SAFETY COMPLIANCE TESTING FOR FMVSS NO. 111 SCHOOL BUS REARVIEW MIRRORS

Mid Bus Inc. 2006 Mid Bus Guide DW School Bus NHTSA No. C60901

PREPARED BY: MGA RESEARCH CORPORATION 5000 WARREN ROAD BURLINGTON, WI 53105



Final Report Date: November 28, 2006

**FINAL REPORT** 

PREPARED FOR: U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ENFORCEMENT OFFICE OF VEHICLE SAFETY COMPLIANCE MAIL CODE: NVS-220 400 SEVENTH STREET, SW, ROOM 6115 WASHINGTON, D.C. 20590

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Prepared by:	Jeff Koenler, Project Engineer	Date: November 28, 2006
Reviewed by:	Michael Janovicz, Program Mahager	Date: November 28, 2006

FINAL REPORT ACCEPTED BY:

John Finneron 11/28/06

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# SECTION 1 PURPOSE OF COMPLIANCE TEST

Tests were conducted on a 2006 Mid Bus Guide DW School Bus, NHTSA No. C60901 , in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedure TP-111SB-00 to determine compliance to the requirements of Federal Motor Vehicle Safety Standard (FMVSS) 111, "School Bus Rearview Mirrors."

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

# SECTION 2 TEST DATA SUMMARY

Based on the tests performed, the MY2006 Mid Bus Guide DW School Bus, NHTSA No. C60901, appears to meet all of the requirements of FMVSS 111. See Test Summary Data Sheets on the following pages.

# FMVSS 111SB, SCHOOL BUS REARVIEW MIRRORS TEST SUMMARY DATA SHEET

# Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

#### **System A Mirrors**

A. Driver Side Mirror #3 - Unit Magnification

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Surface Area	PASS	
Reflectance	PASS	
Unit Magnification	PASS	

#### B. Passenger Side Mirror #4 - Unit Magnification

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Surface Area	PASS	
Reflectance	PASS	
Unit Magnification	PASS	

### C. Driver Side Mirror #5 - Convex

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Reflectance	PASS	

#### D. Passenger Side Mirror #6 - Convex

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Reflectance	PASS	

## FMVSS 111SB, SCHOOL BUS REARVIEW MIRRORS

### TEST SUMMARY DATA SHEET...continued

# Test Vehicle:<br/>Test Lab:2006 Mid Bus Guide DW School Bus<br/>MGA Research-Wisconsin OperationsNHTSA No.:C60901<br/>Test Date:10/12/06

### **System B Mirrors**

E. Driver Side Front Mirror #1 - Cross View

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Overlap with System A	PASS	
Distance to Eye Point	PASS	
No Surface Discontinuities	PASS	
Surface Area	PASS	
If Convex – Radius of Curvature	PASS	
Radius of Curvature Label	PASS	
Arc Separation	PASS	
Reflectance	PASS	

### F. Passenger Side Front Mirror #2 - Cross View

	Pass/Fail	Comments
Mounting	PASS	
Field of View	PASS	
Overlap with System A	PASS	
Distance to Eye Point	PASS	
No Surface Discontinuities	PASS	
Surface Area	PASS	
If Convex – Radius of Curvature	PASS	
Radius of Curvature Label	PASS	
Arc Separation	PASS	
Reflectance	PASS	

# SECTION 3 COMPLIANCE TEST DATA

# FMVSS 111SB – DATA SHEET 1

#### SCHOOL BUS INSPECTION AND IDENTIFICATION

Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

#### **GENERAL VEHICLE IDENTIFICATION**

Final Stage Manufacturer	Mid Bus, Inc.	Date of Mfg.	09/2006
Incomplete Vehicle Manufacturer	Chevrolet	Date of Mfg.	04/2006
GVWR (kg)	5579	GAWR Front (kg)	1951
		GAWR Rear (kg)	3901

#### **DESCRIPTION OF MIRRORS**

		Туре			
Mirror No.	Unit Mag	Convex	Cross View	Description	Manufacturer
1			Х	Driver Side	
2			Х	Passenger Side	
3	Х			Driver Side	Rosco Mirror
4	Х			Passenger Side	
5		Х		Driver Side	
6		Х		Passenger Side	

