REPORT NO. 118-KAR-09-005

SAFETY COMPLIANCE TESTING FOR FMVSS 118

Power-Operated Window, Partition, And Roof Panel Systems

2009 AUDI A6
4-DOOR SEDAN

NHTSA NO. C95800

PREPARED BY:
KARCO ENGINEERING, LLC.
9270 HOLLY ROAD
ADELANTO, CALIFORNIA 92301

July 20, 2009

Final Report

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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1200 NEW JERSEY AVE SE, ROOM W43-498
WASHINGTON, D.C. 20590

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Prepared by: Matthew S. Hubbard Date: 07/20/09
Mr. Matthew S. Hubbard, Test Engineer
KARCO Engineering, LLC.

Reviewed by: Date: 07/20/09
Mr. Michael L. Dunlap, Director of Operations
KARCO Engineering, LLC.

Approved by: Frank D Richardson Date: 07/20/09
Mr. Frank D. Richardson, Program Manager
KARCO Engineering, LLC.

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Accepted by:

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16. *Abstract* Compliance tests were conducted on the subject 2009 Audi A6 4-Door Sedan in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-118-06 for the determination of FMVSS 118 compliance. Test failures identified were as follows: None			
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1. PURPOSE OF COMPLIANCE TEST

Tests were conducted on a 2009 Audi A6 4-Door Sedan, manufactured by Audi AG to determine compliance with FMVSS 118 "Power-Operated Window, Partition, and Roof Panel Systems". FMVSS 118 specifies requirements for power operated window, partition and roof panel systems to minimize the likelihood of death or injury from their accidental operation.

All tests were conducted based on the current National Highway Traffic Safety Administration (NHTSA), Office of Vehicle Safety Compliance (OVSC) Laboratory Procedures, TP-118-06, dated April 12, 2006, and corresponding KARCO Engineering test procedure KTP-118, dated March 23, 2009. Detailed procedures for receiving, inspecting, testing and reporting of test results are described in the test procedures and are not repeated in this report.

2. TEST PROCEDURE AND DATA SUMMARY

A 2009 Audi A6 4-Door Sedan was subjected to FMVSS 118 compliance testing. The tests were conducted at KARCO Engineering in Adelanto, California on July 15, 2009 through July 20, 2009. FMVSS 118 Compliance testing was performed in the following sequence:

- Vehicle Receiving Photographs
- Test Vehicle Check-in
- Power Window, Partitions and Roof Panel Identification/Documentation
- Interior, Exterior and Remote Control Switch Identification/Documentation
- Pre-Test Operation of all Power Windows, Partitions and Roof Panels
- Photograph Vehicle Ignition Switch and Master and Individual Power Window, Partition and Roof Panel Switches
- Perform Ignition Switch off Test
- Perform Ignition Key Removed Test
- Perform Exterior Key Locking System Test
- Perform Remote Control System Test
- Perform Reversal System Test
- Perform Sphere Test

DATA SUMMARY

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

SWITCH ACTUATION

WINDOWS, PARTITIONS, ROOF PANEL SWITCHES (WPRP)	**INTERIOR KEY LOCKING SYSTEM***			EXTERIOR LOCKING SYSTEM (PASS / FAIL)
	IGNITION KEY OFF (PASS/FAIL)	IGNITION KEY REMOVED (PASS/FAIL)	IGNITION KEY REMOVED DOOR OPENED (PASS/FAIL)	
MASTER SWITCH PANEL				
Left Front (LF)	PASS	PASS	PASS	PASS
Right Front (RF)	PASS	PASS	PASS	PASS
Left Rear (LR)	PASS	PASS	PASS	PASS
Right Rear (RR)	PASS	PASS	PASS	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A
Partition	N/A	N/A	N/A	N/A
Roof Panel (RP)	PASS	PASS	PASS	PASS
INDIVIDUAL SWITCHES				
Left Front (LF)	PASS	PASS	PASS	PASS
Right Front (RF)	PASS	PASS	PASS	PASS
Left Rear (LR)	PASS	PASS	PASS	PASS
Right Rear(RR)	PASS	PASS	PASS	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A
Roof Panel (RP)	PASS	PASS	PASS	PASS

REMARKS: The master switch control panel is located on the driver's side door panel and includes the individual left front window switch. Vehicle passed as soon as ignition key "off" test was performed.

***PASS =** After ignition key cycled from ON,ACC, or START to OFF position, or removed WPRP does not close, or closes until either front door is opened

DATA SUMMARY…(CONTINUED)

REMOTE ACTUATION DEVICE

VEHICLE ORIENTATION REMOTE ACTUATION DEVICE	NON-LINE OF SIGHT REMOTE (METERS)	LINE OF SIGHT REMOTE (METERS)
FRONT	N/A	N/A
DRIVER SIDE	N/A	N/A
PASSENGER SIDE	N/A	N/A
REAR	N/A	N/A

WPRP OBSTRUCTION FORCE REVERSAL

WINDOW, PARTITION, ROOF PANEL	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
LEFT FRONT (LF)	See Data Sheet #8	See Data Sheet #8
RIGHT FRONT (RF)	See Data Sheet #8	See Data Sheet #8
LEFT REAR (LR)	See Data Sheet #8	See Data Sheet #8
RIGHT REAR (RR)	See Data Sheet #8	See Data Sheet #8
PARTITION (P)	N/A	N/A
ROOF PANEL (RP)	See Data Sheet #8	See Data Sheet #8
TAIL GATE (TG)	N/A	N/A

SPHERE TEST

WINDOW, PARTITION, ROOF PANEL	MASTER SWITCH	INDIVIDUAL SWITCH	PASS / FAIL
LEFT FRONT (LF)	See Data Sheet 9	See Data Sheet 9	PASS
RIGHT FRONT (RF)	See Data Sheet 9	See Data Sheet 9	PASS
LEFT REAR (LR)	See Data Sheet 9	See Data Sheet 9	PASS
RIGHT REAR (RR)	See Data Sheet 9	See Data Sheet 9	PASS
PARTITION (P)	N/A	N/A	N/A
ROOF PANEL (RP)	N/A	N/A	N/A
TAIL GATE (TG)	N/A	N/A	N/A

REMARKS: None.

The subject 2009 Audi A6 4-Door Sedan appeared to meet the requirements of FMVSS 118.

3. TEST DATA

DATA SHEET NO. 1
VEHICLE IDENTIFICATION

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Identify Vehicle equipped WPRP and WPRP controls

	LEFT FRONT	LEFT REAR	RIGHT FRONT	RIGHT REAR	TAIL GATE	PARTITION	ROOF PANEL
Power Windows	X	X	X	X	N/A	N/A	X
Interior Switches	X	X	X	X	N/A	N/A	X
Master Control Panel	X	X	X	X	N/A	N/A	N/A
Exterior Switches	X	X	X	X	N/A	N/A	X
Remote Controller	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auto-Reverse	X	X	X	X	N/A	N/A	X

Master Control Panel Location: **Driver Side Door Panel**

Remote Control: **None**

Window Switch Design: **Master Control Switches – Flush Mounted Rocker Switch push down to open, pull up to close. Individual Window Switches – Flush Mounted Rocker Switch push down to open, pull up to close.**

Exterior Control Switch: **Located at Driver Door Key Slot**

Sunroof: **Individual Switch Located on roof**

REMARKS: Master control panel switch is located in the driver side door panel. Individual switches are located on the door panel for each door. On this vehicle the reversal feature is not required because the windows appear to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 2
IGNITION KEY OFF TEST

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Pre-Test Check: Window, Partition, Roof Panel Systems operate with Ignition Switch in "ON" Position	YES	X	NO	N/A
Pre-Test Check: Window, Partition, Roof Panel Systems operate with Ignition Switch in "ACCESSORY" Position	YES	X	NO	N/A

WINDOW SWITCHES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/ FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
MASTER							
Left Front (LF)	N/A	X	X	N/A	X	N/A	PASS
Right Front (RF)	N/A	X	X	N/A	X	N/A	PASS
Left Rear (LR)	N/A	X	X	N/A	X	N/A	PASS
Right Rear (RR)	N/A	X	X	N/A	X	N/A	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	X	X	N/A	X	N/A	PASS
INDIVIDUAL							
Left Front (LF)	N/A	X	X	N/A	X	N/A	PASS
Right Front (RF)	N/A	X	X	N/A	X	N/A	PASS
Left Rear (LR)	N/A	X	X	N/A	X	N/A	PASS
Right Rear (RR)	N/A	X	X	N/A	X	N/A	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	X	X	N/A	X	N/A	PASS

REMARKS: The master left front switch is the same as the individual left front switch. Test was performed with key in the “Lock” position. For the pre-test check in the “Accessory” position the key was moved from the “Lock” position to the “Accessory” position without cycling through the “On” position or starting the engine. Vehicle passed as soon as ignition “off” test was performed.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 3
IGNITION KEY REMOVED TEST

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

WINDOW SWITCHES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/ FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
MASTER							
Left Front (LF)	N/A	X	X	N/A	X	N/A	PASS
Right Front (RF)	N/A	X	X	N/A	X	N/A	PASS
Left Rear (LR)	N/A	X	X	N/A	X	N/A	PASS
Right Rear (RR)	N/A	X	X	N/A	X	N/A	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	X	X	N/A	X	N/A	PASS
INDIVIDUAL							
Left Front (LF)	N/A	X	X	N/A	X	N/A	PASS
Right Front (RF)	N/A	X	X	N/A	X	N/A	PASS
Left Rear (LR)	N/A	X	X	N/A	X	N/A	PASS
Right Rear (RR)	N/A	X	X	N/A	X	N/A	PASS
Tail Gate (TG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	X	X	N/A	X	N/A	PASS

REMARKS: The master left front switch is the same as the individual left front switch. Vehicle passed as soon as ignition key “off” test was performed.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 4
EXTERIOR KEY LOCKING SYSTEM

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

EXTERIOR LOCKING CONTROL SWITCH TEST				
Can Any WPRP Be Operated by Directly Using A Key in an Exterior Locking Control Switch?	Yes	X	No	N/A
If Yes: Is Continuous Activation of the Switch Required	Yes	X	No	N/A

IDENTIFY WINDOW, PARTITION AND ROOF PANEL POSITIONS WHICH ARE OPERABLE WITH EXTERIOR KEY.

LOCATION	**OPERABLE W/KEY**		**CONTINUOUS ACTION**		**PASS / FAIL**
	YES	**NO**	**YES**	**NO**	
LEFT FRONT (LF)	X	N/A	X	N/A	PASS
RIGHT FRONT (RF)	X	N/A	X	N/A	PASS
LEFT REAR (LR)	X	N/A	X	N/A	PASS
RIGHT REAR (RR)	X	N/A	X	N/A	PASS
PARTITION (P)	N/A	N/A	N/A	N/A	N/A
ROOF PANEL (RP)	X	N/A	X	N/A	PASS
TAIL GATE (TG)	N/A	N/A	N/A	N/A	N/A

REMARKS:

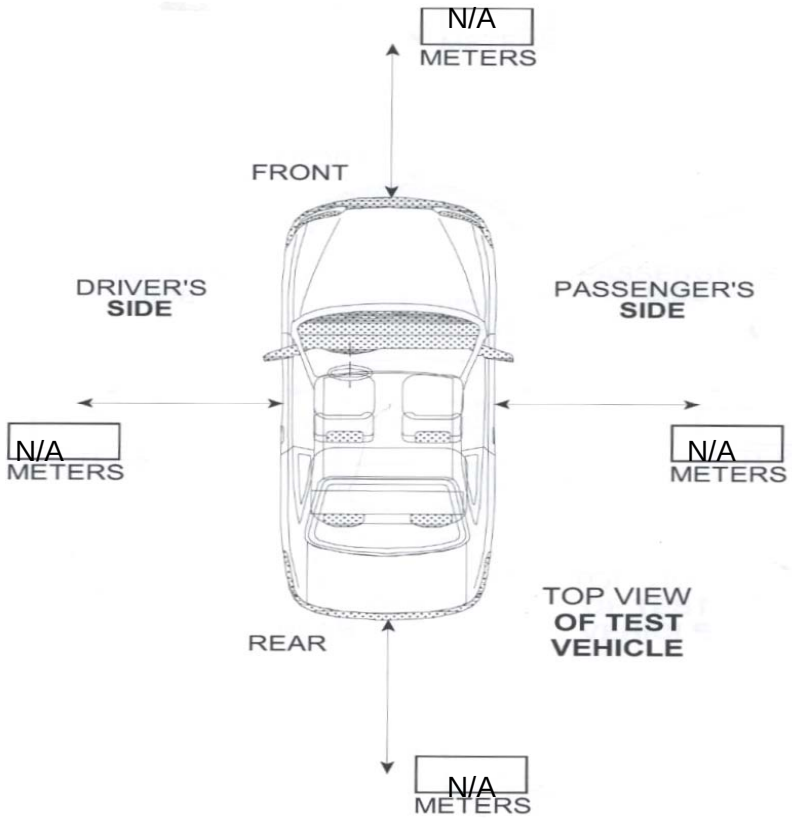
RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 5
MAXIMUM OPERATING RANGE FOR LINE-OF-SIGHT REMOTE

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

If range of operation exceeds 11 meters in any of the below measured directions, the window, partition, and roof panel must meet the reversing requirements of FMVSS 118. Continuous activation of remote device is required to close windows, partition and roof panel YES ( ) NO ( ).



REMARKS: The vehicle is not equipped with a remote actuation device that allows the windows to be opened.

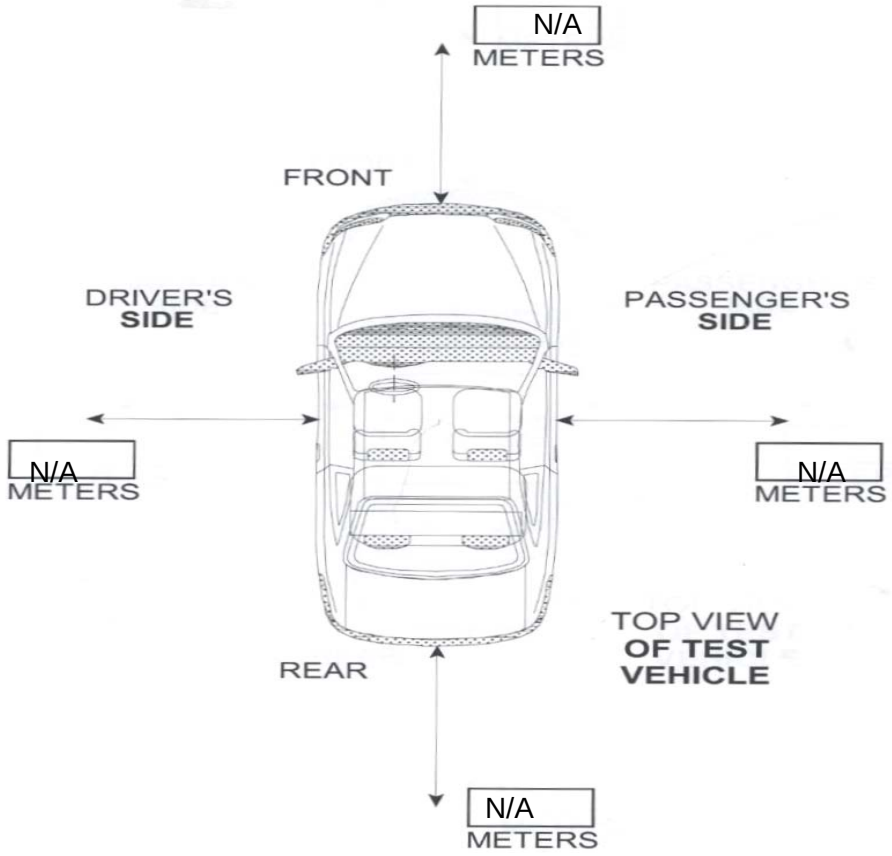
RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 6
MAXIMUM OPERATING RANGE FOR NON-LINE-OF-SIGHT REMOTE

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

If range of operation exceeds 6 meters in any of the below measured directions, the window, partition, and roof panel must meet the reversing requirements of FMVSS 118. Continuous activation of remote device is required to close windows, partition and roof panel YES ( ) NO ( ).



REMARKS: The vehicle is not equipped with a remote actuation device that allows the windows to be opened.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 7
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

IDENTIFY WINDOW, PARTITION AND ROOF PANEL POSITIONS WHICH ARE EQUIPPED WITH AUTO REVERSAL.

Is vehicle equipped with Auto Reversal	YES	X	NO	N/A

SWITCHES EQUIPPED WITH AUTO REVERSAL	MASTER	INDIVIDUAL
LEFT FRONT (LF)	X	X
RIGHT FRONT (RF)	X	X
LEFT REAR (LR)	X	X
RIGHT REAR (RR)	X	X
PARTITION (P)	N/A	N/A
ROOF PANEL (RP)	N/A	X
TAIL GATE (TG)	N/A	N/A

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. All windows and sunroof are equipped with one touch auto express feature. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 8
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Distance window is open from top seam to start position. 325

WPRP OBSTRUCTION FORCE REVERSAL

LEADING EDGE LEFT FRONT WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	29.9	129.9
25mm semi rigid rod	67.3	141.9
50mm semi rigid rod	64.3	144.2
100mm semi rigid rod	93.3	150.9
200mm semi rigid rod	82.7	59.3

Distance window is open from top seam to start position. 340

WPRP OBSTRUCTION FORCE REVERSAL

REAR EDGE LEFT FRONT WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	14.1	142.8
25mm semi rigid rod	63.6	146.6
50mm semi rigid rod	54.4	144.1
100mm semi rigid rod	52.7	136.3
200mm semi rigid rod	97.0	106.5

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 8 (Continued)
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Distance window is open from top seam to start position. 355

WPRP OBSTRUCTION FORCE REVERSAL

LEADING EDGE RIGHT FRONT WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	17.5	142.0
25mm semi rigid rod	75.0	143.0
50mm semi rigid rod	75.3	141.8
100mm semi rigid rod	101.1	146.0
200mm semi rigid rod	114.1	127.2

Distance window is open from top seam to start position. 340

WPRP OBSTRUCTION FORCE REVERSAL

REAR EDGE RIGHT FRONT WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	22.4	138.7
25mm semi rigid rod	86.4	144.2
50mm semi rigid rod	63.3	142.3
100mm semi rigid rod	133.4	147.5
200mm semi rigid rod	114.1	127.1

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 8 (Continued)
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Distance window is open from top seam to start position. 352

WPRP OBSTRUCTION FORCE REVERSAL

LEADING EDGE RIGHT REAR WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	33.3	123.0
25mm semi rigid rod	42.8	131.3
50mm semi rigid rod	42.8	133.3
100mm semi rigid rod	86.4	133.6
200mm semi rigid rod	100.5	118.0

Distance window is open from top seam to start position. 285

WPRP OBSTRUCTION FORCE REVERSAL

REAR EDGE RIGHT REAR WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	47.4	131.1
25mm semi rigid rod	49.6	140.4
50mm semi rigid rod	41.2	131.7
100mm semi rigid rod	54.9	135.9
200mm semi rigid rod	87.9	118.0

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 8 (Continued)
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Distance window is open from top seam to start position. 352

WPRP OBSTRUCTION FORCE REVERSAL

LEADING EDGE LEFT REAR WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	26.3	128.5
25mm semi rigid rod	45.2	131.3
50mm semi rigid rod	47.0	135.0
100mm semi rigid rod	64.8	116.1
200mm semi rigid rod	64.8	116.1

Distance window is open from top seam to start position. 285

WPRP OBSTRUCTION FORCE REVERSAL

REAR EDGE LEFT REAR WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	30.1	130.4
25mm semi rigid rod	50.1	134.4
50mm semi rigid rod	35.4	129.3
100mm semi rigid rod	64.2	136.4
200mm semi rigid rod	80.2	119.5

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 8 (Continued)
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Distance window is open from top seam to start position. 330

WPRP OBSTRUCTION FORCE REVERSAL

SUNROOF WINDOW	FORCE TO REVERSE (NEWTONS)	DISTANCE WINDOW, PARTITION, OR ROOF PANEL OPENED ON REVERSAL (mm)
5mm semi rigid rod	16.4	284.0
25mm semi rigid rod	55.9	265.0
50mm semi rigid rod	59.8	235.5
100mm semi rigid rod	132.1	185.8
200mm semi rigid rod	123.3	84.0

REMARKS: The master switch is the same as the individual switch for the left front window. The vehicle passed as soon as ignition key “off” was performed. The reversal feature is not required because the window appears to meet the operational requirements of FMVSS 118 paragraph S.4.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

DATA SHEET NO. 9
SPHERE TEST

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

SPHERE TEST CONDUCTED ON MASTER SWITCH CONTROL PANEL

WINDOW	FORCE APPLIED TO ACTIVATE SWITCH (NEWTONS)	SWITCH ACTIVATED (YES / NO)	PASS / FAIL
LEFT FRONT (LF)	170.7	NO	PASS
RIGHT FRONT (RF)	151.5	NO	PASS
LEFT REAR (LR)	140.0	NO	PASS
RIGHT REAR (RR)	135.7	NO	PASS
PARTITION (P)	N/A	N/A	N/A
ROOF PANEL (RP)	N/A	N/A	N/A
TAIL GATE (TG)	N/A	N/A	N/A

SPHERE TEST CONDUCTED ON INDIVIDUAL SWITCH

WINDOW	FORCE APPLIED TO ACTIVATE SWITCH (NEWTONS)	SWITCH ACTIVATED (YES / NO)	PASS / FAIL
LEFT FRONT (LF)	170.7	NO	PASS
RIGHT FRONT (RF)	137.8	NO	PASS
LEFT REAR (LR)	156.1	NO	PASS
RIGHT REAR (RR)	148.7	NO	PASS
PARTITION (P)	N/A	N/A	N/A
ROOF PANEL (RP)	N/A	N/A	N/A
TAIL GATE (TG)	N/A	N/A	N/A

REMARKS: The master switch is the same as the individual switch for the left front window.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **07/15-20/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/15-20/09**

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Figure 1: Frontal ¾ View From Right Side of Vehicle

