

5. Steering Column

A: REMOVAL

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

NOTE:

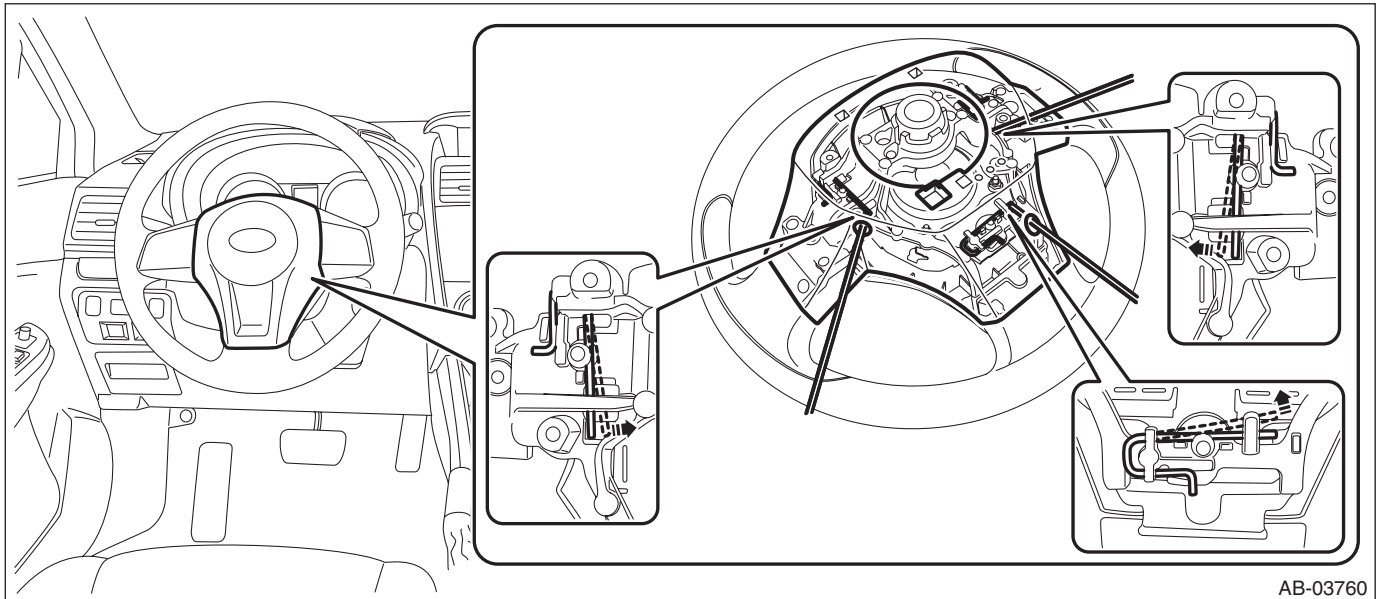
For the 12 volt engine restart battery of HEV model, disconnect the ground terminal from 12V engine restart battery sensor.

2) Remove the driver's airbag module.

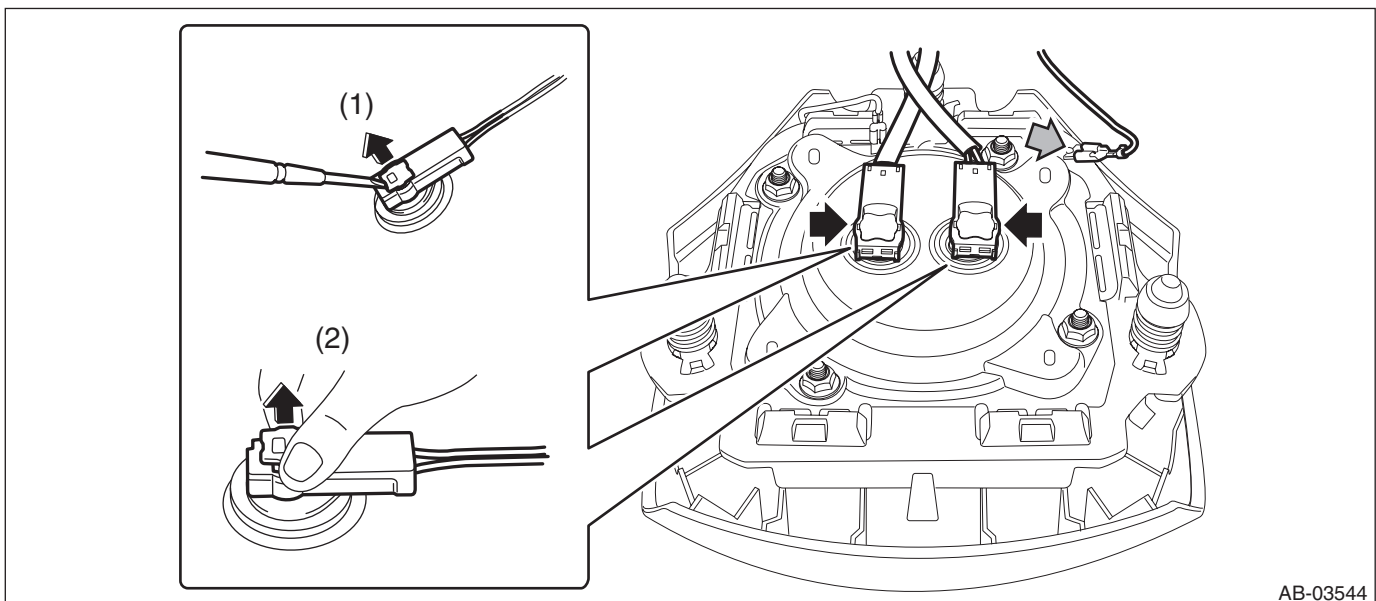
CAUTION:

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).



