

REPORT NO. 118-KAR-06-004

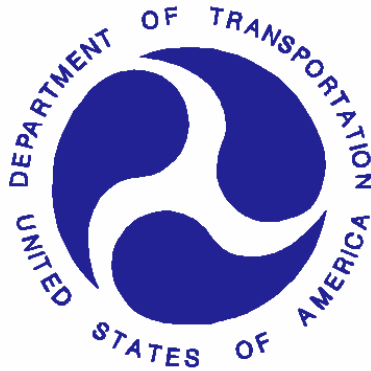
**SAFETY COMPLIANCE TESTING  
FOR FMVSS 118**

**Power-Operated Window, Partition,  
And Roof Panel Systems**

2006 TOYOTA RAV4  
5-DOOR MPV

NHTSA NO. M65110

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



**July 31, 2006**

Final Report

PREPARED FOR:  
U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
ENFORCEMENT  
OFFICE OF VEHICLE SAFETY COMPLIANCE  
ROOM 6111 (NVS-220)  
400 SEVENTH STREET, SW  
WASHINGTON, D.C. 20590

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Prepared by: Matthew S. Hubbard Date: 07-31-06  
Mr. Matthew S. Hubbard, Test Engineer  
KARCO Engineering, LLC.

Reviewed by: Matthew A. Ivory Date: 07-31-06  
Mr. Matthew A. Ivory, Project Manager  
KARCO Engineering, LLC.

Approved by: Frank D. Richardson Date: 07-31-06  
Mr. Frank D. Richardson, Program Manager  
KARCO Engineering, LLC.

FINAL REPORT ACCEPTED BY OVSC:

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## Technical Report Documentation Page

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16. <i>Abstract</i>  Compliance tests were conducted on the subject 2006 Toyota RAV4 5-Door MPV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP118-05 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 2006 Toyota RAV4 5-Door MPV, manufactured by Toyota Motor Corporation 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-118-05, dated March 24, 2005, and corresponding KARCO Engineering test procedure KTP-118, dated March 16, 2004. 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 2006 Toyota RAV4 5-Door MPV was subjected to FMVSS 118 compliance testing. The tests were conducted at KARCO Engineering in Adelanto, California on July 31, 2006. 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

### DATA SUMMARY

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		

### SWITCH ACTUATION

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

**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 "off" test was performed.

## 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 Sheets No. 8 & 9	See Data Sheets No. 8 & 9
RIGHT FRONT (RF)	N/A	N/A
LEFT REAR (LR)	N/A	N/A
RIGHT REAR (RR)	N/A	N/A
PARTITION (P)	N/A	N/A
ROOF PANEL (RP)	N/A	N/A
TAIL GATE (TG)	N/A	N/A

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

The subject 2006 Toyota RAV4 5-Door MPV appeared to meet the requirements of FMVSS 118.



### 3. TEST DATA

**DATA SHEET NO. 1  
VEHICLE IDENTIFICATION**

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		

**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	N/A
Interior Switches	X	X	X	X	N/A	N/A	N/A
Master Control Panel	X	X	X	X	N/A	N/A	N/A
Exterior Switches	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Remote Controller	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auto-Reverse	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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: None

Sunroof: N/A

**REMARKS:** Master control panel switch is located in the driver side door panel. Individual switches are located in each respective door panel. 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: 05/10/06  
 APPROVED BY: MATTHEW A. IVORY DATE: 05/10/06

**DATA SHEET NO. 2  
IGNITION KEY OFF TEST**

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

Pre-Test Check: Window, Partition, Roof Panel Systems operate with Ignition Switch in "ON" Position		YES	X	NO			
Pre-Test Check: Window, Partition, Roof Panel Systems operate with Ignition Switch in "ACCESSORY" Position		YES		NO	X		
WINDOW SWITCHES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
MASTER							
Left Front (LF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Front (RF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Left Rear (LR)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Rear (RR)	X	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A
INDIVIDUAL							
Left Front (LF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Front (RF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Left Rear (LR)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Rear (RR)	X	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A
<b>REMARKS:</b> 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: **05/10/06**  
 APPROVED BY: **MATTHEW A. IVORY** DATE: **05/10/06**

**DATA SHEET NO. 3  
IGNITION KEY REMOVED TEST**

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

WINDOW SWITCHES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
<b>MASTER</b>							
Left Front (LF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Front (RF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Left Rear (LR)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Rear (RR)	X	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A
<b>INDIVIDUAL</b>							
Left Front (LF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Front (RF)	X	N/A	N/A	N/A	N/A	N/A	PASS
Left Rear (LR)	X	N/A	N/A	N/A	N/A	N/A	PASS
Right Rear (RR)	X	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A

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

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **05/10/06**  
 APPROVED BY: **MATTHEW A. IVORY** DATE: **05/10/06**

**DATA SHEET NO. 4  
EXTERIOR KEY LOCKING SYSTEM**

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		

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

**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)	N/A	X	N/A	N/A	N/A
RIGHT FRONT (RF)	N/A	X	N/A	N/A	N/A
LEFT REAR (LR)	N/A	X	N/A	N/A	N/A
RIGHT REAR (RR)	N/A	X	N/A	N/A	N/A
PARTITION (P)	N/A	N/A	N/A	N/A	N/A
ROOF PANEL (RP)	N/A	N/A	N/A	N/A	N/A
TAIL GATE (TG)	N/A	N/A	N/A	N/A	N/A