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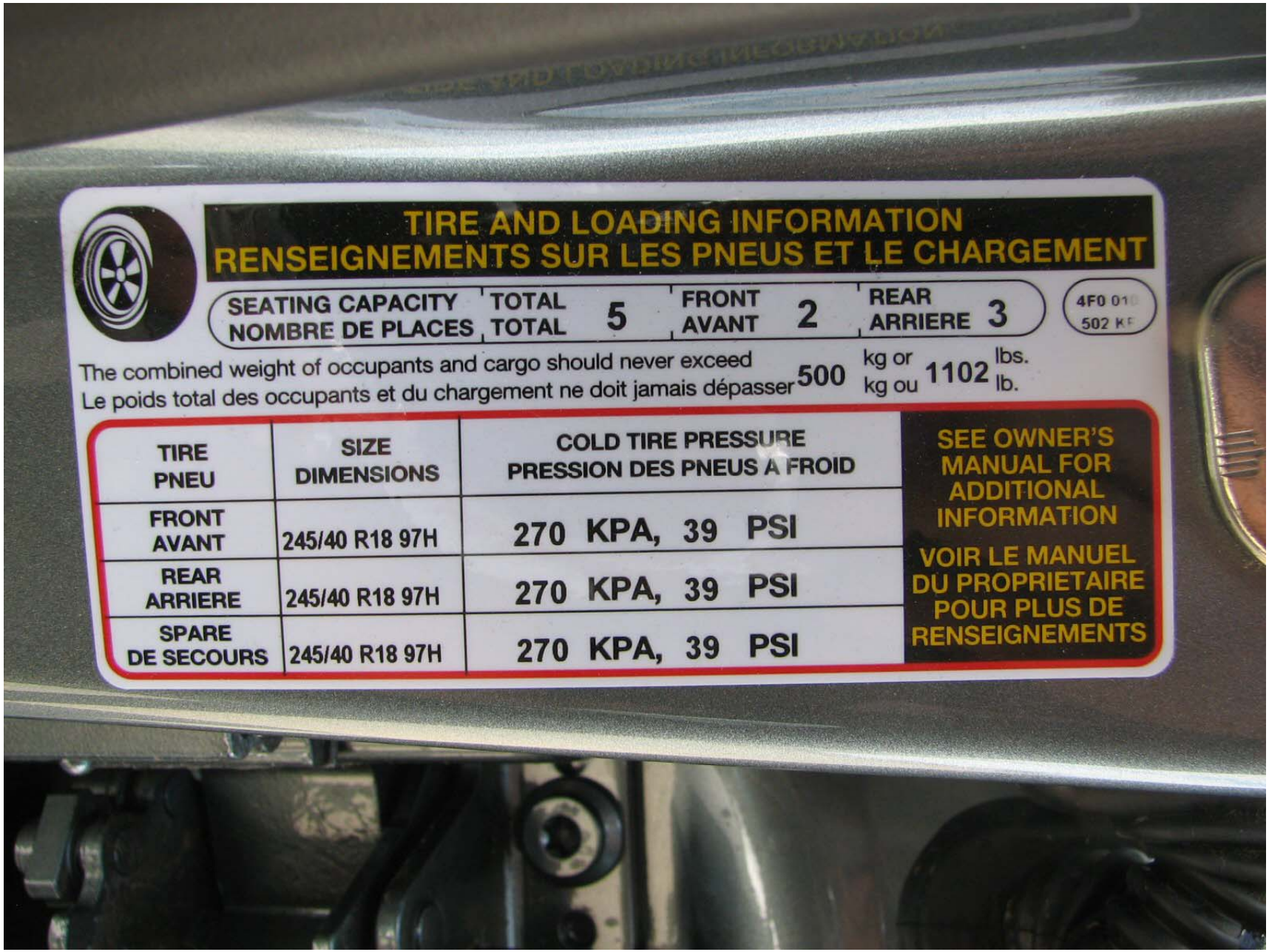
NHTSA NO. C95800
FMVSS NO. 118

Figure 2: Rear ¾ View From Left Side of Vehicle

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 3: Vehicle Certification Label



2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 4: Tire Information Placard

Figure 5: Ignition Switch

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 6: Left Front Master Power Window Switch

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 7: Right Front Power Window Switch

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 8: Left Rear Power Window Switch

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 9: Right Rear Power Window Switch

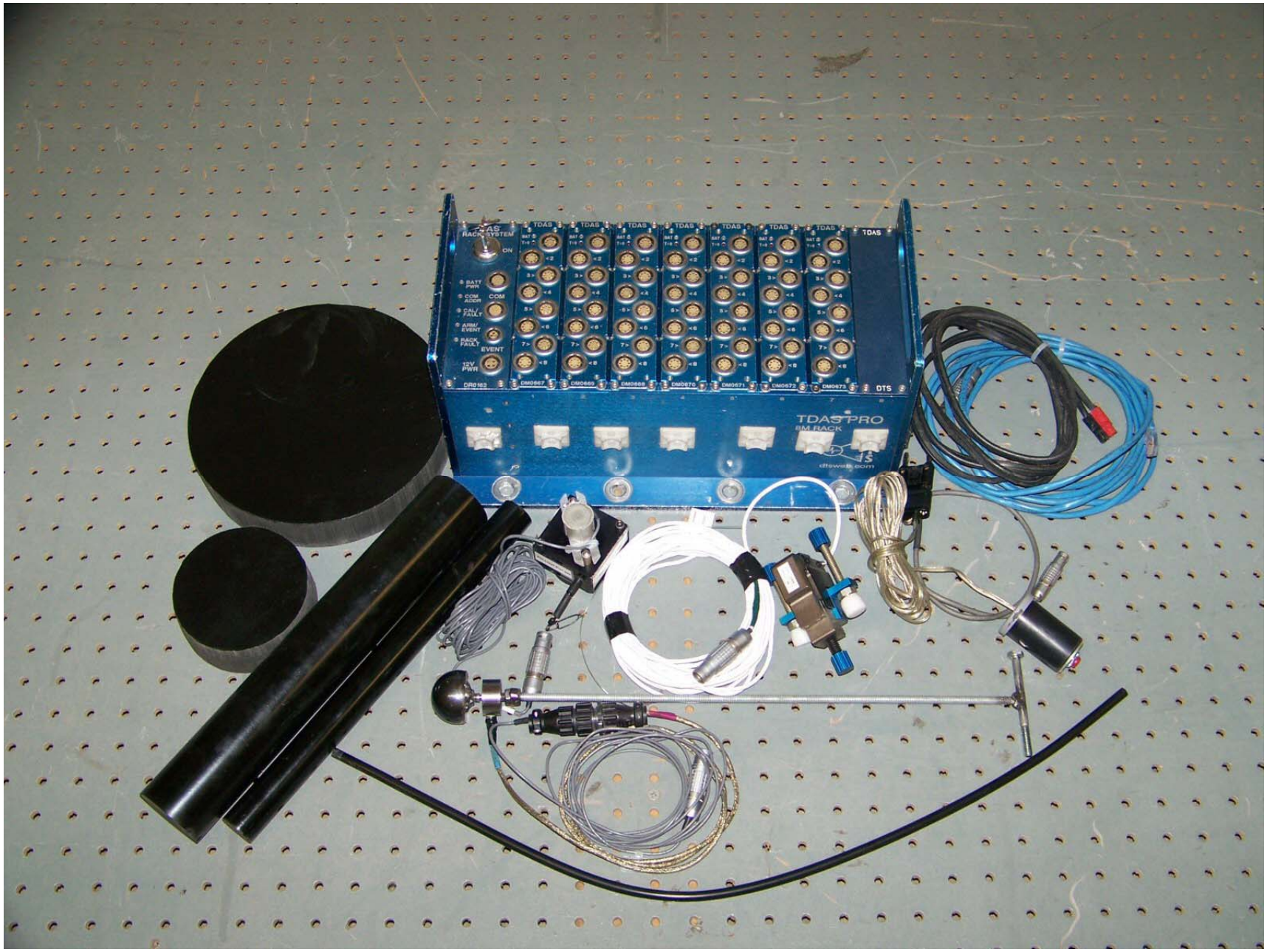
Figure 10: Sunroof Power Window Switch

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 11: Exterior Locking System (Driver Door)

Figure 12: Exterior Locking System (Key)

