REPORT NO. 118-KAR-09-004

SAFETY COMPLIANCE TESTING FOR FMVSS 118

Power-Operated Window, Partition, And Roof Panel Systems

2009 KIA RONDO LX
5-DOOR MPV

NHTSA NO. C90505

PREPARED BY:
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9270 HOLLY ROAD
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June 29, 2009

Final Report

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
MAIL CODE: NVS-221
1200 NEW JERSEY AVE SE, ROOM W43-498
WASHINGTON, D.C. 20590

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract DTNH22-06-C-00034.

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FINAL REPORT ACCEPTED BY OSVC:

Accepted by:

Acceptance Date: 7/9/09

Technical Report Documentation Page

1. *Report No.* 118-KAR-09-004	2. *Government Accession No.*	3. *Recipient's Catalog No.*	
4. *Title and Subtitle* Final Report of FMVSS 118 Compliance Testing of 2009 Kia Rondo LX 5-Door MPV NHTSA NO. C90505		5. *Report Data* 06-29-09 6. *Performing Organization Code* KAR	
7. *Author(s)* Mr. Matthew S. Hubbard, Test Engineer, KARCO Mr. Michael L. Dunlap, Director of Operations, KARCO		8. *Performing Organization Report No.* TR-P29006-04-NC	
9. *Performing Organization Name and Address* KARCO Engineering 9270 Holly Road Adelanto, California 92301		10. *Work unit No.* 11. *Contract or Grant No.* DTNH22-06-C-00034	
12. *Sponsoring Agency Name and Address* U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance Mail Code: NVS-221 1200 New Jersey Ave SE, Room W43-410 Washington, D.C. 20590		13. *Type of report and Period Covered* Final Report- June 29, 2009 14. *Sponsoring Agency Code* NVS-221	
15. *Supplementary Notes*			
16. *Abstract* Compliance tests were conducted on the subject 2009 Kia Rondo LX 5-Door MPV 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			
17. *Key Words* Compliance Testing Safety Engineering FMVSS 118		18. *Distribution Statement* Copies of this report are available from: National Highway Traffic Safety Admin. Technical Information Services (TIS) Mail Code: NVS-221 1200 New Jersey Ave SE, Room W43-410 Washington, D.C. 20590	
19. *Security Classification (of this report)* UNCLASSIFIED	20. *Security Classification (of this page)* UNCLASSIFIED	21. *No. of Pages* 43	22. *Price*

Form DOT F1700.7 (8-72)

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1. PURPOSE OF COMPLIANCE TEST

Tests were conducted on a 2009 Kia Rondo LX 5-Door MPV, manufactured by Kia Motors 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-118-06, 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 Kia Rondo LX 5-Door MPV was subjected to FMVSS 118 compliance testing. The tests were conducted at KARCO Engineering in Adelanto, California on June 29, 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	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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	N/A
Right Front (RF)	PASS	PASS	PASS	N/A
Left Rear (LR)	PASS	PASS	PASS	N/A
Right Rear (RR)	PASS	PASS	PASS	N/A
Tail Gate (TG)	N/A	N/A	N/A	N/A
Partition	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	N/A	N/A	N/A
INDIVIDUAL SWITCHES				
Left Front (LF)	PASS	PASS	PASS	N/A
Right Front (RF)	PASS	PASS	PASS	N/A
Left Rear (LR)	PASS	PASS	PASS	N/A
Right Rear(RR)	PASS	PASS	PASS	N/A
Tail Gate (TG)	N/A	N/A	N/A	N/A
Partition (P)	N/A	N/A	N/A	N/A
Roof Panel (RP)	N/A	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 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

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)	N/A	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

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 Kia Rondo LX 5-Door MPV appeared to meet the requirements of FMVSS 118.

3. TEST DATA

DATA SHEET NO. 1
VEHICLE IDENTIFICATION

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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	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: **None**

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: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

DATA SHEET NO. 2
IGNITION KEY OFF TEST

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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	N/A	N/A	N/A	N/A	N/A	N/A
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	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. 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: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

DATA SHEET NO. 3
IGNITION KEY REMOVED TEST

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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	N/A	N/A	N/A	N/A	N/A	N/A
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	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 key “off” test was performed.

RECORDED BY: **MATTHEW S. HUBBARD** DATE: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

DATA SHEET NO. 4
EXTERIOR KEY LOCKING SYSTEM

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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	N/A	N/A	N/A	N/A
RIGHT FRONT (RF)	N/A	N/A	N/A	N/A	N/A
LEFT REAR (LR)	N/A	N/A	N/A	N/A	N/A
RIGHT REAR (RR)	N/A	N/A	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.

