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V4232

Report Number: 208S-TRC-02-007

Vehicle Safety Compliance Testing for FMVSS 208
for Occupant Crash Protection
Sled Test

Nissan Motor Co. Ltd.
2002 Nissan Xterra
NHTSA Number: C25201
TRC Inc. Test Number: S020425

Transportation Research Center Inc.
10820 State Route 347
East Liberty, OH 43319



Test Date: April 25, 2002
Report Date: May 7, 2002

Final Report

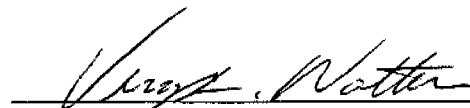
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National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Safety Compliance (NSA-30)
400 Seventh Street, S.W., Room No. 6115
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Date 5/6/02

Final Report Accepted By:


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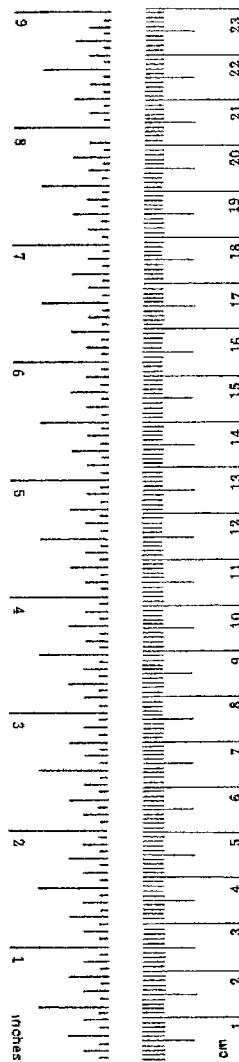
Date 6/11/02

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

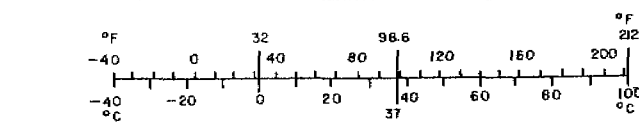
Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

1 in. = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 236 Units of Weights and Measures. Price \$2.25. SD Catalog No. CT3 10 286



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10 000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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16. Abstract An FMVSS 208 Section 13 compliance sled test was conducted on a 2002 Nissan Xterra MPV, NHTSA No C25201, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No TP208S-01 for the determination of FMVSS 208 compliance Possible test failures identified were as follows None			
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Purpose

This Federal Motor Vehicle safety Standard (FMVSS) 208 compliance sled test is part of the FMVSS compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by the Transportation Research Center Inc. (TRC Inc.) under Contract No. DTNH22-98-D-01055. The purpose of this test was to determine if the subject vehicle, a 2002 Nissan Xterra MPV, NHTSA No.C25201, meets the performance requirements of FMVSS 208, "Occupant Crash Protection," in the impact simulation sled test mode.

Test Procedure

This test was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure No. TP-208S-01, dated January 15, 1998. Data was obtained relative to FMVSS 208, "Occupant Crash Protection," performance.

The sled test vehicle was instrumented with four (4) accelerometers to measure longitudinal accelerations. The sled was instrumented with one (1) longitudinal accelerometer, which is prefiltered with an analog filter to 200 Hz as an integral part of the sled firing circuit, and two (2) additional accelerometers: the primary accelerometer for pulse and integrated velocity determination and a backup accelerometer. In addition, the sled was instrumented with one (1) light trap to measure velocity and four (4) airbag firing timing circuits.

The sled test vehicle contained two (2) Part 572 E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedure specified in Appendix B of the Laboratory Test Procedure. The dummies were not restrained by seat belts.

Both dummies were instrumented with head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations; chest deflection potentiometers; left and right femur load cells to measure axial forces; and upper neck load cells to measure longitudinal, lateral, and vertical forces and moments.

The forty-four (44) data channels were digitally sampled at 12,500 samples per second and processed per Sections 11.7 through 11.9 of the Laboratory Test Procedure.

The sled test event was recorded by one (1) real-time motion picture camera and six (6) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.

Test Results Summary

This FMVSS 208 compliance sled test was conducted by TRC Inc. on April 25, 2002.

The test vehicle, a 2002 Nissan Xterra MPV, NHTSA No. C25201, does appear to comply with the performance requirements of FMVSS 208 in the impact simulation sled test mode as measured by Hybrid III 50th percentile male dummies.

	FMVSS 208 Max. Allowable Injury Assessment Values	Driver	Passenger
HIC	1000	289	278
Chest g	60 g	37.5	32.6
Chest Displacement	3 inches	1.8	0.7
Left Femur	2250 lbs	1063	924
Right Femur	2250 lbs	708	1016
Neck Extension	57 Nm	45.3	22.1
Neck Flexion	190 Nm	21.6	30.5
Neck Tension	3300 N	1258	1440
Neck Compression	4000 N	3405	3127
Neck Shear	3100 N	836	705

The subject vehicle, a 2002 Nissan Xterra, NHTSA No. C25201, appears to meet the other FMVSS 208 requirements for which it was tested. These results are shown in the data sheets that are included in this report.

The sled test vehicle was equipped with air bags at the driver and passenger seating positions. The dummies were not restrained by seat belts. The sled carriage was accelerated to 17.3 g with an integrated velocity change of 29.3 mph. The primary stages of the airbags were triggered at 20.2 milliseconds after 0.5 g acceleration was measured by the firing circuit. The secondary stages of the airbags were triggered at 23.1 milliseconds after 0.5 g acceleration was measured by the firing circuit. Following subsequent digital data processing and filtering the acceleration signal to Channel Class 60, the primary stages airbag event trigger signal was 21.4 ms after the 0.5 g acceleration level was indicated and the secondary stages airbag event trigger signal was 24.3 ms after the 0.5 g acceleration level was indicated.

Data Acquisition Explanations

The left side angled camera viewing the driver airbag over the shoulder did not run. The malfunction was traced to a broken wire in the camera cable which has been replaced.

Post-test, real-time, documentary film is not available for this test.

Sled Test Summary

NHTSA number: C25201
Test type: Alternate FMVSS 208 Sled Test
Test date: 04/25/02
Test time: 1024
Ambient temperature at impact area: 70.2° F
Vehicle year/make/ model/body style: 2002/Nissan/Xterra/MPV

<u>Dummy Info:</u>	Driver #314	Front Passenger #339
Type:	H3 50th male	H3 50th male
Location:	Left front	Right front
Restraint:	Airbag, dual stage, supplemental	Airbag, dual stage, supplemental
Number of data channels:	15	15

Number of Cameras:

Real-time:	1
High-speed:	6

Door Opening Data:

Left Front:	Easy
Right Front:	Easy

Front Seat Data:

Seat track failure:	None	None
Seat back failure	None	None

Visible Dummy Contact Points:

Head:	Airbag, windshield, visor, headliner	Airbag, windshield, visor, headliner
Chest:	None	Airbag
Left knee:	Bolster, column cover	Glove box
Right knee:	Bolster, column cover	Glove box

General Test and Vehicle Parameter Data for the Sled Test Vehicle

Test Vehicle Information:

Vehicle year/make/
model/body style: 2002/Nissan/Xterra/MPV
Color: DW6 Alpine Green
VIN: 5N1DD28T32C534400
NHTSA number: C25201
Engine data:
Placement: Inline straight
Cylinders: 4
Displacement: 2.4 liters
Transmission data: 5 speed, X manual, ___ automatic, ___ overdrive
Final drive: ___ fwd, X rwd, ___ 4wd
Date vehicle received: 3/22/02
Odometer reading: 237
Dealer's name Ricart Nissan Inc.
and address: 4255 S. Hamilton Rd.
Columbus OH 43227

Major Options:

Power steering	Yes	Other: 4 wheel ABS; front belts w/pretensioners and load limiters; latch system; utility package; center console
Power brakes	Yes	
Power windows	No	
Air conditioning	Yes	
Power door locks	No	

Remarks:

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Data from Vehicle's Certification Label:

Vehicle manufactured by:	Nissan Motor Co. LTD
Date of manufacture:	11/01
VIN:	5N1DD28T32C534400
GVWR:	5000 lbs
GAWR: Front:	2740 lbs
Rear:	2850 lbs

Data from Vehicle's Tire Placard:

Tire pressure with maximum capacity vehicle load:

Front:	35 psi
--------	--------

Rear:	35 psi
-------	--------

Recommended tire size:	P265/70R15
------------------------	------------

Load range:	N/A
-------------	-----

Recommended cold tire pressure:

Front:	30 psi
--------	--------

Rear:	30 psi
-------	--------

Size of tires on vehicle:	P265/70R15
---------------------------	------------

Spare tire:	P265/70R15
-------------	------------

Vehicle capacity data (from count of seat belts):

Type of front seats:	Bucket
----------------------	--------

Number of occupants:

Front	2
-------	---

Rear	3
------	---

Total	5
-------	---

Remarks:

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Weight of test vehicle as received (with maximum fluids):

Right front	952.8 lbs	Right rear	887.1 lbs
Left front	960.3 lbs	Left rear	820.1 lbs
Total front weight	1913.1 lbs	(52.8% of total vehicle weight)	
Total rear weight	1707.2 lbs	(47.2% of total vehicle weight)	
Total delivered weight	3620.3 lbs		

Calculation of test vehicle's target test weight:

RCLW¹ = Rated Cargo and Luggage Weight

UDW = Unloaded Delivered Weight (3620.3 lbs)

DSC = Designated Seating Capacity (5)

RCLW¹ = GVWR - UDW - 150(DSC) = 629.7 lbs > 300 lbs

Target test weight = UDW + RCLW + (Number of Hybrid III dummies x 167 lbs per dummy)

Target test weight = 3620.3 + 300 + 334 = 4254.3 lbs

Weight of test vehicle with two dummies and 300.1 lbs of cargo weight:

Right front	1035.7 lbs	Right rear	1112.0 lbs
Left front	1048.5 lbs	Left rear	1058.2 lbs
Total front weight	2084.2 lbs	(49.0% of total vehicle weight)	
Total rear weight	2170.2 lbs	(51.0% of total vehicle weight)	
Total test weight	4254.4 lbs		

Remarks:

Weight of ballast secured in vehicle cargo area: None

Components removed to meet target test weight: N/A

¹ RCLW is set at a maximum of 300 lbs for target test weight determination.

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Test Vehicle Attitude:

As delivered door sill angle: 2.2° Nose Down

As tested door sill angle: 2.1° Nose Down

Fully loaded door sill angle: 1.6° Nose Down

Vehicle Wheelbase: 104.3 inches

Fuel System Data:

Fuel system capacity from owner's manual: 19.4 gallons

Useable capacity figure furnished by COTR: 19.4 gallons

Remarks: The roll angle measurements were within 1 inch of each other.

The left and right side measurements were both 34.4 inches.

Post-Impact Data

Test number: S020425
NHTSA number: C25201
Test date: 04/25/02
Test time: 1024
Test type: Alternate FMVSS 208 Sled Test
Impact angle: 0°
Ambient temperature
at impact area: 70.2° F
Temperature in
occupant compartment: 70.4° F

Sled carriage velocity:

Integrated velocity from the integration of the entire sled acceleration: 29.3 mph
Measured velocity from the light trap device attached to the sled (backup): 28.5 mph
Specified integrated velocity range: 28 to 30 mph

Sled carriage acceleration:

Acceleration: 17.3 g
Specified acceleration range: 16.0 g - 18.2 g

Sled carriage acceleration duration:

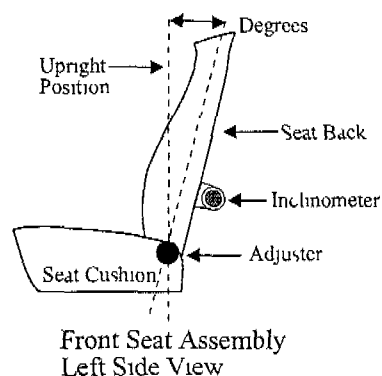
Time from T-0(-0.5 g) to 0.0 g: 124.7 ms
Specified acceleration duration: 120 - 130 ms

The sled acceleration curve was within the specified corridor.

Seat and Steering Column Positioning Data

Vehicle: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201



Nominal Design Riding Position.

- | | |
|----------------|--|
| Driver Seat. | Seat Back Angle = 14.7° measured on the head rest post. The seat was positioned per manufacturer's instructions by moving the seat to the 7 th position rearward of the full upright (or "zero") position. |
| Passenger Seat | Seat Back Angle = 14.4° measured on the head rest post. The seat was positioned per manufacturer's instructions by moving the seat to the 7 th position rearward of the full upright (or "zero") position. |

Seat Fore and Aft Positions:

- | | |
|-------------|---|
| Driver Seat | Mid position - manual adjustment. All latching positions were located and marked and the seat was placed in the center of 13 latching positions. This was the 7 th position counting the most forward as no 1. |
| Passenger | Mid position - manual adjustment. All latching positions were located and marked. The seat was placed in the next notch rearward of mid track for the 20 latching positions. This was the 11 th position counting the most forward as no 1. (There was no center latching position) |

Steering Column Adjustments:

The steering column was adjustable and was placed in the mid position by measuring the steering wheel angle at the full up and down positions, 26.6 and 23.2 degrees, respectively, and dividing this locus in half. The mid position steering wheel angle was 24.9 degrees and the column angle measured 24 degrees.

Dummy Measurement Data for Front Seat Occupants

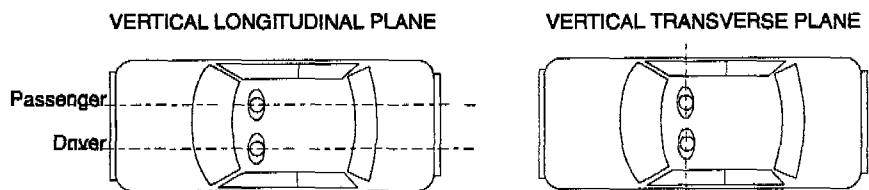
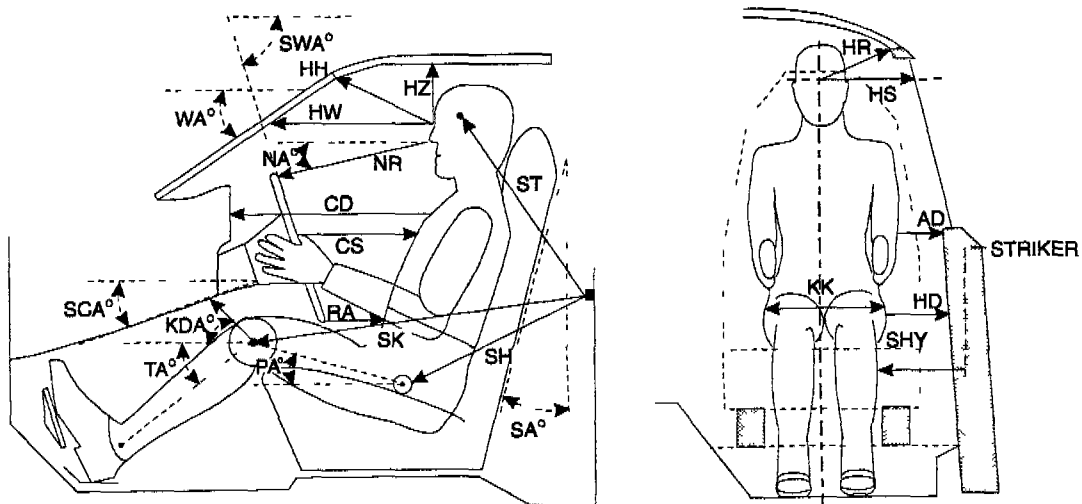
Designation	Type of Measurement	Driver (Serial #314)	Passenger (Serial #339)
WA	Windshield angle	35.4°	N/A
SWA	Steering wheel angle	24.9°	N/A
SCA	Steering column angle	24.0°	N/A
SA	Seat back angle	14.7°	14.4°
HZ	Head to roof	7.5 in	7.1 in
HH	Head to header	18.5 in	16.4 in
HW	Head to windshield	25.0 in	22.7 in
HR	Head to side header	9.4 in	9.6 in
NR	Nose to rim	18.3 in	N/A
NA	Nose to rim angle	14.0°	N/A
CD	Chest to dash	25.7 in	22.6 in
CS	Steering wheel to chest	12.9 in	N/A
RA	Rim to abdomen	9.0 in	N/A
KDL	Left knee to dash	9.2 in	7.2 in
KDR	Right knee to dash	8.8 in	7.4 in
KDA	Outboard knee to dash angle	12.0°	16.0°
PA	Pelvis angle	23.2°	22.3°
TA	Tibia angle	37.9°	41.2°
KK	Knee to knee	11.6 in	10.6 in
ST ¹	Striker to head	22.2 in	22.4 in
	Striker to head angle	84.9°	77.2°
SK ¹	Striker to knee	24.1 in	25.6 in
	Striker to knee angle	-6.2°	-3.2°
SH ¹	Striker to H-point	10.0 in	11.2 in
	Striker to H-point angle	18.3°	19.4°
SHY	Striker to H-point (Y dir.)	7.9 in	8.5 in
HS	Head to side window	12.4 in	12.9 in
HD	H-point to door	6.0 in	6.0 in
AD	Arm to door	4.1 in	4.4 in

The seat back angle (SA°) is measured relative to vertical.

All other angles are measured relative to horizontal.

¹ A negative angle indicates the measurement point was located below the striker.

Dummy Measurement Locations for Front Seat Occupants



Descriptions of Dummy Measurements

When a level is to be used, it is to ensure that the line containing the two points described is either parallel or perpendicular to the ground. If a measurement to be made is less than 10 inches ignore the directions to use a level and approximate a level measurement. Also, when a measurement is to be taken to or from the center of a bolt on the dummy, take the measurement from the center of the bolt hole if the bolt is recessed.

The following measurements are to be made within a vertical longitudinal plane.

- * HH Head to Header, taken from the point where the dummy's nose meets his forehead (between his eyes) to the furthest point forward on the header.
- * HW Head to Windshield, taken from the point where the dummy's nose meets his forehead (between his eyes) to a point on the windshield. Use a level.
- HZ Head to Roof, taken from the point where the dummy's nose meets his forehead (between his eyes) to the point on the roof directly above it. Use a level.
- * CS Steering Wheel to Chest, taken from the center of the steering wheel hub to the dummy's chest. Use a level.
- * CD Chest to Dash, place a tape measure on the tip of the dummy's chin and rotate five inches of it downward toward the dummy to the point of contact on the transverse center of the dummy's chest. Then measure from this point to the closest point on the dashboard either between the upper part of the steering wheel between the hub and the rim, or measure to the dashboard placing the tape measure above the rim, whichever is a shorter measurement. See diagram.
- RA Steering Wheel Rim to Abdomen, taken from the bottommost point of the steering wheel rim horizontally rearward to the dummy. Use a level.
- NR Nose to Rim, taken from the tip of the dummy's nose to the closest point on the top of the steering wheel rim. Also indicate the angle this line makes with respect to the horizontal (NA).

* Measurement used in Data Tape Reference Guide

Descriptions of Dummy Measurements, Cont'd.

*¹ KDL,
KDR Left and Right Knees to Dashboard, taken from the center of the knee pivot bolt's outer surface to the closest point forward acquired by swinging the tape measure in continually larger arcs until it contacts the dashboard. Also reference the angle of this measurement with respect to the horizontal for the outboard knee (KDA). See diagram.

SH,
SK,
ST Striker to Hip, Knee, and Head, these measurements are to be taken in the X-Z plane measured from the forward most center point on the striker to the center of the H-point, outer knee bolt, and head target. When taking this measurement a firm device that can be rigidly connected to the striker should be used. Use a level. The angles of these measurements with respect to the horizontal should also be recorded. The measurement in the Y (transverse) direction from the striker to the H-point should also be taken (SHY). See diagram.

The following measurements are to be made within a vertical transverse plane.

- HS Head to Side Window, taken from the point where the dummy's nose meets his forehead (between his eyes) to the outside of the side window. In order to make this measurement, roll the window down to the exact height which allows a level measurement. Use a level. See diagram.
- * AD Arm to Door, taken from the outer surface of the elbow pivot bolt on a Hybrid II dummy to the first point it hits on the door. In the case of a Hybrid III dummy, measure from the bolt on the outer biceps. When a SID is used make the measurement from the center of the bottom of the arm segment where it meets the dummy's torso.
- * HD H-point to Door, taken from the H-point on the dummy to the closest point on the door. Use a level.
- * HR Head to Side Header, measure the shortest distance from the point where the dummy's nose meets his forehead (between his eyes) to the side edge of the header just above the window frame, directly adjacent to the dummy.

* Measurement used in Data Tape Reference Guide

¹ Only outboard measurement is referenced in Data Tape Reference Guide

Descriptions of Dummy Measurements, Cont'd.

SHY Striker to H-point, taken from a rod rigidly connected to the forward most center point on the striker to the H-point. Use a level. See diagram.

KK Knee to Knee, for Hybrid II dummies measure the distance between knee pivot bolt head outer surfaces. For Hybrid III dummies measure the distance between the outboard knee clevis flange surfaces. (This measurement may not be exactly transverse.)

Angles

SA Seat Back Angle, find this angle using the instructions provided by the manufacturer. If the manufacturer doesn't provide clear instructions contact the COTR.

PA Pelvis or Femur Angle, taken by inserting the pelvic angle gauge into the H-point gauging hole on the SID or the Hybrid III dummies and taking this angle with respect to the horizontal. Measure the angle of the line connecting the H-point hole and the outer knee pivot bolt hole on a Hybrid II dummy with respect to the horizontal, to find the femur angle.

SWA Steering Wheel Angle, find this by placing a straight edge against the steering wheel rim along the longitudinal plane. Then measure the acute angle of the straight edge with respect to the horizontal.

SCA Steering Column Angle, measured with respect to the horizontal by placing an inclinometer on the center of the underside of the steering column.

NA Measure the angle made when taking the measurement NR with respect to the horizontal.

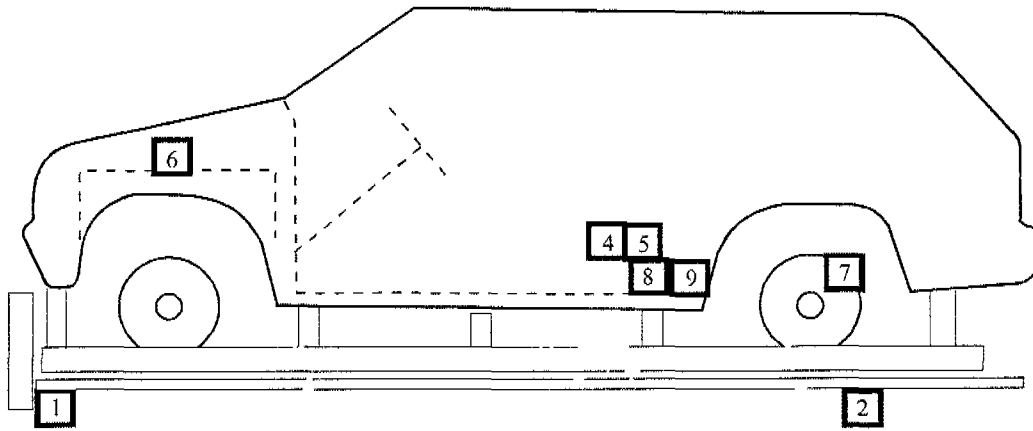
KDA Knee to Dash Angle, the angle that the measurement KD is taken at with respect to the horizontal. Only get this angle for the outboard knee. See diagram.

WA Windshield Angle, place an inclinometer along the transverse center of the windshield exterior (measurement is made with respect to horizontal).

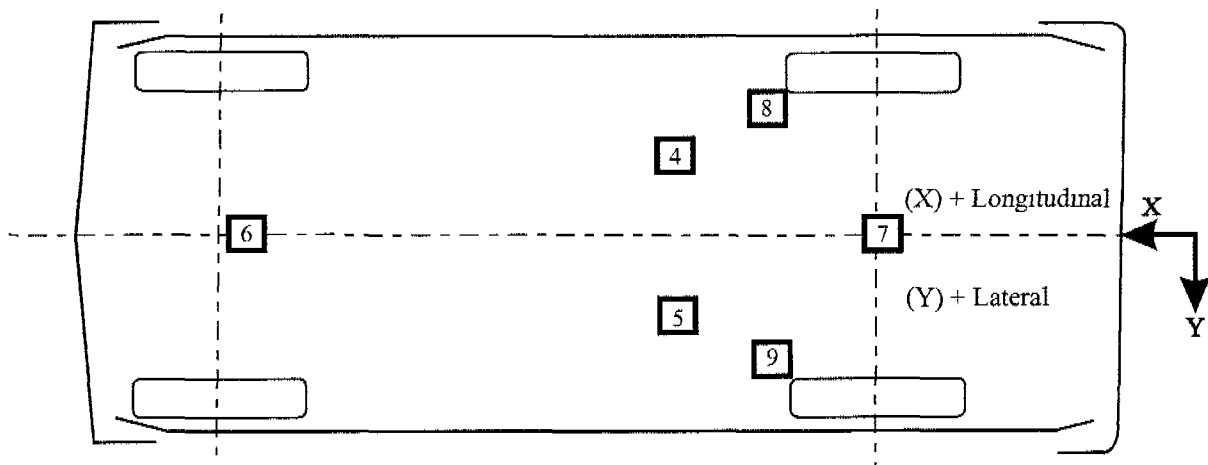
TA Tibia Angle, use a straight edge to connect the dummy's knee and ankle bolts. Then place an inclinometer on the straight edge and measure the angle with respect to the horizontal.

* Measurement used in Data Tape Reference Guide

Vehicle Accelerometer Placement



Side View



Bottom View

Vehicle Data Summary and Accelerometer Locations

TEST NUMBER: S020425
No. LOCATION

X

Y

Z

POSITIVE ¹
DIRECTION

NEGATIVE ¹
DIRECTION

1 SLED ACCELERATION PRIMARY	165.6 in	-1.0 in	NA	0.4 g @ 127.8 ms	17.3 g @ 55.4 ms
2 SLED ACCELERATION BACKUP REDUNDANT	165.6 in	-1.0 in	NA	0.5 g @ 127.8 ms	17.5 g @ 54.7 ms
3 SLED VELOCITY MEASURED INTEGRATED ²	NA	NA	NA	0.1 mph @ 7.1 ms --- ---	28.5 mph @ 125.4 ms 29.3 mph @ 124.5 ms
4 LEFT BODY AT REAR SEAT LONGITUDINAL	105.4 in	-19.1 in	NA	1.7 g @ 131.4 ms	18.2 g @ 60.8 ms
5 RIGHT BODY AT REAR SEAT LONGITUDINAL	104.8 in	16.5 in	NA	2.1 g @ 131.0 ms	17.8 g @ 57.1 ms
6 TOP ENGINE LONGITUDINAL	182.5 in	2.1 in	NA	2.5 g @ 133.0 ms	19.2 g @ 57.0 ms
7 REAR AXLE LONGITUDINAL	47.8 in	-0.6 in	NA	1.3 g @ 127.5 ms	17.3 g @ 54.0 ms
8 LEFT VEHICLE FRAME LONGITUDINAL	82.0 in	-24.8 in	NA	1.6 g @ 128.7 ms	17.6 g @ 58.3 ms

Vehicle Data Summary and Accelerometer Locations, Cont'd.

TEST NUMBER: S020425 No. LOCATION	X	Y	Z	POSITIVE ¹ DIRECTION	NEGATIVE ¹ DIRECTION
9 RIGHT VEHICLE FRAME LONGITUDINAL	81.5 in	24.8 in	NA	1.1 g @ 129.1 ms	18.8 g @ 55.8 ms
10 DRIVER AIRBAG EVENT	NA	NA	NA	1.0 volt @ 21.4 ms	--- ---
11 DRIVER SECONDARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 24.3 ms	--- ---
12 PASSENGER AIRBAG EVENT	NA	NA	NA	1.0 volt @ 21.4 ms	--- ---
13 PASSENGER SECONDARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 24.3 ms	--- ---

LOCATION REFERENCE: X: + FORWARD FROM VEHICLE REAR SURFACE
Y: + RIGHTWARD FROM SLED CARRIAGE CENTERLINE

¹ Sign Convention per SAEJ211 March 1995.

² No positive data in time frame of interest.

Motion Picture Camera Locations

Vehicle year/make/model/body style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Test Number: S020425

Camera Number	View	X	Camera Positions ¹ Y	Z	Camera Angle ²	Film Plane to Head Target	Camera Lens	Film Speed
1	Left side view offboard	93.0 in	310.7 in	52.3 in	-3.0°	293.5 in	10 mm	24 frames/s
2	Left side view wide	74.0 in	-72.8 in	53.8 in	-1.2°	56.2 in	8 mm	1015 frames/s
3	Left side view over shoulder	97.5 in	-50.6 in	66.6 in	-12.6°	37.0 in	8 mm	N/A ³ frames/s
4	Right side view wide	73.0 in	74.5 in	51.9 in	-0.1°	57.9 in	8 mm	1025 frames/s
5	Right side view over shoulder	100.0 in	49.5 in	65.9 in	-11.6°	38.0 in	8 mm	1000 frames/s
6	Front view - driver	27.2 in	-15.7 in	61.8 in	-7.1°	55.0 in	8 mm	1000 frames/s
7	Front view - passenger	28.2 in	15.5 in	61.2 in	-8.2°	52.4 in	8 mm	925 frames/s

¹ X: Film plane to front of sled

Y: Film plane to sled centerline

Z: Film plane to top of sled

² Angle: Film plane of camera downward from horizontal plane

³ Camera did not run

FMVSS 208 Occupant Injury Data

Vehicle: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Date: 04/25/02

Maximum Acceleration Values: (g) ¹	Driver Dummy #314	Passenger Dummy #339
Head Channel X	-71.2	-33.5
Head Channel Y	11.0	-55.1
Head Channel Z	36.4	63.2
HEAD RESULTANT	78.3	82.1
Chest Channel X	-33.5	-22.8
Chest Channel Y	3.4	-4.9
Chest Channel Z	22.1	25.3
CHEST RESULTANT	38.8	33.9

Head Injury Criteria (HIC) Values:

HIC	289	278
t ₁ = (ms)	112.72	106.00
t ₂ = (ms)	125.68	117.12

The maximum HIC time interval from t₁ to t₂ is 36 milliseconds.

Chest Injury Criteria (Clip) Values:

CLIP (g)	37.5	32.6
t ₁ = (ms)	115.175	109.270
t ₂ = (ms)	118.135	112.230
Chest Deflection (in)	1.8	0.7

¹ See convention per SAE J211, MAR 1995

FMVSS 208 Occupant Injury Data, Cont'd.

Vehicle: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Date: 04/25/02

Max. Compressive Femur Forces:	Driver Dummy #314	Passenger Dummy #339
Left Side (lbs)	1063	924
Right Side (lbs)	708	1016

Neck Injury Criteria:	Driver Dummy #314	Passenger Dummy #339
Peak Flexion Bending Moment (N-m)	21.6	30.5
Peak Extension Bending Moment (N-m)	45.3	22.1
Peak Axial Tension (N)	1258	1440
Peak Axial Compression (N)	3405	3127
Peak Positive X-axis Shear (N)	836	705
Peak Negative X-axis Shear (N)	641	463

FMVSS 208 Seat Belt Warning System Check

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Complete the following to determine which seat belt warning system option (S7.3(a)(1) or S7.3(a)(2)) is used. (Manufacturers may use either option.)

A. With occupant in driver's position and lap belt in stowed position and ignition switch placed in "Start/On" position:

A.1 S7.3(a)(1)

Time duration of audible warning signal = 5 seconds
(4 to 8 seconds)

Time duration of reminder light operation = remains on
(no less than 60 seconds)

A.2 S7.3(a)(2)

Time duration of audible warning signal = seconds
(4 to 8 seconds) (see 49 USCS @ 30124)

Time duration of reminder light operation = seconds
(4 to 8 seconds)

B. With occupant in driver's position and lap belt in use and the ignition switch placed in "Start/On" position:

B.1 S7.3(a)(1)

Time duration of audible warning signal = 0 seconds
(audible warning should not operate)

Time duration of reminder light operation = 0 seconds
(reminder light does not operate)

B.2 S7.3(a)(2)

Time duration of audible warning signal = seconds
(audible warning should not operate)

Time duration of reminder light operation = seconds
(4 to 8 seconds)

C. Note wording of visual warning:

Fasten Seat Belt

Fasten Belt

Symbol 101



FMVSS 208 Readiness Indicator

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement (11/8/94 legal interpretation).

Is the system totally mechanical?

☐ Yes;

☒ No

Describe the location of the readiness indicator: Right Side of Instrumentation Panel

Is the readiness indicator clearly visible to the driver? ☒ Yes;

☐ No

Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided?

☒ Yes;

☐ No

FMVSS 208 Air Bag Labels

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

1. Air Bag Maintenance Label and Owner's Manual Instructions:

1.1 Does the manufacturer recommend periodic maintenance or replacement of the air bag? ☐ Yes (Go to 1.2)

☒ No (Go to 2)

1.2 Does the Vehicle have a maintenance or replacement label?

☐ Yes-Pass

☐ No-Fail

1.3 Does the label contain one of the following?

☐ Yes-Pass

☐ No-Fail

☐ Schedule on label specifies month and year

☐ Schedule on label specifies vehicle mileage

☐ Schedule on label specifies interval measured from date on certification label

1.4 Is the label permanently affixed within the passenger compartment?

☐ Yes-Pass

☐ No-Fail

1.5 Is the label lettered in English?

☐ Yes-Pass

☐ No-Fail

1.6 Is the label in block capitals and numerals?

☐ Yes-Pass

☐ No-Fail

1.7 Are the letters and numerals at least 3/32 inch high?

☐ Yes-Pass

☐ No-Fail

1.8 Does the owner's manual set forth the recommended schedule for maintenance or replacement?

☐ Yes-Pass

☐ No-Fail

2. Does the owner's manual: (S4.5.1 (f))

2.1 Include a description of the vehicle's air bag system in an easily understandable format? ☒ Yes ☐ No-Fail

2.2 Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating positions? ☒ Yes ☐ No-Fail

FMVSS 208 Air Bag Labels, Cont'd.

SUN VISOR LABEL VISIBLE WHEN VISOR IS IN DOWN POSITION
LABEL OUTLINE, VERTICAL AND HORIZONTAL LINE BLACK

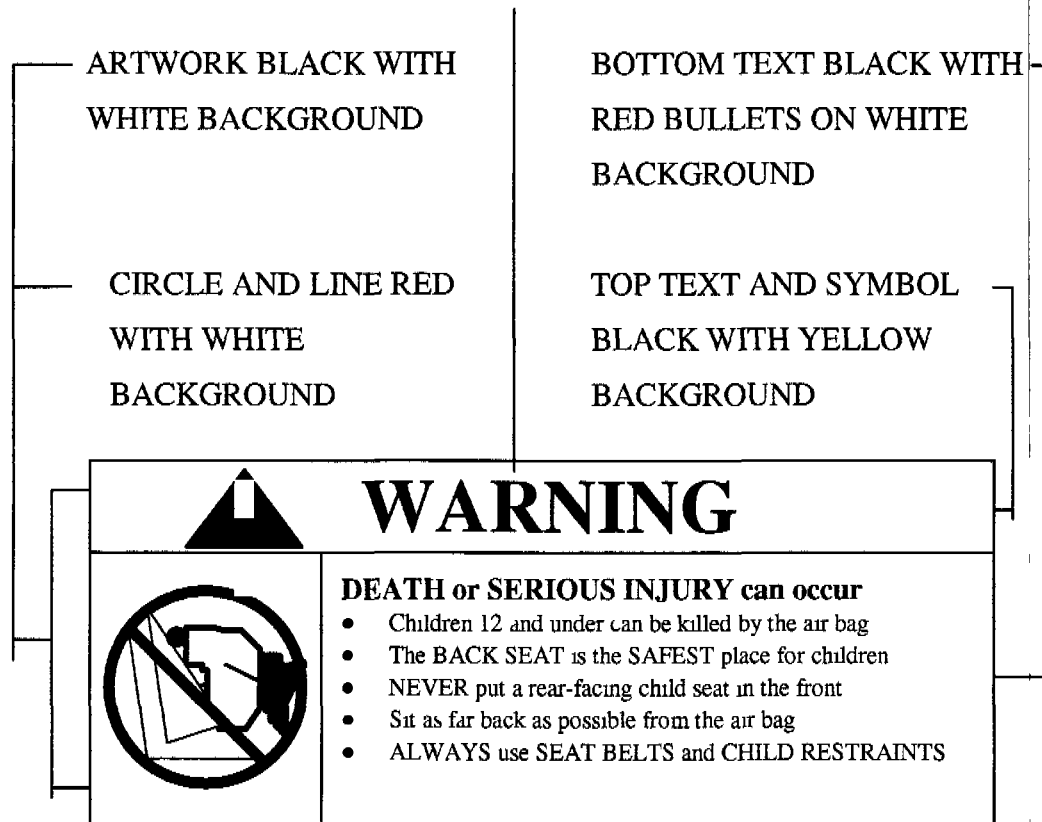


Figure 6a
(S4 5 1(b)(2))

FMVSS 208 Air Bag Labels, Cont'd.

SUN VISOR LABEL VISIBLE WHEN VISOR IS IN DOWN POSITION

LABEL OUTLINE, VERTICAL AND HORIZONTAL LINE BLACK

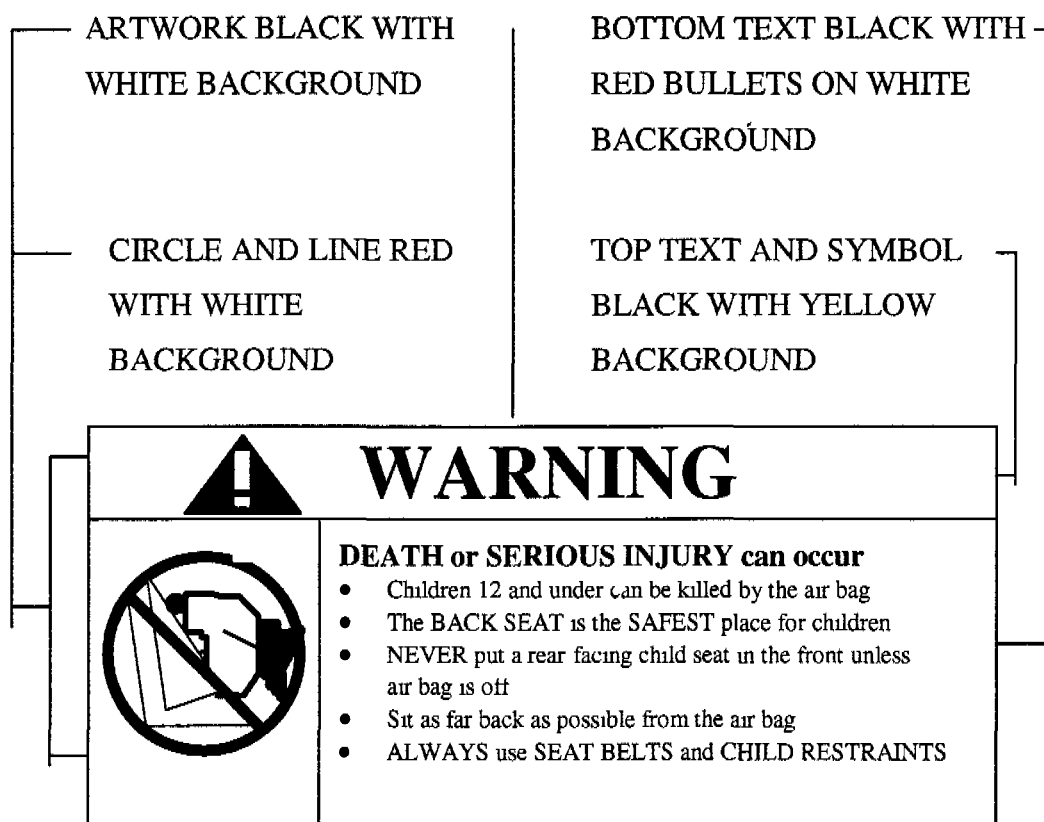


Figure 6b
(S4 5 1(b)(2))

4.3 Is the driver side label heading area yellow with the word "warning" and the alert symbol in black? (S4.5.1.(b)(2)(i))

Driver side ☒ Yes-Pass ☐ No-Fail

Passenger side ☒ Yes-Pass ☐ No-Fail

4.4 Is the message white with black text? (S4.5.1 (b)(2)(ii))

Driver side ☒ Yes-Pass ☐ No-Fail

Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail

4.5 Is the message area at least 30 cm²? (S4.5.1(b)(2)(ii))

Actual message area, driver side 42 cm²

Actual message area, passenger side 42 cm²

Driver side ☒ Yes-Pass ☐ No-Fail

Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail

FMVSS 208 Air Bag Labels, Cont'd.

- 4.6 Is the pictogram black with a red circle and slash on a white background?
(S4.5.1(b)(2)(iii)) & (S4.5.1(b)(2)(iv))
For vehicles with driver side air bag ONLY ☐ N/A
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.7 Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii))
Actual diameter, driver side 30 mm
Actual diameter, passenger side 30 mm
For vehicles with driver side air bag ONLY ☐ N/A
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.8 Is the same side of the sun visor to which the sun visor label is affixed free of other information with the exception of an air bag maintenance label? (S4.5.1(b)(3)) and/or a rollover warning label specified in 49CFR Part 575 (S575.105)?
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.9 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label or the utility vehicle label?
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
5. Air Bag Alert Label
- 5.1 Is the Sun Visor Warning Label visible when the sun visor is in the stowed position?
- Driver ☒ Yes ☐ No
- Passenger ☒ Yes ☐ No
- If yes, go to 6**
- 5.2 Does the label conform in content to the label shown in Figure 6c? (S4.5.1(c)(2)) ☐ Yes-Pass ☐ No-Fail

Circle and Line Red
with White
Background

Artwork Black with
White Background

Text Yellow with
Black Background

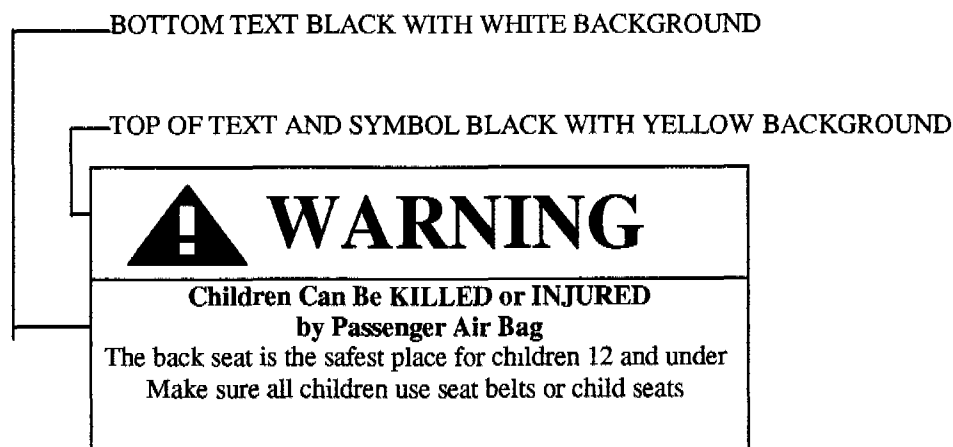
Figure 6c
(S4.5.1(c)(2))



FMVSS 208 Air Bag Labels, Cont'd.

- 5.3 Is the message area black with yellow text? (S4.5.1(c)(2)(i))
☐ Yes-Pass ☐ No-Fail
- 5.4 Is the message area at least 20 cm²? (S4.5.1(c)(2)(i))
Actual message area N/A cm² ☐ Yes-Pass ☐ No-Fail
- 5.5 Is the pictogram black with a red circle and slash on a white background?
(S4.5.1(c)(2)(ii))
For vehicles with driver side air bag ONLY ☒ N/A
☐ Yes-Pass ☐ No-Fail
- 5.6 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2)(ii))
Actual diameter is N/A mm
For vehicles with driver side air bag ONLY ☒ N/A
☐ Yes-Pass ☐ No-Fail
6. Label On the Dash
- 6.1 Does the vehicle have a passenger air bag?
☒ Yes ☐ No
- If no, this checklist is complete.**
- 6.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e))
☒ Yes-Pass ☐ No-Fail
- 6.3 Does the label conform in content (vehicles without back seats may omit the statement: "The back seat is the safest place for children 12 and under.") (S4.5.1(e)(iii)) to the label shown in Figure 7? (S4.5.1(e))
☒ Yes-Pass ☐ No-Fail

Figure 7
(S4 5.1(e))



FMVSS 208 Lap Belt Lockability

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic retractors. (S7.1.1.5(c))

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Front

- ☒ 1. Record test seat position: Mid (first latching position to the rear of center track) (S7.1.1.5(c)(1)) (Any position is acceptable.)
- ☒ 2. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒ 3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature (S7.1.1.5(c)(1))
- ☒ 4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part to the vehicle? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?

If yes, go to 6.1. If no, go to 7.

☒ Yes

☐ No

- 6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) ☒ Yes-Pass ☐ No-Fail

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Front

- ☒7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))
- ☒10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) Measured distance between A and B 52.8 inches.
- ☒11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4)) Measured force application angle 10 degrees. (Spec. 5~15 degrees)
- ☒13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4)) Measured distance between A and B 28.3 inches.

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Front

- ☒ 14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate 25 lbs/sec (spec. 10 ~50 lb/sec)

The measured distance between A and B is 28.9 inches (S7.1.1.5(c)(6))

- ☒ 15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5 (c)(7))

14-13= 0.6 inches

☒ Yes-Pass

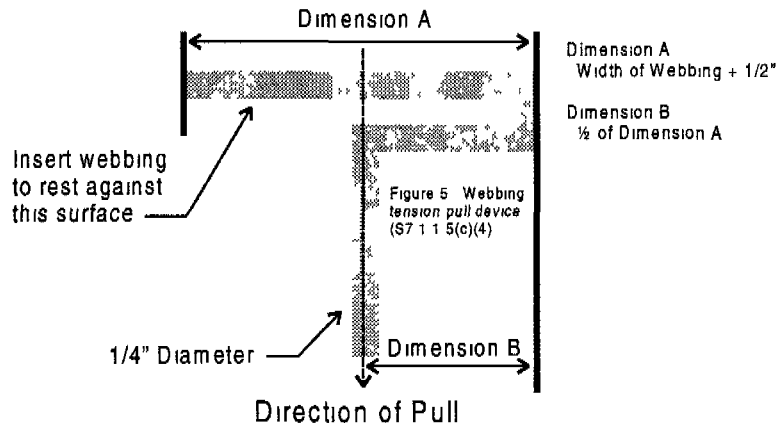
☐ No-Fail

- ☒ 16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

10-14= 23.9 inches.

☒ Yes-Pass

☐ No-Fail



FMVSS 208 Lap Belt Lockability

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic retractors. (S7.1.1.5(c))

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Rear

- ☒ 1. Record test seat position: Fixed
(S7.1.1.5(c)(1)) (Any position is acceptable.)
- ☒ 2. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒ 3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))
- ☒ 4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part to the vehicle? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?

If yes, go to 6.1. If no, go to 7.

☐ Yes

☒ No

- 6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) ☐ Yes-Pass ☐ No-Fail

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Rear

- ☒7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))
- ☒10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) Measured distance between A and B 61.6 inches.
- ☒11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4)) Measured force application angle 10 degrees. (Spec. 5~15 degrees)
- ☒13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4)) Measured distance between A and B 15.0 inches.

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Right Rear

- ☒ 14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing (S7.1.1.5(c)(5))

Record onset rate 25 lbs/sec (spec. 10 ~50 lb/sec)

The measured distance between A and B is 15.4 inches (S7.1.1.5(c)(6))

- ☒ 15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5 (c)(7))

14-13= 0.4 inches

☒ Yes-Pass

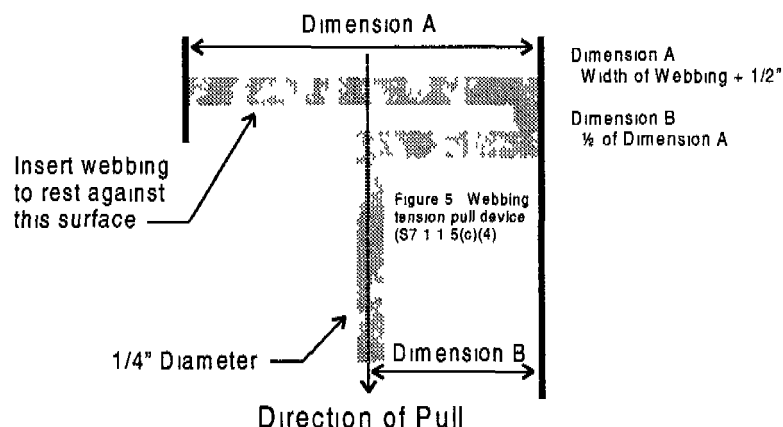
☐ No-Fail

- ☒ 16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

10-14= 46.2 inches.

☒ Yes-Pass

☐ No-Fail



FMVSS 208 Lap Belt Lockability

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic retractors. (S7.1.1.5(c))

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Left Rear

- ☒ 1. Record test seat position: Fixed
(S7.1.1.5(c)(1)) (Any position is acceptable.)
- ☒ 2. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒ 3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))
- ☒ 4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part to the vehicle? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒ 6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?

If yes, go to 6.1. If no, go to 7.

☐ Yes

☒ No

- 6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) ☐ Yes-Pass ☐ No-Fail

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Left Rear

- ☒ 7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒ 8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ 9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))
- ☒ 10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) Measured distance between A and B **61.6** inches.
- ☒ 11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4)) Measured force application angle **10** degrees. (Spec. 5~15 degrees)
- ☒ 13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4)) Measured distance between A and B **15.0** inches.

FMVSS 208 Lap Belt Lockability, Cont'd.

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

NHTSA No.: C25201

Technician: Steve Bell

Date: 04/09/02

Designated Seating Position: Left Rear

- ☒ 14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate 25 lbs/sec (spec. 10 ~50 lb/sec)

The measured distance between A and B is 15.4 inches (S7.1.1.5(c)(6))

- ☒ 15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5 (c)(7))

14-13= 0.4 inches

☒ Yes-Pass

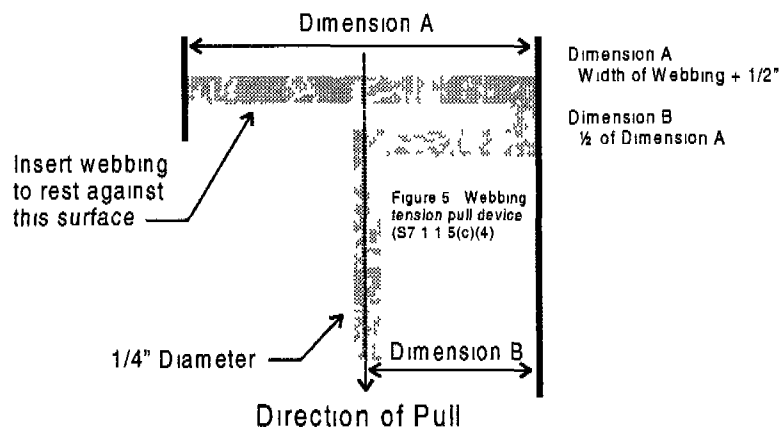
☐ No-Fail

- ☒ 16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

10-14= 46.2 inches.

☒ Yes-Pass

☐ No-Fail



FMVSS 208 Seat Belt Comfort And Convenience Test

Belt Contact Force (S7.4.3)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell/Glen Houdashelt

GVWR: 5000 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☒ Check
☐ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☒ Check
☐ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.

☒ Check
☐ N/A

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Belt Contact Force (S7.4.3)

6. Place each adjustable head restraint in its highest adjustment position.

☒ Check
☐ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10 8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds.

☒ 0.0 to 0.7 pounds - Pass
☐ greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

FMVSS 208 Seat Belt Comfort And Convenience Test

Belt Contact Force (S7.4.3)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell/Glen Houdashelt

GVWR: 5000 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☒ Check
☐ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☒ Check
☐ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.

☒ Check
☐ N/A

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.
Belt Contact Force (S7.4.3)

6. Place each adjustable head restraint in its highest adjustment position.

☒ Check
☐ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds.

☒ 0.0 to 0.7 pounds - Pass
☐ greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

FMVSS 208 Seat Belt Comfort And Convenience Test

Belt Contact Force (S7.4.3)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Rear

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell/Glen Houdashelt

GVWR: 5000 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☐ Check
☒ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☐ Check
☒ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.

☐ Check
☒ N/A

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Belt Contact Force (S7.4.3)

6. Place each adjustable head restraint in its highest adjustment position.

☐ Check
☒ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds

☒ 0.0 to 0.7 pounds - Pass
☐ greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

FMVSS 208 Seat Belt Comfort And Convenience Test

Belt Contact Force (S7.4.3)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Left Rear

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell/Glen Houdashelt

GVWR: 5000 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☐ Check
☒ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☐ Check
☒ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.

☐ Check
☒ N/A

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Belt Contact Force (S7.4.3)

6. Place each adjustable head restraint in its highest adjustment position.

☐ Check
☒ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds.

☒ 0.0 to 0.7 pounds - Pass
☐ greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Latchplate Access (S7.4.4)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Position the seat in its forward most adjustment position. ☒ Check
2. Position the test dummy using the procedures in Appendix B of the Laboratory Test Procedure. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position.) ☒ Check
3. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50th percentile adult male occupant. ☒ Check
4. Attach the inboard and outboard reach string following the instructions on Figure 1C of the Laboratory Test Procedure. ☒ Check
5. Place the latch plate in the stowed position. ☒ Check
6. Extend each line backward and outboard to generate arcs of the reach envelope of the test dummy's arms. Is the latchplate within the reach envelope?
☒ Yes-Pass; ☐ No-Fail
7. Using the clearance test block, specified in Figure 2C of the Laboratory Test Procedure, determine if there is sufficient clearance between the vehicle seat and the side of vehicle to allow the test block to move unhindered to the latchplate or buckle.
☒ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Latchplate Access (S7.4.4)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Position the seat in its forward most adjustment position. ☒ Check
2. Position the test dummy using the procedures in Appendix B of the Laboratory Test Procedure. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position.) ☒ Check
3. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50th percentile adult male occupant. ☒ Check
4. Attach the inboard and outboard reach string following the instructions on Figure 1C of the Laboratory Test Procedure. ☒ Check
5. Place the latch plate in the stowed position. ☒ Check
6. Extend each line backward and outboard to generate arcs of the reach envelope of the test dummy's arms. Is the latchplate within the reach envelope?
☒ Yes-Pass; ☐ No-Fail
7. Using the clearance test block, specified in Figure 2C of the Laboratory Test Procedure, determine if there is sufficient clearance between the vehicle seat and the side of vehicle to allow the test block to move unhindered to the latchplate or buckle.
☒ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Retraction (S7.4.5)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Is the vehicle a passenger car or walk-in van-type vehicle? ☐ Yes

☒ No

If yes, go to seat belt guides and hardware.

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2) ☒ Check

3. If separately adjustable in a vertical direction, the seats are at the lowest position. ☒ Check

4. Place any adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer. ☒ Check

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR. ☒ Check

6. Place each adjustable head restraint in its highest adjustment position. ☒ Check

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Retraction (S7.4.5)

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3) ☒ Check
8. Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B of the Laboratory Test Procedure. ☒ Check
9. Restrain the dummies using the belt systems for the position being tested. ☒ Check
10. Stow outboard armrests that are capable of being stowed. ☒ Check
11. Check the statement that applies to this test vehicle:
- (A) The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latchplate is released. ☒ Pass
- (B) The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latchplate is released. ☒ Pass
- (C) Neither A or B apply. ☐ Fail
12. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed? ☒ Yes-Pass; ☐ No-Fail
13. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated? ☒ N/A
☐ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Retraction (S7.4.5)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Is the vehicle a passenger car or walk-in van-type vehicle? ☐ Yes
☒ No

If yes, go to seat belt guides and hardware.