Figure 13: Overall Test Set-Up



2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 14: Instrumentation

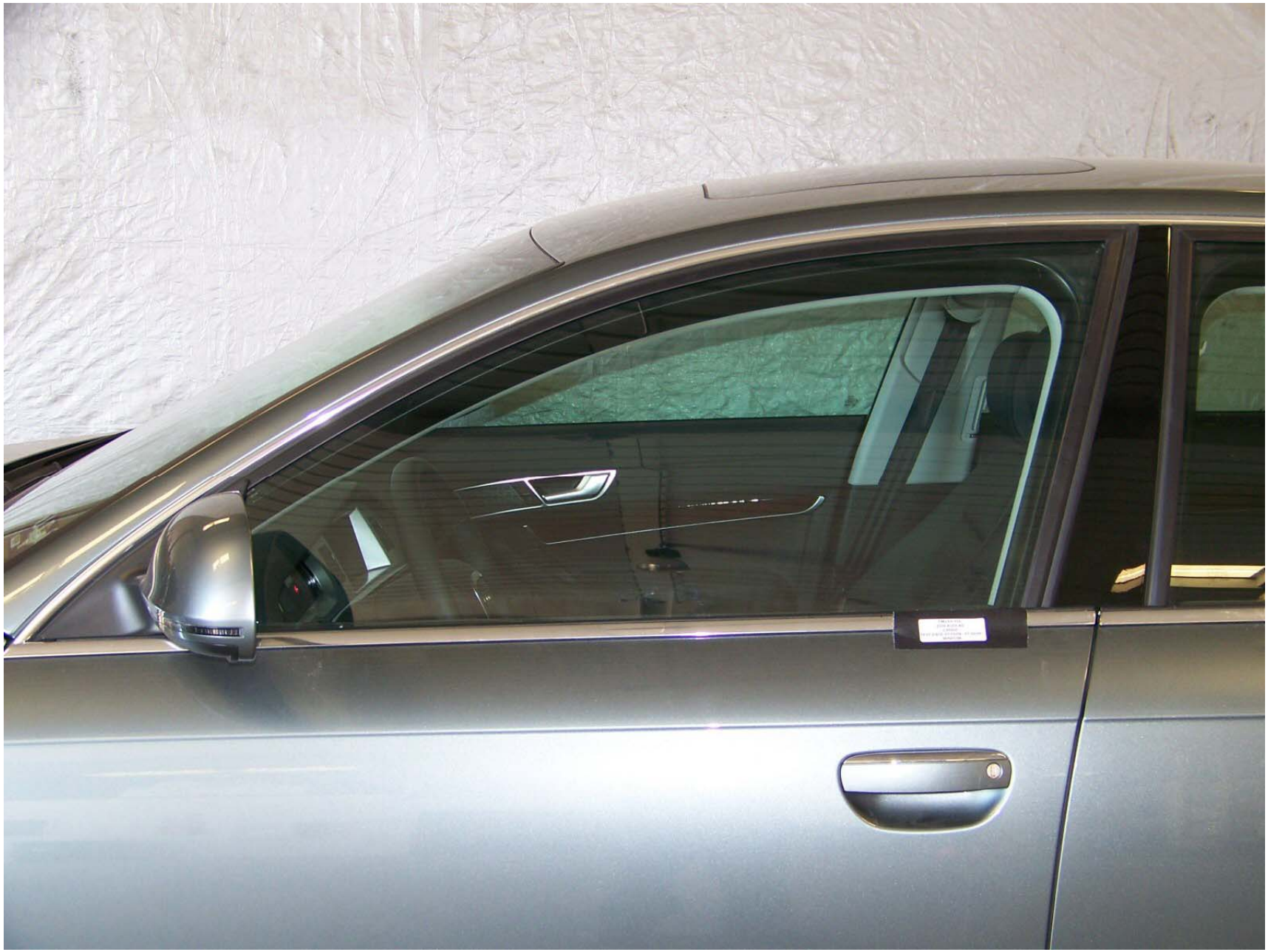


Figure 15: Left Front Window

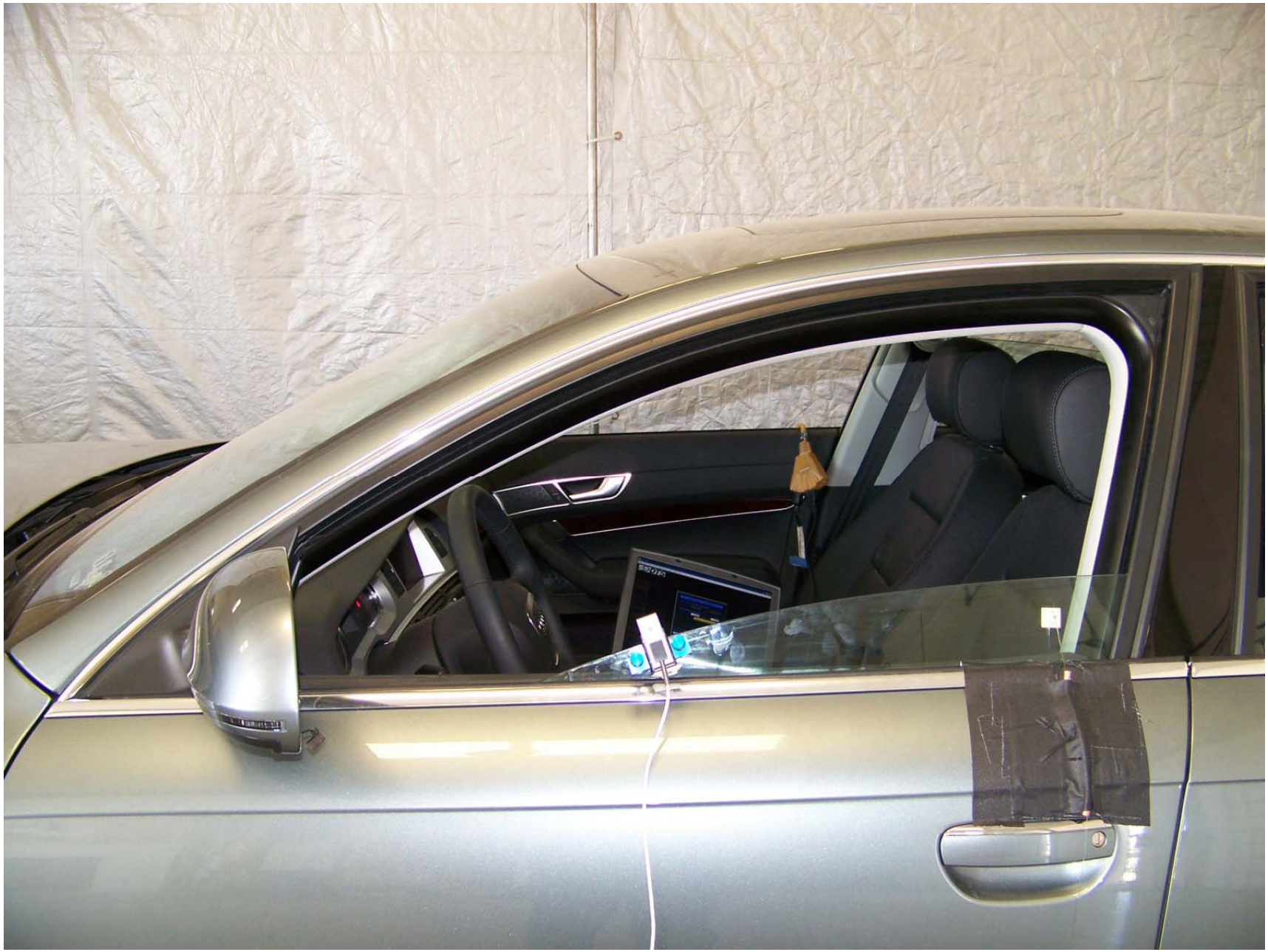


Figure 16: Left Front Window Test Set-Up Leading Edge

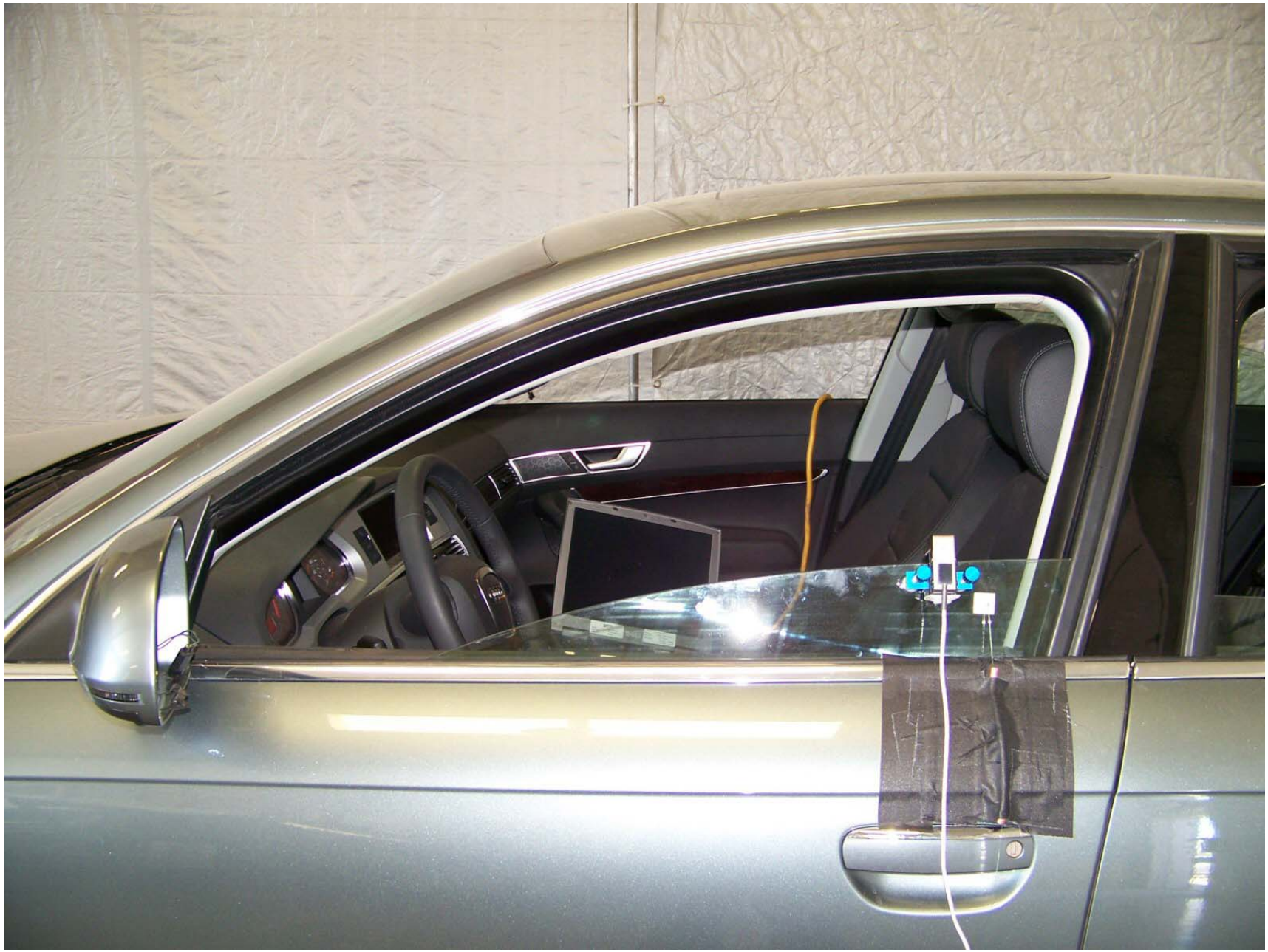


Figure 17: Left Front Window Test Set-Up Rear Edge

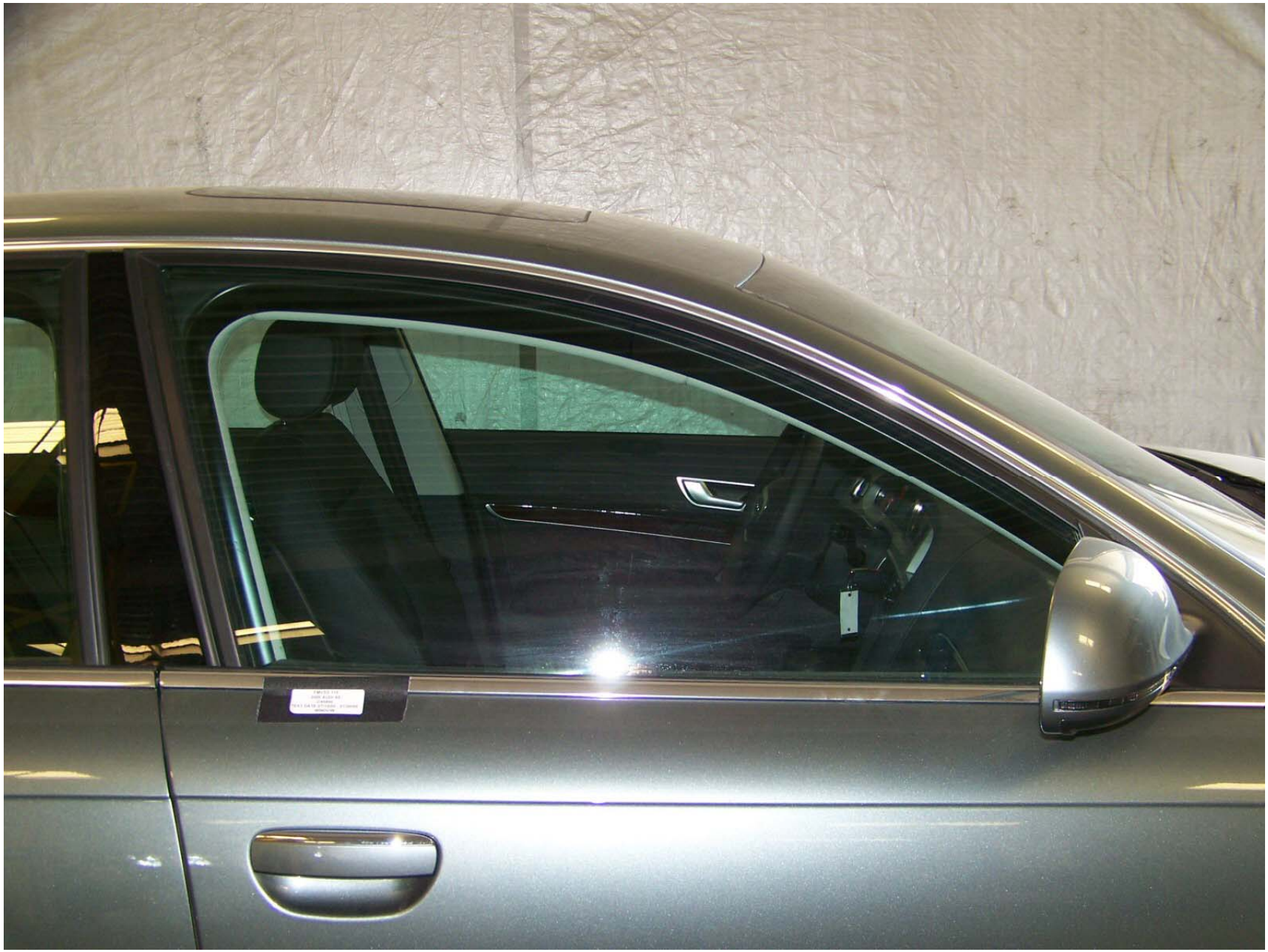


Figure 18: Right Front Window

Figure 19: Right Front Window Test Set-Up Leading Edge

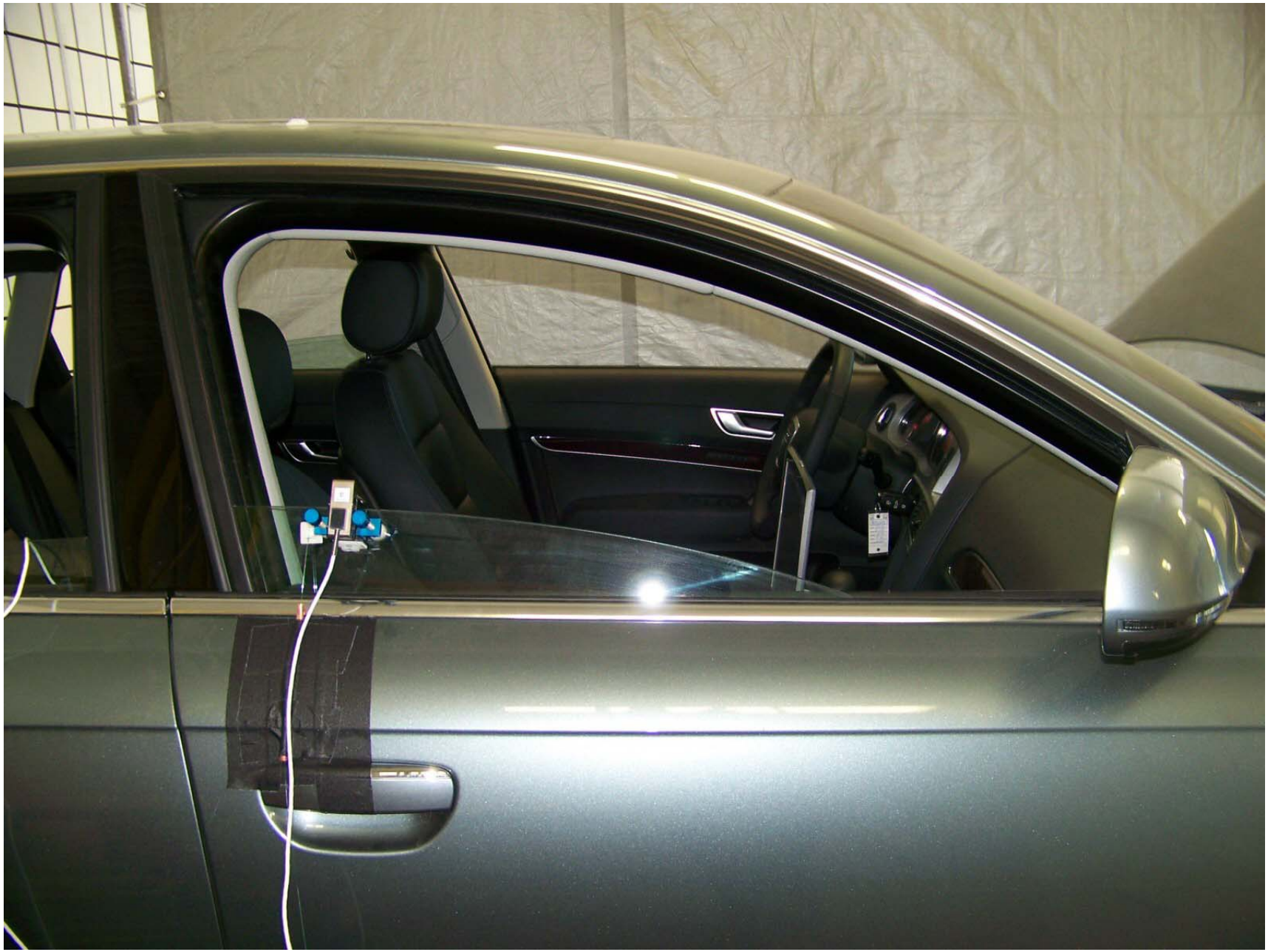


Figure 20: Right Front Window Test Set-Up Rear Edge

Figure 21: Left Rear Window

Figure 22: Left Rear Window Test Set-Up Leading Edge

Figure 23: Left Rear Window Test Set-Up Rear Edge

Figure 24: Right Rear Window

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FMVSS NO. 118

Figure 25: Right Rear Window Test Set-Up Leading Edge

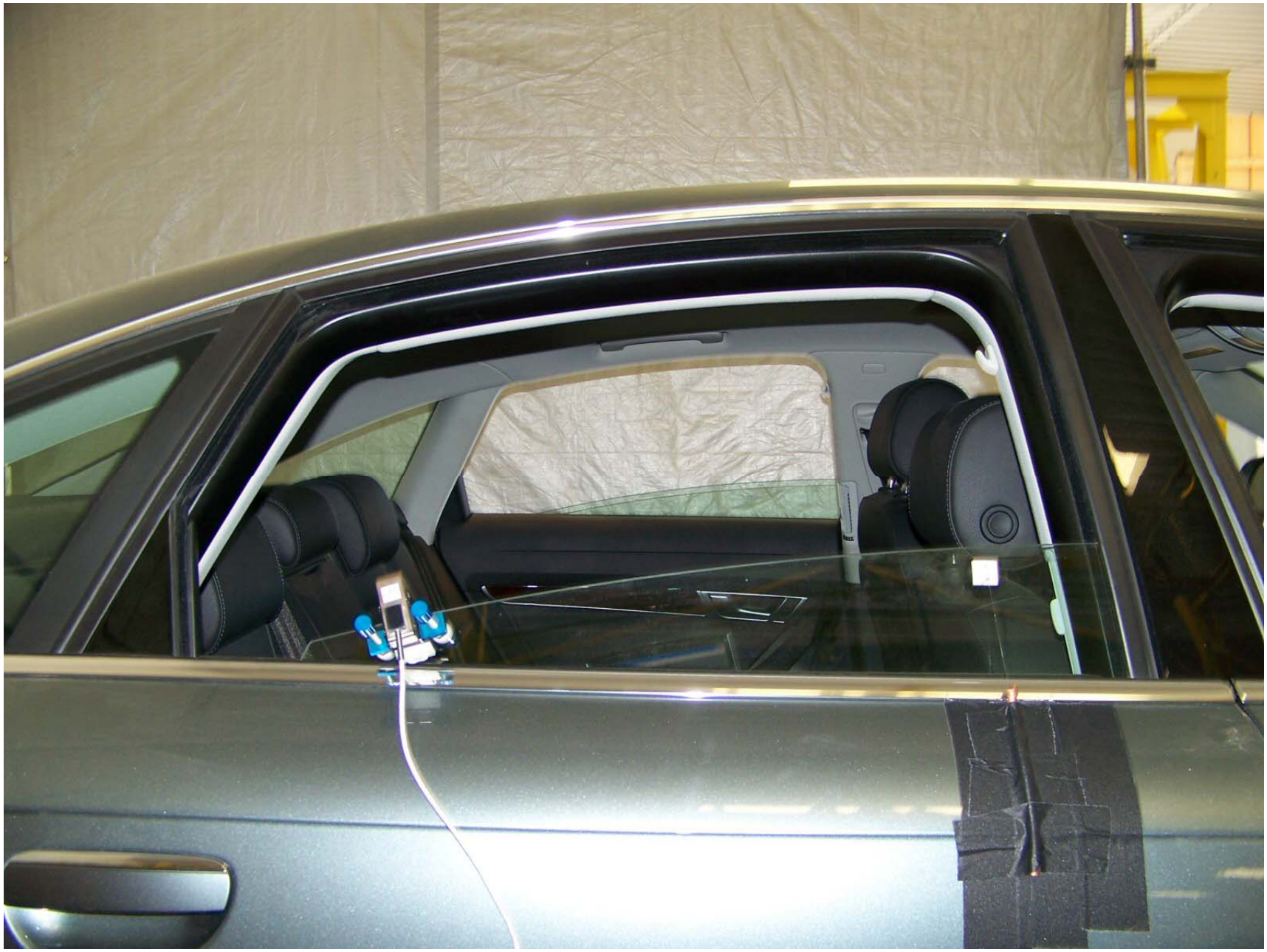

Figure 26: Right Rear Window Test Set-Up Rear Edge

Figure 27: Sunroof Window

Figure 28: Sunroof Window Test Set-Up

Figure 29: Sphere Test Master Control Panel

Figure 30: Sphere Test Right Front Window

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NHTSA NO. C95800
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FMVSS NO. 118

Figure 31: Sphere Test Left Rear Window

2009 AUDI A6
NHTSA NO. C95800
FMVSS NO. 118

Figure 32: Sphere Test Right Rear Window

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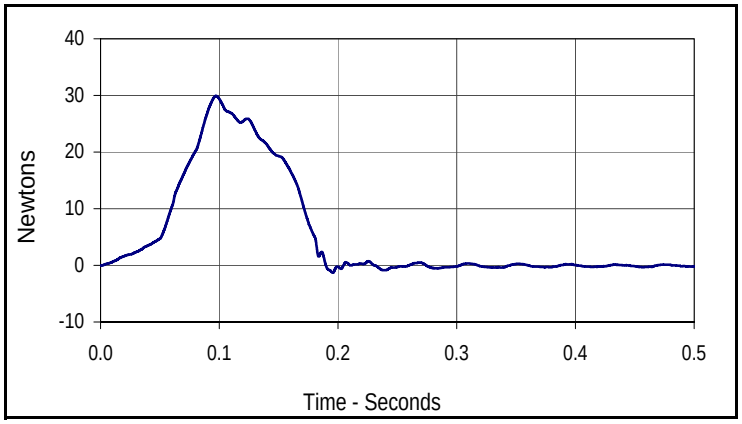
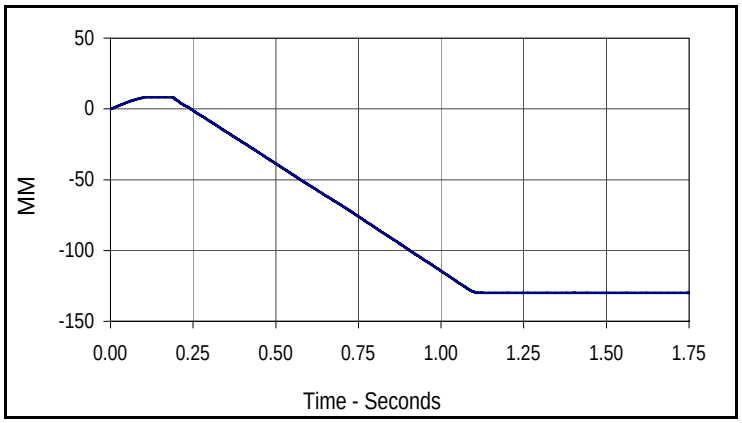
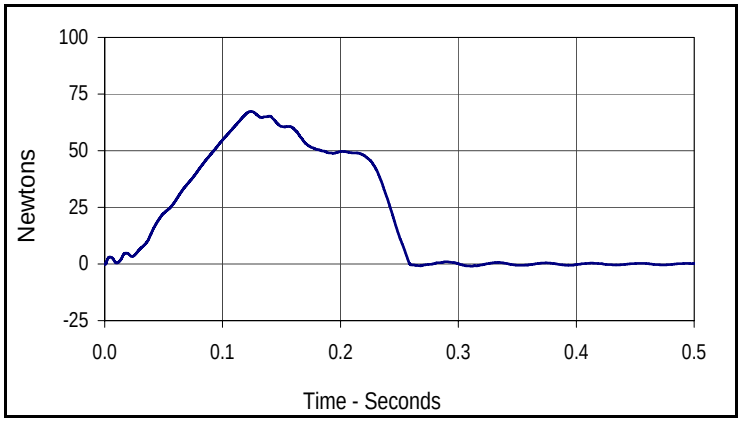
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Front Window)	NHTSA No.:	C95800



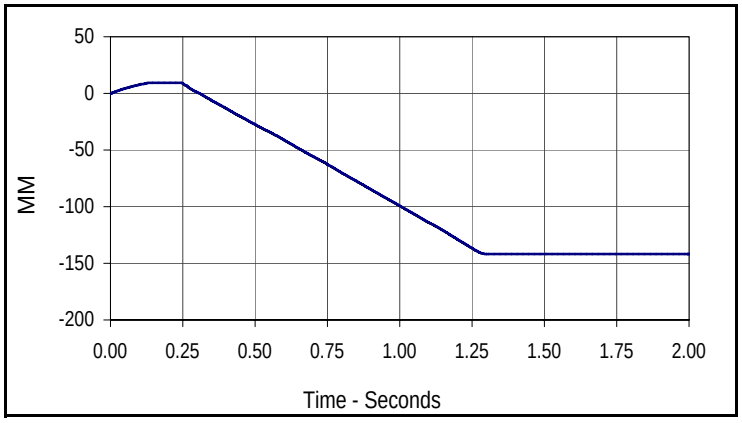
Curve Description			
Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
29.9	0.1	-1.3	0.2



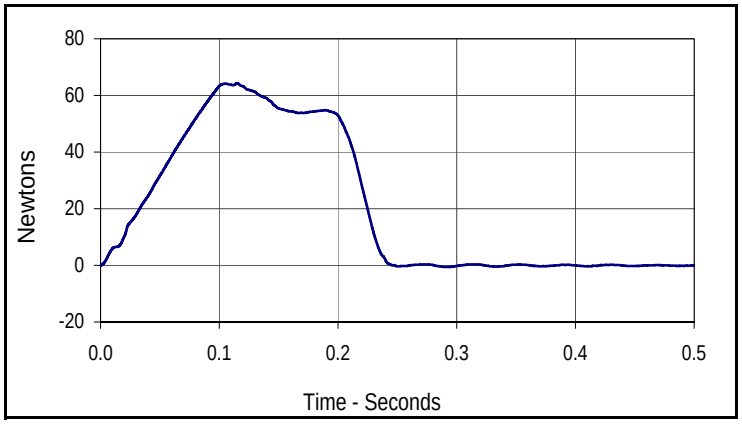
Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.3	0.2	-129.9	1.2



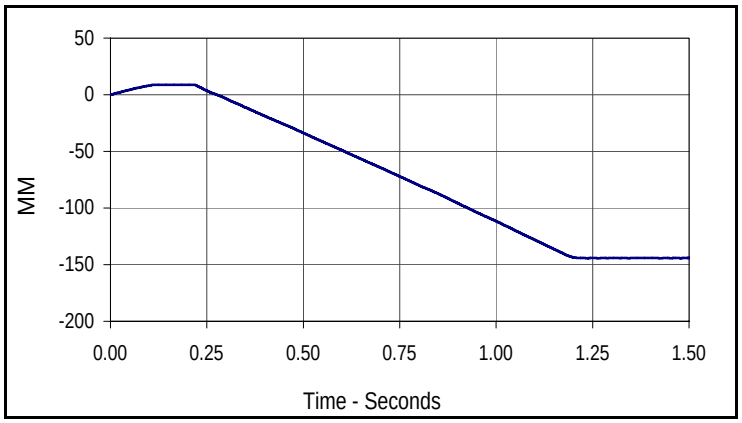
Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
67.3	0.1	-1.0	0.3



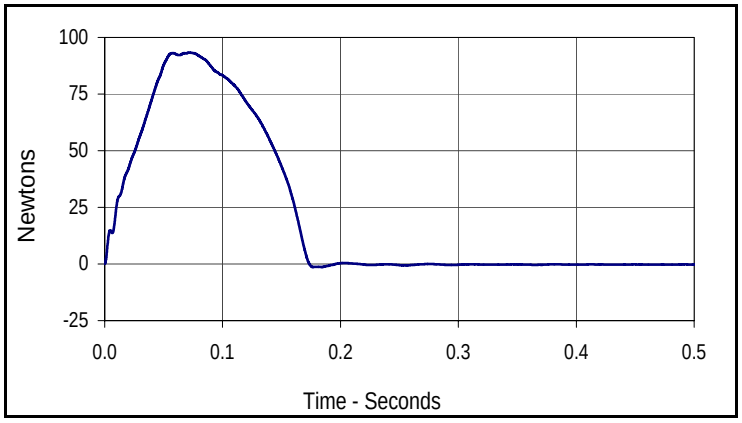
Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
9.3	0.2	-141.9	1.8



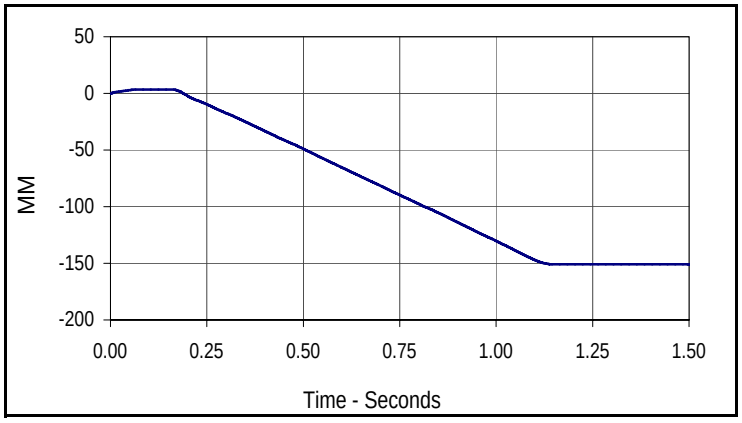
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
64.3	0.1	-0.6	0.3



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.9	0.1	-144.2	2.0

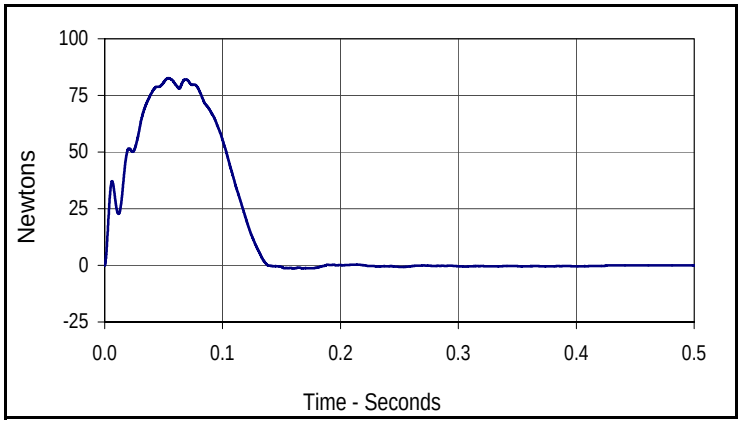


Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
93.3	0.1	-1.4	0.2

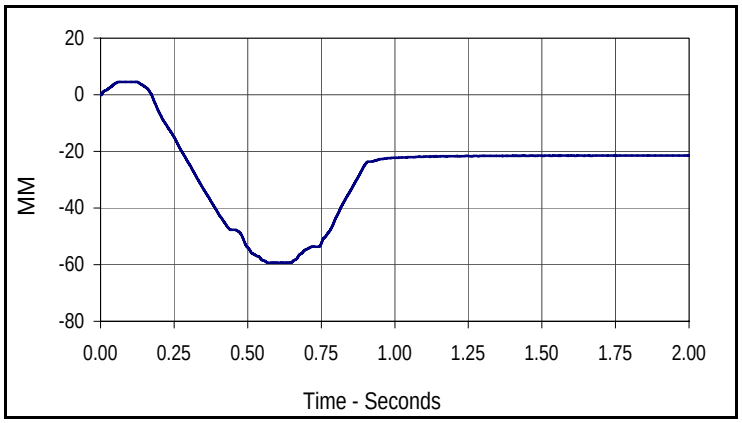


Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
3.5	0.1	-150.9	1.6

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Front Window)	NHTSA No.:	C95800

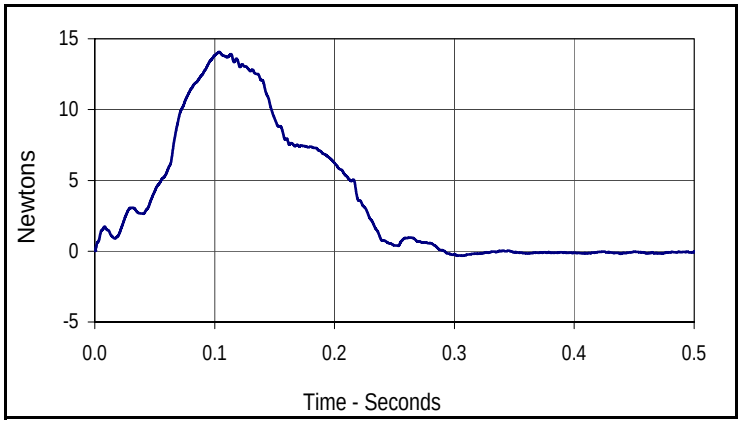


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
82.7	0.1	-1.4	0.2

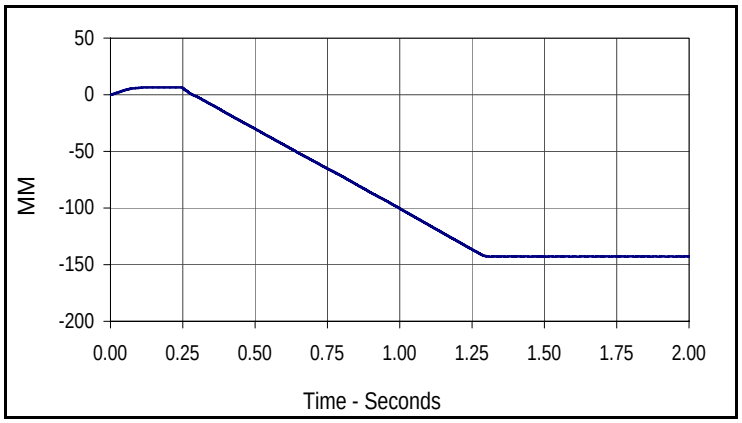


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
4.6	0.1	-59.3	0.6

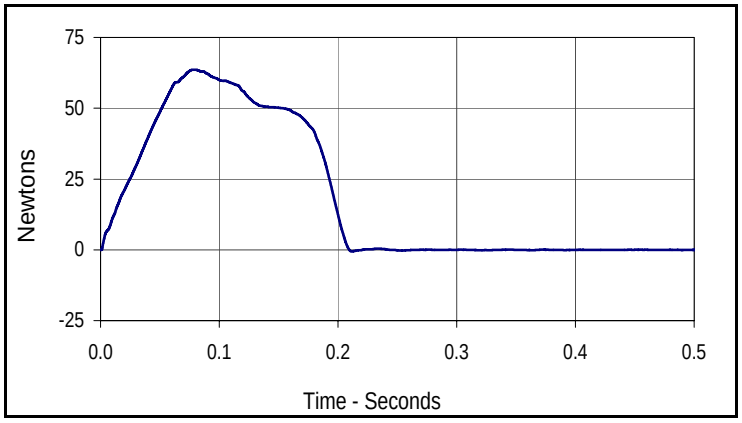
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Front Window)	NHTSA No.:	C95800



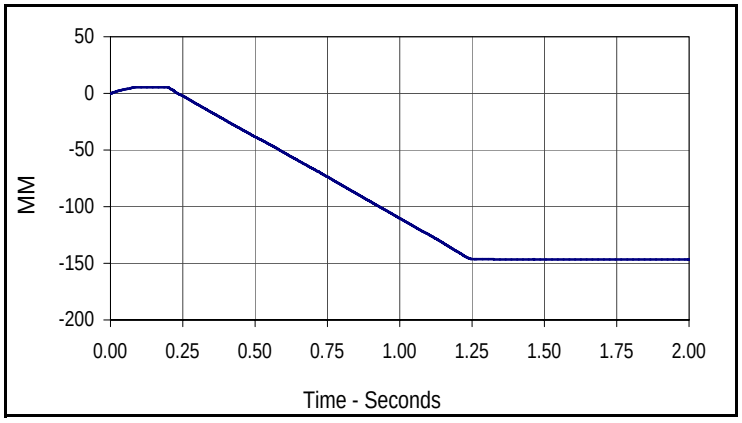
Curve Description			
Window Force 5MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
14.1	0.1	-0.3	0.3



