SAFETY COMPLIANCE TESTING FOR
FMVSS No. 114
THEFT PROTECTION AND ROLLOWAY PREVENTION

SUZUKI MOTOR CORPORATION
2008 SUZUKI SX4 4-DOOR SEDAN

NHTSA NUMBER: C80512
CALSPAN TEST NUMBER: 8858-F114-08

CALSPAN CORPORATION
PO. BOX 400
BUFFALO, NEW YORK 14225

June 16, 2008
FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
ENFORCEMENT
Office of Vehicle Safety Compliance
Room W43-481, NVS-220
1200 New Jersey Avenue, SE
Washington, DC 20590
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Prepared By:  
Vincent M. Paolini, Project Engineer

Approved By:  
David J. Travale, Program Manager
Transportation Sciences Center

Approval Date: October 9, 2008

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By:

Acceptance Date:
**Final Report of FMVSS 114 Compliance Testing of a 2008 Suzuki SX4 4-Door Sedan**

**NHTSA No.: C80512**

**June 16, 2008**

**CAL**

**Vincent M. Paolini, Project Engineer**

**David J. Travale, Program Manager**

**Calspan Corporation Transportation Sciences Center**

Transportation Sciences Center

P.O. Box 400

Buffalo, New York 14225

**DTNH22-06-C-00031**

**NVS-221**

**Compliance tests were conducted on the subject 2008 Suzuki SX4 4-Door Sedan in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-114-03 for the determination of FMVSS 114 compliance. Test failures were identified as follows:**

None

**Compliance Testing**

**Safety Engineering**

**FMVSS 114**

**Copies of this report are available from:**

National Highway Transportation Safety Administration

Technical Information Services Division, NPO-411

1200 New Jersey Avenue SE (Room E12-100)

Washington DC 20590

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**8858-F114-08**
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Purpose of Compliance Test</td>
<td>1-1</td>
</tr>
<tr>
<td>2  Test Procedure and Discussion of Results</td>
<td>2-1</td>
</tr>
<tr>
<td>3  Test Data</td>
<td>3-1</td>
</tr>
<tr>
<td>Data Sheet 1 – All Vehicles</td>
<td>3-2</td>
</tr>
<tr>
<td>Data Sheet 2 – Automatic Transmission Vehicles</td>
<td>3-4</td>
</tr>
<tr>
<td>Data Sheet 3 – Special Devices</td>
<td>3-6</td>
</tr>
<tr>
<td>4  Test Equipment List and Calibration Due Dates</td>
<td>4-1</td>
</tr>
<tr>
<td>5  Photographs</td>
<td>5-1</td>
</tr>
<tr>
<td>Figure 1: Vehicle Left Front Three-Quarter View</td>
<td>5-2</td>
</tr>
<tr>
<td>Figure 2: Vehicle Certification Placard</td>
<td>5-3</td>
</tr>
<tr>
<td>Figure 3: Vehicle Tire Placard</td>
<td>5-4</td>
</tr>
<tr>
<td>Figure 4: Close-Up Of Ignition Switch</td>
<td>5-5</td>
</tr>
<tr>
<td>Figure 5: Close-Up Of Transmission Shift Lever Mechanism</td>
<td>5-6</td>
</tr>
<tr>
<td>Figure 6: Close-Up Of Special Device Which Allows For Key Removal</td>
<td>5-7</td>
</tr>
<tr>
<td>Figure 7: Close-Up Of Special Device Which Allows Moving Of Shift Lever</td>
<td>5-8</td>
</tr>
<tr>
<td>6  Vehicle Owner’s Manual</td>
<td>6-1</td>
</tr>
<tr>
<td>7  Notice of Test Failure</td>
<td>7-1</td>
</tr>
</tbody>
</table>
SECTION 1