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2) ☒ Check
3. If separately adjustable in a vertical direction, the seats are at the lowest position. ☒ Check
4. Place any adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer. ☒ Check
5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR. ☒ Check
6. Place each adjustable head restraint in its highest adjustment position. ☒ Check

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Retraction (S7.4.5)

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3) ☒ Check
8. Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B. ☒ Check
9. Restrain the dummies using the belt systems for the position being tested. ☒ Check
10. Stow outboard armrests that are capable of being stowed. ☒ Check
11. Check the statement that applies to this test vehicle:
- (A) The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latchplate is released. ☒ Pass
- (B) The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latchplate is released. ☒ Pass
- (C) Neither A or B apply. ☐ Fail
12. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed? ☒ Yes-Pass; ☐ No-Fail
13. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated? ☒ N/A
☐ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Seat Belt Guides And Hardware (S7.4.6)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

- 1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?
☒ Yes: go to 2.
☐ No: this form is complete.
- 2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?
☒ Yes-Pass; ☐ No-Fail
- 3. Are the remaining two seat belt parts accessible under normal conditions?
☒ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Seat Belt Guides And Hardware (S7.4.6)

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:
- (A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.
☒ Check
- (B) The seat is moved to any position to which it is designed to be adjusted.
☒ Check
- (C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.
☒ Check
☒ Yes-Pass; ☐ No-Fail
5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?
☒ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Seat Belt Guides And Hardware (S7.4.6)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

- 1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?
☒ Yes: go to 2.
☐ No: this form is complete.
- 2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?
☒ Yes-Pass; ☐ No-Fail
- 3. Are the remaining two seat belt parts accessible under normal conditions?
☒ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Seat Belt Guides And Hardware (S7.4.6)

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.

☒ Check

(B) The seat is moved to any position to which it is designed to be adjusted.

☒ Check

(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.

☒ Check

☒ Yes-Pass;

☐ No-Fail

5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?

☒ Yes-Pass;

☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

Seat Belt Guides And Hardware (S7.4.6)

Test Vehicle NHTSA No.: C25201

Vehicle Model Year/Make/Model/Body Style: 2002/Nissan/Xterra/MPV

Designated Seating Position Tested: Right Rear, Center Rear, Left Rear – does not apply for
reason A below

Date of Comfort and Convenience Check: 04/09/02

Technician Performing Check: Steve Bell

GVWR: 5000 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?
☐ Yes: go to 2.
☐ No: this form is complete.
2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?
☐ Yes-Pass; ☐ No-Fail
3. Are the remaining two seat belt parts accessible under normal conditions?
☐ Yes-Pass; ☐ No-Fail

FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.

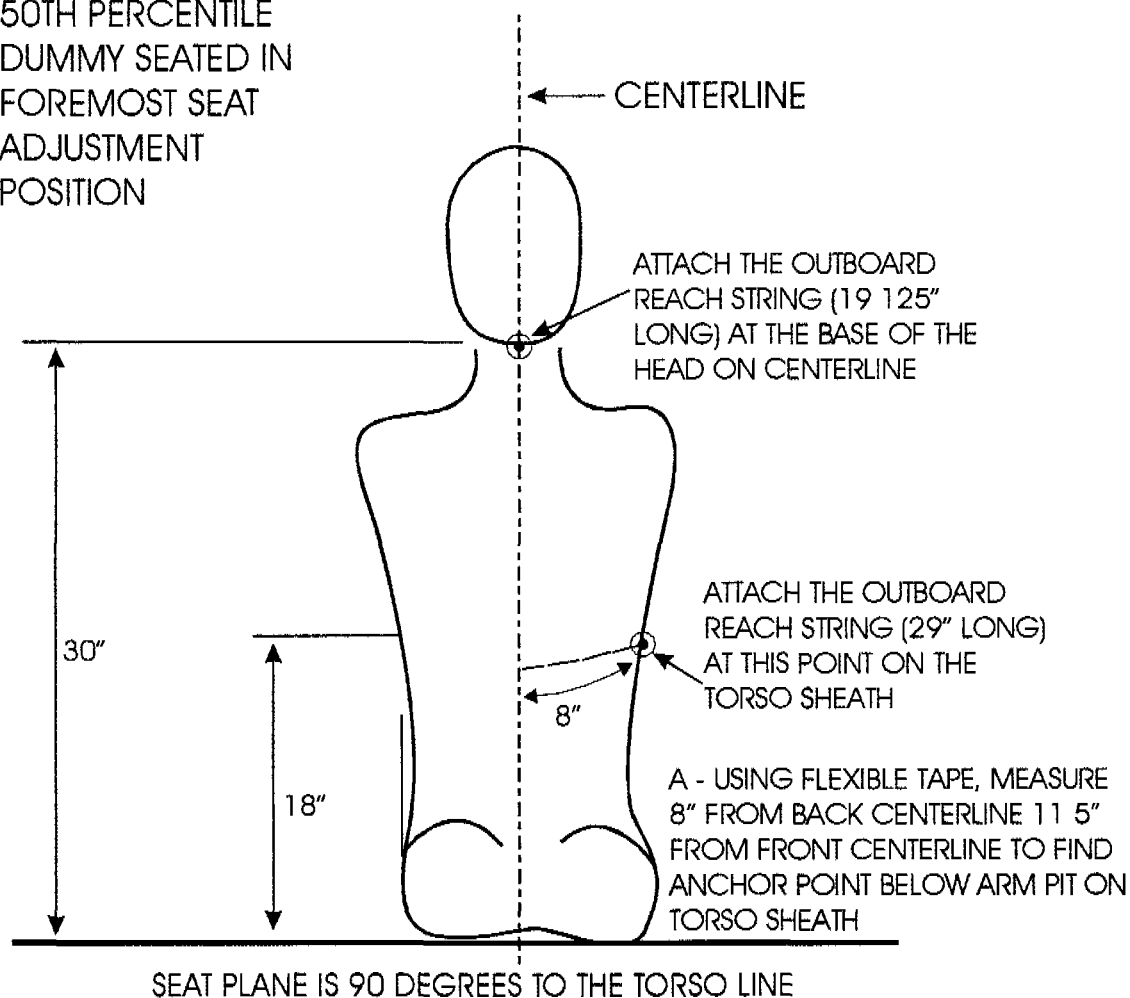
Seat Belt Guides And Hardware (S7.4.6)

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:
- (A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.
☐ Check
- (B) The seat is moved to any position to which it is designed to be adjusted.
☐ Check
- (C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.
☐ Check
☐ Yes-Pass; ☐ No-Fail
5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?
☐ Yes-Pass; ☐ No-Fail

LOCATION OF ANCHORING POINTS FOR LATCHPLATE REACH LIMITING CHAINS OR STRINGS TO TEST FOR LATCHPLATE ACCESSIBILITY

PART 572E DUMMY

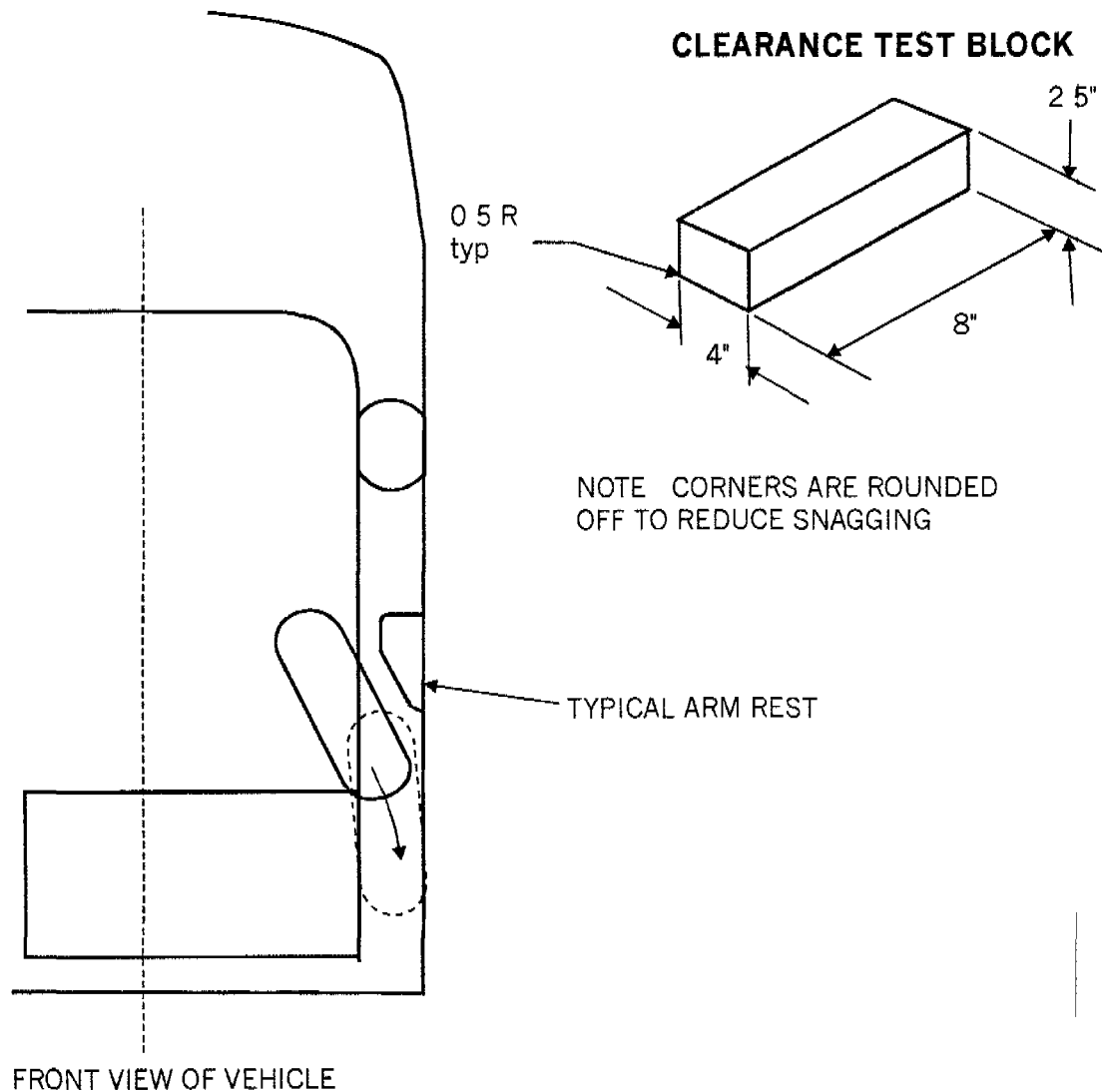
50TH PERCENTILE
DUMMY SEATED IN
FOREMOST SEAT
ADJUSTMENT
POSITION



REAR VIEW

Laboratory Test Procedure Figure 1C

USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS



Laboratory Test Procedure Figure 2C

Appendix A

Photographs

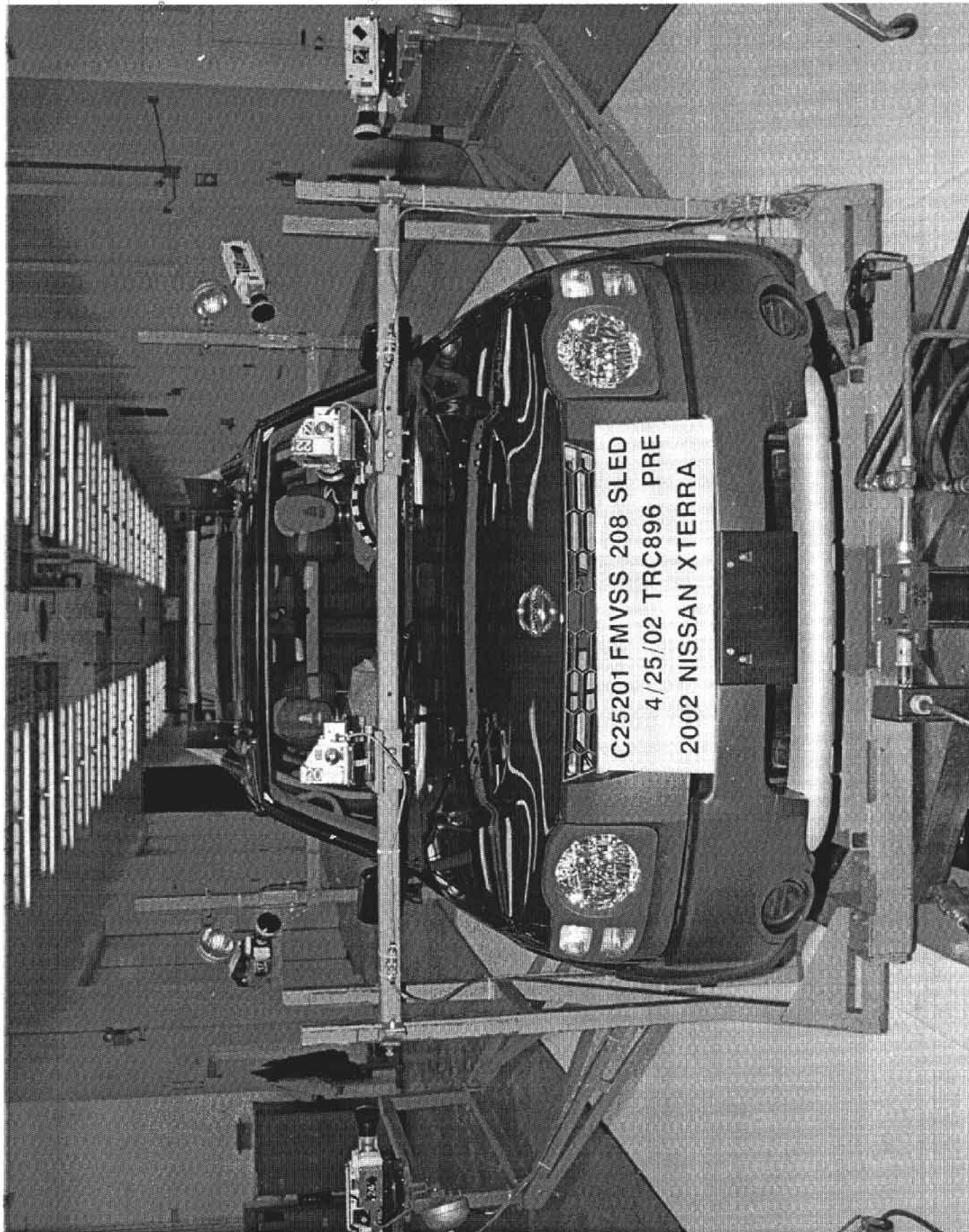


Figure A-1. Pre-Test Front View of Test Vehicle Mounted to Sled
A-2

S020425

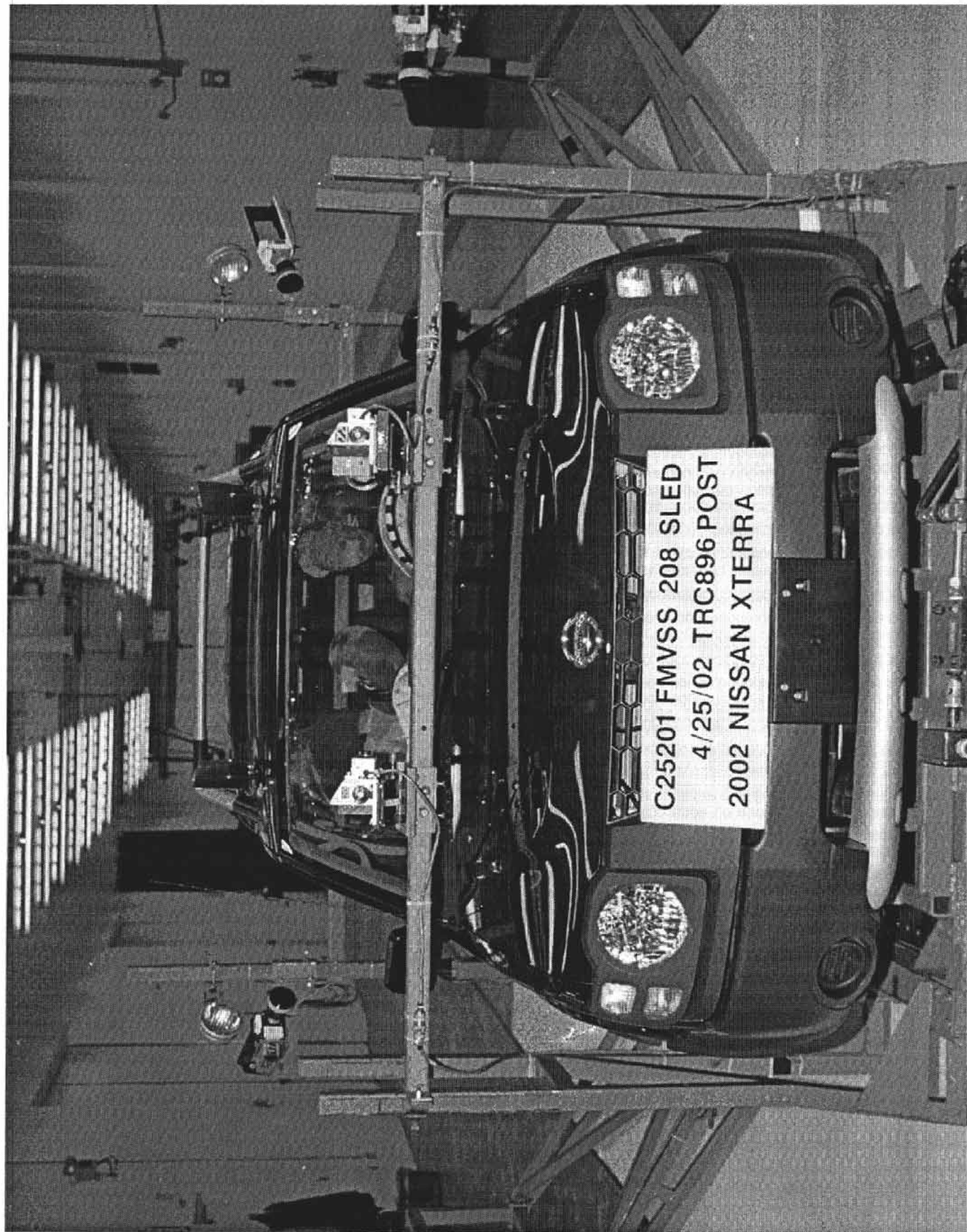
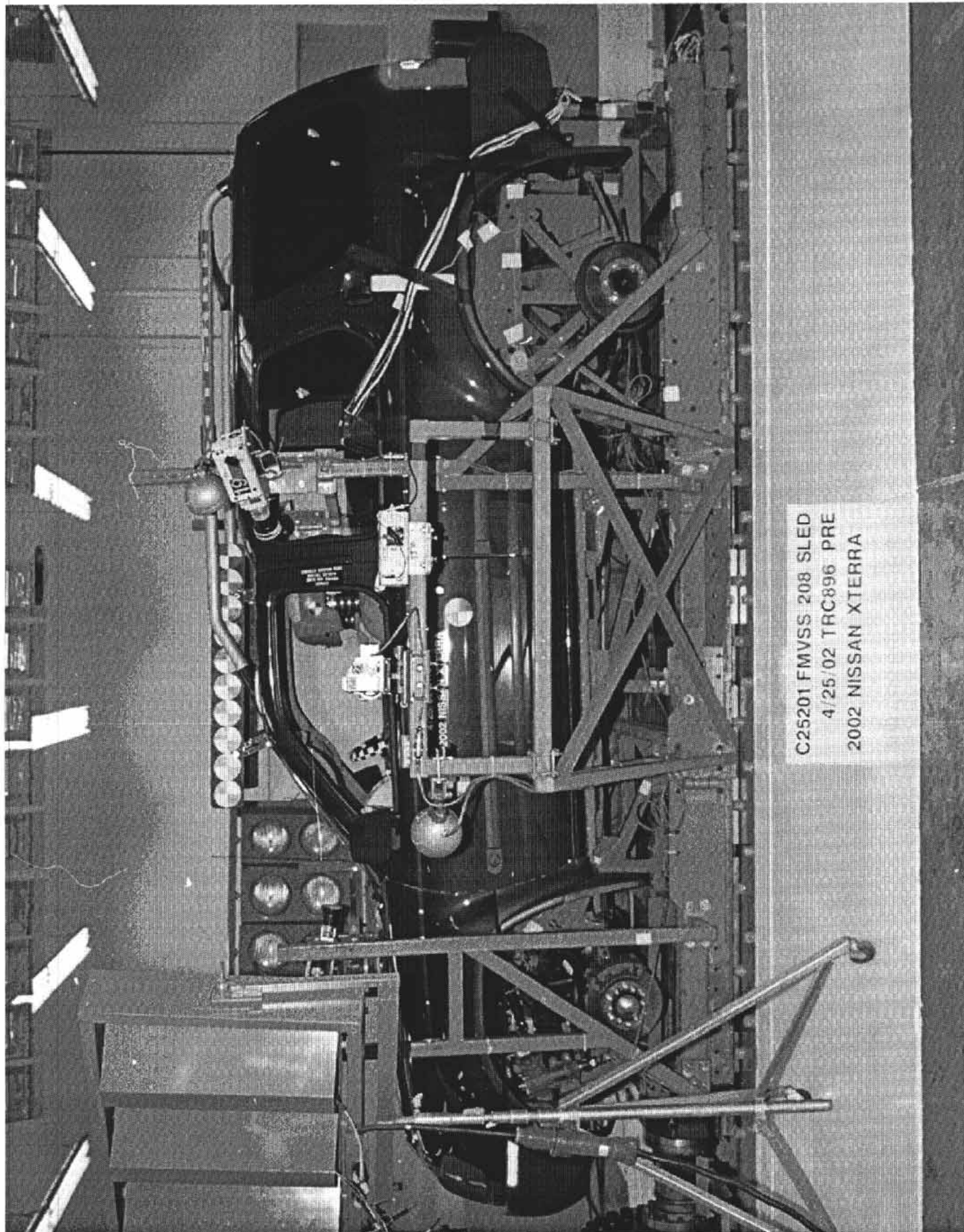


Figure A-2. Post-Test Front View of Test Vehicle Mounted to Sled



C25201 FMVSS 208 SLED
4/25/02 TRC896 PRE
2002 NISSAN XTERRA

Figure A-3. Pre-Test Left Side View of Test Vehicle Mounted to Sled
A-4

S020425

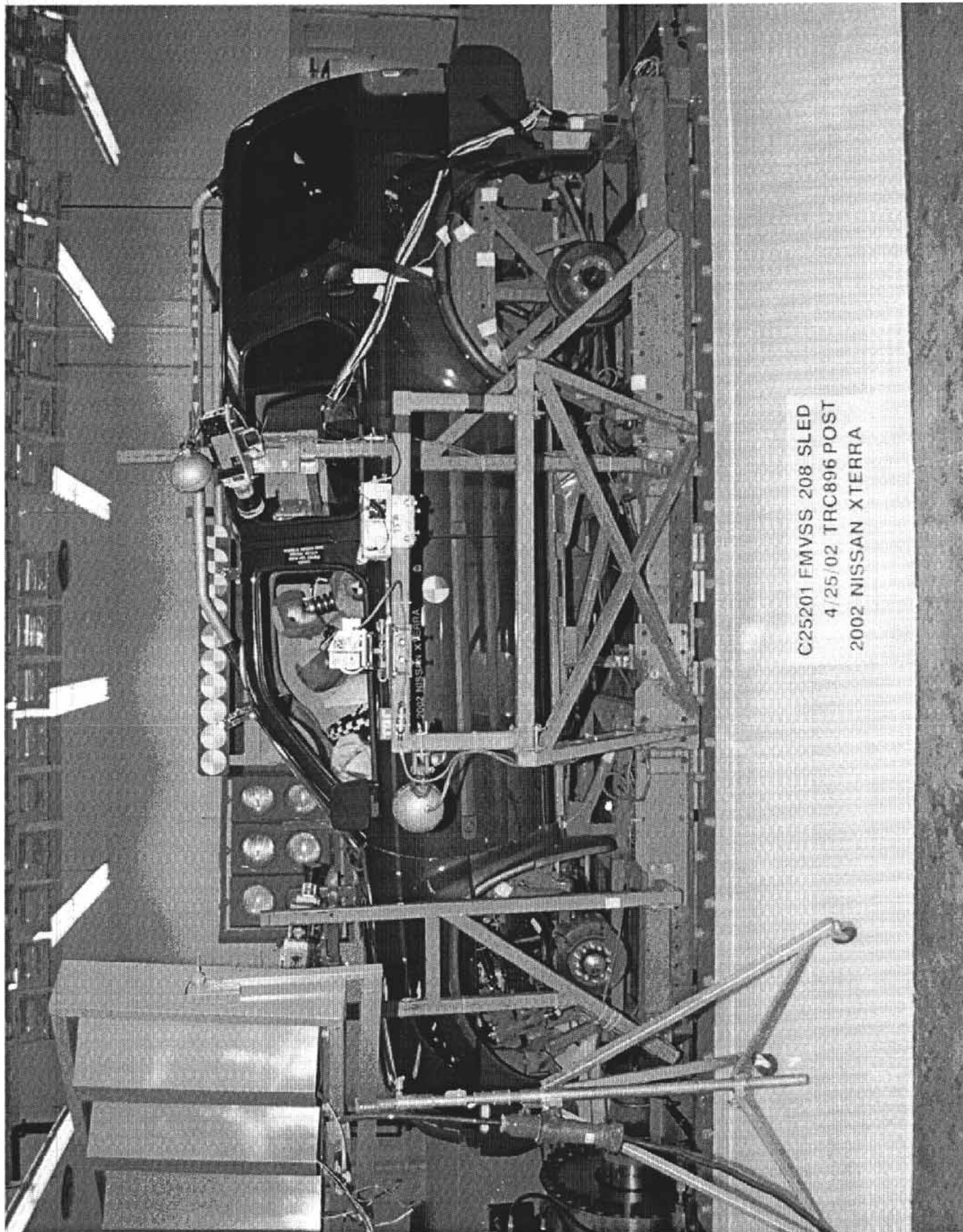
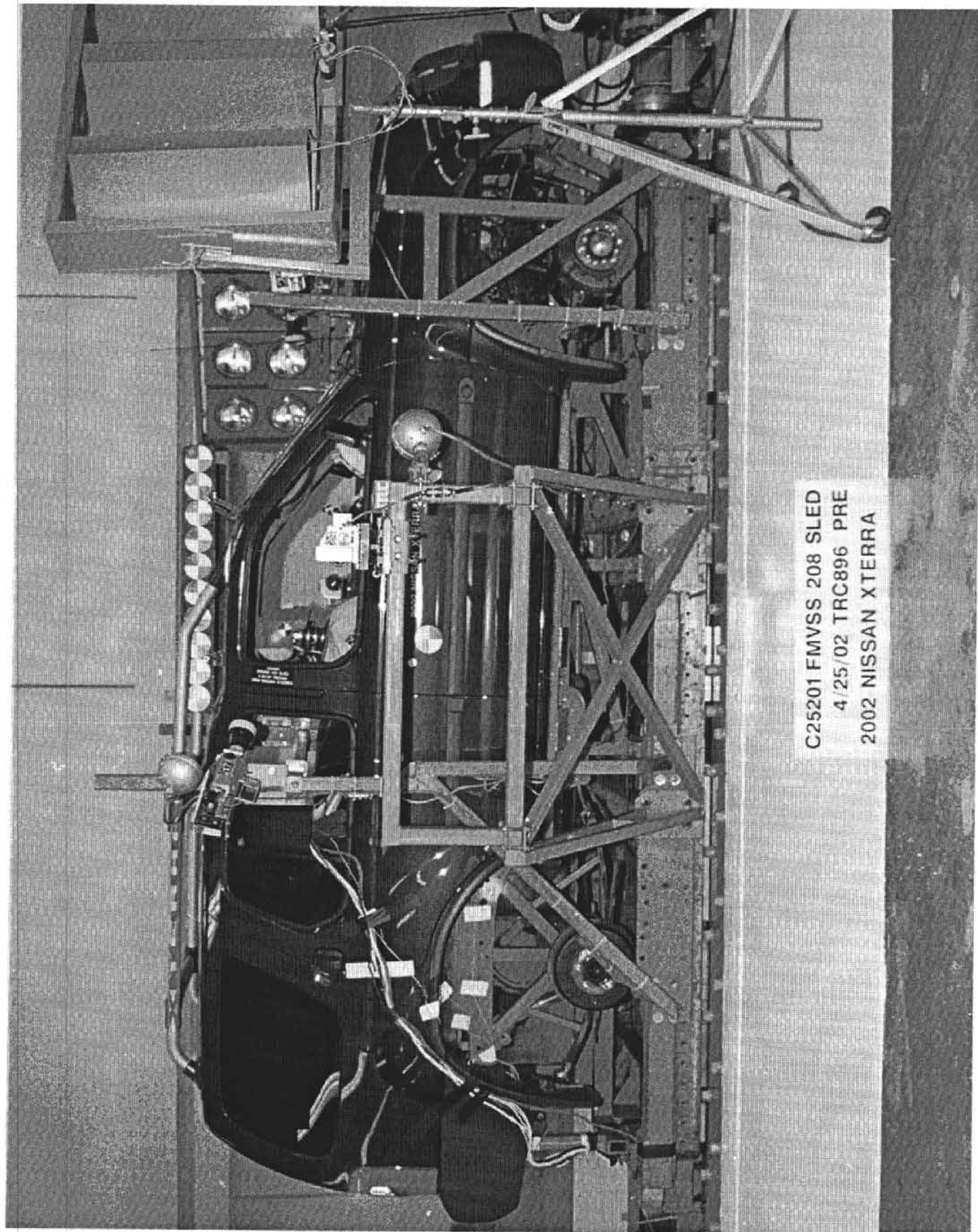


