REPORT NO. 124-KAR-06-002

SAFETY COMPLIANCE TESTING FOR FMVSS NO. 124

ACCELERATOR CONTROL SYSTEMS

KIA MOTORS CORPORATION
2006 KIA SPORTAGE LX
5-DOOR MPV

NHTSA NO. C60509

PREPARED BY:
KARCO ENGINEERING
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July 11, 2006

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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Prepared by: _____ Date: 07/19/06

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Mr. Frank D. Richardson, Program Manager
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FINAL REPORT ACCEPTED BY:

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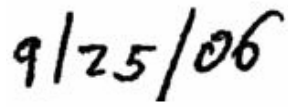

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16. *Abstract* Compliance tests were conducted on the subject 2006 Kia Sportage LX 5-Door MPV on July 10 to July 11, 2006 in accordance with the specifications of the Office of Vehicle Safety Compliance Laboratory Test Procedure No. TP-124-06 for the determination of FMVSS 124 compliance. There were no apparent test failures.			
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PURPOSE OF COMPLIANCE TEST

1. PURPOSE OF COMPLIANCE TEST

Tests were conducted on a 2006 Kia Sportage LX 5-Door MPV, manufactured by Kia Motors Corporation, to determine compliance with FMVSS 124, “Accelerator Control Systems”. FMVSS 124 establishes requirements for the return of a vehicle’s throttle to the idle position when the driver removes the actuating force from the accelerator control, or in the event of a severance or disconnection in the accelerator control system. The purpose of this standard is to reduce the number of deaths and injuries resulting from engine over-speed caused by malfunctions in the accelerator control system.

All tests were conducted based on the current National Highway Traffic Safety Administration (NHTSA), Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedures, TP-124-06, dated April 20, 2000, and corresponding KARCO Engineering test procedure KTP-124A, dated May 24, 2006. As per directions of NHTSA, testing was not performed on a dynamometer or at high or low ambient temperature conditions. Detailed procedures for receiving, inspecting, testing and reporting of test results are described in the test procedures and are not repeated in this report.

This report is organized in sections containing pertinent test information and data tables as follows:

Section 2	-	Compliance Test Procedure and Data Summary
Section 3	-	Test Results
Appendix A	-	Photographs
Appendix B	-	Data Plots
Appendix C	-	Test Equipment List

SECTION 2

COMPLIANCE TEST PROCEDURE AND DATA SUMMARY

2. COMPLIANCE TEST PROCEDURE AND DATA SUMMARY

A 2006 Kia Sportage LX 5-Door MPV was subjected to FMVSS 124 compliance testing. The tests were conducted at KARCO Engineering in Adelanto, California on July 11, 2006. The following tests were performed:

- Inspection
- Time to Return to Idle Position (Complete Normal Operation)
- Time to Return to Idle Position (1st Energy Source Removed)
- Time to Return to Idle Position (2nd Energy Source Removed)
- Time to Return to Idle Position (3rd Energy Source Removed)
- Time to Return to Idle Position (Severance)

The tests were conducted per the FMVSS 124 test procedure. The significant aspects of the test procedure are described in the following paragraphs.

A. INSPECTION

The operation of all adjustable accelerator control systems shall be checked to ascertain that the systems operate correctly. The accelerator control systems shall have at least two sources of energy capable of returning the throttle to the idle.

B. COMPLIANCE TEST EXECUTION (STATIC TESTING OF ACCELERATOR CONTROL SYSTEMS)

B.1 FULLY OPERATIONAL SYSTEM

Continuously record ambient temperature, engine coolant temperature, throttle position versus time and engine RPM versus time for the duration of each test. The accelerator may be depressed by hand or foot pressure or by any other mechanical means. Conduct the tests for 25% WOT, 50% WOT, 75% WOT and 100% WOT. Conduct the test a second time with the engine off.

B.2 DISCONNECTION OF THE FIRST SOURCE OF THROTTLE RETURN ENERGY

Remove one of the throttle return springs. Continuously record ambient temperature, engine coolant temperature, throttle position versus time, and engine RPM versus time for the duration of each test. The accelerator may be depressed by hand or foot pressure or by any other mechanical means. Conduct the tests for 25% WOT, 50% WOT, 75% WOT and 100% WOT. Conduct the test a second time with the engine off. Return the system to original condition.

B.3 DISCONNECTION OF THE SECOND SOURCE OF THROTTLE RETURN ENERGY

Remove the second throttle return spring and reconnect the first spring. Continuously record ambient temperature, engine coolant temperature, throttle position versus time, and engine RPM versus time for the duration of each test. The accelerator may be depressed by hand or foot pressure or by any other mechanical means. Conduct the tests for 25% WOT, 50% WOT, 75% WOT and 100% WOT. Conduct the test a second time with the engine off. Return the system to original condition.

B.4 DISCONNECTION OF THE THIRD SOURCE OF THROTTLE RETURN ENERGY

Remove the third throttle return spring and reconnect the second spring. Continuously record ambient temperature, engine coolant temperature, throttle position versus time, and engine RPM versus time for the duration of each test. The accelerator may be depressed by hand or foot pressure or by any other mechanical means. Conduct the tests for 25% WOT, 50% WOT, 75% WOT and 100% WOT. Conduct the test a second time with the engine off. Return the system to original condition.

B.5 SEVERANCE

Identify the points determined in Section 11.3.4 of the KTP-124A test procedure to be the most critical in the accelerator control system. Induce severance or disconnection in the throttle return linkage. Continuously record ambient temperature, engine coolant temperature, throttle position versus time engine RPM versus time for the duration of each test. The accelerator may be depressed by hand or foot pressure or by any other mechanical means. Conduct the tests for 25% WOT, 50% WOT, 75% WOT and 100% WOT. Conduct the test a second time with the engine off. Return the system to original condition.

B.6 TEST SET-UP

Each series of tests were conducted in the same manner. Throttle plate position was measured using the vehicle's throttle plate position sensor. Engine RPM was obtained with an optical fifth wheel recording speed on the vehicle's engine belt. The Kia Sportage LX had an engine governor and the RPM of the engine remained relatively constant for throttle plate positions once the limit of the engine governor was reached. Release of the accelerator pedal and severance is time zero (0) on the data traces. The data trace for throttle plate is measured as a percentage rotation where 0% is idle and 100% is wide open throttle. Time is for the engine RPM to return to approximate steady state idle on the Data sheet No.4. Severance was accomplished by disconnecting the accelerator cable from the throttle body and actuating the throttle plate with a piece of string. Time zero on the data plots equates to release of string simulating failure.

B.7 ENGINE SPEED FOR THE FOLLOWING THROTTLE PLATE POSITIONS :

Curb Idle Position	800 RPM
100% Wide Open Throttle (WOT)	6500 RPM
Throttle Position When Engine Limits	6500 RPM
75% WOT	6500 RPM
50% WOT	6500 RPM
25% WOT	6500 RPM

SECTION 3
TEST DATA

3. TEST DATA

The results of FMVSS 124 compliance tests that were conducted on the 2006 Kia Sportage LX 5-Door MPV on July 11, 2006 to determine compliance with FMVSS 124, “Accelerator Control Systems” are presented in this section.

DATA SHEET NO. 1

VEHICLE INSPECTION AND IDENTIFICATION

TEST VEHICLE INFORMATION			
Manufacturer	Kia Motors Corporation	VIN	KNDJF724167202177
Manufacturing Date	12/2005	Delivery Date	04/19/2006
Dealer	Hi-Desert Kia	NHTSA No.	C60509
Odometer Reading (mi.)	28	Fuel Type	Gas
Engine Displacement (lit.)	2.0	Cylinders	4
Transmission	Manual	Final Drive	Front
Engine Placement	Transverse	Color	Green
Tire Press./Max. Cap. Front	308 kpa (44 psi)	Cold Tire Press. Front	210 kpa (30 psi)
Tire Press./Max. Cap. Rear	308 kpa (44 psi)	Cold Tire Press. Rear	210 kpa (30 psi)
Recommend Tire Size	P215/65R16	Type of Spare	T155/90D16
Tire Size on Vehicle	P215/65R16	Manufacturer	Kumho
GVWR	2050 kg (4519 lb)	Cargo Capacity	390 kg (860 lb)
GAWR Front	1170 kg (2579 lb)	GAWR Rear	1100 kg (2425 lb)
Air Conditioning	Yes	Power Steering	Yes
Power Brakes	Yes	AM/FM/Cassette	Yes
Disc Brakes (Front)	Yes	Disc Brakes (Rear)	Yes
Power Windows	Yes	Tilt Steering	Yes
Anti-lock Brakes (ABS)	Yes	Power Seats	Yes
Driver Airbag	Yes	Passenger Airbag	Yes
Control System	Fuel Injected		
Comments:	None		

DATA SHEET NO. 2

VEHICLE THROTLE CONTROL INSPECTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/2006**	TEMPERATURE	**31.3° C**

Determine how many forms of energy are present on the vehicle to return throttle to idle. If more than two, describe the third in the comments below.	3
Describe the first energy source.	Torsion spring mounted on throttle shaft.
Describe the second energy source.	Torsion spring mounted on throttle shaft.
Does vehicle have a return spring on the accelerator pedal?	Yes
Describe point of severance.	Throttle cable was disconnected from the throttle shaft.

Comments: None

TEST STATUS:	PASSED —	**x**	FAILED —	

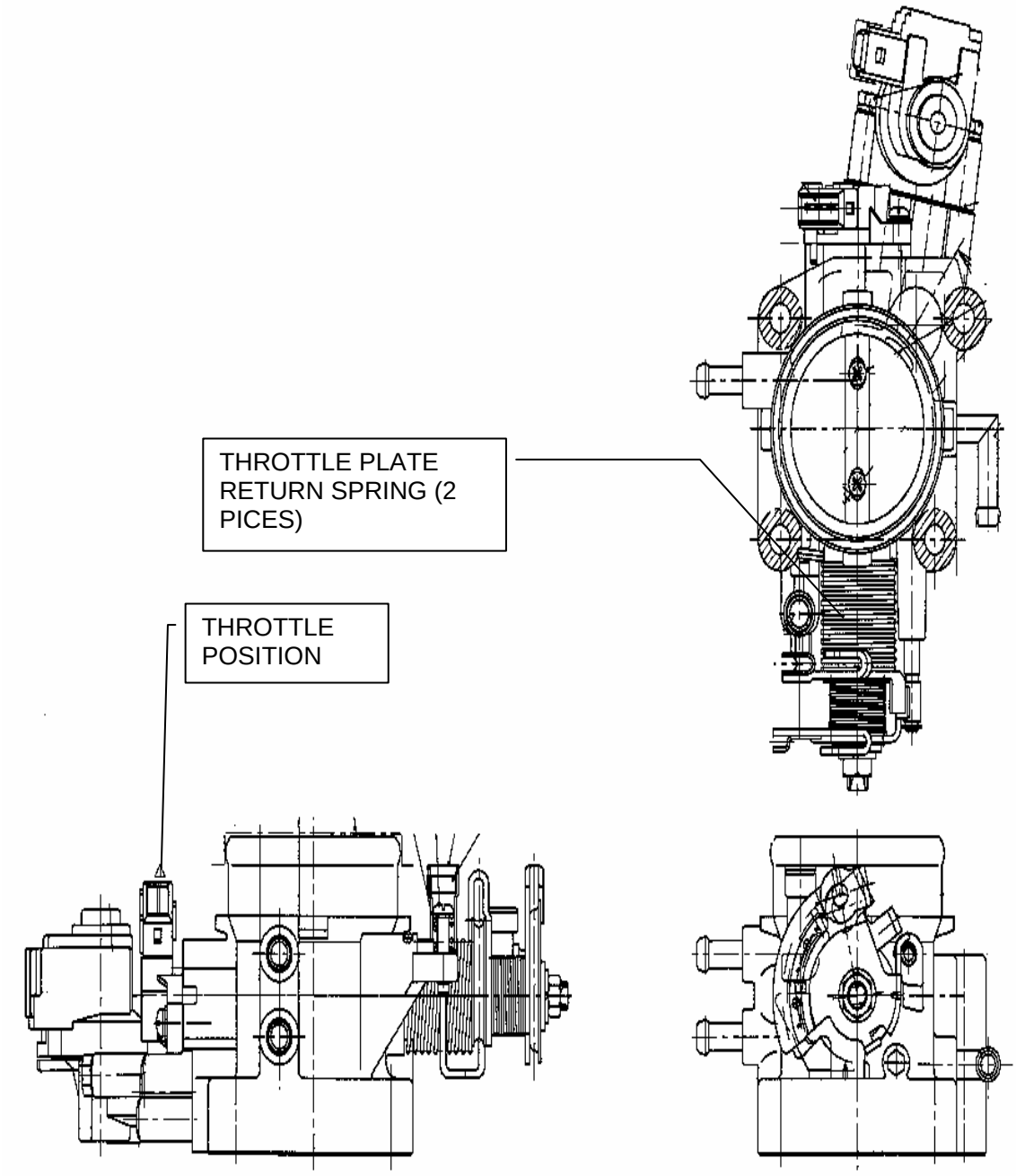
RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

DATA SHEET NO. 3

MANUFACTURER'S DRAWINGS

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/06**	TEMPERATURE	**31.3° C**



DATA SHEET NO. 4

TEST EXECUTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/10/06**	TEMPERATURE	**30.0° C**

THROTTLE CONTROL SYSTEM CONDITION:				ACCELERATOR CONTROL SYSTEM INTACT, AMBIENT TEMPERATURE, ENGINE ON			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.0%**	**6503.8**	**101.6°C**	**0.0%**	**120 msec**	**Pass**
2	50%	**50.0%**	**6524.1**	**101.6°C**	**0.0%**	**120 msec**	**Pass**
3	75%	**74.9%**	**6440.0**	**101.6°C**	**0.0%**	**140 msec**	**Pass**
4	100%	**100.1%**	**6492.8**	**101.6°C**	**0.0%**	**120 msec**	**Pass**

THROTTLE CONTROL SYSTEM CONDITION:				ACCELERATOR CONTROL SYSTEM INTACT, AMBIENT TEMPERATURE, ENGINE OFF			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.0%**				**120 msec**	**Pass**
2	50%	**50.0%**				**120 msec**	**Pass**
3	75%	**75.0%**				**110 msec**	**Pass**
4	100%	**100.0%**				**130 msec**	**Pass**

RETURN TIME REQUIREMENTS:
1 second (1000 msec) for vehicles less than 4536 kg.
2 seconds (2000 msec) for vehicles more than 4536 kg.
3 seconds (3000 msec) for vehicle exposed to -18°C or less.

TEST STATUS:	PASSED —	**X**	FAILED —	

RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

DATA SHEET NO. 4…(CONTINUED)

TEST EXECUTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/06**	TEMPERATURE	**28.9° C**

THROTTLE CONTROL SYSTEM CONDITION:				1ST RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE ON			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.0%**	**6456.3**	**92.2°C**	**0.0%**	**130 msec**	**Pass**
2	50%	**50.1%**	**6424.7**	**92.2°C**	**0.0%**	**120 msec**	**Pass**
3	75%	**75.0%**	**6423.6**	**92.2°C**	**0.0%**	**130 msec**	**Pass**
4	100%	**100.0%**	**6407.0**	**92.2°C**	**0.0%**	**120 msec**	**Pass**

THROTTLE CONTROL SYSTEM CONDITION:				1ST RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE OFF			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.0%**				**100 msec**	**Pass**
2	50%	**50.1%**				**130 msec**	**Pass**
3	75%	**75.1%**				**120 msec**	**Pass**
4	100%	**99.9%**				**120 msec**	**Pass**

RETURN TIME REQUIREMENTS:
1 second (1000 msec) for vehicles less than 4536 kg.
2 seconds (2000 msec) for vehicles more than 4536 kg.
3 seconds (3000 msec) for vehicle exposed to -18°C or less.

TEST STATUS:	PASSED —	**X**	FAILED —	

RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

DATA SHEET NO. 4…(CONTINUED)

TEST EXECUTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/06**	TEMPERATURE	**29.9° C**

THROTTLE CONTROL SYSTEM CONDITION:				2ND RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE ON			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.1%**	**6480.4**	**98.8°C**	**0.0%**	**90 msec**	**Pass**
2	50%	**50.1%**	**6498.9**	**98.8°C**	**0.0%**	**120 msec**	**Pass**
3	75%	**75.0%**	**6493.4**	**98.8°C**	**0.0%**	**110 msec**	**Pass**
4	100%	**100.1%**	**6529.1**	**98.8°C**	**0.0%**	**120 msec**	**Pass**

THROTTLE CONTROL SYSTEM CONDITION:				2ND RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE OFF			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.1%**				**90 msec**	**Pass**
2	50%	**50.1%**				**100 msec**	**Pass**
3	75%	**75.0%**				**110 msec**	**Pass**
4	100%	**100.1%**				**110 msec**	**Pass**

RETURN TIME REQUIREMENTS:
1 second (1000 msec) for vehicles less than 4536 kg.
2 seconds (2000 msec) for vehicles more than 4536 kg.
3 seconds (3000 msec) for vehicle exposed to -18°C or less.

TEST STATUS:	PASSED —	**X**	FAILED —	

RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

DATA SHEET NO. 4…(CONTINUED)

TEST EXECUTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/06**	TEMPERATURE	**29.1° C**

THROTTLE CONTROL SYSTEM CONDITION:				3RD RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE ON			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**24.9%**	**6537.5**	**98.8°C**	**0.0%**	**110 msec**	**Pass**
2	50%	**50.2%**	**6505.9**	**98.8°C**	**0.0%**	**120 msec**	**Pass**
3	75%	**75.0%**	**6538.3**	**98.8°C**	**0.0%**	**120 msec**	**Pass**
4	100%	**100.1%**	**6479.9**	**98.8°C**	**0.0%**	**120 msec**	**Pass**

THROTTLE CONTROL SYSTEM CONDITION:				3RD RETURN SPRING REMOVED, AMBIENT TEMPERATURE, ENGINE OFF			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.2%**				**130 msec**	**Pass**
2	50%	**50.1%**				**120 msec**	**Pass**
3	75%	**75.0%**				**120 msec**	**Pass**
4	100%	**100.1%**				**130 msec**	**Pass**

RETURN TIME REQUIREMENTS:
1 second (1000 msec) for vehicles less than 4536 kg.
2 seconds (2000 msec) for vehicles more than 4536 kg.
3 seconds (3000 msec) for vehicle exposed to -18°C or less.

TEST STATUS:	PASSED —	**X**	FAILED —	

RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

DATA SHEET NO. 4…(CONTINUED)

TEST EXECUTION

VEHICLE			
YEAR	**2006**	MAKE	**Kia Motors Corporation**
MODEL	**Kia Sportage LX**	BODY STYLE	**5-Door MPV**
NHTSA NO.	**C60509**	VIN	**KNDJF724167202177**
TEST DATE:	**07/11/06**	TEMPERATURE	**30.2° C**

THROTTLE CONTROL SYSTEM CONDITION:				SEVERANCE, AMBIENT TEMPERATURE, ENGINE ON			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.0%**	**6519.7**	**93.3°C**	**0.0%**	**120 msec**	**Pass**
2	50%	**50.0%**	**6503.7**	**93.3°C**	**0.0%**	**100 msec**	**Pass**
3	75%	**75.1%**	**6517.9**	**93.3°C**	**0.0%**	**90 msec**	**Pass**
4	100%	**100.1%**	**6482.8**	**93.3°C**	**0.0%**	**90 msec**	**Pass**

THROTTLE CONTROL SYSTEM CONDITION:				SEVERANCE, AMBIENT TEMPERATURE, ENGINE OFF			
TEST NO.	NOMINAL THROTTLE POSITION	ACTUAL THROTTLE POSITION	ENGINE RPM	ENGINE COOLANT TEMPERATURE	THROTTLE POSITION SENSOR READING AT IDLE	TIME TO RETURN TO IDLE	PASS /FAIL
1	25%	**25.2%**				**110 msec**	**Pass**
2	50%	**50.2%**				**130 msec**	**Pass**
3	75%	**75.0%**				**120 msec**	**Pass**
4	100%	**100.0%**				**110 msec**	**Pass**

RETURN TIME REQUIREMENTS:
1 second (1000 msec) for vehicles less than 4536 kg.
2 seconds (2000 msec) for vehicles more than 4536 kg.
3 seconds (3000 msec) for vehicle exposed to -18°C or less.

TEST STATUS:	PASSED —	**X**	FAILED —	

RECORDED BY: **RUPESH B. PATEL** DATE: **07/11/06**

APPROVED BY: **MICHAEL L. DUNLAP** DATE: **07/11/06**

APPENDIX A
PHOTOGRAPHS

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-1: Front View of Vehicle

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-2: Left Side View of Vehicle

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-3: Right Side View of Vehicle

Figure A-4: Vehicle's Certification Label

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

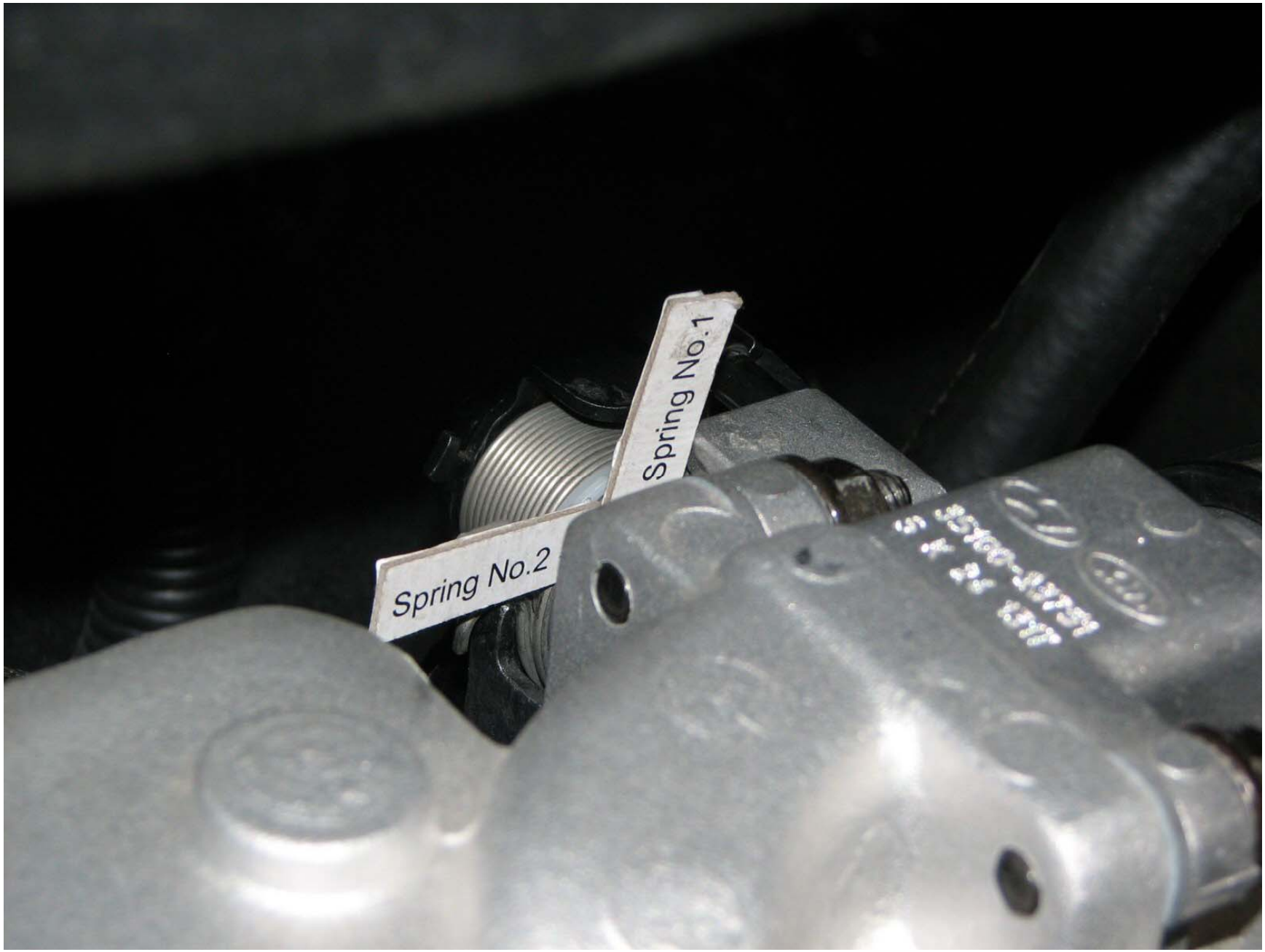
Figure A-5: Vehicle's Tire Information Label

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-6: Vehicle's Engine Compartment

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-7: Vehicle's Accelerator Pedal Assembly

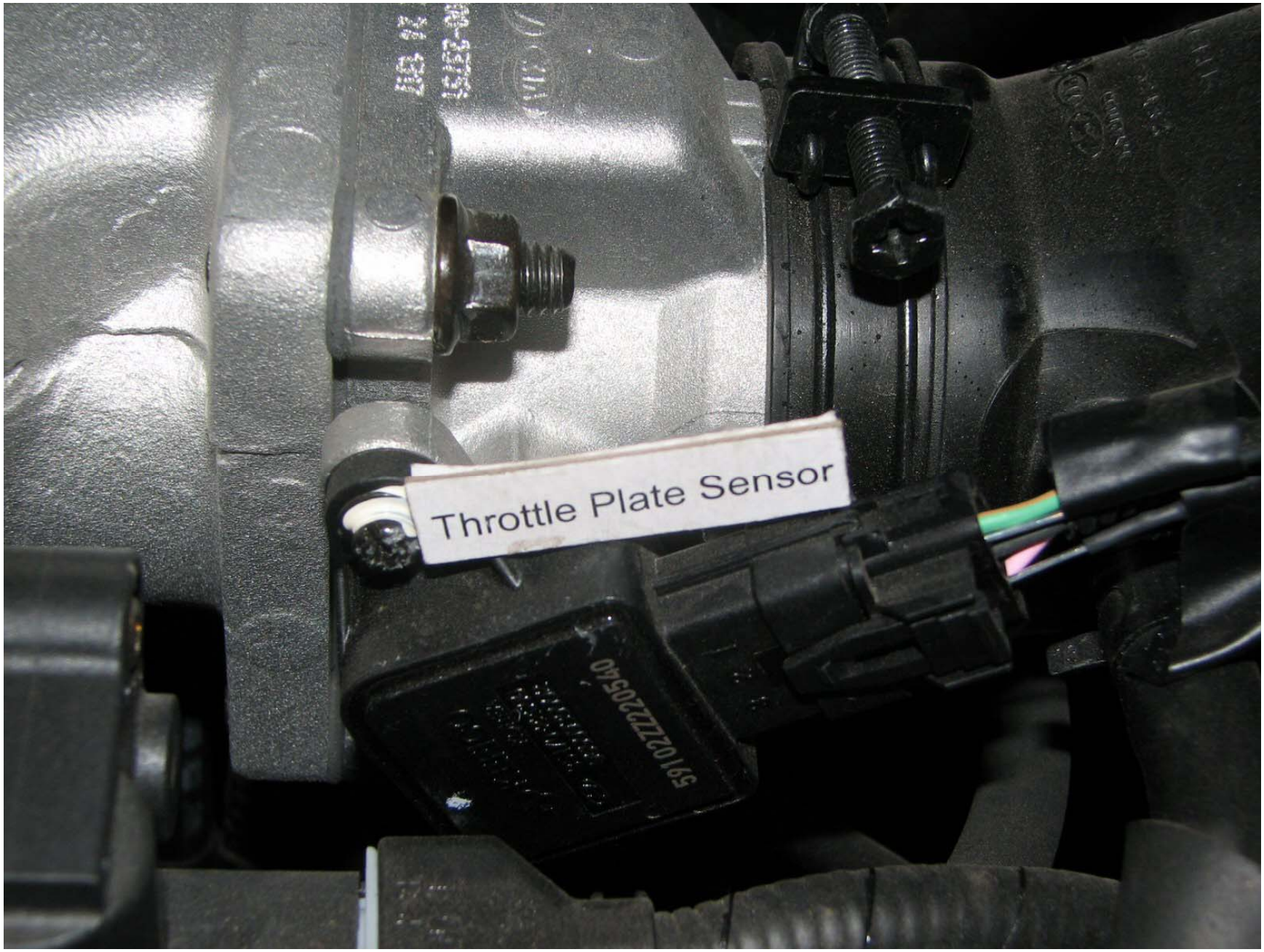


2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-8: Spring 1and 2 Located on Vehicle's Accelerator Control System (Throttle Body)

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-9: Spring 3 Located on Vehicle's Accelerator Control System (Accelerator Pedal)



2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-10: Throttle Plate Sensor Located on Vehicle's Accelerator Control System

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

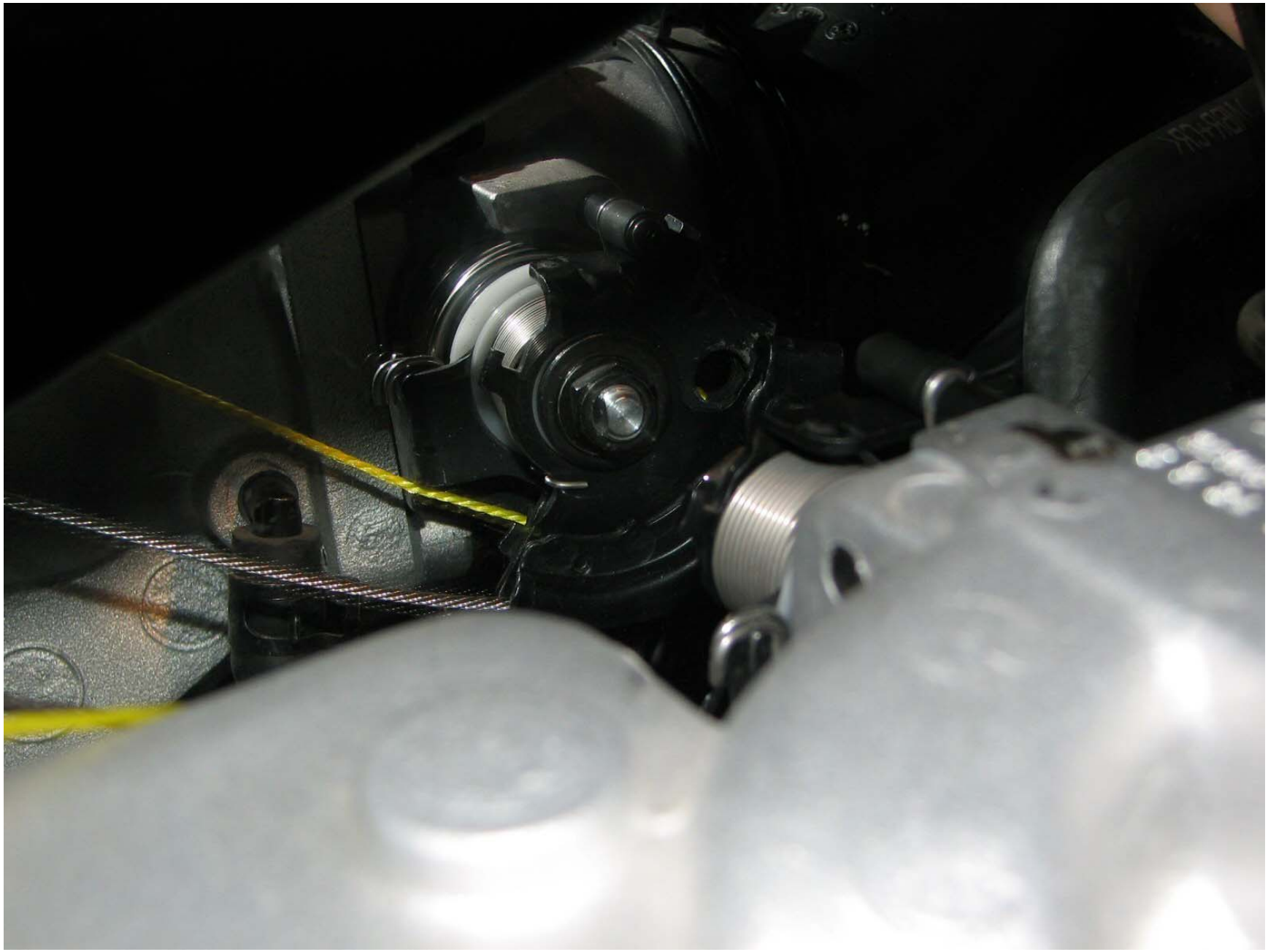
Figure A-11: Electronic Control Module

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-12: Vehicle Test Setup

2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

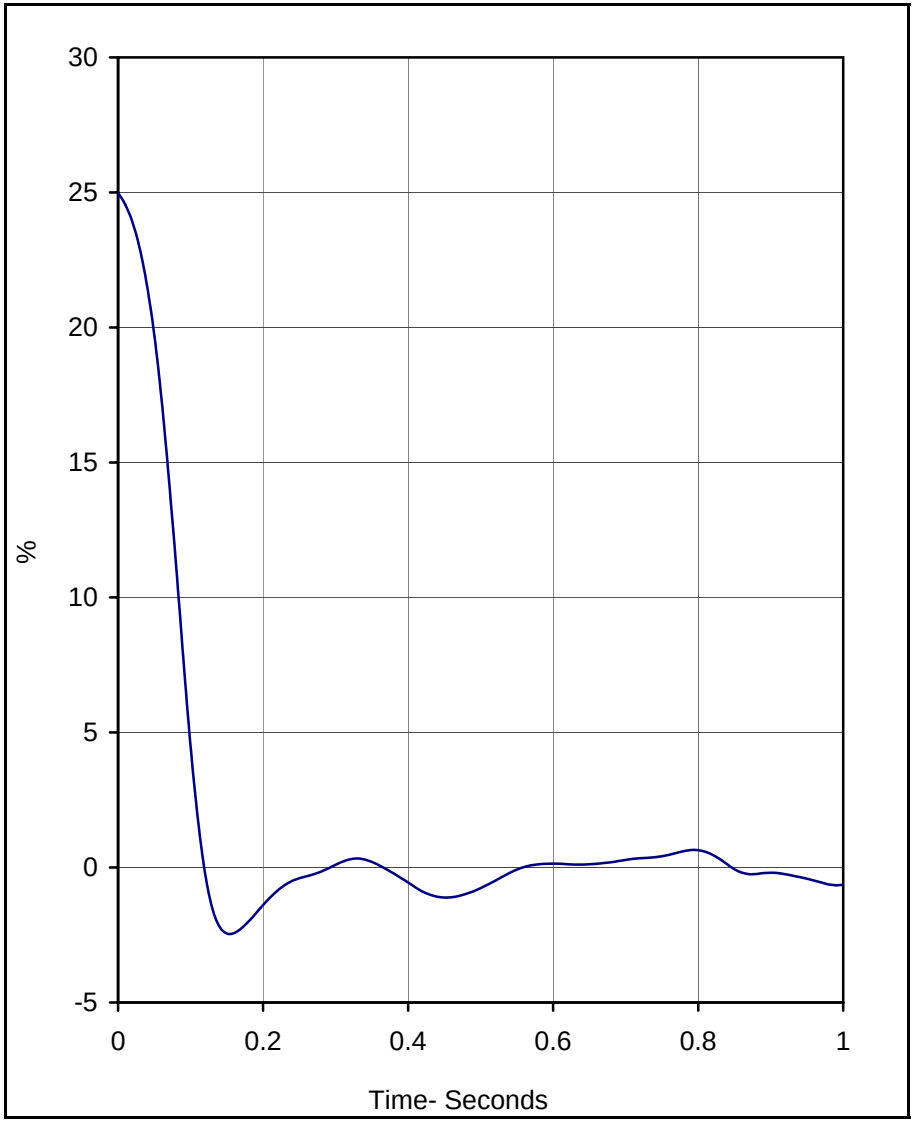
Figure A-13: Instrumentation

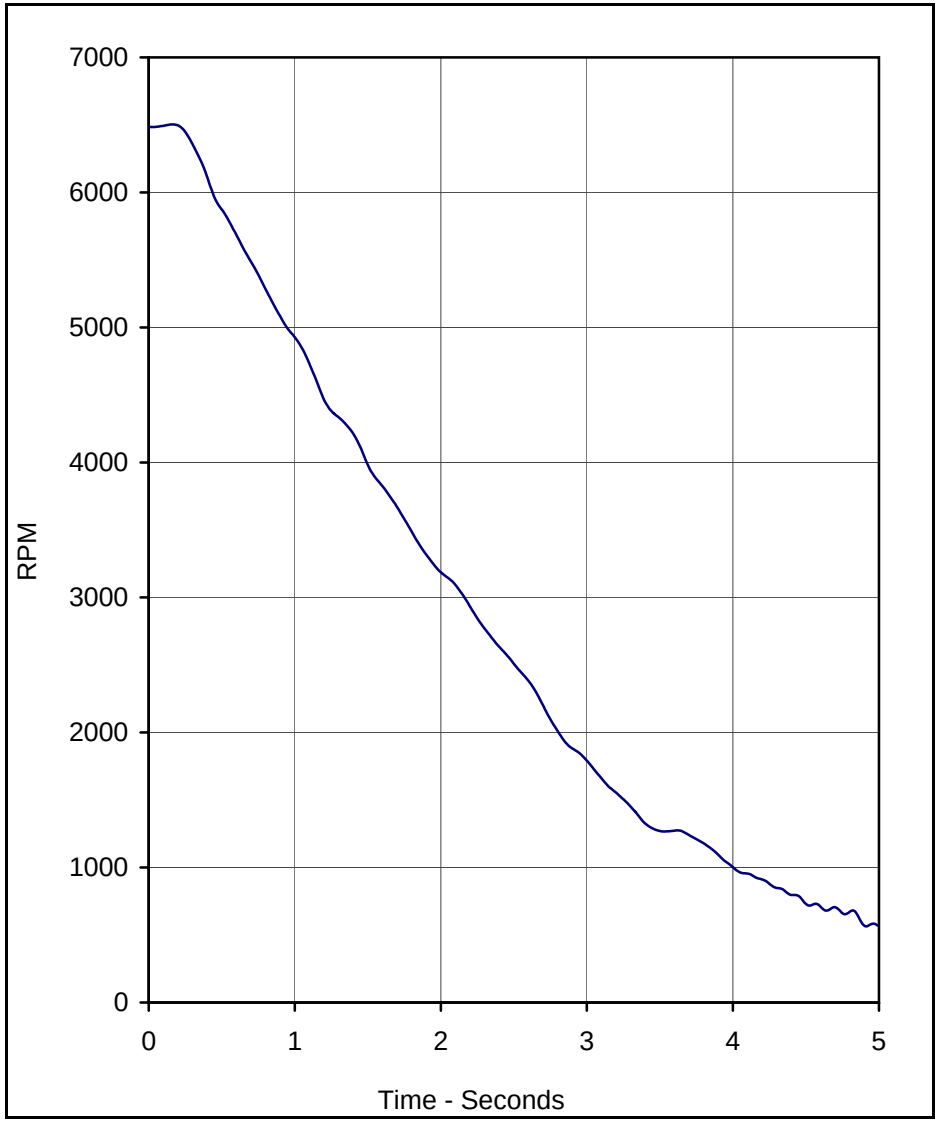


2006 KIA SPORTAGE
NHTSA NO. C60509
FMVSS NO. 124

Figure A-14: Severance of Throttle Body

APPENDIX B
DATA PLOTS





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6503.8	0.2	564.4	4.9	5

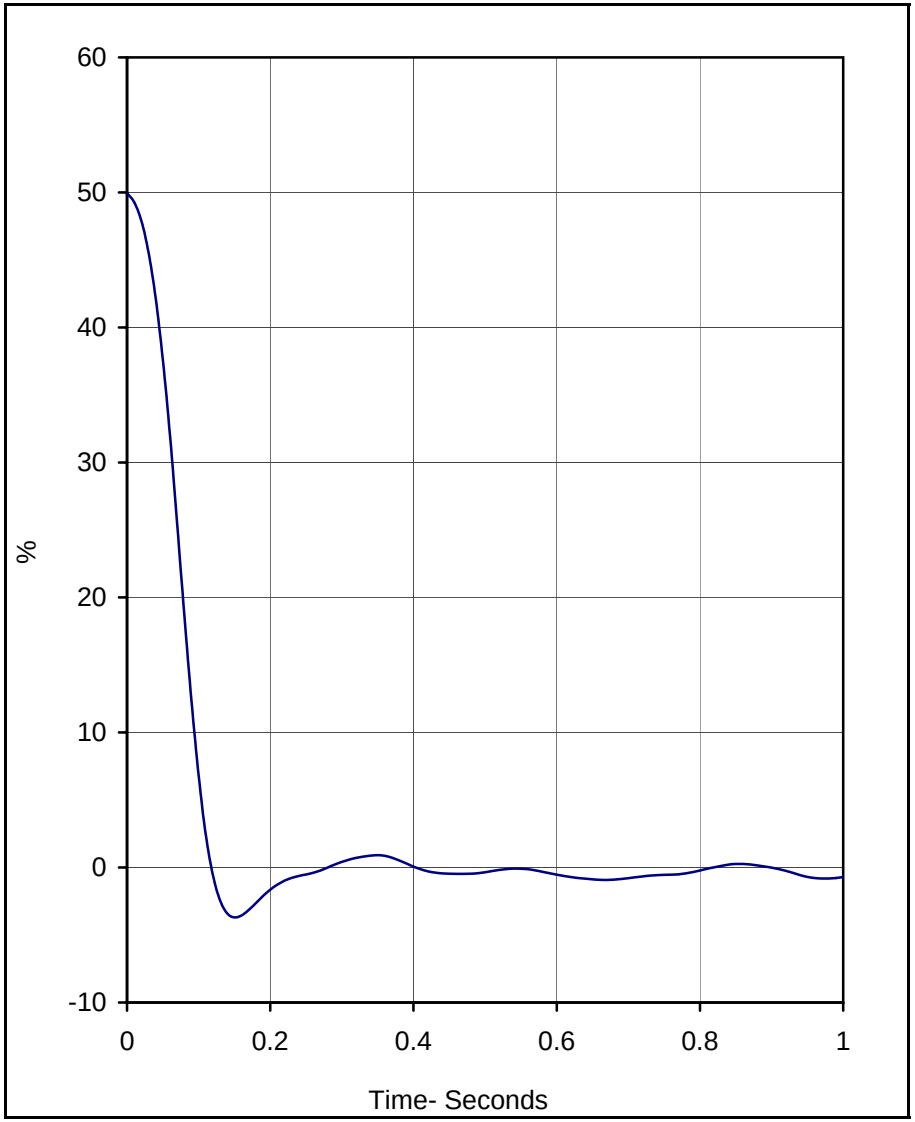
Test Program: FMVSS 124 (Normal Operation)

