

HS# 637923

**REPORT NUMBER: 3015-MGA-05-002**

**SAFETY COMPLIANCE TESTING FOR  
FMVSS NO. 3015  
FUEL SYSTEM INTEGRITY - SCHOOL BUSES**

**Collins Bus Corporation  
2004 Super Bantam School Bus  
NHTSA No. C40901**

**PREPARED BY:  
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**Final Report Date: July 5, 2005**

**FINAL REPORT**


**PREPARED FOR:  
U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
ENFORCEMENT  
OFFICE OF VEHICLE SAFETY COMPLIANCE  
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**Technical Report Documentation Page**

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16. Abstract A compliance test was conducted on the subject 2004 Collins Bus Corporation Super Bantam School Bus, NHTSA No. C40901 in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-301S-02 for the determination of FMVSS 301 compliance.					
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**SECTION 1**  
**PURPOSE OF COMPLIANCE TEST AND SUMMARY**

A fuel system integrity test was performed on a MY2004 Collins Bus Corp. Super Bantam School Bus, NHTSA No. C40901, in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedures TP-301S-02 to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 301S, "Fuel System Integrity".

Based on the test results, the MY2004 Collins Bus Corp Super Bantam School Bus, NHTSA No. C40901 appears to meet the requirements of FMVSS 301 testing.

This program is sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-02-D-01057.

**SECTION 2**  
**COMPLIANCE TEST DATA**

The following data sheets document the results of testing on the MY2004 Collins Bus Corp Super Bantam School Bus, NHTSA No. C40901.

**DATA SHEET 1  
SCHOOL BUS DATA**

**Test Vehicle:** Collins 2004 Super Bantam School Bus  
**Test Lab:** MGA Research-Wisconsin Operations

**NHTSA No.:** C40901  
**Test Date:** 6/15/05

**GENERAL VEHICLE IDENTIFICATION**

School Bus Manufacturer:	Collins Bus Corporation	
School Bus Model:	2004 Super Bantam	
Build Date:	07/04	
Incomplete Vehicle Manufactured By:	General Motors	
Build Date for Bus Chassis:	10/03	
School Bus GVWR (kg):	4536	
School Bus GAWR Front (kg):	1880	
School Bus GAWR Rear (kg):	3402	
School Bus VIN:	1GBHG31U541148487	
No. of Designated Seating Positions (DSP) including Driver:	19	
School Bus NHTSA No.:	C40901	
Bus Body Color:	Yellow	
Engine Displacement	6.0L	
No. of Cylinders:	8	
Fuel Pump Actuation:	Electrical Pump "ON" with Ignition	
School Bus Width (mm):	2450	
School Bus Length (mm):	5990	
Bus Unloaded Vehicle Weight (UVW) (kg):	3400	
Bus Occupant Load:	972 kg - Passenger 68 kg - Driver 1040 kg - Total	
Target Bus Test Weight (SBTW) (kg):	4440	
Actual (SBTW) (kg):	4434	
School Bus Tire Manufacturer:	Uniroyal	
	Front	Rear
Rec. Cold Tire Inflation Pressure (kpa):	414	414
Tire Size:	LT225/75R16	LT225/75R16
Load Range:	D	D

**DATA SHEET 1 (CONTINUED)**

**SCHOOL BUS DATA**

Test Vehicle: **Collins 2004 Super Bantam School Bus**  
 Test Lab: **MGA Research-Wisconsin Operations**

NHTSA No.: **C40901**  
 Test Date: **6/15/05**

**GENERAL VEHICLE IDENTIFICATION**

**SCHOOL BUS ATTITUDE**

	Units	LF	RF	LR	RR
As Received:	mm	NR	NR	NR	NR
Pre-Test:	mm	890	820	1042	1039
Post-Test:	mm	885	820	1040	1030

NR = Not Recorded

Weight of Fuel:	3.19 kg/liter (7.03 lbs./gallon)
Fuel Tank Capacity (liters/kg):	132 liters/112 kg (35 gallons/246 lbs.)
Tank Test Volume (liters/kg):	123 liters/103 kg (32.5 gallons/228 lbs.)

**TEST VEHICLE WEIGHTS**

	Units	As Delivered (UVW)			As Tested (ATW)*		
		Front	Rear	Total	Front	Rear	Total
Left	kg	764	944		826	1370	
Right	kg	768	924		854	1384	
Ratio	%	45.0%	55.0%		37.9%	62.1%	
Totals	kg	1532	1868	3400	1880	2754	4434

COMMENTS: NONE

Recorded By: Jordan Hayes

Approved By: [Signature]

Date: 6/15/05



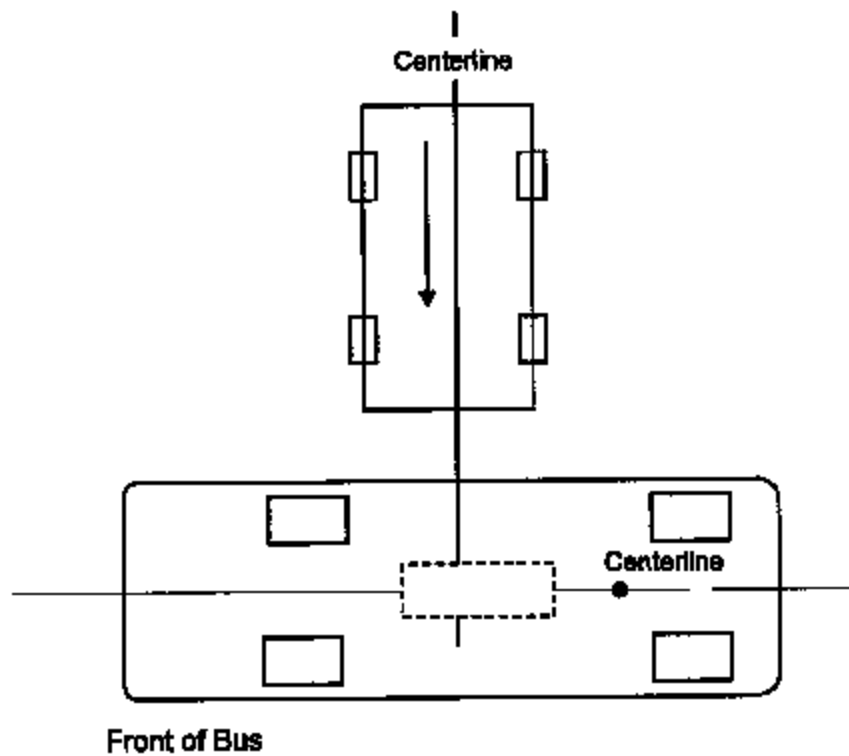
**DATA SHEET 2**  
**SCHOOL BUS IMPACT DATA**

Test Vehicle: **Collins 2004 Super Bantam School Bus**  
Test Lab: **MGA Research-Wisconsin Operations**

NHTSA No.: **C40901**  
Test Date: **6/15/05**

Time of Impact:	11:09 am
Ambient Temperature (°C)	21.1
Barrier Velocity – Speed Trap 1 (kph):	31.2
Barrier Velocity – Speed Trap 2 (kph):	31.4
Barrier Penetration:	84 mm

**INDICATE IMPACT POINT BELOW:**



**LEGEND:** Red dotted line Indicates location of fuel tank  
Arrow indicates point and angle of barrier impact ( $C_L$  of arrow coincides with  $C_L$  of monorail).

**DATA SHEET 2 (CONTINUED)  
SCHOOL BUS IMPACT DATA**

Fuel Spillage Noted:	No
Failure, if applicable:	None

**Stoddard Solvent Spillage Measurements**

Timeframe	Description	Allowable Spillage	Measured Spilled	Results
$T_0 - T_1$	Time Zero to Cessation of Motion	31 grams (1 ounce)	0	PASS
$T_1 - T_2$	Cessation of Motion to 5 minutes after Cessation of Motion	156 grams (5 ounces)	0	PASS
$T_2 - T_3$	5 Minutes after Cessation of Motion to 30 minutes after Cessation of Motion	31 grams (1 ounce) per minute 933 grams (30 ounces) Total Allowed	0	PASS

ADDITIONAL FAILURE DETAILS: None

Recorded By: Jordan Hoynes

Approved By: [Signature]

Date: 6/15/05

**SECTION 3  
INSTRUMENTATION AND EQUIPMENT LIST**

Test Vehicle: **Collins 2004 Super Bantam School Bus**  
Test Lab: **MGA Research-Wisconsin Operations**

NHTSA No.: **C40901**  
Test Date: **6/15/05**

<b>Equipment</b>	<b>Description</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Next Cal. Date</b>
Counter/Timer	DCI	939095	10/28/04	10/28/05
Counter/Timer	DCI	939094	10/28/04	10/28/05
Vehicle Scales	GSE	212091 & 212092	6/10/05	12/10/05
Tape Measure	Stanley Powerlock 8M	162	5/19/05	11/19/05