Figure A-4. Post-Test Left Side View of Test Vehicle Mounted to Sled
A-5

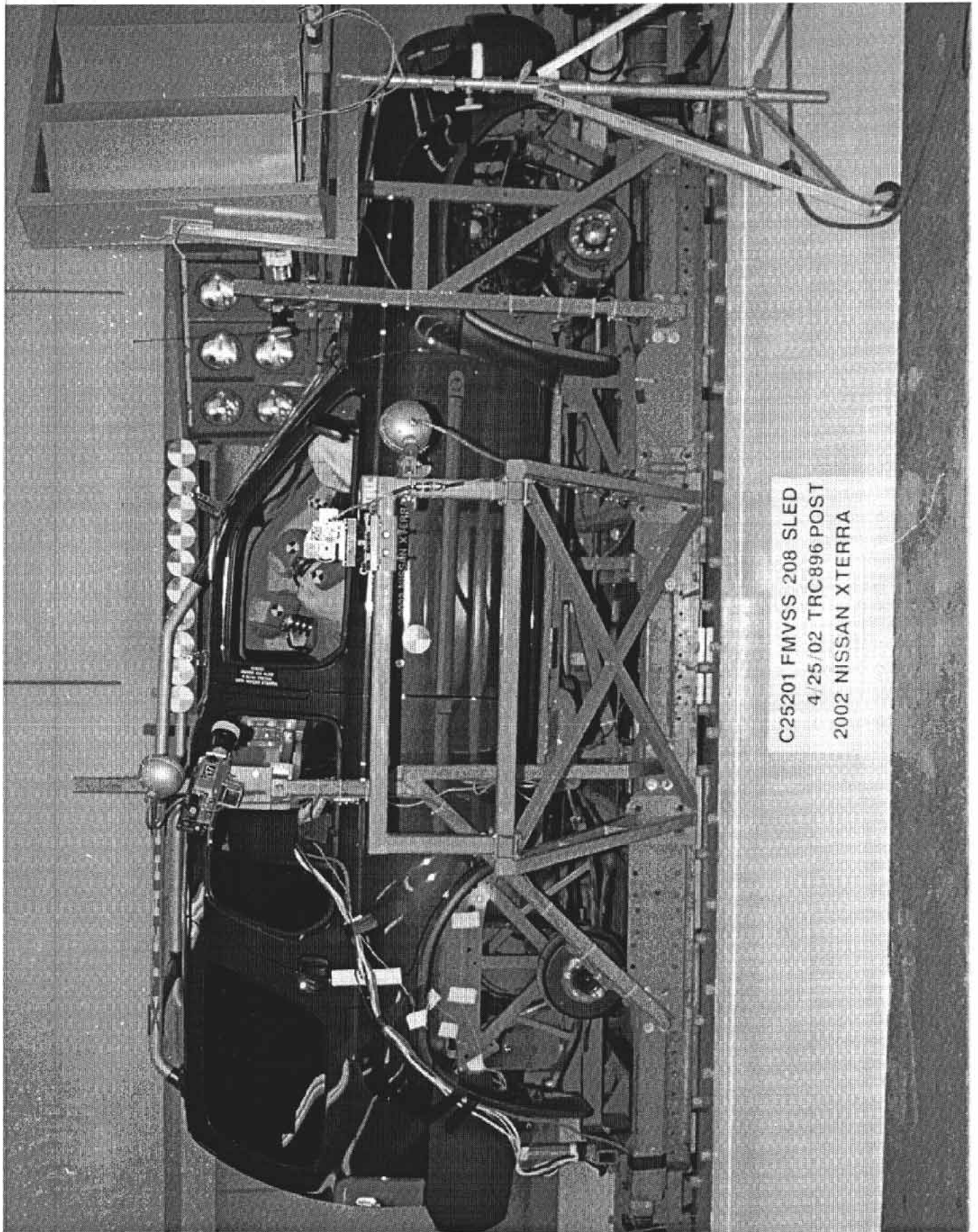
S020425



C25201 FMVSS 208 SLED
4/25/02 TRC896 PRE
2002 NISSAN XTERRA

Figure A-5. Pre-Test Right Side View of Test Vehicle Mounted to Sled
A-6

S020425



C25201 FMVSS 208 SLED
4/25/02 TRC896 POST
2002 NISSAN XTERRA

Figure A-6. Post-Test Right Side View of Test Vehicle Mounted to Sled
A-7

S020425



Figure A-7. Pre-Test Windshield View
A-8

S020425

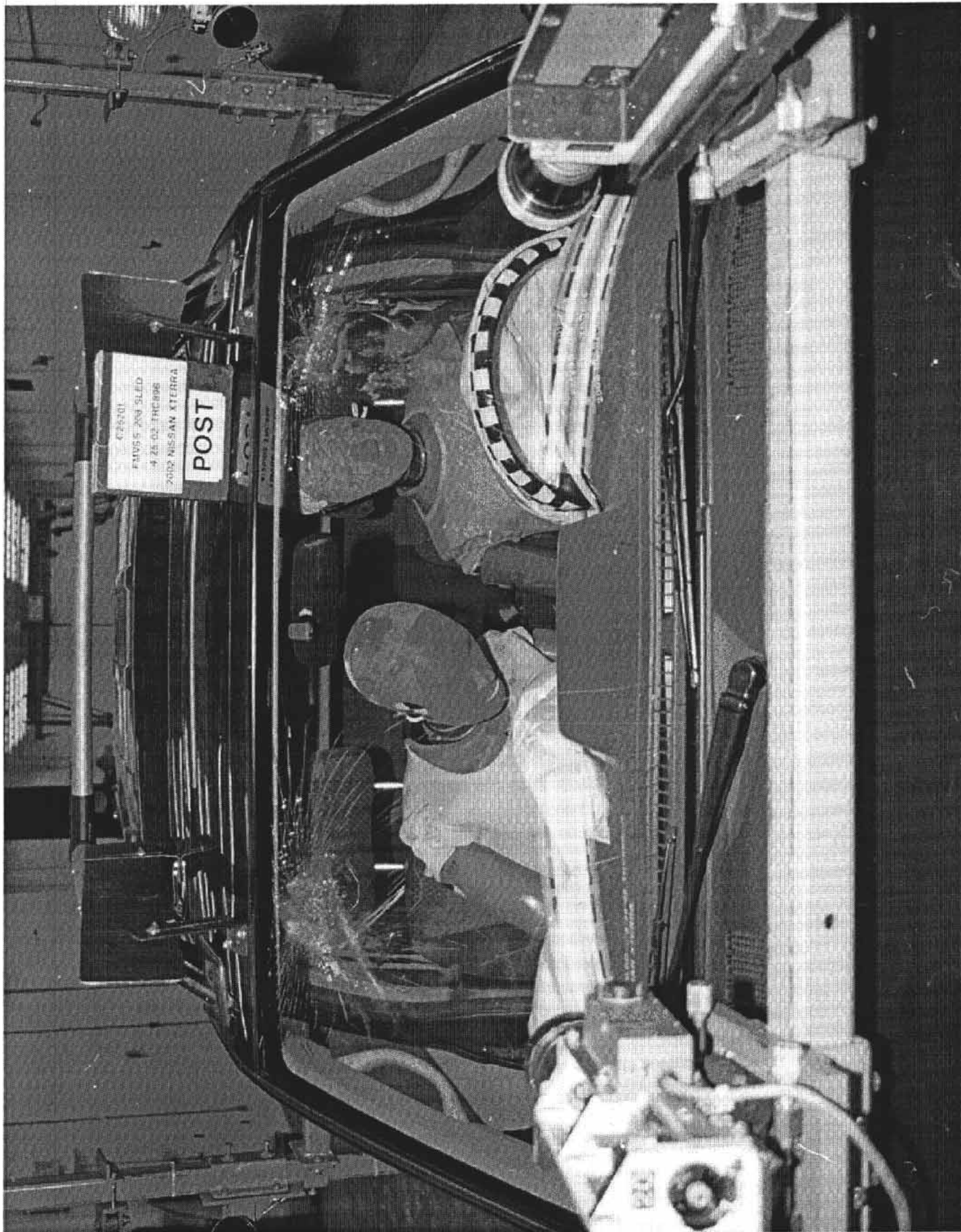


Figure A-8. Post-Test Windshield View
A-9

S020425

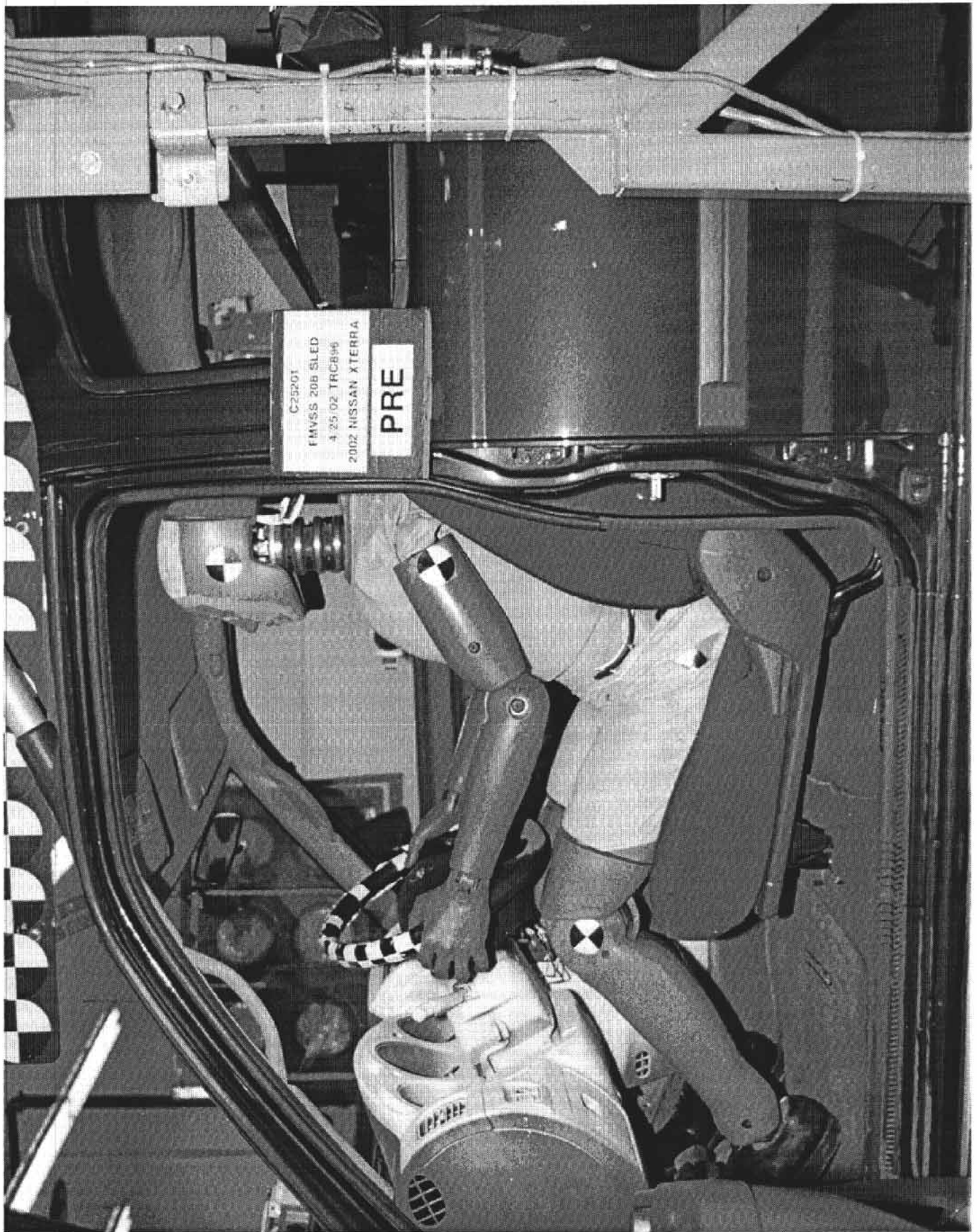


Figure A-9. Pre-Test Driver Dummy Position View with Door Open
A-10

S020425



Figure A-10. Post-Test Driver Dummy Position View with Door Open
A-11

S020425



Figure A-11. Pre-Test Driver Seat Track Position View
A-12

S020425



Figure A-12. Post-Test Driver Seat Track Position View
A-13

S020425

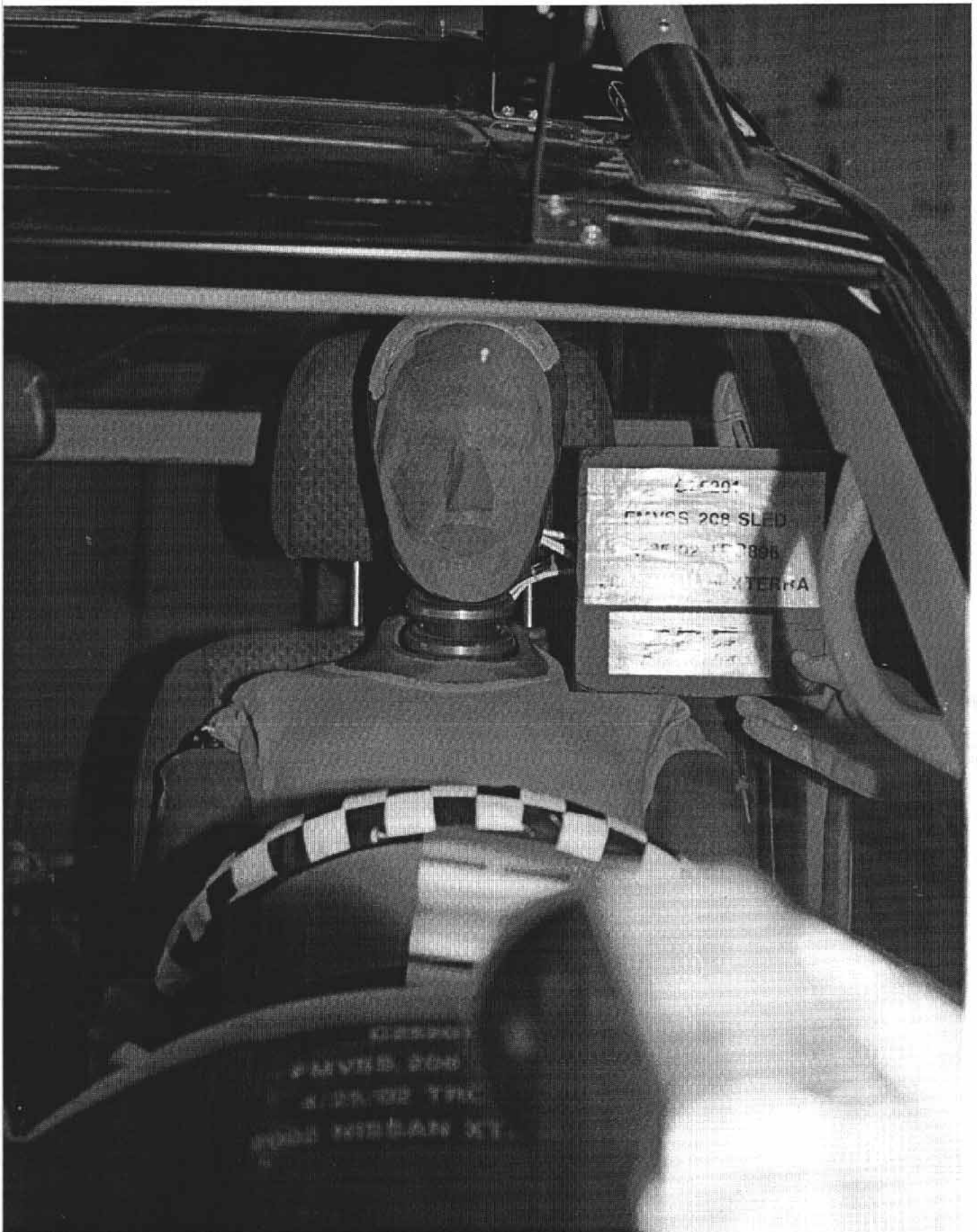


Figure A-13. Pre-Test Driver Dummy Position Front View
A-14

S020425



Figure A-14. Post-Test Driver Dummy Position Front View
A-15

S020425

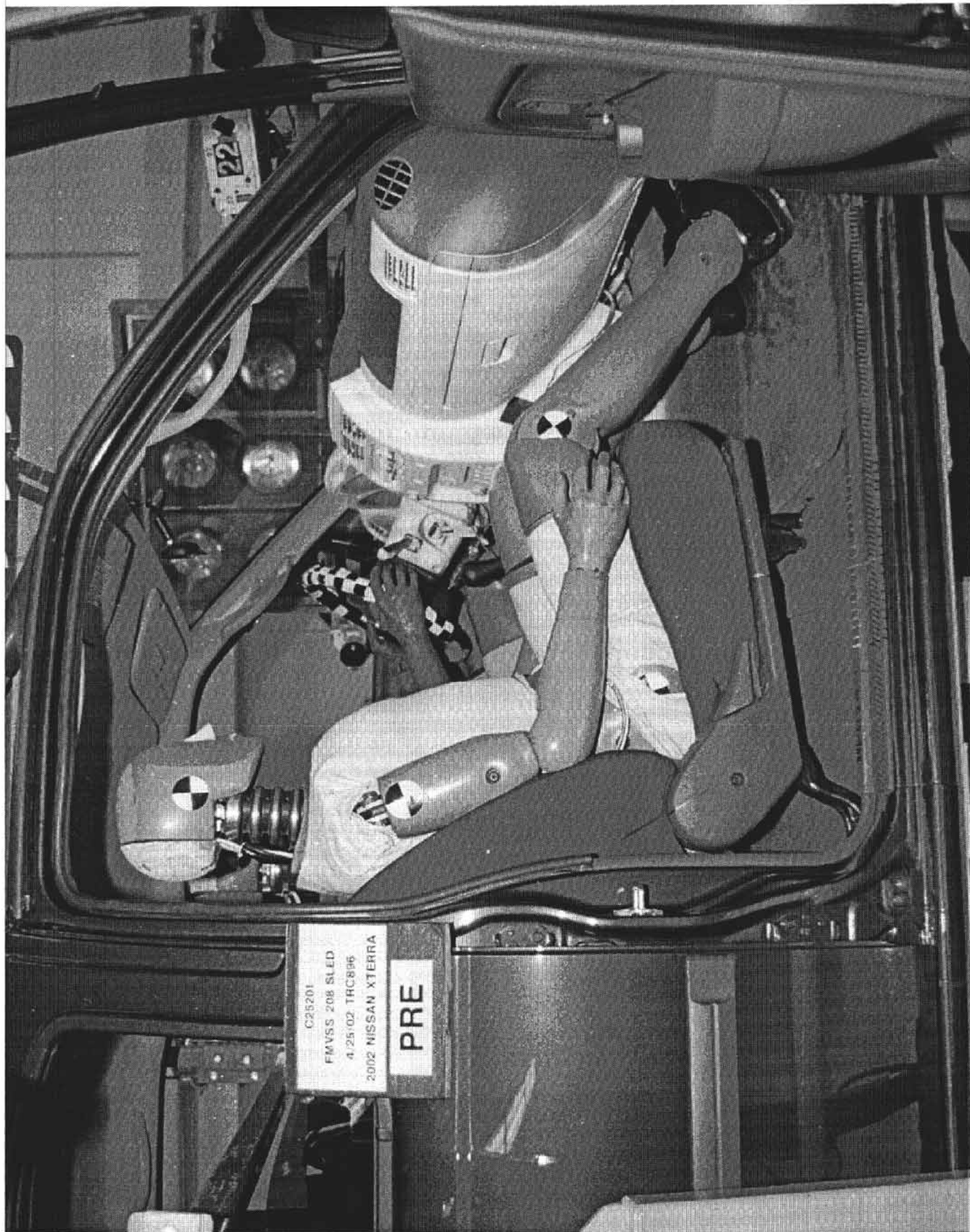


Figure A-15. Pre-Test Passenger Dummy Position View with Door Open
A-16

S020425



Figure A-16. Post-Test Passenger Dummy Position View with Door Open
A-17

S020425

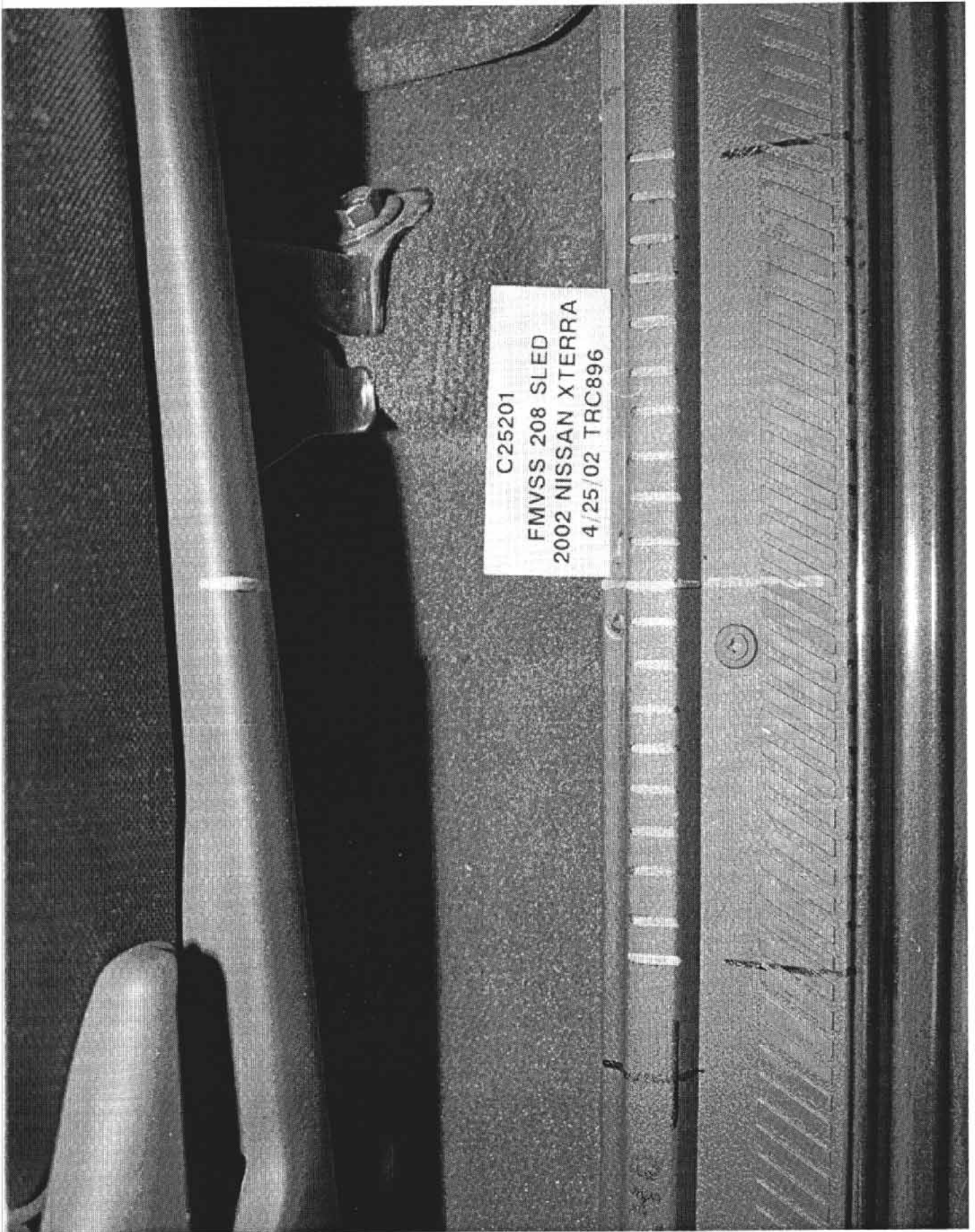


Figure A-17. Pre-Test Passenger Seat Track Position View

A-18

S020425

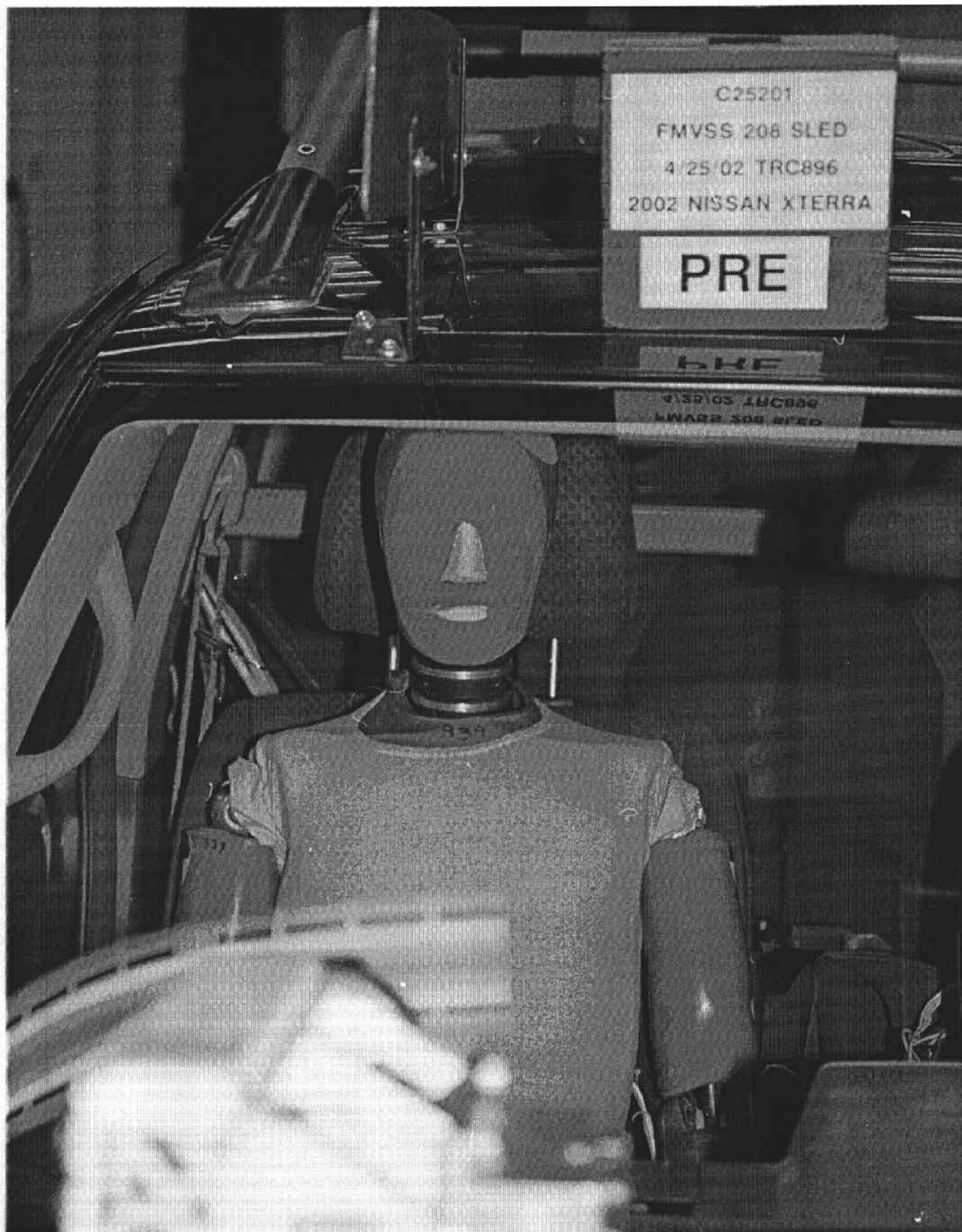


Figure A-19. Pre-Test Passenger Dummy Position Front View
A-20

S020425



Figure A-18. Post-Test Passenger Seat Track Position View
A-19

S020425



Figure A-20. Post-Test Passenger Dummy Position Front View
A-21

S020425

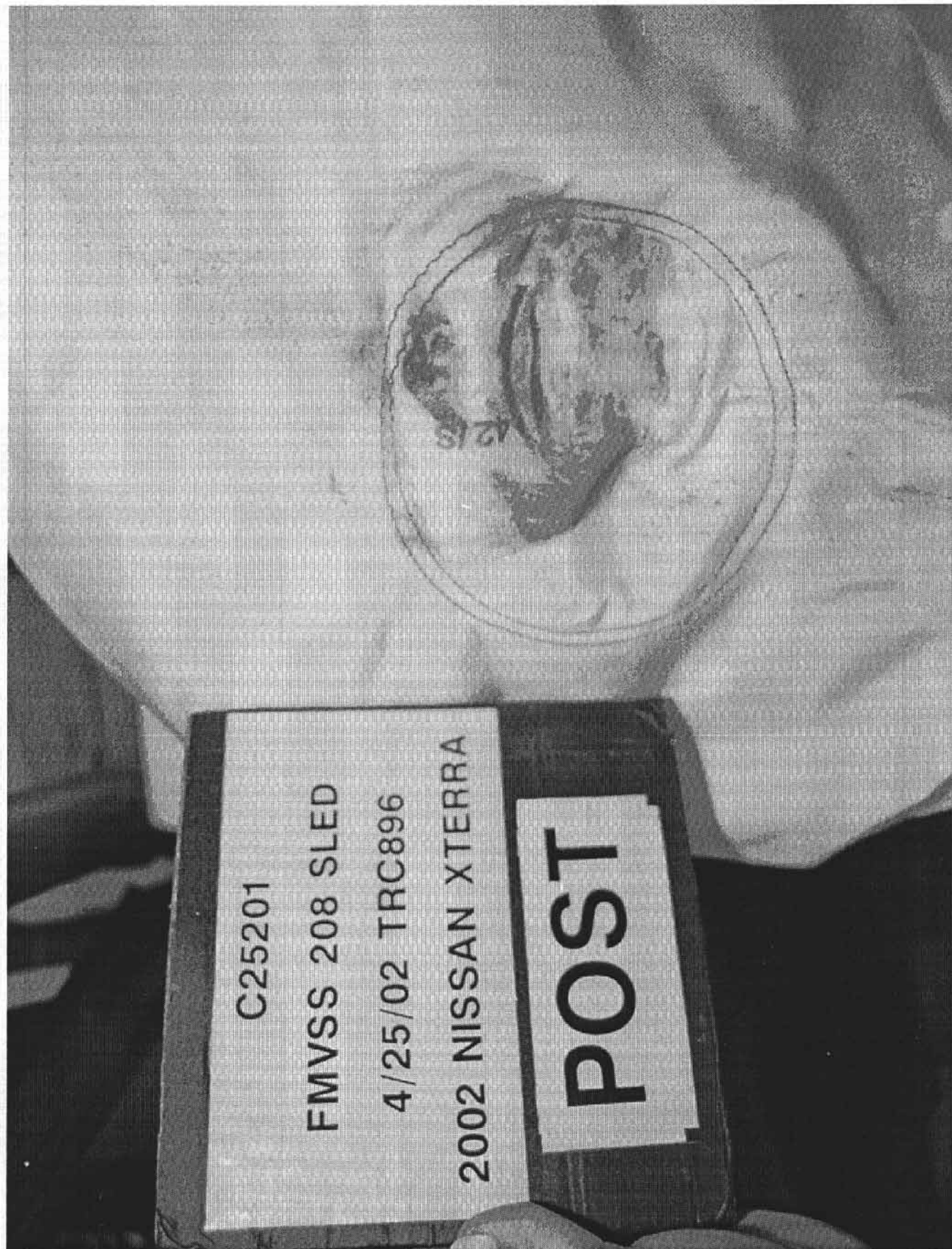


Figure A-21. Post-Test Driver Airbag View

A-22

S020425

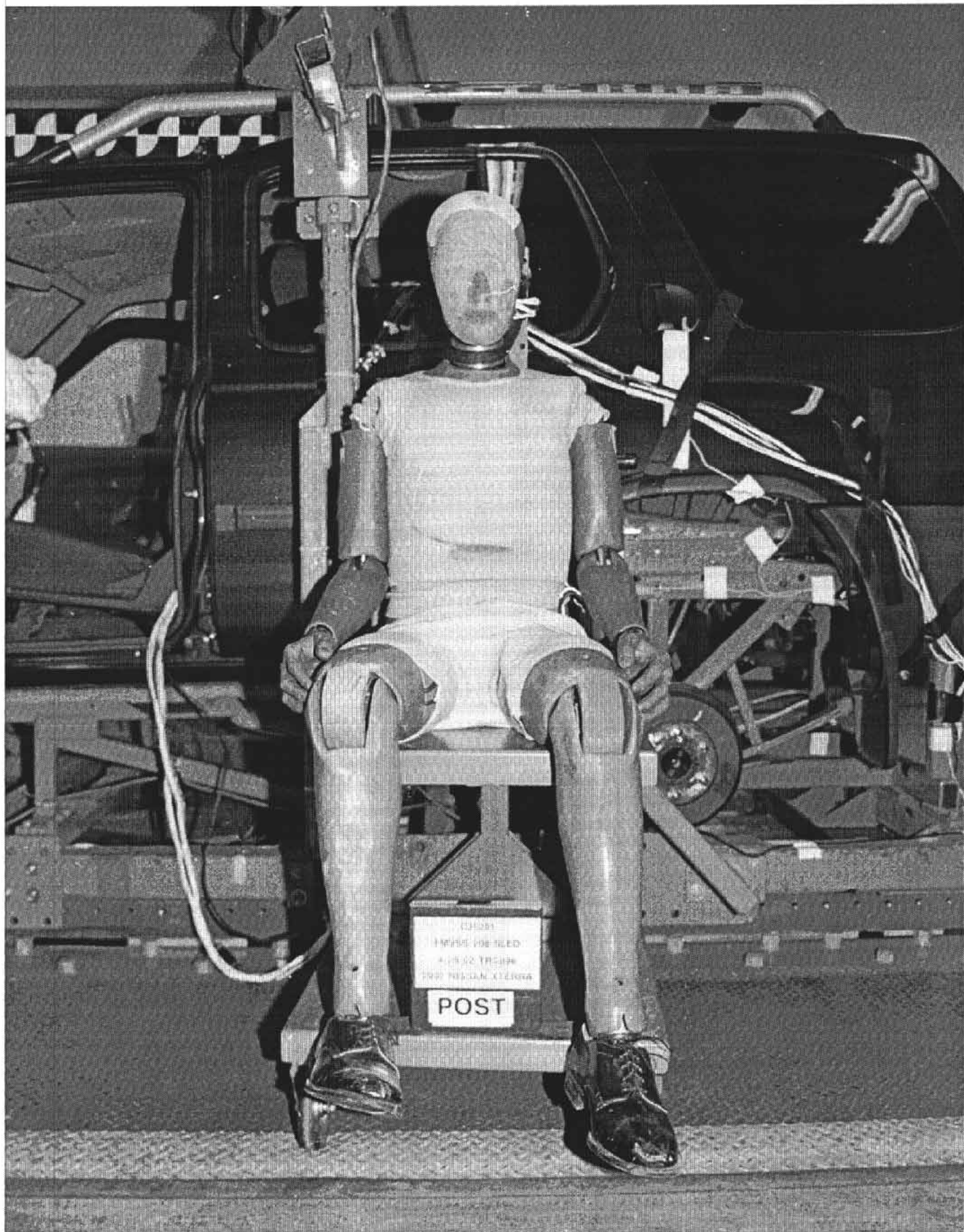
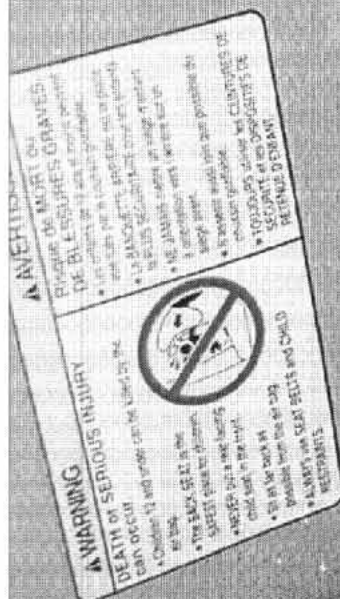
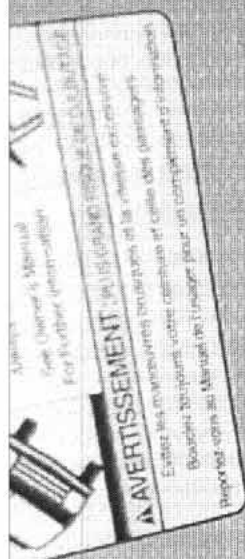


Figure A-22. Post-Test Driver Dummy Removed from Vehicle Overall View

A-23

S020425



C25201

FMVSS 208 SLED

4/25/02 TRC896

002 NISSAN XTERRA

POST

Figure A-23. Post-Test Driver Head Contact - View 1



Figure A-24. Post-Test Driver Head Contact - View 2
A-25

S020425

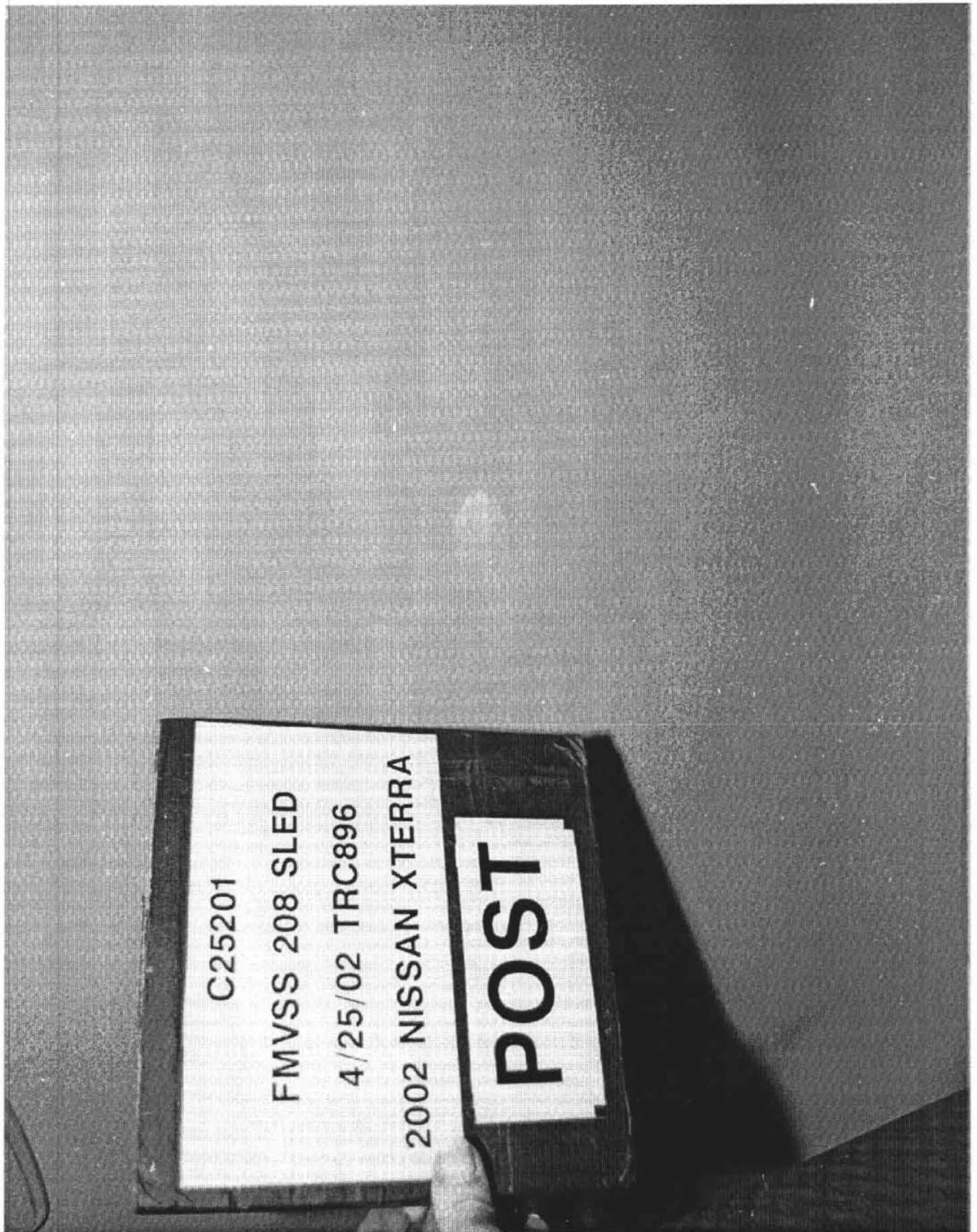


Figure A-25. Post-Test Driver Head Contact-View 3

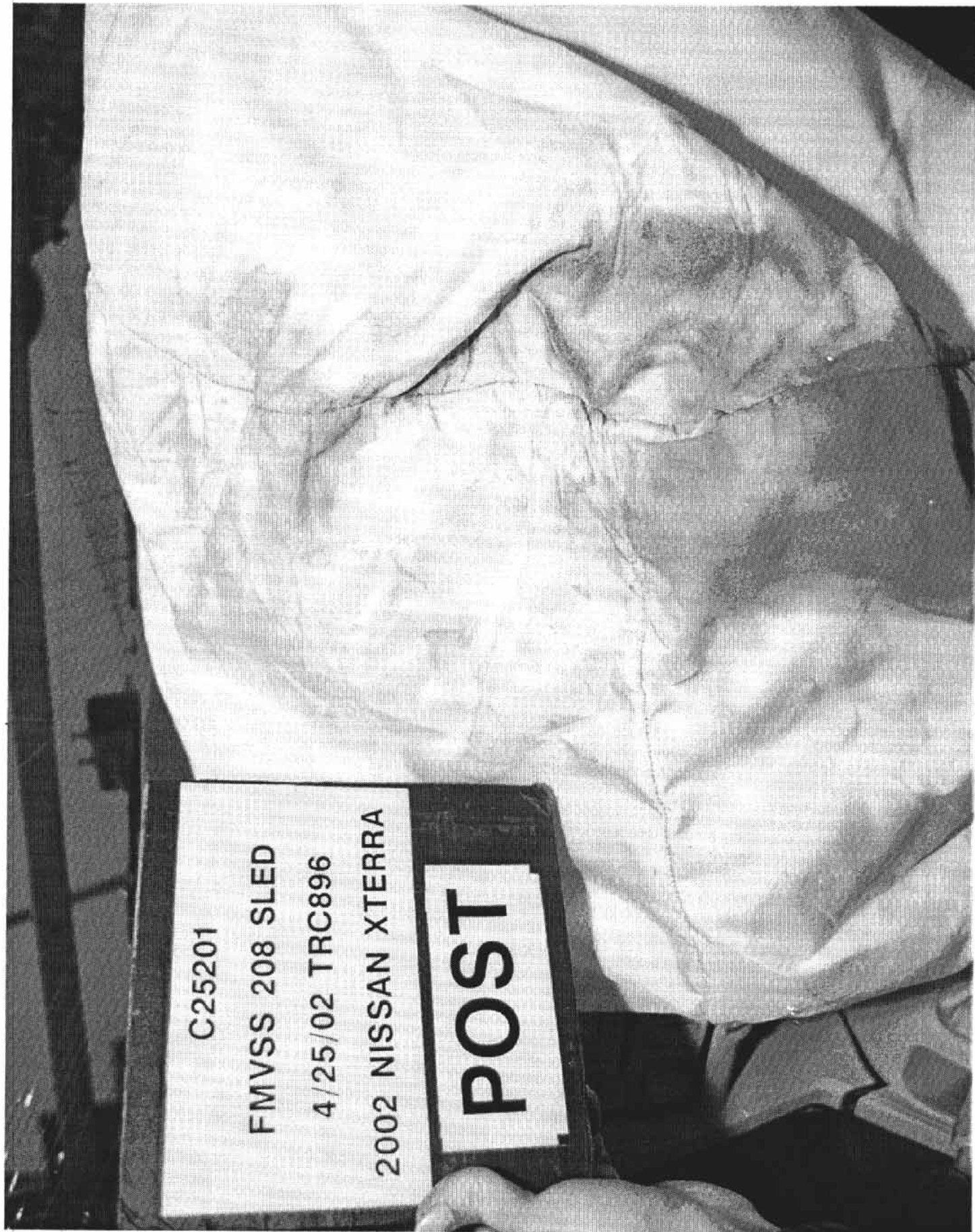


Figure A-26. Post-Test Passenger Airbag View
A-27

S020425

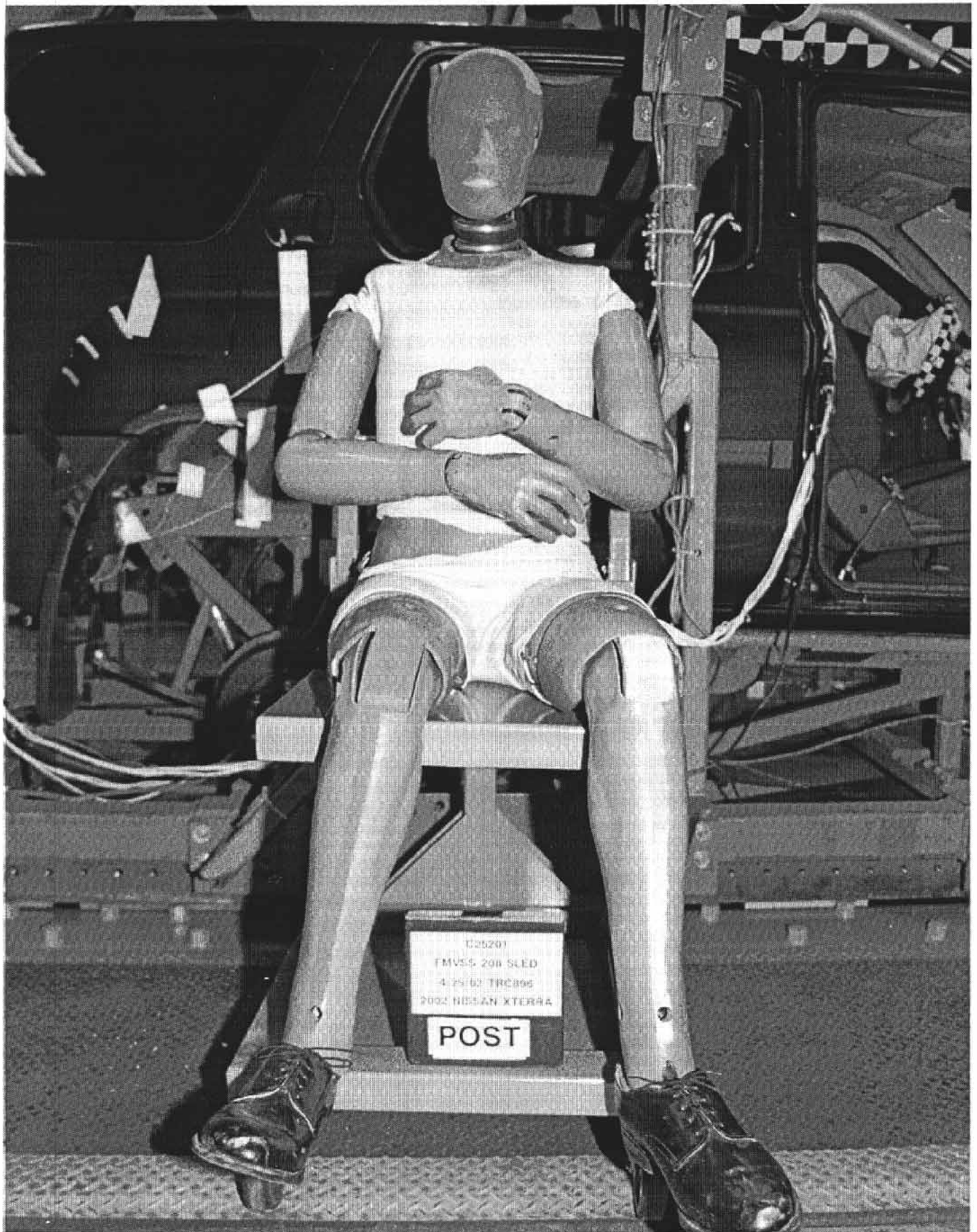


Figure A-27. Post-Test Passenger Dummy Removed from Vehicle Overall View
A-28

S020425

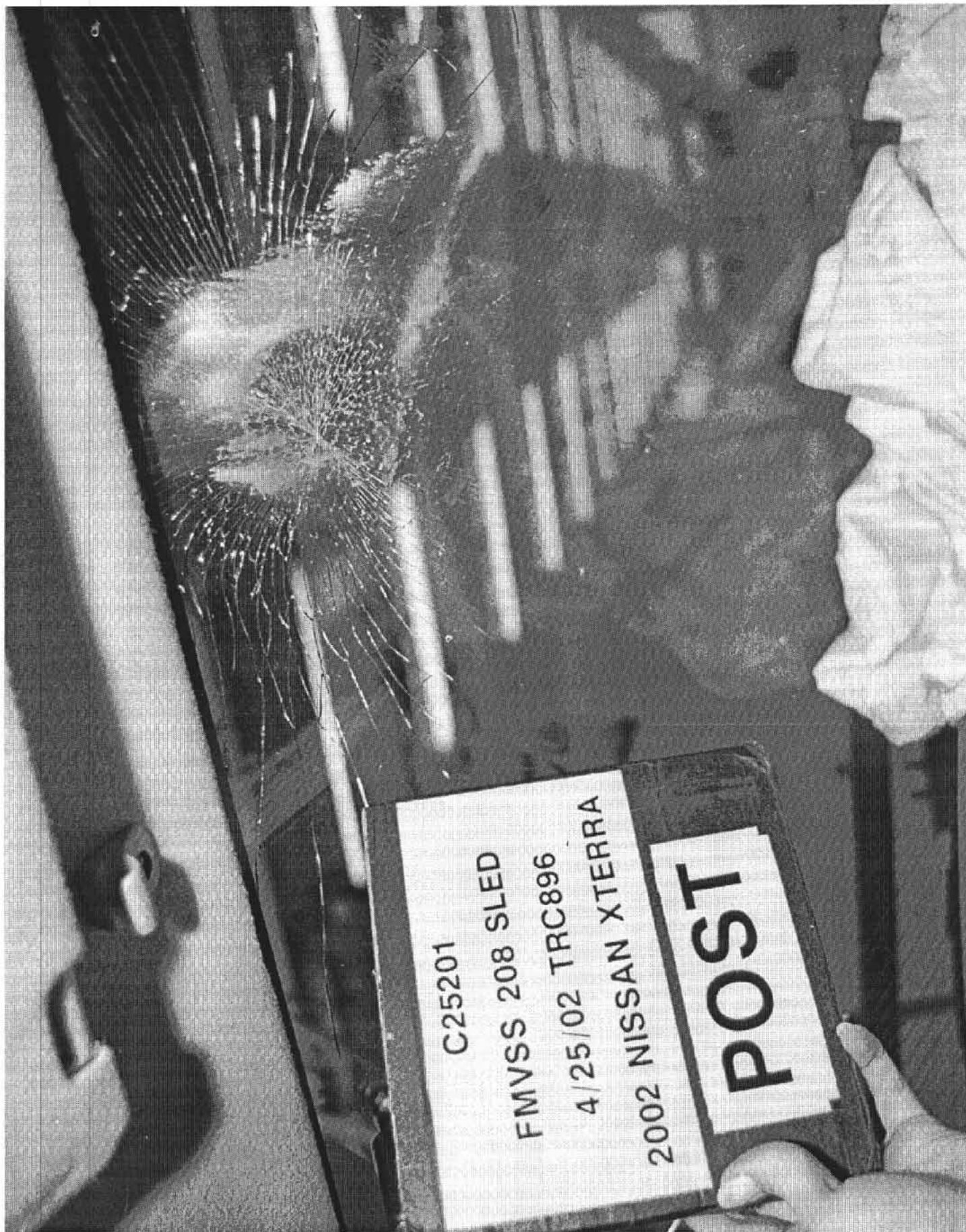


Figure A-28. Post Test Passenger Head Contact-View 1
A-29

S020425

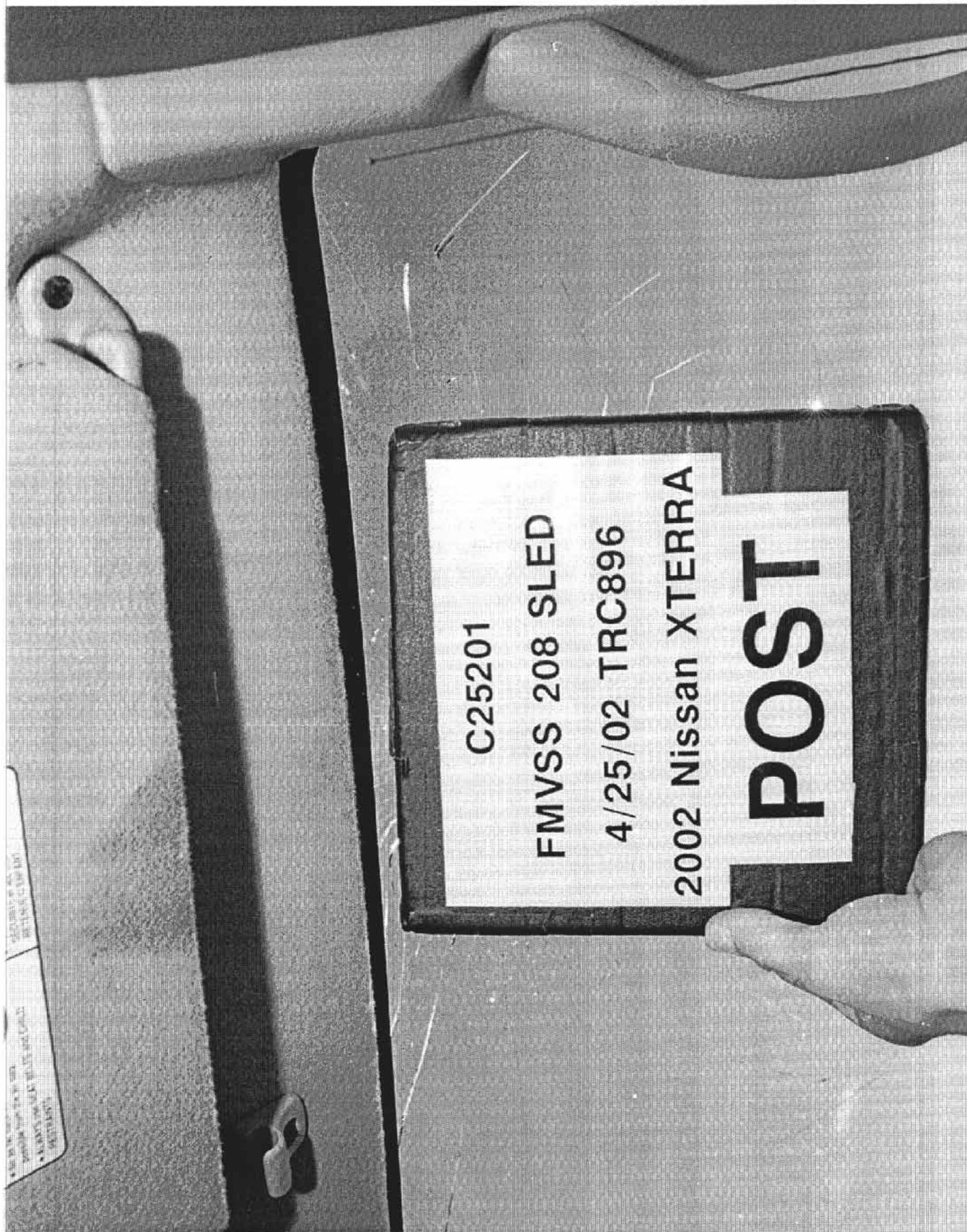


Figure A-29. Post-Test Passenger Head Contact-View 2
A-30

S020425

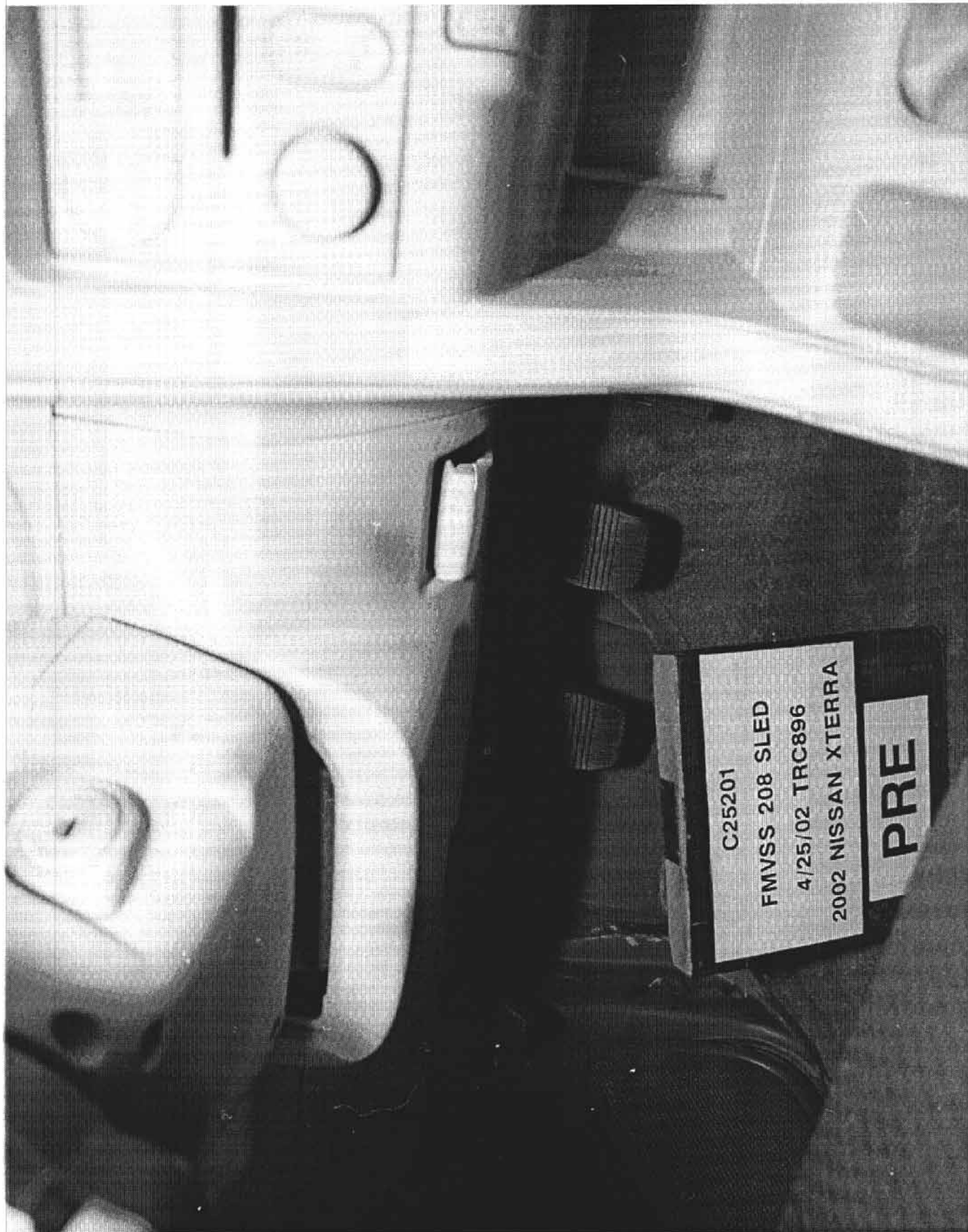


Figure A-30. Pre-Test Driver Knee Bolster-View 1
A-31

S020425

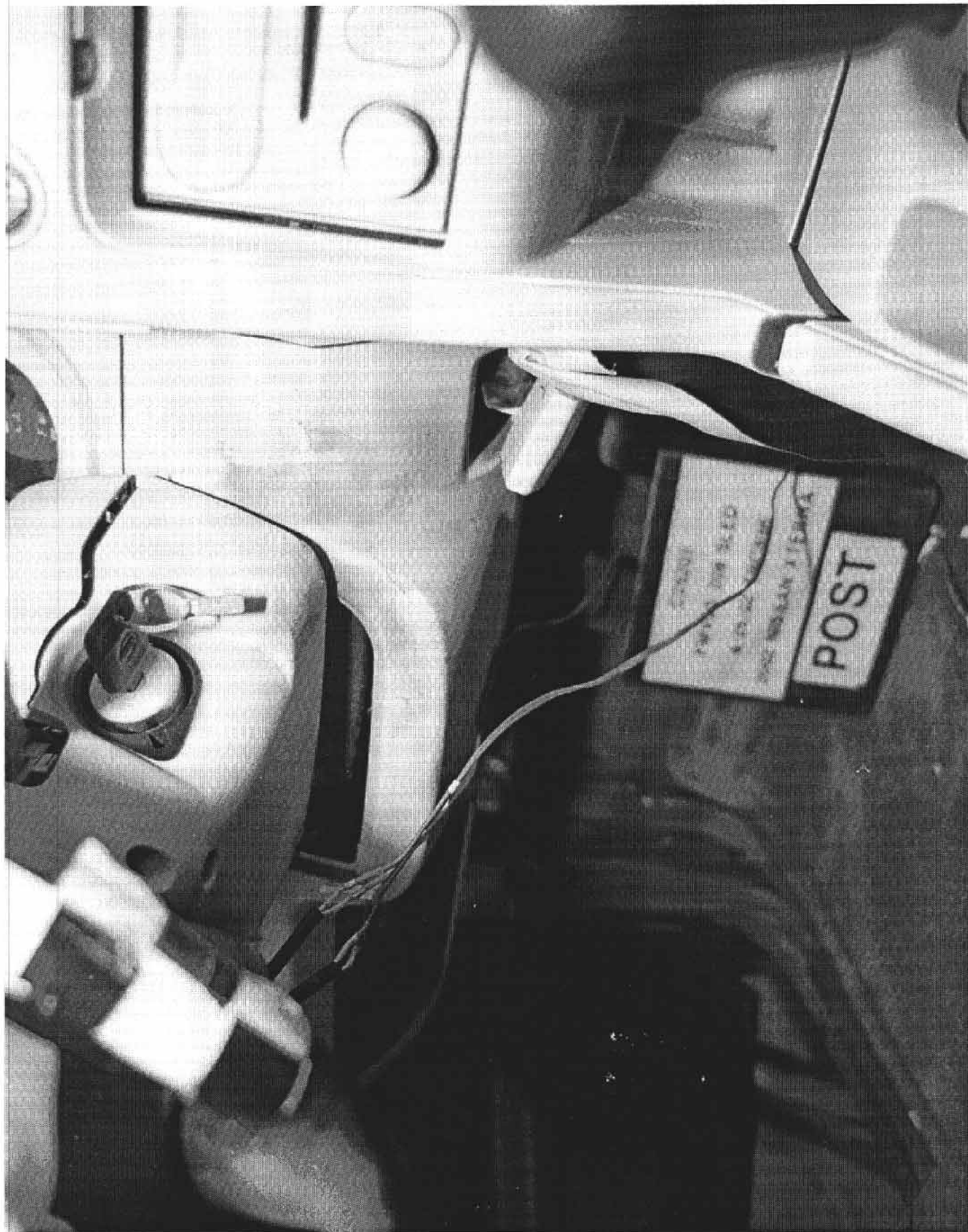


Figure A-31. Post-Test Driver Knee Bolster-View 1
A-32

S020425

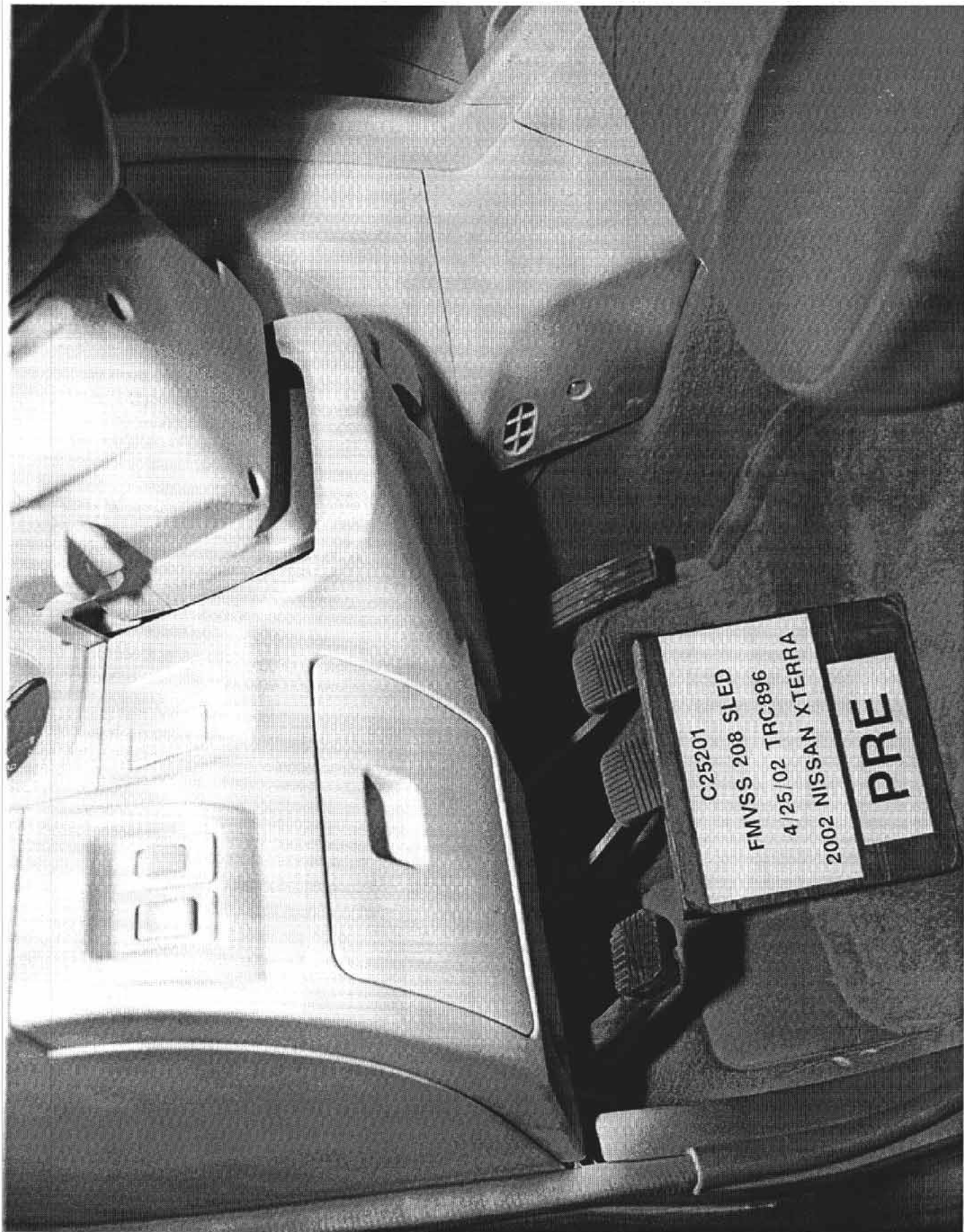


Figure A-32. Pre-Test Driver Knee Bolster-View 2
A-33

S020425

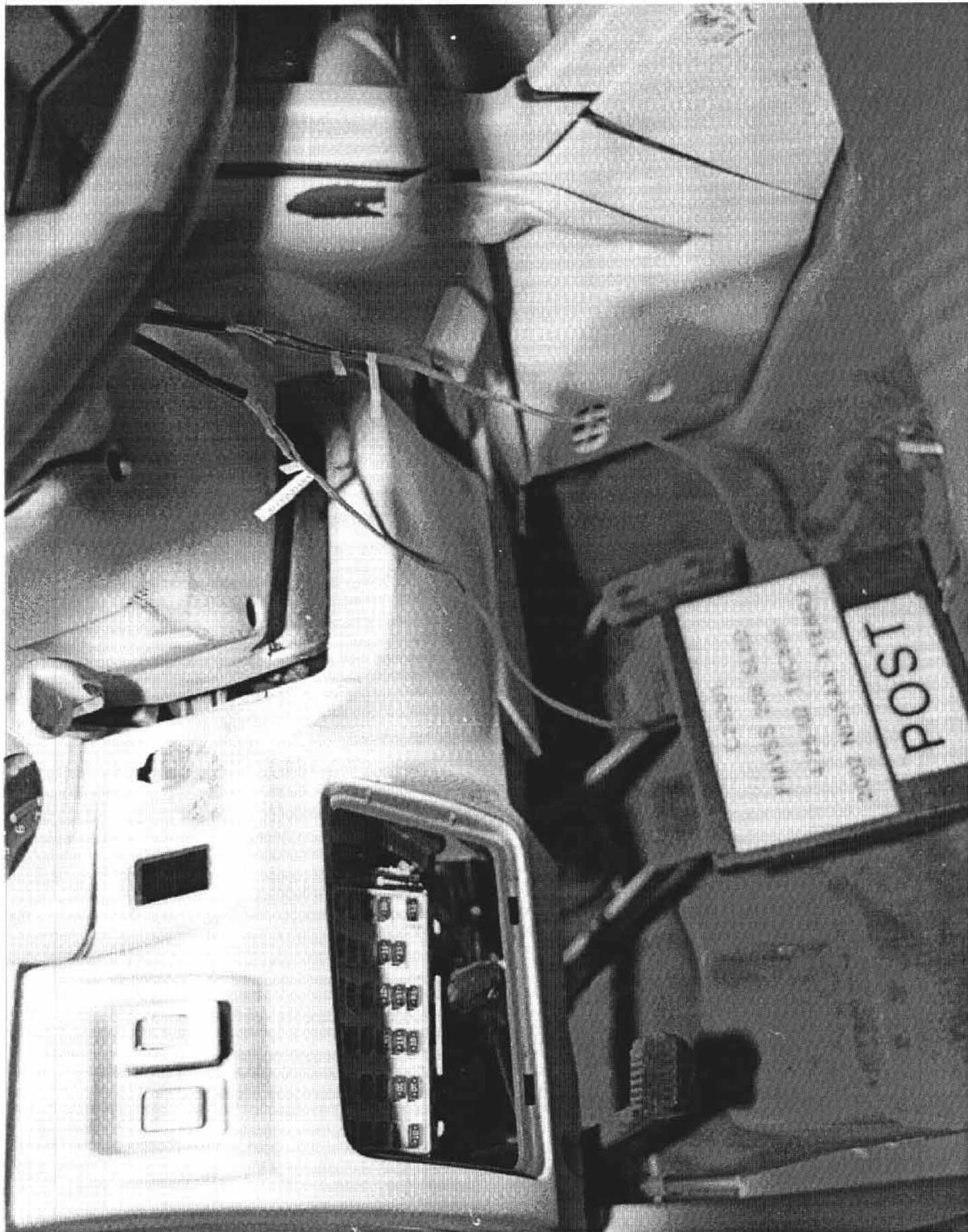


Figure A-33. Post-Test Driver Knee Bolster-View 2
A-34

S020425



Figure A-34. Pre-Test Passenger Glove Box View
A-35

S020425

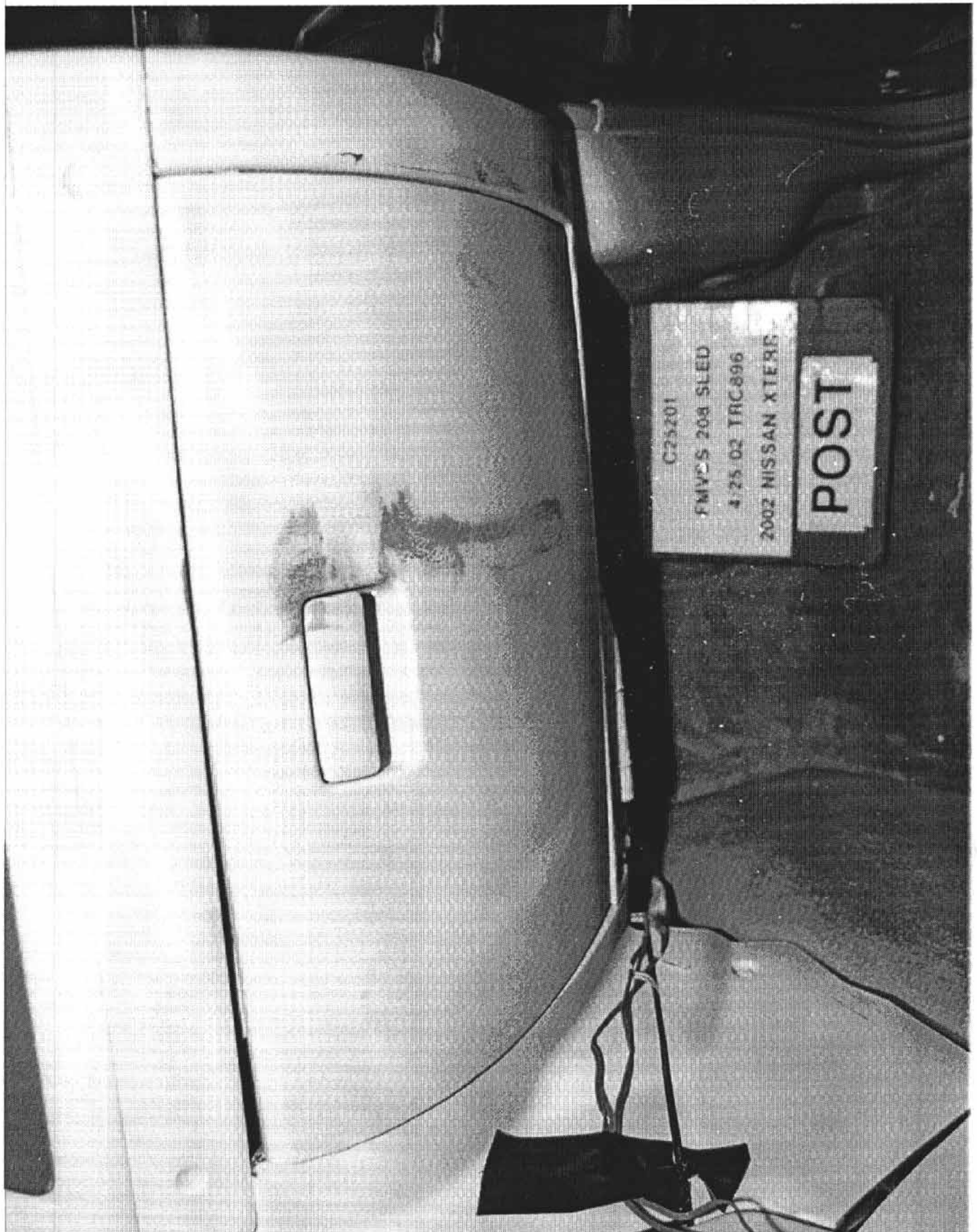


Figure A-35. Post-Test Passenger Glove Box View
A-36

S020425



Figure A-36. Pre-Test Steering Column Linkage in Engine Compartment View

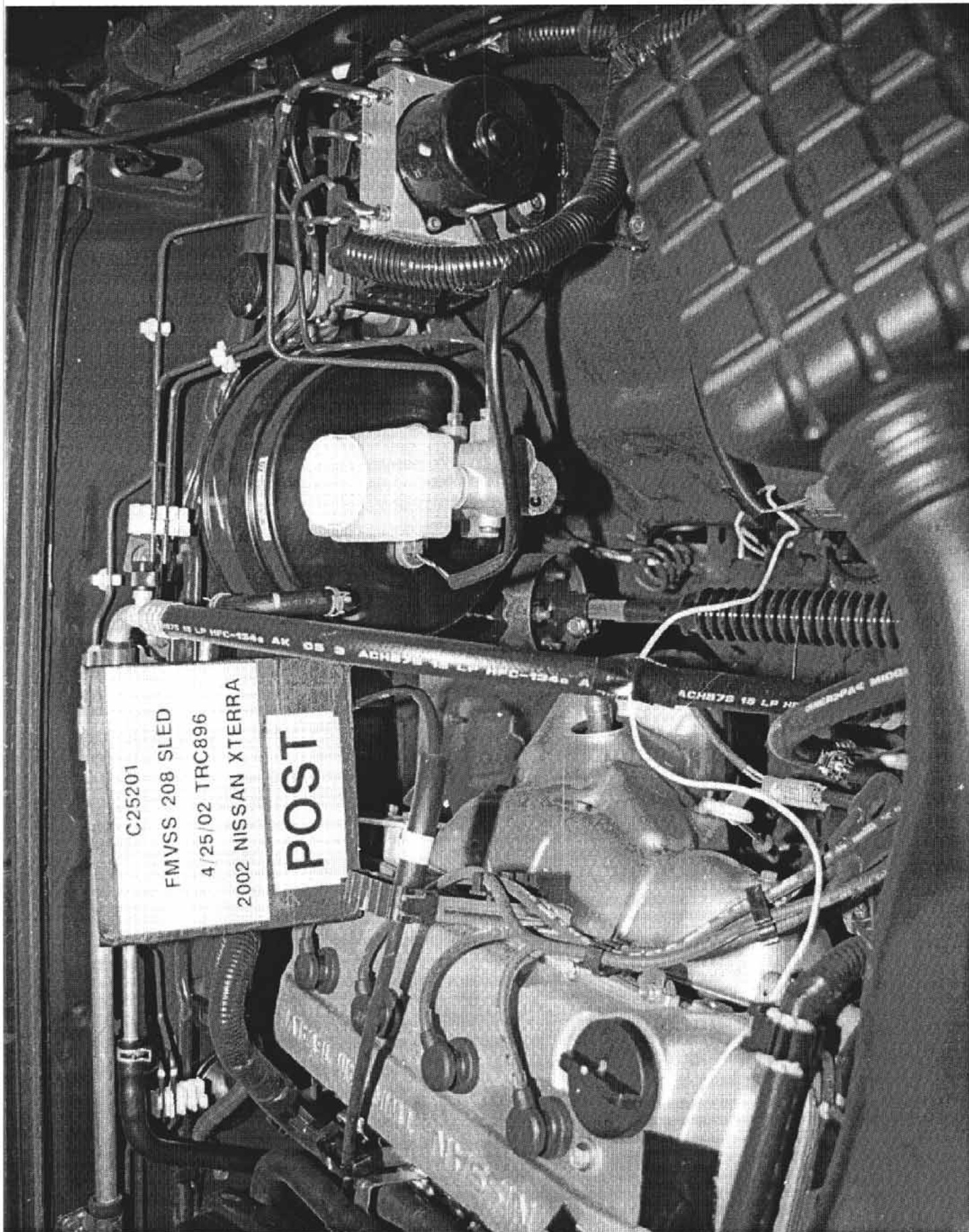


Figure A-37. Post-Test Steering Column Linkage in Engine Compartment
A-38

S020425

C25201
 FMVSS 208 SLED
 2002 NISSAN XTERRA
 4/25/03 396

MED BY NISSAN FINANCIAL CO. 11/98 DATE 5080 LB GAWR FR 2740 LB WITH P265/70R15 TIRES 15X7.0 RIMS AT 30 PSI COLD SINGLE GAWR RR 2850 LB WITH P265/70R15 TIRES 15X7.0 RIMS AT 30 PSI COLD SINGLE		THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE. SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION.
VIN: 5N1DD28T32C534400		TYPE: MPV 411 MODEL: TBGALEF-EUA 02000 COLOR: TRIM TRANS DR46 F55W71C AXLE ENGINE CR48 KA24 2389CC

Clean Filter Replaced Date

Y	M	D
7		

Figure A-38. Pre-Test Vehicle Certification Label View

C25201
FMVSS 208 SLED
2002 NISSAN XTERRA
4/25/02 TRC896

RECOMMENDED COLD TIRE INFLATION PRESSURE PRESSION DE GONFLAGE RECOMMANDEE DES PNEUS FROIDS	
TIRE SIZE DIMENSIONS	kPa (psi)
P265/70R15 P265/70R16 P265/65R17	FRONT 210 (30)
	REAR 210 (30)

