

REPORT NUMBER: 217-MGA-2011-003

**SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 217
SCHOOL BUS EMERGENCY EXITS AND WINDOW
RETENTION AND RELEASE**

**2012 BLUE BIRD ALL AMERICAN D3 RE SCHOOL BUS
NHTSA NO.: CC0901**

**PREPARED BY:
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TEST DATE: SEPTEMBER 6, 2011

FINAL REPORT DATE: SEPTEMBER 30, 2011

FINAL REPORT

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
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SECTION 1
PURPOSE OF COMPLIANCE TEST

Tests were conducted on a 2012 Blue Bird All American D3 RE School Bus, NHTSA No.: CC0901, in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedures TP-217-06 to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 217, "School Bus Emergency Exits and Window Retention and Release".

This program is sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-08-D-00075.

SECTION 2
TEST DATA SUMMARY

Based on the tests performed, the 2012 Blue Bird All American D3 RE School Bus, NHTSA No.: CC0901, appeared to meet the requirements of FMVSS 217. See Data Sheet 1 for Test Summary.

SECTION 3
COMPLIANCE TEST DATA

The following data sheets document the results of testing on the 2012 Blue Bird All American D3 RE School Bus, NHTSA No.: CC0901.

**DATA SHEET 1
TEST SUMMARY**


GENERAL VEHICLE IDENTIFICATION

| | | |
|---|--|---------------|
| Model Year / Mfr. / Make / Model | 2012 / Blue Bird All American D3 RE | |
| NHTSA No. | CC0901 | |
| GVWR | 14,973 kg / 33,000 lb | |
| Build Date for Bus Chassis | 12/10 | |
| VIN | 1BABLBP8CF283351 | |
| Seating Capacity | 1 Driver, 47 Passengers | |
| Type of Bus | Rear Engine School Bus | |
| Tire Pressure from tire placard (at capacity) | Front: 723 kPa | Rear: 723 kPa |
| Odometer Reading | 1,145 miles | |

| | Pass / Fail |
|--|-------------------|
| S5.1 WINDOW RETENTION | PASS |
| S5.2 PROVISION OF EMERGENCY EXITS | PASS |
| Meets minimum exit provisions | PASS |
| Meets all other exit requirements | PASS |
| Meets requirements for additional exits | PASS |
| S5.2.3.1.A EMERGENCY EXIT DOOR OPERATIONAL REQUIREMENTS | PASS |
| S5.3 EMERGENCY EXIT RELEASE | PASS |
| Forces to unlatch the emergency exits | PASS |
| Forces to open the emergency exits | PASS |
| S5.4 EMERGENCY EXIT OPENING | PASS |
| S5.5 EMERGENCY EXIT LABELING AND IDENTIFICATION | PASS |
| S5.5 TAPE REFLECTIVITY (49CFR 571.131) | Not Tested |

Comments: None

Recorded By: 

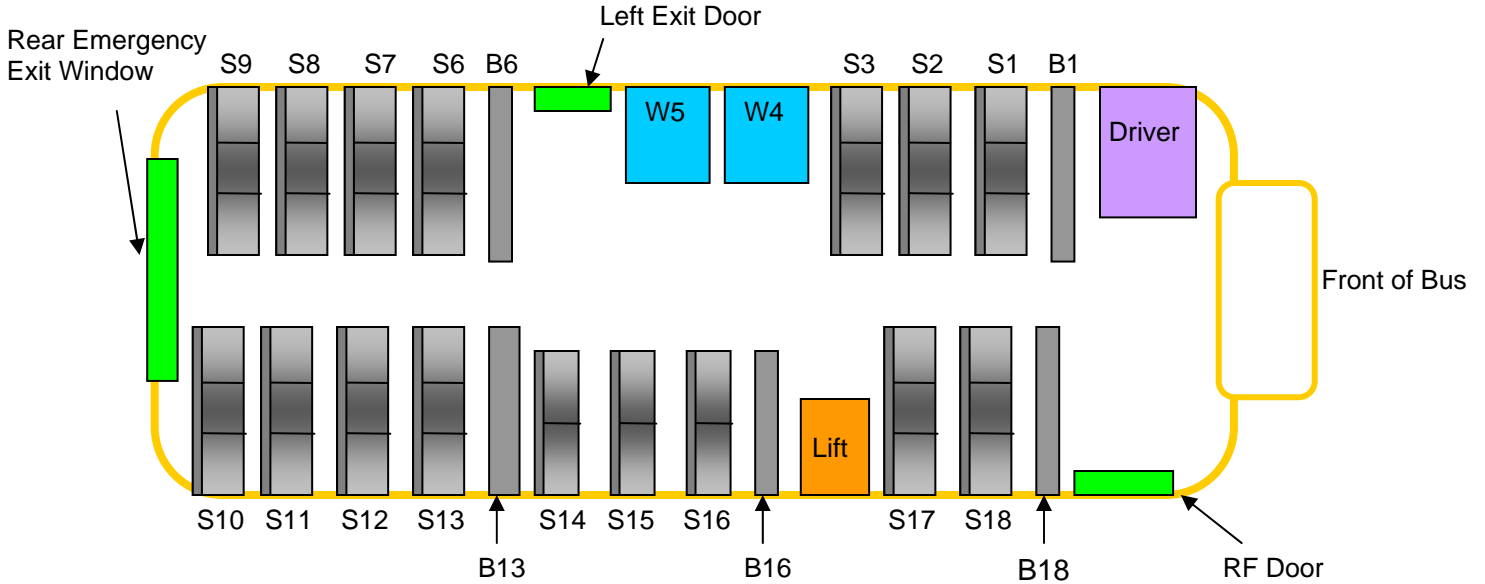
Approved By: 