**SECTION 4  
PHOTOGRAPHS**

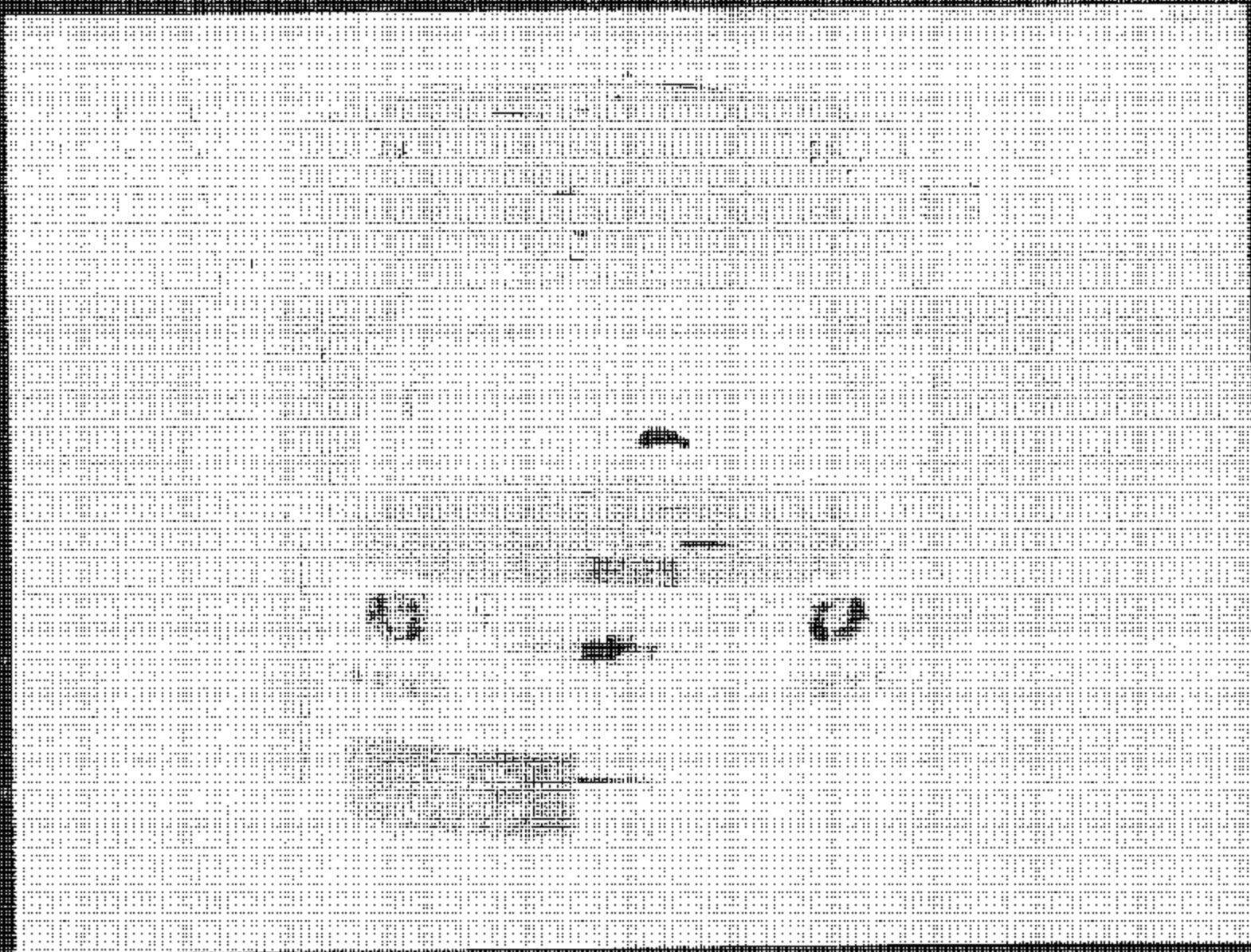
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Bus Vehicle  
Procedure:

2004 Collins Super Danlan School Bus  
FAHSS 201

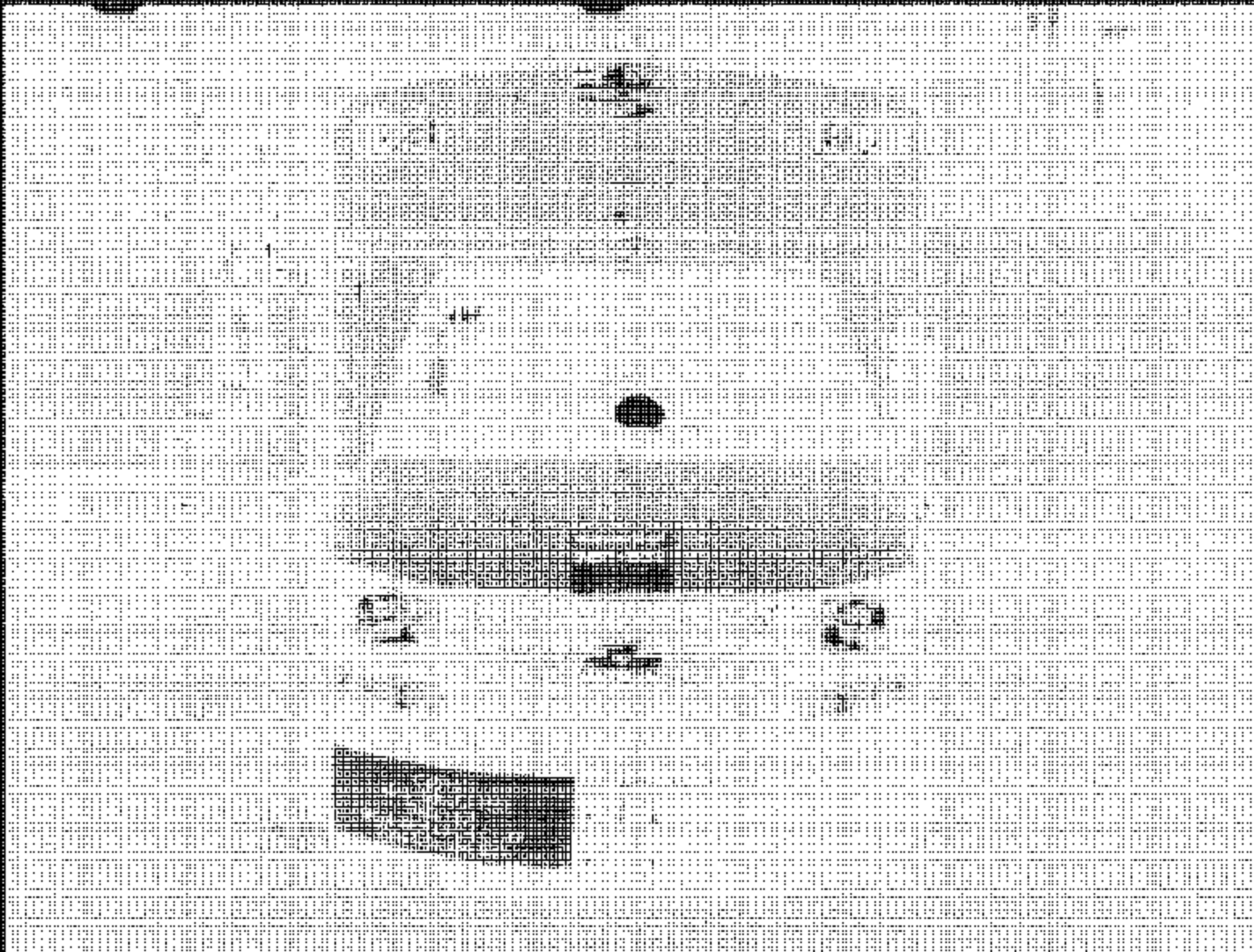
NETSA No. C40001



Pre-Test Front View of School Bus

Test Vehicle: 1954 Cadillac Superlimousine School Bus  
Procedure: FMVSS 927

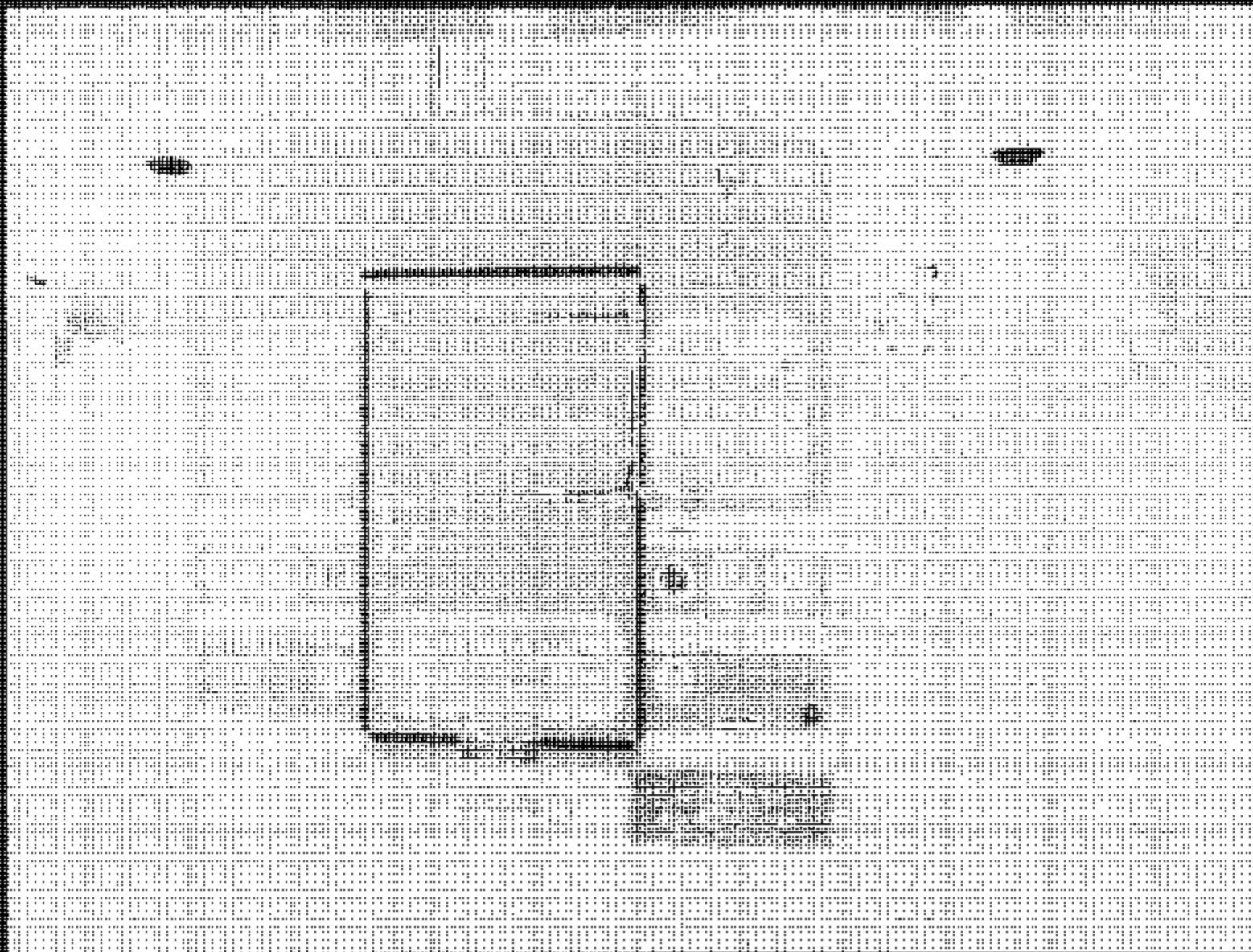
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Post-Test Front View of School Bus

Tool Vehicle: 2004 Gold Star Superior Education School Bus  
Procedure: #MV95 371