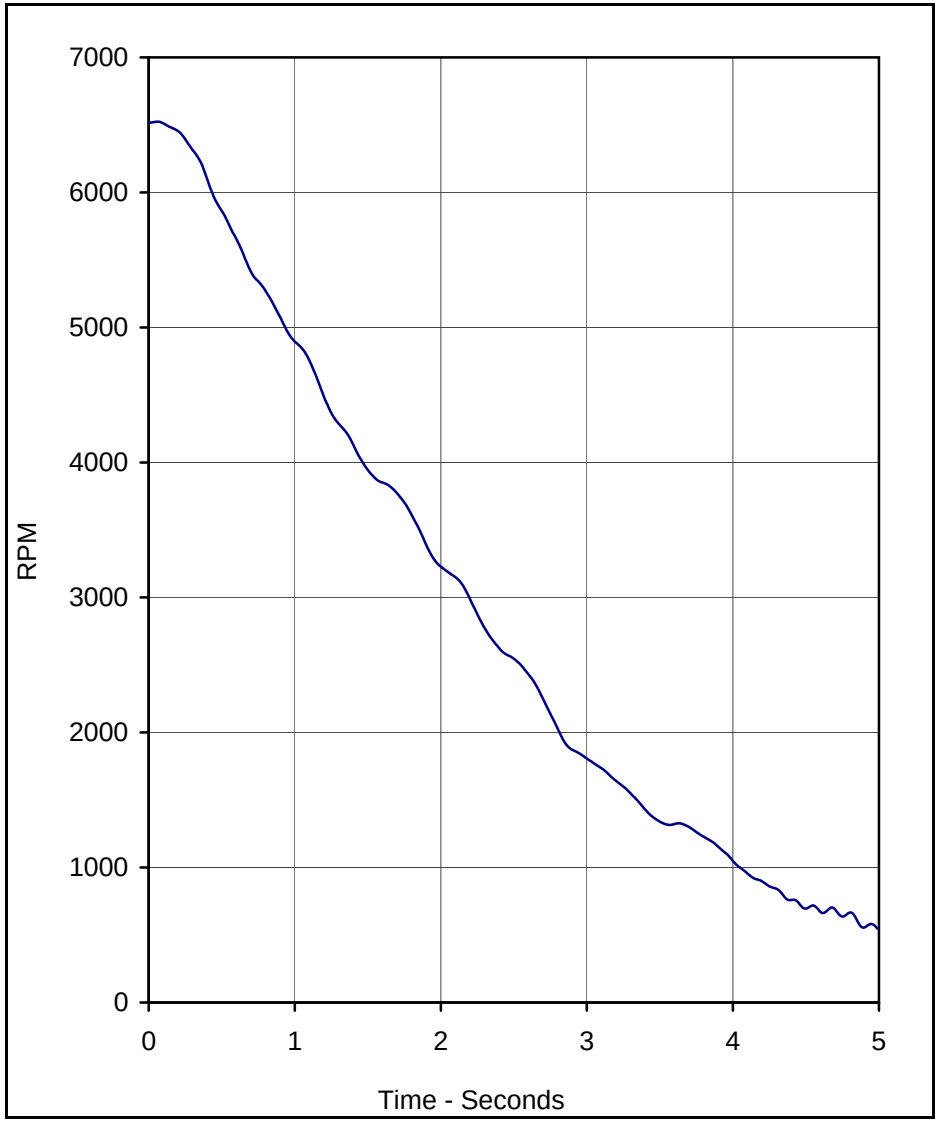
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6524.1	0.1	546.6	5.0	5

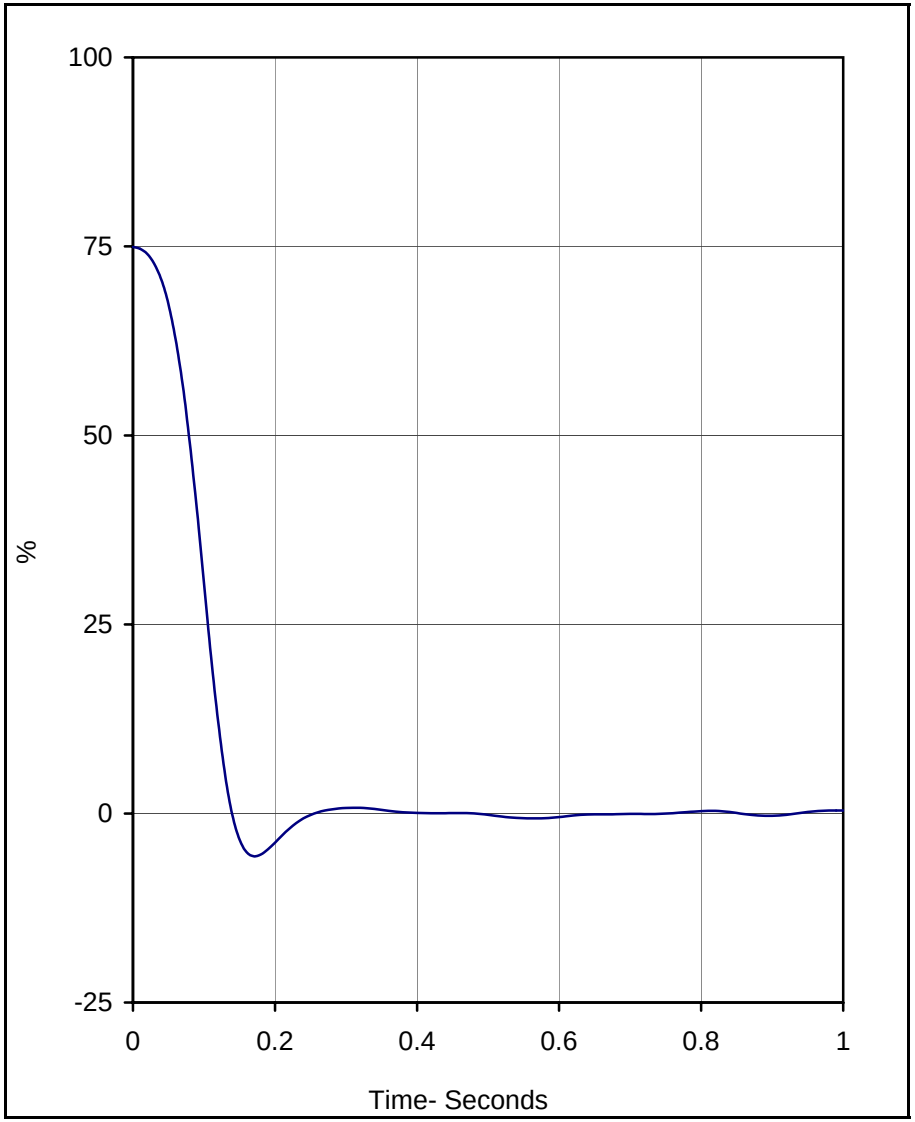
Test Program: FMVSS 124 (Normal Operation)

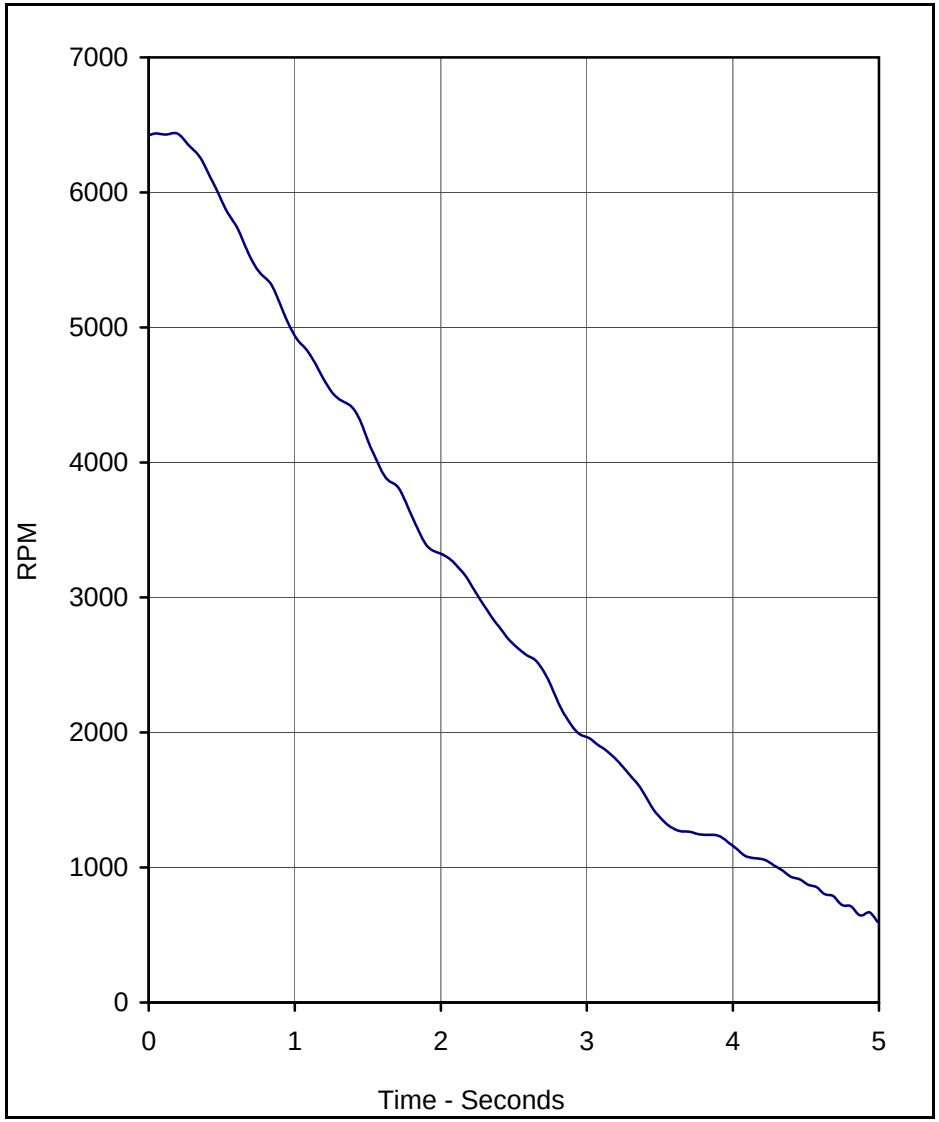
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	74.9	0.0	140.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6440.0	0.2	597.4	5.0	5

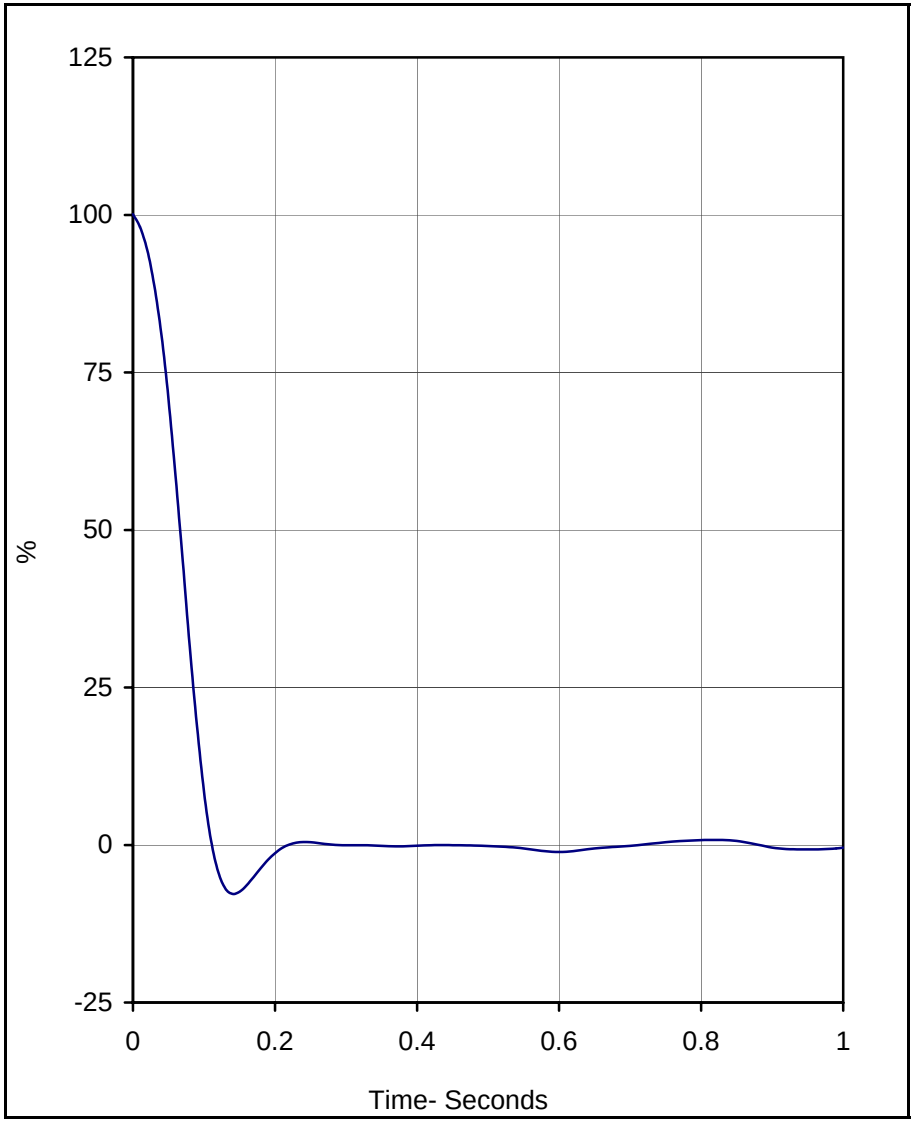
Test Program: FMVSS 124 (Normal Operation)

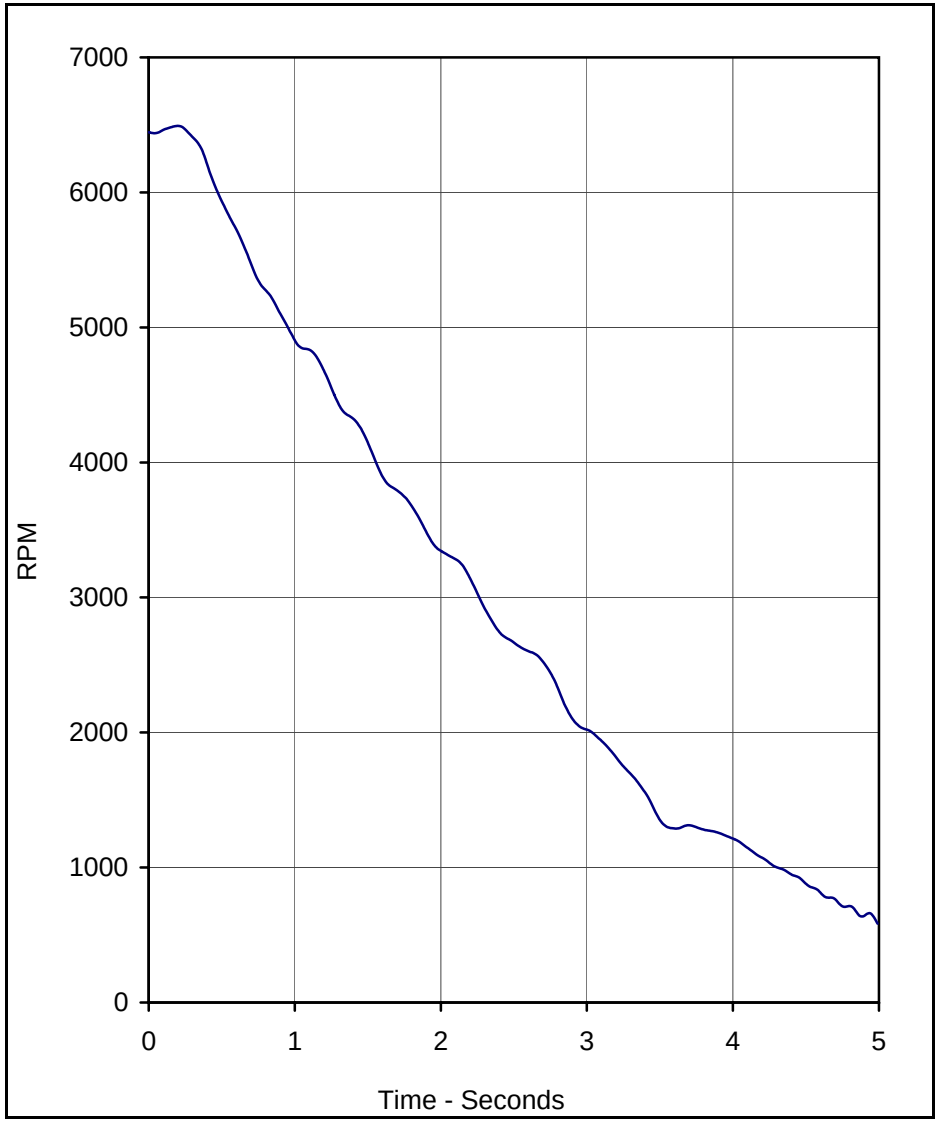
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6492.8	0.2	584.7	5.0	5

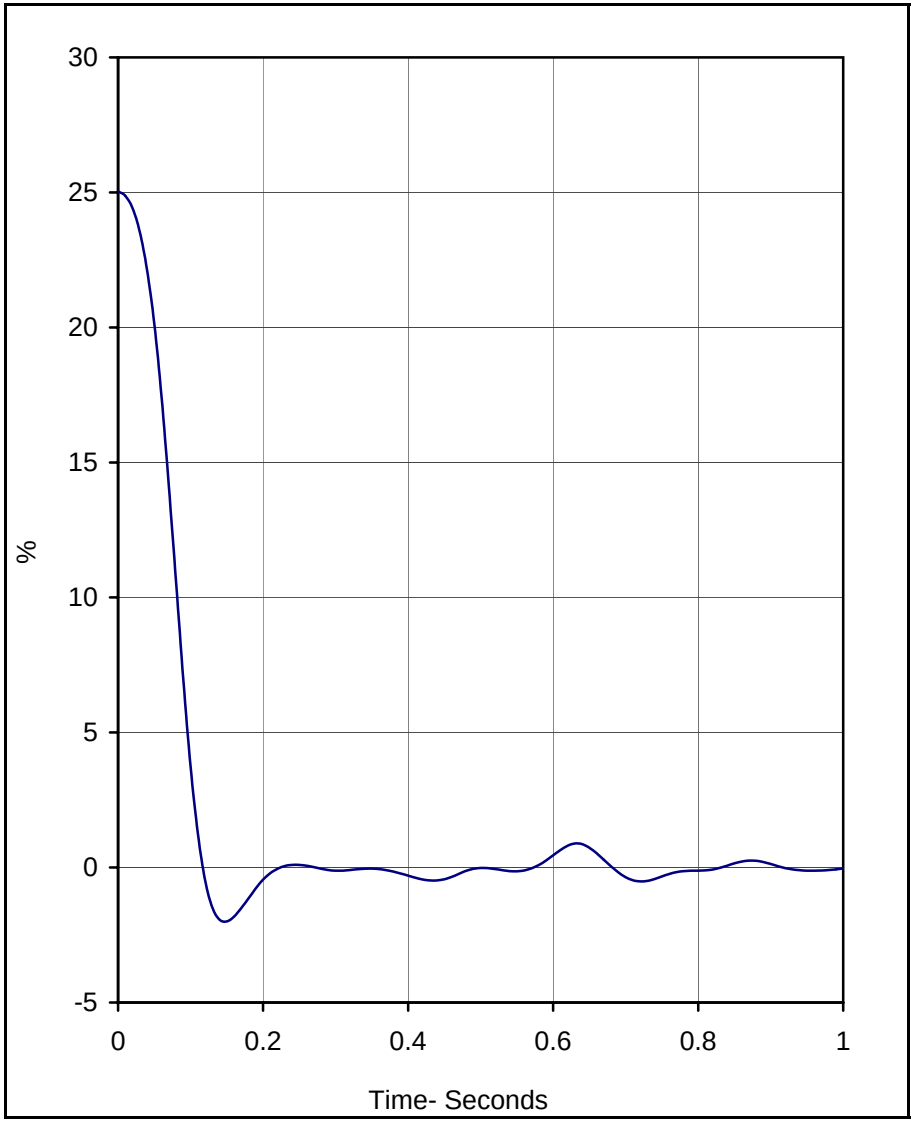
Test Program: FMVSS 124 (Normal Operation)

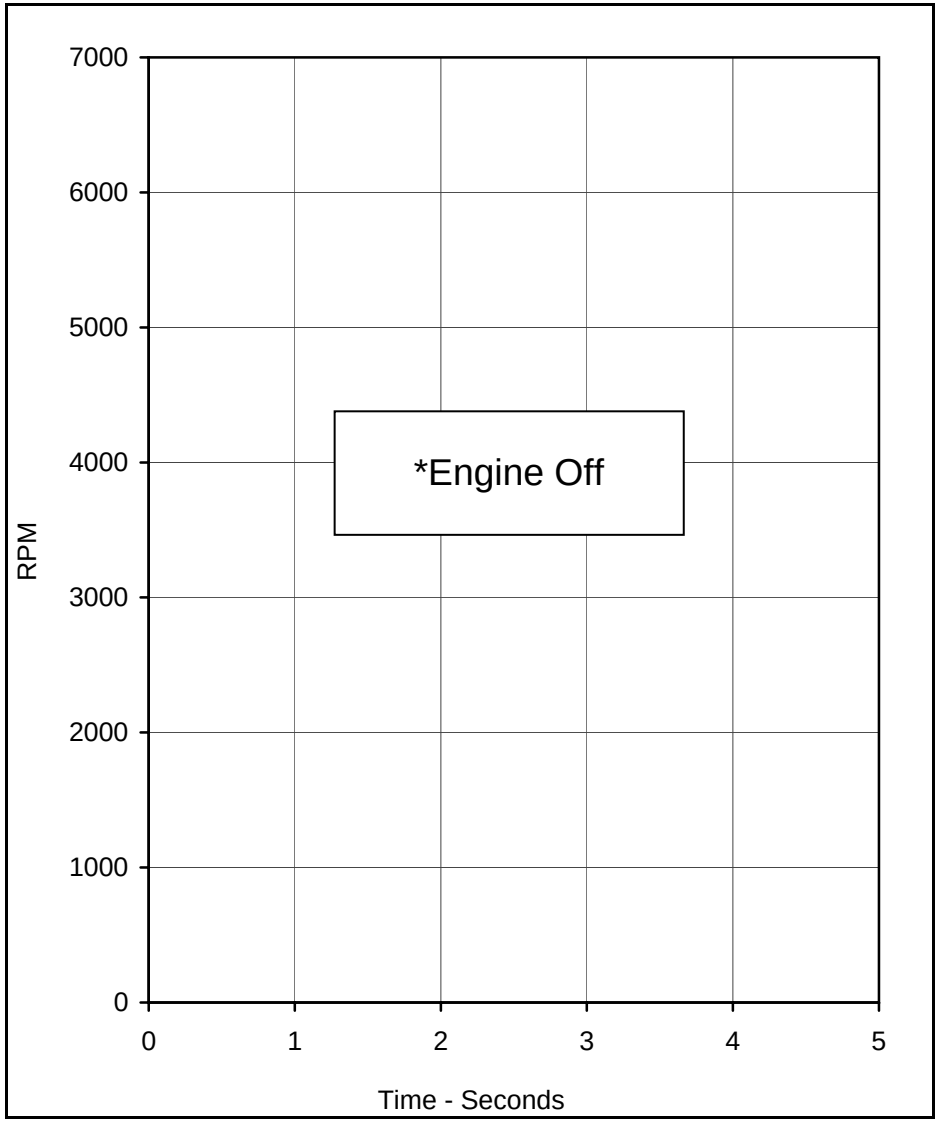
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

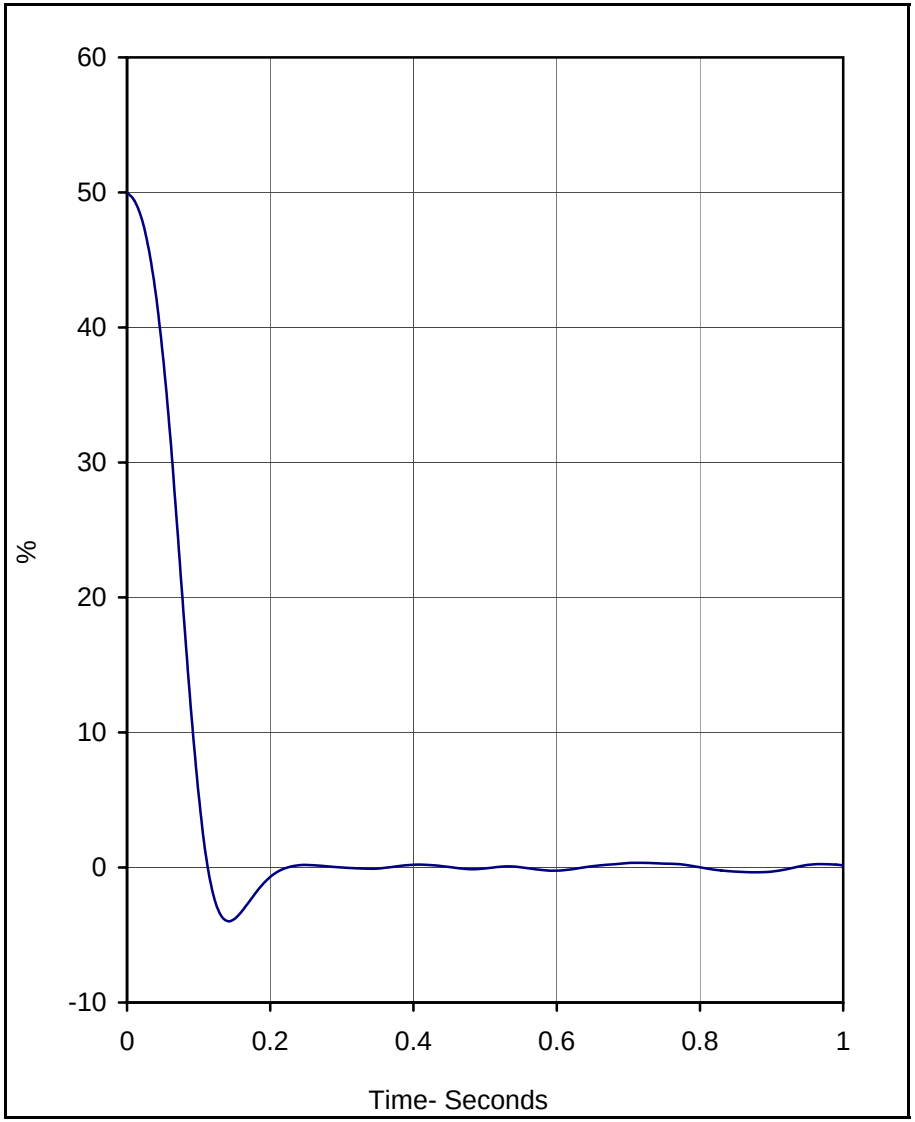
Test Program: FMVSS 124 (Normal Operation)

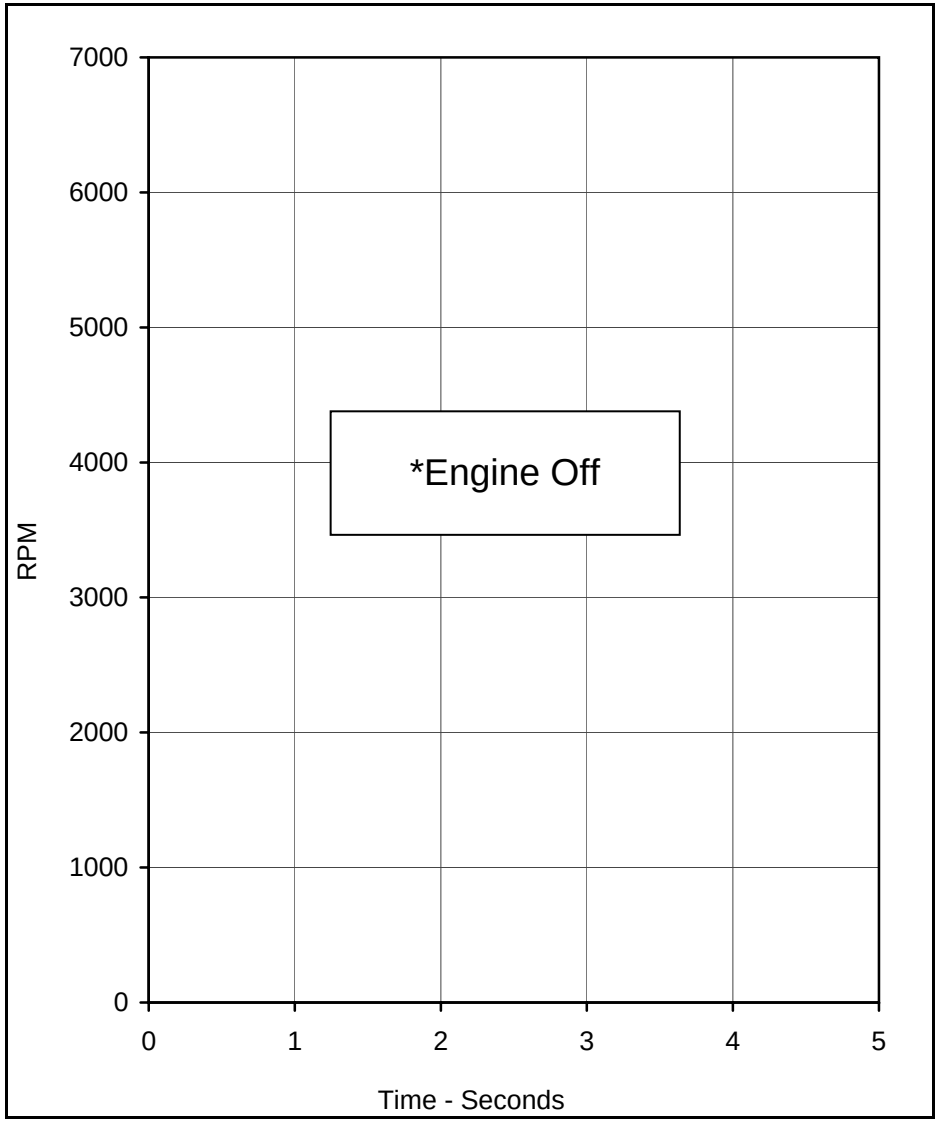
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

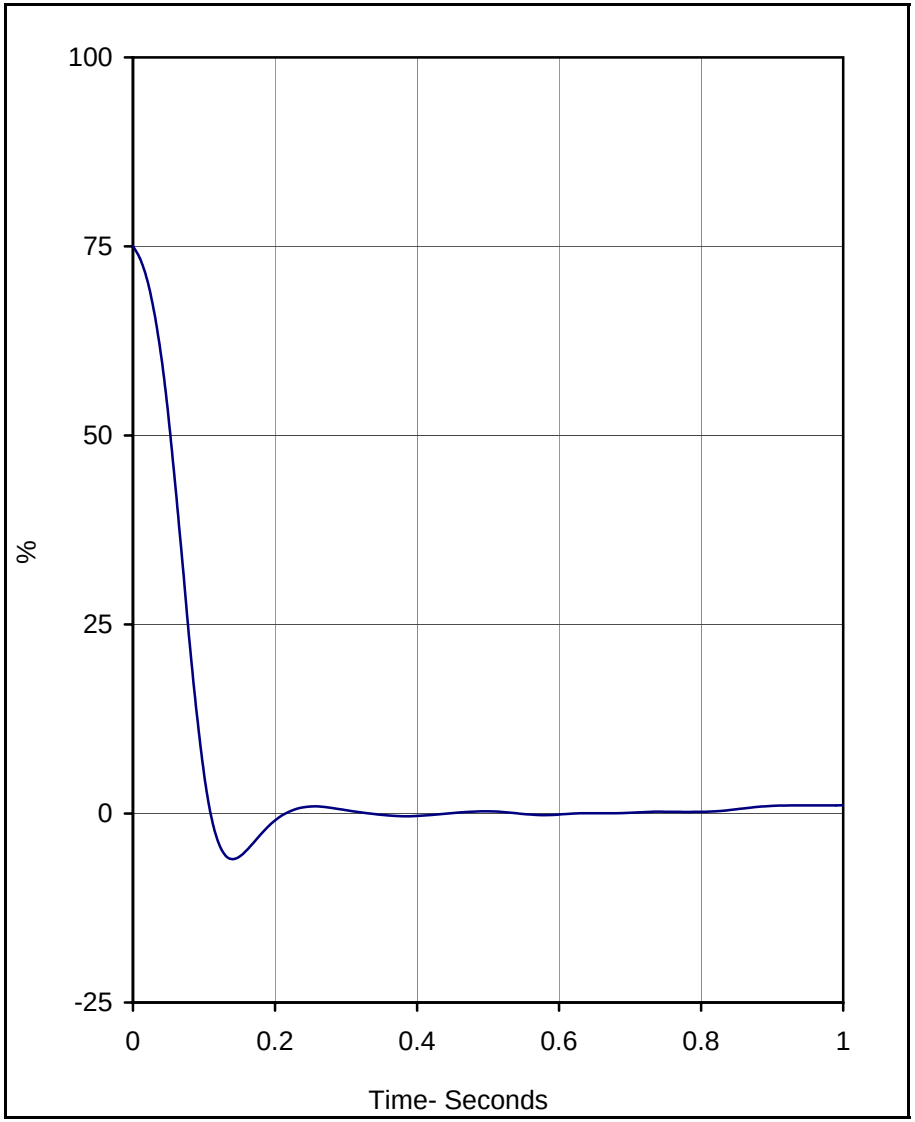
Test Program: FMVSS 124 (Normal Operation)