Date: 09/06/11

DATA SHEET 2
PROVISION OF EMERGENCY EXITS

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**



| | | Height (mm) | Width (mm) |
|---|----------------------------|-------------|------------|
| 1 | Left Exit Door | 1,470 | 610 |
| 2 | Rear Emergency Exit Window | 615 | 1,463 |

Seating Capacity: 48 (Including Driver & Passengers)


| Requirements | Pass / Fail |
|---|-------------|
| Bus meets minimum emergency exit provision, based upon Table 2. Yes – Pass; No – Fail | PASS |

DATA SHEET 2 (CONTINUED)
PROVISION OF EMERGENCY EXITS

| | Requirements | Pass / Fail |
|---|---|-------------|
| 1 | Rear Emergency Door – opens outward and is hinged on the right side (either side, if the bus has a GVWR of 10,000 pounds or less). Yes – Pass; No – Fail | N/A |
| 2 | Side Emergency Door – hinged on its forward side. No more than one side emergency exit door is located, in whole or in part, within the same post and roof bow panel space. | PASS |
| 3 | Rear Push Out Window – provides a minimum opening clearance 41 cm high and 122 cm wide (16" x 48"). | PASS |
| 4 | Roof Exit – is hinged on its forward side, and operable from both the inside and outside the vehicle. | N/A |
| 5 | There is an even number of side emergency exit windows on each side of bus. Yes – Pass; No – Fail | PASS |
| 6 | The bus is not equipped with both sliding and push-out windows, (except for buses equipped with rear push out emergency exit windows). | PASS |
| 7 | A right side emergency exit door, if any, is located as near as practicable to the midpoint of the passenger compartment. | PASS |

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

DATA SHEET 3

EMERGENCY EXIT DOOR OPERATIONAL REQUIREMENTS

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| | Requirements | Pass / Fail |
|---|---|-------------|
| 1 | The engine starting system does NOT operate if any Emergency Exit is LOCKED. Yes – Pass; No – Fail | N/A |
| 2 | All Emergency Door and Roof Exits can be released by one person (from inside and outside of bus). Yes – Pass; No – Fail | PASS |
| 3 | When the Release Mechanism is NOT in the closed position and the vehicle ignition is in the "ON" position, there is a continuous warning sound audible at the Driver's DSP and in the vicinity of the Emergency Door(s) having the unclosed mechanism. Yes – Pass; No – Fail | PASS |
| 4 | Emergency exit release mechanism does not use remote controls or central power systems. Yes – Pass; No – Fail | PASS |

Comments: None

Recorded By: *Eino Lehtinen*

Approved By: *Michael Janusz*

Date: 09/06/11

DATA SHEET 4A

EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

EMERGENCY EXIT LABELING - INTERIOR

| Exit Location | Left Exit Door | Rear Emergency Exit Window |
|--------------------|-----------------|----------------------------|
| Exit Description | Exit Door | Exit Window |
| Letter Height (cm) | 5.0 | 5.1 |
| Background Color | White | Yellow |
| Location Inside | Above Exit Door | Above Exit Window |
| Pass / Fail | PASS | PASS |

OPERATING INSTRUCTIONS - INTERIOR

| Exit Location | Left Exit Door | Rear Emergency Exit Window |
|----------------------------|----------------|----------------------------|
| Instructions | Exit Door | Exit Window |
| Letter Height (cm) | 1.26 | 1.24 |
| Letter Color | Black | Red |
| Background Color | White | Clear |
| Distance From Release (cm) | 10.0 | 7.0 |
| Reflective Tape Color | N/A | N/A |
| Reflective Tape Width (cm) | N/A | N/A |
| Pass / Fail | PASS | PASS |

Comments: None

Recorded By: *Eve Leonard*

Approved By: *Michael Janoy*

Date: 09/06/11

DATA SHEET 4B

EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

EMERGENCY EXIT LABELING - EXTERIOR

| Exit Location | Left Exit Door | Rear Emergency Exit Window |
|--------------------|-----------------|----------------------------|
| Exit Description | Exit Door | Exit Window |
| Letter Height (cm) | 4.8 | 5.0 |
| Background Color | Yellow | Yellow |
| Location Outside | Above Exit Door | Above Exit Window |
| Pass / Fail | PASS | PASS |

OPERATING INSTRUCTIONS - EXTERIOR

| Exit Location | Left Exit Door | Rear Emergency Exit Window |
|----------------------------|----------------|----------------------------|
| Instructions | Exit Door | Exit Window |
| Letter Height (cm) | N/A | N/A |
| Letter Color | Black | N/A |
| Background Color | Yellow | Yellow |
| Distance From Release (cm) | 1.0 | N/A |
| Reflective Tape Color | Yellow | Yellow |
| Reflective Tape Width (cm) | 2.26 | 2.26 |
| Pass / Fail | PASS | PASS |

