

FINAL REPORT NUMBER 225-MGA-05-002

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

MAZDA MOTOR CORPORATION
2004 MAZDA 3
NHTSA No. C45404

MGA RESEARCH CORPORATION
446 Executive Drive
Troy, Michigan 48083



Test Date: January 18, 2005
Report Date: February 28, 2005

FINAL REPORT

PREPARED FOR:

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

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

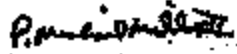
Prepared By:


Melanie Schick, Project Engineer


Brad Reaume, Test Personnel


Helen A. Kaleto, Laboratory Manager

Approved By:


Amanda Prescott

Approval Date: 2/28/05

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By:

Amanda Prescott
Digitally signed by Amanda Prescott
DN: cn = Amanda Prescott, o = NHTSA, ou = Office of Vehicle
Safety Compliance, ou = NHTSA, email = amanda.prescott@dot.gov
Reason: I am approving this document
Date: 2005.03.02 10:00:00 -0500

Acceptance Date:

2/28/05

1. Report No. 225-MGA-05-002	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 225 Compliance Testing of a 2004 Mazda 3, NHTSA No. C45404		5. Report Date February 28, 2005	
		6. Performing Organization Code MGA	
7. Author(s) Helen A. Kaleto, Laboratory Manager Melanie Schick, Project Engineer Brad Reaume, Test Personnel		8. Performing Organization Report No. 225-MGA-05-002	
		10. Work Unit No.	
9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083		11. Contract or Grant No. DTNH22-02-D-11043	
		13. Type of Report and Period Covered Final Test Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-220) 400 Seventh Street, SW Room 6111 Washington, DC 20590		14. Sponsoring Agency Code NVS-220	
		15. Supplementary Notes	
16. Abstract A compliance test was conducted on the subject 2004 Mazda 3, NHTSA No. C45404, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-225T & 225L for the determination of FMVSS 225 compliance. The tests were conducted at MGA Research Corporation in Troy, Michigan on January 18, 2005. Test failures identified were as follows: NONE The data recorded indicates that the 2004 Mazda 3 tested appears to comply with the requirements of FMVSS 225.			
17. Key Words Compliance Testing Safety Engineering FMVSS 225 2004 Mazda 3		18. Distribution Statement Copies of this report are available From: NHTSA Technical Reference Division, Mail Code: NPO-230 400 Seventh Street, SW, Room PL-403 Washington, D.C. 20590 Telephone No. (202) 366-4946	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 90	22. Price

Form DOT F 1700.7 (8-70)

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 PURPOSE AND PROCEDURE	5
2.0 COMPLIANCE TEST AND DATA SUMMARY	5
3.0 TEST VEHICLE INFORMATION	6
4.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION	8
5.0 DATA	9
6.0 PHOTOGRAPHS	14
6.1 Front view	
6.2 Rear view	
6.3 ¼ Front left view	
6.4 ¼ Front right view	
6.5 Test vehicle's certification label	
6.5.1 Certification label	
6.5.2 Tire information label	
6.6 Vehicle tie down at each tie down location	
6.6.1 Front under vehicle	
6.6.2 Left front	
6.6.3 Left rear	
6.6.4 Right front	
6.6.5 Right rear	
6.6.6 Rear	
6.7 2-dimensional template	
6.7.1 LH position photo #1	
6.7.2 LH position photo #2	
6.7.3 Center position photo #1	
6.7.4 Center position photo #2	
6.7.5 RH position photo #1	
6.7.6 RH position photo #2	
6.8 CRF verification	
6.8.1 LH position photo #1	
6.8.2 LH position photo #2	
6.8.3 RH position photo #1	
6.8.4 RH position photo #2	
6.9 ¼ Front view of test vehicle with test apparatus in place	
6.9.1 ¼ Front left view of SFADII test 1 of 2	
6.9.2 ¼ Front right view of SFADII test 1 of 2	
6.9.3 ¼ Front left view of SFADI test 2 of 2	
6.9.4 ¼ Front right view of SFADI test 2 of 2	
6.10 Pre-test views of each child restraint anchorage system installed in the vehicle	
6.10.1 Pre-test photo #1 of SFADII test 1 of 2	
6.10.2 Pre-test photo #2 of SFADII test 1 of 2	
6.10.3 Pre-test photo #3 of SFADII test 1 of 2	
6.10.5 Pre-test photo #1 of SFADI test 2 of 2	
6.10.6 Pre-test photo #2 of SFADI test 2 of 2	
6.10.7 Pre-test photo #3 of SFADI test 2 of 2	

TABLE OF CONTENTS (continued)

<u>SECTION</u>		<u>PAGE</u>
6.11	Post-test views of each child restraint anchorage system installed in the vehicle	
6.11.1	Post-test photo #1 of SFADII test 1 of 2	
6.11.2	Post-test photo #2 of SFADII test 1 of 2	
6.11.3	Post-test photo #3 of SFADII test 1 of 2	
6.11.4	Post-test photo #4 of SFADII test 1 of 2	
6.11.5	Post-test photo #5 of SFADII test 1 of 2	
6.11.6	Post-test photo #6 of SFADII test 1 of 2	
6.11.7	Post-test photo #7 of SFADII test 1 of 2	
6.11.8	Post-test photo #8 of SFADII test 1 of 2	
6.11.9	Post-test photo #9 of SFADII test 1 of 2	
6.11.10	Post-test photo #10 of SFADII test 1 of 2	
6.11.11	Post-test photo #11 of SFADII test 1 of 2	
6.11.12	Post-test photo #12 of SFADII test 1 of 2	
6.11.13	Post-test photo #13 of SFADII test 1 of 2	
6.11.14	Post-test photo #14 of SFADII test 1 of 2	
6.11.15	Post-test photo #15 of SFADII test 1 of 2	
6.11.16	Post-test photo #1 of SFADI test 2 of 2	
6.11.17	Post-test photo #2 of SFADI test 2 of 2	
6.11.18	Post-test photo #3 of SFADI test 2 of 2	
6.11.19	Post-test photo #4 of SFADI test 2 of 2	
6.11.20	Post-test photo #5 of SFADI test 2 of 2	
7.0	PLOT	66
8.0	REPORT OF VEHICLE CONDITION	68
 <u>SECTION</u>		
APPENDIX A	OWNERS MANUAL CHILD RESTRAINT SYSTEMS	70
APPENDIX B	MANUFACTURER'S DATA (OVSC Form 14)	79

LIST OF TABLES

<u>TABLE#</u>		
1.	Summary Data for Strength and Displacement	6
2.	General Test and Vehicle Parameter Data	6
3.	Child Restraint Tether Anchorage Configuration (Data Sheet 1)	9
4.	Child Restraint Lower Anchorage Configuration (Data Sheet 2)	10
5.	Tether Location and Dimensional Measurements (Data Sheet 3)	12
6.	Tether Anchorage Static Loading and Displacement (Data Sheet 5)	13

1.0 PURPOSE AND PROCEDURE

PURPOSE

The child restraint anchorage testing results presented in this report are part of the Federal Motor Vehicle Safety Standard (FMVSS) No. 225 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-02-D-11043. The purpose of the testing was to determine if the subject vehicle, a 2004 Mazda 3, NHTSA No. C45404 meets the performance requirements of FMVSS No. 225, "Child Restraint Anchorage Systems."

PROCEDURE

This testing was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedures, TP-225T (5/3/01) and TP-225L (6/11/01), and MGA's Laboratory Test Procedure, MGATP225GOV (3/20/03).

The front occupant compartment consisted of two (2) adjustable outboard bucket seats and the rear occupant compartment consisted of a 2nd row three-passenger bench seat. Each 2nd row outboard seating position was equipped with a child restraint anchorage system (one tether and two lower anchors). The 2nd row center occupant position was equipped with a tether anchorage. The center-to-center spacing between the 2nd row outboard lower anchorages was approximately 700 mm. Each 2nd row outboard seating position was tested with the SFADII fixture, and the 2nd row center seating position was tested with the SFADI fixture.

2.0 COMPLIANCE TEST AND DATA SUMMARY

TEST SUMMARY

The testing was conducted at MGA in Troy, Michigan on January 18, 2005.

Based on the test results, the 2004 Mazda 3 appears to comply with the performance requirements of FMVSS No. 225 for these tests.

The SFADII at the 2nd row left occupant seating position sustained a maximum force of 15,116 N and held the required load for 3 seconds. The SFADII at the 2nd row right occupant seating position sustained a maximum force of 15,012 N and held the required load for 3 seconds. The SFADI at the 2nd row center seating position sustained a maximum force of 14,951 N and held the required load for 3 seconds.

DATA SUMMARY

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

Table 1. Summary Data for Strength and Displacement

MGA Test #	Fixture Type	Test Configuration	Seating Position	Max. Load (N)	Displacement (mm)
SB5014	SFAD II	Lower with Top Tether	2 nd Row Left	15,116	N/A
SB5015	SFAD I	Top Tether Only	2 nd Row Right	15,012	N/A
			2 nd Row Center	14,951	N/A

N/A indicates that the displacement criteria does not apply to this test.

3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

VEH. MOD YR/MAKE/MODEL/BODY	2004 Mazda 3
VEH. NHTSA NO.	C45404
VIN	JM1BK12F341120093
COLOR	Black
VEH. BUILD DATE	11/03
TEST DATE	January 18, 2005
TEST LABORATORY	MGA Research Corporation
OBSERVERS	Melanie Schick, Brad Reaume, Kenney Godfrey

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: Mazda Motor Corporation

Date of Manufacture: 11/03; VIN: JM1BK12F341120093

GVWR: 1702 kg; GAWR FRONT: 904 kg

GAWR REAR: 798 kg

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 230 kPa REAR: 230 kPa

Recommended Tire Size: P195/65R15

Recommended Cold Tire Pressure:

FRONT: 230 kPa REAR: 230 kPa

Size of Tire on Test Vehicle: P195/65R15

Type of Spare Tire: E-60: T115/70D15

VEHICLE CAPACITY DATA:

Type of Front Seats: Bench ____; Bucket X; Split Bench ____

Number of Occupants: Front 2; Middle N/A; Rear 3; TOTAL 5

4.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

MGA Research Corporation 446 Executive Drive Troy, Michigan 48083	
Test Equipment Used for Testing	Calibration Due Date
MGA Hydraulic Test Frame	N/A
Two (2) Load Cell 3,000 lb Capability	S/N 251 (04/18/05), S/N 180s (07/10/05)
String Potentiometer	N/A
Hydraulic Pump	N/A
MGA CRF Fixture	N/A
MGA SFADI	N/A
MGA SFADII	N/A
MGA 2-Dimensional Template	N/A
Linear Scale	S/N TPM386 (08/09/05)
MGA Data Acquisition System	N/A
Digital Calipers	S/N MGA00053 (09/20/05)
Force Gauge	S/N MGA0058 (01/11/06)
Inclinometer (Digital)	S/N MGA00049 (08/23/05)

5.0 DATA

Table 3. Child Restraint Tether Anchorage Configuration (Data Sheet 1)

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

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE.

Table 4. Child Restraint Lower Anchorage Configuration (Data Sheet 2)

(Page 2 of 2)

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION				
		FRONT ROW	SECOND ROW		THIRD ROW
			I/B	O/B	
Above anchorage, permanently marked with a circle not less than 13 mm in Dia.; and whose color contrasts with its background; and its center is not less than 50 mm and not more than 100 mm above the bar, and in the vertical longitudinal plane that passes through the center of the bar.	LH	N/A	Yes	Yes	N/A
	Ctr		N/A		
	RH		Yes	Yes	
Each of the bars is visible, without the compression of the seat cushion or seat back, when the bar is viewed, in a vertical longitudinal plane passing through the center of the bar, along a line marking an upward 30 degree angle with a horizontal plane.	LH	N/A	No		N/A
	Ctr		N/A		
	RH		No		
Diameter of the bar (mm)	LH	N/A	6.00	6.00	N/A
	Ctr		N/A		
	RH		5.99	5.95	
Inspect if the bars are straight, horizontal and transverse	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
Optional Marking: At least one anchorage bar (when deployed for use, if storable anchorages), one guidance fixture, or one seat marking is visible.	LH	N/A	N/A		N/A
	Ctr				
	RH				
Optional Marking: If guidance fixtures are used, the fixture(s) must be installed.	LH	N/A	N/A		N/A
	Ctr				
	RH				
Measure the distance between Point "Z" of the CRF and the center of the anchorage bar (mm)	LH	N/A	48		N/A
	Ctr		N/A		
	RH		47		
Measure the distance between the SRP to the center of the anchorage bar (mm)	LH	N/A	178		N/A
	Ctr		N/A		
	RH		178		

Table 4. Child Restraint Lower Anchorage Configuration (Data Sheet 2) (continued)

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION				
		FRONT ROW	SECOND ROW		THIRD ROW
			I/B	O/B	
Inspect if the centroidal longitudinal axes are collinear within 5 degrees	LH	N/A	Yes		N/A
	Cr		N/A		
	RH		Yes		
Inspect if the inside surface of the bar that is straight and horizontal section of the bars, and determine they are not less than 25 mm, but not more than 40 mm in length (mm).	LH	N/A	37	37	N/A
	Cr		N/A		
	RH		35	35	
Inspect if the bars can be connected to, over their entire inside length by the connectors of child restraint system.	LH	N/A	Yes		N/A
	Cr		N/A		
	RH		Yes		
Measure the distance between the center of the length of one bar to the center of the length of the other bar. The requirement is 280 mm $\pm$ 1 mm (mm).	LH	N/A	280		N/A
	Cr		N/A		
	RH		280		
Inspect if the bars are an integral and permanent part of the vehicle.	LH	N/A	Yes		N/A
	Cr		N/A		
	RH		Yes		
Inspect if the bars are rigidly attached to the vehicle. If feasible, hold the bar firmly with two fingers and gently pull.	LH	N/A	Yes		N/A
	Cr		N/A		
	RH		Yes		

PITCH, YAW, & ROLL INFORMATION

SEAT POSITION	PITCH (deg)	YAW (deg)	ROLL (deg)
2 nd Row Left	10	No Data	0
2 nd Row Center	N/A	N/A	N/A
2 nd Row Right	10	No Data	0

N/A indicates that there were no lower anchors in the center seating position.

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE

Table 5. Tether Location and Dimensional Measurements (Data Sheet 3)

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

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE

Table 6. Tether Anchorage Static Loading and Displacement (Data Sheet 5)

SEAT POSITION		Seat, Seat Back, & Head Restraint Positions			Type of SEAD Used	Angle (deg)	Initial Location (mm)	Onset Rate (N/sec.)	Force Applied (N)	Max. Load (N)	Final Location (mm)	Horiz. Displ. (mm)
		Seat	Seat Back	Is There a H/R?								
Front Row		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Second Row	LH	Fixed	Fixed	Yes	II	11	N/A	556	15,000	15,116*	N/A	N/A
	Ctr.			No	I	6	N/A	556	15,000	14,951	N/A	N/A
	RH			No**	II	11	N/A	556	15,000	15,012*	N/A	N/A
Third Row		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: (1) AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

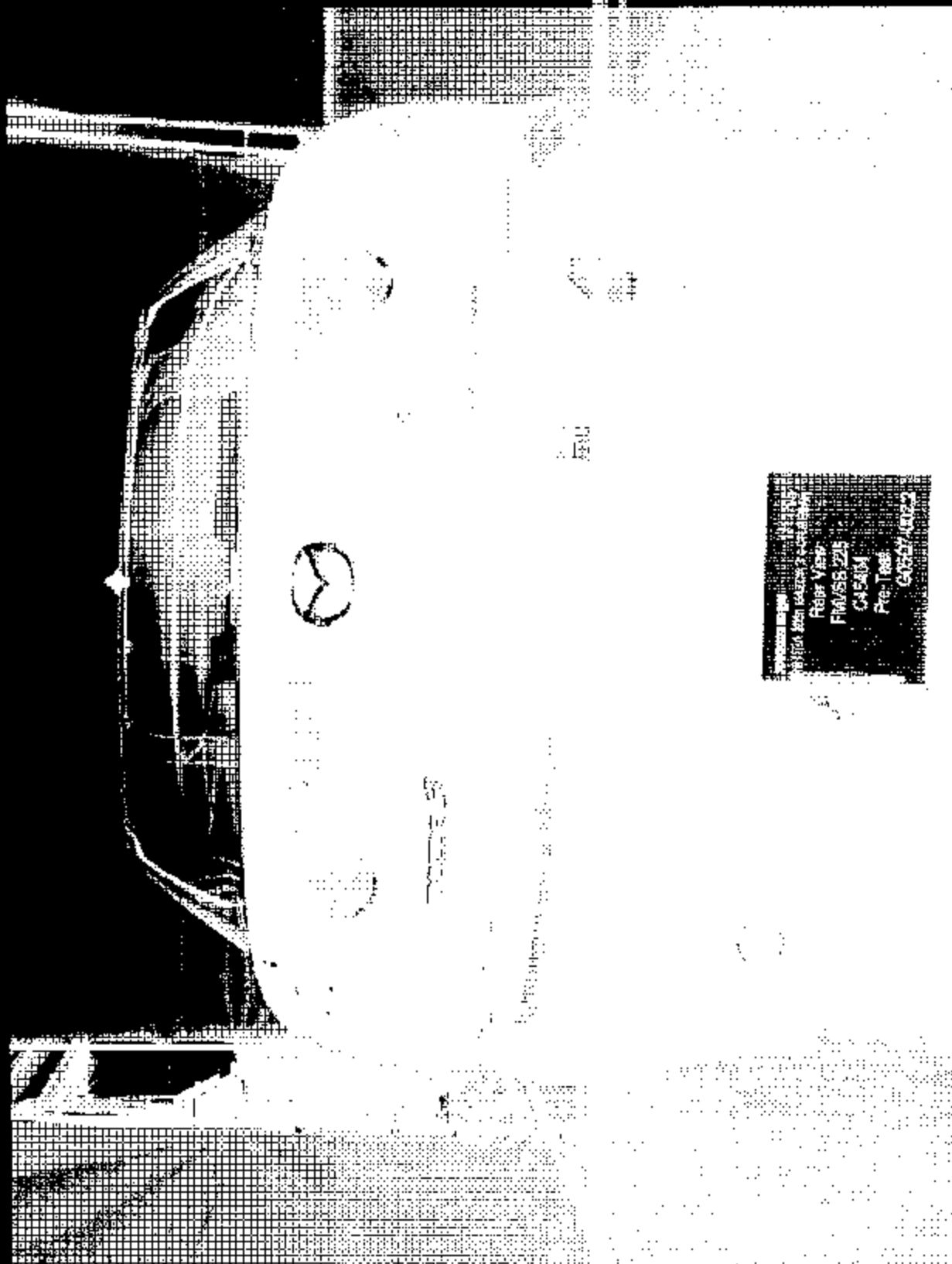
REMARKS: * Applied force exceeded the force specified in the test procedure.
** The RH seating position head restraint was not present at the time of testing.