(2) Disconnect the horn harness and airbag connector, and remove the airbag module.



Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

3) Remove the steering wheel.

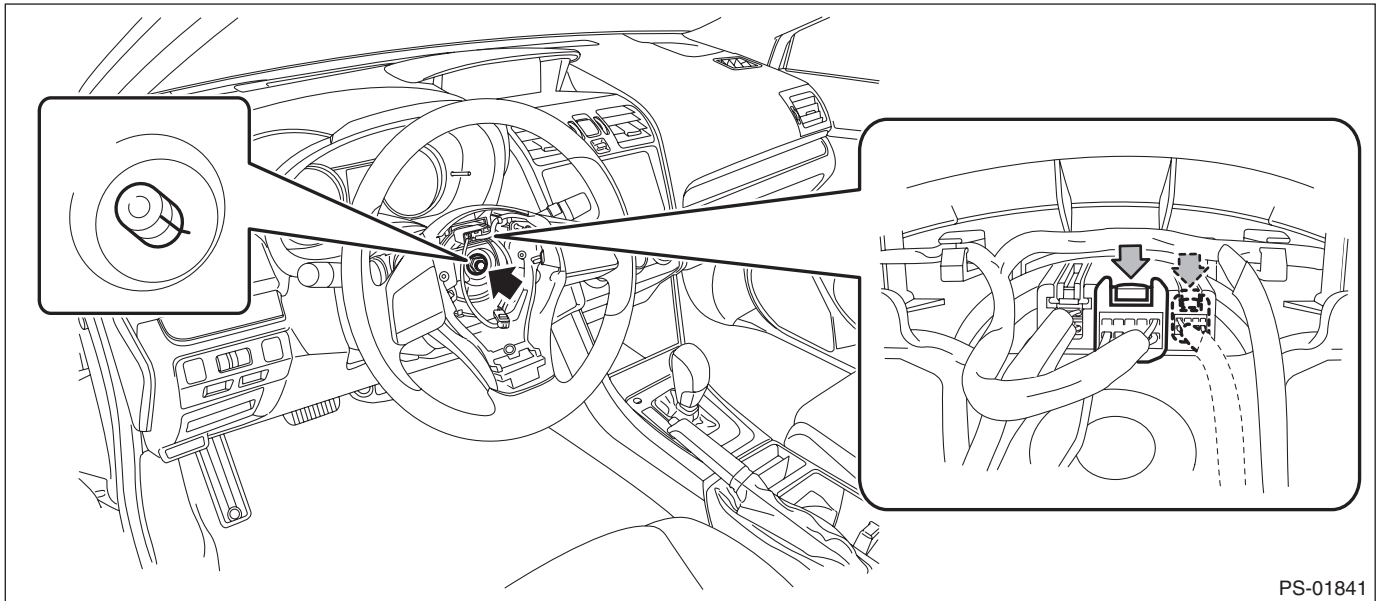
CAUTION:

- 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.

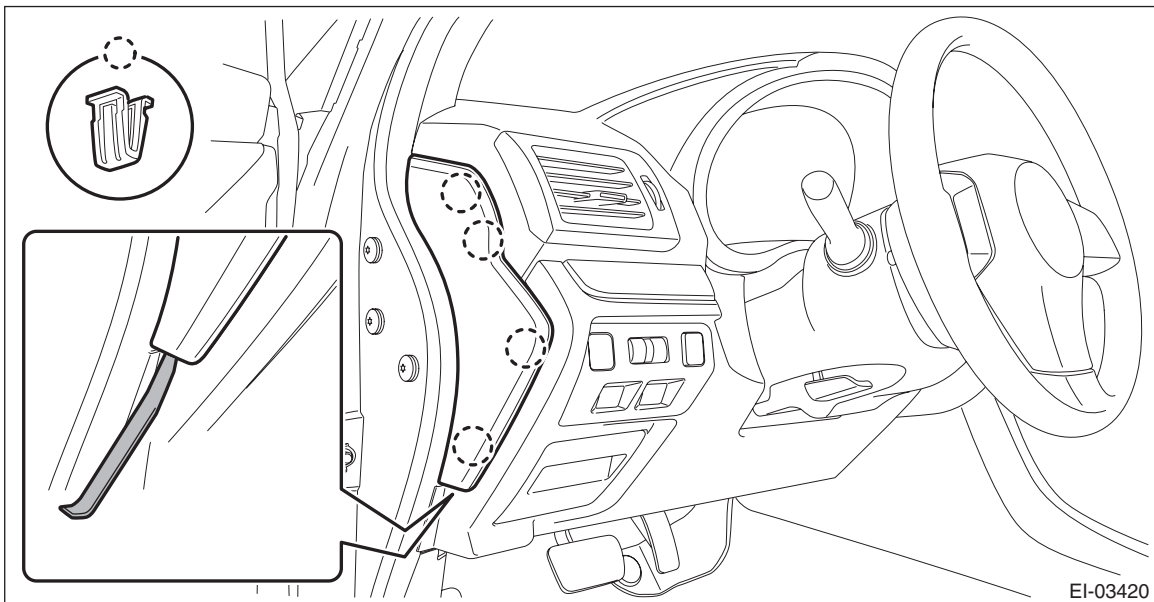
- (1) Disconnect the connector and remove the nut.
- (2) Put alignment marks and remove the steering wheel.

