

REPORT NUMBER 225-GTL-06-002

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

**VOLKSWAGEN DE MEXICO S.A. DE C.V.
2006 VOLKSWAGEN JETTA, PASSENGER CAR
NHTSA NO. C65800**

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



OCTOBER 13, 2006

FINAL REPORT

PREPARED FOR

**U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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WASHINGTON, D.C. 20590**

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FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: Edward E. Chan
Acceptance Date: 10/12/06

1. Report No. 225-GTL-06-002	2. Government Accession No. N/A	3. Recipient's Catalog No. N/A
4. Title and Subtitle Final Report of FMVSS 225 Compliance Testing of 2006 VOLKSWAGEN JETTA, PASSENGER CAR NHTSA No. C65800		5. Report Date October 13, 2006
		6. Performing Organ. Code GTL
7. Author(s) Grant Farrand, Project Engineer Debbie Messick, Project Manager		8. Performing Organ. Rep# GTL-DOT-06-225-002
9. Performing Organization Name and Address General Testing Laboratories, Inc. 1623 Leedstown Road Colonial Beach, Va 22443		10. Work Unit No. (TRAIS) N/A
		11. Contract or Grant No. DTNH22-02-D-01043
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Admin. Safety Enforcement Office of Vehicle Safety Compliance (NVS-220) 400 7 th Street, S.W., Room 6111 Washington, DC 20590		13. Type of Report and Period Covered Final Test Report August 2– September 25,2006
		14. Sponsoring Agency Code NVS-220
15. Supplementary Notes		
16. Abstract Compliance tests were conducted on the subject, 2006 Volkswagen Jetta 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		
17. Key Words Compliance Testing Safety Engineering FMVSS 225		18. Distribution Statement Copies of this report are available from NHTSA Technical Reference Div., Rm. PL-403 (NPO-230) 400 7 th St., S.W. Washington, DC 20590 Telephone No. (202) 366-4946
19. Security Classif. (of this report) UNCLASSIFIED	21. No. of Pages 97	22. Price
20. Security Classif. (of this page) UNCLASSIFIED		

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SECTION 1

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF COMPLIANCE TEST

A 2006 Volkswagen Jetta 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 2006 Volkswagen Jetta Passenger Car. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: 3VWPF71K26M631244

B. NHTSA No.: C65800

C. Manufacturer: VOLKSWAGEN DE MEXICO S.A. DE C.V.

D. Manufacture Date: 07.05

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period August 2 through September 25, 2006.

SECTION 2

COMPLIANCE TEST RESULTS

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 2006 Volkswagen Jetta 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 2006 Volkswagen Jetta Passenger Car.

DATA SHEET 1
SUMMARY OF RESULTS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2 – SEPTEMBER 25, 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

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> X </u>	<u> </u>
DSP c	<u> X </u>	<u> </u>

C. LOCATION OF TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> X </u>	<u> </u>
DSP c	<u> X </u>	<u> </u>

D. LOWER ANCHORAGE DIMENSIONS

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> X </u>	<u> </u>

DATA SHEET 1 CONTINUED
SUMMARY OF RESULTS

E. CONSPICUITY AND MARKING OF LOWER ANCHORAGES

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> X </u>	<u> </u>
DSP c	<u> X </u>	<u> </u>

F. STRENGTH OF TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> X </u>	<u> </u>
DSP c	<u> N/A </u>	<u> N/A </u>

G. STRENGTH OF LOWER ANCHORAGES (Forward Force)

	PASS	FAIL
DSP a	<u> N/A </u>	<u> N/A </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> X </u>	<u> </u>

H. STRENGTH OF LOWER ANCHORAGE (Lateral Force)

	PASS	FAIL
DSP a	<u> N/A </u>	<u> N/A </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> N/A </u>	<u> N/A </u>

I. OWNER'S MANUAL

	PASS	FAIL
	<u> X </u>	<u> </u>

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

RECORDED BY: G. Farrand

DATE: 09/25/06

APPROVED BY: D. Messick

DATA SHEET 2
REQUIREMENTS FOR CHILD RESTRAINT ANCHORAGE SYSTEMS
AND TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 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 and 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: 2

Is the number of provided CRAS (lower anchorages only, for convertible/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))

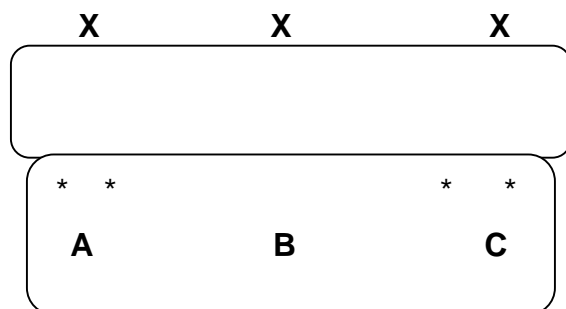
Number of provided tether anchorages (can be additional CRAS) indicate if a built-in child restraint is counted as a tether anchorage (NOTE: a built-in child restraint can only be counted toward either the required number of CRAS or tether anchorages, not both): 3

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 = Top Tether
***** = Lower Anchors

RECORDED BY: G. FARRAND

DATE: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 3
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 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

DATA SHEET 3 CONTINUED

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: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 3A
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: 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

DATA SHEET 3A CONTINUED

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: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 3B
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 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

DATA SHEET 3B CONTINUED

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: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 4
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 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: 5.97 mm
6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 5.97 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): 28 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 28 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 28 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 28 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

CRF Pitch angle: 12.0°
Angle = 15°±10° = PASS Angle ≠15°±10° = FAIL (S9.2.1)

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

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

Distance between point Z on the CRF and the front surface of outboard anchor bar: 50 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 50 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: 170 mm
Distance \geq 120mm = PASS Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: 170 mm
Distance \geq 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: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 4A
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

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

Outboard Lower Anchorage bar diameter: 5.97 mm
6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 5.97 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): 28 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 28 mm
Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 28 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 28 mm
Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))

CRF Pitch angle: 12.0°
Angle = 15°±10° = PASS Angle ≠15°±10° = FAIL (S9.2.1)

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

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

Distance between point Z on the CRF and the front surface of outboard anchor bar: 50 mm
Distance ≤70mm = PASS Distance > 70mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 50 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: 178 mm
Distance \geq 120mm = PASS Distance $<$ 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: 175 mm
Distance \geq 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: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 5
CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: AUGUST 2, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

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

MARKING (Circles)

Diameter of the circle: N/A
Diameter $\geq 13\text{mm}$ = PASS Diameter $< 13\text{mm}$ = FAIL (S9.5(a)(1))

Does the circle have words, symbols or pictograms? N/A
NO skip to next question
YES, are the meaning of the words, symbols or pictograms explained in the owner's manual?
N/A
YES = PASS NO = FAIL (S9.5(a)(2))

Where is the circle located? Seat back or seat Cushion: N/A

For circles on seat backs, vertical distance from the center of the circle to the center of the anchor bar: N/A
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: N/A
Distance $\leq 25\text{mm}$ = PASS Distance $> 25\text{mm}$ = 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? YES
YES = PASS NO = FAIL (S9.5(b))

If there is a guide, is it permanently attached? YES
YES = PASS NO = FAIL (S9.5(b))

DATA SHEET 5 CONTINUED

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

Is there a cap or cover over the anchor bar? NO

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. NO

RECORDED BY: G. FARRAND

DATE: 08/02/06

APPROVED BY: D. MESSICK

DATA SHEET 6
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: SEPTEMBER 25, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5636

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

SFAD: 2

Seat Back Angle: 25° FIXED

Location of seat back angle measurement: 2D Template

Head Restraint Position: UP

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: 58 N

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

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): 14,998 N

Tested simultaneously with another DSP? NO

COMMENTS: Displacement at maximum load 42 mm.

RECORDED BY: G. FARRAND

DATE: 09/25/06

APPROVED BY: D. MESSICK

DATA SHEET 6A
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: SEPTEMBER 25, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5637

DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)

SFAD: 1

Seat Back Angle: 24° FIXED

Location of seat back angle measurement: 2D Template

Head Restraint Position: UP

D-ring Position: N/A

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

Lap belt tension: 60 N (SFAD 1 only)

Tether strap tension: 55 N

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

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): 14,985 N

Tested simultaneously with another DSP? NO

COMMENTS: Displacement at maximum load 67 mm.

RECORDED BY: G. FARRAND

DATE: 09/25/06

APPROVED BY: D. MESSICK

DATA SHEET 7
STRENGTH OF LOWER ANCHORAGES (Forward Force)

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: SEPTEMBER 25, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5638

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

Seat Back Angle: 25° FIXED

Location of seat back angle measurement: 2D Template

Head Restraint Position: UP

Force at lower front crossmember for SFAD2 while tightening rearward extensions: 135 N

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

Force application rate: 421 N/S

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

Maximum force (10,950 N ± 50 N): 10,982 N

Displacement, H1 (at 500 N): 0.0

Displacement, H2 (at maximum load): 42 mm

Displacement of Point X: 42 mm (H2-H1)
Displacement > 175 mm = FAIL (S9.4.1(a))

Tested simultaneously with another DSP? NO

Distance between adjacent DSP's: 350 mm

COMMENTS:

RECORDED BY: G. FARRAND

DATE: 09/25/06

APPROVED BY: D. MESSICK

DATA SHEET 8
OWNER'S MANUAL

VEH. MOD YR/MAKE/MODEL/BODY: 2006 VOLKSWAGEN JETTA PASSENGER CAR
VEH. NHTSA NO: C65800; VIN: 3VWPF71K26M631244
VEH. BUILD DATE: 07.05; TEST DATE: SEPTEMBER 25, 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: 09/25/06

APPROVED BY: D. MESSICK

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO.	CAL. DATE	NEXT CAL. DATE
COMPUTER	AT&T	486DX266	BEFORE USE	BEFORE USE
LOAD CELL	INTERFACE	215709	09/06	09/07
LINEAR TRANSDUCER	SERVO SYSTEMS	20	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	135	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	137	BEFORE USE	BEFORE USE
LEVEL	STANLEY	42-449	02/06	02/07
FORCE GAUGE	CHATILLON	8761	BEFORE USE	BEFORE USE
CALIPER	N/A	Q9322365	BEFORE USE	BEFORE USE
CRF	MEASUREMENT FIXTURE	GTL CRF	BEFORE USE	BEFORE USE
SFAD 1	FORCE APPLICATION DEVICE	GTL SFAD 1	BEFORE USE	BEFORE USE
SFAD 2	FORCE APPLICATION DEVICE	GTL SFAD 2	BEFORE USE	BEFORE USE

SECTION 5
PHOTOGRAPHS



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.1
LEFT SIDE VIEW OF VEHICLE



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.2
RIGHT SIDE VIEW OF VEHICLE



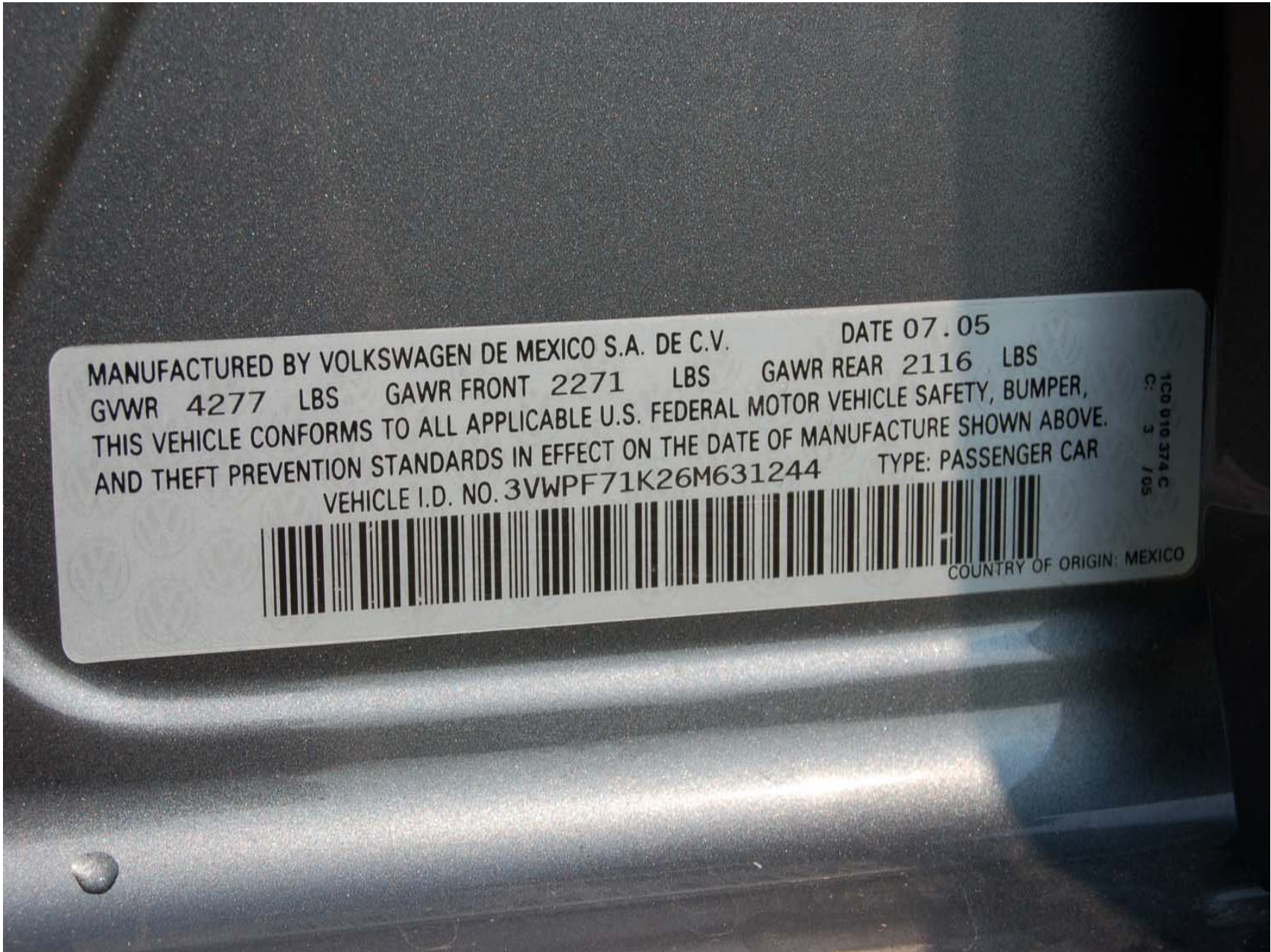
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.3
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



