REPORT NUMBER 114-GTL-11-002

SAFETY COMPLIANCE TESTING FOR FMVSS NO. 114 THEFT PROTECTION

NISSAN MOTOR CO., LTD. 2011 NISSAN JUKE, MPV NHTSA NO. CB5201

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



March 29, 2011

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 This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

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	ere conducted on	the subi	ect 2011 NISS	AN JUKE MPV in accordance		
•				ance Test Procedure No. TP-		
114-04 for the deter			• •			
Test failures identifie	ed were as follow	'S:				
None						
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Compliance Testing Copies of			s report are available from			
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- 5.2 Vehicle Certification Label
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SECTION

- 5.4 Close-up View of Key5.5 Close-up View of Ignition Switch
- 5.6 Transmission Gear Selection Control
- 5.7 Gear Selection Control Override Device

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF TEST

A model year 2011 NISSAN JUKE MPV was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 114 testing to determine if the vehicle was in compliance with the requirements of the standard. FMVSS 114 specifies requirements to decrease the likelihood that a vehicle is stolen, or accidentally set in motion.

- 1.1 The test vehicle was a 2011 NISSAN JUKE MPV. The vehicle was identified as follows:
 - A. Vehicle Identification Number: JN8AF5MR0BT008548
 - B. NHTSA No.: CB5201
 - C. Manufacturer: NISSAN MOTOR CO., LTD.
 - D. Manufacture Date: 11/10
 - E. Color: Electric Blue

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 114 testing on March 21-22, 2011.

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-114-04 and General Testing Laboratories, Inc. (GTL) Test Procedure, TP-114-04, "Theft Protection and Rollaway Prevention".

2.1 <u>SUMMARY OF RESULTS</u>

Test data indicate the FMVSS 114 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 TEST RESULTS

The following data sheets document the results of FMVSS 114 testing on the 2011 NISSAN JUKE.

FMVSS 114, THEFT PROTECTION DATA SHEET 1 – VEHICLE IDENTIFICATION

 TEST DATE:
 03/21/11

 CONTRACT:
 DTNH22-06-C-00032

 VIN:
 JN8AF5MR0BT008548

LAB.: <u>General Testing Laboratories</u> VEH. NHTSA NO.: <u>CB5201</u> BUILD DATE: <u>11/10</u>

MY/MAKE/MODEL/BODY STYLE: 2011 NISSAN JUKE

TRANSMISSION TYPE: Automatic X ; Manual ; Other (describe:)
DRIVE TRAIN TYPE: Front Wheel X; Rear Wheel , 4-Wheel
FUEL TANK LEVEL: 100 (% OF max.) MILEAGE: 153
VEHICLE STARTING SYSTEM:
Location of the starting system: Located on Right Side of Steering Column
Selectable settings: Lock, Off, Accessory, On, Start
Explain how the system is activated: The system is activated when the key with correct code is inserted into receptacle and turned clockwise.
<u>KEY</u> Description of the key: <u>Mechanical Type Metal Key with embedded code.</u>
STARTING SYSTEM ACTIVATION Describe how the key is inserted into the starting system: The key is inserted into the starting system by physical means.

Describe how the key is used to activate the starting system: <u>The System is activated by turning the key clockwise</u>. The correct key code has to be recognized.

Describe how the key is removed from the starting system: <u>With the transmission in the "park" position, turn key to the lock position and pull key</u> out of receptacle.

FMVSS 114, THEFT PROTECTION DATA SHEET 1 continued

Describe the gear selection control: Shift Lever located between front seats on center console.

Describe how the gear selection control is activated: <u>Press firmly on Brake Pedal and press release button on front of the shift lever then</u> <u>move lever to the desired position.</u>

Describe all of the selectable settings: Park, Reverse, Neutral, Drive

IMMOBILIZER

Is the vehicle equipped with an immobilizer YES X NO_____

Describe the immobilizer device and how it prevents vehicle theft (if equipped): Vehicle must see a properly coded key or the engines will not start.

OPTIONAL RELEASE DEVICES

Describe if the vehicle is equipped with optional release devices:

OPTIONAL RELEASE DEVICES:

Key Removal Gear Selection Control X None Other	
---	--

Yes

VEHICLE FLUIDS

Check all vehicle fluids and adjust to the proper levels for operation: Full

VEHICLE TIRE PLACARD INFORMATION

Vehicle Mfg. Recommended Tire Inflation Pressure (kPa): Front 250 Rear 250

TIRE INFLATION PRESSURES:

Measured (kPa): LF 250	LR	250	RF	250	RR_{-}	250

<u>WEIGHT</u>

Vehicle Curb Weight(kg): <u>1327</u> Weight of Driver (kg): <u>91</u> (target = 91kg)

