

TO	Hyundai Service Managers Hyundai Parts Managers	SUBJECT	Campaign 103 – Clock Spring Replacement (TSB#11-01-052)
FROM	Hyundai Motor America National Service Department	MODELS	2007-2008 Santa Fe 2007-2008 Veracruz
DATE	November 3, 2011		

Customer letters for the above recall campaign will be sent out beginning November 7, 2011 in eight waves. Due to parts availability on this recall campaign, customers were notified of two actions:

- If the “air bag” warning lamp **REMAINS ON** when their vehicle is running, they should bring their vehicle to a Hyundai dealer for diagnosis and repair.
- If the “air bag” warning lamp does **NOT REMAIN ON** when the vehicle is running, the driver’s air bag will operate properly and Hyundai asks that the customer **not have this recall repair performed** at this time because sufficient quantities of the necessary parts are not yet available for all vehicles.

Hyundai Dealer Process

Parts for this campaign will NOT be eligible for dealer order. Hyundai Motor America will ship an initial allocation of parts for this campaign to your dealership based on the units in operation in your market area that fall under this recall campaign. Replacement parts will be automatically shipped to you as soon as your Service Department submits campaign claims for completed repairs. Submit campaign claims as soon as the repairs are completed.

BEST PRACTICES FOR CAMPAIGN 103

Step 1	Check Hyundai Online Service Scheduling (Xtime) Daily	<ul style="list-style-type: none"> ✓ Customers have been advised to schedule an online appointment ✓ Your appointment ledger will show CAMP103 in the “services” column ✓ Check part availability at least the day before customer’s visit ✓ If no part available, contact the customer to determine: <ul style="list-style-type: none"> ○ If the Air Bag Warning Lamp is <u>NOT ON</u>, follow the procedure under Step 2 below ○ If the Air Bag Warning Lamp <u>IS ON</u>, follow the procedure under Step 4 below
Step 2	Air Bag Warning Lamp is NOT ON	<ul style="list-style-type: none"> ✓ Advise the customer that since the air bag warning lamp is not on, their driver’s air bag will operate properly. ✓ DO NOT COMPLETE THE CAMPAIGN AT THIS TIME because sufficient quantities of the necessary parts are not yet available for all vehicles ✓ If, in the future, their air bag warning lamp remains on when their vehicle is running, then the customer should make an appointment with your dealership for diagnosis and repair
Step 3	Air Bag Warning Lamp is ON (and part is available)	<ul style="list-style-type: none"> ✓ Diagnose and repair the customer’s vehicle pursuant to TSB #11-01-052 ✓ <u>File your campaign claim as soon as the repairs are completed</u>
Step 4	Air Bag Warning Lamp is ON (and part is NOT available)	<ul style="list-style-type: none"> ✓ Provide the customer with a service rental car until the part is available ✓ Make sure your Service Department has submitted all previous campaign claims. If all claims have been submitted, and you still need additional parts, contact the Hyundai Parts Call Center via email (HyundaiPartsHotline@mobisusa.com) <p>• Include the following information in the e-mail:</p> <ol style="list-style-type: none"> a. Subject line on email should say Campaign 103 Parts Needed b. Dealer Code c. Dealer Contact <u>Name</u> and <u>Phone #</u> d. VIN e. Parts Numbers f. Order Quantity (should be one part number per VIN) <p>As soon as the part is available, a replacement will be sent to your dealership</p>

REMINDER: HMA WILL ALLOCATE A REPLACEMENT PART AS SOON AS A CAMPAIGN CLAIM IS SUBMITTED

**HYUNDAI**NEW THINGS
NEW POSSIBILITIES**Technical Service Bulletin**

GROUP

CAMPAIGN

NUMBER

11-01-052

DATE

November, 2011

MODEL(S)

**Santa Fe (CM)
Veracruz (EN)****Subject:****CLOCK SPRING REPLACEMENT (Campaign 103)****★ IMPORTANT******* Retail Vehicles *****

Dealers must perform this recall campaign on all affected vehicles in inventory and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the service department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: This bulletin provides the service procedure for replacing the clock spring assembly.

2007 – 2008 Santa Fe: Pages 3 – 11

2007 – 2008 Veracruz: Pages 12 – 16



Applicable Vehicles: 2007-2008 Model Year Santa Fe (CM) **Produced:** 4/19/2006 – 3/20/2008
2007-2008 Model Year Veracruz (EN) **Produced:** 12/26/2006 – 3/21/2008

Parts Information:

VEHICLE	PART NAME	PART #	QTY
Santa Fe	Clock Spring	93490-2B300-QQH	1
Veracruz	Clock Spring	93490-3J100-QQH	1

SST Information:

DESCRIPTION	SST PART #
Steering wheel remover	09561-11001

Warranty Information:

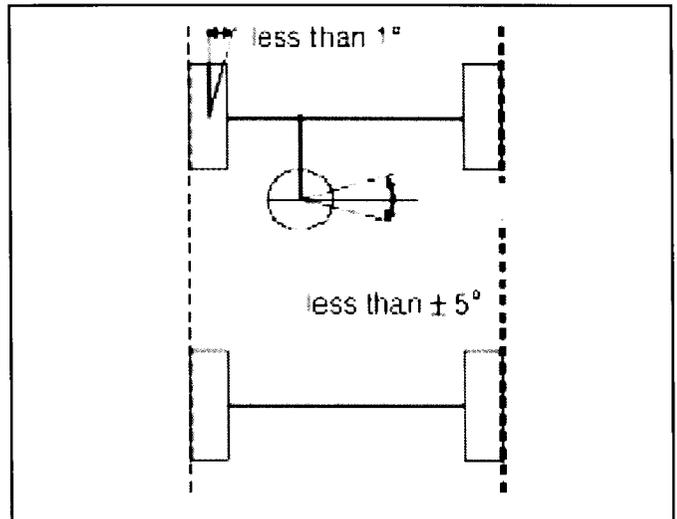
VEHICLE	OP CODE	OPERATION	OP TIME
Santa Fe	11C101R1	Clock spring replacement	0.5 MH
Veracruz	11C101R0	Clock spring replacement	0.5 MH

NOTE: Submit Claim on Campaign Claim Entry Screen

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

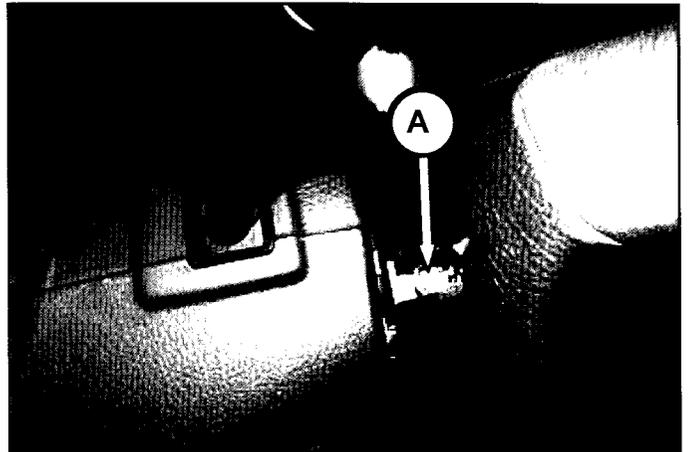
Santa Fe Replacement Procedure

1. Turn the steering wheel to the straight ahead position, and then hold the steering wheel within $\pm 5^\circ$ of straight ahead position.