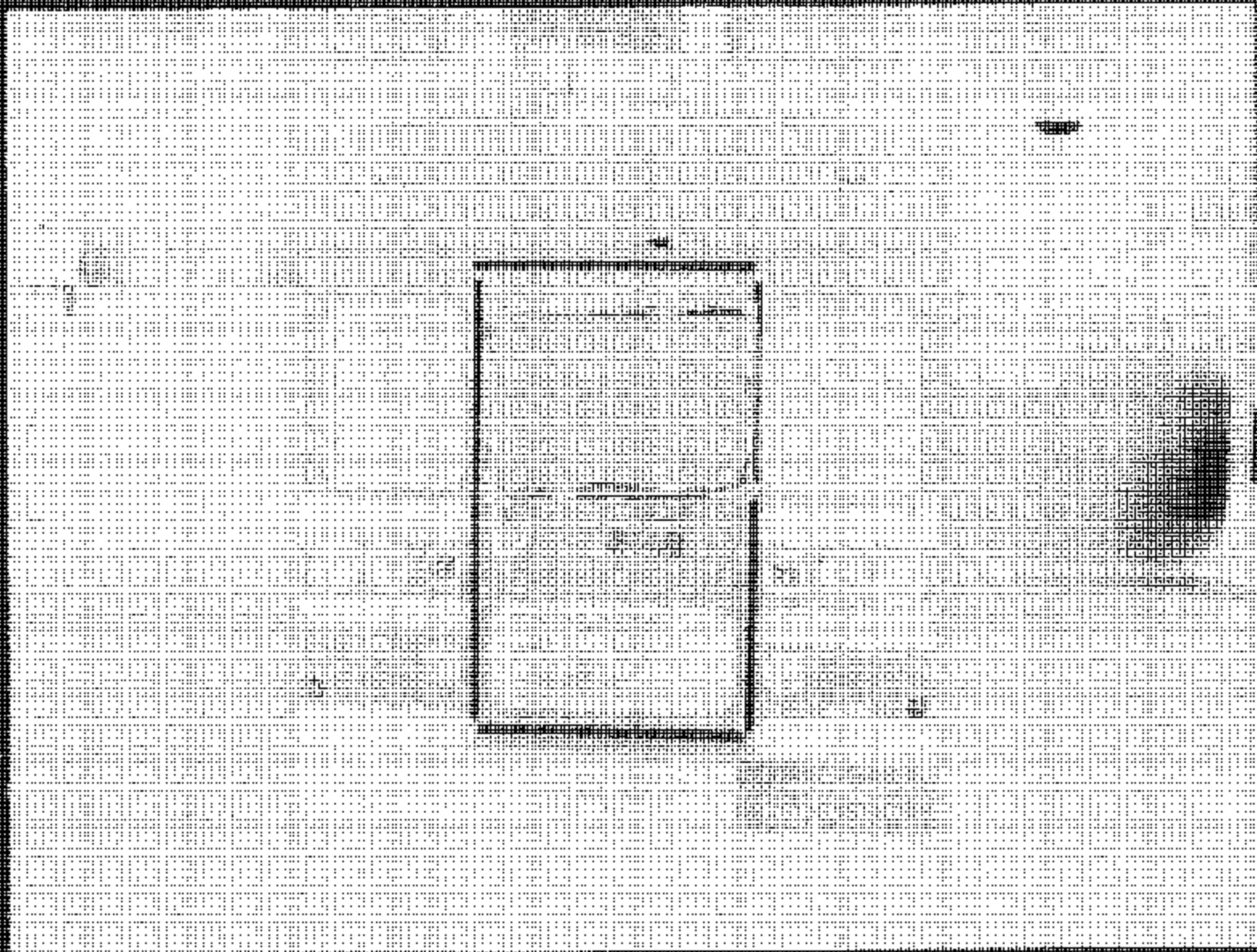
NHTSA No. C40501



Pre-Tax Rear View of School Bus

Test Vehicle: 2004 Calibra Super GARDIA School Bus  
Procedure: FMVSS 303

RFSA No. CA1901

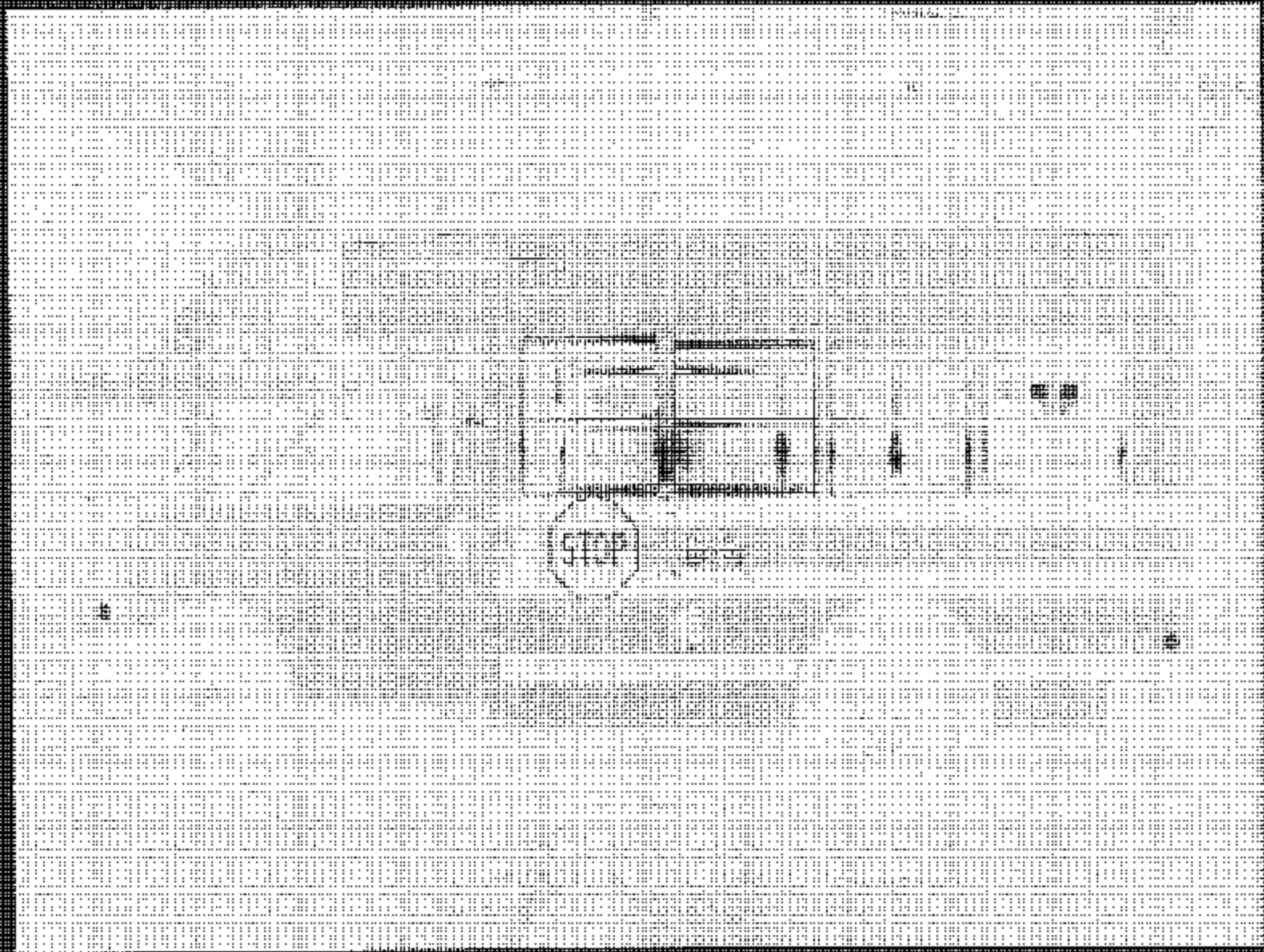


Post-Test Rear View of School Bus



Test vehicle: 2004 Collins Super Sedan School Bus  
Pressure: 75VSS 301

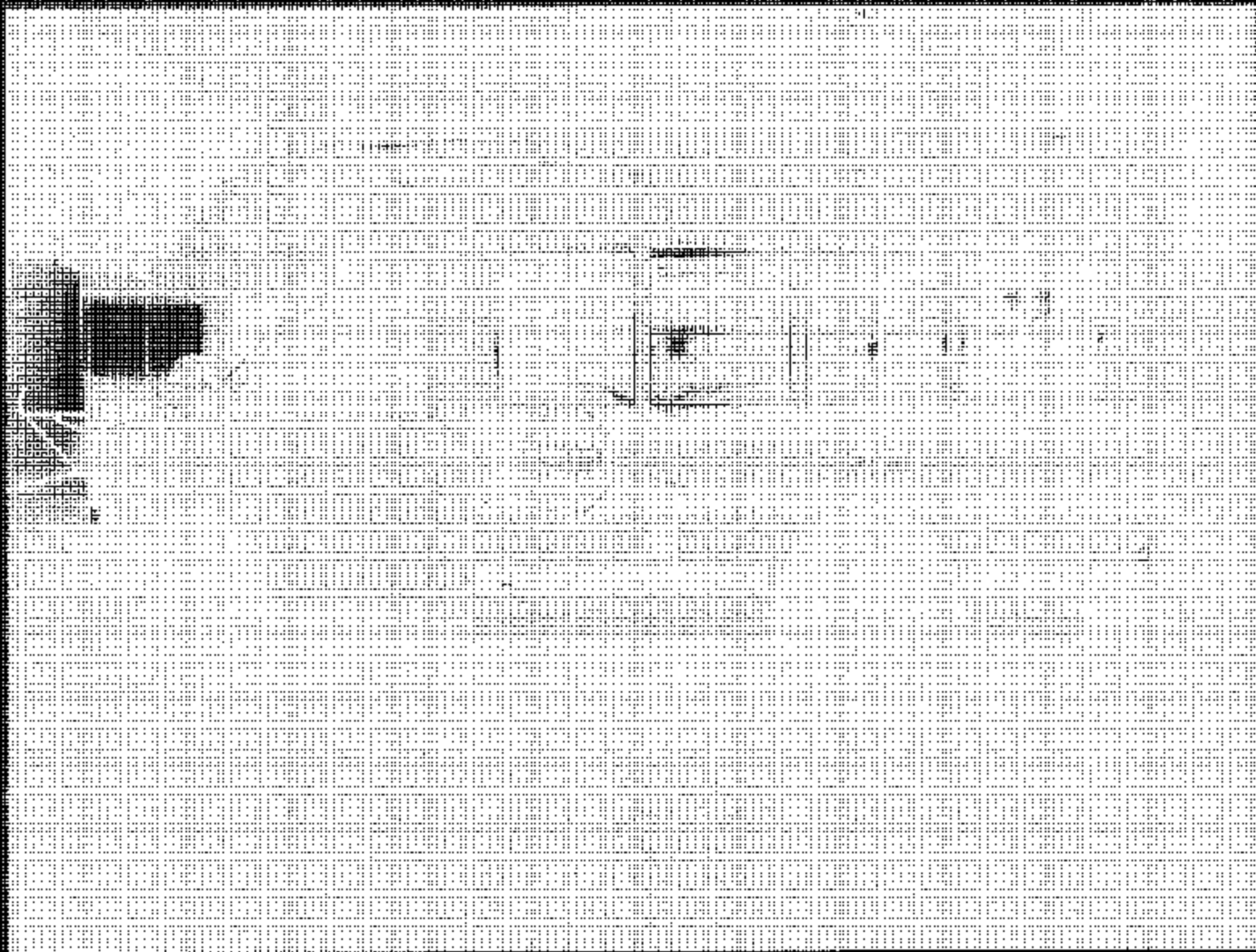
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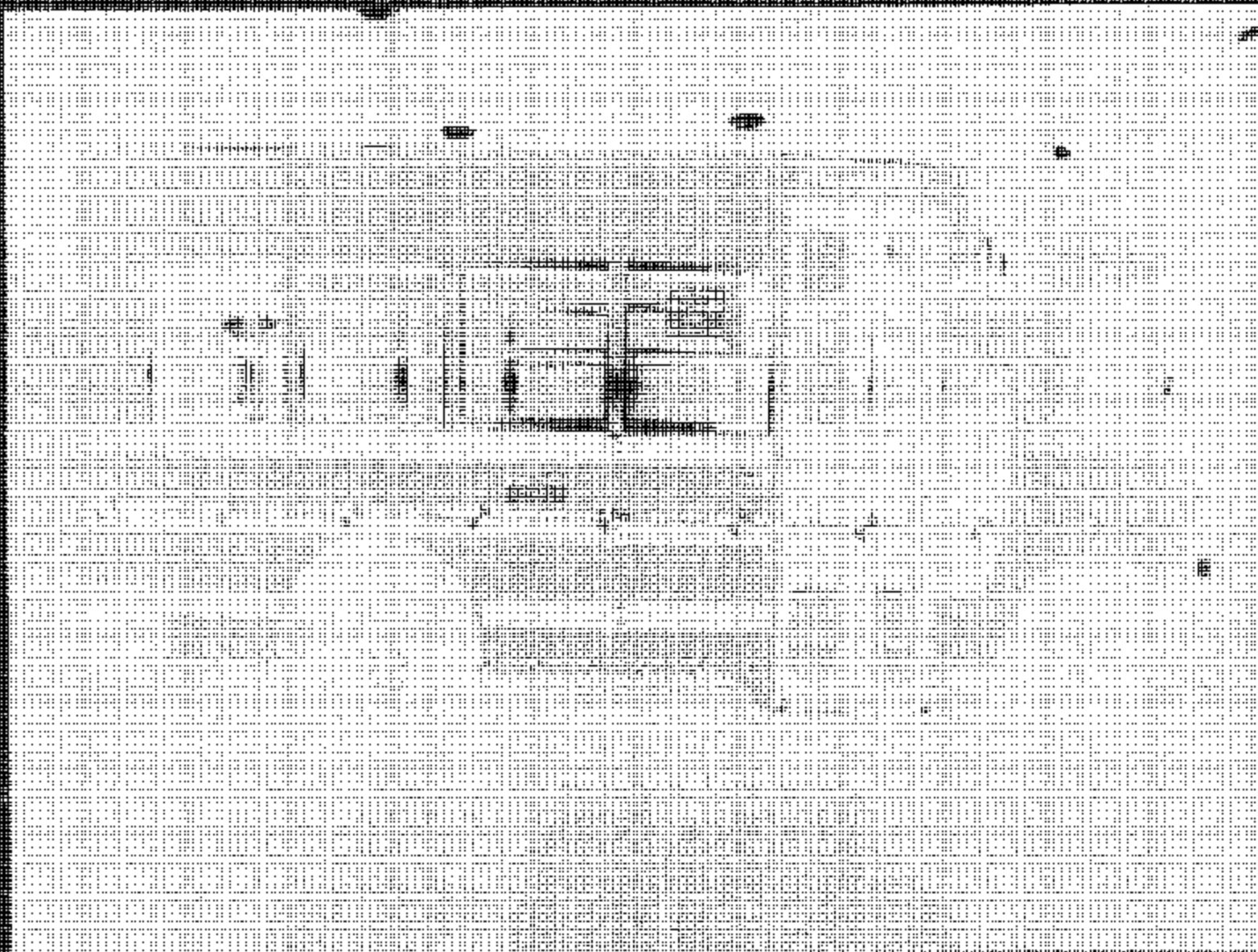
Pre-Test Left Side of School Bus