6.0 PHOTOGRAPHS

6.1 Front view



6.2 Rear view



6.3 ¾ Front left view

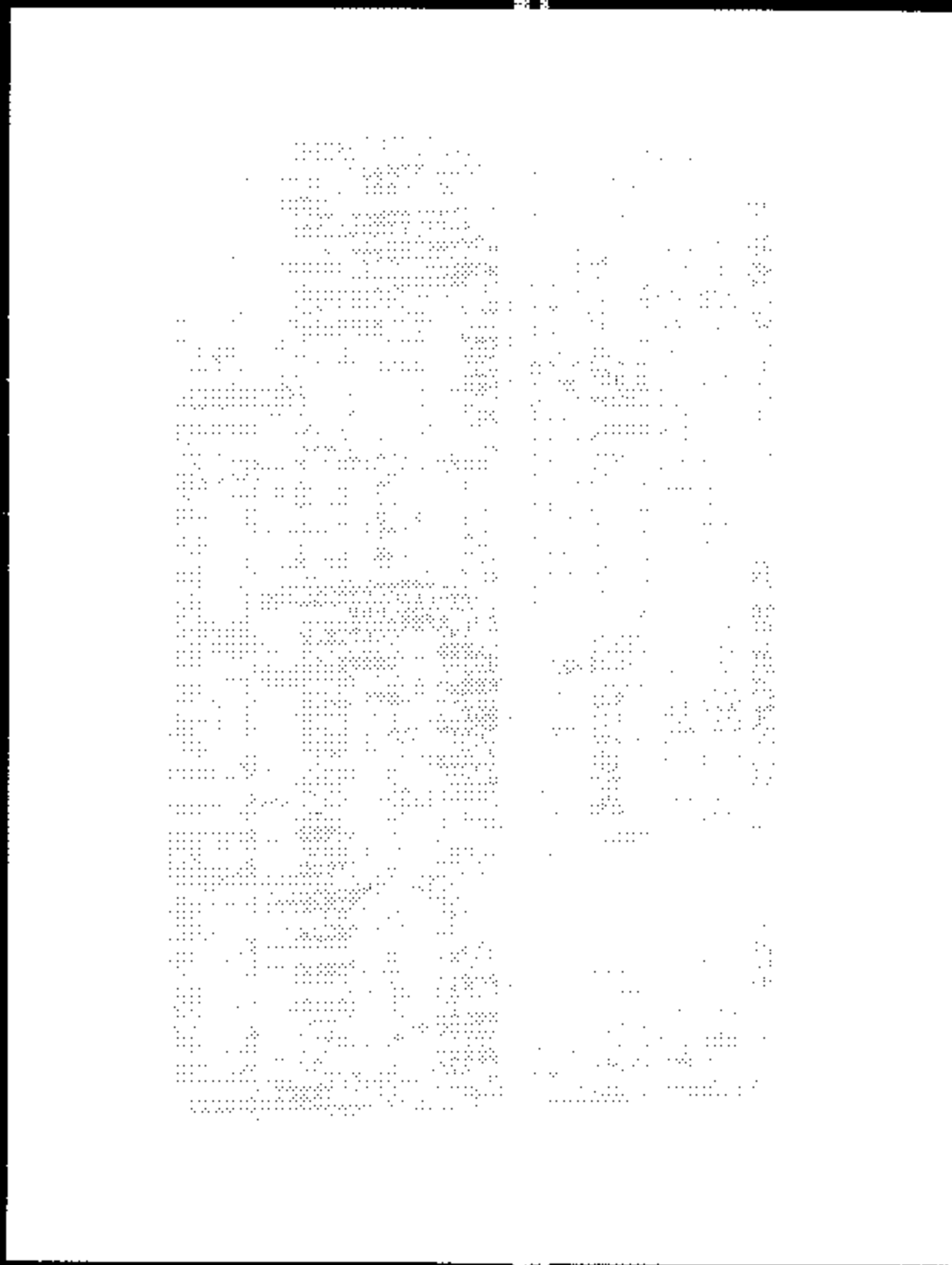


6.4 ¾ Front right view

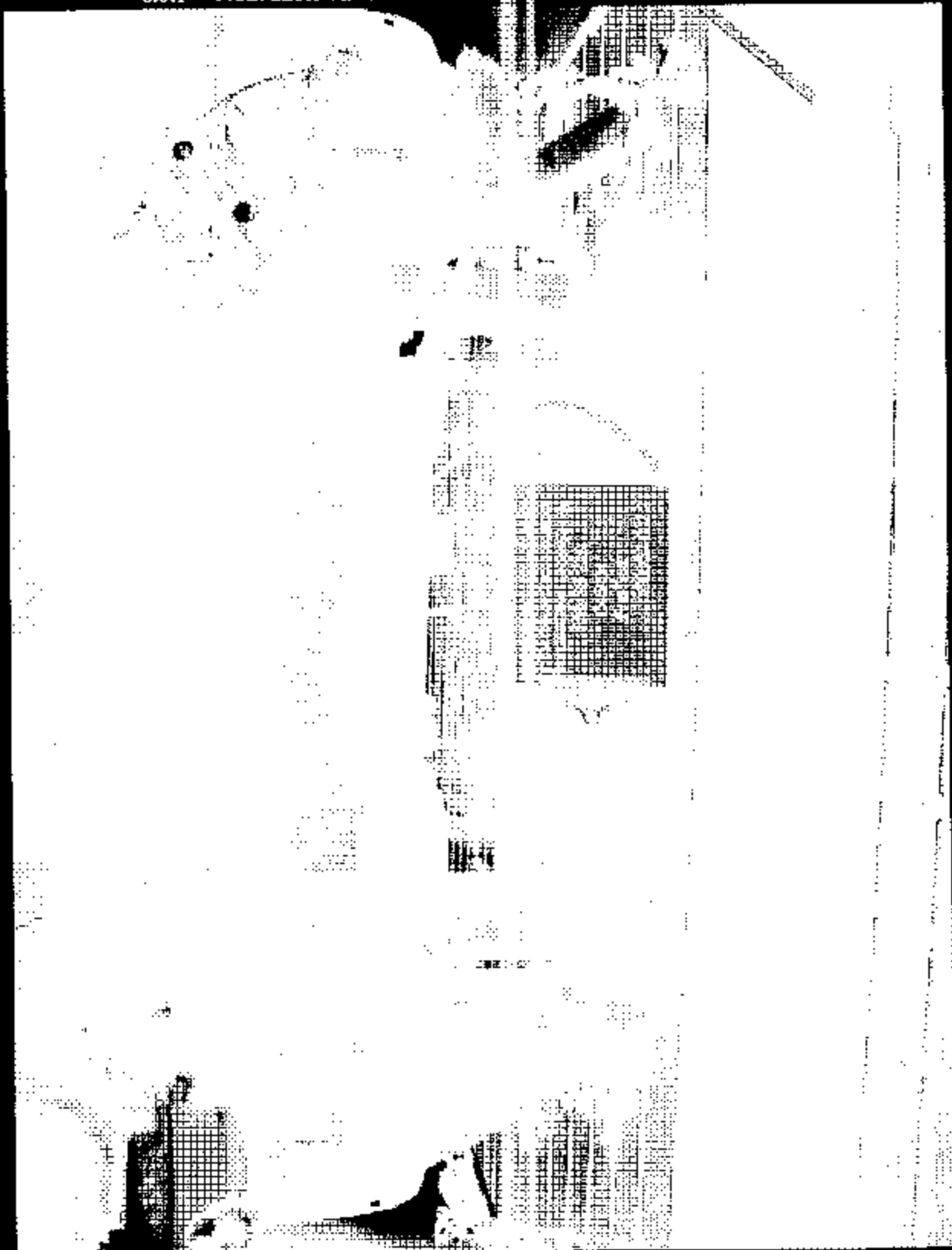


6.5 Test vehicle's certification label
6.5.1 Certification label

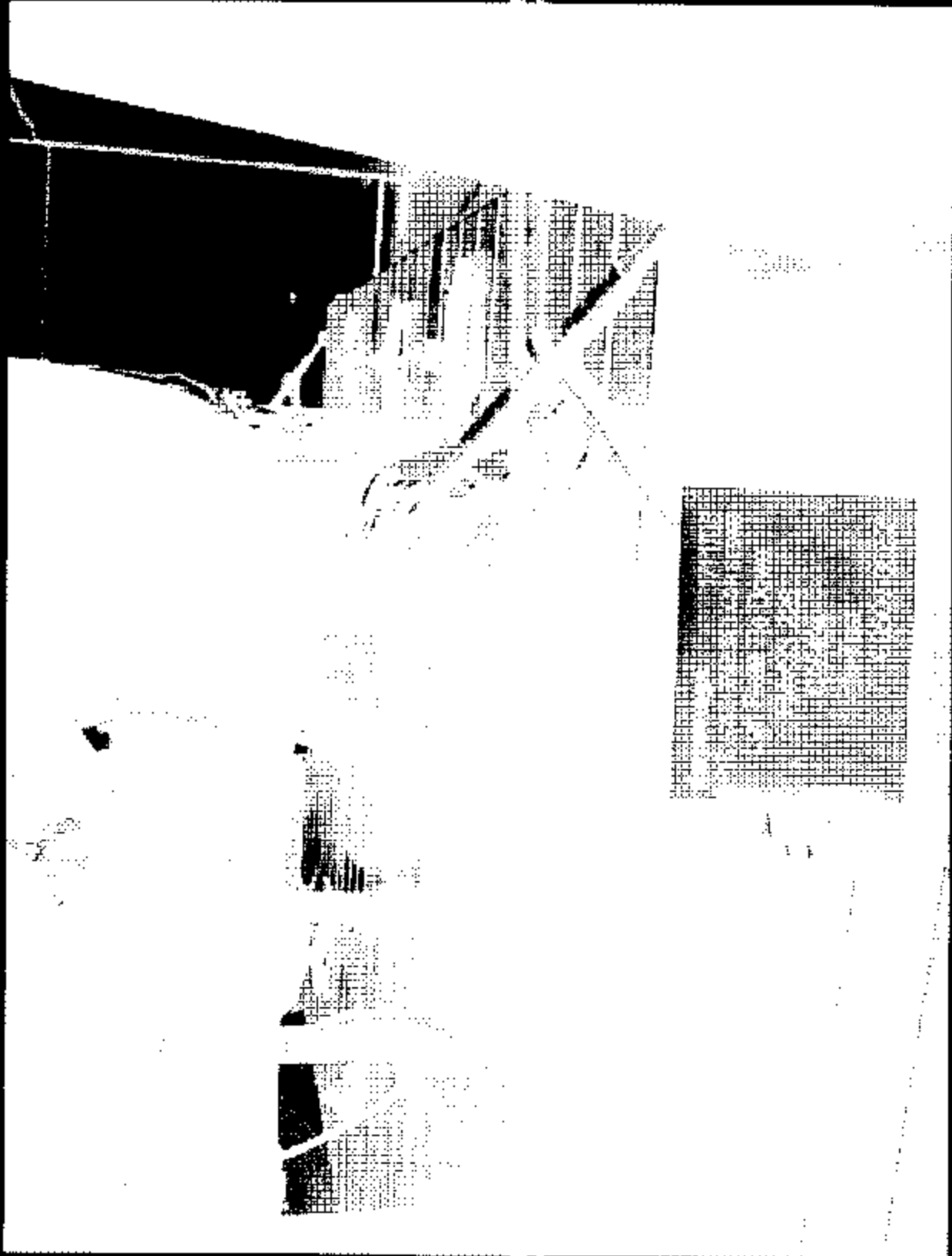
6.5.2 Tire information label



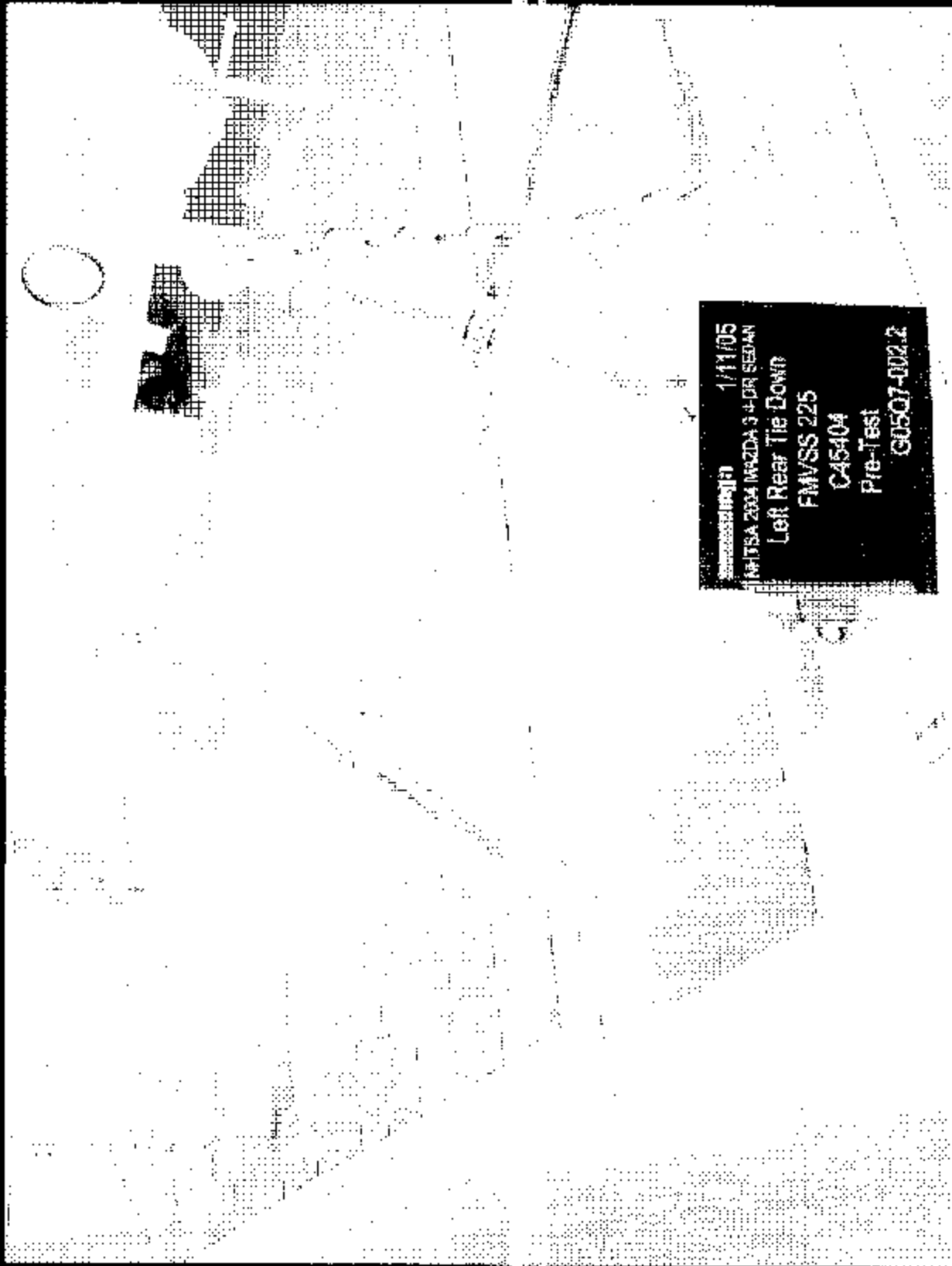
6.6 Vehicle tie down at each tie down location
6.6.1 Front under vehicle



6.6.2 Left front

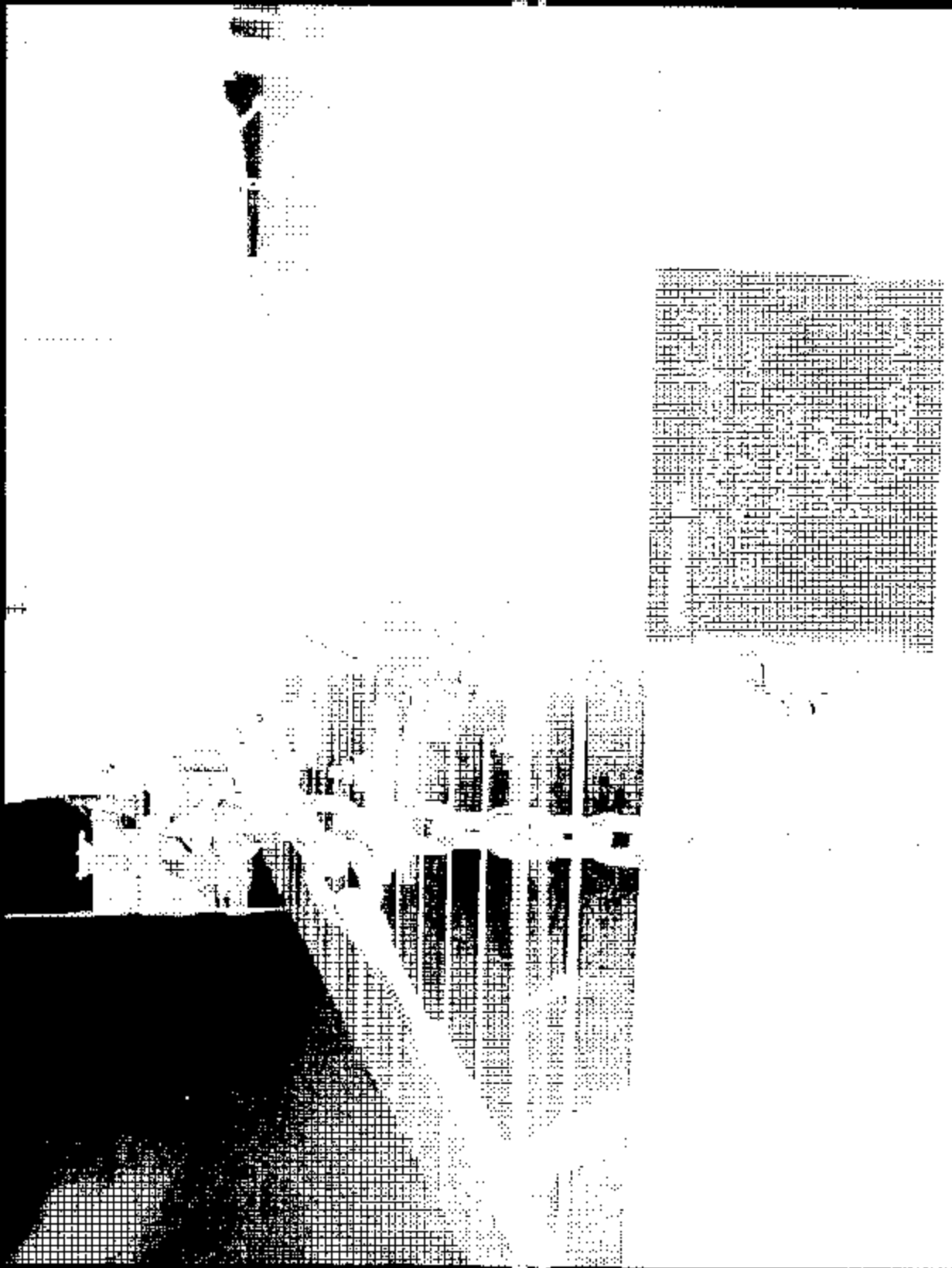


6.6.3 Left rear

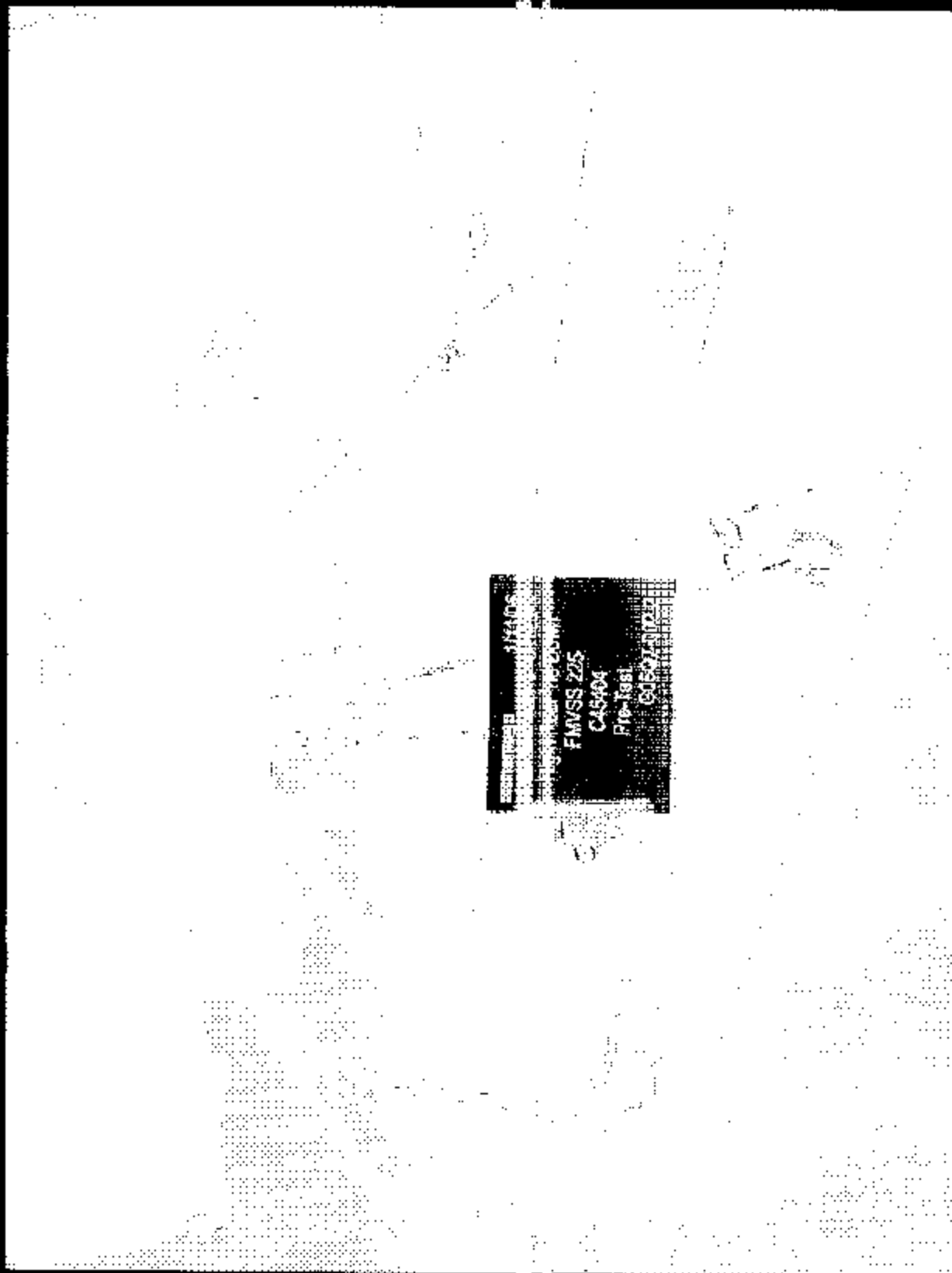


1/11/05
NHTSA 2004 MAZDA 3 4-DR SEDAN
Left Rear Tie-Down
FMVSS 225
C45404
Pre-Test
G05Q7-002.2

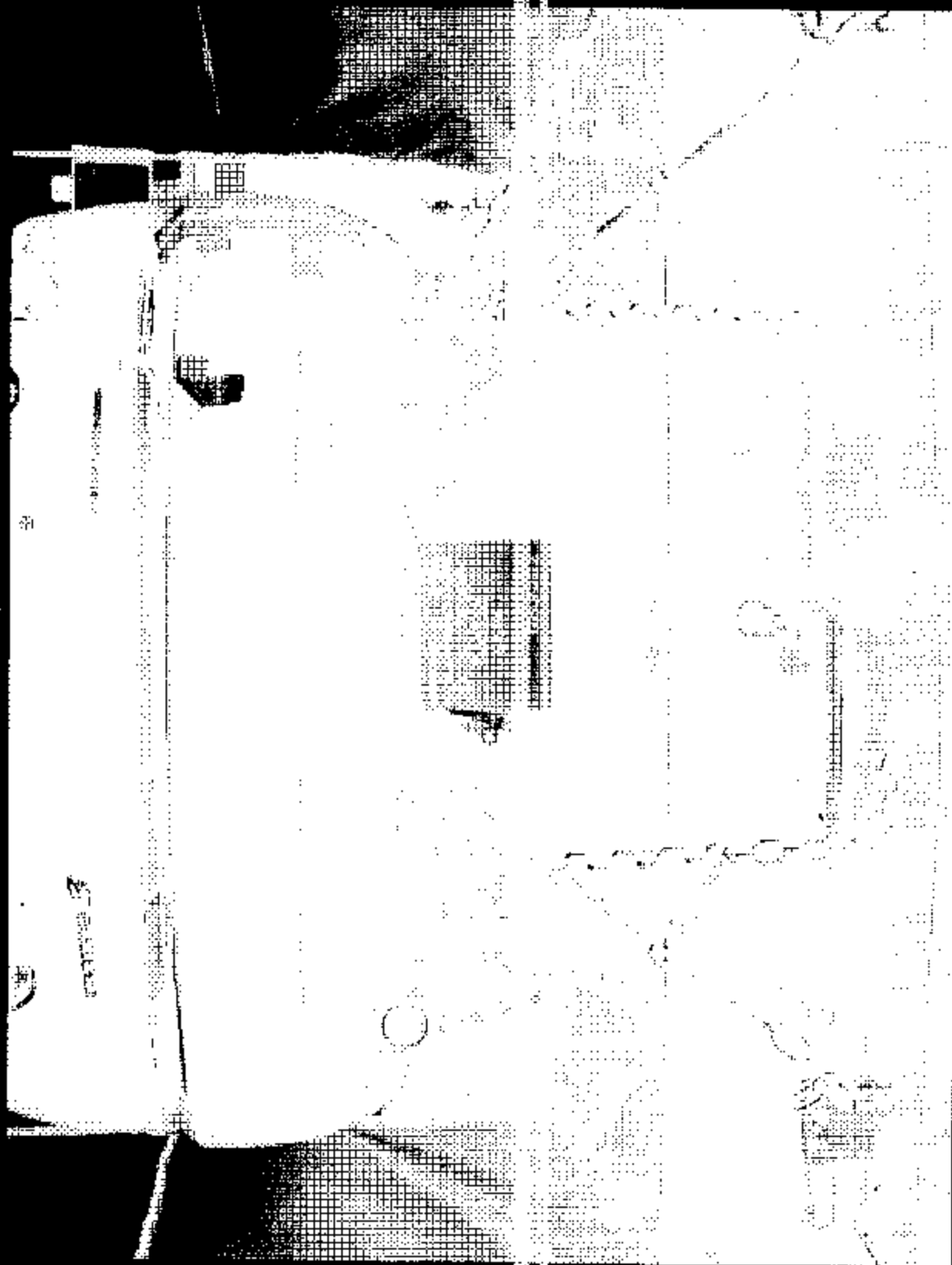
6.6.4 Right front



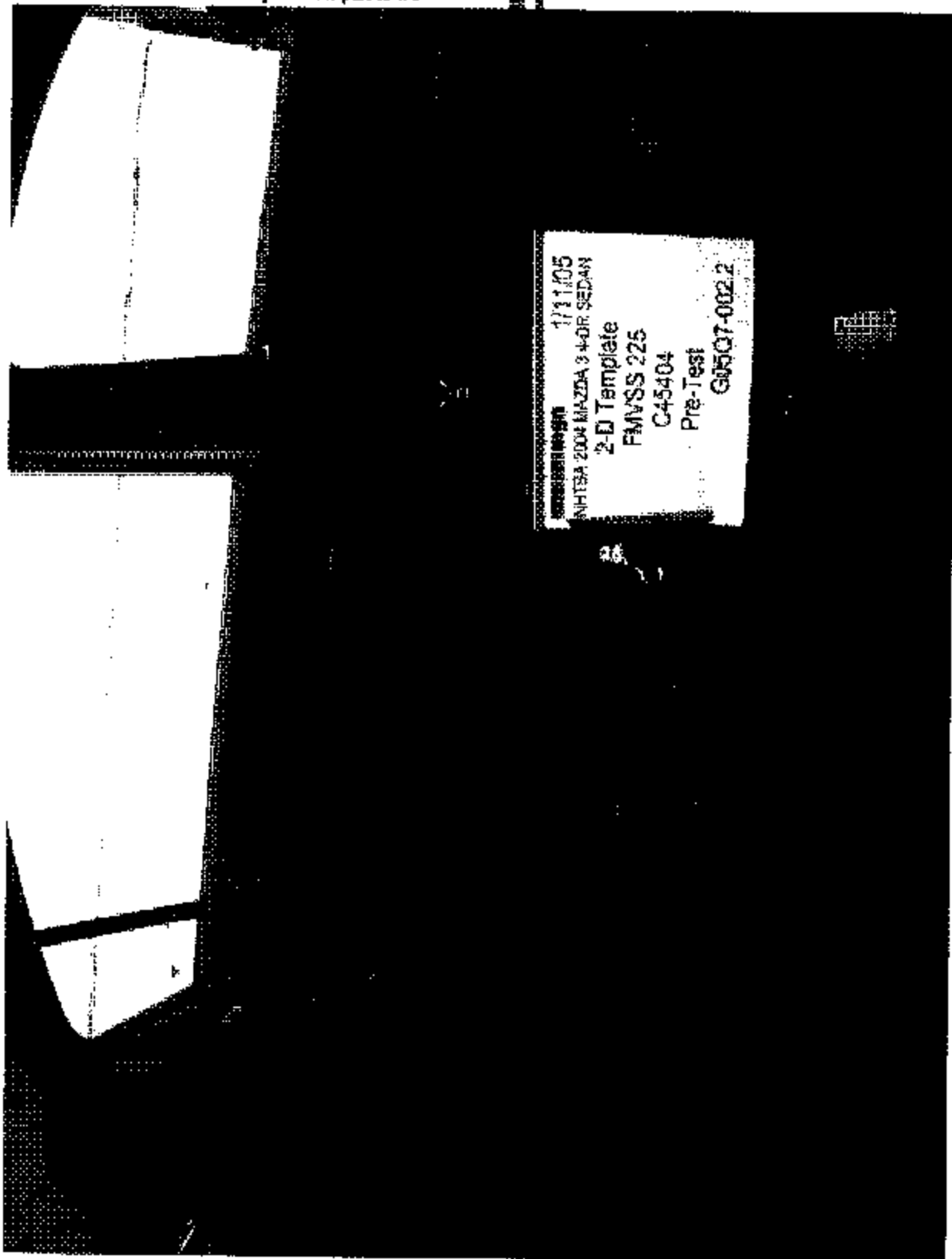
6.6.5 Right rear



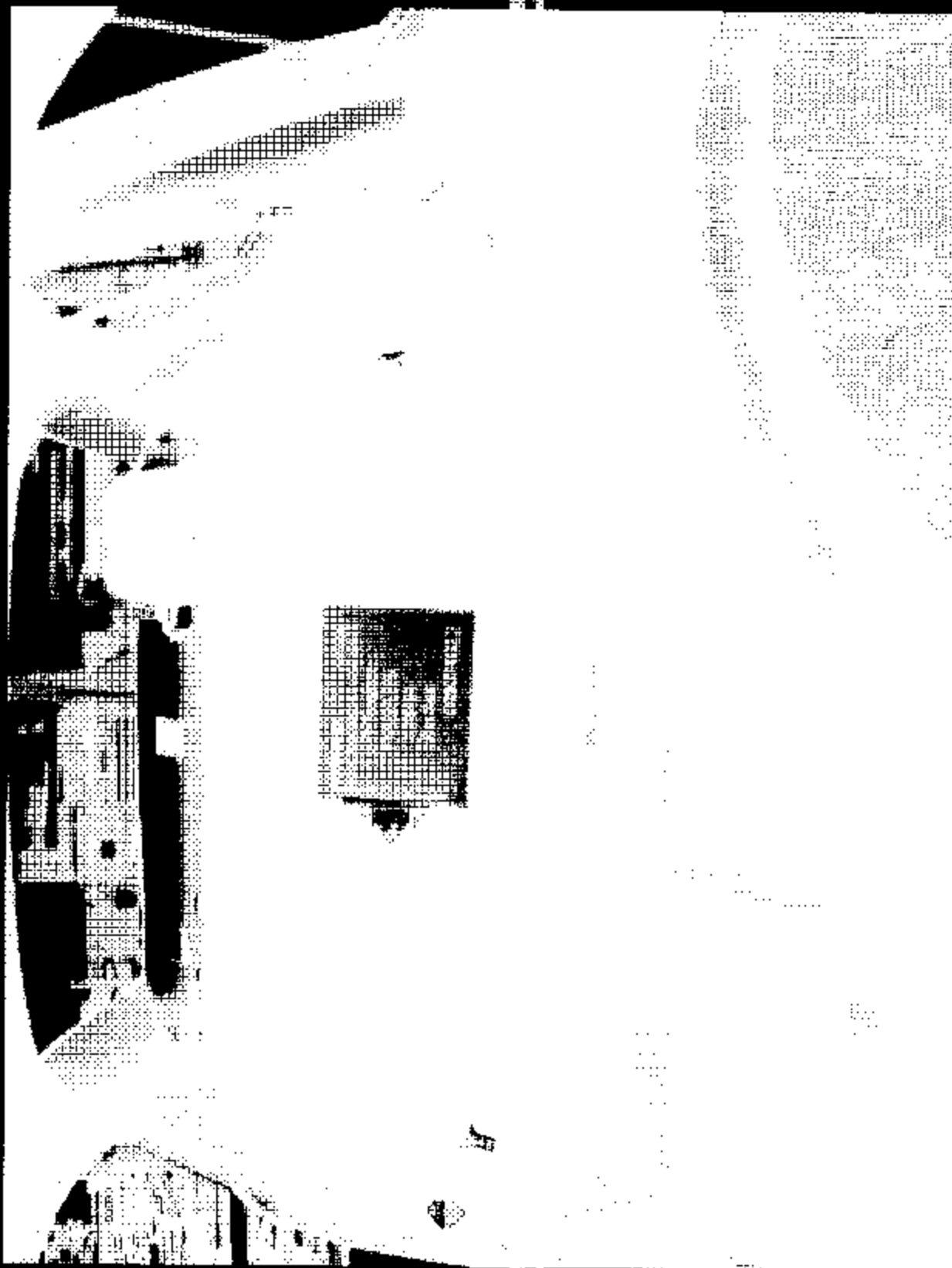
6.6.6 Rear



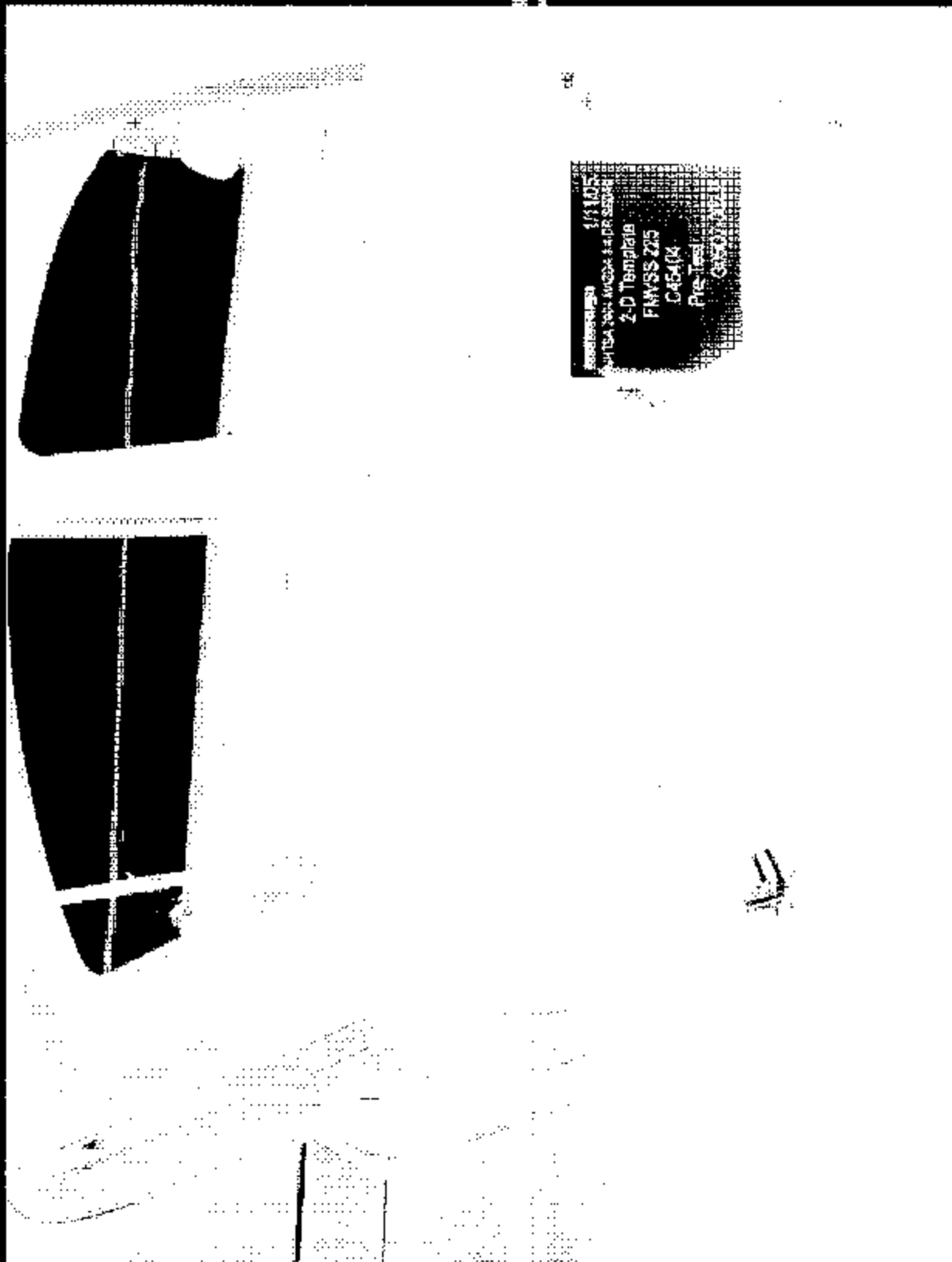
6.7 2-dimensional template
6.7.1 LH position photo #1