Comments: None

Recorded By: *Eve Leonard*

Approved By: *Michael Janoy*

Date: 09/06/11

DATA SHEET 4

EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| | Requirements | Pass / Fail |
|---|---|-------------|
| 1 | Each required Emergency Exit is labeled with the words "Emergency Exit" or "Emergency Door" as appropriate in letters at least 5 cm high (2") of a color that contrasts with its background. Yes – Pass; No – Fail | PASS |
| 2 | Emergency Doors – The designation "Emergency Exit" or "Emergency Door" is located at the top of, or directly above the exit door on both inside and outside surfaces of the bus. Yes – Pass; No – Fail | PASS |
| 3 | Roof Exits – The designation for roof exits is located on an inside surface of the exit, or within 30 cm (11.8") of the roof exit opening. | N/A |
| 4 | Emergency Window Exits – The designation is located at the top of, or directly above, or at the bottom of the emergency window exit on both the inside and outside surfaces of the bus. | PASS |
| 5 | Exit Operating Instructions indicate all motions required to unlatch and open the exit, in letters at least 1 cm (.39") high and of a color that contrast with its background and shall be located within 15 cm (5.9") of the release mechanism on the inside surface of the bus. Yes – Pass; No – Fail | PASS |
| 6 | Each required Emergency Exit opening is outlined around its perimeter with a 2.5 cm (1") wide retroreflective tape of red, white, or yellow color. Yes – Pass; No – Fail | PASS |

Comments: None

Recorded By: *Eino Lehtinen*

Approved By: *Michael Janusz*

Date: 09/06/11

DATA SHEET 6A

FORCE TESTS TO UNLATCH THE EMERGENCY EXITS - INTERIOR

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| Exit Location | Exit Description | High / Low Force Area | Maximum Force Requirement (N) | Actual Force Measured (N) | Motion(s) Required to Release Exit | Actual Motion(s) to Release Exit | Pass / Fail |
|----------------------------|------------------|-----------------------|-------------------------------|---------------------------|------------------------------------|----------------------------------|-------------|
| Left Exit Door | Emergency Door | High | 178 | 1. 22.2 | Straight | Lift Handle Upward | PASS |
| | | | | 2. 26.7 | | | |
| | | | | 3. 24.5 | | | |
| | | | | Average: 24.5 | | | |
| Rear Emergency Exit Window | Emergency Window | High | 178 | 1. 40.0 | Straight | Lift Handle Upward | PASS |
| | | | | 2. 40.0 | | | |
| | | | | 3. 37.8 | | | |
| | | | | Average: 39.3 | | | |

Comments: None

Recorded By: *Eve Leonard*

Approved By: *Michael Janoy*

Date: 09/06/11

DATA SHEET 6B

FORCE TESTS TO UNLATCH THE EMERGENCY EXITS – EXTERIOR

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| Exit Location | Exit Description | High / Low Force Area | Maximum Force Requirement (N) | Actual Force Measured (N) | Motion(s) Required to Release Exit | Actual Motion(s) to Release Exit | Pass / Fail |
|----------------------------|------------------|-----------------------|-------------------------------|---------------------------|------------------------------------|----------------------------------|-------------|
| Left Exit Door | Emergency Door | High | 178 | 1. 75.6 | Rotary | Turn Handle Counter-clockwise | PASS |
| | | | | 2. 73.4 | | | |
| | | | | 3. 71.2 | | | |
| | | | | Average: 73.4 | | | |
| Rear Emergency Exit Window | Emergency Window | High | 178 | 1. 117.9 | Rotary | Turn Handle Counter-clockwise | PASS |
| | | | | 2. 129.0 | | | |
| | | | | 3. 102.3 | | | |
| | | | | Average: 116.4 | | | |

Comments: None

Recorded By: *Eve Leonard*

Approved By: *Michael Janoy*

Date: 09/06/11

DATA SHEET 7A

FORCE TESTS TO OPEN THE EMERGENCY EXITS – INTERIOR


Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**


NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| Exit Location | Exit Description | High / Low Force Area | Maximum Force Requirement (N) | Actual Force Measured (N) | Motion(s) Required to Open Exit | Actual Motion(s) to Open Exit | Passage of Ellipsoid or Parallelepiped | Pass / Fail |
|----------------------------|------------------|-----------------------|-------------------------------|---------------------------|---------------------------------|-------------------------------|--|-------------|
| Left Exit Door | Emergency Door | High | 178 | 1. 31.1 | Straight | Push Outward | Ellipsoid | PASS |
| | | | | 2. 22.2 | | | | |
| | | | | 3. 26.7 | | | | |
| | | | | Average: 26.7 | | | | |
| Rear Emergency Exit Window | Emergency Window | High | 178 | 1. 75.6 | Straight | Push Outward | 114x61x30 Parallelepiped | PASS |
| | | | | 2. 71.2 | | | | |
| | | | | 3. 71.2 | | | | |
| | | | | Average: 72.7 | | | | |

Describe in the comments section if more than one force and motion are required to unlatch the exit.