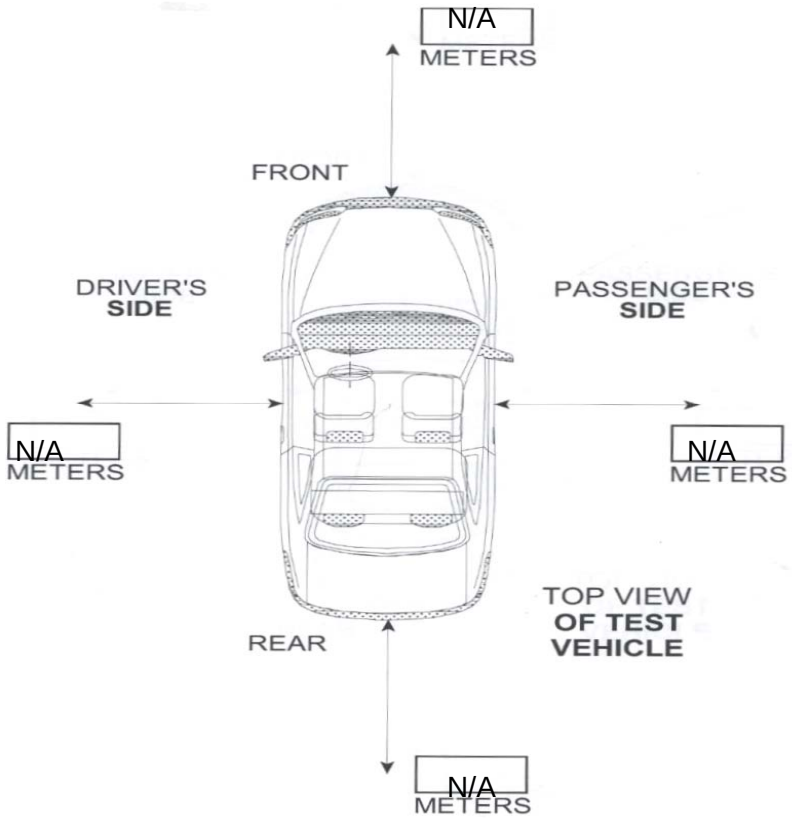
RECORDED BY: **MATTHEW S. HUBBARD** DATE: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

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

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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.

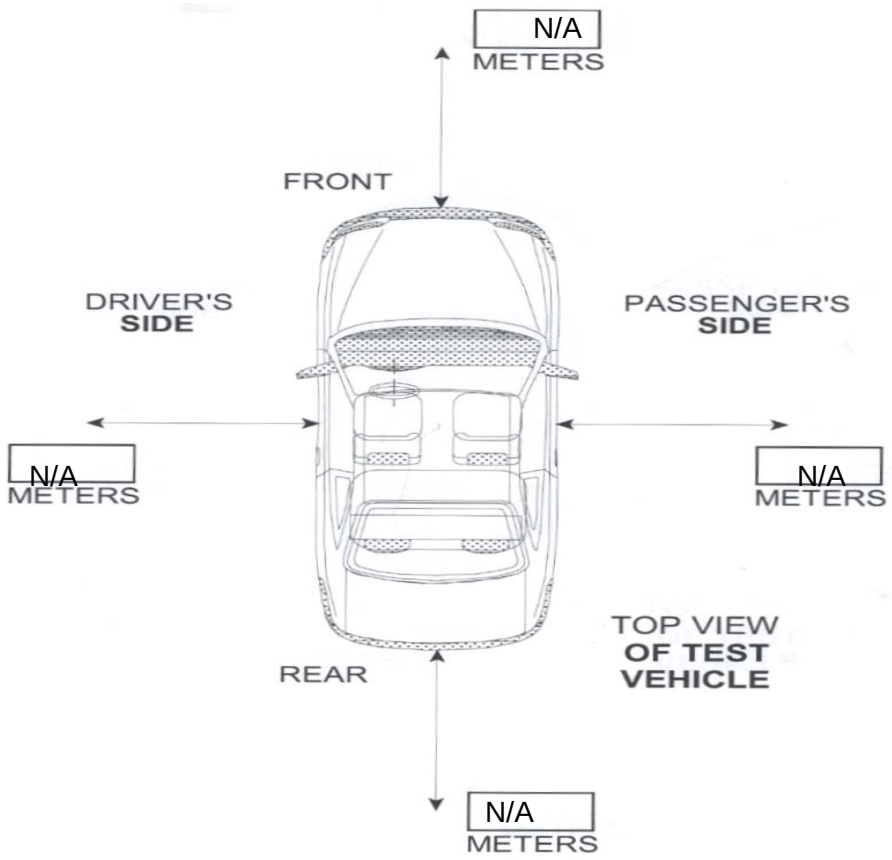
RECORDED BY: **MATTHEW S. HUBBARD** DATE: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

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

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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:	**06/29/09**
APPROVED BY:	**MICHAEL L. DUNLAP**	DATE:	**06/29/09**

DATA SHEET NO. 7
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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

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

SWITCHES EQUIPPED WITH AUTO REVERSAL	MASTER	INDIVIDUAL
LEFT FRONT (LF)	N/A	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 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: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

DATA SHEET NO. 8
AUTO REVERSAL

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

Distance window is open from top seam to start position. N/A

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	N/A	N/A
25mm semi rigid rod	N/A	N/A
50mm semi rigid rod	N/A	N/A
100mm semi rigid rod	N/A	N/A
200mm semi rigid rod	N/A	N/A