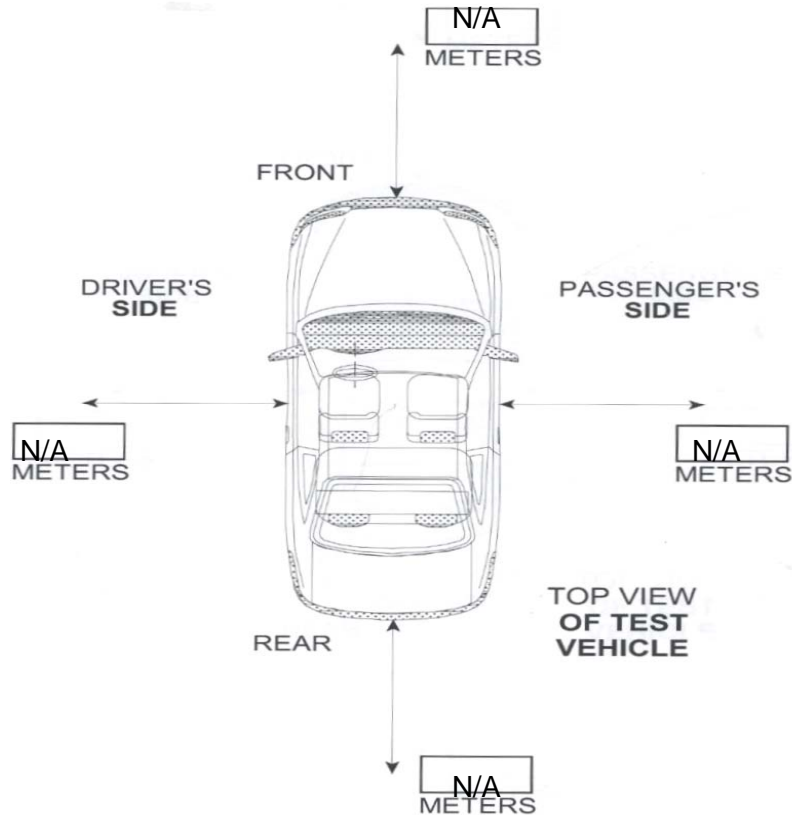
**REMARKS:** Vehicle is not equipped with an exterior key locking system capable of opening windows.

RECORDED BY: MATTHEW S. HUBBARD DATE: 05/10/06  
 APPROVED BY: MATTHEW A. IVORY DATE: 05/10/06

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

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

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 ( ).



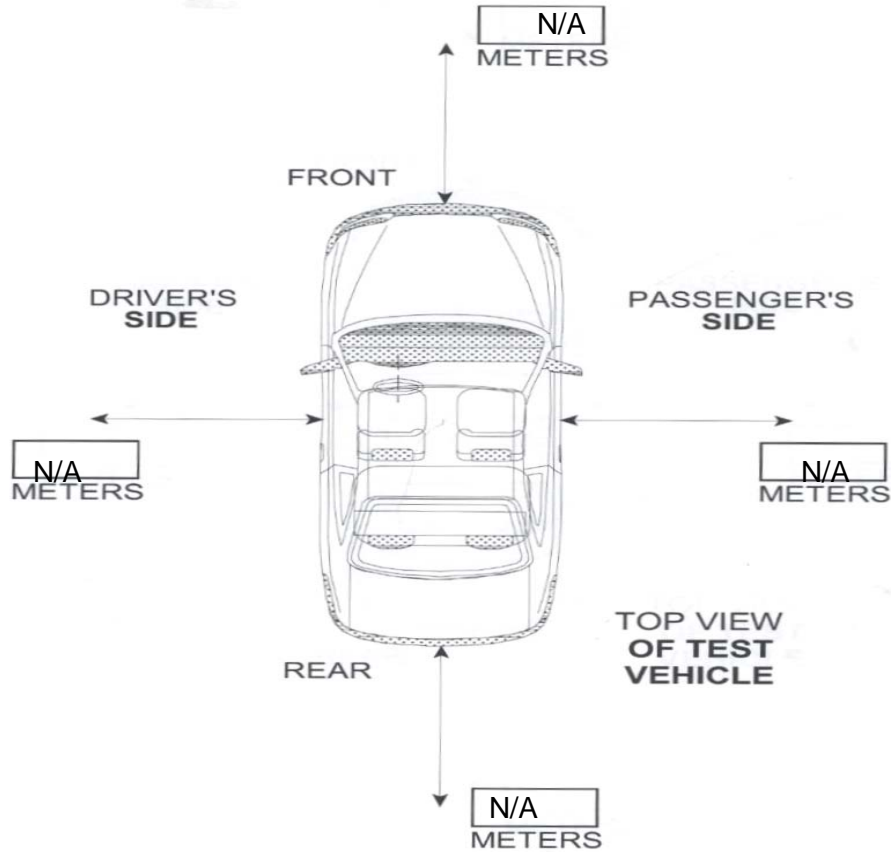
**REMARKS:** The vehicle is not equipped with a remote actuation device that allows the windows to be opened.

RECORDED BY: MATTHEW A. HUBBARD DATE: 05/10/06  
 APPROVED BY: MATTHEW A. IVORY DATE: 05/10/06

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

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

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:           **05/10/06**            
APPROVED BY:           **MATTHEW A. IVORY**                                DATE:           **05/10/06**

**DATA SHEET NO. 7  
AUTO REVERSAL**

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

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

Is vehicle equipped with Auto Reversal	YES	X	NO	
--	-----	---	----	--

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

**REMARKS:** The left front window is the only window equipped with an auto reversal feature. On this vehicle 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: 05/10/06

APPROVED BY: MATTHEW A. IVORY

DATE: 05/10/06



**DATA SHEET NO. 8  
AUTO REVERSAL**

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

Distance window is open from top seam to start position.

325mm

**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	75.0	-188.9mm
25mm semi rigid rod	109.2	-163.9mm
50mm semi rigid rod	198.4	-124.0mm
100mm semi rigid rod	121.5	-85.5mm
200mm semi rigid rod	256.8	-56.1mm

**REMARKS:** The left front window is the only window equipped with an auto reversal feature. On this vehicle 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: **05/10/06**

APPROVED BY: **MATTHEW A. IVORY**

DATE: **05/10/06**

**DATA SHEET NO. 9  
AUTO REVERSAL**

VEHICLE			
YEAR	<b>2006</b>	MAKE	<b>Toyota</b>
MODEL	<b>RAV4</b>	BODY STYLE	<b>5-Door MPV</b>
NHTSA NO.	<b>M65110</b>	VIN	<b>JTMZD33V665029275</b>
TEST DATE:	<b>07/31/06</b>		

Distance window is open from top seam to start position.