Preparation tool:

Steering wheel puller



4) Remove the clips, and remove the cover - instrument panel side LH.



NOTE:

Using a plastic remover, open the cover - instrument panel side LH.

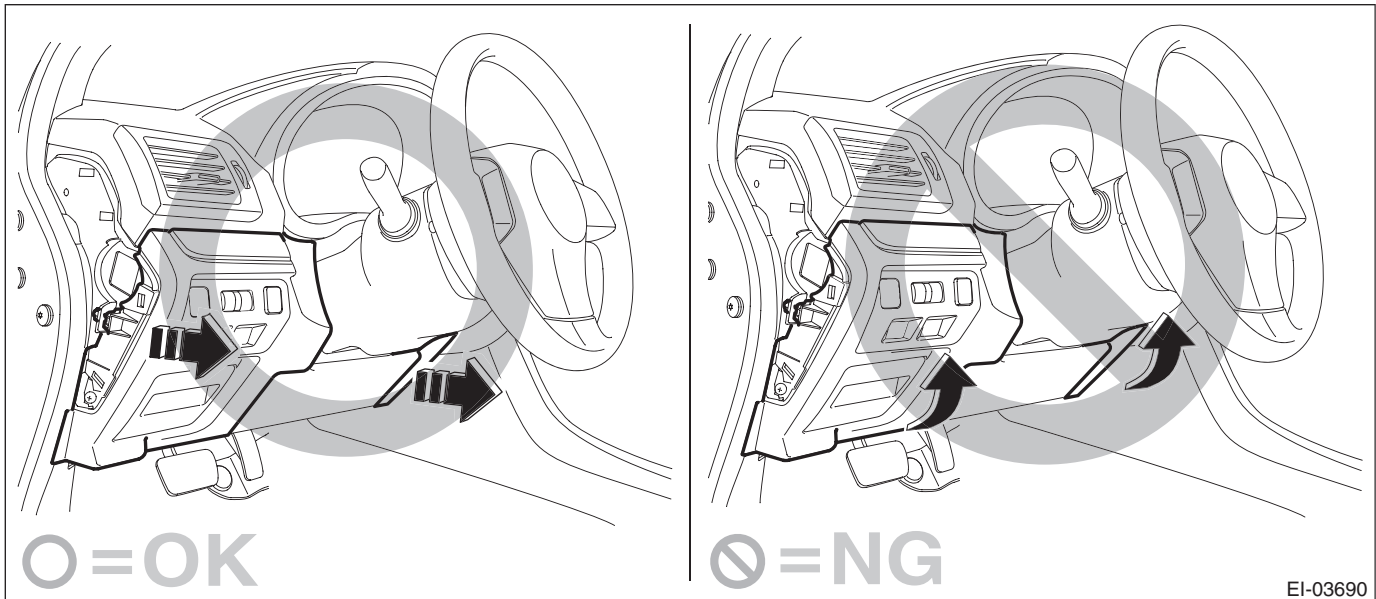
Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

5) Remove the cover assembly - instrument panel LWR driver INN and OUT.