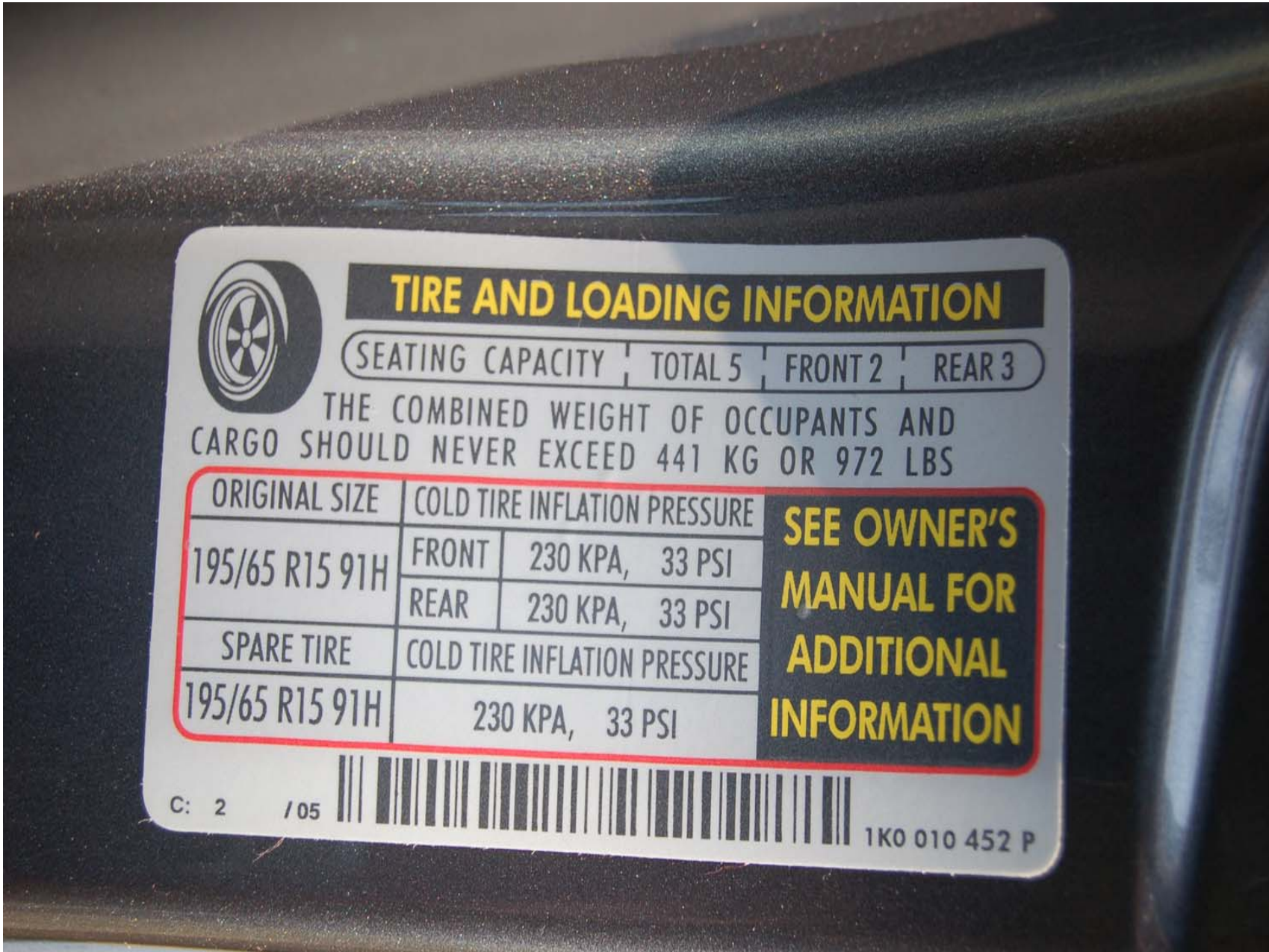
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.4
¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.5
VEHICLE CERTIFICATION LABEL



TIRE AND LOADING INFORMATION

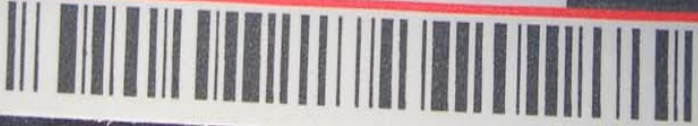
SEATING CAPACITY | TOTAL 5 | FRONT 2 | REAR 3

THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED 441 KG OR 972 LBS

ORIGINAL SIZE	COLD TIRE INFLATION PRESSURE	
195/65 R15 91H	FRONT	230 KPA, 33 PSI
	REAR	230 KPA, 33 PSI
SPARE TIRE	COLD TIRE INFLATION PRESSURE	
195/65 R15 91H	230 KPA, 33 PSI	

**SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION**

C: 2 / 05



1K0 010 452 P

2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.6
TIRE INFORMATION LABEL



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.7
ROW 2, LEFT SIDE, LOWER ANCHORS, PRE-TEST



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.8
ROW 2, LEFT SIDE, TOP TETHER ANCHOR,
PRE-TEST



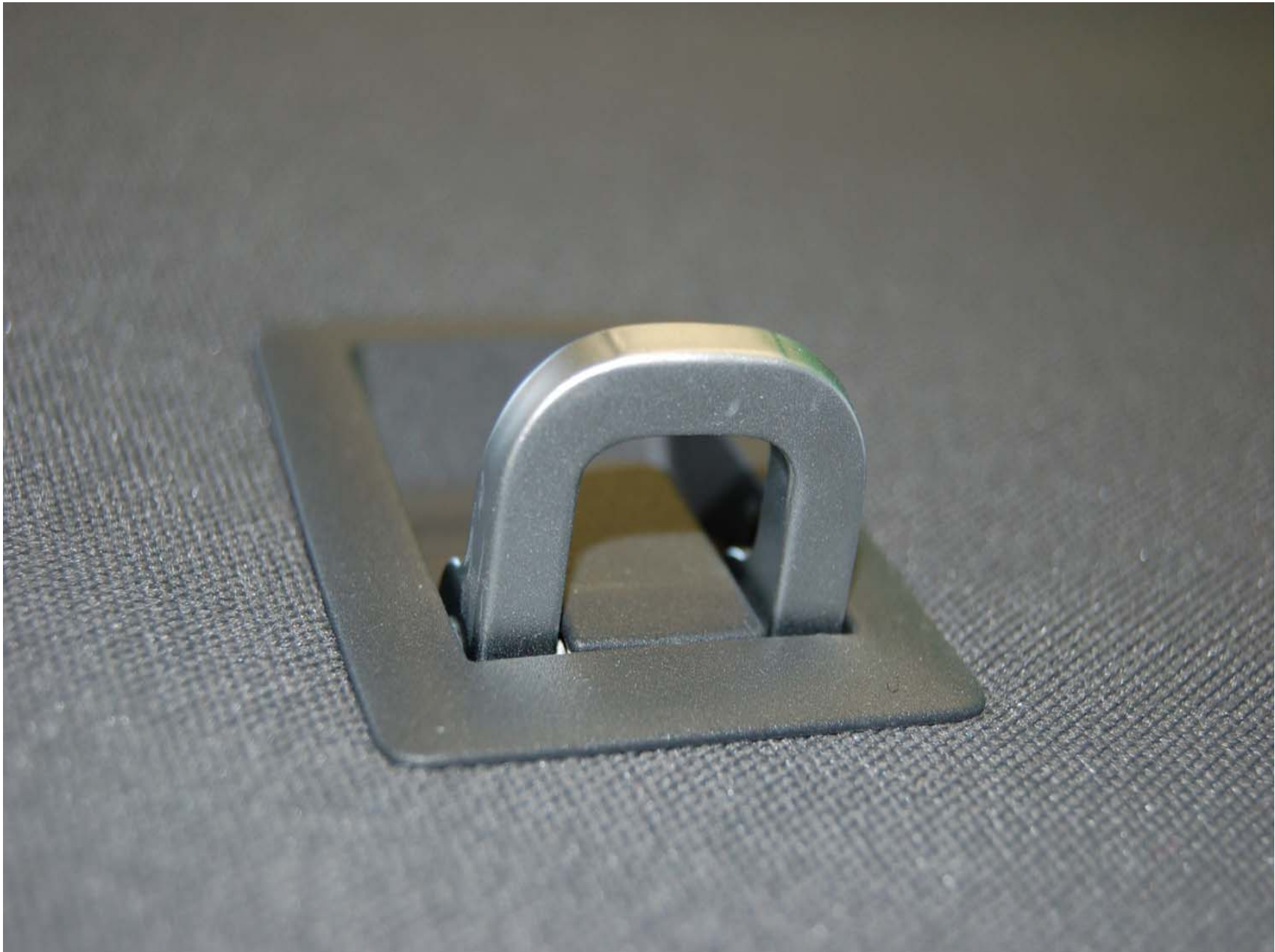
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.9
ROW 2, CENTER, TOP TETHER ANCHOR,
PRE-TEST



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.10
ROW 2, RIGHT SIDE, LOWER ANCHORS,
PRE-TEST



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.11
ROW 2, RIGHT SIDE, TOP TETHER ANCHOR,
PRE-TEST



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.12
OVERALL VIEW OF ROW 2 SEATING POSITIONS,
PRE-TEST



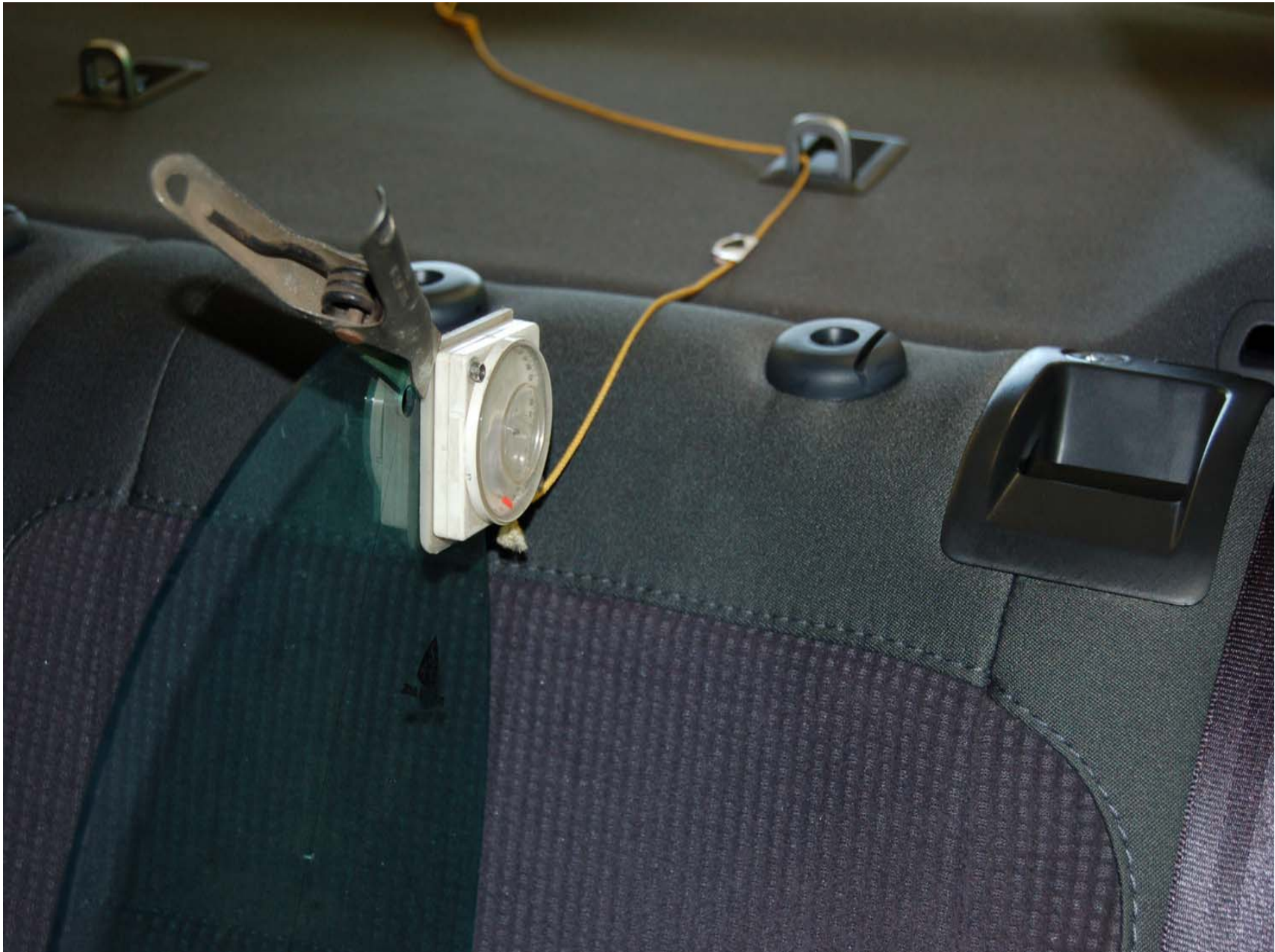
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.13
ROW 2, LEFT SIDE WITH CRF



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.14
ROW 2, LEFT SIDE WITH 2-D TEMPLATE



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.15
ROW 2, LEFT SIDE TOP TETHER ROUTING



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.16
ROW 2, RIGHT SIDE WITH CRF



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.17
ROW 2, RIGHT SIDE WITH 2-D TEMPLATE



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.18
ROW 2, RIGHT SIDE TOP TETHER ROUTING



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.19
ROW 2, CENTER WITH 2-D TEMPLATE



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.20
ROW 2, CENTER TOP TETHER ROUTING



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.21
ROW 2, RIGHT SIDE INBOARD CRF MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.22
ROW 2, RIGHT SIDE OUTBOARD CRF MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.23
ROW 2, LEFT SIDE, INBOARD CRF MEASUREMENT



