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FINAL REPORT NUMBER 225-MGA-04-007

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

DAIMLER CHRYSLER CORPORATION
2004 DODGE DURANGO
NHTSA No. C40303

MGA RESEARCH CORPORATION
446 Executive Drive
Troy, Michigan 48083

Test Date: August 23, 2004
Report Date: September 23, 2004

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-221)
WASHINGTON, D.C. 20590

Prepared By: _____
Melanie Schick, Project Engineer

_____
Brad Reaume, Test Personnel

_____
Helen A. Kaleto, Laboratory Manager

Approved By: _____

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9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083		10. Work Unit No. 11. Contract or Grant No. DTNH22-02-D-11043
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15. Supplementary Notes		

16. Abstract

A compliance testing was conducted on the subject 2004 Dodge Durango, NHTSA No. C40303, 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 August 23, 2004. Test failures identified were as follows:

NONE

The data recorded indicates that the 2004 Dodge Durango tested appears to comply with the requirements for FMVSS 225, set forth by the National Highway Traffic Safety Administration.

17. Key Words Compliance Testing Safety Engineering FMVSS 225 2004 Dodge Durango		18. Distribution Statement Copies of this report are available From: NHTSA Technical Reference Division, Mail Code: NAD-52 400 Seventh Street, SW, Room 5108 Washington, D.C. 20590 Telephone No. (202) 366-4946	
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TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

LIST OF TABLES

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 Dodge Durango, NHTSA No. C40303 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 40/20/40 seat and a 3rd row two-passenger bench seat. Each 2nd row outboard seating position was equipped 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 822 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, Troy, Michigan on August 23, 2004.

Based on the test results, the 2004 Dodge Durango 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 11,313 N and held the required load for 2 seconds. The total displacement from point "X" on the SFADII for the 2nd row left occupant seating position was 61 mm. The SFADII at the 2nd row right occupant seating position sustained a maximum force of 9,984 N and held the required load for 1 second. The SFADI at the 2nd row center seating position sustained a maximum force of 10,021 N and held the required load for 2 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)
SB4648	SFAD II	Lower Only	2nd Row Left	11,313	61
		Lower and Top	2nd Row Right	9,984	N/A
SB4649	SFAD I	Top	2nd Row Center	10,021	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 Dodge Durango
VEH. NHTSA NO.	C40303
VIN	1D4HD48N04F114309
COLOR	Black
VEH. BUILD DATE	10/03
TEST DATE	August 23, 2004
TEST LABORATORY	MGA Research Corporation
OBSERVERS	Melanie Schick, Brad Reaume, Kenney Godfrey

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: DaimlerChrysler Corporation

Date of Manufacture: 10/03; VIN: 1D4HD48N04F114309

GVWR: 2994 kg; GAWR FRONT: 1407 kg

GAWR REAR: 1770 kg

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 227 kPa REAR: 227 kPa

Recommended Tire Size: P245/70R17

Recommended Cold Tire Pressure:

FRONT: 227 kPa REAR: 227 kPa

Size of Tire on Test Vehicle: P245/70R17

Type of Spare Tire: Standard: P245/65R17

VEHICLE CAPACITY DATA:

Type of Front Seats:	Bench ___;	Bucket X;	Split Bench ____	
Number of Occupants:	Front 2;	Middle 3;	Rear 2;	TOTAL 7

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 (10/26/04), S/N 256 (10/26/04)
Two (2) String Potentiometer	Calibrated at each use (S/N 21809, 20765)
Hydraulic Pump	N/A
MGA CRF Fixture	N/A
MGA SFAD2	N/A
MGA 2-Dimensional Template	N/A
Linear Scale	S/N 356 (06/17/05)
MGA Data Acquisition System	N/A
One (1) Hydraulic Cylinder	N/A
Digital Calipers	S/N MGA00053 (9/2/04)
Force Gauge	S/N MGA00058 (10/30/04)
Inclinometer (Digital)	S/N MGA00072 (1/29/05)

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	Sealed to prevent the entry of exhaust fumes
Front Row		N/A	N/A	N/A	N/A
Second Row	LH	Yes	Yes	Yes	Yes
	Ctr.	Yes	Yes	Yes	Yes
	RH	Yes	Yes	Yes	Yes
Third Row	LH	N/A	N/A	N/A	N/A
	RH				

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

REMARKS: NONE.

Table 4. Child Restraint Lower Anchorage Configuration (Data Sheet 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 75 mm above the bar, and in the vertical longitudinal plane that passes through the center of the bar.	LH	N/A	No		N/A
	Ctr		N/A		
	RH		No		
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	Yes		N/A
	Ctr				
	RH				
Diameter of the bar (mm)	LH	N/A	5.97	5.99	N/A
	Ctr		N/A		
	RH		5.98	6.00	
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	42		N/A
	Ctr		N/A		
	RH		41		
Measure the distance between the SRP to the center of the anchorage bar (mm)	LH	N/A	177		N/A
	Ctr		N/A		
	RH		183		

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

OBSERVED LOWER ANCHORAGE CONFIGURATION	SEAT POSITION				
		FRONT ROW	SECOND ROW I/B	SECOND ROW O/B	THIRD ROW
Inspect if the centroidal longitudinal axes are collinear within 5 degrees	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
Inspect if the inside surface of the bar that is straight and horizontal section of the bars, and determine they are not less than 25 mm, but not more than 40 mm in length (mm).	LH	N/A	33	33	N/A
	Ctr		N/A		
	RH		33	33	
Inspect if the bars can be connected to, over their entire inside length by the connectors of child restraint system.	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
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 ± 1 mm (mm).	LH	N/A	280		N/A
	Ctr		N/A		
	RH		280		
Inspect if the bars are an integral and permanent part of the vehicle.	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		
Inspect if the bars are rigidly attached to the vehicle. If feasible, hold the bar firmly with two fingers and gently pull.	LH	N/A	Yes		N/A
	Ctr		N/A		
	RH		Yes		

PITCH, YAW, & ROLL INFORMATION

SEAT POSITION	PITCH (deg)	YAW (deg)	ROLL (deg)
2nd Row Left	15.0	No Data	0.2
2nd Row Center	N/A	N/A	N/A
2nd Row Right	15.0	No Data	0.3

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	LH	N/A
	Ctr.	
	RH	
Second Row	LH	Yes
	Ctr.	Yes
	RH	Yes
Third Row	LH	N/A
	RH	

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

REMARKS: NONE

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

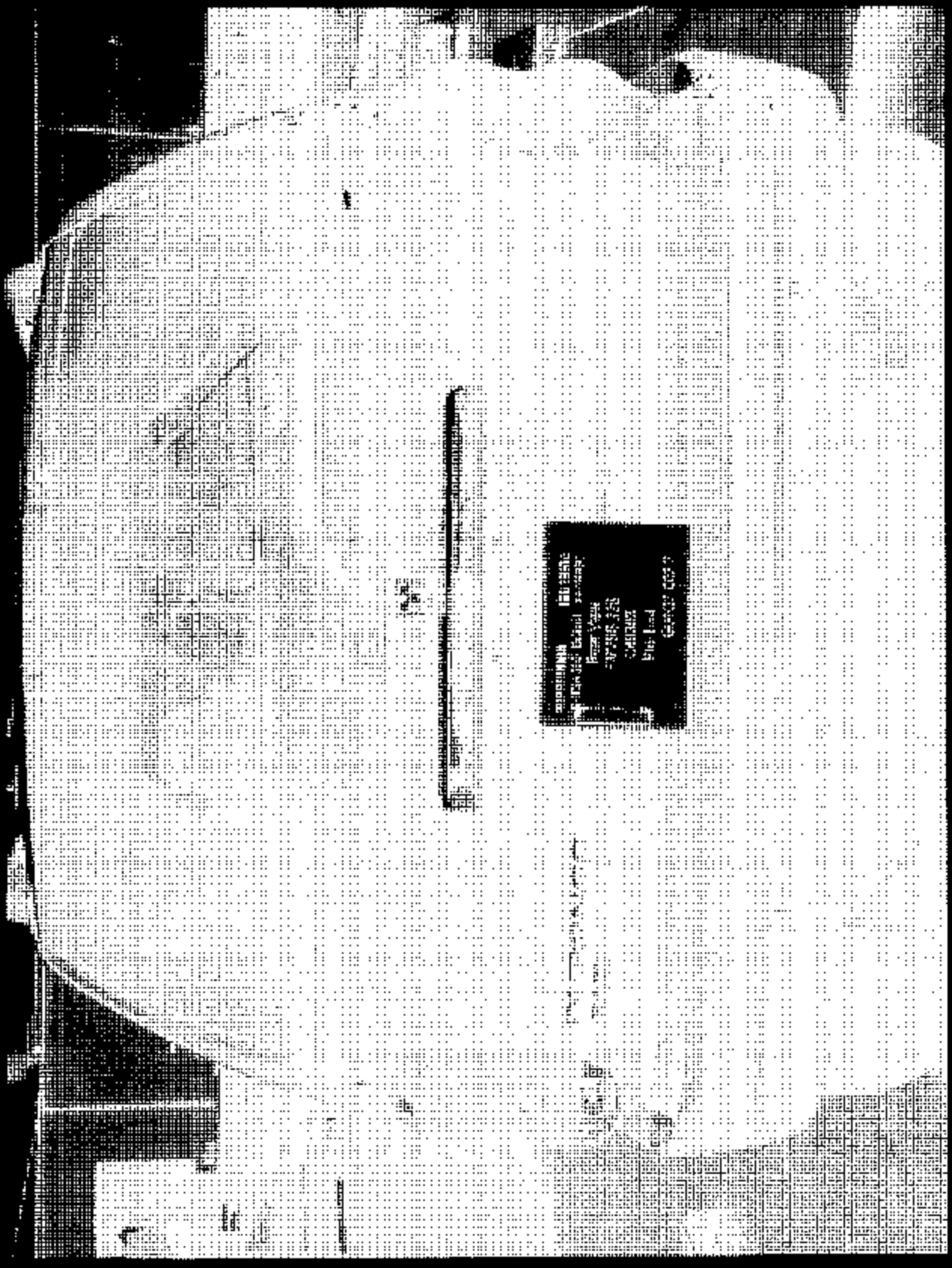
SEAT POSITION		Seat, Seat Back, & Head Restraint Positions			Angle (deg)	Initial Location (mm)	Onset Rate (N/sec.)	Force Applied (N)	Max. Load (N)	Final Location (mm)	Horizontal Displ. (mm)
		Seat	Seat Back	Is There a H/R?							
Front Row	LH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ctr.										
	RH										
Second Row	LH	Fixed	Fixed	Yes†	9	24	3750	7,950	11,313*	85	61
	Ctr.	Fixed	Fixed	No	5	63	387	9,950	10,021*	143	81
	RH	Fixed	Fixed	Yes	9	N/A	387	9,950	9,984*	N/A	N/A
Third Row	LH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RH										

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

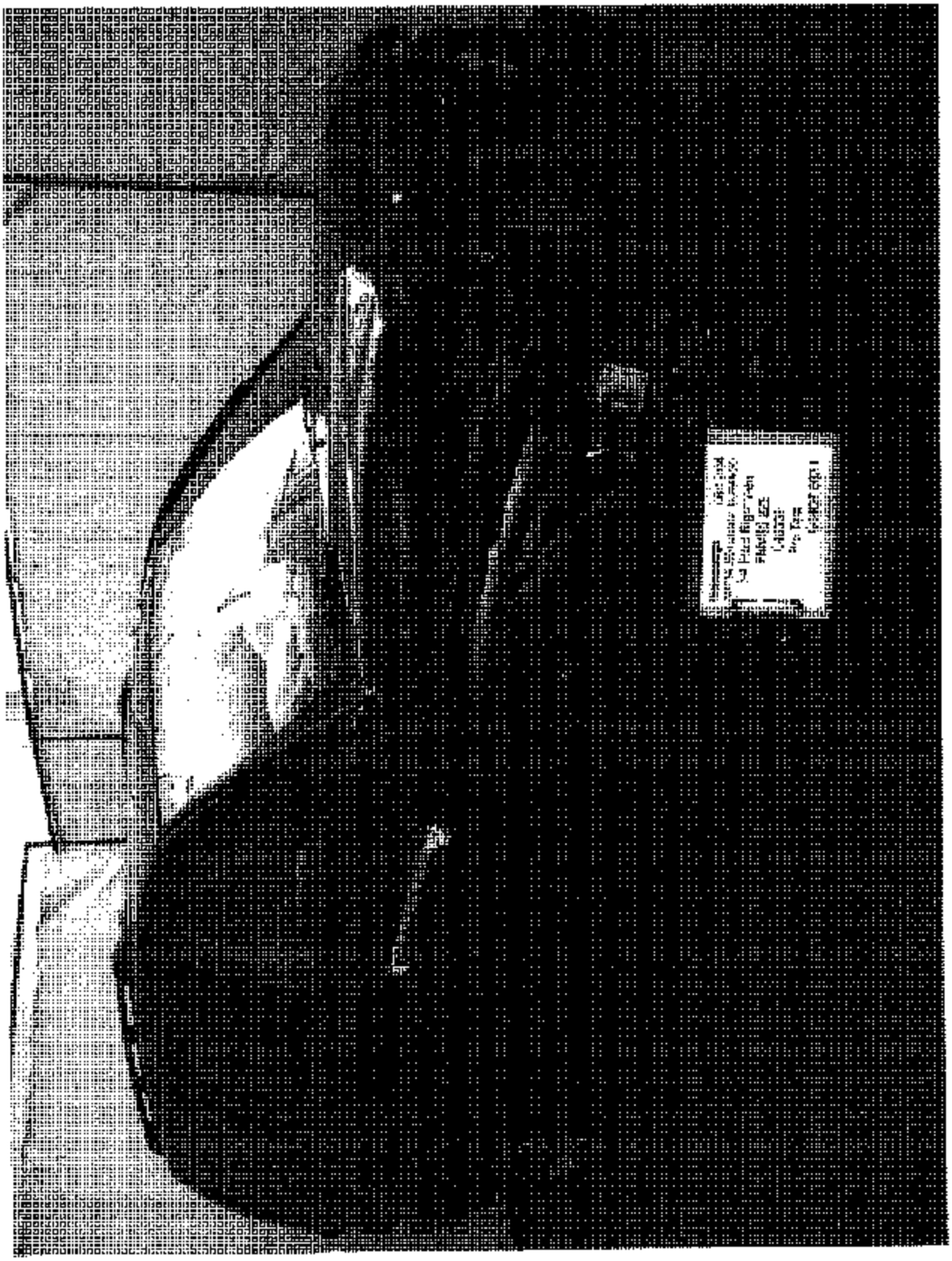
REMARKS: *Applied force exceeded the force specified in the test procedure.
†Upon receipt of the vehicle, no H/R was present.