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

DATA SHEET 7B

FORCE TESTS TO OPEN THE EMERGENCY EXITS – EXTERIOR

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
 Test Date: **09/06/11**

| Exit Location | Exit Description | High / Low Force Area | Maximum Force Requirement (N) | Actual Force Measured (N) | Motion(s) Required to Open Exit | Actual Motion(s) to Open Exit | Passage of Ellipsoid or Parallelepiped | Pass / Fail |
|----------------------------|------------------|-----------------------|-------------------------------|---------------------------|---------------------------------|-------------------------------|--|-------------|
| Left Exit Door | Emergency Door | High | 178 | 1. 31.1 | Straight | Pull Outward | Ellipsoid | PASS |
| | | | | 2. 40.0 | | | | |
| | | | | 3. 37.8 | | | | |
| | | | | Average: 36.3 | | | | |
| Rear Emergency Exit Window | Emergency Window | High | 178 | 1. 66.7 | Straight | Pull Outward | 114x61x30 Parallelepiped | PASS |
| | | | | 2. 66.7 | | | | |
| | | | | 3. 75.6 | | | | |
| | | | | Average: 69.7 | | | | |

Describe in the comments section if more than one force and motion are required to unlatch the exit.

Comments: None

Recorded By: *Eve L...*

Approved By: *Michael Janoy*

Date: 09/06/11


DATA SHEET 8
EMERGENCY EXIT EXTENSION


Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
Test Date: **09/06/11**

| | Requirements | Pass / Fail |
|---|---|-------------|
| 1 | Exit(s) can be extended by a single person. Yes – Pass; No – Fail | PASS |
| 2 | Each emergency exit door is equipped with a positive door opening device that meets the requirements (outlined in Section S5.4.1 (3) of FMVSS 217). | PASS |
| 3 | There is a 30 cm (11.81”) wide clear aisle space for each side emergency door exit. | N/A |
| 4 | For flip-up seat adjacent to the side emergency door exit it automatically assumes and retain a vertical position when not in use, so that no portion of the seat bottom is within the 30 cm (11.81”) aisle clearance space | N/A |
| 5 | There is no seat or barrier which extend past the side door opening | PASS |
| 6 | There is no obstruction of door latch mechanism for the rear emergency door. Yes – Pass; No – Fail | PASS |

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

DATA SHEET 9
WINDOW RETENTION TEST


Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
Test Date: **09/06/11**

| | | | | |
|---|--|---|-------------------------|-------------|
| 1 | Test Window Identification: | Left Side Exit Door | | |
| 2 | Provide a detailed description of the window such as fixed, push out, single or double glazed, horizontal or vertical sliding, etc. | Fixed, Single Glaze | | |
| 3 | Provide the horizontal and vertical glazing dimensions for each panel. | Horizontal: 660 mm Vertical: 484 mm | | |
| 4 | Did the window pass the retention requirements? Describe how the window structure and glazing withstood the force per the force per the PASS / FAIL criteria: Yes – Pass; No – Fail | Glazing Did Not Crack Reached Max. Displacement of 2.18 in (55.4 mm) PASS | | |
| 5 | Did the window pass the force tests to unlatch and open the exit after the completion of the retention test? Yes – Pass; No – Fail | Unlatch Force Measured (N) | Open Force Measured (N) | Pass / Fail |
| | | 1. 35.6 | 1. 26.7 | PASS |
| | | 2. 33.4 | 2. 26.7 | PASS |
| | | 3. 31.1 | 3. 28.9 | PASS |

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

DATA SHEET 9
WINDOW RETENTION TEST

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
Test Date: **09/06/11**

| | | | | |
|---|---|---|-------------------------|-------------|
| 1 | Test Window Identification: | Left Side Window W7 Upper Pane | | |
| 2 | Provide a detailed description of the window such as fixed, push out, single or double glazed, horizontal or vertical sliding, etc. | Vertical Sliding, Single Glazed | | |
| 3 | Provide the horizontal and vertical glazing dimensions for each panel. | Horizontal: 334 mm Vertical: 800 mm | | |
| 4 | Did the window pass the retention requirements? Describe how the window structure and glazing withstood the force per the PASS / FAIL criteria: Yes – Pass; No – Fail | Glazing Did Not Crack Reached Max. Displacement of 1.81 in (46.0 mm) PASS | | |
| 5 | Did the window pass the force tests to unlatch and open the exit after the completion of the retention test? Yes – Pass; No – Fail | Unlatch Force Measured (N) | Open Force Measured (N) | Pass / Fail |
| | | N/A | N/A | N/A |
| | | N/A | N/A | N/A |
| | | N/A | N/A | N/A |

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

DATA SHEET 9
WINDOW RETENTION TEST

Test Vehicle: **2012 Blue Bird All American D3 RE School Bus**
Test Lab: **MGA Research Corporation**

NHTSA No.: **CC0901**
Test Date: **09/06/11**

| | | | | |
|---|---|---|-------------------------|-------------|
| 1 | Test Window Identification: | Left Side Window W6 Lower Pane | | |
| 2 | Provide a detailed description of the window such as fixed, push out, single or double glazed, horizontal or vertical sliding, etc. | Fixed, Single Glazed | | |
| 3 | Provide the horizontal and vertical glazing dimensions for each panel. | Horizontal: 320 mm Vertical: 800 mm | | |
| 4 | Did the window pass the retention requirements? Describe how the window structure and glazing withstood the force per the PASS / FAIL criteria: Yes – Pass; No – Fail | Glazing Did Not Crack Reached Max. Displacement of 1.78 in (45.2 mm) PASS | | |
| 5 | Did the window pass the force tests to unlatch and open the exit after the completion of the retention test? Yes – Pass; No – Fail | Unlatch Force Measured (N) | Open Force Measured (N) | Pass / Fail |
| | | N/A | N/A | N/A |
| | | N/A | N/A | N/A |
| | | N/A | N/A | N/A |