PURPOSE OF COMPLIANCE TEST

This test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 114 Compliance Test Program conducted for the National Highway Traffic Safety Administration (NHTSA) by Calspan under Contract No. DTNH22-06-C-00031. The purpose of this test was to determine if the subject vehicle, a 2008 Suzuki SX4 4-Door Sedan, was in compliance with FMVSS No. 114, Theft Protection and Rollaway Prevention. The purpose of this standard is to reduce the incidence of crashes resulting from unauthorized operation of vehicles by specifying requirements for theft protection. Additionally, FMVSS No. 114 specifies requirements to reduce the incidents of crashes from rollaway of parked vehicles with automatic transmissions as a result of children moving the shift mechanism out of the “park” position. This standard applies to passenger cars, trucks and multipurpose passenger vehicles having a Gross Vehicle Weight Rating (GVWR) of 4536 kilograms or less. This compliance test was conducted using the requirements found in the OVSC Laboratory Test Procedure No. TP-114-03, dated May 2, 2008.
SECTION 2

TEST PROCEDURE AND DISCUSSION OF RESULTS

A 2008 Suzuki SX4 4-Door Sedan with a manual transmission was subjected to FMVSS No. 114 testing in accordance with the NHTSA Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure TP-114-03, dated May 2, 2008. This test was performed by Calspan on June 16, 2008.

The test equipment used for this test included a standard metric tape ruler, a digital inclinometer with digital clinometer function, weight scales and a digital manometer. Testing was performed in the following sequence:

STARTING SYSTEM REQUIREMENT (S5.1.1):

Normal activation of the vehicle engine was prevented with the key removed from the starting system. Both steering and forward self mobility were also prevented.

AUDIBLE ALARM REQUIREMENT (S5.1.3):

With the key left in the vehicle starting system and the driver’s door opened, an audible alarm was activated. This “warning to the driver” was verified in all ignition switch positions except “on” and “start”.

“PARK” POSITION REQUIREMENT (S5.1.4)

This requirement could not completed since the vehicle had a manual transmission

ROLLAWAY PREVENTION REQUIREMENT (S5.2.1)

This requirement could not completed since the vehicle had a manual transmission

GEAR SELECTION REQUIREMENT (S5.2.2):

This requirement could not completed since the vehicle had a manual transmission

KEY REMOVAL OVERRIDE REQUIREMENT (S5.2.3):

This vehicle was not equipped with a key removal override option.

GEAR SELECTION CONTROL OVERRIDE REQUIREMENT (S5.2.4):

This vehicle was not equipped with a gear override option.
TEN PERCENT GRADE “PARK” REQUIREMENT (S5.2.5)

This requirement could not be completed since the vehicle had a manual transmission.

BRAKE TRANSMISSION SHIFT INTERLOCK REQUIREMENT (S5.3)

This requirement could not be completed since the vehicle had a manual transmission.
SECTION 3

TEST DATA
FMVSS 114, THEFT PROTECTION

DATA SHEET 1 – ALL VEHICLES

TEST DATE: June 16, 2008  LAB: Calspan

CONTRACT: DTNH22-06-C-00031  VEHICLE NHTSA NUMBER: C80512

VIN: JS2YC412785103602  BUILD DATE: 02/08

MY/MAKE/MODEL/BODY STYLE: 2008 Suzuki SX4 4-Door Sedan

TRANSMISSION TYPE:
Automatic - ; Manual X ; Other (describe: Not Applicable)

DRIVE TRAIN TYPE:
Front Wheel X ; Rear Wheel - ; Four Wheel -

OPTIONAL RELEASE DEVICES:
Key - ; Transmission - ; None X

VEHICLE STARTING SYSTEM:
Location of the starting system: The ignition switch is located is on the right side of steering column

Selectable settings: “LOCK”, “ACC”, “ON”, “START”

Activation of starting system: Place the key in the ignition switch, shift the transmission to “N” (Neutral) and depress the clutch pedal all the way to the floor.

KEY:
Description of key: The key device is the conventional style metal key

STARTING SYSTEM ACTIVATION:
Insertion of key into starting system: Insert the key into the ignition switch like a conventional lock and key.

Activation of starting system with key: Place the ignition key in the ignition switch, shift the transmission to “N” (Neutral) and depress the clutch pedal all the way to the floor. In conjunction with the above rotate the key clockwise to the “START” position to activate the vehicle.

Removal of key from starting system: Place the transmission to “N” (Neutral), engage emergency parking brake, rotate the key counter-clockwise to “LOCK” position and remove the key

GEAR SELECTION CONTROL:
Gear selection control: The gear selector is located in the center console between the front seats.