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	N/A	N/A
25mm semi rigid rod	N/A	N/A
50mm semi rigid rod	N/A	N/A
100mm semi rigid rod	N/A	N/A
200mm semi rigid rod	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. 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: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

DATA SHEET NO. 9
SPHERE TEST

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

SPHERE TEST CONDUCTED ON MASTER SWITCH CONTROL PANEL

WINDOW	FORCE APPLIED TO ACTIVATE SWITCH (NEWTONS)	SWITCH ACTIVATED (YES / NO)	PASS / FAIL
LEFT FRONT (LF)	151.7	NO	PASS
RIGHT FRONT (RF)	153.0	NO	PASS
LEFT REAR (LR)	147.0	NO	PASS
RIGHT REAR (RR)	140.7	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)	151.7	NO	PASS
RIGHT FRONT (RF)	138.8	NO	PASS
LEFT REAR (LR)	165.8	NO	PASS
RIGHT REAR (RR)	156.3	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: **06/29/09**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **06/29/09**

4. PHOTOGRAPHS

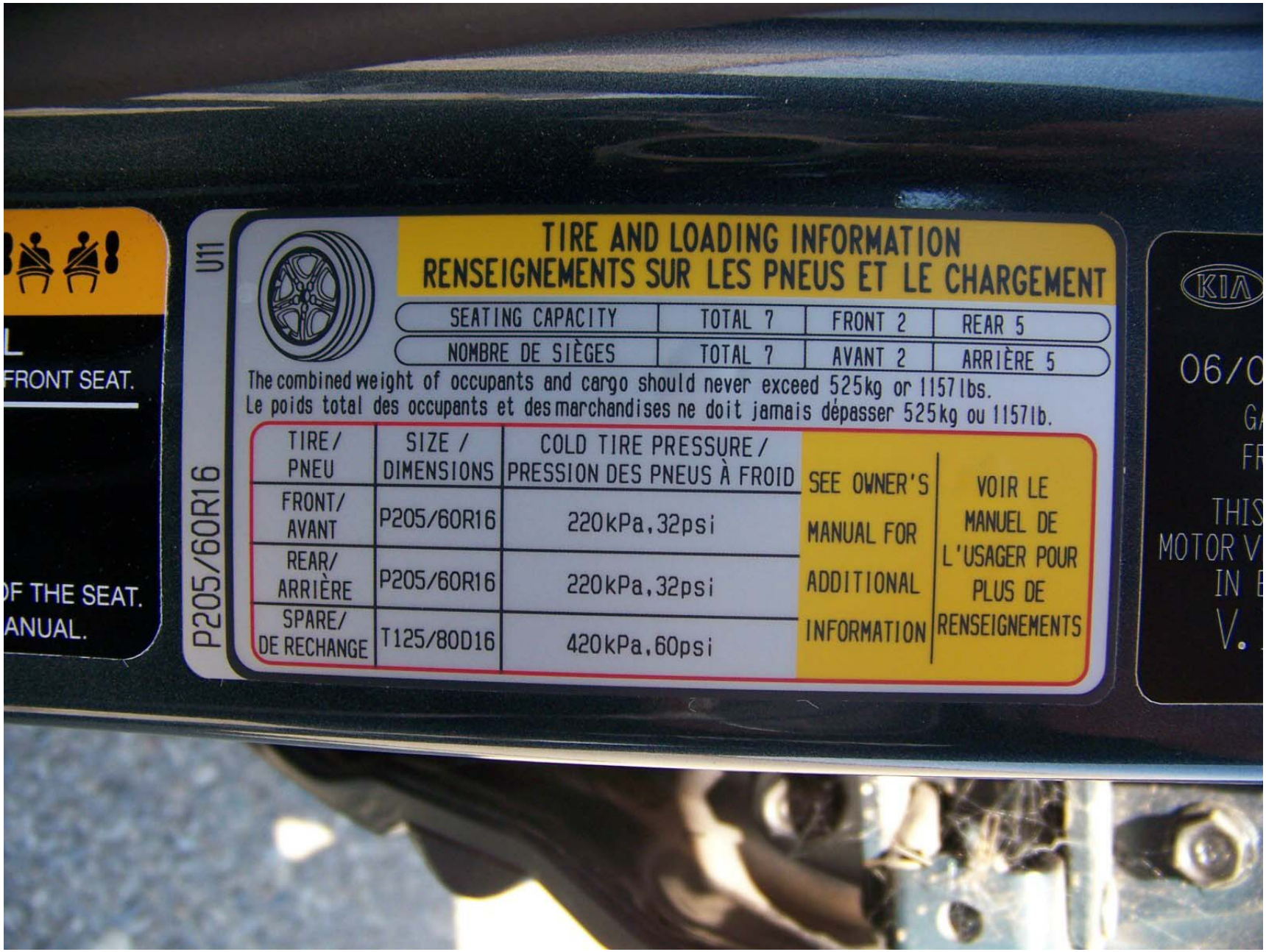
2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 1: Frontal ¾ View From Right Side of Vehicle