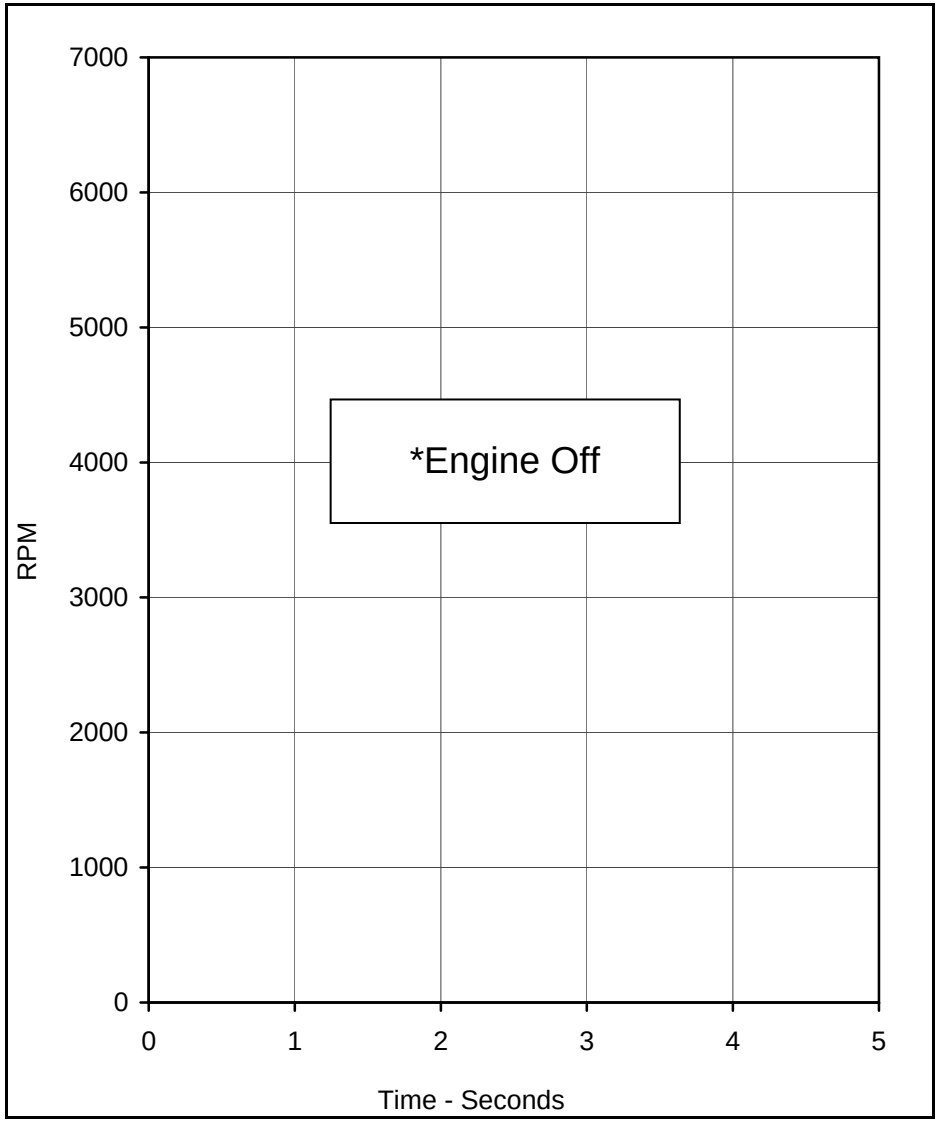
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

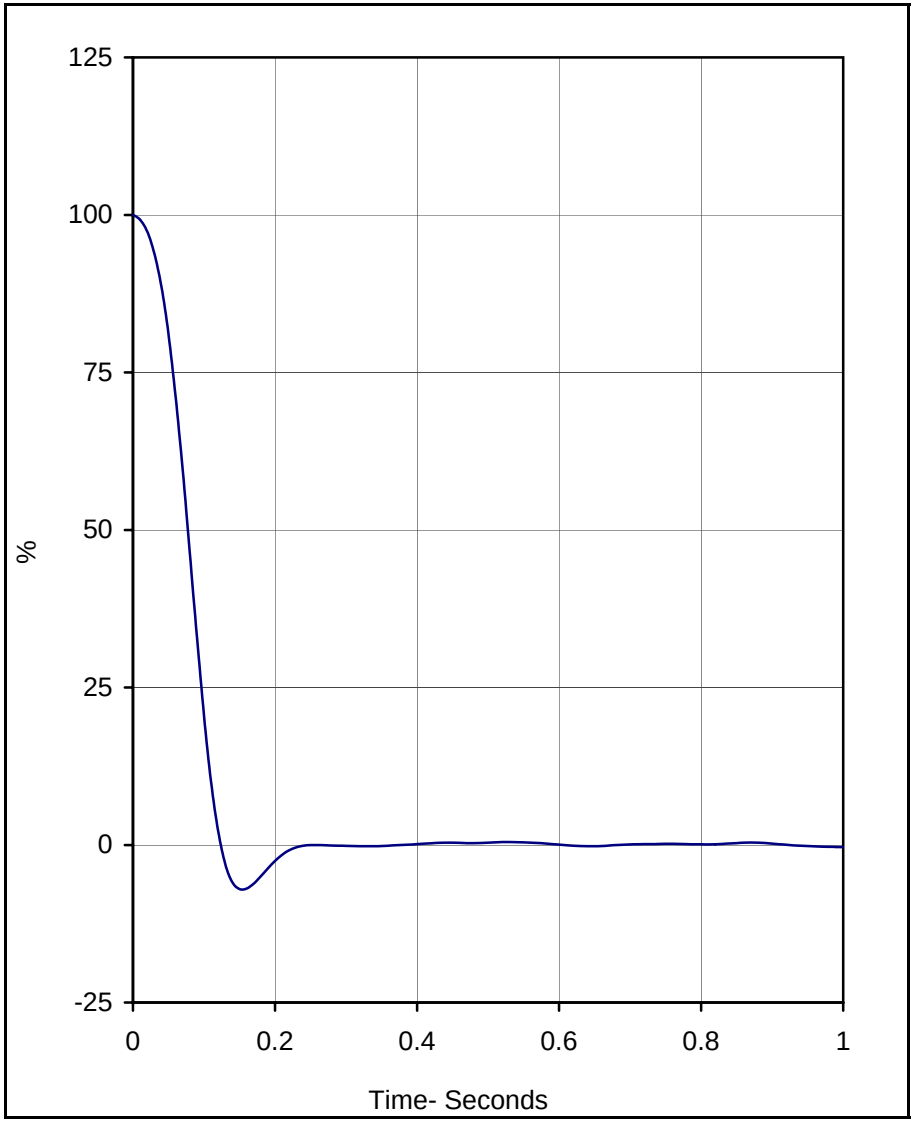
Test Program: FMVSS 124 (Normal Operation)

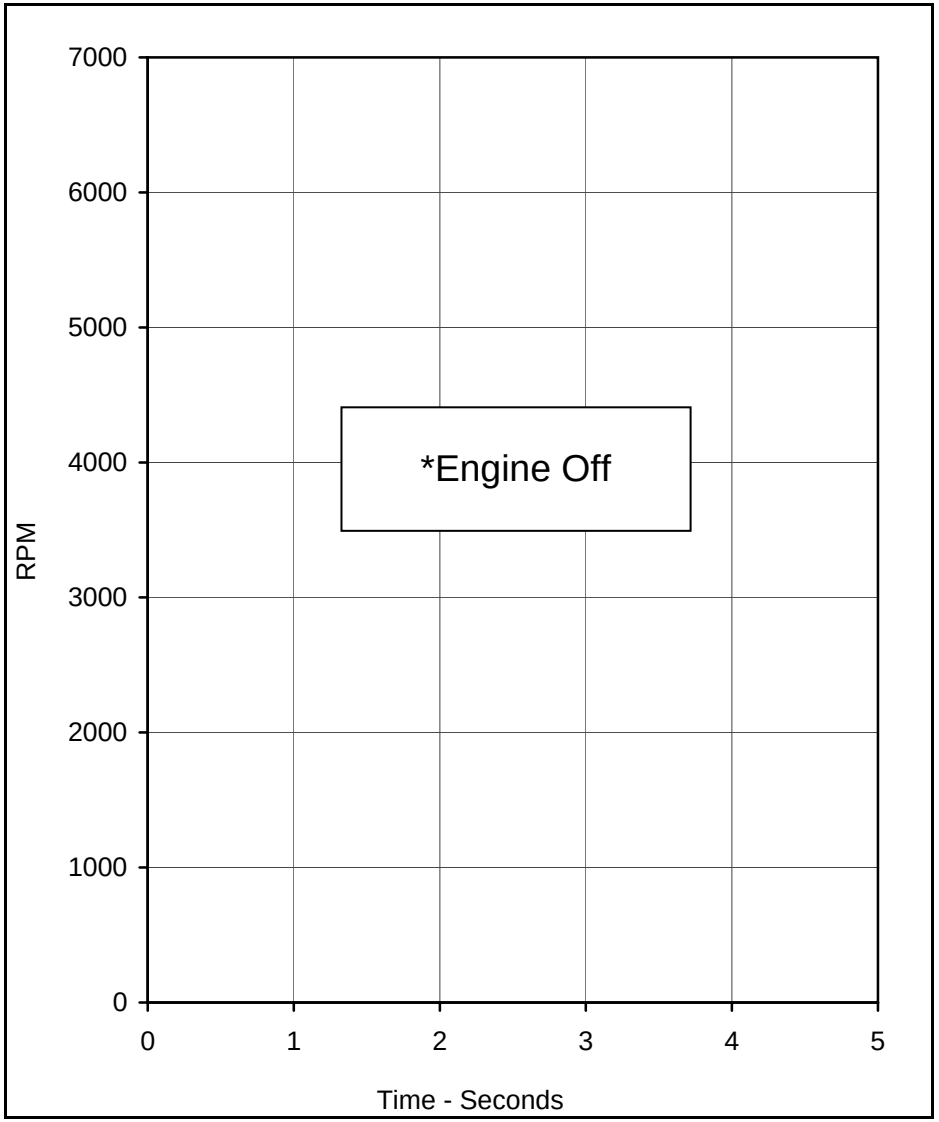
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.0	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

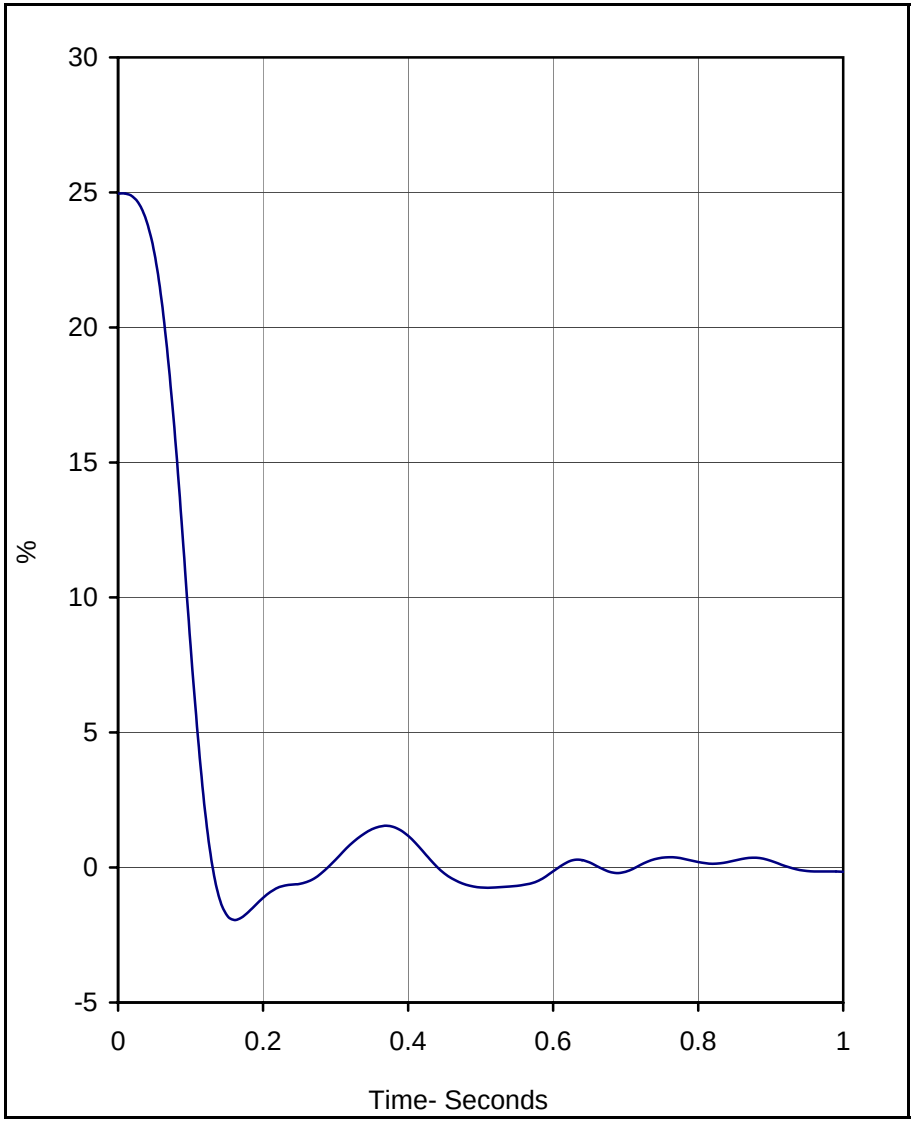
Test Program: FMVSS 124 (Normal Operation)

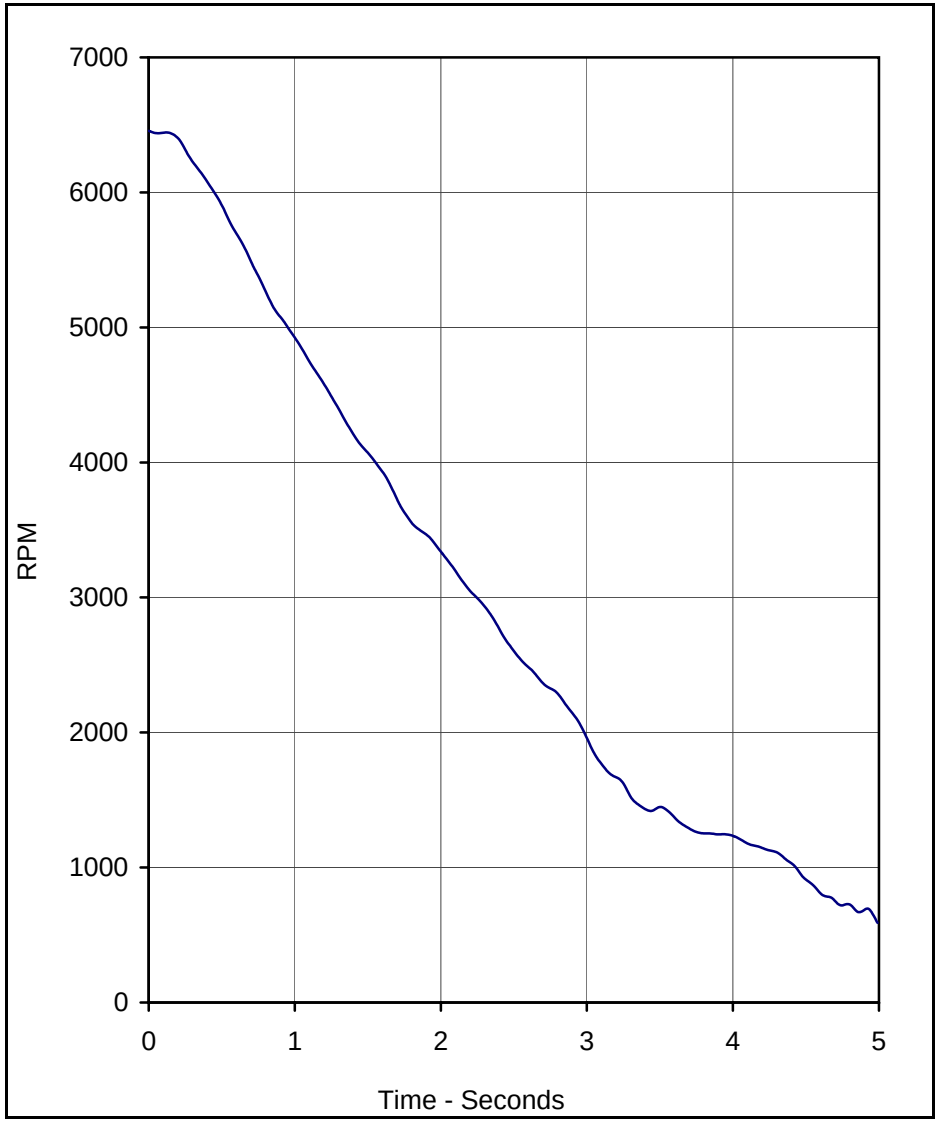
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/10/05

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.0	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6456.3	0.0	590.0	5.0	5

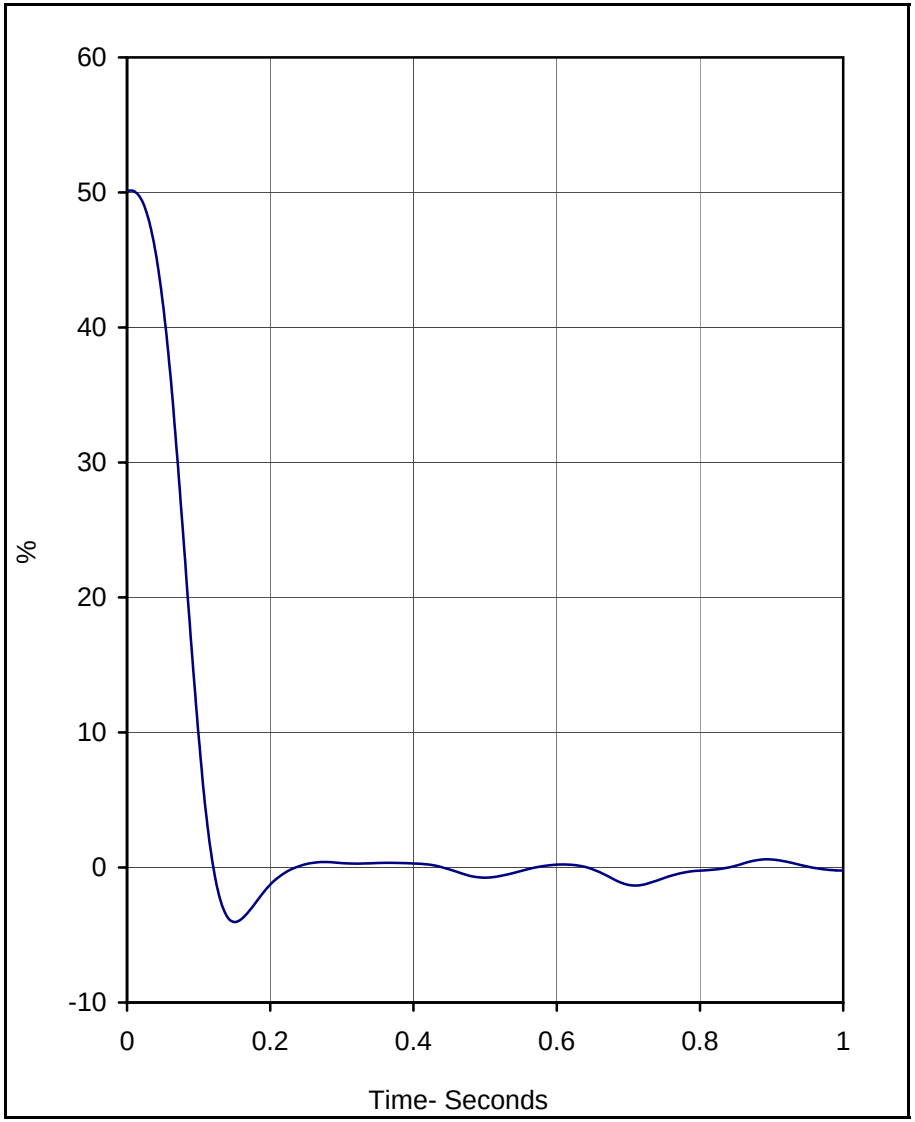
Test Program: FMVSS 124 (Spring #1 Disconnected)

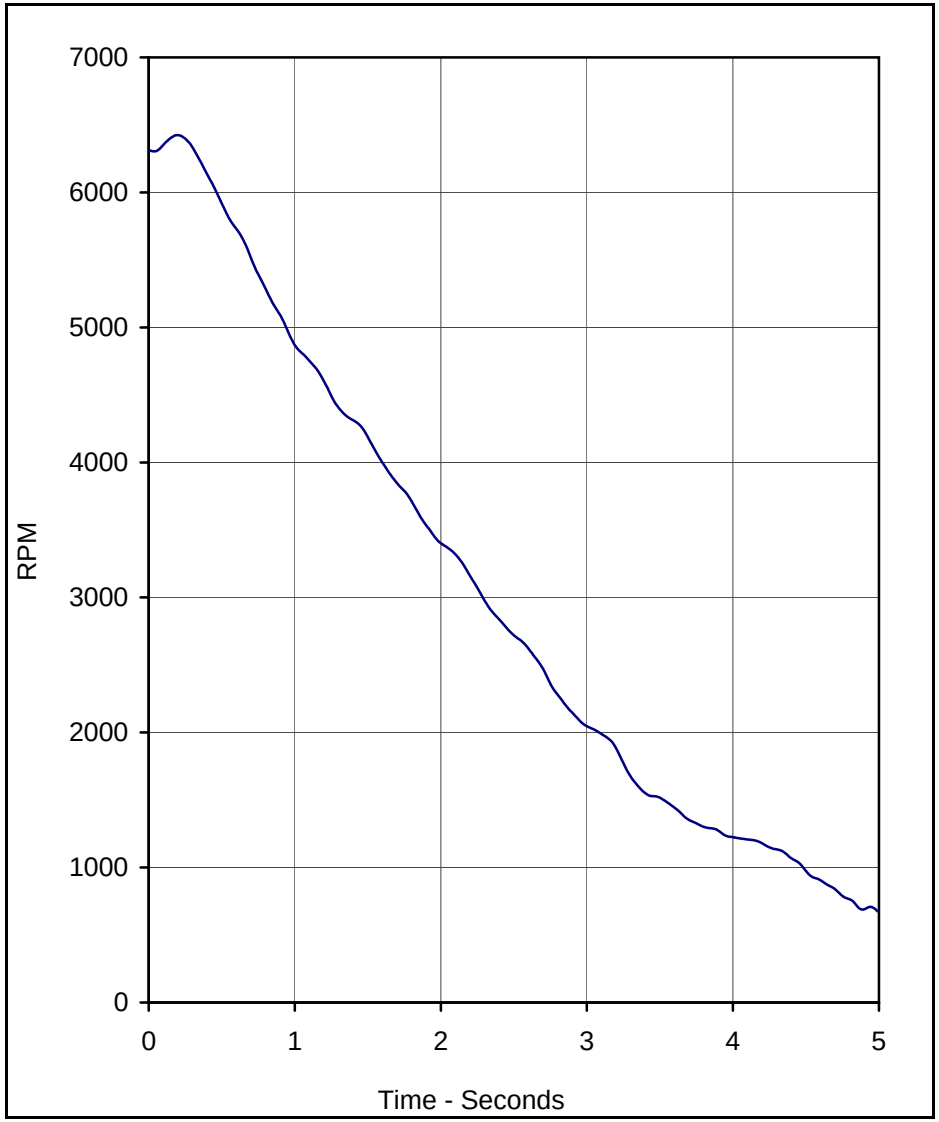
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6424.7	0.2	675.3	5.0	5

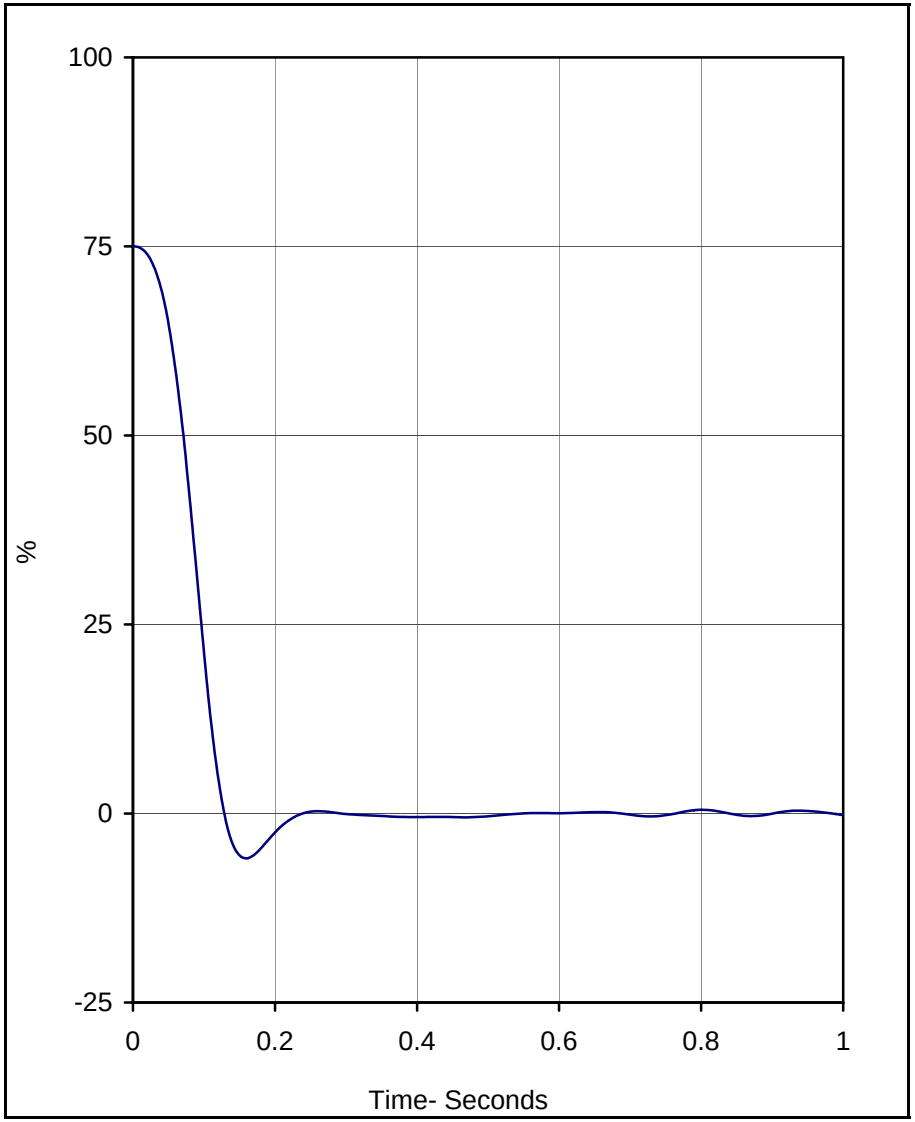
Test Program: FMVSS 124 (Spring #1 Disconnected)

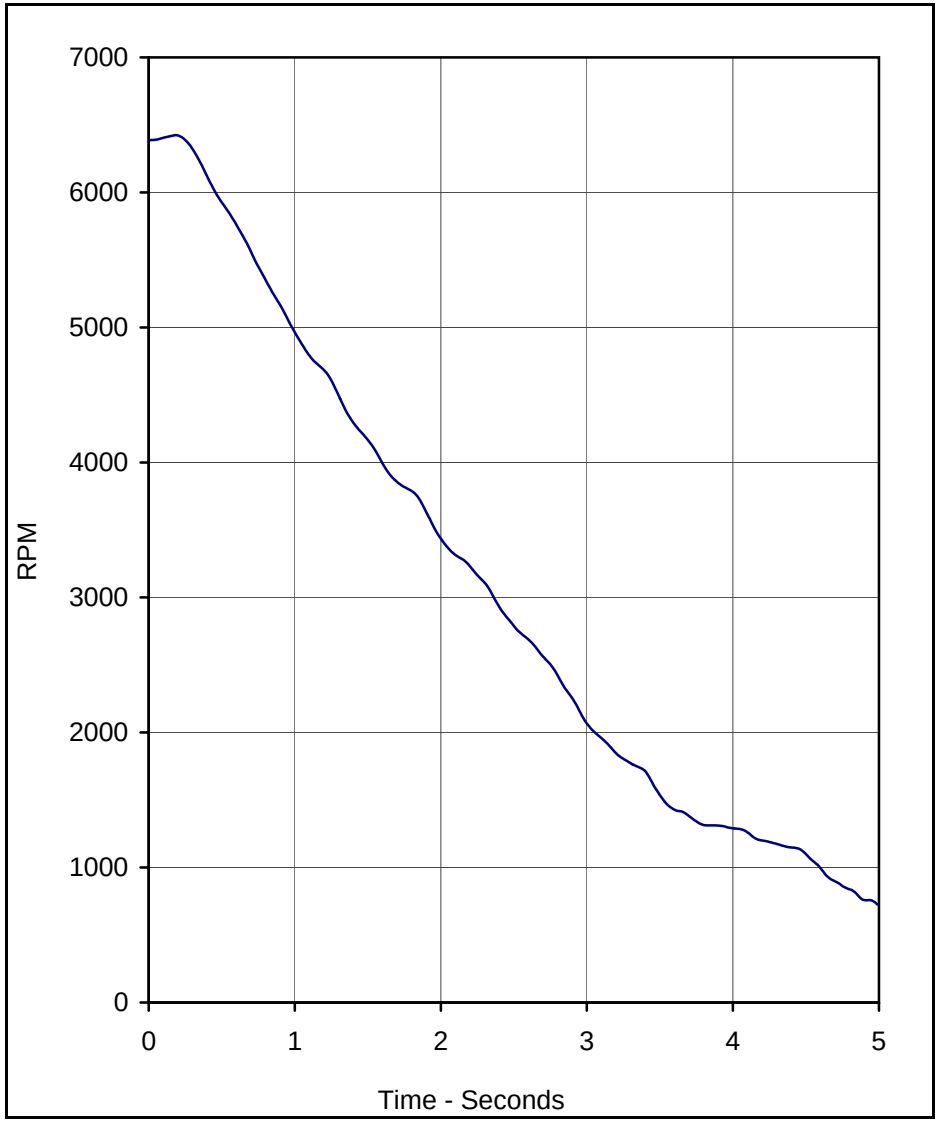
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6423.6	0.2	725.4	5.0	5

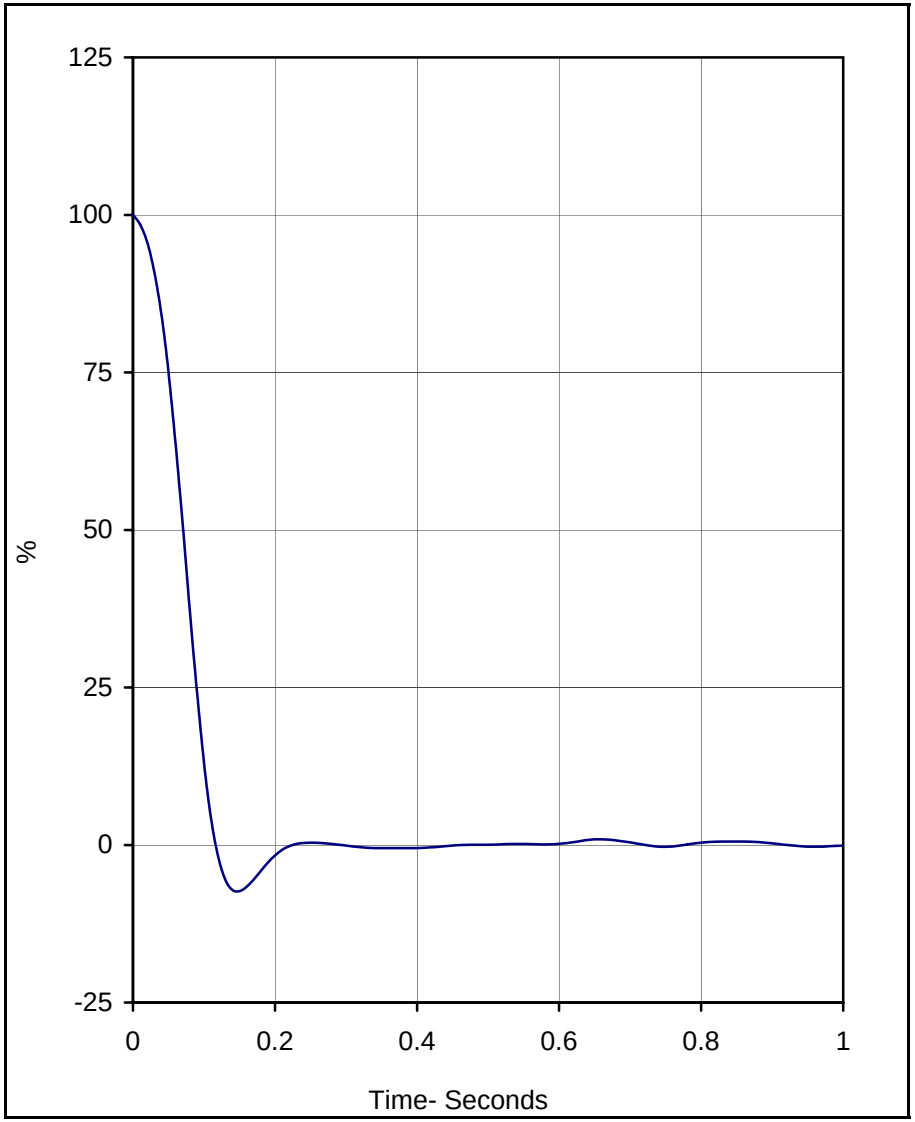
Test Program: FMVSS 124 (Spring #1 Disconnected)

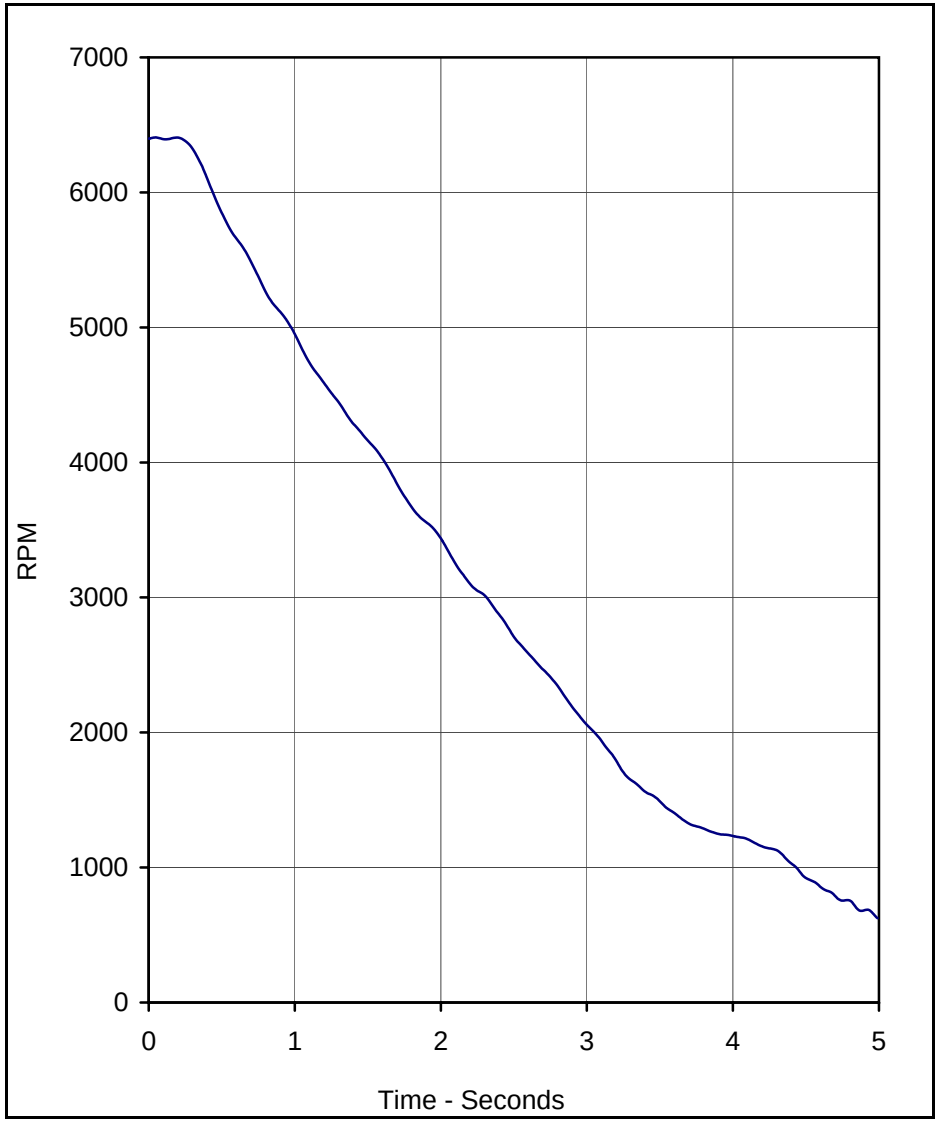
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6407.0	0.1	624.9	5.0	5

