SAFETY COMPLIANCE TESTING FOR FMVSS NO. 118 POWER-OPERATED WINDOW, PARTITION AND ROOF PANEL SYSTEMS

FORD MOTOR CO. 2008 FORD EDGE, MPV NHTSA NO. C80207

GENERAL TESTING LABORATORIES, INC. 1623 LEEDSTOWN ROAD COLONIAL BEACH, VIRGINIA 22443



JULY 02, 2008

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVE., SE
WASHINGTON, D.C. 20590

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Prepared By:

Approved By:

Approval Date:

FINAL REPORT ACCEPTANCE BY QVSC:

Accepted By:

Acceptance Date:

			Techn	ical Report Documentation Page	
1. Report No.	2. Government	Accessio		3. Recipient's Catalog No.	
118-GTL-08-003	N/A	Ą		N/A	
4. Title and Subtitle				5. Report Date	
Final Report of FMV	Final Report of FMVSS 118 Compliance Tes			July 02, 2008	
2008 FORD EDGE I	MPV			6. Performing Organ. Code	
NHTSA No. C80207				GŤL	
7. Author(s)				8. Performing Organ. Rep#	
Grant Farrand, Proje	ect Engineer			GTL-DOT-08-118-003	
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9. Performing Organ	ization Name an	d Addres	S	10. Work Unit No. (TRAIS)	
General Testing L	aboratories, Inc.			N/A	
1623 Leedstown I	Road			11. Contract or Grant No.	
Colonial Beach, V	'a 22443			DTNH22-06-C-00032	
12. Sponsoring Agei	ncy Name and A	ddress		13. Type of Report and Period	
U.S. Department of				Covered	
National Highway Tr	affic Safety Adm	in. Enford	cement	Final Test Report	
Office of Vehicle Saf	ety Compliance	(NVS-220	0)	June 4, 2008	
1200 New Jersey Av				14. Sponsoring Agency Code	
Washington, DC 20	0590			NVS-221	
15. Supplementary N	Notes				
16. Abstract					
Compliance tests we					
				afety Compliance Test	
Procedure No. TP-1	18-06 for the det	erminatio	n of FMVSS 1	18 compliance.	
Test failures identifie	ed were as follow	S:			
None					
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17. Key Words			18. Distributio		
Compliance Testing			Copies of this report are available from NHTSA Technical Information Services (TIS)		
Safety Engineering FMVSS 118				` ,	
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			Washington, [sey Ave., S.E.	
			•	o. (202) 366-4947	
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PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF TEST

A model year 2008 Ford Edge MPV was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 118 testing to determine if the vehicle was in compliance with the requirements of the standard. 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.

- 1.1 The test vehicle was a 2008 Ford Edge MPV. The vehicle was identified as follows:
 - A. Vehicle Identification Number: 2FMDK36CX8BA43491
 - B. <u>NHTSA No.</u>: C80207
 - C. Manufacturer: FORD MOTOR CO.
 - D. Manufacture Date: 12/07
 - E. Color: Red

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 118 testing on June 4, 2008.

TEST PROCEDURE AND SUMMARY OF RESULTS

2.0 <u>TEST PROCEDURE</u>

All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedure TP-118-06 dated 12 April 2006 and General Testing Laboratories, Inc. (GTL) Test Procedure, TP-118-03A, "Power Operated Window, Partition and Roof Panel Systems".

FMVSS 118 Compliance Testing was performed in the following sequence:

- A. Test Vehicle Identification/Documentation
- B. Power Window, partition and roof panel identification/documentation
- C. Interior, exterior and remote control switch identification/documentation
- D. Pre-test operation of all power windows, partitions and roof panels
- E. Photograph vehicle and interior, exterior and remote control devices
- F. Perform Interior Locking System Off Test
- G. Perform Interior Locking System with Key Removed Test
- H. Perform Exterior Locking System Test
- I. Perform Remote Actuation Device Test
- J. Perform Occupant Compartment Actuation Device Test(Sphere Test/Pull up or Pull Out Test)
- K. Perform Automatic Reversal System Test

Above tests H and I were not required on this vehicle due to no exterior or remote actuation devices. Tests J and K were performed for information purposes only.

2.1 SUMMARY OF RESULTS

The power window operational test resulted in no anomalies being noted. Test data indicate the FMVSS 118 requirements appear to have been satisfied. All test data resulting from the tests were recorded on test data sheets in Section 3.

TEST DATA

3.0 <u>TEST RESULTS</u>

The following data sheets document the results of FMVSS 118 testing on the 2008 Ford Edge.