2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 2: Rear ¾ View From Left Side of Vehicle

Figure 3: Vehicle Certification Label



2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 4: Tire Information Placard

Figure 5: Ignition Switch

2009 KIA RONDO LX
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FMVSS NO. 118

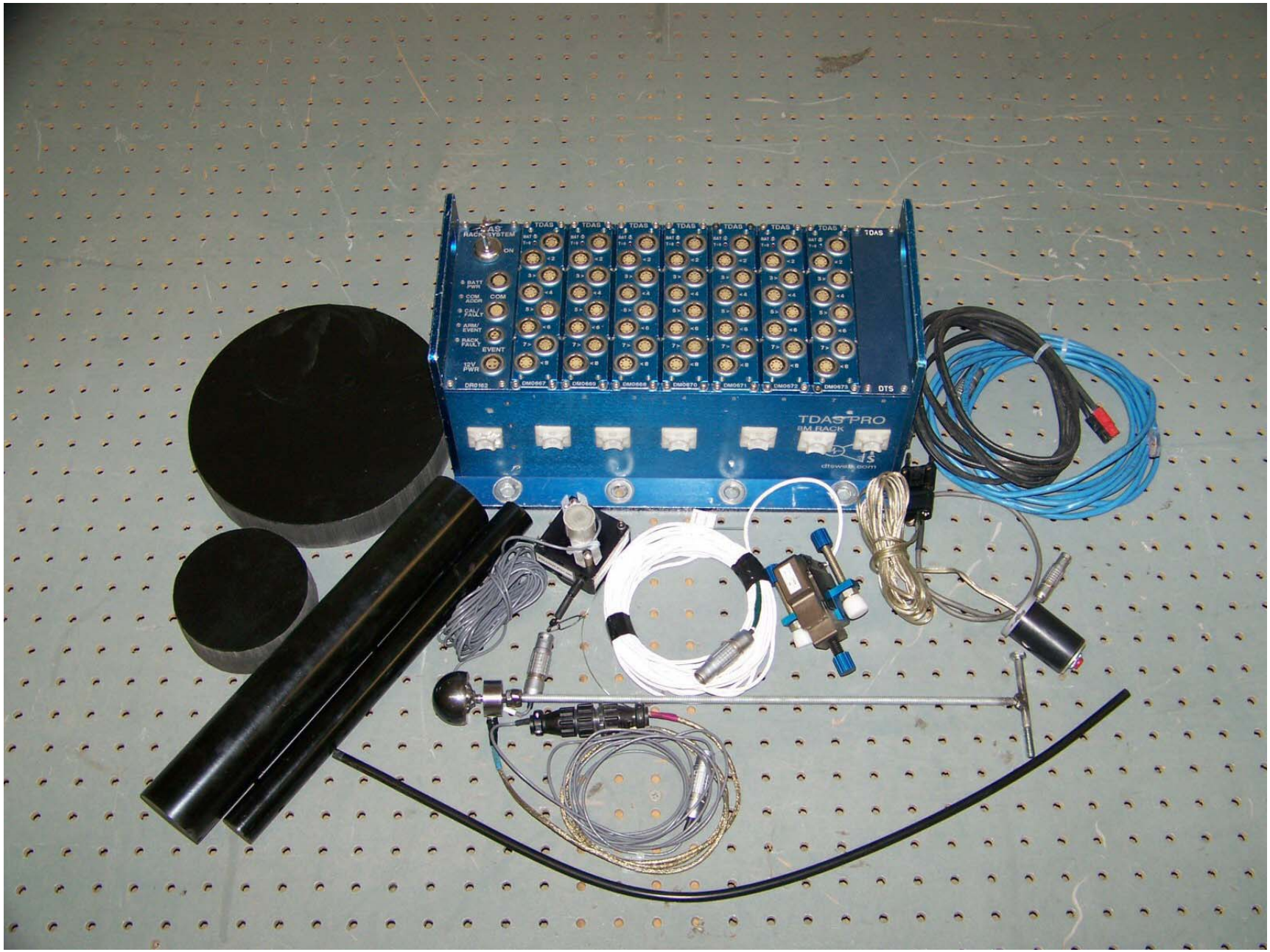
Figure 6: Left Front Master Power Window Switch

Figure 7: Right Front Power Window Switch

Figure 8: Left Rear Power Window Switch

Figure 9: Right Rear Power Window Switch

Figure 10: Overall Test Set-Up



2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 11: Instrumentation

2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 12: Sphere Test Master Control Panel