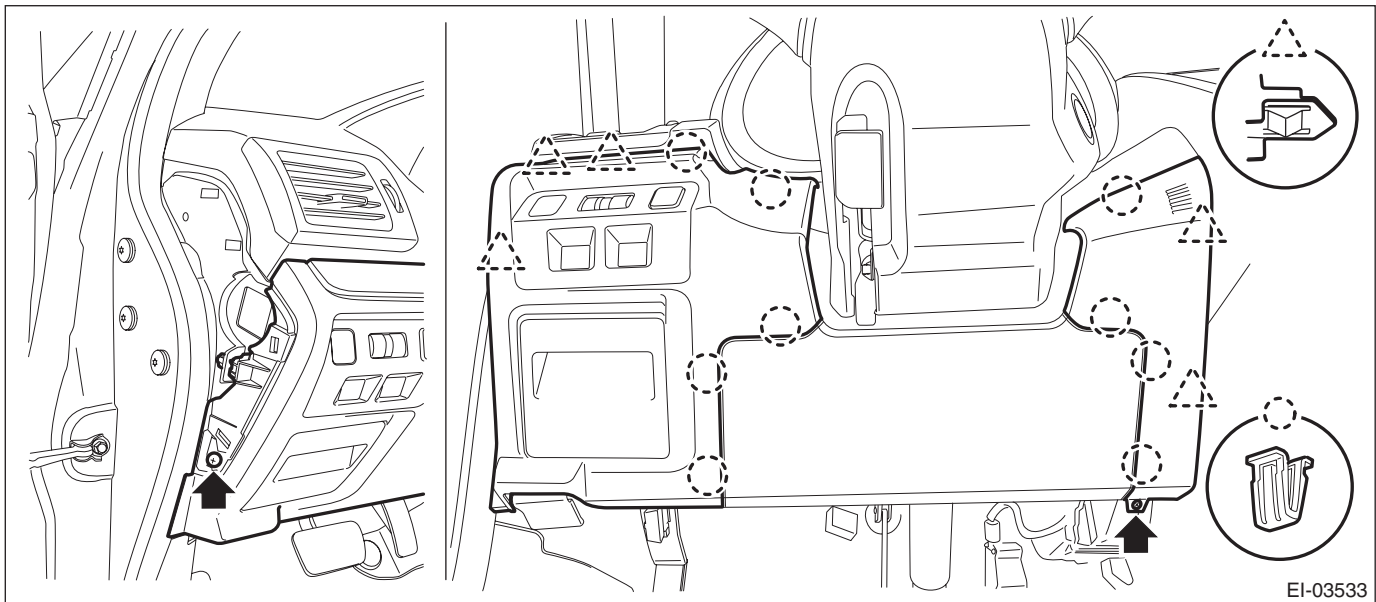
CAUTION:

When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.



(1) Remove the screws and release the clips and claws.

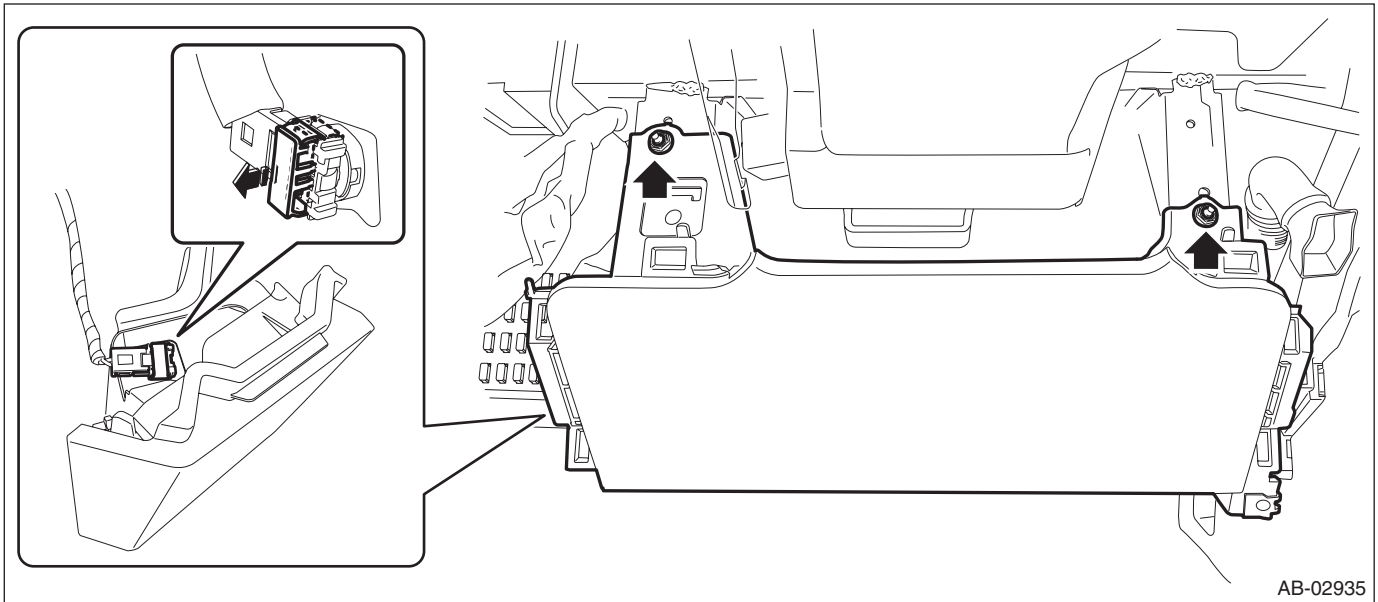
(2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and OUT.