Activation of gear selection control: Depress the clutch all the way to floor to shift the transmission to any gear.

Selectable settings: “1”, “2”, “3”, “4”, “5”, and “N”
FMVSS 114, THEFT PROTECTION
DATA SHEET 1 (Continued)

IMMOBILIZER:
Is the vehicle equipped with an immobilizer: Yes _______ No _______ X _______

Description of Immobilizer and how it prevents vehicle theft
Not applicable

OPTIONAL RELEASE DEVICES:
Key Removal _____ Gear selection Control _____ None ______ X ______ Other _____

If other, Explain:

TIRE PRESSURE:
Vehicle Manufacturer Recommended (kPa): Front 230 ; Rear 230
Measured (kPa): LF 230 ; LR 230 ; RF 230 ; RR 230

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

<table>
<thead>
<tr>
<th>LEFT SIDE (kg)</th>
<th>RIGHT SIDE (kg)</th>
<th>TOTAL (kg)</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT= 376.0</td>
<td>368.0</td>
<td>744.0</td>
<td>60.4%</td>
</tr>
<tr>
<td>REAR= 239.0</td>
<td>248.0</td>
<td>487.0</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

TOTAL DELIVERED WEIGHT (UDW): 1231.0 kg
**FMVSS 114, THEFT PROTECTION**

**DATA SHEET 2 – THEFT PROTECTION**

**TEST DATE:** June 16, 2008  
**LAB:** Calspan

**CONTRACT:** DTNH22-06-C-00031  
**VEHICLE NHTSA NUMBER:** C80512

**VIN:** JS2YC412785103602  
**BUILD DATE:** 02/08

**MY/MAKE/MODEL/BODY STYLE:** 2008 Suzuki SX4 4-Door Sedan

<table>
<thead>
<tr>
<th>REQUIREMENT S5.1.1</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine cannot be started without using the key.</td>
<td>Yes <strong>X</strong> No --</td>
<td><strong>X</strong> --</td>
</tr>
</tbody>
</table>

With key removed, steering locks:

| Yes **X** No -- |

Identify the steering wheel locking position(s) on the circle using arrows

Clockwise: 118 (degrees)

Counterclockwise: 63 (degrees)

Key removal prevents forward self-mobility:

| Yes **X** No -- |

If yes, describe:

Upon key removal from the vehicle starting system, there are no other means by which this vehicle is self-mobile.

When the key is removed from the starting system, starting of the engine or motor and either steering or self mobility is prevented

| **X** -- |
## REQUIREMENT S5.1.3

<table>
<thead>
<tr>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>--</td>
</tr>
</tbody>
</table>

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

### Identify ALL key/starting system position settings:

- OFF
- ACCESSORY
- START
- ON

### REQUIREMENT S5.1.4

<table>
<thead>
<tr>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

With the vehicle engine or motor shut down and the transmission gear selection control in any position other than “park” or “rev”;

The steering wheel can rotate without locking?

Yes  --  No  --

The vehicle is free to roll forward?

Yes  --  No  --

Remarks: Section 5.1.4 is for only automatic transmission vehicles. This vehicle is a manual transmission

RECORDED BY: Vincent M. Paolini  
DATE: June 16, 2008

APPROVED BY: David Travale
### REQUIREMENT S5.2.1

<table>
<thead>
<tr>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The starting system prevents key removal in **ALL** gear selection control positions except “park”.

- Yes -- No --

Can the gear selection control be placed between each gear selection position and will it remain there without assistance?

- Yes -- No --

If **yes**, can the key be removed from the starting system?

- Yes -- No --

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’s 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:

N/A  N/A

### REQUIREMENT S5.2.2

<table>
<thead>
<tr>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The gear selection control is locked in the “park” position when the key is removed from the starting system.