2. Turn the ignition ON and record customer's AM/FM/XM radio preset stations.
Disconnect the battery negative cable and wait for at least thirty seconds before beginning work.
3. Loosen and remove the steering wheel air bag mounting bolts (A) on both sides.

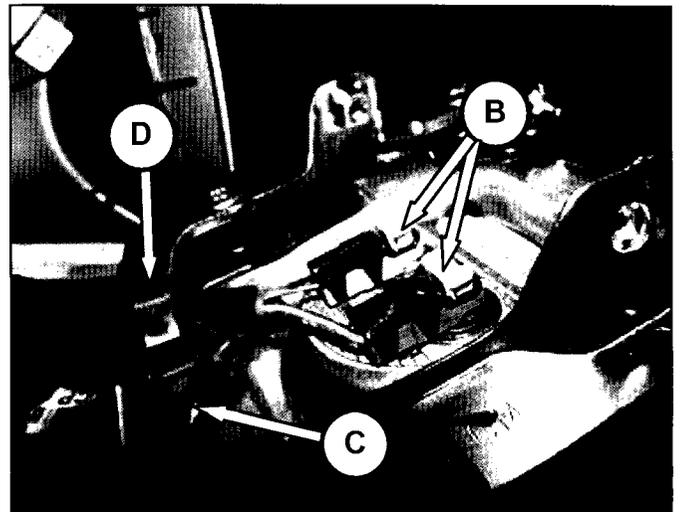
Tightening Torque:
5.7~7.9 lb-ft (7.9~10.7 Nm)



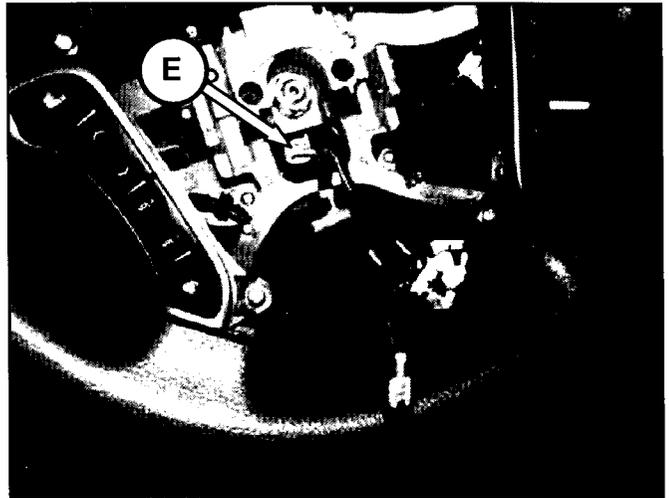
4. Disconnect the airbag connectors (B) after releasing the locking pins. Disconnect the horn connector (C), and then unclip the wiring mounting clip (D). Then remove the driver airbag module.

**CAUTION**

The removed airbag module should be stored in a clean, dry place with the pad cover facing up.

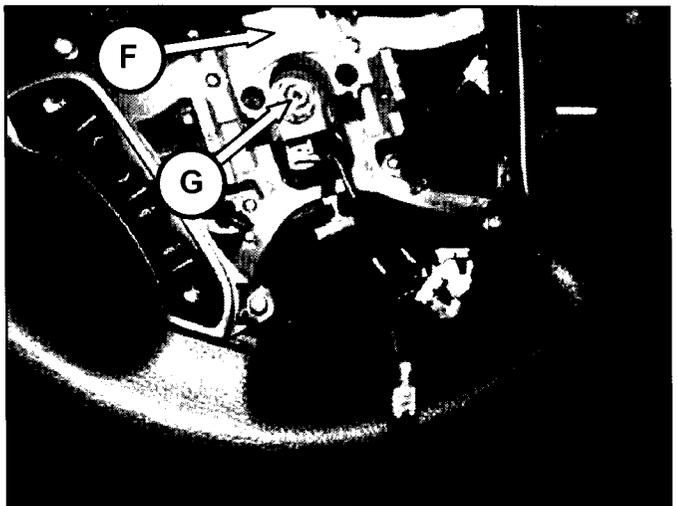


5. Disconnect the steering wheel control switch connector (E).



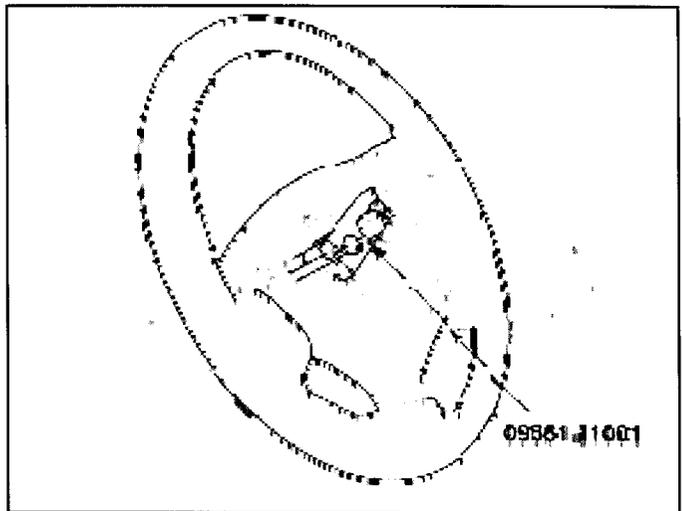
6. Remove the dynamic damper (F).
Remove the steering wheel lock nut (G).

Tightening Torque: 29 ~ 36 lb-ft (40 ~ 50 Nm)

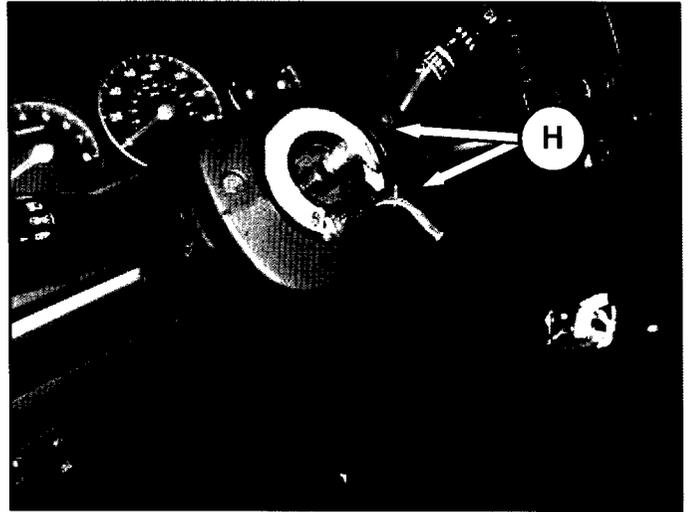


7. After making alignment marks on the steering wheel and shaft for reinstallation, remove the steering wheel using SST 09561-11001 or a generic steering wheel removal tool.