Steering Column

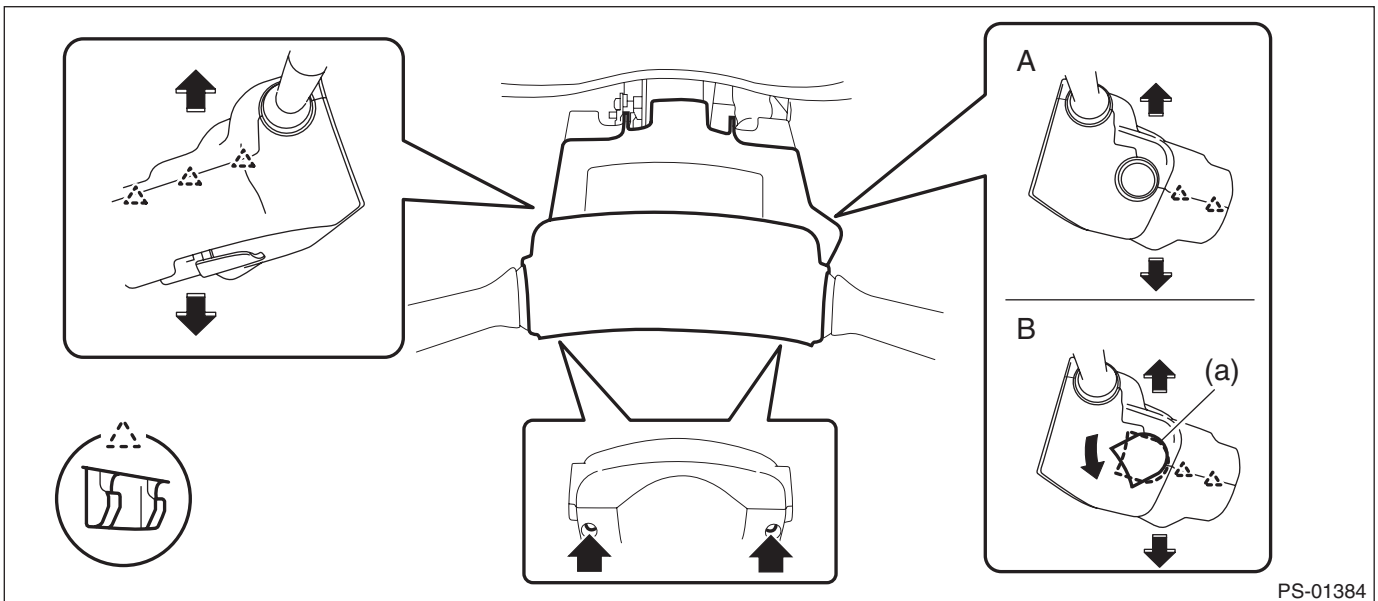
POWER ASSISTED SYSTEM (POWER STEERING)

6) Remove the nuts to remove the knee airbag module and disconnect the harness connector. <Ref. to AB-23, KNEE AIRBAG MODULE, PROCEDURE, Airbag Connector.>



7) 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

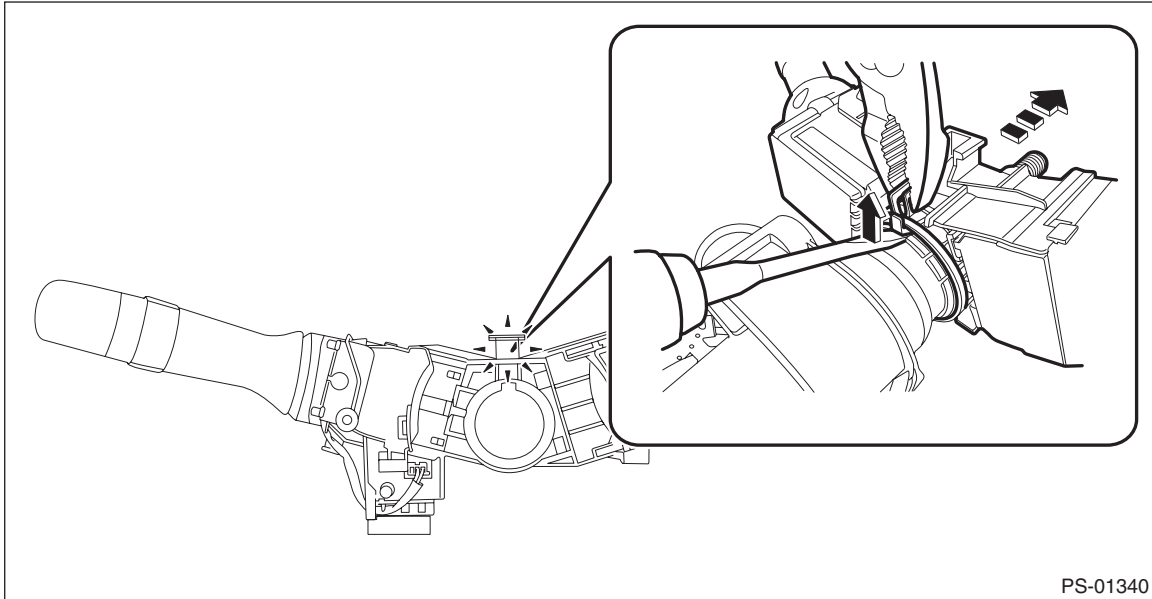
B Model with keyless access

Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

8) Remove the switch assembly - combination.

- (1) Disconnect the connector, and loosen the clamp to release the claws.
- (2) Pull out the switch assembly - combination from the column assembly - steering.



9) Remove all connectors from the column assembly - steering.

10) Remove the universal joint assembly - steering.