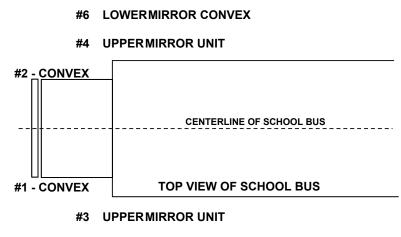
Kachler Recorded By: Approved By

#### FMVSS 111SB – DATA SHEET 2

#### MIRROR LOCATION AND FIELD OF VIEW

Test Vehicle:	2006 Mid Bus Guide DW School Bus	NHTSA No.:	C60901
Test Lab:	MGA Research-Wisconsin Operations	Test Date:	10/12/06

# **MIRROR DIAGRAM**



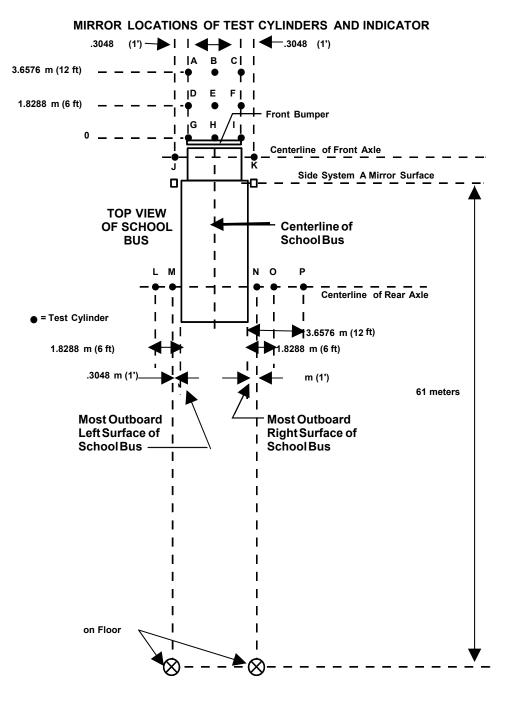
**#5 LOWERMIRROR CONVEX** 

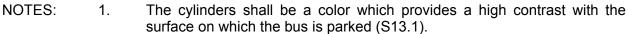
MIRROR NO.	TYPE	MIRROR SYSTEM	CYLINDERS VIEWED (entire top surface)
1	CROSS VIEW/CONVEX	В	B,C,E,F,H,I,J,L,M
2	CROSS VIEW/CONVEX	В	A,D,E,G,H,I,K,N,O,P
3	UNIT MAGNIFICATION	А	61 Meter INDICATOR
4	UNIT MAGNIFICATION	А	61 Meter INDICATOR
5	CONVEX	A	L,M
6	CONVEX	А	N,O

SEE FIGURE ON NEXT PAGE

# FMVSS 111SB – DATA SHEET 2...continued MIRROR LOCATION AND FIELD OF VIEW

Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06





2. The cylinders are 0.3048 m high and 0.3048 m in diameter, except for cylinder P which is 0.9144 m high and 0.3048 m in diameter.

# FMVSS 111SB DATA SHEET 2...continued MIRROR LOCATION AND FIELD OF VIEW

Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

#### SYSTEM A AND DIRECT VISION

System A Mirrors	Pass/Fail
Entire top surface of cylinder N and the indicator 61 meters (200 feet) rearward of the mirror surface can be viewed in the photograph	PASS
Entire top surface of cylinder M and indicator 61 meters (200 feet) rearward of the mirror surface can be viewed in the photograph	PASS
Which test cylinders A through P can not be photographed directly from the driver's eye location within the semi-circle viewing area using no mirror system:	D,E,F,G,H, I,J,K,L,M,N,O,P

## SYSTEM B ARC'S AND DISTANCE

Mirror Number (from data sheet 2)	Mirror Location	Distance from the Driver's Eye Point to the Center of the Mirror (cm)	3 Minutes of Arc (cm)	9 Minutes of Arc (cm)
#1	Left Front	219.5	0.192	
#2	Right Front	265.0	0.231	0.694

Distance determined in column 3 multiplied by 0.000873 yield 3 minutes of arc, for column 4, for that mirror as viewed from the driver's eye point; the distances determined in column 3 multiplied by 0.002618 yield 9 minutes of arc, for column 5, for that mirror as viewed from the driver's eye point. The minimum distance for any system B mirror between the driver's eye point and the center of the mirror is more than 95 centimeters (37.5 inches):