6.7.2 LH position photo #2



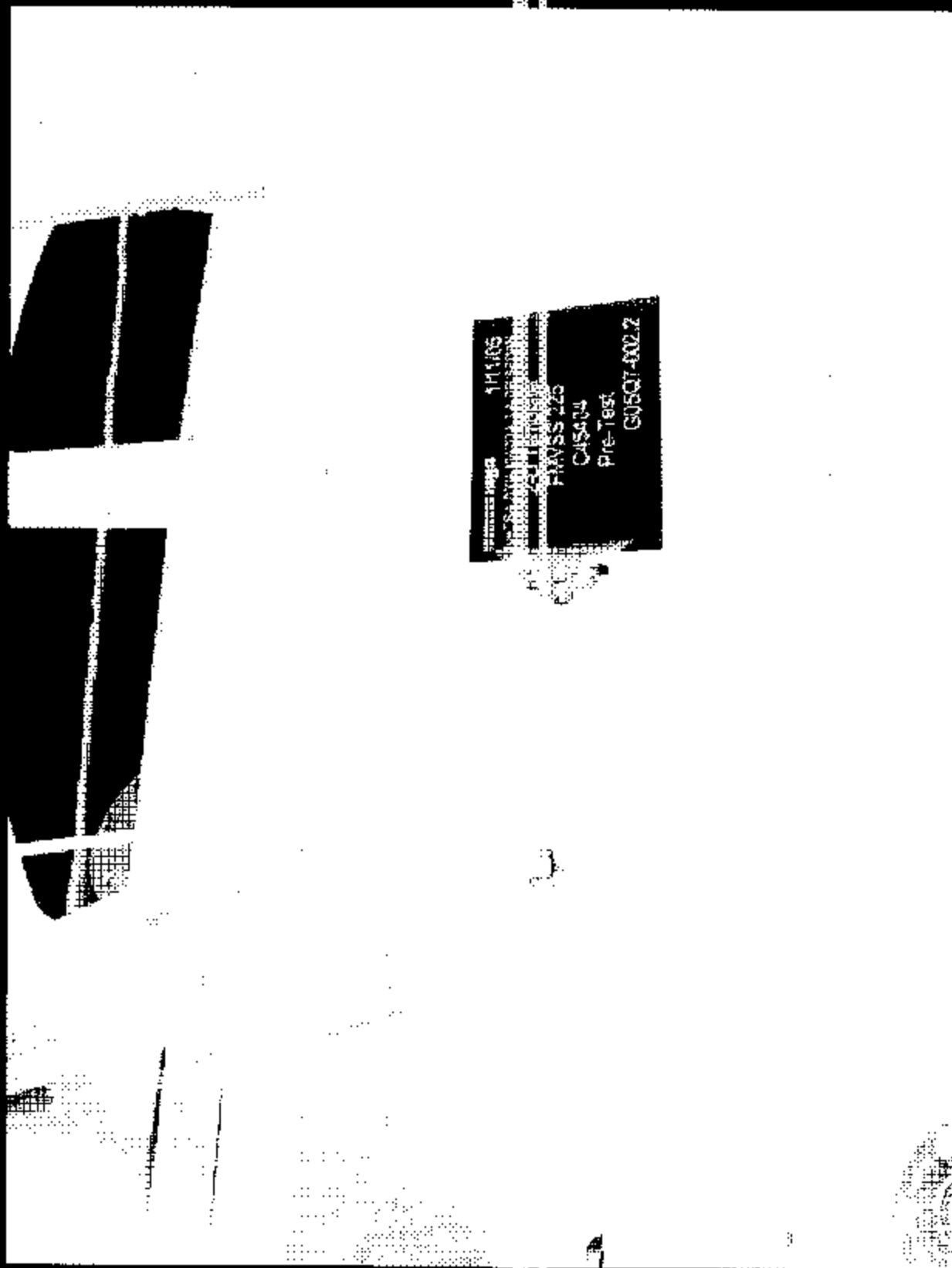
6.7.3 Center position photo #1



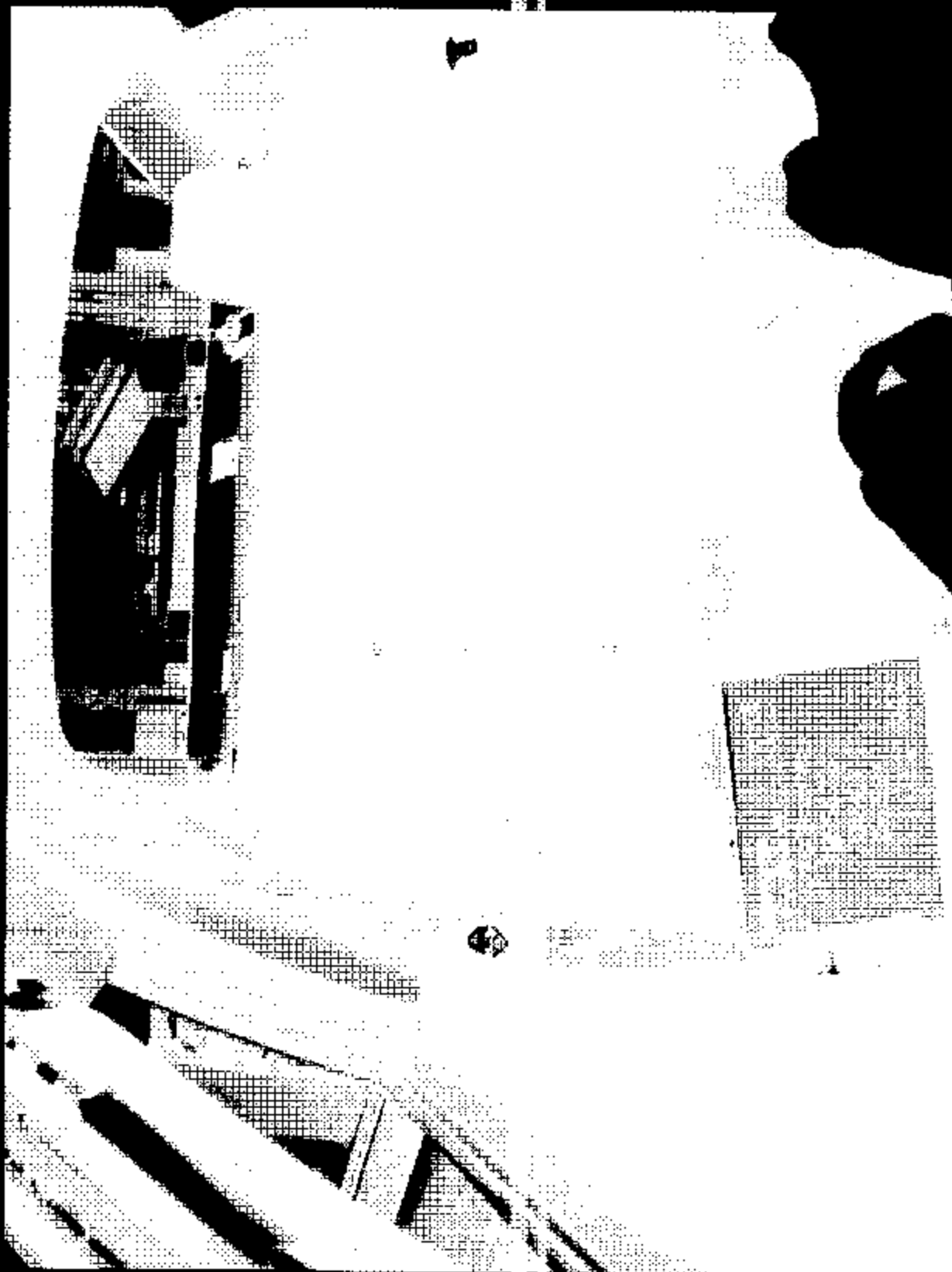
6.7.4 Center position photo #2



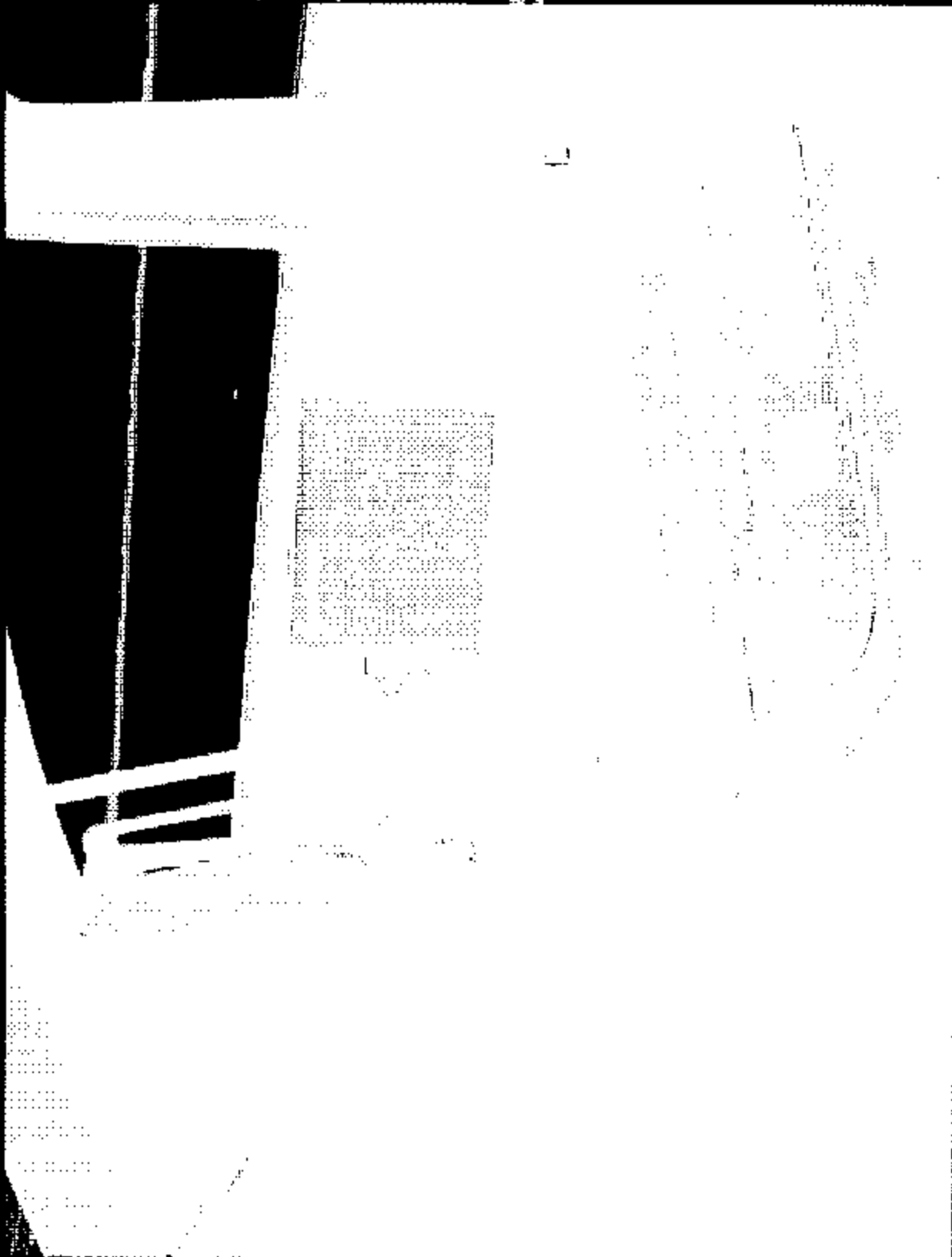
6.7.5 RH position photo #1



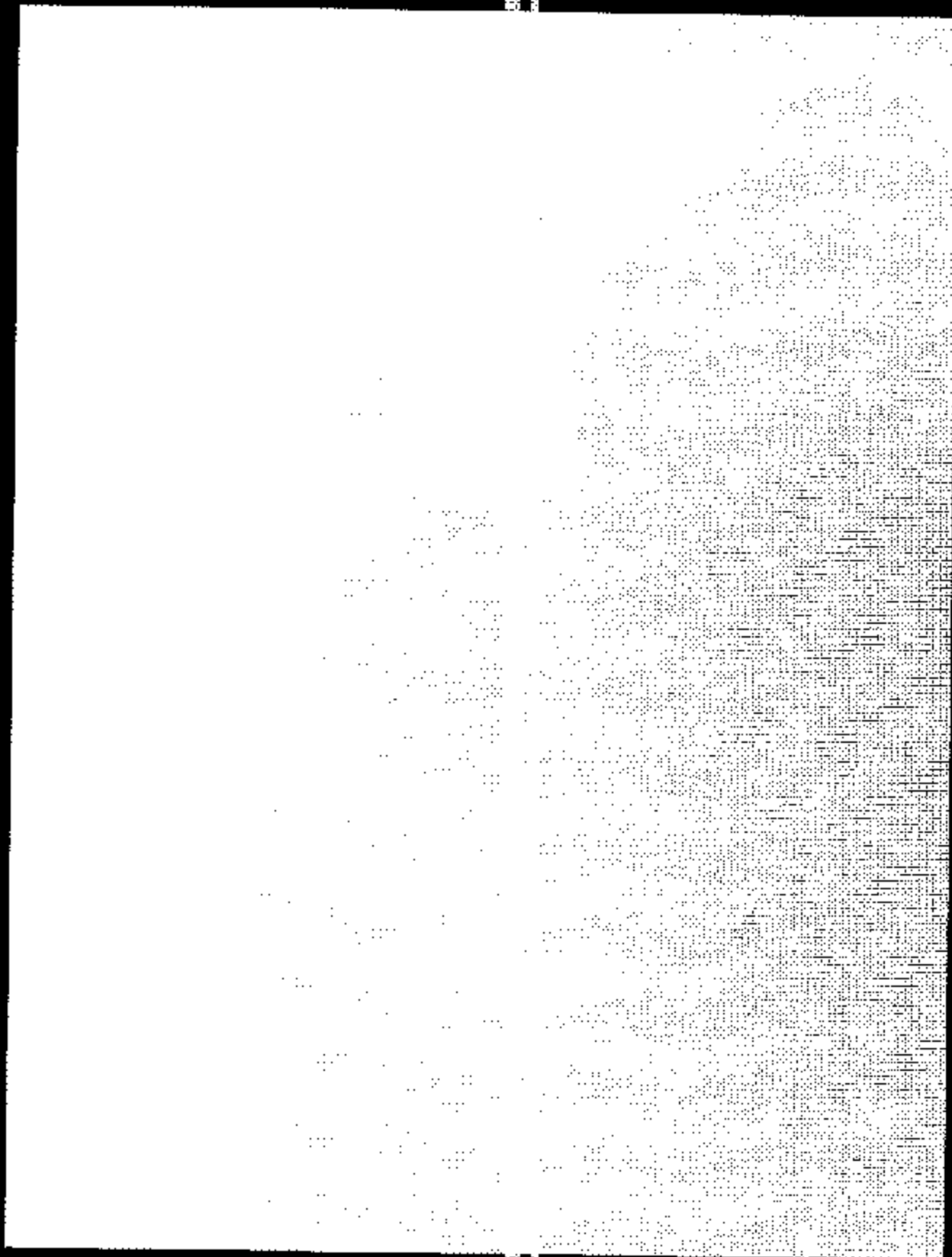
6.7.6 RH position photo #2



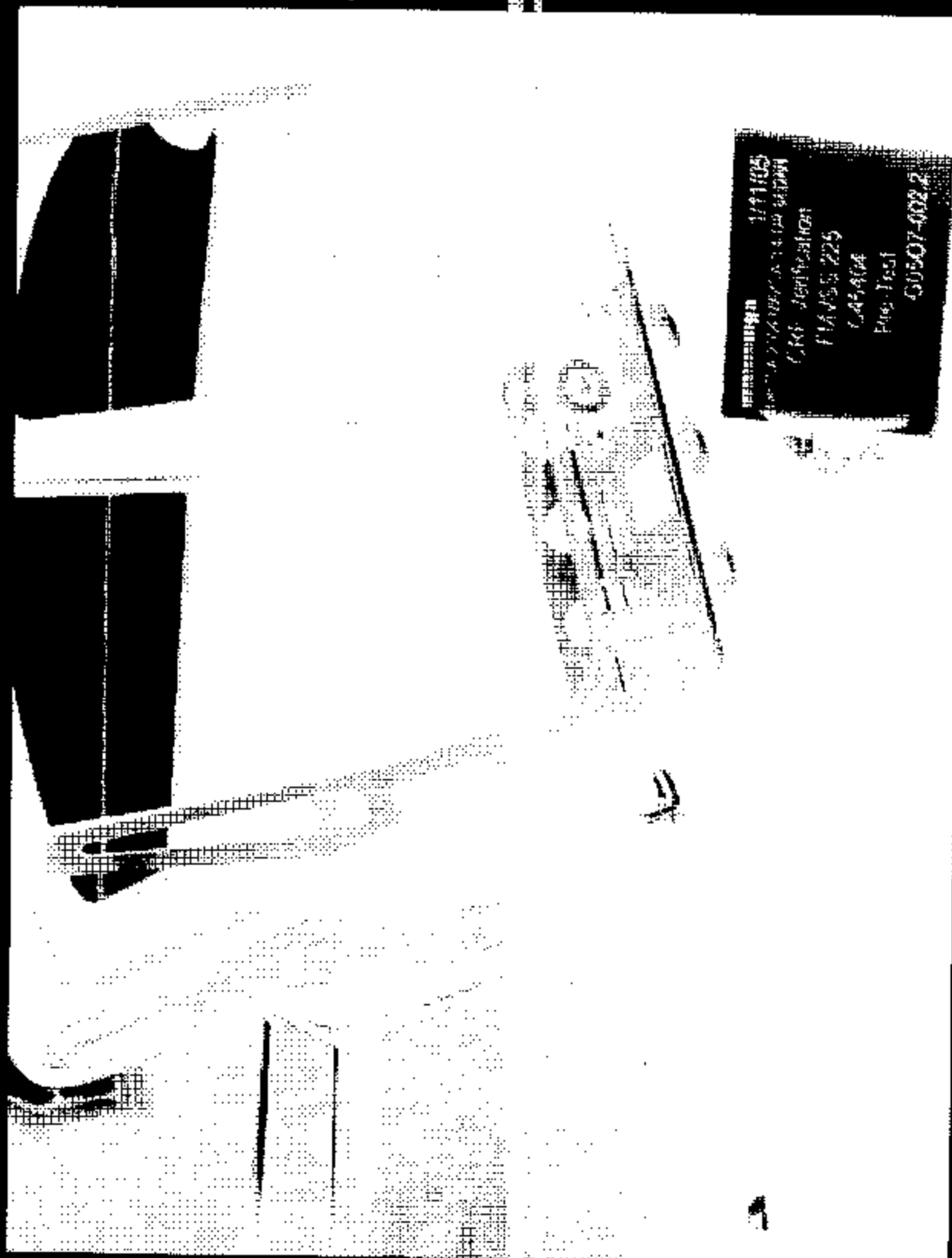
6.8 CRF verification
6.8.1 LH position photo #1



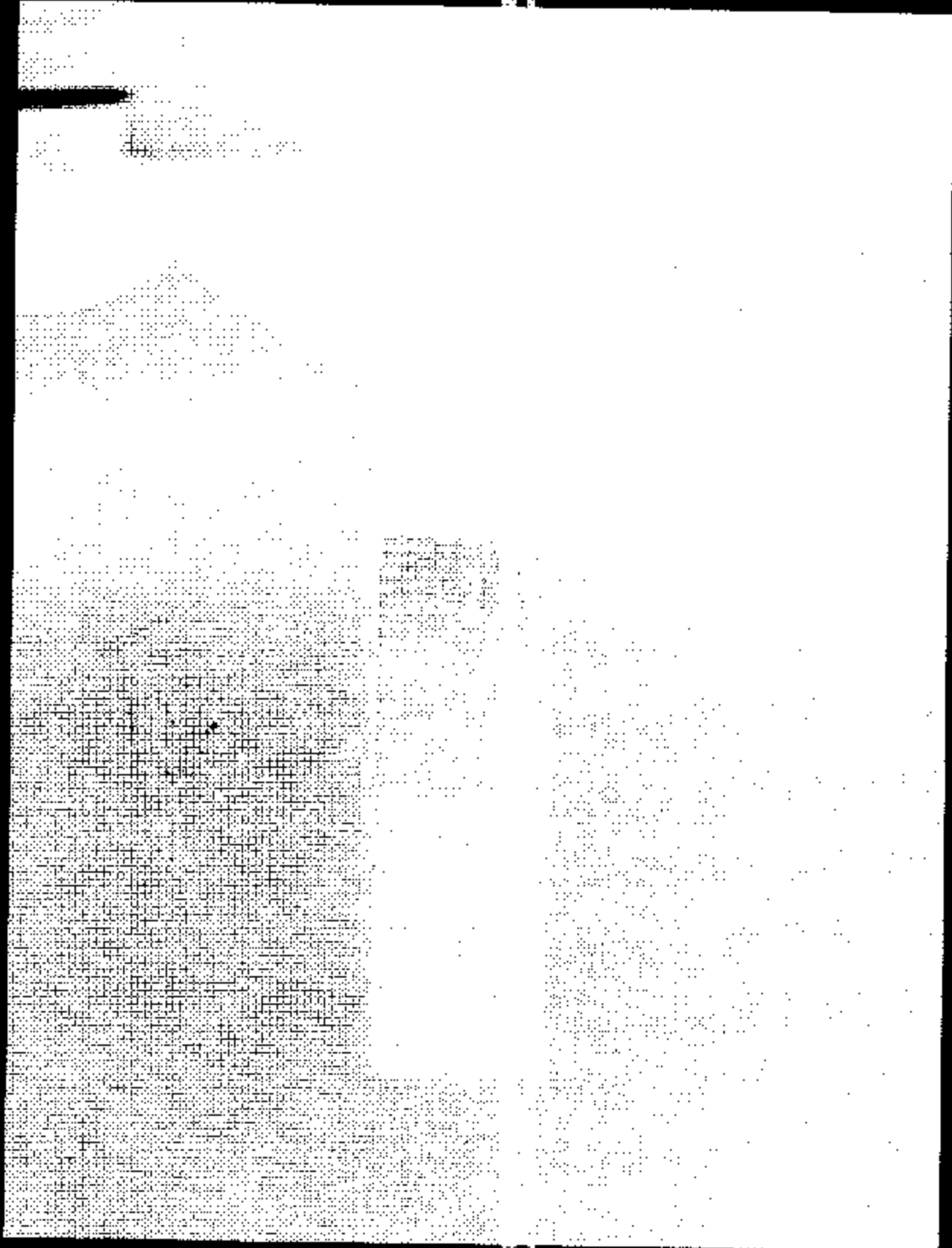
6.B.2 LH position photo #2



6.8.3 RH position photo #1



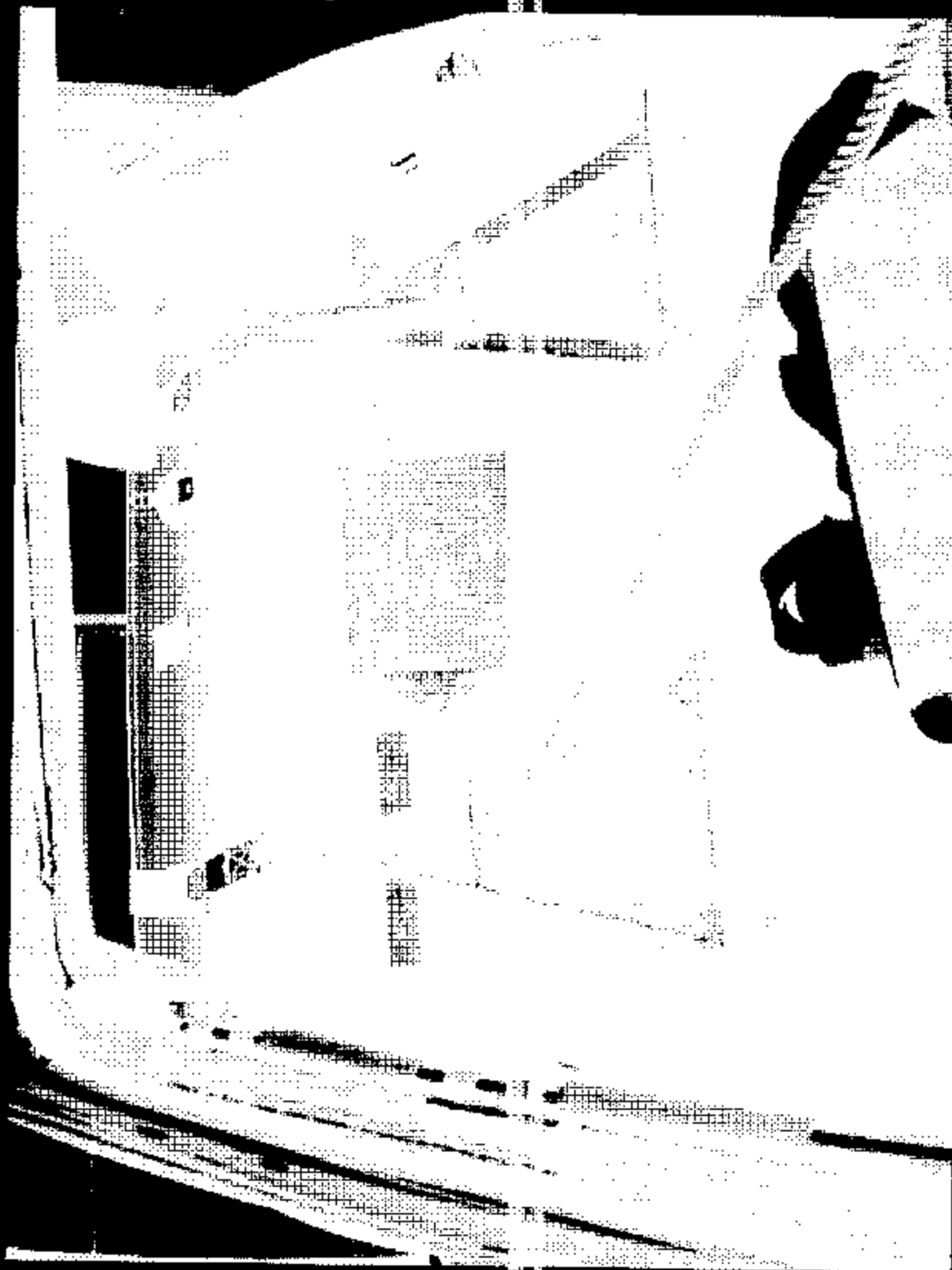
6.8.4 RH position photo #2



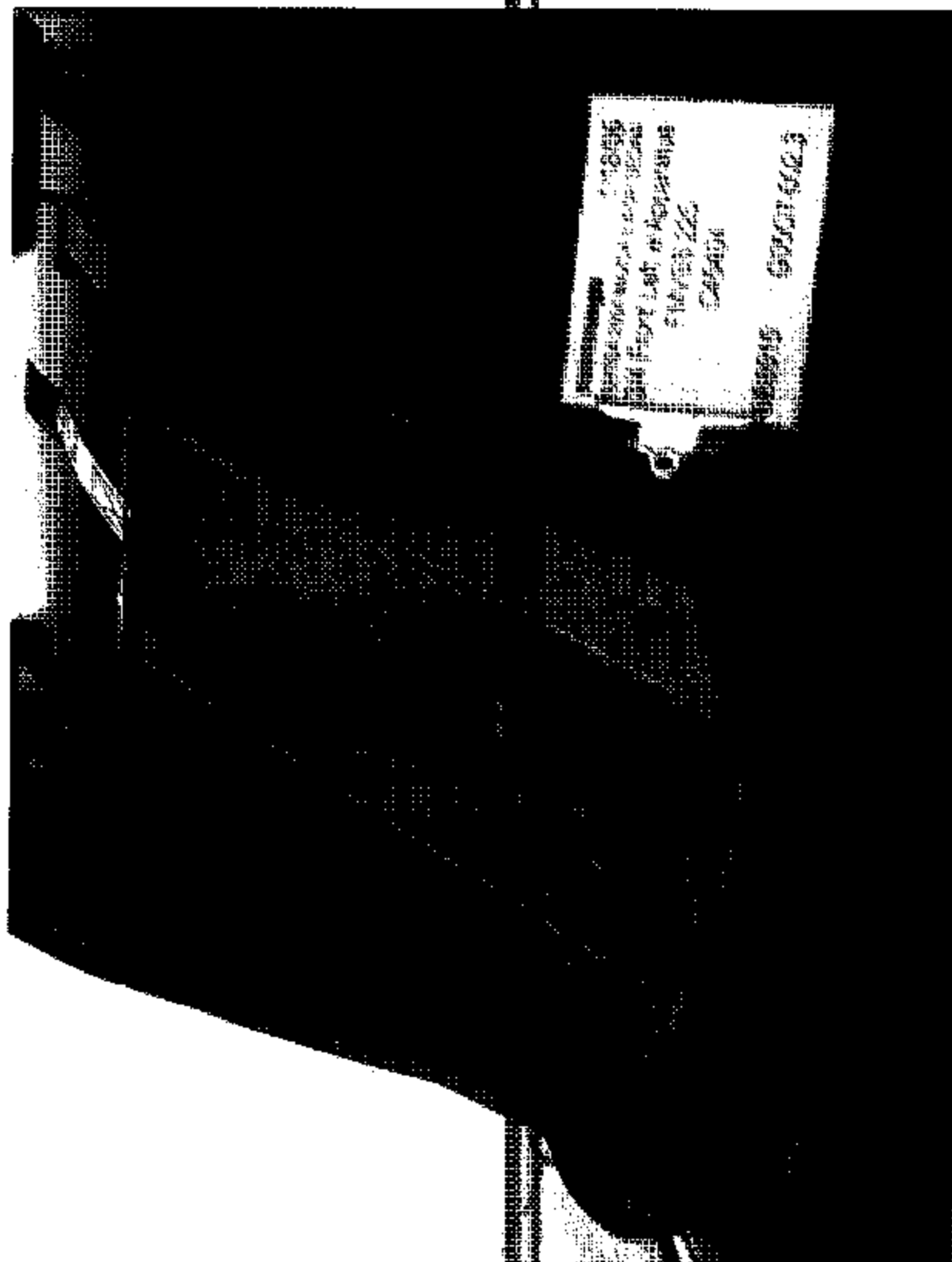
- 6.9 ¾ Front view of test vehicle with test apparatus in place
6.9.1 ¾ Front left view of SEADII test 1 of 2