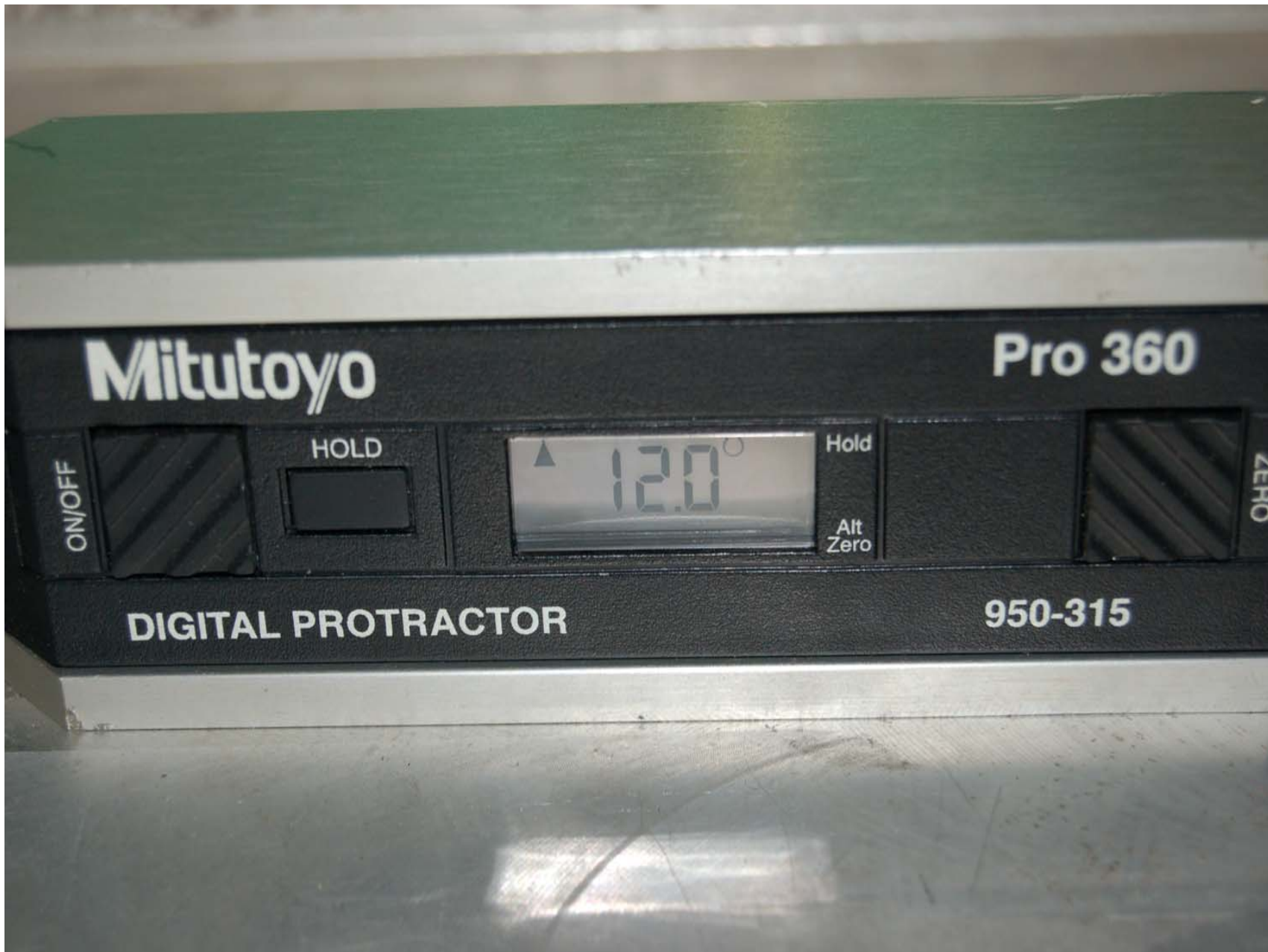
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.24
ROW 2, LEFT SIDE, OUTBOARD CRF MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.25
ROW 2, LEFT SIDE CRF PITCH MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.26
ROW 2, RIGHT SIDE CRF PITCH MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.27
ROW 2, LEFT SIDE OUTBOARD SRP MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.28
ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.29
ROW 2, RIGHT SIDE OUTBOARD SRP MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.30
RIGHT SIDE INBOARD SRP MEASUREMENT



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.31
¾ LEFT REAR VIEW OF VEHICLE IN TEST RIG



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.32
¾ RIGHT FRONT VIEW OF VEHICLE IN TEST RIG



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.33
PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.34
POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.35
PRE-TEST ROW 2, RIGHT SIDE WITH SFAD 2



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.36
POST TEST ROW 2, RIGHT SIDE WITH SFAD 2



2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.37
PRE-TEST ROW 2, CENTER POSITION SFAD 1



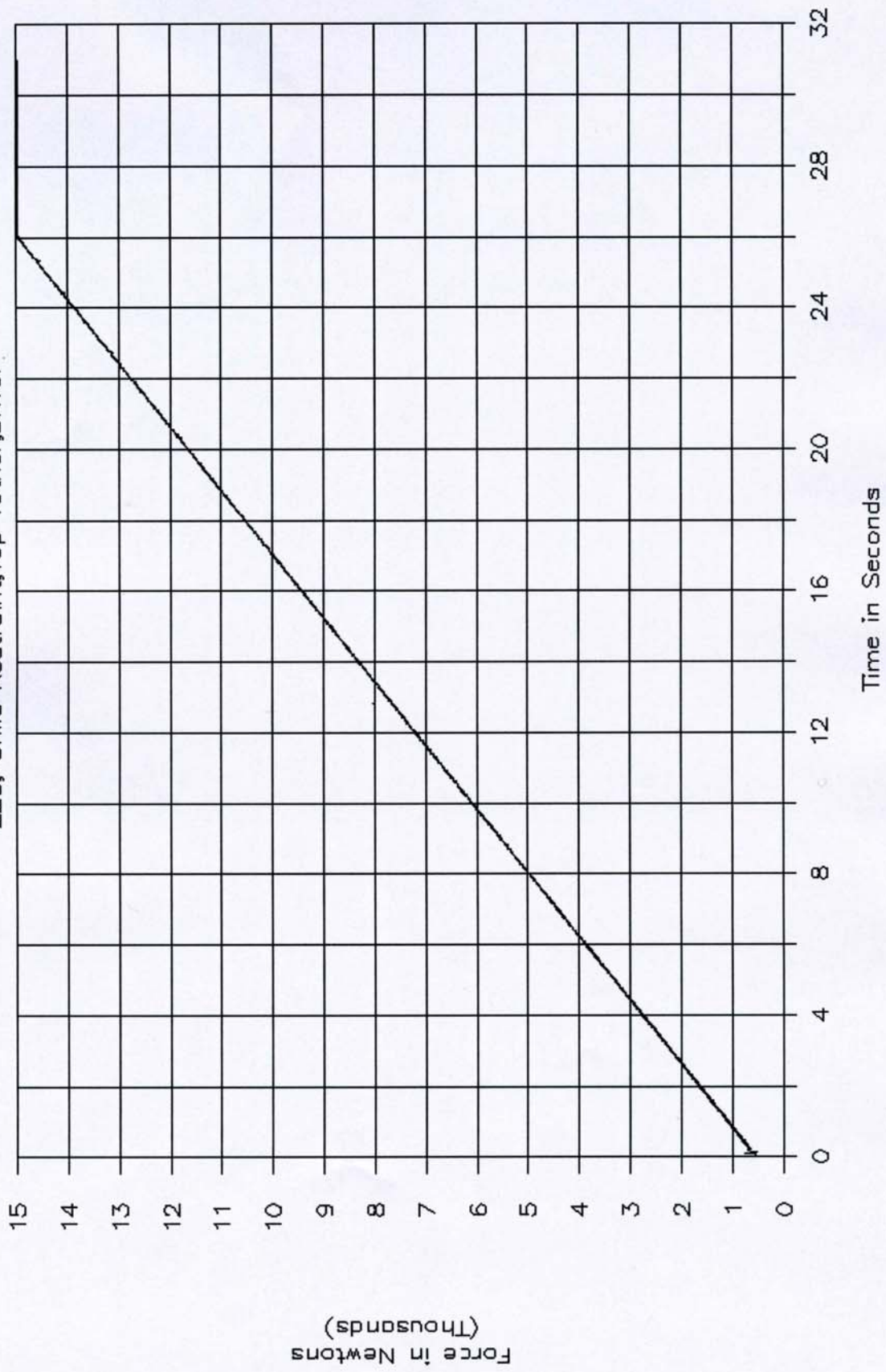
2006 VOLKSWAGEN JETTA
NHTSA NO. C65800
FMVSS NO. 225