Figure 13: Sphere Test Right Front Window

Figure 14: Sphere Test Left Rear Window

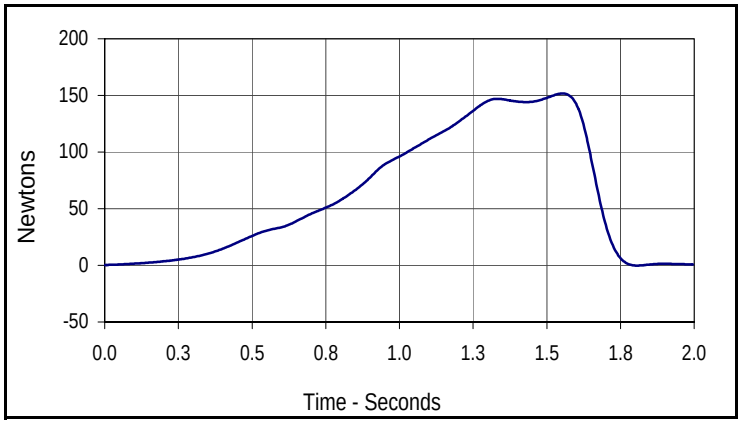
2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

Figure 15: Sphere Test Right Rear Window

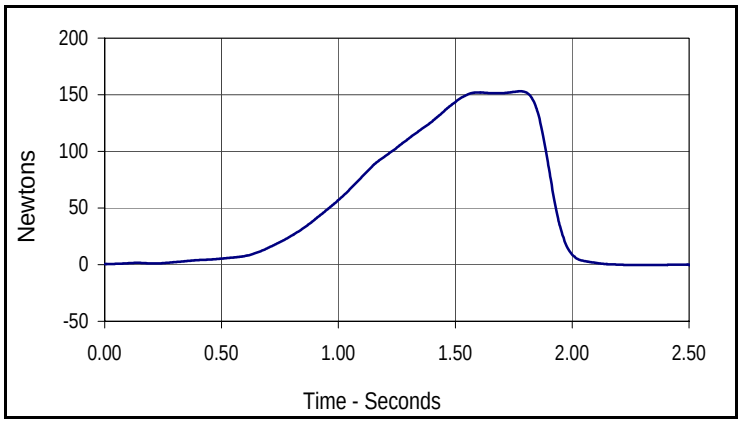
2009 KIA RONDO LX
NHTSA NO. C90505
FMVSS NO. 118

5. DATA PLOTS

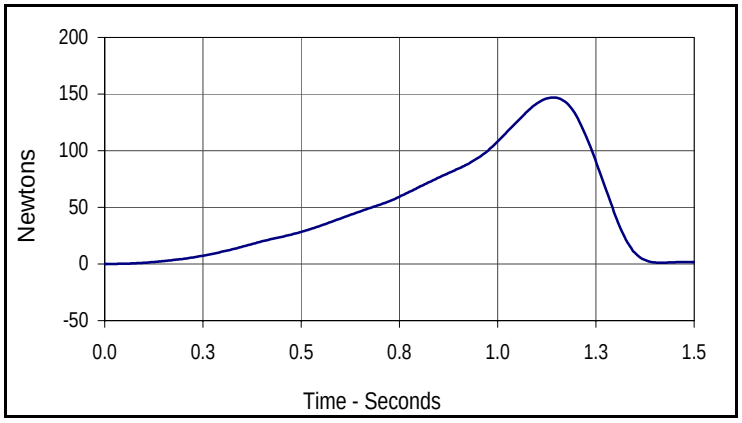
Test Vehicle:	2009 Kia Rondo LX 5-Door MPV	Test Date:	6/29/09
Test Program:	FMVSS 118 (Master Switch Test)	NHTSA No.:	C90505



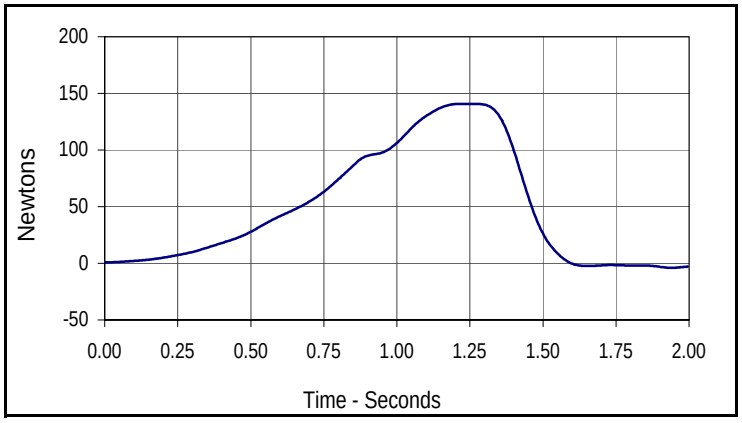
Curve Description			
Master Left Front Window Switch			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
151.7	1.6	-0.2	1.8



Curve Description			
Master Right Front Window Switch			
CURNO	Type	SAE Class	Units
002	FIL	180	Newtons
Max	Time	Min	Time
153.0	1.8	-0.4	2.3