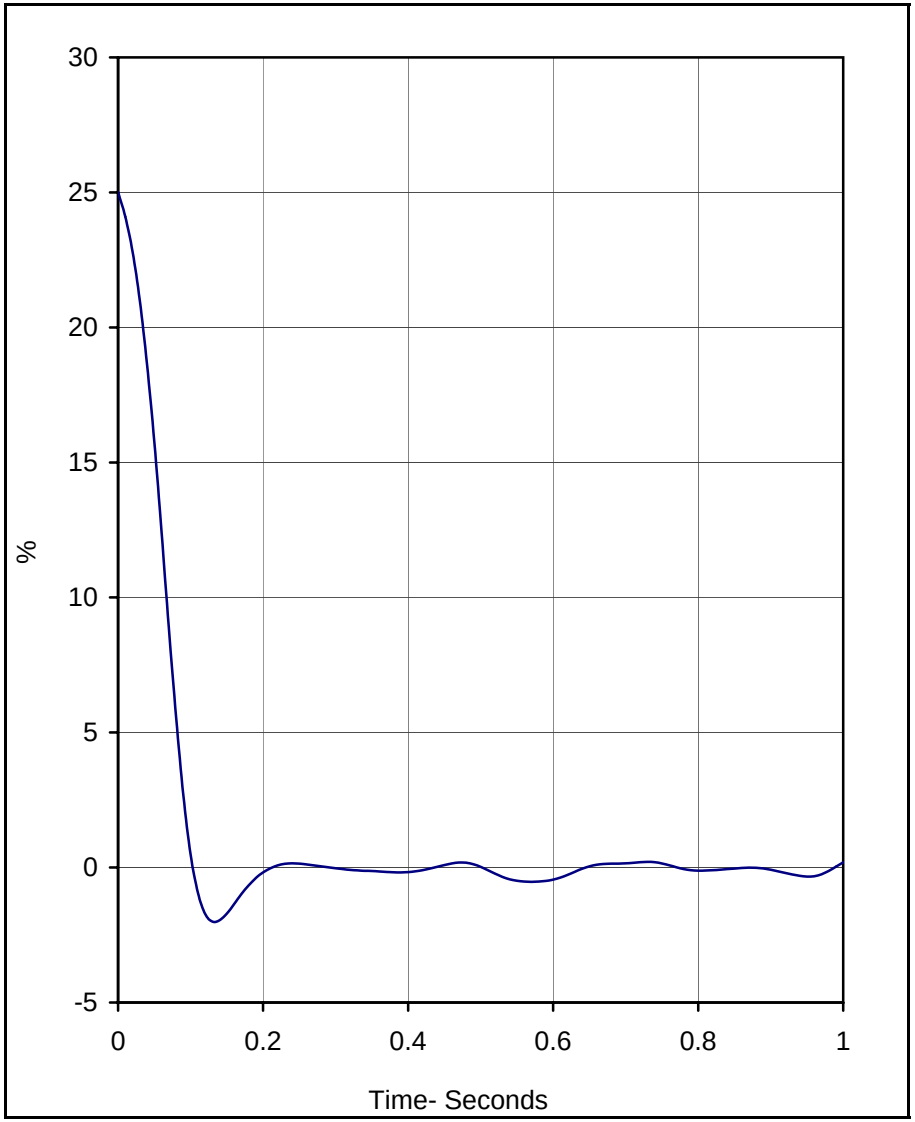
Test Program: FMVSS 124 (Spring #1 Disconnected)

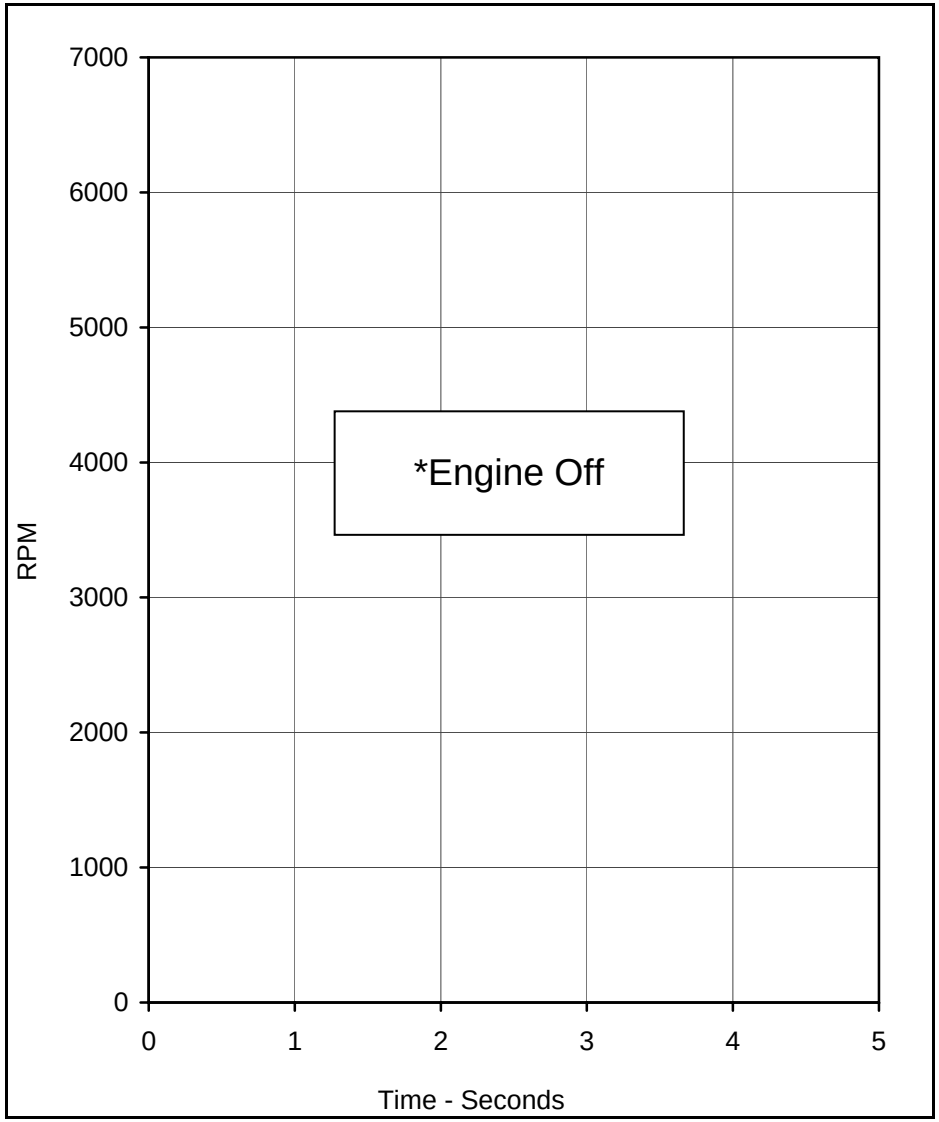
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.0	0.0	100.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

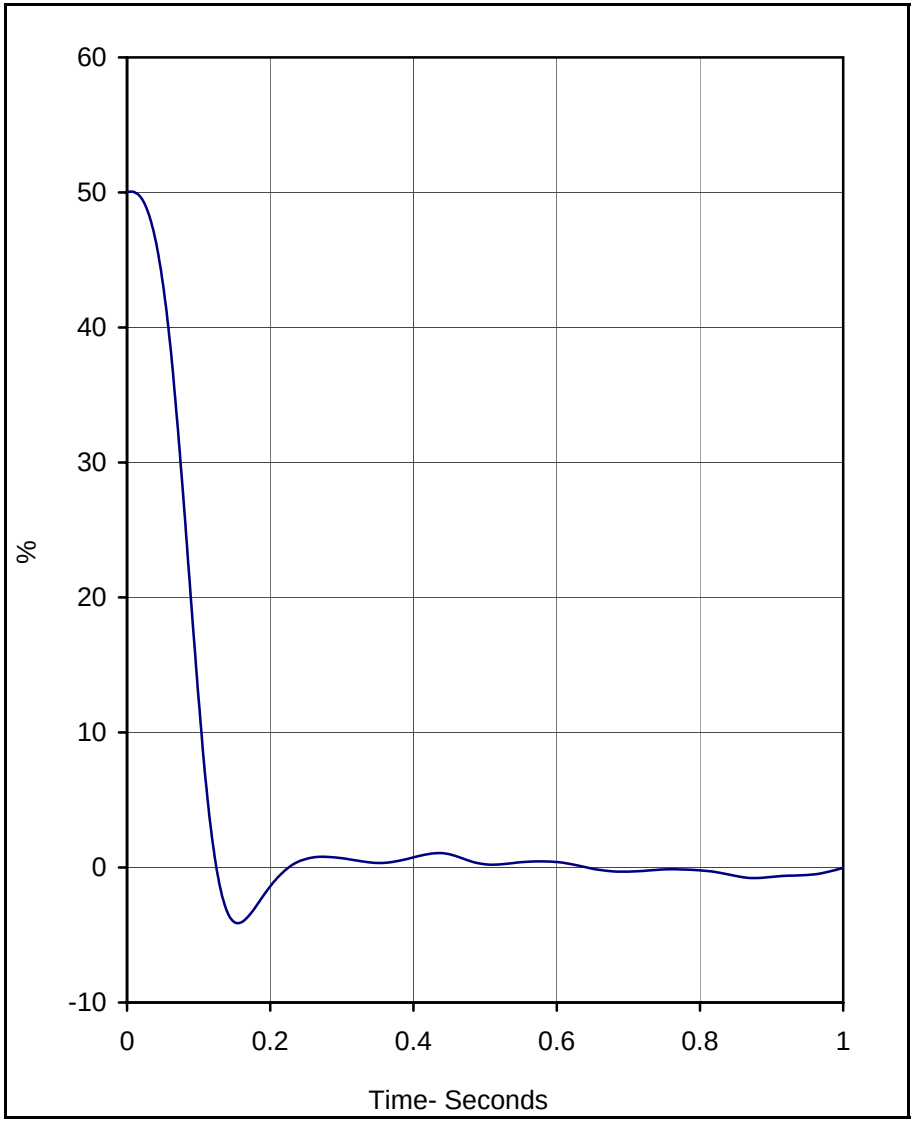
Test Program: FMVSS 124 (Spring #1 Disconnected)

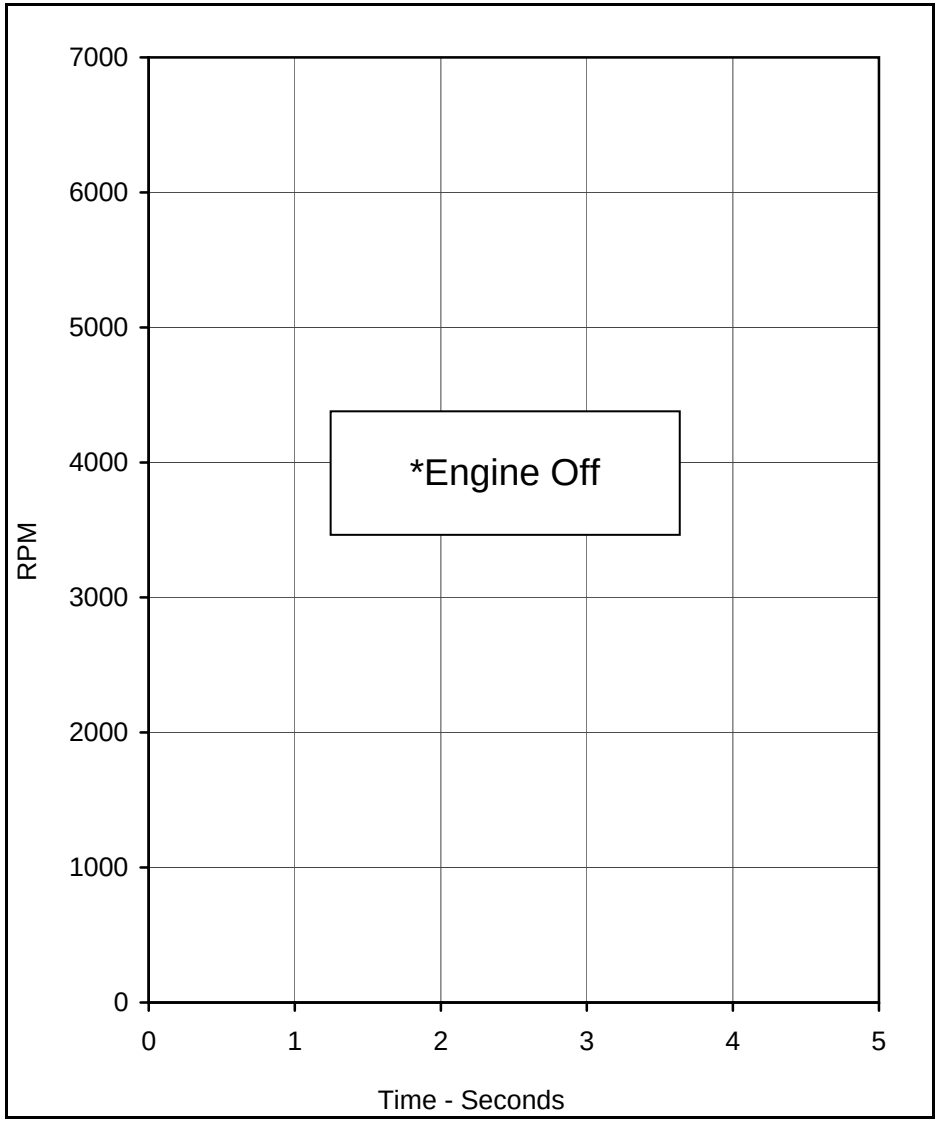
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.1	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

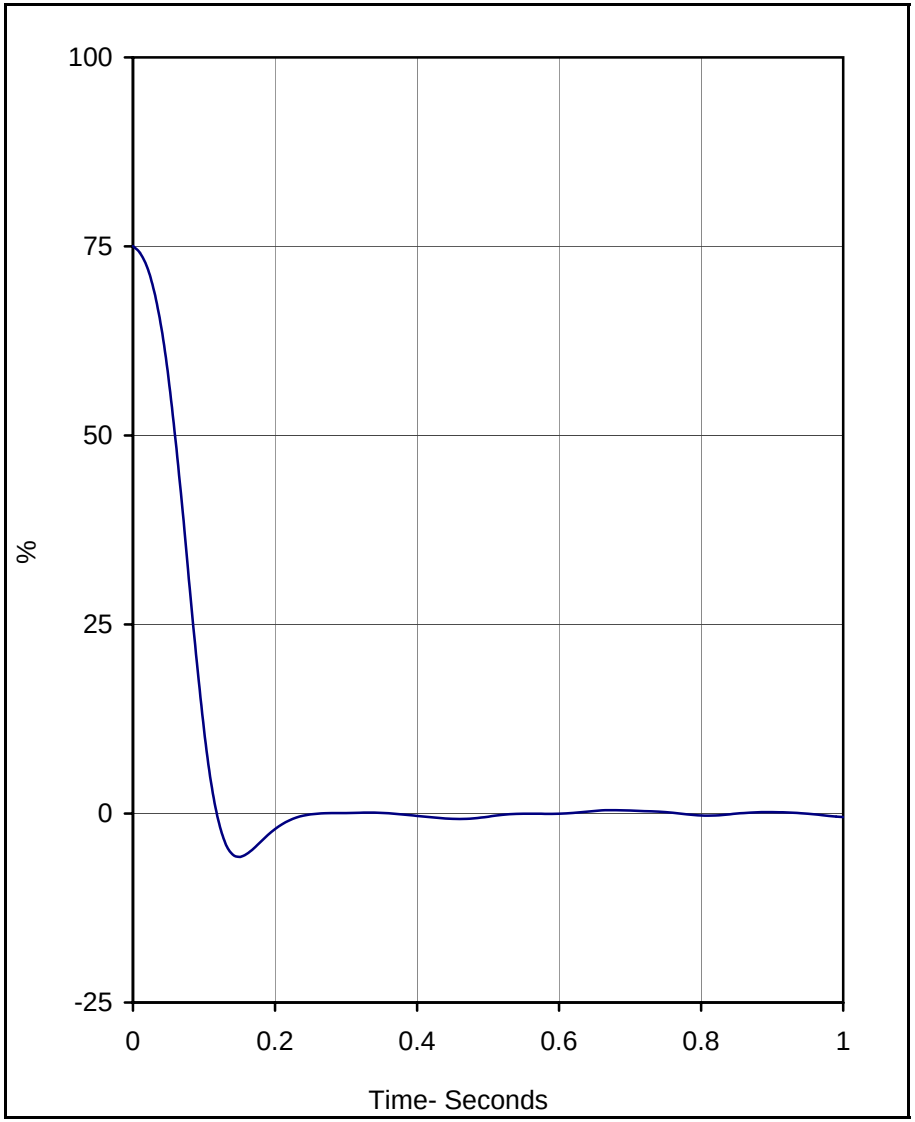
Test Program: FMVSS 124 (Spring #1 Disconnected)

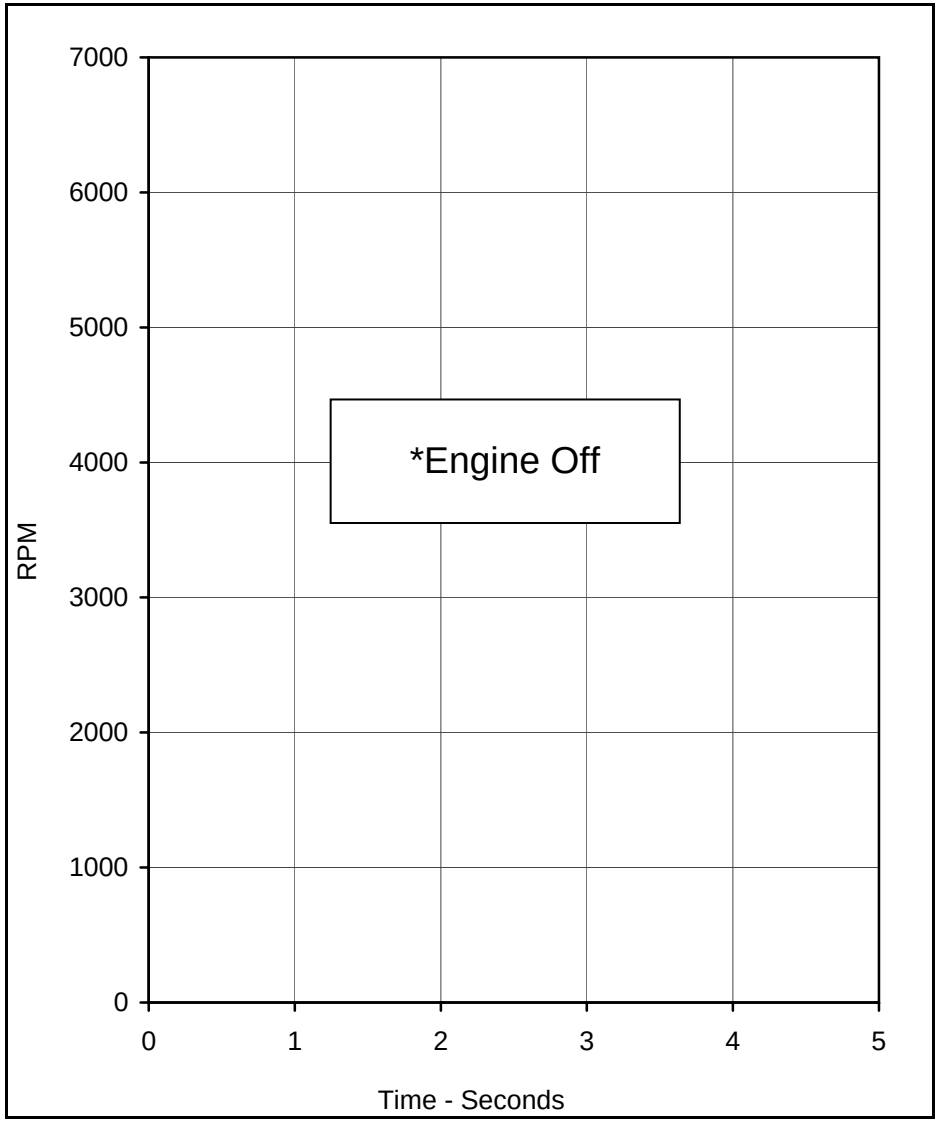
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

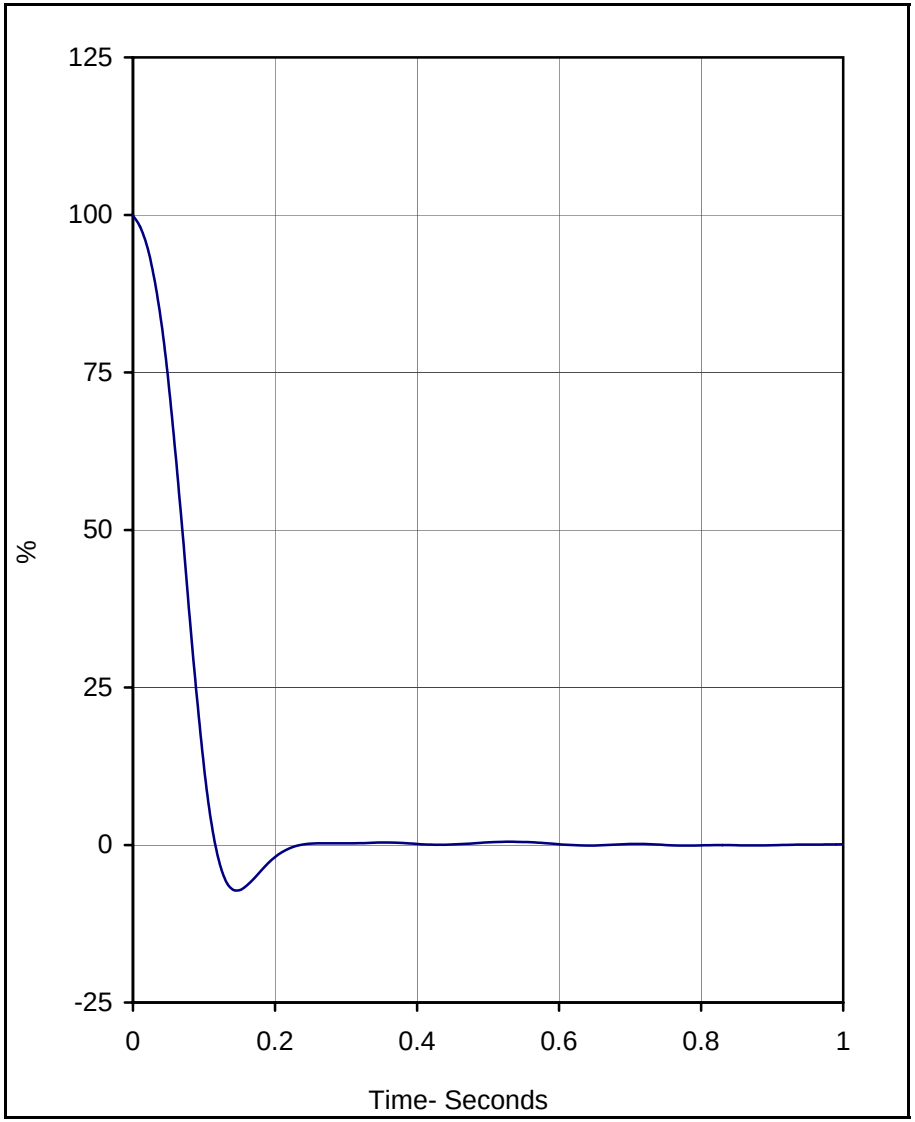
Test Program: FMVSS 124 (Spring #1 Disconnected)

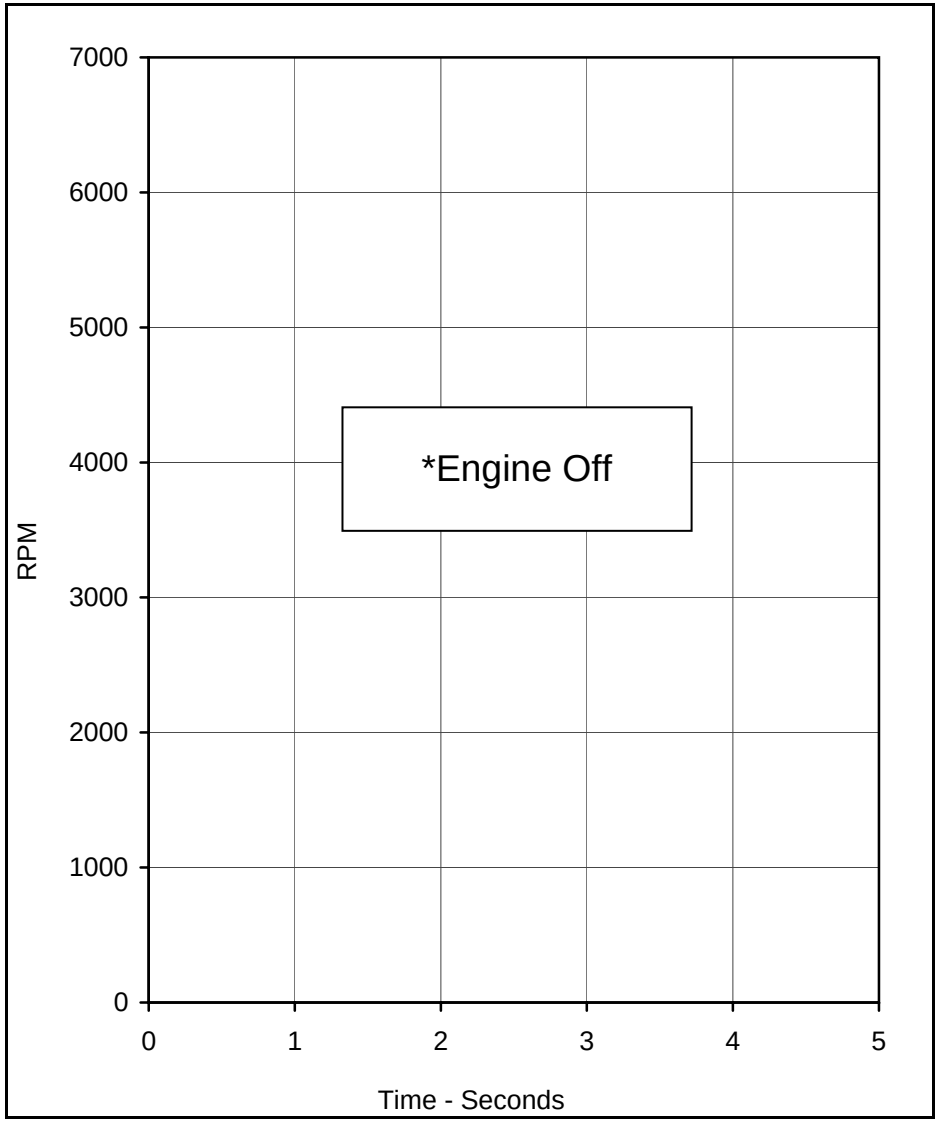
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	99.9	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

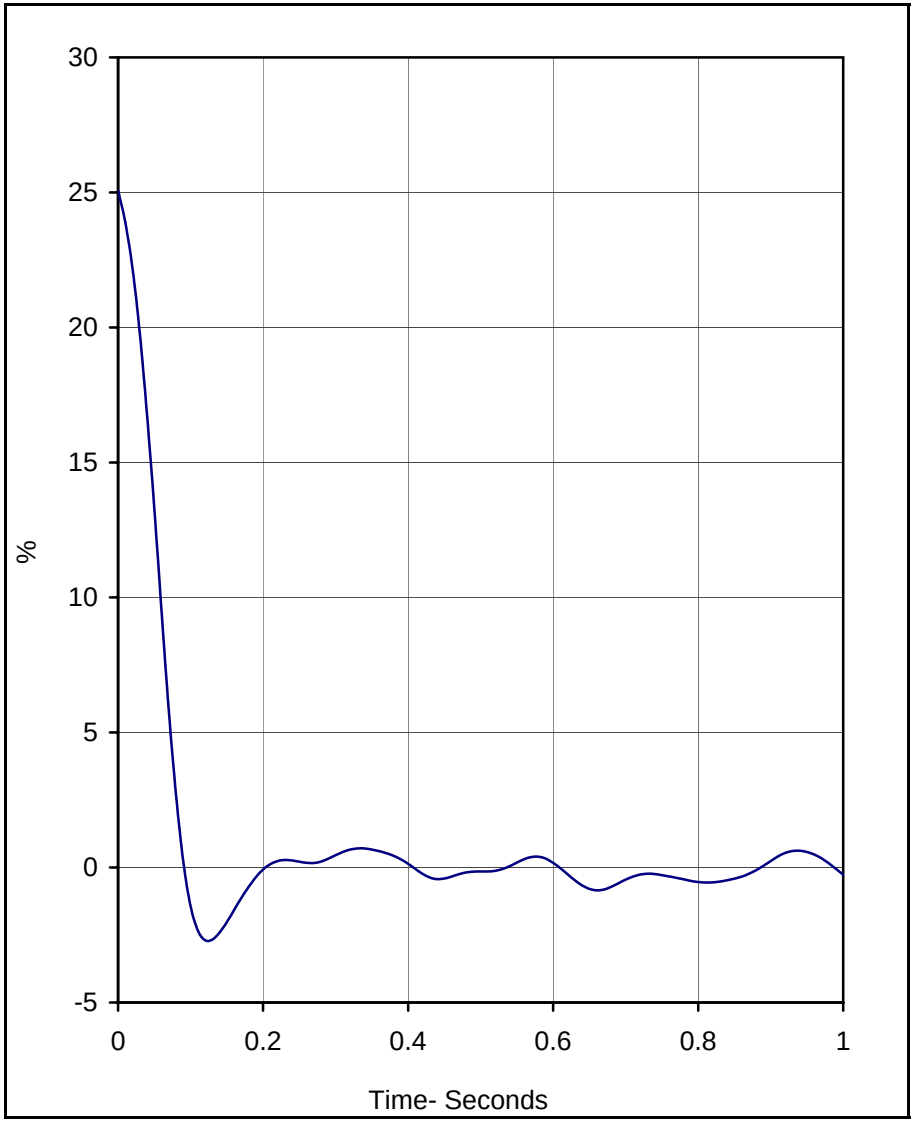
Test Program: FMVSS 124 (Spring #1 Disconnected)

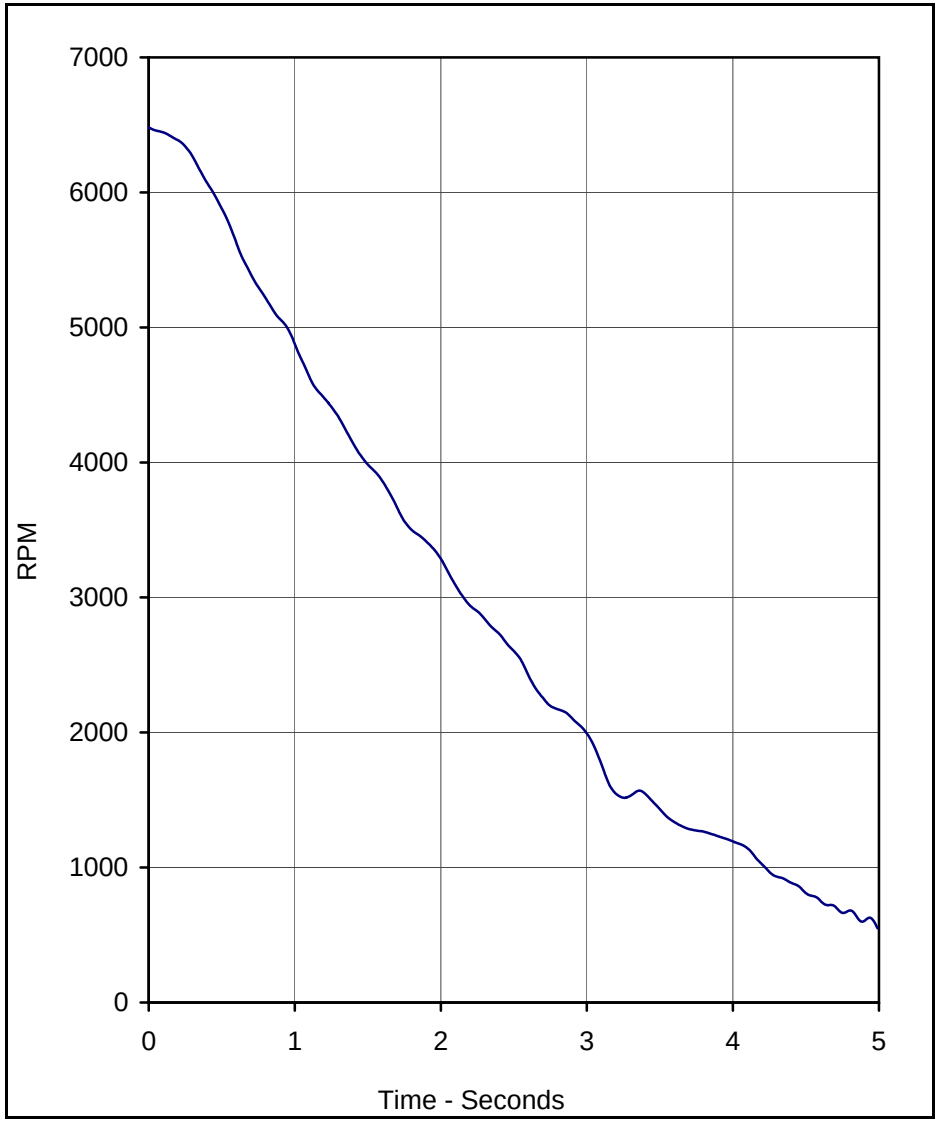
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.1	0.0	90.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6480.4	0.0	549.4	5.0	5

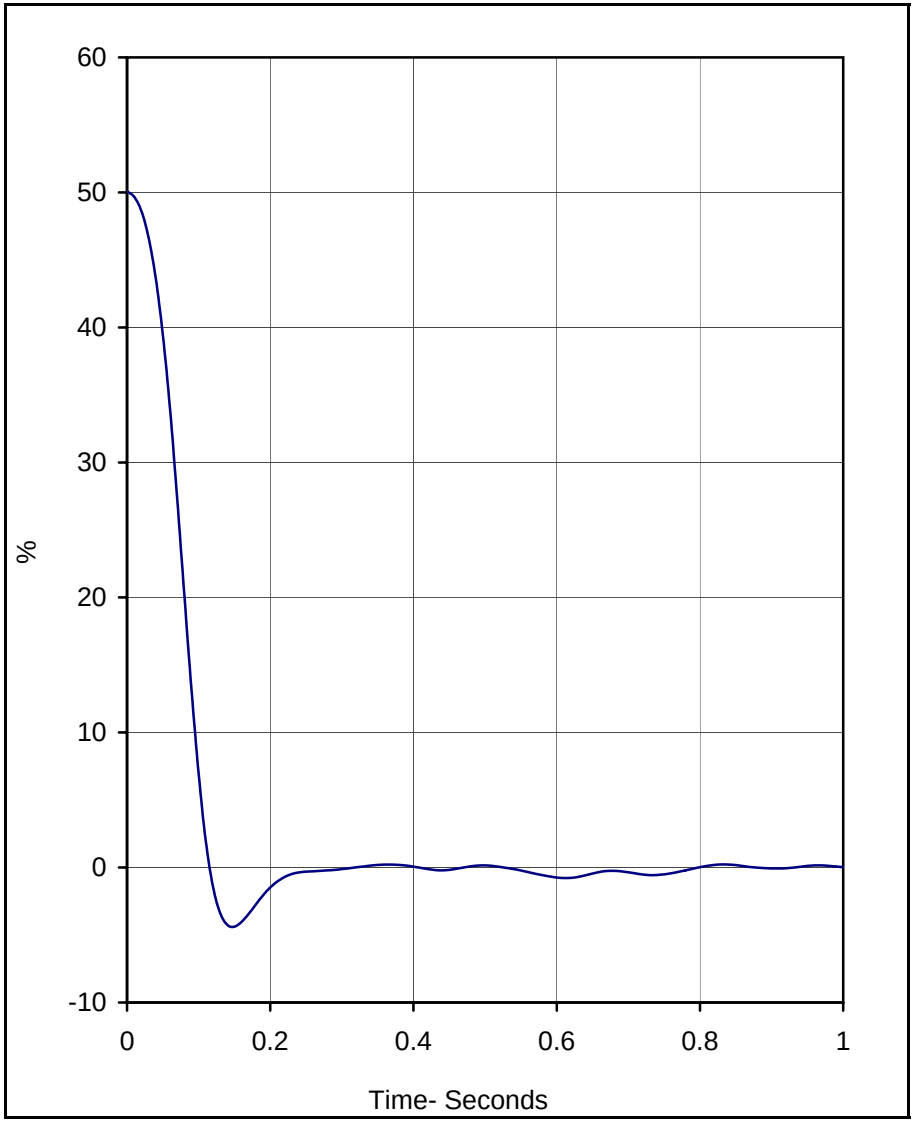
Test Program: FMVSS 124 (Spring #2 Disconnected)