FIGURE 5.38
POST TEST ROW 2, CENTER POSITION WITH
SFAD 1

SECTION 6
PLOTS

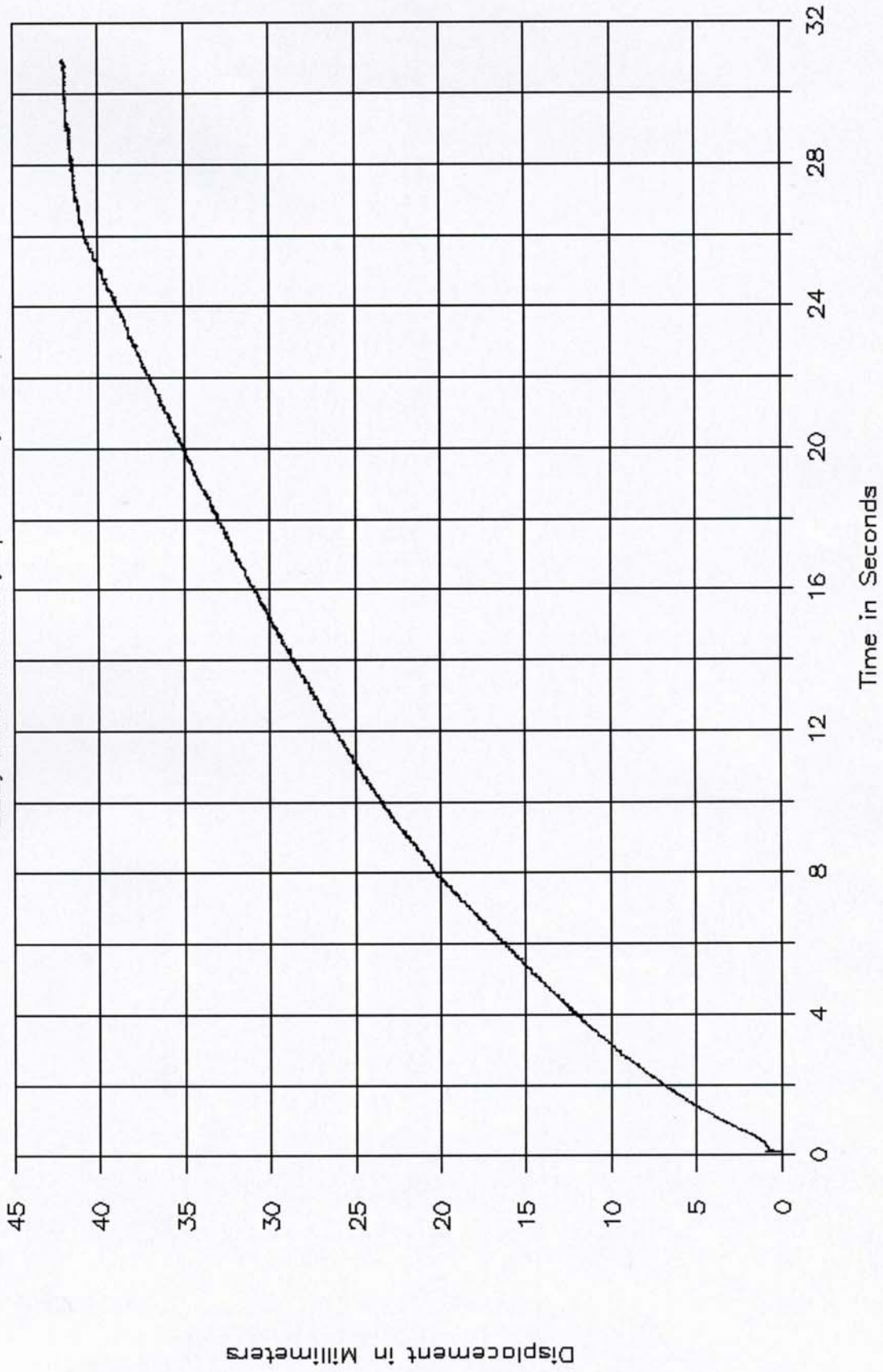
GTL 5636, NHTSA C65800

225, Child Restraint, Top Tether, Driver



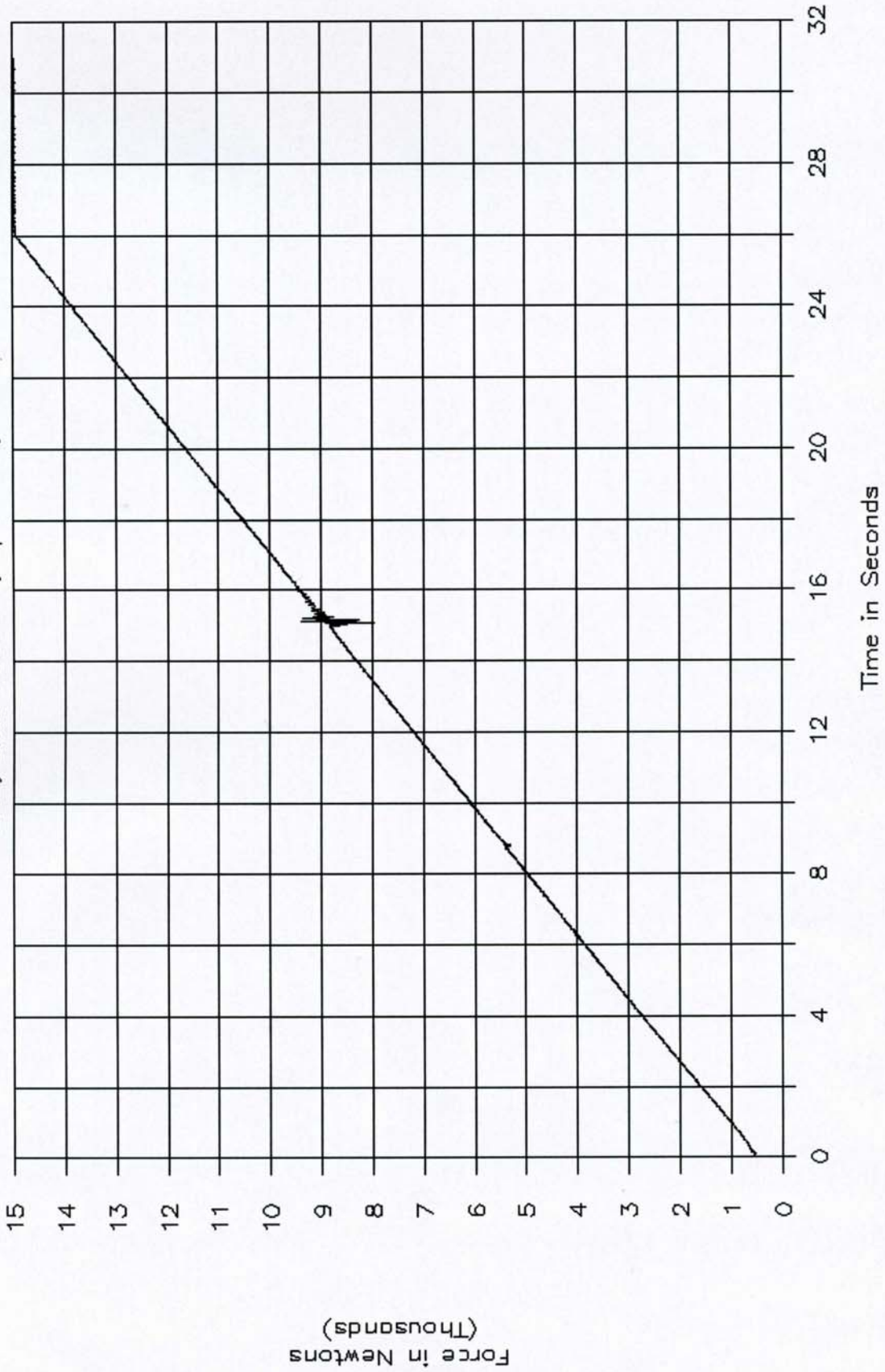
GTL 5636, NHTSA C65800

225, Child Restraint, Top Tether, Driver



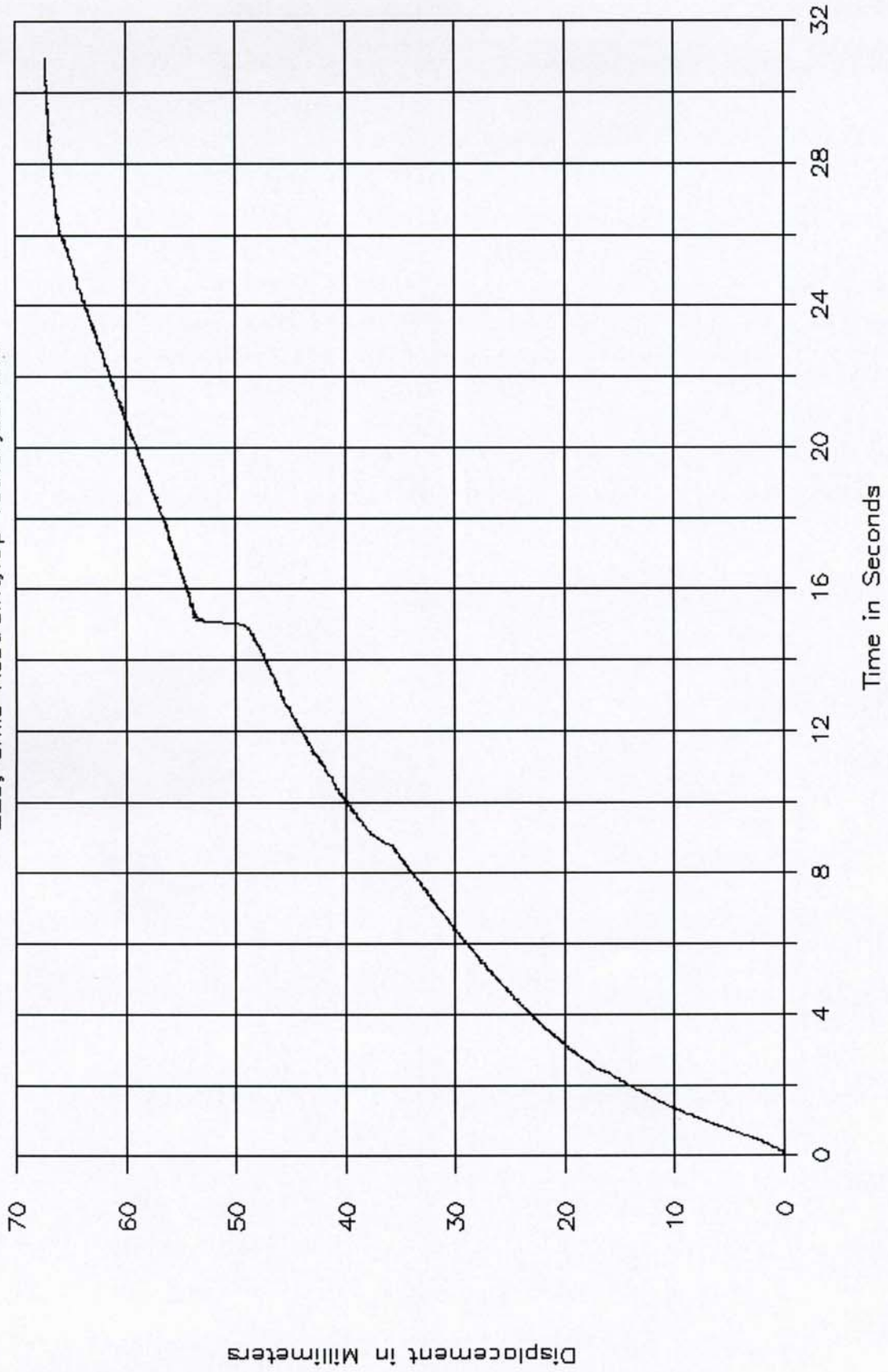
GTL 5637, NHTSA C65800

225, Child Restraint, Top Tether, Center.



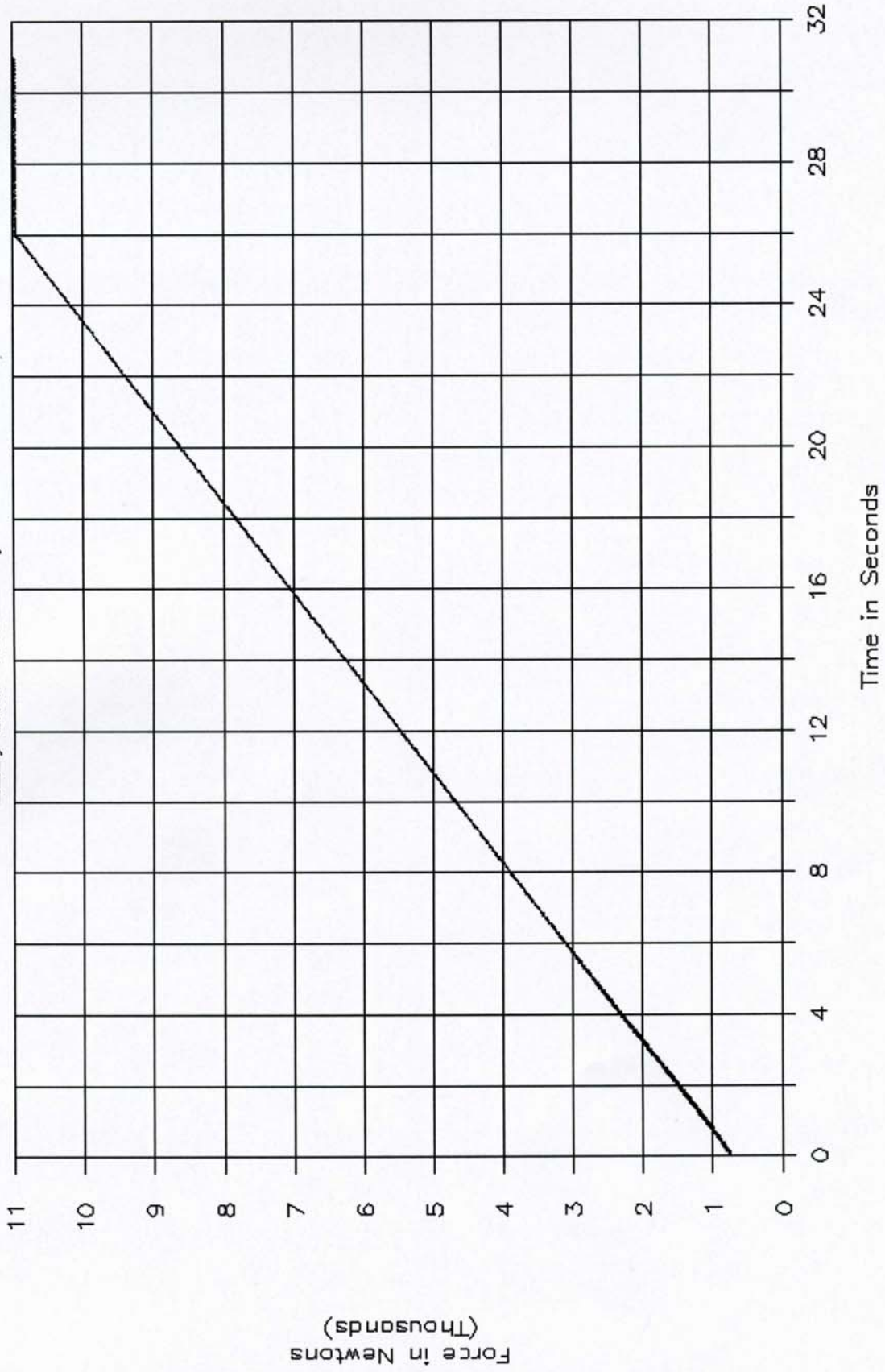
GTL 5637, NHTSA C65800

225, Child Restraint, Top Tether, Center.



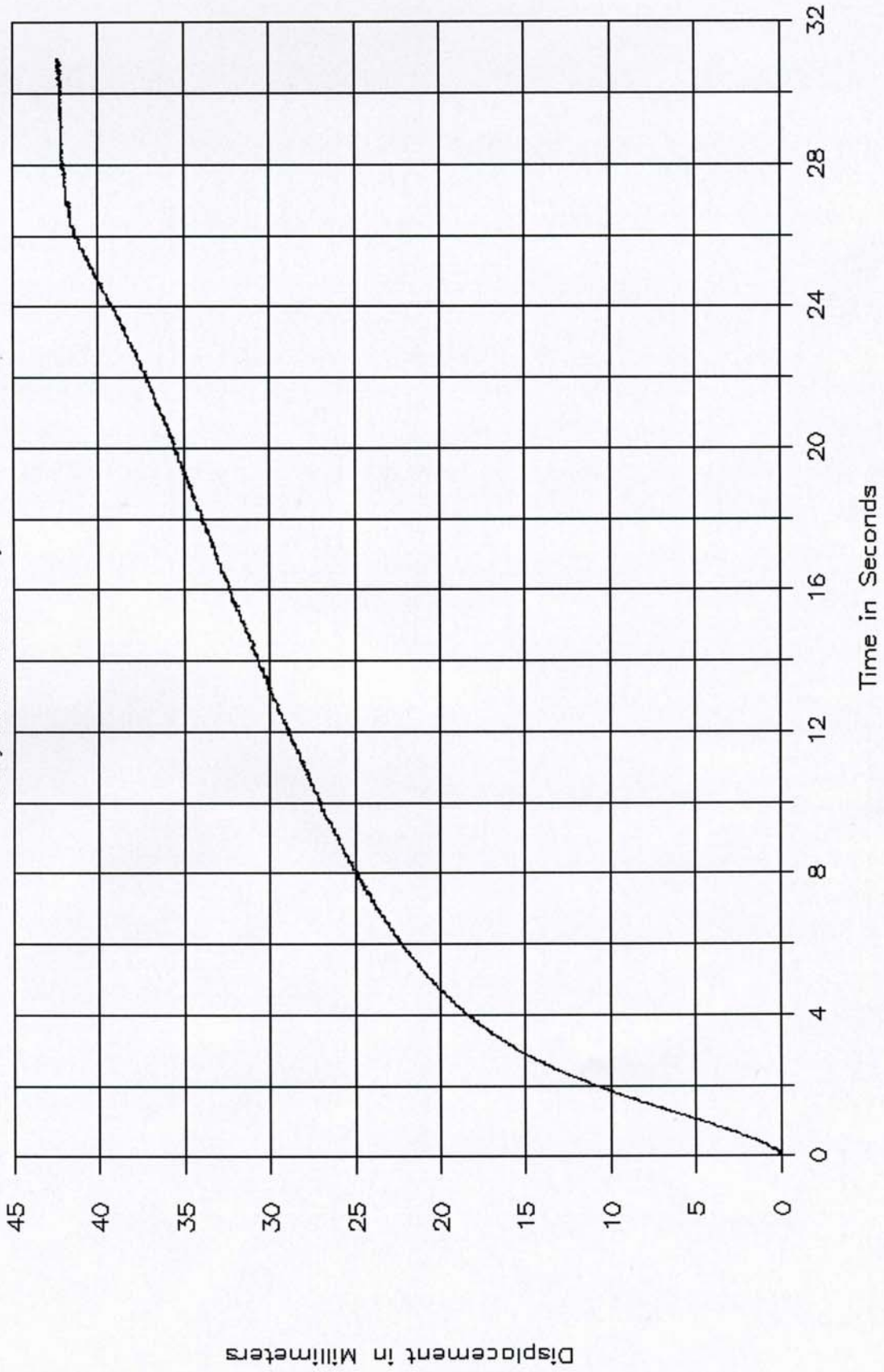
GTL 5638, NHTSA C65800

225, Child Restraint, Lower Anchor.



GTL 5638, NHTSA C65800

225, Child Restraint, Lower Anchor.



APPENDIX A
OWNER'S MANUAL CHILD RESTRAINT INFORMATION

Child safety

Child Seats

Introduction

The rear seat is generally the safest place in a collision.

The physical principles of what happens when your vehicle is in a crash apply also to children ⇒page 15, "Why safety belts?". But unlike adults and teenagers, their muscles and bones are not fully developed. In many respects children are at greater risk of serious injury in crashes than adults.

Because children's bodies are not fully developed, they require restraint systems especially designed for their size, weight, and body structure. Many countries and all states of the United States and provinces of Canada have laws requiring the use of approved child restraint systems for infants and small children.

In a frontal crash at a speed of 20-35 mph (30-56 km/h) the forces acting on a 13-pound (6 kg) infant will be more than 20 times the weight of the child. This means the weight of the child would suddenly be more than 260 pounds (120 kg). Under these conditions, only an appropriate child restraint properly used can reduce the risk of serious injury. Child restraints, like adult safety belts, must be used properly to be effective. Used improperly, they can increase the risk of serious injury in an accident.

Consult the child seat manufacturer's instructions to be sure the seat is right for your child's size ⇒page 54, "Important safety instructions for using child seats". Please be sure to read and heed all of the important information and WARNINGS about child safety. Advanced Airbags, and the installation of child restraints in this booklet.

There is a lot you need to know about the Advanced Airbags in your vehicle and how they work when infants and children in child restraints are on the front passenger seat. Because of the large amount of important information, we cannot repeat it all here. We urge you to read the detailed information in this booklet about

airbags and the Advanced Airbag System in your vehicle and the very important information about transporting children on the front passenger seat. Please be sure to heed the WARNINGS - they are extremely important for your safety and the safety of your passengers, especially infants and small children.

WARNING

- Accident statistics have shown that children are generally safer in the rear seat area than in the front seating position. Always restrain any child age 12 and under in the rear.
- All vehicle occupants and especially children must be restrained properly whenever riding in a vehicle. An unrestrained or improperly restrained child could be injured by striking the interior or by being ejected from the vehicle during a sudden maneuver or impact. An unrestrained or improperly restrained child is also at greater risk of injury or death through contact with an inflating airbag.
- A suitable child restraint properly installed and used at one of the rear seating positions provides the highest degree of protection for infants and small children in most accident situations.

