

## 8. Steering Angle Sensor

### A: REPLACEMENT

**CAUTION:**

If the steering wheel and steering angle sensor are removed, perform the following VDC setting mode.

– Model without EyeSight: VDC sensor midpoint setting mode <Ref. to VDC-26, VDC SENSOR MID-POINT SETTING MODE (MODELS WITHOUT EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

– Model with EyeSight: Set up mode for Neutral of Steering Angle Sensor & Lateral G Sensor 0 point <Ref. to VDC-26, NEUTRAL OF STEERING ANGLE SENSOR & LATERAL G SENSOR 0 POINT SETTING (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

– Model with EyeSight: Longitudinal G sensor & lateral G sensor 0 point setting mode <Ref. to VDC-27, LONGITUDINAL G SENSOR & LATERAL G SENSOR 0 POINT SETTING MODE (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)

2) Turn the ignition switch to OFF.

3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. <Ref. to NT-5, BATTERY, NOTE, Note.>

**NOTE:**

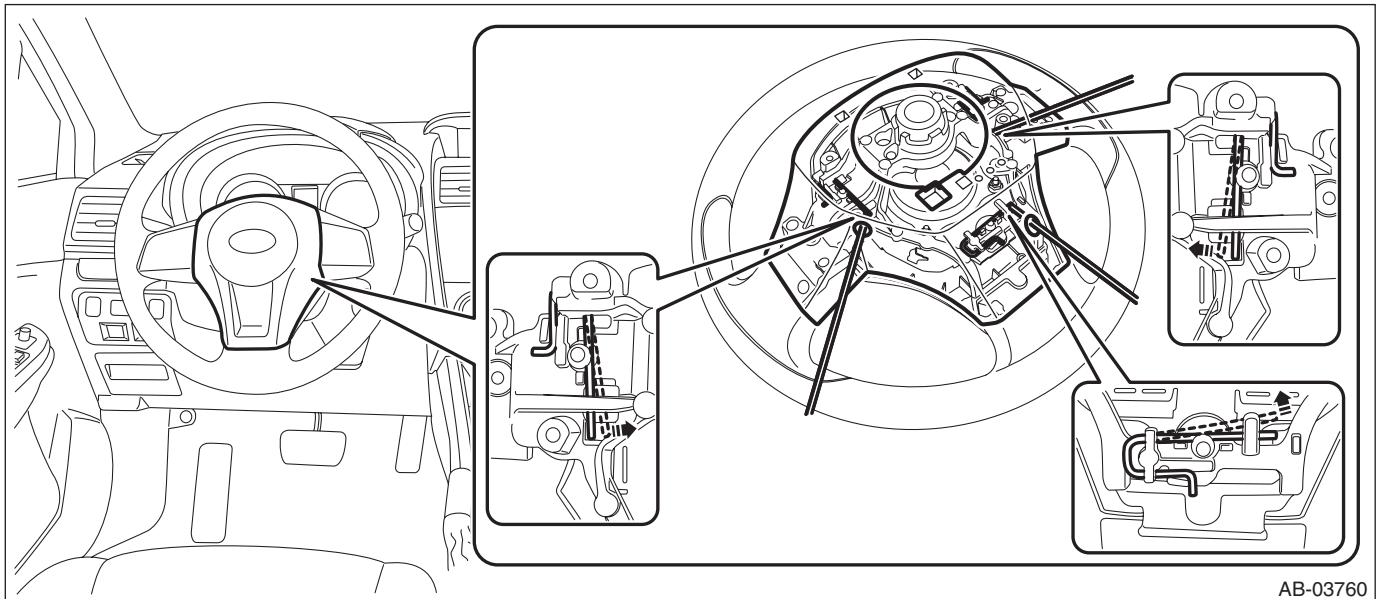
For the 12 volt engine restart battery of HEV model, disconnect the ground terminal from 12V engine restart battery sensor.

4) Remove the driver's airbag module.

**CAUTION:**

Before performing service on the airbag module, always refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. <Ref. to AB-10, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).