	Distance	Pass/Fail
Distance between center of System B mirror #1 and driver's eye point	219.5 cm	PASS
Distance between center of System B mirror #2 and driver's eye point	265.0 cm	PASS

Recorded By:	Jeff Sachler
	1.08
Approved By:	Pucce go Z

## FMVSS 111SB DATA SHEET 3

## FIELD OF VIEW TEST – PHOTOGRAPHS System B

Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

		Pass/Fail
All test cylinders with entire top surface not directly visible from the driver's semi-circle eye location are able to be viewed with System B mirrors from the driver's semi-circle location:		PASS
All test cylinders with entire top surface not directly visible from the driver's semi-circle eye location but the image can be viewed with System B mirrors. The image is separated for the edge of the effective mirror surface of the mirror providing that image by a distance of not less than 3 minutes of arc:		PASS
If the entire top surface of test cylinder P is not directly visible from the driver's semi-circle eye location, the image can be viewed with System B mirrors from the driver's semi-circle eye location, where the angular size of the shortest dimension of		
that cylinder's image is not less than 3 minutes of arc, and the angular size of the longest dimension of that cylinder's image is not less than 9 minutes of arc:		PASS
Shortest arc length dimension 0.231 cm		
Longest arc length dimension		
For each of the test cylinders whose entire top surface is not directly visible from the driver's eye location, System B provides a view of the ground that overlaps with the view of the ground provided by System A.		PASS

eff Kachler Recorded By: Approved By

# FMVSS 111SB DATA SHEET 4 MOUNTING ADEQUACY TEST

Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

# MOUNTING SUPPORT OF ALL MIRRORS

Mirror No. (from data sheet 2)	Туре	System	Stable Support Yes/No
1	Cross View/Convex	В	Yes
2	Cross View/Convex	В	Yes
3	Unit Magnification	A	Yes
4	Unit Magnification	A	Yes
5	Convex	A	Yes
6	Convex	A	Yes

	Pass/Fail
Outside mirrors free of sharp points or edges that could contribute to pedestrian injury	PASS
System B mirrors have no discontinuities in the slope of the surface of the mirror	PASS

Recorded By:	Kaehler
Approved By: Hill	Rog J

## FMVSS 111SB DATA SHEET 5

## **REFLECTANCE TEST – ALL MIRRORS**

Test Vehicle:	2006 Mid Bus Guide DW School Bus	NHTSA No.:	C60901
Test Lab:	MGA Research-Wisconsin Operations	Test Date:	10/12/06

Mirror No.	Туре	Light meter reading from calibration (FC)	Light meter reading from light reflected by mirror (FC)	Pass/Fail	Observations
1	Crossview/Convex	116	72.3	PASS	
2	Crossview/Convex	116	72.7	PASS	
3	Unit	116	66.3	PASS	
4	Unit	116.3	68.7	PASS	
5	Convex	116	69	PASS	
6	Convex	115	69	PASS	

Note: Reflectance % = [Reflectance Reading / Calibration reading] x 100 Minimum Requirement = 35 percent

Mirror No.	Туре	Reflectance	Requirement
1	Crossview/Convex	62%	>35%
2	Crossview/Convex	63%	>35%
3	Unit	57%	>35%
4	Unit	59%	>35%
5	Convex	59%	>35%
6	Convex	60%	>35%

Kachlu Recorded By Approved By:\_

## FMVSS 111SB DATA SHEET 6

## UNIT MAGNIFICATION/CONVEX MIRROR TEST – ALL MIRRORS

Test Vehicle:	2006 Mid Bus Guide DW School Bus	NHTSA No.:	C60901
Test Lab:	MGA Research-Wisconsin Operations	Test Date:	10/12/06

#### CONVERSION DATA TABLE FROM SPHEROMETER DIAL READING TO RADIUS OF CURVATURE

## MIRROR NO. <u>1 (CONVEX)</u>

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.05290	135.7	46.9	25.7%
2	0.03465	206.6	-24.0	-13.1%
3	0.02565	278.8	-96.2	-52.7%
4	0.04830	148.5	34.1	18.7%
5	0.05095	140.9	41.8	22.9%
6	0.03570	200.6	-17.9	-9.8%
7	0.05070	141.5	41.1	22.5%
8	0.03055	234.2	-51.6	-28.3%
9	0.05325	134.8	47.8	26.2%
10	0.03500	204.6	-21.9	-12.0%
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: 182.6 mm		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: 52.7%		