WARNING

- Children on the front seat of any car even with Advanced Airbags can be seriously injured or even killed when an airbag inflates.
- A child in a rearward-facing child seat installed on the front passenger seat will be seriously injured and can be killed if the front airbag inflates.
 - The inflating airbag will hit the child seat or infant carrier with great force and will



⚠ WARNING (continued)

smash the child seat and child against the backrest, center arm rest, door or roof.

- If you must install a rearward facing child seat on the front passenger seat in exceptional circumstances and the "PASSENGER AIR BAG OFF" light does not come on and stay on, immediately install the rear-facing child seat in a rear seating position and have the airbag system inspected immediately by your Volkswagen dealer.

⚠ WARNING

If, in exceptional circumstances, you must install a forward-facing child restraint on the front passenger's seat:

- Always make sure the forward-facing seat has been designed and certified by its manufacturer for use on a front seat with a passenger front and side airbag.

⚠ WARNING (continued)

- Always follow the manufacturer's instructions provided with the child seat or carrier.
- Always move the passenger seat into its rearmost position in the seat's fore and aft adjustment range, as far away from the airbag as possible before installing the child restraint. The backrest must be adjusted to an upright position.
- Always make sure that nothing prevents the front passenger's seat from being moved to the rearmost position in its fore and aft adjustment range.
- Always make sure that the **PASSENGER AIR BAG OFF** light comes on and stays on all the time whenever the ignition is switched on.
- If the **PASSENGER AIR BAG OFF** light does not come on and stay on, immediately install the forward-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer. ◀

Advanced front airbag system and children

Your vehicle is equipped with a dual-stage front "Advanced Airbag System" in compliance with United States Federal Motor Vehicle Safety Standard (FMVSS) 208 as applicable at the time your vehicle was manufactured.

The Advanced Airbag system in your vehicle has been certified to meet the "lowrisk" requirements for 3 and 6 year-old children on the passenger side and small adults on the driver side. The low risk deployment criteria are intended to reduce the risk of injury through interaction with the airbag that can occur, for example, by being too close to the steering wheel and instrument panel when the airbag inflates. In addition, the system has been certified to comply

with the "suppression" requirements of the Safety Standard, to turn off the front airbag for infants up to 12 months who are restrained on the front passenger seat in child restraints that are listed in the Standard.

Even though your vehicle is equipped with an Advanced Airbag system, all children, especially those 12 years and younger, should always ride in the back seat properly restrained for their age and size. The airbag on the passenger side makes the front seat a potentially dangerous place for a child to ride. The front seat is not the safest place for a child in a forward-facing child seat. It can be a very dangerous place for an infant or a larger child in a rearward-facing seat. ◀



Advanced Airbags and the weight-sensing mat in the front seat

The Advanced Airbag System in your vehicle detects the presence of an infant or child in a child restraint on the front passenger seat using the weight-sensing mat in the seat cushion and the sensor below the safety belt latch on the front passenger seat that measures the tension on the safety belt.

The weight-sensing mat measures total weight of the child and the child seat and a child blanket on the front passenger seat. The weight on the front passenger seat is related to the design of the child restraint and its "footprint", the size and shape of the bottom of the child restraint as it sits on the seat. The weight of a child restraint and its "footprint" vary for different kinds of child restraints and for the different models of the same kind of child restraint offered by child restraint manufacturers.

The weight ranges for the individual types, makes and models of child restraints that the NHTSA has specified in the Safety Standard to

gether with the weight ranges of typical infants and typical 1 year-old child have been stored in the control unit of the Advanced Airbag System. When a child restraint is being used on the front passenger seat with a typical 1 year-old child, the Advanced Airbag System compares the weight measured by the weight-sensing mat with the information stored in the electronic control unit. The electronic control unit also registers the tension on the front passenger safety belt. The tension on the safety belt for the front passenger seat will be different for an adult who is properly using the safety belt as compared to the tension on the belt when it is used to attach a child restraint to the seat. The sensor below the latch for the safety belt for the front seat passenger measures the tension on the belt. The input from this sensor is then used with the weight to "decide", whether there is a child restraint with a typical 1 year-old child on the front passenger seat and whether or not the airbag must be turned off. ◀

Child restraints and Advanced Airbags

Regardless of the child restraint that you use, make sure that it has been certified to meet United States Federal Motor Vehicle Safety Standards and has been certified by its manufacturer for use with an airbag. Always be sure that the child restraint is properly installed at one of the rear seating positions. If in exceptional circumstances you must use it on the front passenger seat, carefully read all of the information on child safety and Advanced Airbags and heed all of the applicable WARNINGS. Make certain that the child restraint is correctly recognized by the weight-sensing mat inside the front passenger seat, and that the front passenger airbag is turned off and that the airbag status is always correctly signaled by the **PASSENGER AIR BAG OFF** light.

Many types and models of child restraints have been available over the years, new models are introduced regularly incorporating new and improved designs and older models are taken out of production. Child restraints are not standardized. Child restraints of the same type typically

have different weights and sizes and different "footprints", the size and shape of the bottom of the child restraint that sits on the seat, when they are installed on a vehicle seat. These differences make it virtually impossible to certify compliance with the requirements for advanced airbags with each and every child restraint that has ever been sold in the past or will be sold over the course of the useful life of your vehicle.

For this reason, the United States National Highway Traffic Safety Administration has published a list of specific type, makes and models of child restraints that must be used to certify compliance of the Advanced Airbag System in your vehicle with the suppression requirements of Federal Motor Vehicle Safety Standard 208. These child restraints are:

A. Car beds, manufactured on or after December 1, 1999:

- Cosco Dream Ride 02-719

- Britax Roundabout 161
- Britax Expressway ISOFIX
- Century Encore 4612
- Century STE 1000 4416
- Cosco Olympian 02803
- Cosco Touriva 02519

- Evenflo Horizon V 425
 - Evenflo Medallion 254
 - Safety 1st Comfort Ride 22-400
- D. Forward-facing toddler/belt positioning booster systems, manufactured on or after December 1, 1999:**
- Britax Roadster 9004
 - Century Next Step 4920
 - Cosco High Back Booster 02-442
 - Evenflo Right Fit 245

WARNING

To reduce the risk of serious injury, make sure that the **PASSENGER AIR BAG OFF** light comes on and stays on whenever a child restraint is installed on the front passenger seat and the ignition is switched on.

- Take the child restraint off the front passenger seat and install it properly at one of the rear seat positions if the **PASSENGER AIR BAG OFF** light does not stay on.
- Have the airbag system inspected by your authorized Volkswagen dealer immediately. ◀

– If a strap or tether is being used to tie the child seat to the front passenger seat, make sure that it is not so tight that it causes the weight-sensing mat to measure more weight than is actually on the seat.

Always remember: Even though your vehicle is equipped with an Advanced Airbag system, all children, especially those 12 years and younger, should always ride in the back seat properly restrained for their age and size.

WARNING

Not using a child seat, using the wrong child seat or improperly installing a child restraint increases the risk of serious personal injury and death.

- All vehicle occupants and especially children must always be restrained properly whenever riding in a vehicle.
- An unrestrained or improperly restrained child can be injured or killed by being thrown against the inside of the vehicle or by being ejected from it during a sudden maneuver or impact.
- An unrestrained or improperly restrained child is at much greater risk of injury or death by being struck by an inflating airbag.
- Commercially available child seats are required to comply with U.S. Federal Motor Vehicle Safety Standard (FMVSS) 213 (in Canada CMVSS 213).
 - When buying a child restraint, select one that fits your child and the vehicle.
 - Only use child restraint systems that fully contact the flat portion of the seat cushion. The child restraint must not tip or lean to either side. Volkswagen does not recommend using child seats that rest on legs or tube-like frames. They do not provide adequate contact with the seat.
 - Always heed all legal requirements pertaining to the installation and use of child seats and carefully follow the instructions provided by the manufacturer of the seat you are using.
 - Never allow children under 4 ft 9 in (57 inches, 1.5 meters) to wear a normal safety belt. They must always be restrained by a

WARNING (continued)

proper child restraint system. Otherwise, they could sustain injuries to the abdomen and neck areas during sudden braking maneuvers or accidents.

- Never let more than one child occupy a child seat.
- Never let babies or older children ride in a vehicle while sitting on the lap of another passenger.
- Holding a child in your arms is never a substitute for a child restraint system.
- The strongest person could not hold the child with the forces that exist in an accident. The child will strike the interior of the vehicle and can also be struck by the passenger.
- The child and the passenger can also injure each other in an accident.
- Never install rear-facing child seats or infant carriers on the front passenger seat. A child will be seriously injured and can be killed when the passenger airbag inflates – even with an Advanced Airbag System.
- The inflating airbag will hit the child seat or infant carrier with great force and will smash the child seat and child against the backrest, center arm rest, door or roof.
- Always install rear-facing child seats or infant carriers on the rear seat.
- Forward-facing child seats installed on the front passenger's seat can interfere with the airbag when it inflates and cause serious injury to the child. Always install forward-facing child seats on the rear seat.
- If exceptional circumstances require the use of a forward-facing child restraint on the front passenger's seat, the child's safety and well-being require that the following special precautions be taken:
 - Make sure the forward-facing seat has been designed and certified by its manufacturer for use on a front seat with a passenger front and side airbag.
 - Always carefully follow the manufacturer's instructions provided with the child seat or carrier.
 - Always move the front passenger seat into the rearmost position of the passenger

Booklet 2.1 Safety first

B. Rear facing child restraint systems, manufactured on or after December 1, 1999.

(When the restraint system comes equipped with a removable base, compliance has to be certified with or without the base).

- Britax Handle with Care 191
- Century Assura 4553
- Century Smart Fit 4543
- Cosco Arriva 02727
- Evenflo Discovery Adjust Right 212
- Evenflo First Choice 204
- Graco Infant 8457

C. Forward-facing convertible child restraint systems, manufactured on or after December 1, 1999:

- Britax Roundabout 161
- Britax Expressway ISOFIX
- Century Encore 4612
- Century STE 1000 4416
- Cosco Olympian 02803
- Cosco Touriva 02519

Important safety instructions for using child seats

Correct use of child seats substantially reduces the risk of injury in an accident!



Fig. 30 Never let babies or older children ride in a vehicle while sitting on the lap of another passenger.

- Always use the right child seat for each child and always use it properly ⇒page 51.
- Always carefully follow the child seat manufacturer's instructions on how to route the safety belt properly through the child seat.
- When using the vehicle safety belt to install a child seat, you must first activate the switchable locking feature on the safety belt to prevent the child seat from moving ⇒page 60.
- Push the child seat down with your full weight to get the safety belt really tight so that the seat cannot move forward or sideways more than one inch (2.5 cm).

As the driver, you are responsible for the safety of everybody in the vehicle, especially children:

⚠ WARNING (continued)
 seat's fore and aft adjustment range, and as far away from the airbag as possible before installing the child restraint.
 - Always make sure that nothing prevents the front passenger's seat from being moved to the rearmost position in its fore and aft adjustment range.
 - Always make sure that the backrest is in the upright position.
 • Always buckle the child seat firmly in place even if a child is not sitting in it. A loose child seat can fly around during a sudden stop or in a collision.
 • Always read and heed all WARNINGS whenever using a child restrained in a vehicle is being used —page 13, "Safety belts".

⚠ WARNING (continued)
 —page 27, "Airbag system" and —page 51, "Child safety".
⚠ WARNING
 To reduce the risk of serious injury, make sure that the PASSENGER AIR BAG OFF light comes on and stays on whenever a child restraint is installed on the front passenger seat and the ignition is switched on.
 • Take the child restraint off the front passenger seat and install it properly at one of the rear seat positions if the PASSENGER AIR BAG OFF light does not stay on.
 • Have the airbag system inspected by your authorized Volkswagen dealer immediately. ◀

⚠ WARNING (continued)
 with an Advanced Airbag System. A child will be seriously injured and can be killed when the inflating airbag hits the child seat or infant carrier with great force and smashes the child seat and child against the backrest, center armrest, door or roof.
 • Always install rear-facing child seats or infant carriers on the rear seat.
 • Never install a rear-facing child restraint in the forward-facing direction. These restraints are designed for the special needs of infants and very small children and cannot protect them properly if the seat is forward-facing.

⚠ WARNING (continued)
 • If you must install a rearward facing child seat on the front passenger seat because of exceptional circumstances and the PASSENGER AIR BAG OFF light does not come on and stay on, immediately install the rear-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer.
 • Always read and heed all WARNINGS whenever using a child restrained in a vehicle is being used —page 13, "Safety belts", —page 27, "Airbag system" and —page 51, "Child safety". ◀

Infant seats

Babies and infants up to about one year old that weigh at least 20 - 22 lbs. (9 - 10 kg) must sit in rearward-facing child restraints that support the back, neck and head in a collision.



Fig. 31 Rearward-facing infant seat properly installed on the rear seat

- When using the vehicle safety belt to install a child seat, you must first activate the switchable locking feature on the safety belt to prevent the child seat from moving —page 60.

- If a strap or tether is being used to tie the child seat to the front passenger seat, make sure that it is not so tight that it causes the weight-sensing mat to measure more weight than is actually on the seat.
 Infants up to about one year (up to 22 lbs. or 10 kg) are best protected in special infant carriers and child seats designed for their age group. Many experts believe that infants and small children should ride only in special restraints in which the child faces the back of the vehicle. These infant seats support the baby's back, neck and head in a collision. These child seats can be used safely only on the rear seat of your Volkswagen —fig. 31.

⚠ WARNING
 Not using a child seat, using the wrong child seat or improperly installing a child restraint increases the risk of serious personal injury and death in a collision.
 • Never install rear-facing child seats or infant carriers on the front passenger seat — even

Convertible child seats

Properly used convertible child seats can help protect toddlers and children over age one who weigh between 20 and 40 lbs. (9 and 18 kg) in a crash.

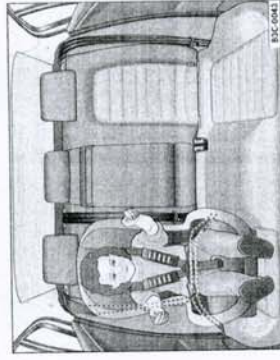


Fig. 32 Smaller child in a properly installed forward-facing LATCH child restraint system on the rear seat

- When using the vehicle safety belt to install a child seat, you must first activate the switchable locking feature on the safety belt to prevent the child seat from moving —page 60.

- Push the child seat down with your full weight to get the safety belt really tight so that the seat cannot move forward or sideways more than one inch (2.5 cm).

- Fasten the safety belt that is part of the child restraint system securely and pull it tight so that you can only slip one finger underneath the shoulder belt portion at the child's chest.

- If a strap or tether is being used to tie the child seat to the front passenger seat, make sure that it is not so tight that it causes the weight-sensing mat to measure more weight than is actually on the seat.

A toddler or child is usually too large for an infant restraint, if it is more than one year old and weighs more than 22 lbs. (10 kg).