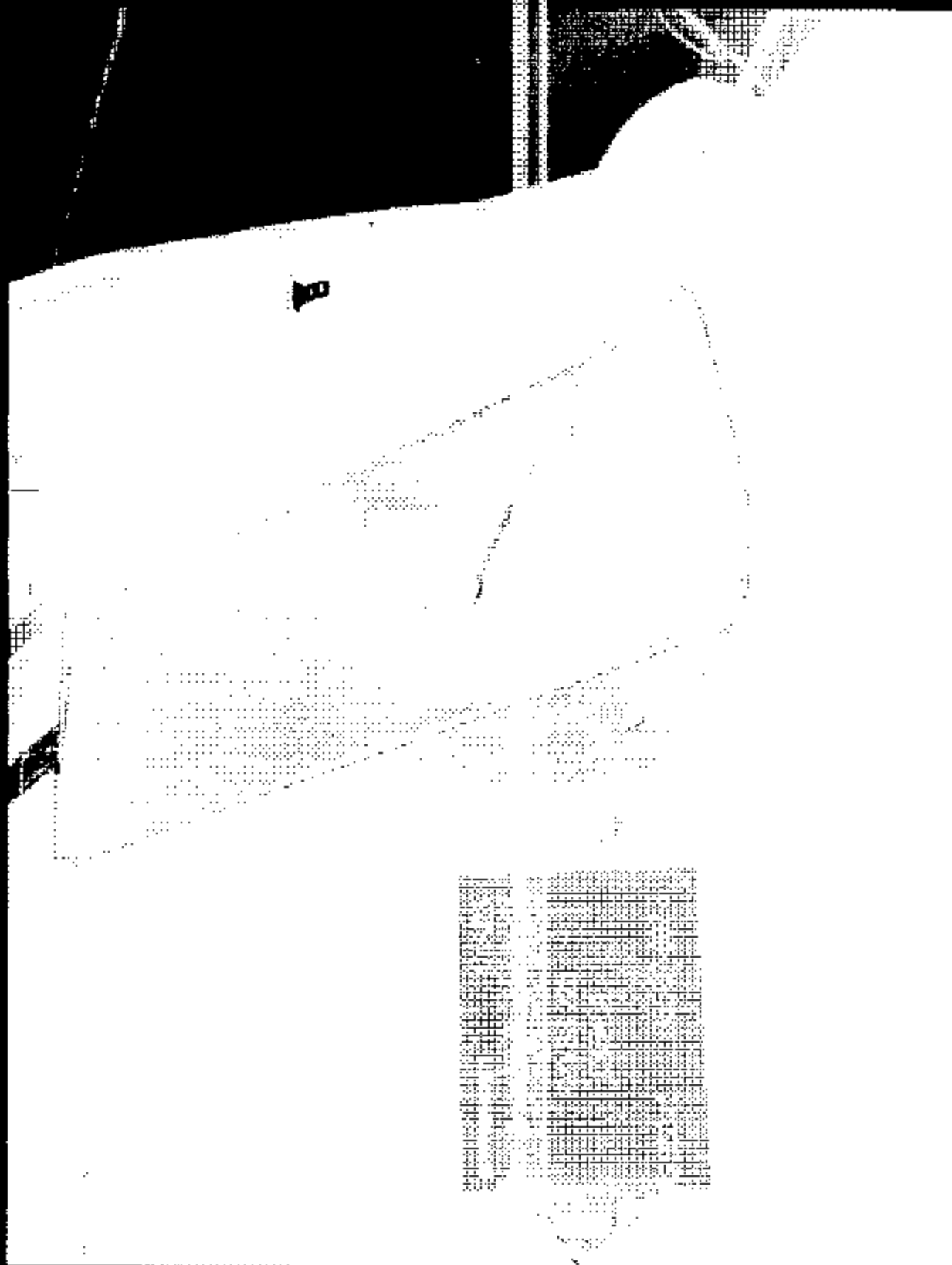
6.9.2 ¾ Front right view of SFADII 1 of 2



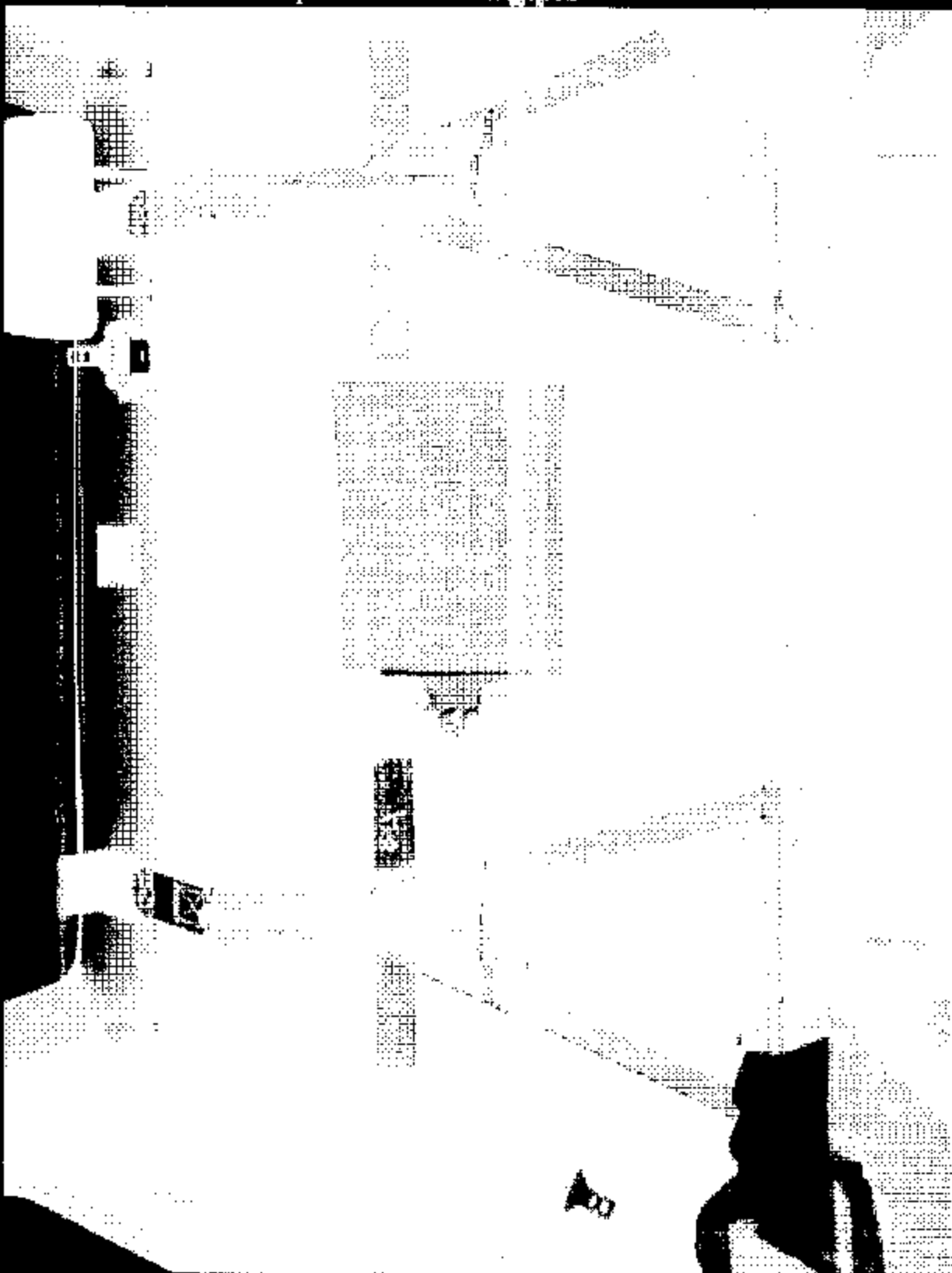
6.9.3 ¼ Front left view of SFADI test 2 of 2



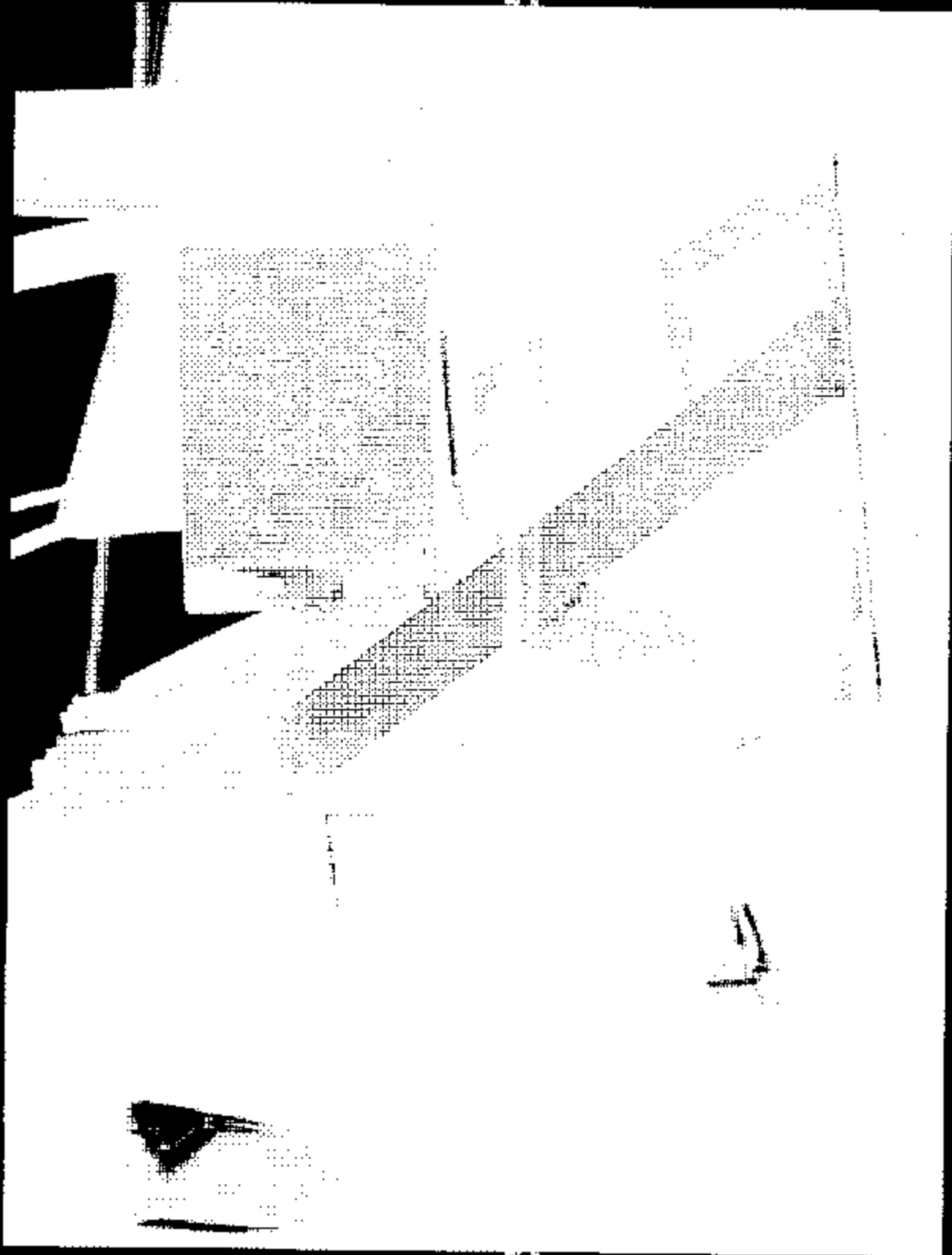
6.9.4 ¼ Front right view of SFADI test 2 of 2



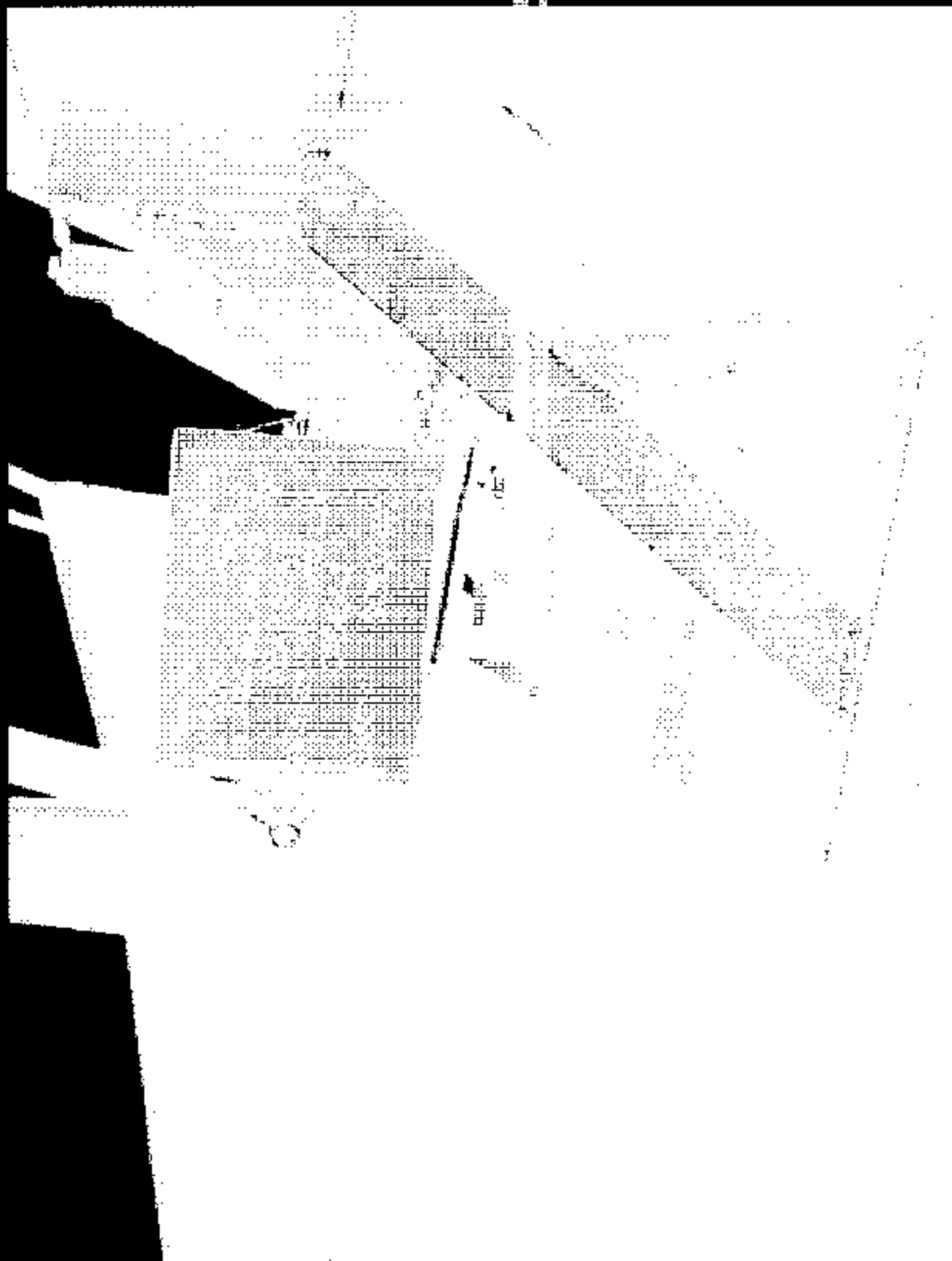
6.10 Pre-test views of each child restraint anchorage system installed in the vehicle
6.10.1 Pre-test photo #1 of SFADII test 1 of 2



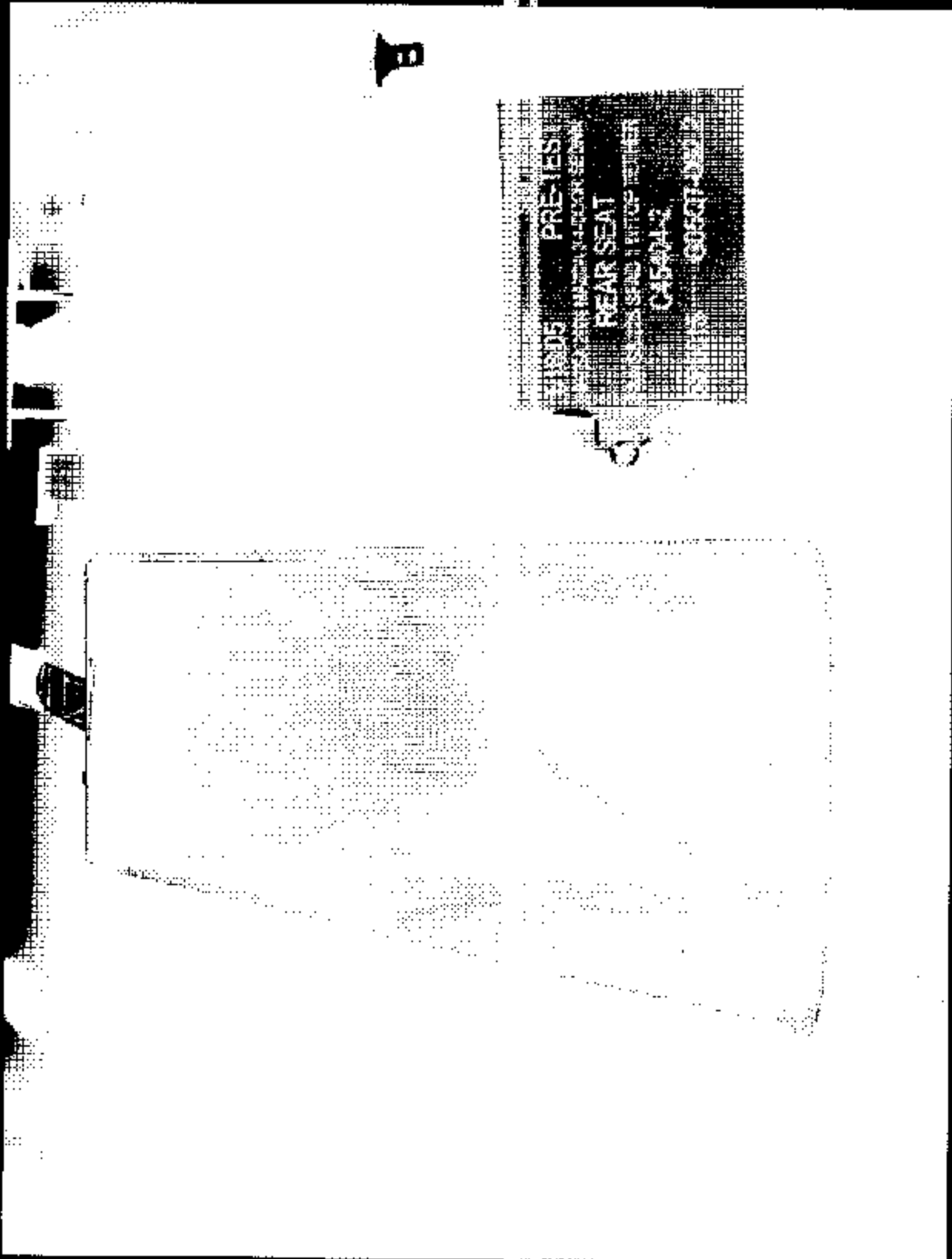
6.10.2 Pre-test photo #2 of SFADII test of 2



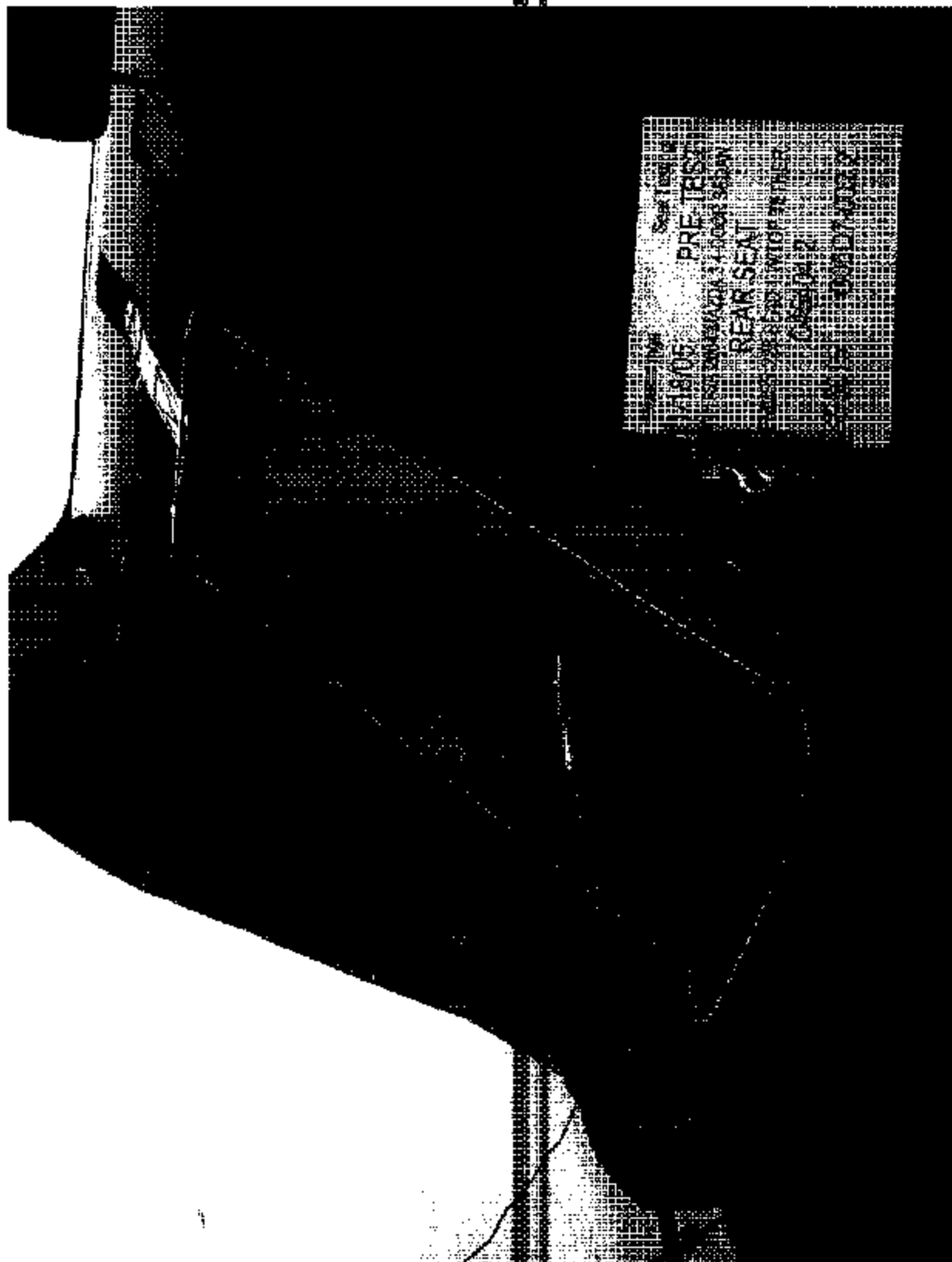
6.10.3 Pre-test photo #3 of SFADII test of 2