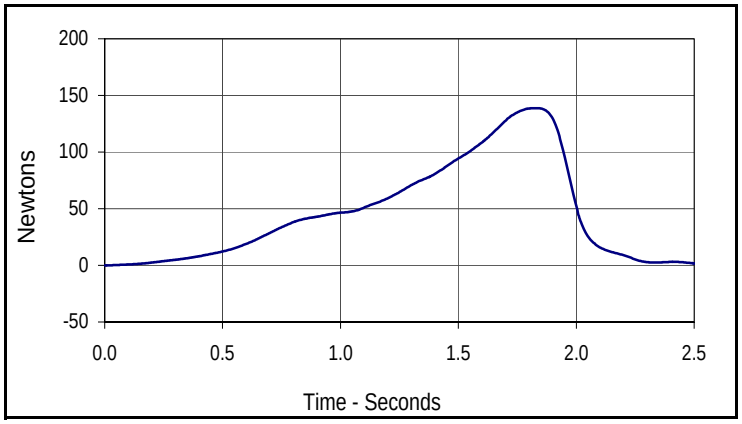


Curve Description			
Master Left Rear Window Switch			
CURNO	Type	SAE Class	Units
003	FIL	180	Newtons
Max	Time	Min	Time
147.0	1.1	-0.3	2.5

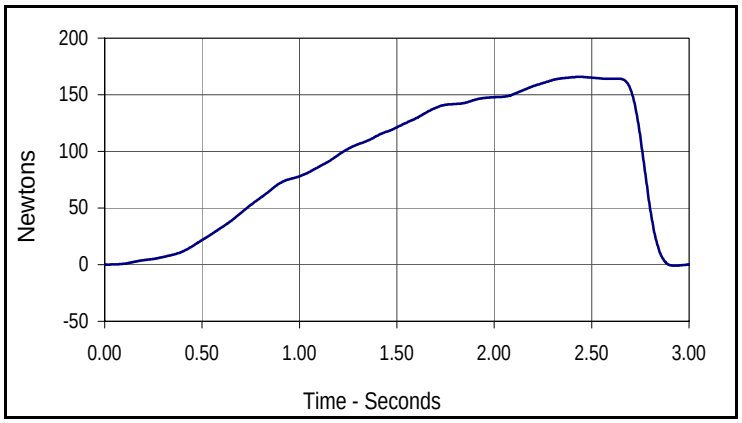


Curve Description			
Master Right Rear Window Switch			
CURNO	Type	SAE Class	Units
004	FIL	180	Newtons
Max	Time	Min	Time
140.7	1.2	-4.1	1.9

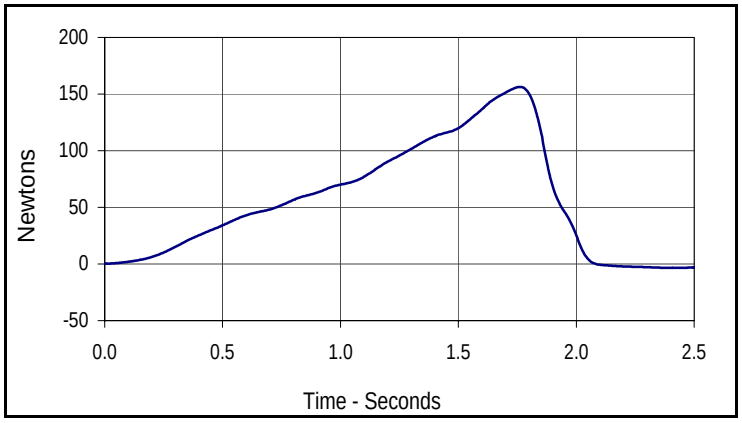
Test Vehicle:	2009 Kia Rondo LX 5-Door MPV	Test Date:	6/29/09
Test Program:	FMVSS 118 (Switch Test)	NHTSA No.:	C90505



Curve Description			
Right Front Window Switch			
CURNO	Type	SAE Class	Units
005	FIL	180	Newtons
Max	Time	Min	Time
138.8	1.8	-1.8	2.8



Curve Description			
Left Rear Window Switch			
CURNO	Type	SAE Class	Units
006	FIL	180	Newtons
Max	Time	Min	Time
165.8	2.4	-1.0	2.9



Curve Description			
Right Rear Window Switch			
CURNO	Type	SAE Class	Units
007	FIL	180	Newtons
Max	Time	Min	Time
156.3	1.8	-3.4	2.4

FMVSS 118

Test Equipment List and Calibration Information

06/29/09

2009 Kia Rondo LX 5-Door MPV

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	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	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

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

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

⚠ WARNING
All passengers must be properly belted whenever the vehicle is moving. Refer to "Seat belts" in section 3 for more information on their proper use.

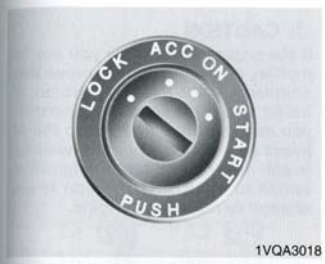
⚠ WARNING
Always check the surrounding areas near your vehicle for people, especially children, before putting a car into D (Drive) or R (Reverse).