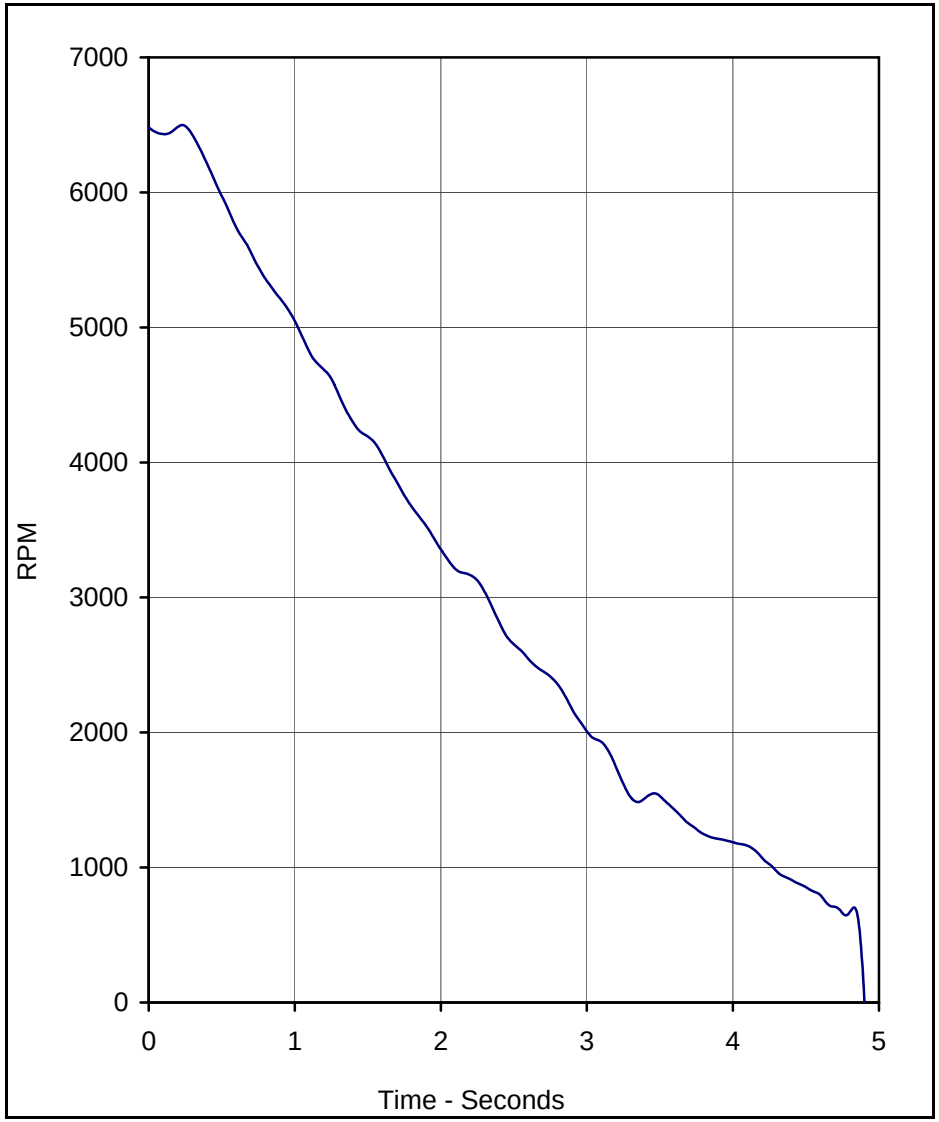
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6498.9	0.2	-1132.9	5.0	5

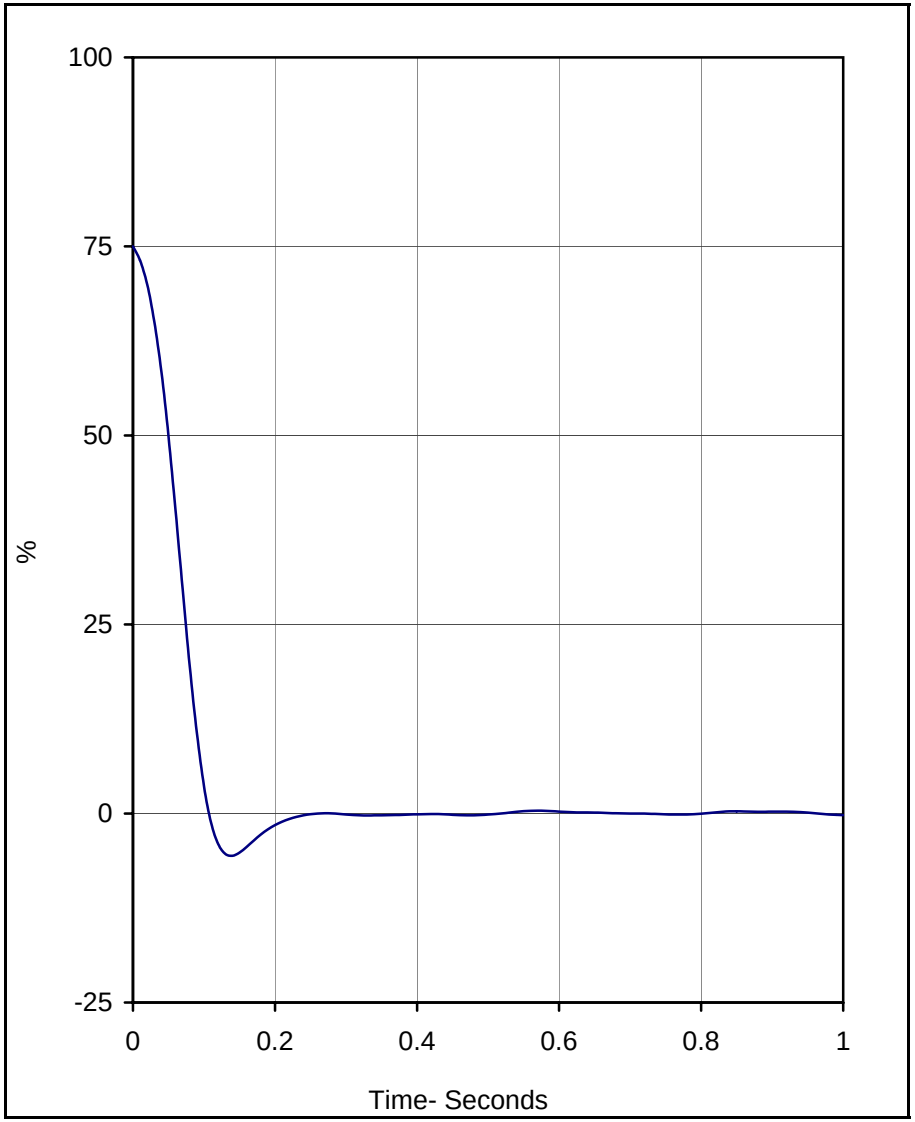
Test Program: FMVSS 124 (Spring #2 Disconnected)

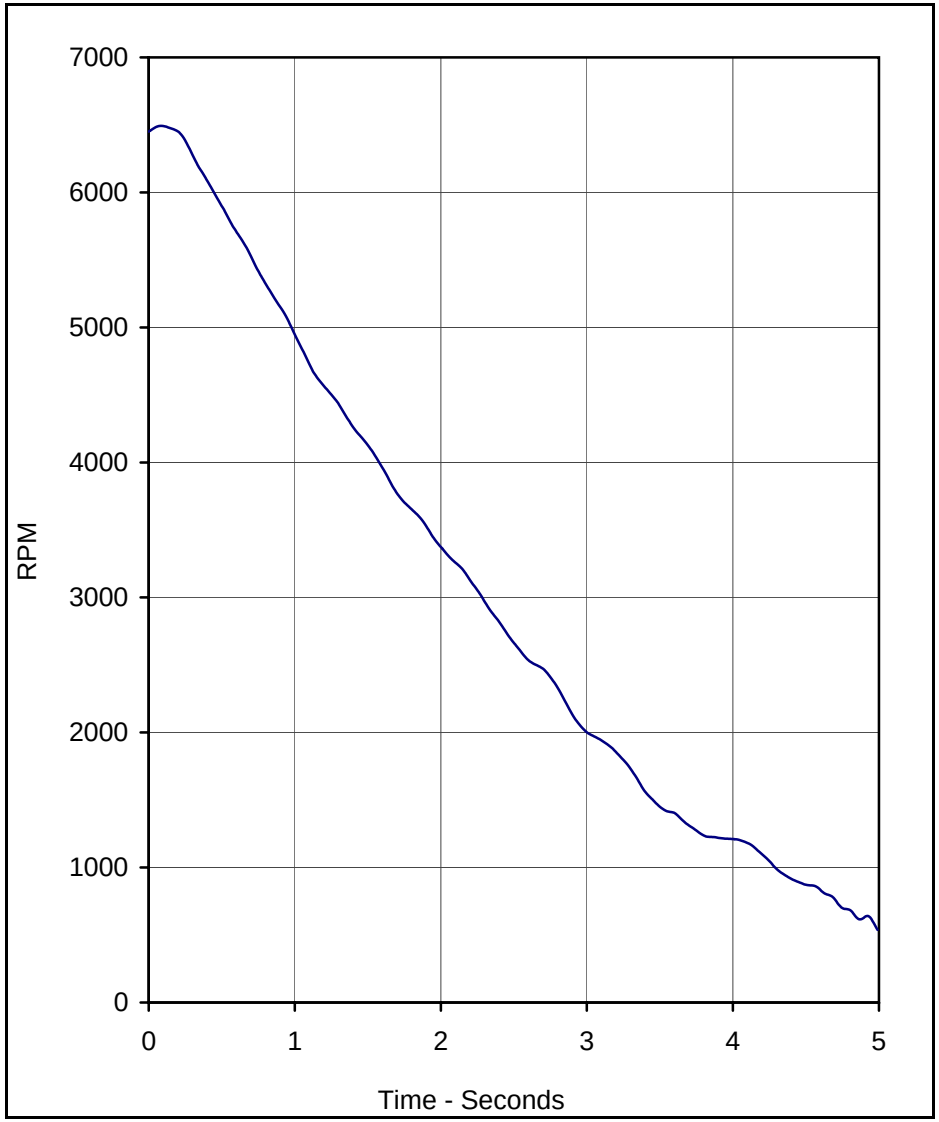
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6493.4	0.1	538.0	5.0	5

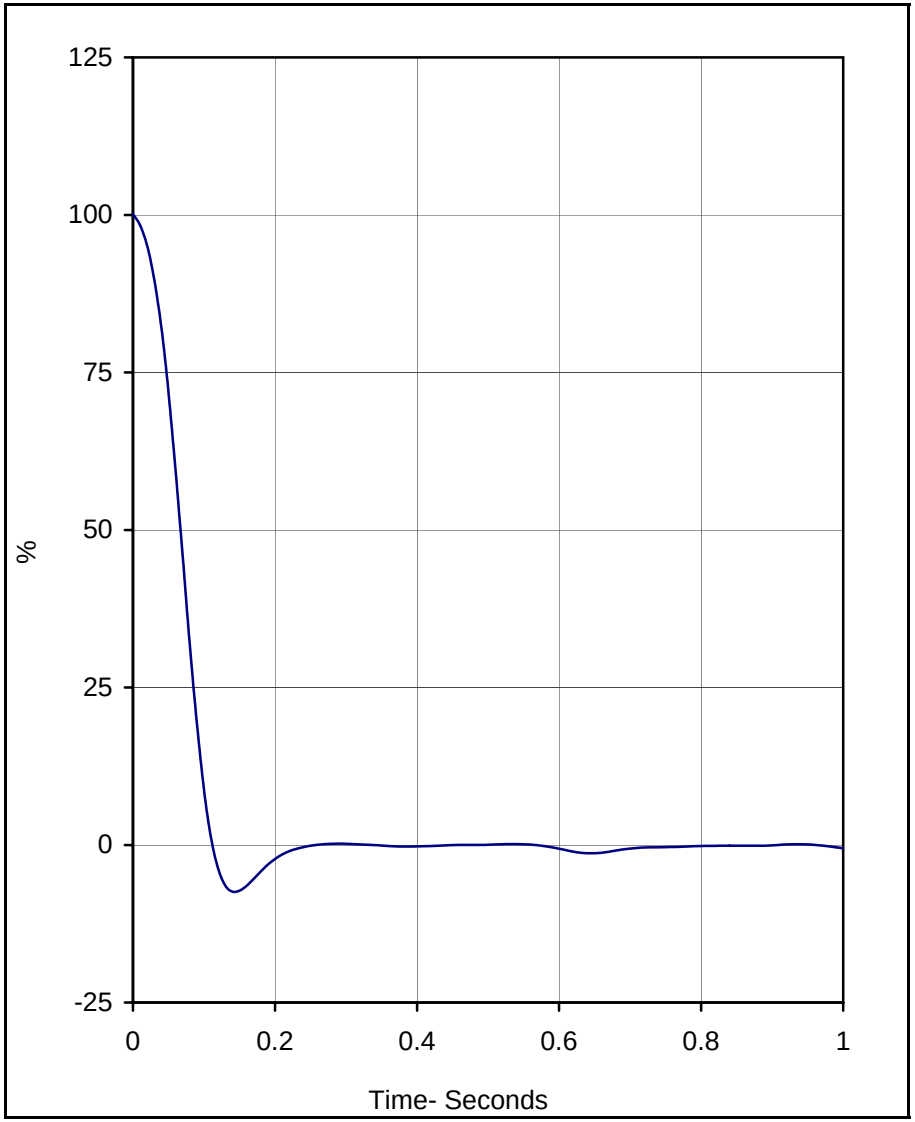
Test Program: FMVSS 124 (Spring #2 Disconnected)

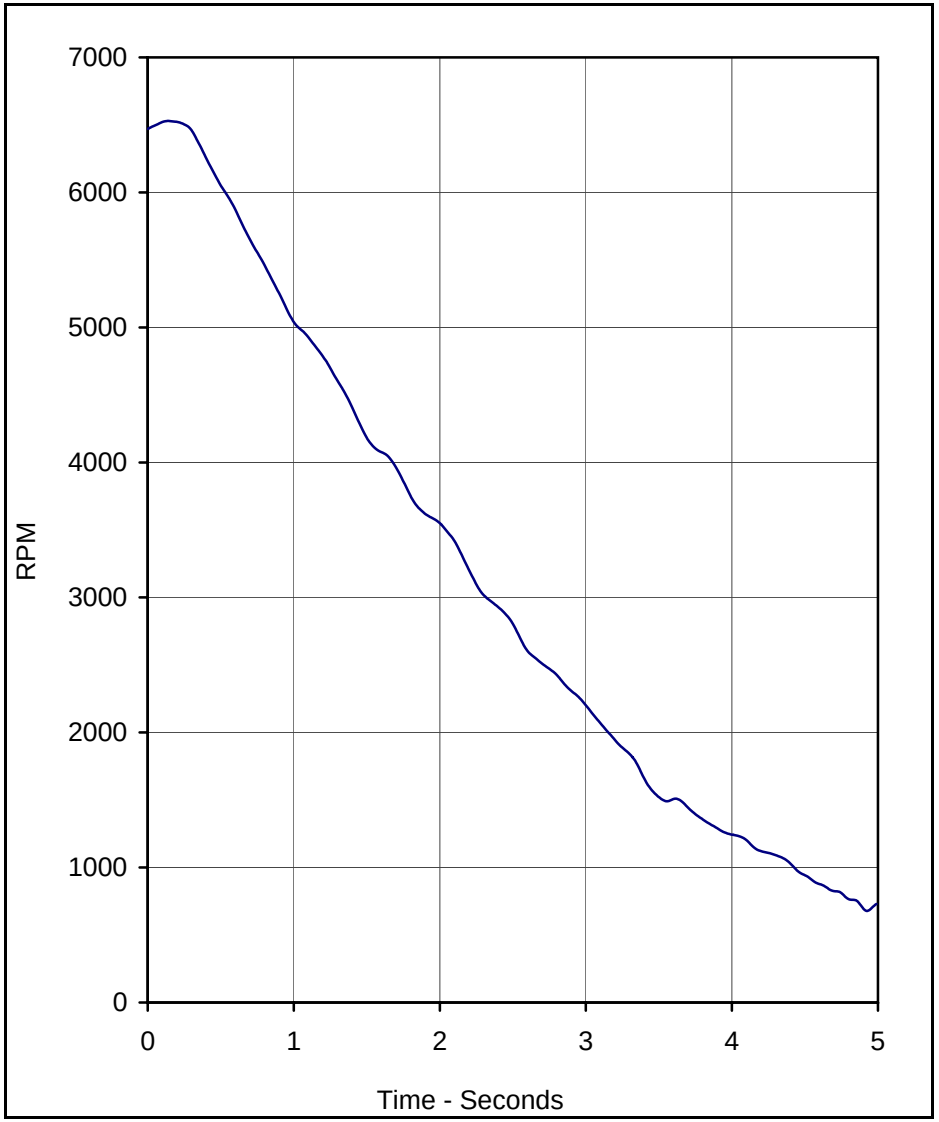
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6529.1	0.1	679.2	4.9	5

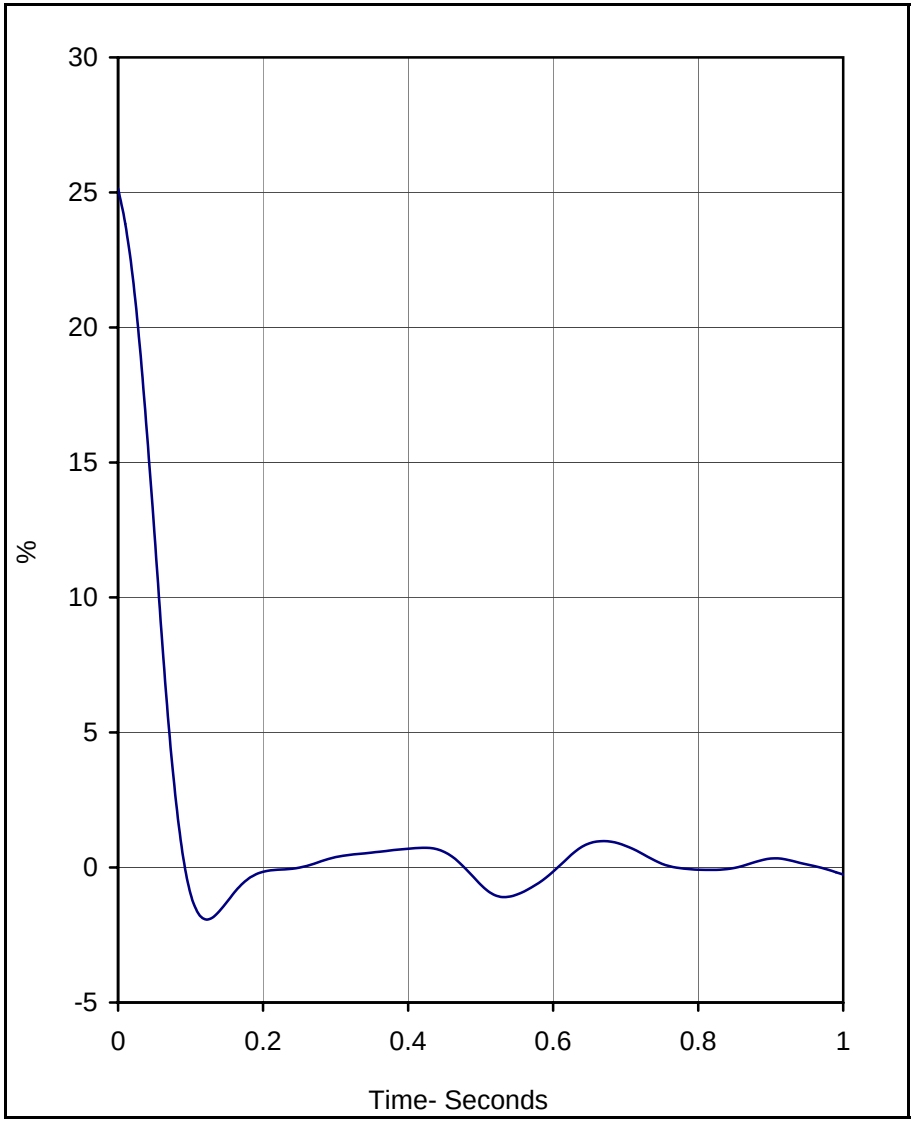
Test Program: FMVSS 124 (Spring #2 Disconnected)

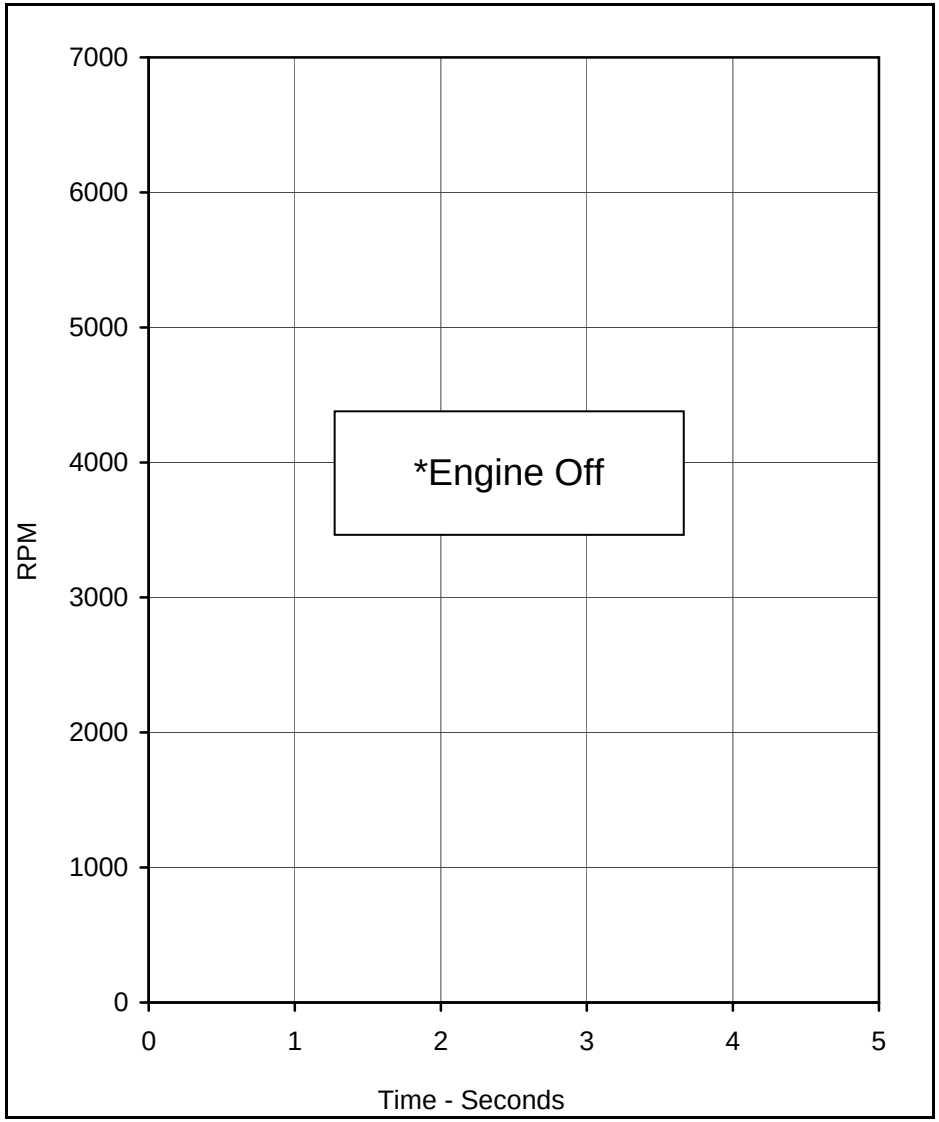
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.1	0.0	90.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

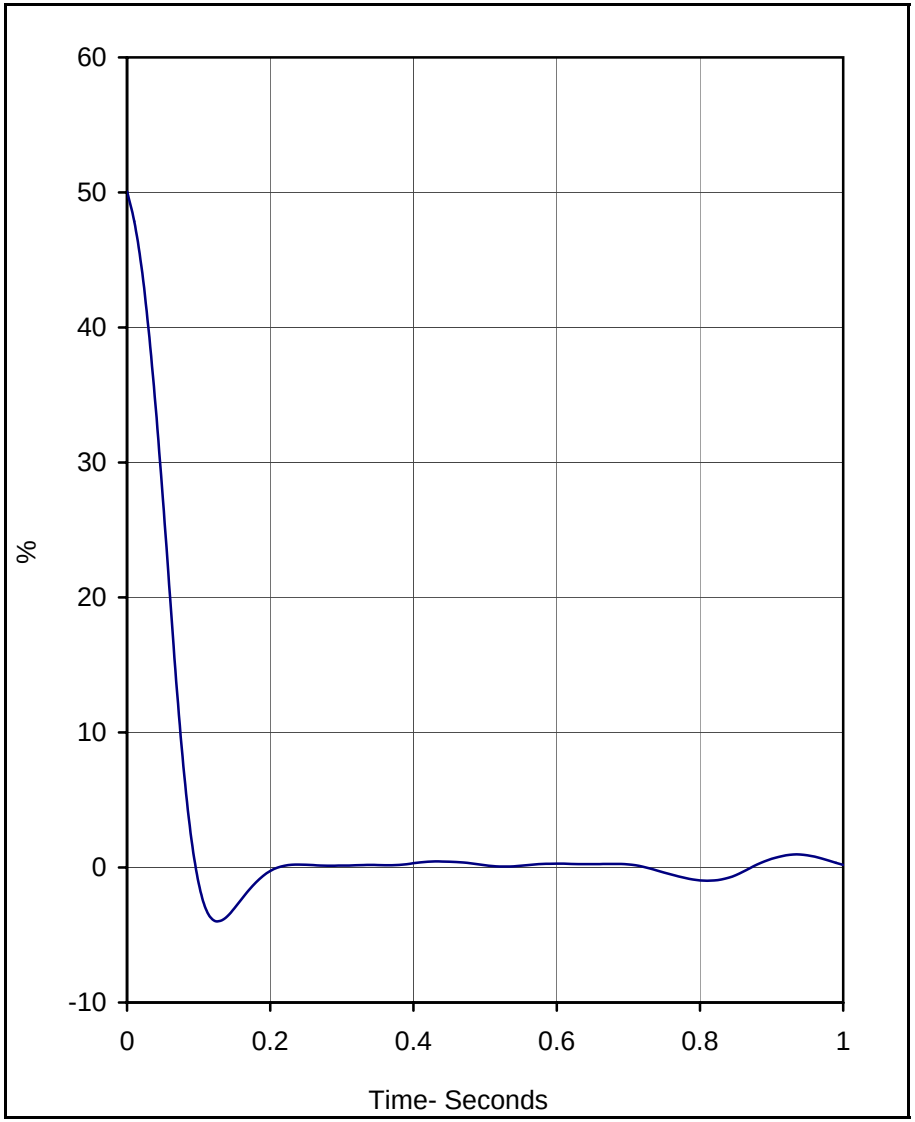
Test Program: FMVSS 124 (Spring #2 Disconnected)

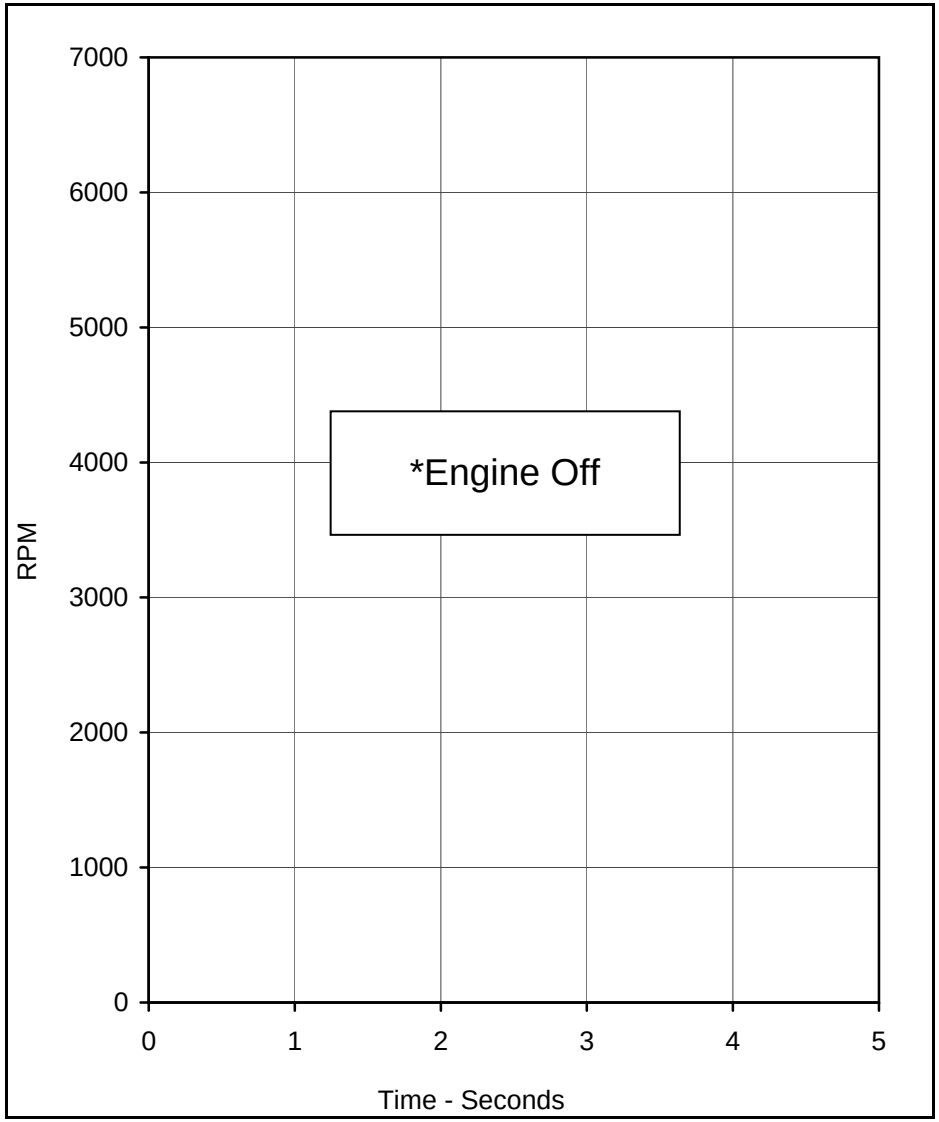
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.1	0.0	100.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

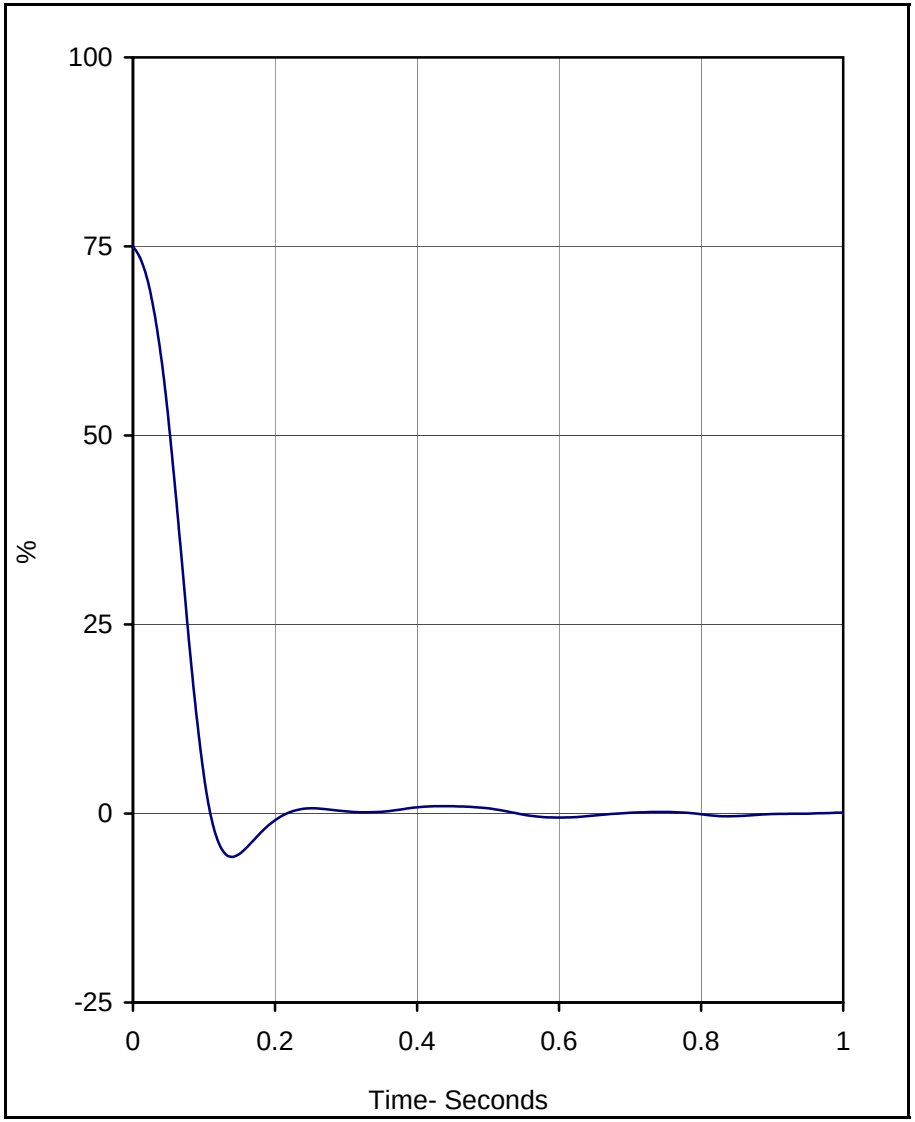
Test Program: FMVSS 124 (Spring #2 Disconnected)

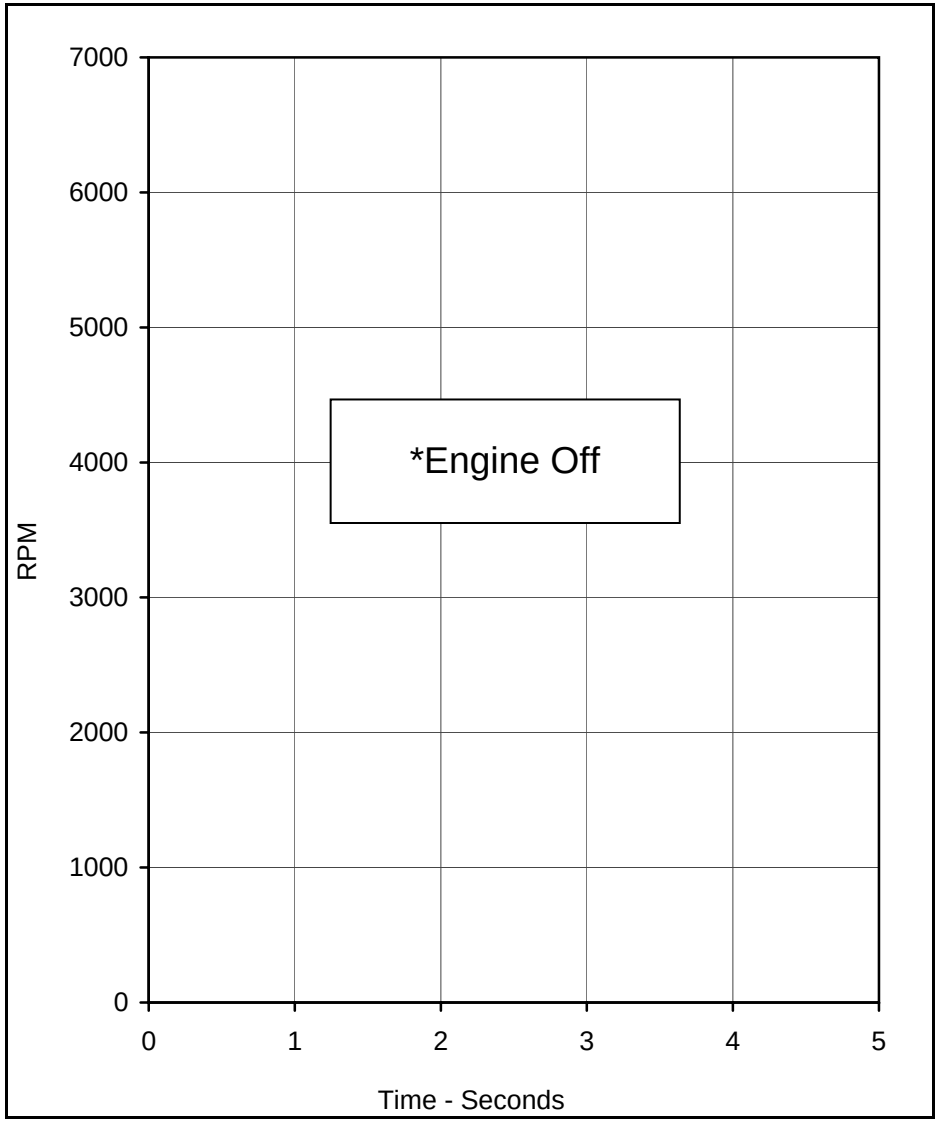
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

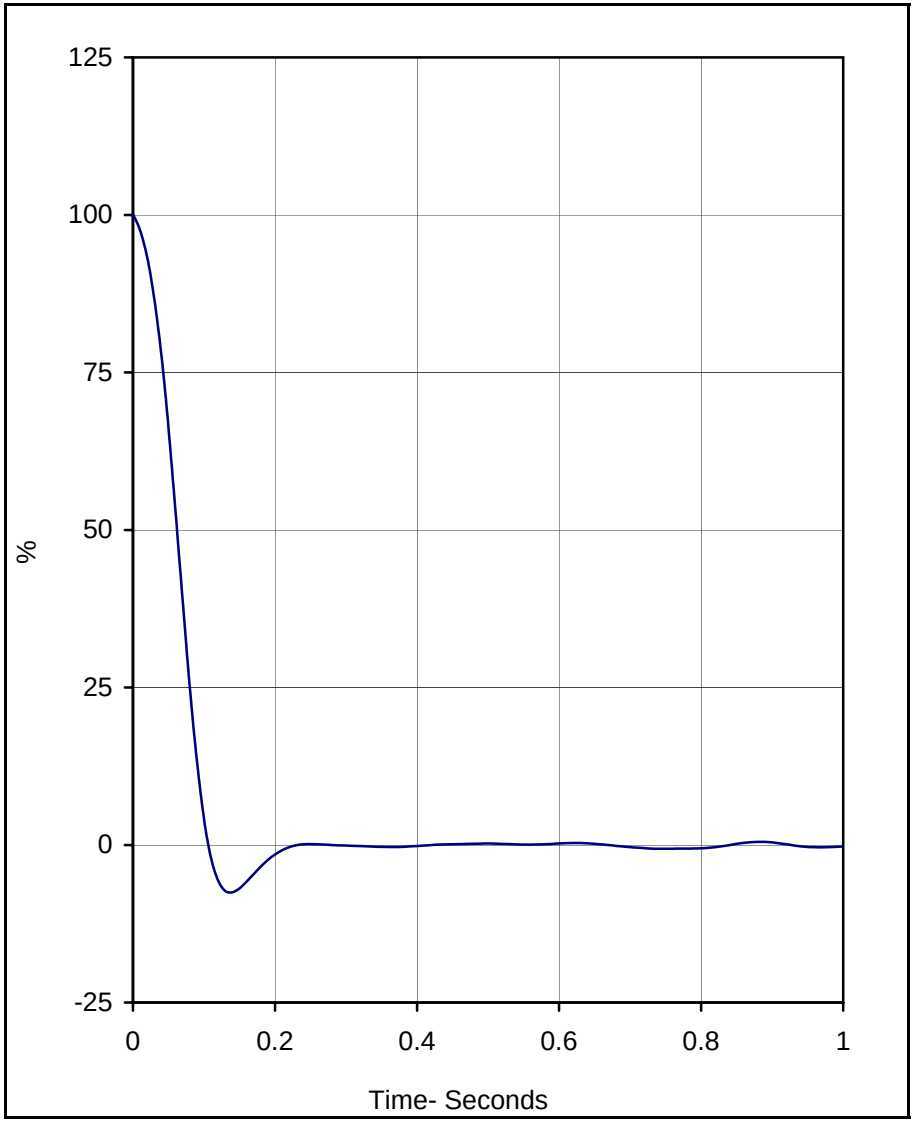
Test Program: FMVSS 124 (Spring #2 Disconnected)