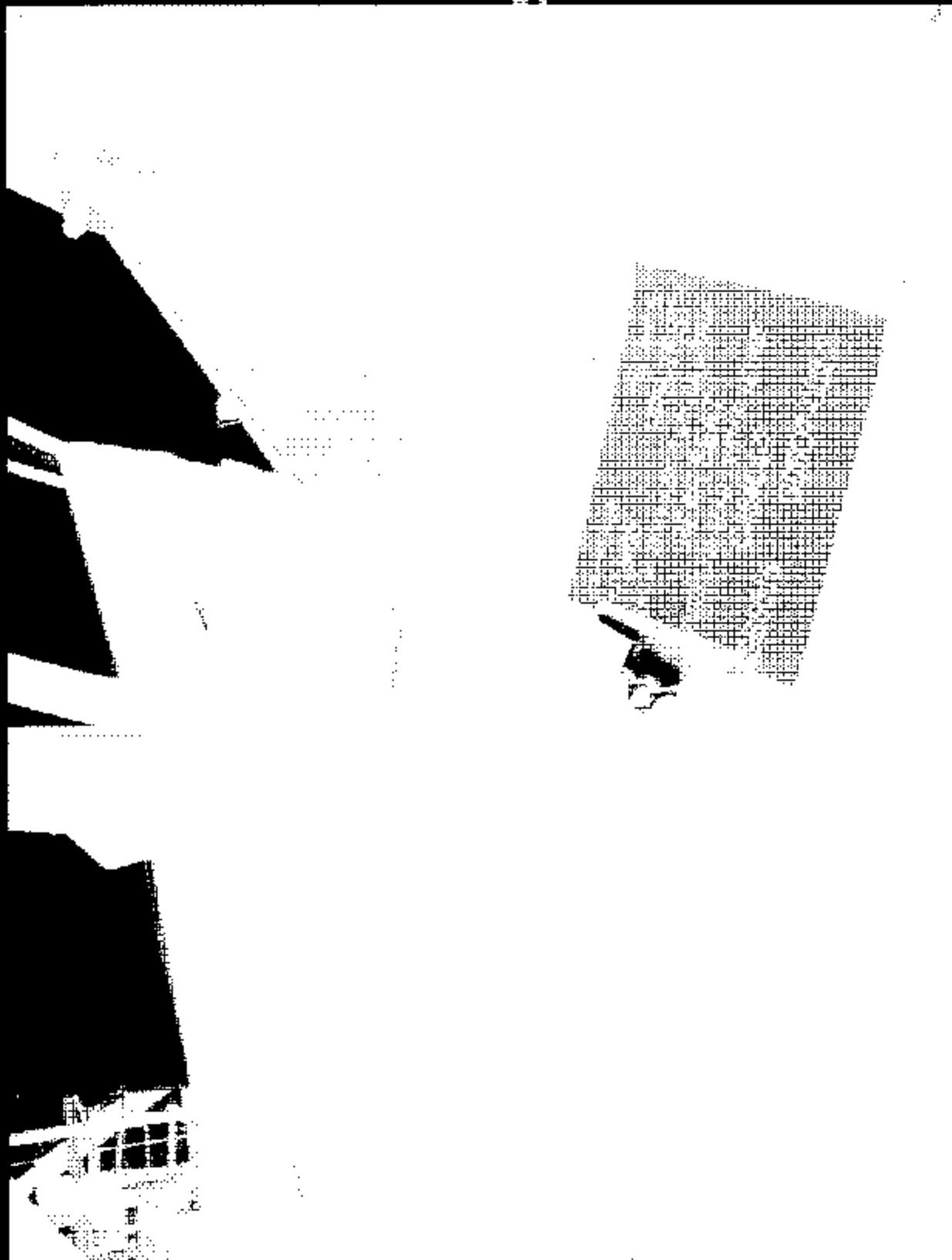
6.10.4 Pre-test photo #1 of SFADI test 2 of 2



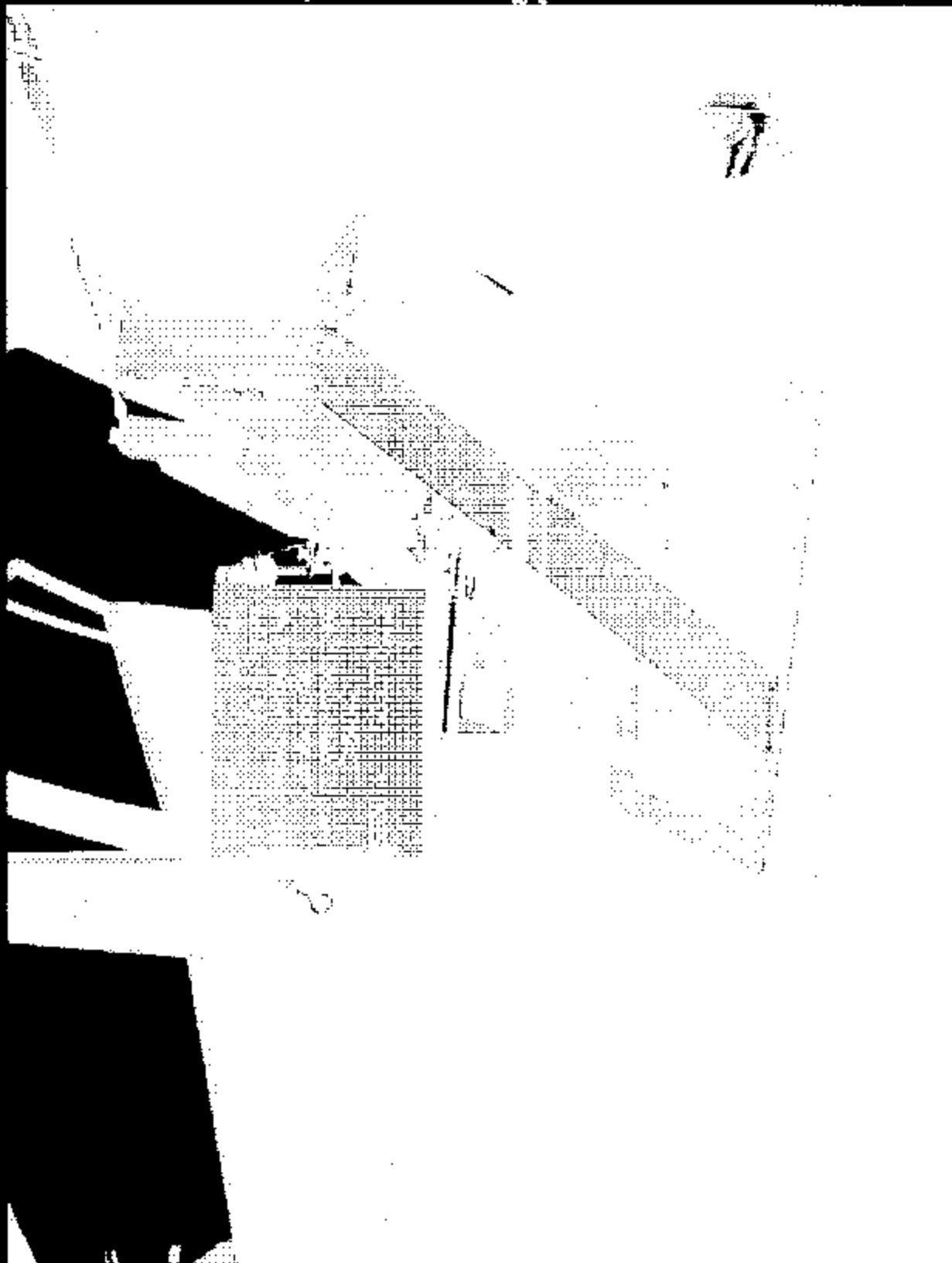
6.10.5 Pre-test photo #2 of SFADI test 1 of 2



6.10.6 Pre-test photo #3 of SFADI test 1 of 2



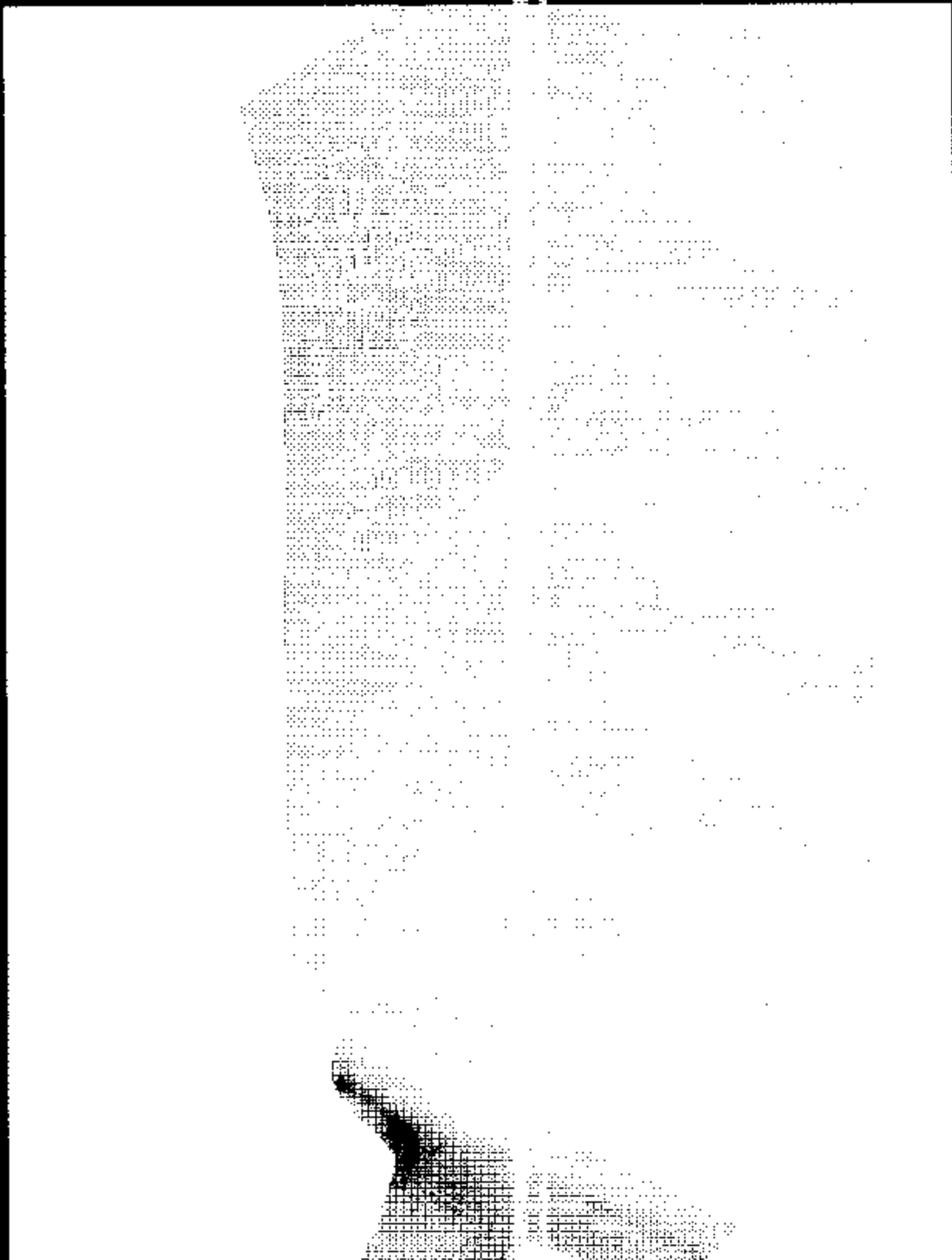
- 6.11 Post-test condition of each child restraint anchorage system
6.11.1 Post-test photo #1 of SFADII test of 2



6.11.2 Post-test photo #2 of SFADII test of 2



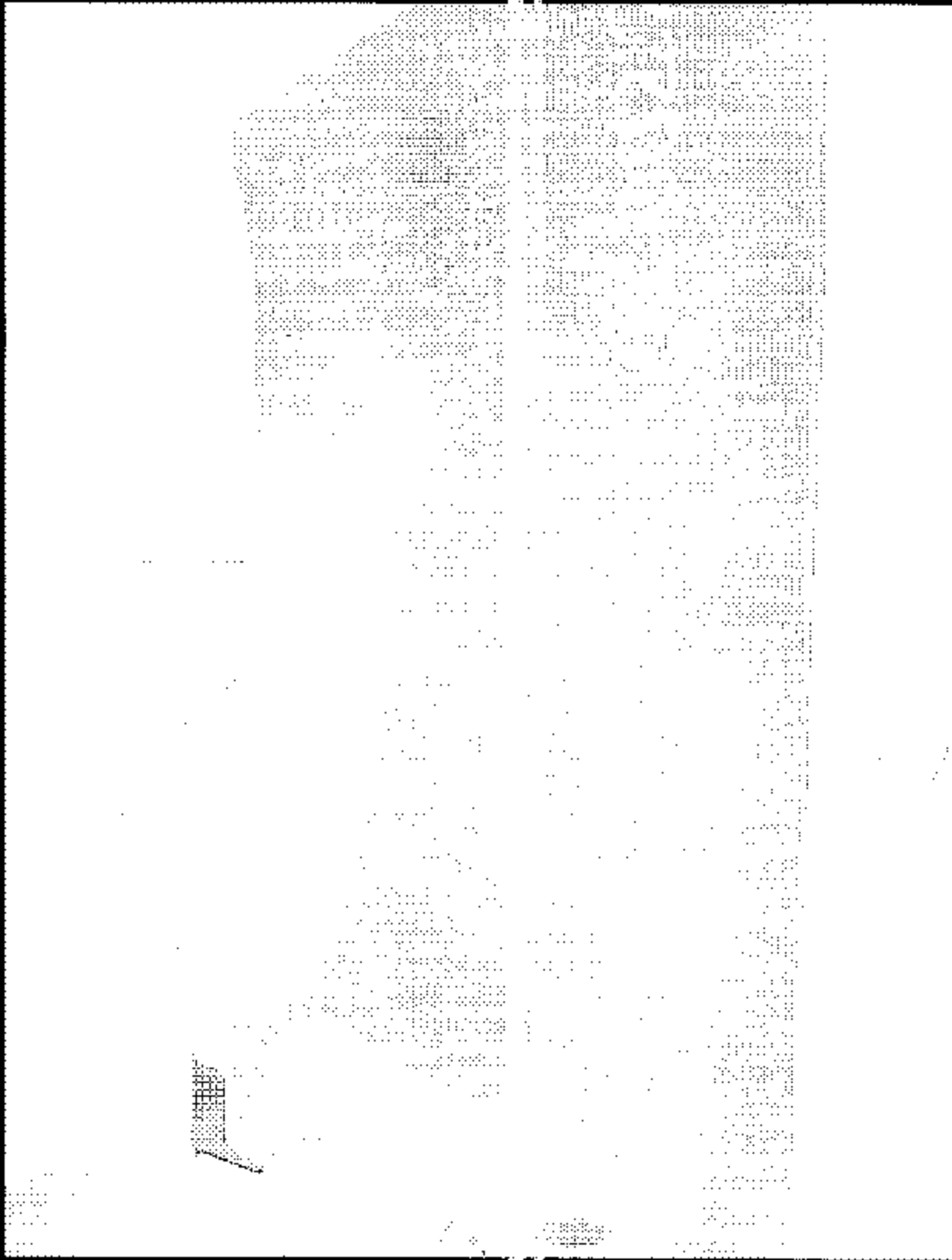
6.11.3 Post-test photo #3 of SFADII test 1 of 2



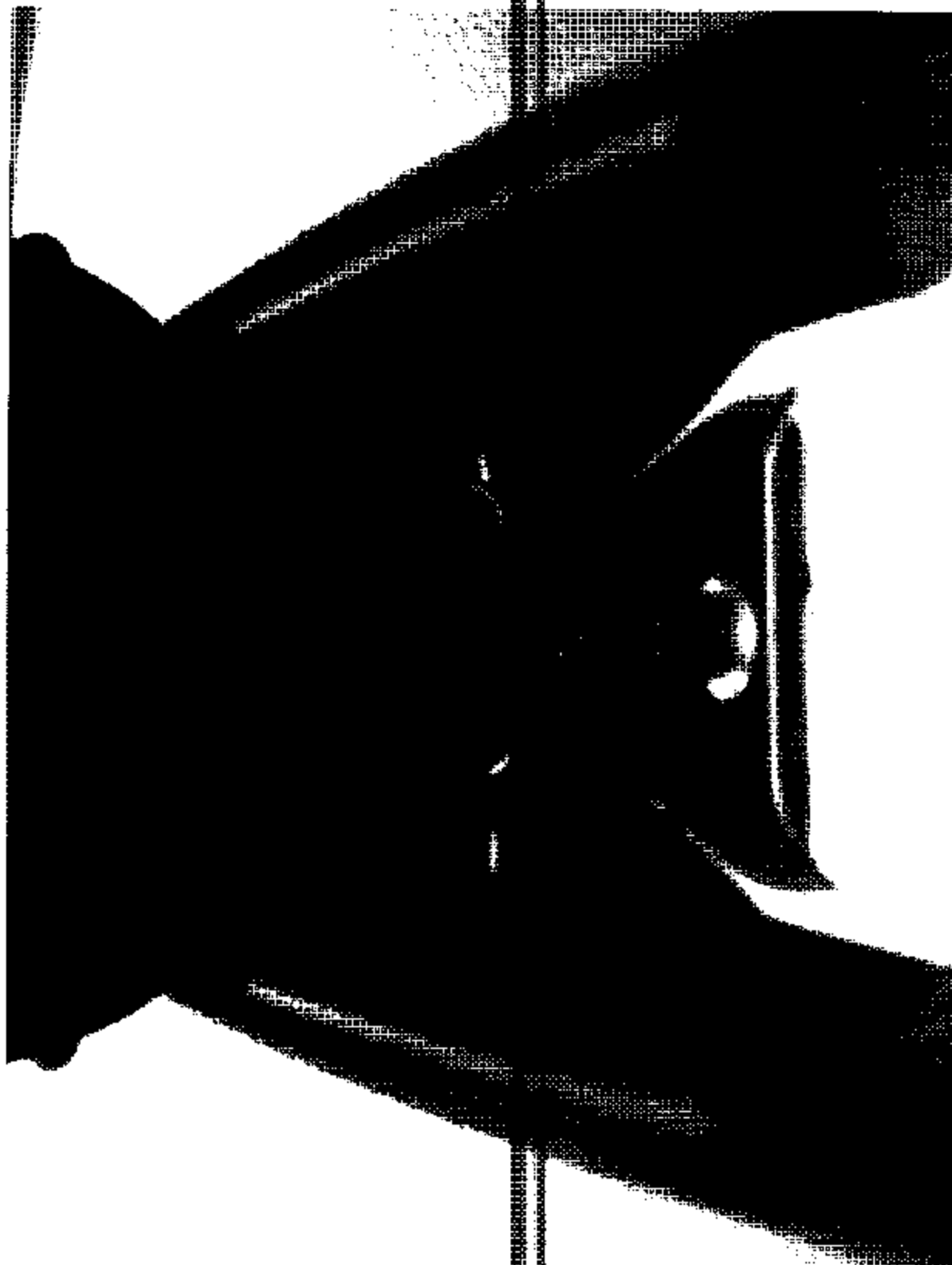
6.11.4 Post-test photo #4 of SPADII 6561 of 2



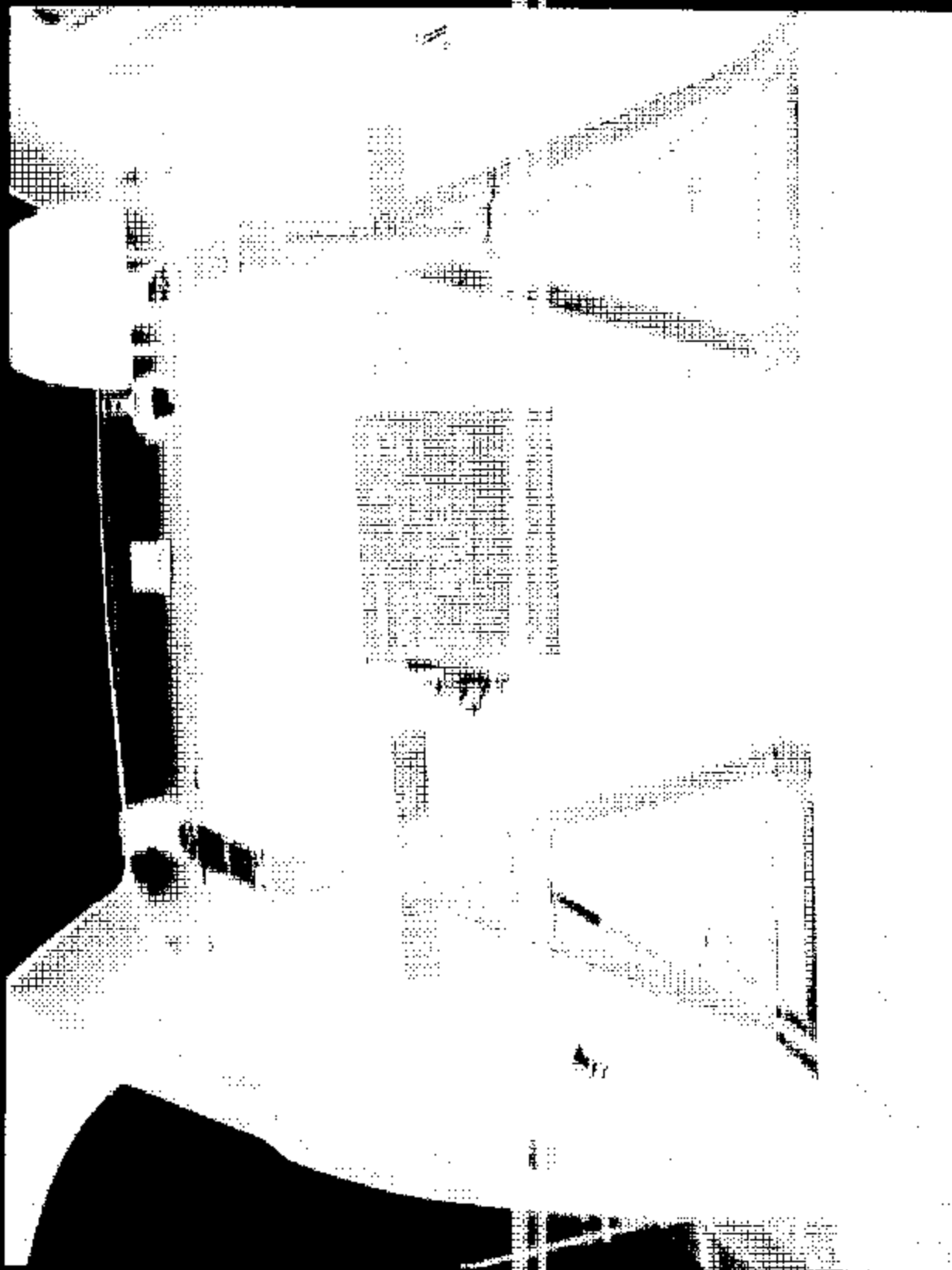
6.11.5 Post-test photo #5 of SFADII test of 2



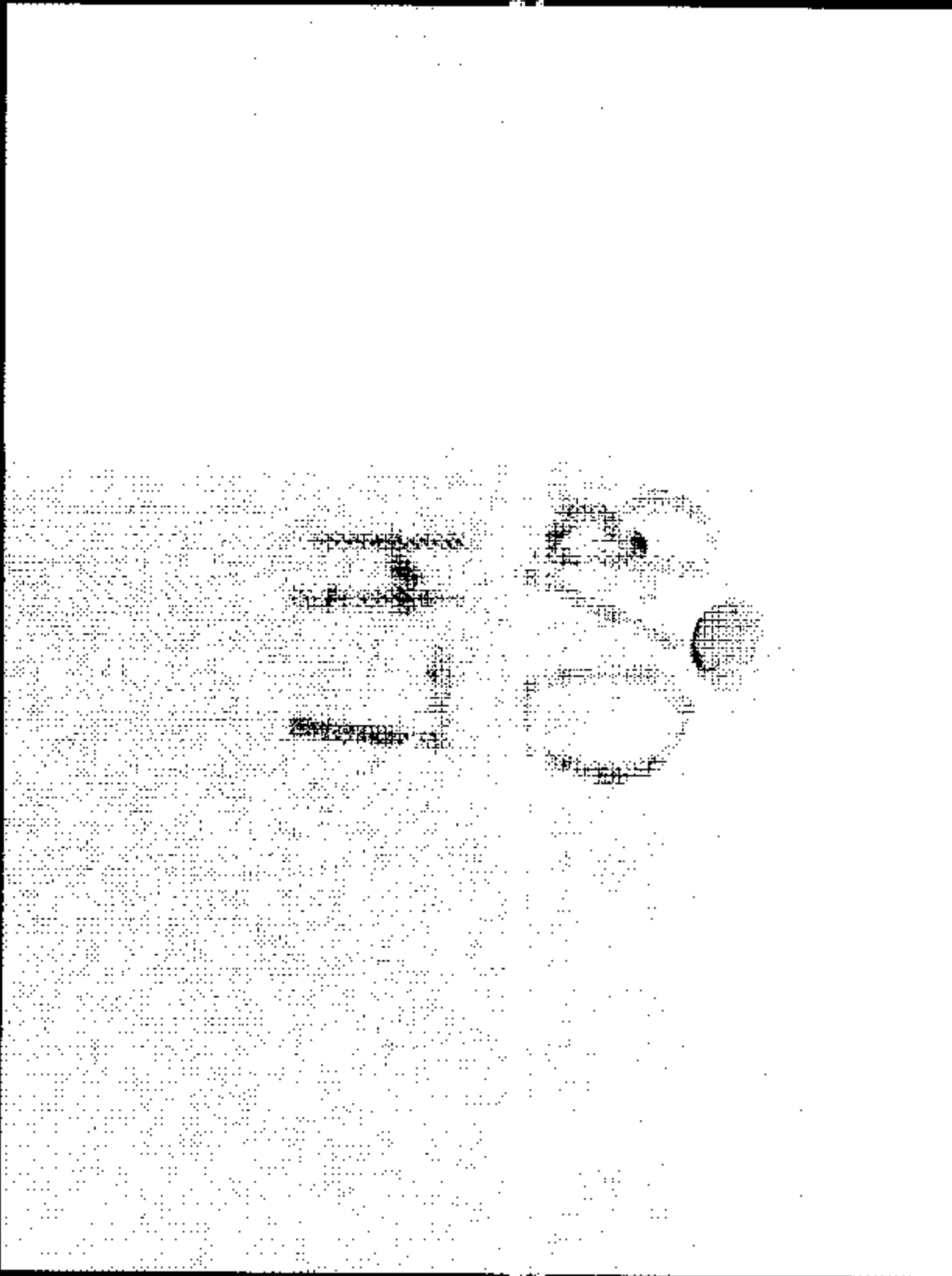
6.11.6 Post-test photo #6 of SFADII test of 2



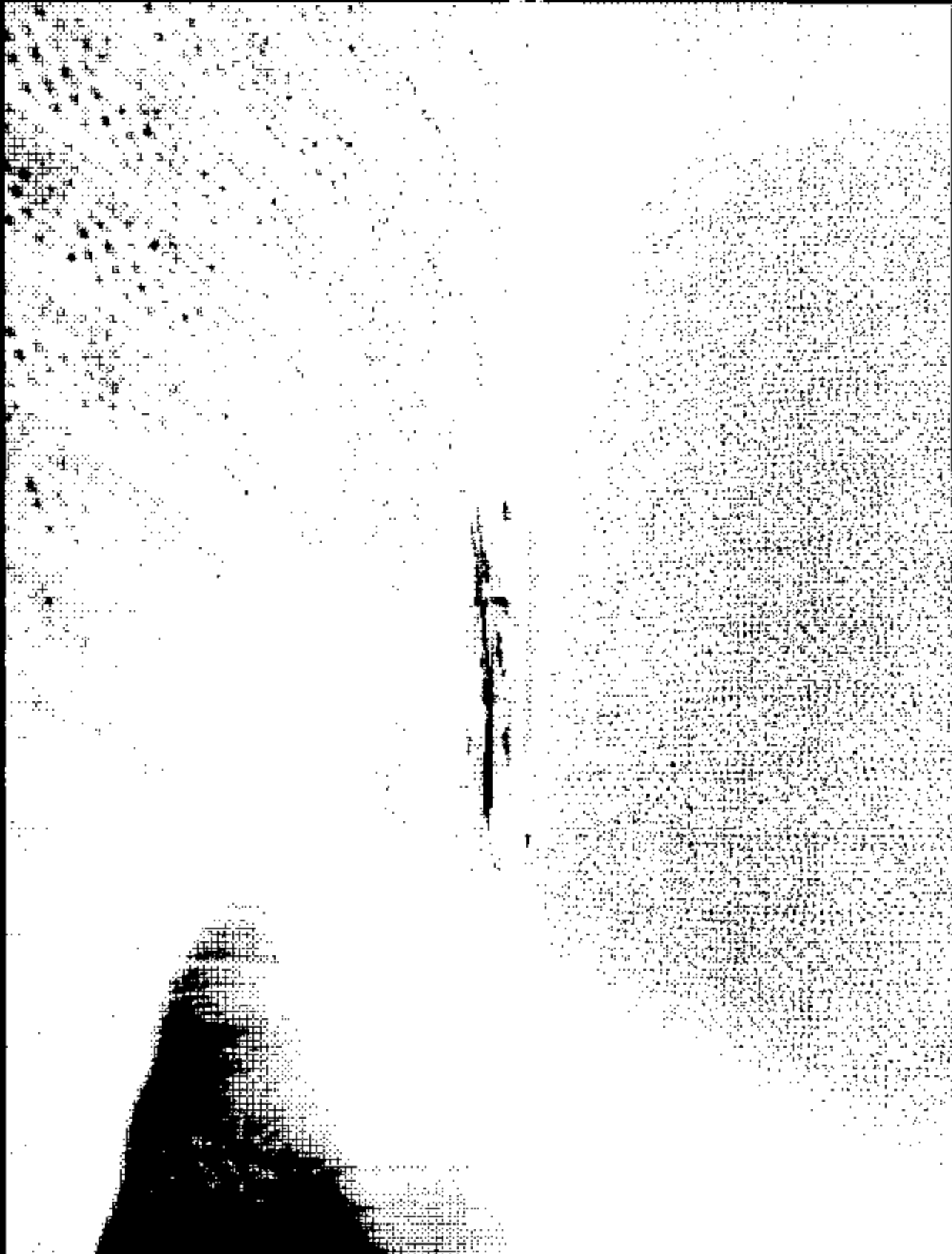
6.11.7 Post-test photo #7 of SFADII test 1 of 2