- Yes -- No --
### ELECTRICAL FAILURE (Battery Discharge)

In the event of an electrical failure, key removal from the starting system when the transmission or gear selection control is not locked in “park” is permitted.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

The vehicle is equipped with an override device that permits key removal from the starting system when the transmission or gear selection control is not locked in “park”.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes, select the type of override device that is equipped:

Override operated with a:

- Opaque Cover
- No cover

### FILL IN THE SECTION BELOW THAT APPLIES:

#### OVERRIDE WITH AN OPAQUE COVER:

The opaque surface cover prevents sight of and use of the override device

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

The opaque surface cover can be removed only by using a screwdriver or other tool.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

As a direct result of removing the key from the starting system, the following is prevented:

- Steering

#### OVERRIDE WITH NO COVER:

The override device requires the use of a tool to activate.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Simultaneous activation of the override device and removal of the key from the starting system is required.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

As a direct result of removing the key from the starting system, the following is prevented:

- Steering
**FMVSS 114, ROLLAWAY PREVENTION**

**DATA SHEET 3 – ROLLAWAY PREVENTION**
(For vehicles equipped with automatic transmission with a ‘PARK’ position)

<table>
<thead>
<tr>
<th>REQUIREMENT S5.2.4</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
</table>

**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 [ ] No [ ]

If yes, select the type of override device that is equipped:
 Override operated with a:
 Key [ ] Opaque Cover [ ] No cover [ ]

Describe the device design and mode of activation (if equipped):

**FILL IN THE SECTION BELOW THAT APPLIES:**

**OVERWRITE OPERATED WITH A KEY:**

A 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 [ ]

<table>
<thead>
<tr>
<th>OVERRIDE WITH AN OPAQUE COVER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The opaque surface cover prevents sight of and use of the override device</td>
</tr>
<tr>
<td>Yes [ ] No [ ]</td>
</tr>
</tbody>
</table>

The opaque surface cover can be removed only by using a screwdriver or other tool.

Yes [ ] No [ ]

As a direct result of removing the key from the starting system, the following is prevented:

Steering [ ] self mobility [ ]

<table>
<thead>
<tr>
<th>OVERRIDE WITH NO COVER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The override device requires the use of a tool to activate.</td>
</tr>
<tr>
<td>Yes [ ] No [ ]</td>
</tr>
</tbody>
</table>

Simultaneous activation of the override device and removal of the key from the starting system is required.

Yes [ ] No [ ]

As a direct result of removing the key from the starting system, the following is prevented:

Steering [ ] self mobility [ ]
**FMVSS 114, ROLLAWAY PREVENTION**

**DATA SHEET 3 – ROLLAWAY PREVENTION**
(For vehicles equipped with automatic transmission with a ‘PARK’ position)

<table>
<thead>
<tr>
<th>REQUIREMENTS S5.2.5</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
</table>

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: **11.0**% (9% to 15%)
Measured movement: **27** mm (150mm maximum)

**NOTE:** Repeat procedure if vehicle fails on grade in excess of 10%.

Test grade: **--**% (9% to 10%)
Measured movement: **--** mm (150 mm maximum)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

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: **10.5**% (9% to 15%)
Measured movement: **55** mm (150mm maximum)

**NOTE:** Repeat procedure if vehicle fails on grade in excess of 10%.

Test grade: **--**% (9% to 10%)
Measured movement: **--** mm (150 mm maximum)

Remarks: Vehicle is a standard transmission

RECORDED BY: Vincent M. Paolini      DATE: June 16, 2008
APPROVED BY: David Travale
<table>
<thead>
<tr>
<th>REQUIREMENTS S5.3</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the key in the “off” position, the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>With the key in the “acc” position, the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>With the key in the “on” position (engine off), the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>With the key in the “on” position (engine running), the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>With the key in the “start” position, the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>With the key in the “other” position (please specify), the transmission will shift out of “park” without the service brake being applied</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>Does the key stay between starting system positions without being held by operator? If so, please describe ___________________________</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Brake force readings (force required to allow the transmission to shift out of “park”):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading 1</td>
<td>_________ lbf</td>
<td></td>
</tr>
<tr>
<td>Reading 2</td>
<td>_________ lbf</td>
<td></td>
</tr>
<tr>
<td>Reading 3</td>
<td>_________ lbf</td>
<td></td>
</tr>
<tr>
<td>Reading 4</td>
<td>_________ lbf</td>
<td></td>
</tr>
<tr>
<td>Reading 5</td>
<td>_________ lbf</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.0 lbf</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: Vehicle is a standard transmission

