SAFETY COMPLIANCE TESTING FOR FMVSS 124 ACCELERATOR CONTROL SYSTEMS

TOYOTA MOTOR CORPORATION
2010 SCION tC PASSENGER CAR
NHTSA NO. CA5106

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

April 21, 2010

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVE., SE
WASHINGTON, D.C. 20590
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Approval Date: 04/21/10

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By:  
[Signature]

Acceptance Date: 04/21/10
Compliance tests were conducted on the subject 2010 Scion tC 2-door passenger car in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-124-06 for the determination of FMVSS 124 compliance.

Test failures identified were as follows: None
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</table>
FMVSS 124 specifies 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 FMVSS 124 is to reduce the number of deaths and injuries resulting from engine overspeed caused by malfunctions in the accelerator control system. This standard applies to passenger cars, multipurpose passenger vehicles (MPV's), trucks and buses.
Compliance testing was conducted on a 2010 Scion tC Passenger Car, NHTSA No. CA5106 in accordance with the National Highway Traffic Safety Administration (NHTSA) Laboratory Procedure TP-124-06.

Output from the vehicle throttle position sensor on the air throttle plate shaft was used to measure throttle position and data was recorded at 100 HZ with GTL’s data acquisition system. Testing was conducted to simulate the normal removal of the driver’s foot from the accelerator pedal. This was performed by depressing the accelerator with a control rod which incorporated an electrical contact strip in the depressing end. The accelerator was depressed to the required amount and then the control rod was quickly removed from the pedal, releasing the accelerator and activating the contact strip for time zero. Failures (excluding spring disconnect) were induced simultaneously with release of the accelerator pedal. Testing was performed with the vehicle in drive and the engine running. Testing could not be conducted in neutral as throttle plate movement in this condition was limited upon accelerator pedal application.

Return to idle times were determined for four throttle plate positions (25%, 50%, 75% and 100%) with the accelerator control system complete and with each of the three return springs in the accelerator pedal assembly independently disconnected and disconnection of the throttle body return spring #4 and #5. With each of the wires to the APS and throttle plate position sensor disconnected and shorted to ground, return to idle times were determined at the worst case condition – wide open throttle (100%).

In addition, tests were conducted with the APS and TPS connectors disconnected.

A number of induced failures resulted in the throttle plate return to or below the idle state then shifting to a Limp-Home mode position which allows the vehicle to be removed from the roadway.

This testing was performed at mid ambient temperature of 10º C to 46º C, in accordance with the NHTSA Test Procedure TP-124-06.
SECTION 3
COMPLIANCE TEST DATA

Test data for this test can be found on the following pages. Photographs are found in Section 5 and Test Plots are found in Section 6.
VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR
VEHICLE NHTSA NO.: CA5106
VEHICLE VIN: JTKDE3B79AD308521
DATE OF TEST: APRIL 13-16, 2010
TEST LAB: GENERAL TESTING LABORATORIES
VEHICLE ENGINE TYPE: GAS
GVWR: 1790 KG
VEHICLE ENGINE SIZE: 2.4 L
VEHICLE ACCEL. CONTROL SYSTEM (ACS) (Air or Fuel Throttled): AIR
MAX. BHP ENGINE SPEED: 161 HP
MFR. IDLE RPM: 670 RPM
FUEL METERING DEVICE (Carburetor, fuel injection, etc): FUEL INJECTION

REMARKS:

RECORDED BY: G. FARRAND  DATE: 04/13/10
APPROVED BY: D. MESSICK
DATA SHEET 2
NORMAL OPERATION TEST
(fully operational system)

VEHICLE MY/MAKE/MODEL/BODY STYLE: __2010 SCION tC PASSENGER CAR_______
VEHICLE NHTSA NO.: ____________ CA5106________
DATE OF TEST: __________________________ APRIL 13, 2010

Check one:

SYSTEM CONDITION: COMPLETE (no modifications) Normal Operation

<table>
<thead>
<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN THROTTLE (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (°C)</th>
<th>ENGINE COOLANT</th>
<th>AMBIENT</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
<th>PASS/FAIL</th>
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<tbody>
<tr>
<td>6397</td>
<td>100%</td>
<td>99%</td>
<td>670</td>
<td>188</td>
<td>65</td>
<td>10%-20%</td>
<td>220</td>
<td>P</td>
<td></td>
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<tr>
<td>6398</td>
<td>75%</td>
<td>73%</td>
<td>670</td>
<td>187</td>
<td>65</td>
<td>10%-20%</td>
<td>180</td>
<td>P</td>
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<tr>
<td>6399</td>
<td>50%</td>
<td>54%</td>
<td>670</td>
<td>180</td>
<td>65</td>
<td>10%-20%</td>
<td>60</td>
<td>P</td>
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<tr>
<td>6400</td>
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<td>26%</td>
<td>670</td>
<td>184</td>
<td>65</td>
<td>10%-20%</td>
<td>40</td>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