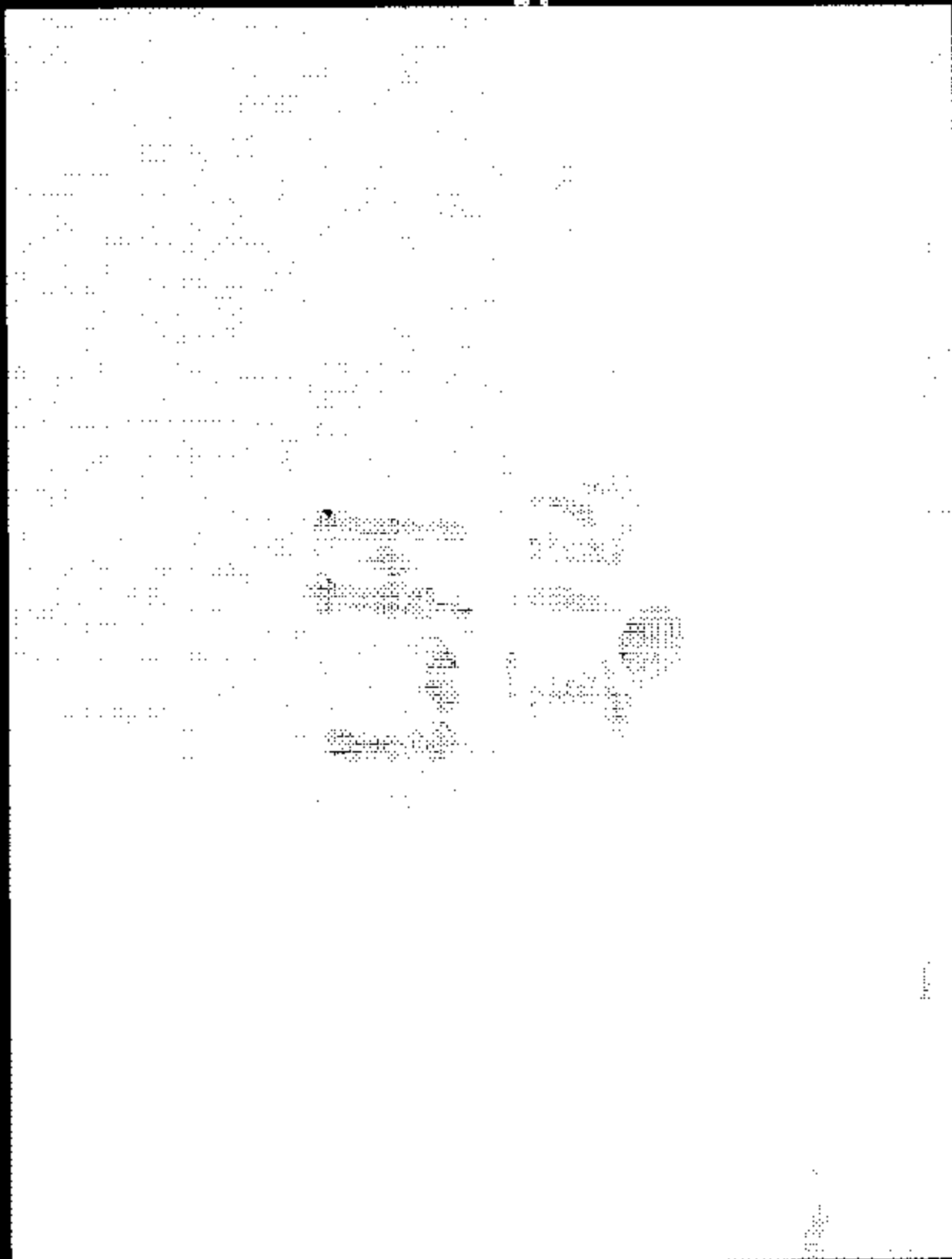
6.11.8 Post-test photo #8 of SFADII test 1 of 2



6.11.9 Post-test photo #9 of SFADII test of 2



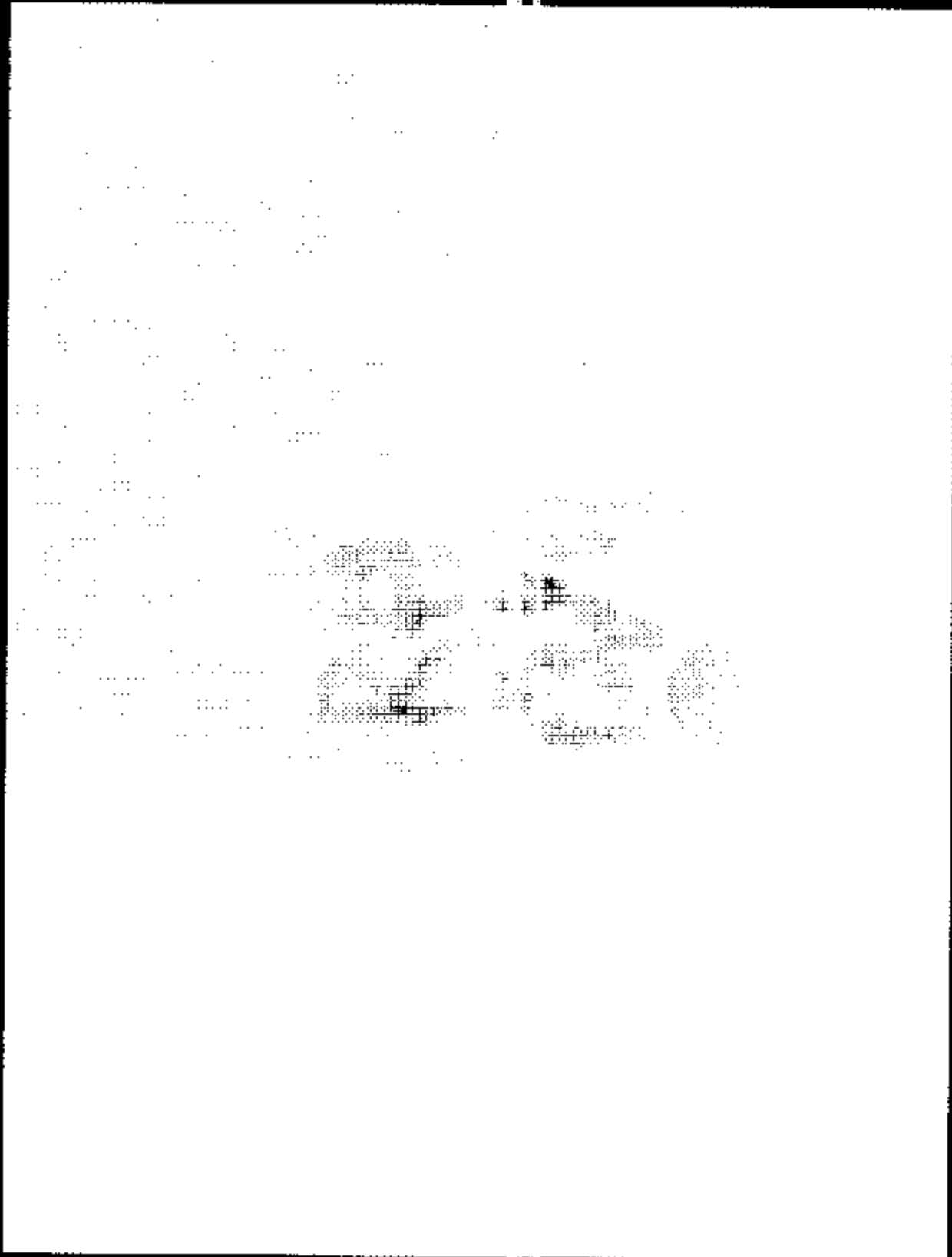
6.11.10 Post-test photo #10 of SFADIL test 1 of 2



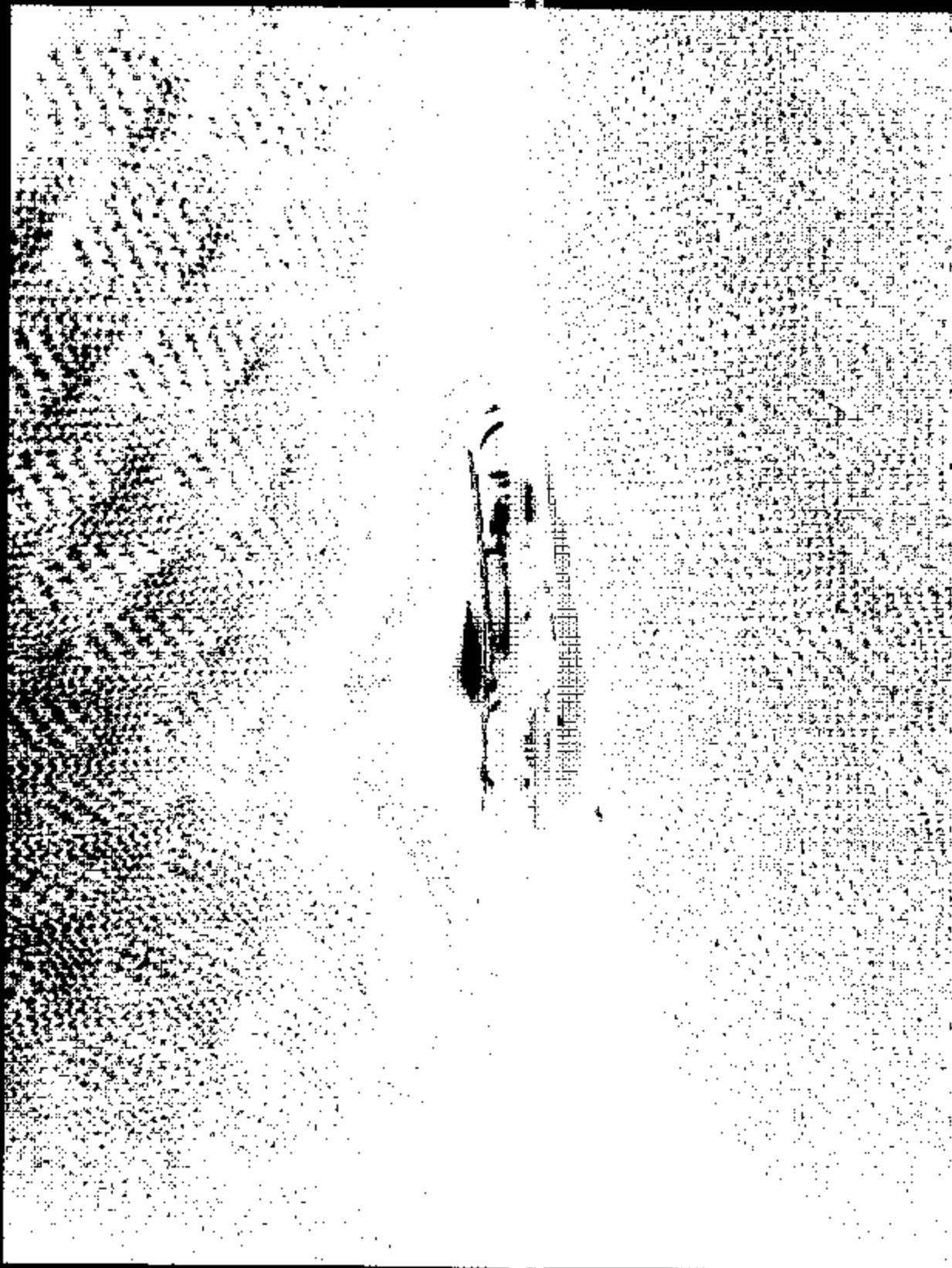
6.11.11 Post-test photo #11 of SFAD



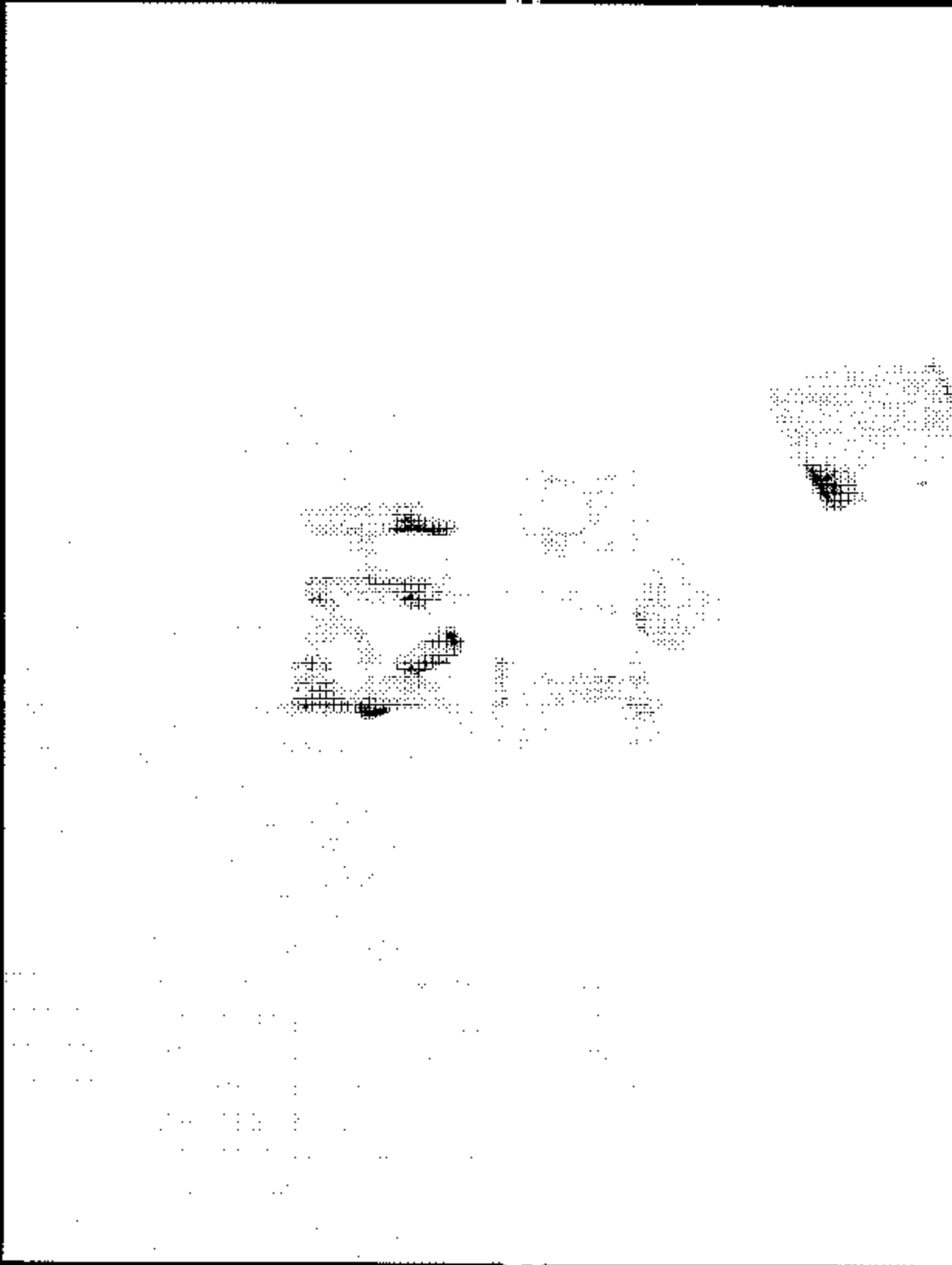
6.11.12 Post-test photo #12 of SFADII 1 of 2



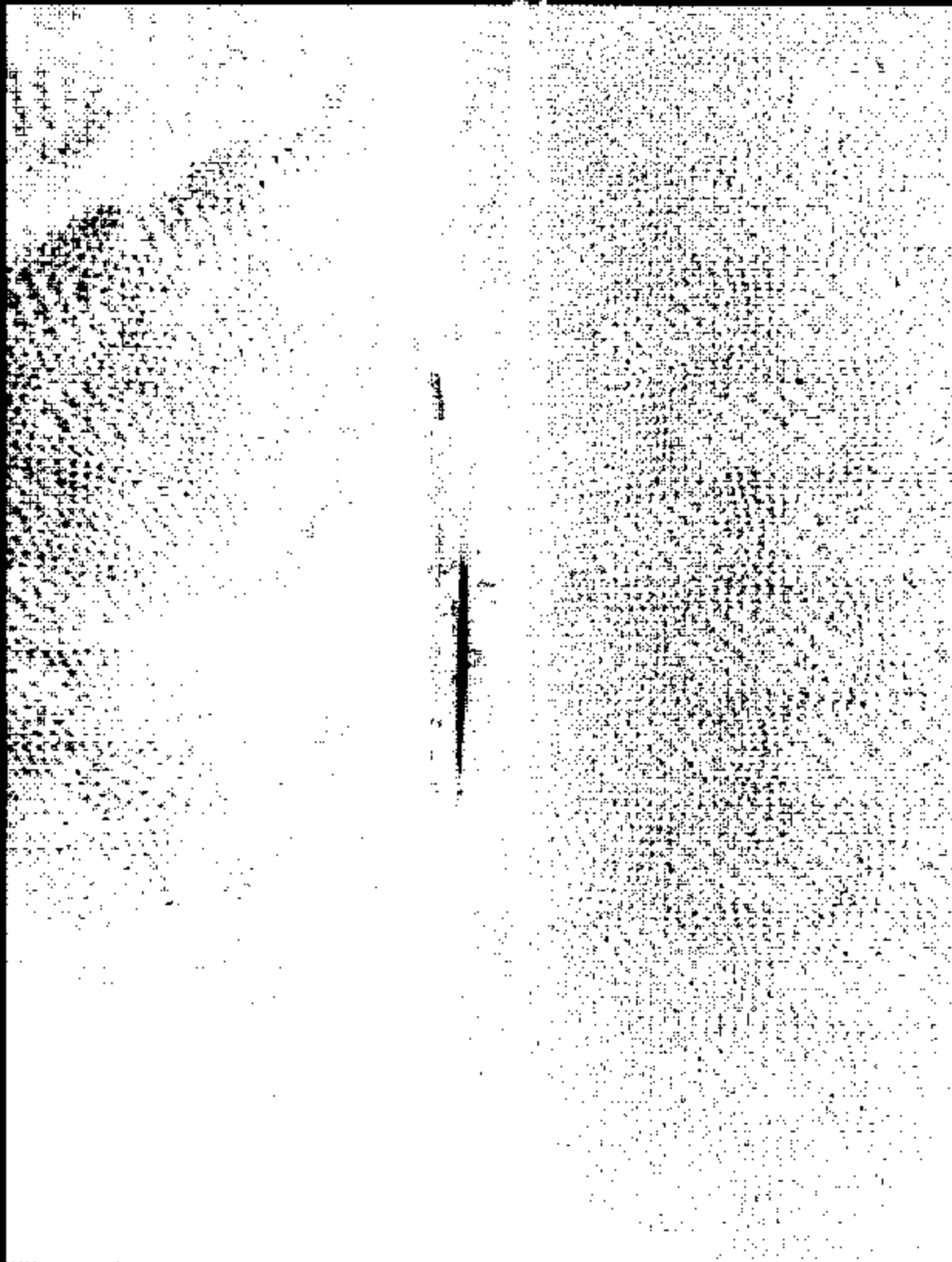
6.11.13 Post-test photo #13 of SFADIE 1 of 2



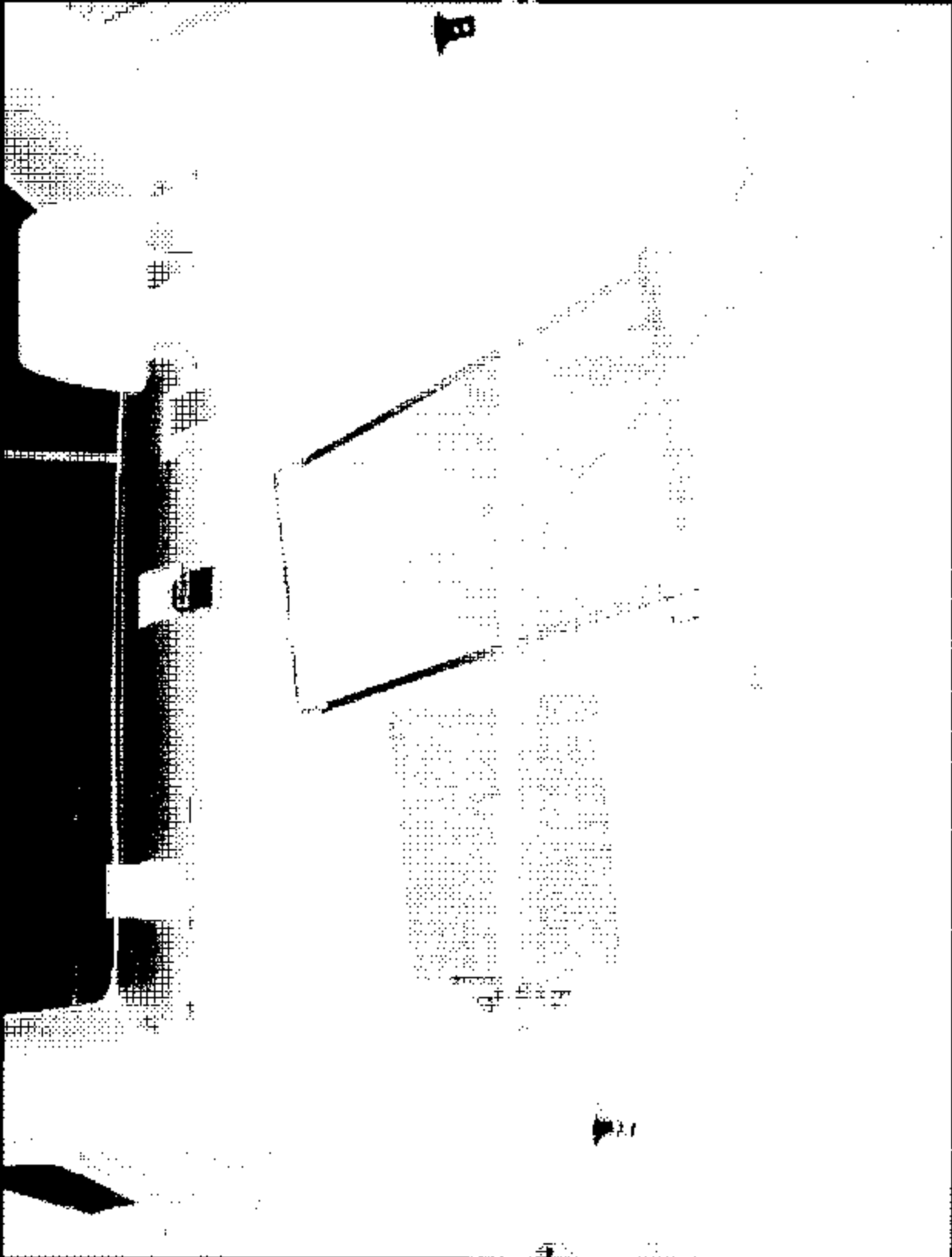
6.11.14 Post-test photo #14 of SFADII Test 1 of 2



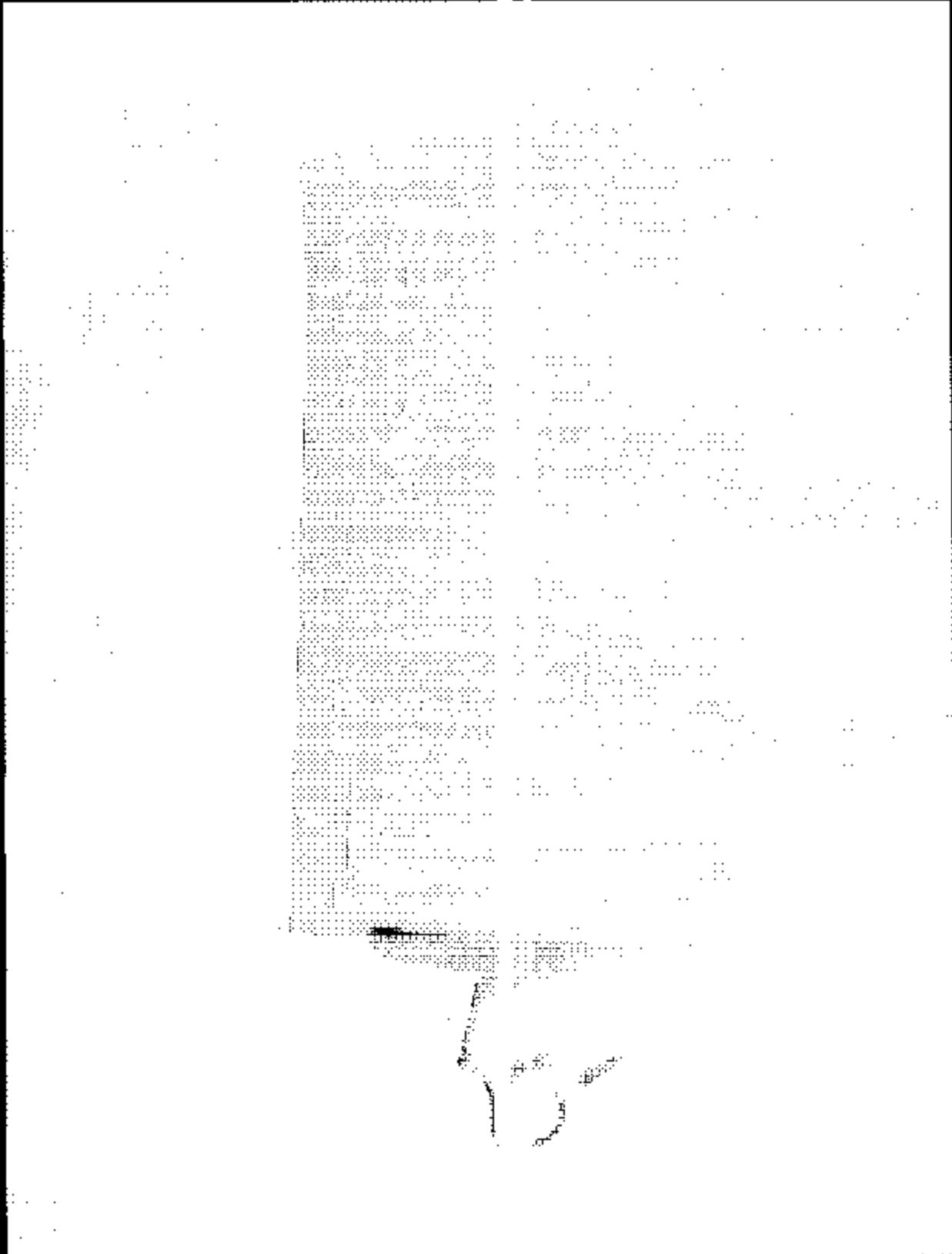
6.11.15 Post-test photo #15 of SFADII test of 2