FMVSS 118 COMPLIANCE DATA SUMMARY SHEET

VEHICLE MAKE/MODEL/BODY STYLE:	2008 FORD EDGE
VEHICLE NHTSA NO: <u>C80207</u>	VIN: _2FMDK36CX8BA43491
VEHICLE TYPE: MPV	DATE OF MANUFACTURE: 12/07
LABORATORY: GENERAL TESTING LAI	BORATORIES TEST DATE: 06/04/08

REQUIREMENT	PASS	FAIL	N/A
S4 Interior Locking system in Off Position(s)	Х		
S4 Interior Locking System with Key Removed	Х		
S4 Exterior Locking System			Х
S4 Remote Actuation Device			Х
S6 Occupant Compartment Actuation Devices (Sphere Test/Pull Up or Pull Out Test)	X*		
S5 Automatic Reversal System	X*		

REMARKS: * Compliance not required

RECORDED BY:_	G. Farrand	DATE:	06/04/08
4 DDD 0 VED DV	B. Maradal		
APPROVED BY:	D. Messick		

WPRP PRE-OPERATIONAL CHECK

VEHICLE MAKE/MOL	DEL/BODY	STYLE:	2008 FOR	(D EDGE				_
VEHICLE NHTSA NO	: <u>C80207</u>		V	IN: <u>2FMDK3</u>	6CX8BA434	491		_
VEHICLE TYPE:	MPV		D.	ATE OF MAN	NUFACTUR	E: <u>12/0</u>	7	
LABORATORY: GEN	IERAL TES	TING LABO	RATORIES	TEST	DATE: 06/0	04/08		_
Identify power-operate	ad WPRP a	nd WPRP a	ctuation devic	e s				
derining power operate	LEFT	LEFT LEFT	RIGHT	RIGHT	TAIL	LEFT	RIGHT	ROOF
	FRONT	REAR	FRONT	REAR	GATE	VENT	VENT	PANEL
Power WPRP Installed	Х	Х	X	X				
Individual Interior Actuation Devices	x	X	X	X				
Master Control Panel Actuation Devices	Х							
WPRP Operated by Exterior Locking System								
WPRP Operated by Remote Control								
WPRP with Auto- Reverse Capability	x							
WPRP with Express- Up Capability	Х							
Exterior Locking S Remote Control Ty	•) Non-line	e of Sight			-
WPRP Actuation I Master Con Individual V Roof Panel Vents	trol Pane			ıll	(Lever) o	r describe	e other):	
Interior Locking Sy	stem Key	/ Positions	(clockwise		CCESSO	RY, IGNIT	TION "ON	<u>J"</u>
All WPRP open/clo		s are satis (X) YES	factory with (START key in "ON) NO	N" position	:		<u> </u>
All WPRP open/clo		s are satis () YES		key in "AC () Not Appl				s
REMARKS:								
RECORDED BY:					DATE: _	06/0	04/08	_
APPROVED BY:	ט. Mes	SICK						

DATA SHEET 1 INTERIOR LOCKING SYSTEM TEST

•	art of test execution: luring test execution:	` ,	*	
LABORATORY: <u>GENER</u> A	AL TESTING LABORATOR	RIES TEST DAT	TE: 06/04/08	
VEHICLE TYPE: M	PV	DATE OF MANUF	ACTURE: <u>12/07</u>	
VEHICLE NHTSA NO: <u>C</u>	·	VIN: <u>2FMDK36CX</u>	(8BA43491	
VEHICLE MAKE/MODEL/I	BODY STYLE: 200	8 FORD EDGE		

ACTUATION	DOORS	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN	
DEVICES	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	FAIL
	MASTER	CONTROL I	PANEL ACT	UATION D	EVICES		
Left Front (LF)		X	х		Х		Р
Right Front (RF)		Х	Х		Х		Р
Left Rear (LR)		Х	Х		Х		Р
Right Rear (RR)		Х	Х		Х		Р
Tail Gate (TG)							
Vents							
Roof Panel (RP)							
		INDIVIDU	AL ACTUAT	ION DEVIC	ES		
Left Front (LF)		Х	Х		Х		Р
Right Front (RF)		X	Х		Х		Р
Left Rear (LR)		Х	Х		Х		Р
Right Rear (RR)		X	Х		Х		Р
Tail Gate (TG)							
Vents							
Roof Panel (RP)							

REMARKS:

RECORDED BY:_	G. Farrand	DATE:	06/04/08	
APPROVED BY:	D. Messick			

DATA SHEET 2 INTERIOR LOCKING SYSTEM WITH <u>KEY REMOVED</u> TEST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 FORD EDGE							
VEHICLE NHTSA NO: _C	80207		VIN: <u>2</u>	FMDK36C>	(8BA43491		
VEHICLE TYPE: N	1PV		DATE (OF MANUF	ACTURE: _	12/07	
LABORATORY: GENERA	AL TESTING	LABORATO	RIES	TEST DAT	ΓΕ: <u>06/04/08</u>	}	
Key lock position at s Key lock off position of	tart of test e	execution: execution:	(X) ON (X) LOCK	() ACCE () OFF	SSORY, T	hen to: ESSORY	
ACTUATION DEVICES	DOORS	CLOSED	LEFT I		RIGHT D	OOR OPEN	PASS/ FAIL
DEVICES	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
	MAST	ER CONTR	OL PANEL	ACTUATIO	N DEVICES		
Left Front (LF)		х	Х		Х		Р
Right Front (RF)		х	Х		х		Р
Left Rear (LR)		х	Х		Х		Р
Right Rear (RR)		х	Х		х		Р
Tail Gate (TG)							
Vents							
Roof Panel (RP)							
		INDIVIDU	AL ACTUA	TION DEVI	CES		
Left Front (LF)		х	Х		Х		Р
Right Front (RF)		х	Х		х		Р
Left Rear (LR)		х	Х		х		Р
Right Rear (RR)		х	Х		Х		Р
Tail Gate (TG)							
Vents							
Roof Panel (RP)							
REMARKS: RECORDED BY: 0	S. Farrand			D	ATF:	06/04/08	
APPROVED BY:				_		30.01100	

DATA SHEET 3 OCCUPANT COMPARTMENT ACTUATION DEVICE TEST SPHERE TEST

VEHICLE MAKE/MODEL/BODY STYLE:	2008 FORD EDGE
VEHICLE NHTSA NO: C80207	VIN: 2FMDK36CX8BA43491
VEHICLE TYPE: MPV	DATE OF MANUFACTURE: 12/07
LABORATORY: GENERAL TESTING LABORATORY	ORATORIES TEST DATE: 06/04/08

ACTUATION DEVICES	APPLICABLE (YES/NO*)	SPHERE ACTIVATED ACTUATION DEVICE CLOSES WPRP (YES/NO)	TEST RESULT PASS/FAIL	COMPLIANCE REQUIRED (Y/N**)
Left Front (LF)	Yes	No	Pass	No
Right Front (RF)	No	No	Pass	No
Left Rear (LR)	Yes	No	Pass	No
Right Rear (RR)	Yes	No	Pass	No
Tail Gate (TG)				
Vent Window(s)				
Partition (P)				
Roof Panel (RP)				
	INDI	VIDUAL ACTUATION DEVICE	S	
Left Front (LF)	Yes	No	Pass	No
Right Front (RF)	Yes	No	Pass	No
Left Rear (LR)	Yes	No	Pass	No
Right Rear (RR)	Yes	No	Pass	No
Tail Gate (TG)				
Vent Window (s)				
Partition(P)				
Roof Panel (RP)				

^{*}This requirement does not apply to actuation devices that are mounted in a vehicle's roof, headliner, or overhead console and that can close a window, partition, or roof panel only by continuous rather than momentary switch actuation or actuation devices that comply with the reversing requirement of FMVSS 118, S5.

RECORDED BY:_	G. Farrand	DATE:	06/04/08
APPROVED BY:	D. Messick		

^{**} Requirement is effective 1 October 2008. Early compliance is voluntary and test results are used for information only.

DATA SHEET 4 OCCUPANT COMPARTMENT ACTUATION DEVICE TEST FOR POWER-OPERATED WINDOWS ONLY PULL UP OR PULL OUT TEST

VEHICLE MAKE/MODEL/BODY STYLE:	2008 FORD EDGE
VEHICLE NHTSA NO: C80207	VIN: 2FMDK36CX8BA43491
VEHICLE TYPE: MPV	DATE OF MANUFACTURE: 12/07
LABORATORY: GENERAL TESTING LABORATORY	ORATORIES TEST DATE: 06/04/08