Top Vehicle: 2004 Collins Super Barrier School Bus  
Plate No: FBY55 301

MIETSA No: C44P01

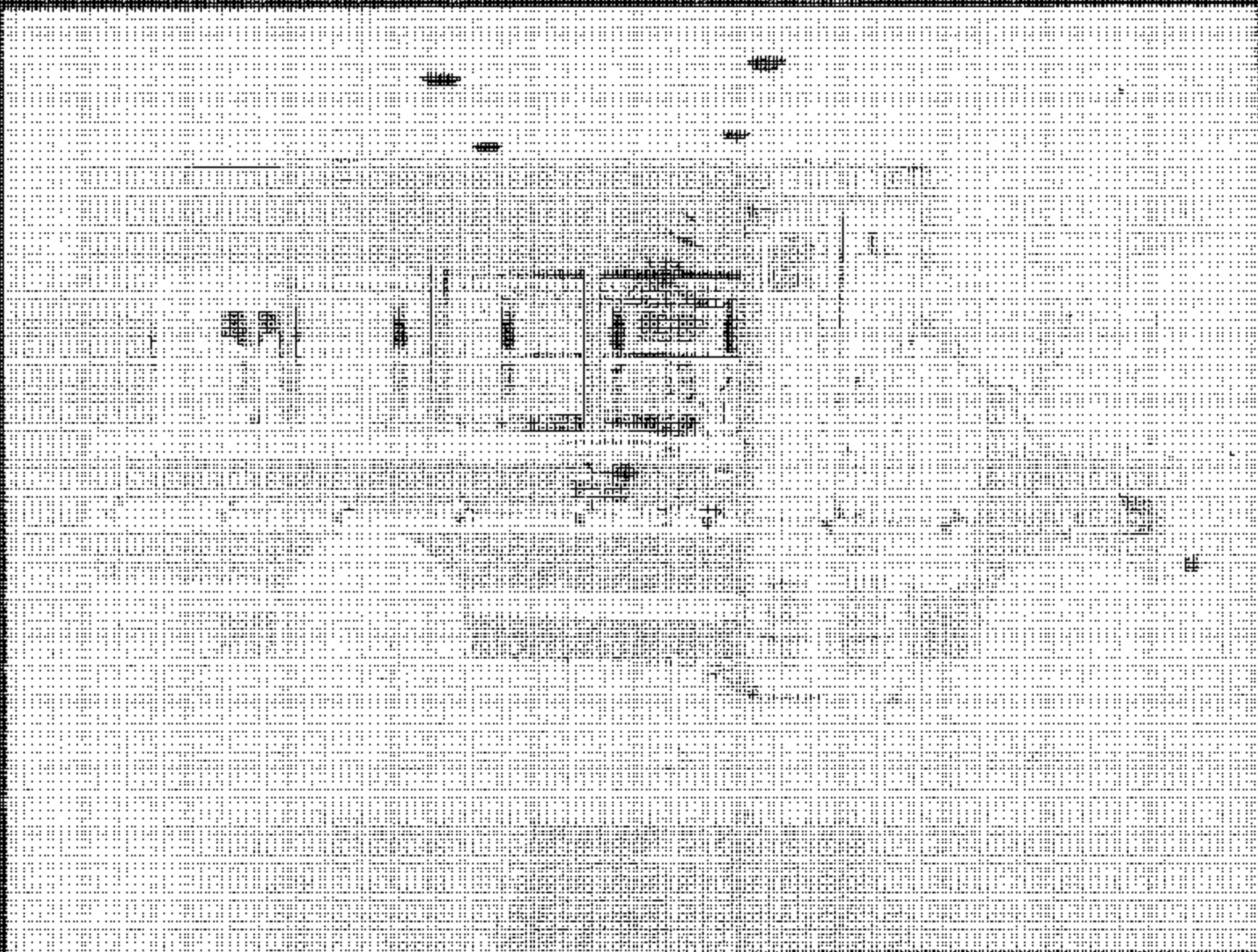


Front View Left Side of School Bus



Test Vehicle: 2001 Geelias Deper Bantam School Bus  
Procedure: FMVSS 301

NHTSA Ab: C40004



Front-Right Side of School Bus

Test Vehicle 2004 Cadillac Seville Gwinnett School Bus  
Firm/Model FBV/SS 301

NHTSA No: C48001

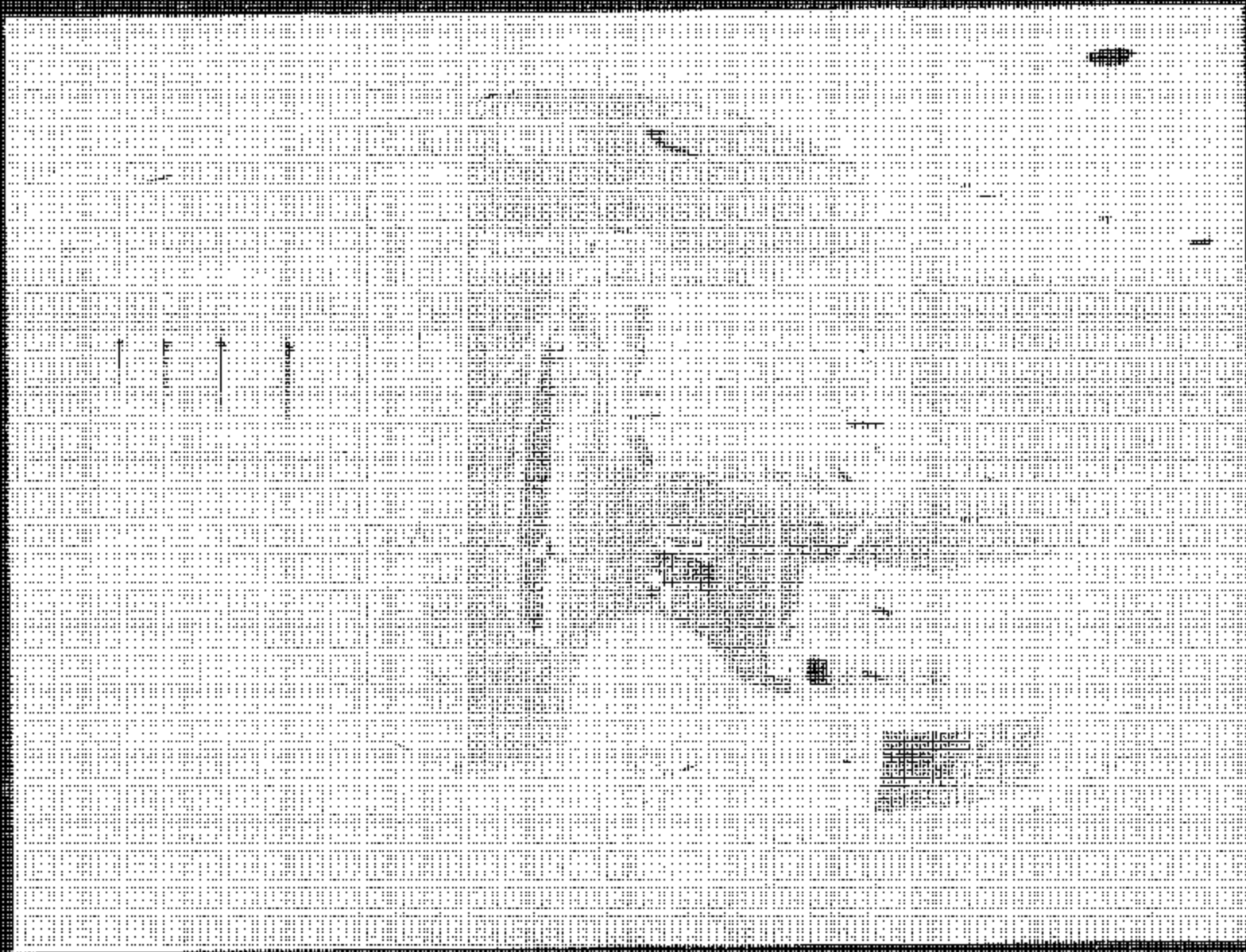


Post-Test Left Front 1/4 View of School Bus

Task 7/2012  
Procedure