Curve Description			
Window Travel 5MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
6.5	0.2	-142.8	1.3

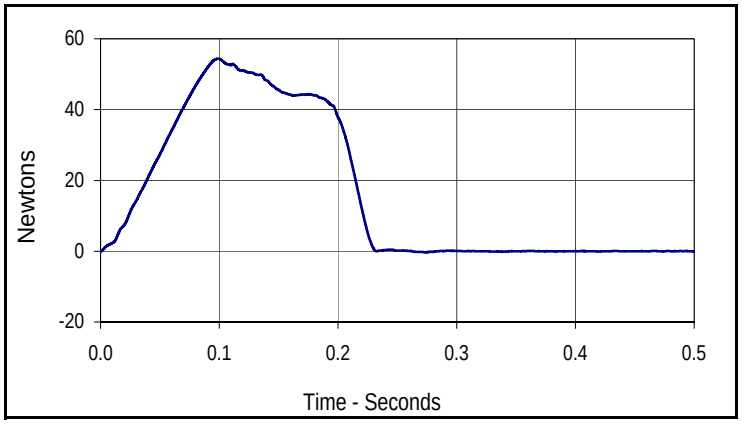


Curve Description			
Window Force 25MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
63.6	0.1	-0.6	0.2

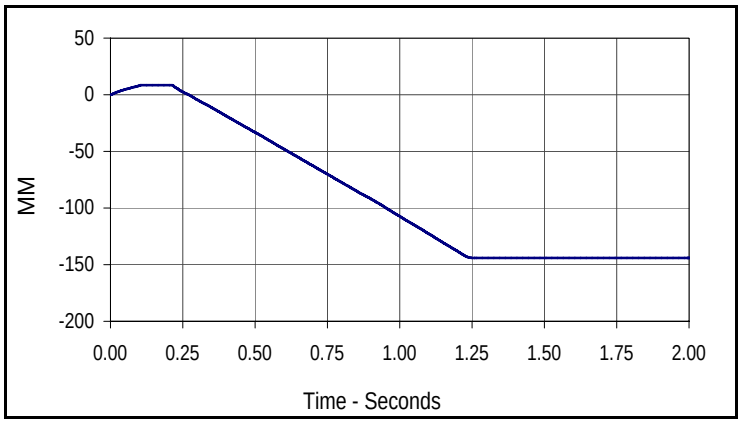


Curve Description			
Window Travel 25MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.4	0.2	-146.6	1.6

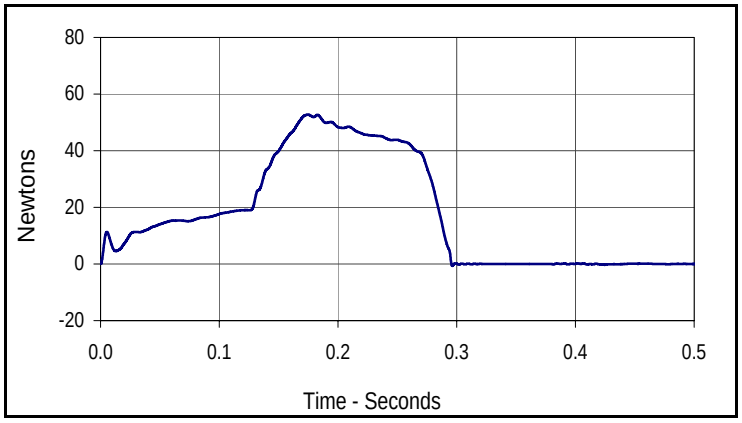
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Front Window)	NHTSA No.:	C95800



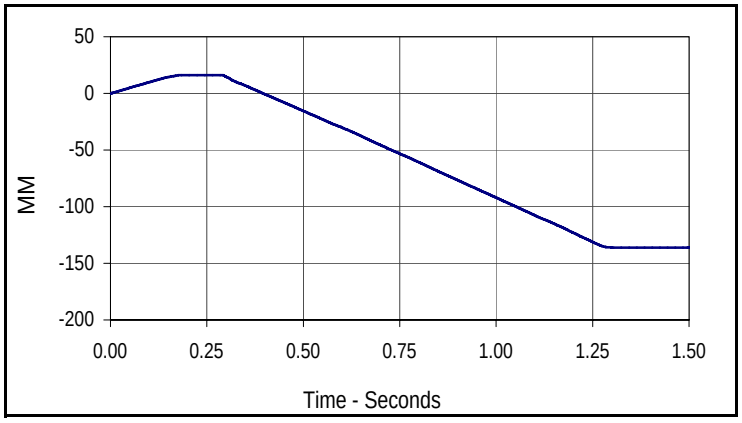
Curve Description			
Window Force 50MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
54.4	0.1	-0.3	0.3



Curve Description			
Window Travel 50MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.5	0.1	-144.1	1.7

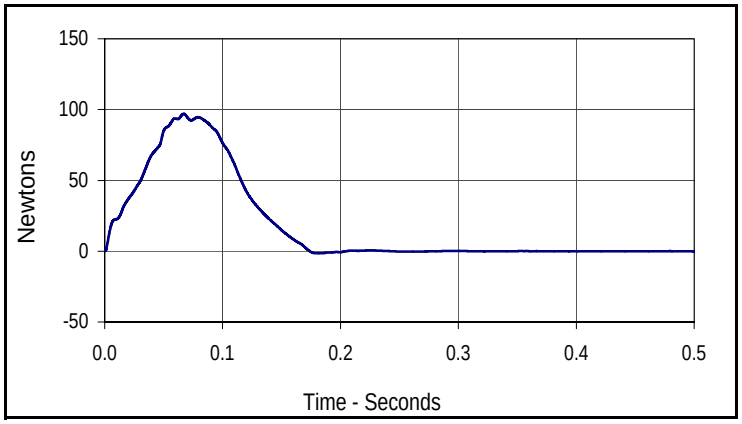


Curve Description			
Window Force 100MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
52.7	0.2	-0.6	0.3

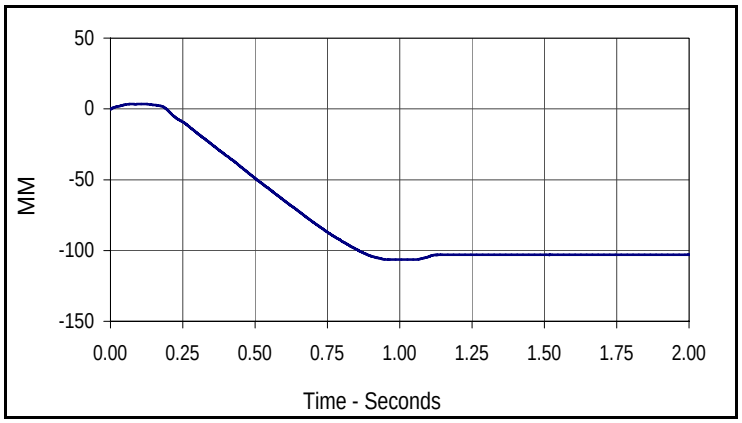


Curve Description			
Window Travel 100MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
16.2	0.2	-136.3	1.9

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Front Window)	NHTSA No.:	C95800

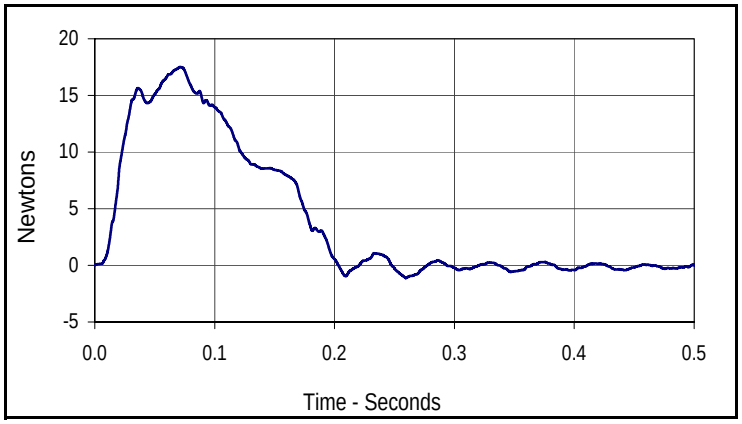


Curve Description			
Window Force 200MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
97.0	0.1	-1.5	0.2

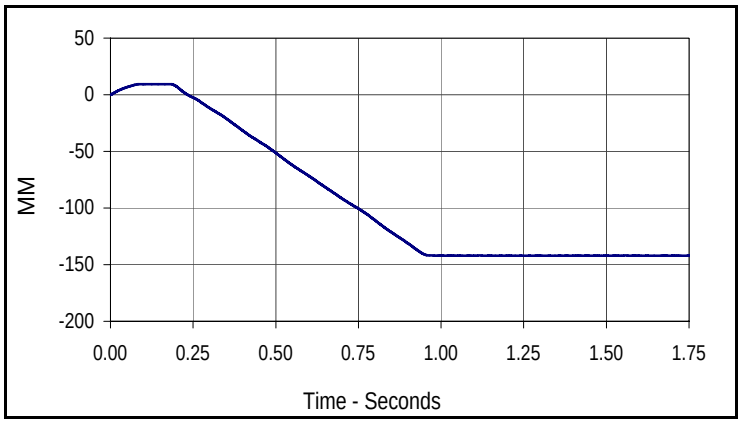


Curve Description			
Window Travel 200MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
3.4	0.1	-106.5	1.0

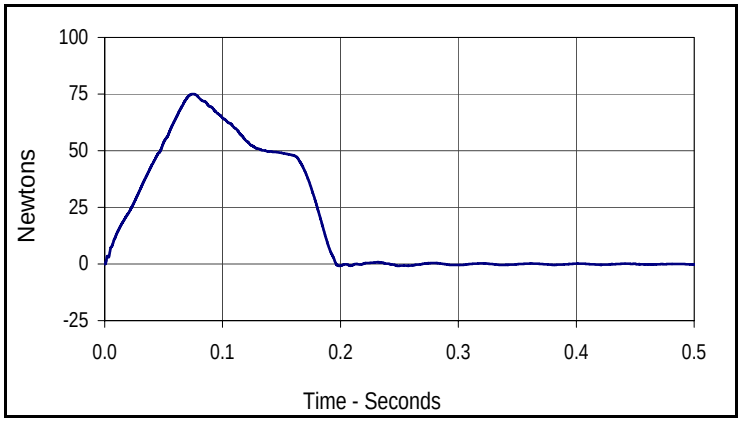
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Front Window)	NHTSA No.:	C95800



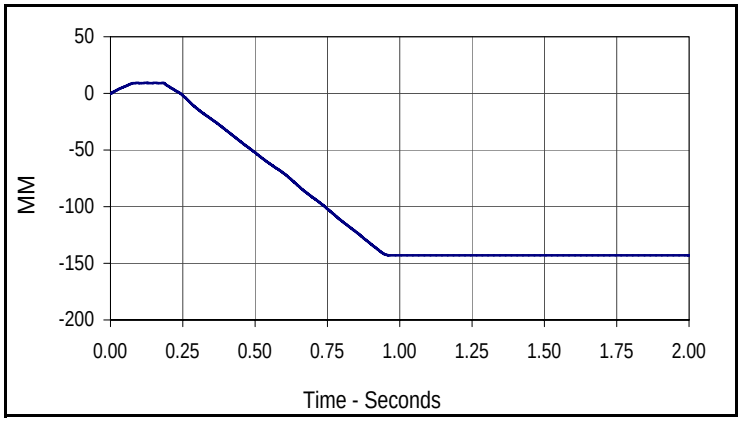
Curve Description			
Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
17.5	0.1	-1.1	0.3



Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
9.4	0.2	-142.0	1.1

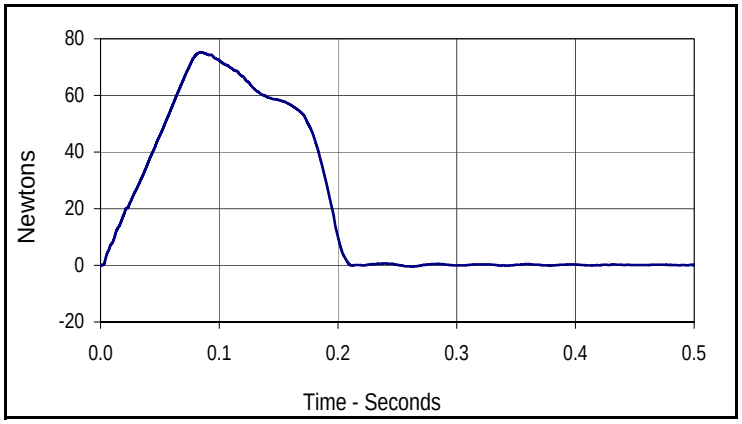


Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
75.0	0.1	-0.8	0.2

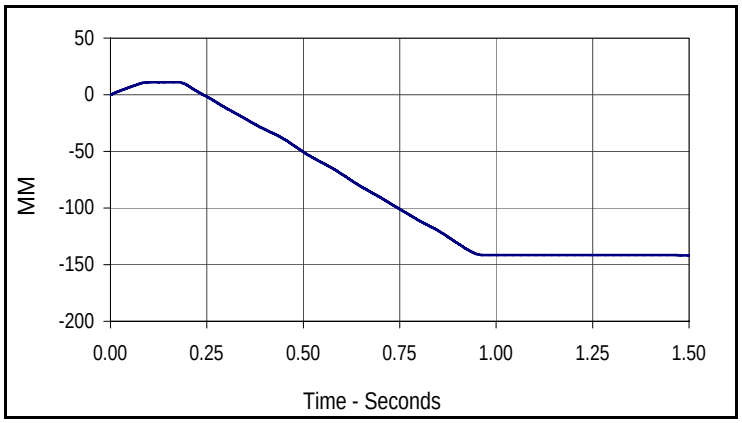


Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
9.2	0.1	-143.0	1.4

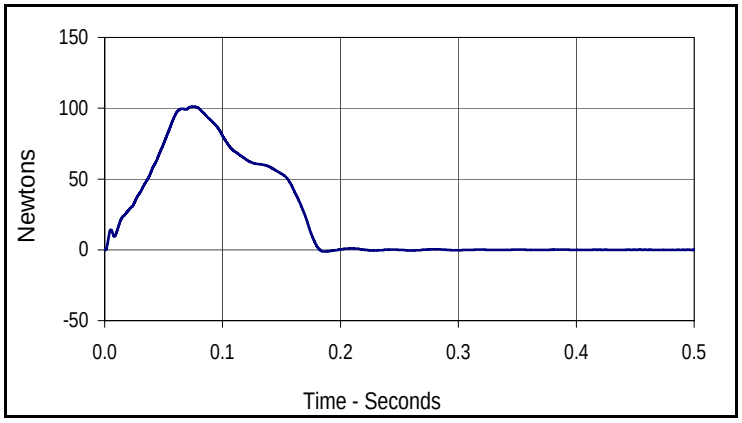
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Front Window)	NHTSA No.:	C95800



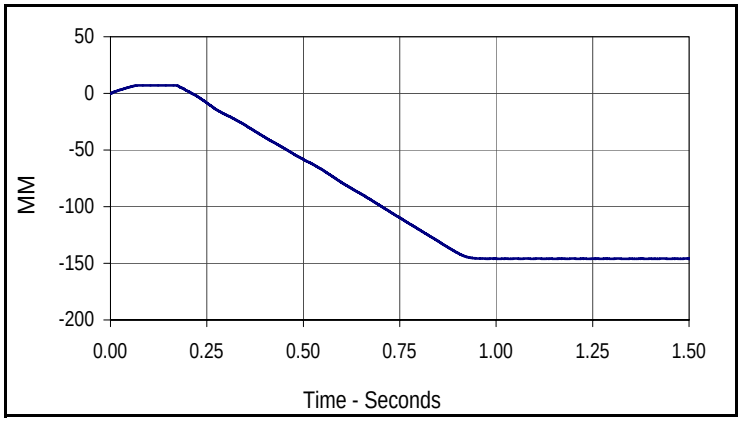
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
75.3	0.1	-0.4	0.3



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
11.0	0.1	-141.8	1.5

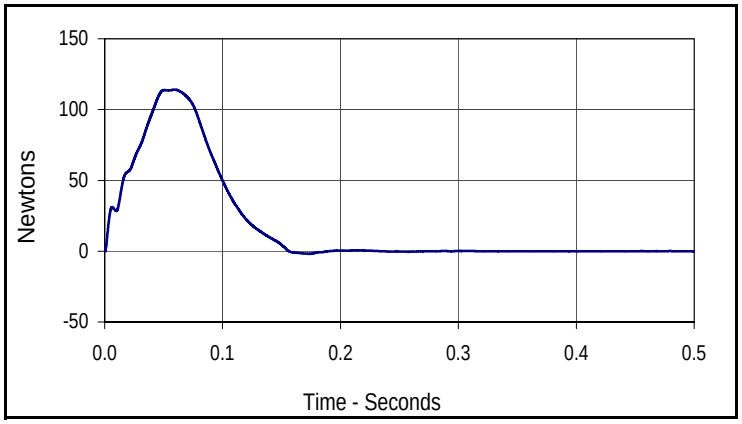


Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
101.1	0.1	-1.2	0.2

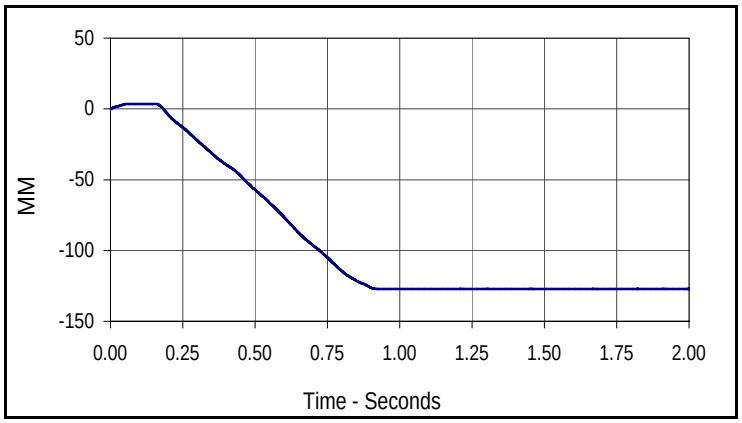


Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
7.1	0.1	-146.0	1.4

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Front Window)	NHTSA No.:	C95800

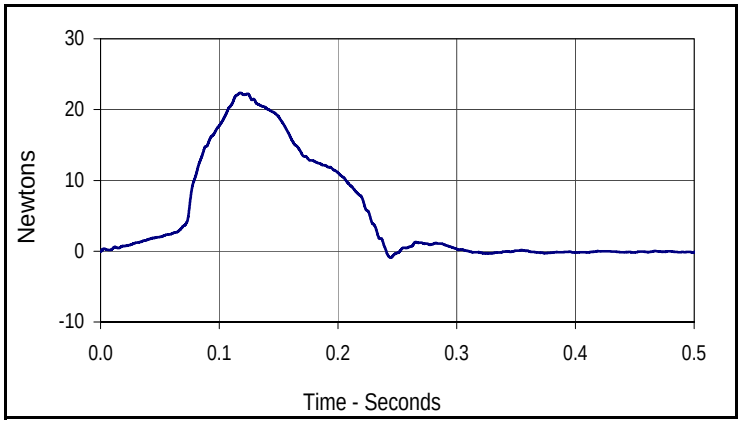


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
114.1	0.1	-1.8	0.2

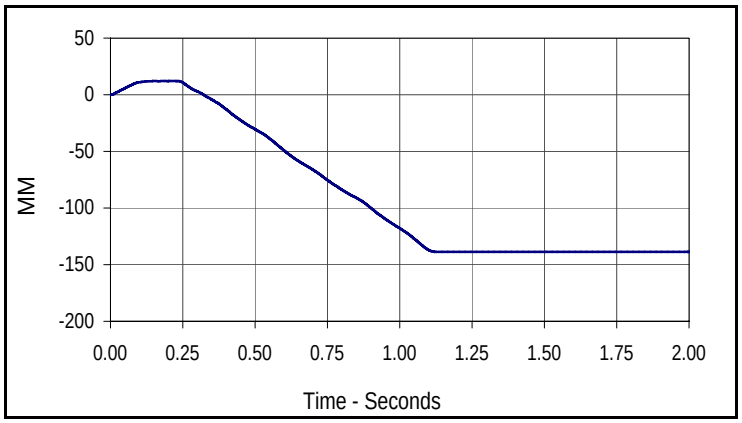


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
3.5	0.1	-127.2	1.5

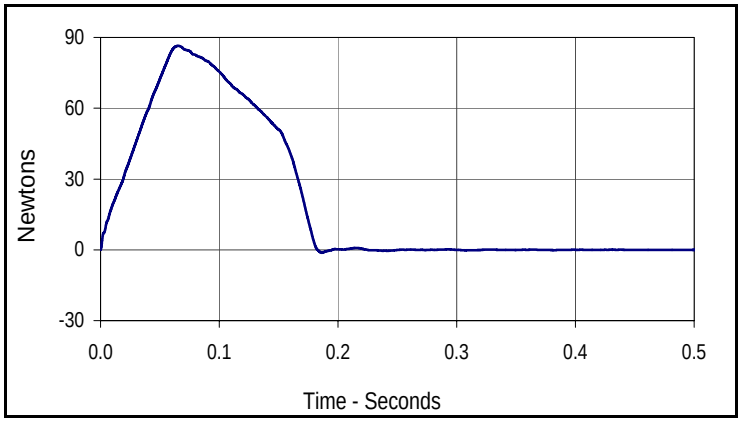
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Front Window)	NHTSA No.:	C95800



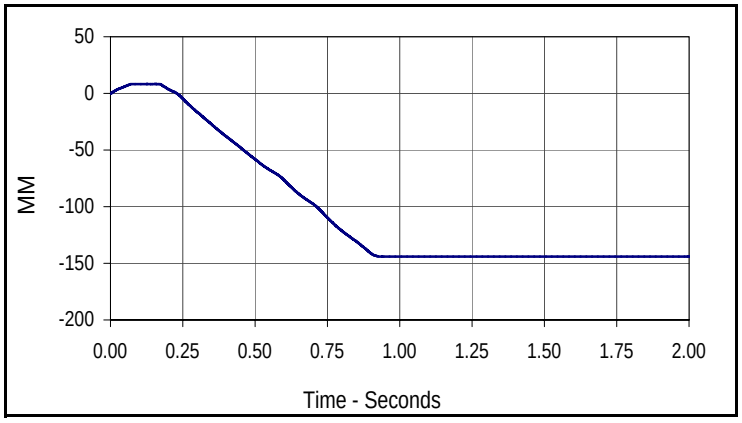
Curve Description			
Window Force 5MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
22.4	0.1	-0.9	0.2