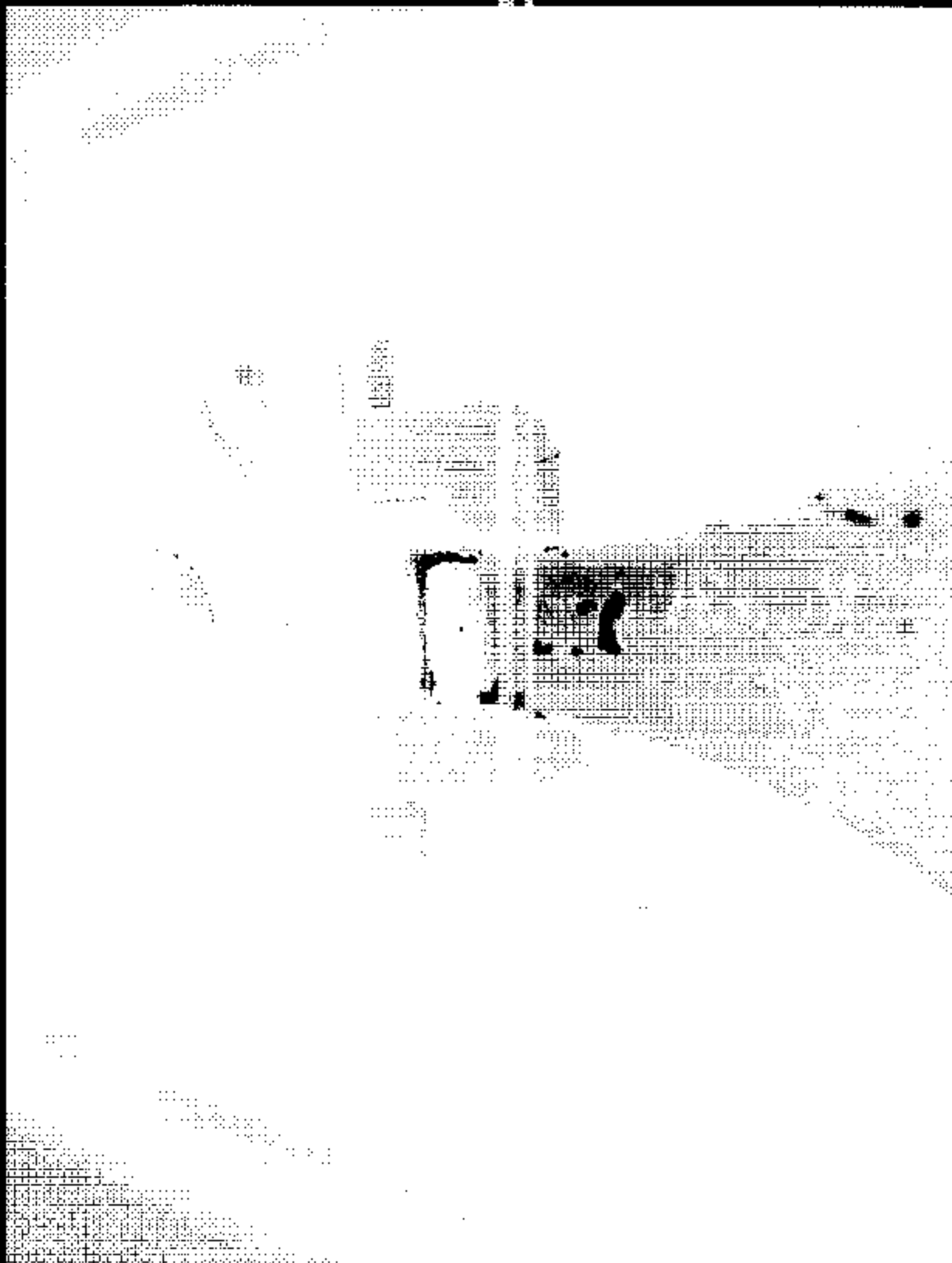
6.11.16 Post-test photo #1 of SFAD1 to 2 of 2



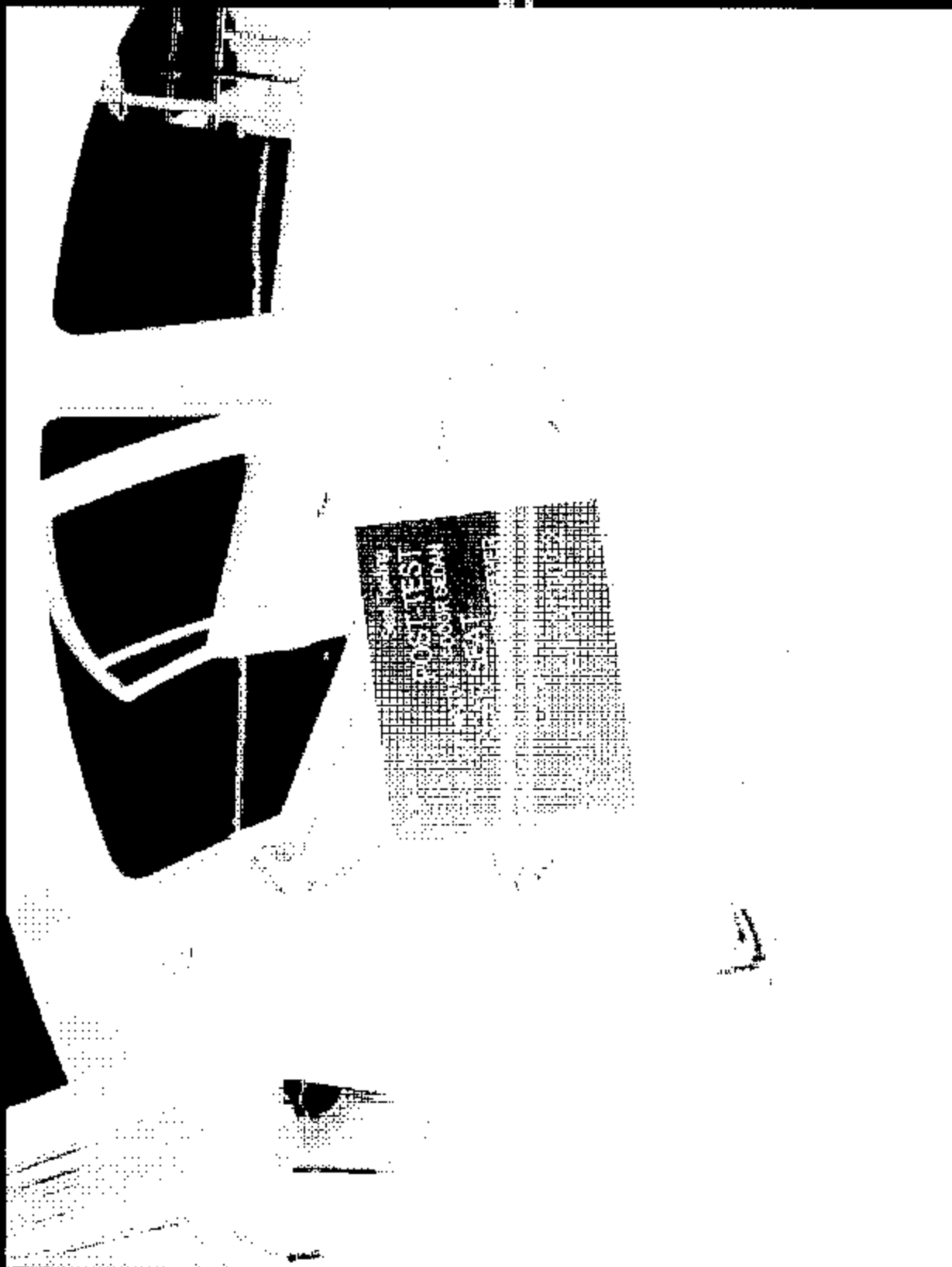
6.11.17 Post-test photo #2 of SFADI test 2 of 2



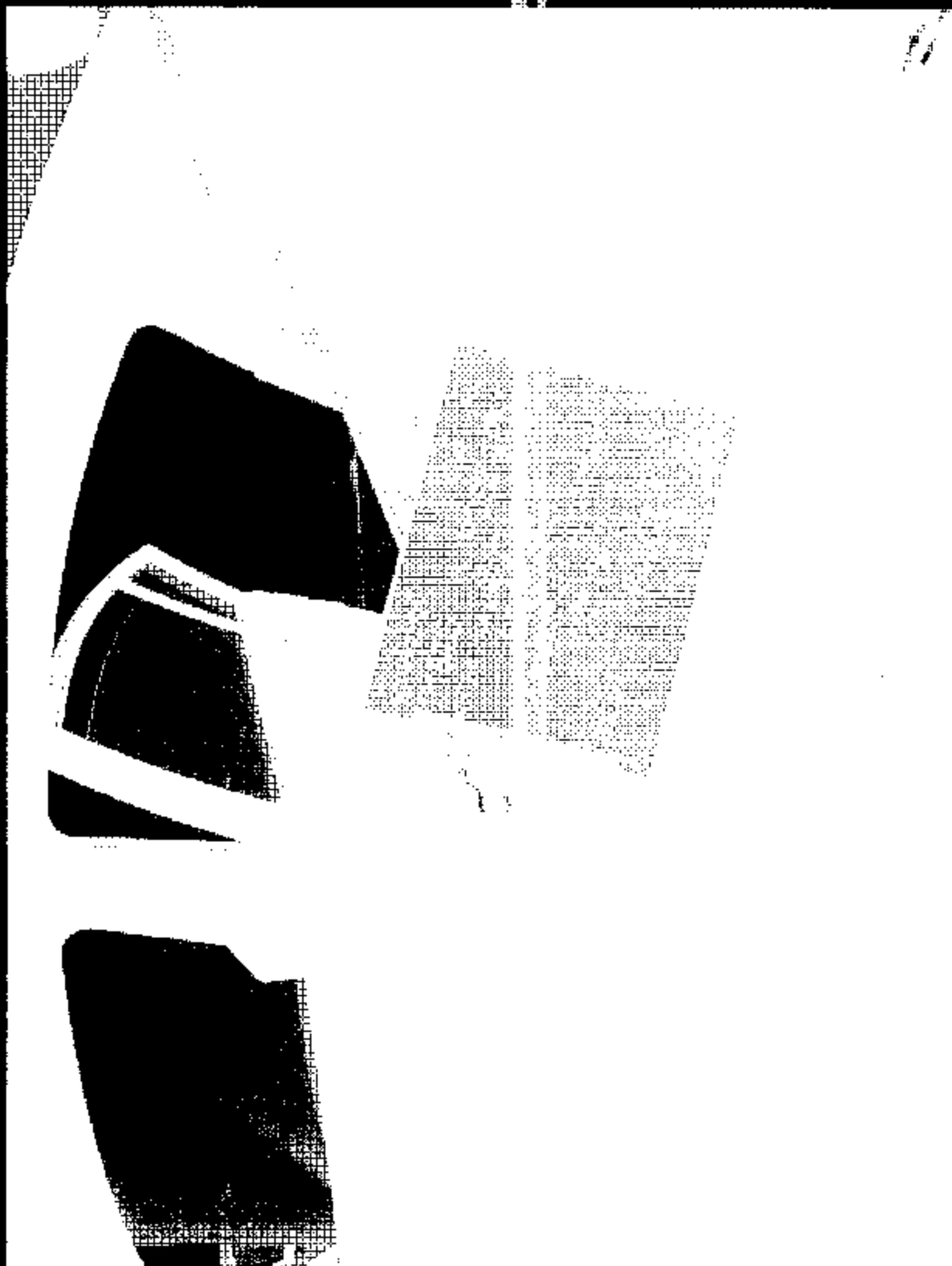
6.11.18 Post-test photo #3 of SFADI test 2 of 2



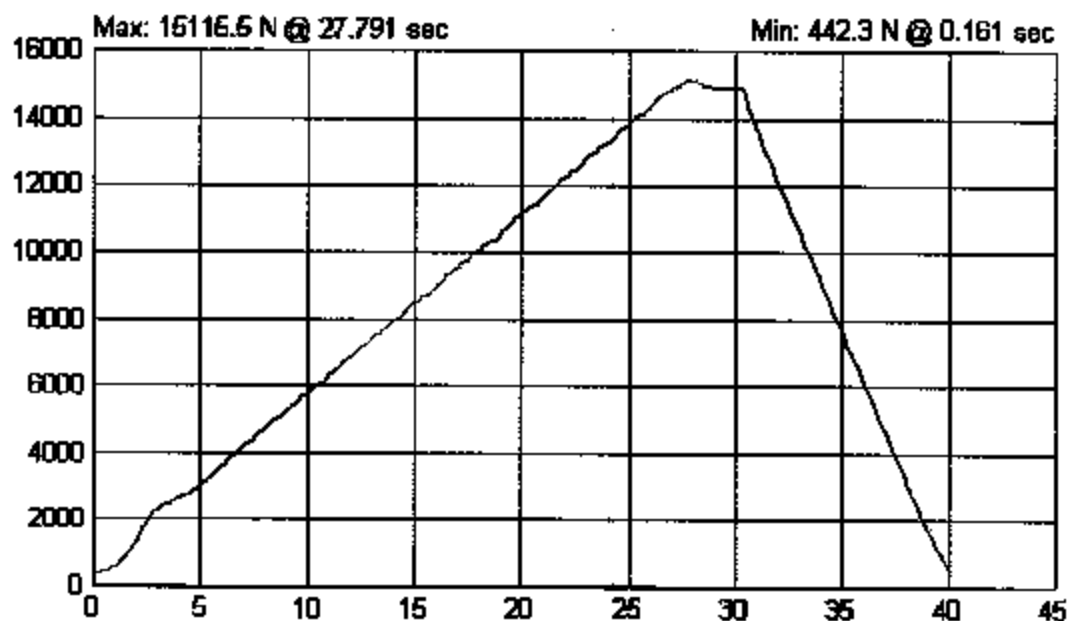
6.11.19 Post-test photo #4 of SPADI test 2 of 2



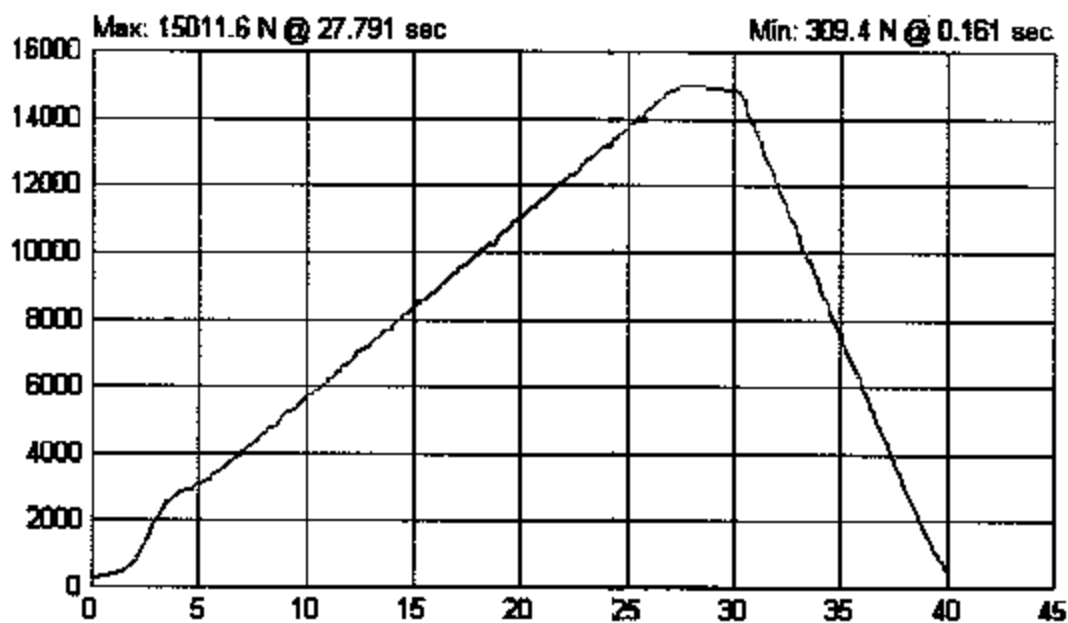
6.11.20 Post-test photo #5 of SFADI test 2 of 2



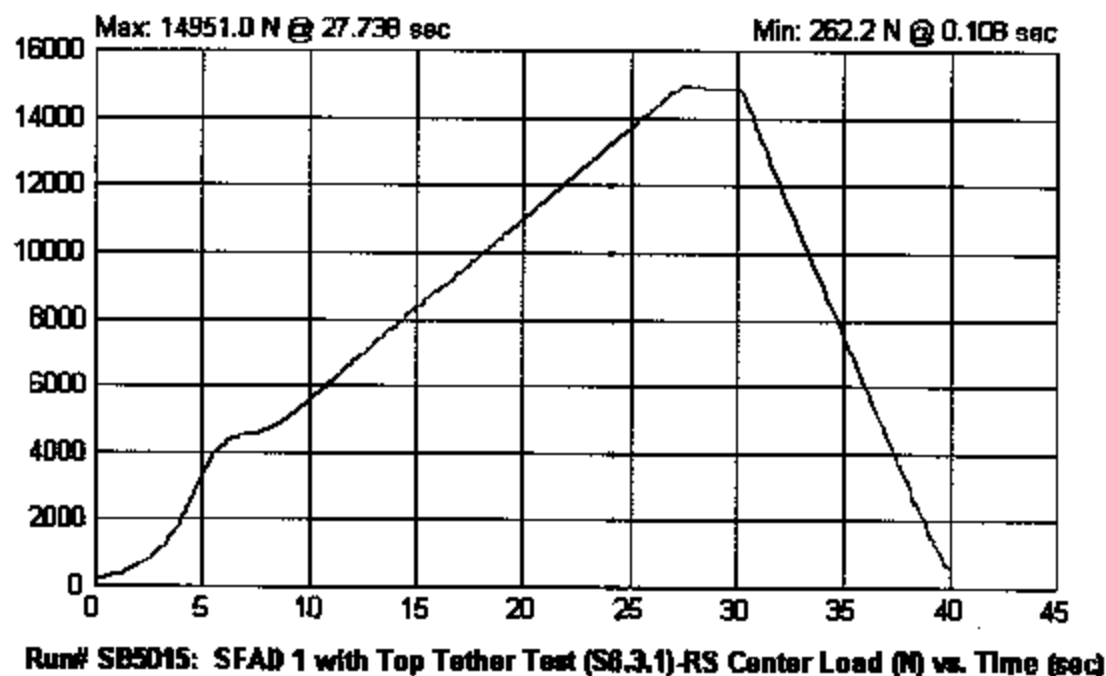
7.0 PLOTS



Run# SB5014: Lower Anchorage with Top Tether Test (S6.3.1)-RS LH Load (N) vs. Time (sec)



Run# SB5014: Lower Anchorage with Top Tether Test (S6.3.1)-RS RH Load (N) vs. Time (sec)



8.0 REPORT of VEHICLE CONDITION

REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

CONTRACT No.: DTNH22-02-D-11043

DATE: January 18, 2005

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

To: NHTSA, OVSC, NVS-220

The following vehicle has been subjected to compliance testing for FMVSS No. 208 and 225

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

VEH. MOD YR/MAKE/MODEL/BODY: 2004 Mazda 3

VEH. NHTSA NO.: C45404

VIN: JM1BK12F341120093

COLOR: Black

ODOMETER READINGS: ARRIVAL 3.6 miles Date: 02/26/04

COMPLETION unknown miles Date: 01/18/05

PURCHASE PRICE: N/A DEALER'S NAME: Ricart Mazda of Groveport, OH

ENGINE DATA: 4 Cylinders 2.0 Liters 122 Cubic Inches

TRANSMISSION DATA: Automatic X Manual No. of Speeds 5

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

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Melanie Schick, Brad Reaume, Kenney Godfrey

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

REMARKS:

Salvage only.

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

All equipment inventoried and placed in vehicle.

Explanation for equipment removal:

Windshield and front seats were removed before conducting the testing.

Test Vehicle Condition:

Salvage only.

RECORDED BY: Melanie Schick, Kenney Godfrey

DATE: January 18, 2005

APPROVED BY: Brad Reaume

APPENDIX A
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

Child Restraint

WARNING

Proper Size of Child Restraint System:
For effective protection in vehicle accidents and sudden stops, a child must be properly restrained using a seat belt or child-restraint system depending on age and size. If not, the child could be seriously injured or even killed in an accident.

Follow the Manufacturer's Instructions and Always Keep the Child Restraint System Secured Properly:
An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure the child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions. When not in use, remove it from the vehicle or store it with a seat belt or latch it down in **WITH LATCH** lower anchors for **LATCH** child-restraint systems.

Holding a Child While the Vehicle is Moving:
Holding a child in your arms while the vehicle is moving is extremely dangerous. No matter how strong the person may be, he or she cannot hold onto a child in a sudden stop or collision and it could result in serious injury or death to the child or other occupants. Even in a moderate accident, the child may be exposed to air bag forces that could result in serious injury or death to the child, or the child may be thrown into the interior, striking the vehicle. Always remove a child to a proper child-restraint system.

Never-Occur Child Restraint System:
Never-facing child-restraint systems on the front seat are particularly dangerous. The child-restraint system can be hit by a deploying air bag and moved violently backward resulting in serious injury or death to the child. Even though you may feel secured that the front passenger air bag will not deploy based on the fact that the front passenger air bag deactivation indicator light illuminates, NEVER use a rear-facing child-restraint system in the front seat with an air bag that could deploy even in a moderate collision.



Deploying air bag

2-22

Child Restraint

Child Restraint Precautions

Manufacture strongly urges the use of child-restraint systems for children small enough to use them.

You are required by law to use a child-restraint system for children in the U.S. and Canada. Check your local and state or provincial laws for specific requirements regarding the safety of children riding in your vehicle.

Whenever child-restraint system you consider, please pick the appropriate one for the age and size of the child, obey the law and follow the instructions that come with the individual child-restraint system.

A child who has outgrown child-restraint systems should sit in the rear seat and use seat belts, both lap and shoulder. If the shoulder belt crosses the neck or face, move the child closer to the corner of the vehicle in the outboard seats, and towards the back on the right if the child is seated on the outer seat.

Surgeplus confirm that the rear seat is the best place for all children up to 12 years of age, and more so with a supplemental restraint system (air bags).

A rear-facing child-restraint system should NEVER be used on the front seat with the air bag system activated. The front passenger's seat is also the least protected seat for other child-restraint systems.

If your vehicle is equipped with front passenger seat weight sensor, a front passenger air bag deactivation indicator light is also equipped (page 2-29). To reduce the chance of injuries caused by deployment of the front passenger air bag, the front passenger seat weight sensor must be a part of the supplemental restraint system. This system deactivates the front passenger front and side air bags and also the front passenger seat belt pretensioner system when the total seated weight on the front passenger seat is less than approximately 30 kg (66 lb).

When an infant or small child sits on the front passenger seat, the system shuts off the front passenger front and side air bags and seat belt pretensioner system, to make sure the front passenger air bag deactivation indicator light illuminates.

Even if the front passenger air bag is shut off, Manufacture strongly recommends that children be properly restrained and child-restraint systems of all kinds are properly secured on the rear seats which are the best place for children.

For more details, refer to "Front passenger seat weight sensor (page 2-44)".

2-21

Child Restraint

WARNING

One Belt, One Passenger

Using one seat belt for more than one person at a time is dangerous. A seat belt used in this way can't spread the impact forces properly and the two passengers could be crushed together and seriously injured or even killed. Never use one belt for more than one person at a time.

CAUTION

A seat belt or child-restraint system can become very hot in a closed vehicle during warm weather. To avoid burning yourself or a child, check them before you or your child touches them.

NOTE

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear seat. When using these anchors to secure a child-restraint system, refer to "LATCH Child-Restraint Systems" (page 2-32).

Child Restraint

WARNING

Securing Children in a Child-Restraint System on the Front Passenger Seat

If your vehicle is equipped with front passenger seat weight sensors, a front passenger air bag deployment indicator light is also equipped (page 2-29). Even with the front passenger seat weight sensor, if you must use the front passenger seat for children, installing a child in a child-restraint system on the front passenger seat under the following conditions increases the danger of the front passenger air bag deploying and could result in serious injury or death to the child.

- The total seated weight of the child with the child-restraint system on the front passenger seat is approximately 39 kg (86 lb) or more.
 - Luggage or other items are placed on the seat with the child in the child-restraint system.
 - A rear passenger or luggage rack or pull down on the front passenger seatback.
 - A rear passenger steps on the front passenger seat with the foot.
 - Luggage or other items are placed on the seatback or hung on the hand restraint.
 - The seat is washed.
 - Liquids are spilled on the seat.
 - The front passenger seat is moved backward, pushing into luggage or other items placed behind it.
 - The front passenger seatback contacts the rear seat.
 - Luggage or other items are placed between the front passenger seat and driver seat.
 - Any accessories which might increase the total seated weight on the front passenger seat are attached to the front passenger seat.
- The designated position with seat belts on the rear seats are the safest places for children. Always use seat belts and child restraints.

Children and Seating Position with Side and Curtain Air Bags

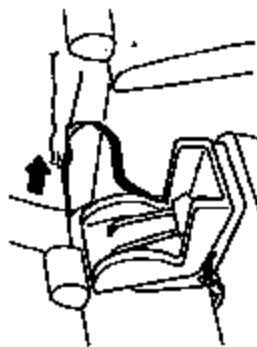
Allowing anyone to lean over or against the front door, the area of front seat, front and rear window pillars and the roof edge along both sides which the side and curtain air bags deploy even though using a child-restraint system is dangerous. If the vehicle is equipped with side and curtain air bags, the impact of deployment could cause serious injury or death to the child. Furthermore, leaning over or against the front door could block the side and curtain air bags and eliminate the advantages of supplemental protection. With the front air bag and the additional side air bag that comes out of the front seat, the rear seat is always a better location for children. Do not allow a child to lean over or against the door, even if the child is seated in a child-restraint system.

2-24

2-23

Child Restraint

3. To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire length of the belt is out of the retractor.



4. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. Clicking from the retractor will be heard during retraction if the system is in the automatic locking mode. If the belt does not lock the seat down tight, repeat this step.



NOTE

Inspect this function before each use of the child-restraint system. You should not be able to pull the shoulder belt out of the retractor while the system is in the automatic locking mode. When you remove the child-restraint system, be sure the belt fully retracts to return the system to emergency locking mode before occupants use the seat belts.

5. If your child-restraint system requires the use of a tether strap, hook and tighten the tether strap by following the manufacturer's instructions.

- 4 Door Anchor location

For rear left seat

For rear center seat

For rear right seat

Anchor

Center

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Anchor

Child Restraint

Follow these instructions when using a child-restraint system, unless you are attaching a LATCH-equipped child-restraint system to the rear LATCH lower anchors. Refer to "LATCH Child-Resistant Systems" (page 2-32).

NOTE

Follow the child-restraint system manufacturer's instructions carefully. If you are not sure whether you have a LATCH system or not, check in the child-restraint system manufacturer's instructions and follow them accordingly. Depending on the type of child-restraint system, it may not employ seat belts which are in automatic locking mode.

1. Make sure the seatback is securely latched by rocking the seatback.
2. Secure the child-restraint system with the lap portion of the lap/shoulder belt. See the manufacturer's instructions on the child-restraint system for belt routing instructions.

Installing Child-Resistant Systems

Accident statistics reveal that a child is safer in the rear seat. The front passenger's seat is clearly the worst choice for any child under 12, and with rear-facing child-restraint systems it is clearly unsafe due to air bags.

Some child-restraint systems now come with tether and therefore must be installed on the seats that have tether to be effective. In your Model, tethered child-restraint systems can only be recommended in the three positions on the rear seat.

Some child-restraint systems also employ specially designed LATCH attachments; refer to "LATCH Child-Resistant Systems" (page 2-32).

WARNING

Install Child-Resistant Systems. Buckle Up on Tether-Forward Rear Seats.

Installation of a tether equipped child-restraint system in the front passenger's seat defeats the safety design of the system and will result in an increased chance of serious injury if the child-restraint system goes forward without benefit of being tethered. Please never equipped child-restraint systems where there are tether anchors.

Child Restraint

When You Must Use the Front Seat for Children

If you cannot put all children in the rear seat, at least put the smallest children in the rear and be sure the largest child up front uses the shoulder belt over the shoulder.

Do not put rear-facing child-restraint systems on the front passenger's seat. This seat is also not set up for infant child-restraint systems, put them in one of the rear seat positions set up with tether anchors.