6.0 PHOTOGRAPHS

6.1 Full rear view



6.2 ¾ Front right view



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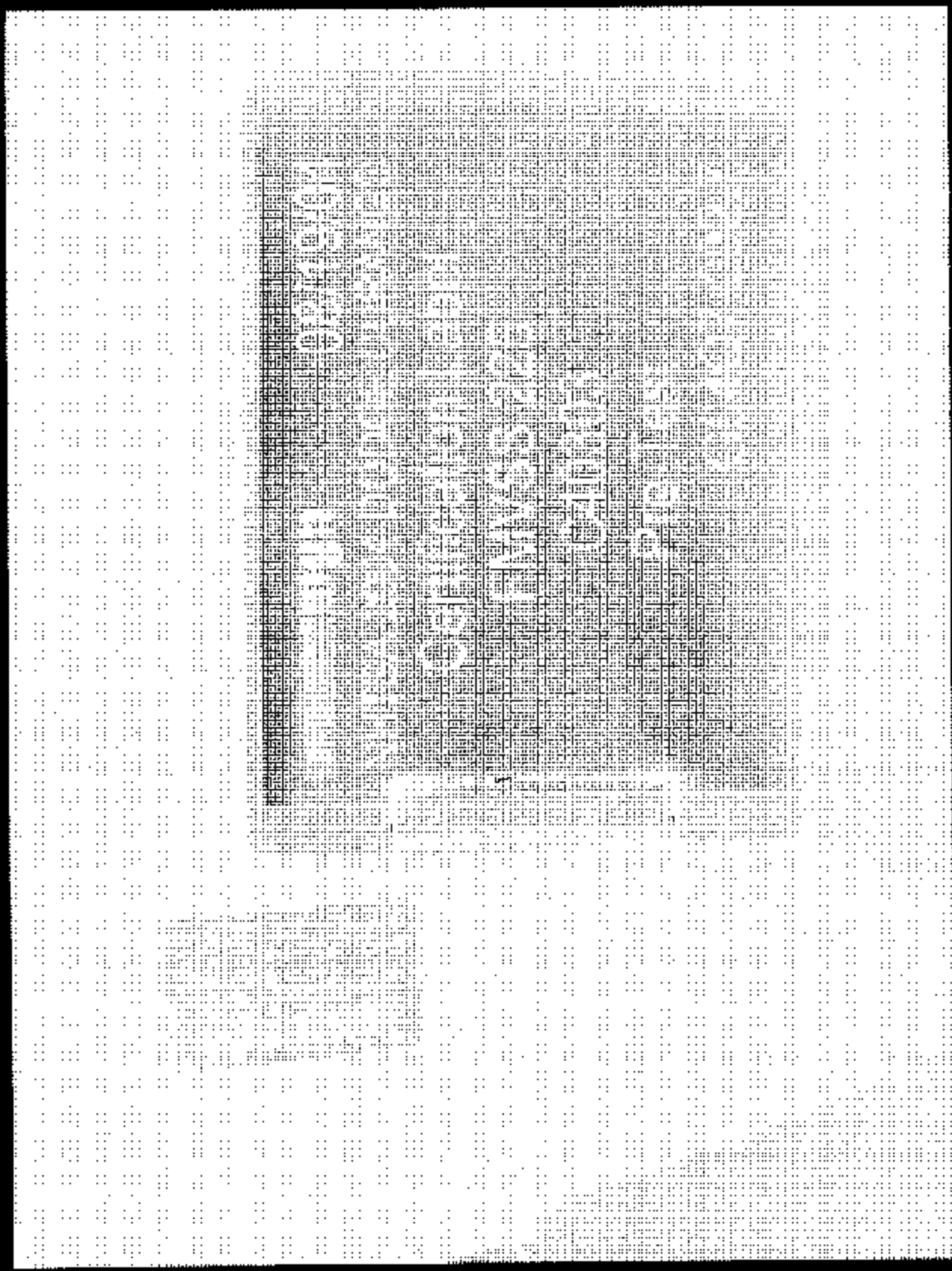
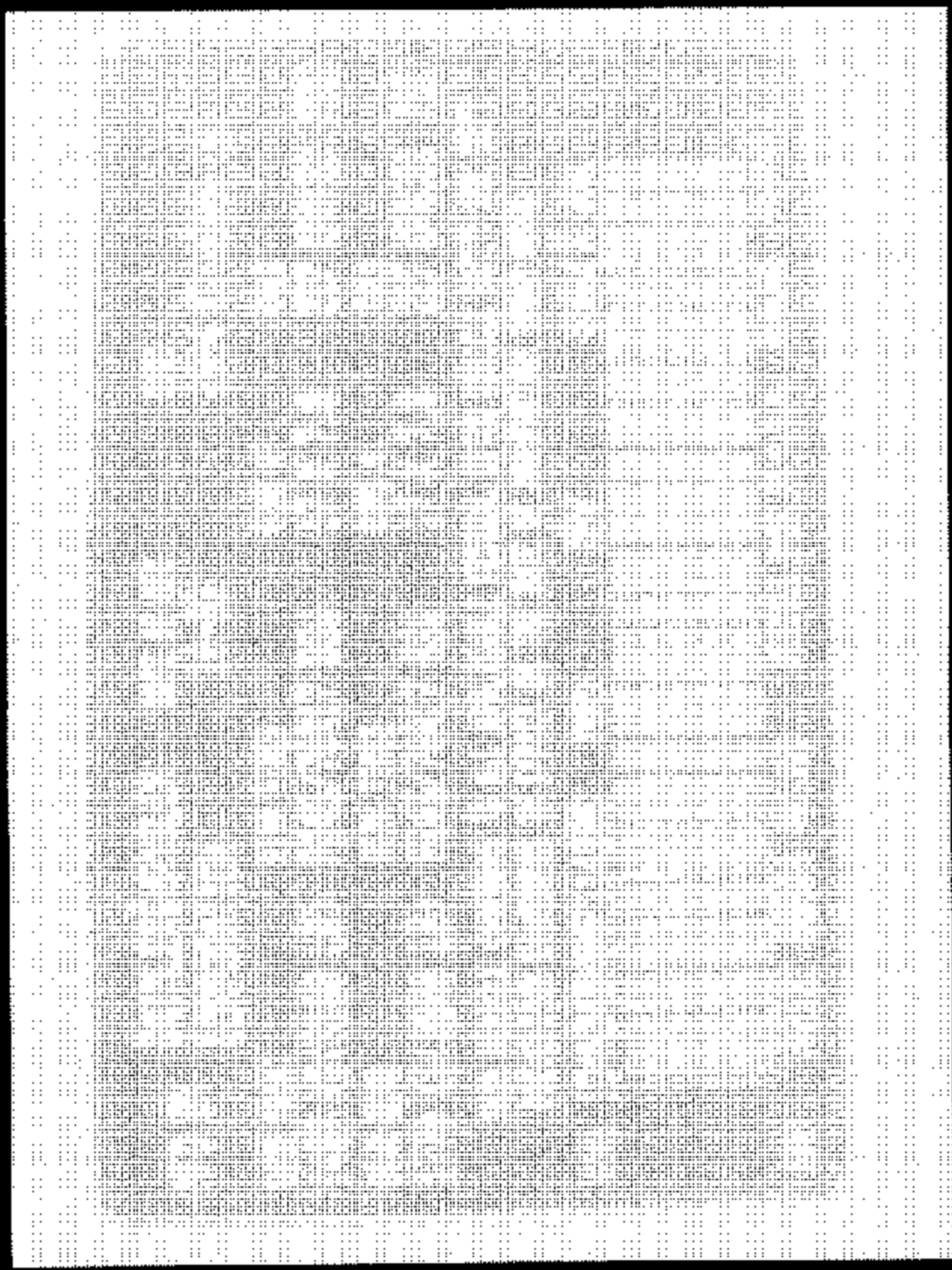
6.3 Test vehicle's certification label

6.3.1 Certification label



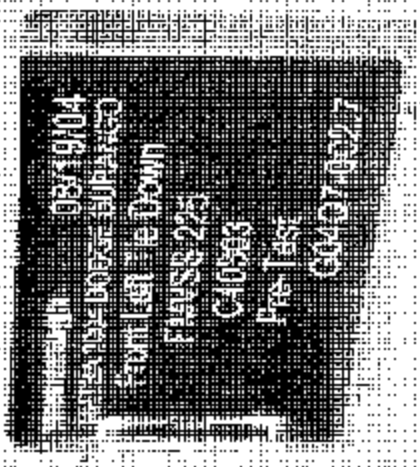
6.3.2 Certification label



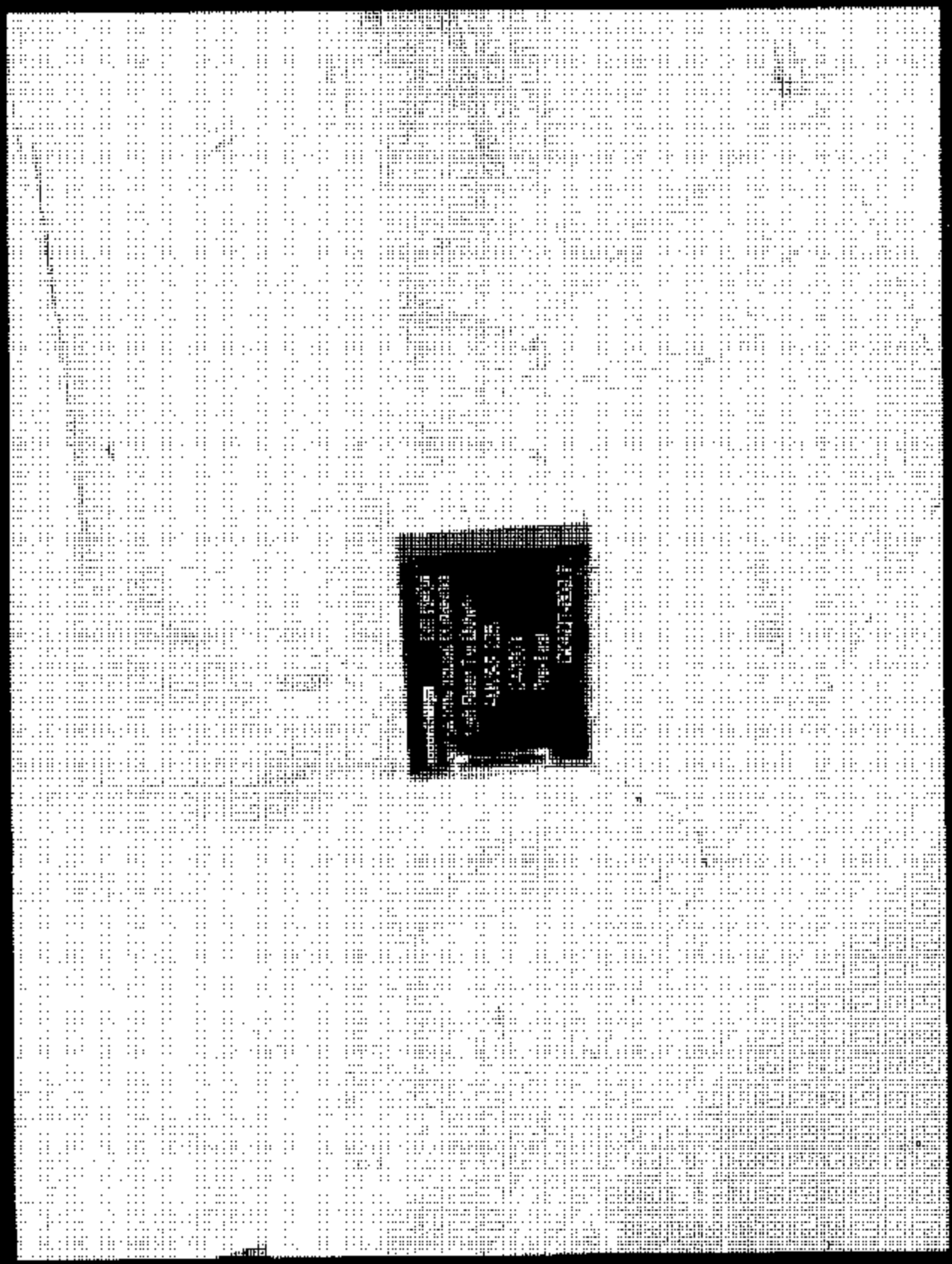
6.4 Vehicle tie down at each tie down location