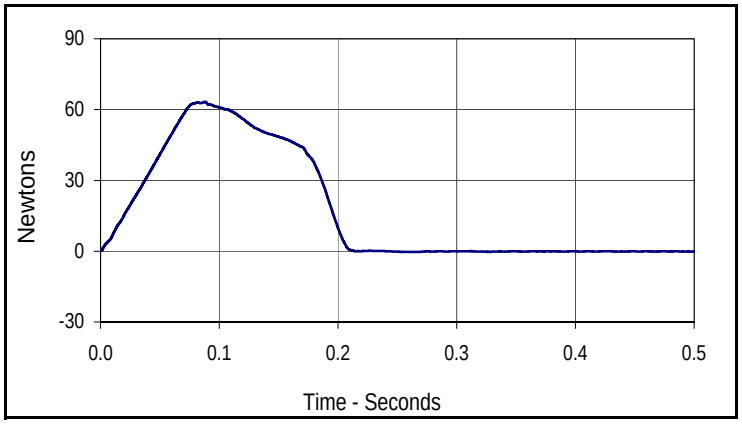
Curve Description			
Window Travel 5MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
12.1	0.2	-138.7	1.4



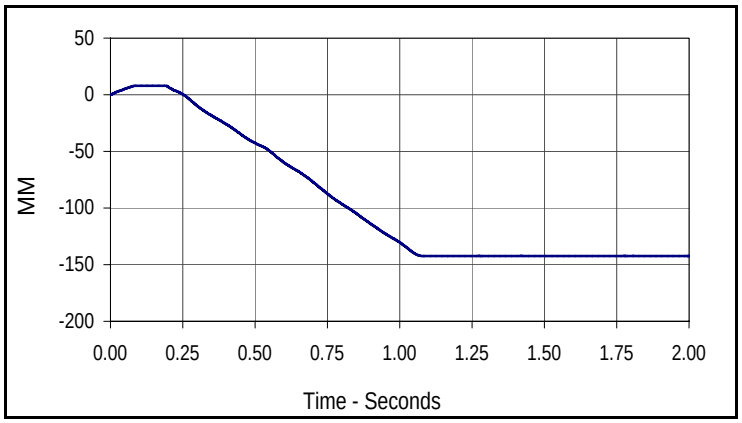
Curve Description			
Window Force 25MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
86.4	0.1	-1.2	0.2



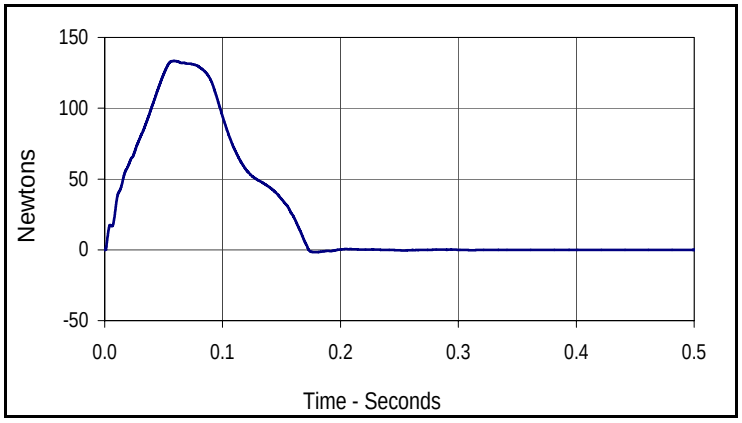
Curve Description			
Window Travel 25MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
8.3	0.2	-144.2	1.0



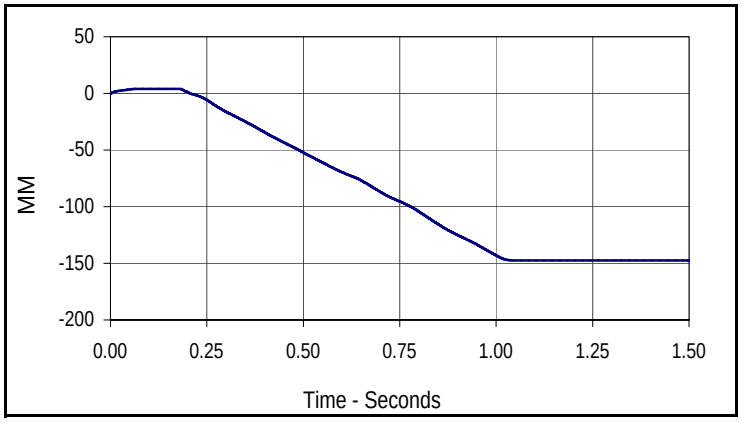
Curve Description			
Window Force 50MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
63.3	0.1	-0.4	0.3



Curve Description			
Window Travel 50MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.0	0.2	-142.3	2.0

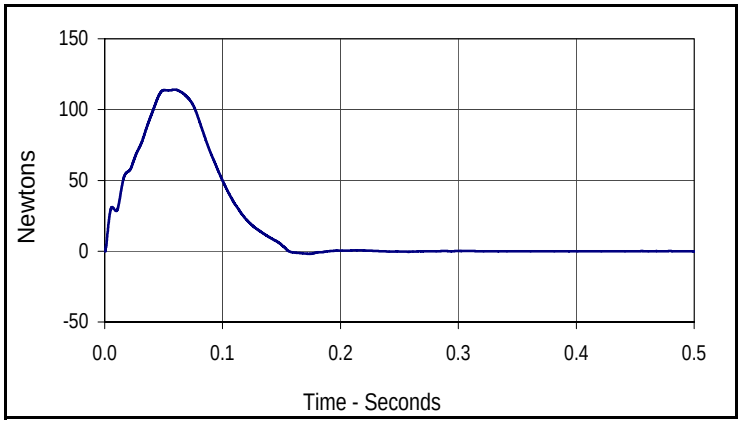


Curve Description			
Window Force 100MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
133.4	0.1	-1.7	0.2

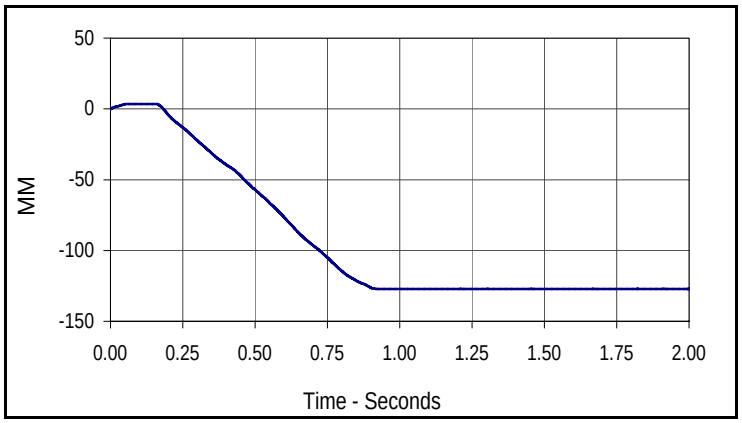


Curve Description			
Window Travel 100MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
4.0	0.1	-147.5	1.9

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Front Window)	NHTSA No.:	C95800

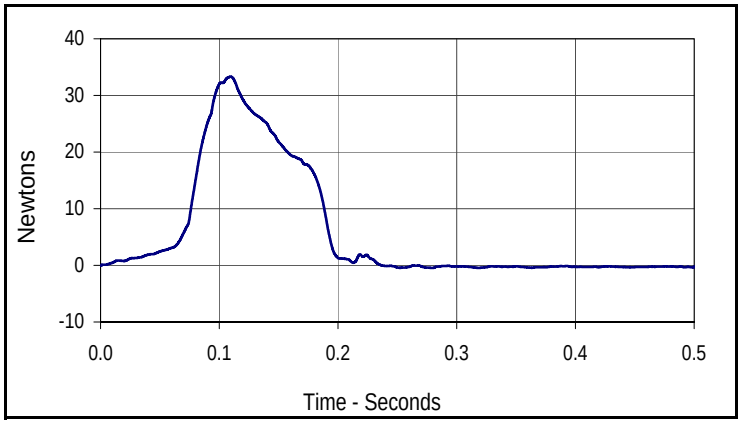


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
114.1	0.1	-1.8	0.2

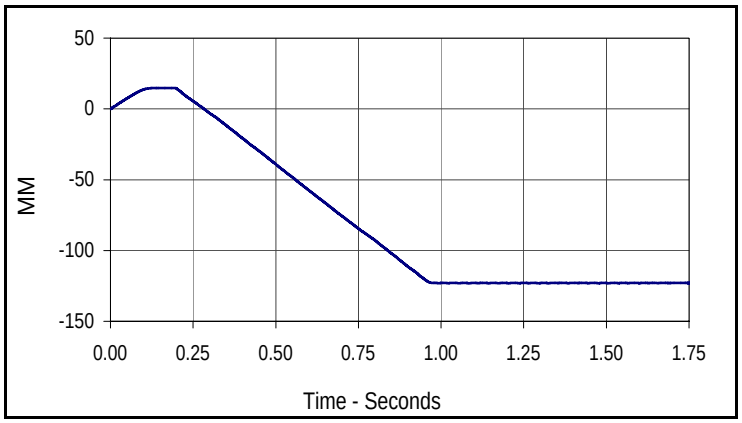


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
3.5	0.1	-127.2	1.5

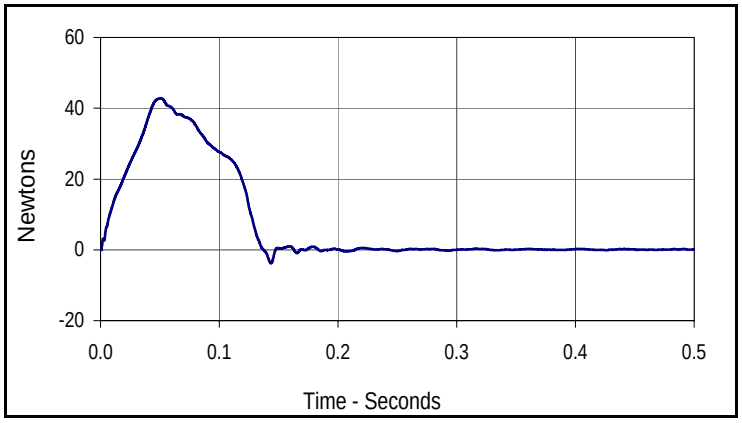
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800



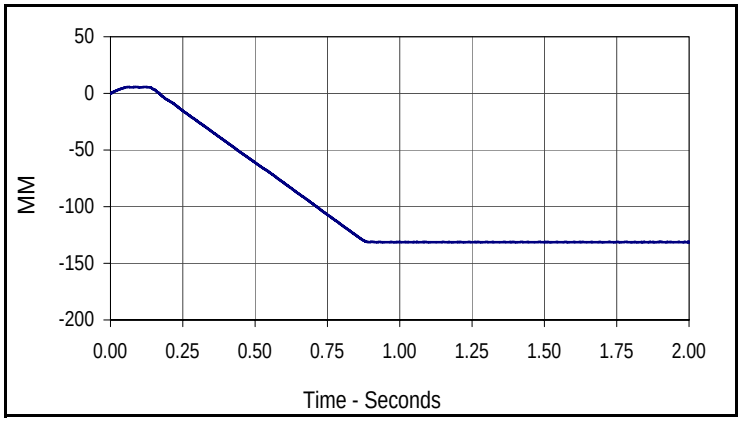
Curve Description			
Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
33.3	0.1	-0.5	0.3



Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
14.8	0.2	-123.0	1.0

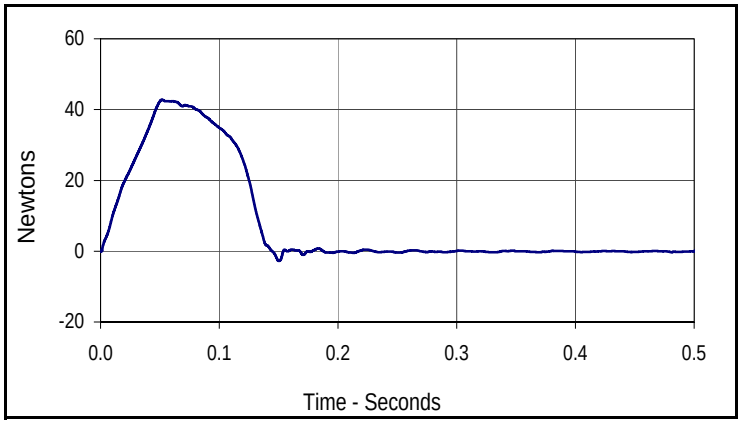


Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
42.8	0.1	-3.8	0.1

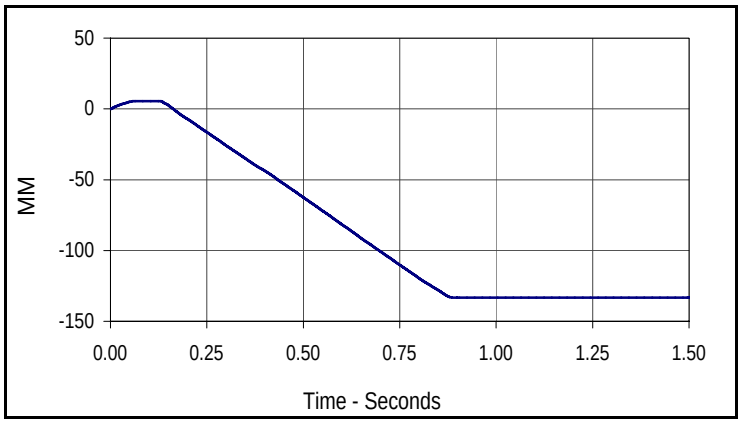


Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.6	0.1	-131.3	1.6

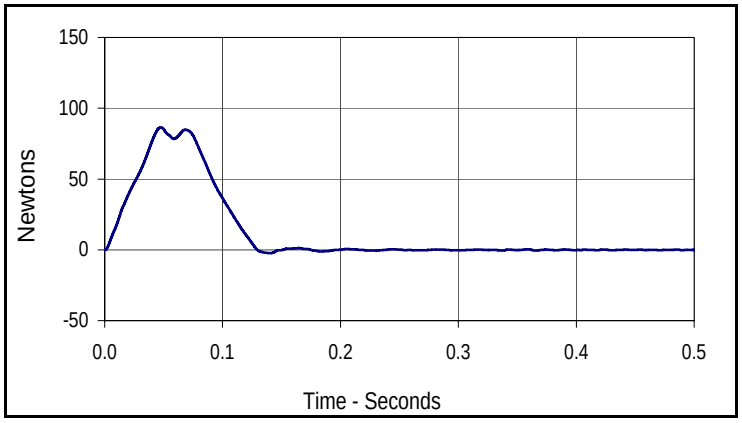
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800



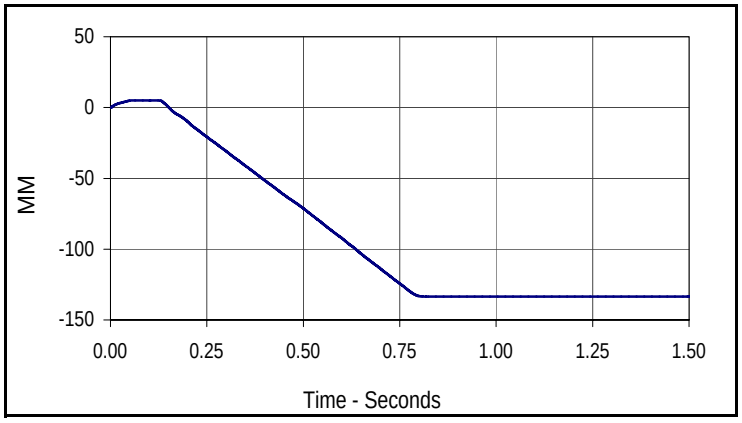
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
42.8	0.1	-2.8	0.2



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
5.5	0.1	-133.3	1.0

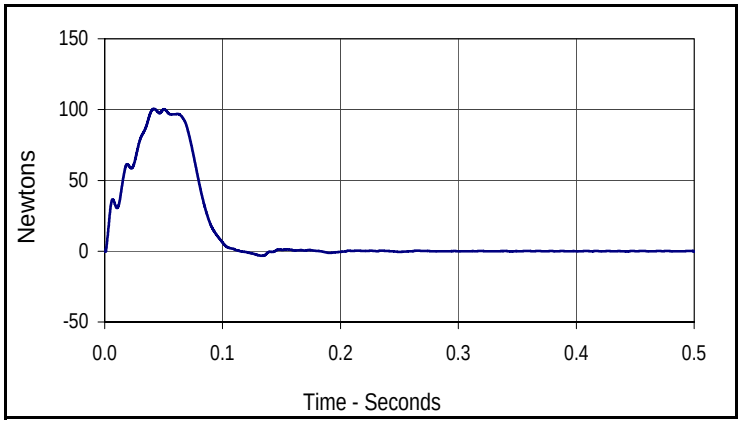


Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
86.4	0.0	-2.4	0.1

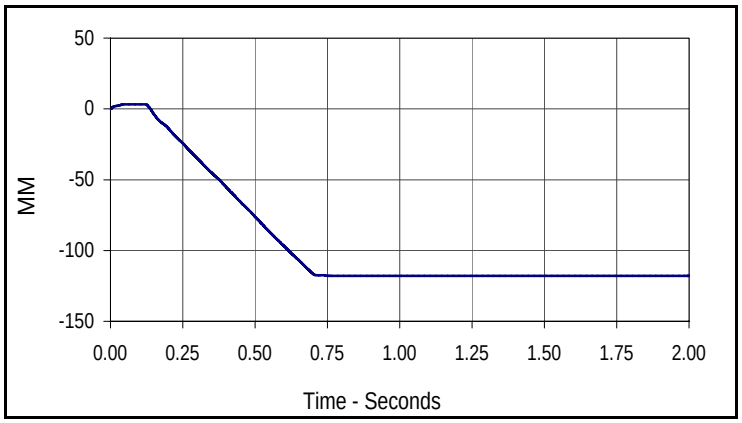


Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.0	0.1	-133.6	1.5

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800

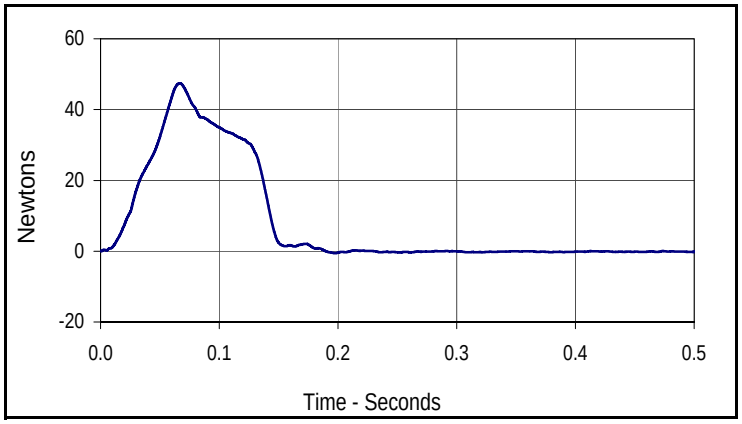


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
100.5	0.0	-4.2	0.7

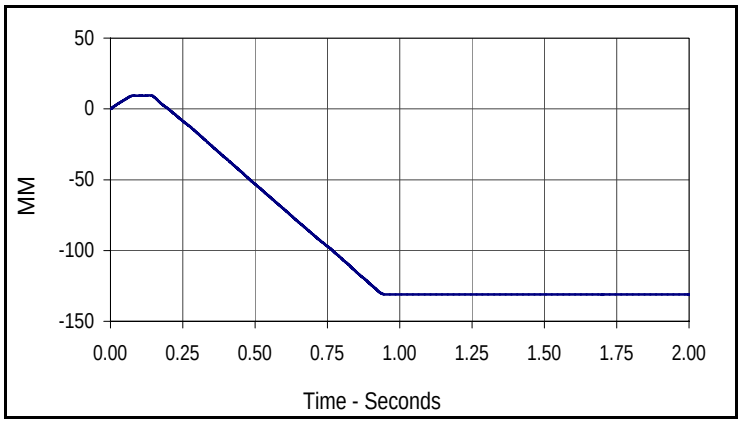


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
3.3	0.1	-118.0	1.8

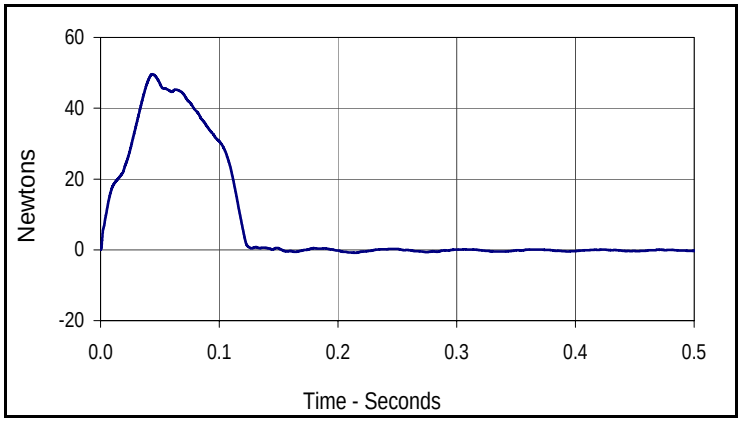
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800



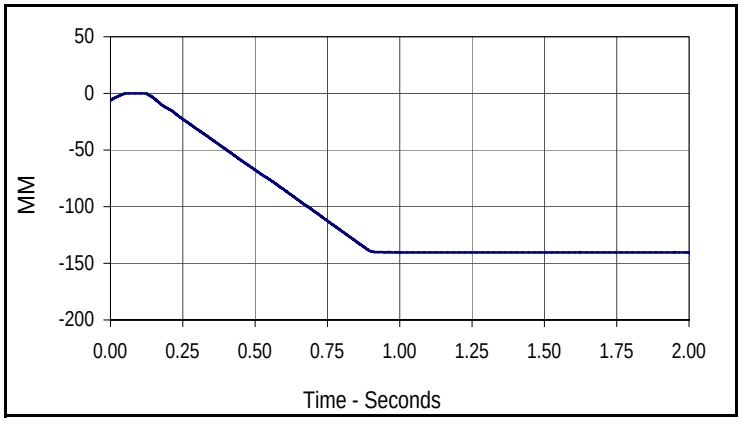
Curve Description			
Window Force 5MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
47.4	0.1	-0.6	0.2



Curve Description			
Window Travel 5MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
9.5	0.1	-131.1	2.0