Task 04/198 Super Human School Bus  
PMVSS 04

ANSI Res. C41401



Pro-Test Right Front 3/4 View of School Bus

1064 Collins Super Center School Bus  
FEBRUARY 1961

19-TSA No. C46901



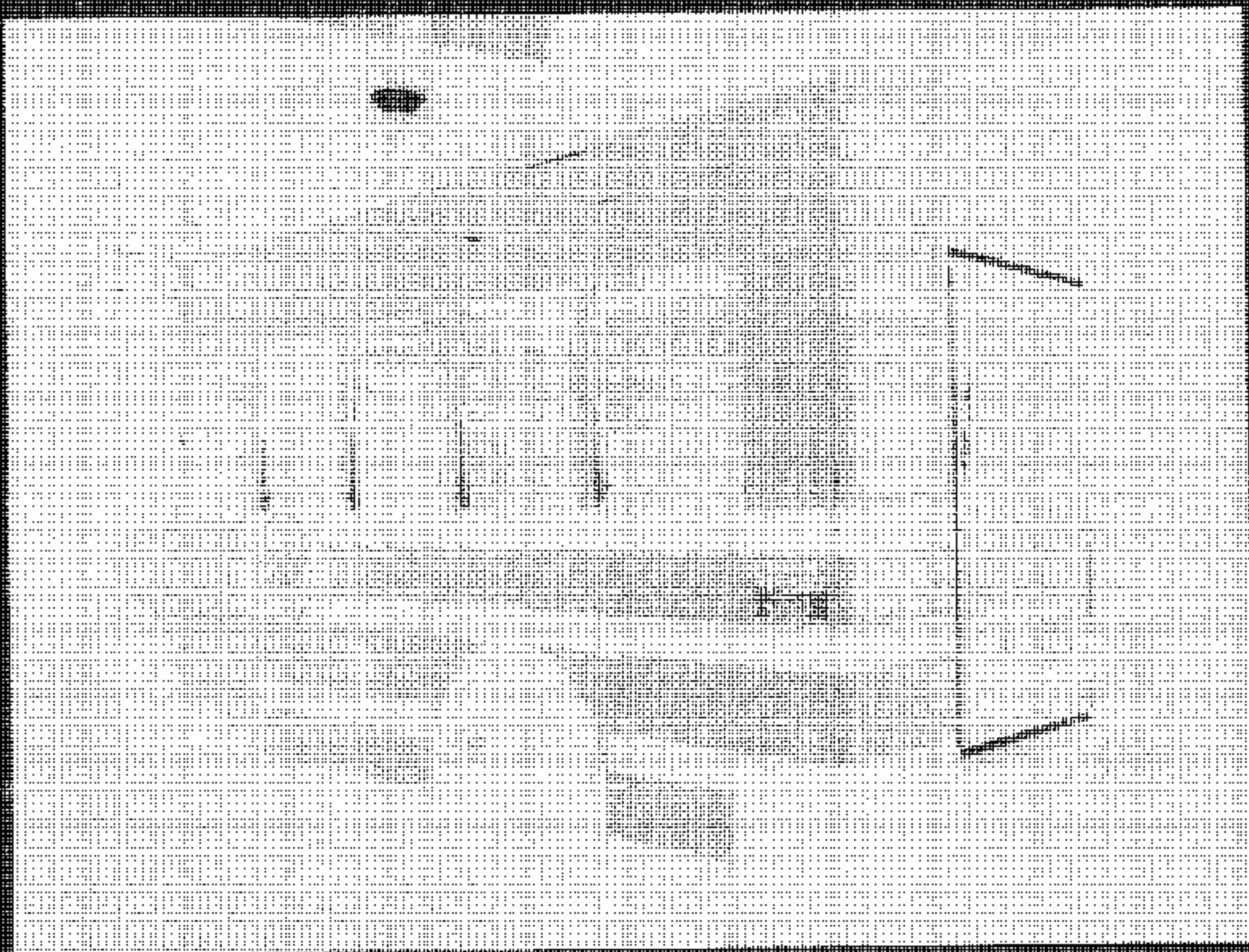
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Front View Right Front View of School Bus

Test Procedure

2004 Ford F450 Super Duty School Bus

NHTSA No. CA49801



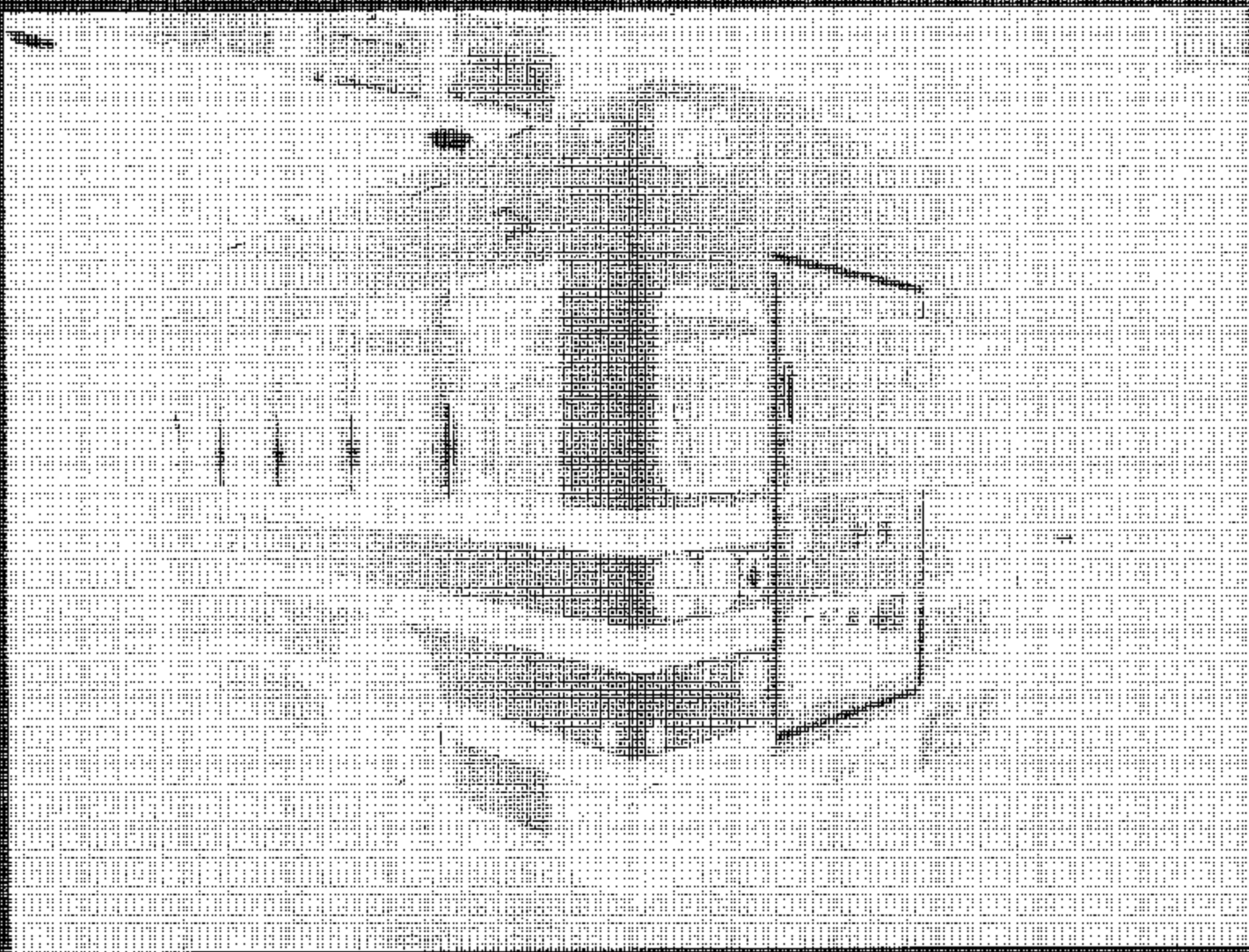
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File Test Left Rear 3/4 View of School Bus



