seat Style: Front row: n/a; Second row: Bench; Third row: n/a

Driver's seat front outboard seat adjuster anchorage
Table 2. Seating Reference Point and Tether Anchorage Locations

| Seating Reference Point (SRP) | Distance from Driver's front outboard seat adjuster anchorage
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Row</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>n/a</td>
</tr>
<tr>
<td>E1</td>
<td>n/a</td>
</tr>
<tr>
<td>B2</td>
<td>n/a</td>
</tr>
<tr>
<td>E2</td>
<td>n/a</td>
</tr>
<tr>
<td>B3</td>
<td>n/a</td>
</tr>
<tr>
<td>E3</td>
<td>n/a</td>
</tr>
<tr>
<td>Second Row</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>1206.5mm</td>
</tr>
<tr>
<td>F1</td>
<td>251.0 mm</td>
</tr>
<tr>
<td>C2</td>
<td>1198.5 mm</td>
</tr>
<tr>
<td>F2</td>
<td>614.0 mm</td>
</tr>
<tr>
<td>C3</td>
<td>1201.5 mm</td>
</tr>
<tr>
<td>F3</td>
<td>978.0 mm</td>
</tr>
<tr>
<td>Third Row</td>
<td></td>
</tr>
<tr>
<td>D1</td>
<td>n/a</td>
</tr>
<tr>
<td>G1</td>
<td>n/a</td>
</tr>
<tr>
<td>D2</td>
<td>n/a</td>
</tr>
<tr>
<td>G2</td>
<td>n/a</td>
</tr>
<tr>
<td>D3</td>
<td>n/a</td>
</tr>
<tr>
<td>G3</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Note: 1. Use the center of anchorage.
TETHER ANCHORAGE LOCATIONS
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2005; Make: Buick; Model: LaCrosse; Body Style: 4 door
Seat Style: Front row: n/a; Second row: Bench; Third row: n/a

⊕: SRP
♦: Tether anchorage

Note: 1. The location shall be measured at the center of anchorage.
### Table 3. Seating Reference Point and Tether Anchorage Locations

<table>
<thead>
<tr>
<th>Seating Reference Point (SRP)</th>
<th>Distance from SRP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Front Row</strong></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>n/a</td>
</tr>
<tr>
<td>K1</td>
<td>n/a</td>
</tr>
<tr>
<td>H2</td>
<td>n/a</td>
</tr>
<tr>
<td>K2</td>
<td>n/a</td>
</tr>
<tr>
<td>H3</td>
<td>n/a</td>
</tr>
<tr>
<td>K3</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Second Row</strong></td>
<td></td>
</tr>
<tr>
<td>I1</td>
<td>546.4 mm</td>
</tr>
<tr>
<td>L1</td>
<td>10.0 mm (inboard)</td>
</tr>
<tr>
<td>I2</td>
<td>564.4 mm</td>
</tr>
<tr>
<td>L2</td>
<td>0.0 mm</td>
</tr>
<tr>
<td>I3</td>
<td>546.4 mm</td>
</tr>
<tr>
<td>L3</td>
<td>10.0 mm (inboard)</td>
</tr>
<tr>
<td><strong>Third Row</strong></td>
<td></td>
</tr>
<tr>
<td>J1</td>
<td>n/a</td>
</tr>
<tr>
<td>M1</td>
<td>n/a</td>
</tr>
<tr>
<td>J2</td>
<td>n/a</td>
</tr>
<tr>
<td>M2</td>
<td>n/a</td>
</tr>
<tr>
<td>J3</td>
<td>n/a</td>
</tr>
<tr>
<td>M3</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Note:** 1. Use the center of anchorage.
TETHER ANCHORAGE LOCATIONS - VERTICAL
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2005; Make: Buick; Model: LaCrosse; Body Style: 4 door
Seat Style: Front row: n/a; Second row: Bench; Third row: n/a

LEFT SIDE VIEW OF TEST VEHICLE
Table 4. Vertical Dimension For The Tether Anchorage

<table>
<thead>
<tr>
<th>Seating Row</th>
<th>Vertical Distance from Seating Reference Point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Front Row</strong></td>
<td></td>
</tr>
<tr>
<td>N1 (Driver)</td>
<td>n/a</td>
</tr>
<tr>
<td>N2 (Center)</td>
<td>n/a</td>
</tr>
<tr>
<td>N3 (Right)</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Second Row</strong></td>
<td></td>
</tr>
<tr>
<td>O1 (Left)</td>
<td>536.3 mm</td>
</tr>
<tr>
<td>O2 (Center)</td>
<td>502.3 mm</td>
</tr>
<tr>
<td>O3 (Right)</td>
<td>536.3 mm</td>
</tr>
<tr>
<td><strong>Third Row</strong></td>
<td></td>
</tr>
<tr>
<td>P1 (Left)</td>
<td>n/a</td>
</tr>
<tr>
<td>P2 (Center)</td>
<td>n/a</td>
</tr>
<tr>
<td>P3 (Right)</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Note: 1. All dimensions are in mm. If not, provide the unit anchorage.
## Test Procedures Used for Compliance Tests