6.4.1 Front under vehicle

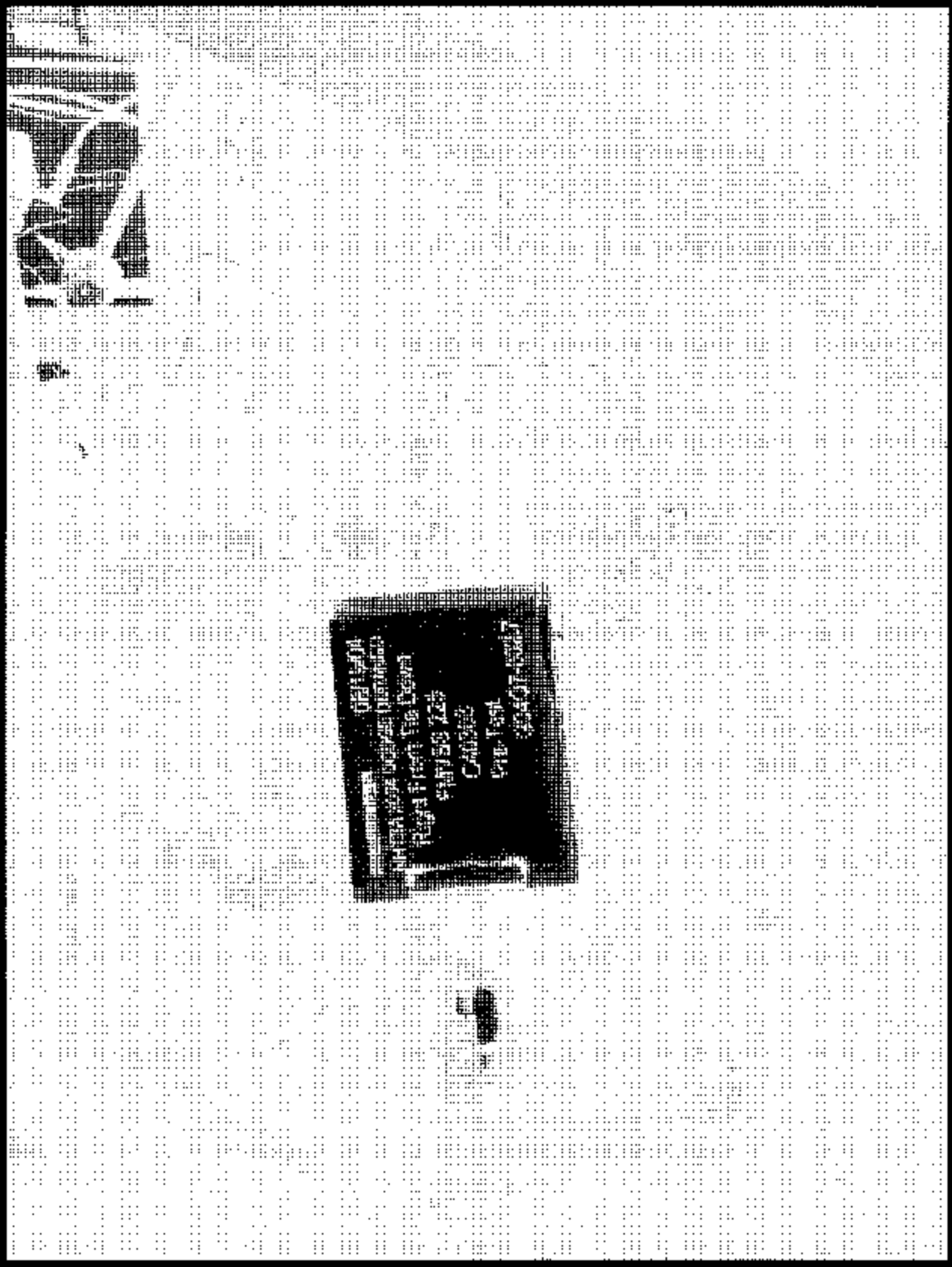
6.4.2 Left front



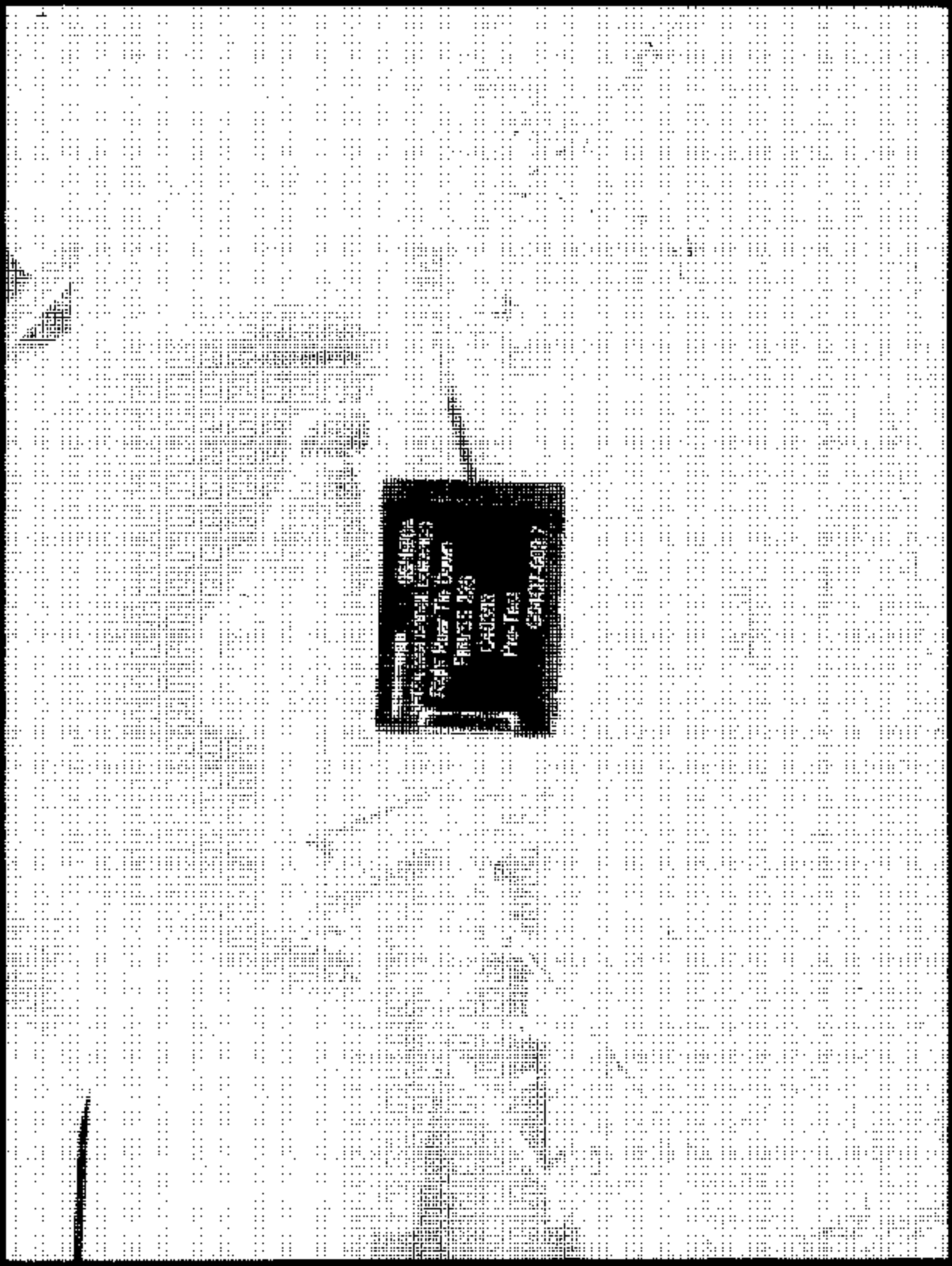
6.4.3 Left rear



6.4.4 Right front

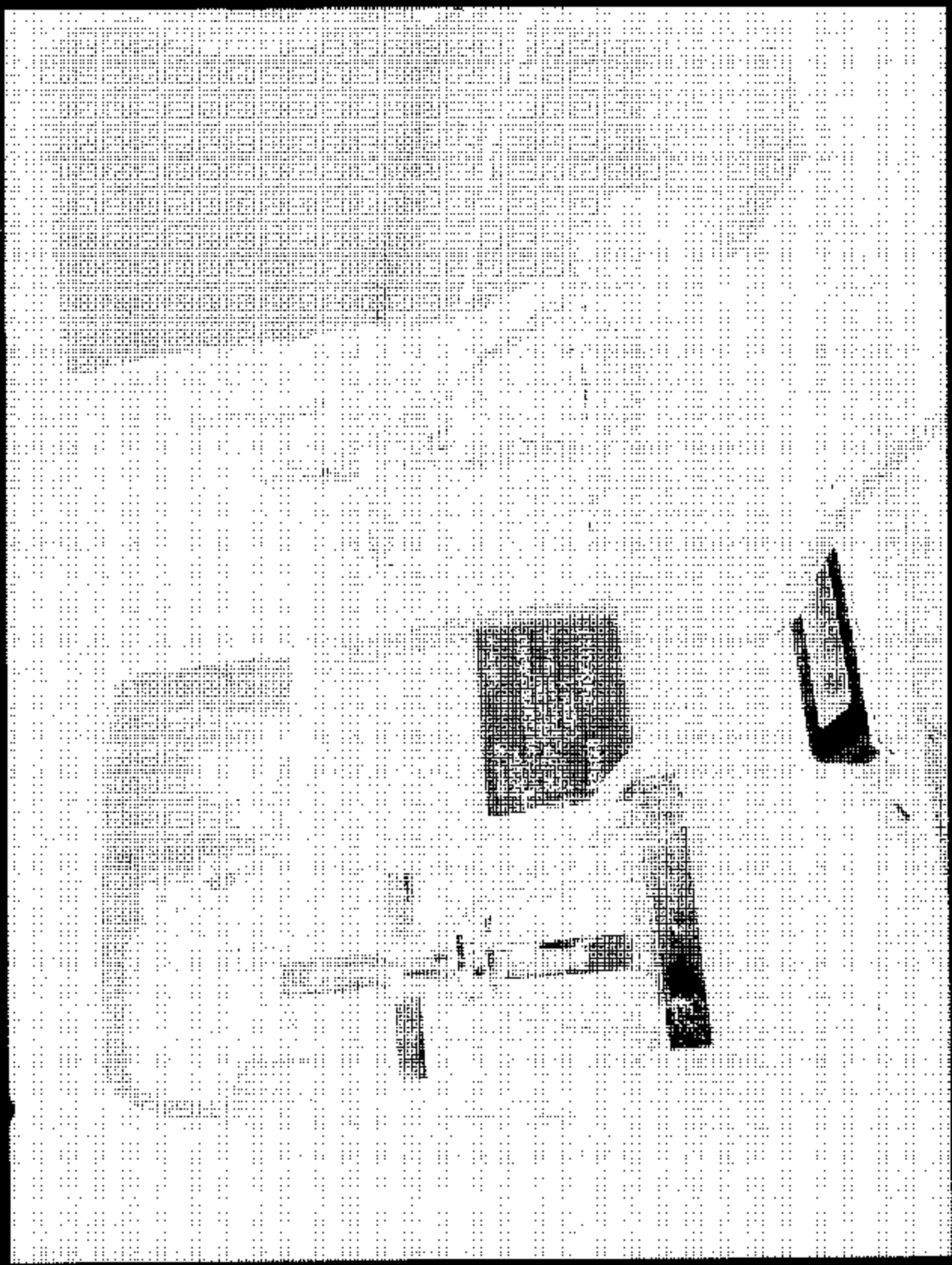


6.4.5 Right rear

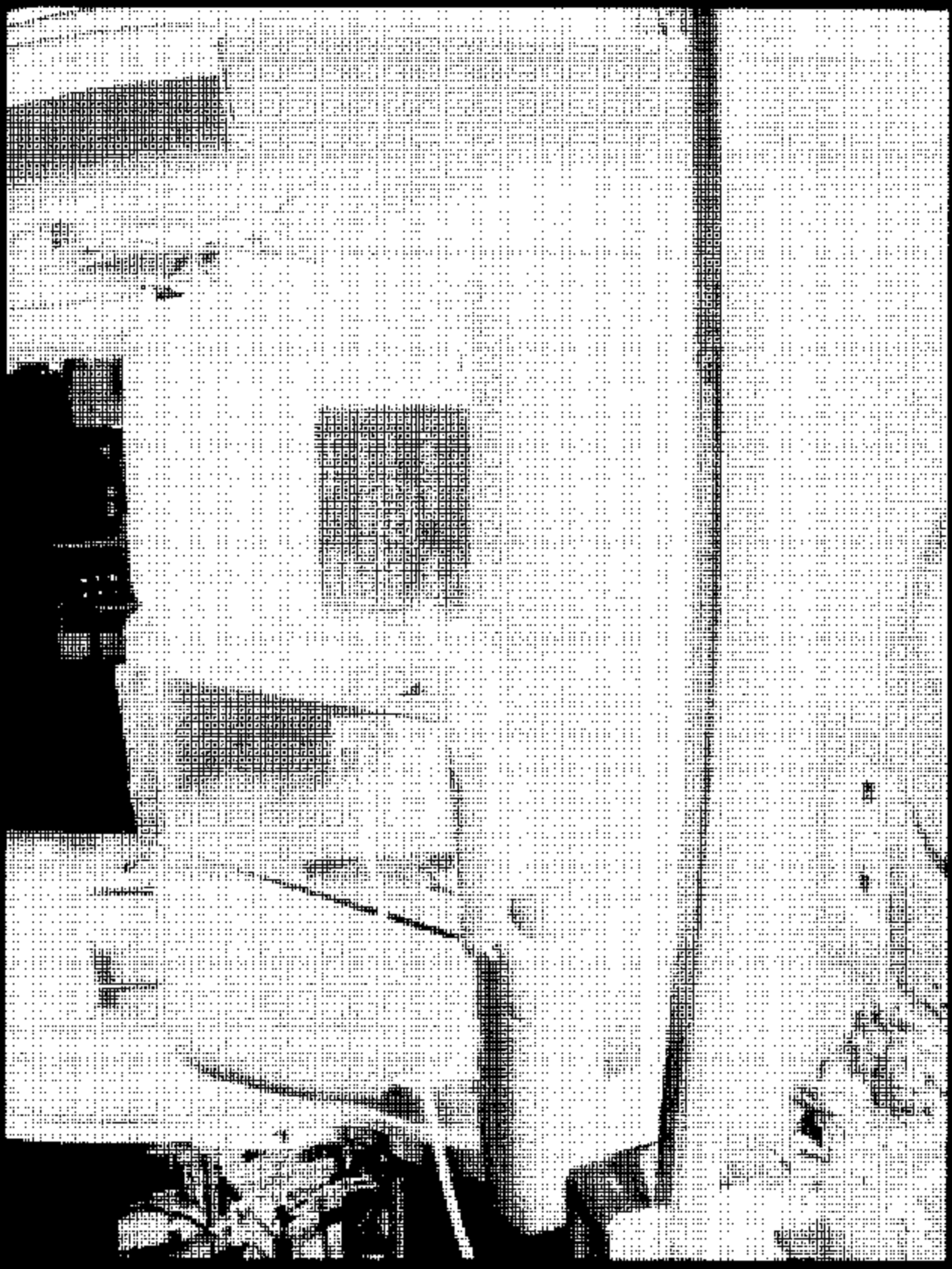


6.5 ¾ Front side view of test vehicle with test apparatus in place

6.5.1 Test 1 of 2



6.5.2 Test 2 of 2



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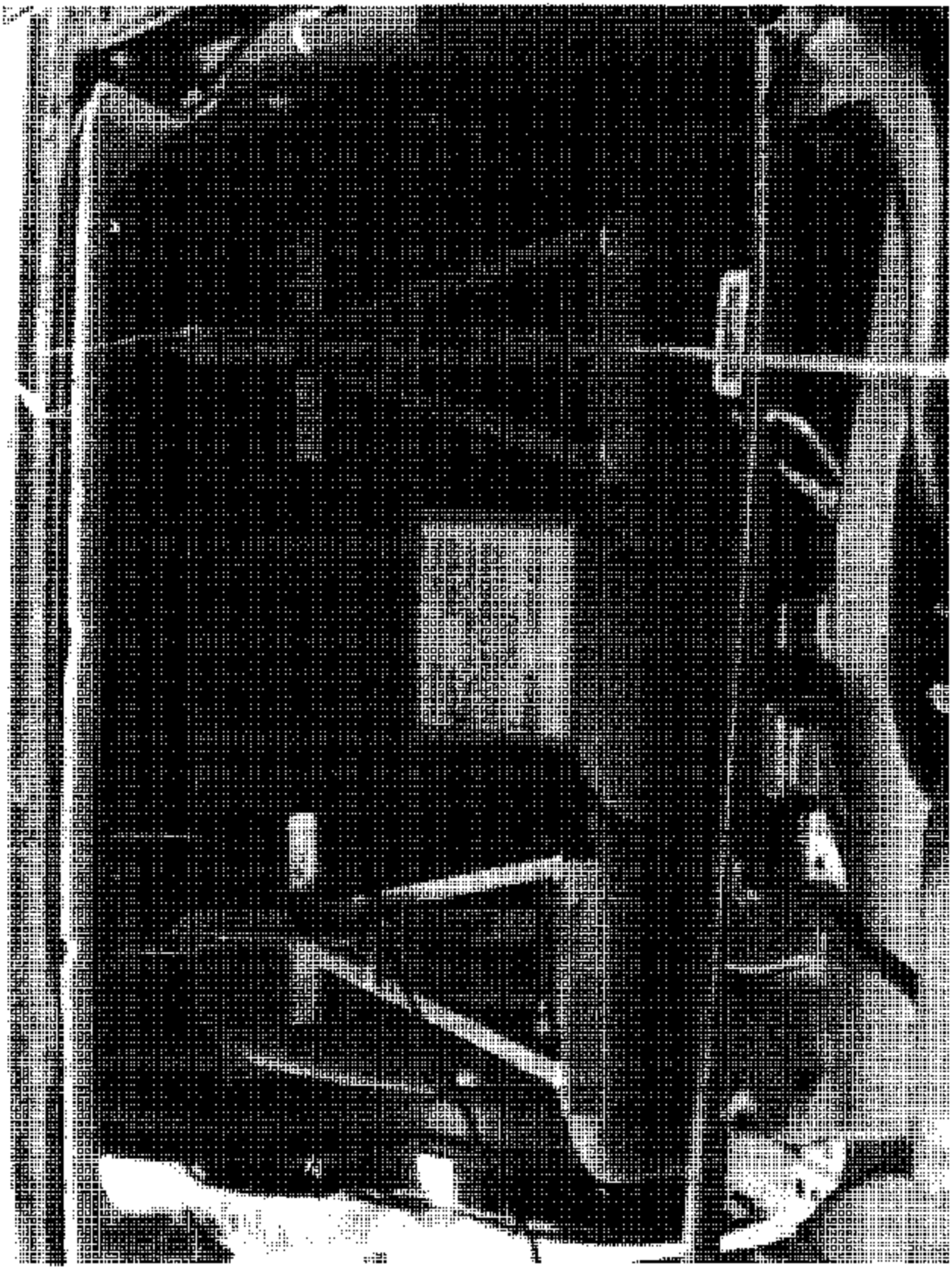
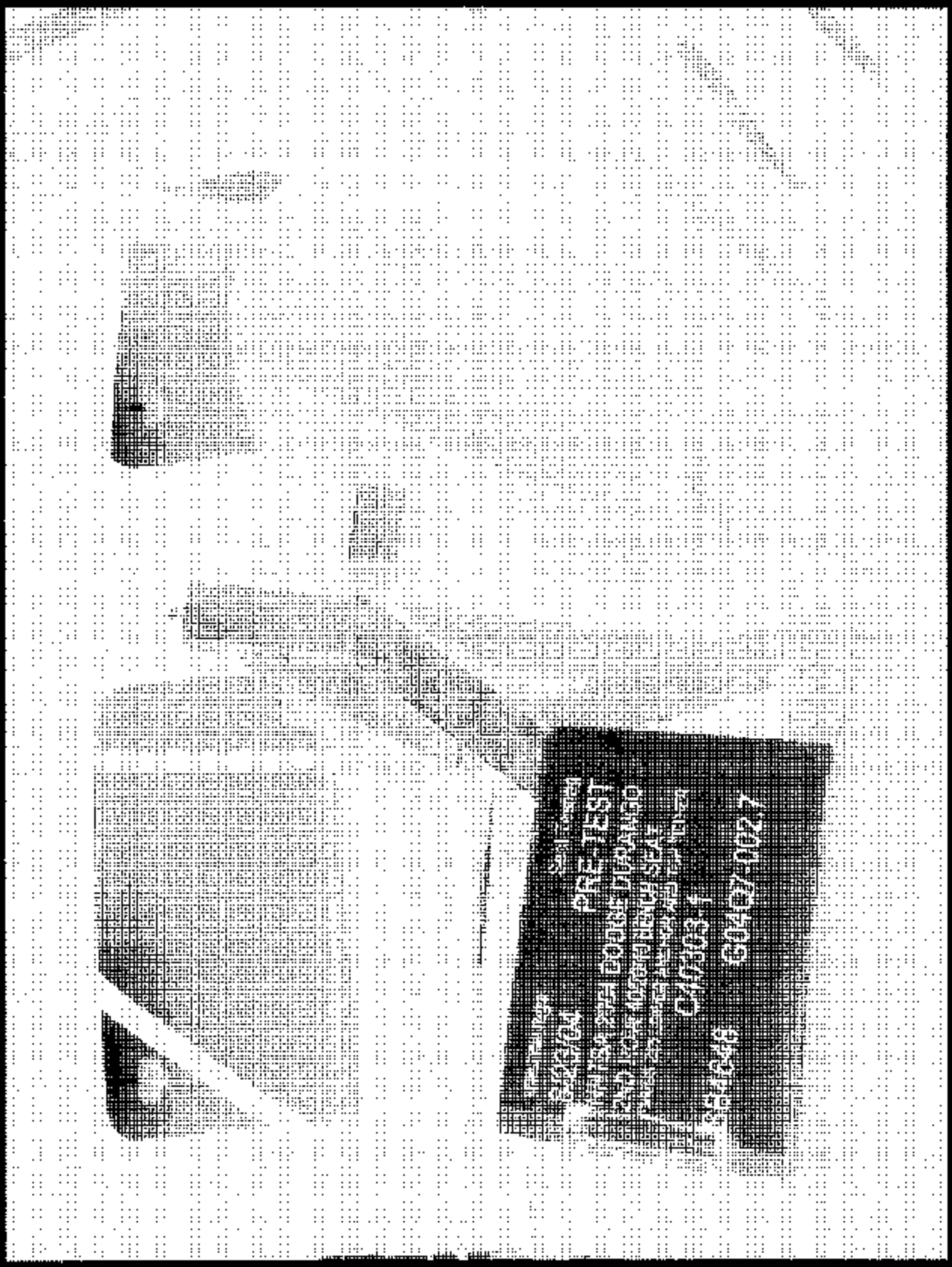
6.6 Pre-test views of each child restraint anchorage system installed in the vehicle

6.6.1 Pre-test photo #1 of SFADII test 1 of 2



6.6.2 Pre-test photo #2 of SFADII test 1 of 2



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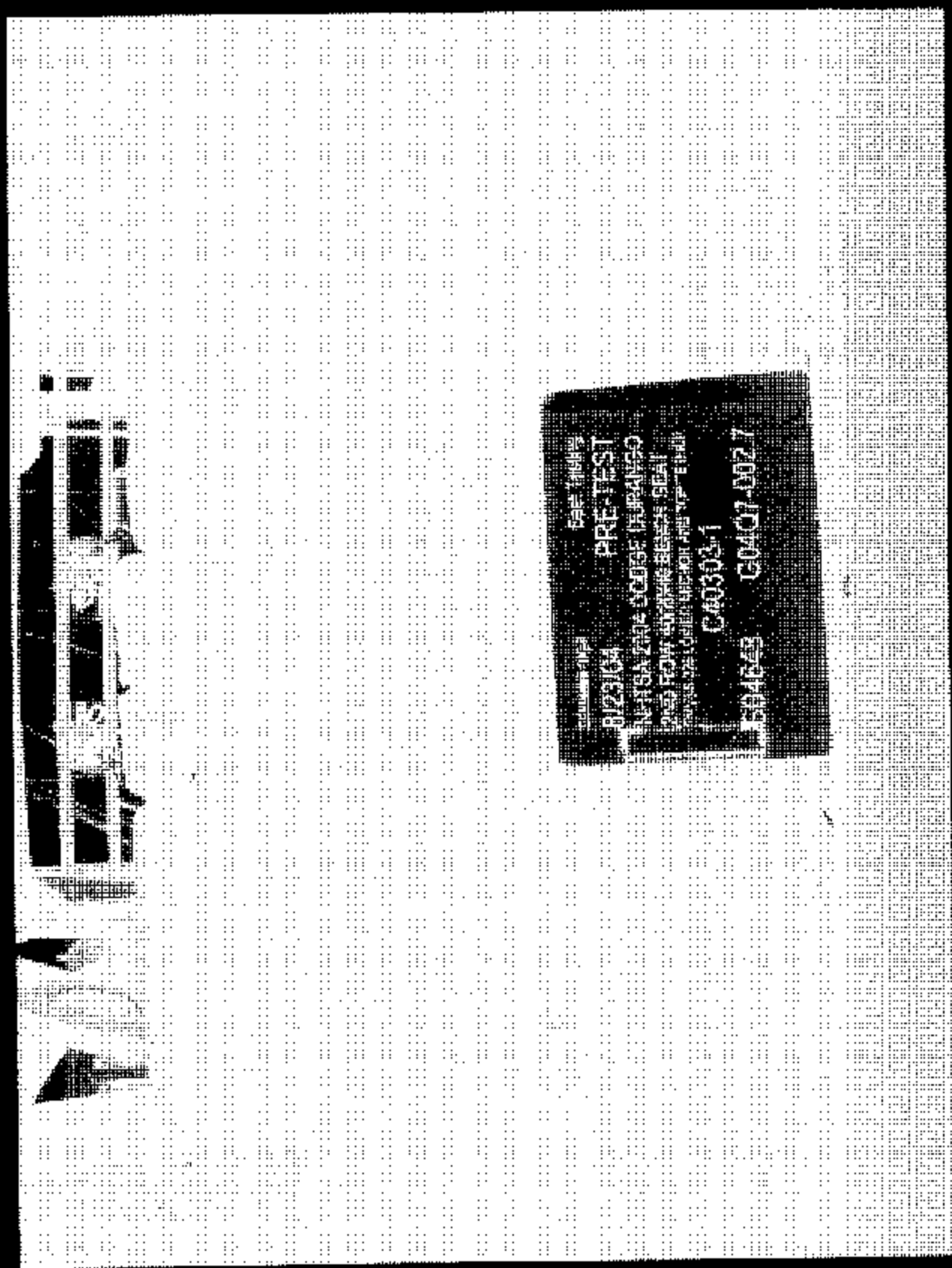