#### MIRROR NO. <u>2 (CONVEX)</u>

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.05300	135.5	46.0	25.3%
2	0.03515	203.7	-22.3	-12.3%
3	0.02635	271.4	-90.0	-49.6%
4	0.04815	149.0	32.4	17.9%
5	0.05040	142.4	39.0	21.5%
6	0.03575	200.3	-18.9	-10.4%
7	0.05080	141.3	40.1	22.1%
8	0.03100	230.8	-49.4	-27.2%
9	0.05330	134.7	46.7	25.7%
10	0.03490	205.1	-23.7	-13.1%
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: 181.4 mm		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: 49.6%		

#### FMVSS 111SB DATA SHEET 6...continued

#### UNIT MAGNIFICATION/CONVEX MIRROR TEST – ALL MIRRORS

# Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

# CONVERSION DATA TABLE FROM SPHEROMETER DIAL READING TO RADIUS OF CURVATURE

## MIRROR NO. 3 (UNIT MAGNIFICATION)

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.00000	N/A	N/A	N/A
2	0.00000	N/A	N/A	N/A
3	0.00000	N/A	N/A	N/A
4	0.00000	N/A	N/A	N/A
5	0.00000	N/A	N/A	N/A
6	0.00000	N/A	N/A	N/A
7	0.00000	N/A	N/A	N/A
8	0.00000	N/A	N/A	N/A
9	0.00000	N/A	N/A	N/A
10	0.00000	N/A	N/A	N/A
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: N/A		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: N/A		

#### MIRROR NO. 4 (UNIT MAGNIFICATION)

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.00000	N/A	N/A	N/A
2	0.00000	N/A	N/A	N/A
3	0.00000	N/A	N/A	N/A
4	0.00000	N/A	N/A	N/A
5	0.00000	N/A	N/A	N/A
6	0.00000	N/A	N/A	N/A
7	0.00000	N/A	N/A	N/A
8	0.00000	N/A	N/A	N/A
9	0.00000	N/A	N/A	N/A
10	0.00000	N/A	N/A	N/A
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: N/A		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: N/A		

### FMVSS 111SB DATA SHEET 6...continued

#### UNIT MAGNIFICATION/CONVEX MIRROR TEST – ALL MIRRORS

# Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

#### CONVERSION DATA TABLE FROM SPHEROMETER DIAL READING TO RADIUS OF CURVATURE

#### MIRROR NO. <u>5 (CONVEX)</u>

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.01365	523.5	-14.2	-2.8%
2	0.01425	501.5	7.8	1.5%
3	0.01410	506.8	2.5	0.5%
4	0.01410	506.8	2.5	0.5%
5	0.01400	510.4	-1.1	-0.2%
6	0.01405	508.6	0.7	0.1%
7	0.01450	492.9	16.5	3.2%
8	0.01400	510.4	-1.1	-0.2%
9	0.01370	521.6	-12.3	-2.4%
10	0.01400	510.4	-1.1	-0.2%
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: 509.3 mm		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: 3.2%		

#### MIRROR NO. 6 (CONVEX)

Test Position	Dial Reading (inches)	Radius of Curvature (mm)	Deviation between the Average Radius of Curvature and the Test Position Radius of Curvature (mm)	Percent Deviation from the Average Radius of Curvature
1	0.01370	521.6	-10.3	-2.0%
2	0.01390	514.1	-2.8	-0.6%
3	0.01390	514.1	-2.8	-0.6%
4	0.01390	514.1	-2.8	-0.6%
5	0.01405	508.6	2.7	0.5%
6	0.01425	501.5	9.8	1.9%
7	0.01430	499.7	11.6	2.3%
8	0.01390	514.1	-2.8	-0.6%
9	0.01365	523.5	-12.2	-2.4%
10	0.01425	501.5	9.8	1.9%
Avg. Radius of Curvature – the Summation of Column 3 divided by 10: 511.3 mm		Greatest Percent Deviation from the Average Radius of Curvature, Column 5: 2.4%		