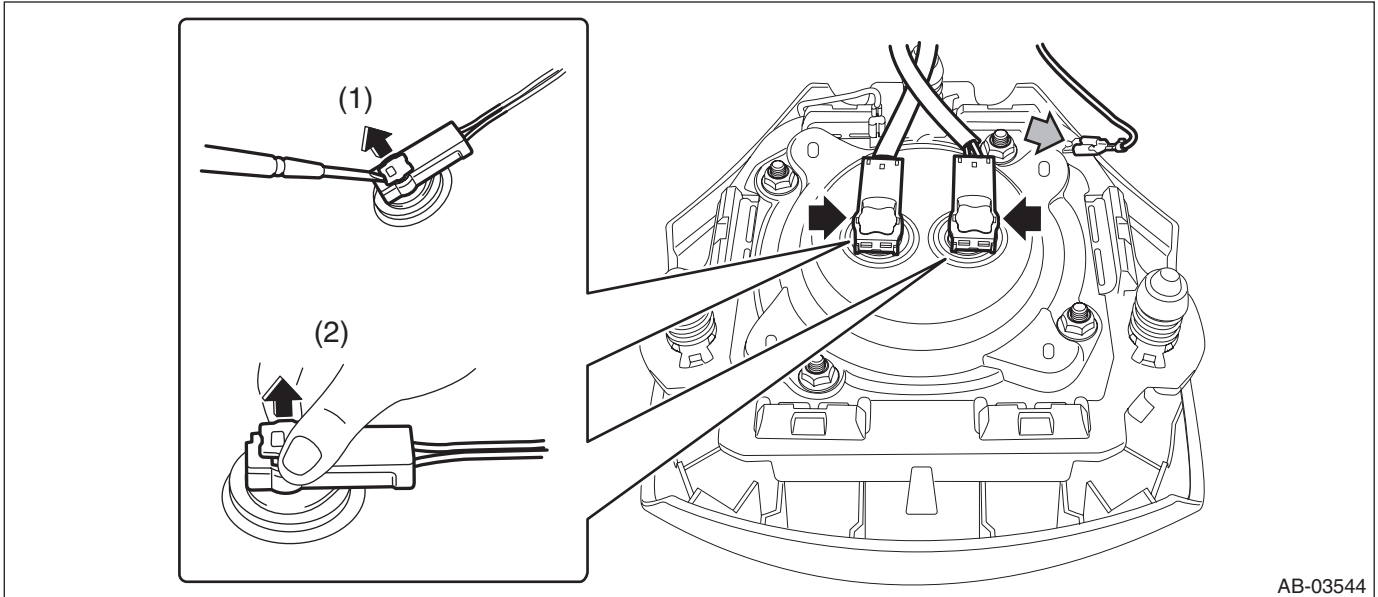


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## Steering Angle Sensor

### VEHICLE DYNAMICS CONTROL (VDC)

(2) Disconnect the horn harness and airbag connector, and remove the airbag module. <Ref. to AB-19, DRIVER'S AIRBAG MODULE, CURTAIN AIRBAG MODULE & PRETENSIONER, PROCEDURE, Air-bag Connector.>



5) Remove the steering wheel.

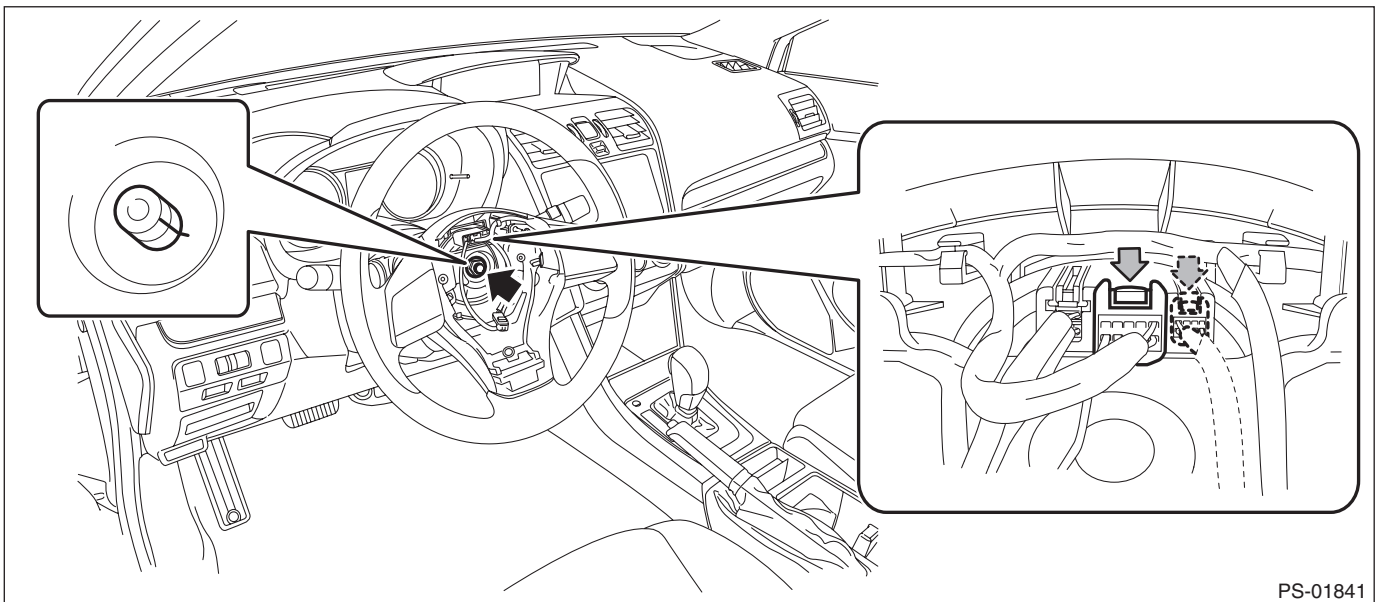
#### CAUTION:

- Always use the steering wheel puller for removal to avoid deforming the steering wheel.
- If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.

#### Preparation tool:

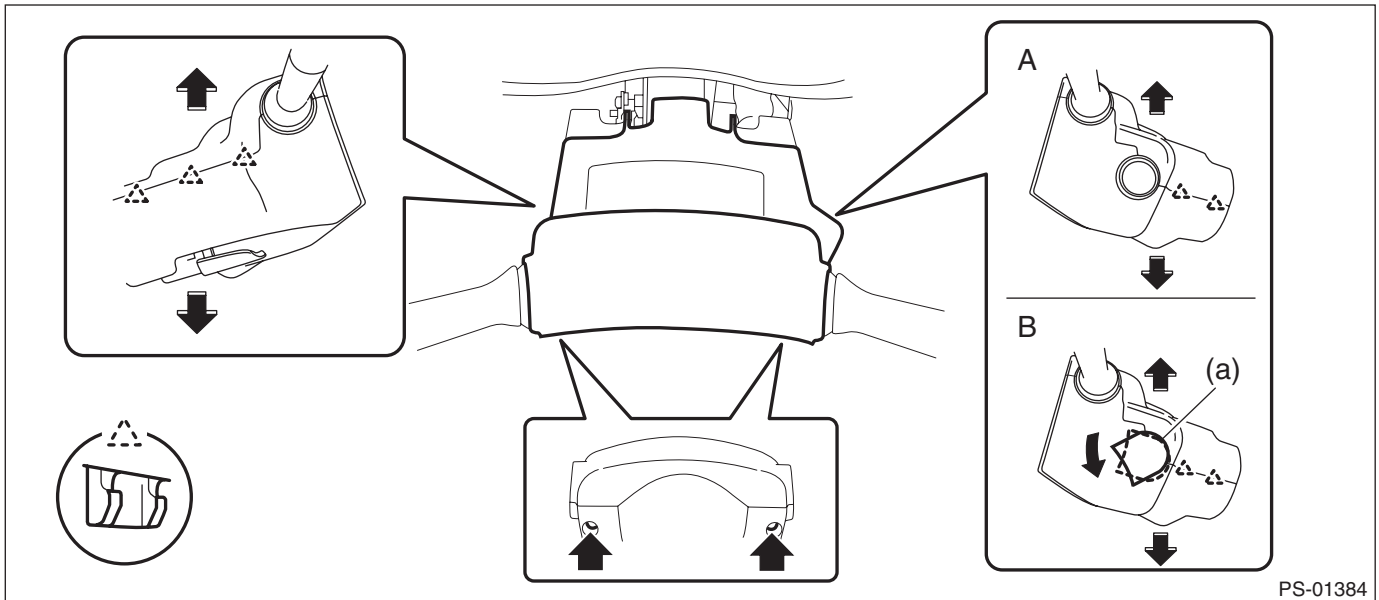
##### Steering wheel puller

- (1) Disconnect the connector and remove the nut.
- (2) Put alignment marks and remove the steering wheel.



6) Remove the cover assembly - column.

- (1) Release the screws and claws.
- (2) Remove the cap - key cylinder (a). (Model with keyless access)
- (3) Remove the cover assembly - column UPR and the cover assembly - column LWR.