RETURN TIME REQUIREMENTS:

1 second (1000 ms) for vehicles less than 4536 kg.
2 seconds (2000 ms) for vehicles more than 4536 kg.
3 seconds (3000 ms) for vehicles exposed to -18° C or less

PASS _____X____  FAIL ____________

REMARKS:

RECORDED BY: _G. FARRAND_________________  DATE: ___04/13/10____
APPROVED BY: _D. MESSICK_________________
FAIL-SAFE OPERATION
DISCONNECTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR
VEHICLE NHTSA NO.: CA5106
DATE OF TEST: APRIL 13, 2010

Check one:
Mid Temp. Test: X
Low Temp. Test:
High Temp. Test:

SYSTEM CONDITION: #1 SPRING DISCONNECTED (OUTER SPRING) ON ACCELERATOR PEDAL ASSEMBLY

<table>
<thead>
<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN THROTTLE (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (ºC) ENGINE COOLANT</th>
<th>AMBIENT TEMPERATURE</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
<th>PASS/FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>6401</td>
<td>100%</td>
<td>96%</td>
<td>670</td>
<td>180</td>
<td>62</td>
<td>16%-20%</td>
<td>170</td>
<td>P</td>
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<tr>
<td>6402</td>
<td>75%</td>
<td>74%</td>
<td>670</td>
<td>181</td>
<td>62</td>
<td>16%-20%</td>
<td>210</td>
<td>P</td>
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<tr>
<td>6403</td>
<td>50%</td>
<td>54%</td>
<td>670</td>
<td>182</td>
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<td>100</td>
<td>P</td>
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<tr>
<td>6404</td>
<td>25%</td>
<td>29%</td>
<td>670</td>
<td>182</td>
<td>62</td>
<td>16%-20%</td>
<td>60</td>
<td>P</td>
</tr>
</tbody>
</table>

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

PASS ______ X _______ FAIL ____________

REMARKS:

RECORDED BY: G. FARRAND DATE: 04/13/10
APPROVED BY: D. MESSICK
FAIL-SAFE OPERATION
DISCONNECTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR
VEHICLE NHTSA NO.: CA5106
DATE OF TEST: APRIL 14, 2010

Check one:
Mid Temp. Test: X Low Temp. Test: High Temp. Test:

SYSTEM CONDITION: #2 SPRING DISCONNECTED (INNER SPRING) ON ACCELERATOR PEDAL ASSEMBLY

<table>
<thead>
<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN THROTTLE (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (°C)</th>
<th>ENGINE COOLANT</th>
<th>AMBIENT</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
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<tr>
<td>6408</td>
<td>100%</td>
<td>99%</td>
<td>670</td>
<td>185</td>
<td>66</td>
<td>16%-20%</td>
<td>220</td>
<td>P</td>
<td>PASS</td>
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<tr>
<td>6409</td>
<td>75%</td>
<td>74%</td>
<td>670</td>
<td>184</td>
<td>66</td>
<td>16%-20%</td>
<td>170</td>
<td>P</td>
<td>PASS</td>
</tr>
<tr>
<td>6410</td>
<td>50%</td>
<td>52%</td>
<td>670</td>
<td>184</td>
<td>66</td>
<td>16%-20%</td>
<td>190</td>
<td>P</td>
<td>PASS</td>
</tr>
<tr>
<td>6411</td>
<td>25%</td>
<td>25%</td>
<td>670</td>
<td>186</td>
<td>66</td>
<td>16%-20%</td>
<td>140</td>
<td>P</td>
<td>PASS</td>
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RETURN TIME REQUIREMENTS:
1 second (1000 ms) for vehicles less than 4536 kg.
2 seconds (2000 ms) for vehicles more than 4536 kg.
3 seconds (3000 ms) for vehicles exposed to -18° C or less

PASS X FAIL

REMARKS:

RECORDED BY: G. FARRAND DATE: 04/14/10
APPROVED BY: D. MESSICK
### VEHICLE MY/MAKE/MODEL/BODY STYLE:

2010 SCION tC PASSENGER CAR

### VEHICLE NHTSA NO.:

CA5106

### DATE OF TEST:

APRIL 15, 2010

---

**Check one:**

- Mid Temp. Test: **X**
- Low Temp. Test: ___
- High Temp. Test: ___

---

**SYSTEM CONDITION:** #3 SPRING DISCONNECTED (ACCELERATOR) ON APS

<table>
<thead>
<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (ºC)</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
<th>PASS/FAIL</th>
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<td>100%</td>
<td>99%</td>
<td>670</td>
<td>182</td>
<td>66</td>
<td>16%-20%</td>
<td>220 P</td>
</tr>
<tr>
<td>6413</td>
<td>75%</td>
<td>77%</td>
<td>670</td>
<td>182</td>
<td>66</td>
<td>16%-20%</td>
<td>190 P</td>
</tr>
<tr>
<td>6414</td>
<td>50%</td>
<td>52%</td>
<td>670</td>
<td>185</td>
<td>66</td>
<td>16%-20%</td>
<td>350 P</td>
</tr>
<tr>
<td>6415</td>
<td>25%</td>
<td>26%</td>
<td>670</td>
<td>184</td>
<td>66</td>
<td>16%-20%</td>
<td>60 P</td>
</tr>
</tbody>
</table>

**RETURN TIME REQUIREMENTS:**

- 1 second (1000 ms) for vehicles less than 4536 kg.
- 2 seconds (2000 ms) for vehicles more than 4536 kg.
- 3 seconds (3000 ms) for vehicles exposed to -18º C or less

**PASS** _____ **X** _____ **FAIL** _____________

---

**REMARKS:**

---

**RECORDED BY:** G. FARRAND

**DATE:** 04/15/10

**APPROVED BY:** D. MESSICK
FAIL-SAFE OPERATION
DISCONNECTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR
VEHICLE NHTSA NO.: CA5106
DATE OF TEST: APRIL 16, 2010

Check one:
Mid Temp. Test: X Low Temp. Test: High Temp. Test:

SYSTEM CONDITION: #4 & #5 SPRINGS DISCONNECTED ON TPS

<table>
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<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN THROTTLE (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (ºC)</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
<th>PASS/FAIL</th>
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<td>100%</td>
<td>98%</td>
<td>670</td>
<td>182</td>
<td>75</td>
<td>16%-20%</td>
<td>250</td>
</tr>
<tr>
<td>6443</td>
<td>75%</td>
<td>74%</td>
<td>670</td>
<td>182</td>
<td>75</td>
<td>16%-20%</td>
<td>190</td>
</tr>
<tr>
<td>6444</td>
<td>50%</td>
<td>52%</td>
<td>670</td>
<td>185</td>
<td>75</td>
<td>16%-20%</td>
<td>250</td>
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<td>6445</td>
<td>25%</td>
<td>27%</td>
<td>670</td>
<td>184</td>
<td>75</td>
<td>16%-20%</td>
<td>80</td>
</tr>
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</table>

RETURN TIME REQUIREMENTS:

1 second (1000 ms) for vehicles less than 4536 kg.
2 seconds (2000 ms) for vehicles more than 4536 kg.
3 seconds (3000 ms) for vehicles exposed to -18º C or less

PASS X FAIL ____________

REMARKS: Throttle body was constructed so that both springs had to be disabled at the same time. The throttle body is constructed as a non-severance item and cutting was required to remove the springs.

RECORDED BY: G. FARRAND DATE: 04/16/10
APPROVED BY: D. MESSICK
DATA SHEET 4
FAIL-SAFE OPERATION
DISCONNECTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR
VEHICLE NHTSA NO.: CA5106
DATE OF TEST: APRIL 15, 2010

Check one:

SYSTEM CONDITION: SEVERANCE OF APS CONNECTOR

<table>
<thead>
<tr>
<th>GTL #</th>
<th>ACCELERATOR POSITION % WIDE OPEN THROTTLE (WOT)</th>
<th>THROTTLE POSITION SENSOR READING</th>
<th>RPM</th>
<th>TEMPERATURE (ºC)</th>
<th>THROTTLE POSITION SENSOR READING @ IDLE (BASELINE)</th>
<th>RETURN TIME TO IDLE (Msec)</th>
<th>PASS/FAIL</th>
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</thead>
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<tr>
<td>6416</td>
<td>100%</td>
<td>100%</td>
<td>670</td>
<td>181</td>
<td>67</td>
<td>16%-20%</td>
<td>20*</td>
</tr>
</tbody>
</table>