CAUTION:

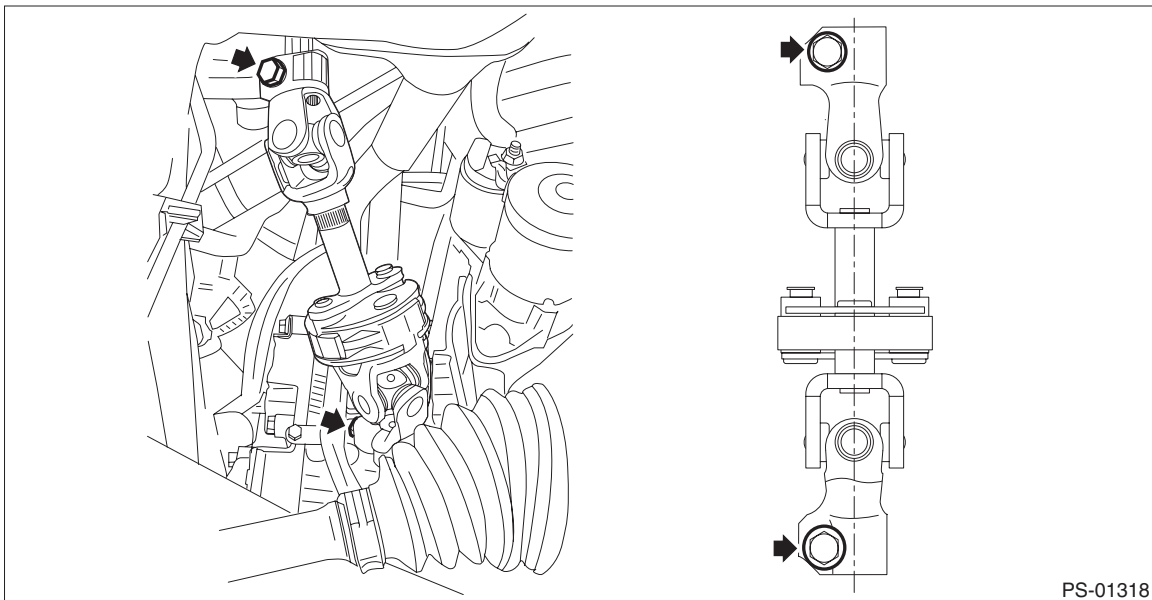
To prevent damage to the universal joint assembly - steering and error of handling force, make sure to remove the universal joint assembly - steering.

- (1) Place alignment marks on the universal joint assembly - steering.

NOTE:

Place alignment marks on the following positions.

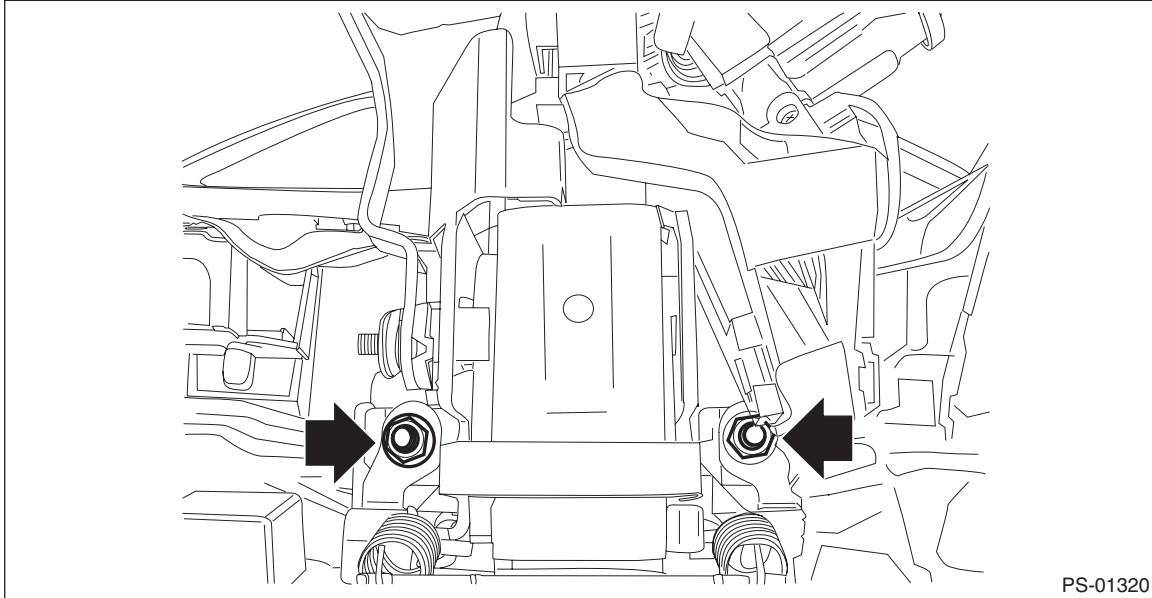
- Between the column assembly - steering and the universal joint assembly - steering
 - Between the steering gearbox assembly and the universal joint assembly - steering
- (2) Remove the bolt, and remove the universal joint assembly - steering.



Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

11) Remove the two nuts under the beam COMPL - steering securing the column assembly - steering.



12) Pull out the column assembly - steering from the hole on toe board.

CAUTION:

Do not loosen the tilt lever when the column assembly - steering is not secured to the vehicle.