Comments: None

Recorded By: 

Approved By: 

Date: 09/06/11

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

| Equipment | Description | Model / Serial No. | Cal. Date | Next Cal. Date |
|------------------|--------------------|----------------------|-----------|----------------|
| Head Form | MGA | 217 | When Used | When Used |
| Sphere | MGA | Sphere – 1A | When Used | When Used |
| Load Cell | Interface | 1010AF-5K-B / 258576 | 03/22/11 | 09/22/11 |
| String Pot. | Ametek | P-25A / 1102-19183 | 09/02/11 | 03/02/12 |
| Inclinometer | Digital Protractor | Pro 360 / 006 | When Used | When Used |
| Digital Calipers | Mitutoyo | CD 6"CSX / 07416506 | 12/28/10 | 12/28/11 |
| Steel Tape | Stanley | Powerlock / 612 | 03/24/11 | 09/24/11 |
| Ellipsoid | MGA | ELLIP – 1A | When Used | When Used |
| Parallelepiped | MGA | PARA – 1A | When Used | When Used |
| Force Gauge | Wagner | FDK-60 / 18109 | 03/07/11 | 10/07/11 |

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Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Exterior Left Side View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Exterior Right Side View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Exterior Left Front 3/4 View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Exterior Right Front 3/4 View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Exterior Left Rear $\frac{3}{4}$ View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Exterior Right Rear ¾ View of School Bus

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11

MANUFACTURED BY
BLUE BIRD BODY COMPANY

DATE OF MFR. 12/10

SUITABLE TIRE - RIM CHOICE

GVWR: 14973 KG (33000 LB)

| | | | | | |
|--------------|-----------|----------------|--------|-----------|------------------|
| GAWR : FRONT | 5603 | KG (12350 LB) | WITH | 11R22.5G | TIRES |
| | | | | | |
| | 22.5X8.25 | RIMS. | AT 723 | KPA (105 | PSI) COLD SINGLE |
| GAWR : REAR | 9528 | KG (21000 LB) | WITH | 11R22.5G | TIRES |
| | | | | | |
| | 22.5X8.25 | RIMS. | AT 723 | KPA (105 | PSI) COLD DUAL |

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.
FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE

V.I.N. 1BABLBP8CF283351 TYPE CLASSIFICATION SCHOOL BUS

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Incomplete Vehicle Certification Label

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Interior Front to Rear View Depicting Seating Arrangement

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus **NHTSA No.:** CC0901
Test Lab: MGA Research Corporation **Test Date:** 09/06/11



Interior Rear to Front View Depicting Seating Arrangement

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Rear Exit Door Identification (Outside View)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Rear Exit Door Identification (Inside View)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Rear Exit Door Identification (Inside View Close-Up)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Rear Door Emergency Exit Ellipsoid Clearance

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Left Side Exit Door Identification (Outside View)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Left Side Exit Door Identification (Inside View)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Left Side Exit Door Identification (Inside View Close-Up)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Left Side Door Emergency Exit Parallelepiped Clearance

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Loading Fixture

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Window Retention Test of Left Side Exit Door (Pre-Test)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



Window Retention Test of Left Side Exit Door (Post-Test)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Window Retention Test of Left Side Window W7 Upper Pane (Pre-Test)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Window Retention Test of Left Side Window W7 Upper Pane (Post-Test)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus NHTSA No.: CC0901
Test Lab: MGA Research Corporation Test Date: 09/06/11



Window Retention Test of Left Side Window W6 Lower Pane (Pre-Test)

Test Vehicle: 2012 Blue Bird All American D3 RE School Bus
Test Lab: MGA Research Corporation
NHTSA No.: CC0901
Test Date: 09/06/11



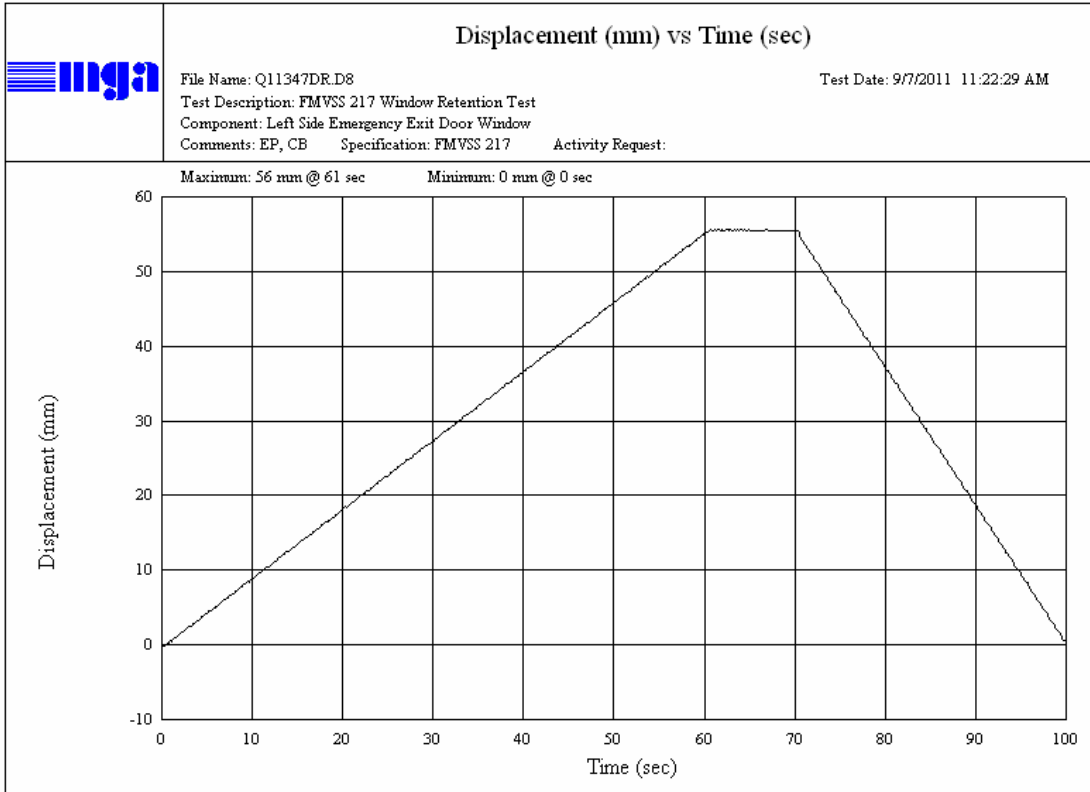
Window Retention Test of Left Side Window W6 Lower Pane (Post-Test)