ACTUATION DEVICES	SWITCH ORIENTATION A – horizontal B – vertical C - angled	CLOSES POWER- OPERATED WINDOW ONLY IF: PULL UP OR PULL OUT	TEST RESULT PASS/FAIL	COMPLIANCE REQUIRED (Y/N**)		
	MASTER	CONTROL PANEL ACTUATION	ON DEVICES			
Left Front (LF)	А	Pull Up	Pass	No		
Right Front (RF)	А	Pull Up	Pass	No		
Left Rear (LR)	А	Pull Up	Pass	No		
Right Rear (RR)	А	Pull Up	Pass	No		
Vent Window(s)						
INDIVIDUAL ACTUATION DEVICES						
Left Front (LF)	А	Pull Up	Pass	No		
Right Front (RF)	А	Pull Up	Pass	No		
Left Rear (LR)	А	Pull Up	Pass	No		
Right Rear (RR)	А	Pull Up	Pass	No		
Vent Window(s)						

^{**} Requirement is effective 1 October 2008. Early compliance is voluntary and test results are used for information only.

RECORDED BY:_	G. Farrand	DATE: _	06/04/08
APPROVED BY:	D. Messick		

DATA SHEET 5 WPRP PHYSICAL CONTACT REVERSAL CAPABILITY

VEHICLE MAKE/MODEL/BODY STYLE:	2008 FORD EDGE
VEHICLE NHTSA NO: C80207	VIN: 2FMDK36CX8BA43491
VEHICLE TYPE: MPV	DATE OF MANUFACTURE: 12/07
LABORATORY: GENERAL TESTING LABORA	TORIES TEST DATE: 06/30/08

Window, Partition, Roof Panel	Test Rod Placement In Window, Partition or Roof Panel	Test Rod Size (mm)	Window, Partition or Roof Panel Opening Before/After Closing (mm)	Maximum Force Measured on Test Rod (Newtons)	Window, Partition or Roof Panel Reversing Distance (mm)	Pass/Fail *
Driver Window	Тор	200	250 / 250	90	50	**
Driver Window	Тор	50	250 / 250	47	200	**
Driver Window	Тор	25	250 / 250	41	225	**
Driver Window	Тор	5	250 / 250	56	245	**

^{*}WPRP must reverse direction before contacting or exerting a squeezing force of 100 Newtons. Upon such reversal, the WPRP must open to one of the following positions.

- A. A position that is at least as open as the position at the time closing was initiated.
- B. A position that is not less than 125 mm more open than the position at the time the window reversed direction, or
- C. A position that permits a semi-rigid cylindrical rod that is 200 mm in diameter to be placed Through the opening at the same location as the test rod.

REMARKS: **Not required to meet reversal requirements.

RECORDED BY:_	G. Farrand	DATE:	06/30/08
APPROVED BY:	D. Messick	_	

SECTION 4 TEST EQUIPMENT LIST

VEHICLE MAKE/MODEL/BODY STYLE:	2008 FORD EDGE
VEHICLE NHTSA NO: C80207	VIN: 2FMDK36CX8BA43491
VEHICLE TYPE: MPV	DATE OF MANUFACTURE: 12/07
LABORATORY: GENERAL TESTING LABORA	TORIES TEST DATE: 06/04/08

ITEM	MFR	MODEL	S/N	CAL. PERIOD	DATE OF LAST CALIB.	REMARKS
SLR DIGITAL CAMERA	NIKON	D50	N/A	N/A	N/A	
PINCH FORCE SENSOR	SENSOR DEVELOPMENTS, INC.	10293	179104	12 MO.	06/08	

REMARKS:

RECORDED BY:	G. FARRAND	DATE:	06/04/08
APPROVED BY:	D. MESSICK		

PHOTOGRAPHS



NHTSA NO. C80207 FMVSS NO. 118

FIGURE 5.1 3/4 FRONTAL VIEW FROM RIGHT SIDE OF VEHICLE



FIGURE 5.2 3⁄4 REAR VIEW FROM LEFT SIDE OF VEHICLE

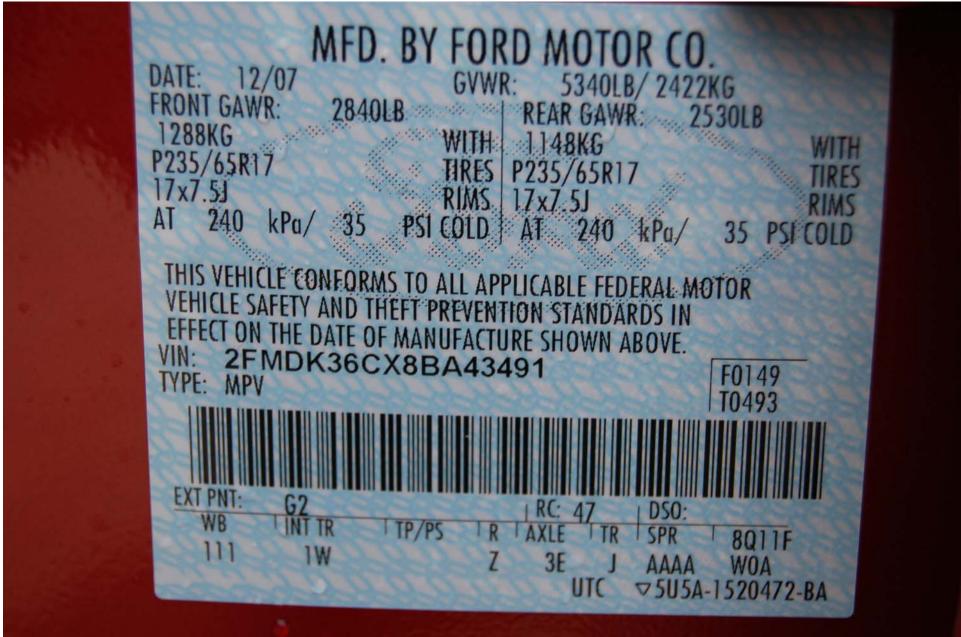


FIGURE 5. 3 CLOSE-UP VIEW OF VEHICLE CERTIFICATION LABEL



FIGURE 5.4 CLOSE-UP VIEW OF TIRE INFORMATION LABEL



FIGURE 5.5 CLOSE-UP VIEW OF VEHICLE IGNITION SWITCH



2008 FORD EDGE NHTSA NO. C80207 FMVSS NO. 118

FIGURE 5.6 CLOSE-UP VIEW OF LEFT FRONT POWER WINDOW SWITCH



FIGURE 5.7 CLOSE-UP VIEW OF RIGHT FRONT POWER WINDOW SWITCH



FIGURE 5.8 CLOSE-UP VIEW OF LEFT REAR POWER WINDOW SWITCH



FIGURE 5.9 CLOSE-UP VIEW OF RIGHT REAR POWER WINDOW SWITCH



2008 FORD EDGE NHTSA NO. C80207 FMVSS NO. 118

FIGURE 5.10 CLOSE-UP VIEW OF POWER WINDOW MASTER SWITCH



FIGURE 5.11
PINCH FORCE SENSOR

SECTION 6 OWNER'S MANUAL INFORMATION

Driver Controls

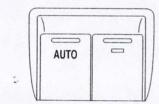
POWER WINDOWS

Do not leave children unattended in the vehicle and do not let children play with the power windows. They may seriously injure themselves.

When closing the power windows, you should verify they are free of obstructions and ensure that children and/or pets are not in the proximity of the window openings.

Press and pull the window switches to open and close windows.

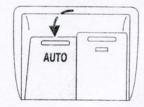
- Push down (to the first detent) and hold the switch to open.
- Pull up (to the first detent) and hold the switch to close.



Rear Window Buffeting: When one or both of the rear windows are open, the vehicle may demonstrate a wind throb or buffeting noise. This noise can be alleviated by lowering a front window approximately two to three inches.

One touch down (AUTO)

Allows the driver's window to open fully without holding the control down. Push the switch completely down to the second detent and release quickly. The window will open fully. Momentarily press the switch to any position to stop the window operation.

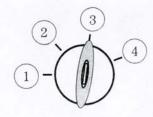


Driving

STARTING

Positions of the ignition

1. LOCK, locks the automatic transaxle gearshift lever and allows key removal. This position also shuts the engine and all electrical accessories off without locking the steering wheel. To lock the steering wheel, remove the key then turn the steering wheel.



- 2. ACC, allows the electrical accessories such as the radio to operate while the engine is not running. This position also unlocks the steering wheel.
- 3. RUN, all electrical circuits operational. Warning lights illuminated. Key position when driving.
- 4. START, cranks the engine. Release the key as soon as the engine starts.

Preparing to start your vehicle

Engine starting is controlled by the powertrain control system. This system meets all Canadian Interference-Causing Equipment standard requirements regulating the impulse electrical field strength of radio noise.

When starting a fuel-injected engine, avoid pressing the accelerator before or during starting. Only use the accelerator when you have difficulty starting the engine. For more information on starting the vehicle, refer to *Starting the engine* in this chapter.

Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.

Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.