**340mm**

**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	68.0	-195.1mm
25mm semi rigid rod	77.1	-174.7mm
50mm semi rigid rod	59.8	-147.1mm
100mm semi rigid rod	104.4	-106.5mm
200mm semi rigid rod	127.9	-83.2mm

**REMARKS:** The left front window is the only window equipped with an auto reversal feature. On this vehicle 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:           **05/10/06**            
 APPROVED BY:           **MATTHEW A. IVORY**                                DATE:           **05/10/06**

#### 4. PHOTOGRAPHS

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Figure 1: Frontal ¾ View From Right Side of Vehicle

2006 TOYOTA RAV4  
NHTSA NO. M65110  
FMVSS NO. 118



2006 TOYOTA RAV4  
NHTSA NO. M65110  
FMVSS NO. 118

Figure 2: Rear ¾ View From Left Side of Vehicle

07/06

MFD. BY: TOYOTA MOTOR CORPORATION  
 GVWR: 2010KG (4430LB)  
 GAWR: FRT. 150KG (2535LB) WITH 225/65R17 TIRES,  
 17X6 1/2J RIMS, AT 220KPA (32PSI) COLD.  
 RR. 105KG (2435LB) WITH 225/65R17 TIRES,  
 17X6 1/2J RIMS, AT 220KPA (32PSI) COLD.

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

JTMZD33V665029275 MPV



C/TR: 040/FC10 ACA38L-ANPXKA 074  
 A/TM: -06A/U241E MADE IN JAPAN

2006 TOYOTA RAV4  
 NHTSA NO. M65110  
 FMVSS NO. 118

Figure 3: Vehicle Certification Label



**TIRE AND LOADING INFORMATION**

**SEATING CAPACITY : TOTAL 5  
FRONT 2 : REAR 3**

The combined weight of occupants and cargo should never exceed 375 kg or 825 lbs.

**INFORMATION SUR LES PNEUS ET LE CHARGEMENT**

**NOMBRE DE PLACES ASSISES : TOTAL 5  
AVANT 2 : ARRIÈRE 3**

Le poids total des occupants et du chargement ne doit jamais être supérieur à 375 kg ou 825 lb.

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	225/65R17 101H	220kPa, 32PSI
REAR	225/65R17 101H	220kPa, 32PSI
SPARE	225/65R17 101H	220kPa, 32PSI

PNEUS	DIMENSION	PRESSION DE GONFLAGE À FROID
AVANT	225/65R17 101H	220kPa, 32PSI
ARRIÈRE	225/65R17 101H	220kPa, 32PSI
SECOURS	225/65R17 101H	220kPa, 32PSI

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.

POUR DE PLUS AMPLES INFORMATIONS, VOIR LE MANUEL PROPRIÉTAIRE

2006 TOYOTA RAV4  
NHTSA NO. M65110  
FMVSS NO. 118

Figure 4: Tire Information Placard



Figure 5: Ignition Switch

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FMVSS NO. 118





Figure 6: Left Front Master Power Window Switch

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NHTSA NO. M65110  
FMVSS NO. 118



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NHTSA NO. M65110  
FMVSS NO. 118

Figure 7: Right Front Power Window Switch



Figure 8: Left Rear Power Window Switch

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FMVSS NO. 118



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NHTSA NO. M65110  
FMVSS NO. 118

Figure 9: Right Rear Power Window Switch



Figure 10: Overall Test Set-Up

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NHTSA NO. M65110  
FMVSS NO. 118



Figure 11: Instrumentation

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NHTSA NO. M65110  
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Figure 12: Test Set-Up Leading Edge

2006 TOYOTA RAV4  
NHTSA NO. M65110  
FMVSS NO. 118



Figure 13: Test Set-Up Rear Edge

2006 TOYOTA RAV4  
NHTSA NO. M65110  
FMVSS NO. 118

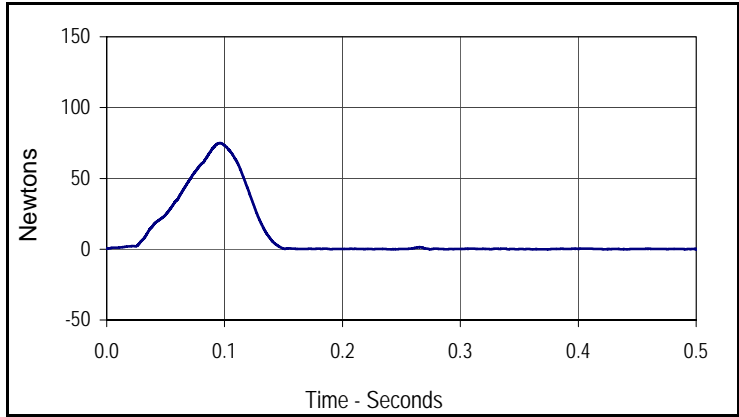


## 5. DATA PLOTS

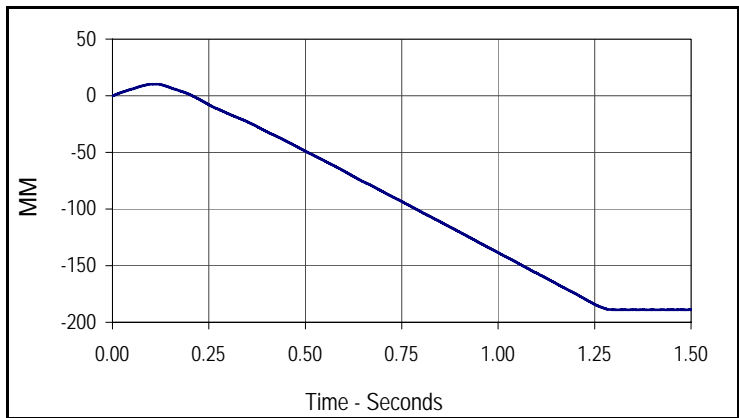
Graph 1 & 2	Left Front Window Leading Edge 5mm Simi Rigid Rod	30
Graph 3 & 4	Left Front Window Leading Edge 25mm Simi Rigid Rod	30
Graph 5 & 6	Left Front Window Leading Edge 50mm Simi Rigid Rod	31
Graph 7 & 8	Left Front Window Leading Edge 100mm Simi Rigid Rod	31
Graph 9 & 10	Left Front Window Leading Edge 200mm Simi Rigid Rod	32
Graph 11 & 12	Left Front Window Rear Edge 5mm Simi Rigid Rod	33
Graph 13 & 14	Left Front Window Rear Edge 25mm Simi Rigid Rod	33
Graph 15 & 16	Left Front Window Rear Edge 50mm Simi Rigid Rod	34
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Graph 19 & 20	Left Front Window Rear Edge 200mm Simi Rigid Rod	35
Instrumentation	Test Equipment List and Calibration Information	36

Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

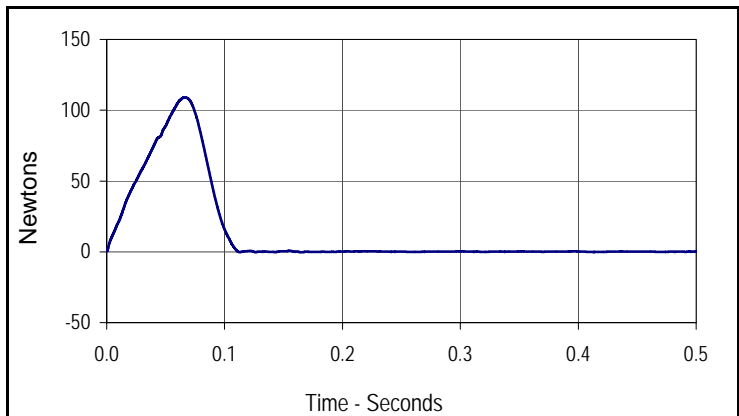
Test Date: 7/31/06  
 NHTSA No.: M65110



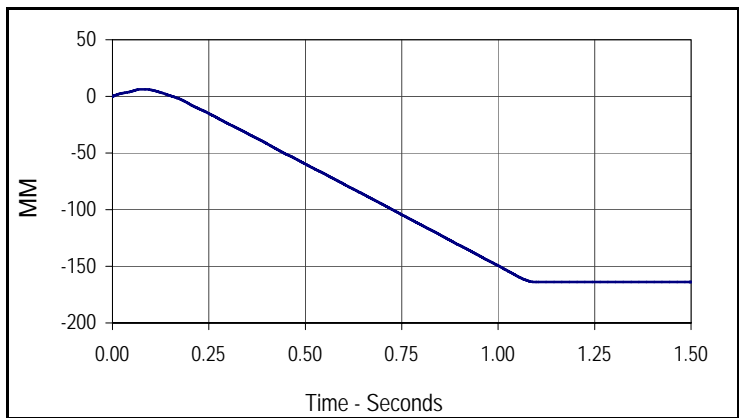
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Window Force 5MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
75.0	0.1	-0.2	0.6



Curve Description			
Window Travel 5MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
10.2	0.1	-188.9	1.3



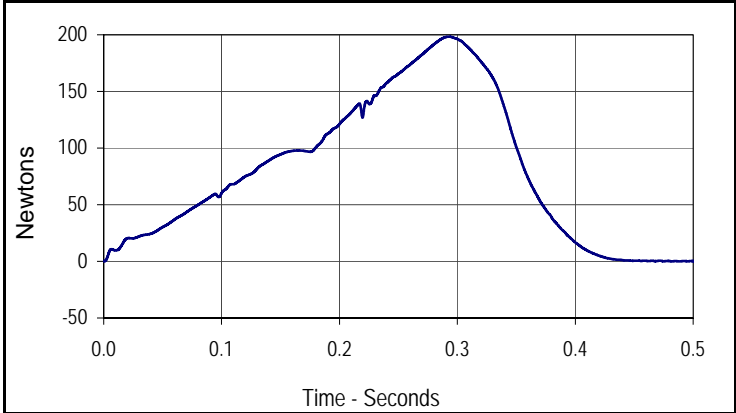
Curve Description			
Window Force 25MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
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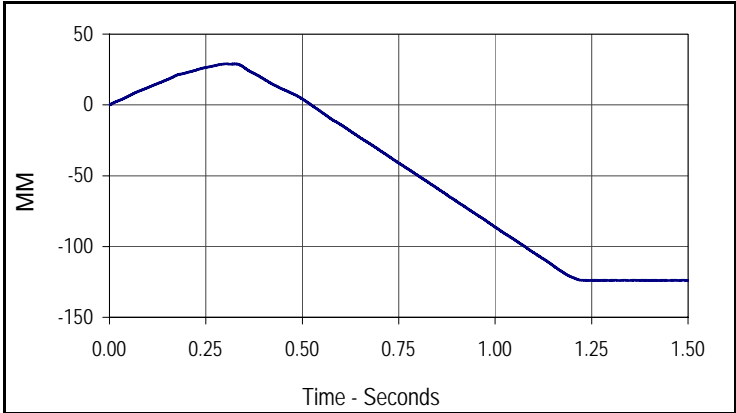
Curve Description			
Window Travel 25MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
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Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