72800

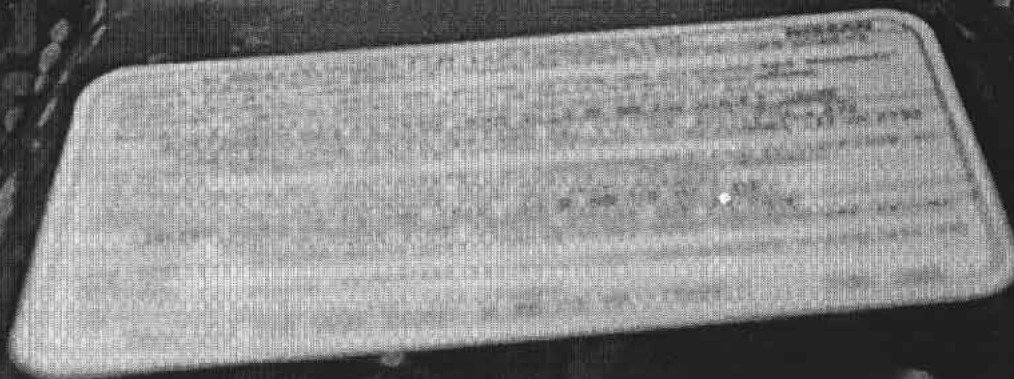


Figure A-39. Pre-Test Tire Load Label View
A-40

S020425

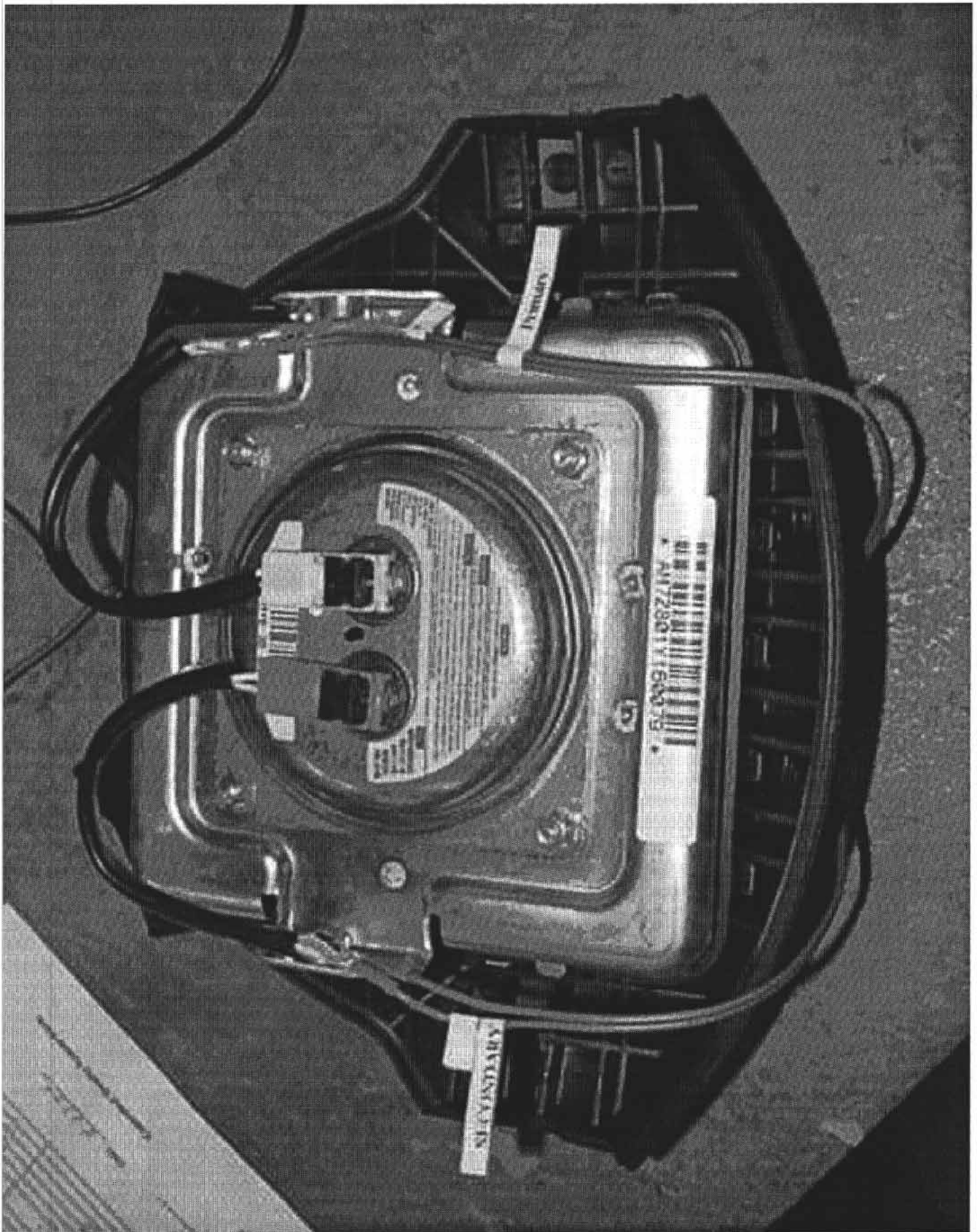


Figure A-40. Pre-Test Driver Airbag Cables
A-41

S020425

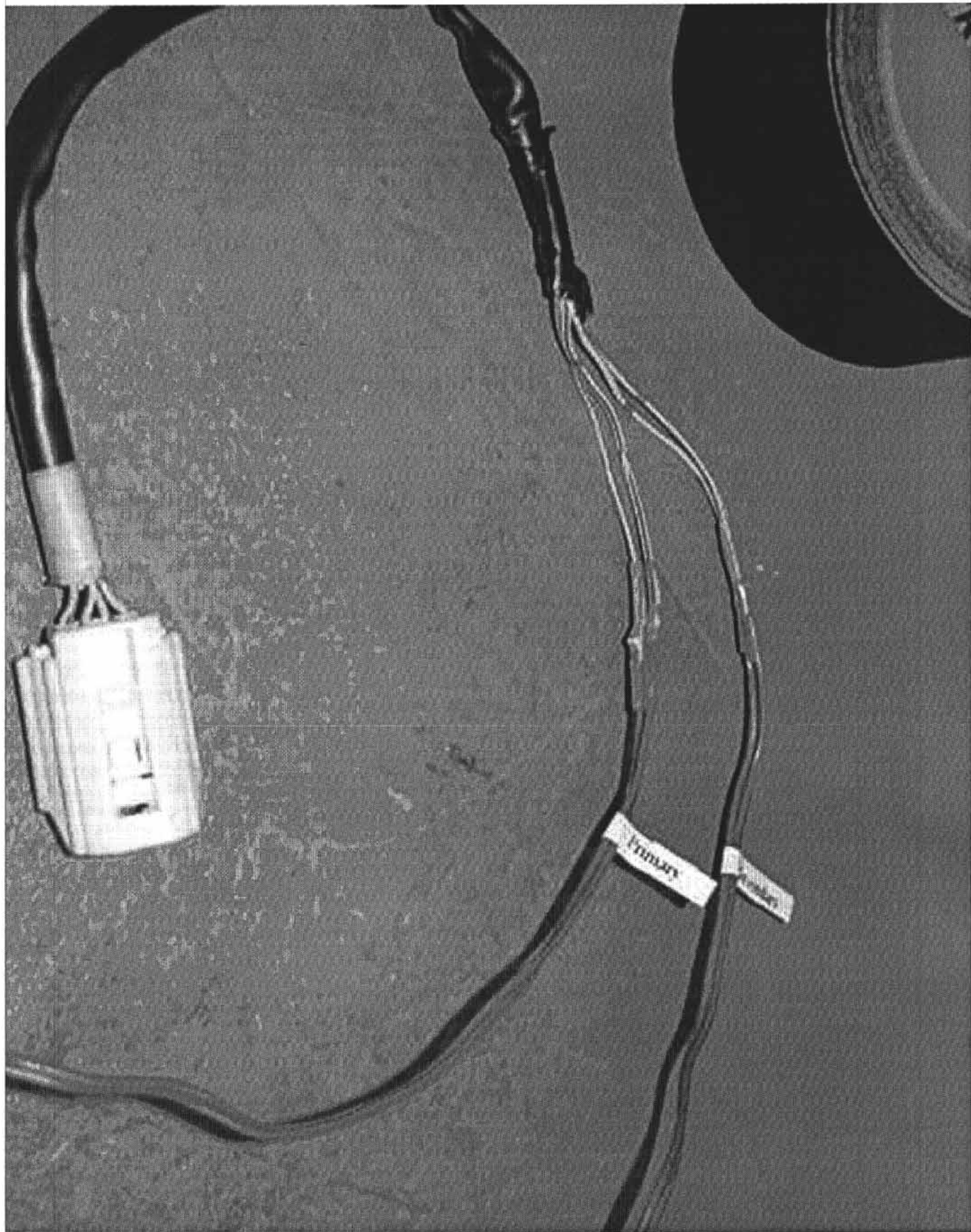


Figure A-41. Pre-Test Passenger Airbag Cables
A-42

S020425

Appendix B

Data Plots

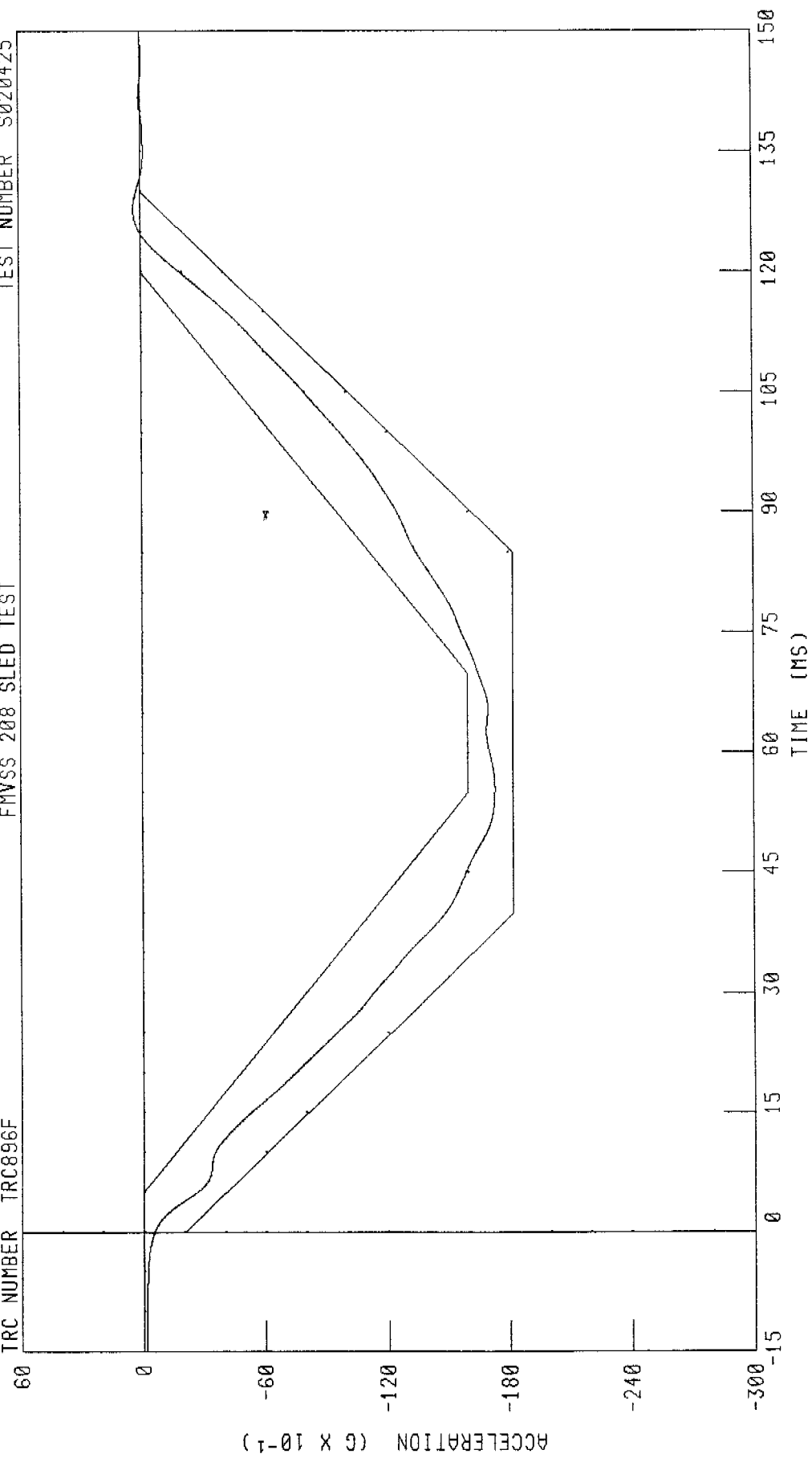
C25201 / 2002 NISSAN XTERRA

SLED ACCELERATION

FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



C25201 / 2002 NISSAN XTERRA

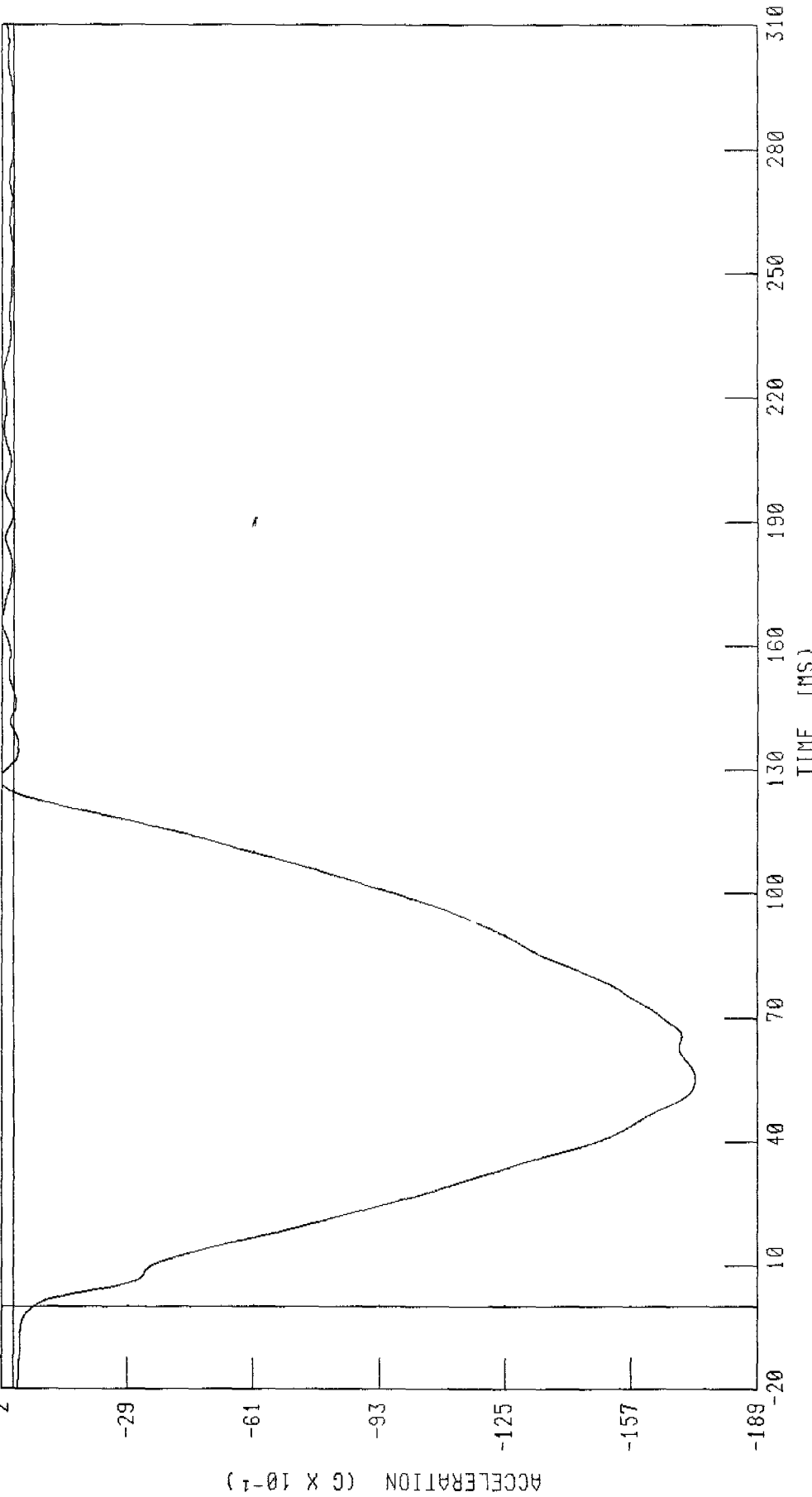
SLED ACCELERATION

FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F

2



CHANNEL SLDXG FILTER CH CLASS 60

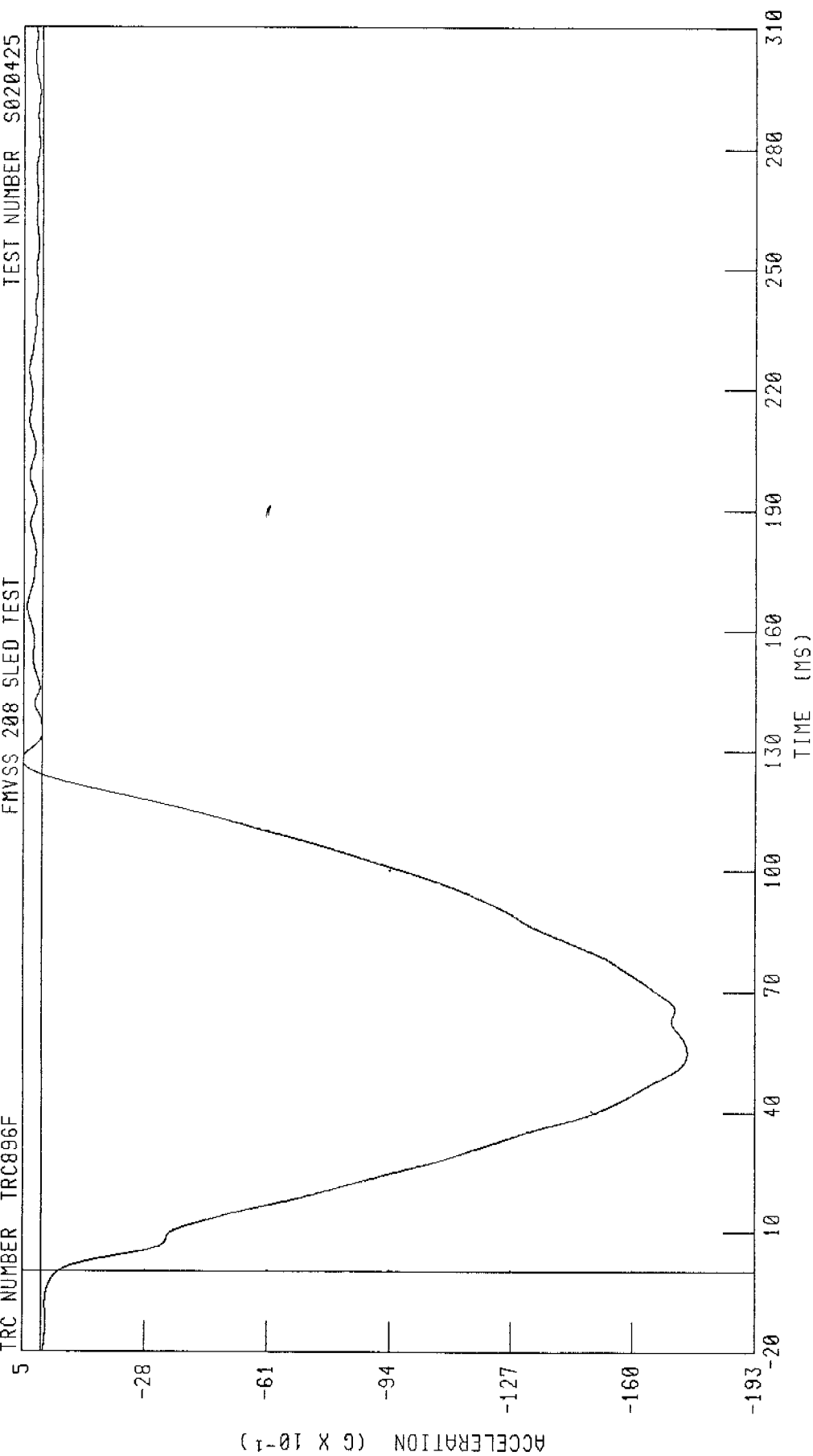
PEAK DATA 0 36 G 0 127 76 MS, -17 33 G 0 55 36 MS

C25201 / 2002 NISSAN XTERRA
SLED ACCELERATION - BACKUP

TRC NUMBER TRC896F

TEST NUMBER S020425

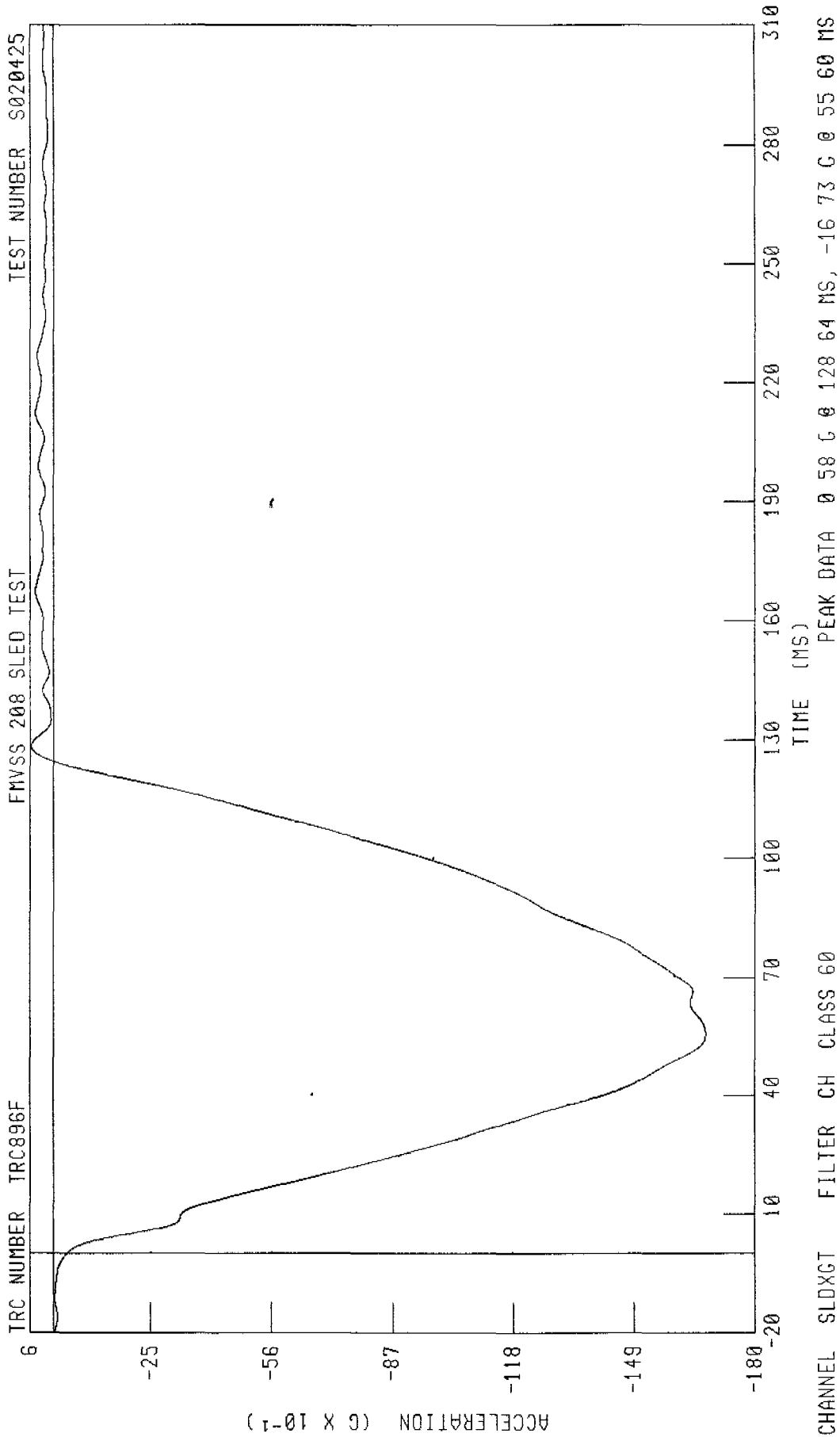
FMVSS 208 SLED TEST



PEAK DATA 0 54 G 0 127 84 MS, -17 47 G 0 54 72 MS

CHANNEL SLDXGR FILTER CH CLASS 60

C25201 / 2002 NISSAN XTERRA
 SLED ACCELERATION FOR TIMING CIRCUIT

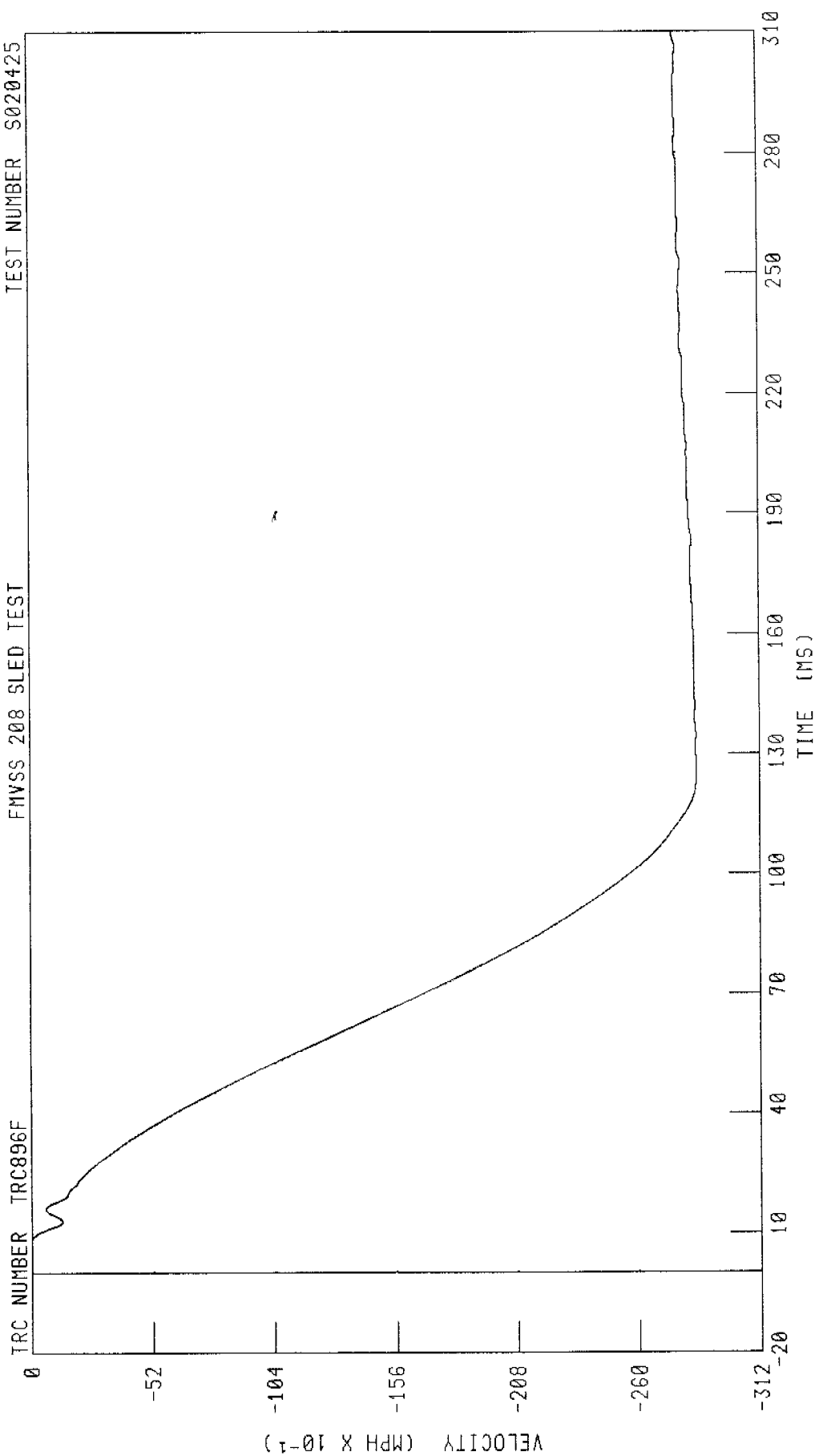


C25201 / 2002 NISSAN XTERRA

MEASURED VELOCITY TRAP

FMVSS 208 SLED TEST

TEST NUMBER S020425



CHANNEL SLDXV FILTER CH CLASS 60

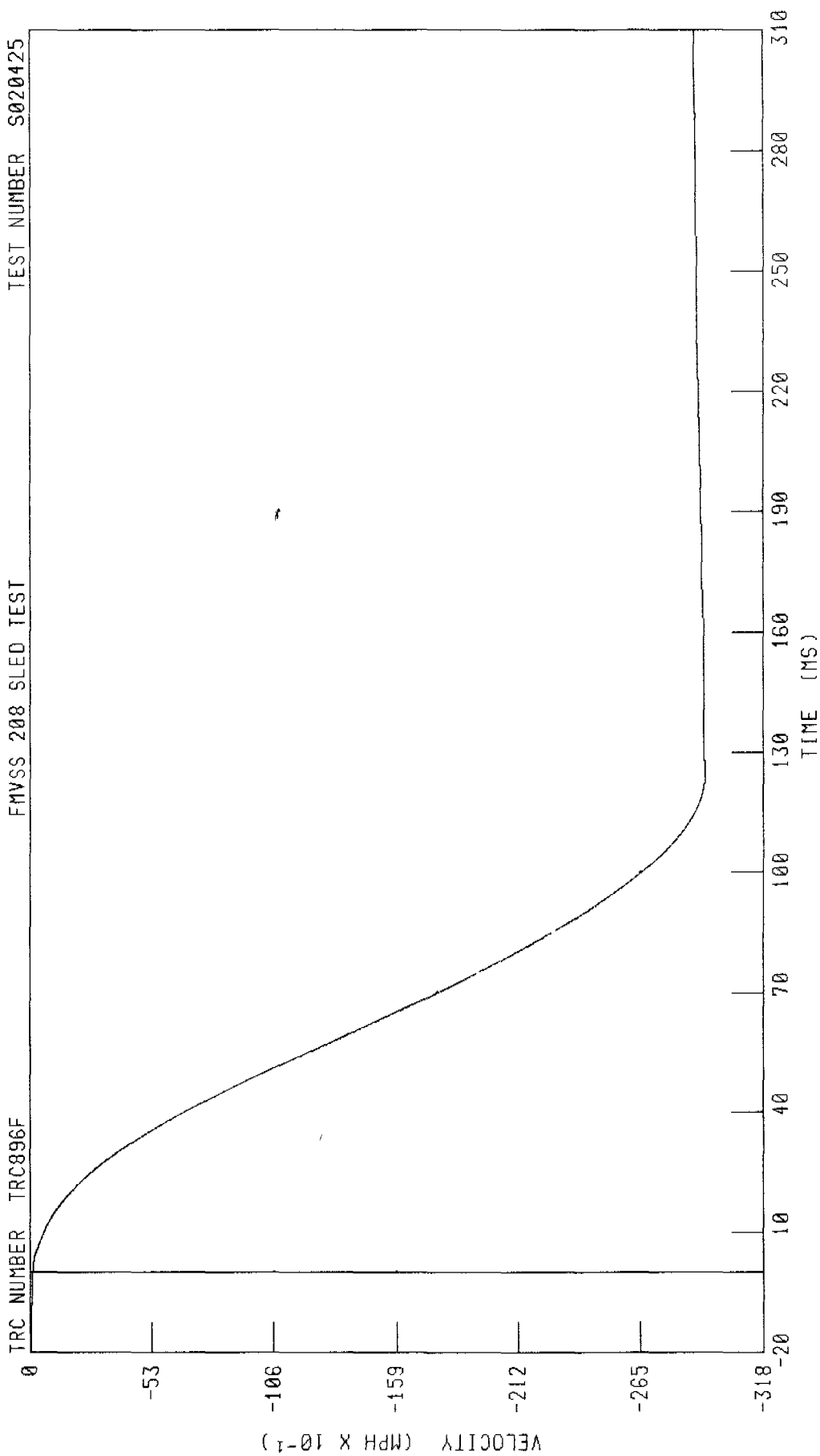
PEAK DATA 0 06 MPH @ 7 12 MS, -28 54 MPH @ 125 44 MS

C25201 / 2002 NISSAN XTERRA
SLED VELOCITY (INTEGRATED)

TEST NUMBER S020425

TRC NUMBER TRC896F

FMVSS 208 SLED TEST



PEAK DATA -0 02 MPH @ -20 00 MS, -29 29 MPH @ 124 48 MS

CHANNEL SLDXVI FILTER CH CLASS 180

C25201 / 2002 NISSAN XTERRA
DRIVER PRIMARY AIRBAG EVENT
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F

99

83

66

50

33

16

0

VOLTAGE (V X 10⁻²)

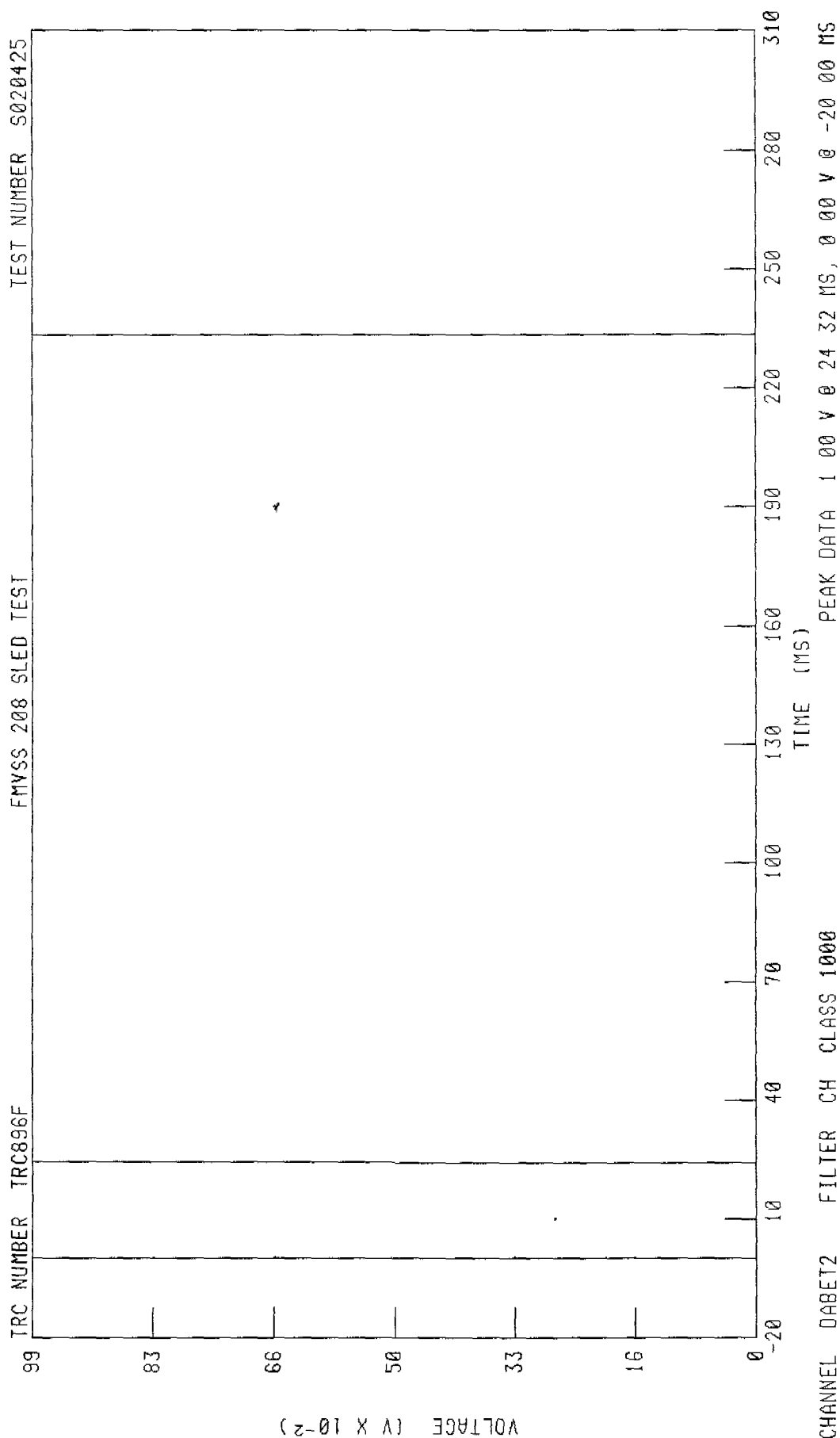
TIME (MS)

10 40 70 100 130 160 190 220 250 280 310

CHANNEL DABET1 FILTER CH CLASS 1000

PEAK DATA 1 00 V 0 21 36 MS, 0 00 V 0 -20 00 MS

C25201 / 2002 NISSAN XTERRA
DRIVER SECONDARY AIRBAG EVENT



C25201 / 2002 NISSAN XTERRA
PASSENGER PRIMARY AIRBAG EVENT

FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F

99

83

66

50

33

16

0

VOLTAGE (V X 10⁻²)

-20

10

40

70

100

130

160

190

220

250

280

310

TIME (MS)

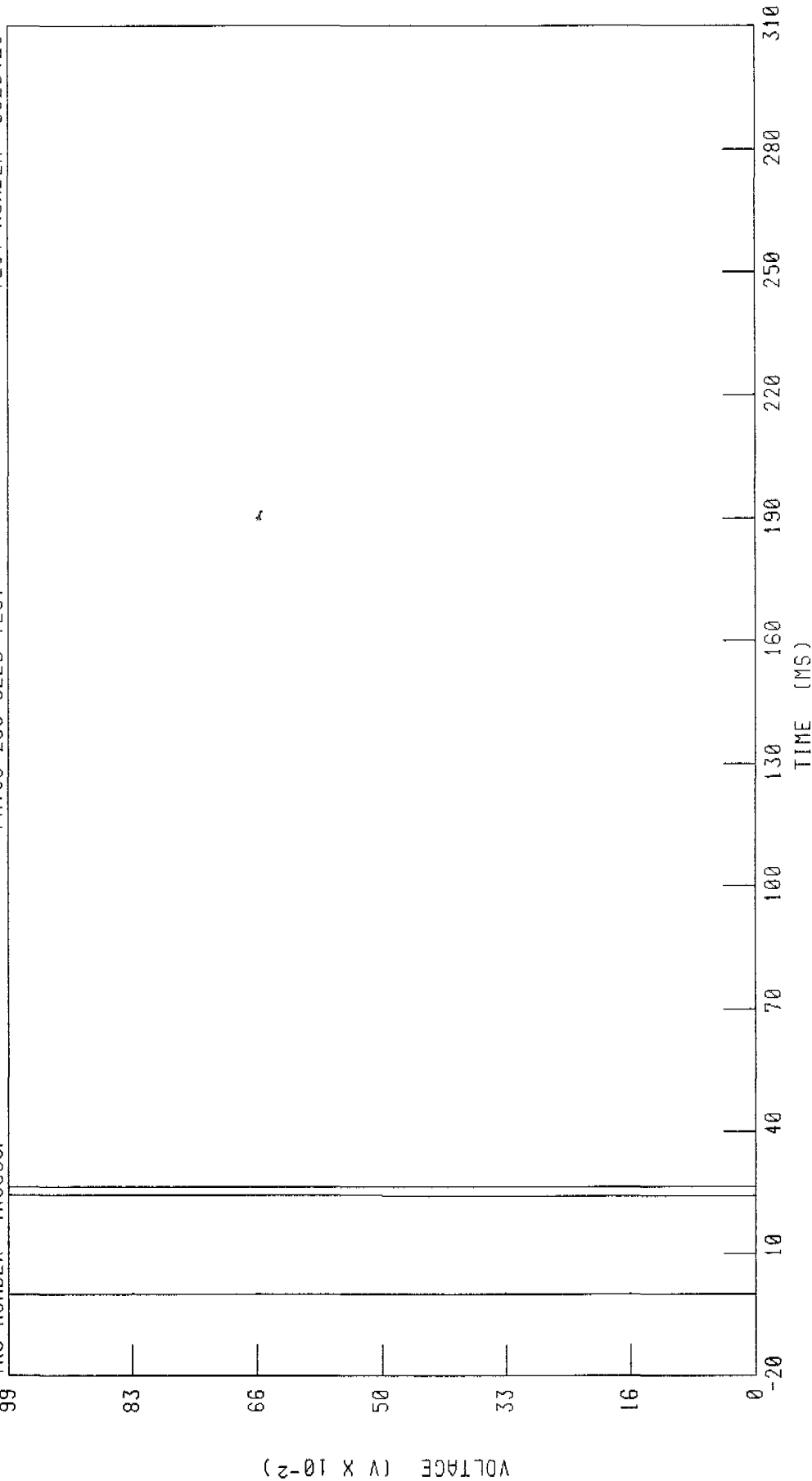
CHANNEL PABET1 FILTER CH CLASS 1000

PEAK DATA 1 00 V 0 21 36 MS, 0 00 V 0 -20 00 MS

C25201 / 2002 NISSAN XTERRA
PASSENGER SECONDARY AIRBAG EVENT
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



CHANNEL PABET2 FILTER CH CLASS 1000

PEAK DATA 1 00 V 0 24 32 MS, 0 00 V 0 -20 00 MS

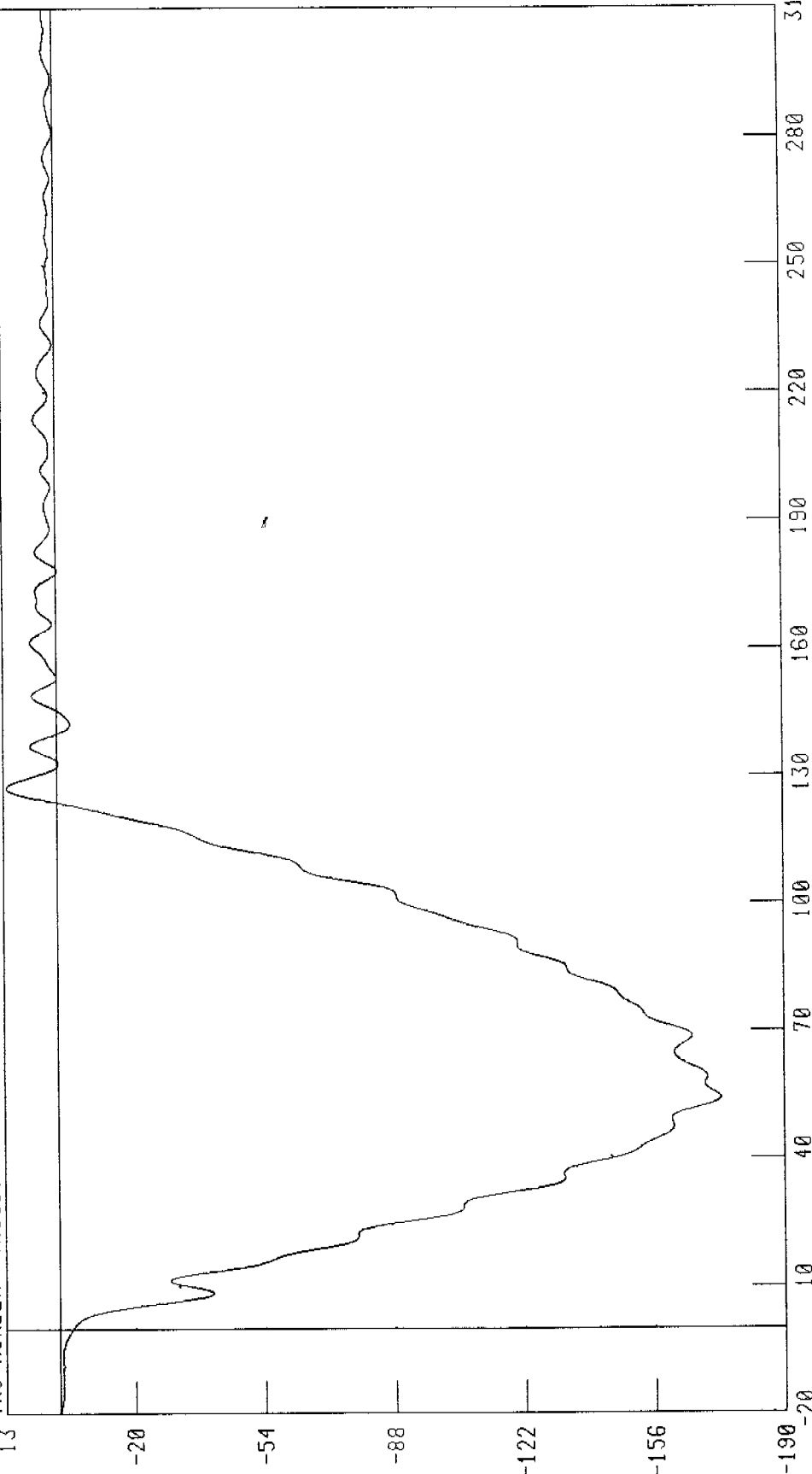
C25201 / 2002 NISSAN XTERRA
REAR AXLE X-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F

13

ACCELERATION ($G \times 10^{-1}$)

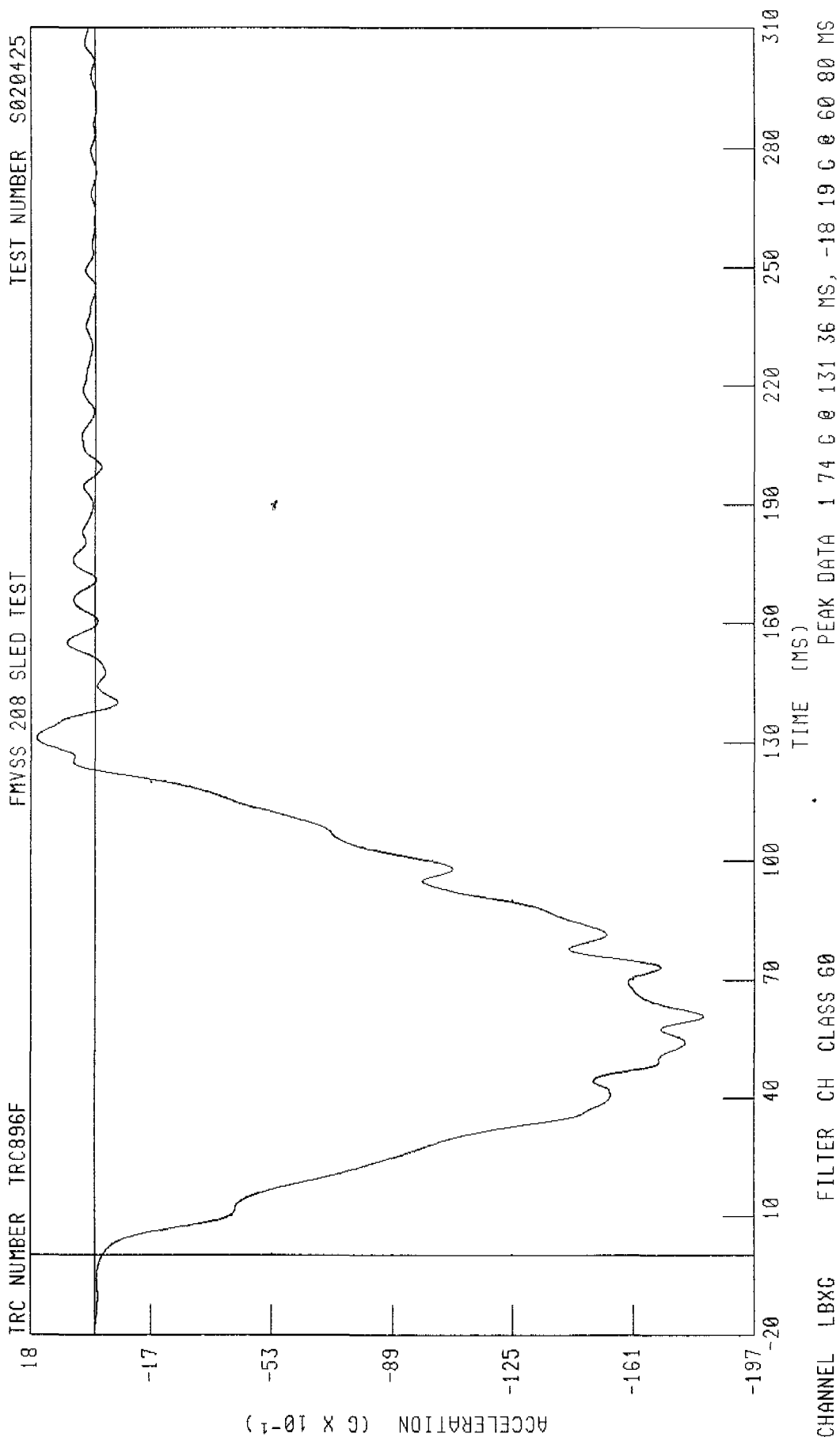


TIME (MS)

PEAK DATA 1 33 G @ 127 52 MS, -17 35 G @ 54 00 MS

CHANNEL RAXC FILTER CH CLASS 60

C25201 / 2002 NISSAN XTERRA
LEFT BODY AT REAR SEAT X-AXIS ACCELERATION

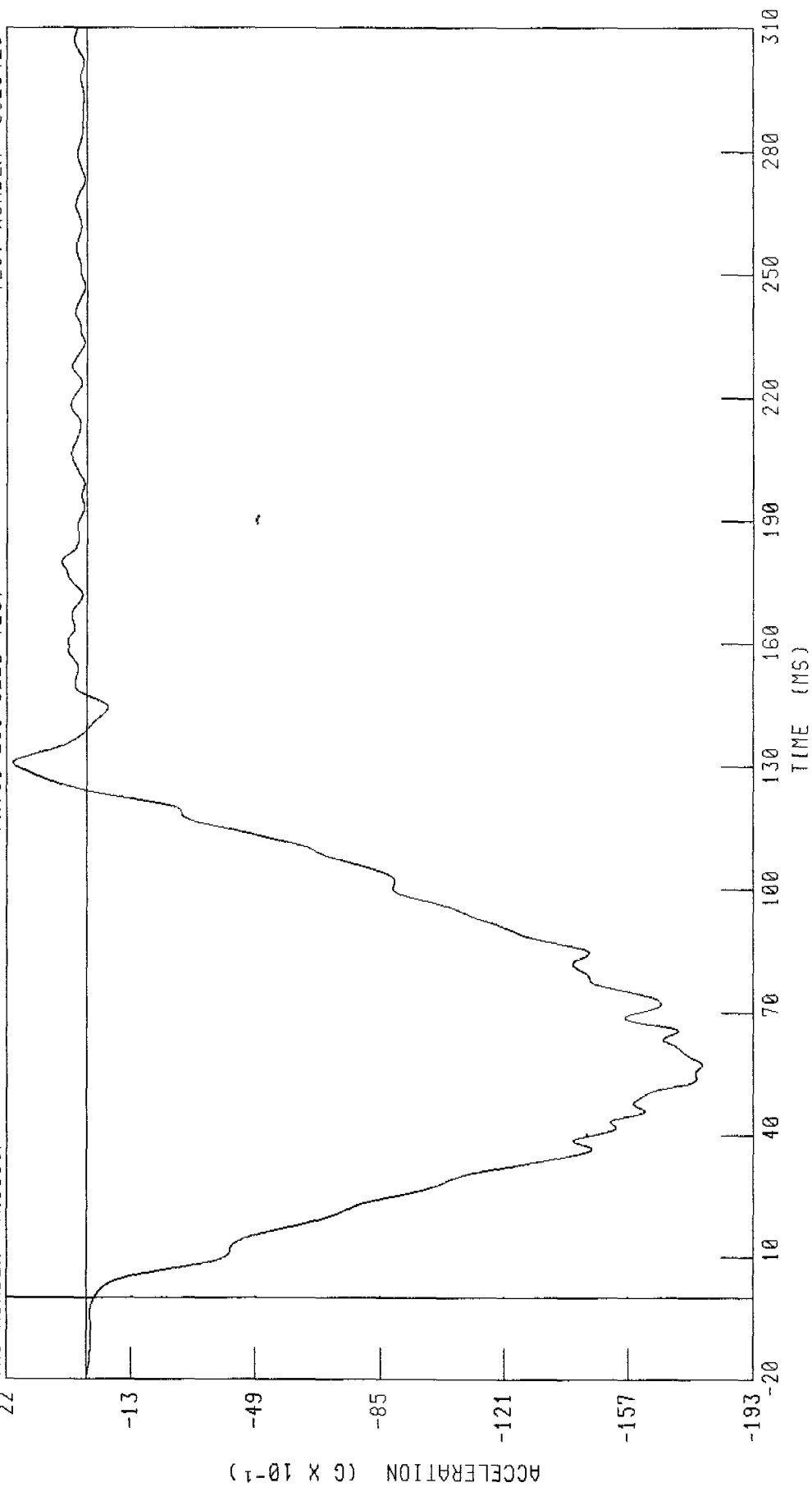


C25201 / 2002 NISSAN XTERRA
RIGHT BODY AT. REAR SEAT X-AXIS ACCELERATION

TEST NUMBER S020425

FMVSS 208 SLED TEST

TRC NUMBER TRC896F



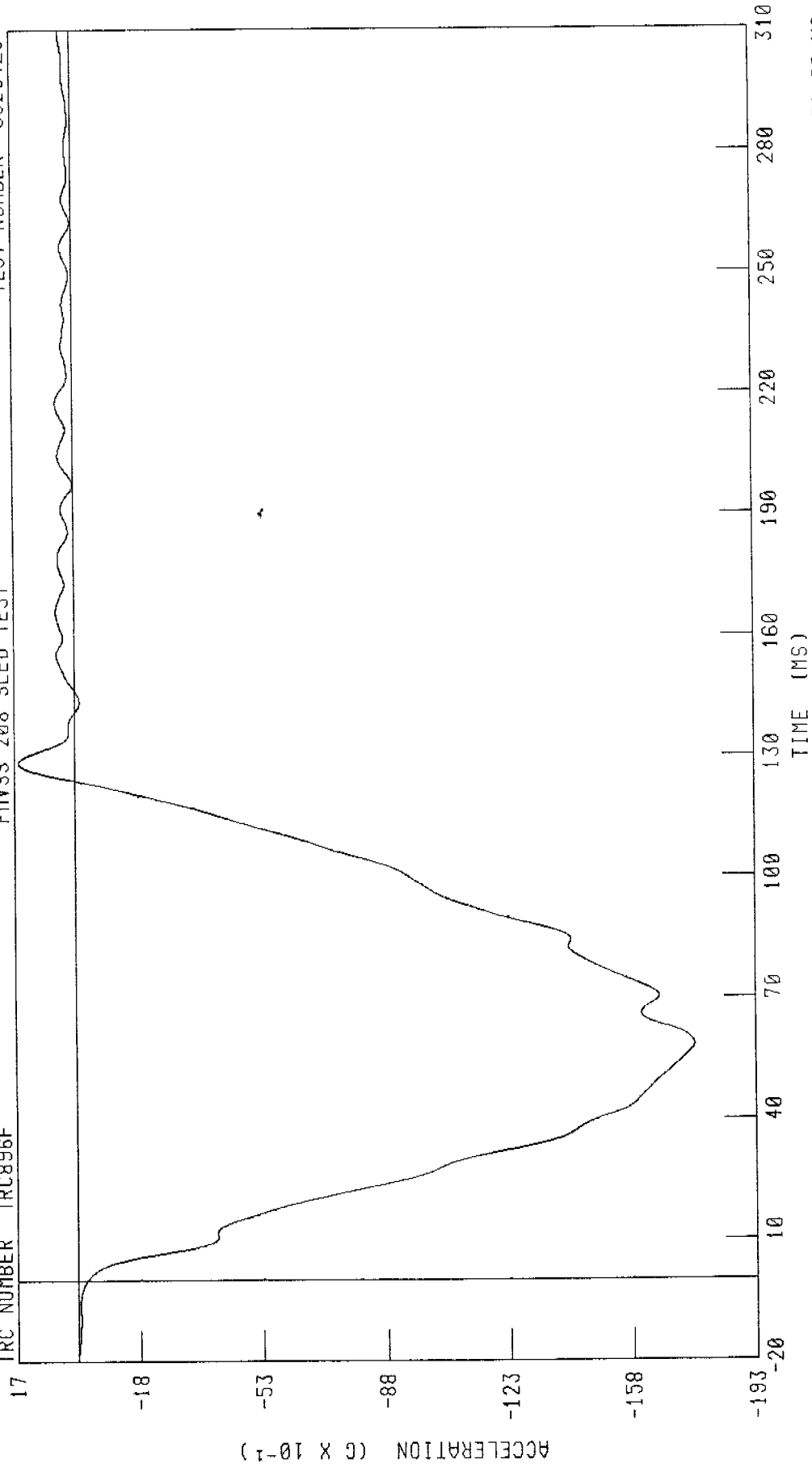
PEAK DATA 2 13 G @ 131 04 MS, -17 85 G @ 57 12 MS

CHANNEL RBXC FILTER CH CLASS 60

C25201 / 2002 NISSAN XTERRA
LEFT VEHICLE FRAME X-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



PEAK DATA 1 59 C 0 128 72 MS, -17 57 G 0 58 32 MS

CHANNEL LFXC FILTER CH CLASS 60

C25201 / 2002 NISSAN XTERRA
RIGHT VEHICLE FRAME X-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER S020425