Toddlers and children between one and about four years old and weigh between 22 lbs. (10 kg) and 40 lbs. (18 kg) must always be properly restrained in a child seat certified for their size and weight —fig. 32.

The airbag on the passenger side makes the front seat a potentially dangerous place for a child to ride. The front seat is not the safest place for a child in a forward-facing child seat. It is a very dangerous place for an infant or a larger child in a rearward-facing seat.

WARNING

Not using a child seat, using the wrong child seat or improperly installing a child restraint increases the risk of serious personal injury and death in a collision or other emergency situation.

- Children on the front seat of any car, even with Advanced Airbags, can be seriously injured or even killed when an airbag inflates. A child in a rearward-facing child seat installed on the front passenger seat will be seriously injured and can be killed if the front airbag inflates – even with an Advanced Airbag System.
- The inflating airbag will hit the child seat or infant carrier with great force and will smash the child seat and child against the backrest, center arm rest, door or roof.
- Always install rear-facing child seats on the rear seat.
- If you must install a rearward facing child seat on the front passenger seat because of exceptional circumstances and the PASSENGER AIR BAG OFF light does not come on and stay on, immediately install the rear-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer.
- Always read and heed all WARNINGS whenever using a child restrained in a vehicle as being used –page 13, "Safety belts", –page 27, "Airbag system" and –page 51, "Child safety".

WARNING

An improperly installed child restraint can interfere with the airbag as it deploys and seriously injure or even kill the child – even with an Advanced Airbag System. If, in exceptional circumstances, you must install a forward-

WARNING (continued)

facing child restraint on the front passenger's seat:

- Forward-facing child seats installed on the front passenger's seat may interfere with the deployment of the airbag and cause serious personal injury to the child.
- Always make sure the forward-facing seat has been designed and certified by its manufacturer for use on a front seat with a passenger front and side airbag.
- Always carefully follow the manufacturer's instructions provided with the child seat or carrier.
- Never put the forward-facing child restraint up against or very near the instrument panel.
- Always move the passenger seat into its rearmost position in the seat's fore and aft adjustment range, as far away from the airbag as possible before installing the forward-facing child restraint. The backrest must be adjusted to an upright position.
- Always make sure that nothing prevents the front passenger's seat from being moved to the rearmost position in its fore and aft adjustment range.
- Never place additional items on the seat that can increase the total weight registered by the weight-sensing mat and can cause injury in a crash.
- Make sure that the PASSENGER AIR BAG OFF light comes on and stays on all the time whenever the ignition is switched on.
- If the PASSENGER AIR BAG OFF light does not come on and stay on, immediately install the forward-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer. ◀

Booster seats and safety belts

Properly used booster seats can help protect children who weigh more than 40 lbs. (18 kg) who are less than 4 ft. 9 in (57 inches, 1.5m) tall in a collision.

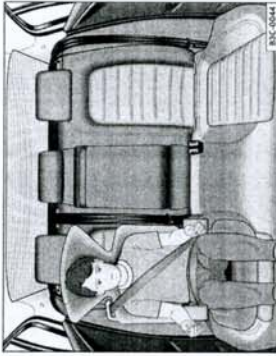


Fig. 33 Child properly restrained in a booster seat on the rear seat

Children up to 8 years old (over 40 lbs. or 18 kg) are best protected in child safety seats designed for their age and weight –fig. 31. Experts say that the skeletal structure, particularly the pelvis, of these children is not fully developed, and they should not use the vehicle safety belts without a suitable child restraint.

Children who weigh more than about 80 lbs. and are at least 4 ft. 9 in. (57 inches) tall can generally use the vehicle's three-point lap and shoulder belts. Never use the lap belt portion of the vehicle's safety belt alone to restrain any child, regardless of how big the child is. Always remember that children do not have the pronounced pelvic structure required for the proper function of lap belt portion of the vehicle's three-point lap and shoulder belts. The child's safety absolutely requires that a lap belt portion of the safety belt be fastened snugly and as low as possible around the pelvis. Never let the lap belt portion of the safety belt pass over the child's stomach or abdomen.

It is usually best to put these children in appropriate booster seats. Be sure the booster seat meets all applicable safety standards.

Booster seats raise the seating position of the child and reposition both the lap and shoulder parts of the safety belt so that they pass across the child's body in the right places. The routing of the belt over the child's body is very important for the child's protection, whether or not a booster seat is used. Children age 12 and under should always ride in the rear seat.

In a collision, airbags must inflate within a blink of an eye and with considerable force. In order to do its job, the airbag needs room to inflate so that it will be there to protect the occupant as the occupant moves forward into the airbag.

A vehicle occupant who is out of position and too close to the airbag gets in the way of an inflating airbag. When an occupant is too close, he or she will be struck violently and will receive serious or possibly even fatal injury.

In order for the airbag to offer protection, it is important that all vehicle occupants, especially any children, who must be in the front seat be-

The vehicle's safety belts alone will not fit most children until they are at least 4 ft. 9 in. (57 inches, 1.5m) tall and weigh more than 80 lbs (36 kg). Booster seats raise these children up so that the safety belt will pass properly over the strong parts of their bodies and the safety belt can help protect them in a collision.

- Do not use the switchable locking feature when using the vehicle's safety belt to restrain a child on a booster seat.
- Always position the shoulder portion of the safety belt midway over the child's shoulder. If you must transport an older child in a booster seat on the front passenger seat, you can use the safety belt height adjustment to help adjust the shoulder portion properly.
- Always make sure that the shoulder portion never rests against or across the child's neck.
- Always make sure that the child can wear the lap belt portion low across the thighs or pelvis and never over the stomach or abdomen.

cause of exceptional circumstances, be properly restrained and as far away from the airbag as possible. By keeping room between the child's body and the front of the passenger compartment, the airbag can inflate completely and provide supplemental protection in certain frontal collisions.

WARNING

- Not using a booster seat, using the booster seat improperly, incorrectly installing a booster seat or using the vehicle safety belt improperly increases the risk of serious personal injury and death in a collision or other emergency situation. To help reduce the risk of serious personal injury and/or death:
- Always make sure to position the shoulder portion of the three-point belt over the middle of child's shoulder.
- Never let the shoulder portion of the belt rest against or across the neck, face, chin, or throat of the child.
- Always make sure the lap belt portion of the three-point belt is worn snug and passes as low as possible across the child's pelvis. Never let the belt pass over the soft abdomen.
- Failure to properly route safety belts over a child's body will cause severe injuries in an accident or other emergency situation ⇒page 13, "Safety belts".
- Children on the front seat of any car, even with Advanced Airbags, can be seriously injured or even killed when an airbag inflates. A child in a rearward-facing child seat installed

WARNING (continued)

- on the front passenger seat will be seriously injured and can be killed if the front airbag inflates.
- Never let a child stand or kneel on any seat, for example the front seat.
- Never let a child ride in the cargo area of your vehicle.
- Always remember that a child leaning forward, sitting sideways or out of position in any way during a collision can be struck by a deploying airbag. This will result in serious personal injury or death.
- If you must install a rearward facing child seat on the front passenger seat because of exceptional circumstances the PASSENGER AIR BAG OFF light must come on and stay on, whenever the ignition is switched on.
- If the PASSENGER AIR BAG OFF light does not come on and stay on, perform the checks described ⇒page 39.
- Take the child restraint off the front passenger seat and install it properly at one of the rear seat positions if the PASSENGER AIR BAG OFF light does not stay on whenever the ignition is switched on.
- Always read and heed all WARNINGS whenever using a child restraint in a vehicle is being used ⇒page 13, "Safety belts", ⇒page 27, "Airbag system" and ⇒page 51, "Child safety".

Installing child restraint with a safety belt

Important things to know

Safety belts for the rear seats and the front passenger seat can be locked with the switchable locking feature to properly secure child seats.

The retractors for the rear seat safety belts and the front passenger safety belt have a switchable locking feature for child restraints in addition to the emergency locking feature.

If you need to install a child seat at one of these seating positions, you must first route the safety belt as directed by the manufacturer of the child

seat that you are using and then activate the convertible locking feature. Whenever a child restraint is installed with a safety belt, the safety belt must be locked so that belt webbing cannot unreeled. The switchable locking feature lets you lock the belt so that a child restraint can be properly installed and, for

WARNING (continued)

is being used ⇒page 51. Special precautions apply when installing a child seat on the front passenger seat ⇒page 29, "Child restraints on the front seat – some important things to know".

WARNING

- Rearward-facing child restraints:
 - A child in a rearward-facing child seat installed on the front passenger seat will be seriously injured and can be killed if the front airbag inflates - even with an Advanced Airbag System.
 - The inflating airbag will hit the child seat or infant carrier with great force and will smash the child seat and child against the backrest, center arm rest, door or roof.
 - Always be especially careful if you must install a rearward facing child seat on the front passenger seat in exceptional circumstances.
 - A tight tether strap on a rearward-facing child restraint attached to the front passenger seat can put too much pressure on the weight-mat in the seat and register a heavier weight in the Advanced Airbag System. The heavier weight registered can make the system work as though an adult were on the seat and depress the Advanced Airbag when it must be suppressed causing serious or even fatal injury to the child.
 - Make sure that the PASSENGER AIR BAG OFF light comes on and stays on all the time whenever the ignition is switched on.
 - If the PASSENGER AIR BAG OFF light does not come on and stay on, immediately install the rear-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer.

WARNING

An improperly installed child restraint can interfere with the airbag as it deploys and seriously injure or even kill the child – even with an Advanced Airbag System. If, in exceptional circumstances, you must install a forward-facing child restraint on the front passenger's seat:

example, so that it can't tip to the side when the vehicle goes around a corner.

Always remember: Even though your vehicle is equipped with an Advanced Airbag system, all children, especially those 12 years and younger, should always ride in the back seat properly restrained for their age and size

WARNING

- Improperly installed child seats increase the risk of serious personal injury and death in a collision.
- Always make sure that the safety belt retractor is locked when installing a child seat. An unlocked safety belt retractor cannot hold the child seat in place during normal driving or in a crash.
- Always buckle the child seat firmly in place even if a child is not sitting in it. A loose child seat can fly around during a sudden stop or in a collision
- Always make sure that the rear seat backrest is securely latched whenever the rear center safety belt is being used to secure a child restraint ⇒booklet 3.1, chapter "Rear seat bench."
- If the backrest is not securely latched, the child and the child restraint will be thrown forward together with the backrest and will strike parts of the vehicle interior. The child can be seriously injured or killed.
- Never install rear-facing child seats or infant carriers on the front passenger seat. A child will be seriously injured and can be killed when the passenger airbag inflates.
- The inflating airbag will hit the child seat or infant carrier with great force and will smash the child seat and child against the backrest, center arm rest, door or roof.
- Always install rear-facing child seats or infant carriers on the rear seat.
- Forward-facing child seats or infant carriers installed on the front passenger's seat may interfere with the deployment of the airbag and cause serious injury to the child.
- It is safer to install a forward-facing child seat on the rear seat.
- Always read and heed all WARNINGS whenever using a child restrained in a vehicle

WARNING (continued)

- Forward-facing child seats installed on the front passenger's seat may interfere with the deployment of the airbag and cause serious personal injury to the child.
- Always make sure the forward-facing seat has been designed and certified by its manufacturer for use on a front seat with a passenger front and side airbag.
- Always carefully follow the manufacturer's instructions provided with the child seat or carrier.
- Never put the forward-facing child restraint up against or very near the instrument panel.
- Always move the passenger seat into its rearmost position in the seat's fore and aft adjustment range, as far away from the airbag as possible before installing the forward-facing

WARNING (continued)

- child restraint. The backrest must be adjusted to an upright position.
- Always make sure that nothing prevents the front passenger's seat from being moved to the rearmost position in its fore and aft adjustment range.
- Never place additional items on the seat that can increase the total weight registered by the weight-sensing mat and can cause injury in a crash.
- Make sure that the **PASSENGER AIR BAG OFF** light comes on and stays on all the time whenever the ignition is switched on.
- If the **PASSENGER AIR BAG OFF** light does not come on and stay on, immediately install the forward-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer.

Activating the switchable locking feature

Use the switchable locking feature to properly secure a child restraint

- Always carefully follow the child seat manufacturer's instructions when installing a child restraint in your vehicle. To activate the switchable locking feature:
- Place the child restraint on a seat, preferably on the rear seat .
 - Route the safety belt around or through the child restraint using the proper path for the safety belt as specified by the child restraint manufacturer
 - Insert the belt tongue into the buckle for that seating position.
 - Make sure that the red release button is facing away from the child restraint so that it can be unbuckled quickly.
 - Push the child seat down with your full weight to get the safety belt really tight
 - Slowly pull the belt **all the way out**.
 - Guide the safety belt back into the retractor until the belt lies flat and snug on the child seat. You should hear a "clicking" noise as the belt winds back into the inertia reel of the safety belt retractor. Test the switchable locking feature by pulling on the belt. You should no longer be able to pull the belt out of the retractor. The switchable locking feature is now active.
 - If a strap or tether is being used to tie the child seat to the front passenger seat, make sure that it is not so tight that it causes the weight-sensing mat to measure more weight than is actually on the seat.
 - Pull on the safety belt to make sure that it is properly fastened and tight.
 - Check the child seat for proper installation by pulling on the child seat. The child seat should not move forward or sideways by more than one inch (2.5 cm).

WARNING (continued)

- Always make sure the seat backrest to which the child restraint is installed is in an upright position and securely latched into place and cannot fold forward. Otherwise, the seat back with the child seat attached to it could fly forward in the event of a collision or other emergency situation.
- Always read and heed all **WARNINGS** whenever using a child restrained in a vehicle is being used page 51. Special precautions apply when installing a child seat on the front passenger seat page 29. "Child restraints on the front seat – some important things to know".

WARNING

- Using the wrong child restraint or an improperly installed child restraint can cause serious personal injury or death in an accident.
- Always make sure that the safety belt retractor is locked when installing a child seat. An unlocked safety belt retractor cannot hold the child seat in place during normal driving or in a crash.
 - Always buckle the child seat firmly in place even if a child is not sitting in it. A loose child seat can fly around during a sudden stop or in a collision.

Deactivating the switchable locking feature

The switchable locking feature for child restraints will be deactivated automatically when the belt is wound all the way back into the retractor

- Press the red button on the safety belt buckle. The belt tongue will pop out of the buckle .
 - Guide the safety belt back by hand so that it rolls easily onto the retractor and the trim around the retractor will not be damaged.
- Always let the safety belt retract completely into its stowed position. The safety belt can now be used as an ordinary safety belt without the switchable locking feature for child restraints.
- If the switchable locking feature should be activated inadvertently, the safety belt must be unfastened and guided completely back into its stowed position to deactivate this feature. If the switchable locking feature is not deactivated, the
- safety belt will gradually become tighter and uncomfortable to wear.
- WARNING**
- Improperly installed child seats increase the risk of serious personal injury and death in a collision.
- Never unfasten the safety belt to deactivate the switchable locking feature for child restraints while the vehicle is moving. You would not be restrained and could be seriously injured in an accident.
 - Always read and heed all **WARNINGS** whenever using a child restrained in a vehicle is being used page 51. Special precautions apply when installing a child seat on the front passenger seat page 29.