RECORDED BY: Vincent M. Paolini DATE: June 16, 2008
APPROVED BY: David Travale
## SECTION 4

### TEST EQUIPMENT LIST AND CALIBRATION DATES

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Manufacturer</th>
<th>Name</th>
<th>Range</th>
<th>Accuracy</th>
<th>Calibration Date</th>
<th>Calibration Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinometer</td>
<td>MD</td>
<td>Smart Level</td>
<td>0-100%</td>
<td>0.1%</td>
<td>04/2008</td>
<td>04/2009</td>
</tr>
<tr>
<td>Steel Tape</td>
<td>Stanley</td>
<td>Stanley 3137</td>
<td>3 meters</td>
<td>0.5mm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Weight Scales</td>
<td>Long Acre</td>
<td>Computer Scales 2000</td>
<td>0-12,000lbs.</td>
<td>0.2%</td>
<td>03/2008</td>
<td>03/2009</td>
</tr>
<tr>
<td>Manometer</td>
<td>Meriam Instrument Co.</td>
<td>350 Smart Manometer</td>
<td>0-200 psi.</td>
<td>0.05%</td>
<td>02/2008</td>
<td>02/2009</td>
</tr>
<tr>
<td>Plumb Bob</td>
<td>Stanley</td>
<td>Plumb bob</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
## SECTION 5

### PHOTOGRAPHS

#### TABLE OF PHOTOGRAPHS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Photograph Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>VEHICLE LEFT FRONT THREE-QUARTER VIEW</td>
<td>5-2</td>
</tr>
<tr>
<td>Figure 2</td>
<td>VEHICLE CERTIFICATION PLACARD</td>
<td>5-3</td>
</tr>
<tr>
<td>Figure 3</td>
<td>VEHICLE TIRE PLACARD</td>
<td>5-4</td>
</tr>
<tr>
<td>Figure 4</td>
<td>CLOSE-UP OF IGNITION SWITCH</td>
<td>5-5</td>
</tr>
<tr>
<td>Figure 5</td>
<td>CLOSE-UP OF TRANSMISSION SHIFT LEVER MECHANISM</td>
<td>5-6</td>
</tr>
<tr>
<td>Figure 6</td>
<td>CLOSE-UP OF SPECIAL DEVICE WHICH ALLOWS FOR KEY REMOVAL</td>
<td>5-7</td>
</tr>
<tr>
<td>Figure 7</td>
<td>CLOSE-UP OF SPECIAL DEVICE WHICH ALLOWS MOVING OF SHIFT LEVER</td>
<td>5-8</td>
</tr>
</tbody>
</table>
Figure 1: Vehicle Left Front Three-Quarter View

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
Figure 2: Vehicle Certification Placard

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
Figure 3: Vehicle Tire Placard

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512

<table>
<thead>
<tr>
<th>TIRE</th>
<th>ORIGINAL TIRE SIZE</th>
<th>COLD TIRE PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT</td>
<td>P195/65R15</td>
<td>230 kPa, 33 PSI</td>
</tr>
<tr>
<td>REAR</td>
<td>P195/65R15</td>
<td>230 kPa, 33 PSI</td>
</tr>
<tr>
<td>SPARE</td>
<td>T125/70D16</td>
<td>420 kPa, 60 PSI</td>
</tr>
</tbody>
</table>
Figure 4: Close-Up of Ignition Switch

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
Figure 5: Close-Up of Transmission Shift Lever Mechanism

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
Figure 6: Close-Up of Special Device Which Allows For Key Removal

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512

NOT APPLICABLE
NOT APPLICABLE

Figure 7: Close-Up of Special Device Which Allows Moving of Shift Lever

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
SECTION 6

VEHICLE OWNER’S MANUAL

2008 Suzuki SX4 4-Door Sedan
NHTSA No.: C80512
BEFORE DRIVING

Keys

EXAMPLE

Your vehicle comes with a pair of identical keys. Keep the spare key in a safe place. One key can open all of the locks on the vehicle.