FMVSS 114, THEFT PROTECTION DATA SHEET 2

REQUIREMENT S5.1.1	PASS	FAIL
Engine cannot be started without using the keyYes X_No	Х	
With key removed, steering wheel locks: Yes: <u>No: X</u>		
Identify steering wheel locking position(s) on wheel using arrow(s)		
Clockwise: (degrees) Counterclockwise: (degrees)		/
Service brake must be depressed in order to start engine Yes No <u>_X</u>		
Key removal prevents forward self-mobility: Yes: <u>X</u> No:		
If yes describe: Engine will not start without key in ignition.		
When key is removed from the starting system, starting of the engine or motor and either steering or self mobility is prevented. Yes: <u>X</u> No:	x	

REMARKS:

FMVSS 114, THEFT PROTECTION DATA SHEET 2 continued

REQUIREMENT S5.1.3	PASS	FAIL
An audible warning is activated whenever the key is in any starting system position with the exception of "on" and "start" and the door closest to the driver's designated seating position is opened. Yes_X_No	х	
Identify ALL key/starting system position setting: LOCK, OFF, ACCESSORY, ON, START		

REQUIREMENT S5.1.4	PASS	FAIL
With the vehicle engine or motor shut down and the transmission gear selection control in any position other than "park"; The steering wheel can rotate without locking? Yes X No	x	
The vehicle is free to roll forward? Yes <u>X</u> No	x	

REMARKS:

RECORDED BY: <u>G. Farrand</u> APPROVED BY: <u>D. Messick</u>

DATE: 03/22/11

FMVSS 114, ROLLAWAY PREVENTION DATA SHEET 3 (for vehicles equipped with transmission with a "park" position)

VEH. NHTSA NO.:	CB5201

TEST DATE: 03/22/11

REQUIREMENT S5.2.1	PASS	FAIL
The starting system prevents key removal in ALL gear selection control positions except "park". Yes <u>X</u> No		
Can the gear selection control be placed between each gear selection position and will it remain there without assistance? Yes X No	х	
If yes, can the key be removed from the starting system? Yes No <u>X</u>		
If the key can be removed from the vehicle starting system when the gear selection control is not locked in "park", a mechanism shall exist which, upon key removal, the vehicle transmission or gear selection control shall become locked in "park" as the direct result of removing the key. If such a mechanism exists, describe the mechanism and its function:		

REQUIREMENT S5.2.2	PASS	FAIL
The gear selection control is locked in the "park" position when the key is removed from the starting system. Yes <u>X</u> No	x	

REMARKS:

REQUIREMENT S5.2.3	PASS	FAIL
KEY REMOVAL OVERRIDE OPTION:		
The vehicle is equipped with an override device that allows the user to Remove the key from the "starting system without the transmission or gear selection control in the "park" position. Yes No_X	х	
If yes, describe the override device design and mode of activation:		
Fill in the section below that describes the condition for which the user is allowed to remove the key from the starting system without the transmission or gear selection control in the "park" position:		
ELECTRICAL FAILURE		
In the event of an electrical failure, including battery discharge, key removal from the starting system without the transmission or gear selection control locked in "park" is permitted". Yes No X	х	
OVERRIDE DEVICE WITH NO COVER:		
The following condition is prevented: Steering Self-Mobility		
The device requires both the use of a tool to activate and simultaneous activation of the override device and removal of the key from the starting system Yes No	N/A	
OVERRIDE DEVICE WITH AN OPAQUE COVER		
The following condition is prevented: Steering Self-Mobility		
The device is covered by an opaque surface which prevents sight of and use of the device. Yes No	N/A	
The opaque surface can only be removed by using a screwdriver or other tool: Yes No		

REQUIREMENT S5.2.4	PASS	FAIL
GEAR SELECTION CONTROL OVERRIDE DEVICE		
The vehicle is equipped with an override device that allows the user to move the gear selection control from "park" after the key has been removed from the starting system. Yes X No	х	
If yes, select the type of override device used: Key Opaque CoverX_ No Cover		
Describe the override device design and mode of activation (if equipped): Small cover on shifter which when removed allows a key to be inserted to release shifter.		
FILL IN THE SECTION BELOW THAT APPLIES:		
OVERRIDE OPERATED WITH KEY:		
The key is required to operate the override device that allows the user to move the gear selection control from "park" after the key has been removed from the starting system. Yes No	N/A	
OVERRIDE DEVICE WITH NO COVER		
As a direct result of removing the key from the starting system, the following is prevented: Steering Self-Mobility		
The override device requires the use of a tool to operate.	N/A	
Yes No Simultaneous activation of the override device and movement of the gear selection control from "park" is required Yes No		
OVERRIDE DEVICE WITH AN OPAQUE COVER		
As a direct result of removing the key from the starting system, the following is prevented: Steering Self-Mobility X		
The opaque surface cover prevents sight of and use of the device: Yes <u>X</u> No	Х	
The opaque surface cover can only be removed by using a screwdriver or other tool: Yes <u>X</u> No		