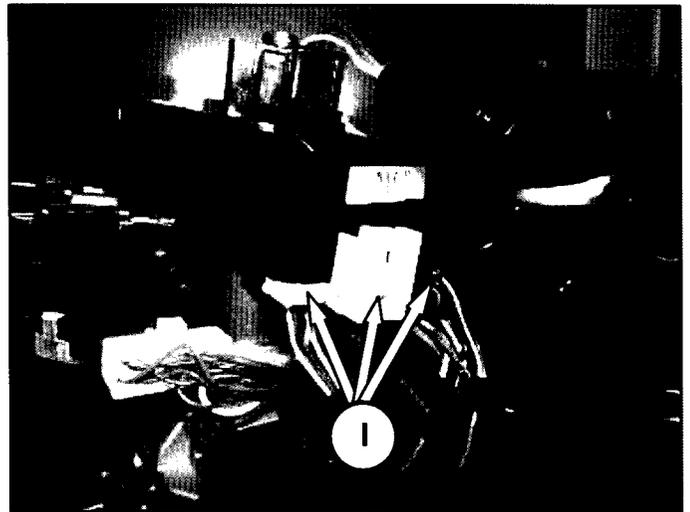
CAUTION
Do not hammer on the steering wheel to remove it.



8. Remove the steering column upper/lower shrouds (H) after loosening the mounting screws (5 EA).



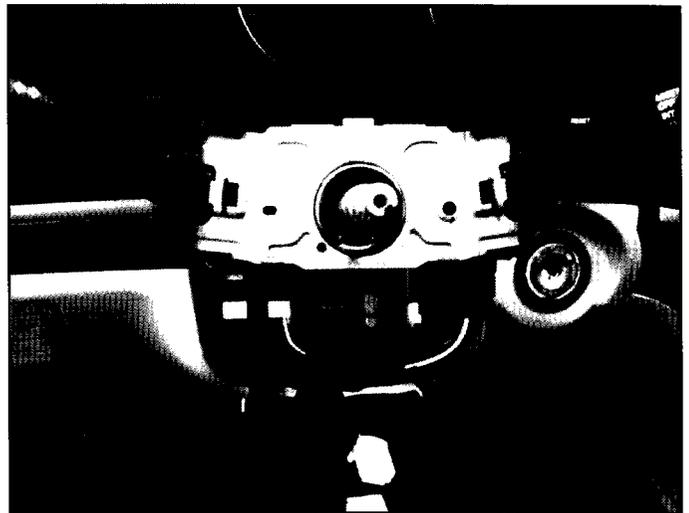
9. Disconnect the connectors (I) under the clock spring.



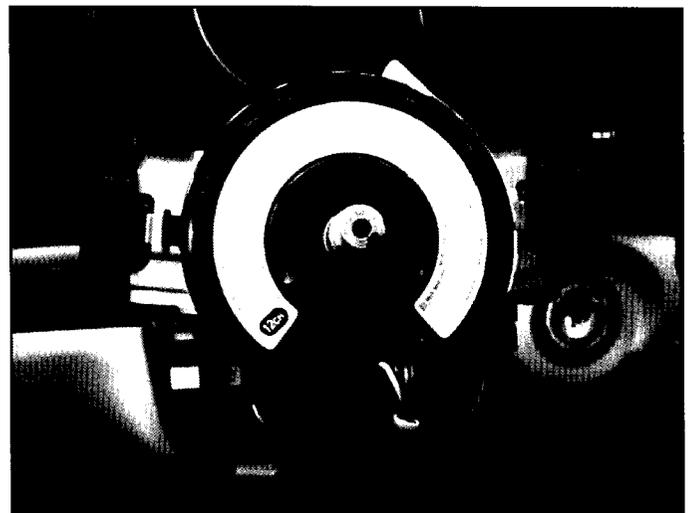
10. Unlock the clock spring mounting hooks (J) located at the sides of the clock spring (K).



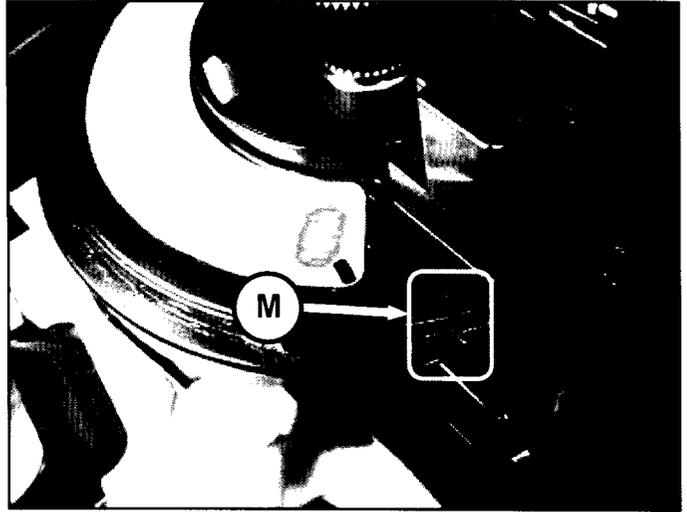
11. Unlock the clock spring upper mounting hook (L) and remove the clock spring from the column shaft.



12. Install a new clock spring to the steering column assembly. Connect the clock spring connectors under the clock spring.



13. When installing the clock spring, make sure to set the center position by aligning the marks between the clock spring and the cover. Align the marks (M) (▶ ◀) by turning the clock spring clockwise to the stop and then 2.0 revolutions counterclockwise.

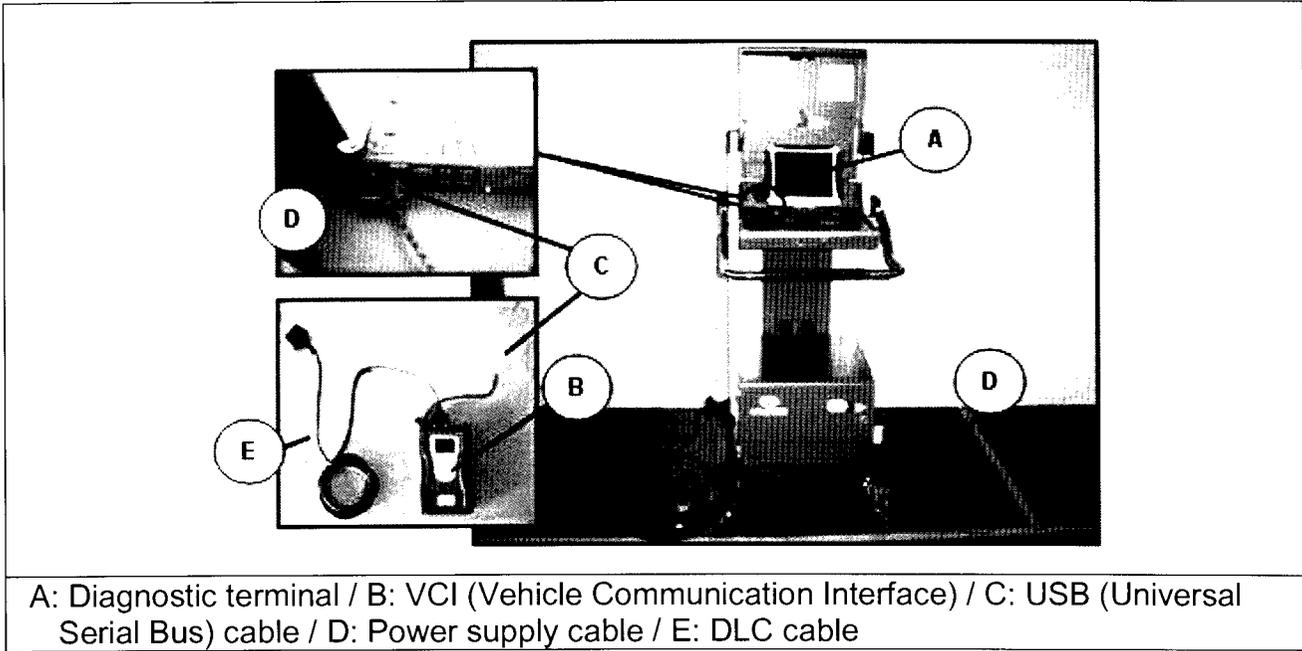


14. Reinstall all the parts removed in the reverse order of removal.
15. Perform the Steering Angle Sensor (SAS) calibration by following the procedures beginning on the next page and using the GDS.