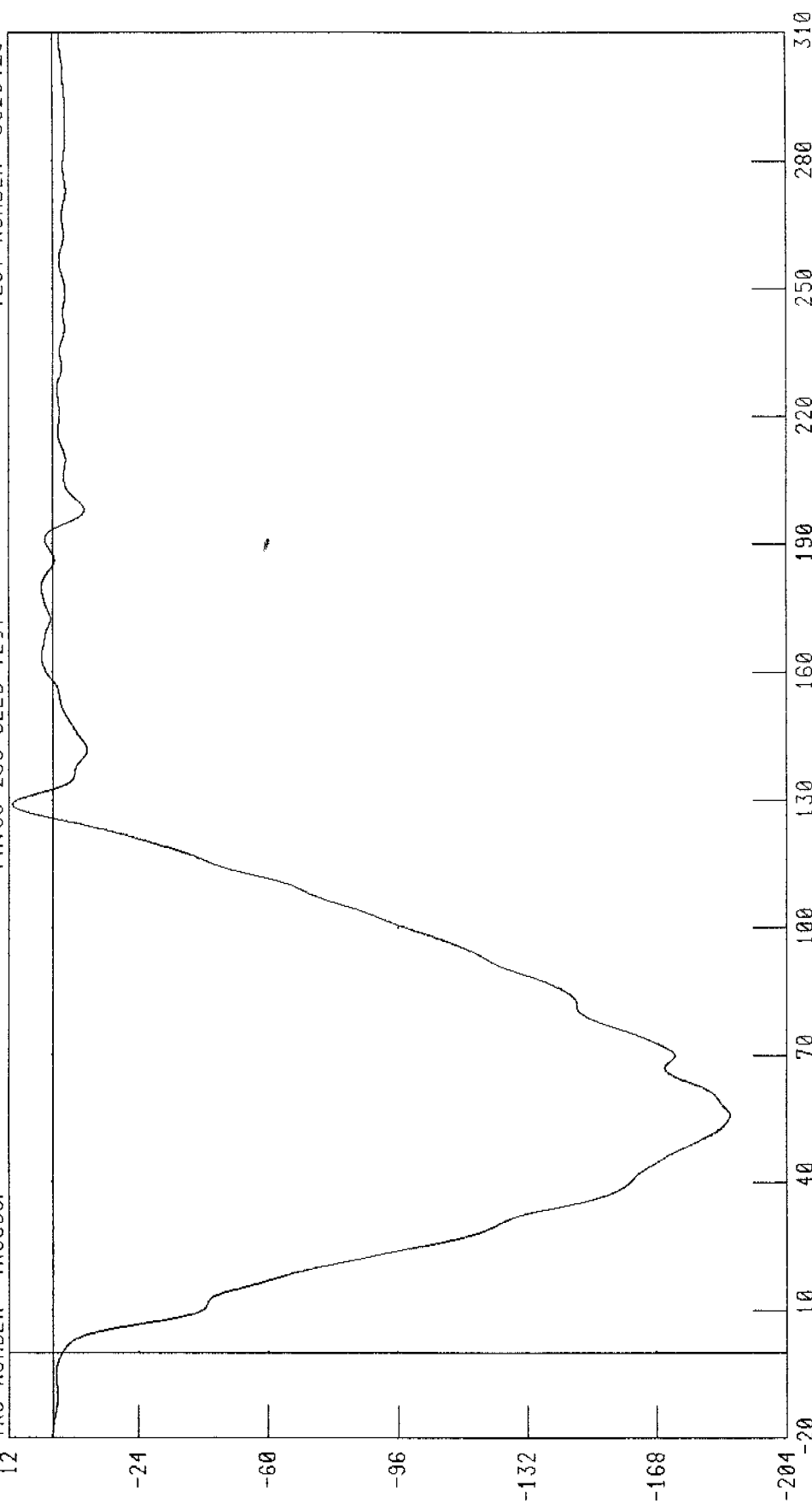
TRC NUMBER TRC896F

ACCELERATION (G X 10⁻¹)

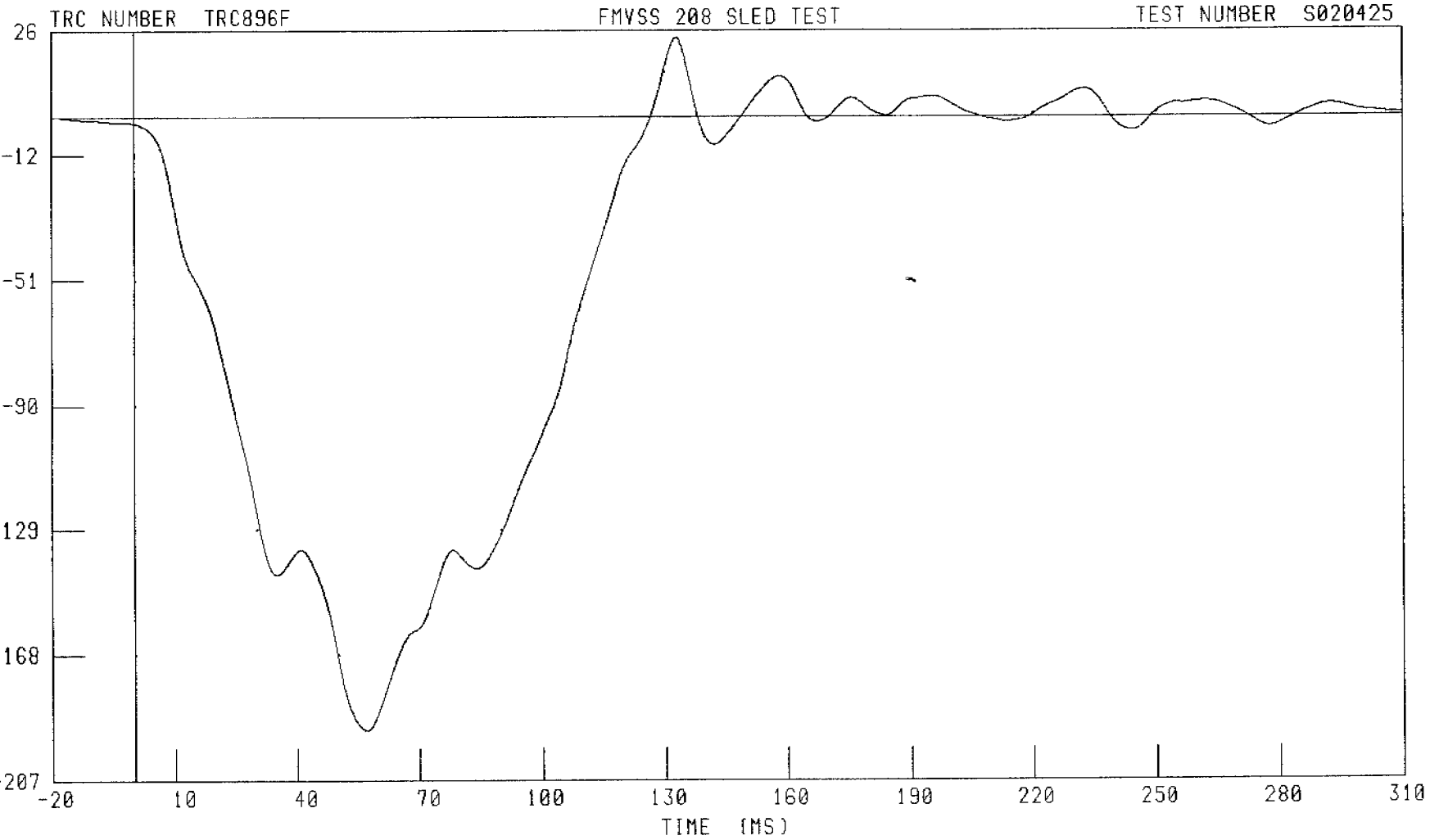
TIME (MS)

PEAK DATA 1 10 G @ 129 12 MS, -18 85 G @ 55 76 MS

CHANNEL RFXC FILTER CH CLASS 60



C25201 / 2002 NISSAN XTERRA
TOP ENGINE X-AXIS ACCELERATION



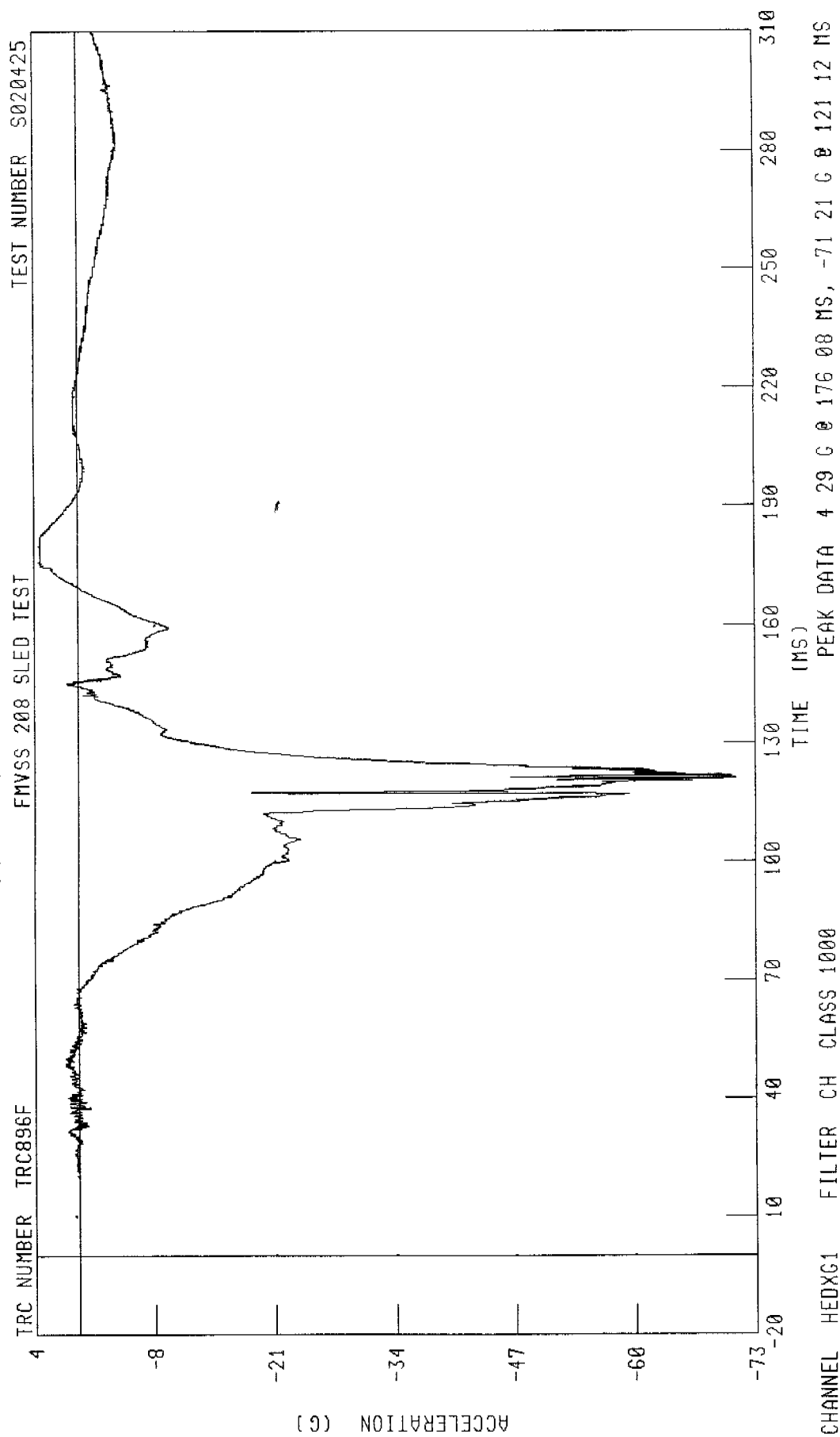
CHANNEL TEXTC FILTER CH CLASS 60

PEAK DATA 2 47 G @ 133 04 MS, -19 15 G @ 56 96 MS

B-17

S020425

C25201 / 2002 NISSAN XTERRA
DRIVER HEAD X-AXIS ACCELERATION

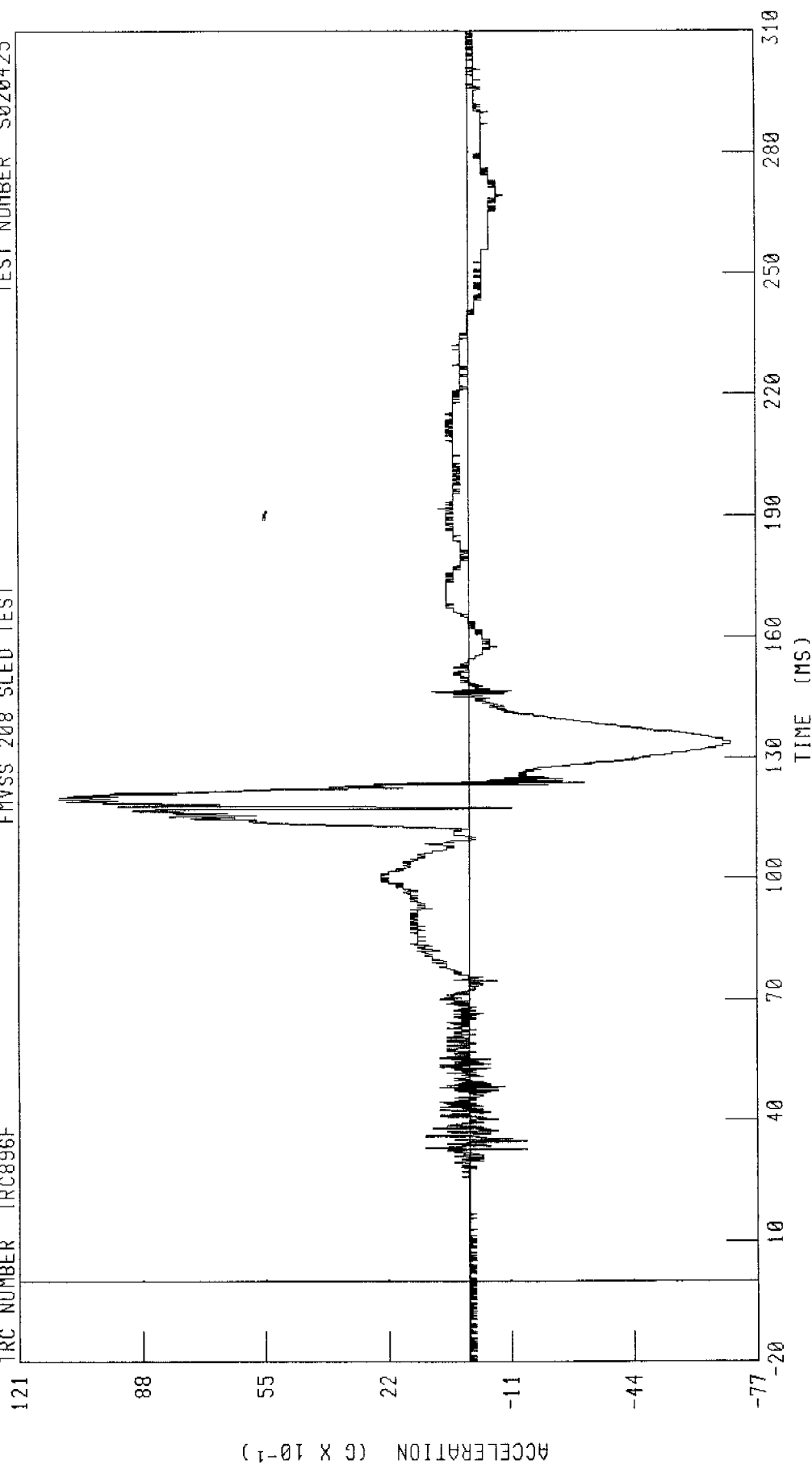


C25201 / 2002 NISSAN XTERRA
DRIVER HEAD Y-AXIS ACCELERATION

TEST NUMBER S020425

TRC NUMBER TRC896F

FMVSS 208 SLED TEST

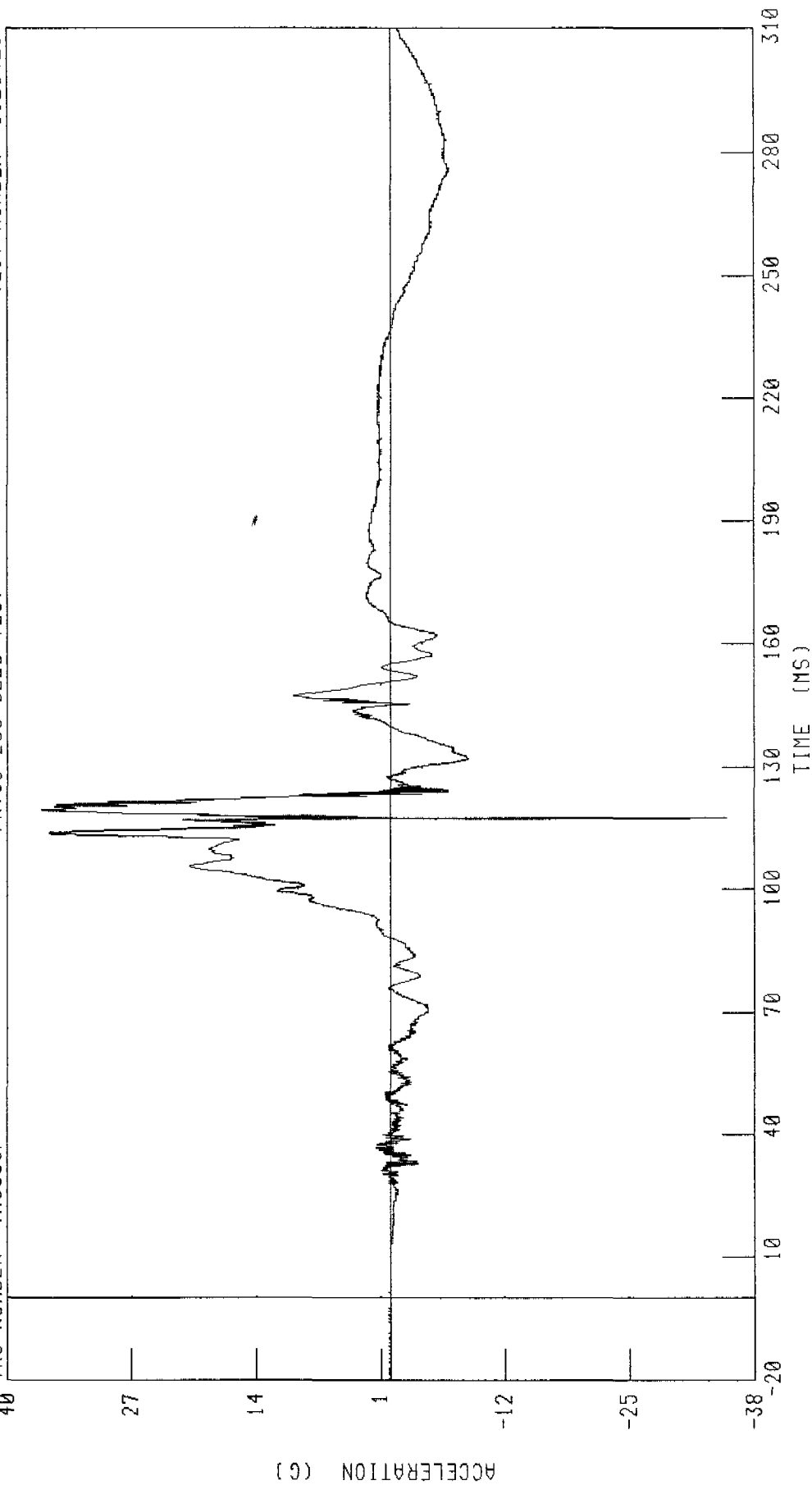


PEAK DATA 11 01 G @ 119 92 MS, -7 01 G @ 133 44 MS

CHANNEL HEDYG1 FILTER CH CLASS 1000

C25201 / 2002 NISSAN XTERRA
DRIVER HEAD Z-AXIS ACCELERATION
FMVSS 208 SLED TEST

TRC NUMBER TRC896F TEST NUMBER S020425



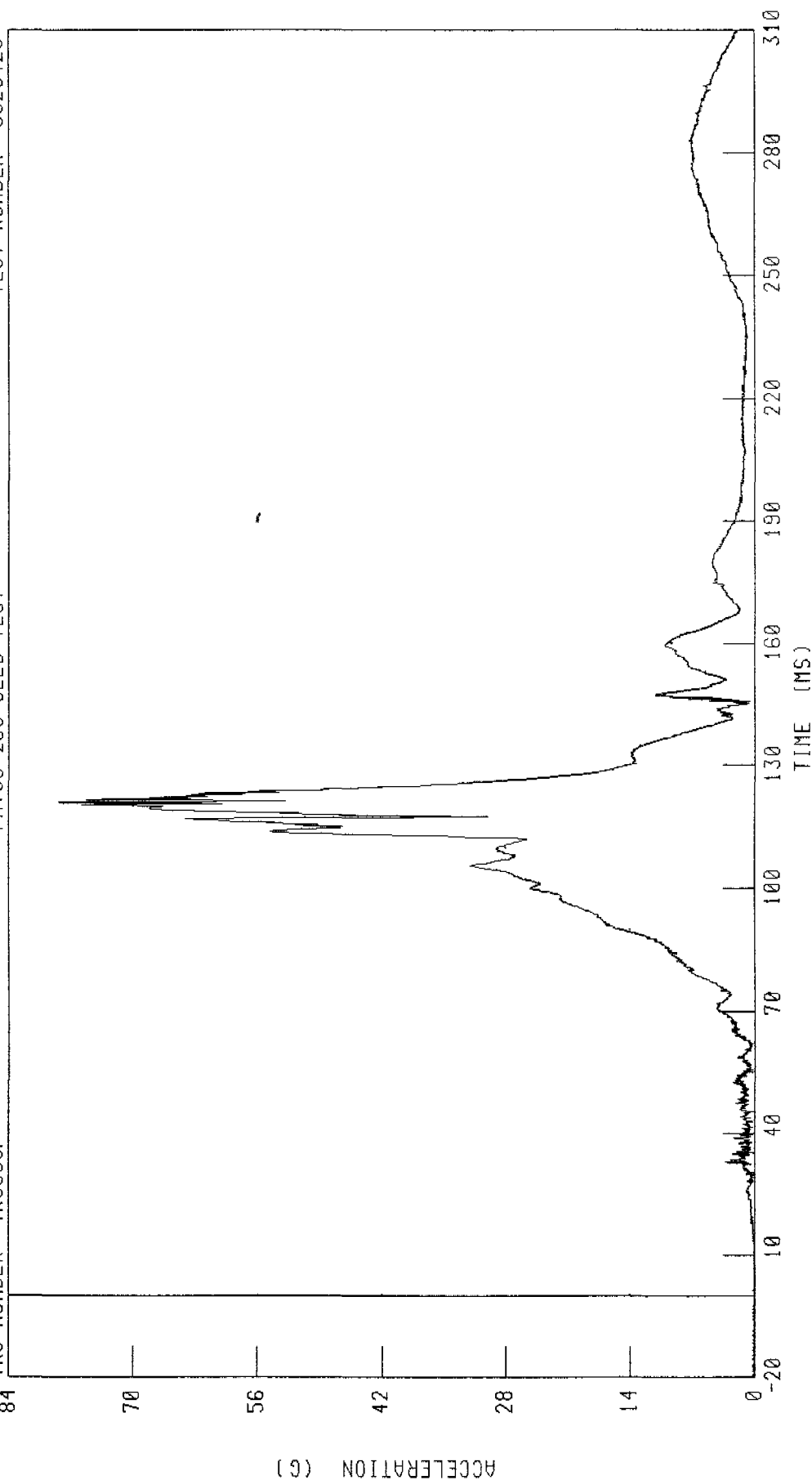
CHANNEL HEDZG1 FILTER CH CLASS 1000 PEAK DATA 36 44 G @ 119 60 MS, -35 12 G @ 117 52 MS

C25201 / 2002 NISSAN XTERRA
 DRIVER HEAD RESULTANT ACCELERATION

TEST NUMBER S020425

TRC NUMBER TRC896F

FMVSS 208 SLED TEST



CHANNEL HEDRG1 FILTER CH CLASS 1000

PEAK DATA 78 33 G @ 121 12 MS, 0 05 G @ -20 00 MS

C25201 / 2002 NISSAN XTERRA
DRIVER NECK X-AXIS SHEAR FORCE
FMVSS 208 SLED TEST

TRC NUMBER TRC896F TEST NUMBER S020425

92

65

38

11

-16

-43

-70

FORCE (N X 10¹)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

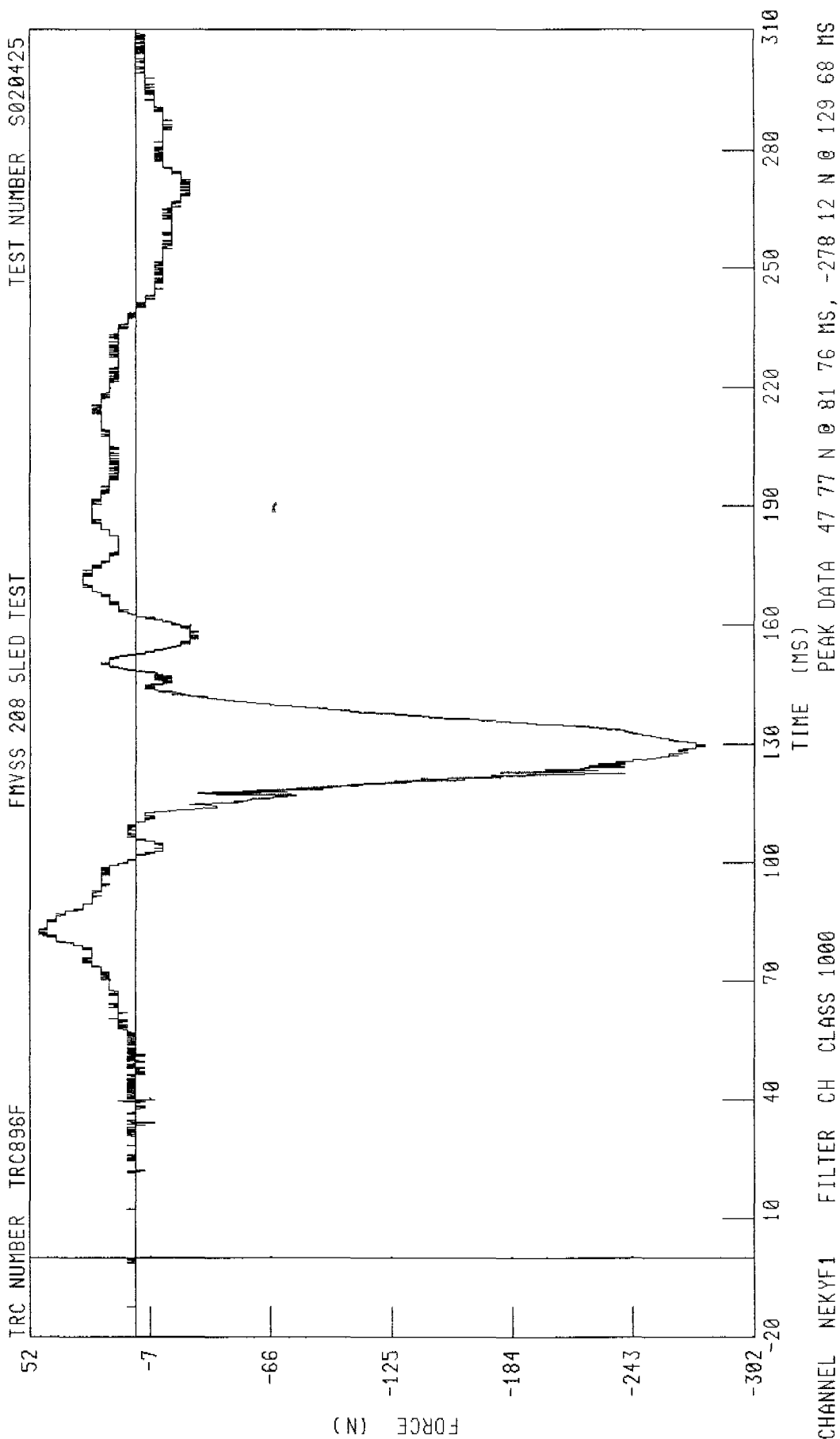
10

-20

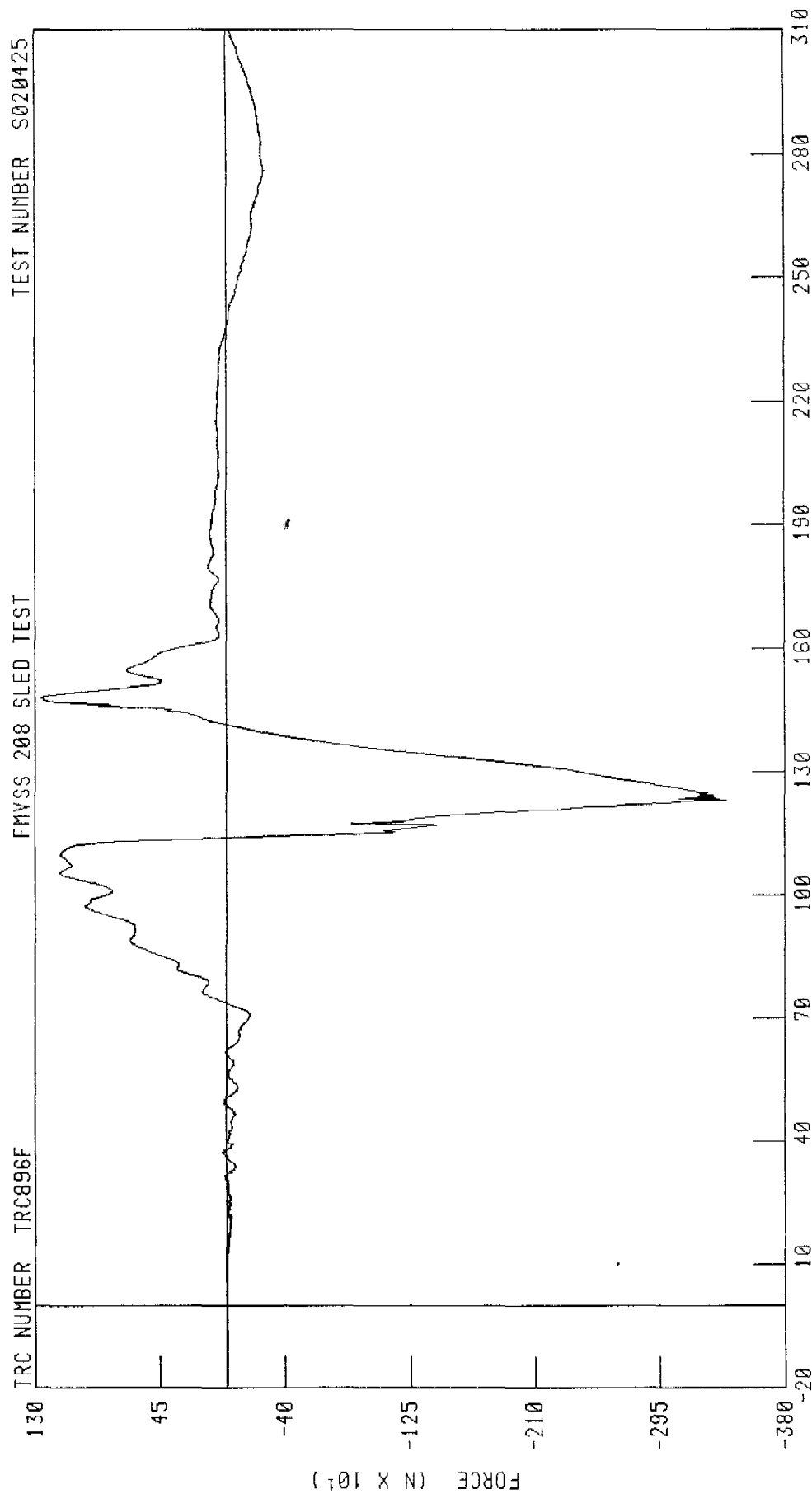
CHANNEL NEKXF1 FILTER CH CLASS 1000

PEAK DATA 835 76 N @ 125 28 MS, -640 92 N @ 155 68 MS

C25201 / 2002 NISSAN XTERRA
DRIVER NECK Y-AXIS SHEAR FORCE



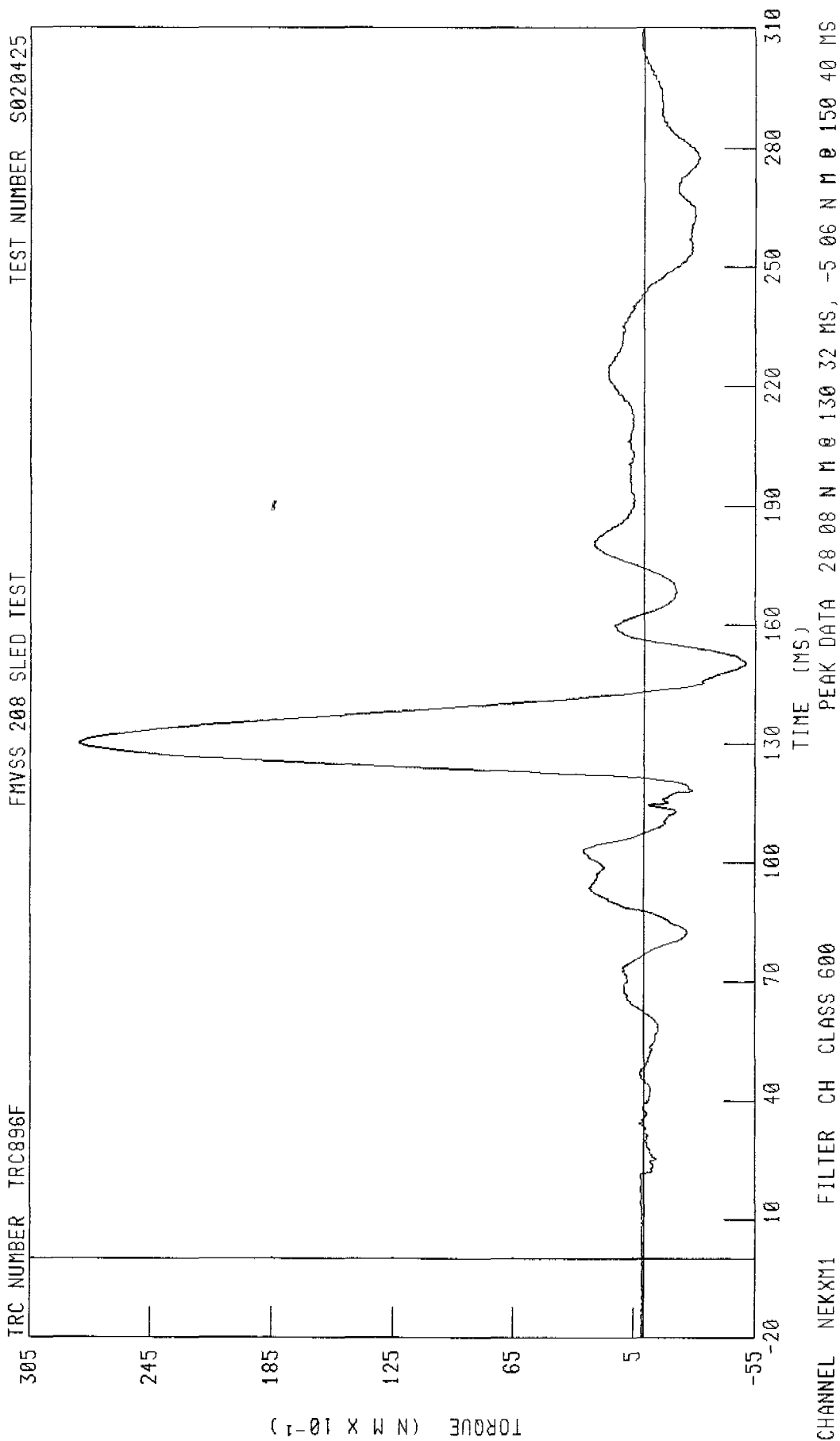
C25201 / 2002 NISSAN XTERRA
DRIVER NECK Z-AXIS AXIAL FORCE



CHANNEL NEKZF1 FILTER CH CLASS 1000

PEAK DATA 1257 97 N @ 148 24 MS, -3405 31 N @ 123 28 MS

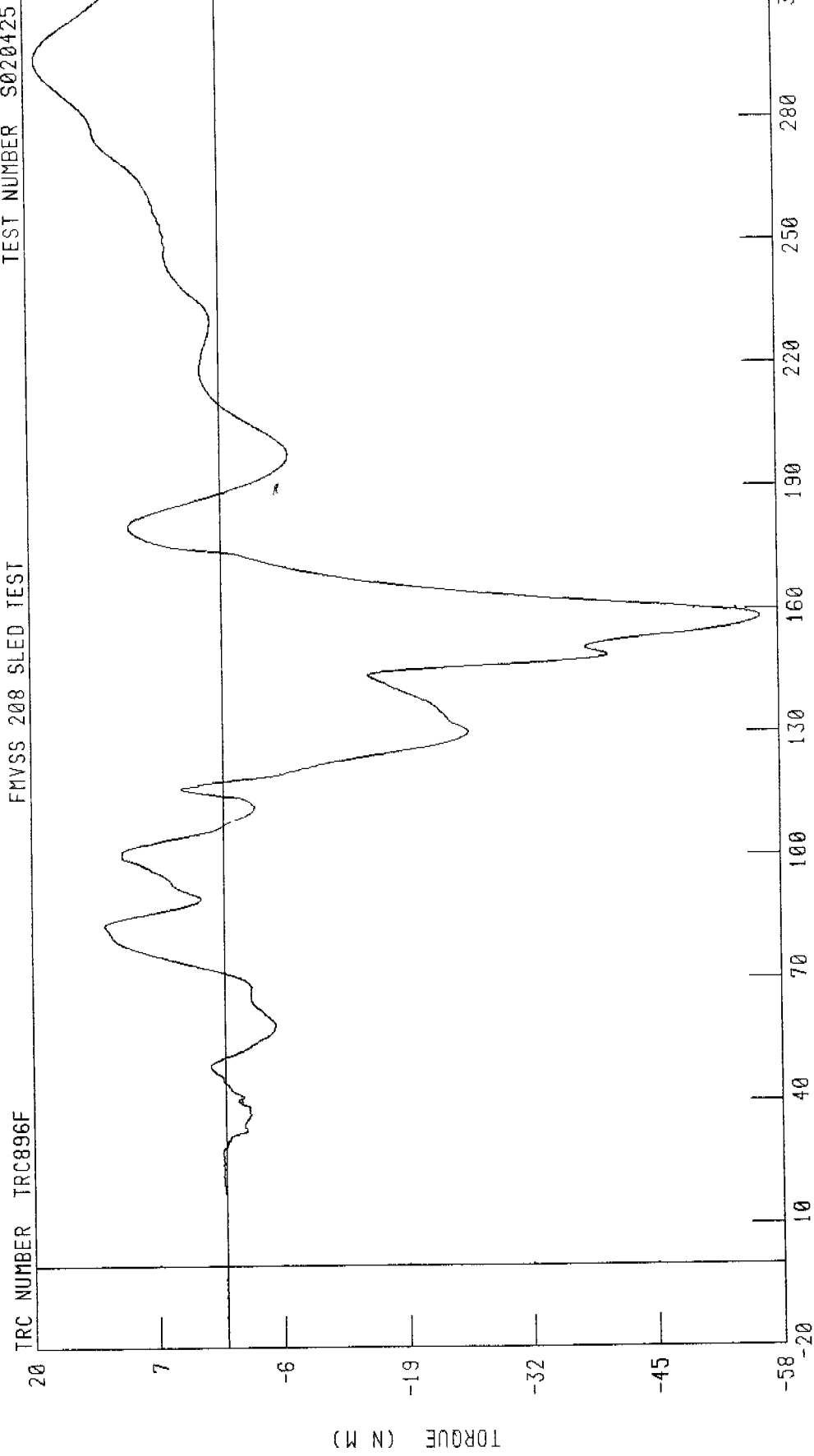
C25201 / 2002 NISSAN XTERRA
DRIVER NECK MOMENT ABOUT X AXIS



C25201 / 2002 NISSAN XTERRA
DRIVER NECK MOMENT ABOUT Y AXIS

TEST NUMBER S020425

TRC NUMBER TRC896F



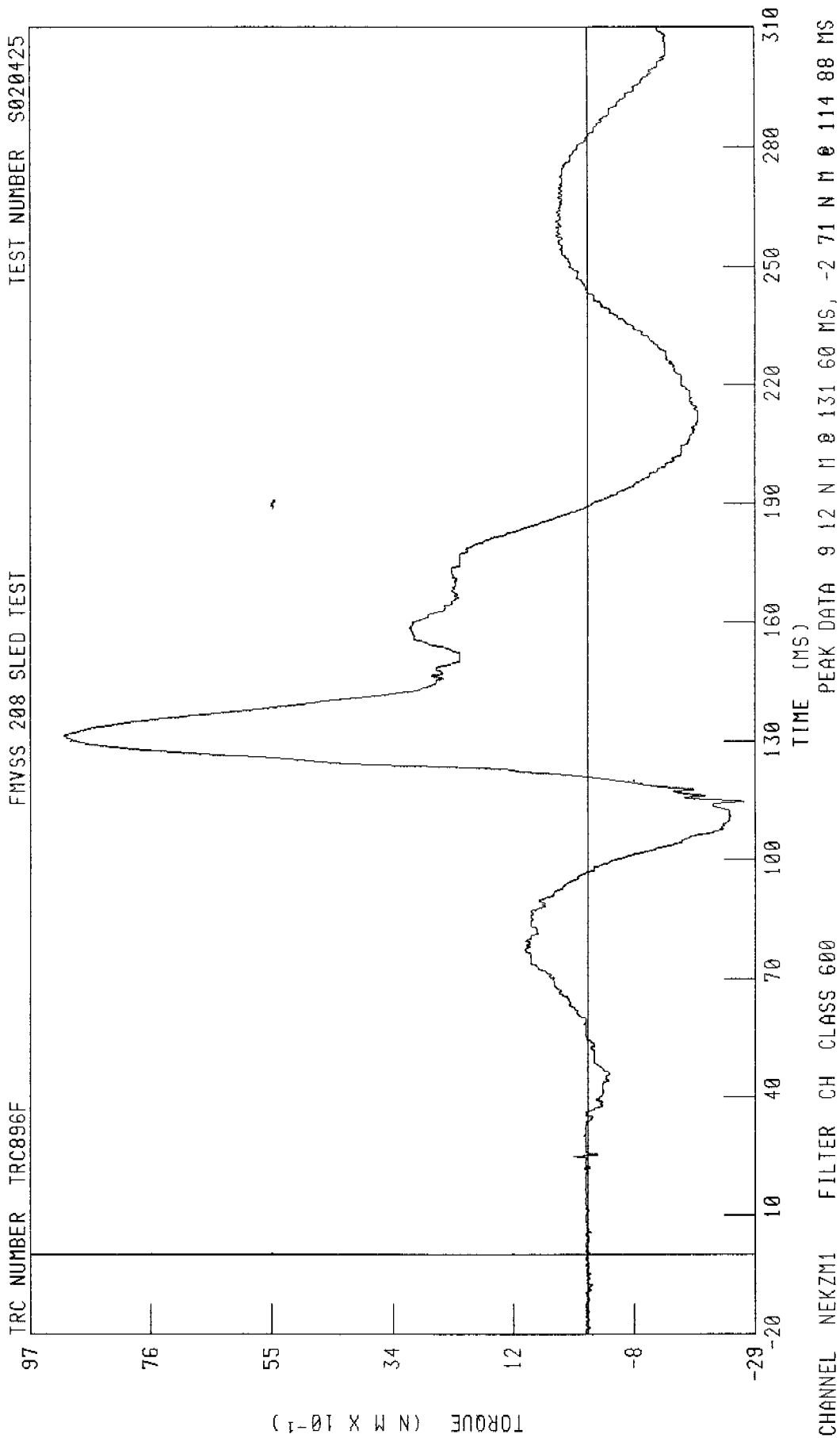
TIME (MS)

PEAK DATA 18 98 N M @ 295 28 MS, -56 19 N M @ 158 08 MS

CHANNEL NEKYM1 FILTER CH CLASS 600

TORQUE (N.M)

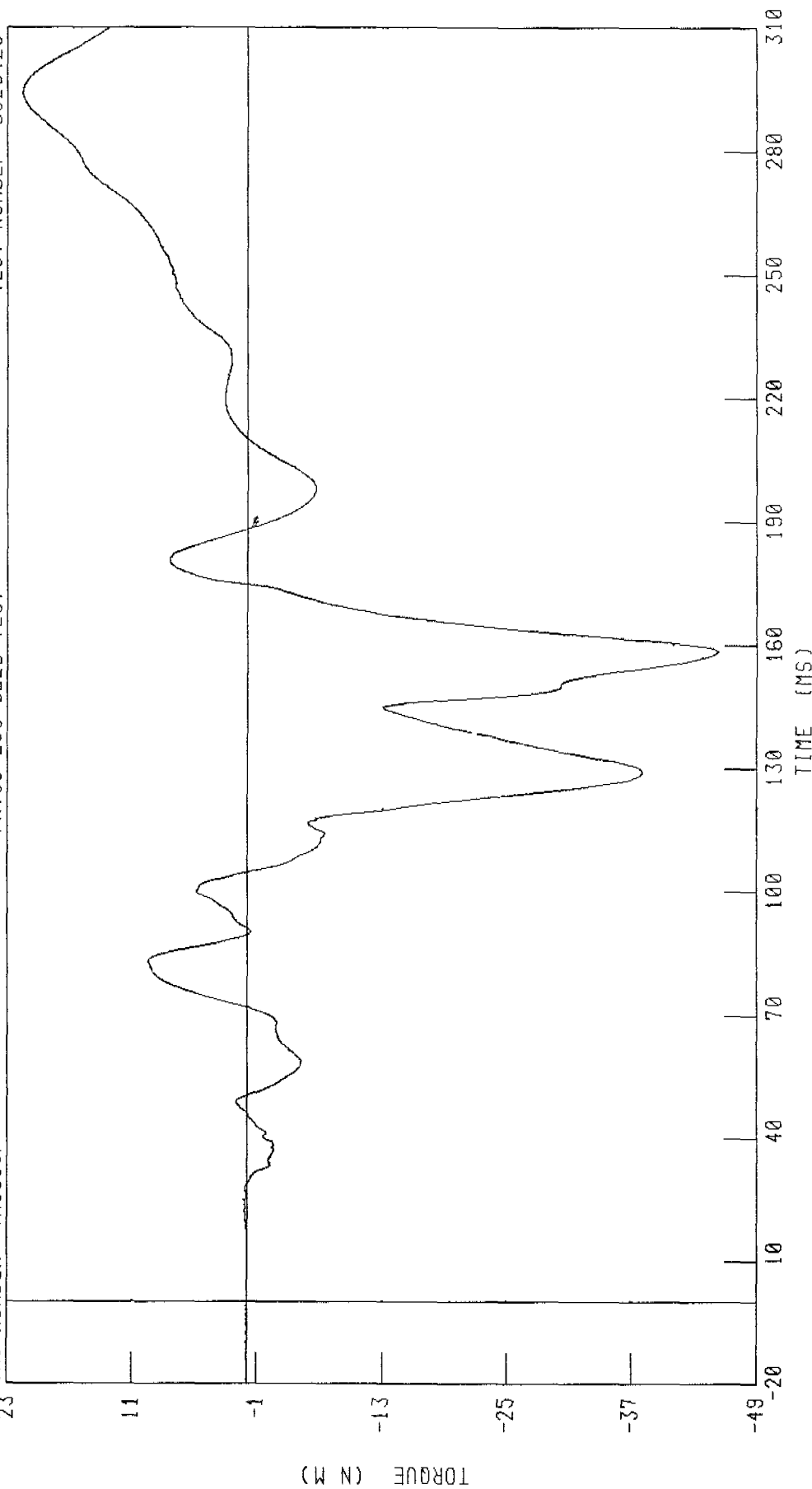
C25201 / 2002 NISSAN XTERRA
DRIVER NECK MOMENT ABOUT Z AXIS



C25201 / 2002 NISSAN XTERRA
DRIVER NECK MOMENT ABOUT Y AXIS OCCIPITAL CONDYLE
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F

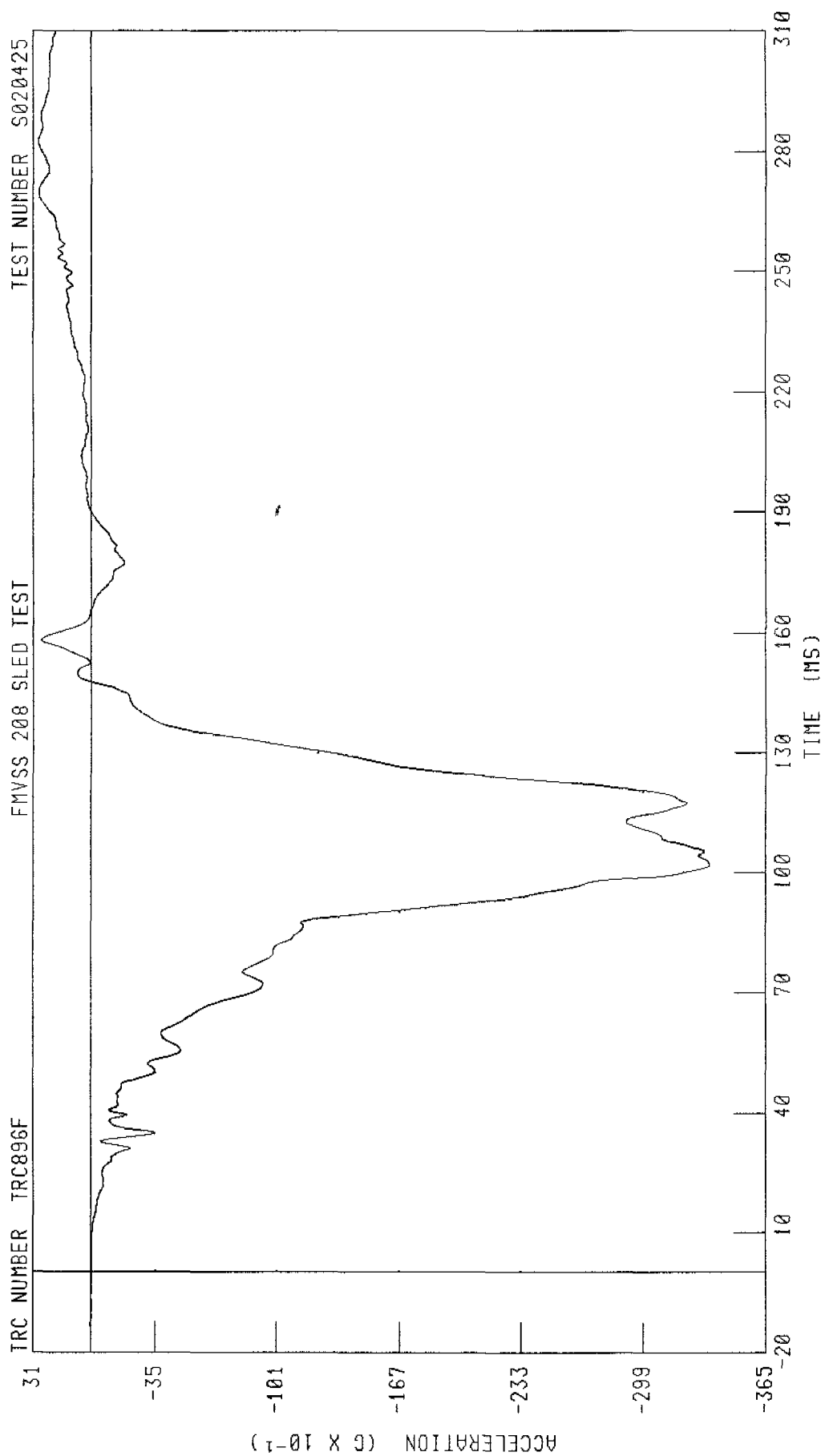


TIME (MS)

CHANNEL NEKOM1 FILTER CH CLASS 600

PEAK DATA 21 57 N M @ 294 16 MS, -45 31 N M @ 158 64 MS

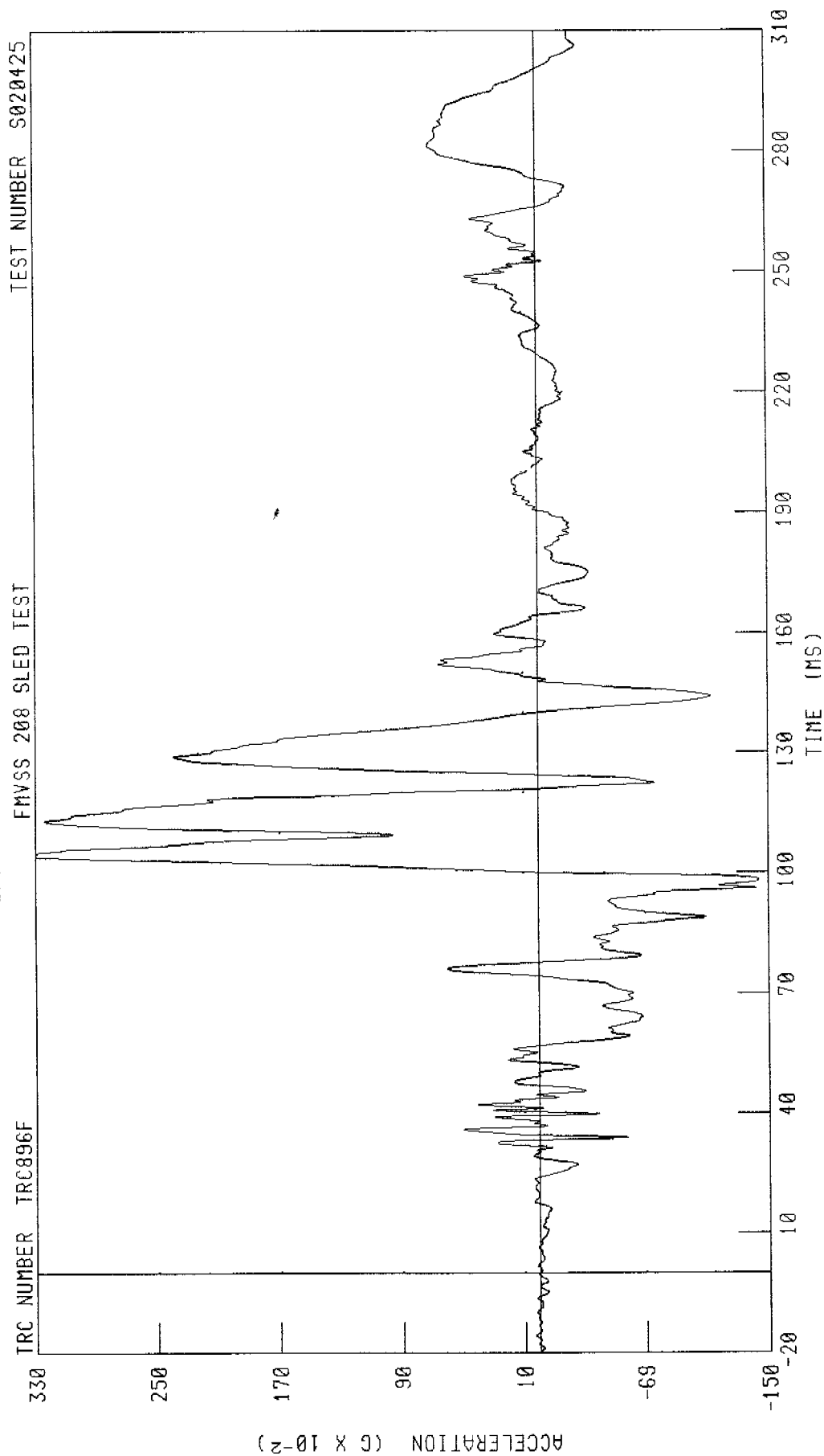
C25201 / 2002 NISSAN XTERRA
 DRIVER CHEST X-AXIS ACCELERATION
 FMVSS 208 SLED TEST