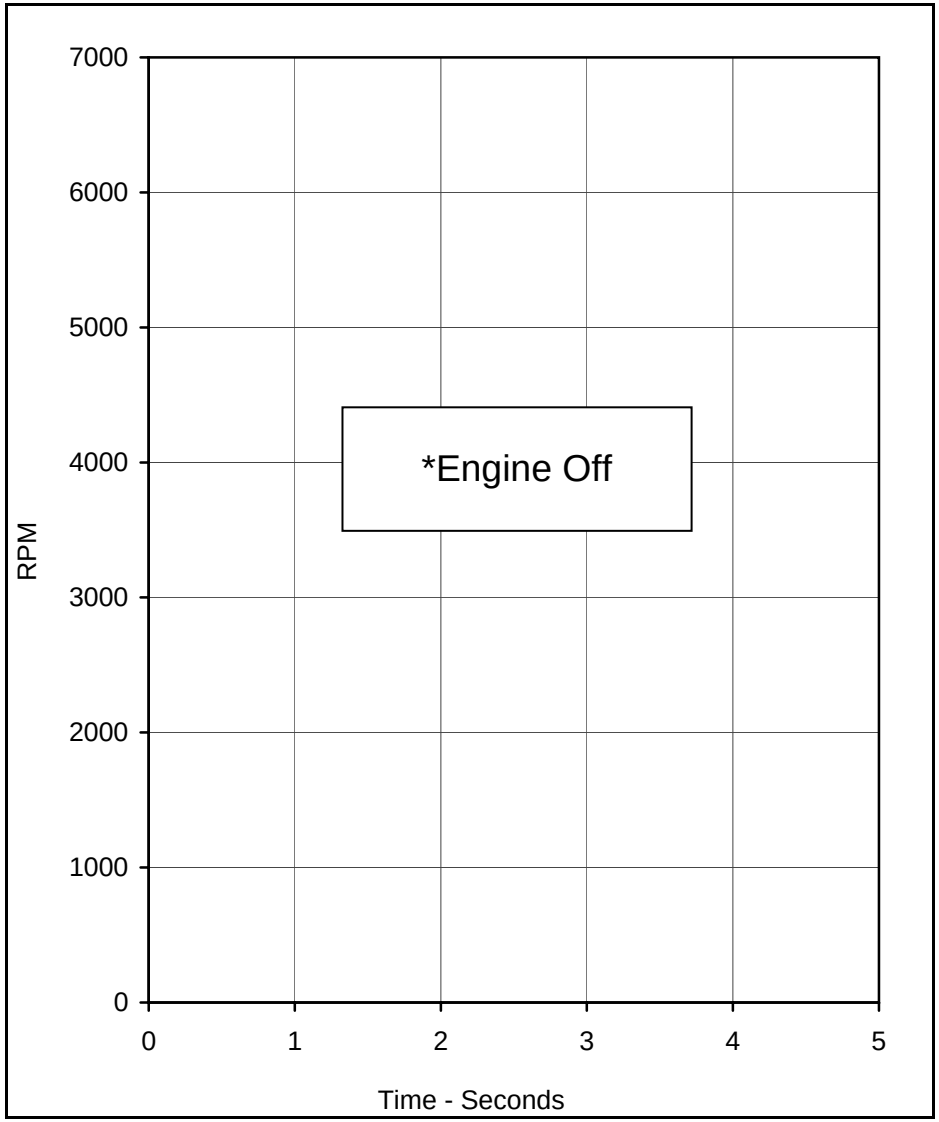
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

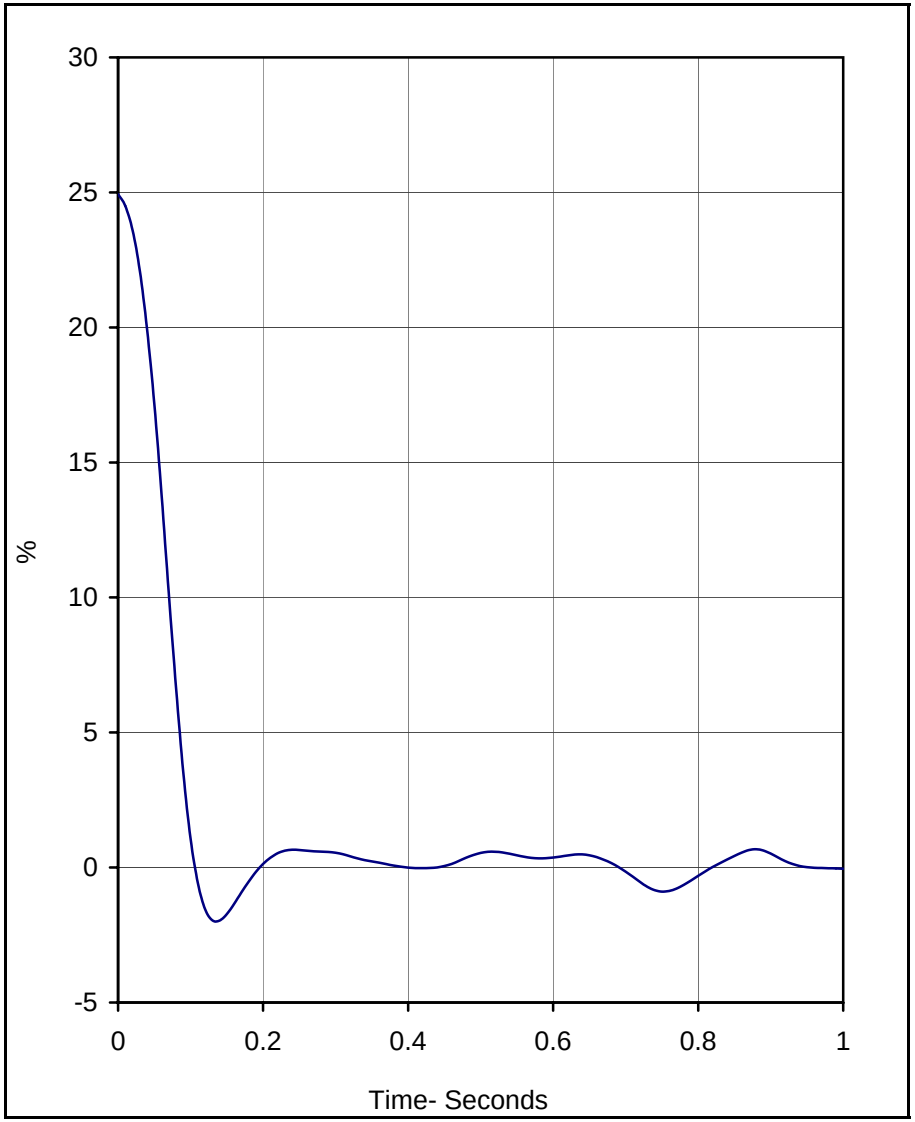
Test Program: FMVSS 124 (Spring #2 Disconnected)

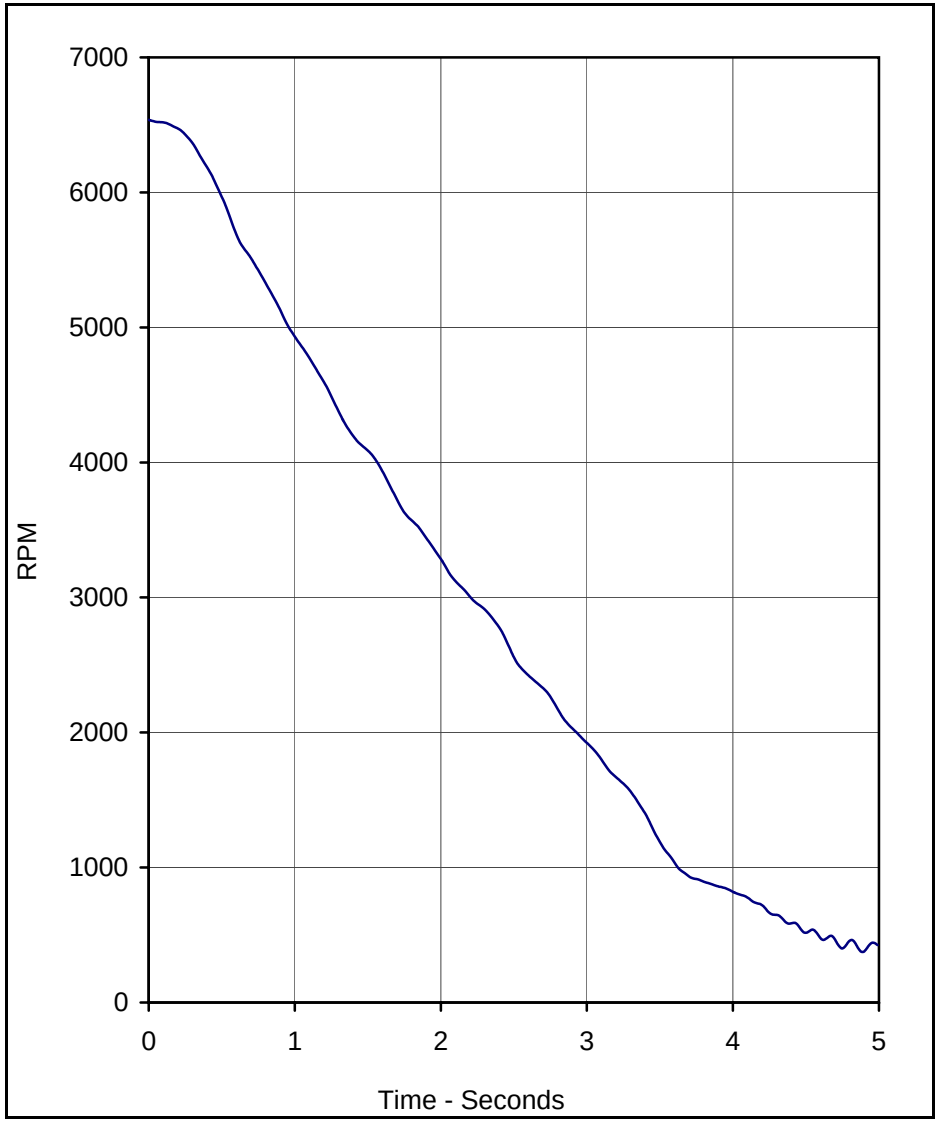
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	24.9	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6537.5	0.0	374.2	4.9	5

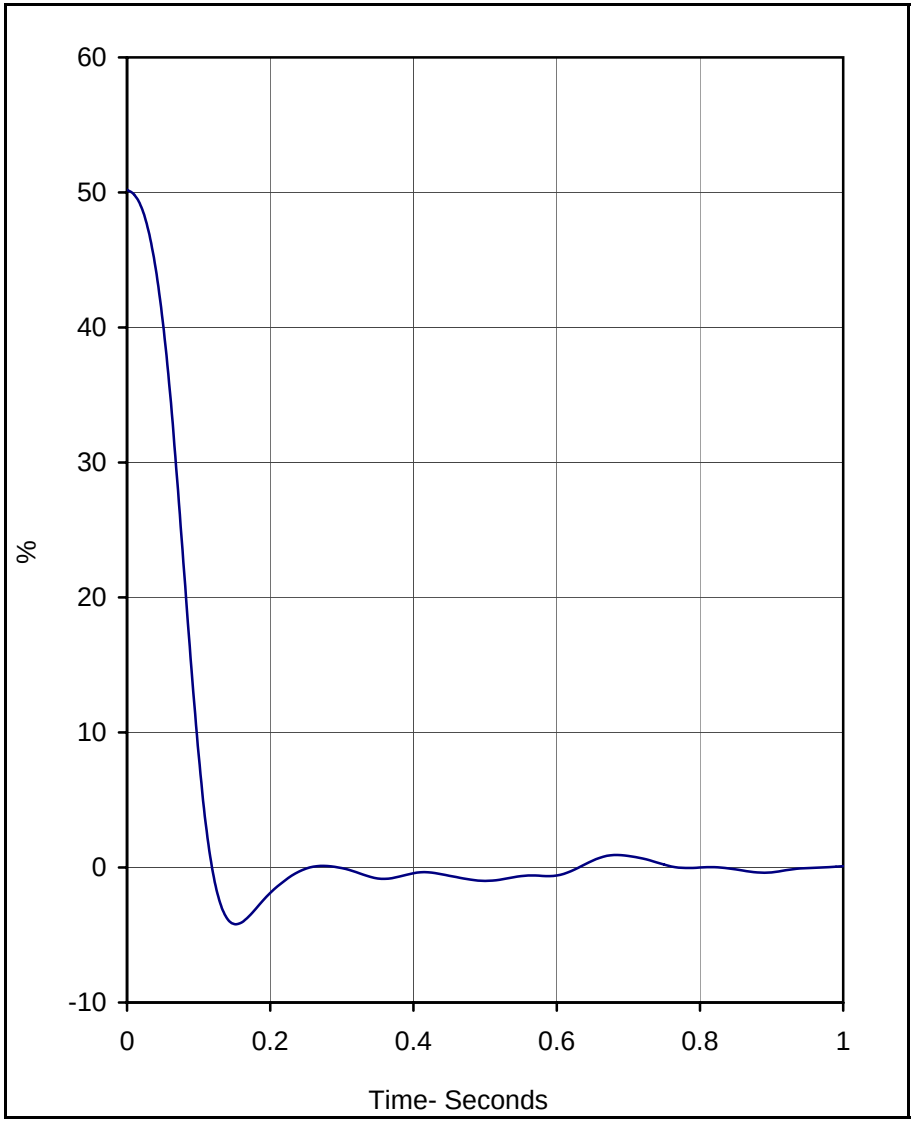
Test Program: FMVSS 124 (Spring #3 Disconnected)

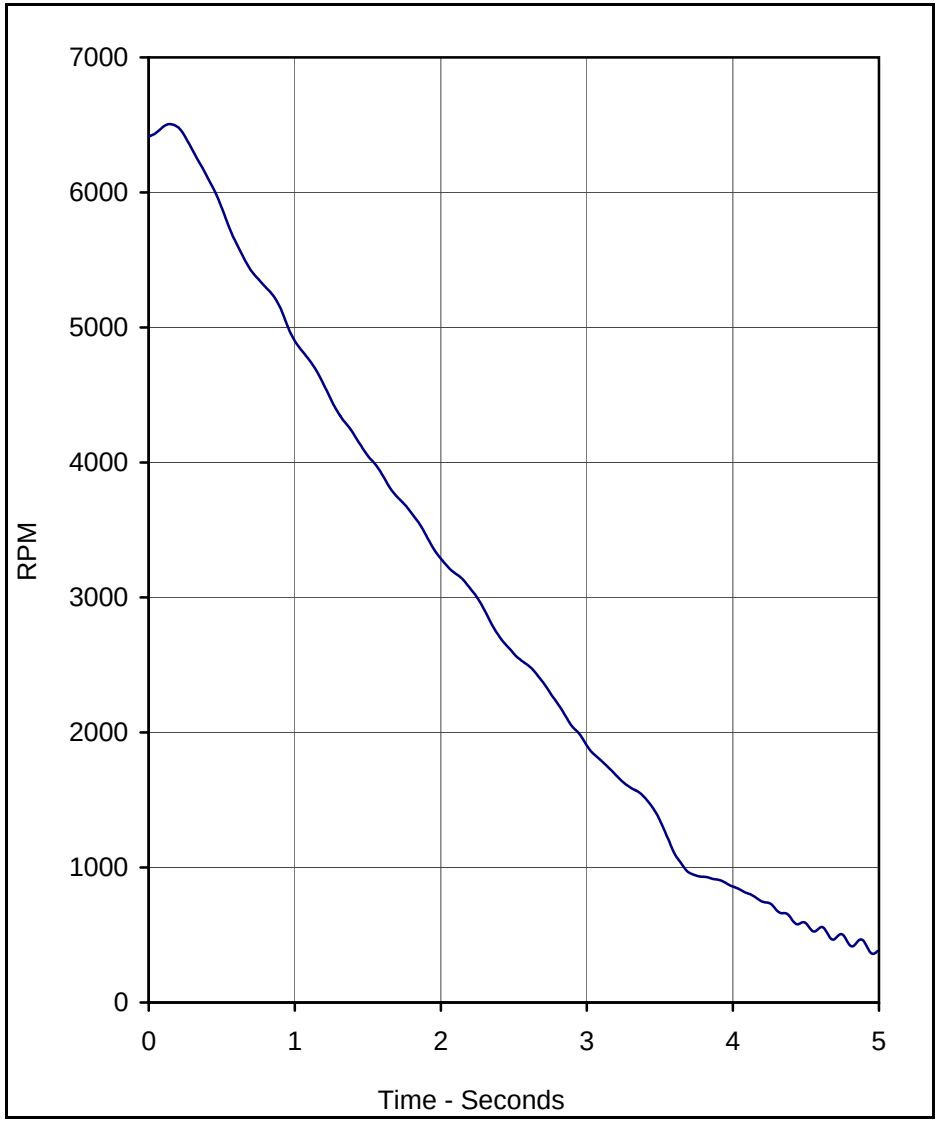
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.2	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6505.9	0.1	360.4	5.0	5

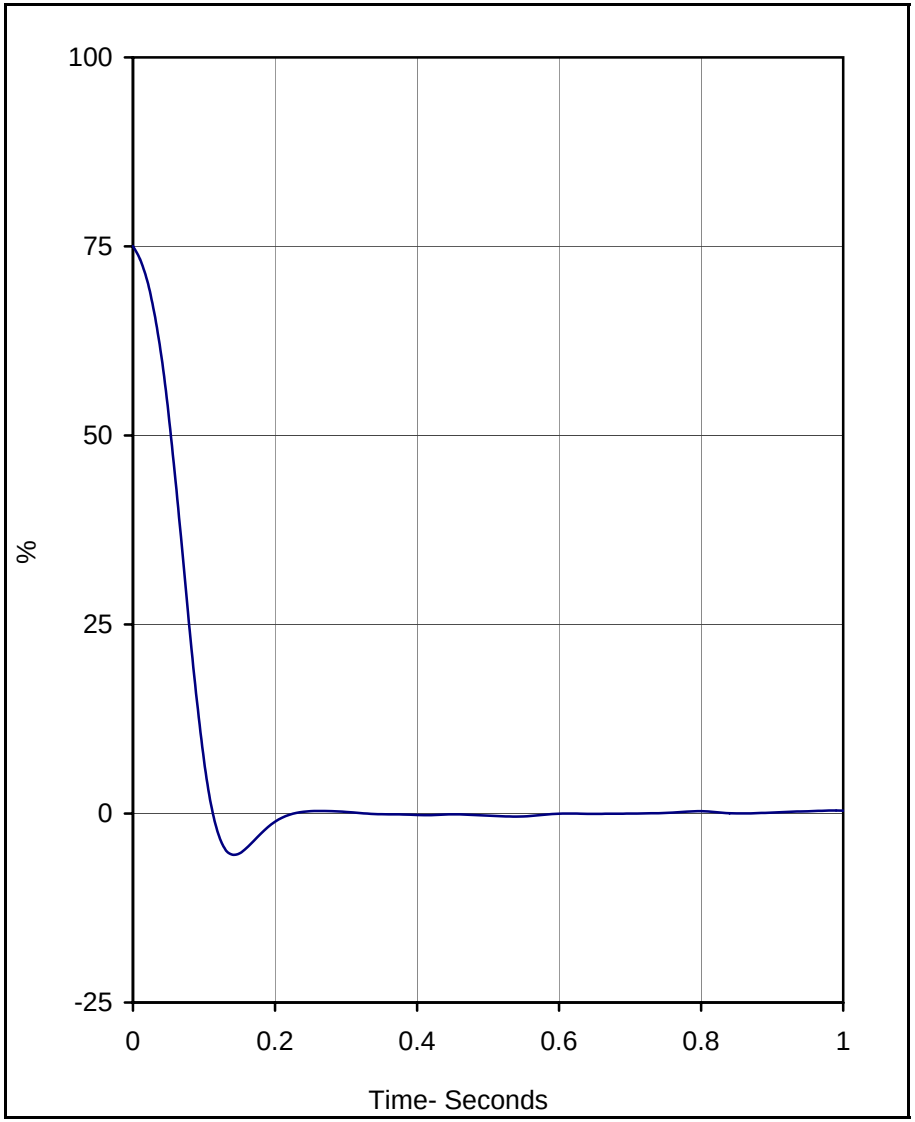
Test Program: FMVSS 124 (Spring #3 Disconnected)

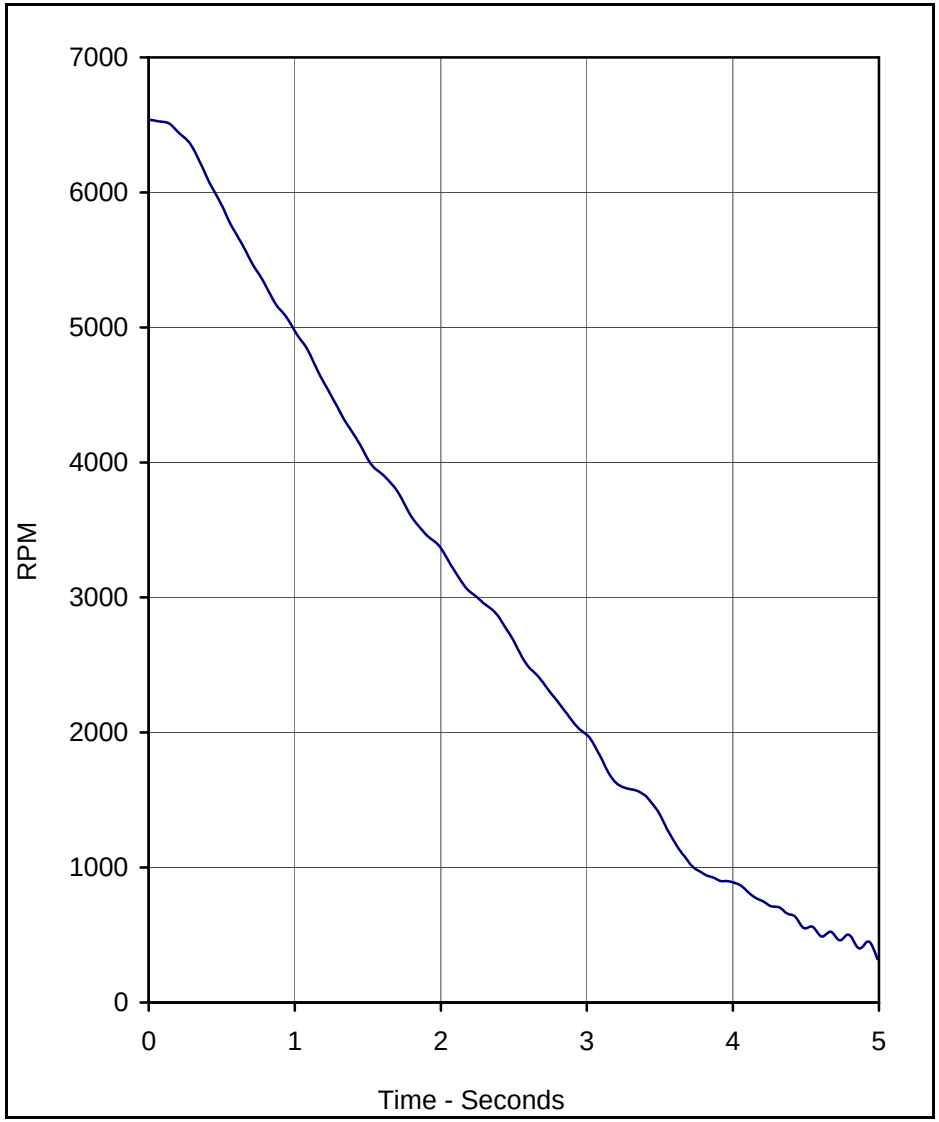
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6538.3	0.0	321.2	5.0	5

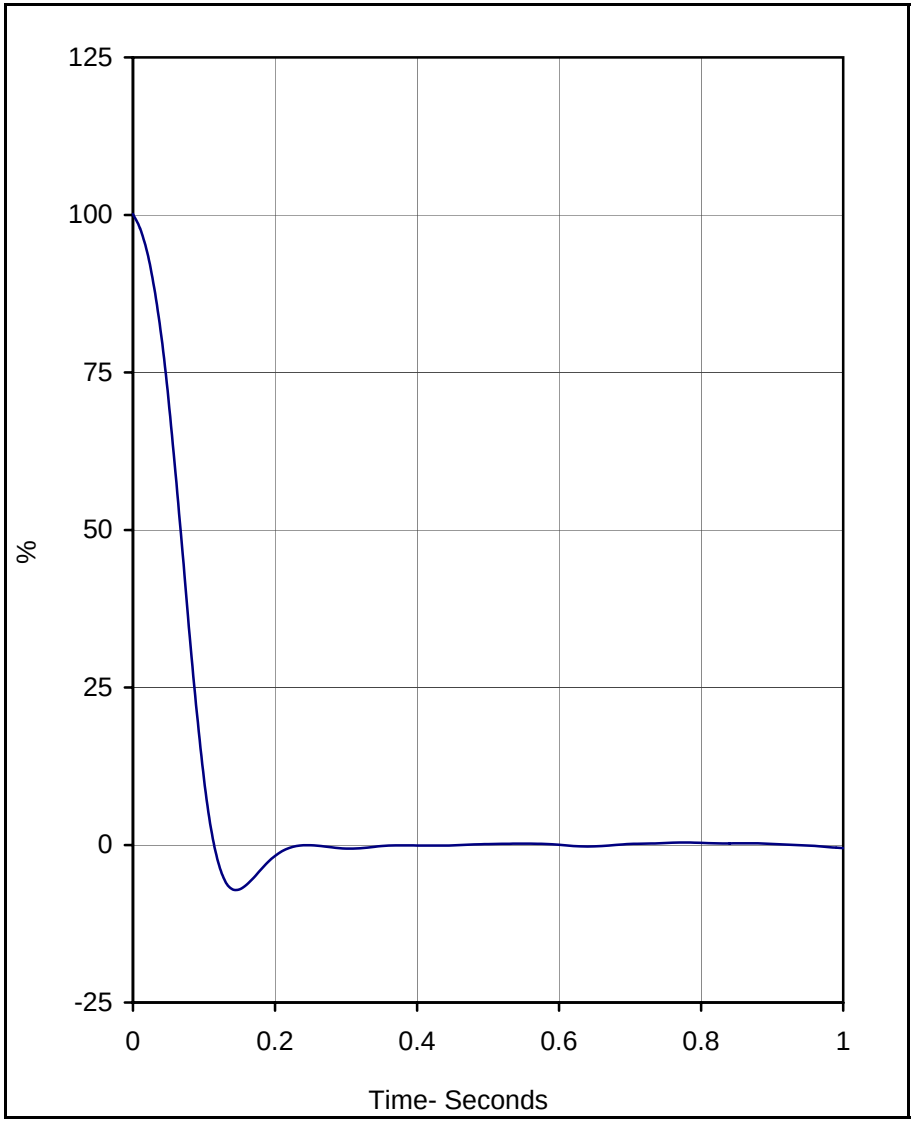
Test Program: FMVSS 124 (Spring #3 Disconnected)

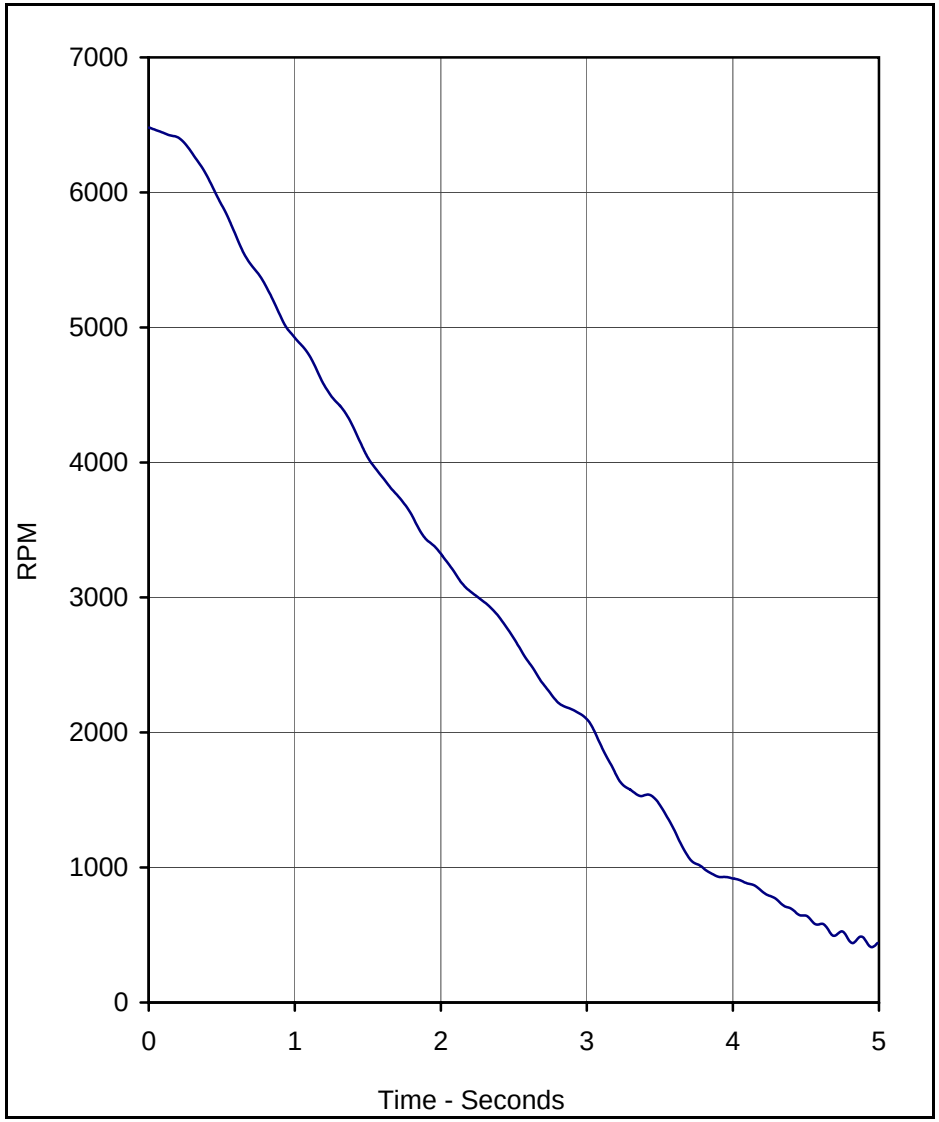
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6479.9	0.0	410.4	5.0	5

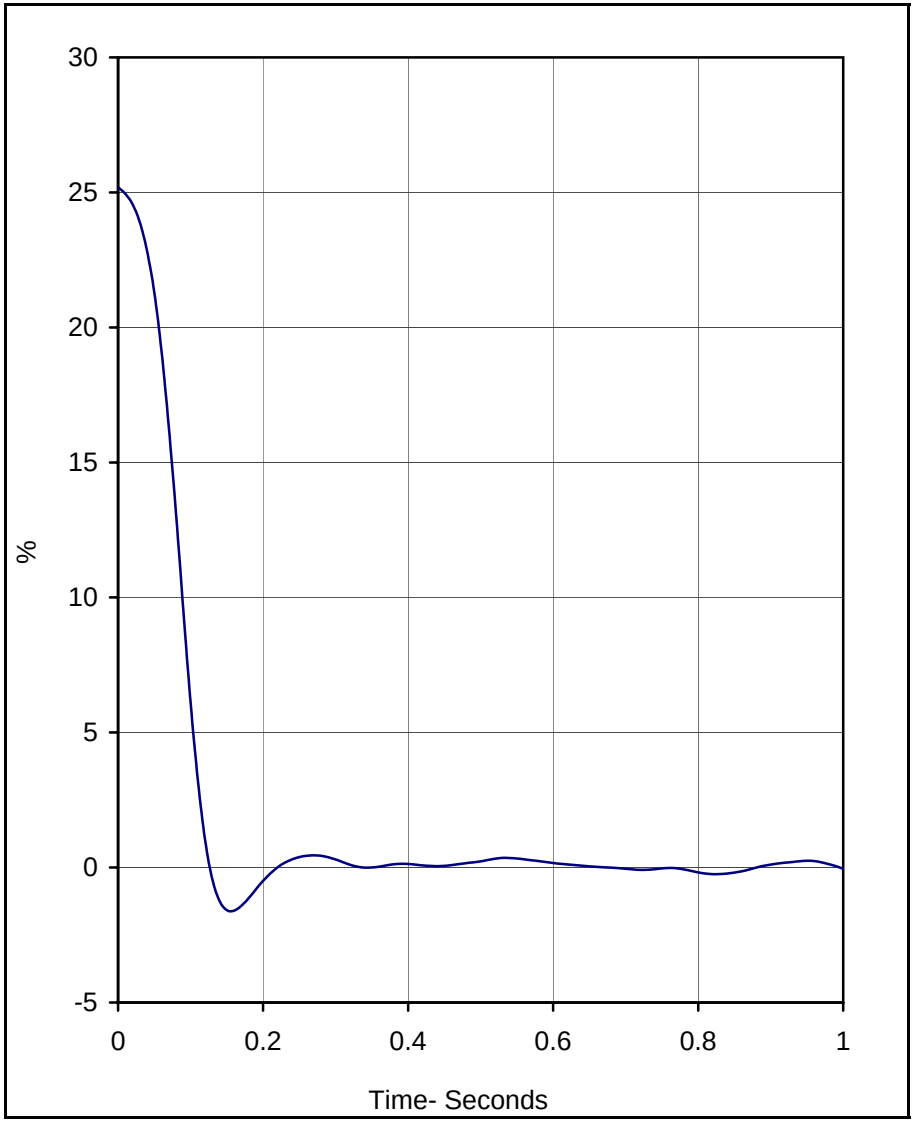
Test Program: FMVSS 124 (Spring #3 Disconnected)

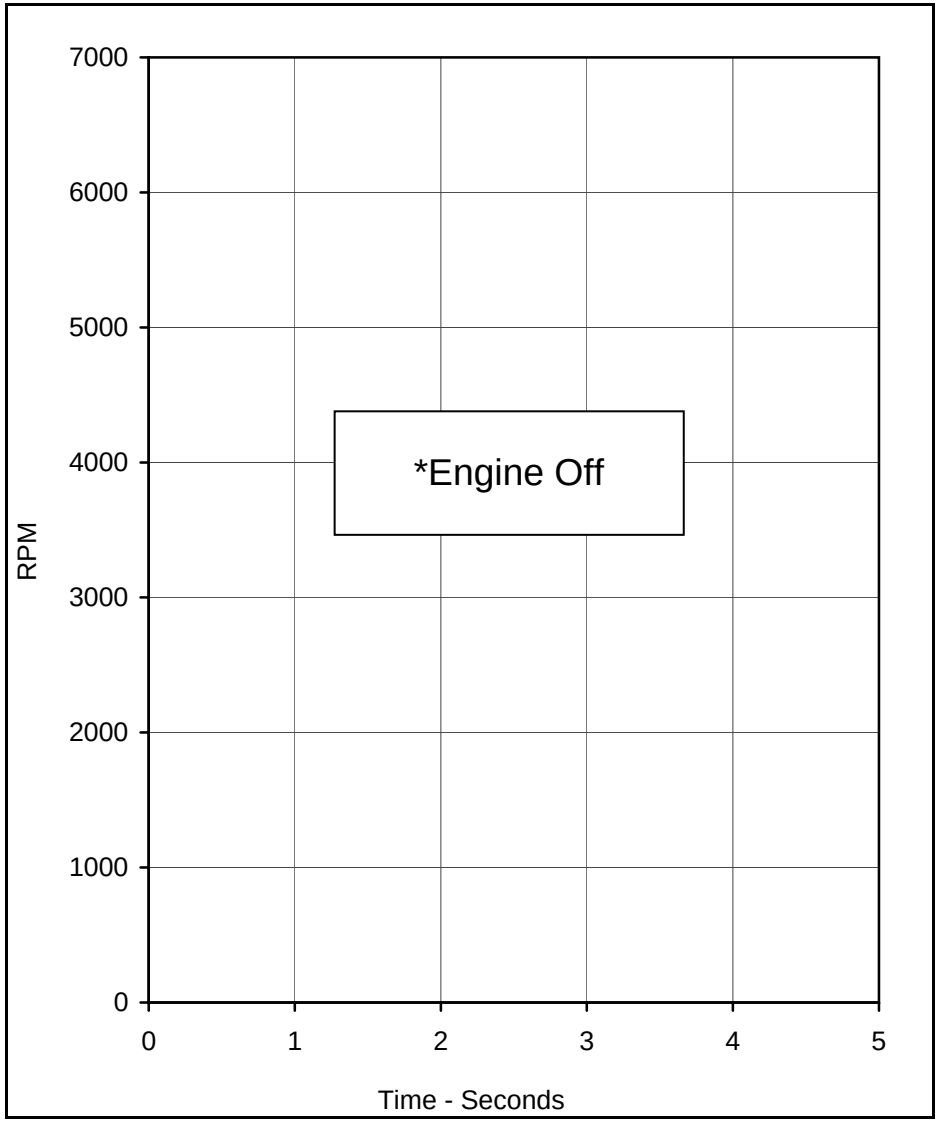
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.2	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