Tether anchors

Beginning with model year 2000, Volkswagen vehicles have tether anchors as standard equipment.

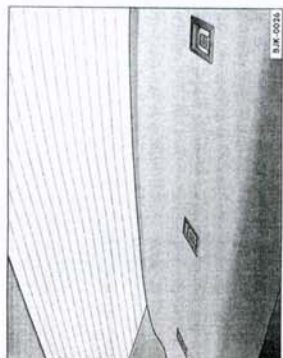


Fig. 34 Tether anchors for the rear seating positions on the hat shelf

- ⚠ WARNING (continued)**
- Never mount two child restraint systems on one LATCH lower anchor point.
 - Never attach two child restraint systems to one tether strap or tether anchorage.
 - Always follow the instructions provided by the manufacturer of the child restraint you intend to install in your Volkswagen.
 - Never use child restraint tether anchorages to secure safety belts or other kinds of occupant restraints.
 - Never attach a tether strap to a tie-down hook in the luggage compartment
 - Never secure or attach any luggage or other items to the LATCH lower anchorages or to the tether anchors.
 - If a tether or other strap is used to attach a child restraint to the front passenger seat, make sure that it is not so tight, that it causes the weight-sensing mat to measure more weight than is actually on the seat.
 - The heavier weight registered can make the Advanced Airbag System work as though an adult were on the seat and deploy the Advanced Airbag when it must be suppressed causing serious or even fatal injury to the child. ◀

- ⚠ WARNING**
- Improper installation of child restraints will increase the risk of injury and death in a crash.
- Improper use of child restraint anchors (tether anchors) could lead to injury in a collision. The anchors are designed to withstand only those loads imposed by correctly fitted child restraints.

Tether strap

A tether is a straight or V-shaped strap that attaches the top part of a CRS to special anchorage points in the vehicle

The purpose of the tether is to reduce the forward movement of the CRS in a crash, in order to help reduce the risk of head injury that could be caused by striking the vehicle interior.

Forward facing CRSs manufactured after September 1, 1999, are required by U.S. federal regulations to comply with child head movement performance requirements. These new performance requirements make a tether necessary on most new child seats

- ⚠ WARNING**
- Improper installation of child restraints will increase the risk of injury in a collision.
- Never attach a child seat tether strap to a tie-down hook in the luggage compartment.
 - Never secure or attach any luggage or other items to the LATCH lower anchorages or to the tether.

Additional Information

What types of Child Restraint System anchors are available and how are they related to child safety?

For years, Child Restraint Systems (CRS) have been installed using the safety belts already present in every vehicle.

Since September 1, 1999, CRS manufacturers have been providing tether straps that attach the top of the CRS to the vehicle's structure on most of their forward-facing systems in order to comply with U.S. Federal regulations for CRS performance in a crash. Vehicle manufacturers were required to phase-in tether anchorages for attachment of the tether strap in their U.S. vehicles beginning September 1, 1999.

The combination of the tether anchorages and the lower anchorages is now generally called the LATCH system for "Lower Anchor and Tether for Children".

(The term "ISOFIX" regarding lower anchorages had been used by Volkswagen and other manufacturers in the past, but LATCH is now the standard name for the new child restraint anchorage system.)

Some CRS manufacturers have been providing tether straps on certain models of their CRSs, either as standard equipment or as a retrofit, for several years. Check with the manufacturer of the CRS for tether strap availability.

To provide a simpler and more practicable way to attach the CRS on the vehicle seat, U.S. Federal regulations required the phase-in of lower anchorages in vehicles and devices on new CRSs to attach to the vehicle anchorages.

CRS manufacturers will probably offer two kinds of lower anchorages on their child seats

They could come with:

- hook-on or push-on connectors attached to adjustable straps or
- rigid latches on bars that extend out the back of the CRS and are released with release buttons at the bottom of the CRS.

In addition to the LATCH lower anchorages, both of these child restraint systems use tether straps to help keep the CRS firmly in place. ◀

⚠ WARNING (continued)

- If a tether or other strap is used to attach a child restraint to the front passenger seat, make sure that it is not so tight, that it causes the weight-sensing mat to measure more weight than is actually on the seat.

Using tethers on rear-facing CRSs

Currently, few rear-facing CRSs come with a tether. Please read and heed the CRS manufacturer's instructions carefully to determine how to properly install the tether.

⚠ WARNING

- A child in a rearward-facing child seat installed on the front passenger seat will be seriously injured and can be killed if the front airbag inflates - even with an Advanced Airbag System.
- The inflating airbag will hit the child seat or infant carrier with great force and will smash the child seat and child against the backrest, center arm rest, or door.
- A tight tether or other strap on a rearward-facing child restraint attached to the front passenger seat can put too much pressure on the

⚠ WARNING (continued)

- The heavier weight registered can make the system work as though an adult were on the seat and deploy the Advanced Airbag when it must be suppressed causing serious or even fatal injury to the child. ◀

⚠ WARNING (continued)

- weight-mat in the seat and register a heavier weight in the Advanced Airbag System. The heavier weight registered can make the Advanced Airbag System work as though an adult were on the seat and deploy the Advanced Airbag when it must be suppressed causing serious or even fatal injury to the child.
- If you must install a rearward facing child seat on the front passenger seat because of exceptional circumstances and the PASSENGER AIR BAG OFF light does not come on and stay on, immediately install the rear-facing child seat in a rear seating position and have the airbag system inspected by your Volkswagen dealer. ◀

How to install the upper tether strap to the anchorage.

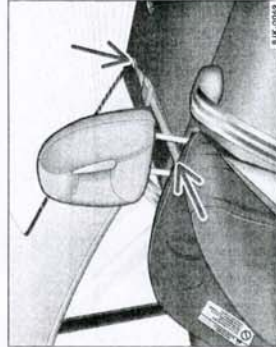


Fig. 35 Properly mounted tether strap

Installing the tether strap

- Release or deploy the tether strap on the child restraint according to the child restraint manufacturer's instructions.
- Guide the upper tether strap under the rear head restraint (raise the head restraint if necessary).
- Locate the tether anchor on top of the hat shelf.
- Attach the tether strap anchorage hook into the opening of the tether anchorage.
- Pull on the tether strap hook so that the spring catch of the hook is engaged. ▶

Adjusting head restraints ⇒ booklet 3.1, chapter "Seats and storage".

① Note

If you leave the child restraint with the tether strap firmly installed for several days, this could leave a mark on the upholstery on the seat cushion and backrest in the area where the tether strap was installed. The upholstery would also be permanently stretched around the tether strap. This applies especially to leather seats. ◀

Lower anchorages (Canada vehicles: lower universal anchorages bars)

Description

The LATCH lower anchorages for the rear outboard seating positions are welded into the vehicle at the factory.

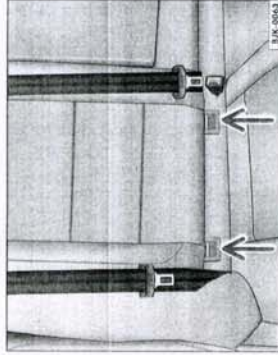


Fig. 36 Location of lower anchorages

The lower anchorage attachment points are located between the rear seatback and rear seat cushion ⇒ fig. 36.

Lower anchorages secure the CRS in the seat without using the vehicle's safety belts. Anchorages provide a secure and easy-to-use attachment and minimize the possibility of improper CRS installation.

All CRSs manufactured after September 1, 2002, must have lower anchorage attachments for the LATCH system.

However, some CRS manufacturers began to provide lower anchorages for the LATCH system in 2000 before the required date.

Remember that the lower anchorage points are only intended for installation and attachment of CRSs specifically certified for use with LATCH lower anchorages. CRSs that are not equipped with the lower anchorage attachments can still be installed according to the CRS manufacturer's instructions using vehicle safety belts.

⚠ WARNING

Improper installation of child restraints will increase the risk of injury in an accident.

- Never attach a child seat tether strap to a tie-down hook in the luggage compartment.
- Never secure or attach any luggage or other items to the LATCH lower anchorages or to the tether anchors. ◀

Mounting and releasing hook-on or push-on connectors of CRS that have connectors or other latches attached to adjustable straps

Mounting

- LATCH lower anchorage attachment points are on the vehicle body between the rear seatback and rear seat cushion

→page 67, Fig. 36.

Guide fixtures for LATCH lower anchorages

Guide fixtures permanently attached to the lower anchorages make it easier to install child restraint systems that have rigid latches on bars that extend out the back of the CRS or push-on connectors attached to adjustable straps.

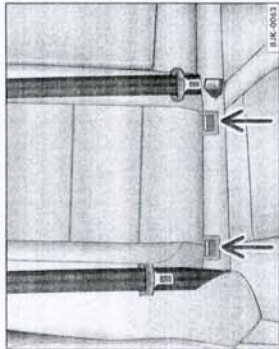


Fig. 37 Guide fixture for the lower anchorages installed in your Volkswagen

WARNING

- Improper use of tether anchorages or lower anchorages can cause serious personal injury in an accident.
- Always follow the CRS manufacturer's instructions for proper installation and use of child restraint systems.
- Never use the LATCH or tether anchorages to attach safety belts or other kinds of occupant restraints.
- CRS tether anchorages and the lower anchorages are only designed to secure a CRS

WARNING (continued)

vehicle safety belt to install the child restraint in the center seating position.

- Always read and heed all WARNINGS whenever using a child restrained in a vehicle is being used →page 13, "Safety belts", →page 27, "Airbag system" and →page 51, "Child safety".

Installing a CRS using the "LATCH" system

Whenever you install a CRS always refer to the CRS manufacturer's instructions.

There are two possibilities to attach a LATCH-CRS to the lower anchorages for the outboard seating position:

Hooks attached to adjustable straps (hook-on connectors)

- Make sure the seat back of the rear seat bench is in the upright position and securely latched in place.
- Press the hook-on connector with the spring catch release onto the lower anchorage so that the connector locks into place.
- Pull on the connector to make sure that it is properly attached to the lower anchorage.
- Attach both straps with hook-on connectors on the CRS securely to the lower anchorages.
- Pull straps tight following the CRS manufacturer's instructions.
- Release or deploy the child restraint tether strap.
- Guide the upper tether strap under the rear head restraint (raise the head restraint if necessary).
- Attach the tether strap anchorage hook into the opening of the tether anchorage.
- Pull on both sides of the CRS once you've mounted it to make certain it is secure and properly attached.

Rigid connectors on bars that extend from the back of the CRS:

- Make sure the seat back of the rear seat bench is in the upright position and securely latched in place.
- Attach the connectors onto the LATCH lower anchorages.
- Make sure you hear the CRS click securely into place.
- Release or deploy the child restraint tether strap.
- Guide the upper tether strap under the rear head restraint (raise the head restraint if necessary).
- Attach the tether strap anchorage hook into the opening of the tether anchorage.
- Pull on both sides of the CRS once you've mounted it to make certain it is secure and properly attached.

Releasing

- Release the lower latch from the LATCH lower anchorages following the CRS manufacturer's instructions.
- Release the tether strap.



Booklet 2.1 Safety first

Releasing

- Loosen the tension on the strap following the CRS manufacturer's instructions
- Depress the spring catch on the hook.
- Hold the spring catch in the depressed position.
- Move the hook in direction of the vehicle floor so that there is enough space to release the connector from the lower anchorage.
- Release the tether strap

WARNING

Improper use of the LATCH system can increase the risk of serious personal injury and death in an accident.

WARNING (continued)

- These anchors were developed solely for child seats using the "LATCH" system.
- Never attach other child seats, belts or other objects to these anchors.
- Always make sure that you hear a click when latching the seat in place. If you do not hear a click the seat is not secure and could fly forward and hit the interior of the vehicle, or be ejected from the vehicle.

WARNING

- Improper installation of child restraints will increase the risk of injury in an accident.
- Always follow the CRSs manufacturer's instructions for proper installation of the CRS and proper use of tether straps as well as the lower anchorages or safety belts in your vehicle.
 - Always read and heed the important information and WARNINGS about child safety and the installation of CRSs =page 51, "Child safety". ◀

Where can I get additional information about child restraints and their use?

There are a number of sources of additional information about CRS selection, installation and use:

NHTSA advises that the best child safety seat is the one that fits your child and fits in your vehicle, and that you will use correctly and consistently.

Try before you buy!