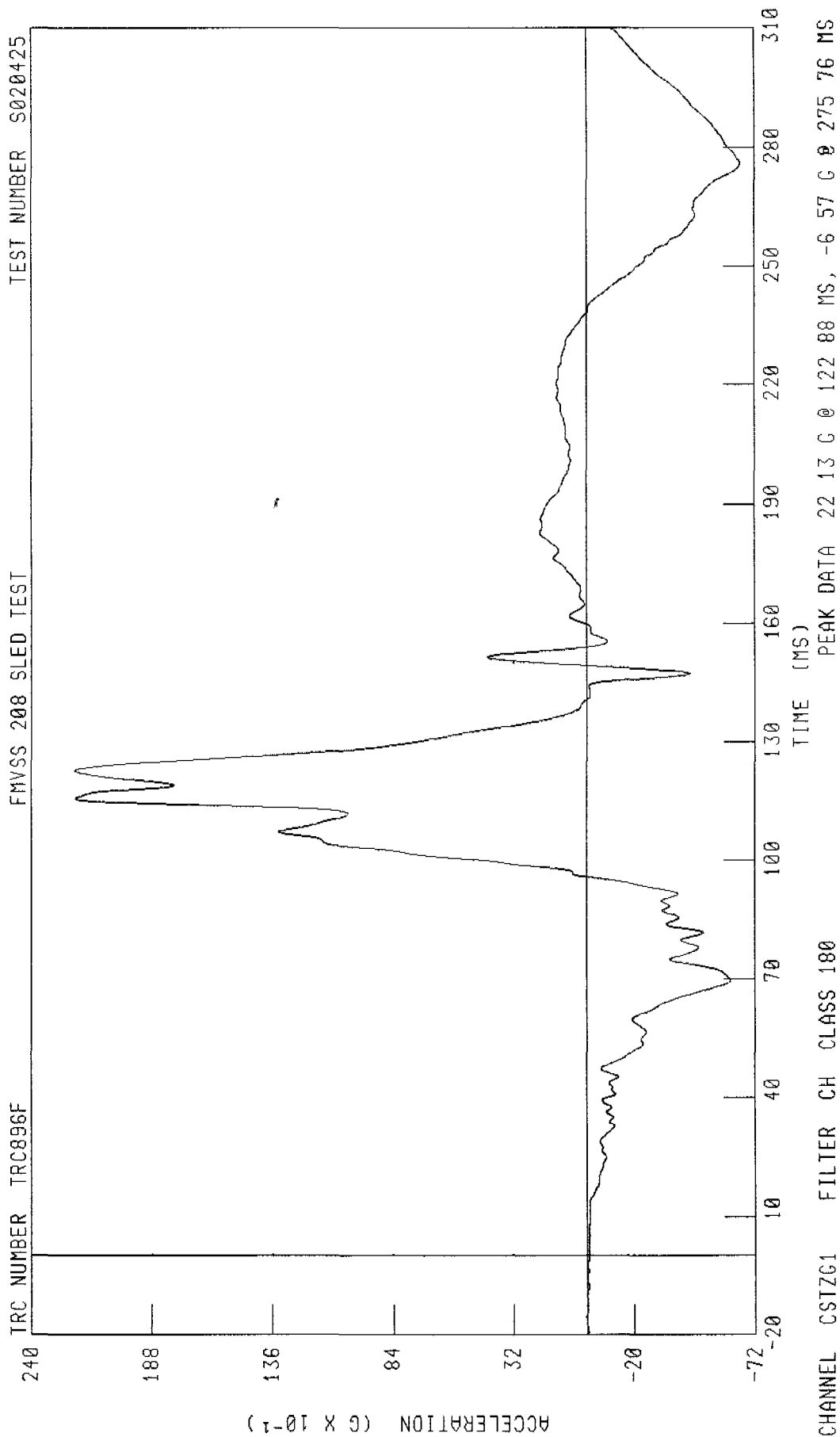
CHANNEL CSTXG1 FILTER CH CLASS 180

PEAK DATA 2 84 G @ 282 56 MS, -33 50 G @ 101 92 MS

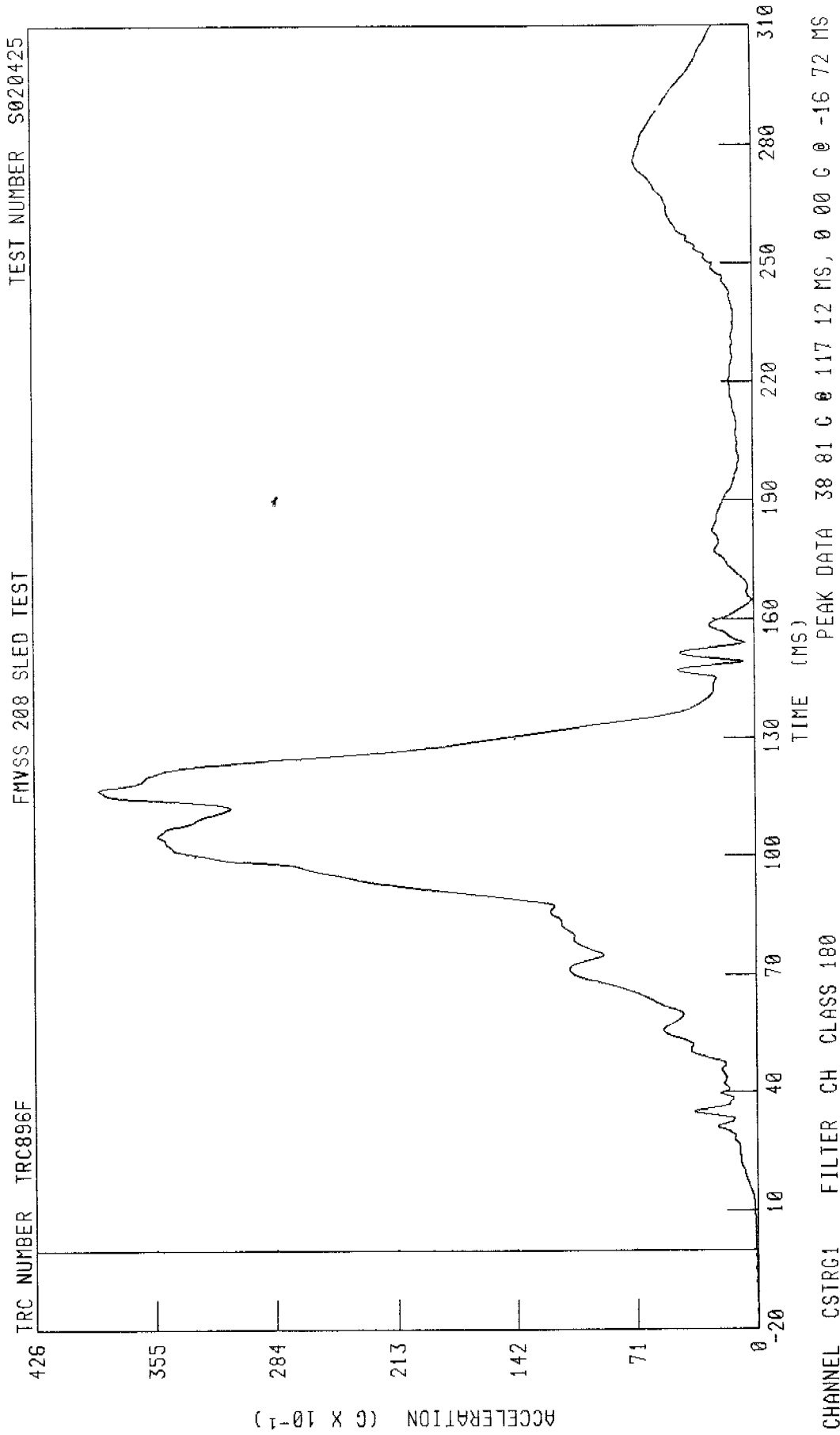
C25201 / 2002 NISSAN XTERRA
DRIVER CHEST Y-AXIS ACCELERATION



C25201 / 2002 NISSAN XTERRA
DRIVER CHEST Z-AXIS ACCELERATION



C25201 / 2002 NISSAN XTERRA
DRIVER CHEST RESULTANT ACCELERATION



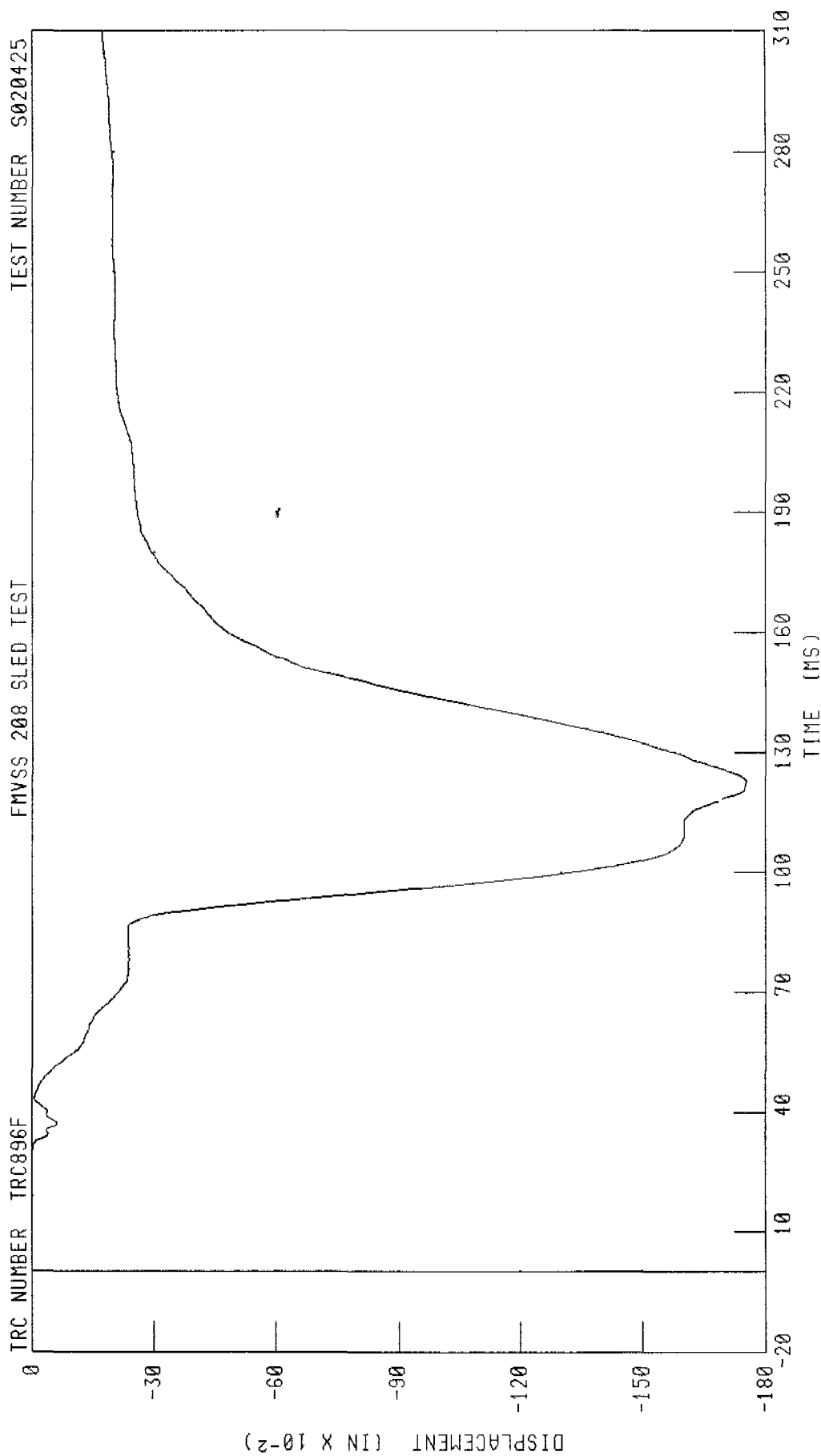
C25201 / 2002 NISSAN XTERRA

DRIVER CHEST DEFLECTION

FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



TIME (MS)

PEAK DATA 0 00 IN @ -12 56 MS, -1 75 IN @ 122 96 MS

CHANNEL CSTXD1 FILTER CH CLASS 600

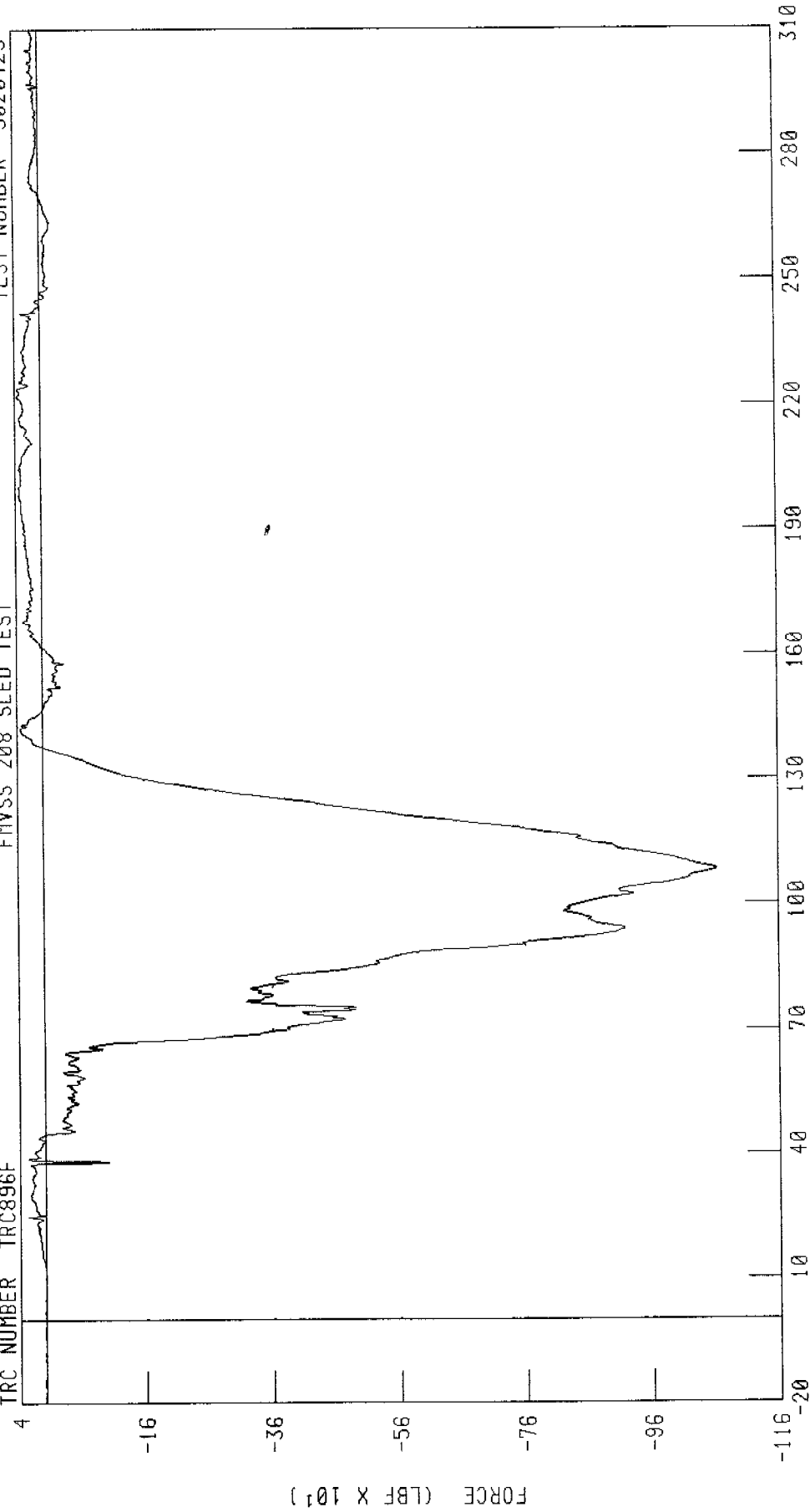
C25201 / 2002 NISSAN XTERRA

DRIVER LEFT FEMUR FORCE

FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



TIME (MS)

PEAK DATA 36 69 LBF @ 224 08 MS, -1063 13 LBF @ 108 24 MS

CHANNEL LFMZF1 FILTER CH CLASS 600

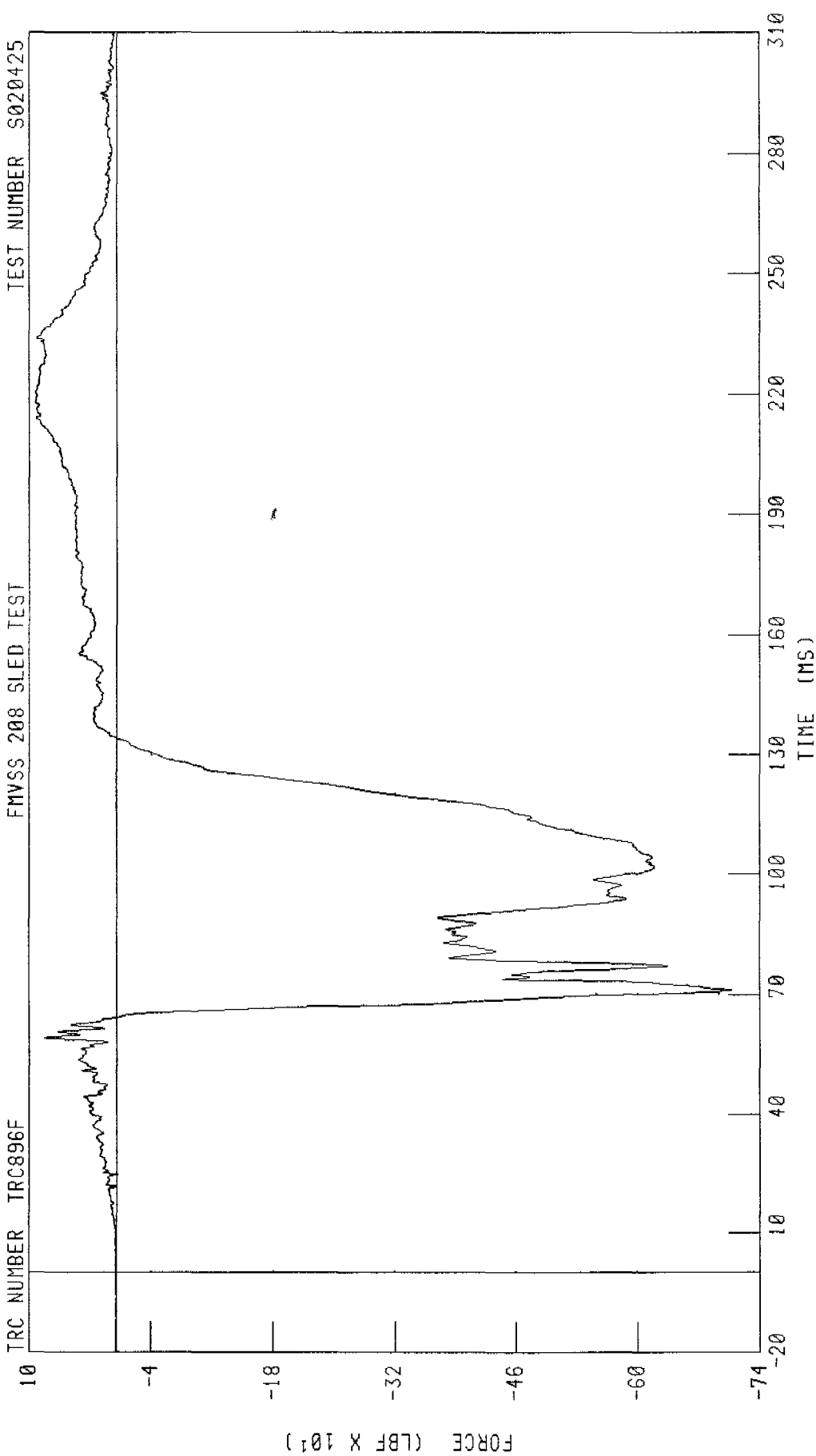
C25201 / 2002 NISSAN XTERRA

DRIVER RIGHT FEMUR FORCE

TRC NUMBER TRC896F

FMVSS 208 SLED TEST

TEST NUMBER S020425

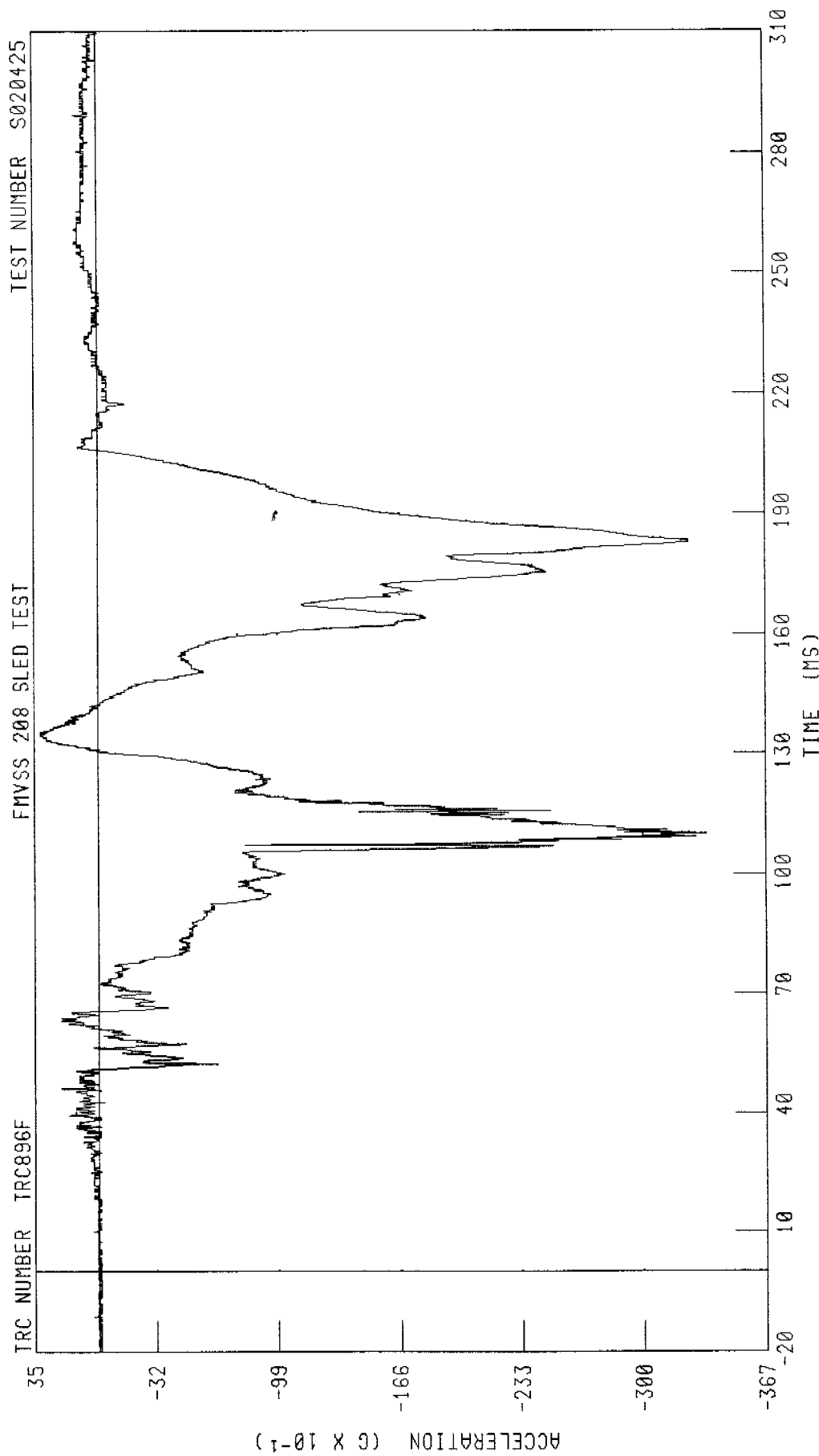


TIME (MS)

PEAK DATA 93 44 LBF @ 218 08 MS, -707 84 LBF @ 71 04 MS

CHANNEL RFMZFI FILTER CH CLASS 600

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER HEAD X-AXIS ACCELERATION



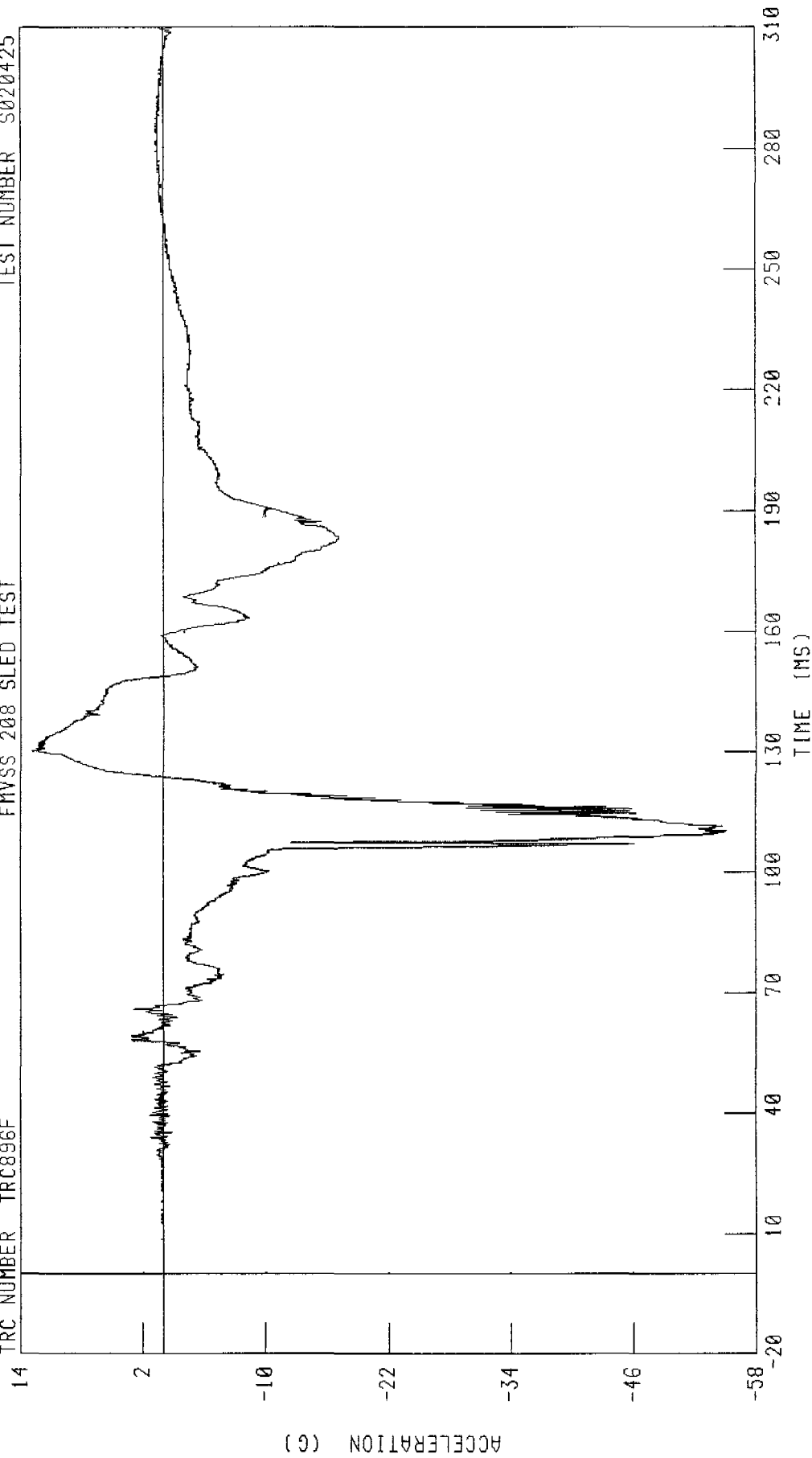
CHANNEL HEDXG2 FILTER CH CLASS 1000

PEAK DATA 3 20 G @ 134 40 MS, -33 48 G @ 110 32 MS

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER HEAD Y-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER S020425

TRC NUMBER TRC896F



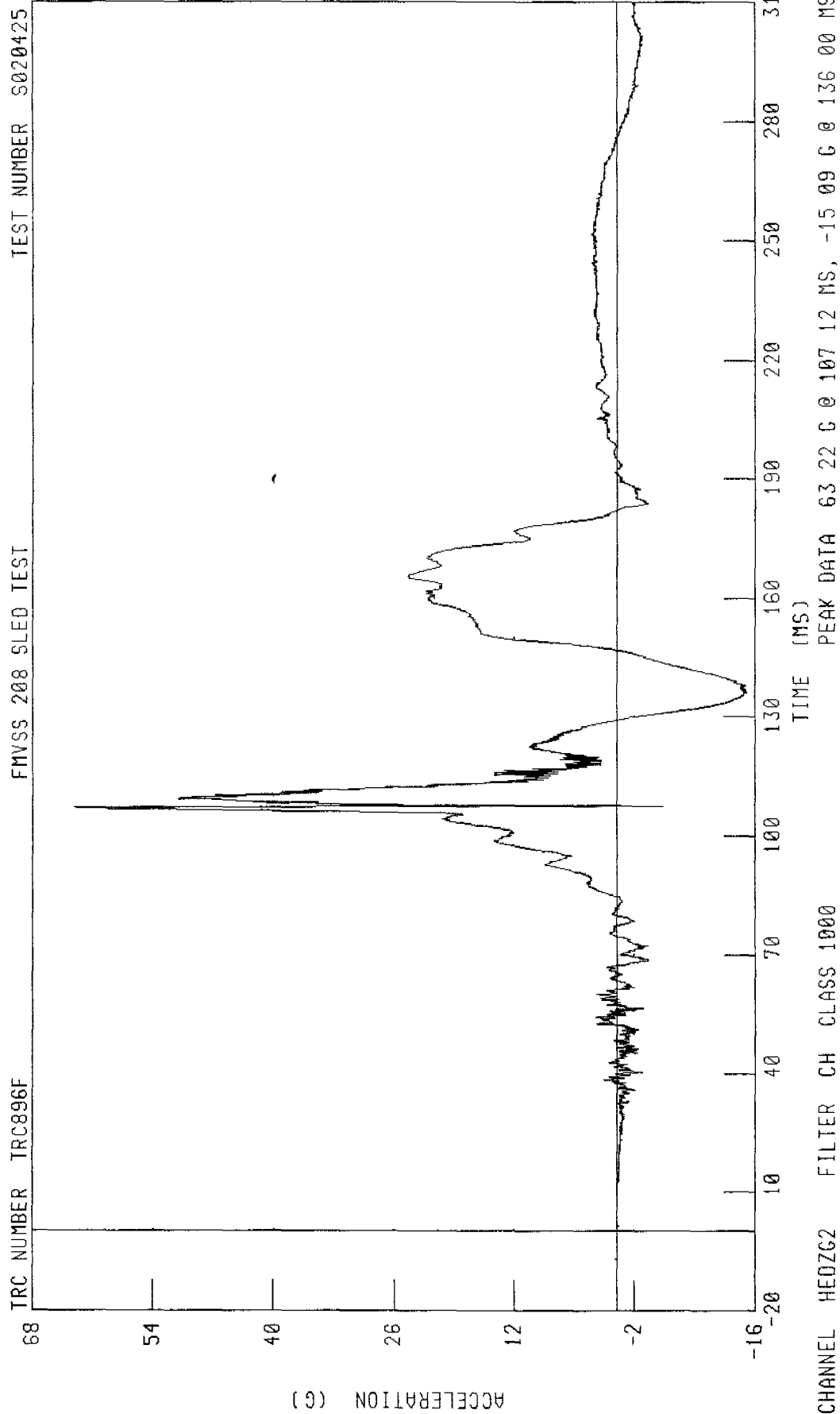
PEAK DATA 12 90 G @ 130 32 MS, -55 13 G @ 110 40 MS

CHANNEL HEDYG2 FILTER CH CLASS 1000

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER HEAD Z-AXIS ACCELERATION

TRC NUMBER TRC896F

TEST NUMBER S020425



ACCELERATION (G)

S020425

B-38

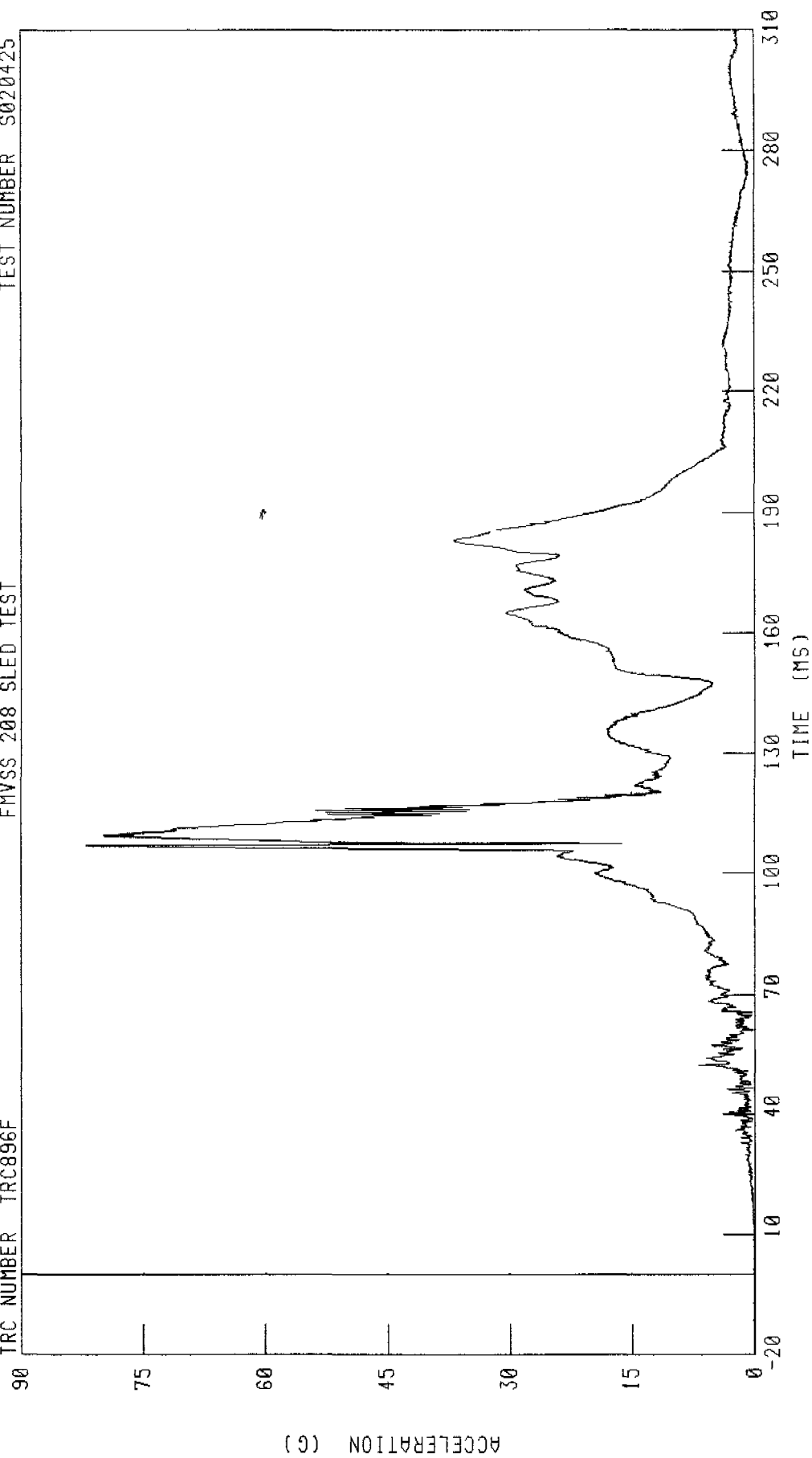
C25201 / 2002 NISSAN XTERRA

RIGHT FRONT PASSENGER HEAD RESULTANT ACCELERATION

TRC NUMBER TRC896F

FMVSS 208 SLED TEST

TEST NUMBER S020425



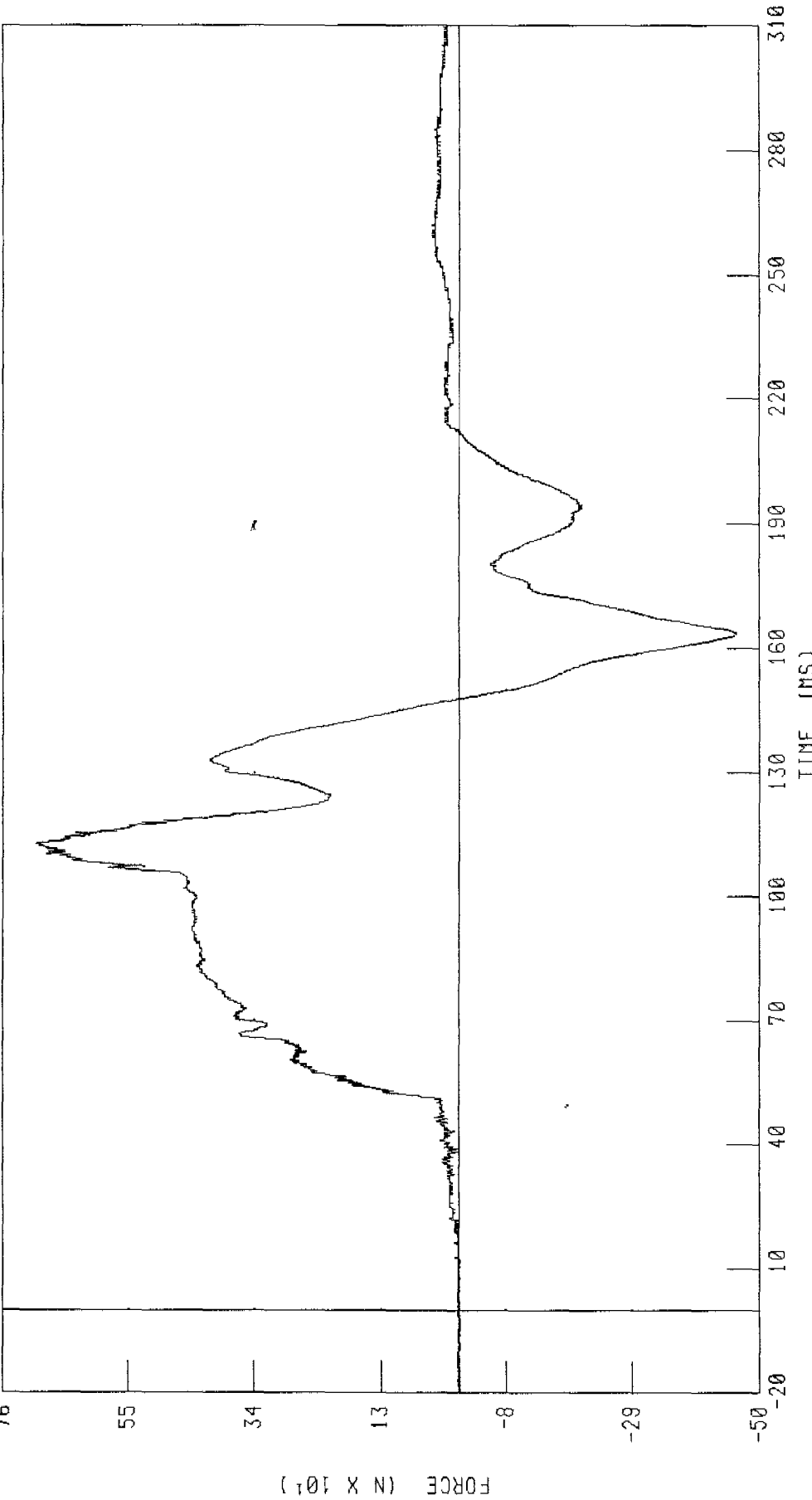
CHANNEL HEDRC2 FILTER CH CLASS 1000

PEAK DATA 82 07 G @ 107 12 MS, 0 08 G @ -18 40 MS

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER NECK X-AXIS SHEAR FORCE
FMVSS 208 SLED TEST

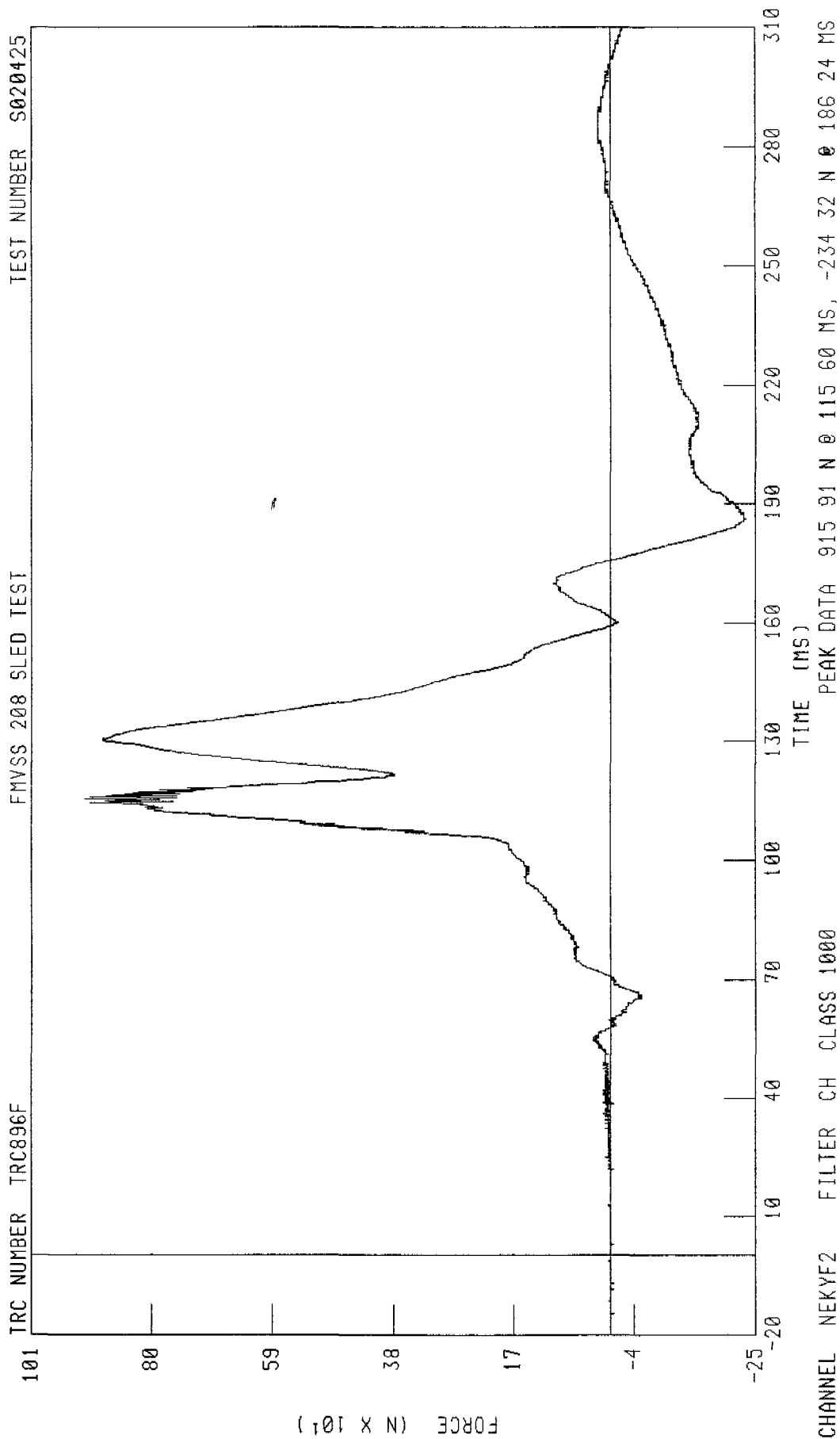
TRC NUMBER TRC896F TEST NUMBER S020425

76

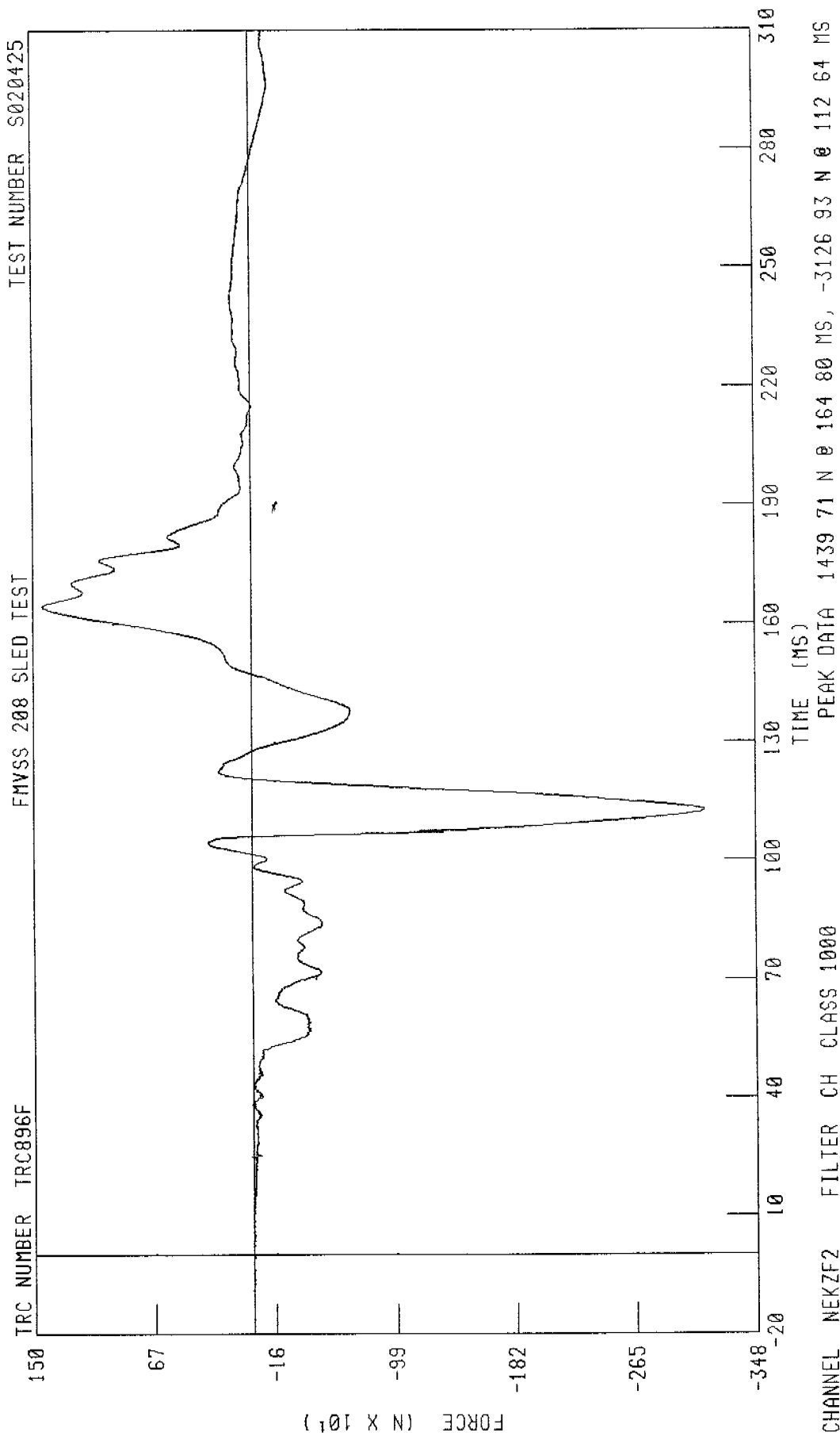


CHANNEL NEKXF2 FILTER CH CLASS 1000
PEAK DATA 705 13 N @ 113 04 MS, -462 62 N @ 163 28 MS

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER NECK Y-AXIS SHEAR FORCE



C25201 / 2002 NISSAN XTERRA
 RIGHT FRONT PASSENGER NECK Z-AXIS AXIAL FORCE

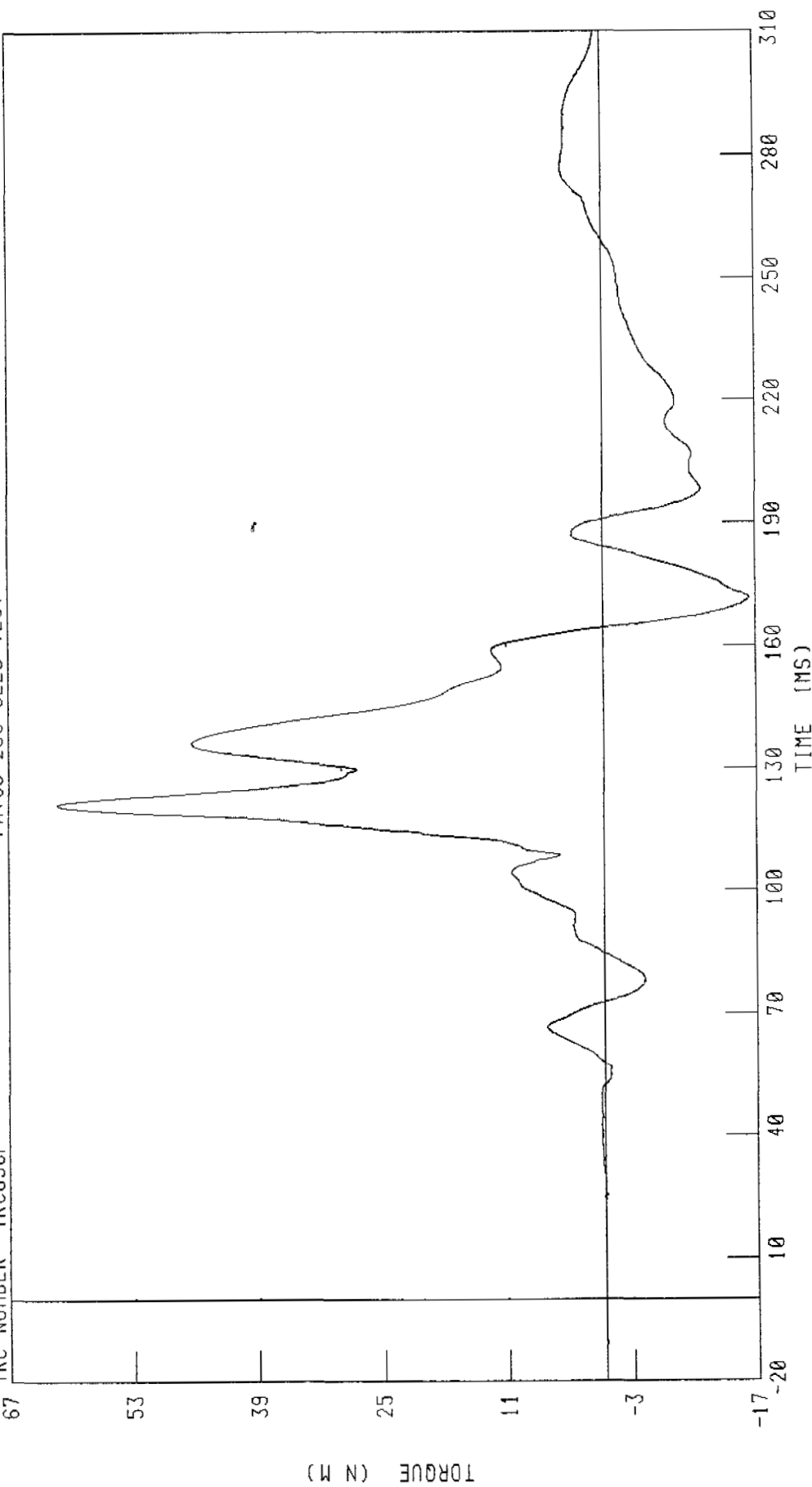


C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT X AXIS

TEST NUMBER S020425

TRC NUMBER TRC896F

FMVSS 208 SLED TEST



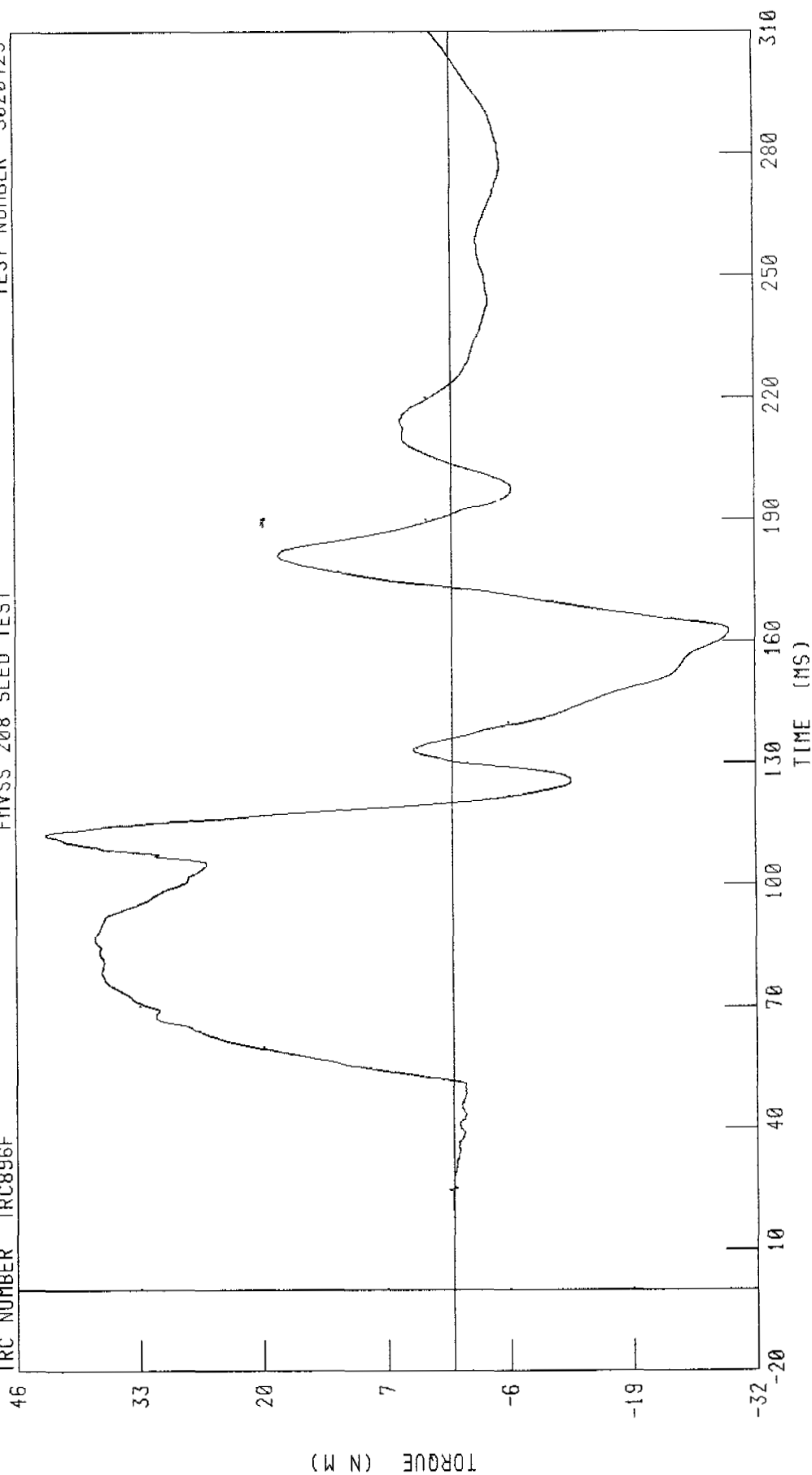
PEAK DATA 61 50 N M 121 52 MS, -16 36 N M 171 76 MS