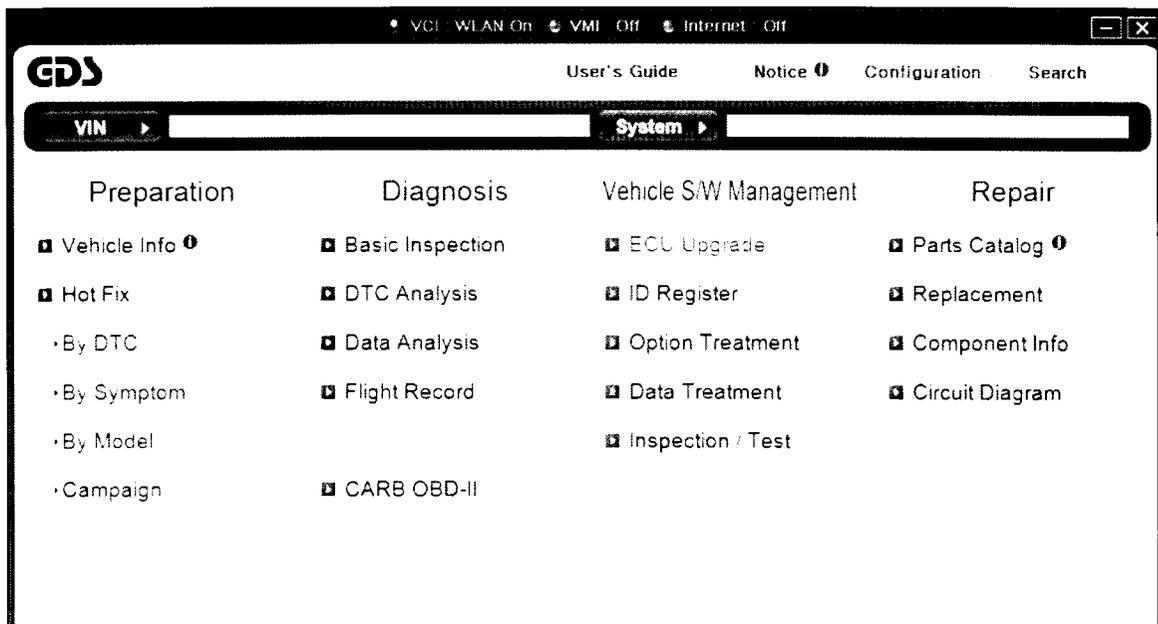
*** NOTE**

Make sure that the steering is at the straight ahead position.

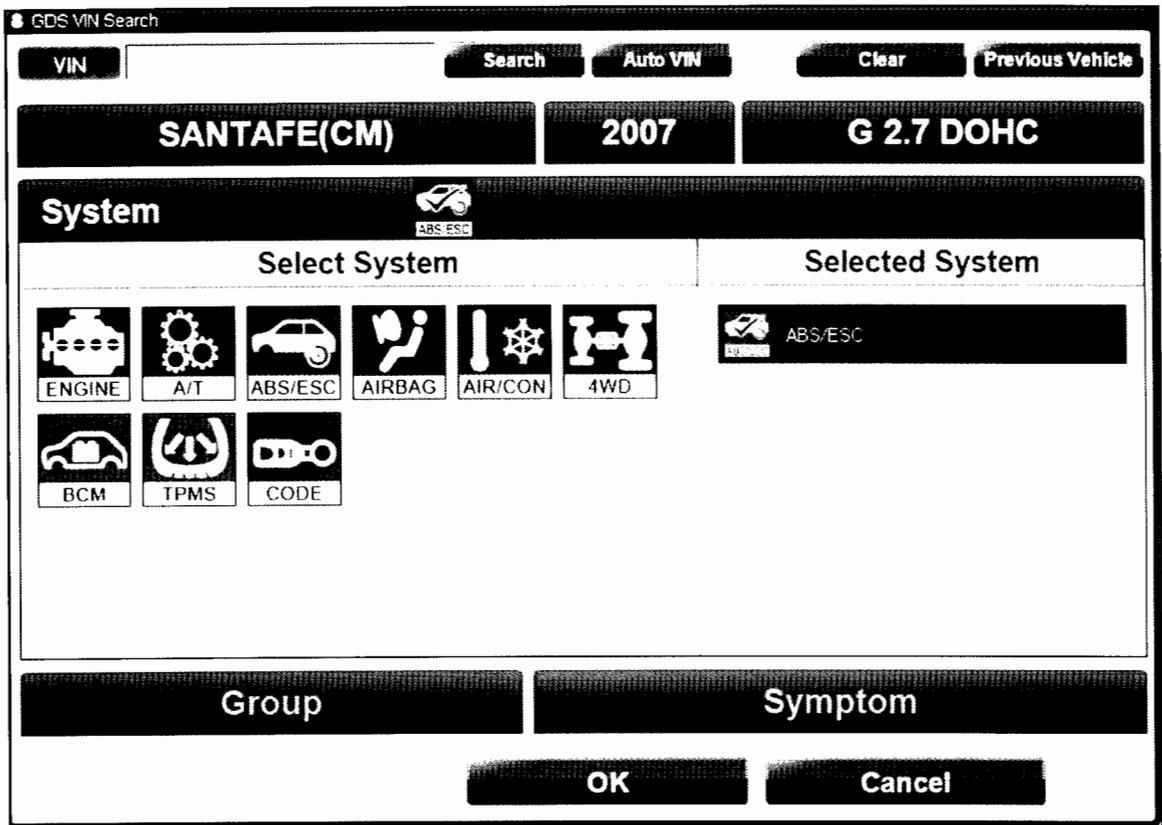
Santa Fe GDS INSTALLATION & SAS CALIBRATION PROCEDURE