SECTION 6
TEST PLOTS

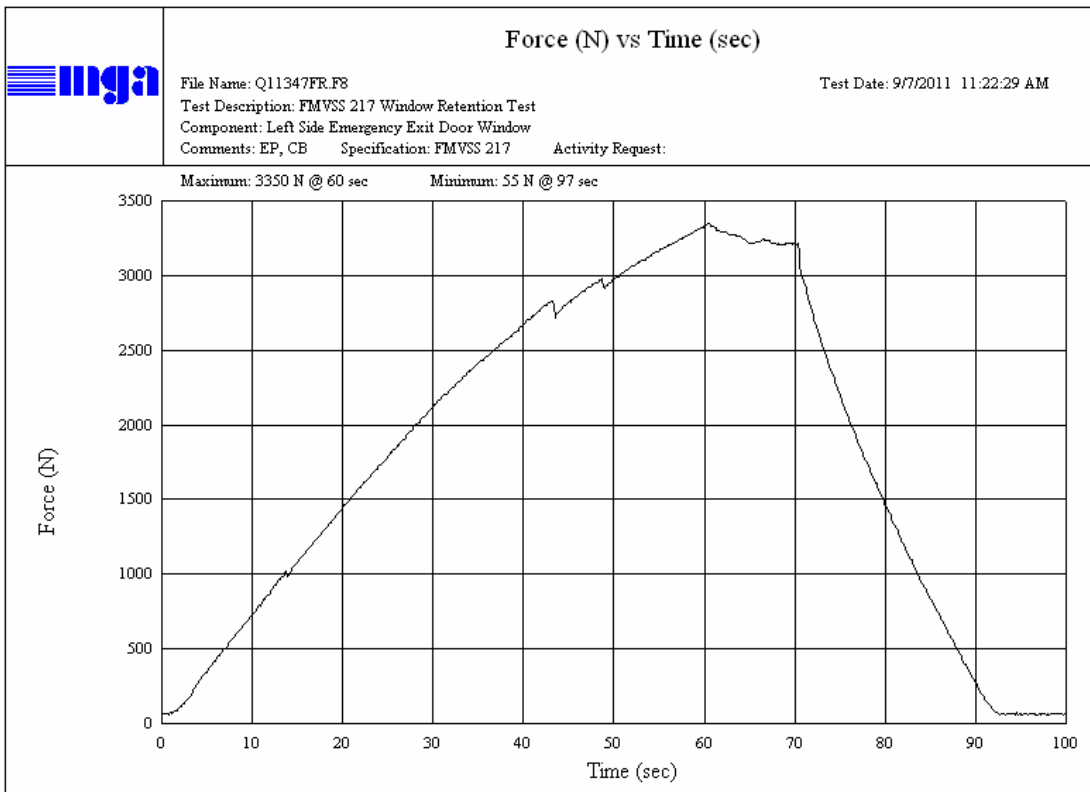
TABLE OF TEST PLOTS

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SECTION 6 TEST PLOTS

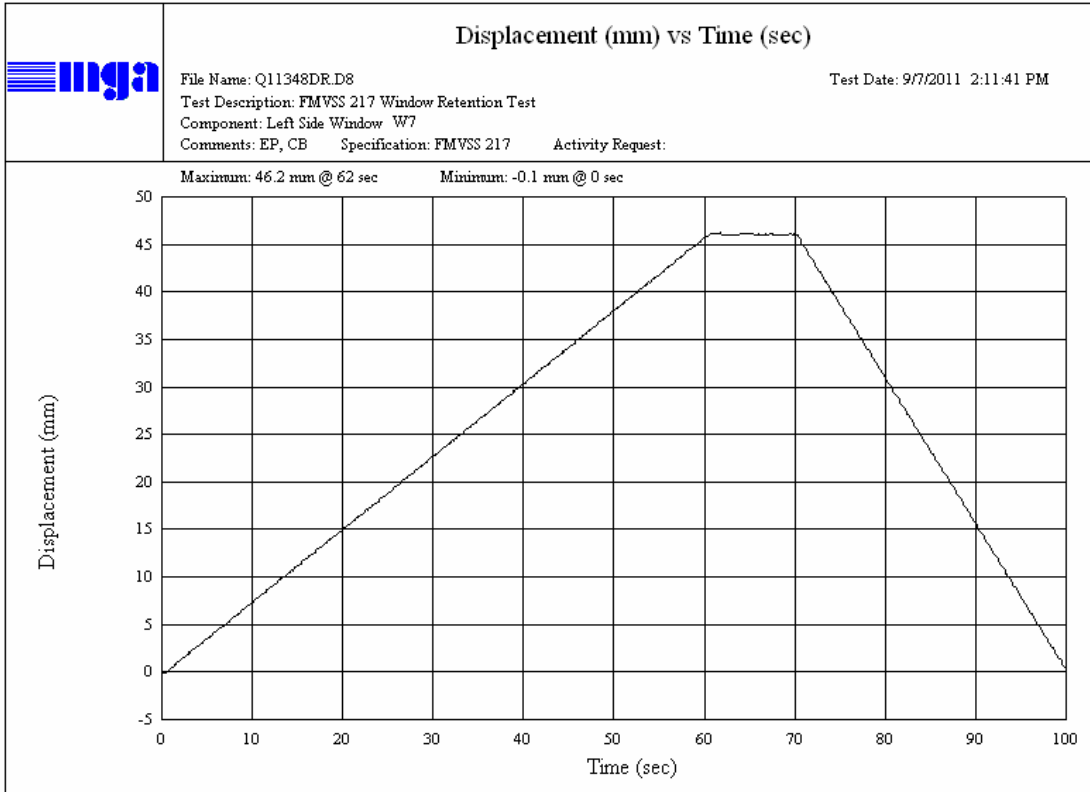