CHANNEL NEKX12 FILTER CH CLASS 600

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS

TRC NUMBER TRC896F TEST NUMBER S020425

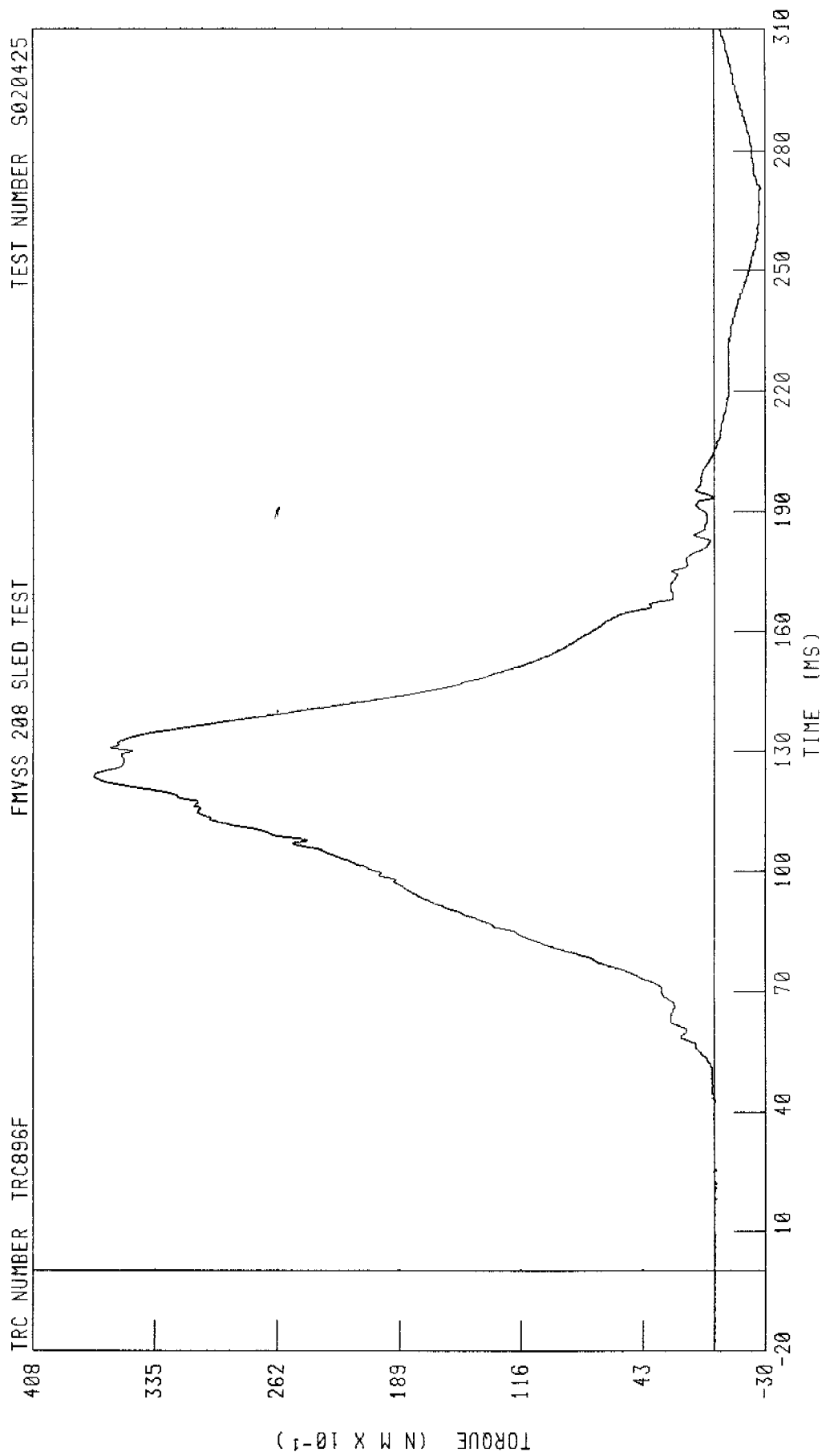
FMVSS 208 SLED TEST



PEAK DATA 42 84 N M @ 112 56 MS, -29 30 N M @ 162 80 MS

CHANNEL NEKYM2 FILTER CH CLASS 600

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT Z AXIS



PEAK DATA 37 16 N M @ 123 84 MS, -2 75 N M @ 270 64 MS

CHANNEL NEKZM2 FILTER CH CLASS 600

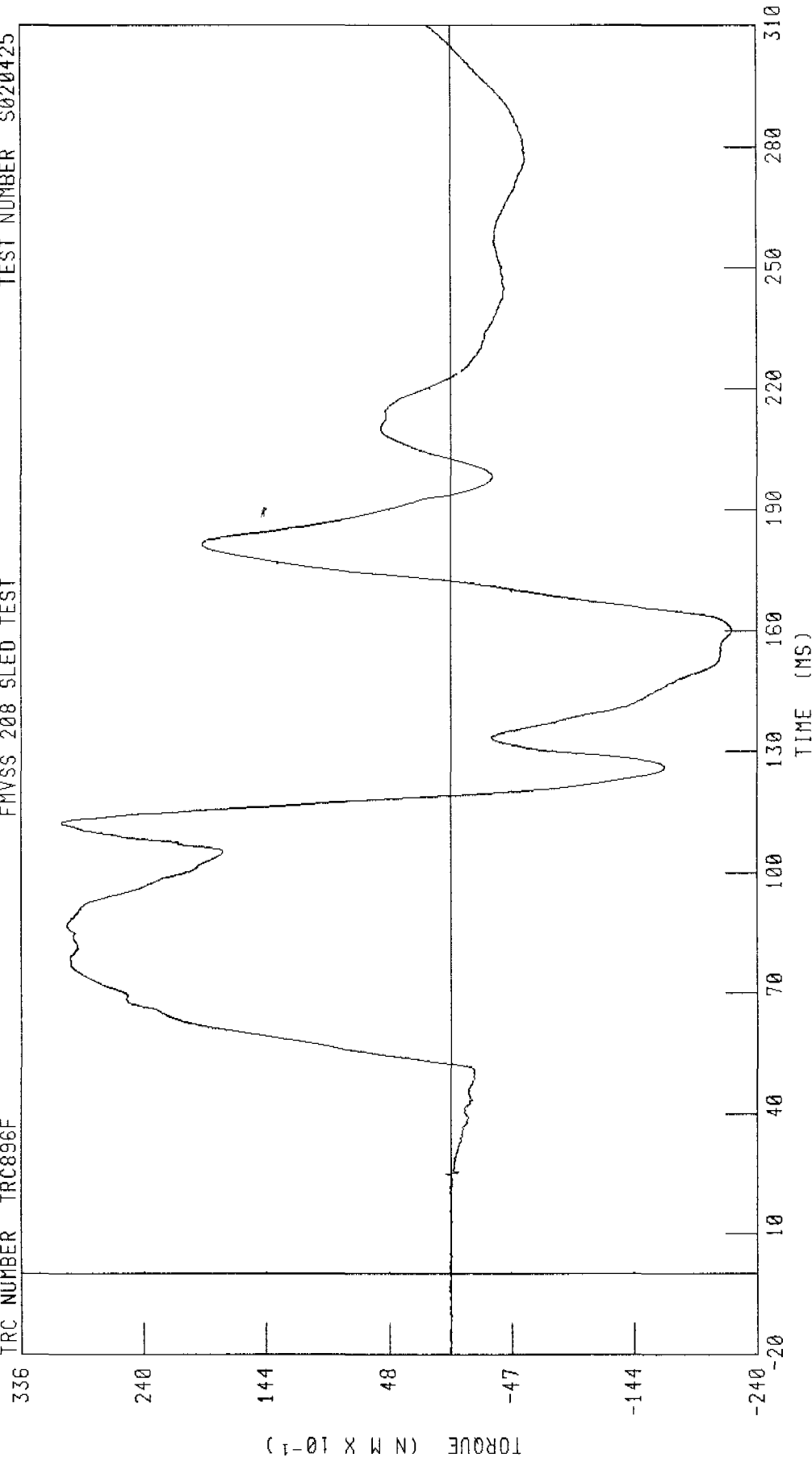
C25201 / 2002 NISSAN XTERRA

RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS OCCIPITAL CONDYLE

TEST NUMBER S020425

TRC NUMBER TRC896F

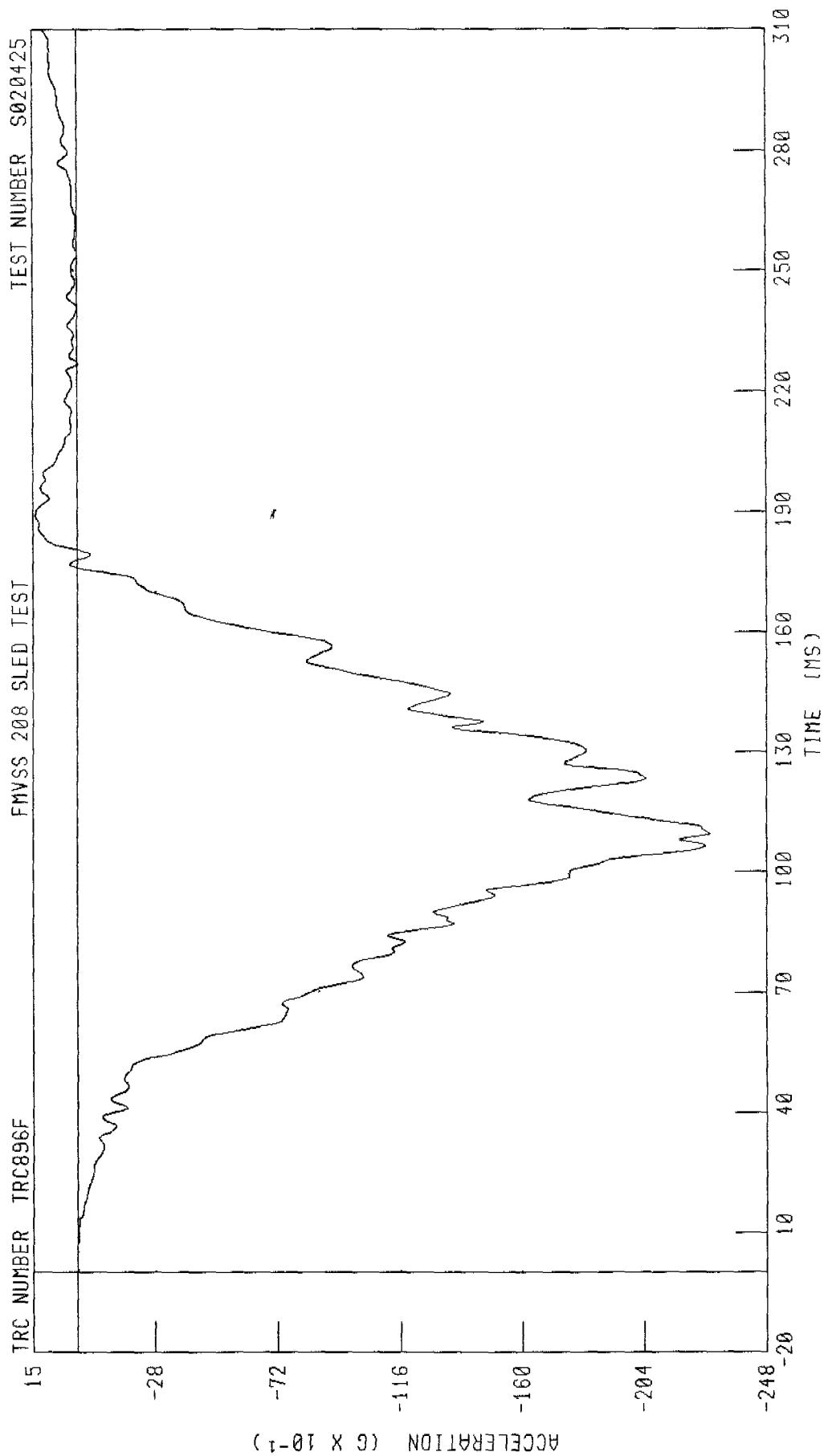
FMVSS 208 SLED TEST



CHANNEL NEKOM2 FILTER CH CLASS 600

PEAK DATA 30 48 N M @ 112 48 MS, -22 08 N M @ 160 24 MS

C25201 / 2002 NISSAN XTERRA
 RIGHT FRONT PASSENGER CHEST X-AXIS ACCELERATION
 FMVSS 208 SLED TEST



PEAK DATA 1 52 G @ 189.36 MS, -22.78 G @ 109.52 MS

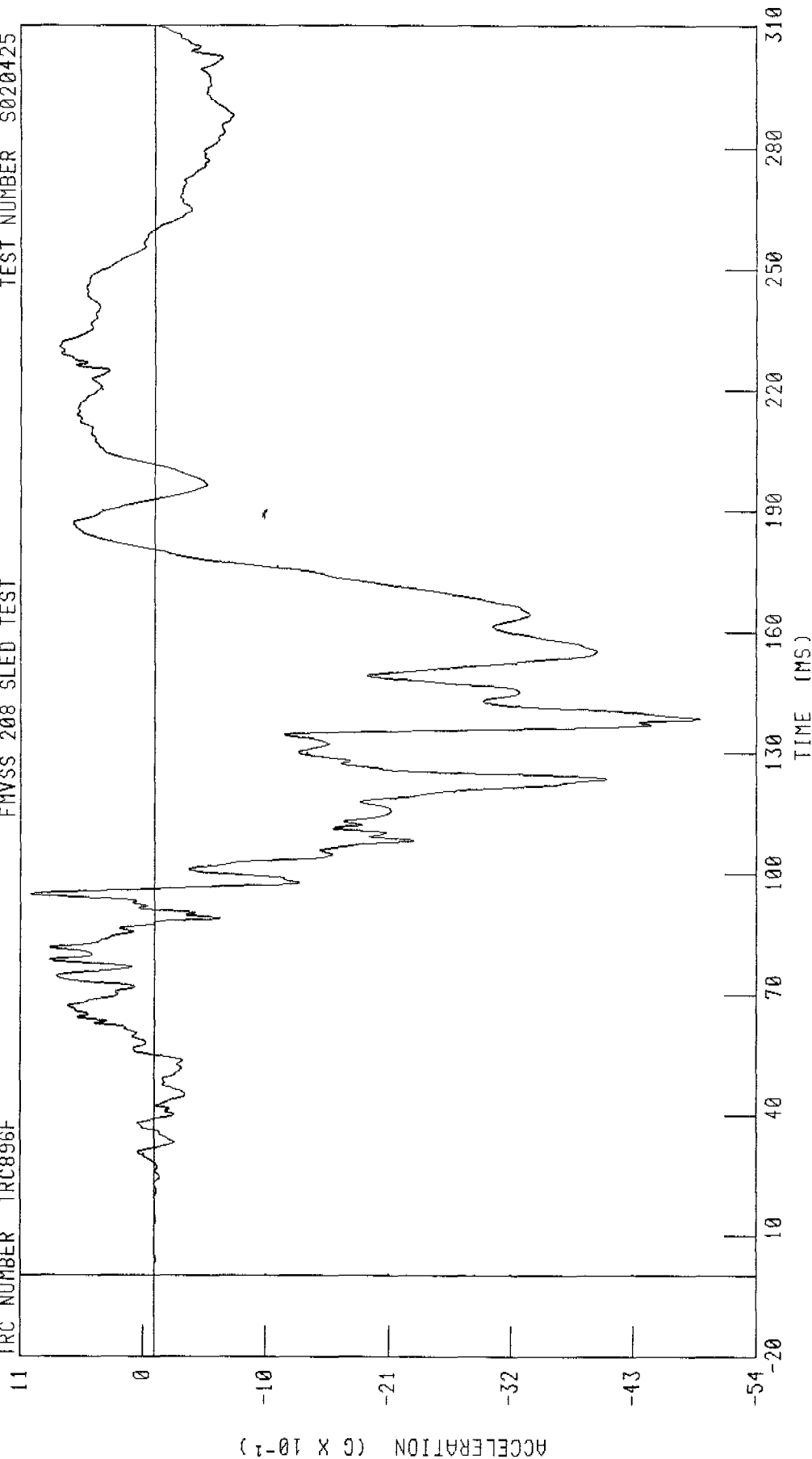
CHANNEL CSTXC2 FILTER CH CLASS 180

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER CHEST Y-AXIS ACCELERATION

TEST NUMBER S020425

FMVSS 208 SLED TEST

TRC NUMBER TRC896F



CHANNEL CSTYG2 FILTER CH CLASS 180

PEAK DATA 1 11 G @ 94 96 MS, -4 90 G @ 138 56 MS

C25201 / 2002 NISSAN XTERRA

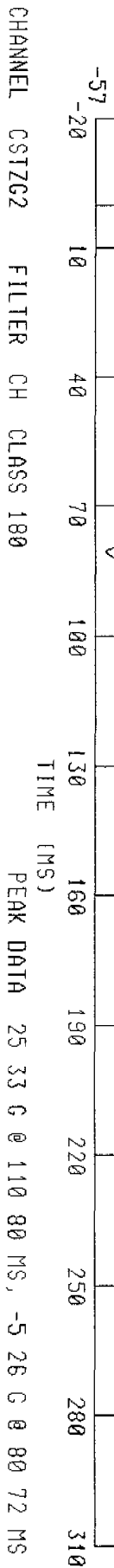
RIGHT FRONT PASSENGER CHEST Z-AXIS ACCELERATION

FMVSS 208 SLED TEST

279 TRC NUMBER TRC896F

TEST NUMBER S020425

ACCELERATION (G X 10⁻¹)



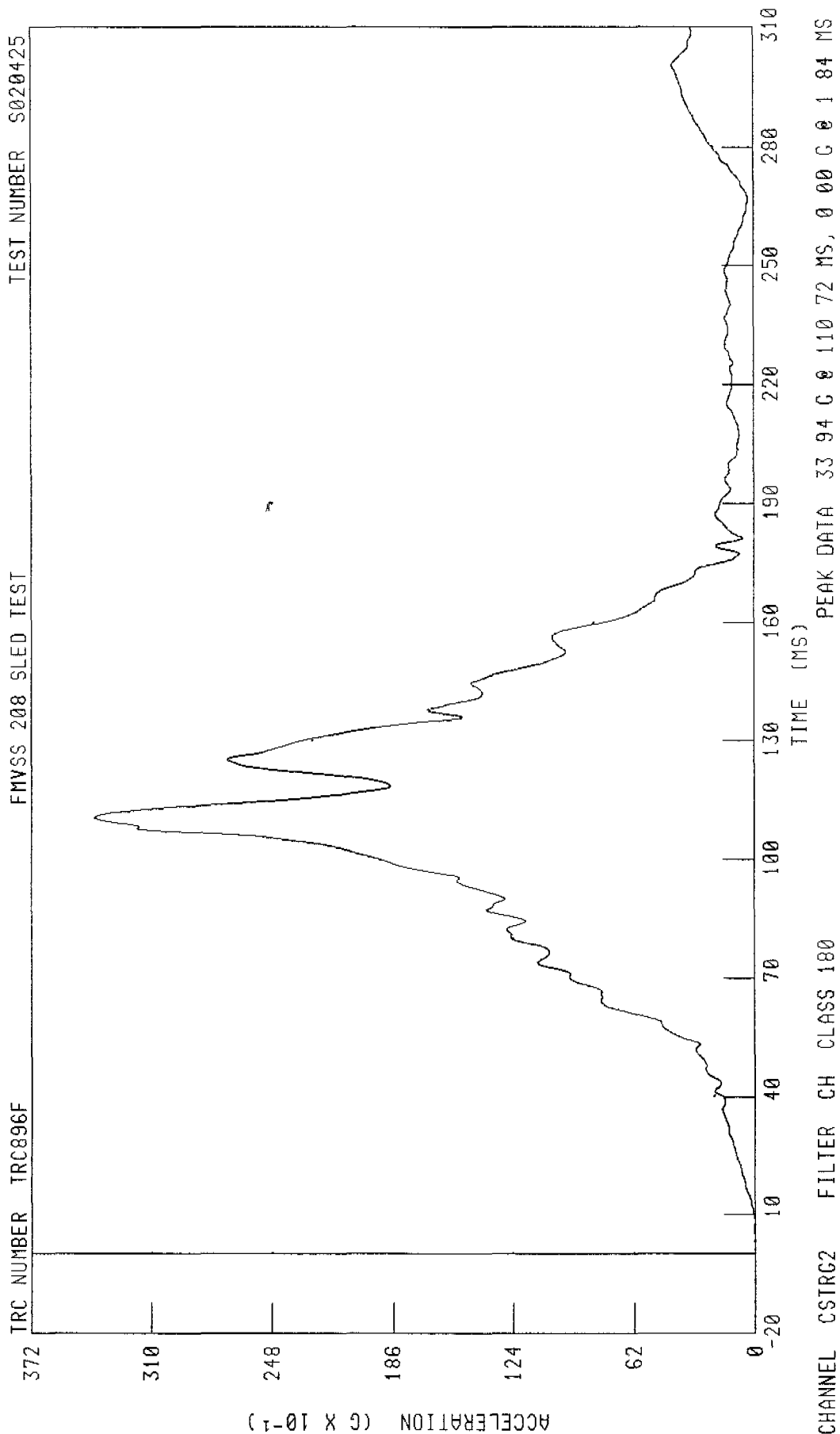
CHANNEL CS1ZG2 FILTER CH CLASS 180

PEAK DATA 25 33 G @ 110 80 MS, -5 26 G @ 80 72 MS

B-49

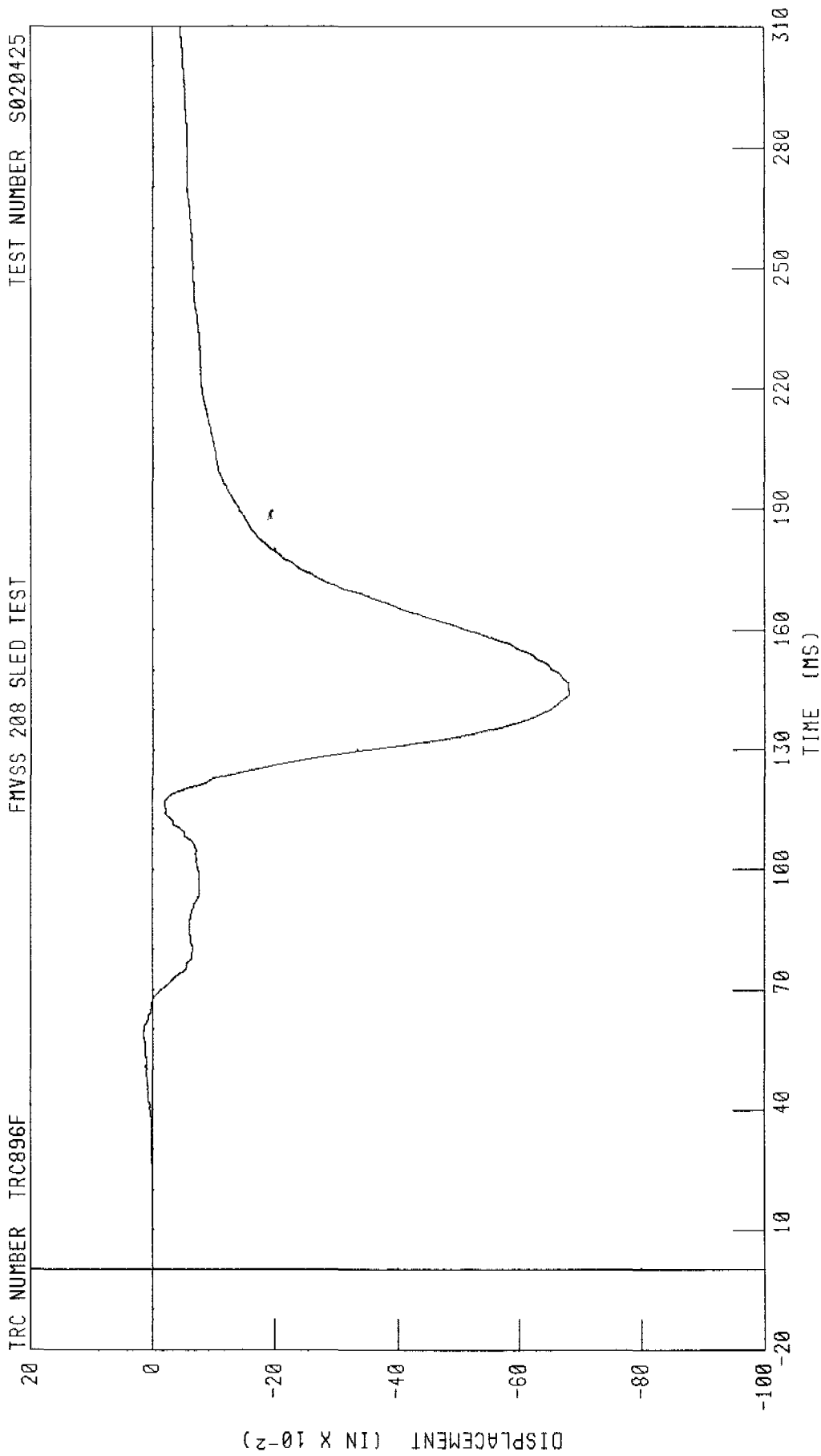
S020425

C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER CHEST RESULTANT ACCELERATION



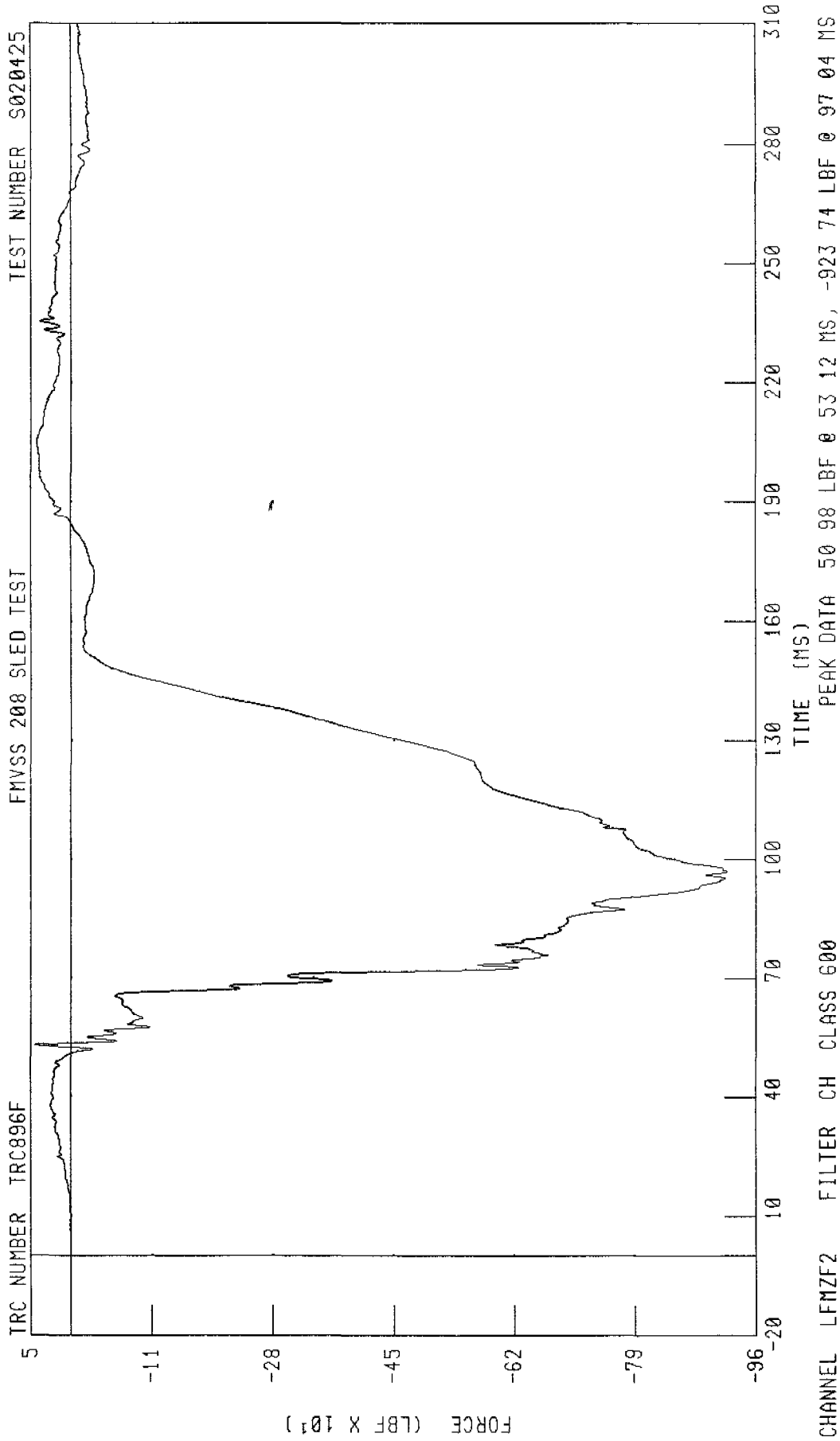
C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER CHEST DEFLECTION
FMVSS 208 SLED TEST

TRC NUMBER TRC896F TEST NUMBER S020425



CHANNEL CSTXD2 FILTER CH CLASS 600
PEAK DATA 0 02 IN @ 58 32 MS, -0 68 IN @ 144 40 MS

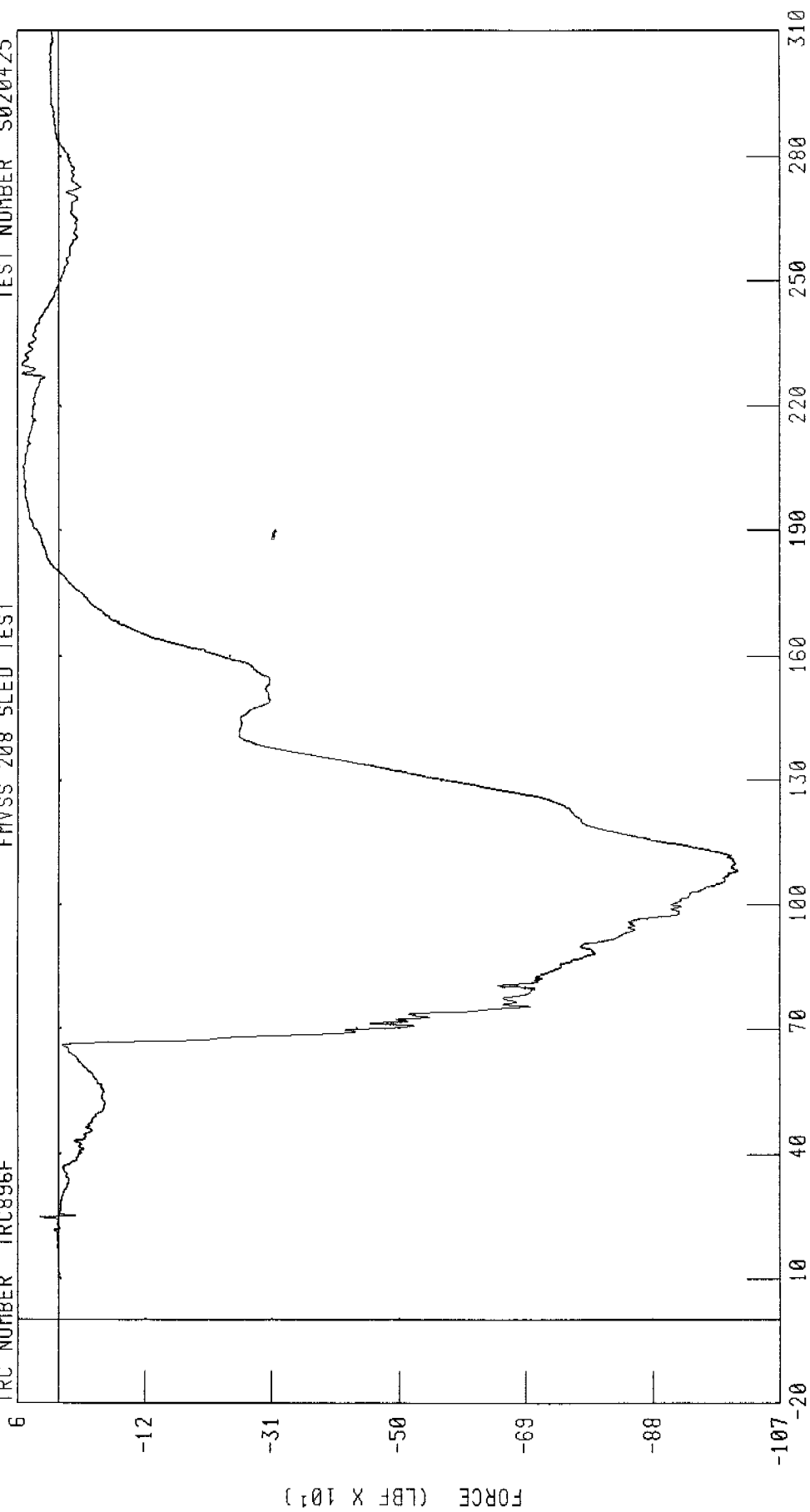
C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER LEFT FEMUR FORCE
FMVSS 208 SLED TEST



C25201 / 2002 NISSAN XTERRA
RIGHT FRONT PASSENGER RIGHT FEMUR FORCE
FMVSS 208 SLED TEST

TRC NUMBER TRC896F

TEST NUMBER S020425



TIME (MS)

PEAK DATA 55 46 LBF @ 230 24 MS, -1016 36 LBF @ 108 32 MS

CHANNEL RFMZP2 FILTER CH CLASS 600

Appendix C

Manufacturer's Vehicle Information

SUPPLEMENTAL RESTRAINT SYSTEM

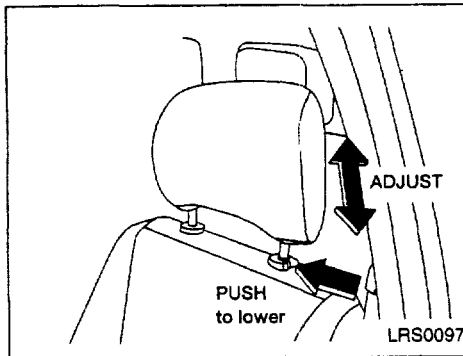
PRECAUTIONS ON SUPPLEMENTAL RESTRAINT SYSTEM

This supplemental restraint system section contains important information concerning the driver and passenger supplemental air bags. The supplemental restraint system air bags can help reduce impact force to the driver and front passenger in certain frontal collisions. The supplemental air bags are designed to **supplement** the crash protection provided by the driver and front passenger seat belts and are **not a substitute** for them. Seat belts should always be correctly worn and the driver and front passenger seated a suitable distance away from the steering wheel and instrument panel. See "Seat belts" for instructions and precautions on seat belt usage later in this section.

The supplemental air bags operate only when the ignition switch is in the ON or START position.

After turning the ignition key to the ON position, the supplemental air bag warning light illuminates. The supplemental air bag warning light will turn off after about 7 seconds if the system is operational.

Seats, restraints and supplemental air bag systems 1-7

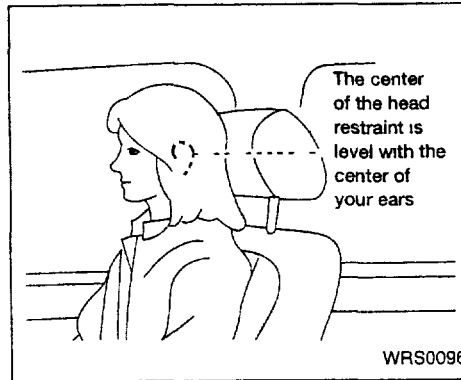


HEAD RESTRAINT ADJUSTMENT

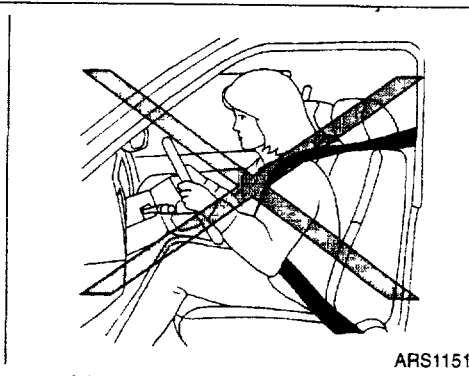
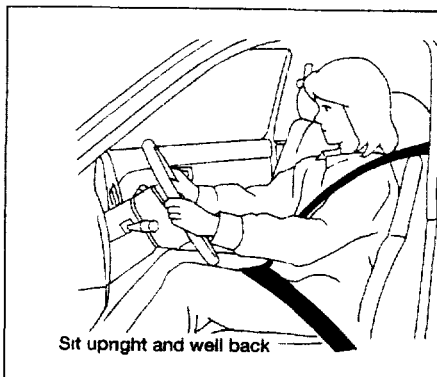
To raise the head restraint, pull it up. To lower, push the lock knob, then push the head restraint down.

WARNING

Head restraints should be adjusted properly as they may provide significant protection against injury in an accident. Do not remove them. Check the adjustment after someone else uses the seat.



Adjust the center of the head restraint even with the center of your ears.



WARNING

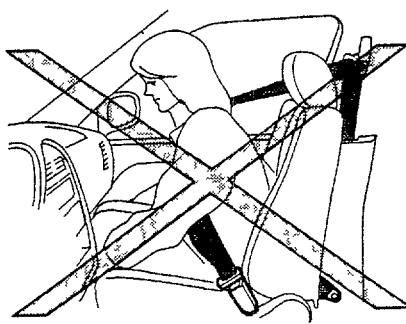
The supplemental air bags ordinarily will not inflate in the event of a side impact, rear impact, roll over, or lower severity frontal collision. Always wear your seat belts to help reduce the risk of severity of injury in various kinds of accidents. The seat belts and the supplemental air bags are most effective when you are sitting well back and upright in the seat. Supplemental air bags inflate with great force. If you are

unrestrained, leaning forward, sitting sideways or out of position in anyway, you are at greater risk of injury or death in a crash. You may also receive serious or fatal injuries from the supplemental air bag if you are up against it when it inflates. Always sit back against the seatback and as far away as practical from the steering wheel or instrument panel. Always use the seat belts.

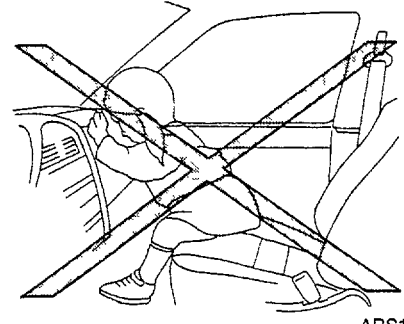
- The driver and front passengers at belt buckles are equipped with sensors that detect if the seat belts are fastened. The air bag system monitors the severity of a collision and then inflates the air bags based on belt usage. Failure to properly wear seat belts can increase the risk of severity of injury in an accident.
- Keep hands on the outside of the steering wheel. Placing them inside the steering wheel rim could increase the risk that they are injured when the supplemental air bag inflates.



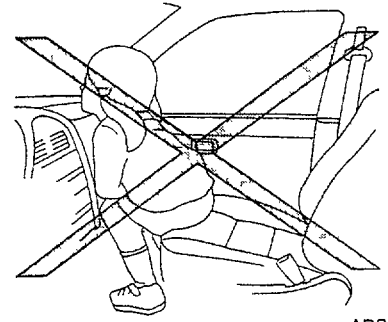
Sit upright and well back



ARS1153

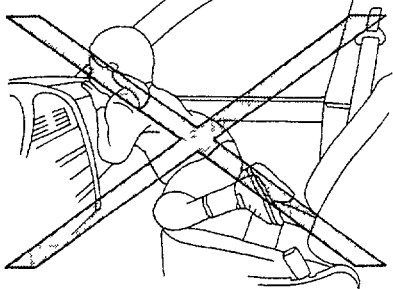


ARS1041

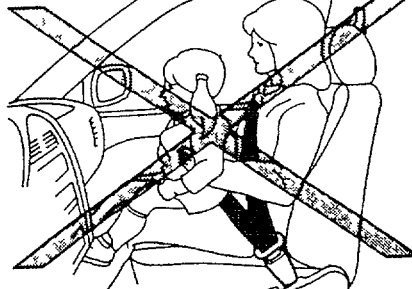


ARS1042

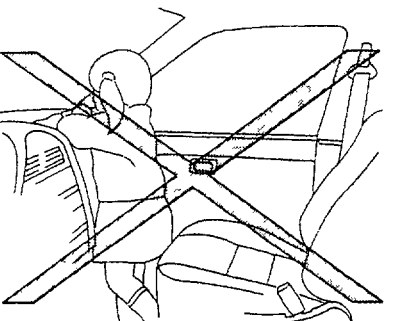
Seats, restraints and supplemental air bag systems 1-9



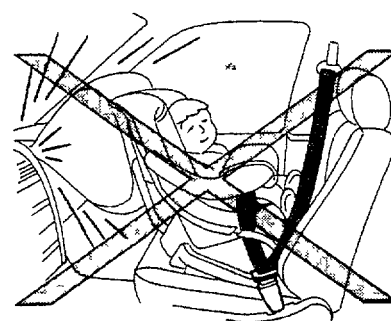
ARS1043



ARS1098



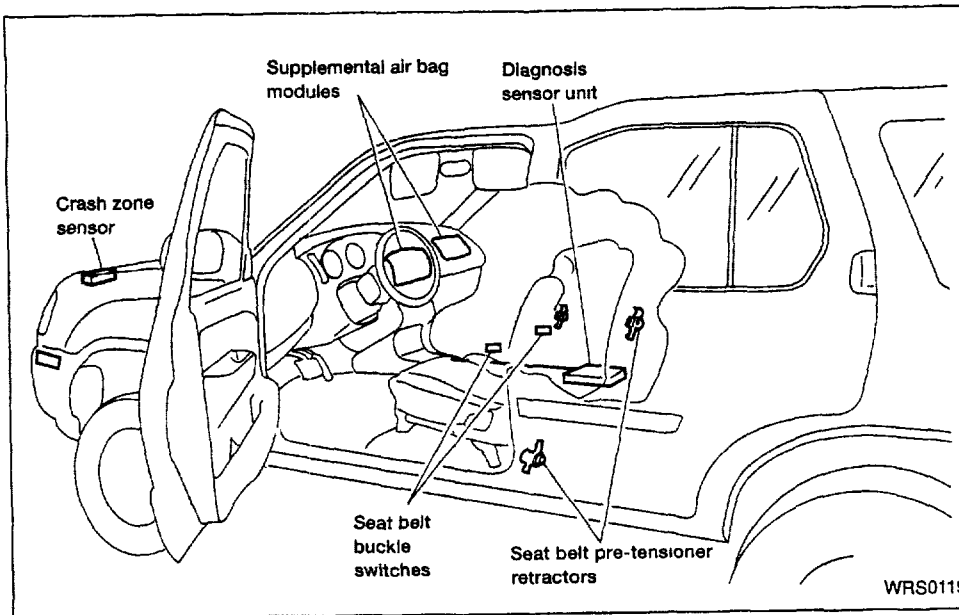
ARS1044



ARS1099

WARNING

- Never let children ride unrestrained. Do not attempt to hold them in your lap or arms. Some examples of dangerous riding positions are shown in the illustrations.
- Children may be severely injured or killed when the supplemental air bag inflates if they are not properly restrained.
- Never install a rear-facing child restraint in the front seat. An inflating supplemental air bag could seriously injure or kill your child. See "Child restraints" later in this section for details.



Supplemental air bag system

The driver supplemental air bag is located in the center of the steering wheel. The passenger supplemental air bag is located in the top right section of the instrument panel.

These systems are designed to meet optional certification requirements under U.S. regulations. They are also permitted in Canada. The optional certification allows air bags to be designed to inflate somewhat less forcefully than previously. However, all of the informa-

tion, cautions and warnings in this manual still apply and must be followed.

The supplemental air bag system is designed to inflate in higher severity frontal collisions, although it may inflate if the forces in another type of collision are similar to those of a higher severity frontal impact. It may not inflate in certain frontal collisions. Vehicle damage (or lack of it) is not always an indication of proper supplemental air bag system operation.

The supplemental air bag system has dual stage inflators for both the driver and passenger air bags. The system monitors information from the crash zone sensor, the diagnosis sensor unit and seat belt buckle sensors that detect if the seat belts are fastened. Inflator operation is based on the severity of a collision and whether the seat belts are being used.

When the supplemental air bag inflates, a fairly loud noise may be heard, followed by the release of smoke. This smoke is not harmful and does not indicate a fire. Care should be taken not to intentionally inhale it, as it may cause irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

Seats, restraints and supplemental air bag systems 1-11

The supplemental air bags, along with the use of the seat belts, helps to cushion the impact force on the face and chest of the occupant. It can help save lives and reduce serious injuries. However, an inflating supplemental air bag may cause facial abrasions or other injuries. Supplemental air bags do not provide restraint to the lower body.

Seat belts should be correctly worn and the driver and passenger seated upright as far as practical away from the steering wheel or instrument panel. The supplemental air bags inflate quickly in order to help protect the front occupants. Because of this, the force of the supplemental air bags inflating can increase the risk of injury if the occupant is too close to, or is against, the supplemental air bag module during inflation.

The supplemental air bags deflate quickly after a collision.

The supplemental air bags operate only when the ignition switch is in the ON or START position.

WARNING

Do not place any objects on the steering wheel or on the instrument panel. Also, do not place any

objects between any occupant and the steering wheel or on the instrument panel. Such objects may become dangerous projectiles and cause injury if the supplemental air bag inflates.

Right after inflation, several supplemental air bag system components will be hot. Do not touch them; you may severely burn yourself.

No unauthorized changes should be made to any components or wiring of the supplemental air bag system. This is to prevent accidental inflation of the supplemental air bag or damage to the supplemental air bag system.

Do not make unauthorized changes to your vehicle's electrical system. Do not install any other electrical equipment that could affect proper operation of the supplemental air bag system. Do not install any other electrical equipment that could affect the proper operation of the supplemental air bag system. Do not install any other electrical equipment that could affect the proper operation of the supplemental air bag system. Do not install any other electrical equipment that could affect the proper operation of the supplemental air bag system.

wheel pad and above the instrument panel, or by installing additional trim material around the supplemental air bag system.

Work around and on the supplemental air bag system should be done by an authorized NISSAN dealer.

Installation of electrical equipment should also be done by an authorized NISSAN dealer. The yellow and orange Supplemental Restraint System (SRS) wiring and connectors should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the supplemental air bag system.

A cracked windshield should be repaired immediately by a qualified professional. A cracked windshield could affect inflation of the supplemental air bag system.

The SRS wiring harness connectors are yellow with orange for easy identification.

When selling your vehicle, we request that

you inform the buyer about the supplemental air bag system and guide the buyer to the appropriate sections in this owner's manual

Pre-tensioner seat belt system (For front seats)

⚠ WARNING

- The pre-tensioner seat belt cannot be reused after activation. It must be replaced together with the retractor and buckle as a unit.
- If the vehicle becomes involved in a frontal collision but the pre-tensioner is not activated, be sure to have the pre-tensioner system checked and, if necessary, replaced by your NISSAN dealer.
- No unauthorized changes should be made to any components or wiring of the pre-tensioner seat belt system. This is to prevent accidental activation of the pre-tensioner seat belt or damage to the pre-tensioner seat belt operation. Tampering with the pre-tensioner seat belt system may result in serious personal injury.

- Work around and on the pre-tensioner system should be done by an authorized NISSAN dealer. Installation of electrical equipment should also be done by an authorized NISSAN dealer. Unauthorized electrical test equipment and probing devices should not be used on the pre-tensioner seat belt system.
- If you need to dispose of the pre-tensioner or scrap the vehicle, contact an authorized NISSAN dealer. Correct pre-tensioner disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.

The front seat pre-tensioner seat belt system activates in conjunction with the supplemental air bag. Working with the seat belt retractor, it helps tighten the seat belt the instant the vehicle becomes involved in certain types of collisions.

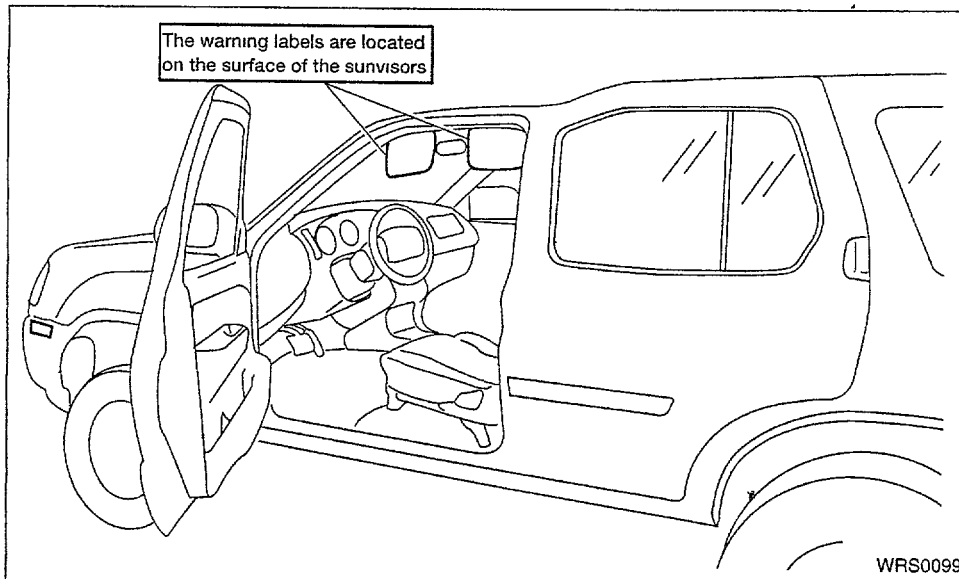
The pre-tensioner is encased with the seat belt's retractor. These seat belts are used the same as conventional seat belts.

When the pre-tensioner seat belt activates, smoke is released and a loud noise may be heard. The smoke is not harmful. Care should be taken not to intentionally inhale it as it may cause irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

If any abnormality occurs in the pre-tensioner system, the supplemental air bag warning light  will flash intermittently after the ignition key is turned to the ON or START position. In this case, the pre-tensioner seat belt will not function properly.

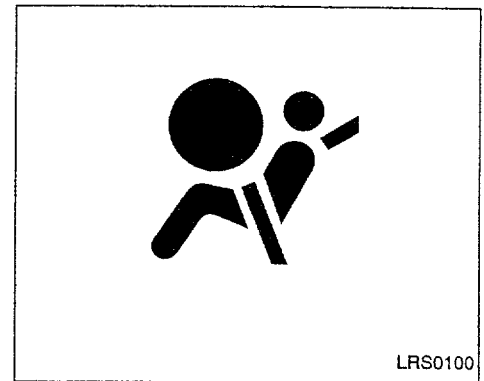
When selling your vehicle, we request that you inform the buyer about the pre-tensioner seat belt system and guide the buyer to the appropriate sections in this Owner's Manual.

Seats, restraints and supplemental air bag systems 1-13



SUPPLEMENTAL AIR BAG WARNING LABELS

Warning labels about the supplemental air bag system are placed in the vehicle as shown in the illustration.



SUPPLEMENTAL AIR BAG WARNING LIGHT

The supplemental air bag warning light, displaying  in the instrument panel, monitors the circuits of the supplemental air bag and pre-tensioner seat belt systems. The circuits monitored by the supplemental air bag warning light are the diagnosis sensor unit, the supplemental air bag modules, pre-tensioner seat belts and all related wiring.

When the ignition key is in the ON or START position, the supplemental air bag warning

light illuminates for about 7 seconds and then turns off. This means the system is operational.

If any of the following system conditions occur, the supplemental air bag and pre-tensioner seat belt systems need servicing and should be taken to an authorized NISSAN dealer.

- The supplemental air bag warning light remains on after approximately 7 seconds.
- The supplemental air bag warning light flashes intermittently.
- The supplemental air bag warning light does not come on at all.

Under these conditions, the Supplemental Restraint System (supplemental air bag or pre-tensioner seat belt systems) may not function properly. It must be checked and repaired.

⚠ WARNING

If the supplemental air bag warning light is on, it could mean that the supplemental air bag or pre-tensioner seat belt systems will not operate in an accident.

Repair and replacement procedure

The supplemental air bag modules are designed to inflate on a one-time-only basis. As a reminder, unless it is damaged, the supplemental air bag warning light remains illuminated after inflation has occurred. Repair and replacement of the supplemental air bag system should be done only by an authorized NISSAN dealer.

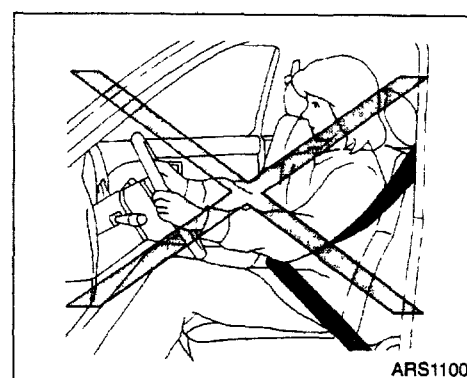
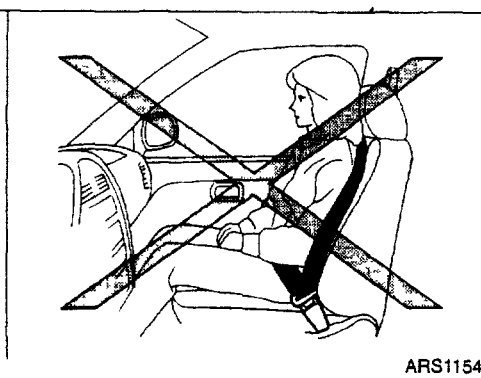
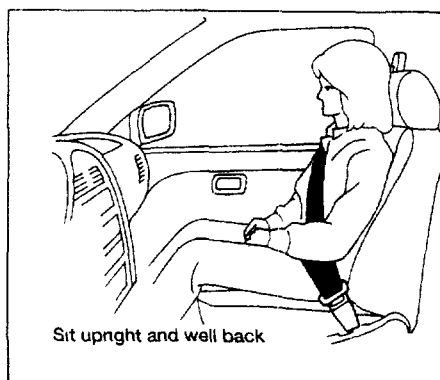
When maintenance work is required on the vehicle, the supplemental front air bags, pre-tensioner seat belts and related parts should be pointed out to the person conducting the maintenance. The ignition key must always be in the LOCK position when working under the hood or inside the vehicle.

⚠ WARNING

- Once the supplemental front air bag has inflated, the air bag module will not function and must be replaced. Additionally, if any of the supplemental air bags inflate, the pre-tensioner seat belts must also be replaced. The air bag module and pre-tensioner seat belt system should be replaced by an authorized NISSAN dealer. The air bag module and pre-tensioner seat belt system cannot be repaired.
- The supplemental air bag system should be inspected by an authorized NISSAN dealer if there is any damage to the front end portion of the vehicle, or replaced if the supplemental air bag has inflated.
- If you need to dispose of the supplemental air bag, pre-tensioner seat belt system or scrap the vehicle, contact an authorized NISSAN and pre-tensioner seat belt system dealer. Correct supplemental air bag disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.

Seats, restraints and supplemental air bag systems 1-15

SEAT BELTS



PRECAUTIONS ON SEAT BELT USAGE

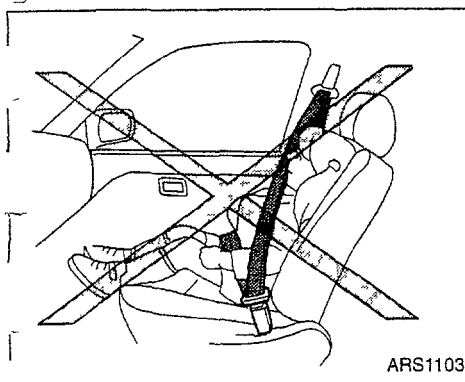
Your chances of being injured in an accident and/or the severity of injury may be greatly reduced if you are wearing your seat belt and it is properly adjusted. NISSAN strongly encourages you and all of your passengers to buckle up every time you drive, even if your seating position includes a supplemental air bag.

Most U.S. States and Canadian provinces or territories specify that seat belts be worn at all times when a vehicle is being driven.

⚠ WARNING

- Every person who drives or rides in this vehicle should use a seat belt at all times. Children should be properly restrained and, if appropriate, in child restraints.
- The seat belt should be properly adjusted to a snug fit. Failure to do so may reduce the effectiveness of the entire restraint system and increase the chance or severity of injury in an accident. Serious injury or death can occur if the seat belt is not worn properly.

- Always route the shoulder belt over your shoulder and across your chest. Never run the belt behind your back, under your arm or across your neck. The belt should be away from your face and neck, but not falling off your shoulder.
- Position the lap belt as low and snug as possible AROUND THE HIPS. NOT THE WAIST. A lap belt worn too high could increase the risk of internal injuries in an accident.