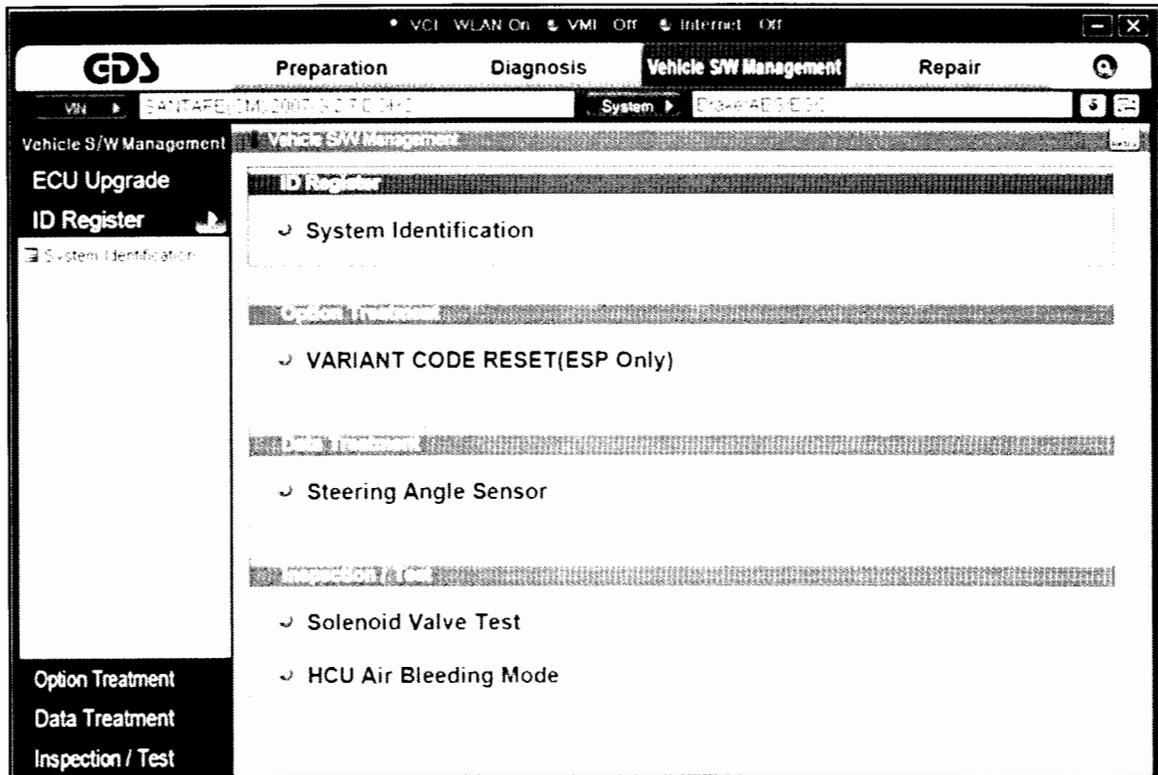
- a) Connect the power supply cable to the diagnostic terminal.
- b) Connect the USB cable between the VCI and the diagnostic terminal.
- c) Connect the 16-pin DLC cable from the VCI into the vehicle's 16-pin connector under the driver side instrument panel.
- d) Turn on the VCI and the GDS diagnostic terminal with the ignition key in the ON position.
- e) Click to select **Data Treatment** under the **Vehicle S/W Management** section and the GDS will Auto VIN Detect.



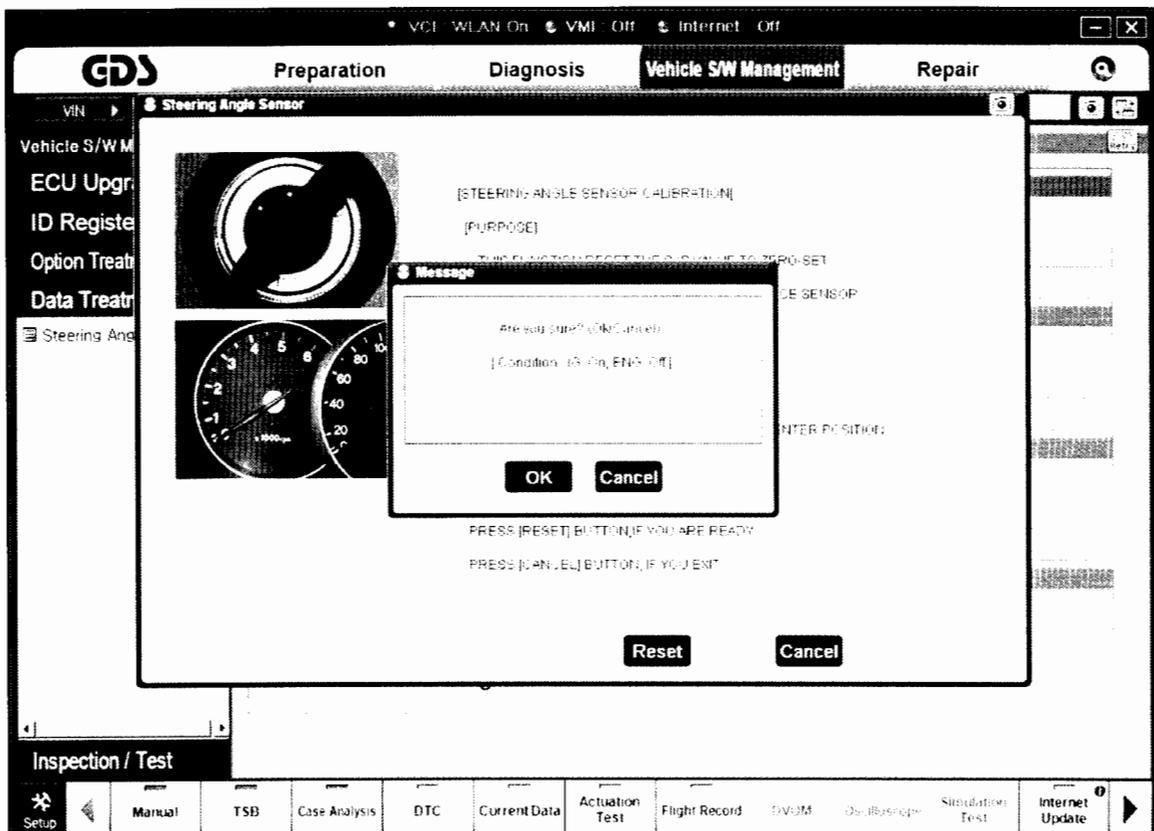
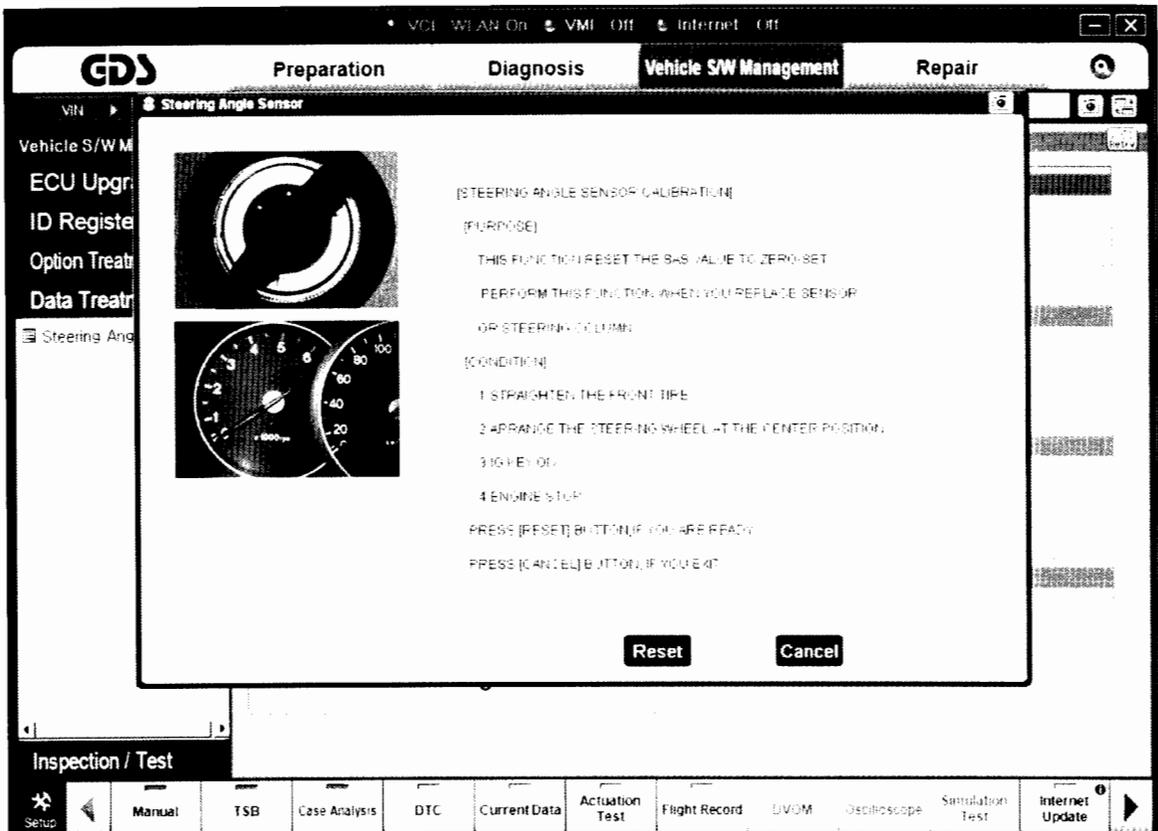
f) Click to select **ABS/ESC** as the system and then click **OK**.