National Highway Traffic Safety Administration

Tel.: (888) DASH-2-1DOT
www.nhtsa.dot.gov

Program Professionals

Tel.: (734) 324-7550

www.programprofessionals.org

National SAFE KIDS Campaign

Tel.: (202) 662-0600

www.safekids.org

Safety BeltSafe U.S.A

Tel.: (800) 745-SAFE (English)

Tel.: (800) 747-SANO (Spanish)

www.carseat.org

Volkswagen Customer CARE

Tel.: (800) 822-8987

Transport Canada

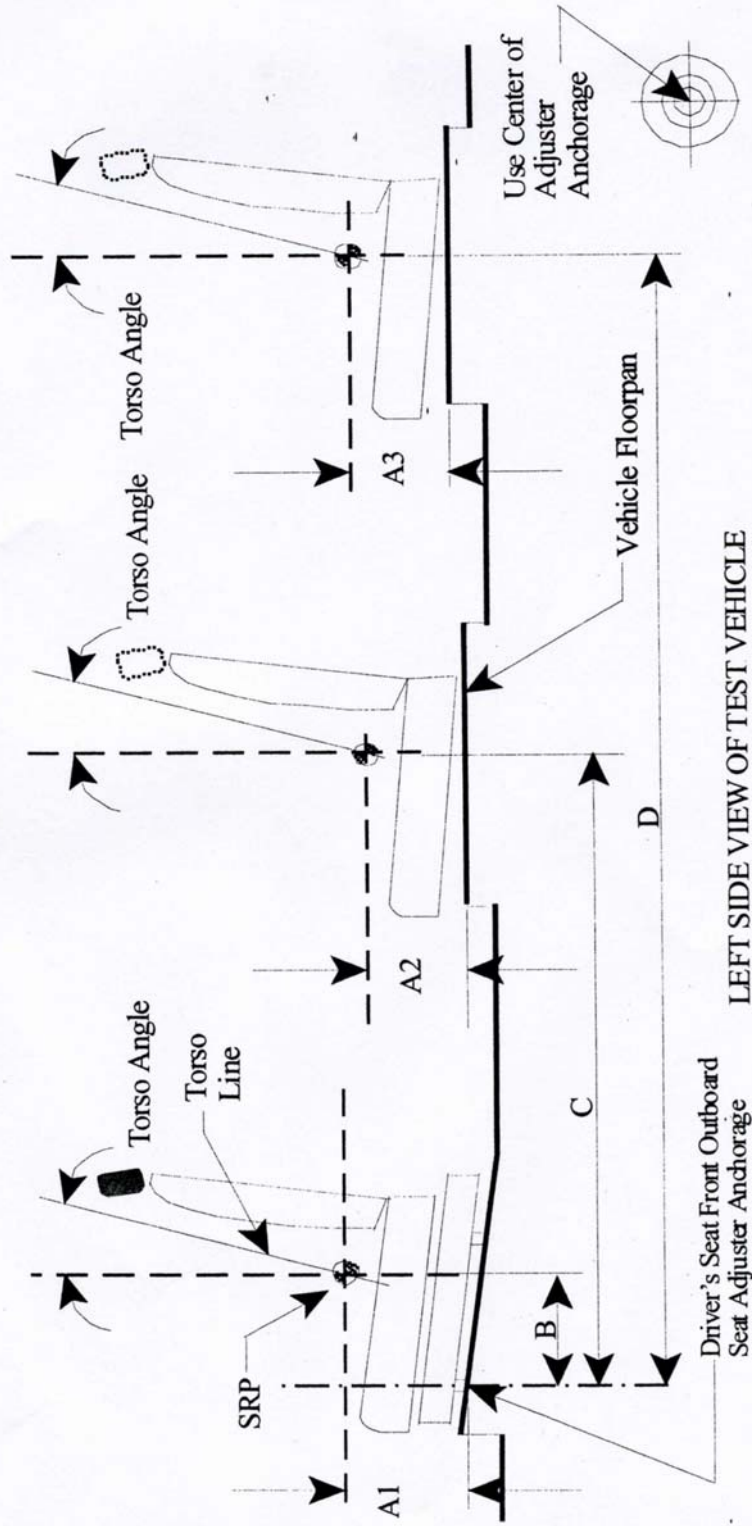
Tel.: (888) 675-6863

www.tc.gc.ca ◀

APPENDIX B
MANUFACTURER'S DATA

SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA
FOR FMVSS 225
(All dimensions in mm¹)

Model Year: 2006; Make: Volkswagen; Model: Jetta; Body Style: Sedan
Seat Style: Standard; Second row: Bench; Third row: _____



LEFT SIDE VIEW OF TEST VEHICLE

Table 1. Seating Positions¹ and Torso Angles

	Left (Driver Side)	Center (if any)	Right
A1	(Driver) 205.2	---	(Front Passenger) 205.2
A2	105.4	137.4	105.4
A3	---	---	---
B	335.65	---	335.65
C	1138.65	1093.65	1138.65
D	---	---	---
Torso Angle (degree)	Front Row	---	25°
	Second Row	24°	25°
	Third Row	---	---

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

SEATING REFERENCE POINT
 FOR FMVSS 225
 (All dimensions in mm)

Model Year: 2006; Make: Volkswagen; Model: Jetta; Body Style: Sedan
 Seat Style: Front row: Standard; Second row: Bench; Third row:

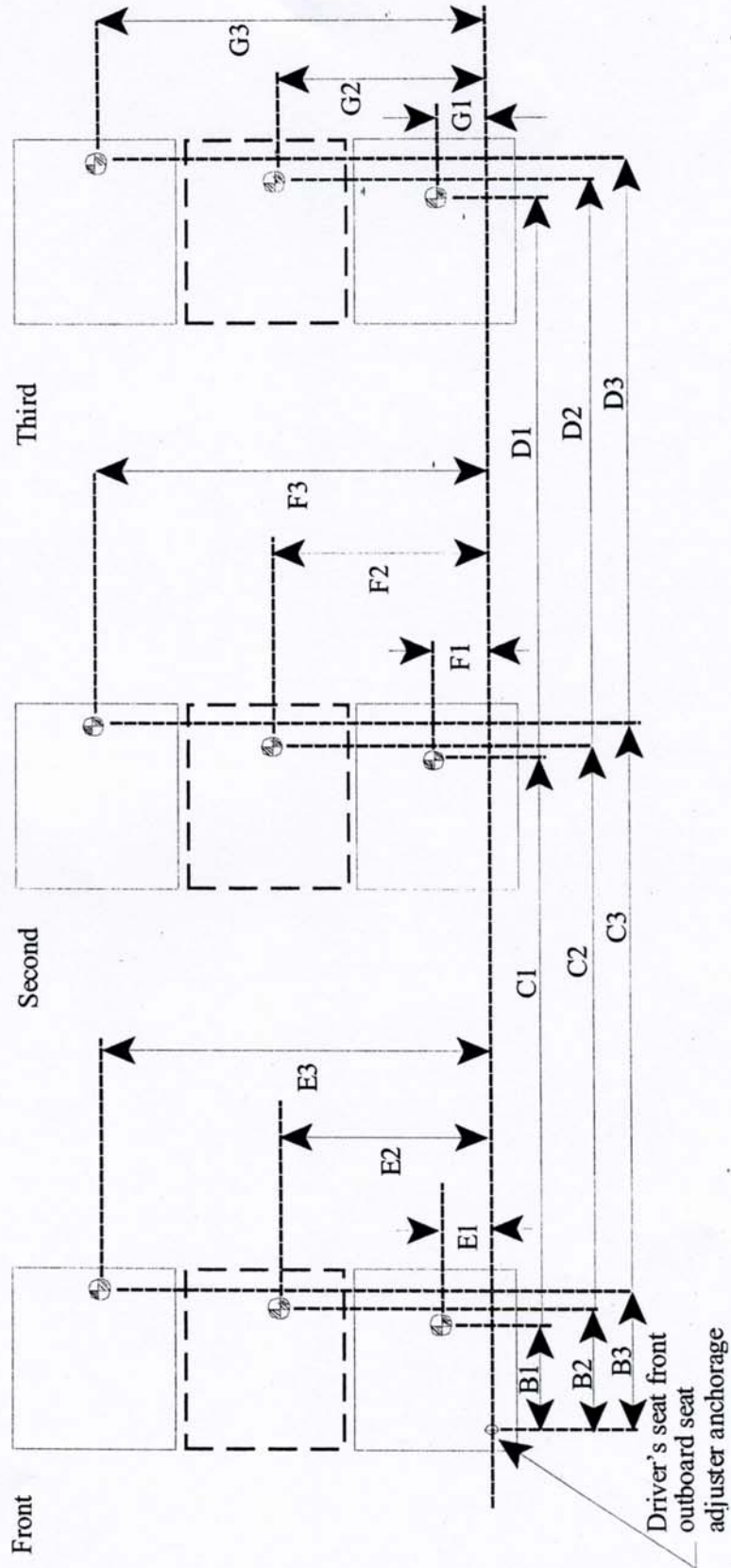


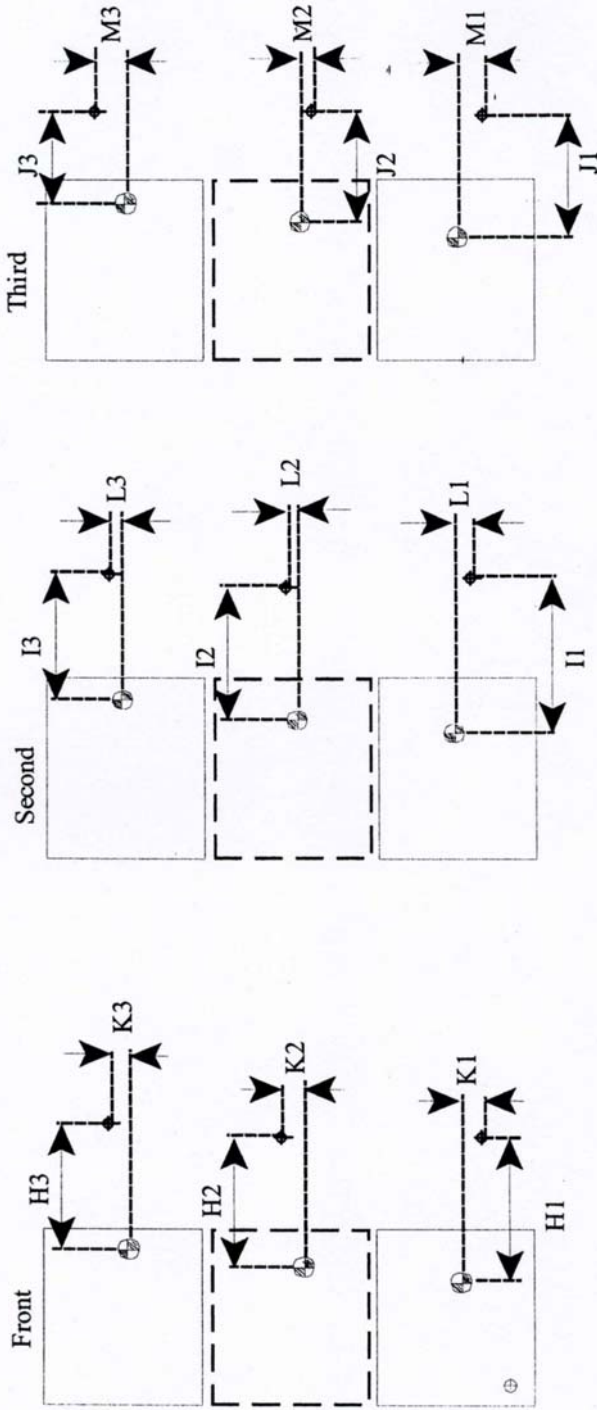
Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage ¹
Front Row	B1	335.65
	E1	270
	B2	---
	E2	---
	B3	335.65
	E3	960
Second Row	C1	1138.65
	F1	265
	C2	1093.65
	F2	615
	C3	1138.65
	F3	965
Third Row	D1	---
	G1	---
	D2	---
	G2	---
	D3	---
	G3	---

Note: 1. Use the center of anchorage.

**TETHER ANCHORAGE LOCATIONS
 FOR FMVSS 225**
 (All dimensions in mm)

Model Year: 2006; Make: Volkswagen; Model: Jetta; Body Style: Sedan
 Seat Style: Front row: Standard; Second row: Bench; Third row:



- ⊕: SRP
- ◆: Tether anchorage

Note: 1. The location shall be measured at the center of the bar.

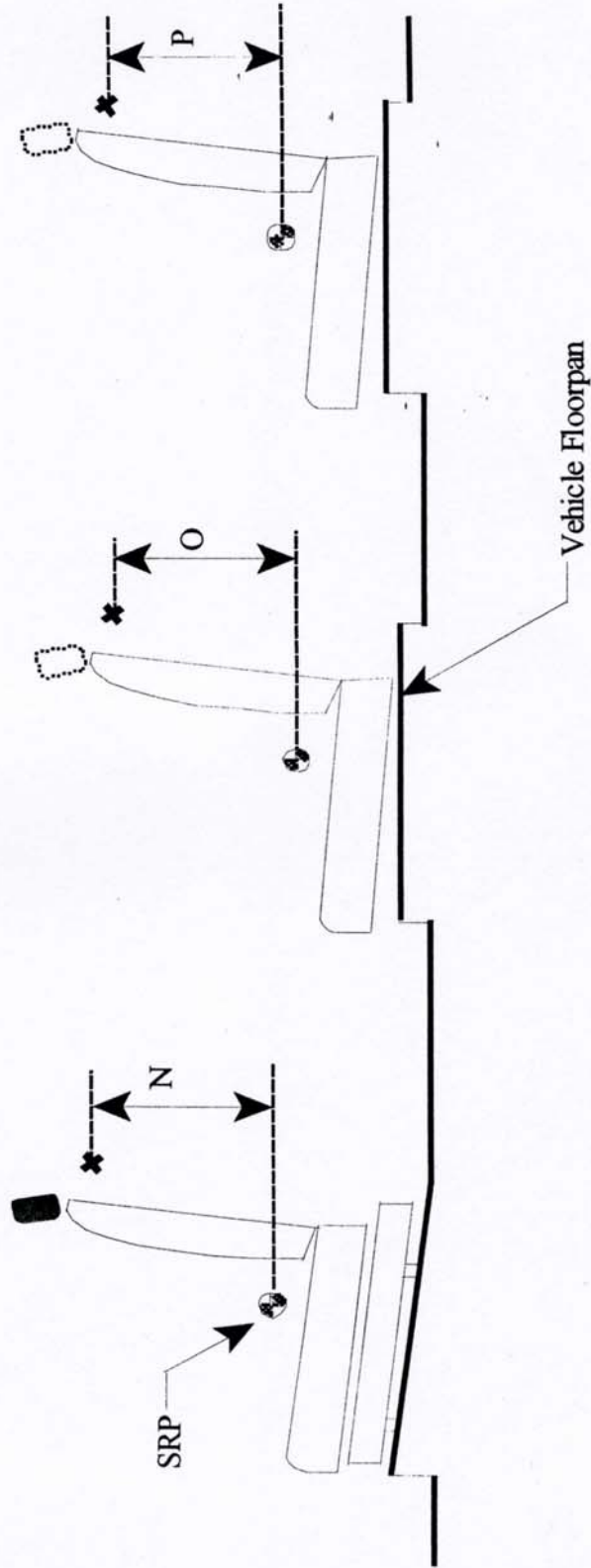
Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	---
	K1	---
	H2	---
	K2	---
	H3	---
	K3	---
Second Row	I1	581.0
	L1	4.0
	I2	626.0
	L2	0.0
	I3	581.0
	L3	4.0
Third Row	J1	---
	M1	---
	J2	---
	M2	---
	J3	---
	M3	---

Note: 1. Use the center of anchorage.

TETHER ANCHORAGE LOCATIONS - VERTICAL
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2006; Make: Volkswagen ; Model: Jetta ; Body Style: Sedan
Seat Style: Front row: ___Standard___; Second row: ___Bench___; Third row: _____



LEFT SIDE VIEW OF TEST VEHICLE

Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference Point	
Front Row	N1 (Driver)	N/A
	N2 (Center)	---
	N3 (Right)	---
Second Row	O1 (Left)	533.6
	O2 (Center)	501.6
	O3 (Right)	533.6
Third Row	P1 (Left)	---
	P2 (Center)	---
	P3 (Right)	---

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

For each vehicle, provide the following information:

1. **How many designated seating positions exist in the vehicle?**
Five (5) designated seating positions.
2. **How many designated seating positions are equipped with lower anchorages and tether anchorages? Specify which position(s).**
Two rear (second row) outboard seating positions are equipped with lower anchorages and tether anchorages.
3. **How many designated seating positions are equipped with tether anchorages? Specify which position(s).**
All seating positions in the second row (left, center and right) are equipped with tether anchorages.
4. **Lower Anchorage Marking and Conspicuity:** Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS 225.
The anchorage are certified to S9.5(b) of FMVSS 225.