- Be sure the seat belt tongue is securely fastened to the proper buckle.
- Do not wear the seat belt inside out or twisted. Doing so may reduce its effectiveness.
- Do not allow more than one person to use the same seat belt.
- Never carry more people in the vehicle than there are seat belts.
- Never allow anyone to ride in the cargo area while the vehicle is in motion. It does not contain seat belts.

It is not designed for passengers. They could be injured in sudden braking or a collision.

- If the seat belt warning light glows continuously while the ignition is turned ON with all doors closed and all seat belts fastened, it may indicate a malfunction in the system. Have the system checked by an authorized NISSAN dealer.
- All seat belt assemblies including retractors and attaching hardware should be inspected by an authorized NISSAN dealer after any collision. NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Seat belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.
- All child restraints and attaching hardware should be inspected after any collision. Always follow the re-

straint manufacturer's inspection instructions and replacement recommendations. The child restraints should be replaced if they are damaged.

CHILD SAFETY

Children need adults to help protect them. They need to be properly restrained.

The proper restraint depends on the child's size. Generally, infants up to about 1 year and less than 20 pounds (9 kg) should be placed in rear facing child restraints. Front facing child restraints are available for children who outgrow rear facing child restraints.

⚠ WARNING

- Infants and children need special protection. The vehicle's seat belts may not fit them properly. The shoulder belt may come too close to the face or neck. The lap belt may not fit over their small hip bones. In an accident, an improperly fitting seat belt could cause serious or fatal in-

Seats, restraints and supplemental air bag systems 1-17

jury. Always use appropriate child restraints.

All U S states and Canadian provinces or territories require the use of approved child restraints for infants and small children. See "Child restraints" later in this section for more information.

In addition, there are many types of child restraints available for larger children which should be used for maximum protection.

NISSAN recommends that all pre-teen children be restrained in the rear seat if possible. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat.

This is especially important because your vehicle has a supplemental restraint system (Supplemental air bag system) for the front passenger (for precautions, see "Supplemental restraint system" earlier in this section).

Infants and small children

NISSAN recommends that infants and small children be seated in child restraints that

comply with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. You should choose a child restraint which fits your vehicle and always follow the manufacturer's instructions for installation and use.

Larger children

Children who are too large for child restraints should be seated and restrained by the seat belts which are provided.

If the child's seating position has a shoulder belt that fits close to the face or neck, the use of a booster seat (commercially available) may help overcome this. The booster seat should raise the child so the shoulder belt is properly positioned across the top, middle portion of the shoulder and the lap belt is low on the hips. The booster seat should fit the vehicle seat and have a label certifying that it complies with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. Once the child has grown so the shoulder belt is no longer on or near the face and neck, use the shoulder belt without the booster seat.

⚠ WARNING

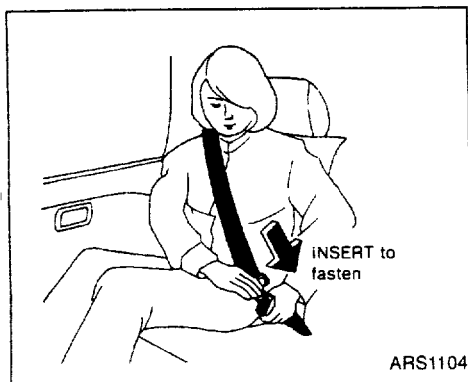
Never let a child stand or kneel on any seat and do not allow a child in the cargo areas while the vehicle is moving. The child could be seriously injured or killed in an accident or sudden stop.

PREGNANT WOMEN

NISSAN recommends that pregnant women use seat belts. The seat belt should be worn snug, and always position the lap belt as low as possible around the hips, not the waist. Place the shoulder belt over your shoulder and across your chest. Never run the lap/shoulder belt over your abdominal area. Contact your doctor for specific recommendations.

INJURED PERSONS

NISSAN recommends that injured persons use seat belts, depending on the injury. Check with your doctor for specific recommendations.



THREE-POINT TYPE SEAT BELT WITH RETRACTOR

WARNING

- Every person who drives or rides in this vehicle should use a seat belt at all times. Children should be properly restrained and, if appropriate, in a child restraint.
- Do not ride in a moving vehicle when the seatback is reclined. This can be dangerous. The shoulder belt will not be against your body. In an accident

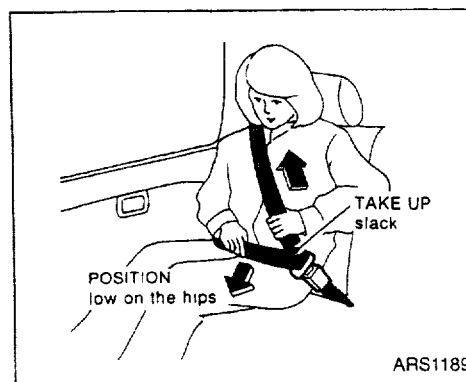
you could be thrown into it and receive neck or other serious injuries. You could also slide under the lap belt and receive serious internal injuries.

- For most effective protection when the vehicle is in motion, the seat should be upright. Always sit well back in the seat and adjust the seat belt properly.

Fastening the seat belts

- 1 Adjust the seat
- 2 Slowly pull the seat belt out of the retractor and insert the tongue into the buckle until you hear and feel the latch engage

The retractor is designed to lock during a sudden stop or on impact. A slow pulling motion permits the seat belt to move, and allows you some freedom of movement in the seat.



- 3 Position the lap belt portion **low and snug on the hips** as shown
- 4 Pull the shoulder belt portion toward the retractor to take up extra slack

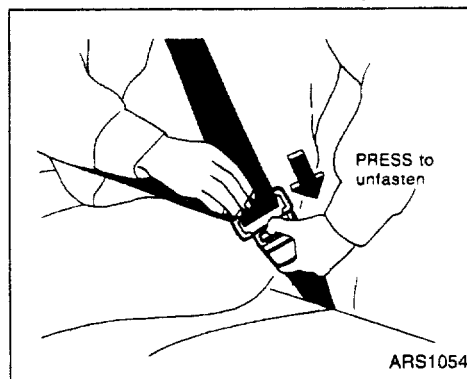
The front passenger seat belt has a cinching mechanism for child restraint installation. It is referred to as the automatic locking mode.

When the cinching mechanism is activated the seat belt cannot be extracted again until the seat belt tongue is detached from the buckle and the seat belt is fully retracted.

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See "Child restraints" later in this section for more information.

The automatic locking mode should be used only for child restraint installation. During normal seat belt use by a passenger, the locking mode should not be activated. If it is activated it may cause uncomfortable seat belt tension.



Unfastening the seat belts

To unfasten the seat belt, press the button on the buckle. The seat belt automatically retracts.

Checking seat belt operation

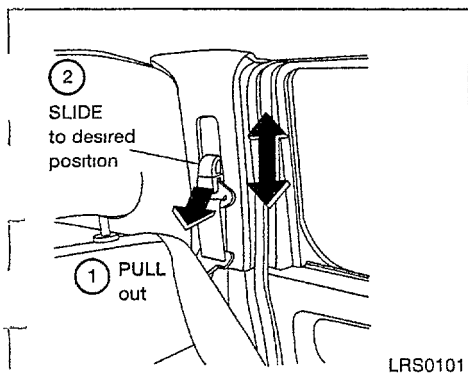
Seat belt retractors are designed to lock seat belt movement by two separate methods.

- 1) When the seat belt is pulled quickly from the retractor
- 2) When the vehicle slows down rapidly

To increase your confidence in the seat belts, check the operation as follows.

- Grasp the shoulder belt and pull quickly forward. The retractor should lock and restrict further belt movement.

If the retractor does not lock during this check, or if you have any questions about seat belt operation, see an authorized NISSAN dealer.

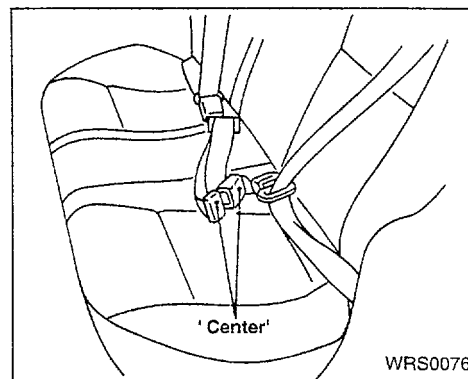


Shoulder belt height adjustment (for front seats)

The shoulder belt anchor height should be adjusted to the position best for you. (See "Precautions on seat belt usage" earlier in this section.) To adjust, pull out the adjustment button and move the shoulder belt anchor to the desired position, so the belt passes over the center of the shoulder. The belt should be away from your face and neck, but not falling off of your shoulder. Release the adjustment button to lock the shoulder belt anchor into position.

WARNING

- After adjustment, release the adjustment button and try to move the shoulder belt anchor up and down to make sure it is securely fixed in position.
- The shoulder belt anchor height should be adjusted to the position best for you. Failure to do so may reduce the effectiveness of the entire restraint system and increase the chance or severity of injury in an accident.

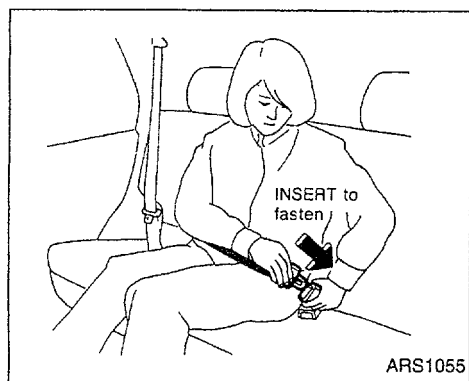


TWO-POINT TYPE SEAT BELT WITHOUT RETRACTOR (center of rear seat)

Selecting the correct set of seat belts

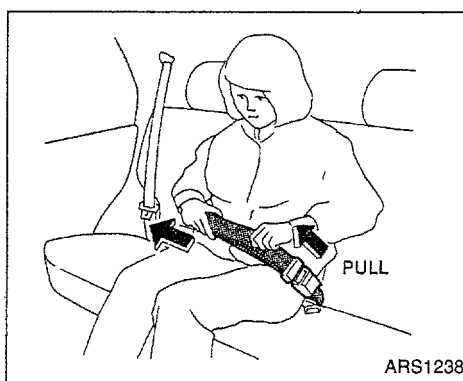
The center seat belt buckle and tongue are identified by the word **CENTER**. The center seat belt tongue can **only** be fastened into the center seat belt buckle.

Seats, restraints and supplemental air bag systems 1-21

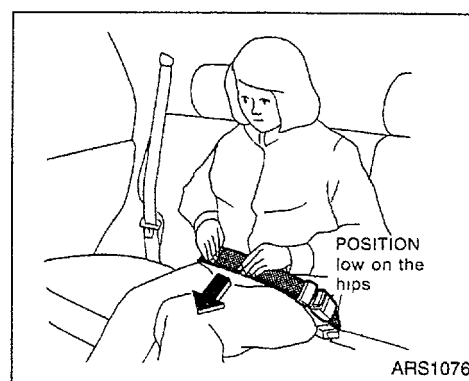


Fastening the seat belts

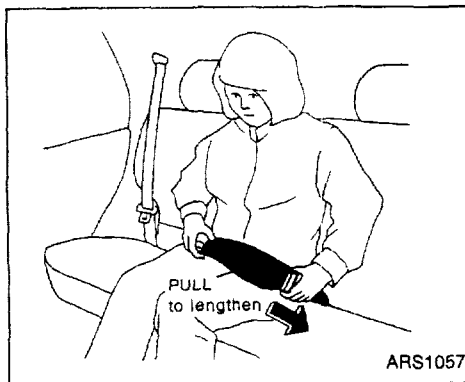
- 1 Insert the tongue into the buckle until you hear and feel the latch engage. Both the tongue assembly and the buckle are marked **CENTER**.



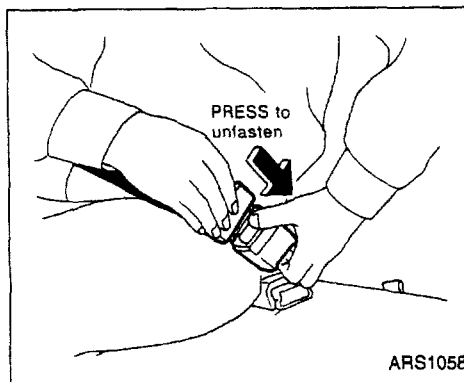
- 2 Tighten the belt by pulling the free end of the belt away from the tongue.



- 3 Position the lap belt **low and snug on the hips** as illustrated.



- 4 Loosen the belt by holding the tongue at a right angle to the belt, then pull on the belt



Unfastening the seat belts

To unfasten the seat belt, press the button on the buckle

SEAT BELT EXTENDERS

If, because of body size or driving position, it is not possible to properly fit the lap-shoulder belt and fasten it, an extender is available which is compatible with the installed seat belts. The extender adds approximately 8 inches (200 mm) of length and may be used for either the driver or front passenger seating position. See an authorized NISSAN dealer for assistance if the extender is required.

WARNING

- Only NISSAN seat belt extenders, made by the same company which made the original equipment seat belts, should be used with NISSAN seat belts.

- Adults and children who can use the standard seat belt should not use an extender. Such unnecessary use could result in serious personal injury in the event of an accident.

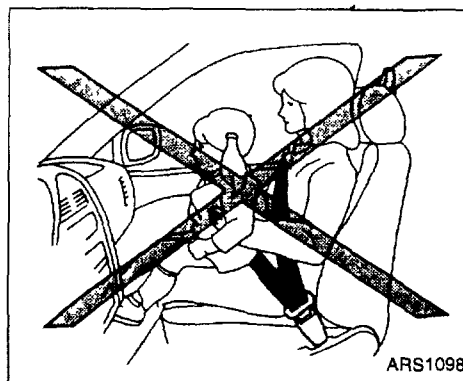
Never use seat belt extenders to install child restraints. If the child restraint is not secured properly, the child could be seriously injured in a collision or sudden stop.

Seats, restraints and supplemental air bag systems 1-23

CHILD RESTRAINTS

SEAT BELT MAINTENANCE

- To clean the seat belt webbings, apply a mild soap solution or any solution recommended for cleaning upholstery or carpet. Then wipe with a cloth and allow the seat belts to dry in the shade. Do not allow the seat belts to retract until they are completely dry.
- If dirt builds up in the shoulder belt guide of the seat belt anchors, the seat belts may retract slowly. Wipe the shoulder belt guide with a clean, dry cloth.
- Periodically check to see that the seat belt and the metal components, such as buckles, tongues, retractors, flexible wires and anchors, work properly. If loose parts, deterioration, cuts or other damage on the webbing is found, the entire seat belt assembly should be replaced.



PRECAUTIONS ON CHILD RESTRAINTS

WARNING

- Infants and small children should always be placed in an appropriate child restraint while riding in the vehicle. Failure to use a child restraint can result in serious injury or death.
- Infants and small children should never be carried on your lap. It is not possible for even the strongest adult

to resist the forces of a severe accident. The child could be crushed between the adult and parts of the vehicle. Also, do not put the same seat belt around both your child and yourself.

- Never install a rear facing child restraint in the front seat. An inflating supplemental air bag could seriously injure or kill your child. A rear facing child restraint must only be used in the rear seat.
- NISSAN recommends that the child restraint be installed in the rear seat. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat.
- An improperly installed child restraint could lead to serious injury or death in an accident.

In general, child restraints are designed to be installed with a lap belt or the lap portion of a three-point type seat belt. In addition, this vehicle is equipped with a universal child restraint lower anchor system, referred

as the LATCH (Lower Anchors and Tether for Children) system. Some child restraints include two rigid or webbing-mounted attachments that can be connected to these lower anchors. For details, see the "LATCH Lower Anchors and Tether for Children" system" later in this section.

Child restraints for infants and small children of various sizes are offered by several manufacturers. When selecting any child restraint, keep the following points in mind:

- 1) Choose only a restraint with a label certifying that it complies with Federal Motor Vehicle Safety Standard 213 or Canadian Motor Vehicle Safety Standard 213.
- 2) Check the child restraint in your vehicle to be sure it is compatible with the vehicle's seat and seat belt system. Choose a child restraint that meets the guidelines of the Society of Automotive Engineers recommended practice J1819 for child restraint installation.
- 3) If the child restraint is compatible with your vehicle, place your child in the child restraint and check the various adjustments to be sure the child restraint is compatible with your child. Always follow all of the recommended procedures.

All U.S. states and provinces of Canada require that infants and small children be restrained in an approved child restraint at all times while the vehicle is being operated.

⚠ WARNING

- Improper use of a child restraint can result in increased injuries for both the infant or child and other occupants in the vehicle.
- Follow all of the child restraint manufacturer's instructions for installation and use. When purchasing a child restraint, be sure to select one which will fit your child and vehicle. It may not be possible to properly install some types of child restraints in your vehicle.
- If the child restraint is not anchored properly, the risk of a child being injured in a collision or a sudden stop greatly increases.
- Adjustable seatbacks should be positioned to fit the child restraint, but as upright as possible.

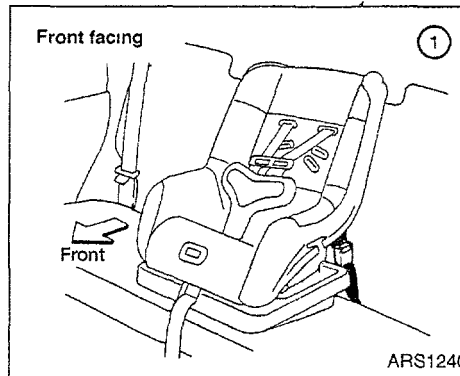
After attaching the child restraint, test it before you place the child in it. Tilt it from side to side. Try to tug it forward and check to see if the belt holds the restraint in place. If the restraint is not secure, tighten the belt as necessary.

- For a front-facing child restraint, if the seat position where it is installed has a 3-point type lap/shoulder belt, check to make sure the shoulder belt does not go in front of the child's face or neck. If it does, put the shoulder belt behind the child restraint. If you must install a front-facing child restraint in the front seat, see "Installation on front passenger seat" later in this section for details.
- When your child restraint is not in use, keep it secured with a seat belt to prevent it from being thrown around in case of a sudden stop or accident.

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⚠ CAUTION

- Remember that a child restraint left in a closed vehicle can become very hot. Check the seating surface and buckles before placing your child in the child restraint.
- The three-point belt in your vehicle is equipped with an automatic locking mode retractor which must be used when installing a child restraint.
- Failure to use the retractor's locking mode will result in the child restraint not being properly secured. The restraint could tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.

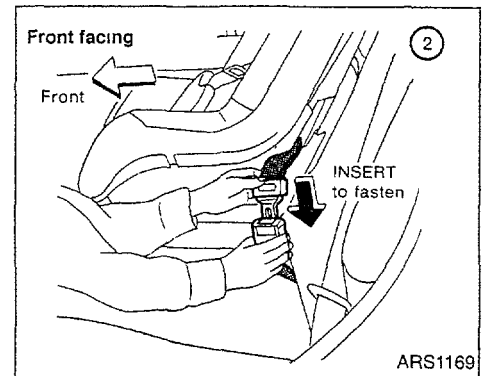


INSTALLATION ON REAR SEAT CENTER POSITION

Front facing

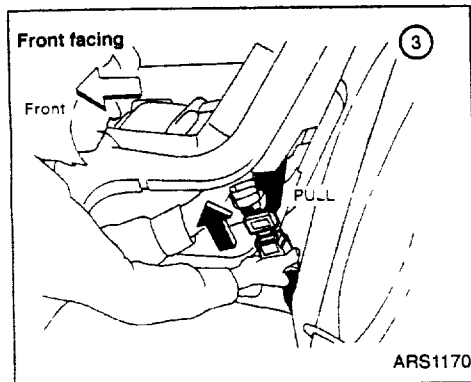
When you install a child restraint in the rear center seat, follow these steps:

- 1 Position the child restraint on the seat as illustrated. Always follow the restraint manufacturer's instructions.

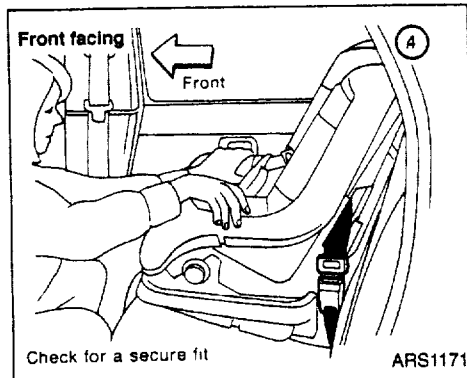


- 2 Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage.

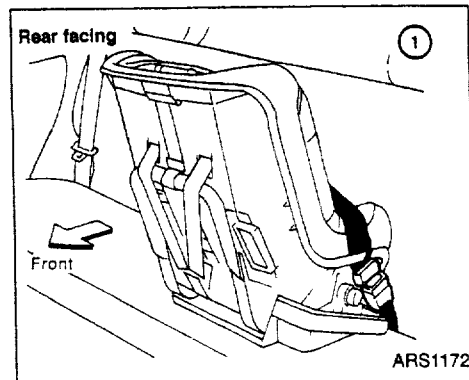
Be sure to follow the child restraint manufacturer's instructions for belt routing.



- 3 Remove all slack in the lap belt for a very tight fit by pulling forcefully on the lap belt adjustment



- 4 Before placing the child in the child restraint, use force to tilt the child restraint from side to side, and tug it forward to make sure it is securely in place
- 5 If it is not secure, try to tighten the belt again, or put the restraint in another seat
- 6 Check to make sure the child restraint is properly secured prior to each use

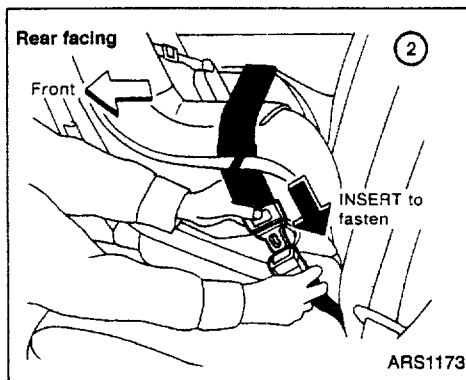


Rear facing

When you install a child restraint in the rear center seat, follow these steps

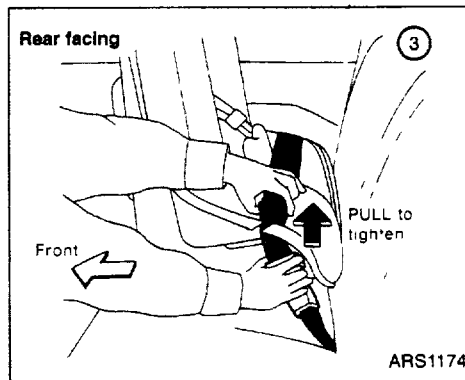
- 1 Position the child restraint on the seat as illustrated. Always follow the restraint manufacturer's instructions

Seats, restraints and supplemental air bag systems 1-27

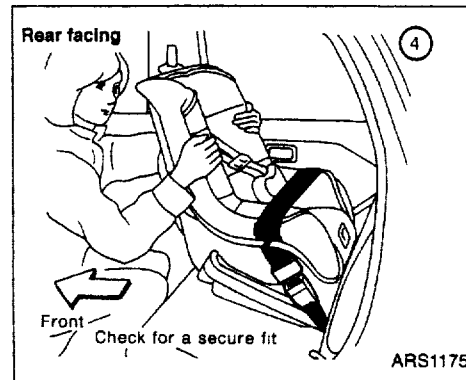


- 2 Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage

Be sure to follow the child restraint manufacturer's instructions for belt routing



- 3 Remove all slack in the lap belt for a very tight fit by pulling forcefully on the lap belt adjustment



- 4 Before placing the child in the child restraint, use force to tilt the child restraint from side to side, and tug it forward to make sure it is securely in place
- 5 If it is not secure, try to tighten the belt again, or put the restraint in another seat
- 6 Check to make sure the child restraint is properly secured prior to each use

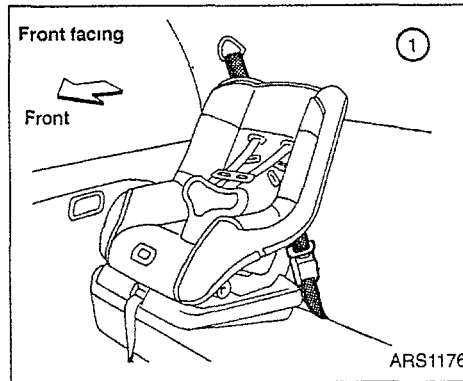
INSTALLATION ON REAR SEAT OUTBOARD POSITIONS

Front facing

⚠ WARNING

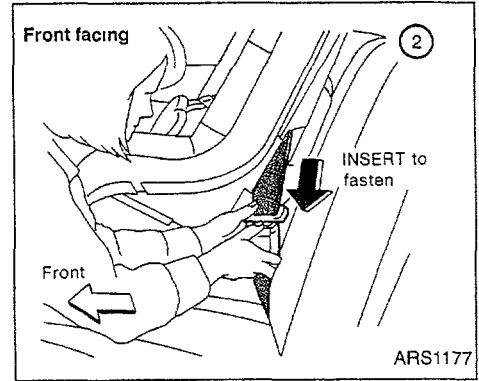
The three-point belt in your vehicle is equipped with an automatic locking mode retractor which must be used when installing a child restraint.

Failure to use the retractor's locking mode will result in the child restraint not being properly secured. The seat could tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.



When you install a child restraint in a rear outboard seat, follow these steps

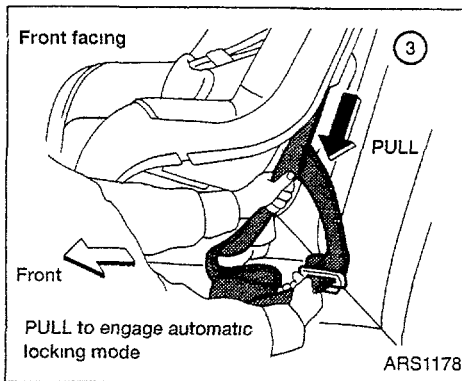
- 1 Position the child restraint on the seat. Always follow the restraint manufacturer's instructions.



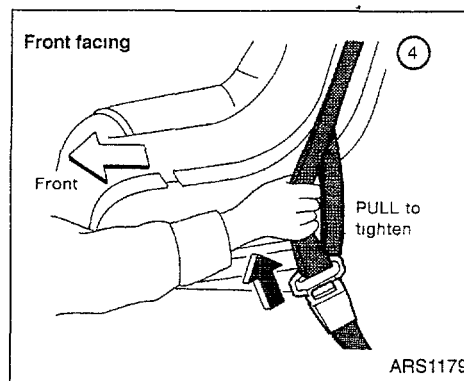
- 2 Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage.

Be sure to follow the child restraint manufacturer's instructions for belt routing.

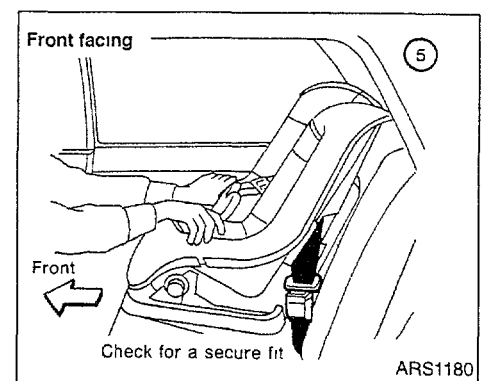
Seats, restraints and supplemental air bag systems 1-29



- 3 Pull on the shoulder belt until all of the belt is fully extended. At this time, the belt retractor is in the automatic locking mode (child restraint mode). It reverts back to emergency locking mode when the belt is fully retracted.



- 4 Allow the belt to retract. Pull up on the shoulder belt to remove any slack in the belt.



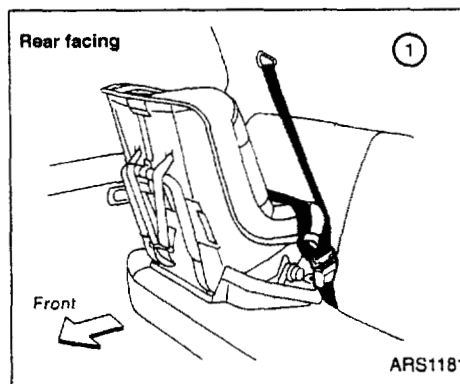
- 5 Before placing the child in the child restraint, use force to tilt the child restraint from side to side, and tug it forward to make sure it is securely held in place.
- 6 Check that the retractor is in the automatic locking mode by trying to pull more belt out of the retractor. If you cannot pull any more belt webbing out of the retractor, the retractor is in the automatic locking mode.
- 7 Check to make sure the child restraint is properly secured prior to each use. If the seat belt is not locked, repeat steps 3 through 6.

After the child restraint is removed and the seat belt is fully retracted, the automatic locking mode (child restraint mode) is canceled

Rear facing

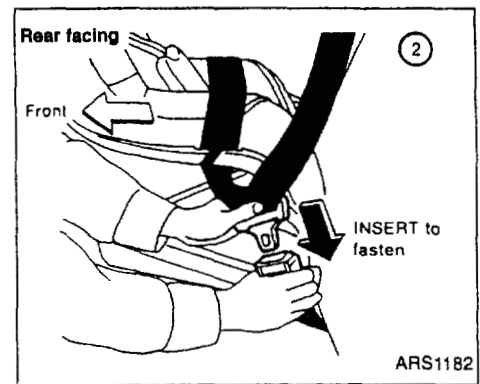
WARNING

- The three-point belt in your vehicle is equipped with an automatic locking mode retractor which must be used when installing a child restraint.
- Failure to use the retractor's locking mode will result in the child restraint not being properly secured. The seat could tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.



When you install a child restraint in a rear outboard seat follow these steps

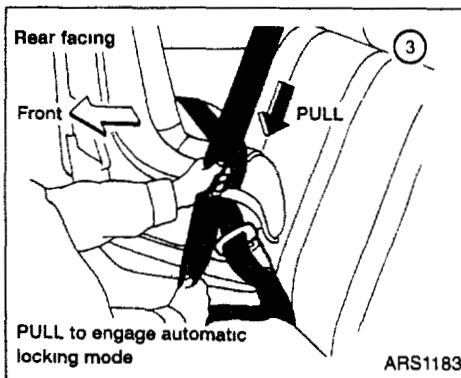
- 1 Position the child restraint on the seat. Always follow the restraint manufacturer's instructions.



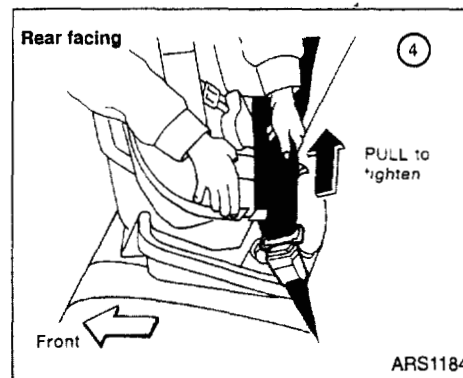
- 2 Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage.

Be sure to follow the child restraint manufacturer's instructions for belt routing.

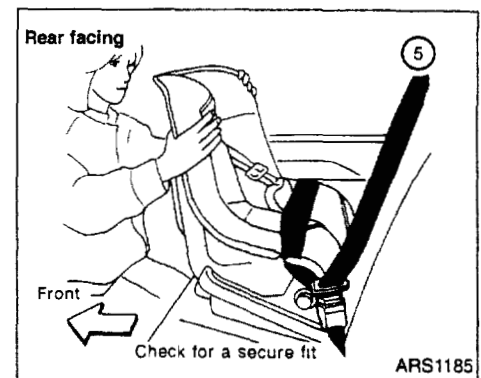
Seats, restraints and supplemental air bag systems 1-31



- 3 Pull on the shoulder belt until all of the belt is fully extended. At this time, the belt retractor is in the automatic locking mode (child restraint mode). It reverts back to emergency locking mode when the belt is fully retracted.



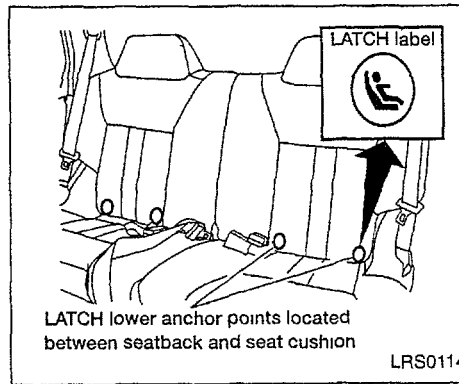
- 4 Allow the belt to retract. Pull up on the shoulder belt to remove any slack in the belt.



- 5 Before placing the child in the child restraint, use force to tilt the child restraint from side to side, and tug it forward to make sure it is securely held in place.
- 6 Check that the retractor is in the automatic locking mode by trying to pull more belt out of the retractor. If you cannot pull any more belt webbing out of the retractor, the retractor is in the automatic locking mode.
- 7 Check to make sure the child restraint is properly secured prior to each use. If the seat belt is not locked, repeat steps 3 through 6.

LATCH (LOWER ANCHORS AND TETHER FOR CHILDREN) SYSTEM

After the child restraint is removed and the seat belt is fully retracted, the automatic locking mode (child restraint mode) is canceled.



WARNING

- **Attach LATCH system compatible child restraints only at the locations shown. If a child restraint is not secured properly, your child could be seriously injured or killed in an accident.**
- **Do not secure a child restraint in the center rear seating position using the LATCH system anchors. The child restraint will not be secured properly.**

The LATCH system anchors are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstance are they to be used for adult seat belts or harnesses.

Some child restraints include two rigid or webbing-mounted attachments that can be connected to two anchors located at certain seating positions in your vehicle. This system is known as the LATCH (Lower Anchors and Tether for Children) system. This system may also be referred to as the ISOFIX or ISOFIX compatible system. With this system, you do not have to use a vehicle seat belt to secure the child restraint. Your vehicle is equipped with special anchor points that are used with LATCH system compatible child restraints. Check your child restraint for a label stating that it is compatible with the LATCH system. This information may also be in the child restraint owner's manual. If you have such a child restraint, refer to the illustration for the rear seating positions equipped with LATCH system anchors which can be used to secure the child restraint.

Seats, restraints and supplemental air bag systems 1-33

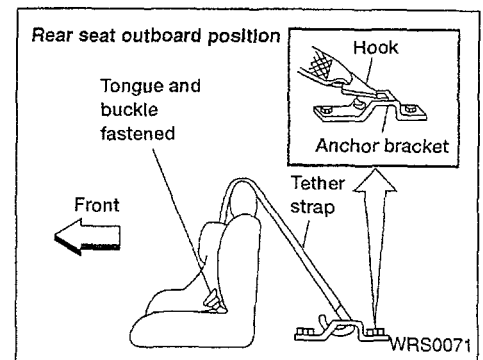
The LATCH system anchors are located at the rear of the seat cushion near the seatback. A label is attached to the seat back to help you locate the LATCH system anchors.

Some child restraints may also require the use of a top tether strap. See "Top Tether Strap Child Restraint" later in this section for installation instructions.

When installing a child restraint, carefully read and follow the instructions in this manual and those supplied with the child restraint.

When you install a LATCH system compatible child restraint to the lower anchor attachments in the rear seat, follow these steps:

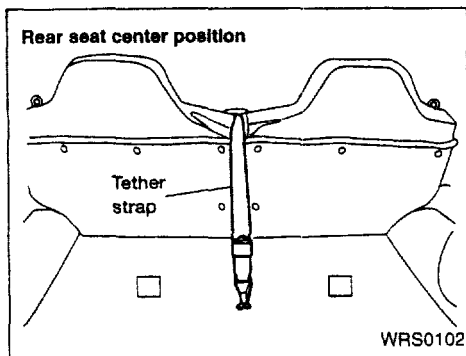
- 1 To install the LATCH system compatible child restraint, insert the child restraint LATCH system anchor attachments into the anchor points on the rear seat. If the child restraint is equipped with a top tether, see "Top Tether Strap Child Restraint" later in this section for installation instructions.
- 2 After attaching the child restraint and before placing the child in it, use force to tilt the child restraint from side to side and tug it forward to make sure that the child restraint is securely held in place.
- 3 Check to make sure that the child restraint is properly secured prior to each use.



WARNING

Inspect the lower anchors by inserting your fingers into the lower anchor area and feeling to make sure there are no obstructions over the LATCH system anchors, such as seat belt webbing or seat cushion material. The child restraint will not be secured properly if the LATCH system anchors are obstructed.

1-34 Seats, restraints and supplemental air bag systems

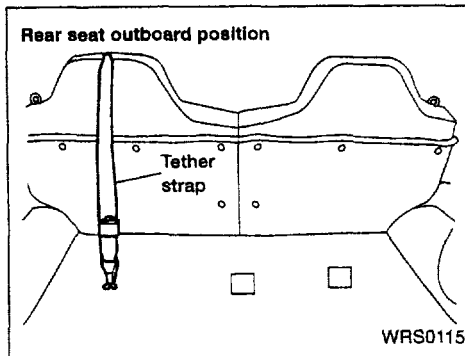


TOP TETHER STRAP CHILD RESTRAINT

This vehicle is equipped with 3 anchor brackets in the rear cargo area for attaching child restraint top tether straps.

If your child restraint has a top tether strap, secure the child restraint with the two-point (center) or three-point seat belt and latch the top strap hook onto the appropriate anchor bracket. Make sure the shoulder belt is placed between the seat back and child restraint.

For the rear outboard seating positions, place the top tether strap over the seat back as shown in the illustration.



For the rear center seating position, place the top tether strap through the split between the rear seat back cushion as shown in the illustration. Position the tether as low as possible in the split before tightening the top tether strap. Do not place the top tether strap over the seat back to the side of the split when installing a child restraint in the center rear position. In that position the top tether strap may not stay in place and not keep the child restraint secure in a crash.

WARNING
In the center position the top tether strap must be correctly placed between

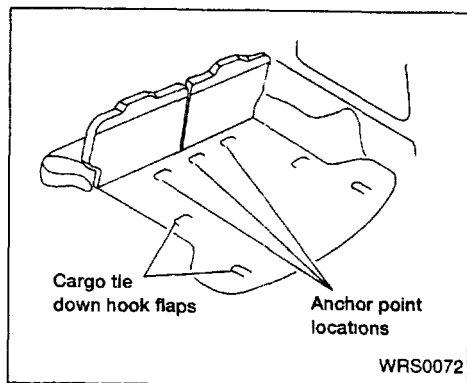
the split in the rear seat back cushions. If the child restraint top tether strap is not secured properly, your child could be seriously injured or killed in an accident.

Secure the top strap to the attaching bracket that provides the straightest installation of the strap. Tighten the strap according to manufacturer instructions to remove any slack.

WARNING

Child restraint anchor points are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances is it to be used for adult seat belts or harnesses.

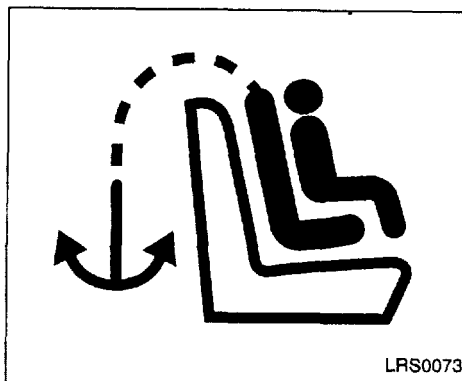
Seats, restraints and supplemental air bag systems 1-35



Anchor point locations

Anchor points are located in the cargo area under the carpet.

If you have questions when installing a top strap child restraint, consult your NISSAN dealer for details.



Flaps are provided in the carpet for easy access and are marked with the label shown.

INSTALLATION ON FRONT PASSENGER SEAT

WARNING
Never install a rear-facing child restraint in the front passenger seat. Air bags inflate with great force. A rear-facing child restraint could be struck by the air bag in a crash and could seriously injure or kill your child.

Appendix D

Miscellaneous Test Information

Channel Report

04/24/2002 12 12 26 PM

Name of Test 020425-1

System K3600

Name of DAU DAU3

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Date/Status	Group	Mfg.	Model	
3000	EVENT	EVENT	Event Low		10 24	V	+	04/15/2002	OK	SLED G	TRC	Event
3001	C15253	SLDXG	SLED G LONG	Rear	199 55334	g	-	01/28/2002	OK	-1	Endevco	7231C
3002	AN4B3	SLDXGR	SLED G LONG	Rear	200 33376	g	-	01/28/2002	OK	-1	Endevco	7231C
3003	SLDXV	SLDXV	SLED VELOCITY		164 64081	km/h	-	04/08/2002	OK	-1	TRC	SLDXV
3004	SLDXGT	SLDXGT	SLED TRIGGER	Rear	202 38354	g	-	10/19/2001	OK	-1	Endevco	7231C
3005	APDJ3	HEDXG1	Head X-Axis Accel	Rwd	399 55362	g	-	10/04/2001	OK	314n	Endevco	7231C
3006	AGHP8	HEDYG1	Head Y-Axis Accel	Left	401 14389	g	-	10/04/2001	OK	314n	Endevco	7231C
3007	APD60	HEDZG1	Head Z-Axis Accel	Up	399 32614	g	-	10/04/2001	OK	314n	Endevco	7231C
3008	1716-0534-FX	NEKXF1	Neck X-Axis Force	Hd Fd	8894 7979	N	-	04/02/2002	OK	314n	Denton	1716
3009	1716-0534-FY	NEKYF1	Neck Y-Axis Force	Hd Lt,	8898 9660	N	+	04/02/2002	OK	314n	Denton	1716
3010	1716-0534-FZ	NEKZF1	Neck Z-Axis Force	Hd U	13338 527	N	+	04/02/2002	OK	314n	Denton	1716
3011	1716-0534-MX	NEKXM1	Neck X-Axis Moment	Rt Ear	282 30593	N m	-	04/02/2002	OK	314n	Denton	1716
3012	1716-0534-MY	NEKYM1	Neck Y-Axis Moment	Chn t	282 5193	N m	+	04/02/2002	OK	314n	Denton	1716
3013	1716-0534-MZ	NEKZM1	Neck Z-Axis Moment	Chn t	282 26294	N m	+	04/02/2002	OK	314n	Denton	1716
3014	C13010	CSTXG1	Chest X-Axis Accel	Fwd	399 25763	g	+	10/04/2001	OK	314n	Endevco	7231C
3015	C14563	CSTYG1	Chest Y-Axis Accel	Left	399 29499	g	-	10/04/2001	OK	314n	Endevco	7231C
3016	AD343	CSTZG1	Chest Z-Axis Accel	Down	401 32311	g	+	10/04/2001	OK	314n	Endevco	7231C
3017	14CB1-2847-041	CSTXD1	Chest Displacement	Strnm	101 14848	mm	+	04/02/2002	OK	314n	Servo	14CB1-2847
3018	2430T-962	LFMZFI	Left Femur Z-Axis 91	Knee	13353 764	N	+	04/02/2002	OK	314n	GSE	2430T
3019	2430T-982	RFMZFI	Right Femur Z-Axis 98	Knee	13357 878	N	+	04/02/2002	OK	314n	GSE	2430T
3020	GB86	HEDXG2	Head X-Axis Accel	Rwd	399 63159	g	-	11/20/2001	OK	339n	Endevco	7231C
3021	GB77	HEDYG2	Head Y-Axis Accel	Lft	400 37692	g	-	11/20/2001	OK	339n	Endevco	7231C
3022	A54F	HEDZG2	Head Z-Axis Accel	Up	400 90831	g	-	11/20/2001	OK	339n	Endevco	7231C
3023	1716A-1222-FX	NEKXF2	Neck X-Axis Force	Hd Fd	8890 5184	N	-	04/01/2002	OK	339n	Denton	1716A
3024	1716A-1222-FY	NEKYF2	Neck Y-Axis Force	Hd Lt,	8889 3772	N	+	04/01/2002	OK	339n	Denton	1716A
3025	1716A-1222-FZ	NEKZF2	Neck Z-Axis Force	Hd U	13341 611	N	+	04/01/2002	OK	339n	Denton	1716A
3026	1716A-1222-MX	NEKXM2	Neck X-Axis Moment	Rt Ear	282.69848	N m	-	04/01/2002	OK	339n	Denton	1716A
3027	1716A-1222-MY	NEKYM2	Neck Y-Axis Moment	Chn t	282 63152	N m	+	04/01/2002	OK	339n	Denton	1716A
3028	1716A-1222-MZ	NEKZM2	Neck Z-Axis Moment	Chn t	282 75060	N m	+	04/01/2002	OK	339n	Denton	1716A
3029	C14135	CSTXG2	Chest X-Axis Accel	Fwd	398 01304	g	+	10/04/2001	OK	339n	Endevco	7231C

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Channel Report

04/24/2002 12 12 26 PM

3030	C14317	CSTYG2	Chest Y-Axis Accel	Lft	398 15852	g	-	10/04/2001	OK	339n	Endevco	7231C
3031	C14341	CSTZG2	Chest Z-Axis Accel	Down	398 67627	g	+	10/04/2001	OK	339n	Endevco	7231C
3032	14CB1-2847-339	CSTXD2	Chest Displacement X	Strm	100 5202	mm	+	04/11/2002	OK	339n	Servo	14CB1-2847
3033	2430T-901	LFMZF2	Left Femur Z-Axis 603	Knee	13342 954	N	+	04/01/2002	OK	339n	GSE	2430T
3034	2430T-902	RFMZF2	Right Femur Z-Axis 744	Knee	13349.135	N	+	04/01/2002	OK	339n	GSE	2430T
3035	J35676	LBXG	Left Body @ Rear Seat (Front At	Fwd	199 53857	g	+	04/17/2002	OK	-1	Endevco	7264-2000TZ
3036	J35701	RBXG	Right Body @ Rear Seat (Front	Fwd	200 22682	g	+	04/17/2002	OK	-1	Endevco	7264-2000TZ
3037	J40727	TEXG	Top of Engine Block	Fwd	200 00781	g	+	04/17/2002	OK	-1	Endevco	7264-2000TZ
3038	J40899	RAXG	Rear Axle	Rr	199 6366	g	-	04/17/2002	OK	-1	Endevco	7264-2000TZ
3039	J41140	LFXG	Left Vehicle Frame	Fwd	200 29536	g	+	04/17/2002	OK	-1	Endevco	7264-2000TZ
3040	J41142	RFXG	Right Vehicle Frame	Fwd	199 66151	g	+	04/17/2002	OK	-1	Endevco	7264-2000TZ

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Digital and System Channel Report

2002-04-24 10 45 16

Name of Test 020425-1

System K3600

Name of DAU DAU3

enabled	Channel	Short Name	Type	Data File	Module Type
Yes	3500	Dig3	dig0	DAT33500	KM3650 Sequencer

bit position	bit selector	short name	long name	description	
MSB = bit 15	1	Switch	Pull-Apart Switch	Backup Trigger switch	
bit 14	1	DABET1	Driver Primary Airbag Event	20 mS	1
bit 13	1	DABET2	Driver Secondary Airbag Event	23 mS	2
bit 12	1	PABET1	Passenger Primary Airbag Event	20 mS	3
bit 11	1	PABET2	Pass Secondary Airbag Event	23 mS	4
bit 10	0				
bit 09	0				
bit 08	0				
bit 07	0				
bit 06	0				
bit 05	0				
bit 04	0				
bit 03	0				
bit 02	0				
bit 01	0				
LSB = bit 00	0				

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Dummy 314n Type HYBRID III 50TH Description NHTSA - 314n HYBRID III 50TH CAL DUE 10-2-02 (DKS 4-12-02) J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head X-Axis Accel	7231C	APDJ3	Endevco	0 02018 g	750	10/4/01	Rwd	1
HEDYG	Head Y-Axis Accel	7231C	AGHP8	Endevco	0 01905 g	750	10/4/01	Left	1
HEDZG	Head Z-Axis Accel	7231C	APD60	Endevco	0 02068 g	750	10/4/01	Up	1
NEKXF	Neck X-Axis Force	1716	1716-0534-FX	Denton	0 000191235 N	8896 4	4/2/02	Hd Fd,Cst Rr	1
NEKYF	Neck Y-Axis Force	1716	1716-0534-FY	Denton	0 000183524 N	8896 4	4/2/02	Hd Lt,Cst Rt	0
NEKZF	Neck Z-Axis Force	1716	1716-0534-FZ	Denton	0 000086844 N	13344 6	4/2/02	Hd Up,Cst Dn	0
NEKXM	Neck X-Axis Moment	1716	1716-0534-MX	Denton	0 005766726 N m	282 5	4/2/02	Rt Ear to Rt Shld	1
NEKYM	Neck Y-Axis Moment	1716	1716-0534-MY	Denton	0 005846018 N m	282 5	4/2/02	Chn to Strnm	0
NEKZM	Neck Z-Axis Moment	1716	1716-0534-MZ	Denton	0 008339823 N m	282 5	4/2/02	Chn to Lt Shld	0
CSTXG	Chest X-Axis Accel	7231C	C13010	Endevco	0 02948 g	750	10/4/01	Fwd	0
CSTYG	Chest Y-Axis Accel	7231C	C14563	Endevco	0 02982 g	750	10/4/01	Left	1
CSTZG	Chest Z-Axis Accel	7231C	AD343	Endevco	0 01933 g	750	10/4/01	Down	0
CSTXD	Chest Displacement	14CB1-2847	14CB1-2847-041	Servo	1 124859 mm	100	4/2/02	Strnm Away Frm Spn	0
LFMZP	Left Femur Z-Axis 91	2430T	2430T-962	GSE	0 000068589 N	13344 7	4/2/02	Knee Fd,Pel Rr	0
RFMZP	Right Femur Z-Axis 98	2430T	2430T-982	GSE	0 00006796 N	13344 7	4/2/02	Knee Fd,Pel Rr	0

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Friday, April 19, 2002

314n

Dummy 339n Type HYBRID III 50TH Description NHTSA - 339n HYBRID III 50TH CAL DUE 10-1-02 (DKS 4-12-02) J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head X-Axis Accel	7231C	GB86	Endevco	0 01956 g	750	11/20/01	Rwd	1
HEDYG	Head Y-Axis Accel	7231C	GB77	Endevco	0 01923 g	750	11/20/01	Lft	1
HEDZG	Head Z-Axis Accel	7231C	A54F	Endevco	0 0198 g	750	11/20/01	Up	1
NEKXF	Neck X-Axis Force	1716A	1716A-1222-FX	Denton	0 000196551 N	8896 4	4/1/02	Hd Fd,Cst Rr	1
NEKYF	Neck Y-Axis Force	1716A	1716A-1222-FY	Denton	0 000190718 N	8896 4	4/1/02	Hd Lt,Cst Rt	0
NEKZF	Neck Z-Axis Force	1716A	1716A-1222-FZ	Denton	0 000099808 N	13344 6	4/1/02	Hd Up,Cst Dn	0
NEKXM	Neck X-Axis Moment	1716A	1716A-1222-MX	Denton	0 006087788 N m	282 5	4/1/02	Rt Ear to Rt Shld	1
NEKYM	Neck Y-Axis Moment	1716A	1716A-1222-MY	Denton	0 00596885 N m	282 5	4/1/02	Chn to Strnm	0
NEKZM	Neck Z-Axis Moment	1716A	1716A-1222-MZ	Denton	0 008363894 N m	282 5	4/1/02	Chn to Lt Shld	0
CSTXG	Chest X-Axis Accel	7231C	C14135	Endevco	0 02737 g	750	10/4/01	Fwd	0
CSTYG	Chest Y-Axis Accel	7231C	C14317	Endevco	0 02736 g	750	10/4/01	Lft	1
CSTZG	Chest Z-Axis Accel	7231C	C14341	Endevco	0 02335 g	750	10/4/01	Down	0
CSTXD	Chest Displacement X	14CB1-2847	14CB1-2847-339	Servo	1 1318897 mm	100	4/11/02	Strnm Away Frm Spn	0
LFMZG	Left Femur Z-Axis 603	2430T	2430T-901	GSE	0 000071324 N	13344 7	4/1/02	Knee Fd,Pel Rr	0
RFMZG	Right Femur Z-Axis 744	2430T	2430T-902	GSE	0 000070118 N	13344 7	4/1/02	Knee Fd,Pel Rr	0

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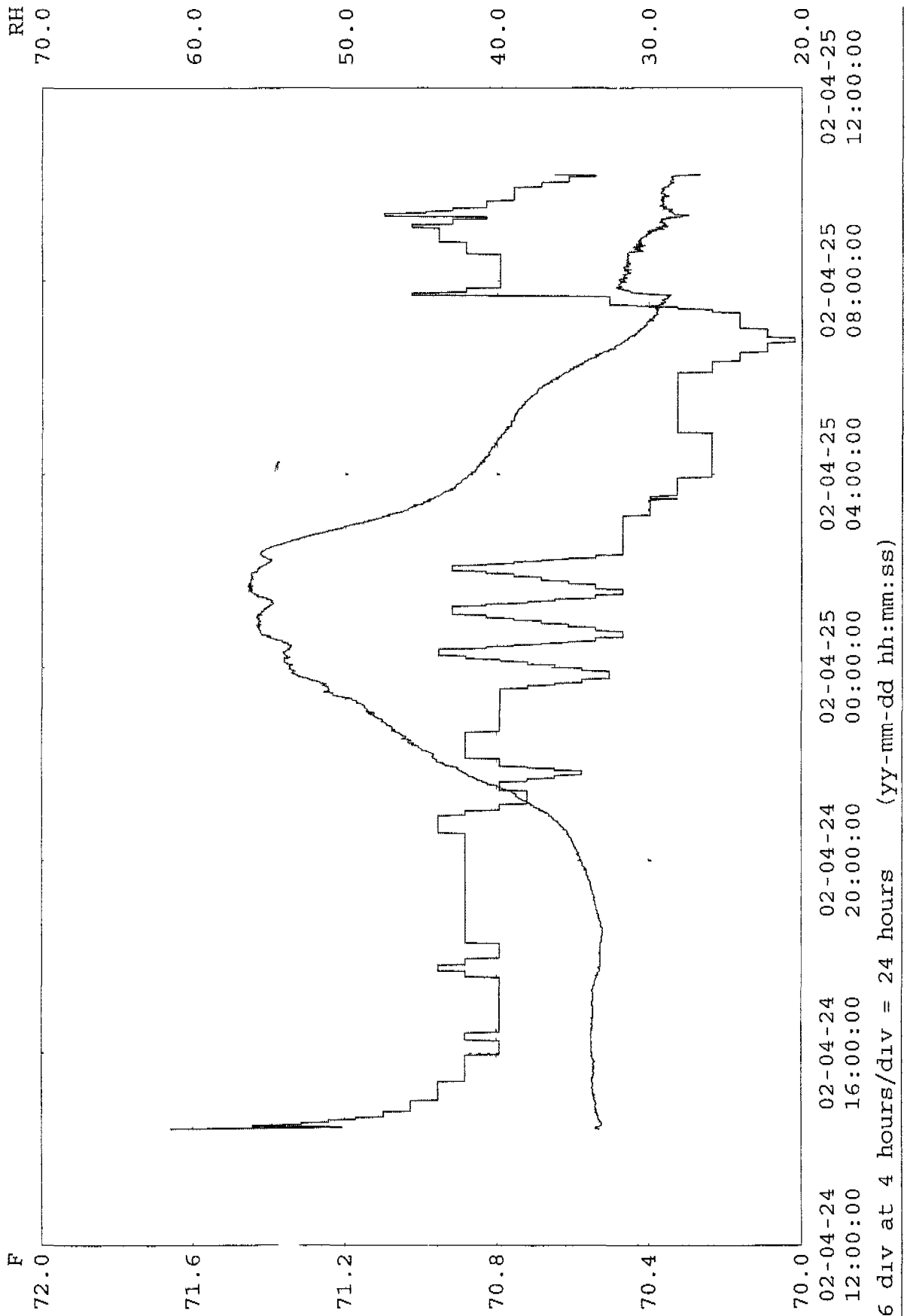
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Temperature and Relative Humidity Chart





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