REQUIREMENTS S5.2.5	PASS	FAIL
VEHICLE FACING UPHILL ON 10% GRADE		
With the gear selection control in "park" measure movement of the vehicle down the slope upon releasing the service brake.		
Test grade: <u>15</u> % (9% to 15%) Measured movement: <u>50</u> mm (150mm maximum)	Х	
NOTE: Repeat procedure if vehicle fails on grade in excess of 10%.		
Test grade: % (9% to 10%) Measured movement: mm (150 mm maximum)		
VEHICLE FACING DOWNHILL ON 10% GRADE		
With the gear selection control in "park" measure movement of the vehicle down the slope upon releasing the service brake.		
Test grade: <u>15</u> % (9% to 15%) Measured movement: <u>35</u> mm (150mm maximum)	х	
NOTE: Repeat procedure if vehicle fails on grade in excess of 10%.		
Test grade: % (9% to 10%) Measured movement: mm (150 mm maximum)		

REMARKS:

REQUIREMENTS S5.3	PASS	FAIL
With the key in the "OFF" position, the transmission will shift out of "PARK" without the service brake being applied. Yes No_X	<u> </u>	
With the key in the "ACC" position, the transmission will shift out of "PARK" without the service brake being applied. Yes No_X	<u>_x</u>	
With the key in the "ON" position (engine off), the transmission will shift out of "PARK" without the service brake being applied. Yes No <u>X</u>	<u>x</u>	
With the key in the "START" position, the transmission will shift out of "PARK" without the service brake being applied. Yes No <u>X</u>	<u>_x</u>	
With the key in the "OTHER" position (please specify), the transmission will shift out of "PARK" without the service brake being applied. Yes No	<u>_N/A</u>	
Does the key stay between starting system positions without being held by operator? Yes No_X If so, please describe.	<u>_x</u>	
With the vehicle battery disconnected, the gear selection control is locked in the "PARK" position. Yes X No	<u>x</u>	
Brake force readings (force required to allow the transmission to shift out of "park"):		
The vehicle is equipped with adjustable pedals: Yes No_X		
Fore Position: Aft Position (if applicable)		
Reading 1 24.9 N Reading 1 N/A Reading 2 25.4 N Reading 2 N/A Reading 3 24.5 N Reading 3 N/A Reading 4 25.4 N Reading 4 N/A Reading 5 25.4 N Reading 5 N/A		
Avg. <u>25.1 N</u> *For vehicles equipped with adjustable pedals, record readings for both the Fore and Aft positions. For non-adjustable pedal vehicles, use the Fore position column to record values.	<u>x</u>	

REMARKS:

RECORDED BY: <u>G. Farrand</u> APPROVED BY: <u>D. Messick</u>

SECTION 4 TEST EQUIPMENT LIST

ITEM	MFR	MODEL	S/N	CAL. PERIOD	DATE OF NEXT CALIB.	REMARKS
SLR DIGITAL CAMERA	NIKON	D50	N/A	N/A	N/A	
TIRE PRESSURE GAUGE	WESKLER	45-0/100	107	12 MO.	04/11	
INCLINOMETER	MITUTOYO	PRO 360	950-315	N/A	BEFORE USE	
STEEL TAPE	STANLEY	FAT MAX	33-890	12 MO.	01/12	
WHEEL SCALES	INTERCOMP	SERIES 94	199744	12 MO.	03/12	
WHEEL SCALES	INTERCOMP	SERIES 94	199744	12 MO.	03/12	
WHEEL SCALES	INTERCOMP	SERIES 94	199744	12 MO.	03/12	
WHEEL SCALES	INTERCOMP	SERIES 94	199744	12 MO.	03/12	
SPRING SCALE	CHATILLON	DPP-10	4729	12 MO.	BEFORE USE	

PHOTOGRAPHS



FIGURE 5.1 ¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



FIGURE 5.2 VEHICLE CERTIFICATION LABEL

		RENSEIGNEMENT SEATING CAPACITY NOMBRE DE PLACES d weight of occupants des occupants et du ch	TOTAL S TOTAL and cargo she	5 ould n	FRONT AVANT ever exceed	2 1 <mark>390</mark>	REAR ARRIÈRE kg or 859	3 Ibs.	
	TIRE PNEU FRONT	SIZE DIMENSIONS P215/55R17 93V	COLD TIRE PRESS PNEUS 250kPa	À FF	DES ROID	N	EE OWNER'S IANUAL FOR ADDITIONAL		
	AVANT REAR ARRIÈRE	P215/55R17 93V	250kP			VOI D	NFORMATION R LE MANU E L'USAGER	EL	
	SPARE DE SECOURS	T135/80D16 101M	420kP	a , 60	PSI		OUR PLUS D		
						TG	1K	A1B	
2011 NISSA	N JUKE			FIGUR	E 5.3	1000			

FIGURE 5.3 VEHICLE TIRE INFORMATION LABEL



FIGURE 5.4 CLOSE-UP VIEW OF IGNITION KEY



FIGURE 5.5 IGNITION SWITCH



FIGURE 5.6 TRANSMISSION GEAR SELECTION CONTROL



FIGURE 5.7 GEAR SELECTION CONTROL OVERRIDE DEVICE