RETURN TIME REQUIREMENTS:

1 second (1000 ms) for vehicles less than 4536 kg.
2 seconds (2000 ms) for vehicles more than 4536 kg.
3 seconds (3000 ms) for vehicles exposed to -18º C or less

PASS ____ X ____ FAIL __________

REMARKS: *Engine stopped running when connector was removed.

RECORDED BY: G. FARRAND OVERDATE: 04/15/10
APPROVED BY: D. MESSICK
DATA SHEET 5  
FMVSS 124

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2010 SCION tC PASSENGER CAR  
VEHICLE NHTSA NO.: CA5106  
DATE OF TEST: APRIL 15, 2010

<table>
<thead>
<tr>
<th>GTL #</th>
<th>CONNECTOR</th>
<th>WIRE/PIN DESCRIPTION</th>
<th>FAULT CONDITION</th>
<th>ENGINE TEMP. °C</th>
<th>% THROTTLE/RETURN TIME (MS)</th>
<th>PASS/FAIL/NOTES</th>
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<tbody>
<tr>
<td>6417</td>
<td>APS</td>
<td>#1/Red</td>
<td>OPEN</td>
<td>182</td>
<td>100/220</td>
<td>P</td>
</tr>
<tr>
<td>6418</td>
<td>APS</td>
<td>#2/Black</td>
<td>OPEN</td>
<td>183</td>
<td>100/220</td>
<td>P</td>
</tr>
<tr>
<td>6419</td>
<td>APS</td>
<td>#3/Green</td>
<td>OPEN</td>
<td>185</td>
<td>100/200</td>
<td>P</td>
</tr>
<tr>
<td>6420</td>
<td>APS</td>
<td>#4/White</td>
<td>OPEN</td>
<td>190</td>
<td>100/230</td>
<td>P</td>
</tr>
<tr>
<td>6421</td>
<td>APS</td>
<td>#5/Brown</td>
<td>OPEN</td>
<td>188</td>
<td>100/210</td>
<td>P</td>
</tr>
<tr>
<td>6422</td>
<td>APS</td>
<td>#6/Blue</td>
<td>OPEN</td>
<td>190</td>
<td>100/210</td>
<td>P</td>
</tr>
<tr>
<td>6423</td>
<td>APS</td>
<td>#1/Red</td>
<td>SHORT</td>
<td>190</td>
<td>100/230</td>
<td>P</td>
</tr>
<tr>
<td>6424</td>
<td>APS</td>
<td>#2/Black</td>
<td>SHORT</td>
<td>190</td>
<td>100/60</td>
<td>P</td>
</tr>
<tr>
<td>6425</td>
<td>APS</td>
<td>#3/Green</td>
<td>SHORT</td>
<td>191</td>
<td>100/220*</td>
<td>P</td>
</tr>
<tr>
<td>6426</td>
<td>APS</td>
<td>#4/White</td>
<td>SHORT</td>
<td>190</td>
<td>100/210</td>
<td>P</td>
</tr>
<tr>
<td>6427</td>
<td>APS</td>
<td>#5/Brown</td>
<td>SHORT</td>
<td>188</td>
<td>100/200</td>
<td>P</td>
</tr>
<tr>
<td>6428</td>
<td>APS</td>
<td>#6/Blue</td>
<td>SHORT</td>
<td>188</td>
<td>100/10*</td>
<td>P</td>
</tr>
<tr>
<td>6429</td>
<td>TPS</td>
<td>#1/Red</td>
<td>OPEN</td>
<td>181</td>
<td>100/20**</td>
<td>P</td>
</tr>
<tr>
<td>6430</td>
<td>TPS</td>
<td>#2/Black</td>
<td>OPEN</td>
<td>180</td>
<td>100/150**</td>
<td>P</td>
</tr>
<tr>
<td>6431</td>
<td>TPS</td>
<td>#3/Dark Green</td>
<td>OPEN</td>
<td>181</td>
<td>100/20**</td>
<td>P</td>
</tr>
<tr>
<td>6432</td>
<td>TPS</td>
<td>#4/White</td>
<td>OPEN</td>
<td>183</td>
<td>100/230**</td>
<td>P</td>
</tr>
<tr>
<td>6433</td>
<td>TPS</td>
<td>#5/Brown</td>
<td>OPEN</td>
<td>180</td>
<td>100/90**</td>
<td>P</td>
</tr>
<tr>
<td>6434</td>
<td>TPS</td>
<td>#6/Blue</td>
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<td>180</td>
<td>100/120**</td>
<td>P</td>
</tr>
<tr>
<td>6435</td>
<td>TPS</td>
<td>#1/Red</td>
<td>SHORT</td>
<td>180</td>
<td>100/450</td>
<td>P</td>
</tr>
<tr>
<td>6436</td>
<td>TPS</td>
<td>#2/Black</td>
<td>SHORT</td>
<td>183</td>
<td>100/390**</td>
<td>P</td>
</tr>
<tr>
<td>6437</td>
<td>TPS</td>
<td>#3/Green</td>
<td>SHORT</td>
<td>184</td>
<td>100/10*</td>
<td>P</td>
</tr>
<tr>
<td>6438</td>
<td>TPS</td>
<td>#4/White</td>
<td>SHORT</td>
<td>184</td>
<td>100/210**</td>
<td>P</td>
</tr>
<tr>
<td>6439</td>
<td>TPS</td>
<td>#5/Brown</td>
<td>SHORT</td>
<td>183</td>
<td>100/10**</td>
<td>P</td>
</tr>
<tr>
<td>6440</td>
<td>TPS</td>
<td>#6/Blue</td>
<td>SHORT</td>
<td>185</td>
<td>100/140**</td>
<td>P</td>
</tr>
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<td>6441</td>
<td>TPS</td>
<td>Pins 1-6</td>
<td>Severance</td>
<td>186</td>
<td>100/390*</td>
<td>P</td>
</tr>
</tbody>
</table>