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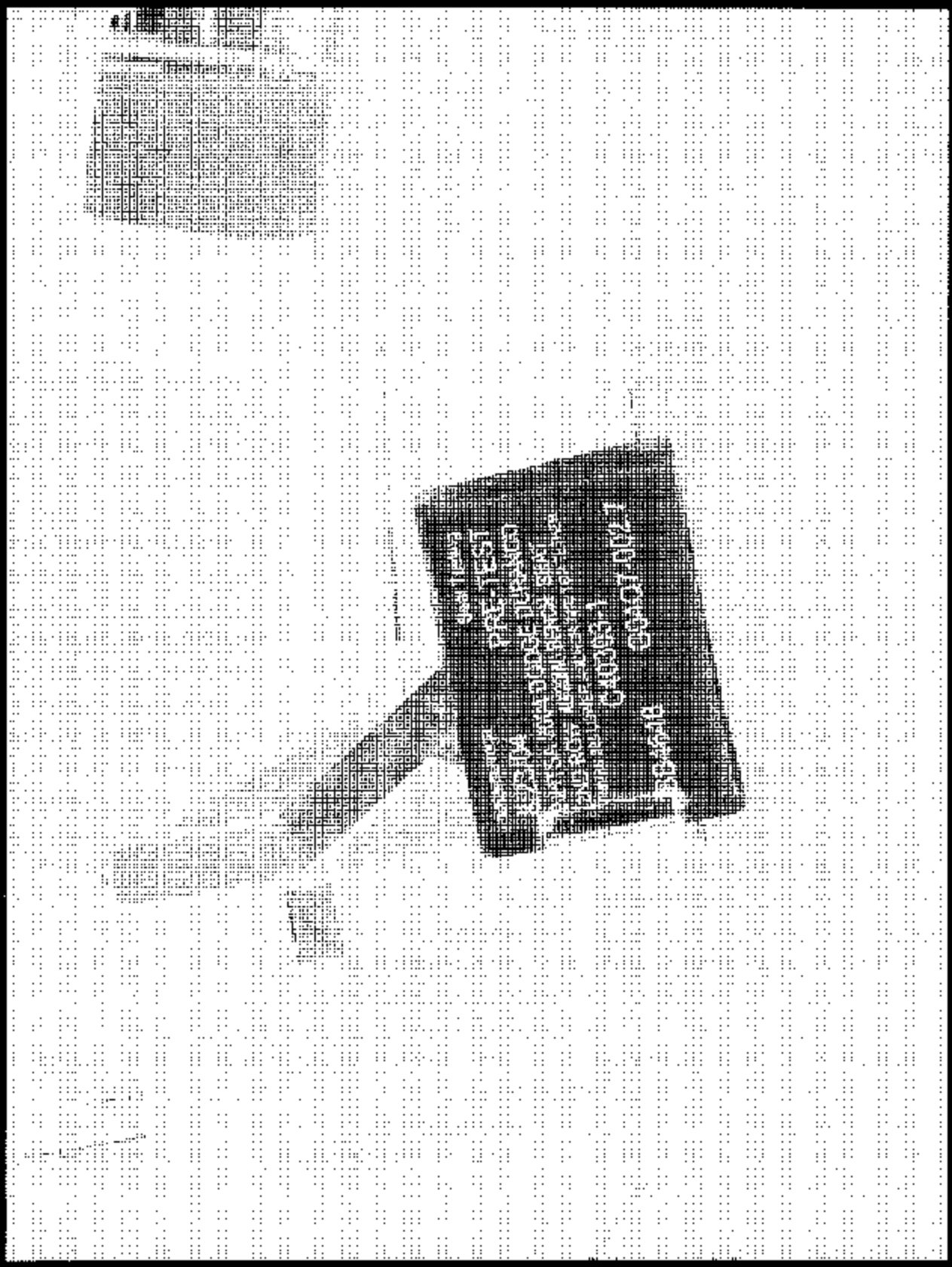
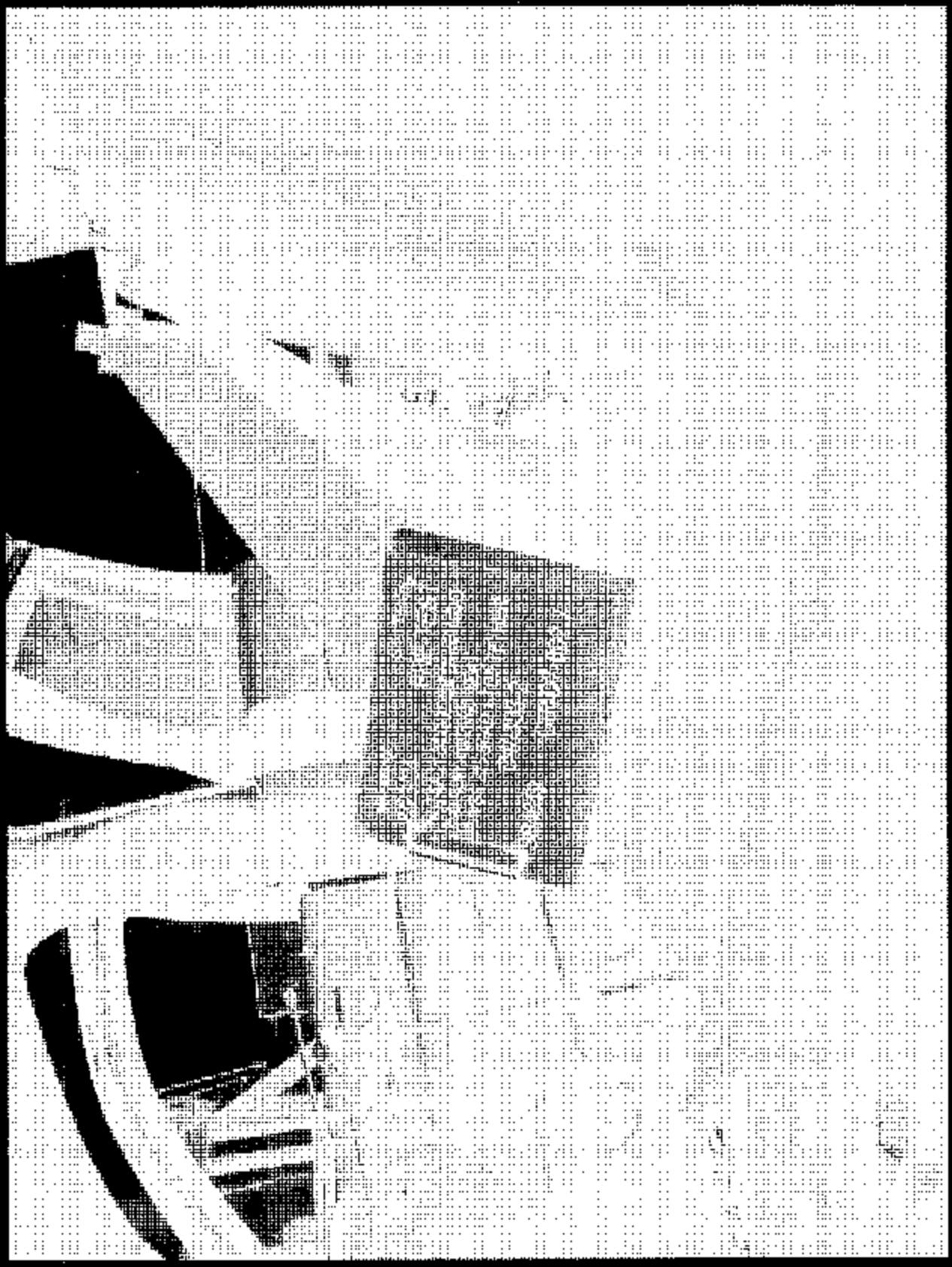
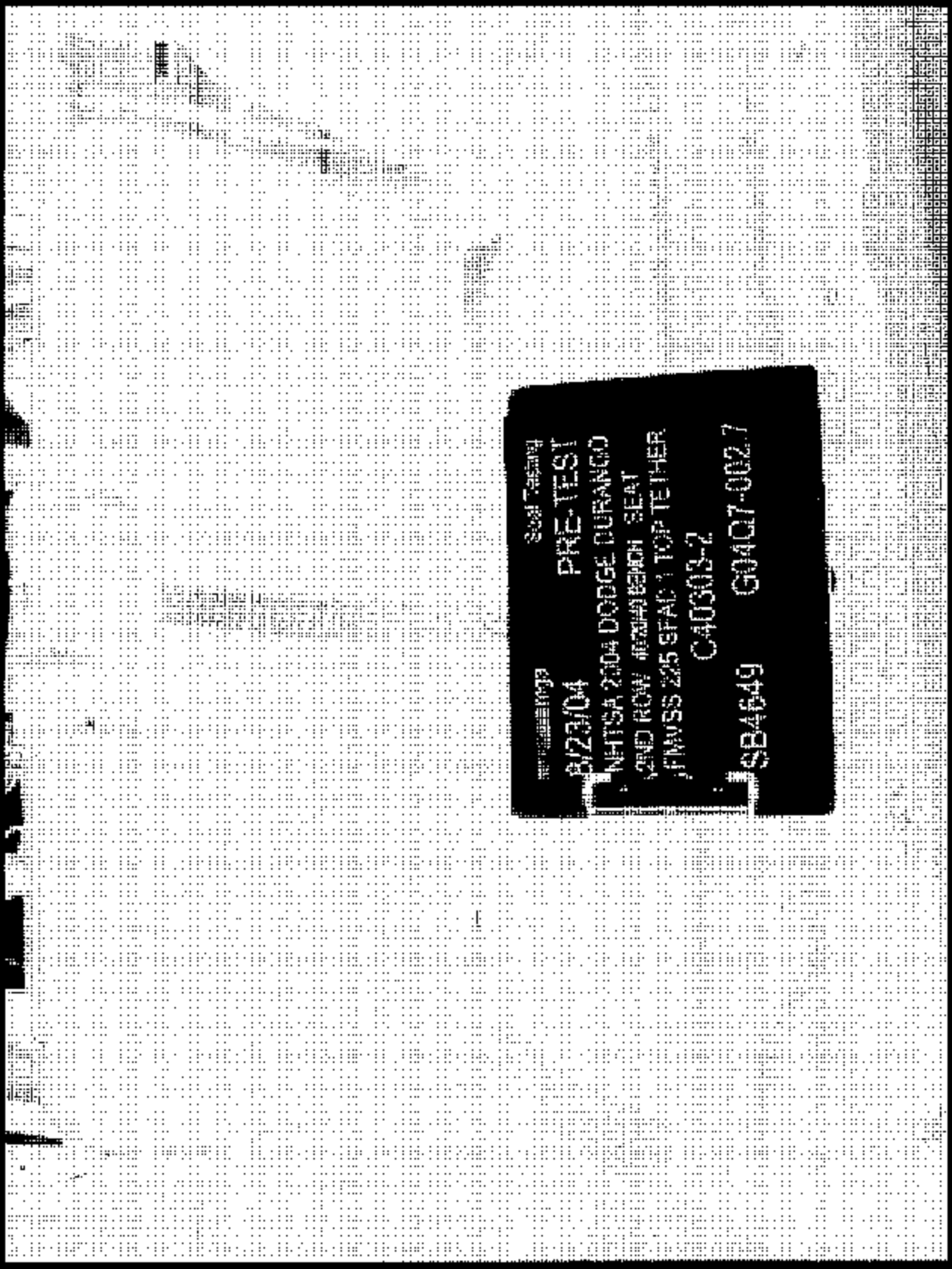


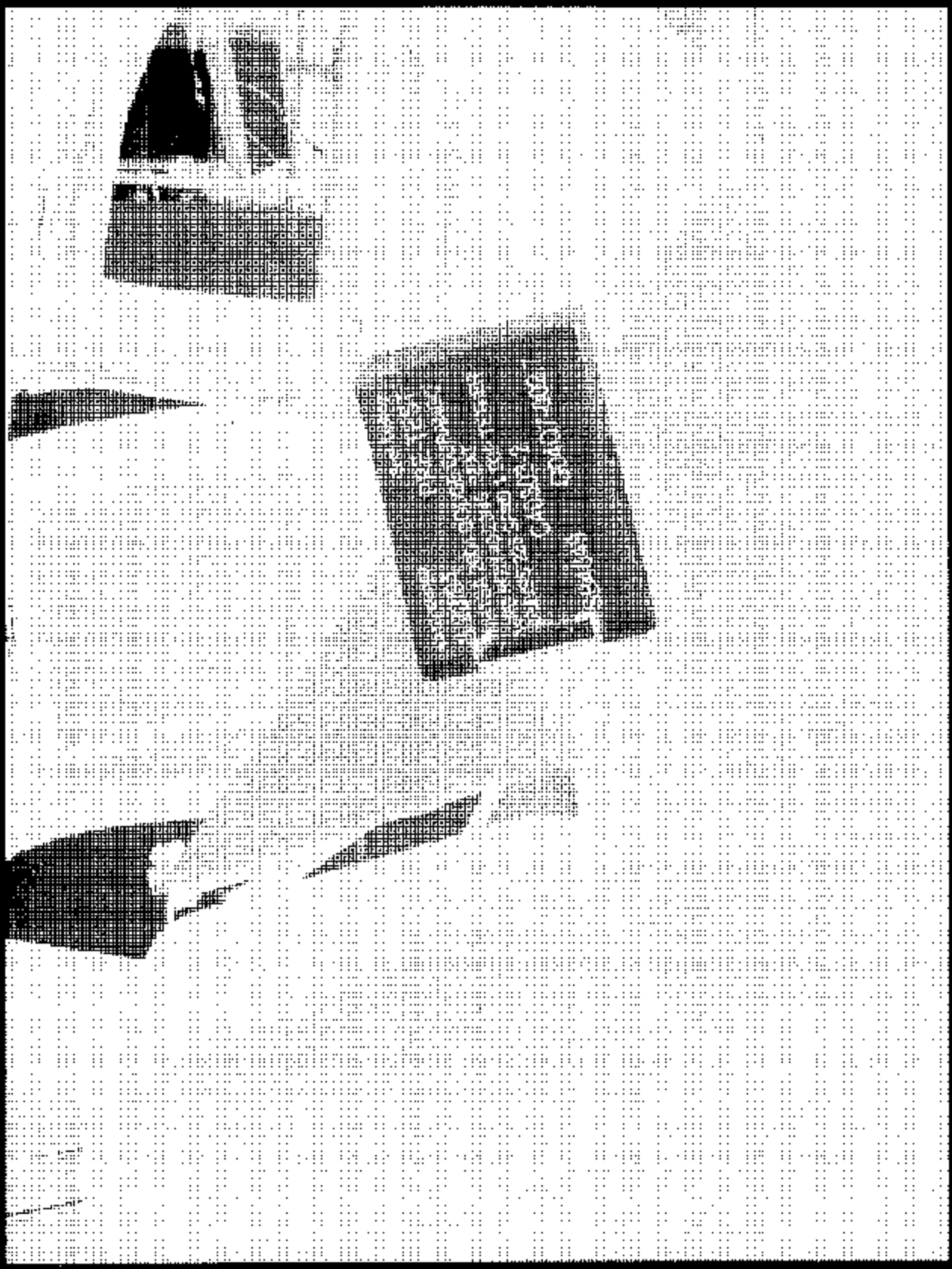
6.6.5 Pre-test photo #5 of SFADI test 2 of 2