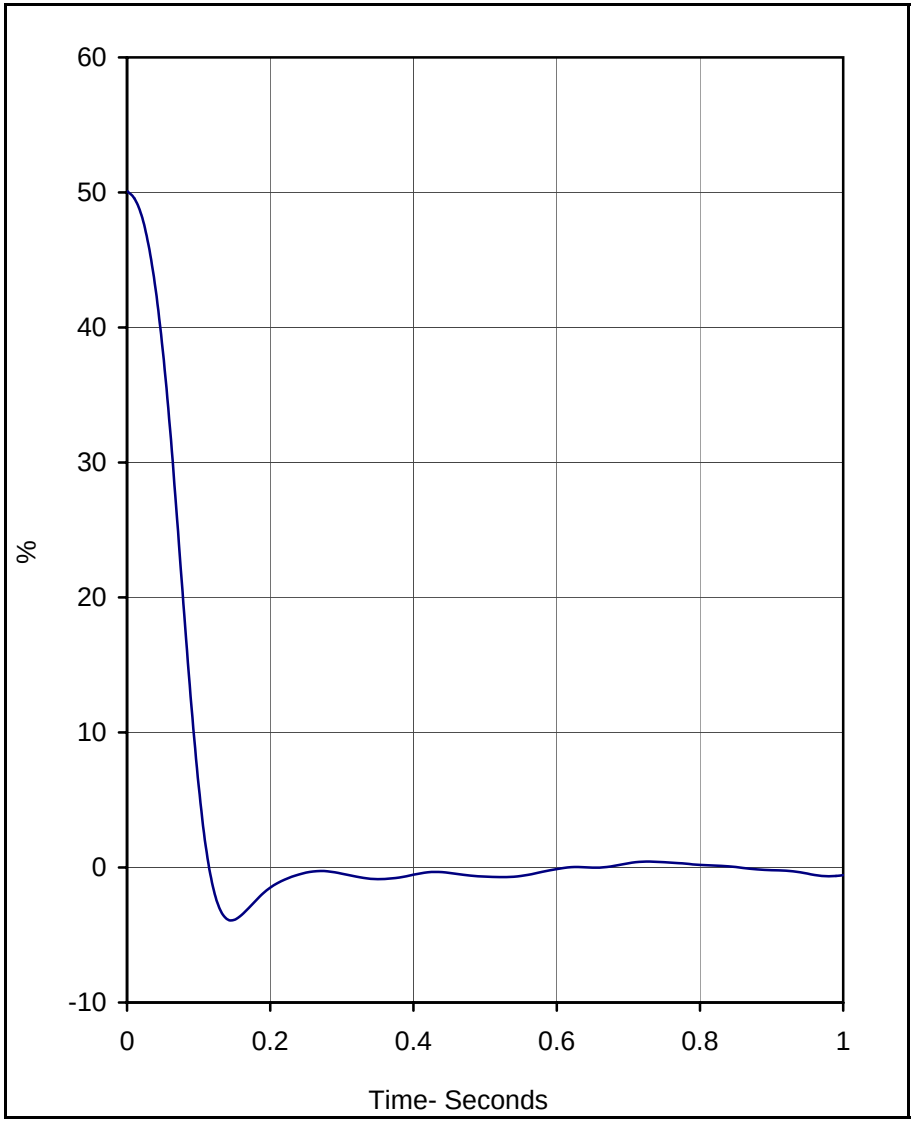
Test Program: FMVSS 124 (Spring #3 Disconnected)

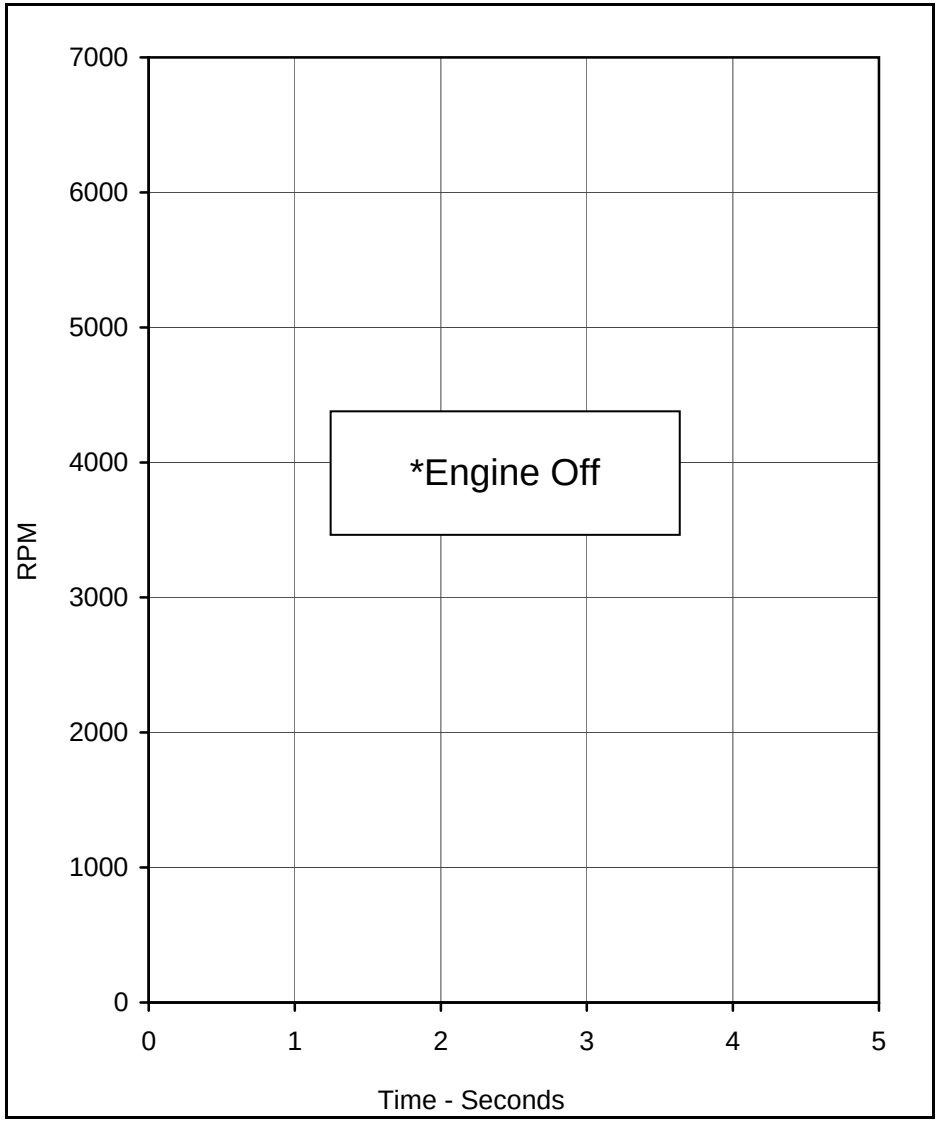
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.1	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

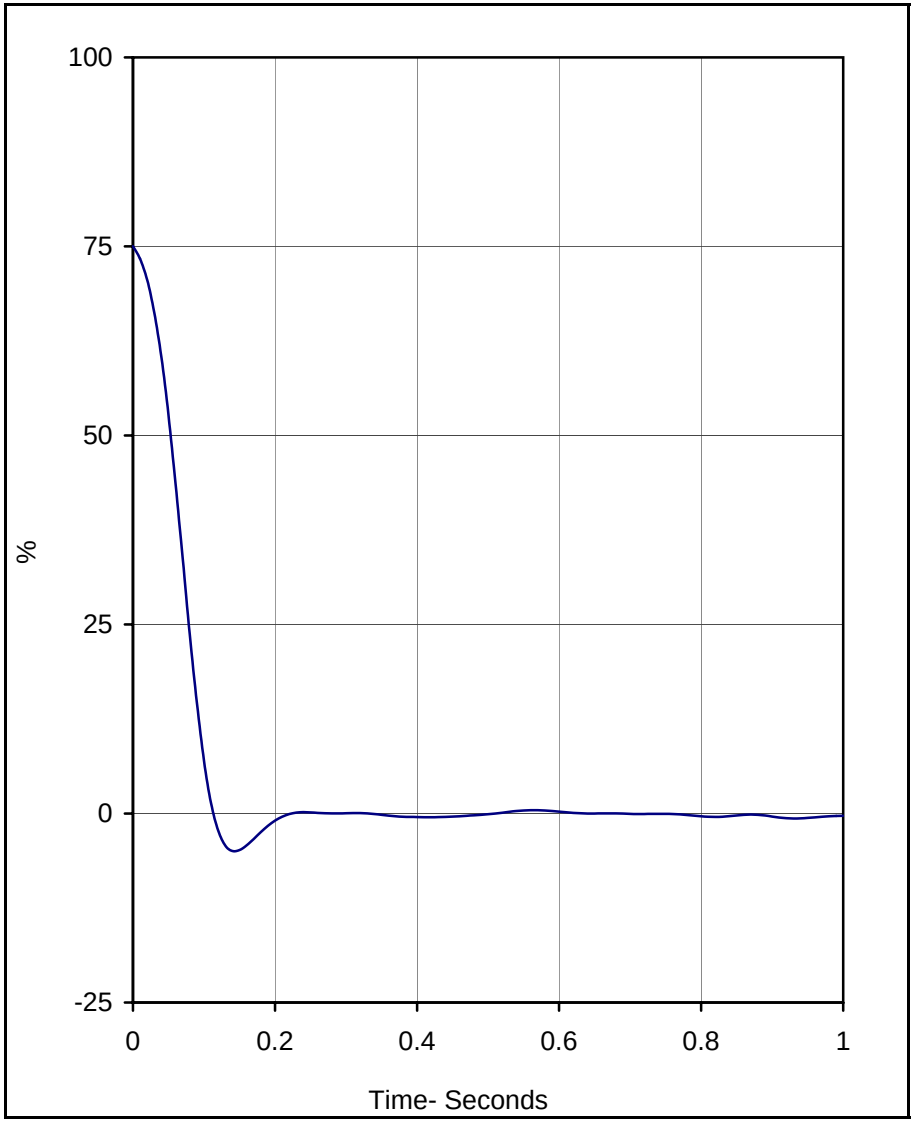
Test Program: FMVSS 124 (Spring #3 Disconnected)

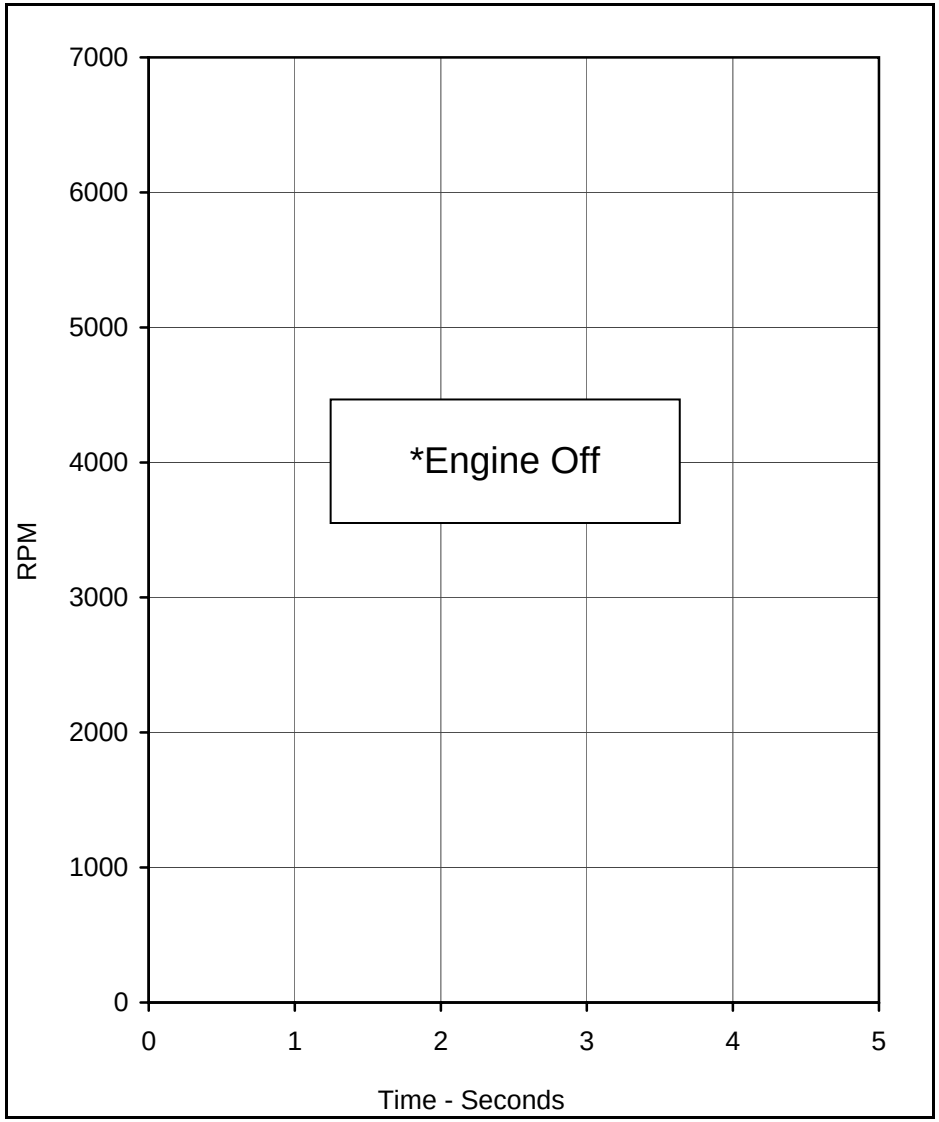
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

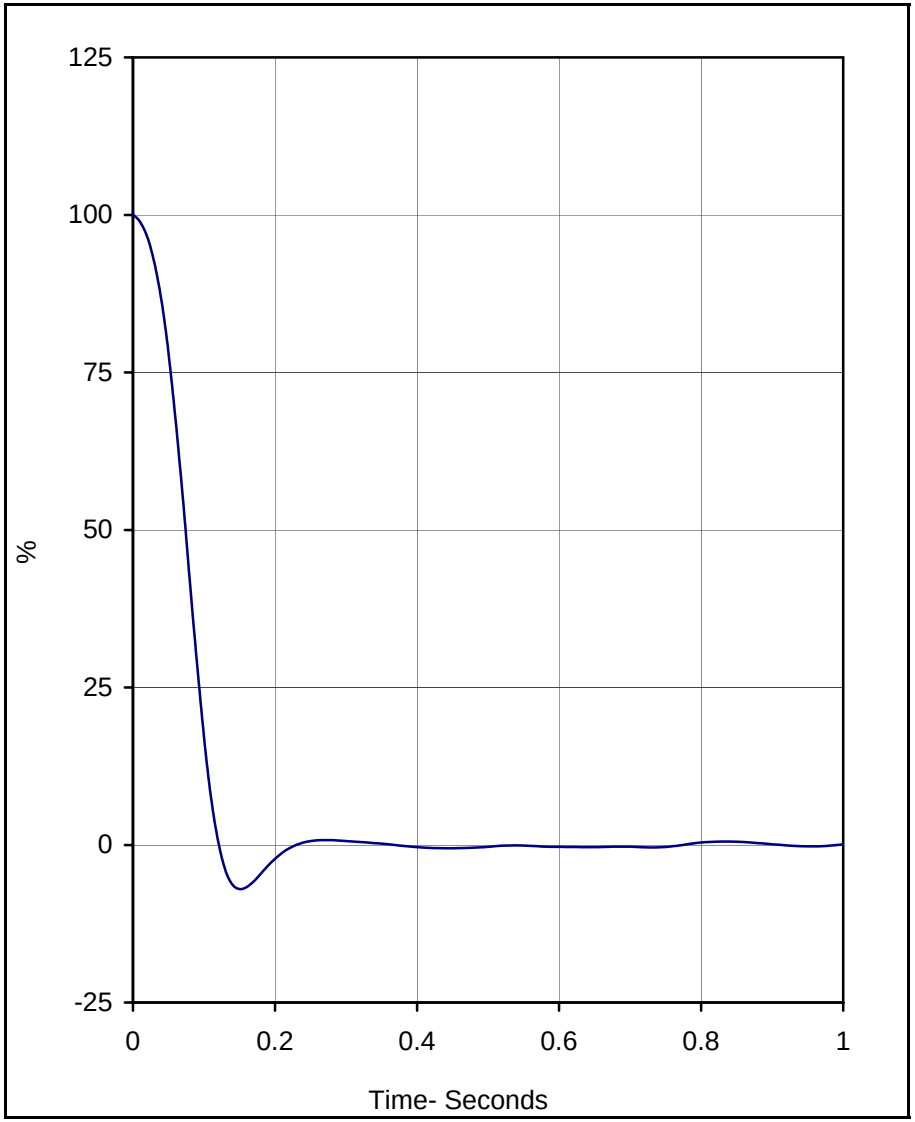
Test Program: FMVSS 124 (Spring #3 Disconnected)

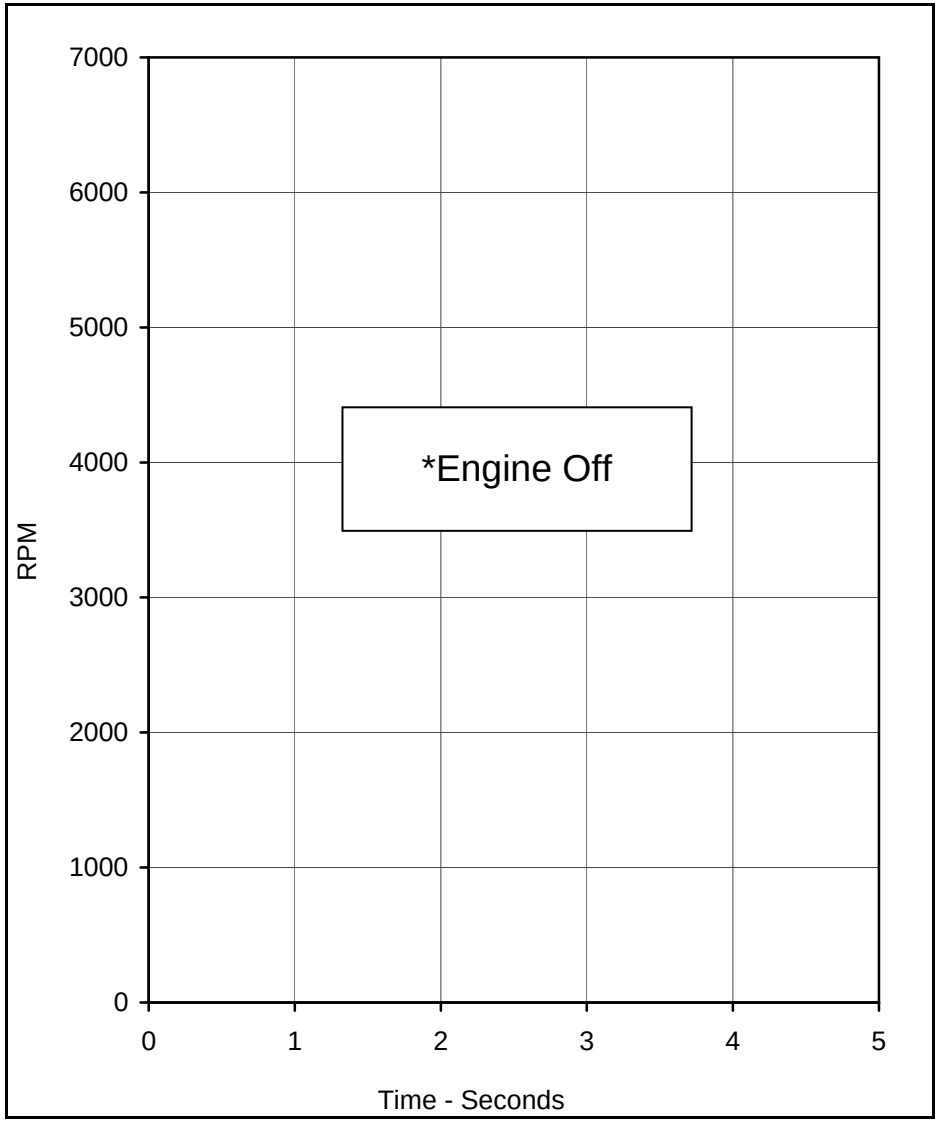
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

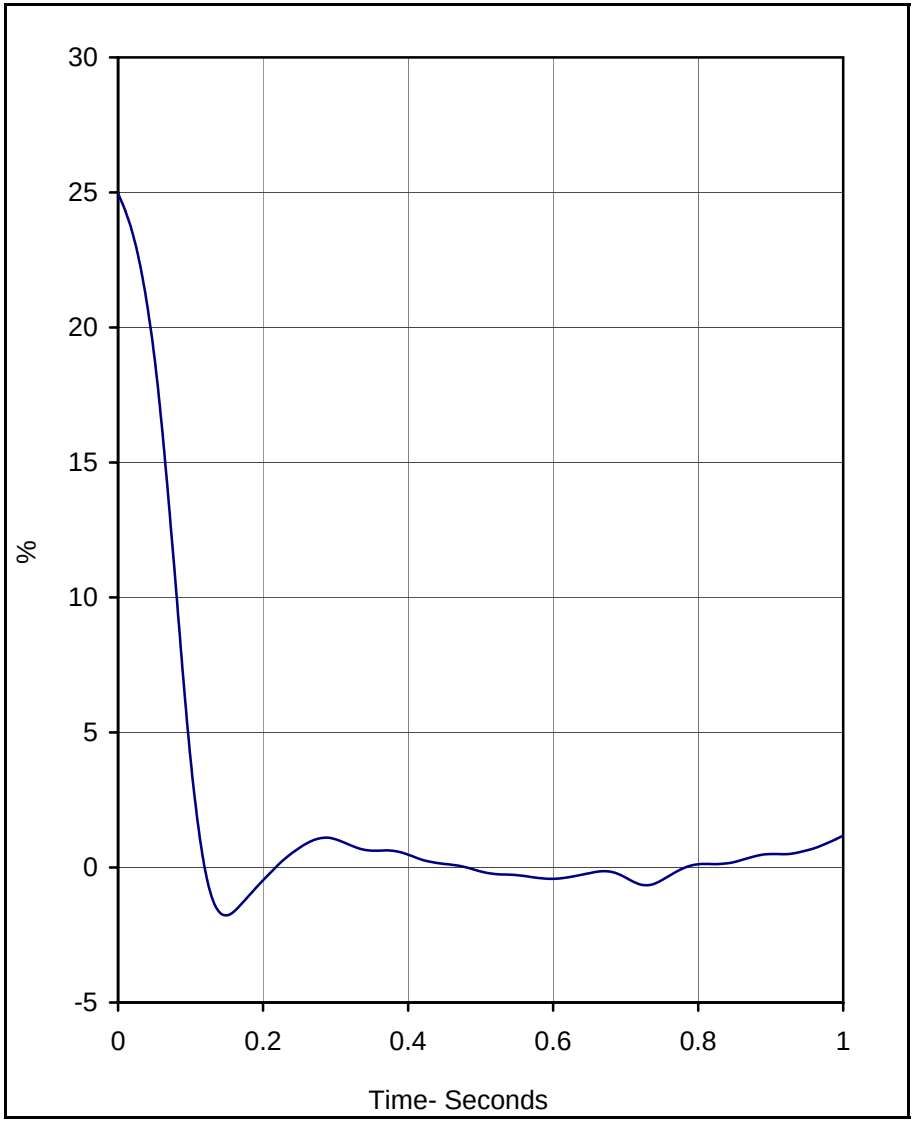
Test Program: FMVSS 124 (Spring #3 Disconnected)

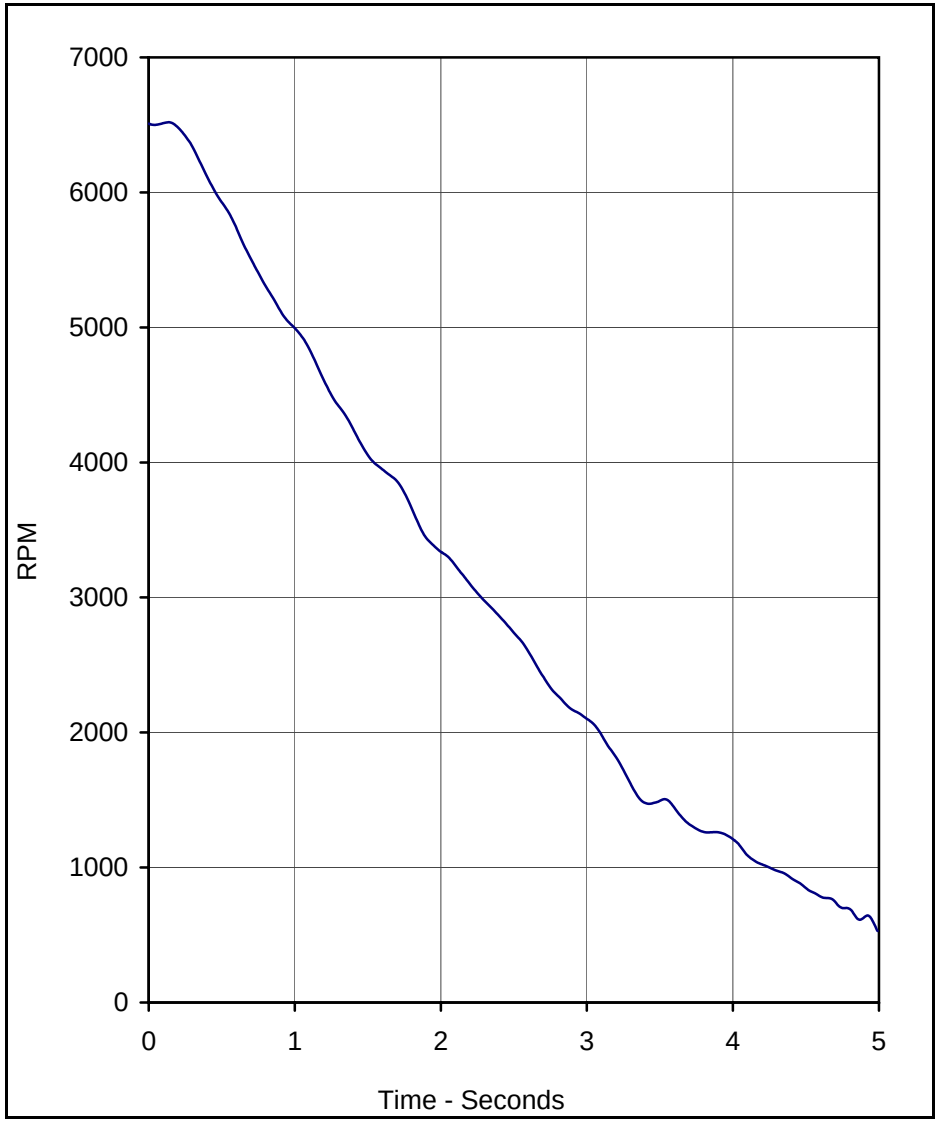
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6519.7	0.1	530.0	5.0	5

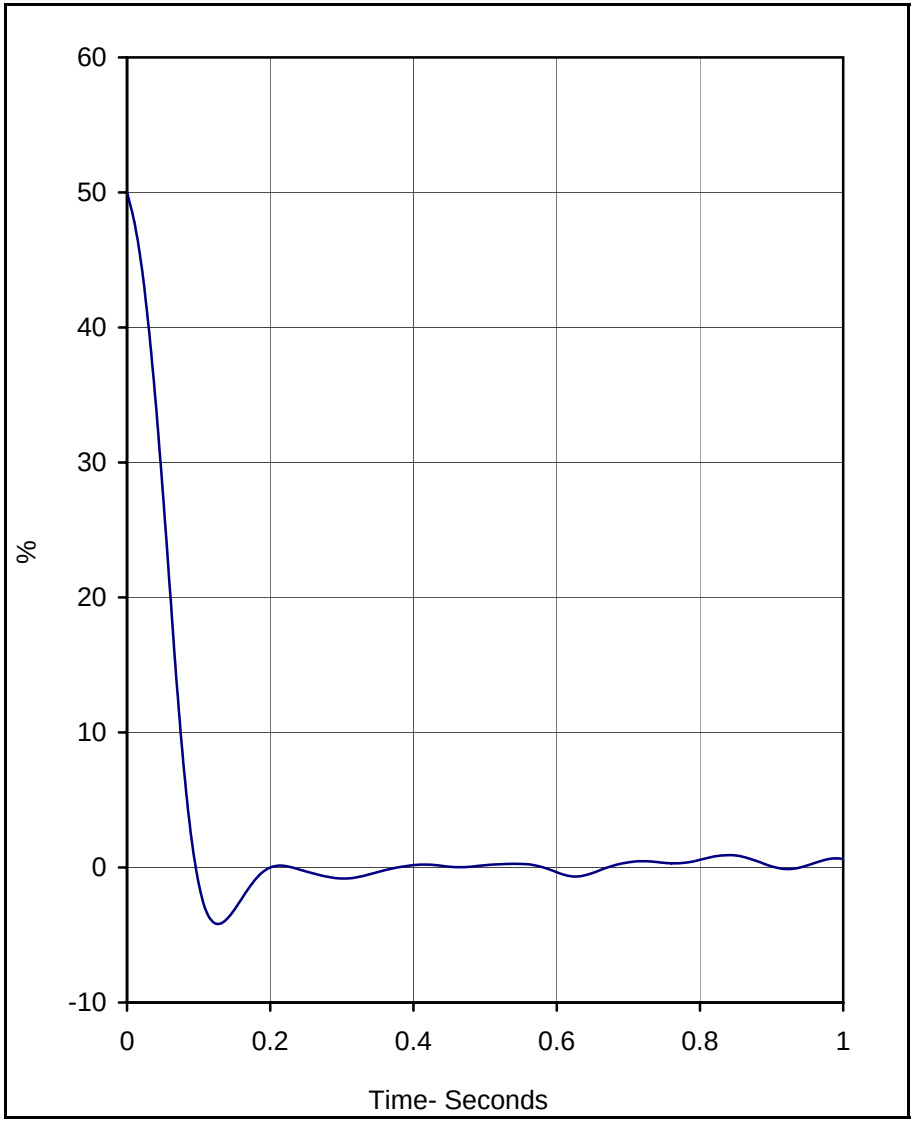
Test Program: FMVSS 124 (Severance of Throttle Cable)

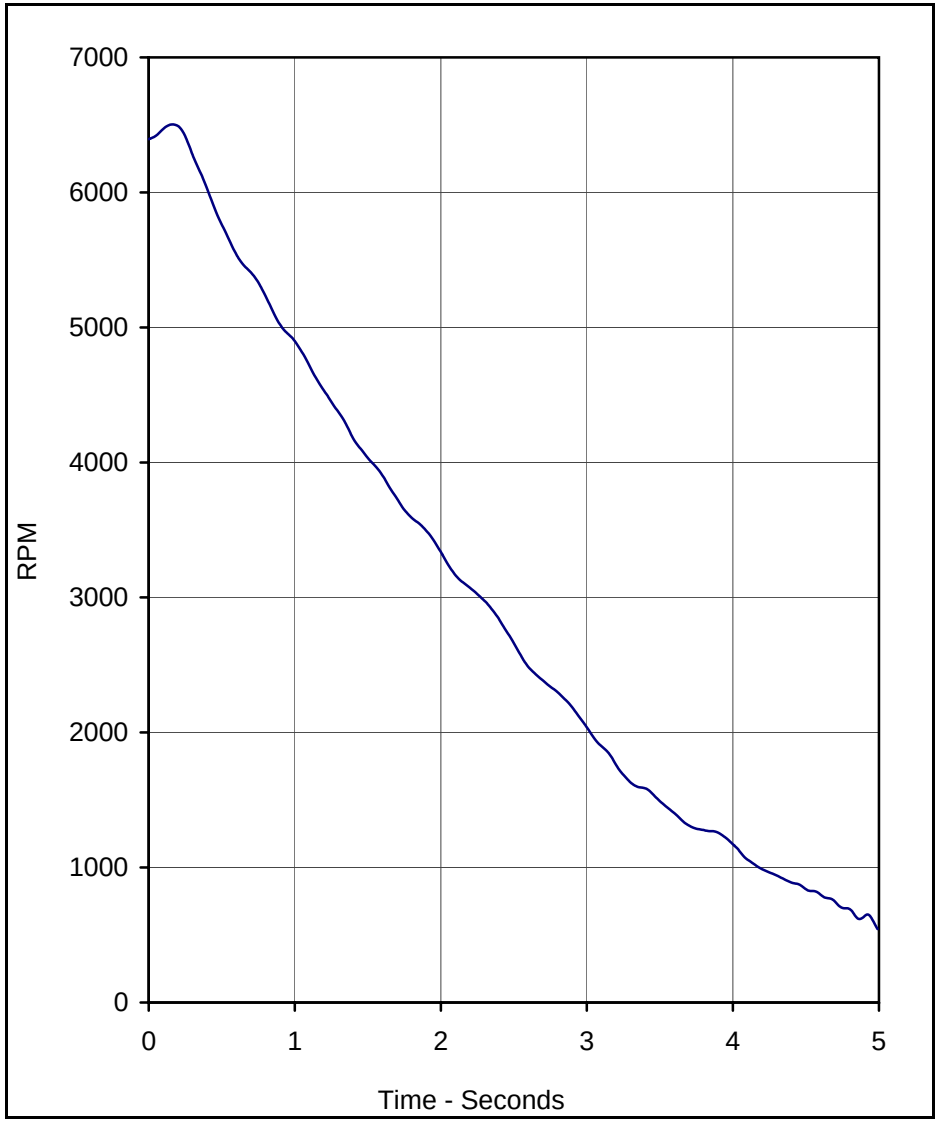
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.0	0.0	100.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6503.7	0.2	544.0	5.0	5

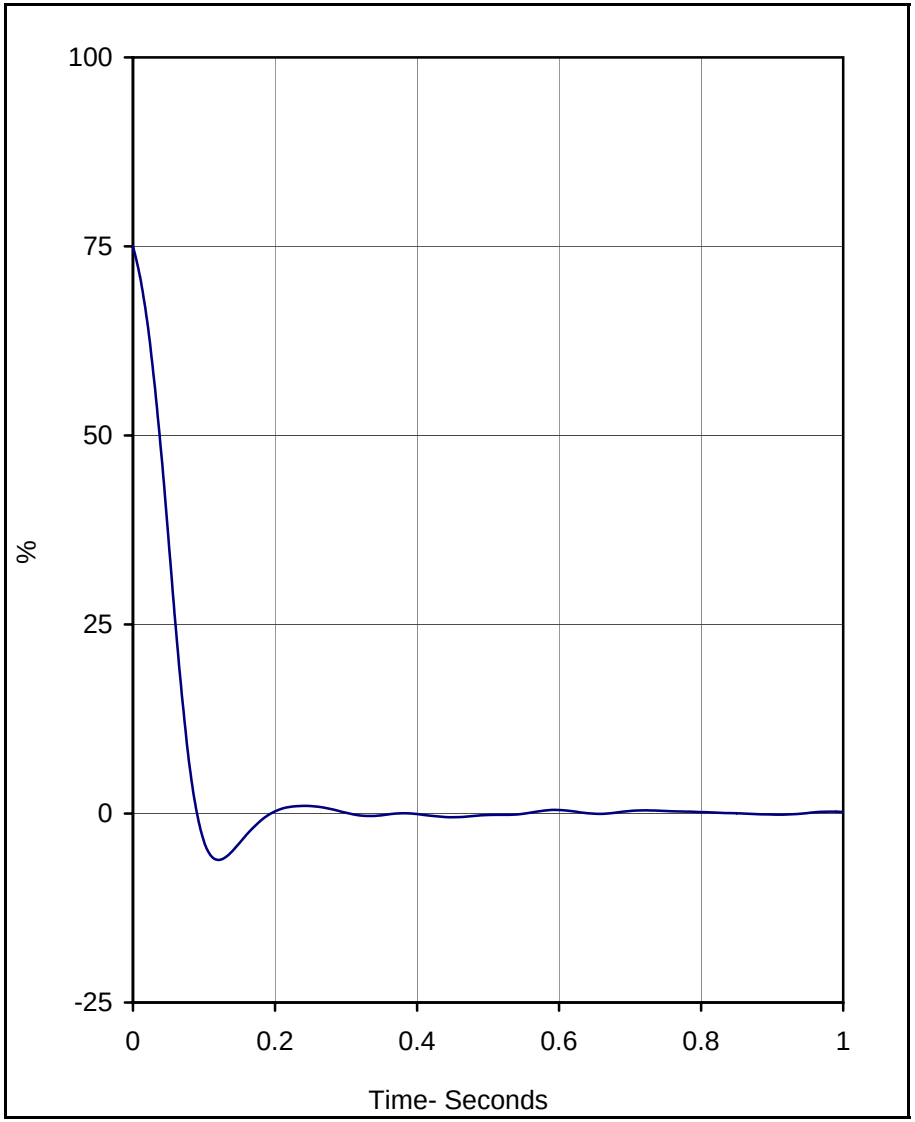
Test Program: FMVSS 124 (Severance of Throttle Cable)