The key identification number is stamped on a metal tag provided with the keys. Keep the tag in a safe place. If you lose your keys, you will need this number to have new keys made. Write the number below for your future reference.

KEY NUMBER:

Ignition Key Reminder
A buzzer sounds to remind you to remove the ignition key if it is in the ignition switch when the driver's door is opened.

Door Locks

WARNING
Always lock all doors when driving. Locking the doors helps to prevent occupants from being thrown from the vehicle in the event of an accident. It also helps prevent unintended opening of the doors.

Side Door Locks

To unlock a front door from outside the vehicle, insert the key and turn the top of the key toward the front of the vehicle.

To lock a door from inside the vehicle, turn the lock knob forward. Turn the lock knob rearward to unlock the door.

To lock a rear door from outside the vehicle, turn the lock knob forward and close the door. You do not need to pull and hold the door handle as you close the door.

To lock a front door from outside the vehicle:
- Insert the key and turn the top of the key toward the rear of the vehicle, or
- Turn the lock knob forward, then pull and hold the door handle as you close the door.
Keyless Start System Remote Controller/Keyless Entry System Transmitter

Your vehicle is equipped with either a keyless start system remote controller (Type A) or a keyless entry system transmitter (Type B). The remote controller has a keyless entry system and a keyless start system. The transmitter has only a keyless entry system. For details, refer to the following explanations.

Keyless Start System Remote Controller (Type A)

The remote controller enables the following operations:

1. You can lock or unlock the doors by operating the LOCK/UNLOCK buttons on the remote controller. Refer to the explanation in this section.
2. You can lock or unlock the doors by pushing the request switch on the door handle. For details, refer to the explanation in this section.
3. You can start the engine without using an ignition key. For details, refer to “Ignition Switch” in the “STEERING COLUMN CONTROLS” section and “Starting the Engine” in the “OPERATING YOUR VEHICLE” section.

“LOCK” button (1) / “UNLOCK” button (2) function

You can lock or unlock all doors (including the tailgate of SX4) simultaneously by operating the remote controller near the vehicle.

- To lock the doors, push the “LOCK” button (1).
- To unlock the driver’s door, push the “UNLOCK” button (2) once.
- To unlock other doors, wait a second or two, then push the “UNLOCK” button (2) a second time. If you “double-click” too fast, the doors will not unlock.

When the doors are locked, the turn signal lights will flash once.
When the doors are unlocked:
- The turn signal lights will flash twice.
- If the interior light switch is in the middle position, the interior light will turn on for about 15 seconds and then fade out. If you push in the ignition switch or insert the key during this time, the light will start to fade out immediately.

Be sure the doors are locked after you operate the "LOCK" button. If no door is opened within about 30 seconds after the "UNLOCK" button is operated, the doors will automatically lock again.

NOTE:
- The maximum operating distance of the remote controller is about 5 m (16 ft.), but this can vary depending on the surroundings, especially near other transmitting devices such as radio towers or CB (Citizen’s Band) radios.
- The door locks can not be operated with the remote controller if the ignition switch is in a position other than "LOCK", or the ignition key is inserted in the ignition switch, or if any door is open.
- If any door is open, you cannot lock the door by operating the remote controller, however unlock the door.
- You cannot lock the door unless all of the door are closed completely.
- If you lose one of the remote controllers, ask your SUZUKI dealer as soon as possible for a replacement. Be sure to have your dealer program the new remote controller code in your vehicle’s memory so that the old code is erased, or perform the programming procedure yourself according to the instructions in this section.

"PANIC" button (3) function
This function is to get the attention of others.
Press the "PANIC" button (3) for more than 1 second. The headlights and taillights will blink for about 30 seconds. Also, the horn will sound intermittently for about 30 seconds at the same time.
To cancel the "PANIC" mode, press any button (PANIC, LOCK or UNLOCK) on the remote controller. You can also insert the key in the ignition switch and turn to the "ON" position to cancel the "PANIC" mode.

NOTE:
The "PANIC" button function will not activate when the key is in the ignition switch.
BEFORE DRIVING

When the remote controller is within the operating range described in this section, you can lock or unlock the doors by pushing the request switch (1) on the door handle of the driver's door, front passenger's door or tailgate of SX4.