6.6.6 Pre-test photo #6 of SFADI test 2 of 2

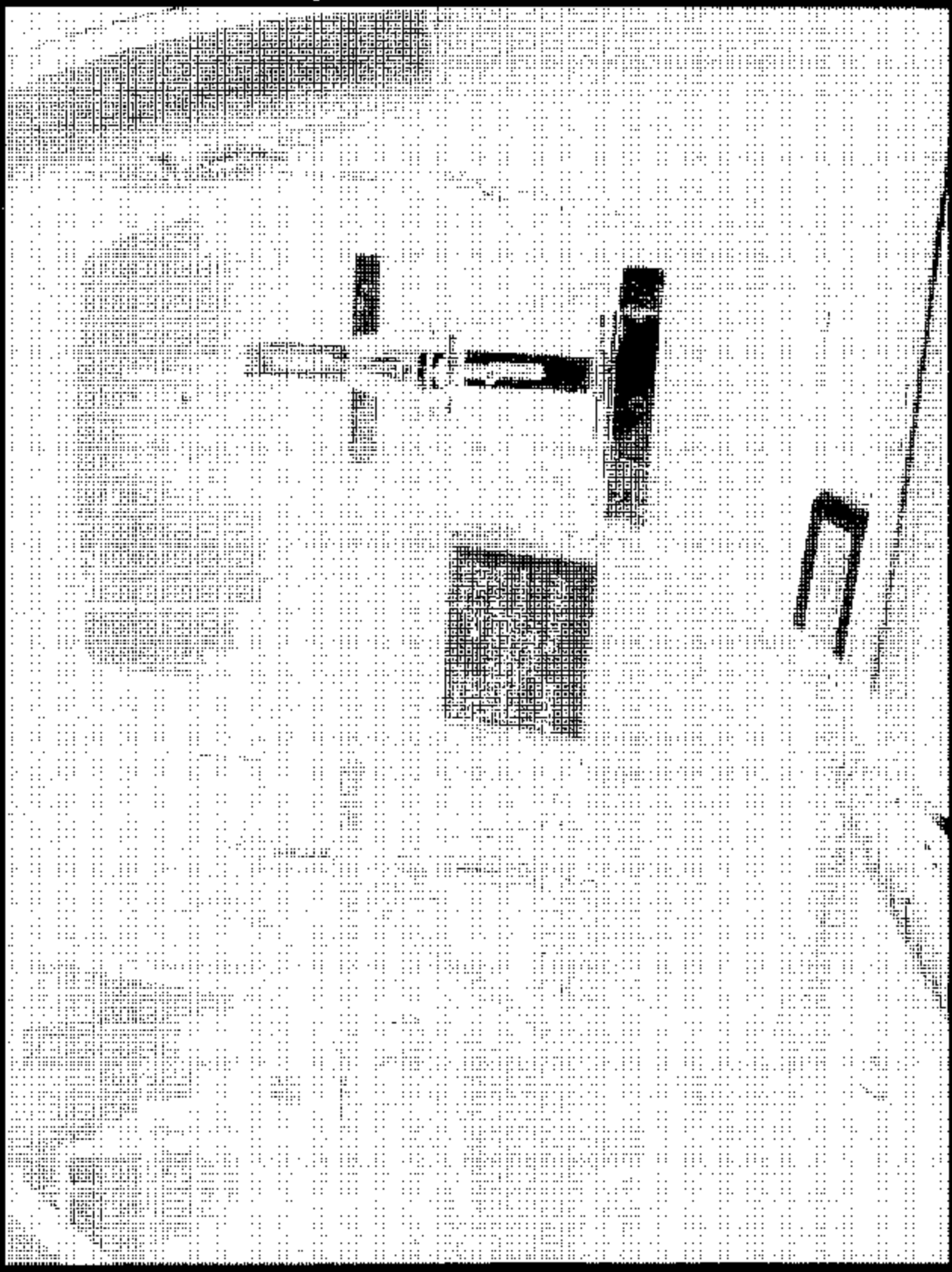


6.6.7 Pre-test photo #7 of SFADI test 2 of 2



6.7 Post-test condition of each child restraint anchorage system

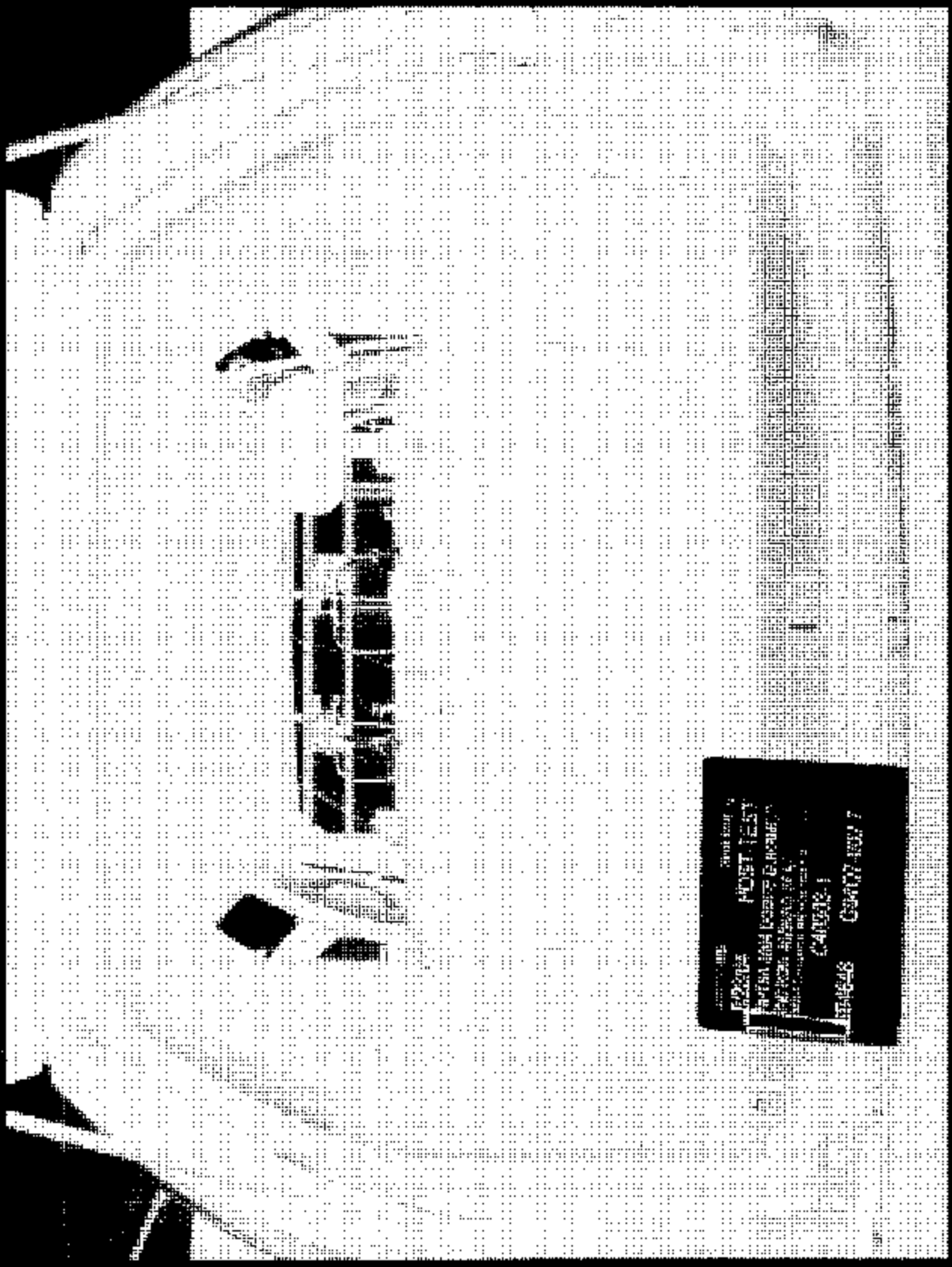
6.7.1 Post-test photo #1 of SFADII test 1 of 2



6.7.2 Post-test photo #2 of SFADII test 1 of 2

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

6.7.4 Post-test photo #4 of SFADII test 1 of 2



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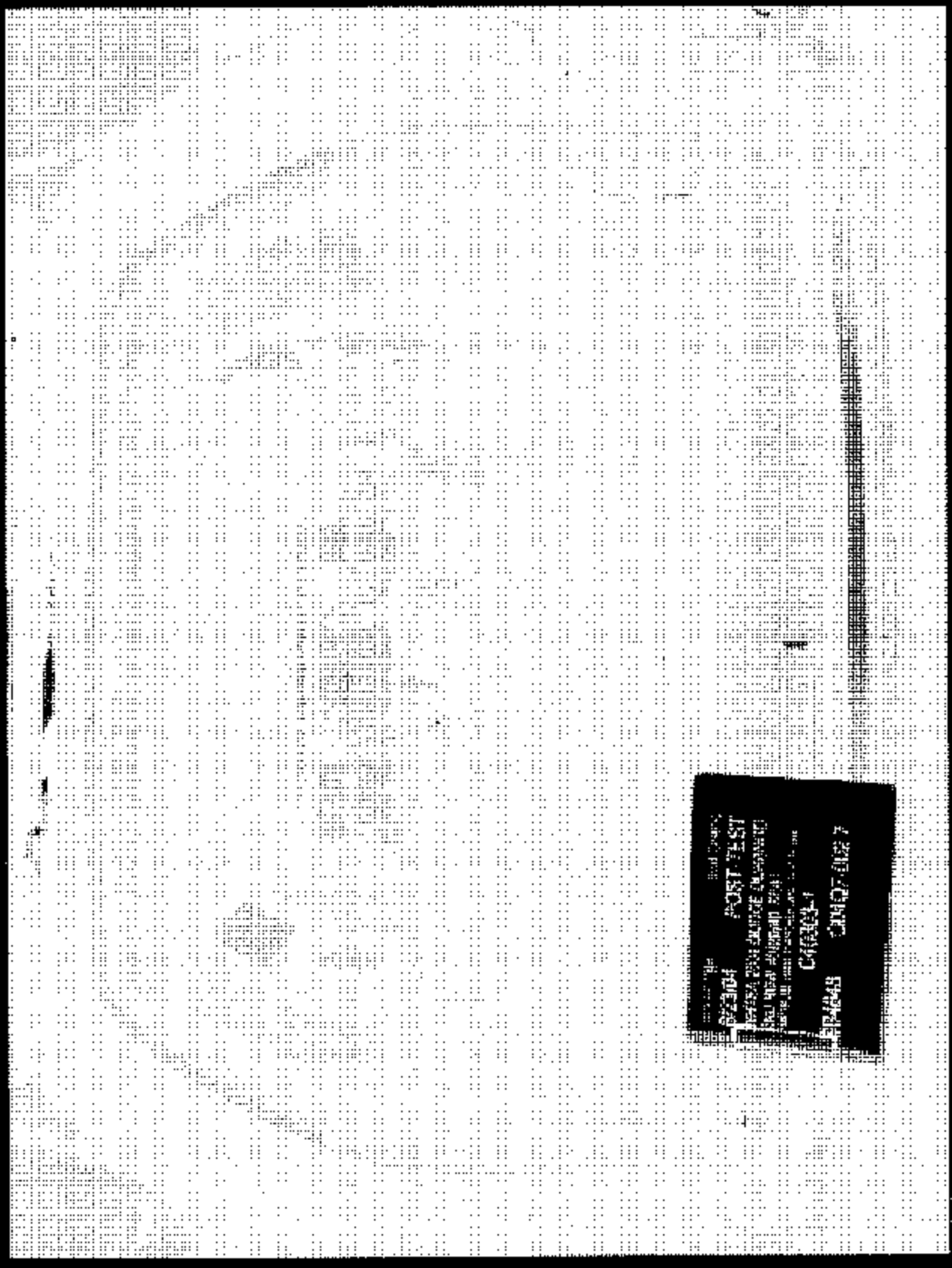

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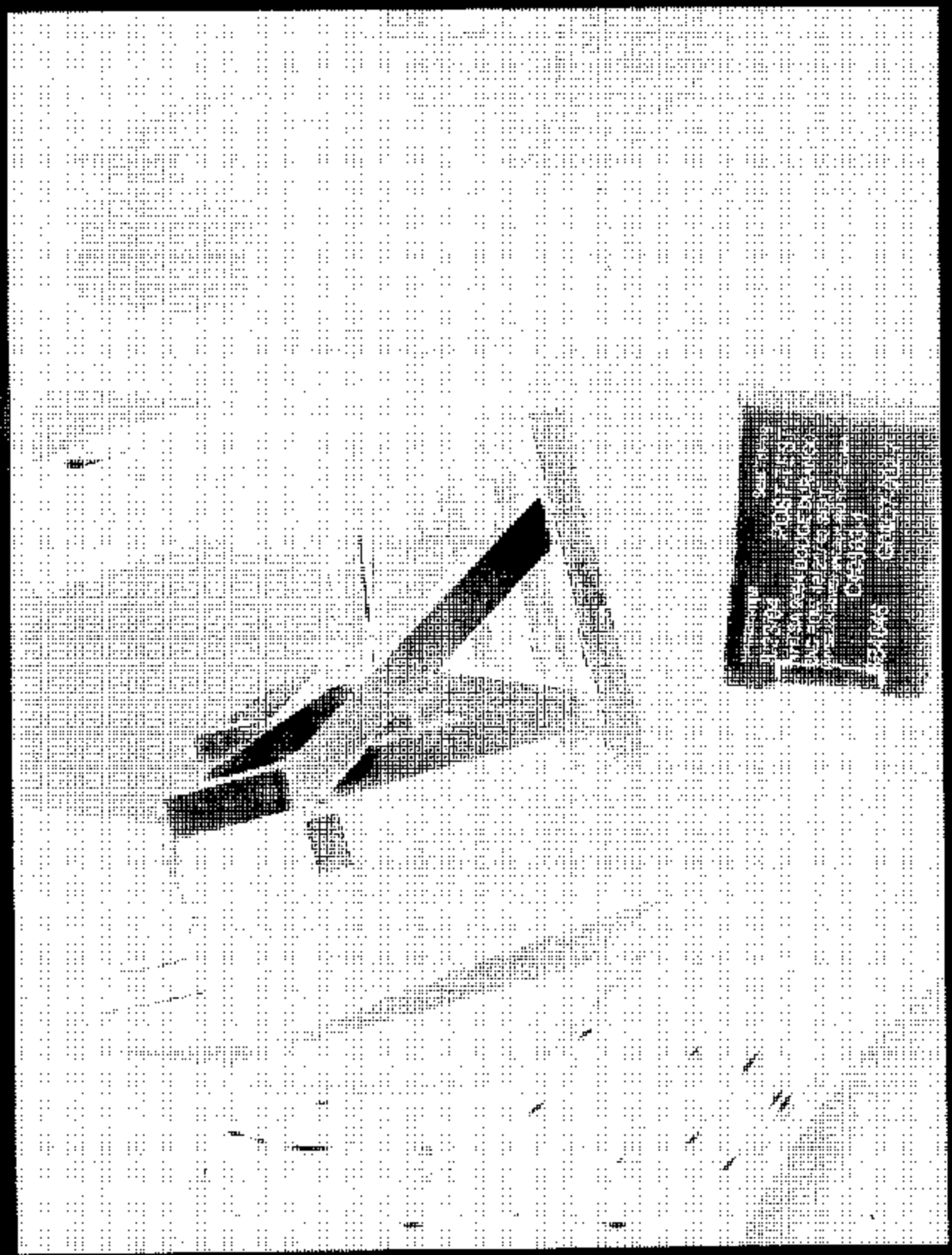
6.7.6 Post-test photo #6 of SFADII test 1 of 2



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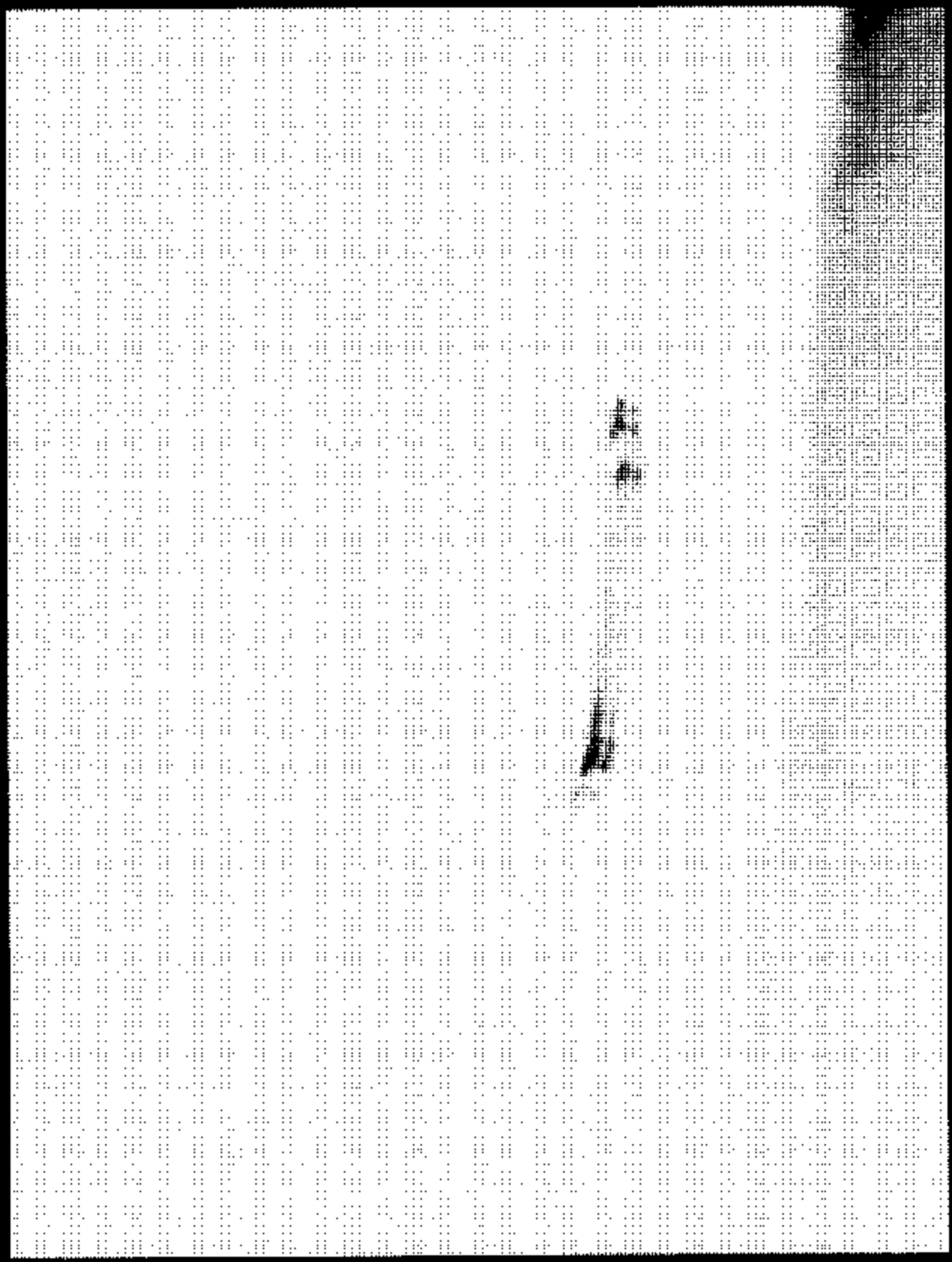
6.7.7 Post-test photo #7 of SFADH test 1 of 2



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

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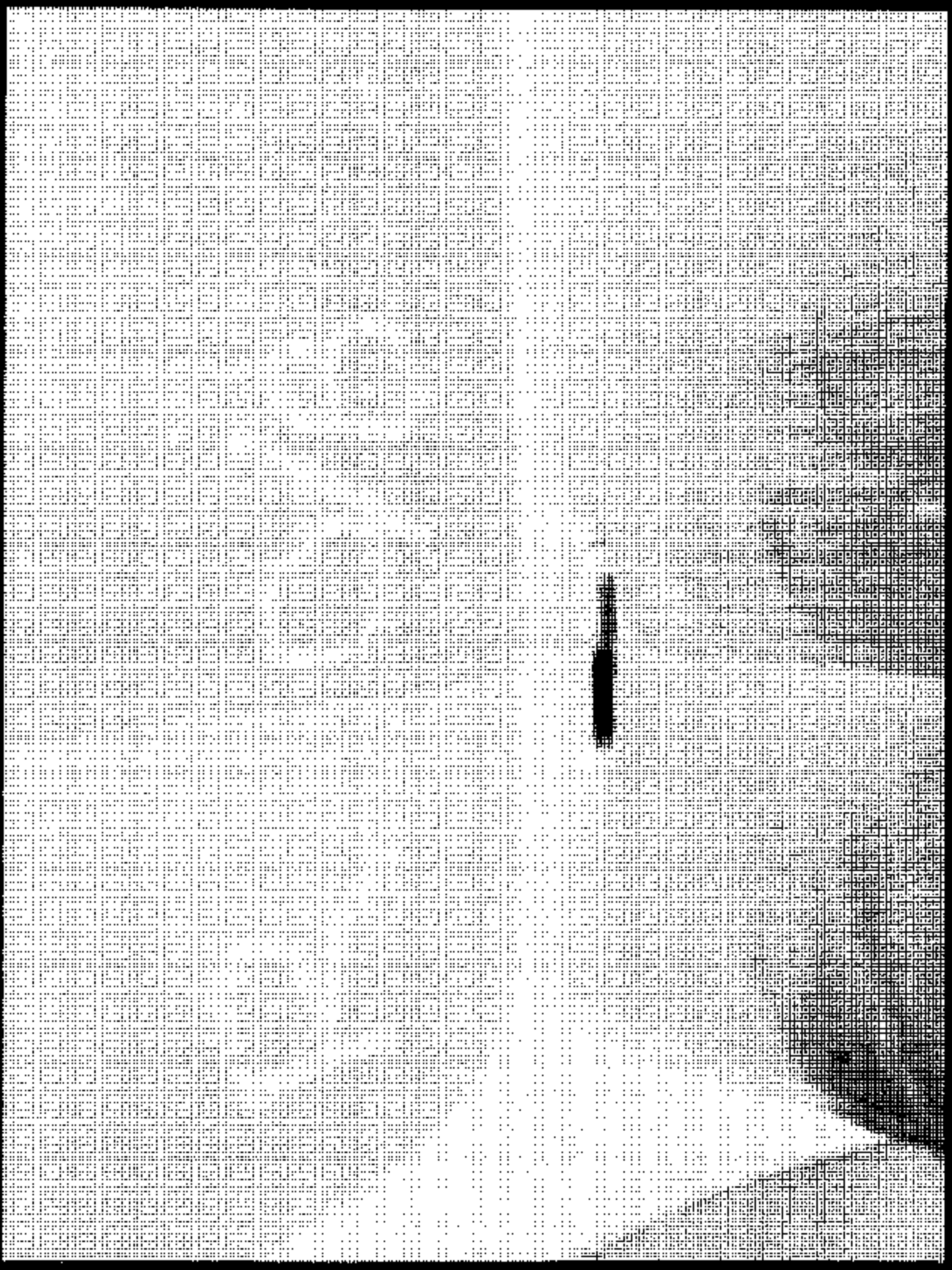
6.7.9 Post-test photo #9 of SFADII test 1 of 2