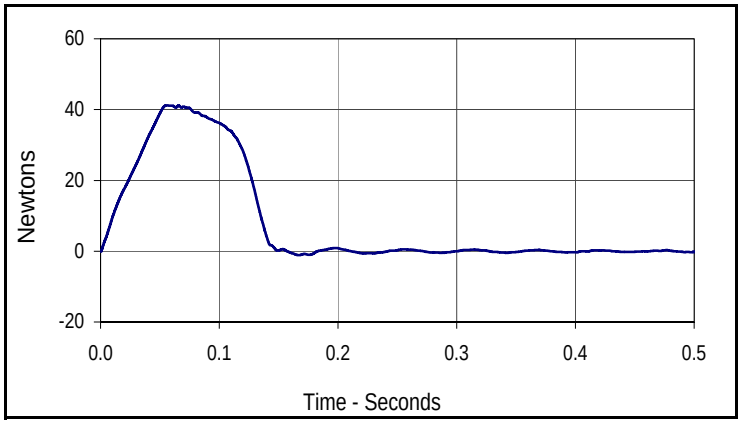


Curve Description			
Window Force 25MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
49.6	0.0	-0.8	0.2

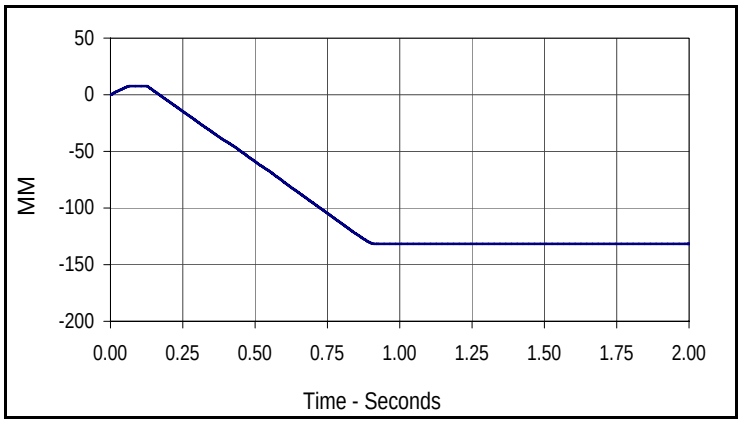


Curve Description			
Window Travel 25MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
0.0	0.1	-140.4	1.3

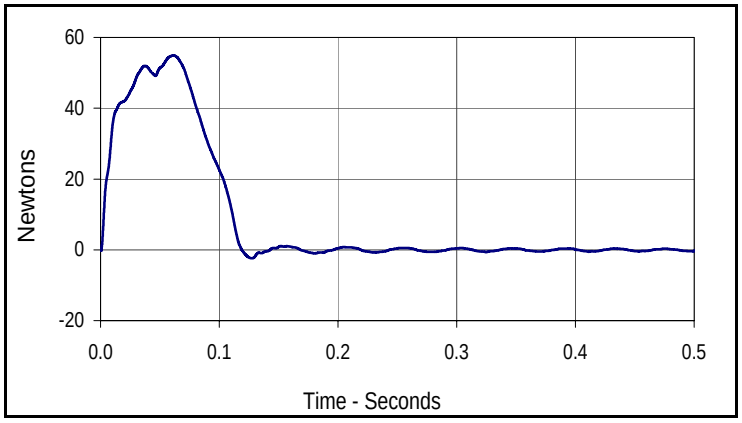
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800



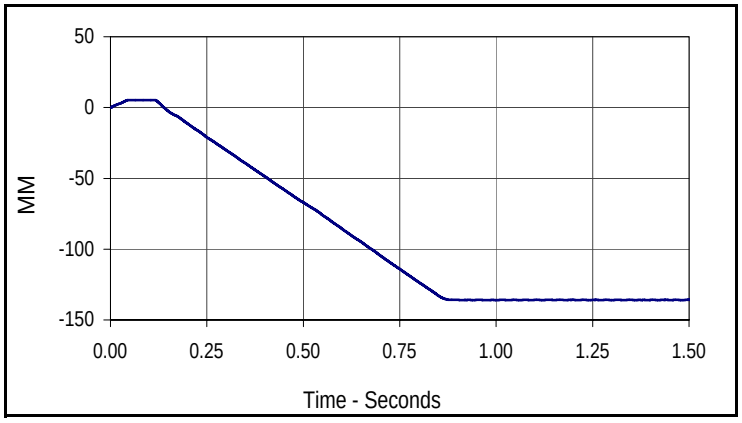
Curve Description			
Window Force 50MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
41.2	0.1	-1.1	0.2



Curve Description			
Window Travel 50MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
7.6	0.1	-131.7	1.9

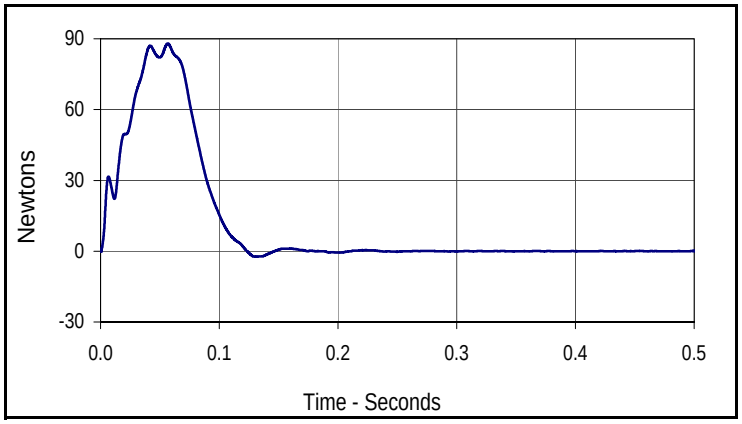


Curve Description			
Window Force 100MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
54.9	0.1	-2.4	0.1

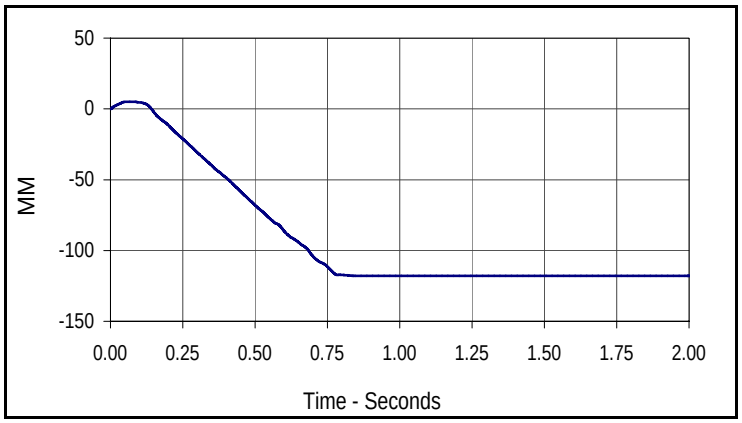


Curve Description			
Window Travel 100MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.3	0.1	-135.9	1.8

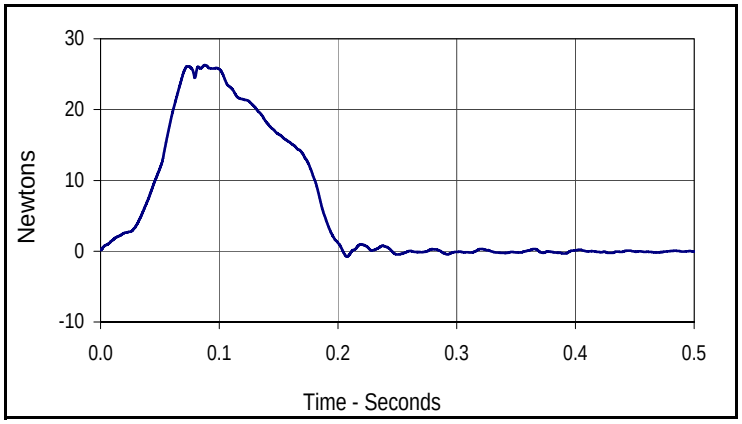
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Right Rear Window)	NHTSA No.:	C95800



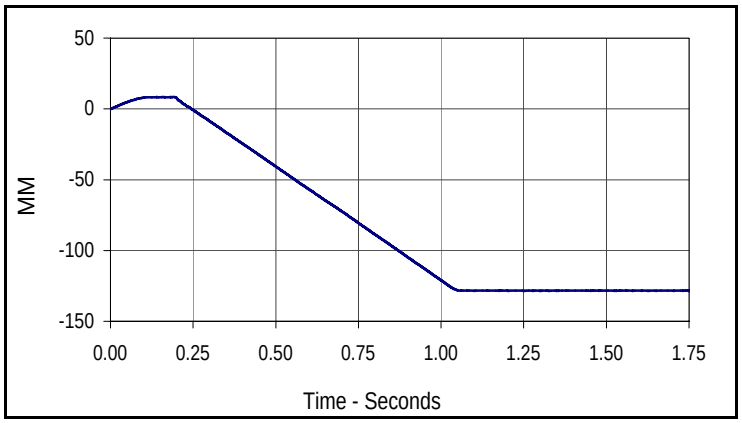
Curve Description			
Window Force 200MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
87.9	0.1	-9.2	0.7



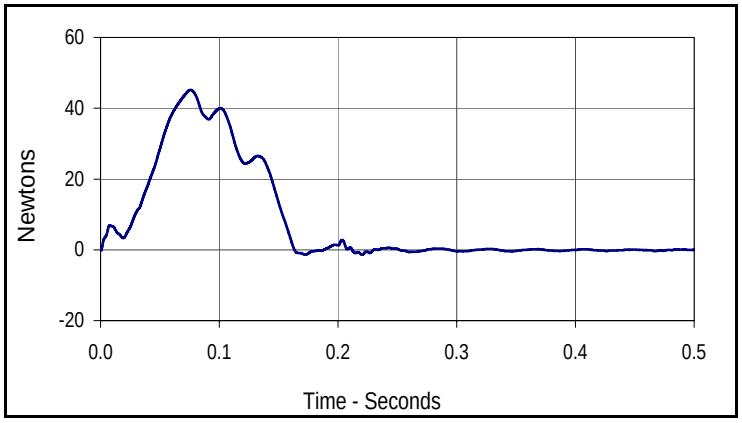
Curve Description			
Window Travel 200MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
5.0	0.1	-118.0	1.5



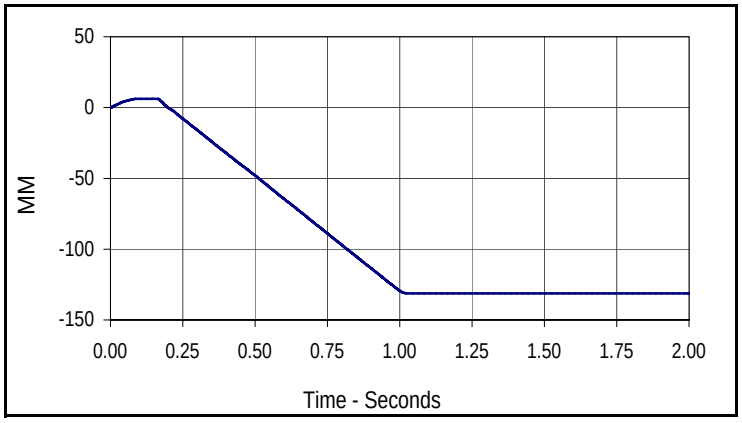
Curve Description			
Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
26.3	0.1	-0.8	0.2



Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.3	0.2	-128.5	1.8

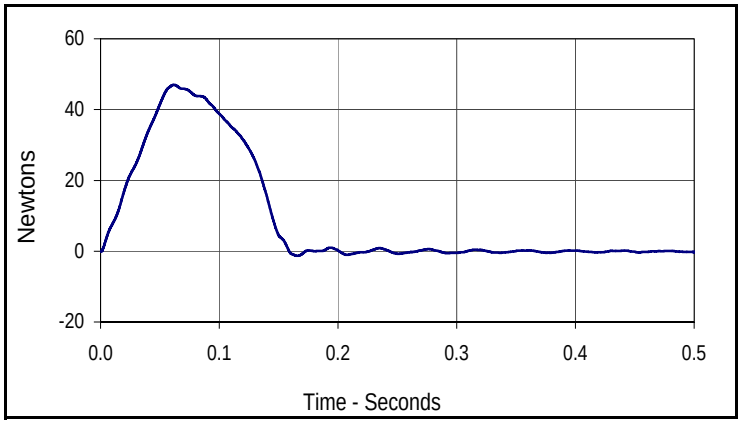


Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
45.2	0.1	-1.4	0.2

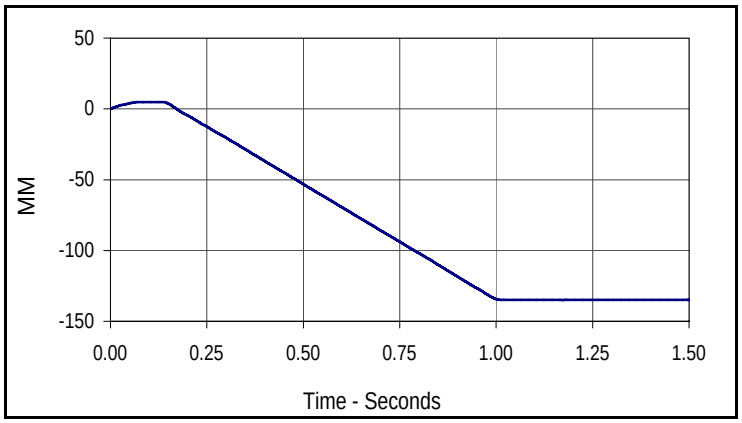


Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
6.2	0.1	-131.3	1.9

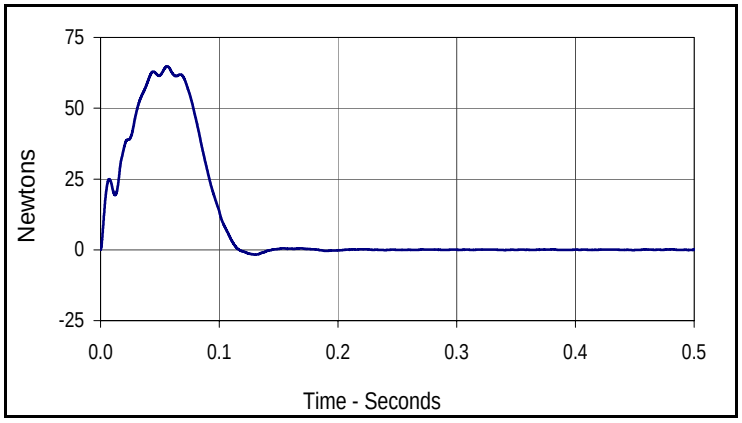
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Rear Window)	NHTSA No.:	C95800



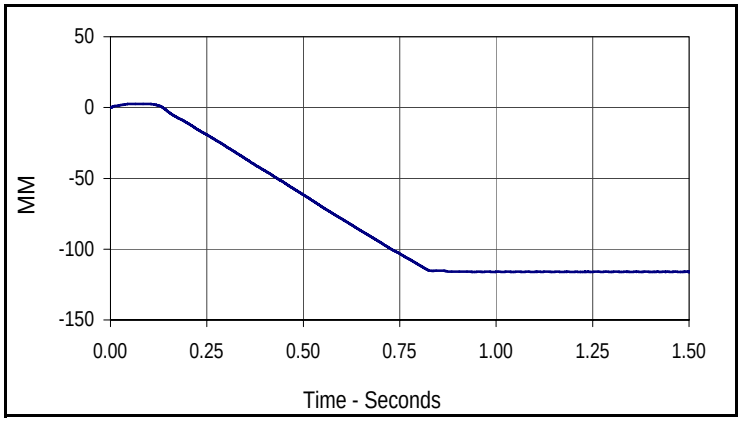
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
47.0	0.1	-1.3	0.2



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
4.8	0.1	-135.0	1.2

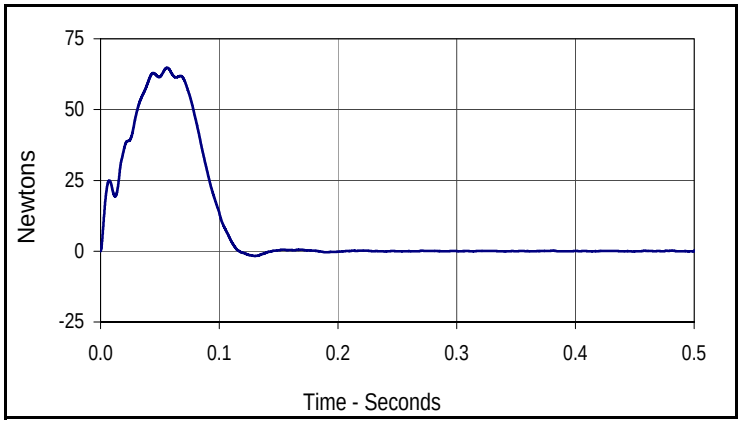


Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
64.8	0.1	-2.9	0.8

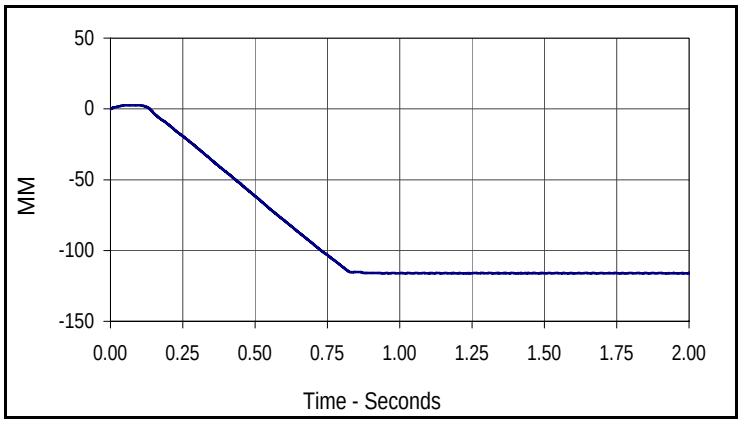


Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
2.6	0.1	-116.1	1.7

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Rear Window)	NHTSA No.:	C95800

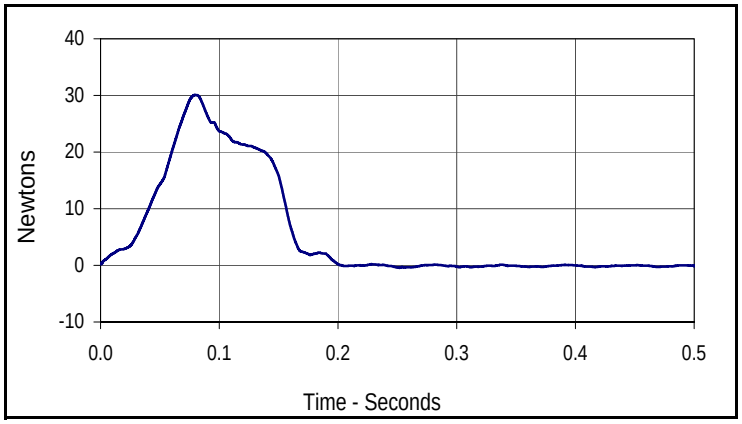


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
64.8	0.1	-2.9	0.8

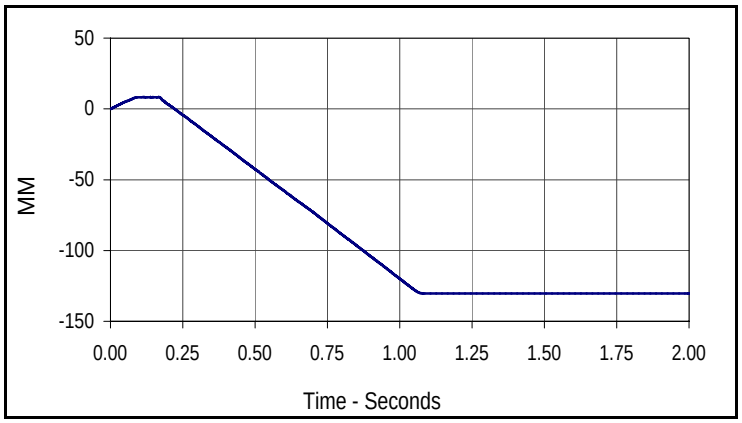


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
2.6	0.1	-116.1	1.7

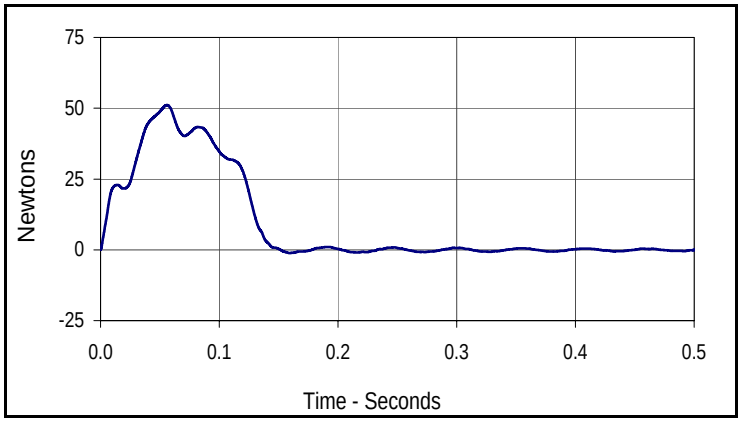
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Rear Window)	NHTSA No.:	C95800



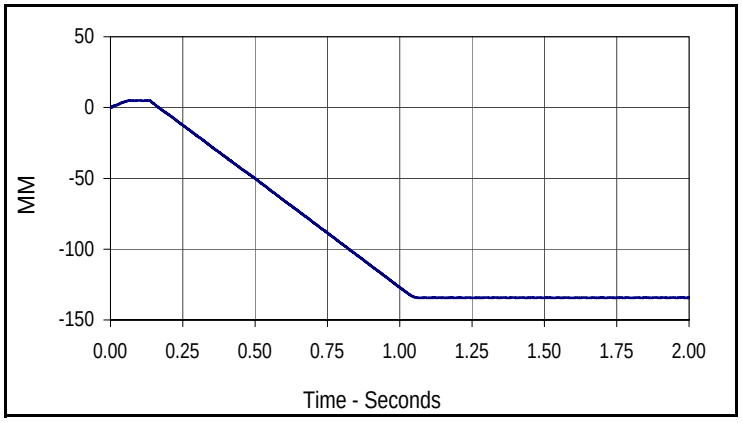
Curve Description			
Window Force 5MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
30.1	0.1	-0.4	0.3



Curve Description			
Window Travel 5MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.3	0.1	-130.4	1.8

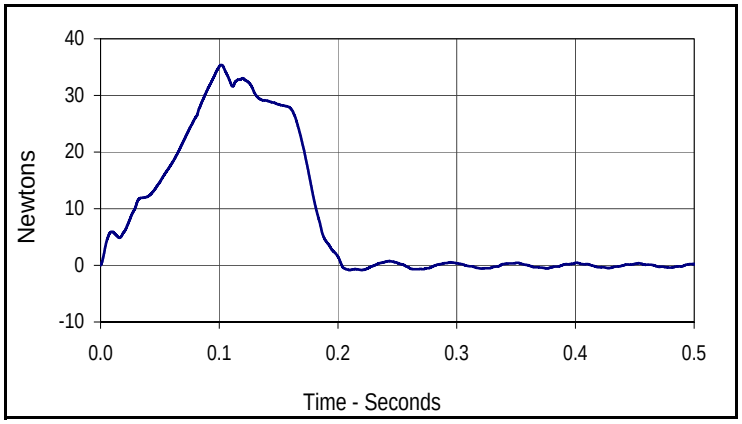


Curve Description			
Window Force 25MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
51.1	0.1	-1.2	0.2