Test Vehicle: 2004 Cadillac Super Sedan School Bus  
Production: FAWSS 301

NHTSA No: 0340001

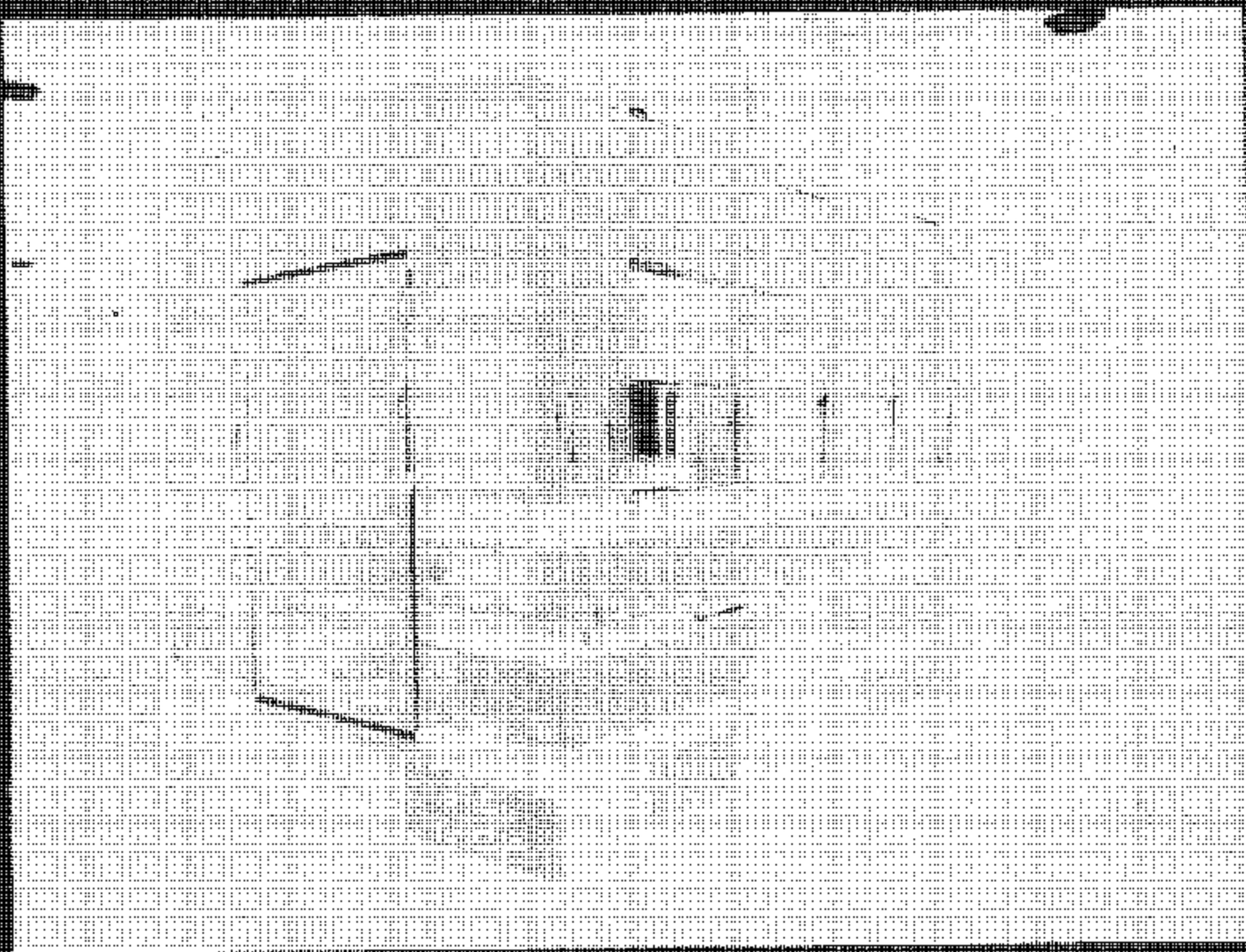


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Front-View Left Rear 1/2 View of School Bus

Test Vehicle: 2016 Chevrolet Super Duty Heavy Duty Crew Cab  
Procedure: FMVSS 301

NHTSA No. C-10001



Post-Test Right Rear 1/4 View of Structural Bar



Test Vehicle: 2004 Chevy Super Dextron School Bus  
Procedure: EAFSS 001

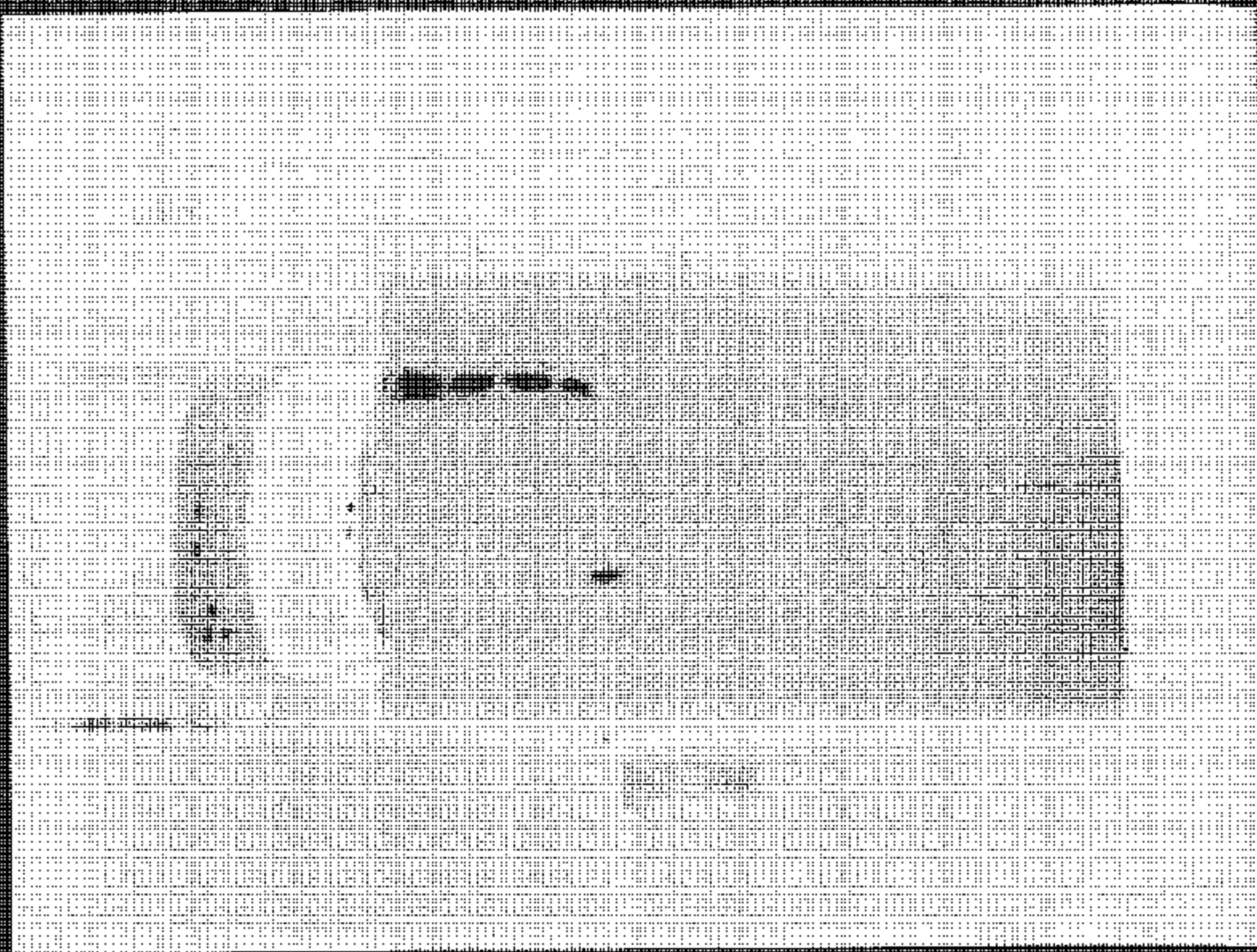
NHTSA No. 040411



Post-Test of Fuel Tank

Final Vehicle: 2004 Cobalt Super Sedan 4-Door Blue  
Production: 01/03/04

NHTSA No: 040888



Rollover FD Dwygoc

20

Tree Volume 2084 Collins Super Benton School Site  
Prepared: FAYSS 101

NETS No. C40901



Roll over 180 Degrees

Truck Vehicle 2014 Canine Super Danden School Bus  
Procedure 101930301

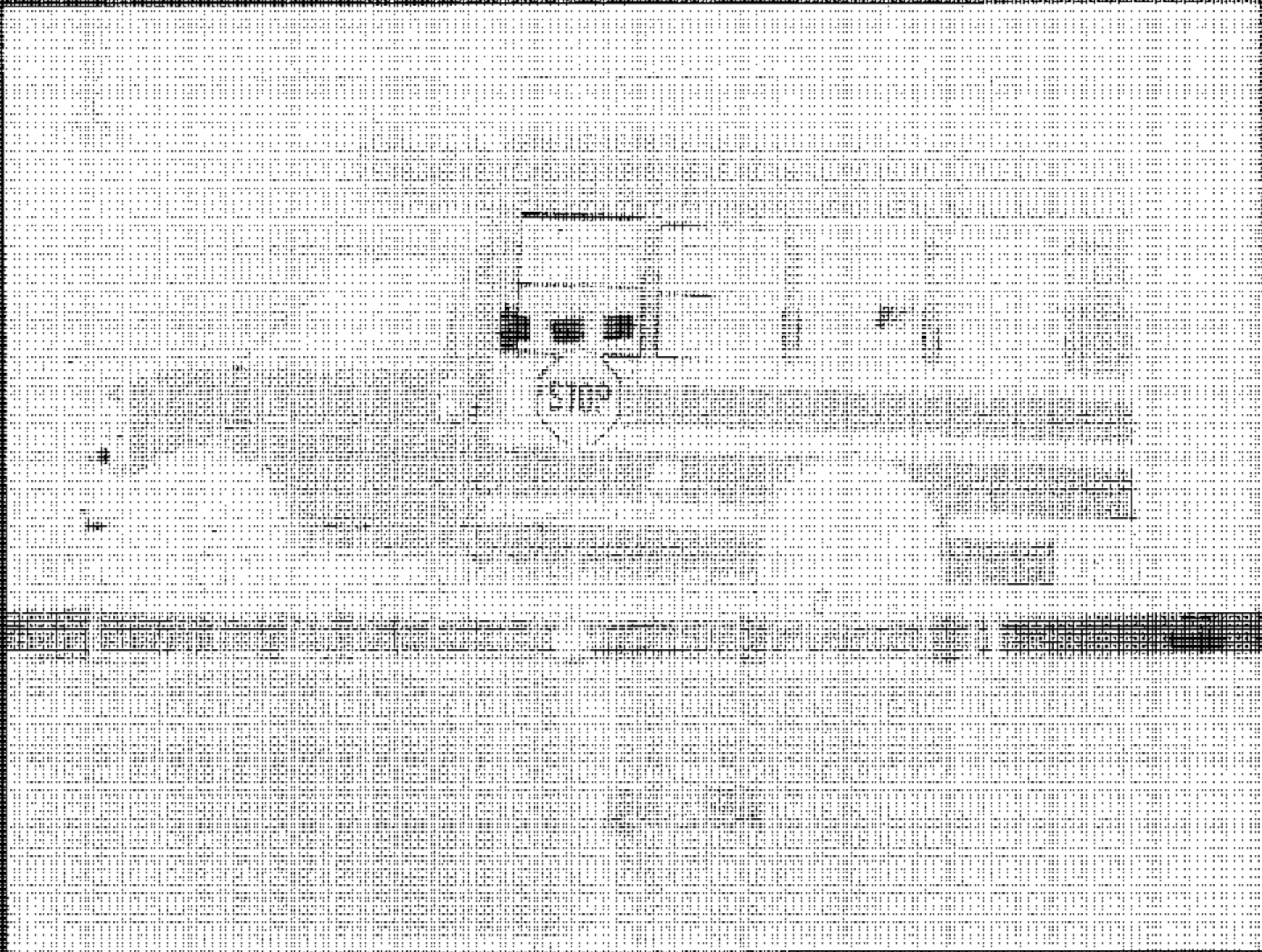
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Roll-over 270 Diagram