*Engine stopped running.  
**Limp Home Mode at 1180 RPM.

REMARKS: Control of Throttle Plate Motor is through TPS connector.

RECORDED BY: G. FARRAND  
DATE: 04/15/10

APPROVED BY: D. MESSICK
### SECTION 4
**TEST EQUIPMENT LIST AND CALIBRATION INFORMATION**

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>DESCRIPTION</th>
<th>MODEL/ SERIAL NO.</th>
<th>CAL. DATE</th>
<th>NEXT CAL. DATE</th>
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<tr>
<td>THERMOCOUPLES</td>
<td>OMEGA</td>
<td>43P136P</td>
<td>08/09</td>
<td>08/10</td>
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<tr>
<td>ENGINE RECORDING</td>
<td>GTL COMPUTER</td>
<td>CPU1</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>TACHOMETER</td>
<td>MONARCH</td>
<td>1444664</td>
<td>05/09</td>
<td>05/10</td>
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</tbody>
</table>
SECTION 5
PHOTOGRAPHS
2010 SCION tC
NHTSA NO. CA5106
FMVSS NO. 124

FIGURE 5.2
LEFT SIDE VIEW OF VEHICLE
FIGURE 5.3
RIGHT SIDE VIEW OF VEHICLE
MFD. BY: TOYOTA MOTOR CORPORATION 09/09
GVWR 3945LB GAWR FR 2130LB RR 1835LB
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND
THEFT PREVENTION STANDARDS IN EFFECT ON
THE DATE OF MANUFACTURE SHOWN ABOVE.
JTKDE3B79A0308521
PASS CAR
C/TR:040/3D14 ANT10L-ALPGKA
A/TM:-01A/U241E MADE IN JAPAN
291 A
<table>
<thead>
<tr>
<th>TIRE</th>
<th>SIZE</th>
<th>COLD TIRE PRESSURE</th>
<th>PNEU</th>
<th>DIMENSIONS</th>
<th>PRESSION DES PNEUS À FROID</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT</td>
<td>215/45ZR17</td>
<td>220kPa, 32PSI</td>
<td>AVANT</td>
<td>215/45ZR17</td>
<td>220kPa, 32PSI</td>
</tr>
<tr>
<td>REAR</td>
<td>215/45ZR17</td>
<td>200kPa, 29PSI</td>
<td>ARRIÈRE</td>
<td>215/45ZR17</td>
<td>200kPa, 29PSI</td>
</tr>
<tr>
<td>SPARE</td>
<td>T125/70D17</td>
<td>420kPa, 60PSI</td>
<td>DE SECOURS</td>
<td>T125/70D17</td>
<td>420kPa, 60PSI</td>
</tr>
</tbody>
</table>

The combined weight of occupants and cargo should never exceed 392 kg or 865 lbs.