A Model without keyless access

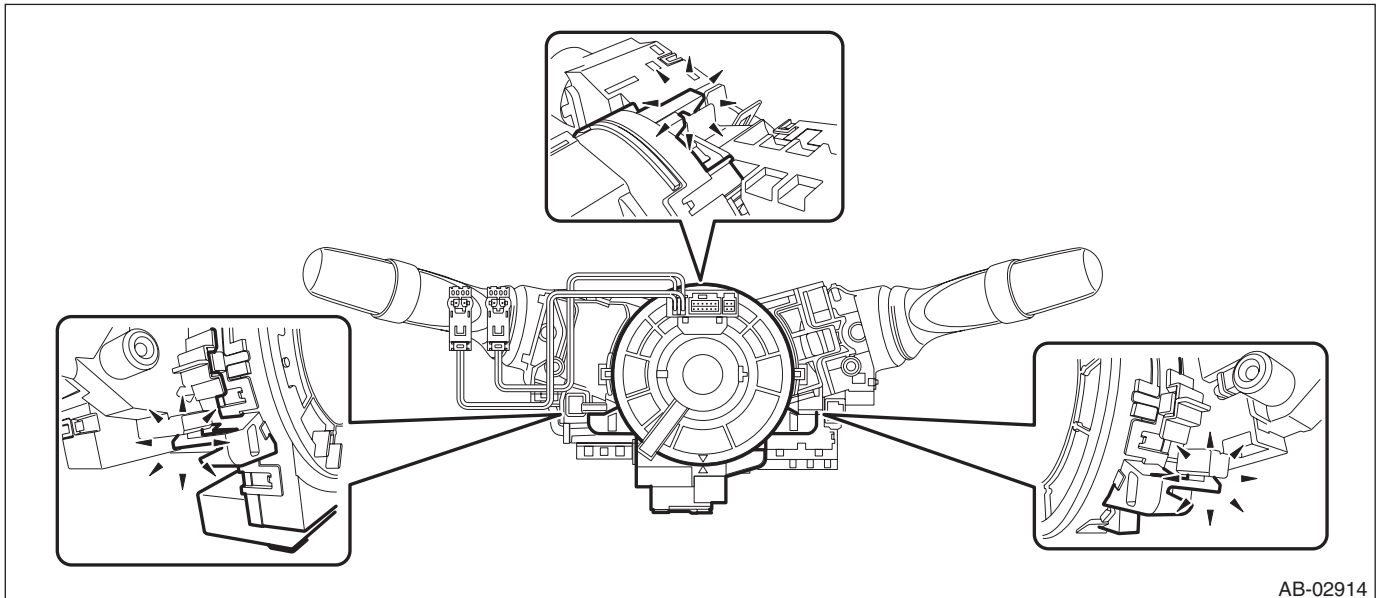
B Model with keyless access

7) Remove the steering roll connector.

**CAUTION:**

**Make sure that the steering roll connector is not turned from the original position.**

- (1) Disconnect the connector under the steering roll connector.
- (2) Release the claws and remove the steering roll connector.