Task Order: 2004 Collins Super Junction School Bus  
Procedure: RAK-503 30F

MTSA No: C40901

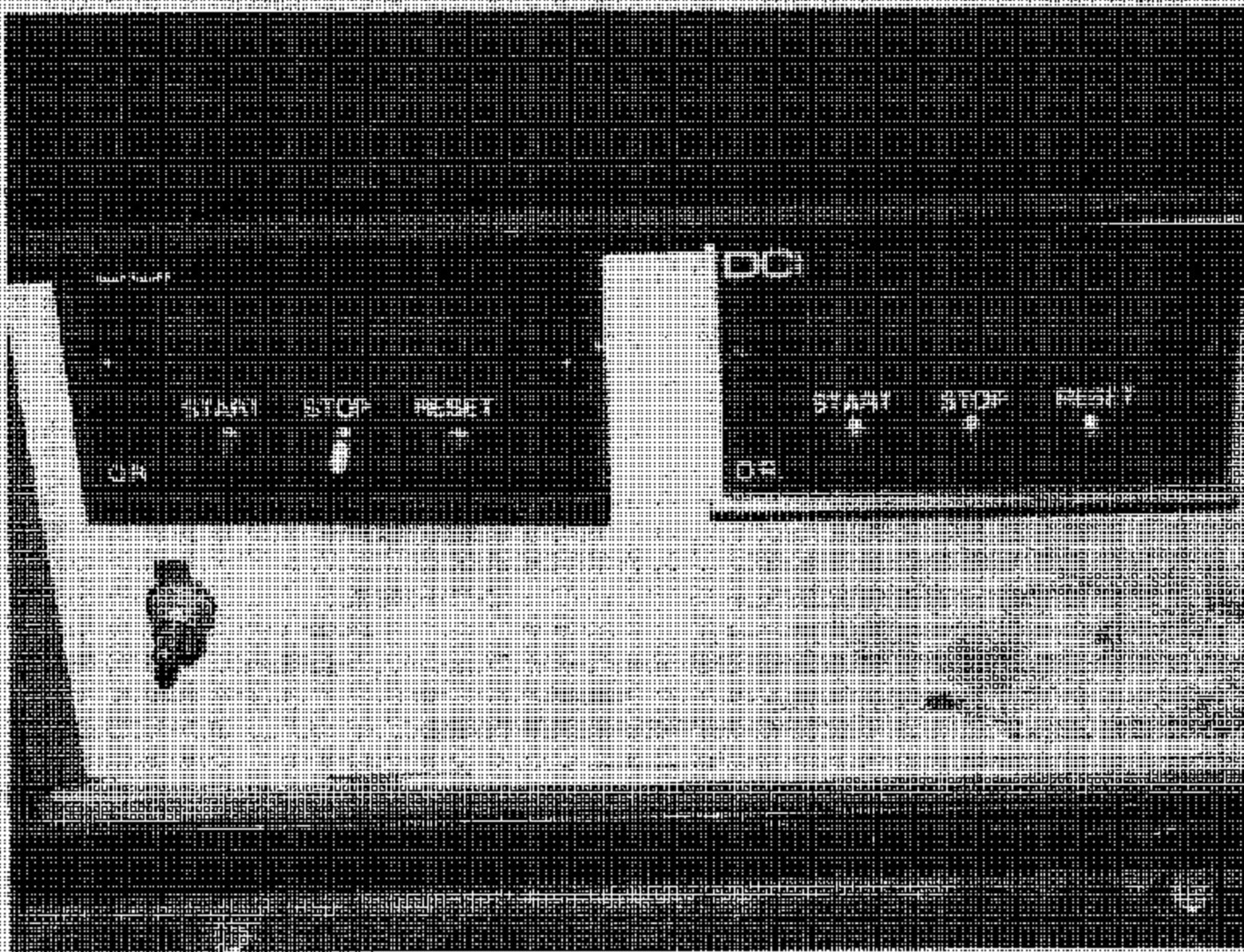


RAK-503 30F



Test Vehicle: 2004 Cobalt Super Sedan School Bus  
Procedure: FMVSS 301

NHTSA No. C40901

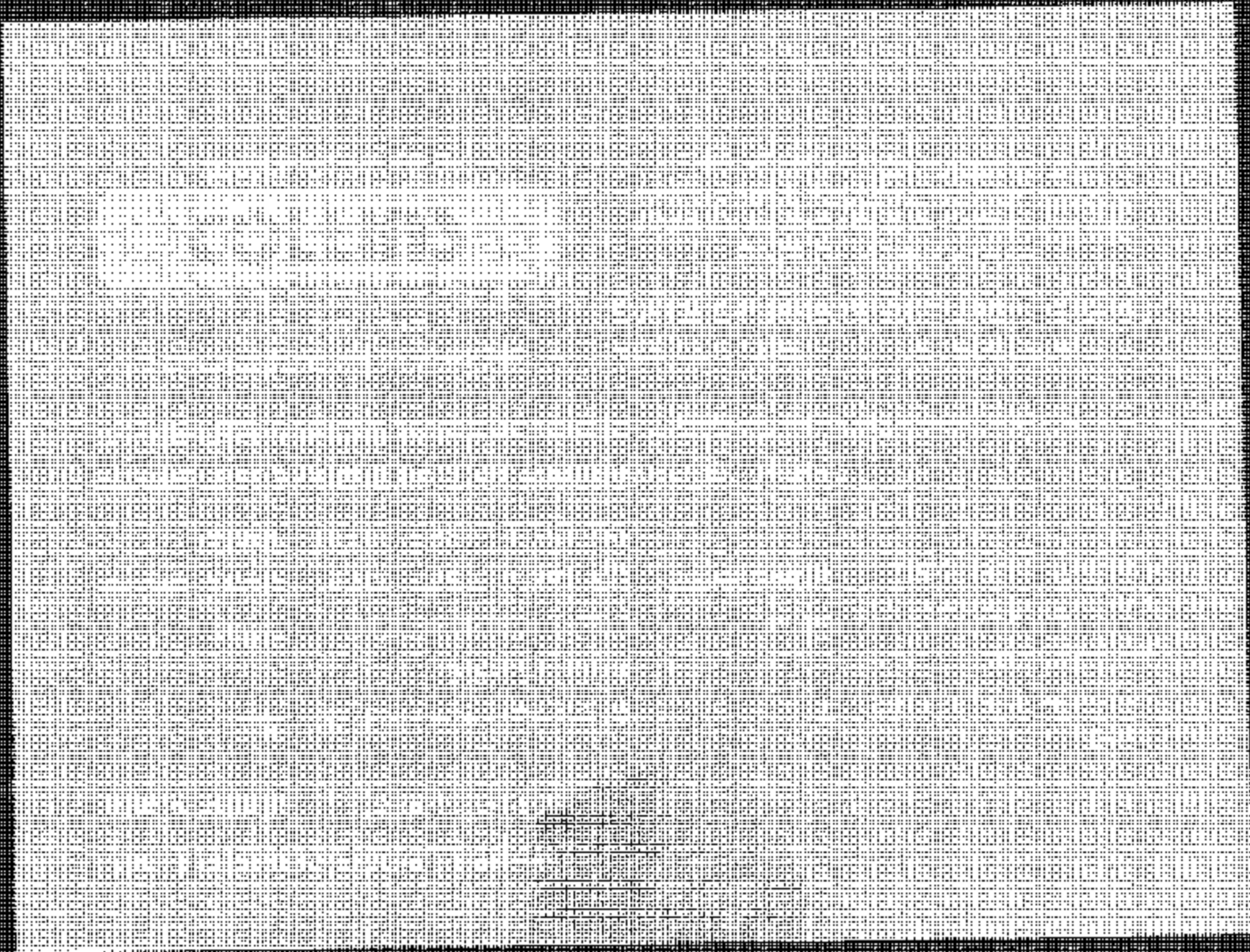


Speed Trap Counter Display

Test Vehicle  
Procedure

2004 Collins Super Dancer School Bus  
FNVS0 031

311E-S4 150 040804



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