# FMVSS 111SB DATA SHEET 6...continued UNIT MAGNIFICATION/CONVEX MIRROR TEST – ALL MIRRORS

# Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

#### UNIT MAGNIFICATION IN SYSTEM A

	Pass/Fail
At least one System A Mirror on the left and right sides of the bus is unit magnification - (0 Radius of Curvature)	PASS

#### AVERAGE RADIUS OF CURVATURE OF CONVEX MIRRORS USED IN SYSTEM B

Mirror No.	Radius of Curvature	If needed, wording printed properly* Pass/Fail
1	182.6 mm	PASS
2	181.4 mm	PASS

\* If any of the Convex Mirrors in System B have an average radius of curvature less than 889 mm, then the following words must be printed on a label in type face and color that are clear and conspicuous to the driver:

"USE CROSS VIEW MIRRORS TO VIEW PEDESTRIANS WHILE BUS IS STOPPED. DO NOT USE THESE MIRRORS TO VIEW TRAFFIC WHILE BUS IS MOVING, IMAGES IN SUCH MIRRORS DO NOT ACCURATELY SHOW ANOTHER VEHICLE'S LOCATION."

Recorded By: Jeff Kachler
Approved By: Michel &

# FMVSS 111SB DATA SHEET 7 MIRROR REFLECTIVE SURFACE AREA TEST SYSTEM A & B

Test Vehicle:	2006 Mid Bus Guide DW School Bus	NHTSA No.:	C60901
Test Lab:	MGA Research-Wisconsin Operations	Test Date:	10/12/06

System A Mirrors Mirror No.	Area	Requirement Min. 323 cm <sup>2</sup>	Pass/Fail
3	386 cm <sup>2</sup>	323 cm <sup>2</sup>	PASS
4	393 cm <sup>2</sup>	323 cm <sup>2</sup>	PASS
System B Mirrors Mirror No.	Area	Requirement Min. 258 cm <sup>2</sup>	Pass/Fail
1	558 cm <sup>2</sup>	258 cm <sup>2</sup>	PASS
2	559 cm <sup>2</sup>	258 cm <sup>2</sup>	PASS

# DATA TABLE FOR SURFACE AREA

Jeff Sachler Michel > Recorded By: Approved By:\_

#### **SECTION 4**

# INSTRUMENTATION AND EQUIPMENT LIST

# Test Vehicle:2006 Mid Bus Guide DW School BusNHTSA No.:C60901Test Lab:MGA Research-Wisconsin OperationsTest Date:10/12/06

	Digital Caliper	Light Meter	Tape Measure	Spherometer
Make	Mitutoyo	AEMC	Stanley	MGA
Model	ID-F150HE	CA813	Powerlock	001
Serial # (s)	001462	04L1017Y	SN101	001
Range	0-50.8 mm	2000fc, 2000lux	0-8 m	2.25 x 10 <sup>13</sup> (cm * Hz <sup>1/2</sup> ) ÷ W
Accuracy	.001 mm	0.0 fc or 0.01 lux	1 mm	1.1 x 10 <sup>-13</sup> W/H <sup>1/2</sup>
Cal. Date	7/26/06	4/18/06	8/16/06	Daily when used
Cal. Due Date	7/26/07	4/18/07	2/16/07	N/A

# SECTION 5 PHOTOGRAPHS

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2006 Mid Bus Guide DW FMVSS 111



2006 Mid Bus Guide DW FMVSS 111



Procedure: **FMVSS 111** Test Date: 10/12/2006 MFD. DATE NC. GVWR: 5579 GAWR-FRONT: 1951 DATE OF INC. VEH. MFR: MO. C. VEH. MFD. BY: Chevrolet GAWR INTERMEDIATE GAWR INTERMEDIATE GAWR-REAR: BY: ABLE U.S.A. HIS VEHICLE SAFETY OF MFR: MO. EHICLE 3901 EHICLE GBJ SD-MID BL STANDARDS IN 450 PE T BU FEDERAL CONFORMS TO AL 4 C THE KG KG -KG S KG KG Mo 0 0 Schoo YR. ZC 9 R 1 10 0633 (1): (2): MOTOR 0 EFFECT 8 R 0 NUMBER: -YR. 5 06 w 5 N P 0 36 60 0 ω w Bus VEHICLE 0 G 0 OLB) O OLB) C 1 N: APPLI 8 5 4 . B B B T