### Lower Anchorages

<table>
<thead>
<tr>
<th>Block</th>
<th>Description</th>
<th>FMVSS 225 Section(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>Lower anchorage location certification method used (Enter applicable section used in block 1 of each position by circling A or B)</td>
<td>A) 9.2.1 or B) 15.1.2.2</td>
</tr>
<tr>
<td>Block 2</td>
<td>Lower anchorage dimension (Enter applicable section used in block 2 by circling A or B) (also provide roll and yaw angles)</td>
<td>A) 9.1.1 or B) 15.1.2.2</td>
</tr>
<tr>
<td></td>
<td>pitch__ roll__ yaw__</td>
<td></td>
</tr>
<tr>
<td>Block 3</td>
<td>Lower anchorage marking (Enter applicable section used in block 3 by circling A or B)</td>
<td>A) 9.5 or B) 15.4</td>
</tr>
<tr>
<td>Block 4</td>
<td>Strength requirement (Enter applicable section used in block 4 by circling A or B)</td>
<td>A) Section 9 or B) Section 15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driver</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>n/a</td>
</tr>
<tr>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td>Right</td>
<td>n/a</td>
</tr>
<tr>
<td>Second</td>
<td>n/a</td>
</tr>
<tr>
<td>Left</td>
<td>n/a</td>
</tr>
<tr>
<td>Block 1</td>
<td>Block 2</td>
</tr>
<tr>
<td>Block 1 A</td>
<td>Block 2 A</td>
</tr>
<tr>
<td>Block 1 B</td>
<td>Block 2 B</td>
</tr>
<tr>
<td>Pitch 16°, Roll 0°, Yaw 0°</td>
<td>Pitch 20°, Roll 1°, Yaw 0°</td>
</tr>
<tr>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td>Block 1</td>
<td>Block 2</td>
</tr>
<tr>
<td>Block 1 A</td>
<td>Block 2 A</td>
</tr>
<tr>
<td>Block 1 B</td>
<td>Block 2 B</td>
</tr>
<tr>
<td>Pitch 18°, Roll 0°, Yaw 0°</td>
<td>Pitch 20°, Roll 1°, Yaw 0°</td>
</tr>
<tr>
<td>Right (if any)</td>
<td>n/a</td>
</tr>
<tr>
<td>Block 1</td>
<td>Block 2</td>
</tr>
<tr>
<td>Block 1 A</td>
<td>Block 2 A</td>
</tr>
<tr>
<td>Block 1 B</td>
<td>Block 2 B</td>
</tr>
<tr>
<td>Pitch 16°, Roll 0°, Yaw 0°</td>
<td>Pitch 20°, Roll 1°, Yaw 0°</td>
</tr>
<tr>
<td>Third</td>
<td>n/a</td>
</tr>
<tr>
<td>Left</td>
<td>n/a</td>
</tr>
<tr>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td>Right</td>
<td>n/a</td>
</tr>
<tr>
<td>Fourth</td>
<td>n/a</td>
</tr>
<tr>
<td>Left</td>
<td>n/a</td>
</tr>
<tr>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td>Right</td>
<td>n/a</td>
</tr>
</tbody>
</table>
# Test Procedures Used for Compliance Tests

## Tether Anchorages

<table>
<thead>
<tr>
<th>For each seating location in each row record applicable FMVSS Section</th>
<th>FMVSS Section(s) - Req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>Tether anchorage location certification method used (Enter applicable section used in block 1 by circling A, B, C, D, E or F)</td>
</tr>
<tr>
<td></td>
<td>A) 6.2.1 B) 6.2.1.1 C) 6.2.1.2 D) 6.2.2 E) 6.2.2.1 F) 6.2.2.2</td>
</tr>
<tr>
<td>Block 2</td>
<td>Number or tether anchorages based upon the applicable section (Enter applicable section used in block 2 by circling A or B)</td>
</tr>
<tr>
<td></td>
<td>A) 4.4 B) 4.5</td>
</tr>
<tr>
<td>Block 3</td>
<td>Tether anchorage strength requirement (Enter applicable section used in block 3 by circling A, B, or C)</td>
</tr>
<tr>
<td></td>
<td>A) 6.3.1 B) 6.3.2 C) 6.3.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Front</th>
<th>Driver</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Center (if any)</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Right (if any)</td>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second</th>
<th>Left</th>
<th>Block 1 A) B) C) D) E) F) Block 2 A) B) Block 3 A) B) C)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Center</td>
<td>Block 1 A) B) C) D) E) F) Block 2 A) B) Block 3 A) B) C)</td>
</tr>
<tr>
<td></td>
<td>Right</td>
<td>Block 1 A) B) C) D) E) F) Block 2 A) B) Block 3 A) B) C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third</th>
<th>Left</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Right</td>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth</th>
<th>Left</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Center</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Right</td>
<td>n/a</td>
</tr>
</tbody>
</table>