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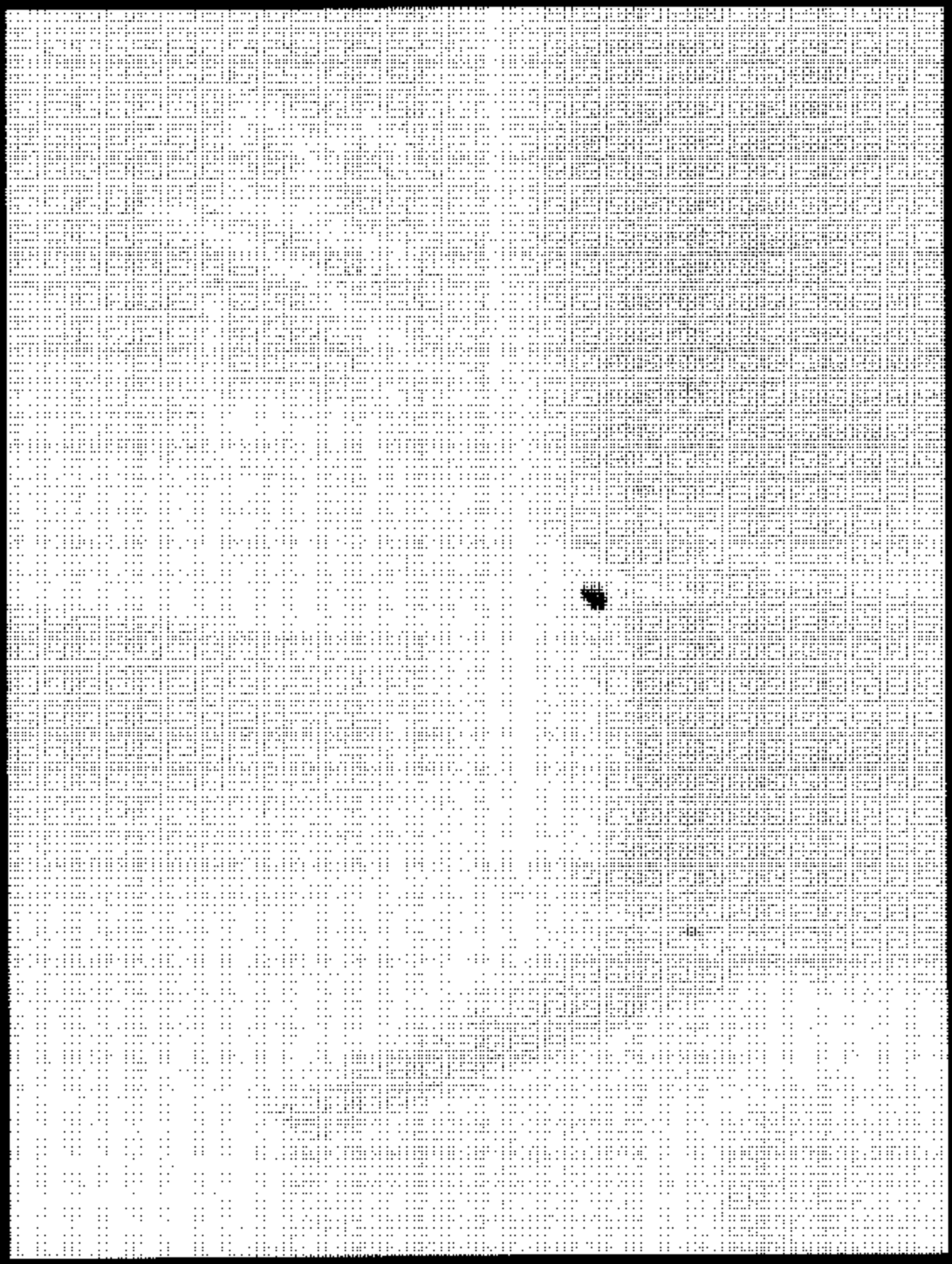

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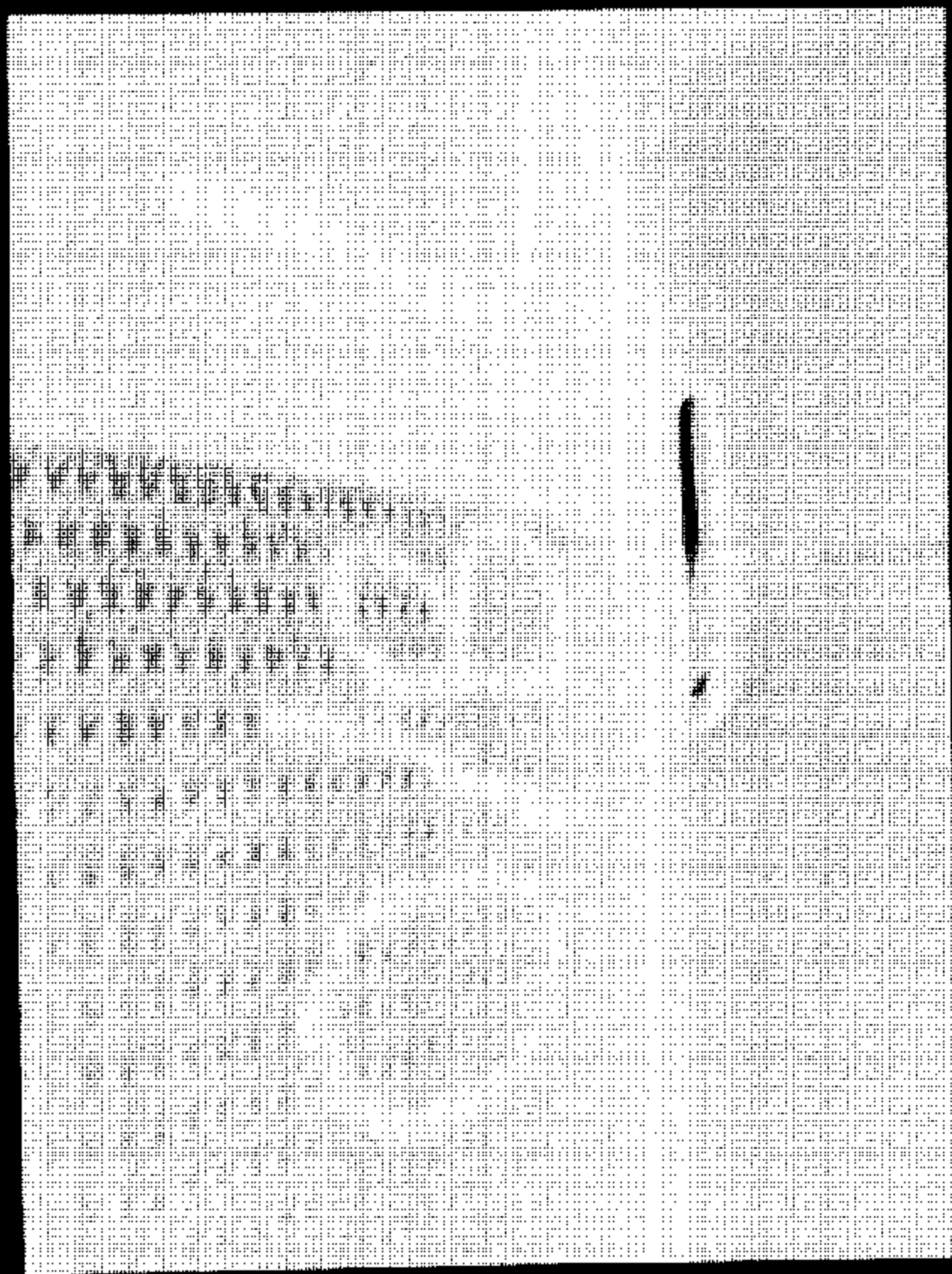

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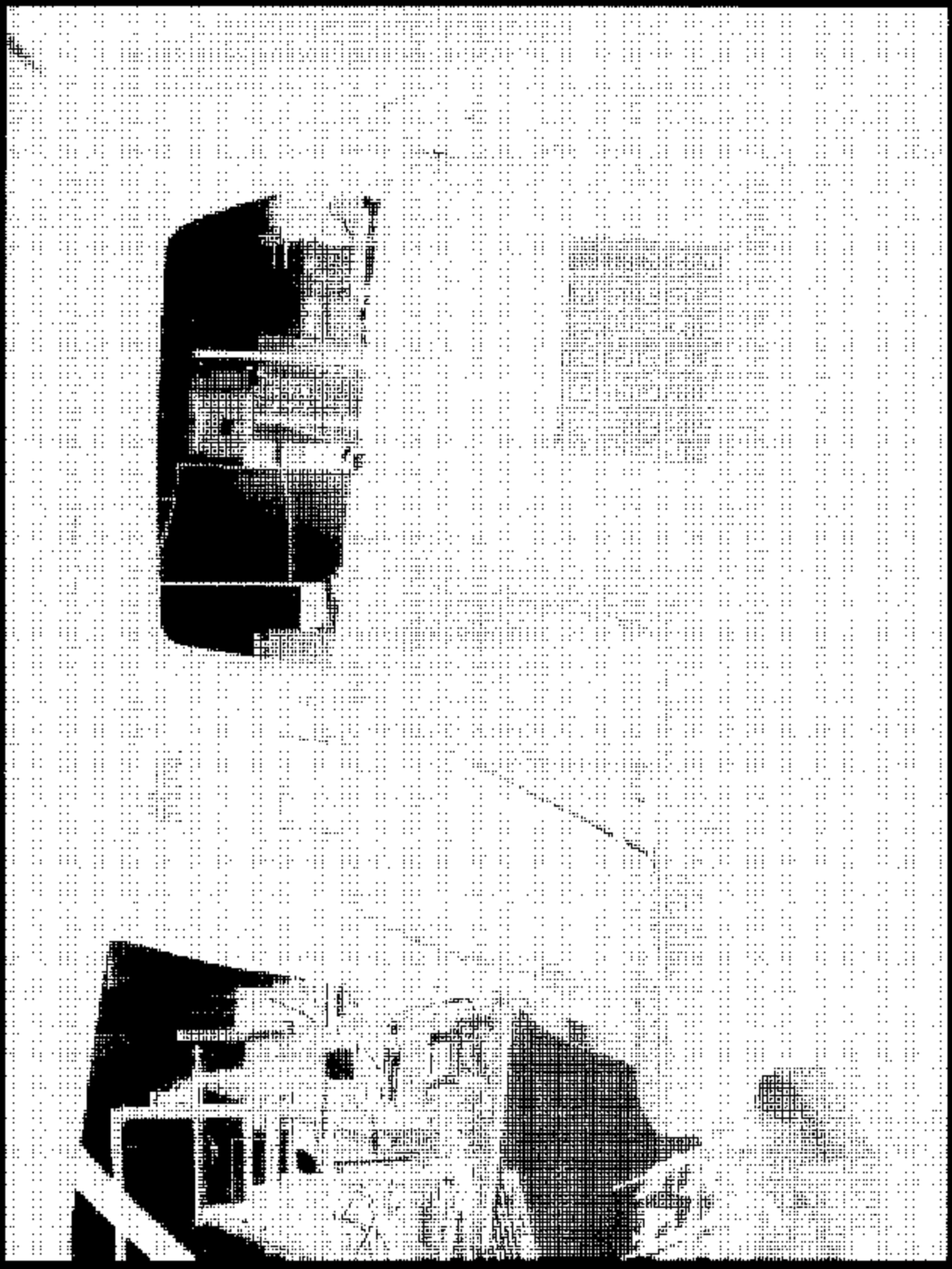

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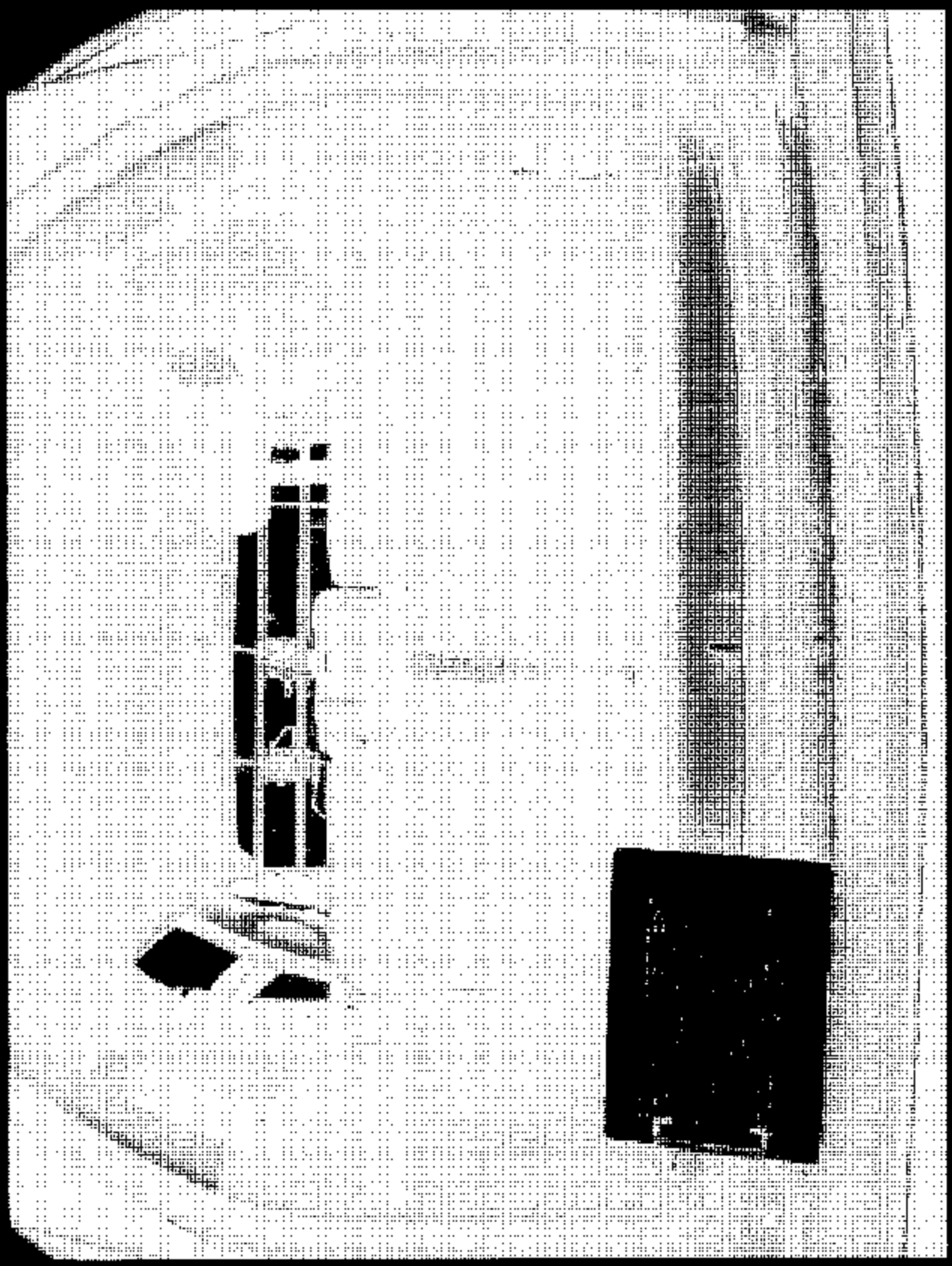
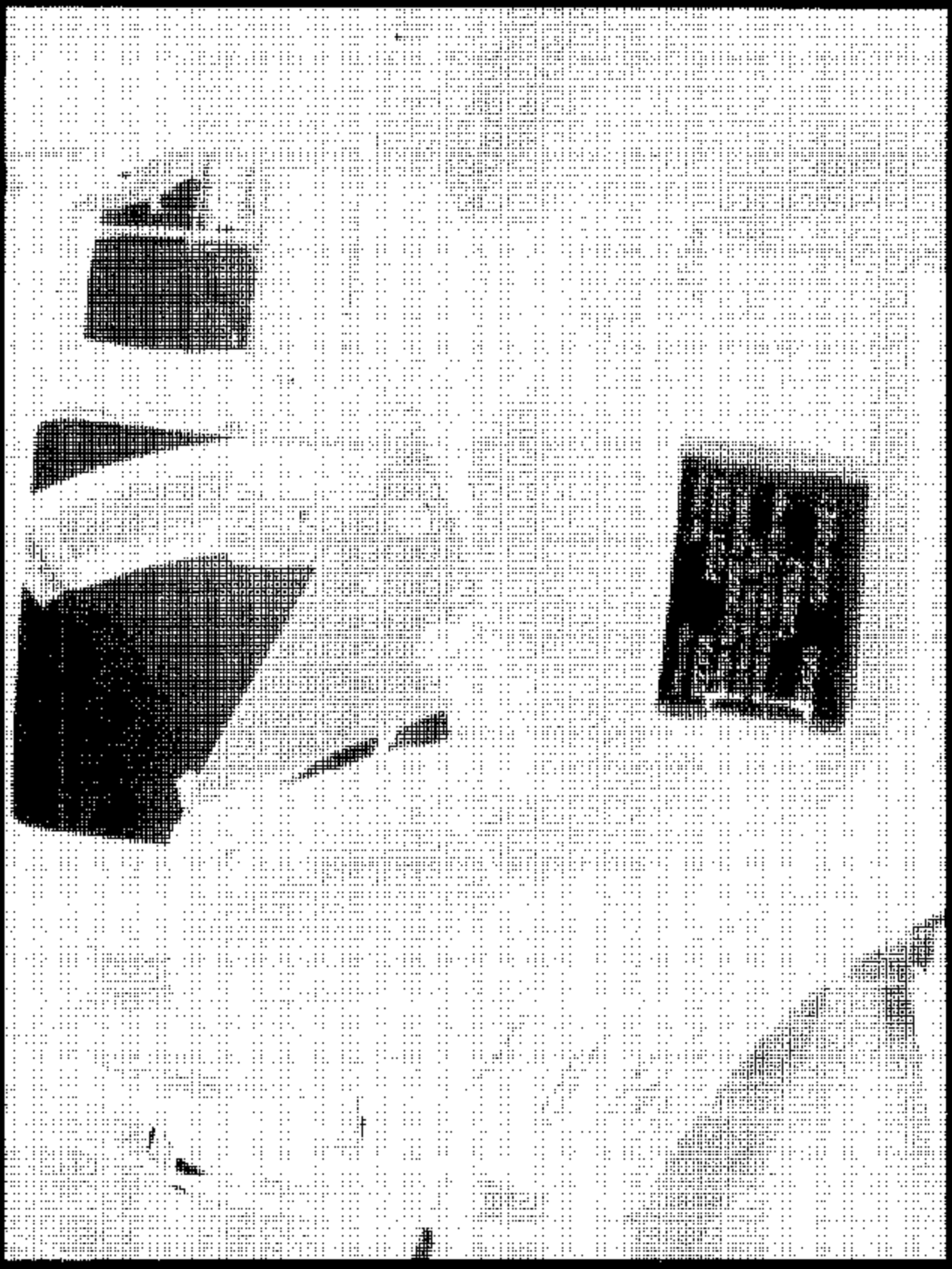
6.7.13 Post-test photo #13 of SFADI test 2 of 2