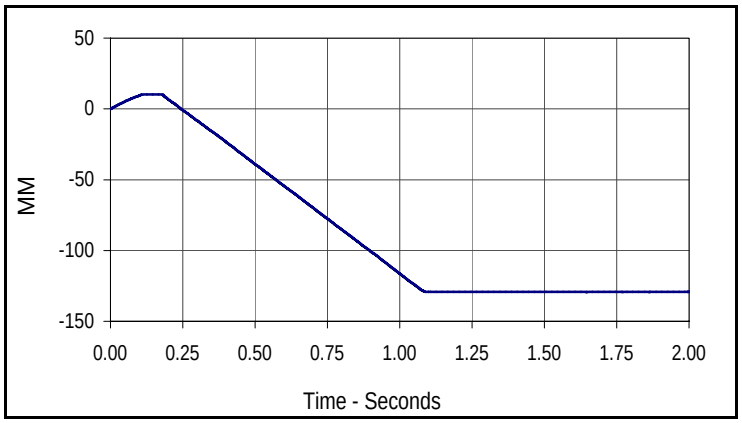


Curve Description			
Window Travel 25MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
4.9	0.1	-134.4	1.7

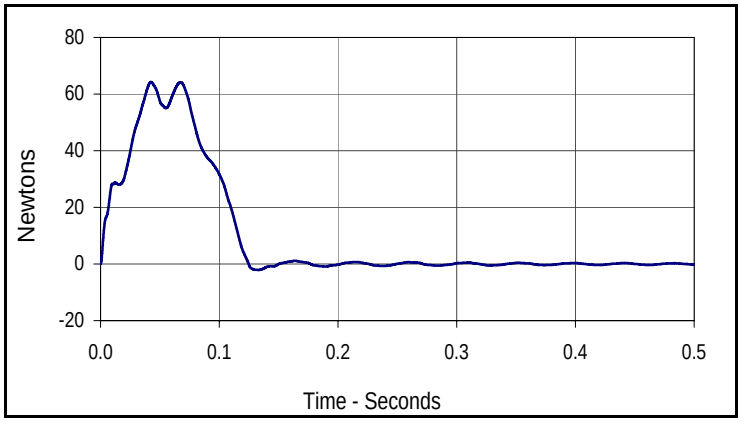
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Rear Window)	NHTSA No.:	C95800



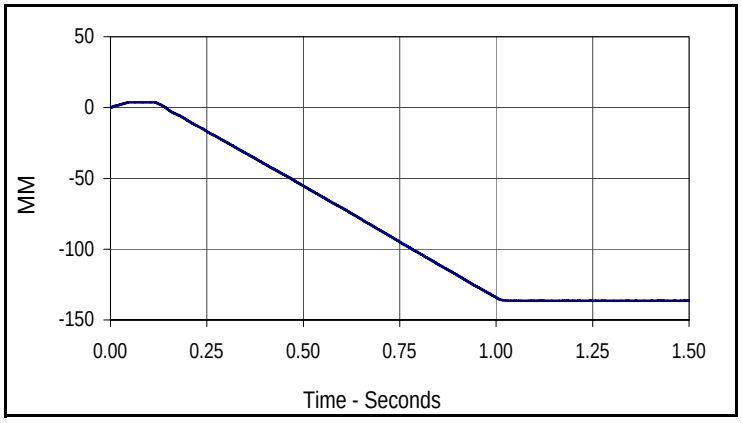
Curve Description			
Window Force 50MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
35.4	0.1	-0.8	0.2



Curve Description			
Window Travel 50MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
10.2	0.2	-129.3	1.9

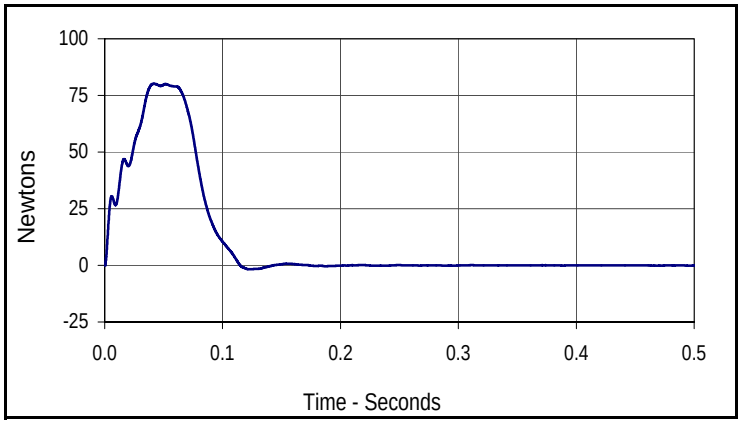


Curve Description			
Window Force 100MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
64.2	0.0	-2.1	0.1

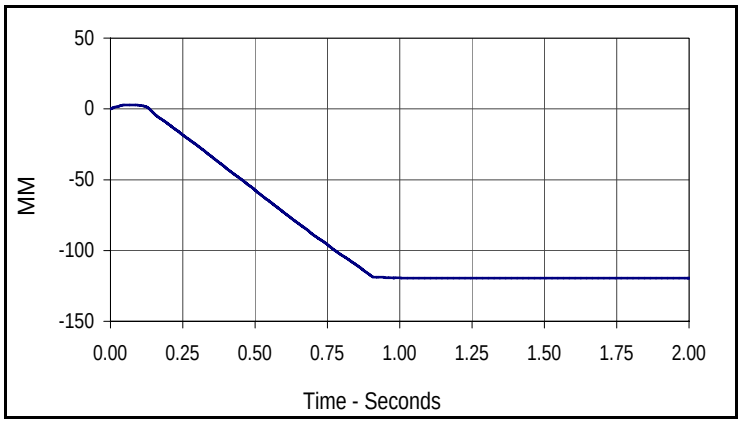


Curve Description			
Window Travel 100MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
3.8	0.1	-136.4	1.7

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Left Reart Window)	NHTSA No.:	C95800

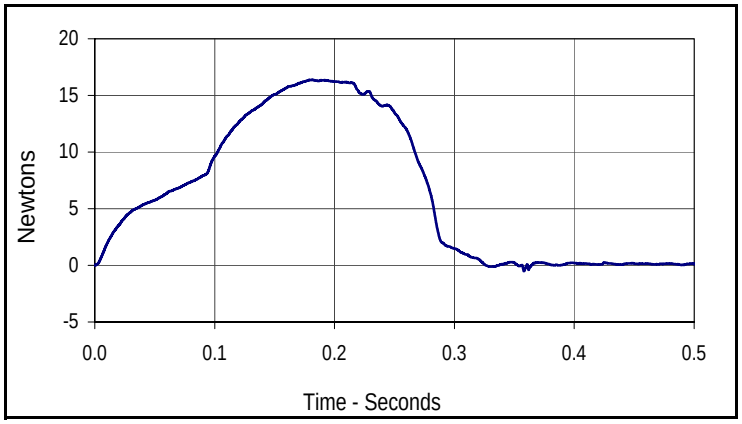


Curve Description			
Window Force 200MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
80.2	0.0	-12.0	0.7

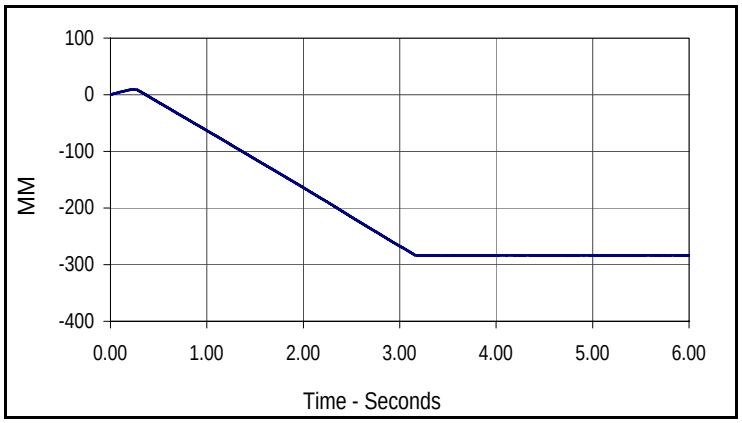


Curve Description			
Window Travel 200MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
2.9	0.0	-119.5	2.0

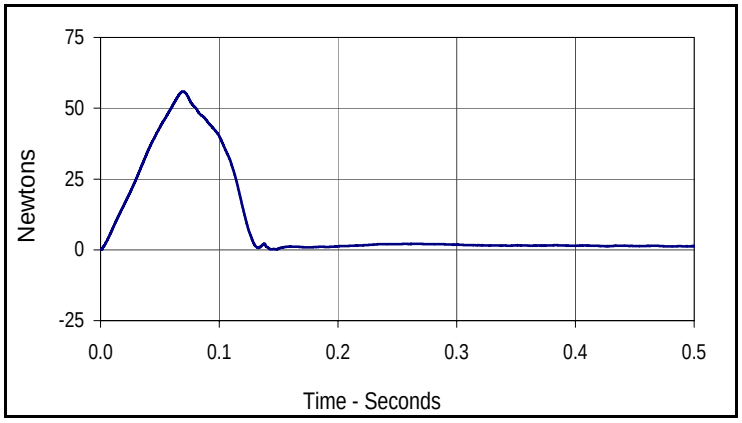
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Sun Roof)	NHTSA No.:	C95800



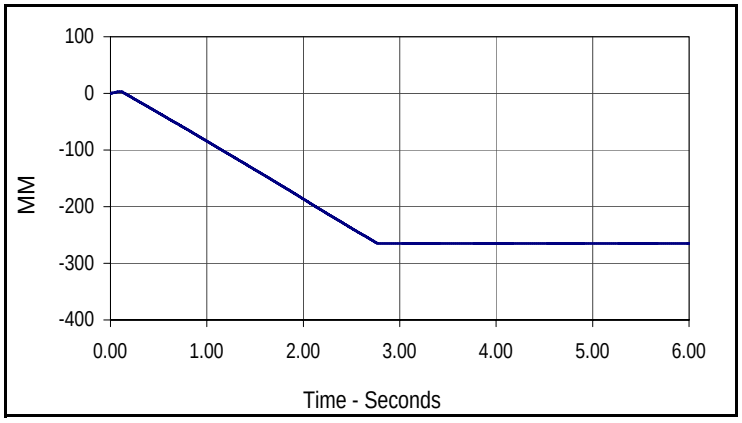
Curve Description			
Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
16.4	0.2	-0.5	0.4



Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
9.3	0.3	-284.0	3.7

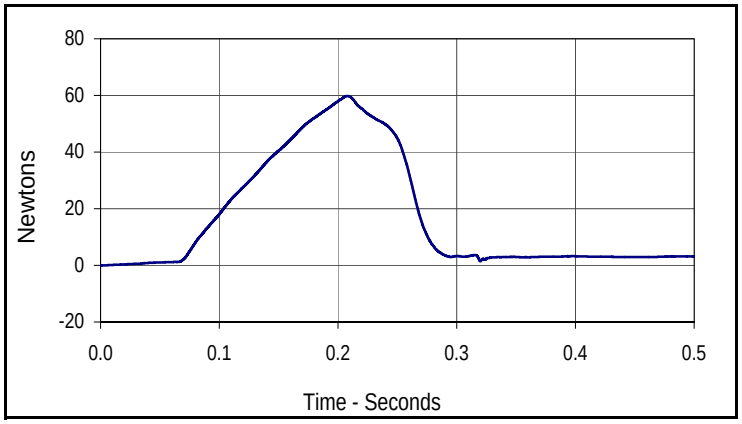


Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
55.9	0.1	-1.9	5.3

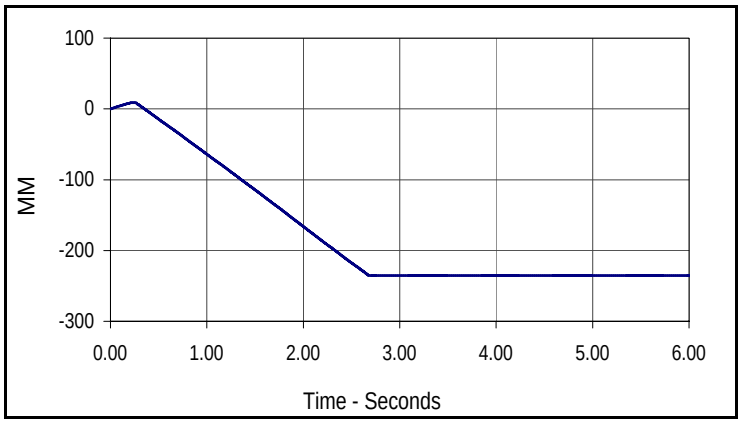


Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
2.7	0.1	-265.0	5.8

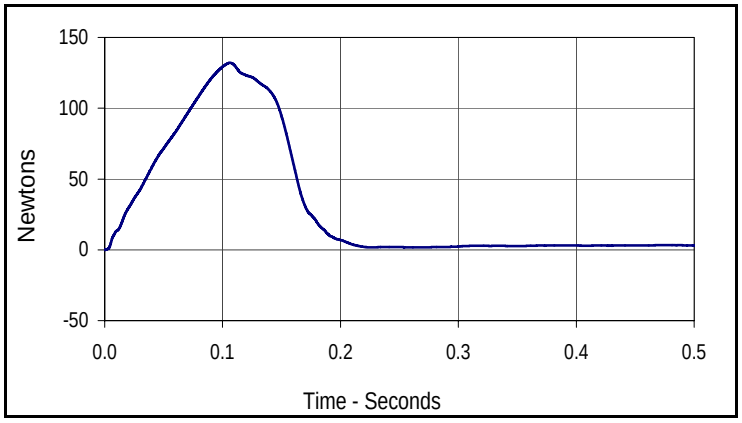
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Sun Roof)	NHTSA No.:	C95800



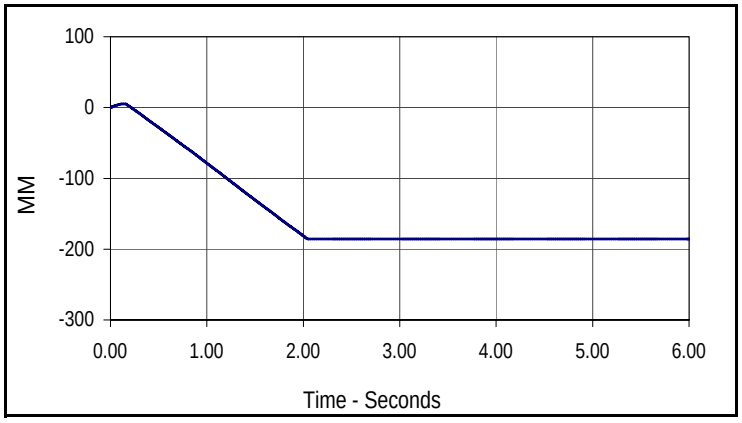
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
59.8	0.2	-2.5	3.3



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
8.7	0.3	-235.5	4.9

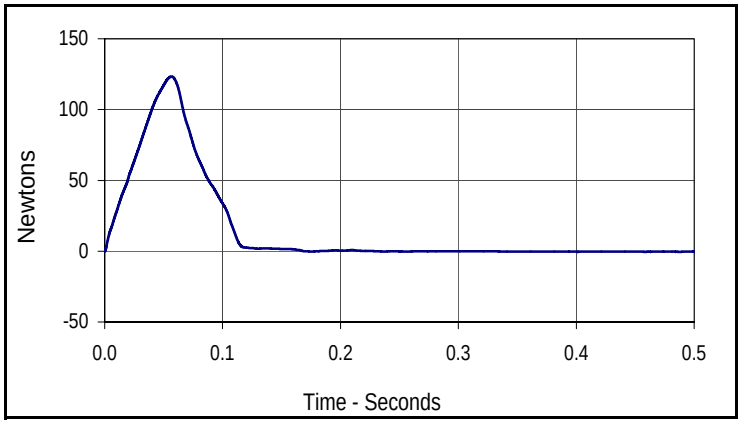


Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
132.1	0.1	-2.2	2.6

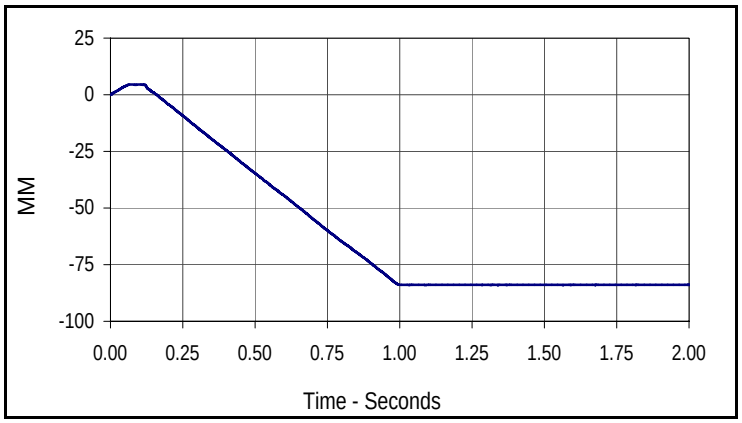


Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.2	0.1	-185.8	3.2

Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Sun Roof)	NHTSA No.:	C95800

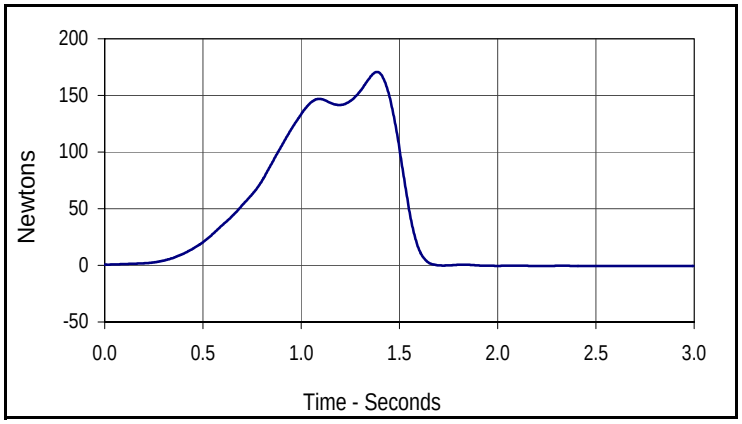


Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
123.3	0.1	-0.7	0.9

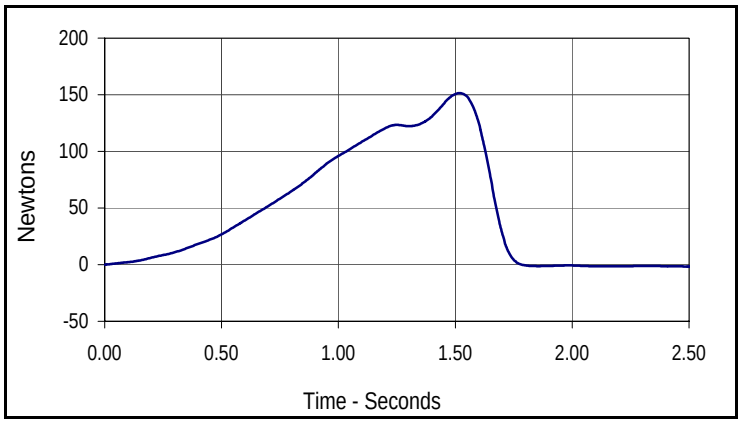


Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	60	MM
Max	Time	Min	Time
4.5	0.1	-84.0	1.1

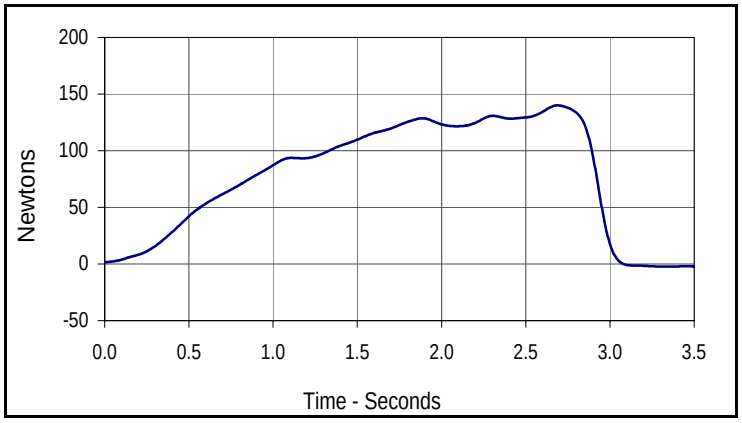
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Master Switch Test)	NHTSA No.:	C95800



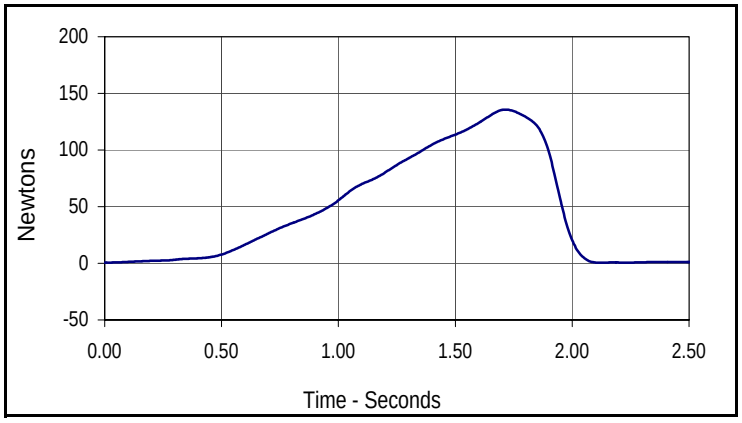
Curve Description			
Master Left Front Window Switch			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
170.7	1.4	-0.7	2.7



Curve Description			
Master Right Front Window Switch			
CURNO	Type	SAE Class	Units
002	FIL	180	Newtons
Max	Time	Min	Time
151.5	1.5	-1.6	2.5

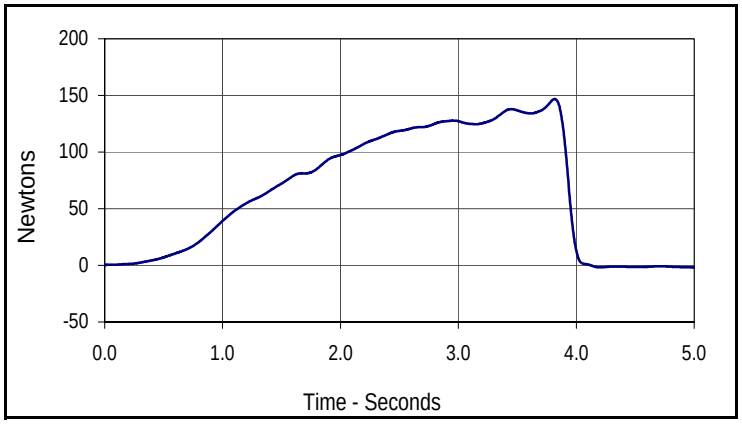


Curve Description			
Master Right Rear Window Switch			
CURNO	Type	SAE Class	Units
003	FIL	180	Newtons
Max	Time	Min	Time
140.0	2.7	-2.3	3.3