Left Side Exit Door Displacement vs. Time

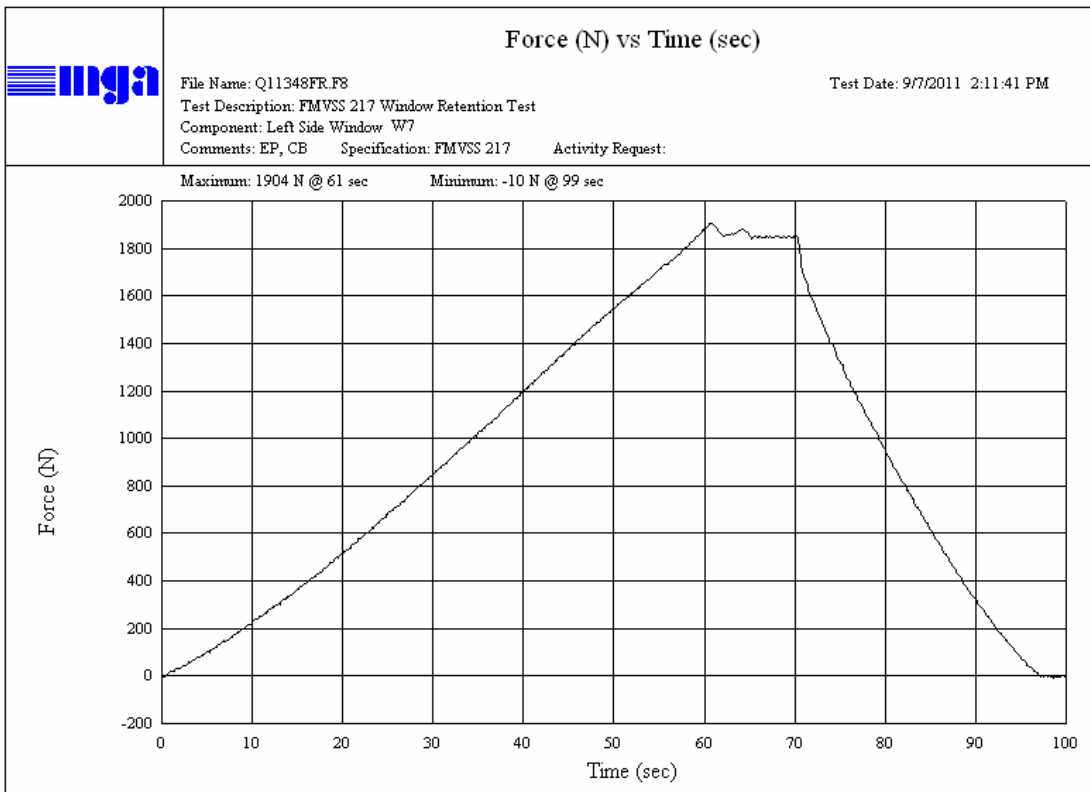


Left Side Exit Door Force vs. Time

SECTION 6 TEST PLOTS

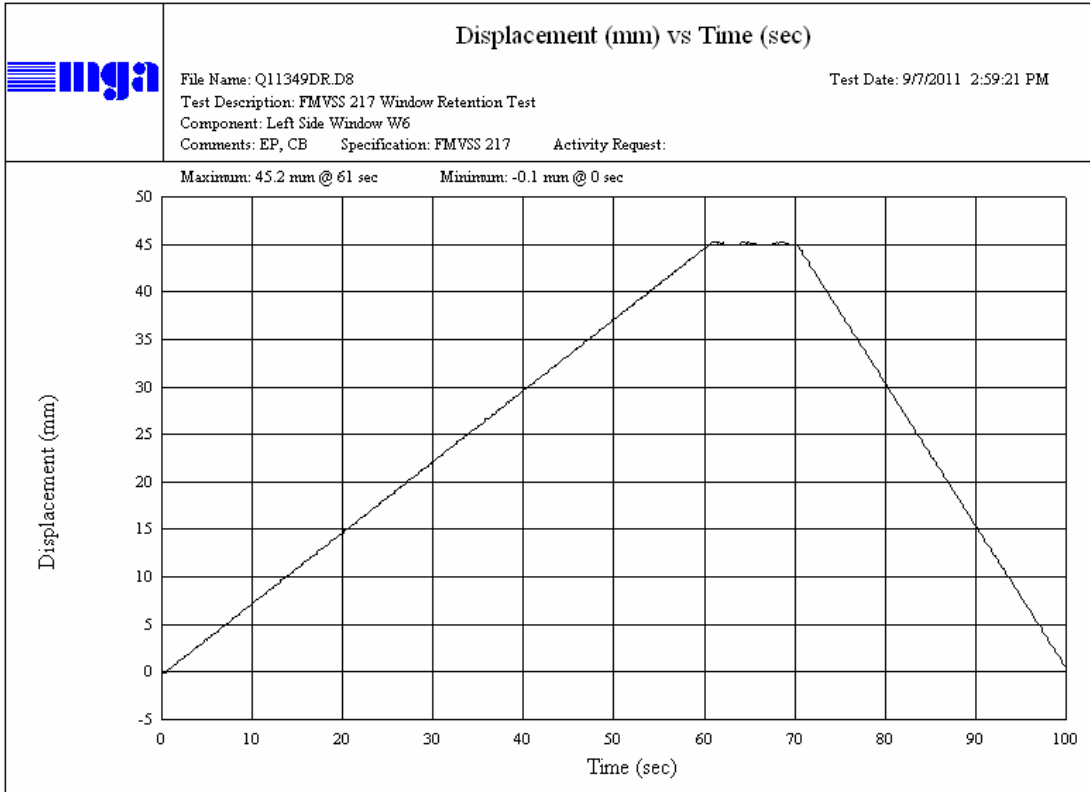


Left Side Window W7 Upper Pane Displacement vs. Time