13) Remove the ignition key lock from the column assembly - steering. <Ref. to SL-70, REPLACEMENT, Ignition Key Lock.>

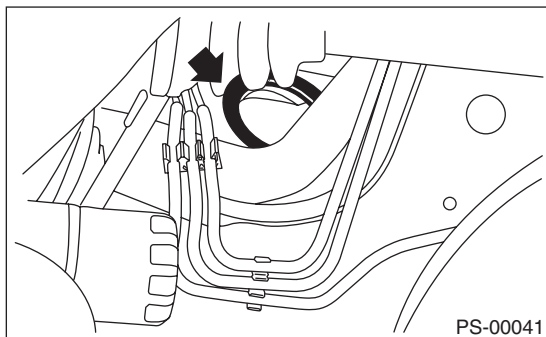
B: INSTALLATION

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: 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).>
- Model with EyeSight: 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).>

1) Install the grommet to the toe board.



2) Insert the end of the column assembly - steering into the toe board grommet.

Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

3) Tighten the column assembly - steering installation bolt located under the beam COMPL - steering with the tilt lever fixed.

Tightening torque:

20 N·m (2.04 kgf-m, 14.8 ft-lb)

- 4) Connect all connectors located under the beam COMPL - steering.
- 5) Connect the horn harness and airbag connector, and install the airbag module.
- 6) Install the knee airbag module. <Ref. to AB-36, INSTALLATION, Knee Airbag Module.>
- 7) Install the cover assembly - instrument panel LWR driver INN and OUT.
- 8) Install the universal joint assembly - steering. <Ref. to PS-15, INSTALLATION, Universal Joint.>

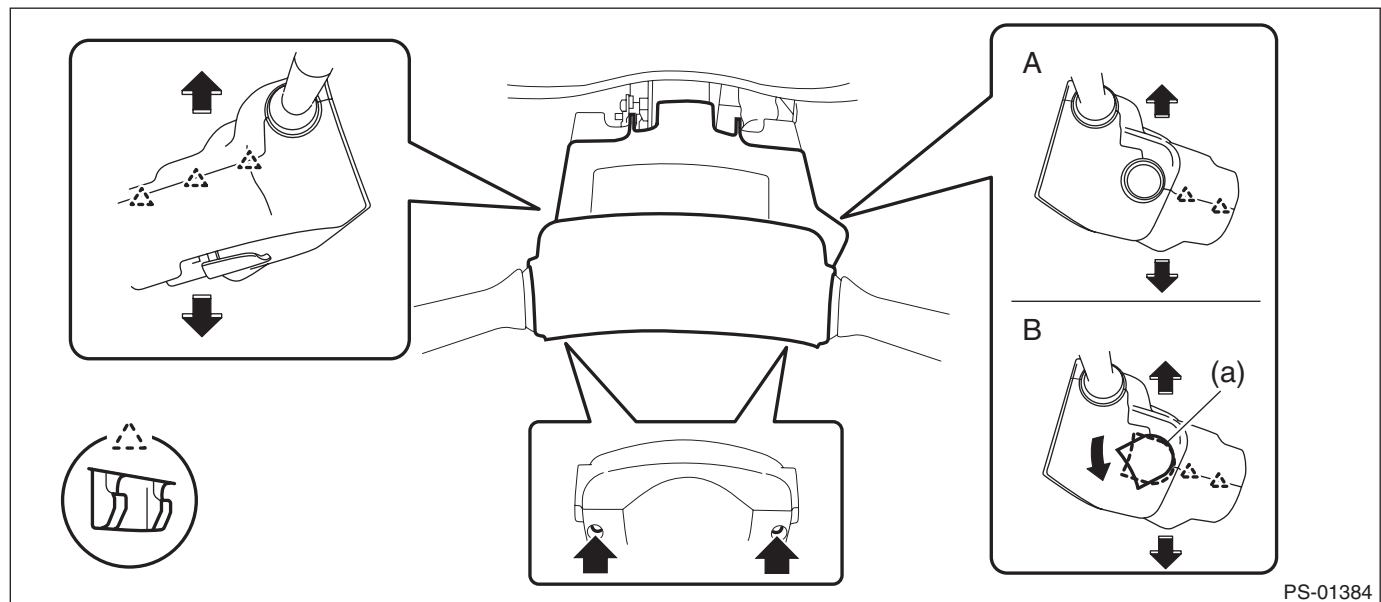
CAUTION:

- **Always install the universal joint assembly - steering after installing the steering column to avoid damage to the universal joint assembly - steering.**
- **Be sure to follow the tightening order and tightening torque of the universal joint assembly - steering to avoid the steering effort from becoming heavy.**

- 9) Align the center position of the steering roll connector. <Ref. to AB-98, ADJUSTMENT, Roll Connector.>
- 10) Install the steering wheel. <Ref. to PS-10, INSTALLATION, Steering Wheel.>

C: DISASSEMBLY

- 1) 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 Models without keyless access