⚠ WARNING - Driving under the influence of alcohol or drugs
Drinking and driving is dangerous. Drunk driving is the number one contributor to the highway death toll each year. Even a small amount of alcohol will affect your reflexes, perceptions and judgment. Driving while under the influence of drugs is as dangerous or more dangerous than driving drunk.
You are much more likely to have a serious accident if you drink or take drugs and drive.
If you are drinking or taking drugs, don't drive. Do not ride with a driver who has been drinking or taking drugs. Choose a designated driver or call a cab.

⚠ WARNING
When you intend to park or stop the vehicle with the engine on, be careful not to depress the accelerator pedal for a long period of time. It may overheat the engine or exhaust system and cause fire.

KEY POSITIONS

E030100AUN
Illuminated ignition switch (if equipped)
Whenever a front door is opened, the ignition switch will be illuminated for your convenience, provided the ignition switch is not in the ON position. The light will go off immediately when the ignition switch is turned on or go off after about 10 seconds when the door is closed.



1VQA3018

Ignition switch position

E030201AUN
LOCK
The steering wheel locks to protect against theft. The ignition key can be removed only in the LOCK position. When turning the ignition switch to the LOCK position, push the key inward at the ACC position and turn the key toward the LOCK position.

E030202BUN
ACC (Accessory)
The steering wheel is unlocked and electrical accessories are operative.

✻ NOTICE
If difficulty is experienced turning the ignition switch to the ACC position, turn the key while turning the steering wheel right and left to release the tension.

E030203AUN
ON
The warning lights can be checked before the engine is started. This is the normal running position after the engine is started.
Do not leave the ignition switch ON if the engine is not running to prevent battery discharge.

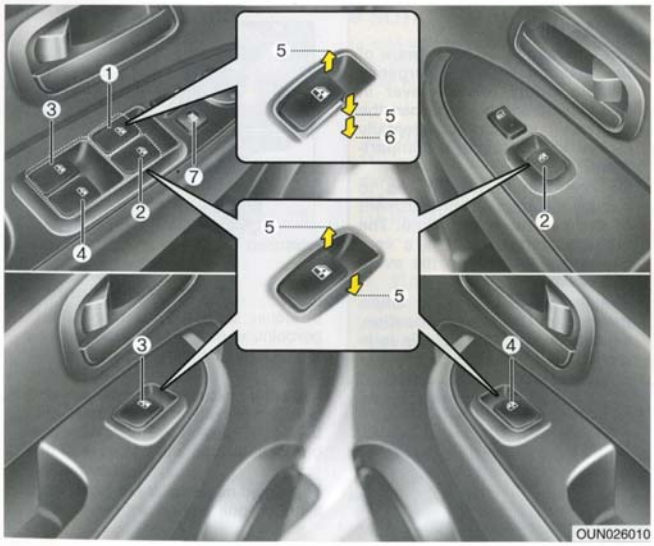
E030204AUN-EU
START
Turn the ignition switch to the START position to start the engine. The engine will crank until you release the key; then it returns to the ON position. The brake warning lamp can be checked in this position.

⚠ WARNING - Ignition switch
- **Never turn the ignition switch to LOCK or ACC while the vehicle is moving. This would result in loss of directional control and braking function, which could cause an accident.**
- **The anti-theft steering column lock is not a substitute for the parking brake. Before leaving the driver's seat, always make sure the shift lever is engaged in P (Park) for the automatic transaxle, set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.**
- **Never reach for the ignition switch, or any other controls through the steering wheel while the vehicle is in motion. The presence of your hand or arm in this area could cause a loss of vehicle control, an accident and serious bodily injury or death.**
- **Do not place any movable objects around the driver's seat as they may move while driving, interfere with the driver and lead to an accident.**

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

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
MODEL	**Rondo LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
TEST DATE:	**06/29/09**		

WINDOWS



D080000AUN

(1) Driver's door power window switch
(2) Front passenger's door power window switch
(3) Rear door (left) power window switch
(4) Rear door (right) power window switch
(5) Window opening and closing
(6) Automatic power window down (Driver's window)
(7) Power window lock switch

*: if equipped

✻ NOTICE

In cold and wet climates, power windows may not work properly due to freezing conditions.

D080100AUN

Power windows

The ignition switch must be in the ON position for power windows to operate.

Each door has a power window switch that controls the door's window. The driver has a power window lock switch which can block the operation of passenger windows. The power windows can be operated for approximately 30 seconds after the ignition key is removed or turned to the ACC or LOCK position. However, if the front doors are opened, the power windows cannot be operated within the 30 second period after the ignition key removal.

✻ NOTICE

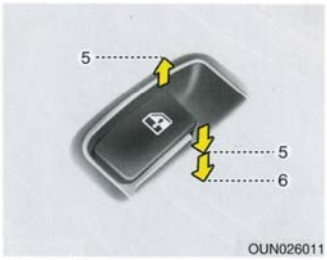
While driving, if you notice buffeting and pulsation (wind shock) with either side window open, you should open the opposite window slightly to reduce the condition.