Le poids total des occupants et du chargement ne doit jamais dépasser 392 kg ou 865 lbs.
FIGURE 5.7
CLOSE-UP OF SPRINGS 1 & 2

2010 SCION IC
NHTSA NO. CA5106
FMVSS NO. 124
FIGURE 5.10
TEST SET-UP AT THROTTLE BODY
2010 SCION tC
NHTSA NO. CA5106
FMVSS NO. 124

FIGURE 5.11
THROTTLE POSITION SENSOR WITH SPRINGS 4 & 5
GTL 6398, NHTSA CA5106, FMVSS 124.

75% Throttle, Normal Operation.
GTL 6399, NHTSA CA5106, FMVSS 124.

50% Throttle, Normal Operation.

% Throttle & Foot Release.
GTL 6400, NHTSA CA5106, FMVSS 124.

25% Throttle, Normal Operation.

% Throttle & Foot Release.

Time in Seconds
GTL 6401, NHTSA CA5106, MVSS 124.

100% Throttle, Spring 1 Removed.
GTL 6402, NHTSA CA5106, FMVSS 124.

75% Throttle, Spring 1 Removed.
GTL 6403, NHTSA CA5106, FMVSS 124.

50% Throttle, Spring 1 Removed.

% Throttle & Foot Release.

Time in Seconds
GTL 6404, NHTSA CA5106, FMVSS 124.

25% Throttle, Spring 1 Removed.
GTL 6408, NHTSA CA5106, FMVSS 124.

100% Throttle, Spring 2 Removed.
GTL 6409, NHTSA CA5106, FMVSS 124.

75% Throttle, Spring 2 Removed.
GTL 6411, NHTSA CA5106, FMVSS 124.

25% Throttle, Spring 2 Removed.
GTL 6413, NHTSA CA5106, FMVSS 124.

75% Throttle, Spring 3 Removed.
GTL 6414, NHTSA CA5106, FMVSS 124.

50% Throttle, Spring 3 Removed.

% Throttle & Foot Release.

Time in Seconds
GTL 6415, NHTSA CA5106, FMVSS 124.

25% Throttle, Spring 3 Removed.
GTL 6417, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 1 Open.

% Throttle & Foot Release.

Time in Seconds
GTL 6418, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 2 Open.
GTL 6419, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 3 Open.
GTL 6420, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 4 Open.

% Throttle & Foot Release.

Time in Seconds
GTL 6422, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 6 Open.
GTL 6423, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 1 Shorted.
GTL 6425, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 3 Shorted.
GTL 6426, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 4 Snorted.

% Throttle & Foot Release.

Time in Seconds
GTL 6427, NHTSA CA5106, FMVSS 124.

100% Throttle, APS Wire 5 Shorted.
GTL 6429, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 1 Open.
GTL 6430, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 2 Open.
GTL 6431, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 3 Open.
GTL 6432, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 4 Open.

% Throttle & Foot Release.

Time in Seconds
GTL 6433, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 5 Open.

% Throttle & Foot Release.

Time in Seconds
GTL 6434, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 6 Open.

% Throttle & Foot Release.

Time in Seconds
GTL 6435, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 1 Shorted.
GTL 6436, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 2 Shorted.
GTL 6437, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 3 Shorted.

% Throttle & Foot Release.

Time in Seconds

0 0.1 0.2 0.3 0.5 0.7 0.9
GTL 6438, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 4 Shorted.
GTL 6439, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 5 Shorted.

% Throttle & Foot Release.

Time in Seconds
GT-6440, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Wire 6 Shorted.

Time in Seconds
GTL 6442, NHTSA CA5106, FMVSS 124.

100% Throttle, TPS Springs 4&5 Removed.
GTL 6443, NHTSA CA5106, FMVSS 124.

75% Throttle, TPS Springs 4&5 Removed.

% Throttle & Foot Release.

Time in Seconds
GTL 6444, NHTSA CA5106, FMVSS 124.

50% Throttle, TPS Springs 4&5 Removed.
GTL 6445, NHTSA CA5106, FMVSS 124.

25% Throttle, TPS Springs 4&5 Removed.