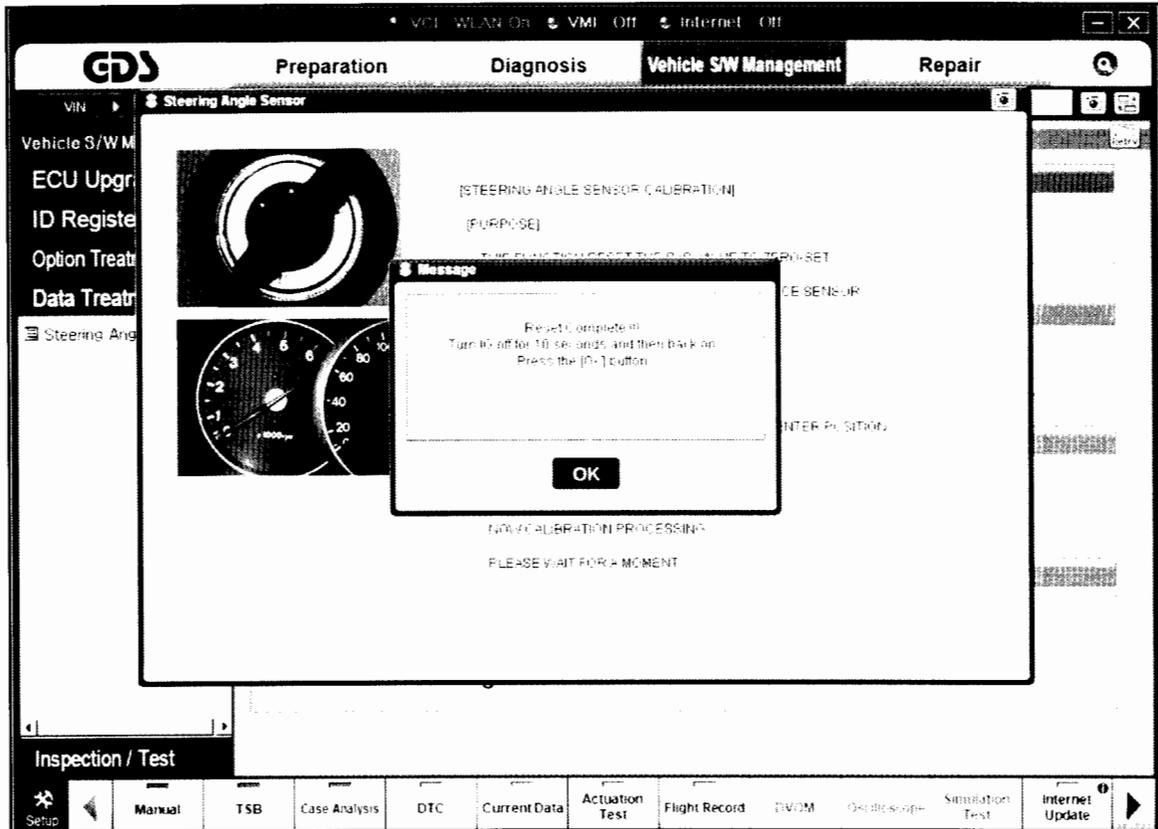
g) Click to select **Steering Angle Sensor**.



- h) Make sure that calibration conditions are met. Click **Reset** button to calibrate and then click **OK** to proceed with the calibration.



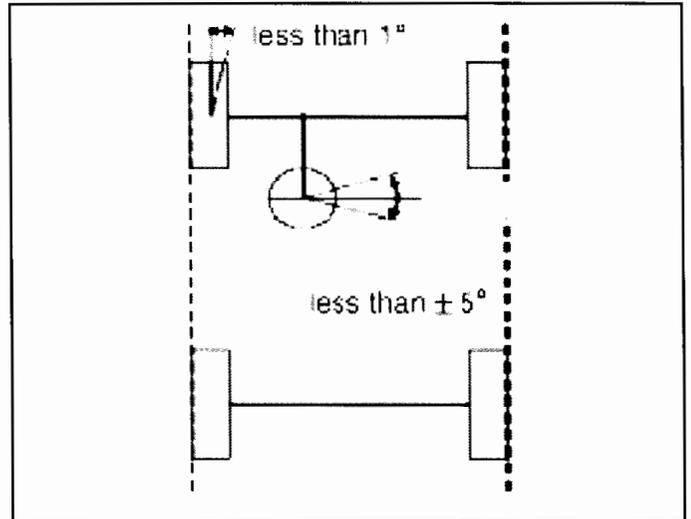
- i) After calibration is completed, click OK and turn the ignition OFF for 10 seconds.



16. Check for any incidental Diagnostic Trouble Codes (DTCs) and clear any incidental DTC(s) if present.
17. Start the engine to confirm proper operation of the vehicle, steering wheel related components and switches. Reset the customer's radio preset stations.

Veracruz Replacement Procedure

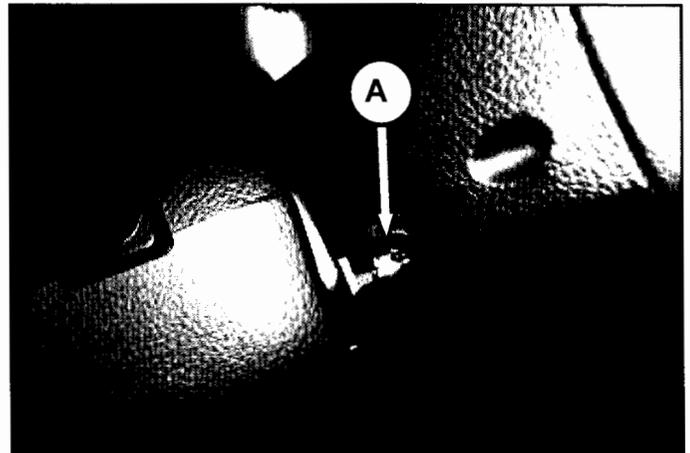
1. Turn the steering wheel to the straight ahead position, and then hold the steering wheel within $\pm 5^\circ$ of straight ahead position.



2. Turn the ignition ON and record customer's AM/FM/XM radio preset stations.
Disconnect the battery negative cable and wait for at least thirty seconds before beginning work.