To lock all doors when all doors are unlocked:
- Push the request switch on one of the door handles once.

The turn signal lights will flash once when the doors are locked.

To unlock a door or all doors:
- Push the request switch on the door handle once to unlock only one door.
- Push the request switch on the door handle twice to unlock all doors.

When the doors are unlocked:
- The turn signal lights will flash twice.
- If the interior light switch is in the middle position, the interior light will turn on for about 15 seconds and then fade out. If you push in the ignition switch or insert the key during this time, the light will start to fade out immediately.

Be sure the doors are locked after you operate the request switch to lock the doors.

NOTE:
- The door locks cannot be operated by the request switch under the following conditions:
  - If any door is open or is not completely closed.
  - If the ignition switch is in a position other than "LOCK".
  - If the ignition key is inserted in the ignition switch.
  - If no doors are opened within about 30 seconds after unlocking the doors by pushing the request switch, the doors will be locked again automatically.

EXAMPLE

(1) 80 cm (2 1/2 feet)

When the remote controller is within approximately 80 cm (2 1/2 feet) from a front door handle or the tailgate switch, you can lock or unlock the doors by pushing the request switch.

NOTE:
- If the remote controller is outside the request switch operating range described above, you will not be able to operate the request switch.
- If the battery of the remote controller runs down or there are strong radio waves or noise, the request switch operating range may be reduced or the remote controller may be inoperative.
- If the remote controller is too close to the door glass, the request switches may not operate.
- If a spare remote controller is in the vehicle, the request switches may not operate normally.
- The remote controller will only operate a request switch if it is within the switch's operating range. For example, if the remote controller is within the operating range of the driver's door request switch but not the front passenger's door request switch or the tailgate request switch, the driver's door switch can be operated but the front passenger's door switch or tailgate switch can not be operated.
BEFORE DRIVING

CAUTION
The remote controller is a sensitive electronic instrument. To avoid damaging the remote controller:
- Do not expose it to impacts, moisture or high temperature such as by leaving it on the dashboard under direct sunlight.
- Keep the remote controller away from magnetic objects such as a television.

NOTE:
The keyless start system may not function correctly in certain environments or under certain operating conditions such as the following:
- When there are strong signals coming from a television, power station or a cellular phone.
- When the remote controller is in contact with or covered by a metal object.
- When a radio wave type remote keyless entry is used nearby.
- When the remote controller is placed near an electronic device such as a personal computer.

Some additional precautions you should take and information you should be aware of are:
- Make sure the ignition key is stowed in the remote controller. If the remote controller becomes unreliable, you will not be able to lock or unlock the doors or start the engine.
- Be sure that the driver always carries the remote controller.
- If you lose one of the remote controllers, ask your SUZUKI dealer as soon as possible for a replacement. Be sure to have your dealer program the new remote controller code in your vehicle's memory so that the old code is erased, or perform the programming procedure yourself according to the instructions in this section.
- You can use up to four remote controllers and ignition keys for your vehicle. Ask your SUZUKI dealer for details.
- The battery life of the remote controller is about two years, but it can vary depending on usage conditions.

To stow the ignition key into the remote controller, push the key in the remote controller until you hear a click.

To remove the key from the remote controller, push the button (A) in the direction of the arrow and pull the key out from the remote controller.
WARNING
To avoid possible injury, do not operate controls by reaching through the steering wheel.

Ignition Switch
The ignition switch has the following four positions:

LOCK
This is the normal parking position. It is the only position in which the key can be removed.

Manual transaxle
- Manual transaxle vehicles
You must push in the key to turn it to the "LOCK" position. It locks the ignition, and prevents normal use of the steering wheel after the key is removed.

- Automatic transaxle vehicles
The gearshift lever must be in the "P" (Park) position to turn the key to the "LOCK" position. It locks the ignition and prevents normal use of the steering wheel and gearshift lever.
ACC
Accessories such as the radio can operate, but the engine is off.

ON
This is the normal operating position. All electrical systems are on.

START
This is the position for starting the engine using the starter motor. The key should be released from this position as soon as the engine starts.