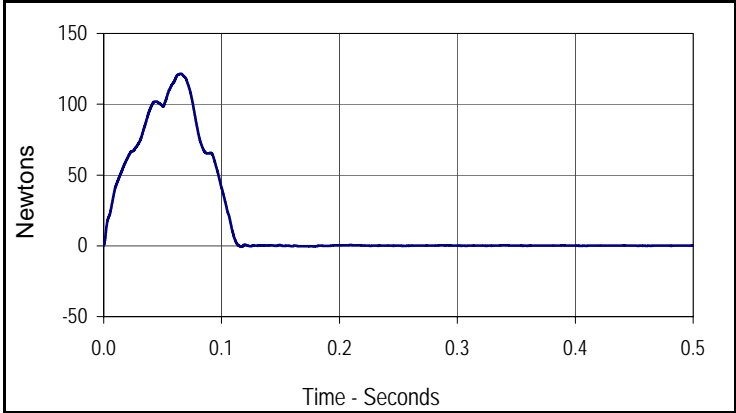
Test Date: 7/31/06  
 NHTSA No.: M65110



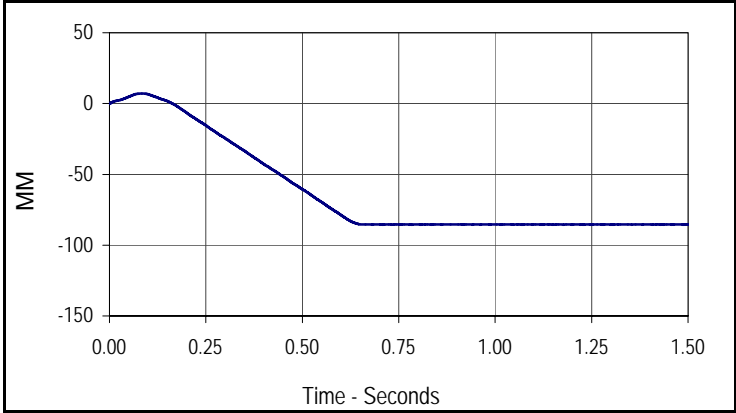
Curve Description			
Window Force 50MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
198.4	0.3	-0.1	0.5



Curve Description			
Window Travel 50MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
28.9	0.3	-124.0	1.5



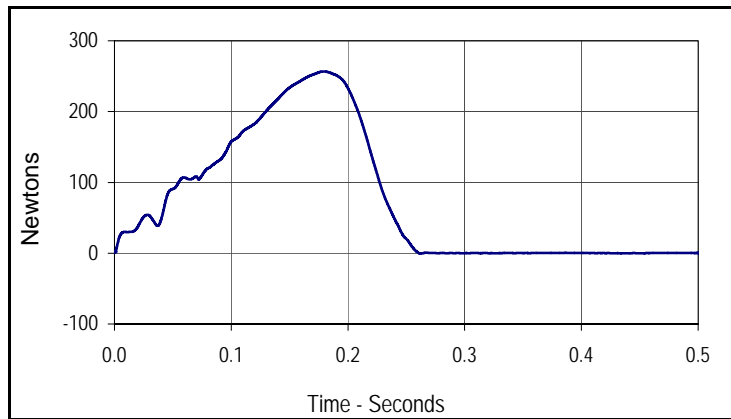
Curve Description			
Window Force 100MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
121.5	0.1	-0.6	0.1



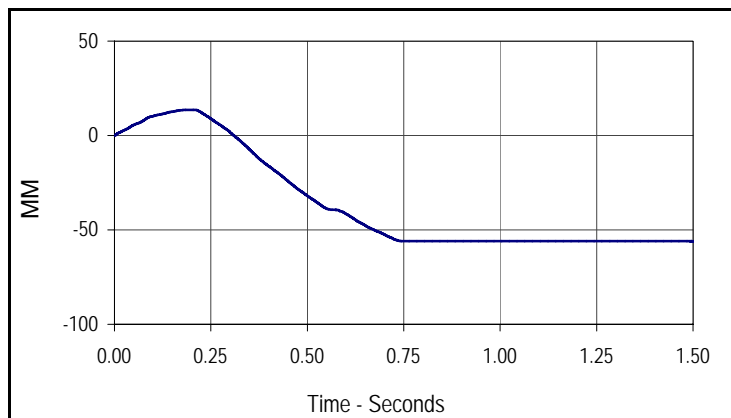
Curve Description			
Window Travel 100MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
7.0	0.1	-85.5	1.1

Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

Test Date: 7/31/06  
 NHTSA No.: M65110



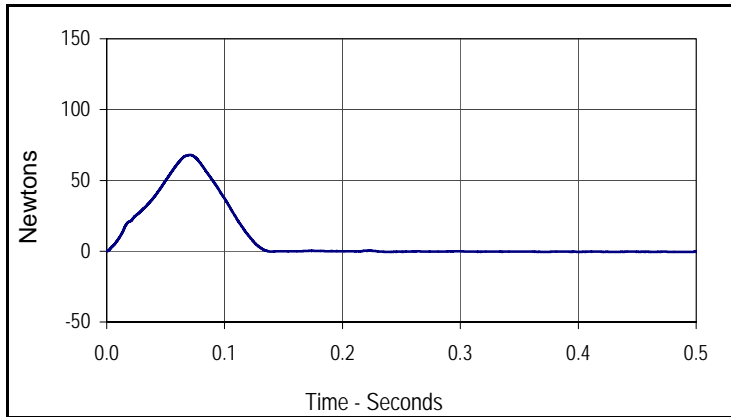
Curve Description			
Window Force 200MM Leading Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
256.8	0.2	-1.8	0.6



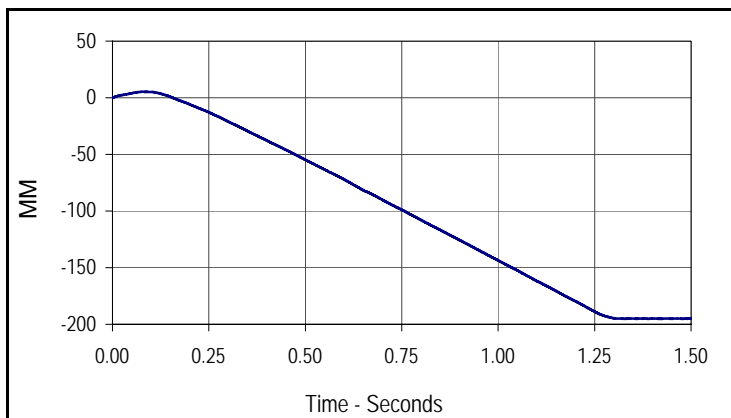
Curve Description			
Window Travel 200MM Leading Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
13.6	0.2	-56.1	1.5

Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

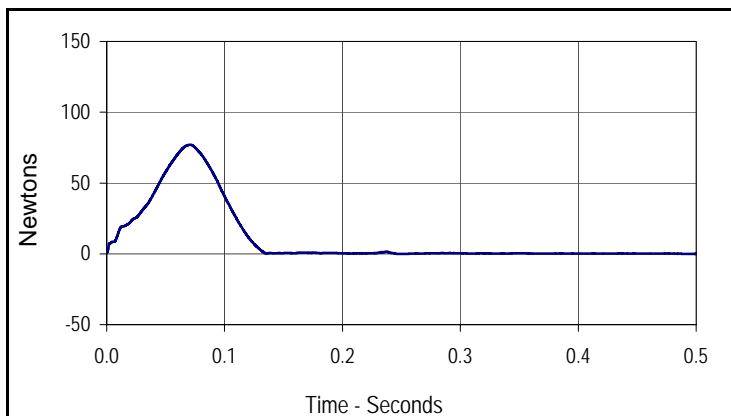
Test Date: 7/31/06  
 NHTSA No.: M65110



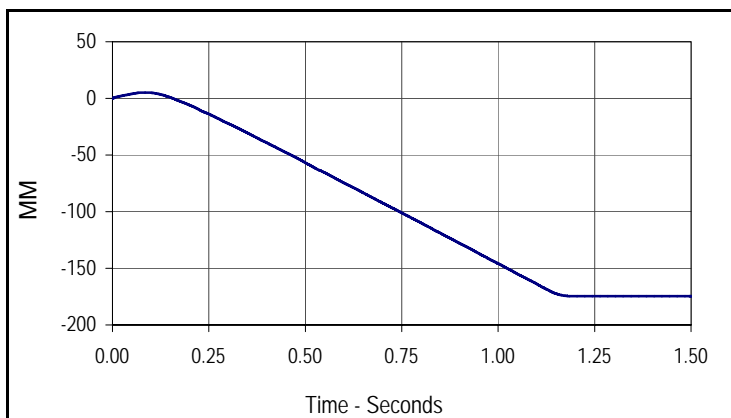
Curve Description			
Window Force 5MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
68.0	0.1	-0.9	1.2



Curve Description			
Window Travel 5MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.3	0.1	-195.1	1.4



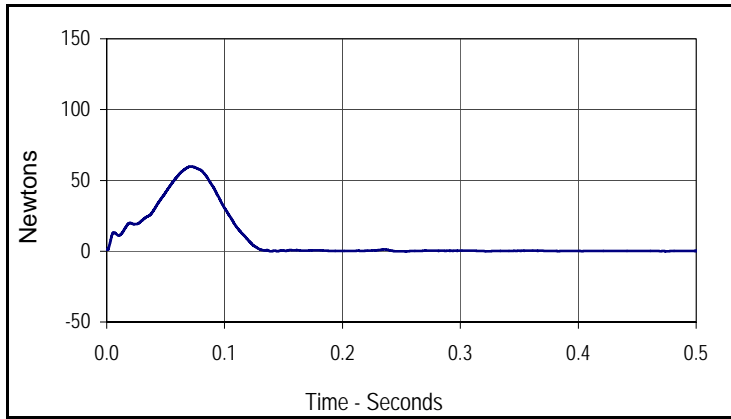
Curve Description			
Window Force 25MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
77.1	0.1	-0.2	1.1



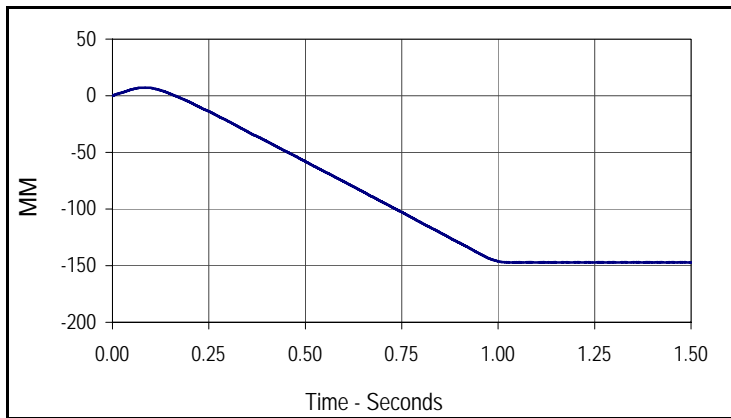
Curve Description			
Window Travel 25MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
5.2	0.1	-174.7	1.5

Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

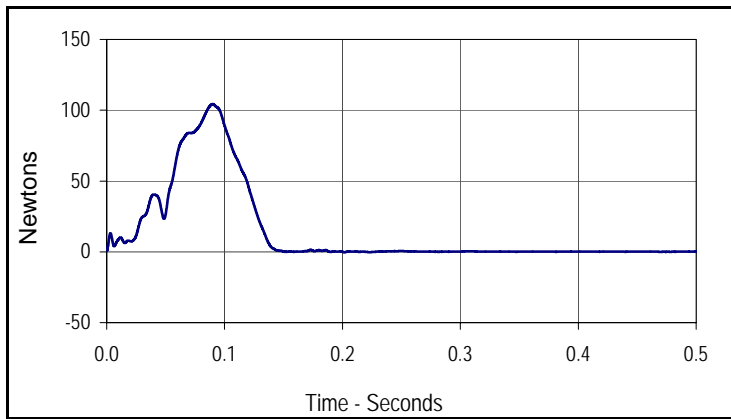
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 NHTSA No.: M65110



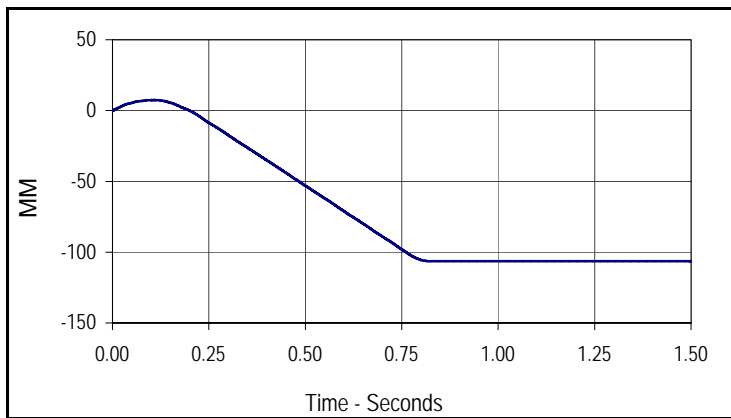
Curve Description			
Window Force 50MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
59.8	0.1	-0.2	1.0