D080101AUN

Window opening and closing

The driver's door has a master power window switch that controls all the windows in the vehicle.

To open or close a window, press down or pull up the front portion of the corresponding switch to the first detent position (5).



D080102AUN

Auto down window (Driver's window)

Depressing the power window switch momentarily to the second detent position (6) completely lowers the driver's window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up the switch momentarily to the opposite direction of the window movement.

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

VEHICLE			
YEAR	**2009**	MAKE	**Kia**
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NHTSA NO.	**C90505**	VIN	**KNAFG528X97227753**
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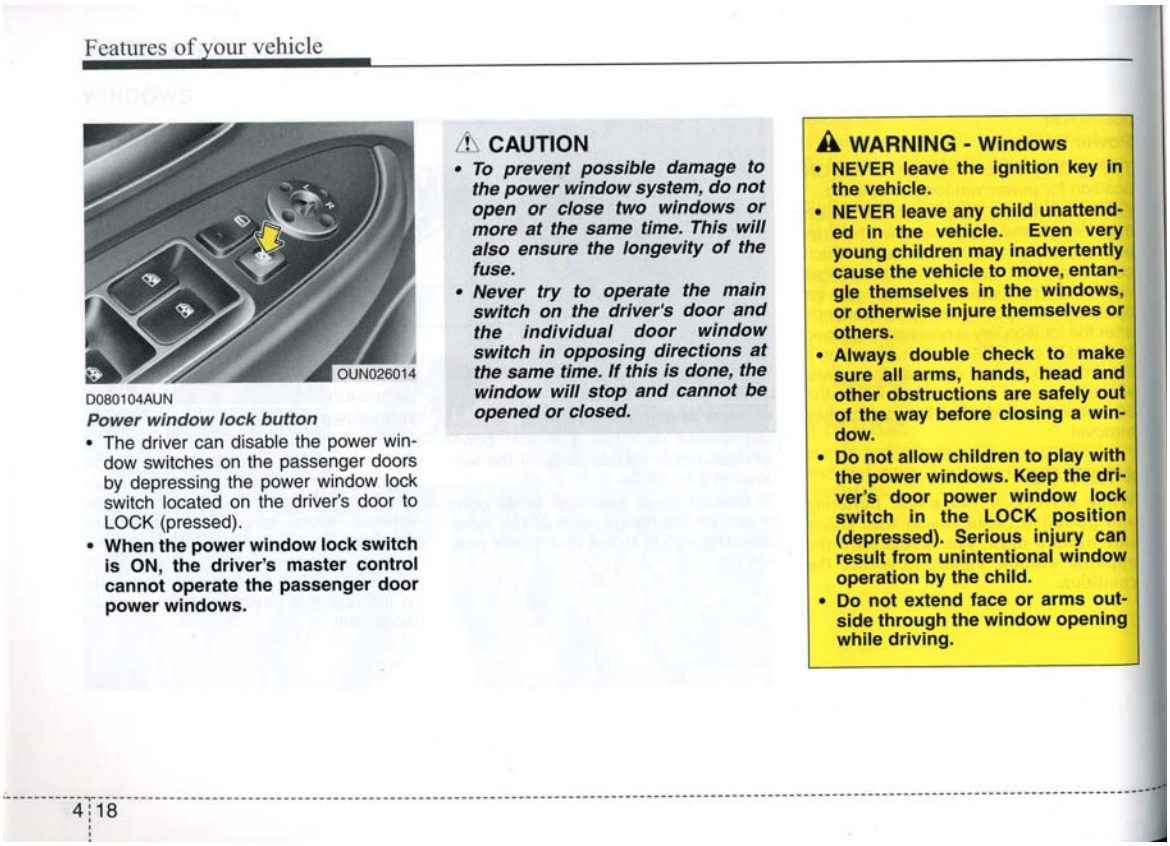

Features of your vehicle

WINDOWS

D080104AUN

Power window lock button

- The driver can disable the power window switches on the passenger doors by depressing the power window lock switch located on the driver's door to LOCK (pressed).
- **When the power window lock switch is ON, the driver's master control cannot operate the passenger door power windows.**

⚠ CAUTION

- ***To prevent possible damage to the power window system, do not open or close two windows or more at the same time. This will also ensure the longevity of the fuse.***
- ***Never try to operate the main switch on the driver's door and the individual door window switch in opposing directions at the same time. If this is done, the window will stop and cannot be opened or closed.***

⚠ WARNING - Windows

- **NEVER leave the ignition key in the vehicle.**
- **NEVER leave any child unattended in the vehicle. Even very young children may inadvertently cause the vehicle to move, entangle themselves in the windows, or otherwise injure themselves or others.**
- **Always double check to make sure all arms, hands, head and other obstructions are safely out of the way before closing a window.**
- **Do not allow children to play with the power windows. Keep the driver's door power window lock switch in the LOCK position (depressed). Serious injury can result from unintentional window operation by the child.**
- **Do not extend face or arms outside through the window opening while driving.**

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