Ignition key reminder
A buzzer sounds intermittently to remind you to remove the ignition key if it is in the ignition switch when the driver’s door is opened.

Vehicle With Keyless Start System

The ignition switch can be operated without using an ignition key when the remote controller is in an area of the vehicle other than the rear luggage area. To turn the ignition switch, first push in the switch.

NOTE:
You must push in the ignition switch to turn it from the “LOCK” position to the “ACC” position. To return to the “LOCK” position from the “ACC” position, turn the ignition switch counterclockwise while pushing in the switch.

If the keyless start system blue indicator light illuminates on the instrument cluster, you can turn the ignition switch. If the red indicator light illuminates, you cannot turn the ignition switch.

NOTE:
- The ignition switch can be turned to the “ACC” position when the keyless start system blue indicator light illuminates. The blue indicator light will illuminate for several seconds when you push in the ignition switch and then will turn off to protect the system. In this case, you must release the ignition switch and push it in again to illuminate the blue indicator light.
Using the Transaxle

4-Speed Automatic Transaxle

**R (Reverse)**
Use this position to reverse the vehicle from stop. Make sure the vehicle is completely stationary before shifting into Reverse.

**N (Neutral)**
Use this position for starting the engine if the engine stalls and you need to restart while the vehicle is moving. You may also shift into Neutral and depress the brake pedal to hold the vehicle stationary during idling.

**D (Drive)**
Use this position for all normal driving.

With the gearshift lever in "D" range you can get an automatic downshift by pressing the accelerator pedal. The higher the vehicle speed is, the more you need to press the accelerator pedal to get a downshift.

**3 (Low 3)**
Use this position for driving on moderate uphill and downhill gradients. The engine braking effect on moderate downhill can be used in this position. The transaxle shifts up only to 3rd gear.

**2 (Low 2)**
Use this position to provide extra power when climbing hills, or to provide engine braking when going down hills.

**WARNING**
Always depress the brake pedal before shifting from "P" (Park) or "N" (Neutral) if the vehicle is stationary to a forward or reverse gear, to help prevent the vehicle from moving unexpectedly when you shift.

Use the gearshift lever positions as described below:

**P (Park)**
Use this position to lock the transaxle when the vehicle is parked or when starting the engine. Shift into Park only when the vehicle is completely stationary.
OPERATING YOUR VEHICLE

(Low 1)

Manual Transaxle

\[ \text{EXAMPLE} \]

\[
\begin{array}{cccc}
1 & 3 & 5 \\
2 & 4 & R \end{array}
\]

CAUTION

Be sure to take the following precautions to help avoid damage to the automatic transaxle:

- Make sure that the vehicle is completely stationary before shifting into "P" or "R".
- Do not shift from "P" or "N" to "R", "D", "3", "2", or "L" when the engine is running above idle speed.
- Do not rev the engine with the transaxle in a drive position ("R", "D", "3", "2", or "L") and the front wheels not moving.
- Do not use the accelerator to hold the vehicle on a hill. Use the vehicle's brakes.

Starting off

To start off, depress the clutch pedal all the way to the floor and shift into 1st gear. After releasing the parking brake, gradually release the clutch. When you hear a change in the engine's sound, slowly press the accelerator while continuing to gradually release the clutch.

Shifting

All forward gears are synchronized, which provides for quiet, and easy shifting. Always depress the clutch pedal all the way to the floor before shifting gears. Keep the engine speed does not rise into the red zone of the tachometer.

\[ \text{WARNING} \]

- Reduce your speed and downshift to a lower gear before going down a long or steep hill. Downshifting will allow the engine to provide braking. Avoid riding the brakes or they may overheat, resulting in brake failure.
- When driving on slippery roads, be sure to slow down before downshifting. Large and sudden changes in engine speed may cause loss of traction, which could cause you to lose control.
- Make sure that the vehicle is completely stopped before you shift into reverse.

\[ \text{CAUTION} \]

- To help avoid clutch damage, do not use the clutch pedal as a footrest while driving or use the clutch to keep the vehicle stationary on a slope. Depress the clutch fully when shifting.
- When shifting or starting off, do not race the engine. Racing the engine can shorten engine life and affect smooth shifting.