MGA File #: G04Q7-002.7

6.7.14 Post-test photo #14 of SFADI test 2 of 2



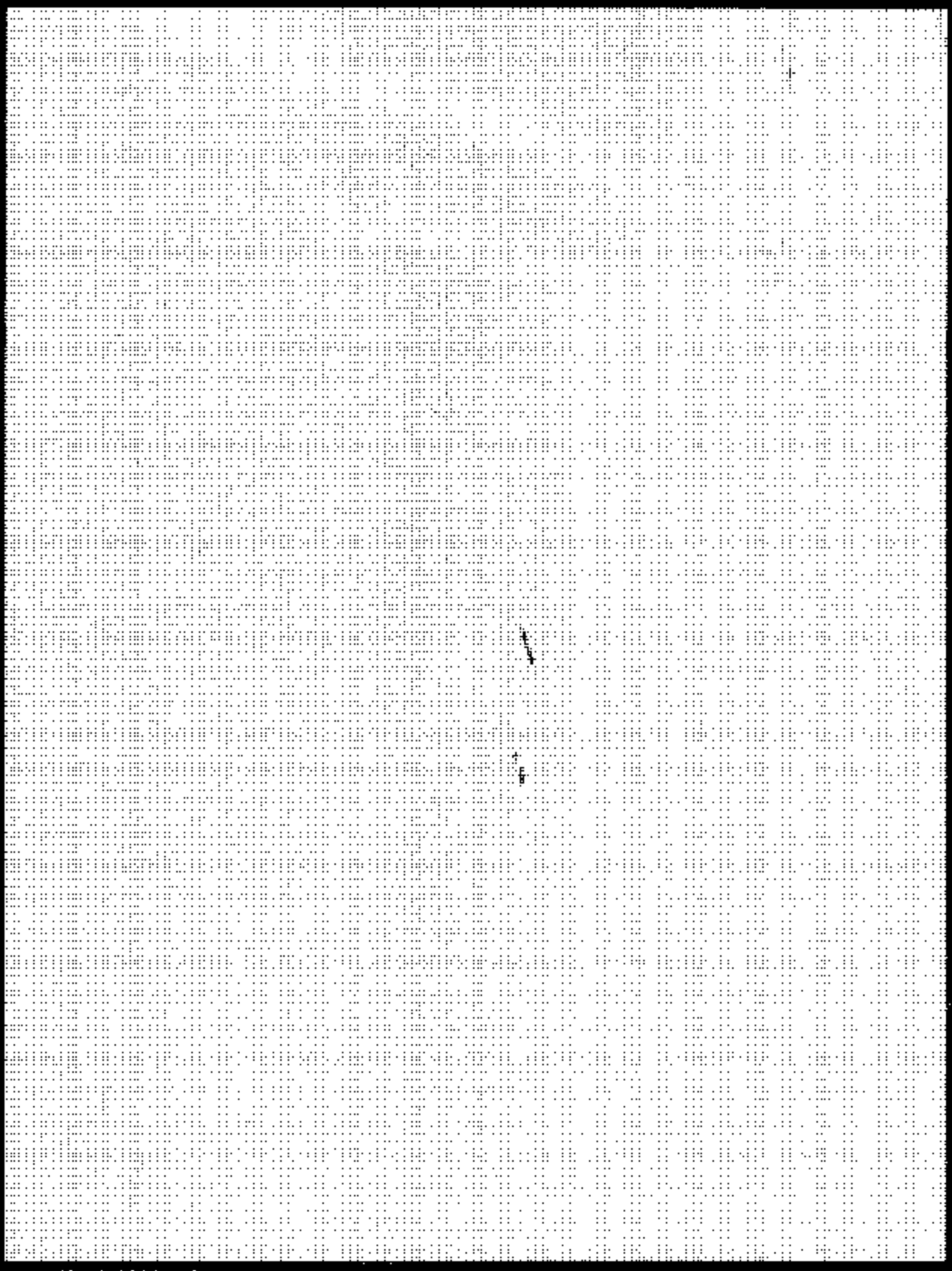
6.7.15 Post-test photo #15 of SFADI test 2 of 2



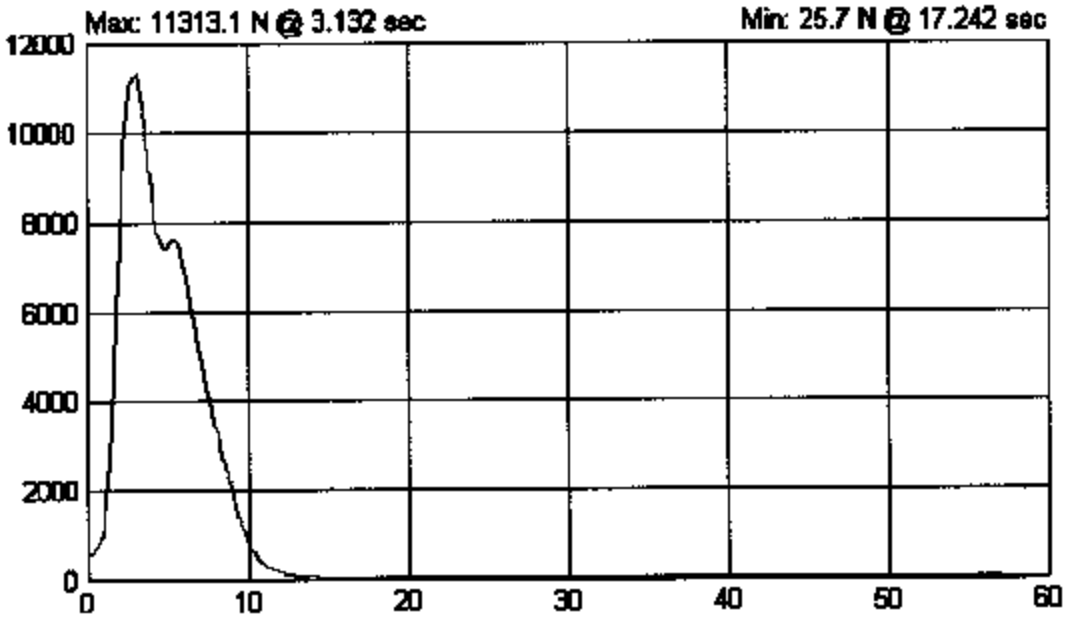
6.7.16 Post-test photo #16 of SFADI test 2 of 2

MGA File #: G04Q7-002.7

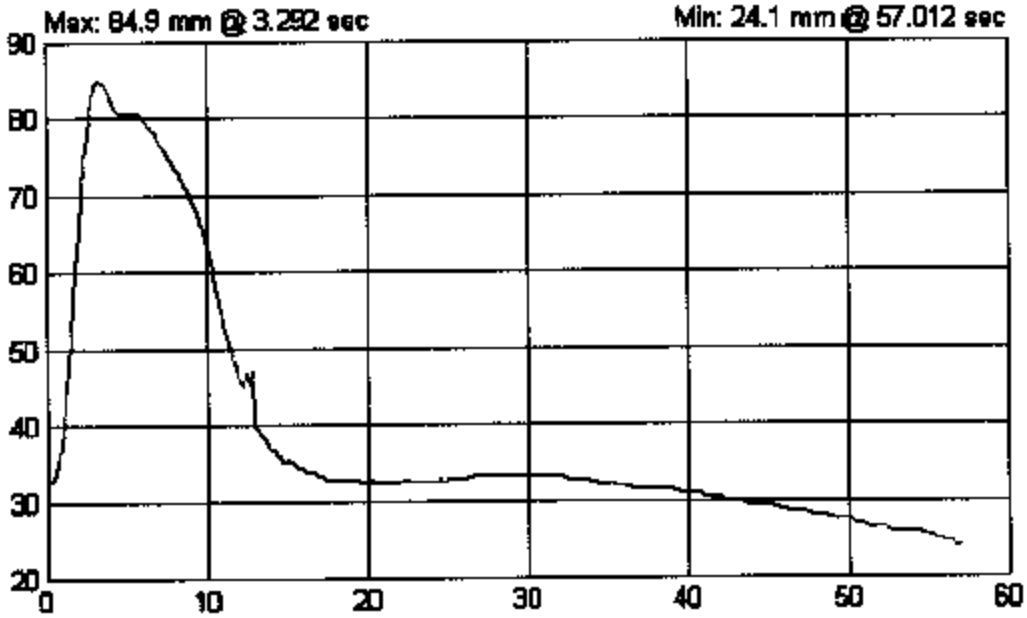
6.7.17 Post-test photo #17 of SFADI test 2 of 2



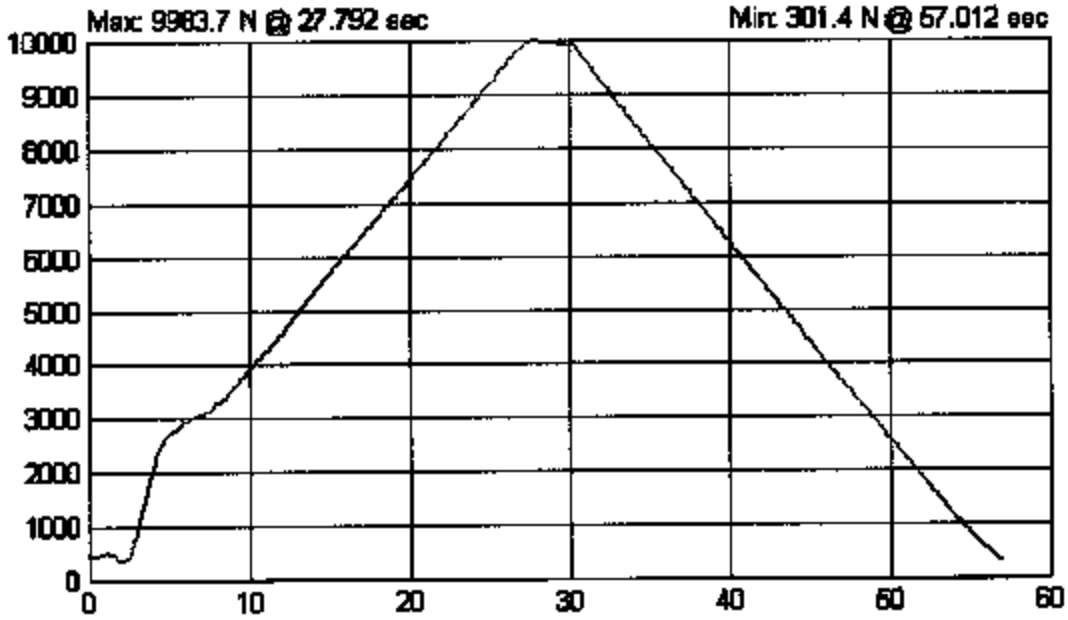
7.0 PLOTS



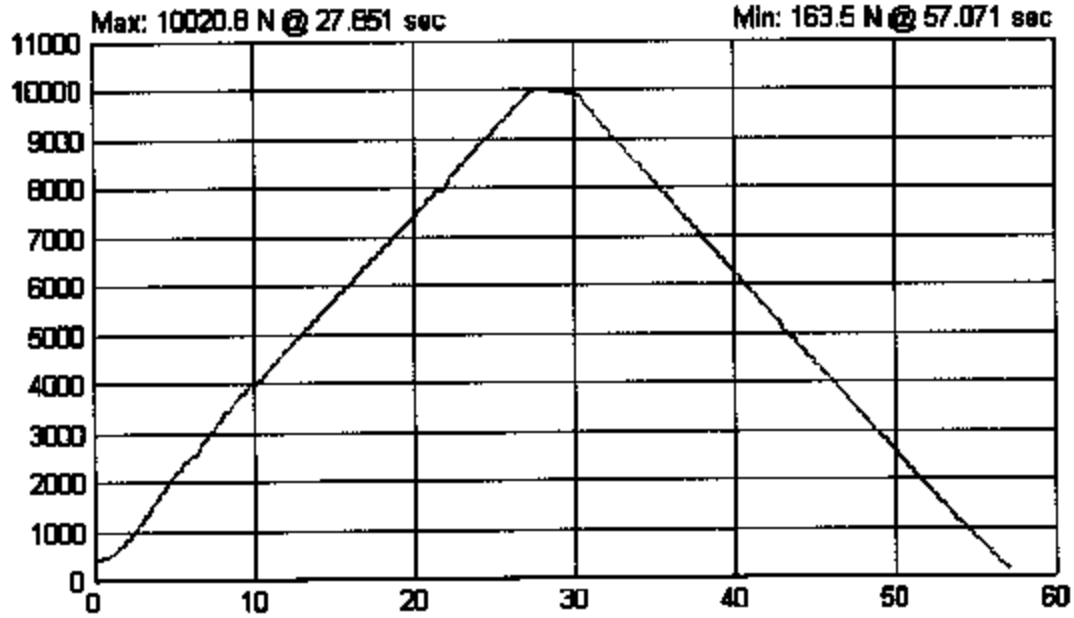
Run# SB4648: Lower Anchor Test (S15.3)-2R LH Load (N) vs. Time (sec)



Run# SB4648: Lower Anchor Test (S15.3)-LH SFAD 2 X Disp. (mm) vs. Time (sec)



Run# SB4648: Lower Anchor and Top Tether Test (S6.3.4)-2R RH Load (N) vs. Time (sec)



Run# SB4649: SFAD1 Tether Test (S6.3.4) 2R CTR 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: August 23, 2004

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

To: NHTSA, OVSC, NVS-221

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 Dodge Durango

VEH. NHTSA NO.: C40303 VIN: 1D4HD48N04F114309

COLOR: Black

ODOMETER READINGS: ARRIVAL 94 miles Date: 7/15/04

COMPLETION 94 miles Date: 8/23/04

PURCHASE PRICE: N/A DEALER'S NAME: Hub West Dodge/Chrysler

ENGINE DATA: 8 cylinder, 4.7 Liters

TRANSMISSION DATA: X Automatic ___ Manual No. of Speeds 5

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

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Melanie Schick, Brad Reaume, Kenney Godfrey

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

REMARKS:

Salvage only.

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

All equipment inventoried and placed in vehicle.

Explanation for equipment removal:

Windshield and front seats were removed before conducting the testing.

Test Vehicle Condition:

Salvage only.

RECORDED BY: Melanie Schick, Kenney Godfrey DATE: August 23, 2004

APPROVED BY: Brad Reaume

APPENDIX A
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

NOTE: If the speedometer, tachometer or any engine related gauges are not working, the airbag control module may also be disabled. The airbags may not be ready to inflate for your protection. Promptly check fuse block for blown fuses. Refer to the label located on the inside of the fuse block cover for the proper airbag fuses. See your dealer if the fuse is good.

Child Restraint

Everyone in your vehicle needs to be buckled up all the time - babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it. Children 12 years and under should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats rather than in the front.

Infants and Small Children

There are different sizes and types of restraints for children from newborn size to the child almost large enough for an adult seat belt. Always check the child seat owner's manual to ensure you have the right seat for your child. Use the restraint that is correct for your child:

- This vehicle is not capable of accommodating the installation of a car bed used for carrying newborn babies at the right front passenger seat position. If a car bed must be used to transport a newborn baby, the car bed must be installed in the second seating row only.
- Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 20 lbs (9 kg). Two types of child restraints can be used rearward facing: infant carriers and "convertible" child seats.
- The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 20 lbs (9 kg). "Convertible" child seats can be used either rearward-facing or forward-facing in the vehicle. Convertible child seats often have a higher weight limit in the rearward-facing direction than infant carriers do, so they can be used rearward-facing by children who weigh more than 20 lbs (9 kg) but are less than one year old.

- Rearward-facing child seats must NEVER be used in the front seat of a vehicle with a front passenger airbag. An airbag deployment could cause severe injury or death to infants in this position.
- Children who weigh more than 20 lbs (9 kg) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible child seats used in the forward-facing direction are for children who weigh 20 to 40 lbs (9 to 18 kg), and are older than one year old. These child seats are also held in the vehicle by the lap/shoulder belt.
- The belt-positioning booster seat is for children weighing more than 40 lbs (18 kg), but who are still too small to fit the vehicle's seat belts properly. If the child cannot sit with knees bent over the seat cushion while the child's back is against the seatback, they need a belt-positioning booster seat. The child and booster seat are held in the vehicle by the lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion).
- For additional information, refer to www.seatcheck.org.

- Improper installation can lead to failure of an infant or child restraint. It could cause loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.
- A rearward facing infant restraint should only be used in a rear seat. A rearward facing infant restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal to the infant.

Here are some tips for getting the most out of your child restraint:

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. The manufacturer recommends that you try a child restraint in the vehicle seats where you will use it before you buy it.

- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.
- The second row outside seating positions and all third row seats have cinching latch plates. The second row center position has an adjustable locking retractor. These are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip. If the seat belt has a cinching latch plate, pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary. If the seat belt has a automatic locking retractor, it will have a distinctive label. Pull the belt from the retractor until there is enough to allow you to pass through the child restraint and slide the latch plate into the buckle. Then, pull the belt until it is all extracted from the retractor. Allow the belt to return to the retractor, pulling on the excess webbing to tighten the lap portion about the child restraint. Refer to "Automatic Locking Mode" earlier in this section.
- Buckle the child into the restraint exactly as the manufacturer's instructions tell you.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Do not leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seat backs and cause serious personal injury.

LATCH - Child Seat Anchorage System (Lower Anchors and Tether for CHildren)

Your vehicle's second row seat is equipped with the child restraint anchorage system called LATCH. The LATCH system provides for the installation of the child restraint without using the vehicle's seat belts, instead securing the child restraint using lower anchorages and upper tether straps from the child restraint to the vehicle structure. LATCH-compatible child restraint systems are now available. However, because the lower anchorages are to be introduced over a period of years, child restraint

systems having attachments for those anchorages will continue to also have features for installation using the vehicle's seat belts. Child restraints having tether straps and hooks for connection to the top tether anchorages have been available for some time. For some older child restraints, many child restraint manufacturers offer add-on tether strap kits or retro-fit kits. You are urged to take advantage of all the available attachments provided with your child restraint in any vehicle.

The outboard second row seating positions have lower anchorages that are capable of accommodating LATCH-compatible child seats. NEVER install LATCH-compatible child seats such that two seats share a common lower anchorage. If installing child seats in adjacent seating positions or if your child restraints are not LATCH-compatible, install the restraints using the vehicle's seat belts.

Second Row Left Side

Second Row Right Side

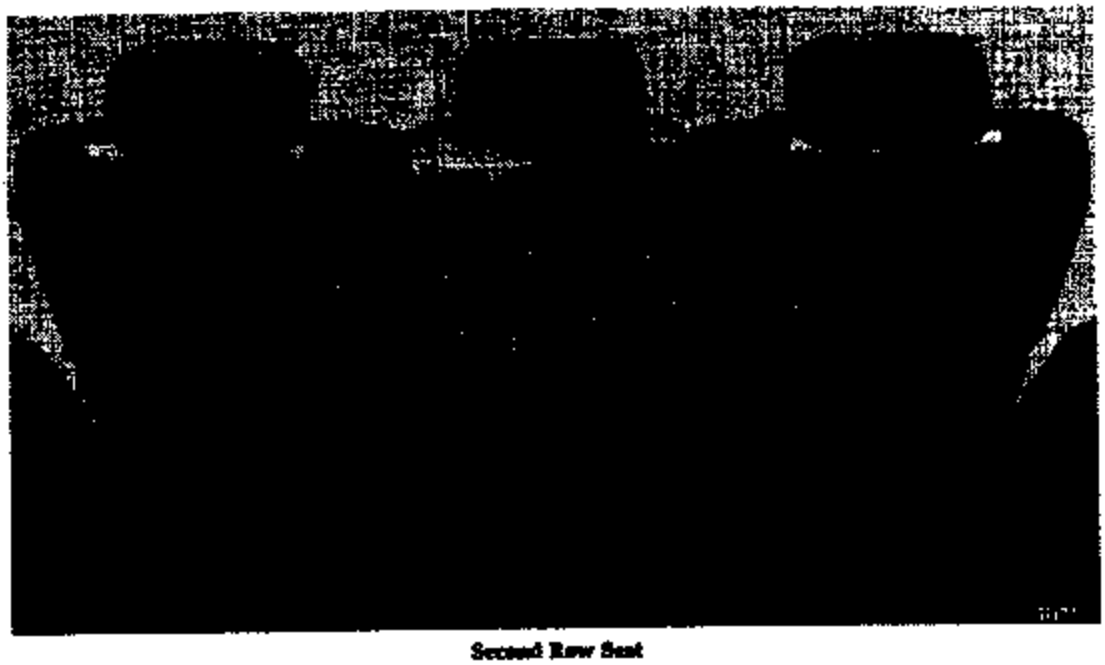
Installing the LATCH-Compatible Child Restraint System

We urge that you carefully follow the directions of the manufacturer when installing your child restraint. Not all child restraint systems will be installed as described here. Again, carefully follow the installation instructions that were provided with the child restraint system. The rear seat lower anchorages are round bars, located at the rear of the seat cushion where it meets the seat back, and are just visible when you lean into the rear seat to install the child restraint. You will easily feel them if you run your finger along the intersection of the seatback and seat cushion surfaces. In addition, there are tether strap anchorages behind each second row seating position located on the back of the seat. Many, but not all restraint systems will be equipped with separate straps on each side, with each having a hook or connector for attachment to the lower anchorage and a means of adjusting the tension in the strap. Forward-facing toddler restraints and some rear-facing infant restraints will also be equipped with a tether strap, a hook for attachment to the tether strap anchorage and a means of adjusting the tension of the strap. You will first loosen the adjusters on the lower straps and on the tether strap so that you can more easily attach the hooks or connectors to the vehicle anchorages. Next attach the lower hooks or connectors over the top of the anchorage bars, pushing aside the seat cover material. Then attach the tether strap to the anchorage located on the back of the seat, being careful to route the tether strap to provide the most direct path between the anchor and the child restraint. If your vehicle is equipped with adjustable rear head restraints, raise the head restraint and, route the tether strap under the head restraint and between the two posts. Finally, tighten all three straps as you push the child restraint rearward and downward into the seat, removing slack in the straps according to the child restraint manufacturer's instructions.

Improper installation of a child restraint to the LATCH anchorages can lead to failure of an infant or child restraint. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

Installing Child Restraints Using the Vehicle Seat Belt

The passenger seat belts are equipped with either cinching latch plates or automatic locking retractors, which are designed to keep the lap portion tight around the child restraint so that it should not be necessary to use a locking clip. If the seat belt has a cinching latch plate, pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary. If the seat belt has an automatic locking retractor, it will have a distinctive label. Pull the belt from the retractor until there is enough to allow you to pass through the child restraint and slide the latch plate into the buckle. Then, pull the belt until it is all extracted from the retractor. Allow the belt to return to the retractor, pulling on the excess webbing to tighten the lap portion about the child restraint. For automatic locking retractor seat belts, refer to "Automatic Locking Mode" earlier in this section. If you have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint, follow these steps. If the buckle is webbing mounted, disconnect the latch plate from the buckle and twist the short buckle-end belt to shorten it. Insert the latch plate into the buckle with the release button facing out. If the belt still can't be tightened, the buckle is not webbing mounted, or if by pulling and pushing on the restraint loosens the belt, you may need to do something more. Disconnect the latch plate from the buckle, turn the latch plate around, and insert the latch plate into the buckle again. If you still can't make the child restraint secure, try a different seating position or use the locking clip provided with your child restraint. To attach a child restraint tether strap: Route the tether strap over the seat back, between the head restraint posts and attach the hook to the tether anchor located on the back of the seat.



Second Row Seat

Child Restraints in Third Row Seating (If Equipped)

The third seating row is not capable of installing child restraints that require the use of a tether strap. There are no tether anchor provisions for the third seating row in your vehicle, the hooks in the rear floor are not designed to withstand the forces that may occur during a crash.

An incorrectly anchored tether strap could lead to increased head motion and possible injury to the child. Use only the anchor positions directly behind the child seat to secure a child restraint top tether strap. Do not install a child restraint that requires a tether strap in the third seating row (if equipped) of this vehicle.

Child Restraint Tether Anchor

These are tether strap anchorages behind each seating position in the second row. For vehicles equipped with third row seating, there is no Child Tether Anchorage provided for the third row of seats. To install child restraint tethers follow these instructions.

1. Place the child restraint in the second row of seats.
2. Route the tether strap under the head restraint and between the two posts.
3. Attach the tether strap hook of the child restraint to the tether anchor located on the seat back and remove the slack in the tether strap according to the manufacturer's instructions.

An incorrectly anchored tether strap could lead to seat failure and injury to the child. In a collision, the seat could come loose and allow the child to crash into the inside of the vehicle or other passengers, or even be thrown from the vehicle. Use only the anchor positions directly behind the child seat to secure a child restraint top tether strap. Follow the instructions below. See your dealer for help if necessary.

Children Too Large for Booster Seats
Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seat back should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.
- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.
- If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm.

Transporting Pets
Airbags deploying in the front seat could harm your pet. An unrestrained pet will be thrown about and possibly injured, or injure a passenger during panic braking or in a collision. Pets should be restrained in the rear seat in pet harnesses or pet carriers that are secured by seat belts.

APPENDIX B
MANUFACTURER'S DATA (OVSC FORM 1)

FORM 14

SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA
FOR FMVSS 225
(All dimensions in mm[1])

Model Year: 2004 Make: Dodge Model: Durango Body Style: All
Seat Style: Front Row: N/A Second Row: All Third Row: N/A

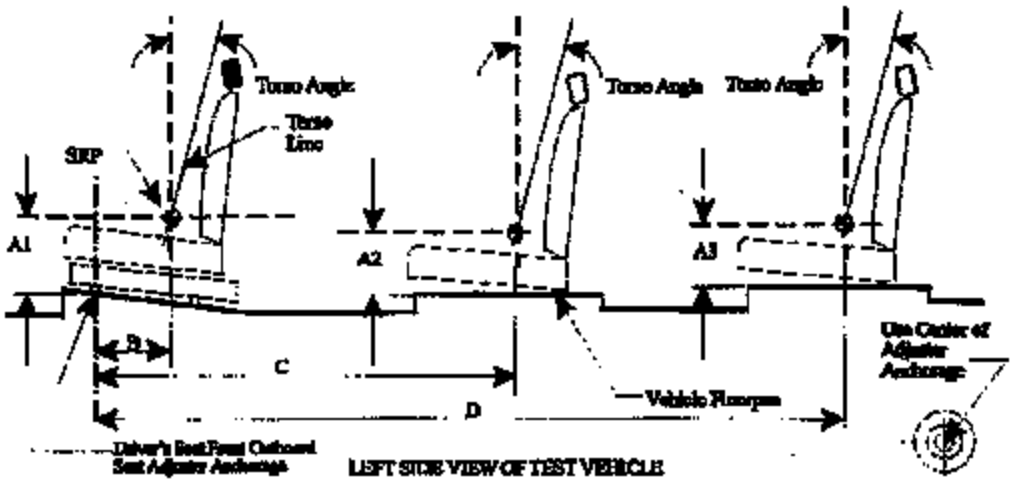


Table 1. Seating Positions[1] and Torso Angles

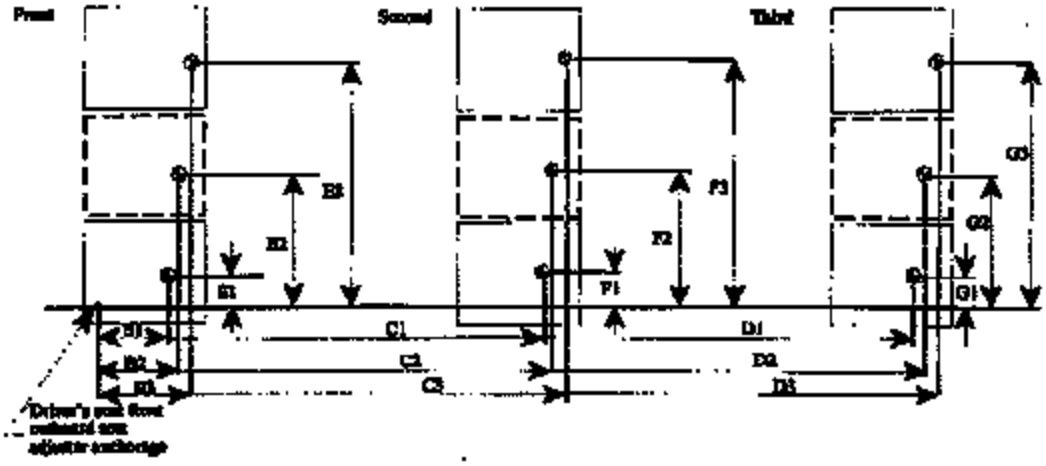
		Left (Driver Side)	Center (if any)	Right
A1		(Driver)	271.8	263.0
A2		290.3	285.5	290.3
A3		168.0	168.1	168.0
B		329.4	329.4	327.0
C		1170.3	1170.3	1167.9
D		1996.4	1996.4	1994.1
Torso Angle (degree)	Front Row	22 Degrees	N/A	22 Degrees
	Second Row	24 Degrees	24 Degrees	24 Degrees
	Third Row	22 Degrees	N/A	22 Degrees

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

FORM 14

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

Model Year: 2004 Make: Dodge Model: Durango Body Style: All
Seat Style: Front Row: N/A Second Row: All Third Row: N/A



FORM 14

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

Table 2. Seating Reference Point and Tether Anchorage Locations

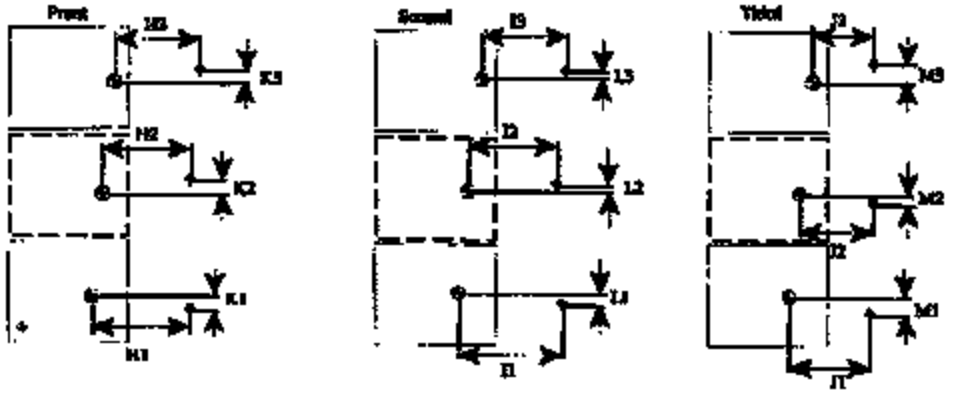
Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage[1]
Front Row	B1	329.4
	E1	218.0
	B2	N/A
	E2	N/A
	B3	327.1
	E3	1008.0
Second Row	C1	1170.3
	F1	218.0
	C2	1170.3
	F2	613.0
	C3	1170.3
	F3	1008.0
Third Row	D1	1996.4
	G1	338.0
	D2	1996.4
	G2	613.0
	D3	1996.4
	G3	888.0

Note: 1. Use the center of anchorage.

FORM 14

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

Model Year: 2004 **Make:** Dodge **Model:** Durango **Body Style:** All
Seat Style: Front Row: N/A Second Row: All Third Row: N/A



⊕: SRP
◆: Tether anchorage

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

FORM 14

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

Table 3. Seating Reference Point and Tether Anchorage Locations

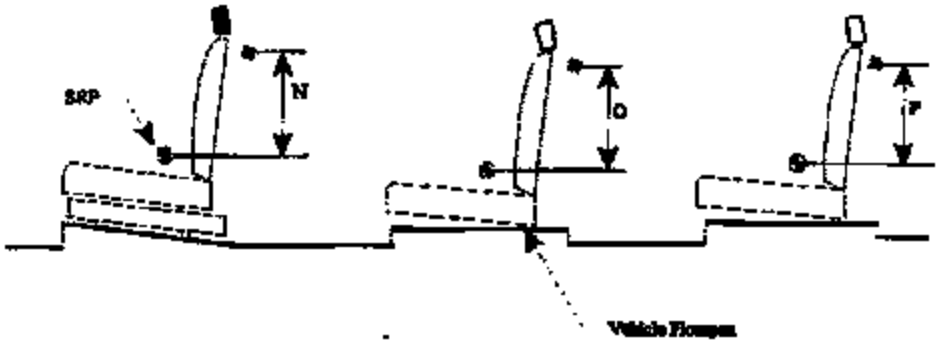
Seating Refrence Point (SRP)	Distance from SRP	
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	H3	N/A
	K3	N/A
Second Row	I1	190.9
	L1	19.1
	I2	193.1
	L2	0
	I3	190.9
	L3	19.1
Third Row	J1	N/A
	M1	N/A
	J2	N/A
	M2	N/A
	J3	N/A
	M3	N/A

Note: 1. Use the center of anchorage.

FORM 14

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

Model Year: 2004 Make: Dodge Model: Durango Body Style: All
Seat Style: Front Row: N/A Second Row: All Third Row: N/A



LEFT SIDE VIEW OF TEST VEHICLE

Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference Point	
Front Row	N1 (Driver)	N/A
	N2 (Center)	N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	182.6
	O2 (Center)	180.6
	O3 (Right)	182.6
Third Row	P1 (Left)	N/A
	P2 (Center)	N/A
	P3 (Right)	N/A

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

FORM 14

Test Procedures Used for Compliance Tests

Tether Anchorages

Seating Location		FMVSS Section(s) - Req.		
		Allowed until 9/1/04		Required after 9/1/04
		S6.3.4 (10 kN)	S6.3.4.1 (5.3 kN)	S6.3.1 (15 kN)
Front	Driver	N/A	N/A	N/A
	Center (if any)	N/A	N/A	N/A
	Right (if any)	N/A	N/A	N/A
Second	Left	Used	N/A	N/A
	Center	Used	N/A	N/A
	Right (if any)	Used	N/A	N/A
Third	Left	N/A	N/A	N/A
	Center	N/A	N/A	N/A
	Right	N/A	N/A	N/A
Fourth	Left	N/A	N/A	N/A
	Center	N/A	N/A	N/A
	Right	N/A	N/A	N/A

Lower Anchorages

Seating Location		FMVSS Section(s) - Req.	
		Allowed until 9/1/04	Required after 9/1/04
		S15.3 (8 kN / 5 kN)	S9.4 (11 kN / 5 kN)
Front	Driver	N/A	N/A
	Center (if any)	N/A	N/A
	Right (if any)	N/A	N/A
Second	Left	Used	N/A
	Center	N/A	N/A
	Right (if any)	Used	N/A
Third	Left	N/A	N/A
	Center	N/A	N/A
	Right	N/A	N/A
Fourth	Left	N/A	N/A
	Center	N/A	N/A
	Right	N/A	N/A