Otherwise the LATCH child-restraint system cannot be secured in the front passenger's seat and should be used in the rear seat.

Don't allow anyone to sleep against the right front or rear doors if you have an optional side and curtain air bag, it could cause serious injuries to an out-of-position occupant. As children move often sleep in seat, it is better to put them in the rear seat. If installing the child-restraint system on the front seat is unavoidable, follow these instructions when using a front-facing child-restraint system in the front passenger's seat.

NOTE

- To check if your front seats have side air bags: Every Maxima side air bag will have a "SAB-Air Bag" label on the outboard shoulder of the front seats.
- To check if your vehicle has curtain air bags: Every Maxima curtain air bag will have an "SAB-Air Bag" marking on the front and rear window pillars along the roof edge.

2-25

Child Restraint



WARNING

Child Restraint Tether Usage:
Using the tether or other anchor to secure anything but a child-restraint system is dangerous. This could weaken or damage the tether or other anchor and result in injury. Use the tether and other anchor only for a child-restraint system.

Incorrect Positioning of the Tether Strap:
Positioning the tether strap on top of the head restraint is dangerous. In a collision, the head restraint could head or break. This will cause the strap to loosen. The child-restraint system could move and injure the child or someone else. Always position the tether strap between the head restraint and the seatback.

2-27

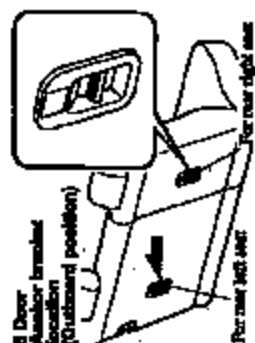
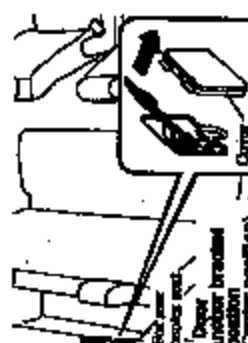
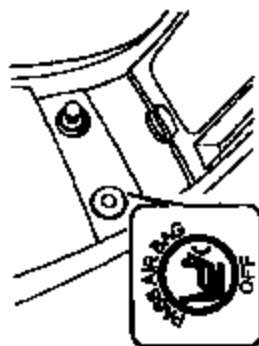


Diagram showing a child in a rear-facing car seat with a tether strap attached to the top of the seat and a tether anchor on the rear seat back.



Required Safety Equipment Child Restraint

5. Make sure the front passenger air bag deactivation indicator light illuminates after installing a child-restraint system on the front passenger seat.



NOTE

- Inspect this function before each use of the child-restraint system. You should not be able to pull the shoulder belt out of the retractor while the system is in the automatic locking mode. When you remove the child-restraint system, be sure the belt fully retracts to return the system to emergency locking mode before occupants use the seat belt.
- Follow the child-restraint system manufacturer's instructions carefully. Depending on the type of child-restraint system, it may not employ seat belts which are in automatic locking mode.

Required Safety Equipment Child Restraint

▼ Front Passenger's Seat Child- Restraint System Installation

1. Slide the seat as far back as possible.



2. Secure the child-restraint system with the lap portion of the lap/shoulder belt. See the manufacturer's instructions on the child-restraint system for belt routing instructions.
3. To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire length of the belt is out of the retractor.
4. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. Clicking from the retractor will be heard during retraction if the system is in automatic locking mode. If the belt does not lock the seat down tight, repeat the previous step and also this one.

⚠ WARNING

Children and Another Person with Side and Curtain Air Bags:
Allowing anyone to lean over or against the front door, the arm of front seat, front and rear window pillars and the roof edge along both sides which the side and curtain air bags deploy may result in a child-restraint system being damaged. If the vehicle is equipped with side and curtain air bags, the impact of inflation could cause serious injury or death to the child. Furthermore, leaning over or against the front door could block the side and curtain air bags and obstruct the advancement of supplemental protection. With the front air bag and the additional side air bag that comes out of the front seat, the way you sit is always a factor location for children. Do not allow a child to lean over or against the doors, even if the child is seated in a child-restraint system.

2-30

2-29

Exempted Safety Equipment
Child Restraint

Exempted Safety Equipment
Child Restraint

LATCH Child-Restraint Systems

Your March is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear outboard seats. Both anchors must be used. Otherwise the seat will become around and put the child in danger. Some LATCH child-restraint systems must also be used in conjunction with a tether to be effective. If they have a tether you must use it to better secure your child's safety.

⚠ WARNING

Manufacturer's Instructions for Child-Restraint Systems:
An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure the child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions.

Attaching Two Child-Restraint Systems to the Same LATCH Lower Anchor:
Attaching two child-restraint systems to the same LATCH lower anchor is dangerous. In a collision, one anchor may not be strong enough to hold two child-restraint systems. This could cause one or both child-restraint systems to detach, causing serious injury or death. If you use the seat attachment and way bracket, attaching systems when an outboard LATCH position is possible for another child-restraint system when an outboard LATCH position is occupied, use the center seat belt harness, and the tether if tether-equipped.

Unsecured Child-Restraint System:
An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Follow the child-restraint system manufacturer's instructions on belt routing to secure the seat just as you would with a child in it so that nobody is tempted to put a child in an improperly secured seat later on. When not in use, remove it from the vehicle or fasten it with a seat belt, or lock it down to BOTH LATCH lower anchors for LATCH child-restraint systems.

LATCH Child-Restraint Systems:
Not following the child-restraint system manufacturer's instructions when installing the child-restraint system is dangerous. If seat belts or a foreign object prevent the child-restraint system from being securely attached to the LATCH lower anchors and the child-restraint system is installed improperly, the child-restraint system could move in a sudden stop or collision causing serious injury or death to the child or other occupants. When installing the child-restraint system, make sure there are no seat belts or foreign objects near or around the LATCH lower anchors. Always follow the child-restraint system manufacturer's instructions.

2-32

⚠ WARNING

Seating a Child in a Child-Restraint System on the Front Passenger Seat With the Front Passenger Air Bag. Deactivation Indicator Light Not Illuminated:
Seating a child in a child-restraint system installed on the front passenger seat with the front passenger air bag deactivation indicator light not illuminated is dangerous. If the front passenger air bag deactivation indicator light does not illuminate even when the total seated weight is less than approximately 30 kg (66 lb), this means that the front passenger front and side air bags, and seat belt pretensioners are ready for deployment. If an accident were to happen, a child sitting in the front passenger seat could be seriously injured or killed. If the front passenger air bag deactivation indicator light does not illuminate after installing a child-restraint system on the front passenger seat, install the child-restraint system on the rear seat and consult an Authorized Maple Dealer as soon as possible. While it is always better to install any child-restraint system on the rear seat, it is essential to do so if the front passenger air bag deactivation indicator light does not illuminate. For further details, refer to "Front passenger seat weight sensors (page 2-44)".

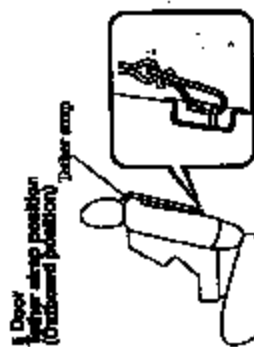
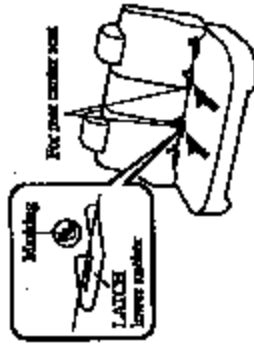
2-31

Child Restraint

Child Restraint System Installation Procedure (Rear Center Seat)

The LATCH lower anchors at the center of the rear seat are spaced further apart than the sets of LATCH lower anchors for child-restraint system installation at other seating positions. Child-restraint systems with rigid LATCH attachments cannot be installed on the center seating position. Some LATCH equipped child-restraint systems can be placed in the center position and will reach the nearest LATCH lower anchors which are 400 mm (15.75 in) apart. LATCH compatible child-restraint systems (with attachments on both webbing) can be used at this seating position only if the child-restraint system manufacturer's instructions state that the child-restraint system can be installed to LATCH lower anchors that are 400 mm (15.75 in) apart. Do not attach two child-restraint systems to the same LATCH lower anchor. If your child-restraint system has a warning, it must also be used for your child's optimum safety.

1. Make sure the seatback is securely latched by rocking the seatback.
2. Expand the area between the seat bottom and the seatback slightly to verify the locations of the LATCH lower anchors.



WARNING

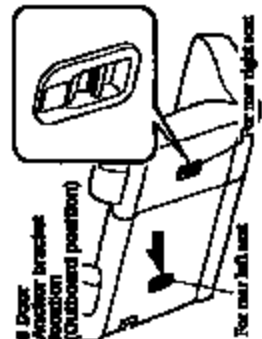
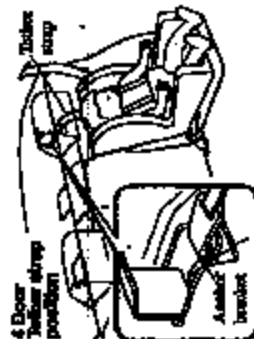
Child-Resistant Tethering System.
Using the tether or tether anchor to secure anything but a child-restraint system is dangerous. This could weaken or damage the tether or tether anchor and result in injury. Use the tether and tether anchor only for a child-restraint system.

Forward Positioning of the Tether.
Securing the tether strap on top of the head restraint is dangerous. In a collision, the head restraint could bend or break. This will cause the strap to loosen. The child-restraint system could move and injure the child or someone else. Always position the tether strap between the head restraint and the seatback.

2-34

Child Restraint

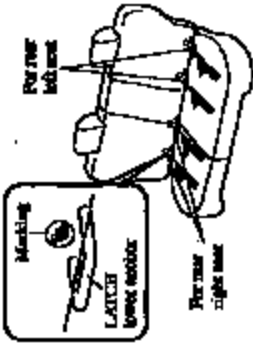
4. If your child-restraint system came equipped with a tether, that probably means it is very important to properly secure the tether for child safety. Please carefully follow the child-restraint system manufacturer's instructions when installing tethers.



2-35

Child-Resistant System Installation Procedure (Rear Outboard Seats)

1. Make sure the seatback is securely latched by rocking the seatback.
2. Expand the area between the seat bottom and the seatback slightly to verify the locations of the LATCH lower anchors.



NOTE
The markings above the LATCH lower anchors indicate the locations of LATCH lower anchors for the attachment of a child-restraint system.

3. Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instructions.

Supplemental Restraint Systems (SRS) Air Bags

Supplemental Restraint Systems (SRS) Precautions

The front and side supplemental restraint systems (SRS) include up to 6 air bags (verify "SRS AIRBAG" location indicator marks). They are located in:

- The steering wheel hub (driver air bag)
- The front passenger dashboard (front passenger air bag)
- The outboard sides of the front seatbacks (side air bags)*
- The front and rear window pillars, and the roof edge along both sides (curtain air bags)*

These systems operate independently depending on the type of accident encountered; if you have side and curtain air bags, the side and curtain air bags are not likely to deploy on both sides in the same accident because a vehicle is not often hit from both sides. The side and curtain air bags and the front air bag system will not normally deploy during the same type of accident unless a combination of frontal and side impacts occur.

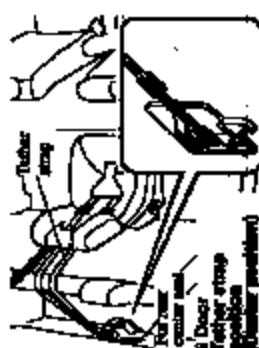
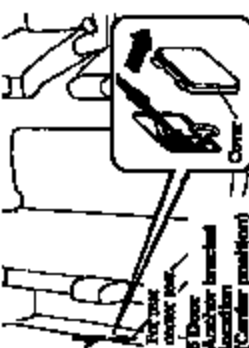
The air bag supplemental restraint systems are designed to provide supplemental protection only in the front seats in certain situations and the rear outside passenger positions only in same-side collisions, so seat belts are always important in the following ways:

Without seat belt usage, the air bags cannot provide adequate protection during an accident. Seat belt usage is necessary to:

- Keep the passenger away from an inflating air bag.
- Reduce the possibility of injuries during an accident that is not designed for air bag inflation, such as roll-over or rear impact.
- Reduce the possibility of injuries in frontal or side collisions that are not severe enough to activate the air bags.
- Reduce the possibility of being thrown from your vehicle.
- Reduce the possibility of injuries to lower body and legs during an accident because the air bags provide no protection to these parts.
- Hold the driver in a position which allows better control of the vehicle.

2-36 *Vehicle models*

Child Restraint



WARNING

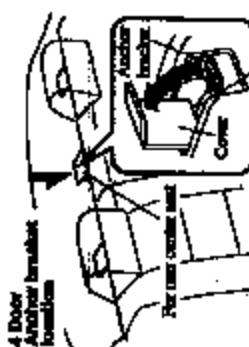
Child Restraint Tether Usage:
Using the tether or tether anchor to secure anything but a child-restraint system is dangerous. This could weaken or damage the tether or tether anchor and result in injury. Use the tether and tether anchor only for a child-restraint system.

2-35

NOTE
The markings above the LATCH lower anchors indicate the locations of LATCH lower anchors for the attachment of a child-restraint system.

3. Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instructions.

4. If your child-restraint system comes equipped with a tether, that probably means it is very important to properly secure the tether for child safety, please carefully follow the child-restraint system manufacturer's instructions when installing tethers.

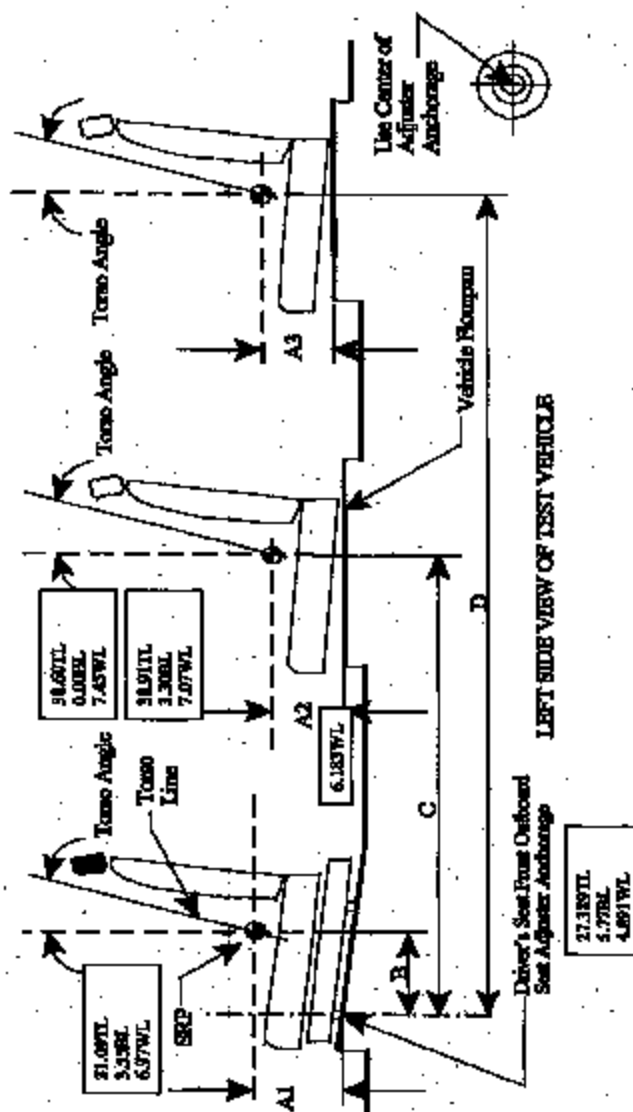


APPENDIX B
MANUFACTURER'S DATA (OVSC FORM 1)

FORM 14
 Page 1 of 11

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

Model Year: 2009-2011 ; Make: Mercedes ; Model: Mercede ; Body Style: 4dr Sedan
 Seat Style: Front row: Bucket ; Second row: Bench ; Third row: N/A



FORM 14
 Page 2 of 11

Table 1. Seating Positions and Turn Angles

	Left (Driver Side)	Center (if any)	Right (Front Passenger)
A1	(Driver) 207.9		(Front Passenger) 207.9
A2	88.7	126.7	88.7
A3			
B	370.1		370.1
C	1152.1	1121.1	1152.1
D			
Turno Angle (degrees)	22		22
Front Row			
Second Row	25	25	25
Third Row			

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

FORM 14
Page 3 of 11

NOMINAL DESIGN RIDING POSITION -

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

Headrest pole angle for driver's seat = 16.7 degrees for seats equipped with seat-lifter and 14.5 degrees for seats NOT equipped with seat-lifter.

Measurement Instructions:

Seat back angle is measured at headrest pole, since there is no adjustment point on the back of seatback to put inclinometer. Adjust the seat back to the 7th latch from the first detent (0). Power seat is not available with this model.

Headrest pole angle for passenger's seat = 14.5 degrees.

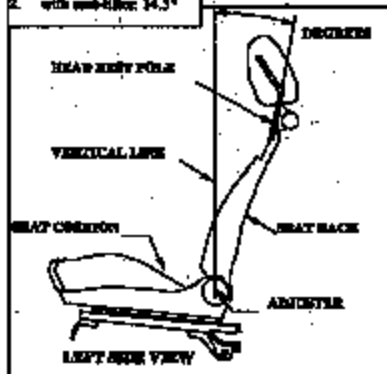
Measurement Instructions:

Seat back angle is measured at headrest pole, since there is no adjustment point on the back of seatback to put inclinometer. Adjust the seat back to the 7th latch from the first detent (0). Power seat is not available with this model. Seat-lifter is not available with passenger's seat.

Seat back angle for 2nd row seat = N/A

Measurement Instructions:

1. driver's seat: 16.7°
2. with seat-lifter: 14.5°



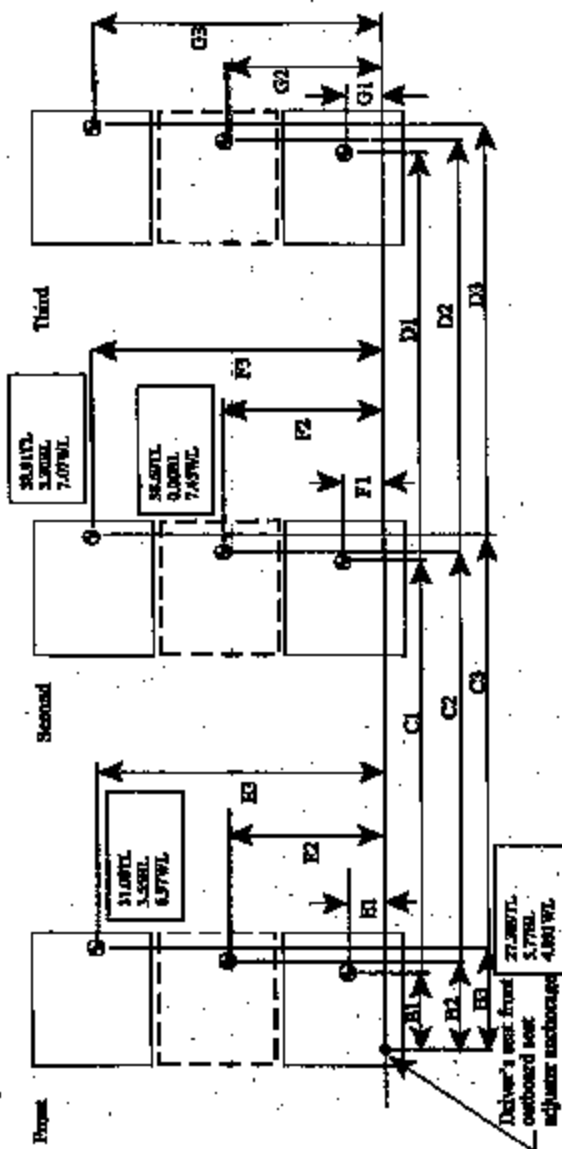
FORM 14
 Page 4 of 11

SEATING REFERENCE POINT
 FOR FMVSS 225

(All dimensions in mm)

(Note: The Child Restraint Anchorage Location determines the 225 SRP locations)

Model Year: 2004MY ; Make: Mazda ; Model: Mazda3 ; Body Style: 4dr Sedan
 Seat Style: Front row: Bucket ; Second row: Bench ; Third row: N/A



FORM 14
 Page 5 of 11

Table 2. Seating Reference Point and Tether Anchorage Locations

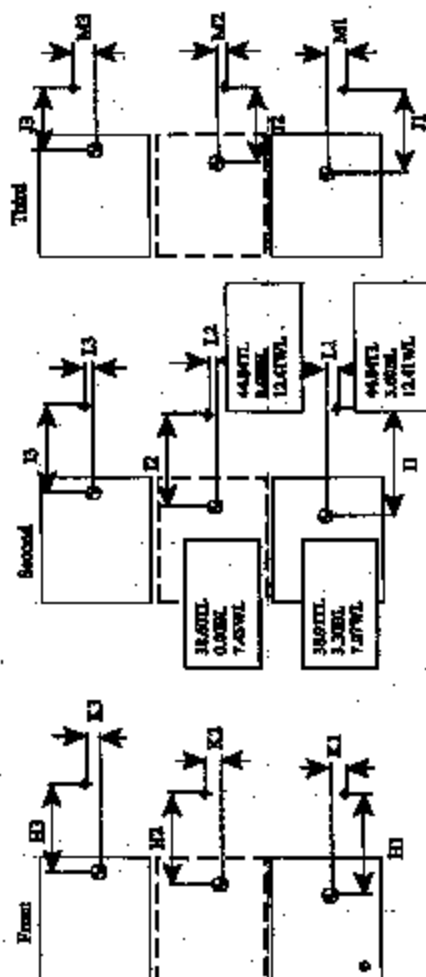
Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage ¹
Front Row	B1	370.1
	E1	222
	B4	
	B5	
	B3	370.1
	B3	932
Second Row	C1	782
	F1	247
	C2	751
	F2	577
	C3	782
	F3	907
Third Row	D4	
	G4	
	H4	
	G3	
	D3	
	G2	

Note: 1. Use the center of anchorage.

FORM 14
 Page 6 of 11

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

Model Year: 2004-2007 ; Make: Mercedes ; Model: Mercede 3 ; Body Style: 4dr Sedan
 Seat Style: Front row: Bucket ; Second row: Bench ; Third row: N/A



G: SEAT

↑: Tether anchorage

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

FORM 14
 Page 7 of 11

Table 3. Seating Reference Point and Tether Anchorage Locations

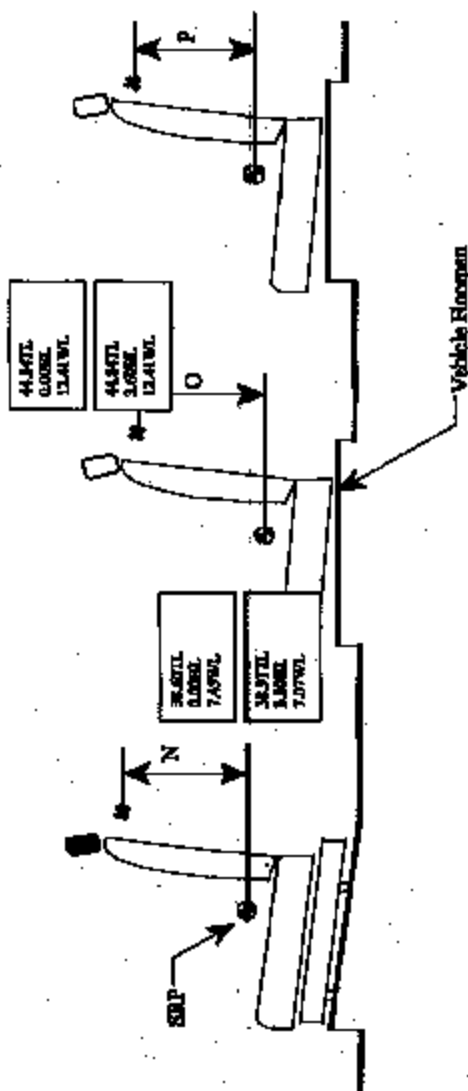
Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	
	K1	
	M1	
	N1	
	H3	
	K3	
Second Row	I1	593
	L1	30
	I2	684
	L2	0
	I3	593
	L3	30
Third Row	J1	
	M1	
	J2	
	M2	
	J3	
	M3	

Note: 1. Use the center of anchorage.

FORM 14
 Page 8 of 11

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

Model Year: 2004MY ; Make: Merch ; Model: Merch 3 ; Body Style: 4dr Sedan
 Seat Style: Front row: Bucket ; Second row: Bucket ; Third row: N/A



LEFT SIDE VIEW OF TEST VEHICLE

FORM 14
 Page 9 of 11

Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference Point
Front Row	N1 (Driver)
	N2 (Center)
	N3 (Right)
Second Row	O1 (Left)
	O2 (Center)
	O3 (Right)
Third Row	S1 (Left)
	S2 (Center)
	S3 (Right)

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

FORM 14
Page 10 of 11

Test Procedures Used for Compliance Tests

Lower Anchages

For each seating location in each row record applicable FMVSS Section		FMVSS 225 Section(s)			
Block 1		Lower anchorage location certification method used (Enter applicable section used in block 1 of each position by circling A or B) <u>(A) 9.2.1</u> or B) 12.1.2.2			
Block 2		Lower anchorage dimensions (Enter applicable section used in block 2 by circling A or B) <u>(A) 9.1.1</u> or B) 12.1.2.2 (also provide roll and yaw angles) pitch <u>42</u> roll <u>0</u> yaw <u>0</u>			
Block 3		Lower anchorage marking (Enter applicable section used in block 3 by circling A or B) <u>(A) 9.3</u> or B) 12.4			
Block 4		Strength requirements (Enter applicable section used in block 4 by circling A or B) <u>(A) Section 9</u> or B) Section 15			
Front	Driver	N/A			
	Center (if any)	Block 1 A →	Block 2 Pitch → Roll → Yaw → A →	Block 3 A →	Block 4 A →
	Right (if any)	Block 1 A →	Block 2 Pitch → Roll → Yaw → A →	Block 3 A →	Block 4 A →
Second	Left	Block 1 <u>(A)</u> →	Block 2 <u>(A)</u> → Pitch 12 → Roll 0 → Yaw 0 →	Block 3 <u>(A)</u> →	Block 4 <u>(A)</u> →
	Center	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
	Right (if any)	Block 1 <u>(A)</u> →	Block 2 <u>(A)</u> → Pitch 12 → Roll 0 → Yaw 0 →	Block 3 <u>(A)</u> →	Block 4 <u>(A)</u> →
Third	Left	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
	Center	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
	Right	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
Fourth	Left	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
	Center	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →
	Right	Block 1 A →	Block 2 A → Pitch → Roll → Yaw →	Block 3 A →	Block 4 A →

FORM 14
Page 11 of 11

Test Procedures Used for Compliance Tests

Tether Anchorage

For each seating location in each row record applicable FMVSS Section		FMVSS Section(s) - Req.		
Block 1		Tether anchorage location certification method used (Enter applicable section used in block 1 by circling A, B, C, D, E or F) (A) 6.2.1 (B) 6.2.1.1 (C) 6.2.1.2 (D) 6.2.2 (E) 6.2.2.1 (F) 6.2.2.2		
Block 2		Number or tether anchorages based upon the applicable section (Enter applicable section used in block 2 by circling A or B) (A) 4.4 (B) 4.5		
Block 3		Tether anchorage strength requirement (Enter applicable section used in block 3 by circling A, B, or C) (A) 6.3.1 (B) 6.3.2 (C) 6.3.4		
Front	Driver	N/A		
	Center (if any)	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Right (if any)	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Left	Block 1: (A) B C D E F	Block 2: (A) B	Block 3: (A) B C
Second	Center	Block 1: (A) B C D E F	Block 2: (A) B	Block 3: (A) B C
	Right	Block 1: (A) B C D E F	Block 2: (A) B	Block 3: (A) B C
Third	Left	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Center	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Right	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Left	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
Fourth	Center	Block 1: A B C D E F	Block 2: A B	Block 3: A B C
	Right	Block 1: A B C D E F	Block 2: A B	Block 3: A B C