



# HYUNDAI Technical Service Bulletin

Group	CHASSIS
Number	05-50-003
Date	MAY, 2005
Model	2006 SONATA

Subject  
**STEERING ANGLE SENSOR CENTERING PROCEDURE**

<b>CIRCULATE TO:</b>	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input type="checkbox"/> SALES MANAGER

**DESCRIPTION:**

All 2006 MY Sonata vehicles are equipped with Electronic Stability Control (ESC). The ESC system contains a steering angle sensor, which measures the amount and rate of steering wheel input. The steering angle sensor is used by the ESC to determine if brake or engine torque interventions should be activated to help the driver.

The steering angle sensor requires calibration whenever the following occurs:

- Steering Angle Sensor replacement
- Steering rack removal
- Steering column removal

This bulletin provides a procedure to recalibrate the steering angle sensor using the Hi-Scan Pro.

**NOTE: Before starting procedure, make sure vehicle has ESC. Look for button on dash.**

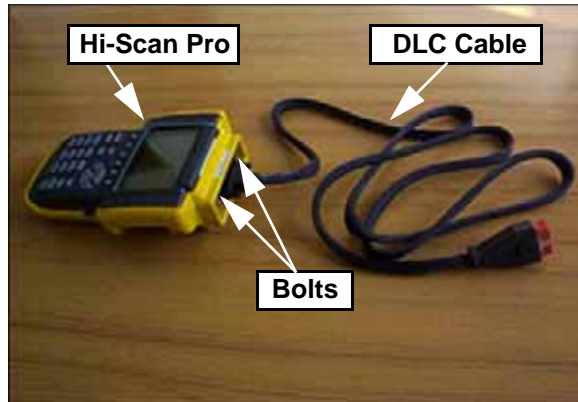
**STEERING ANGLE SENSOR CALIBRATION PROCEDURE:**

1. Vehicle alignment must meet the following requirements before steering angle calibration can be started.

- Front wheels <math>\pm 1.0^\circ</math> from straight forward.
- Steering wheel <math>\pm 5.0^\circ</math> from straight forward.
- Roll the vehicle forward and backward on a flat level surface prior to calibration.

**NOTE: Leave the ignition key in the "OFF" position before starting the following procedure.**

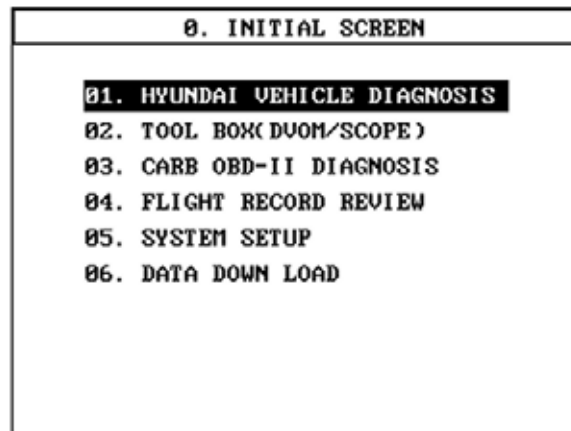
2. Attach the Data Link Connector (DLC) cable to the Hi-Scan Pro main body and securely tighten two bolts.



3. Plug the DLC cable into the 16 pin data link connector.
4. Turn the ignition switch to the "ON" position (**do not start the engine**).
5. Turn the Hi-Scan Pro **ON** and press **ENTER**.



6. Select option "**01. Hyundai Vehicle Diagnosis**" and press **ENTER**.





# HYUNDAI Technical Service Bulletin

Group

CHASSIS

Number

05-50-003

7. Select option “**01. Sonata (NF)**” and press **ENTER**.

**NOTE:** Number may vary, select Sonata (NF).

```
1. HYUNDAI VEHICLE DIAGNOSIS
01. SONATA(NF)
```

8. Select option “**03. Anti-Lock Brake System**” and press **ENTER**.

```
1. HYUNDAI VEHICLE DIAGNOSIS ▼
MODEL : SONATA(NF)

01. ENGINE
02. AUTOMATIC TRANSAXLE
03. ANTI-LOCK BRAKE SYSTEM
04. SRS-AIRBAG
05. ELEC.CONTROL SUSPENSION
06. IMMOBILIZER
07. ELEC.POWER STEERING
08. FULL AUTO AIR/CON.
```

9. Select option “**09. Steering Angle Sensor**” and press **ENTER**.

```
1. HYUNDAI VEHICLE DIAGNOSIS ▼▲
MODEL : SONATA(NF)
SYSTEM : ANTI-LOCK BRAKE SYSTEM

02. CURRENT DATA
03. FLIGHT RECORD
04. ACTUATION TEST
05. SIMU-SCAN
06. AIR BLEEDING MODE
07. SOLENOID VALVES TEST
08. IDENTIFICATION CHECK
09. STEERING ANGLE SENSOR
```

10. Press **ENTER**.

<b>1.9 STEERING ANGLE SENSOR</b>
<b>× AIM</b> THIS FUNCTION RESET THE SAS VALUE TO ZERO-SET. PERFORM THIS FUNCTION WHEN YOU REPLACE SENSOR OR STEERING COLUMN.  IF YOU READY, PRESS [ENTER] KEY.

11. Select "**Rest**".

<b>1.9 STEERING ANGLE SENSOR</b>		
<b>STEERING ANGLE SENSOR</b>		
<table border="1"><tr><td><b>CONDITION</b></td><td>STRAIGHTEN THE FRONT TIRE, AND ARRANGE THE STEERING WHEEL AT THE CENTER POSITION. IG.KEY ON, ENGINE STOP</td></tr></table>	<b>CONDITION</b>	STRAIGHTEN THE FRONT TIRE, AND ARRANGE THE STEERING WHEEL AT THE CENTER POSITION. IG.KEY ON, ENGINE STOP
<b>CONDITION</b>	STRAIGHTEN THE FRONT TIRE, AND ARRANGE THE STEERING WHEEL AT THE CENTER POSITION. IG.KEY ON, ENGINE STOP	
PRESS [REST], IF YOU ARE READY ?		
<b>REST</b>		

12. Press **ESC**.

<b>1.9 STEERING ANGLE SENSOR</b>		
<b>STEERING ANGLE SENSOR</b>		
<table border="1"><tr><td><b>C</b></td><td>STRAIGHTEN THE FRONT TIRE, <b>CALIBRATION COMPLETION!</b> TURN IG.KEY OFF AND ON IG.KEY ON, ENGINE STOP</td></tr></table>	<b>C</b>	STRAIGHTEN THE FRONT TIRE, <b>CALIBRATION COMPLETION!</b> TURN IG.KEY OFF AND ON IG.KEY ON, ENGINE STOP
<b>C</b>	STRAIGHTEN THE FRONT TIRE, <b>CALIBRATION COMPLETION!</b> TURN IG.KEY OFF AND ON IG.KEY ON, ENGINE STOP	
PRESS [REST], IF YOU ARE READY ?		
<b>REST</b>		

**WARRANTY INFORMATION:**

Applicable warranty coverage applies.