3. Loosen and remove the steering wheel air bag mounting bolts (A) on both sides.

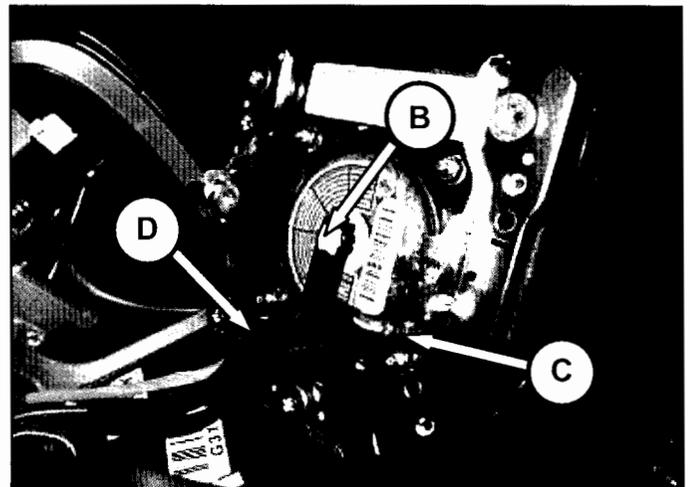
Tightening Torque :
5.7~7.9 lb-ft (7.9~10.7 Nm)



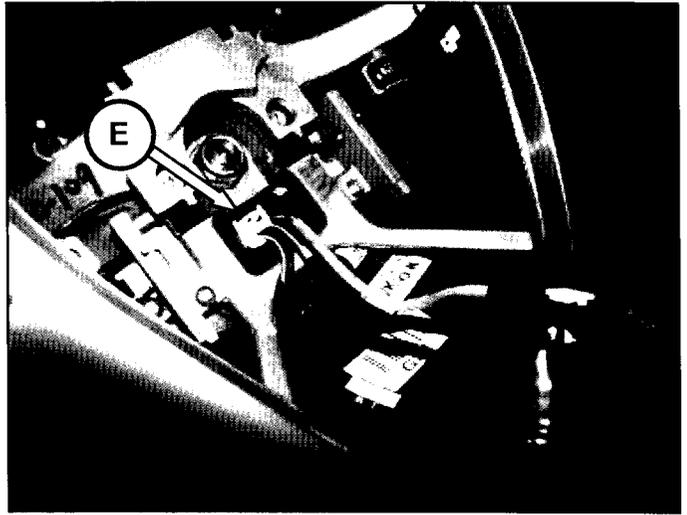
4. Disconnect the airbag connector (B) after releasing the locking pin. Disconnect the horn connector (C), and then unclip the wiring mounting clip (D). Then remove the driver airbag module.

**CAUTION**

The removed airbag module should be stored in a clean, dry place with the pad cover facing up.

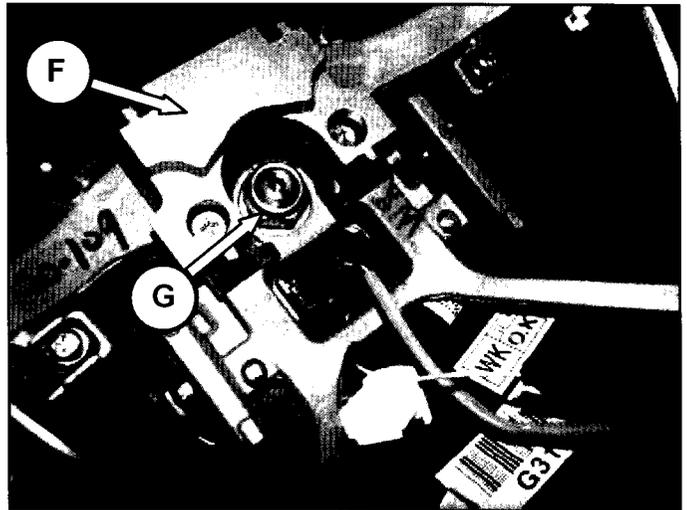


5. Disconnect the steering wheel control switch connector (E).



6. Remove the dynamic damper (F).
Remove the steering wheel lock nut (G).

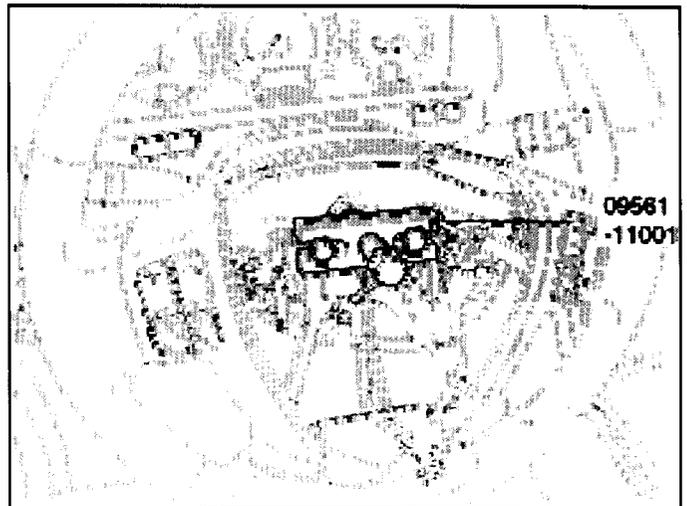
Tightening Torque:
29 ~ 36 lb-ft (40 ~ 50 Nm)



7. After making alignment marks on the steering wheel and shaft for reinstallation, remove the steering wheel using SST 09561-11001 or a generic steering wheel removal tool.

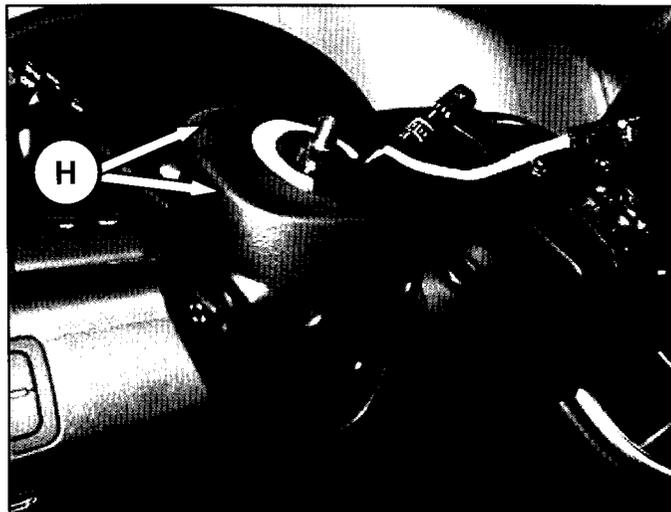
**CAUTION**

Do not hammer on the steering wheel to remove it.