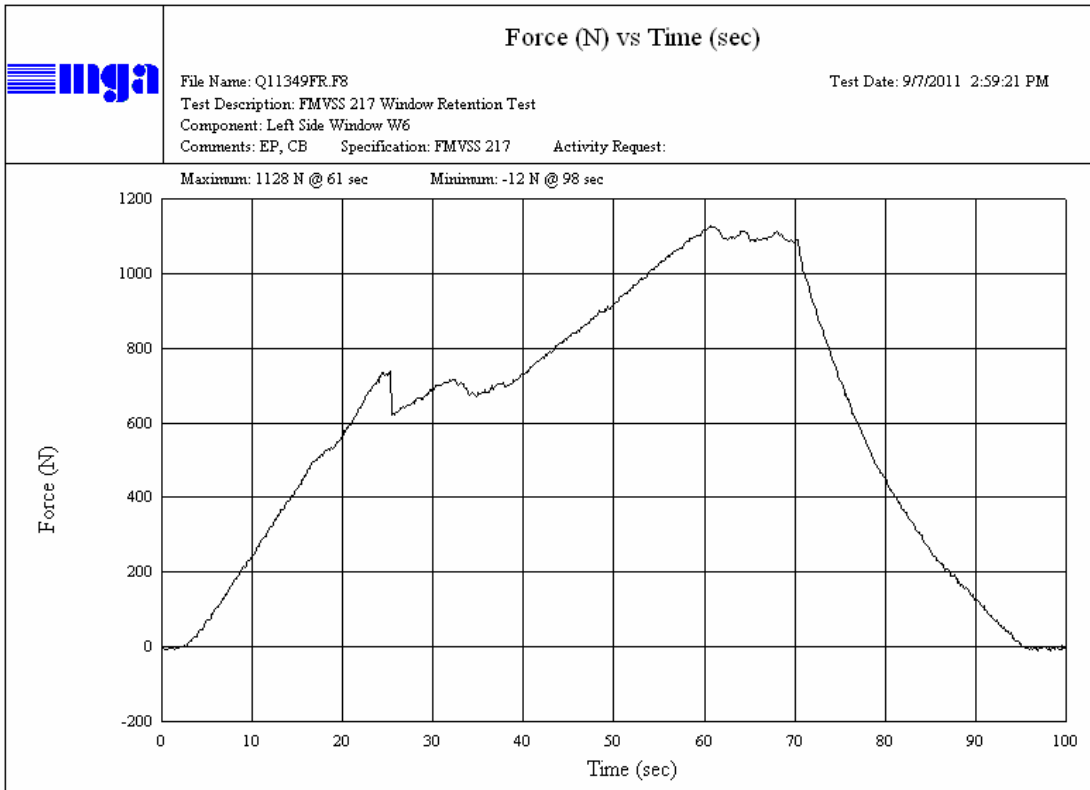


Left Side Window W7 Upper Pane Force vs. Time

SECTION 6 TEST PLOTS



Left Side Window W6 Lower Pane Displacement vs. Time



Left Side Window W6 Lower Pane Force vs. Time