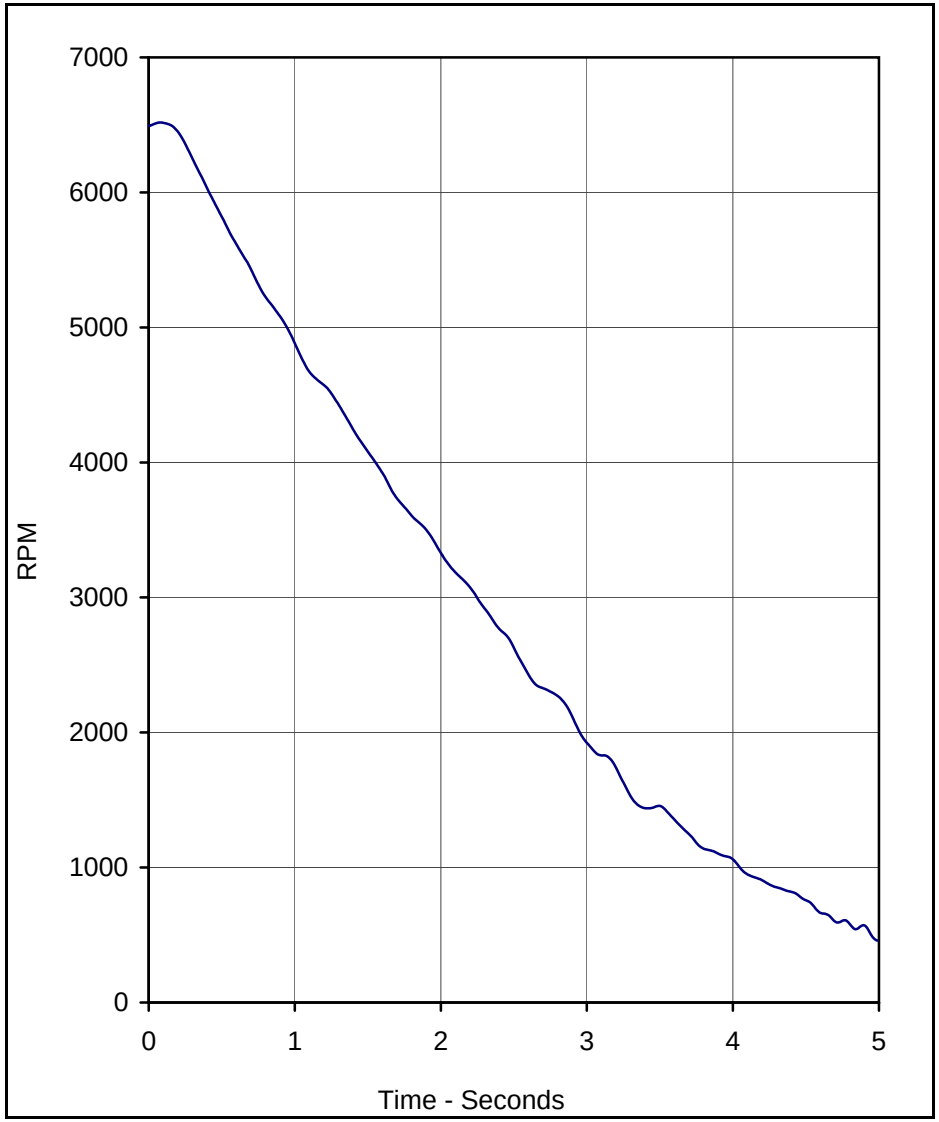
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.1	0.0	90.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6517.9	0.1	458.5	5.0	5

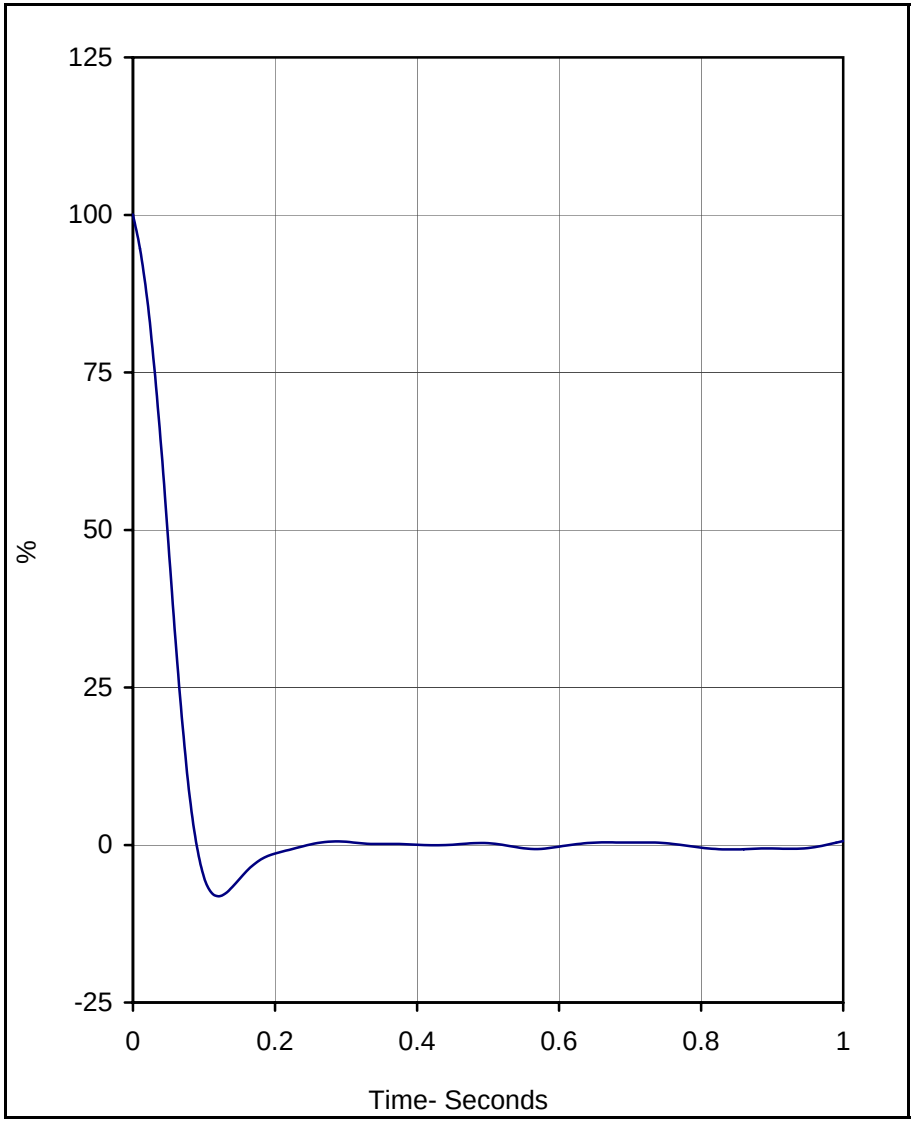
Test Program: FMVSS 124 (Severance of Throttle Cable)

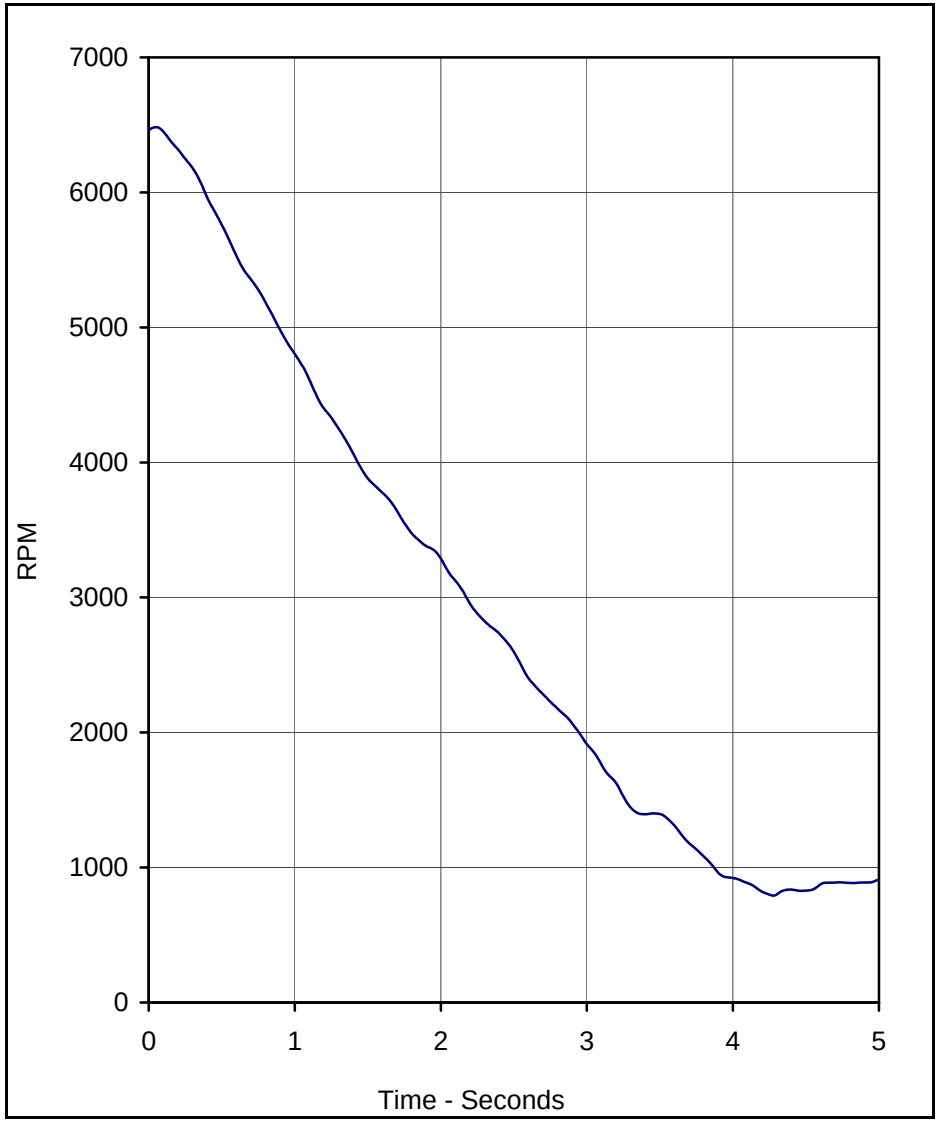
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.1	0.0	90.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM	6482.8	0.1	791.4	4.3	5

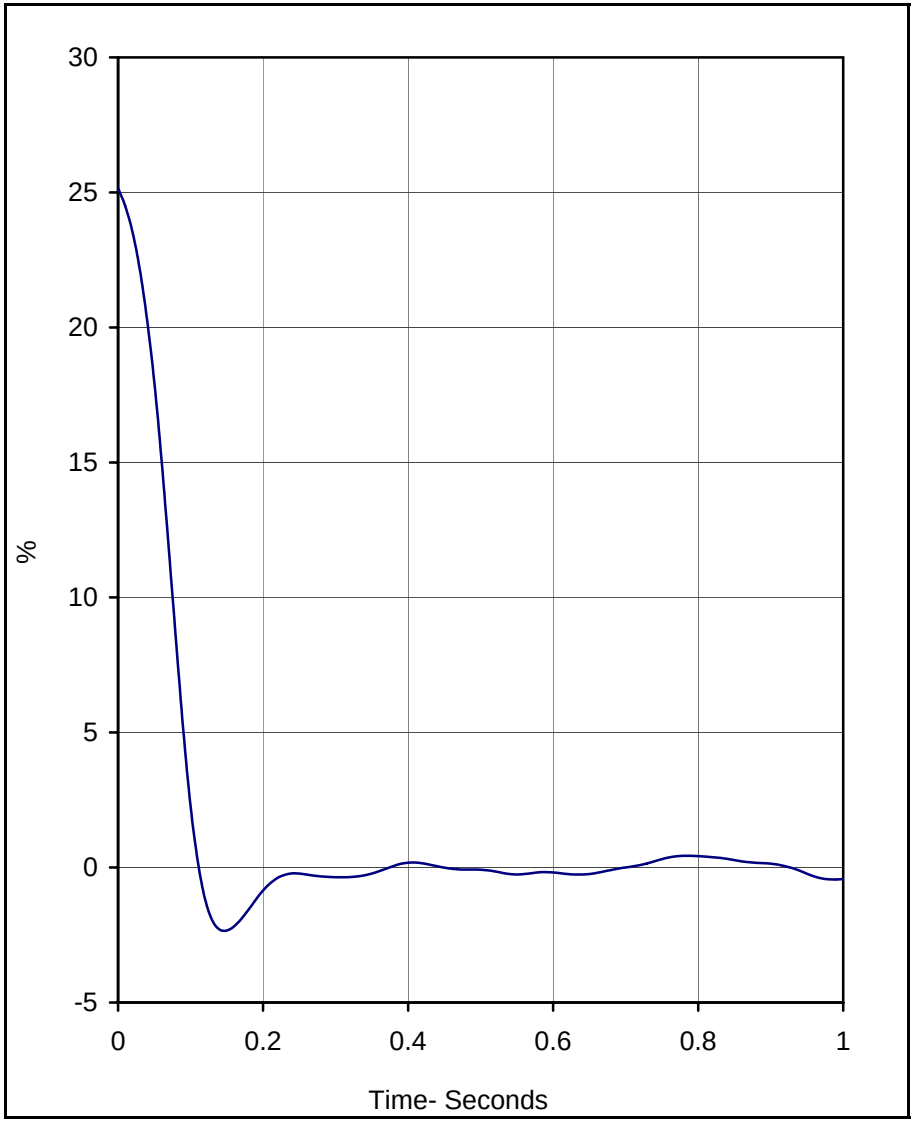
Test Program: FMVSS 124 (Severance of Throttle Cable)

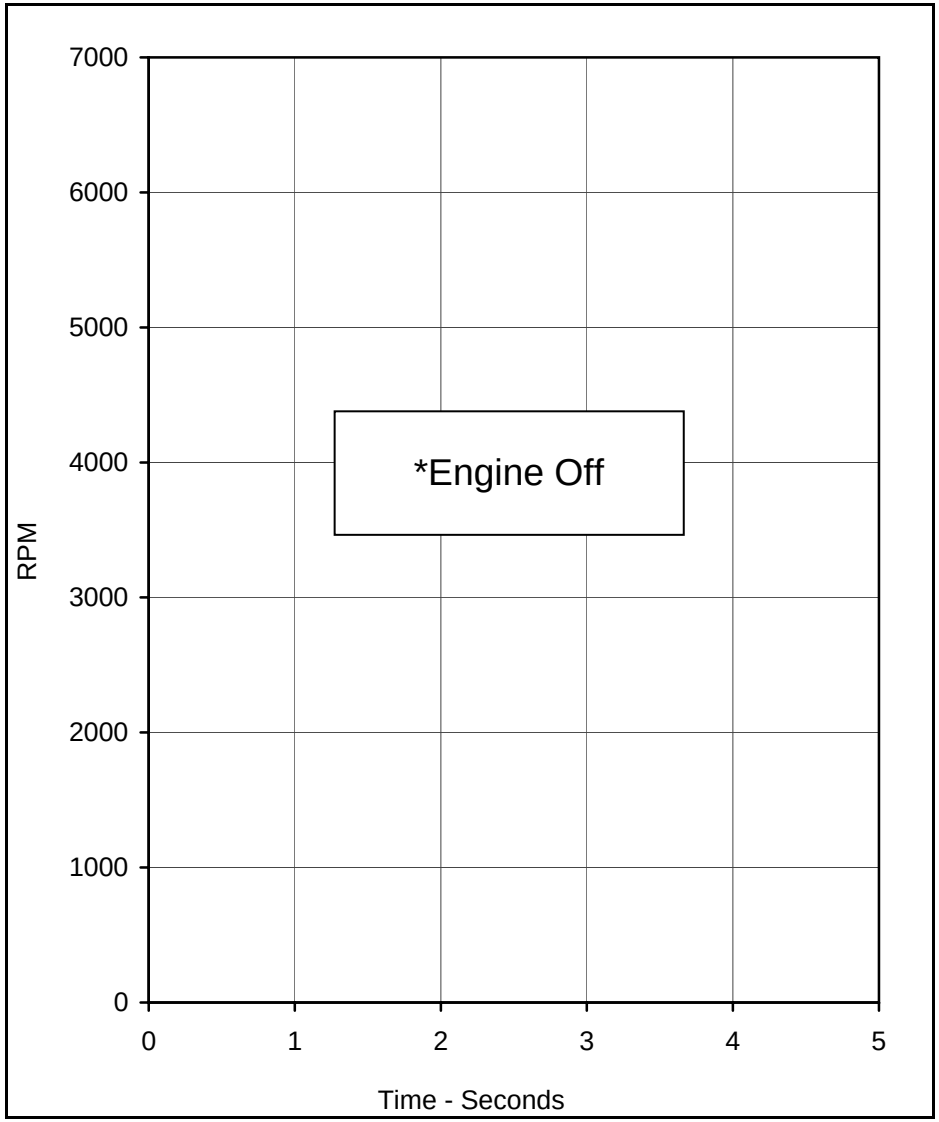
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	25.2	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

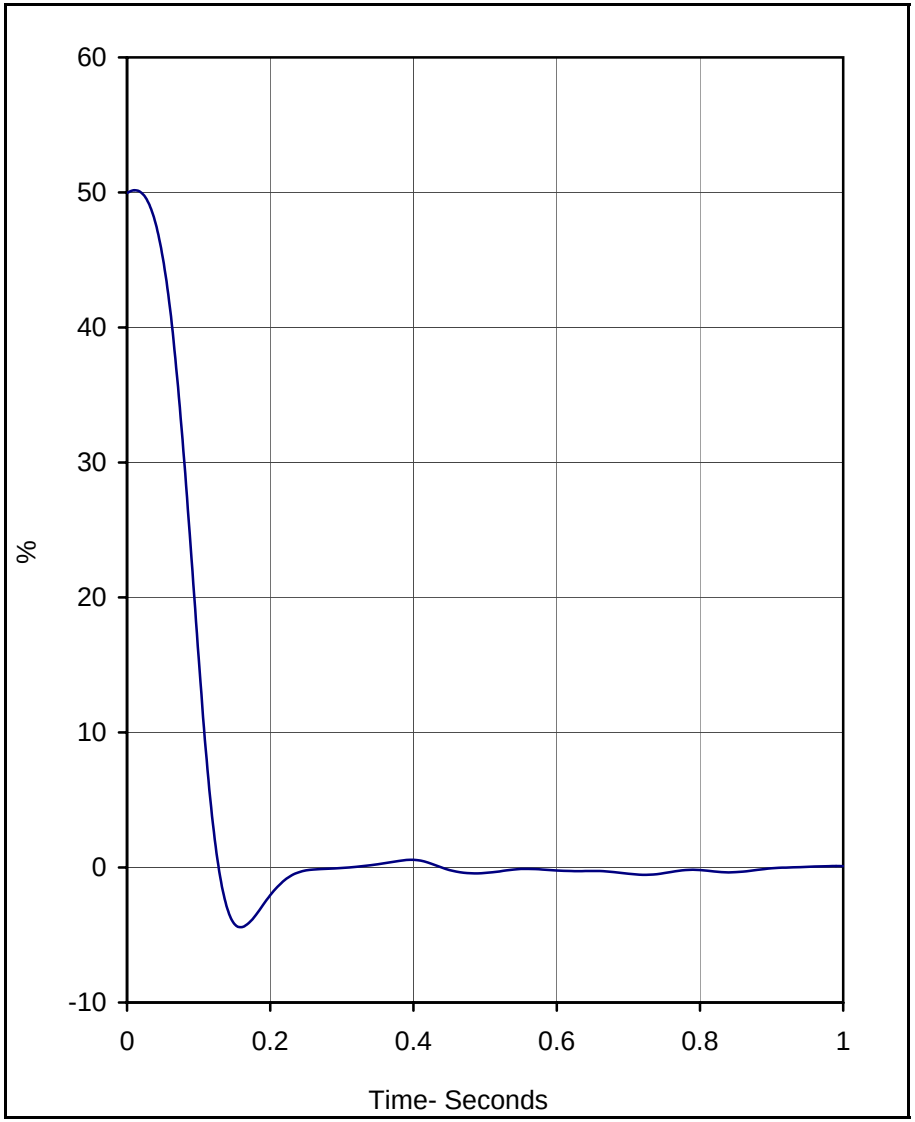
Test Program: FMVSS 124 (Severance of Throttle Cable)

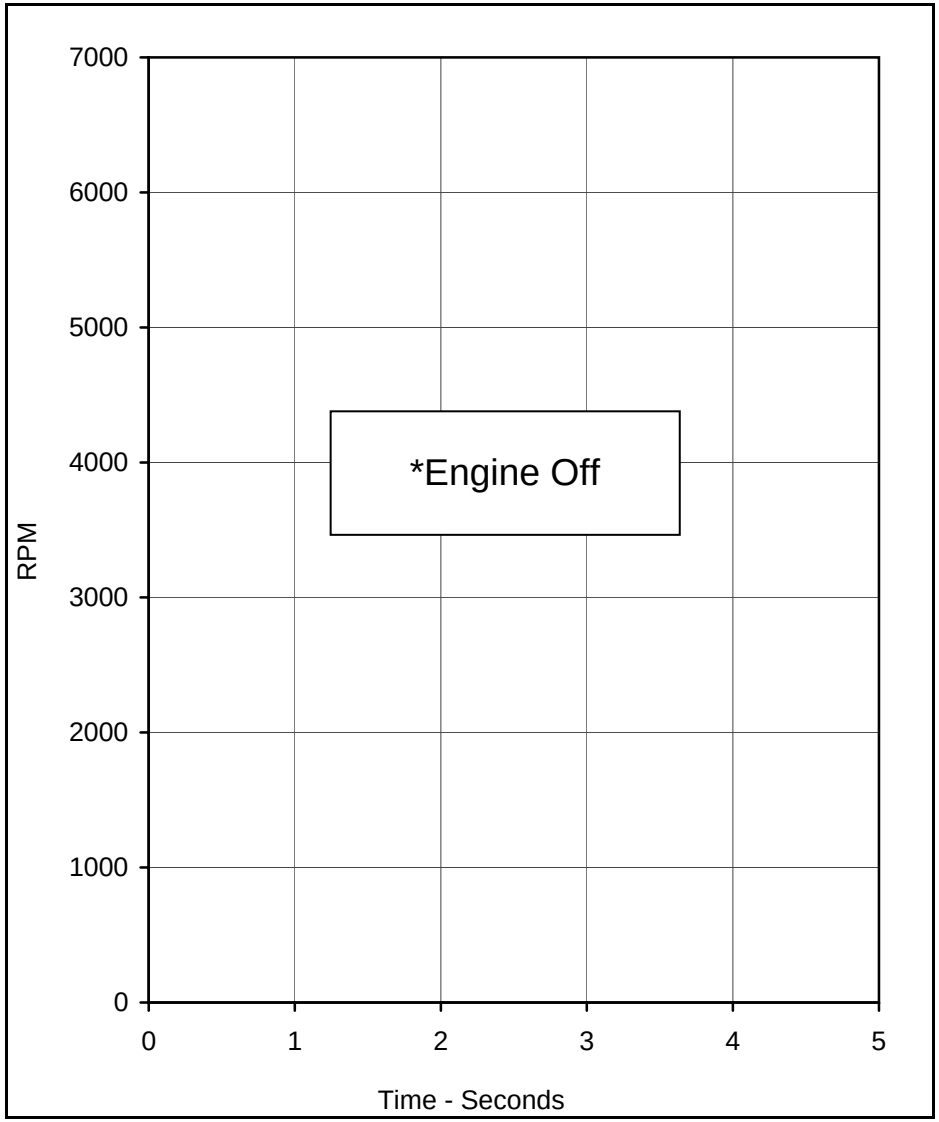
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	50.2	0.0	130.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

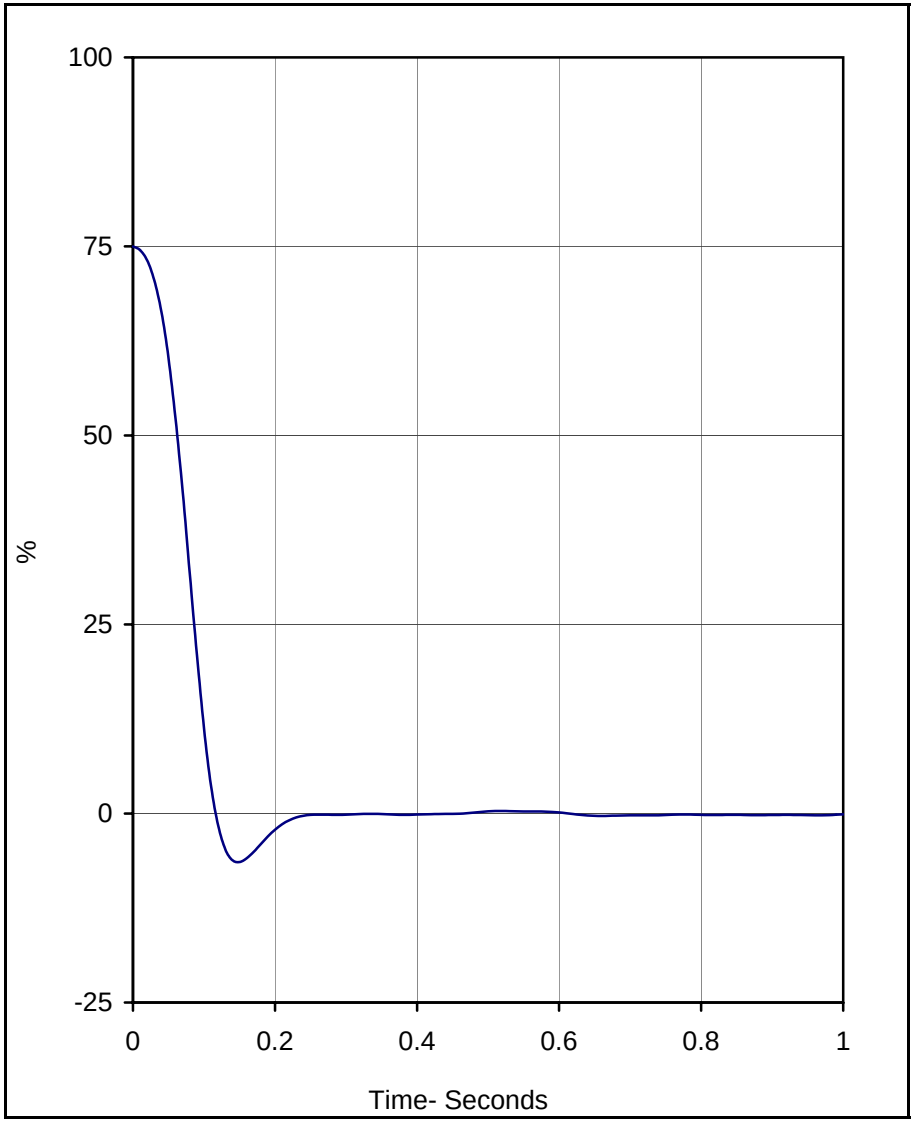
Test Program: FMVSS 124 (Severance of Throttle Cable)

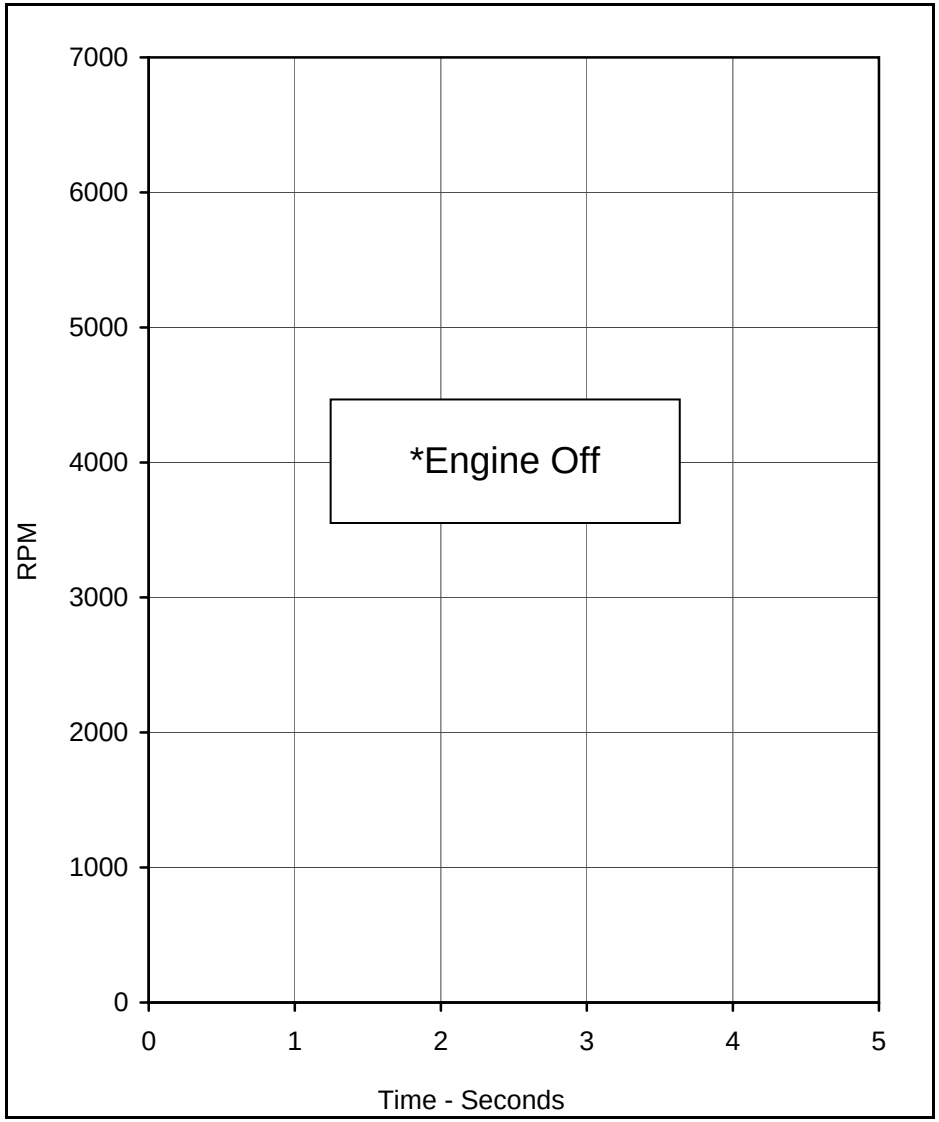
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	75.0	0.0	120.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

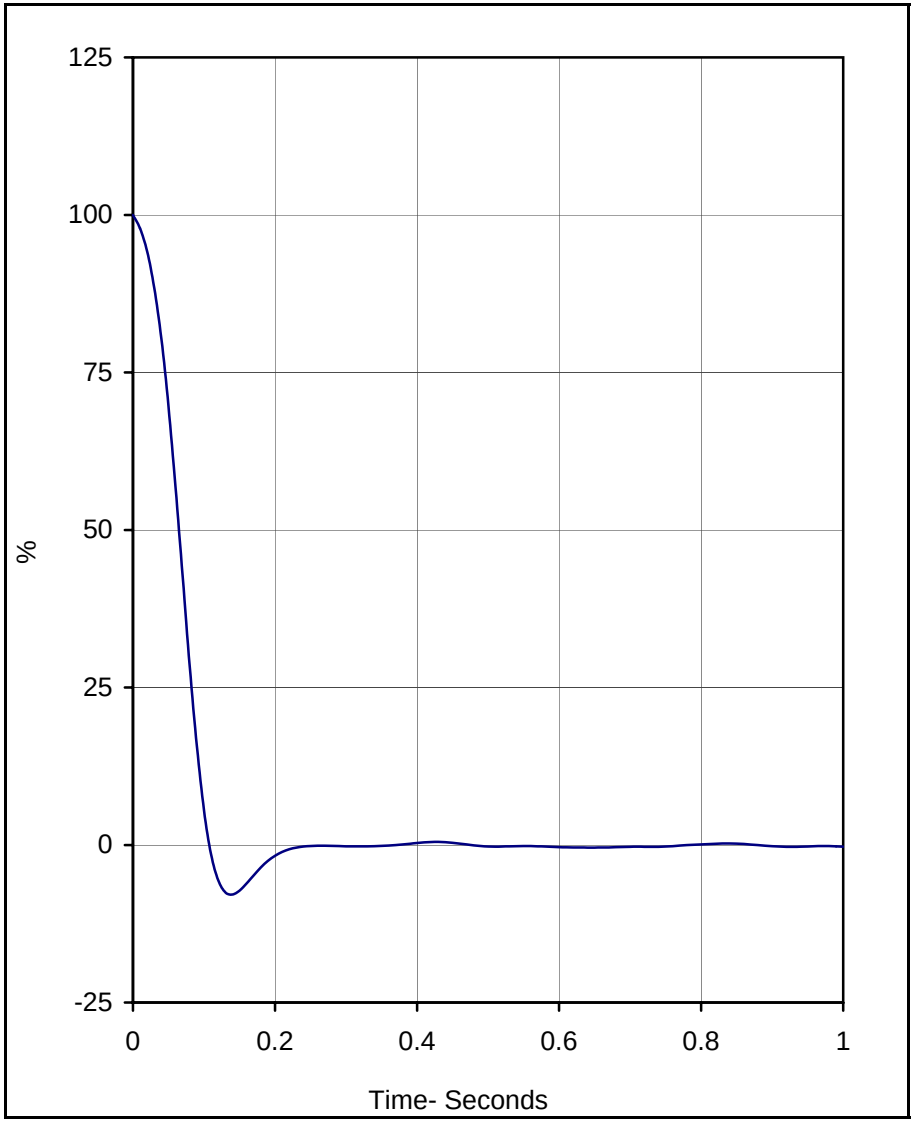
Test Program: FMVSS 124 (Severance of Throttle Cable)

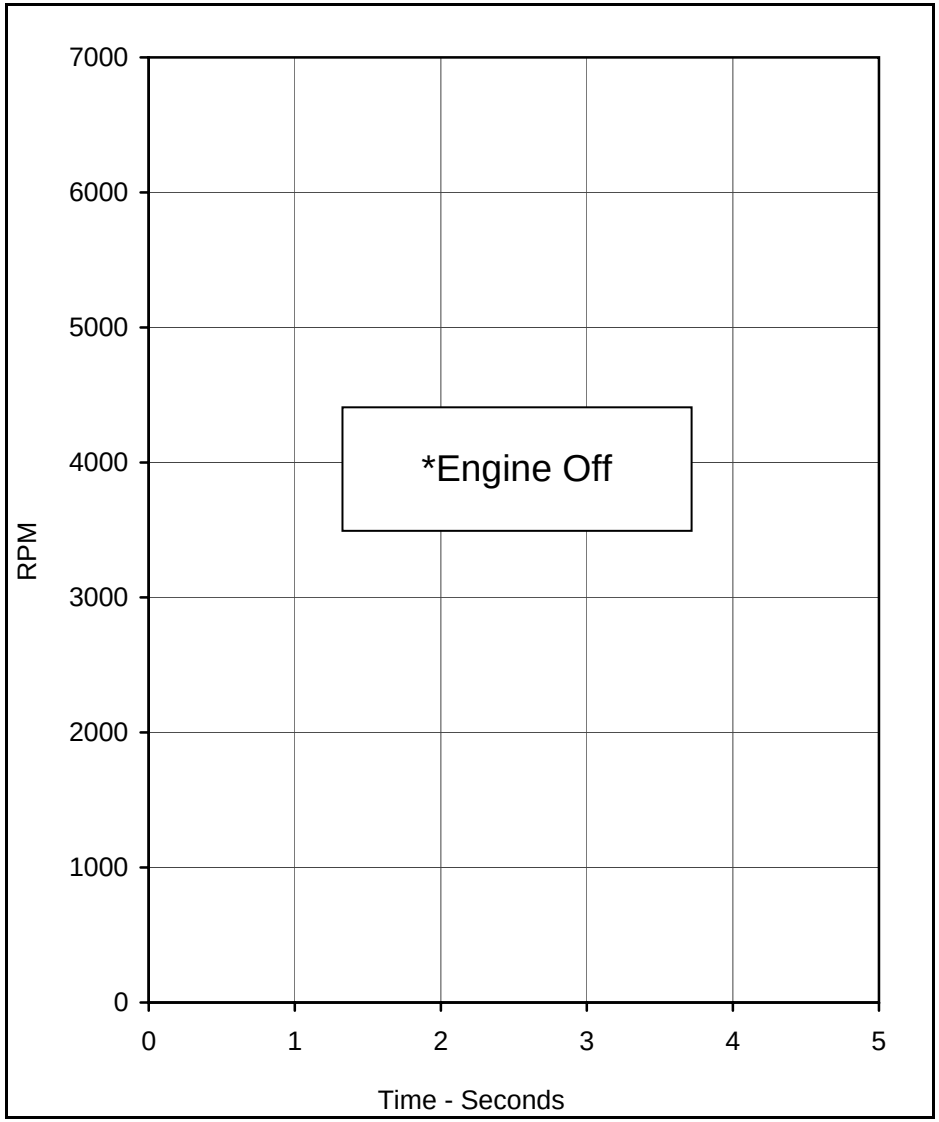
Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

KARCO Engineering





Curve Description	CURNO	Type
Throttle Position vs. Time	001	FIL

Units	Max	Time	Return Time (msec)	Filter (Hz)
%	100.0	0.0	110.0	5

Curve Description	CURNO	Type
Engine RPM vs. Time	002	FIL

Units	Max	Time	Min	Time	Filter (Hz)
RPM					

Test Program: FMVSS 124 (Severance of Throttle Cable)

Test Vehicle: 2006 Kia Sportage LX 5-Door MPV

Test Date: 07/11/06

NHTSA No.: C60509

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APPENDIX C
TEST EQUIPMENT LIST

FMVSS 124 Accelerator Control Systems

Test Equipment List and Calibration Information

7/10 to 7/11/06

2006 Kia Sportage LX 5-Door MPV

Description	Manufacturer	Model No.	Serial No.	Limit	Accuracy	Cal. Date	Due Cal.
TDAS	DTS	TDAS	DM0101	N/A	SAE J211	11/14/05	11/14/06
Computer	Toshiba	PAS4014	X8065355A	N/A	N/A	N/A	N/A
Optical 5th Wheel	Datron	DLS-2	06-262	150 MPH	± 1.0%	06/05/06	06/05/07