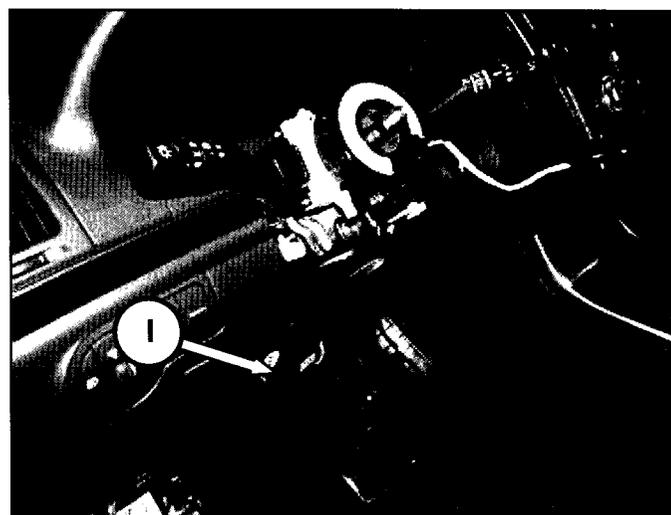


8. Separate the steering column upper and lower shrouds (H) by loosening the mounting screws.

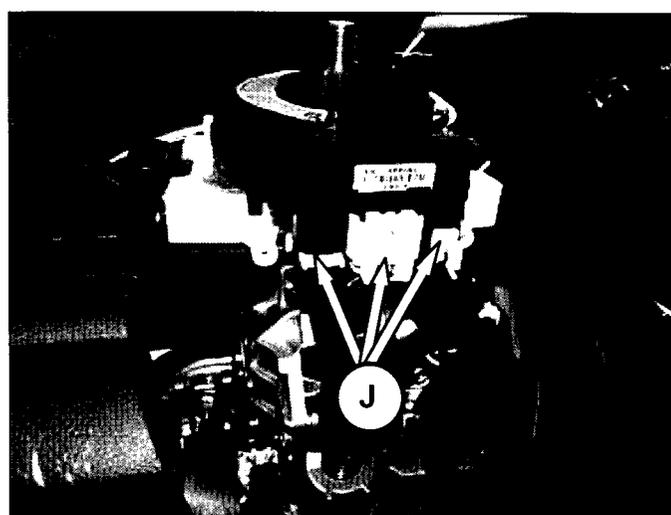
Remove the steering column upper shroud.



9. Lower the lower shroud (I) away from the steering column with the steering wheel tilt and telescopic switch connected. (There is no need to completely detach the steering column lower shroud).



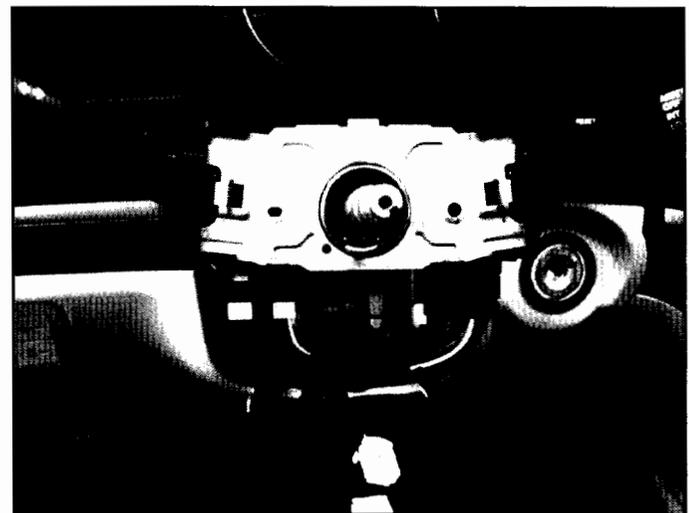
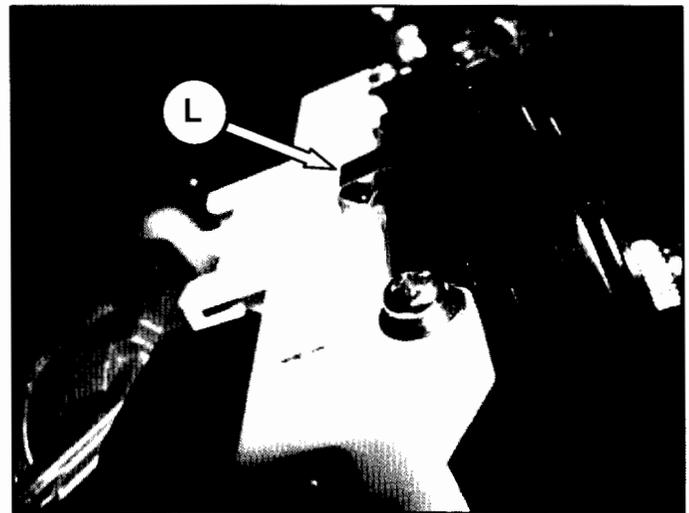
10. Disconnect the connectors (J) under the clock spring.



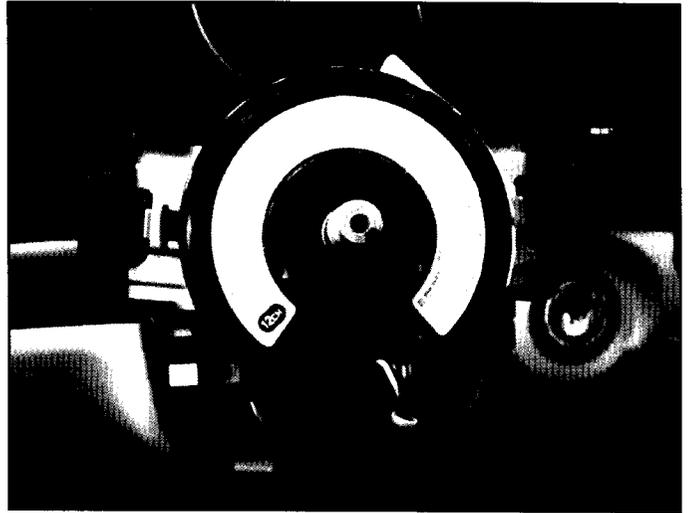
11. Unlock the clock spring mounting hooks (K).



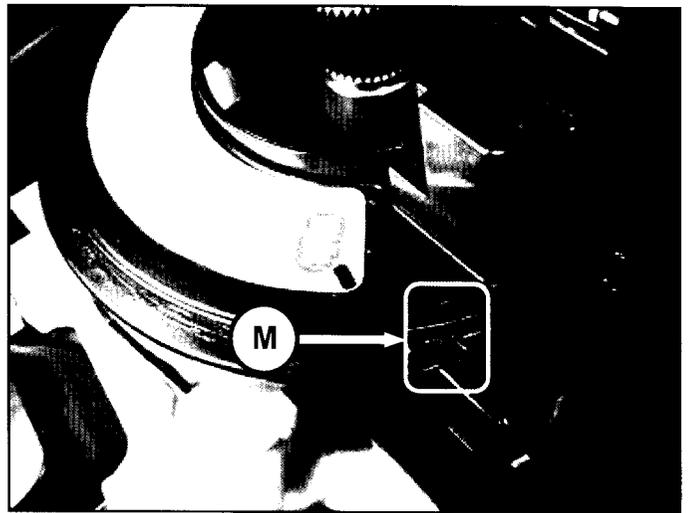
12. Unlock the clock spring upper mounting hook (L) and remove the clock spring assembly from the column shaft.



13. Install a new clock spring to the steering column assembly. Connect the clock spring connectors under the clock spring.



14. When installing the clock spring, make sure to set the center position by aligning the marks between the clock spring and the cover. Align the marks (M) (▶ ◀) by turning the clock spring clockwise to the stop and then 2.0 revolutions counterclockwise.



15. Reinstall all the parts removed in the reverse order of removal. Verify that the steering wheel is centered.
16. Check for any incidental Diagnostic Trouble Codes (DTCs) and clear any incidental DTC(s) if present.
17. Start the engine to confirm proper operation of the vehicle, steering wheel related components and switches.

Reset the customer's radio preset stations.