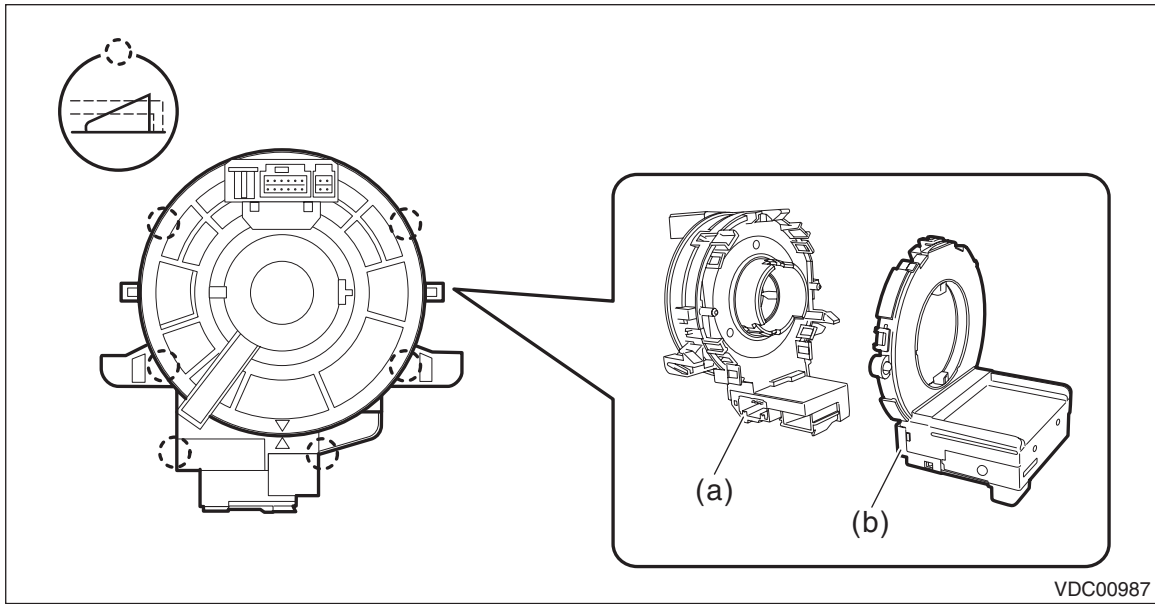


# Steering Angle Sensor

## VEHICLE DYNAMICS CONTROL (VDC)

8) Remove the steering angle sensor.

(1) Release the claws and remove the steering angle sensor (b) from the steering roll connector (a).

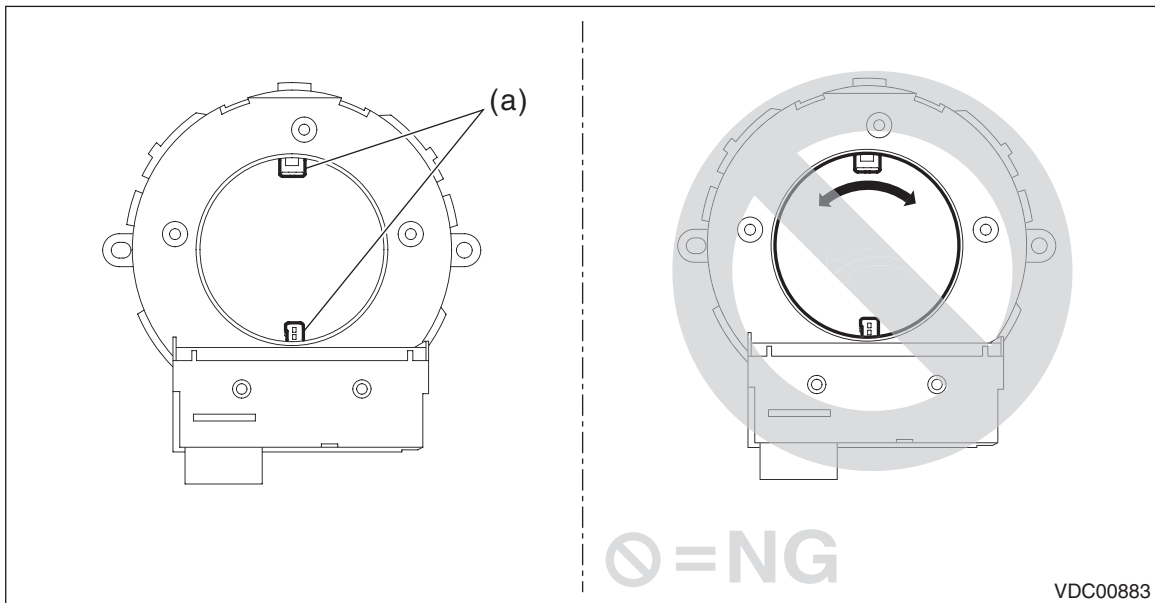


9) Install the steering angle sensor.

(1) Apply grease to the protrusion (a) of the new steering angle sensor.

### CAUTION:

**Do not rotate the steering angle sensor protrusion.**



(2) Align the center of steering roll connector. <Ref. to AB-96, INSTALLATION, Roll Connector.>

(3) Align the position of the protrusion and install the steering angle sensor to the steering roll connector.

10) Install each part in the reverse order of removal.

**Tightening torque:**

**Steering wheel: 39 N·m (4.0 kgf-m, 28.8 ft-lb)**

**Clearance:**

**Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)**

11) Adjust the steering angle sensor. (Models without EyeSight) <Ref. to VDC-26, VDC SENSOR MID-POINT SETTING MODE (MODELS WITHOUT EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

12) Adjust the steering angle sensor. (Models with EyeSight)

- Neutral of Steering Angle Sensor & Lateral G Sensor 0 point setting <Ref. to VDC-26, NEUTRAL OF STEERING ANGLE SENSOR & LATERAL G SENSOR 0 POINT SETTING (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

- Longitudinal G sensor & lateral G sensor 0 point setting <Ref. to VDC-27, LONGITUDINAL G SENSOR & LATERAL G SENSOR 0 POINT SETTING MODE (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>