NHTSA No.:

C60901

Test Vehicle:

2006 Mid Bus Guide DW

2006 Mid Bus Guide DW FMVSS 111

	MID BUS 505 EAST JEFFER BLUFFTON, OH PH:419-358-2500 F	RSON STREET 10 45817-1398
BODY NO.: MODEL NO: VEHICLE TYPE: SEQUENCE NO.: MAX DESIGN CAP	.: 27 ALL APPLICABLE FED	37309 63336 COMPLETION DATE: 9/06 EQUIPPED CAP.: 27 ERAL MOTOR VEHICLE
		P/N 3

Test Vehicle: Procedure:	2006 Mid Bus Guide DW FMVSS 111	NHTSA No.: Test Date:	C60901 10/12/2006
	RIMS, @ HEAR: LT225/75R16D 16X6.5J RIMS, @ 450 (	Intermediate (1): INTERMEDIATE (1): INTERMEDIATE (2): TIRES.	SUITABLE TIRE- FRONT: LT225/ 16X6.5J RIMS

2006 Mid Bus Guide DW FMVSS 111



Test Vehicle:2006 Mid Bus Guide DWProcedure:FMVSS 111



2006 Mid Bus Guide DW FMVSS 111



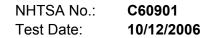
Test Vehicle:2006 Mid Bus Guide DWProcedure:FMVSS 111



2006 Mid Bus Guide DW FMVSS 111



Test Vehicle:2006 Mid Bus Guide DWProcedure:FMVSS 111





2006 Mid Bus Guide DW FMVSS 111



2006 Mid Bus Guide DW FMVSS 111



2006 Mid Bus Guide DW FMVSS 111

NHTSA No.: C60901

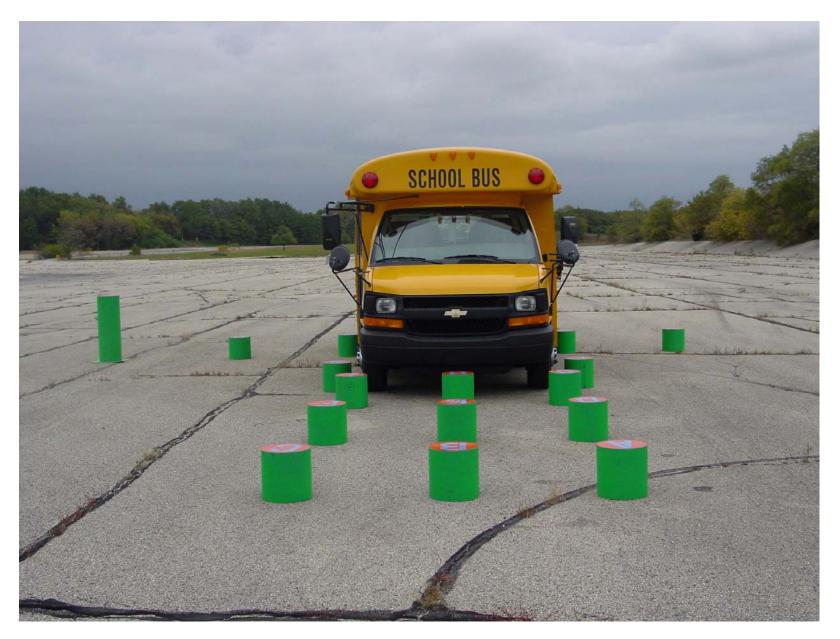
Test Date: 10/12/2006



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Photo 18 - Three-Quarter Right Front View of Cylinder Setup

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2006 Mid Bus Guide DW FMVSS 111 
 NHTSA No.:
 C60901

 Test Date:
 10/12/2006

**ATTENTION DRIVER! USE CROSS VIEW MIRRORS TO VIEW PEDESTRIANS** WHILE BUS IS STOPPED DO NOT USE THESE MIBBORS TO VIEW TRAFFIC WHILE BUS IS MOVING. IMAGES IN SUCH MIRRORS DO NOT ACCURATELY LOCATION. VEHICLE'S ANOTHER SHOW THE HAWK-EYE™ CROSS VIEW MIRROR SYSTEM BY ROSCO INC. JAMAICA, NY 11435 TEL: (718) 526-2601