Curve Description			
Window Travel 50MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
7.2	0.1	-147.1	1.3



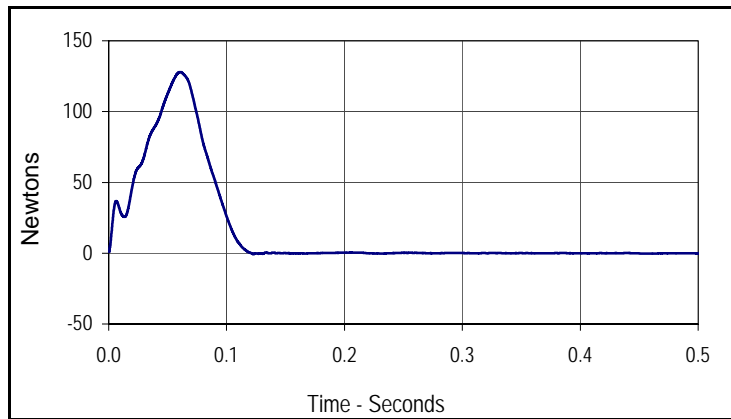
Curve Description			
Window Force 100MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
104.4	0.1	-0.3	0.2



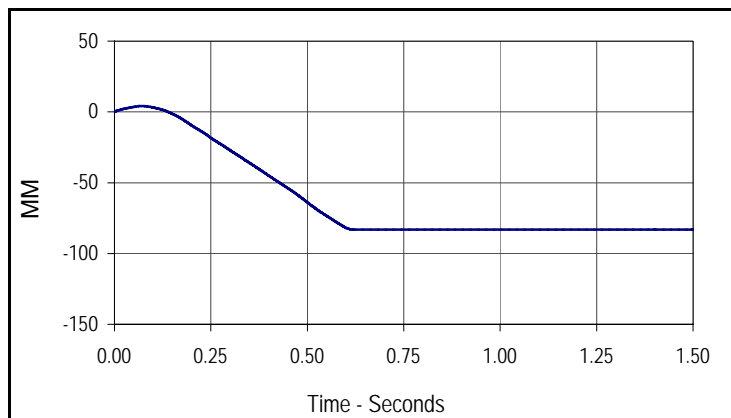
Curve Description			
Window Travel 100MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
7.4	0.1	-106.5	0.8

Test Vehicle: 2006 Toyota Rav4 5-Door MPV  
 Test Program: FMVSS 118 (Left Front Window)

Test Date: 7/31/06  
 NHTSA No.: M65110



Curve Description			
Window Force 200MM Rear Edge			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
127.9	0.1	-0.7	0.1



Curve Description			
Window Travel 200MM Rear Edge			
CURNO	Type	SAE Class	Units
002	FIL	180	MM
Max	Time	Min	Time
4.2	0.1	-83.2	0.6

**FMVSS 118 (Left Front Window)  
Test Equipment List and Calibration Information  
07/31/06**

**2006 Toyota Rav4 5-Door MPV**

Description	Manufacturer	Model No.	Serial No.	Limit	Accuracy	Cal. Date	Due Cal.
DAS	DTS	TDAS Pro	DM0429	N/A	SAE J211	01/03/06	01/03/07
Laptop Computer	Toshiba	Satellite	LAP02	N/A	N/A	N/A	N/A
Load Cell	Denton	2409	85	445 Newtons	± 1.0%	03/22/06	03/22/07
Displacement Xdcr.	Celesco	PTX101-0030	J0654653	76 CM	± 1.0%	Each Use	