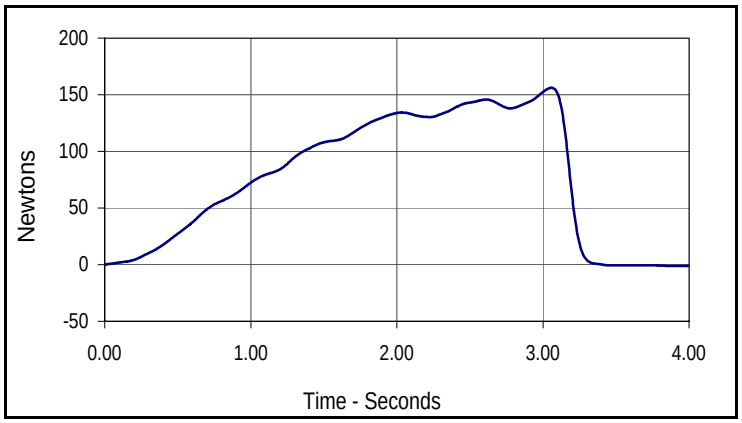


Curve Description			
Master Left Rear Window Switch			
CURNO	Type	SAE Class	Units
004	FIL	180	Newtons
Max	Time	Min	Time
135.7	1.7	0.5	2.1

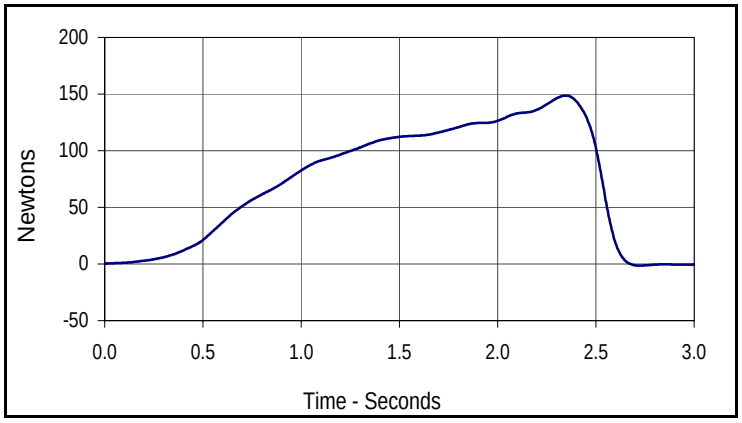
Test Vehicle:	2009 Audi A6 4-Door Sedan	Test Date:	7/15/09 - 7/20/09
Test Program:	FMVSS 118 (Switch Test)	NHTSA No.:	C95800



Curve Description			
Right Front Window Switch			
CURNO	Type	SAE Class	Units
005	FIL	180	Newtons
Max	Time	Min	Time
137.8	3.4	0.4	0.0



Curve Description			
Right Rear Window Switch			
CURNO	Type	SAE Class	Units
006	FIL	180	Newtons
Max	Time	Min	Time
156.1	3.1	-0.7	3.5



Curve Description			
LeftRear Window Switch			
CURNO	Type	SAE Class	Units
007	FIL	180	Newtons
Max	Time	Min	Time
148.7	2.3	-1.4	2.7

FMVSS 118

Test Equipment List and Calibration Information

7/15/09 - 7/20/09

2009 Audi A6 4-Door Sedan

Description	Manufacturer	Model No.	Serial No.	Limit	Accuracy	Cal. Date	Due Cal.
DAS	DTS	TDAS Pro	DM0429	N/A	SAE J211	03/02/09	03/02/10
Laptop Computer	Toshiba	Satellite	LAP02	N/A	N/A	N/A	N/A
Load Cell	Denton	2409	85	445 Newtons	± 1.0%	03/19/09	03/19/10
Displacement Xdcr.	Celesco	PTX101-0030	J0654653	76 CM	± 1.0%	Each Use	
Load Cell	Lebow	261134	K118	300 Newtons	± 1.0%	04/26/09	04/26/10

6. COPY OF OWNER'S MANUAL INSTRUCTION FOR USE OF POWER WINDOWS

COPY OF OWNER'S MANUAL INSTRUCTIONS FOR USE OF POWER WINDOWS

VEHICLE			
YEAR	**2009**	MAKE	**Audi**
MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

Audi

2009 Audi A6

Owner's Manual

Easy entry feature

The easy entry feature makes it easier to enter and exit the vehicle by automatically adjusting the steering wheel.

Press the button (B) ⇒ *page 115*, fig. 115 to turn the easy entry feature on or off.

When the easy entry feature is turned on (button depressed), the steering wheel moves up to the parked position when the ignition is turned off. After you enter the vehicle, the steering wheel moves to the stored position as soon as you turn on the ignition.

Easy entry feature on vehicles with memory seat*

For the stored steering wheel position to be recalled, the driver's seat memory must be switched on (ON OFF switch in depressed position).

If the easy entry feature is switched off, the steering wheel moves to the stored position as soon as you press the seat memory button. ■

Ignition lock and ignition switch

Ignition key positions

The engine can be started or turned off with the ignition key.

Fig. 116 Ignition switch positions

Position (0)

The ignition key can be inserted into the ignition switch in this position. This automatically unlocks the steering column lock. When the ignition key is removed, the steering column lock is automatically locked ⇒ ⚠.

Ignition on (1)

Turn the ignition key to this position and release it.

Starting the engine (2)

The engine starts with the key in this position. Major electrical loads are temporarily turned off.

Ignition off (0)

Turn the ignition key to this position and release it. ▶

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NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

WARNING

- **Never remove the key from the ignition lock while the vehicle is moving. The steering wheel will lock, causing loss of control.**
- **If you have to leave your vehicle, even for just a minute, always remove the ignition key and take it with you. This is especially important if you are going to leave children unattended in the vehicle. The children could start the engine or use other vehicle controls. Unsupervised use of vehicle controls (for example, power windows) can cause serious personal injuries.**

Note

- If the symbol in the display blinks, there is a malfunction in the electronic steering column lock. Follow the instructions in ⇒ *page 32*, "Steering malfunction".
- If the symbol in the display blinks, there is a malfunction in the electronic ignition lock. Follow the instructions in ⇒ *page 33*, "Ignition lock malfunction".

Tips

- If you release the ignition key in position (2), the key automatically returns to position (1).
- If you open the driver's door when the ignition is switched on, a buzzer sounds and the message **Ignition is on** appears in the instrument cluster display. Please switch the ignition off. ■

Ignition key safety lock

The ignition key can only be removed when the selector lever is in the "P" (Park) position.

After turning off the ignition, the ignition key can only be removed from the ignition lock when the selector lever is in the "P" (Park) position. After you have removed the key, the selector lever is locked and cannot be moved. ■

Starting and stopping the engine

Starting the engine

The engine can only be started with your original Audi key.

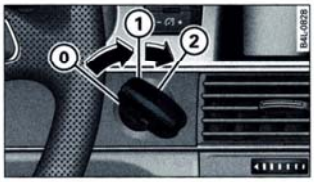

Fig. 117 Ignition key positions

- Step on the brake.
- Move the selector lever into P or N ⇒ ⚠.
- Turn the ignition key to position (2) ⇒ fig. 117 - do not depress the gas pedal when starting the engine.

A cold engine may sound loud after it has been started. This is due to the hydraulic valves building up oil pressure. This is normal and is not a need for concern.

If the engine does not start immediately, stop trying after 10 seconds and then try to restart the engine about 30 seconds later. ▶

WARNING

Never start or let the engine run in a confined or enclosed area. Exhaust fumes from the engine contain carbon monoxide, a colorless and odorless gas. Carbon monoxide can be fatal if inhaled.

- **Never leave the engine idling unattended. An unattended vehicle with a running engine poses a danger of personal injury or theft.**

Note

- Avoid high engine speeds, fast acceleration or heavy engine loads while the engine is still cold. This could damage the engine.
- The engine cannot be started by pushing or towing the vehicle.

For the sake of the environment

To avoid unnecessary engine wear and to reduce exhaust emissions, do not let your vehicle stand and warm up. Be ready to drive off immediately after starting your vehicle. Maintain moderate speed until the engine is completely warm. Remember, the engine performs best at operating temperature. ■

Stopping the engine

– Turn the ignition key to position (0) ⇒ *page 117*, fig. 117.

WARNING

- **Never turn off the engine until the vehicle has come to a complete stop.**
- **The brake booster and servotronic only work when the engine is running. With the ignition turned off, you have to apply more force when steering or braking. Since you cannot steer and stop normally, this can lead to accidents and serious injuries.**

WARNING (continued)

- **The radiator fan can continue to run for up to 10 minutes even after you have turned off the engine and removed the ignition key. The radiator fan can also turn on again if the engine coolant heats up because of intense sunlight or heat build-up in the engine compartment.**

Note

Do not stop the engine immediately after hard or extended driving. Keep the engine running for approximately two minutes to prevent excessive heat build-up. ■

Starting and stopping the engine with Convenience key

Applies to vehicles: with Convenience key

Starting the engine with the START button

This button switches on the ignition and starts the engine.

Fig. 118 Convenience key: ENGINE START button

The START button is provided with **two-stage operation** ⇒ fig. 118. ▶

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anti-theft alarm switched on, the emergency flashers will blink and the horn will sound only after you have closed the door or lid.

Tips

For the anti-theft alarm system to function properly, make sure all vehicle doors and windows are closed before leaving the vehicle. ■

Tilt sensors

The tilt sensors trigger an alarm if they detect vehicle movement.

Fig. 42 Driver's door: tilt sensor switch

Switch off the tilt sensors if you are going to have your vehicle transported.

Switch off the tilt sensors

- Press the switch located in the driver's door ⇒ fig. 42.
- Lock the vehicle.

When you turn off the tilt sensors, the diode in the switch will illuminate. Also, the indicator light in the door trim will illuminate for about three seconds. After you lock the vehicle, the indicator light in the door trim will blink quickly for about three seconds. After that, the blinking slows down.

The next time the vehicle is locked, the tilt sensors are automatically turned on again. ■

Power windows

Controls

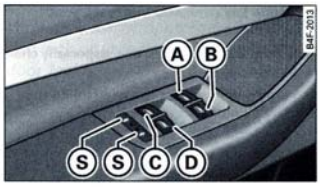

Fig. 43 Driver's door: power window switches

Switches for front door windows

Ⓐ operates the window in the driver's door.
Ⓑ operates the window in the front passenger's door.

Switches for rear windows

Ⓒ operates the left rear window.
Ⓓ operates the right rear window.

Safety switch

Ⓢ Safety switch for rear window operation.

⚠ WARNING

- **Do not leave children unattended in the vehicle, especially with access to vehicle keys. Unsupervised use of the keys can result in starting of the engine and use of vehicle systems such as power windows, etc. which could result in serious injury.**

⚠ WARNING (continued)

- **Remember – you can still open or close the power windows for about ten minutes after the ignition is switched off. Only when either of the front doors are opened are the power windows switched off.**
- **Be careful when closing the windows. Check to see that no one is in the way, or serious injury could result!**
- **Always remove the ignition key whenever you leave your vehicle.**
- **If you lock your vehicle from the outside, no one, especially children, should remain in the vehicle.**
- **Do not stick anything on the windows or the windshield that may interfere with the driver's field of vision.**

Tips

In addition to the switches in the driver's door there is a separate switch in each door for the power window in that door ⇒ *page 57*, fig. 44. ■

Switches in the driver's door

The driver can operate all windows.

If the respective switch is pushed or pulled the window will open or close. The power window switches have a **two-position function**:

Opening the windows

- Push the switch to the **first stop** and hold it there until the window has lowered to the desired position.
- Push the switch briefly to the **second stop**: the window will automatically open all the way.

Closing the windows

- Pull the switch up to the **first stop** and hold it there until the window has risen to the desired position.
- Pull the switch quickly to the **second position:** the window will automatically close all the way ⇒ ⚠ in "Controls" on *page 55*.

Activating/deactivating rear windows

- Press the left switch ⇒ *page 55*, fig. 43 to **deactivate** only the window regulator in the **left** door. The indicator light in the switch illuminates.
- Press the right switch ⇒ *page 55*, fig. 43 to **deactivate** only the window regulator in the **right** door. The indicator light in the switch illuminates.
- Press the switch again to reactivate the window regulator. The indicator light in the switch goes out.

This function can also deactivated. Press both switches Ⓢ in succession.

- If **only the left** switch was pressed, **only** the window regulator switch in the **left rear door** is deactivated. In addition, the door is locked.
- If **only the right** switch was pressed, **only** the window regulator switch in the **right rear door** is deactivated. In addition, the door is locked.

This feature has been provided for the safety of small children riding in the rear of the vehicle.

Tips

- The windows can still be opened and closed for about ten minutes after the ignition has been turned off. The power windows are not shut off until one of the front doors is opened.

COPY OF OWNER'S MANUAL INSTRUCTIONS FOR USE OF POWER WINDOWS

VEHICLE			
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MODEL	**A6**	BODY STYLE	**4-Door Sedan**
NHTSA NO.	**C95800**	VIN	**WAUCH74F29N022298**
TEST DATE:	**07/15-20/09**		

• In order to activate the child safety lock on the left and the right side, you have to press the two safety switches in succession. Make certain that the check light comes on the corresponding safety switch when the child safety lock is activated. ■

Switch in the front passenger's door and on the rear doors

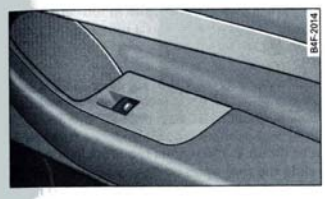

Fig. 44 Switch location front passengers door

The power window switch has a **two-position function**:

Opening the windows

- Press the switch to the **first position** and hold it until you have opened the window as far as you want.
- Press the switch quickly to the **second position** and the window will automatically open all the way.

Closing the windows

- Pull the switch to the **first position** and hold it until you have closed the window as far as you want.
- Pull the switch quickly to the **second position** and the window will automatically close all the way.

Tips

The windows can still be opened and closed for about ten minutes after the ignition has been turned off. The power windows are not shut off until one of the front doors is opened. ■

Convenience close/open feature with the lock in the driver's door

You can close or open the windows from outside when you lock or unlock your car with the key in the driver's door lock.

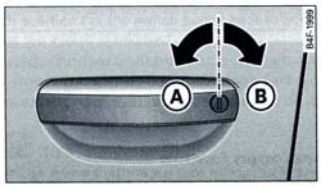

Fig. 45 Key turns for opening and closing

Closing windows

- Insert the key into the lock of the driver's door.
- Make sure that the windows are not blocked ⇒ ⚠.
- Turn and hold the key in the lock position Ⓑ ⇒ fig. 45 until the windows and the power roof* are completely closed.

Opening windows

- Insert the key into the lock of the driver's door. ▶

- Turn and hold the key in the open position Ⓐ.

The automatic close/open function will cease if the key is returned to its original position.

⚠ WARNING

- **Be careful when closing the windows. Check to see that no one is in the way, or serious injury could result!**
- **Always read and heed WARNING ⇒ ⚠ in "General description" on *page 45*.** ■

Reactivating the system after battery disconnection

If the vehicle battery is disconnected and then reconnected, the automatic closing and opening function will not work until it is reactivated. To reactivate this feature, perform the following steps:

Reactivating close/open feature

- Pull and hold the power window switch until the window is completely closed.
- Release the switch.
- Pull the switch again for one second. The automatic closing/opening is now reactivated. ■

Sliding/tilting power sunroof

Applies to vehicles: with sliding/tilting power sunroof

How the power sunroof works

Fig. 46 Section of the headliner: sunroof switch positions

The roof will slide open or tilt up at the rear as required. When the ignition is on, you can slide the roof open or close it to the desired position by turning the rotary control switch located overhead next to the interior light. The roof is tilted open or closed by pressing or pulling the control switch at position Ⓞ ⇒ fig. 46.

You can still close or open the sunroof for up to ten minutes after you have switched off the ignition with the key remaining in the ignition lock. If either door is opened, powered operation of the sunroof will be deactivated.

Solar roof*

The solar cells in the roof provide energy to operate the ventilation system for the climate control. It is activated automatically after the vehicle is parked. Depending on solar irradiation, the interior temperature of the vehicle is lowered in the summer, in the winter the interior is dehumidified.

The interior trim is permanently attached to the solar roof and cannot be slid separately. ▶

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Solar protection with sliding glass sun roof*

The sliding glass sun roof is equipped with an adjustable sunshade to reduce the effects of strong sunlight. The solar protection can be moved at the recessed handle to open and close it. To prevent the vehicle interior from heating up, you should close the solar protection when you park your vehicle in the sun.

When the roof is **slid open**, the sunshade is opened automatically. When the roof is closed, the sunshade can be closed manually.

When the roof is **tilted open**, the closed sunshade is also raised at the rear edge. But it can still be slid open or closed.

Note

You should always closed the sliding/tilting sunroof when you leave your vehicle. Sudden rain can drench the interior equipment and damage the electronic convenience features in your vehicle.

Tips

If you park your vehicle in the sun, we recommend that you close the sunshade*. ■

Applies to vehicles: with sliding/tilting power sunroof

Sliding/tilting the power sunroof open

Sliding the power sunroof open to the comfort position keeps wind noise to a minimum.

Sliding the roof open to the comfort position

– Turn the rotary switch to position ① ⇒ *page 58*, fig. 46 (detent can be felt). The roof is slid open only to a comfort position with low wind noise.

Sliding the roof open all the way

– Turn the rotary switch to position ②. Airflow over the fully opened sunroof may cause increased wind noise.

Tilting the roof open

– Turn the rotary switch to position ⓪.

– In position ⓪, briefly *press* the control to tilt the roof up completely.

– To tilt the roof open to any intermediate position *press and hold* the switch until the roof reaches the desired position.

In position ②, the switch jumps back to position ① again as soon as the switch is released.

When the glass roof opens, the sun visor, which is designed to ward off strong sunlight, opens along with it. The visor can be closed manually when the sunroof is closed.

Tips

- Be aware that the sunroof may actually be open when the sun visor is closed. Check and make sure that the sunroof is shut when parking the car or if it suddenly starts raining.
- If the sunroof is not fully closed but you have pressed and held the switch for the tilt position, the sunroof will not tilt. ■

Applies to vehicles: with sliding/tilting power sunroof

Closing the power sunroof

Sliding the roof shut

– Turn the rotary switch to position ⓪ ⇒ *page 58*, fig. 46 ? ⚠.

Tilting the roof shut

– Briefly *pull* the rotary switch to close the roof.

– To tilt the roof down to any intermediate position *pull and hold* the switch until the roof reaches the desired position.

⚠ WARNING

Improper use of the power sunroof can cause serious personal injury.

- **Be careful when closing the power sunroof. Not paying attention could cause you or others to be trapped and injured as the roof closes.**
- **Always take the key with you when you leave the vehicle to prevent injuries caused by the roof closing.**
- **Never leave children or persons requiring assistance alone in the vehicle, especially when they could access the vehicle keys. Unsupervised use of the keys can result in the engine being started or use of vehicle systems such as the power windows, etc. which could result in serious injury. The doors could be locked with the remote key, delaying help in an emergency.**
- **The power sunroof will continue to operate until the ignition key has been removed and one of the front doors has been opened.** ■

Applies to vehicles: with sliding/tilting power sunroof

Convenience closing feature

The power sunroof can be closed from outside with the key in the driver's door lock.

– Insert the key into the driver's door lock.

– Turn and hold the key in the lock position Ⓑ ⇒ *page 47*, fig. 32 until the sunroof is completely closed ⇒ ⚠ in "Closing the power sunroof" on *page 59*.

⚠ WARNING

Be careful when closing the power sunroof. Not paying attention could cause you or others to be trapped and injured as the roof closes. ■

Applies to vehicles: with sliding/tilting power sunroof

Power emergency closing

The sunroof can still be closed electrically if for some reason the overload protection function becomes activated.

The power sunroof is equipped with an *overload protection* feature. If, under normal conditions, the power sunroof will not close, you can close it using this feature.

– Turn the rotary switch to position ⓪ ⇒ *page 58*, fig. 46.

– Now pull the switch **and hold it in this position** until the power sunroof closes completely.

⚠ WARNING

Improper use of the power sunroof can cause serious personal injury.

- **Be careful when closing the power sunroof. Not paying attention could cause you or others to be trapped and injured as the roof closes.**
- **Always take the key with you when you leave the vehicle to prevent injuries caused by the roof closing.**

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⚠ WARNING (continued)

- **Never leave children or persons requiring assistance alone in the vehicle, especially when they could access the vehicle keys. Unsupervised use of the keys can result in the engine being started or use of vehicle systems such as the power windows, etc. which could result in serious injury. The doors could be locked with the remote key, delaying help in an emergency.**
- **The power sunroof will continue to operate until the ignition key has been removed and one of the front doors has been opened. ■**

Applies to vehicles: with sliding/tilting power sunroof

Emergency closing by hand (Step 1)

The sunroof can be closed by hand in case of a power failure.

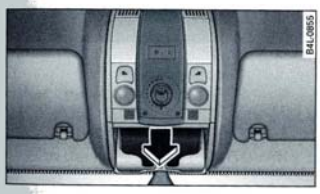

Fig. 47 Section from headliner: removing the cover

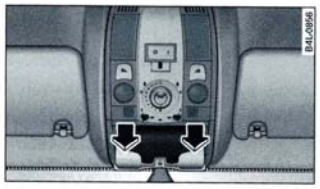

Fig. 48 Section from headliner: remove the cover for the light unit

– Open the compartment.
– Pull the chrome strip down carefully, along with the center cover ⇒ fig. 47 -arrow-.
– Pull the cover for the light unit down carefully ⇒ fig. 48 -arrows-. ■

Applies to vehicles: with sliding/tilting power sunroof

Emergency closing by hand (Step 2)

Fig. 49 Section from headliner: unscrewing the lighting unit ▶

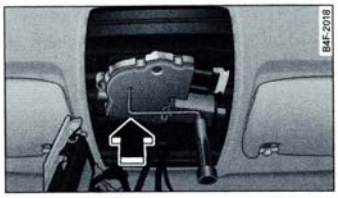

Fig. 50 Section from headliner: crank for emergency operation

– Remove the two screws ⇒ *page 61*, fig. 49 -arrows - from the light unit.
– Carefully remove the light unit.
– Remove the crank from the bracket on the fuse cover on the driver's side ⇒ *page 351*, fig. 265.
– Push the crank into the hexagonal hole as far as it can go ⇒ fig. 50.
– Hold the crank down and turn it to close the roof.
– Re-install the complete light unit.
– Have the problem corrected.

Tips

To turn the crank for emergency closing more easily, you should use the screwdriver handle as an aid. First remove the screw driver from the handle, then push the handle onto the crank. ■