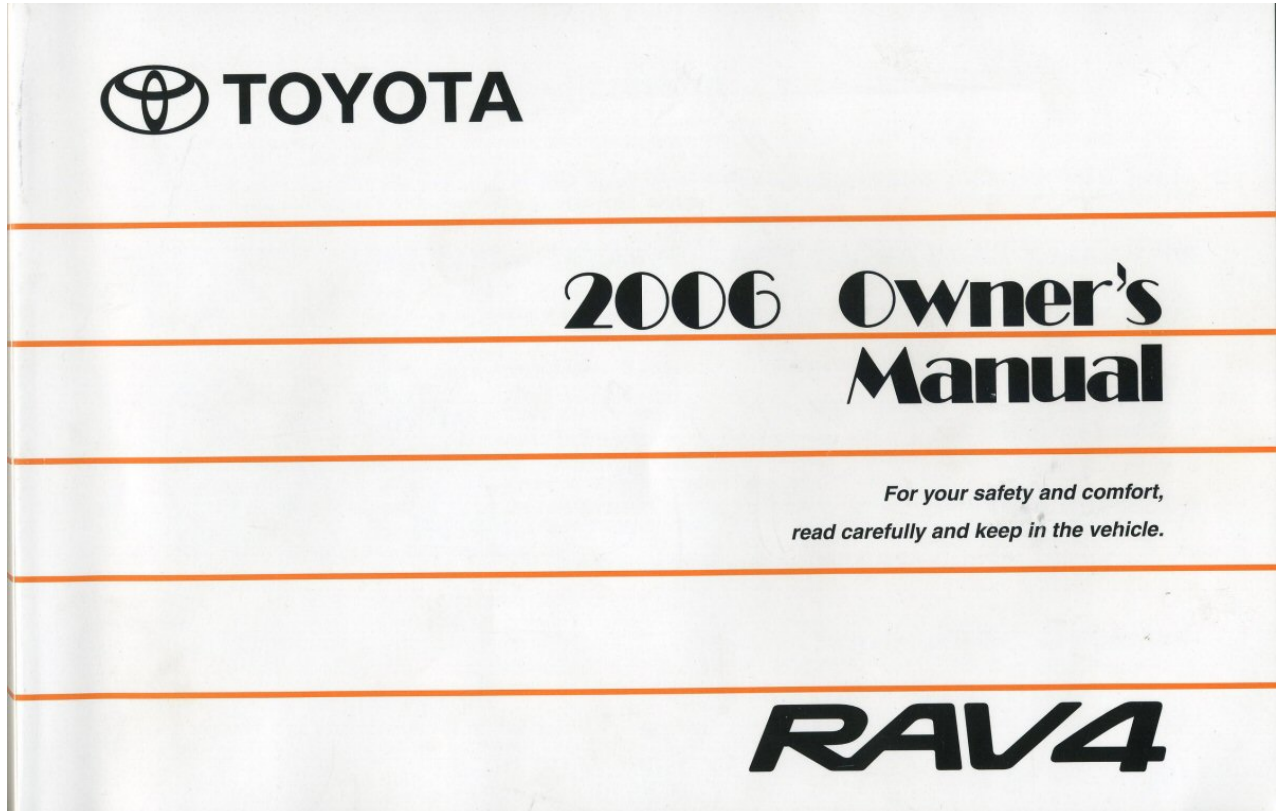




**6. COPY OF OWNER'S MANUAL INSTRUCTION FOR USE OF POWER WINDOWS**

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

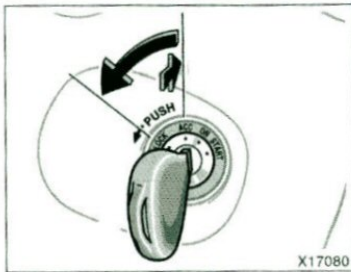
VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		



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

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		

## Ignition switch



**"START"**—Starter motor on. The key will return to the "ON" position when released.

For starting tips, see page 305 in Section 3.

**"ON"**—Engine on and all accessories on.

This is the normal driving position.

**"ACC"**—Accessories such as the radio operate, but the engine is off.

If you leave the key in the "ACC" or "LOCK" position and open the driver's door, a buzzer will remind you to remove the key.

**"LOCK"**—Engine is off and the steering wheel is locked. The key can be removed only at this position.

You must push in the key to turn it from "ACC" to the "LOCK" position. The selector lever must be in the "P" position before pushing the key.

Vehicles with engine immobilizer system—Once you remove the key, the engine immobilizer system is automatically set. (See "Engine immobilizer system" on page 15 in Section 1-2.)

When starting the engine, the key may seem stuck at the "LOCK" position. To free it, first be sure the key is pushed all the way in, and then rotate the steering wheel slightly while turning the key gently.

Approximately five hours after the engine is turned off, you may hear sound coming from under the floor around the driver's seat for several minutes. This is normal operation and does not indicate a malfunction. (See "Leak detection pump" on page ix.)

It is not a malfunction if the needle on all meters and gauges move slightly when the key is turned to the "ON" or "START" position.

## NOTICE

*Do not leave the key in the "ON" position if the engine is not running. The battery will discharge and the ignition could be damaged.*

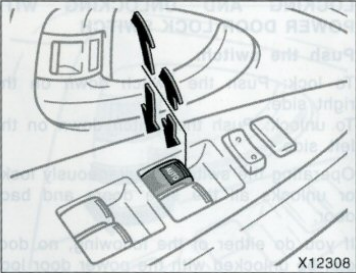
# COPY OF OWNER'S MANUAL INSTRUCTIONS FOR USE OF POWER WINDOWS

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	07/31/06		

**CAUTION**

Before driving, be sure that the doors are closed and locked, especially when small children are in the vehicle. Along with the proper use of seat belts, locking the doors helps prevent the driver and passengers from being thrown out from the vehicle in an accident. It also helps prevent the doors from being opened unintentionally.

**Power windows**



The windows can be operated with the switch on each door. The passengers' windows can also be controlled by the switches on the driver's door.

The power windows work when the ignition switch is in the "ON" position.

**Key off operation:** If the either front door is closed, they work for 45 seconds even after the ignition switch is turned off. They stop working when the either front door is opened.

**OPERATING THE DRIVER'S WINDOW**

Use the switch on the driver's door.

**Normal operation:** The window moves as long as you hold the switch.

To open: Lightly push down the switch.  
To close: Lightly pull up the switch.

**Automatic operation:** Push the switch completely down or pull it completely up, and then release it. The window will fully open or close. To stop the window part-way, lightly move the switch in the opposite direction and then release it.

**Jam protection function:** During automatic closing operation, the window stops and opens half way if something gets caught between the window and window frame.

If the window receives a strong impact, this function may work even if nothing is caught.

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

VEHICLE			
YEAR	2006	MAKE	Toyota
MODEL	RAV4	BODY STYLE	5-Door MPV
NHTSA NO.	M65110	VIN	JTMZD33V665029275
TEST DATE:	007/31/06		

If the power window does not operate automatically or the jam protection function does not operate correctly, you should normalize the power window.

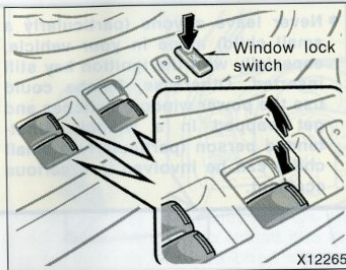
To normalize the power window:

1. Push down the power window switch and lower the windows fully.
2. Pull up the switch until the windows close and hold the switch for a second.

Make sure that the window open and close automatically. If the power windows cannot be operated properly, have it checked by your Toyota dealer.

### CAUTION

- Never try jamming any part of your body to activate the jam protection function intentionally, as it could result in a death or serious injury.
- The jam protection function may not work if something gets caught just before the window is fully closed.



### OPERATING THE PASSENGERS' WINDOWS

Use the switch on each passenger's door or the switches on the driver's door that control each passenger's window.

The window moves as long as you hold the switch.

To open: Push down the switch.

To close: Pull up the switch.

If you push in the window lock switch on the driver's door, the passengers' windows cannot be operated.