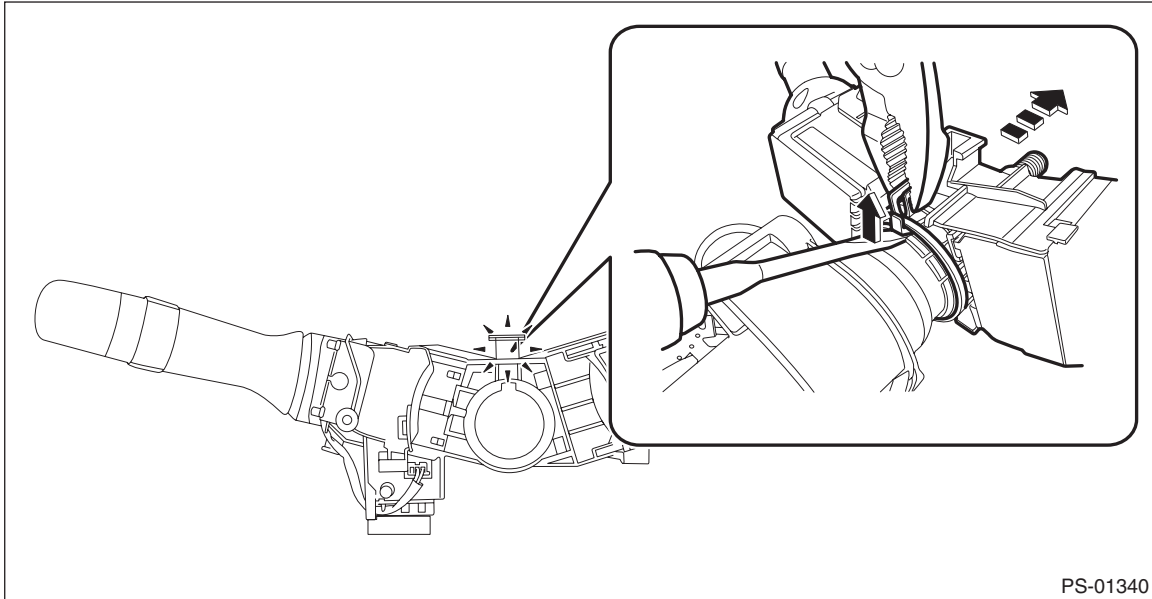
B Models with keyless access

Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

2) Remove the switch assembly - combination.

- (1) Disconnect the connector, and loosen the clamp to release the claws.
- (2) Pull out the switch assembly - combination from the column assembly - steering.



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D: ASSEMBLY

Assemble each part in the reverse order of disassembly.

E: INSPECTION

1. UNIT INSPECTION

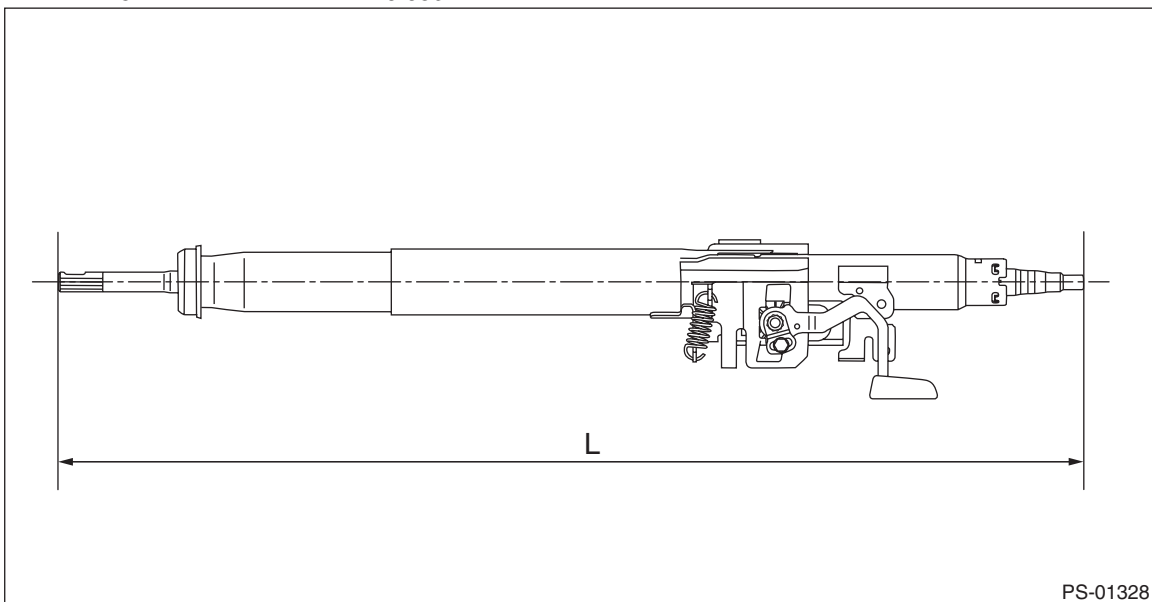
Check the following items, and if there is anything out of standard value, it is considered to be damaged. If so, replace it with a new part.

- Measure the whole length of the column assembly - steering.

Standard: Overall length L

Tilt and telescopic column (measure while minimized)

$819.7^{+1.5}_{-1.5}$ mm ($32.27^{+0.059}_{-0.059}$ in)



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Steering Column

POWER ASSISTED SYSTEM (POWER STEERING)

- Check the steering wheel deflection in axial and vertical directions.

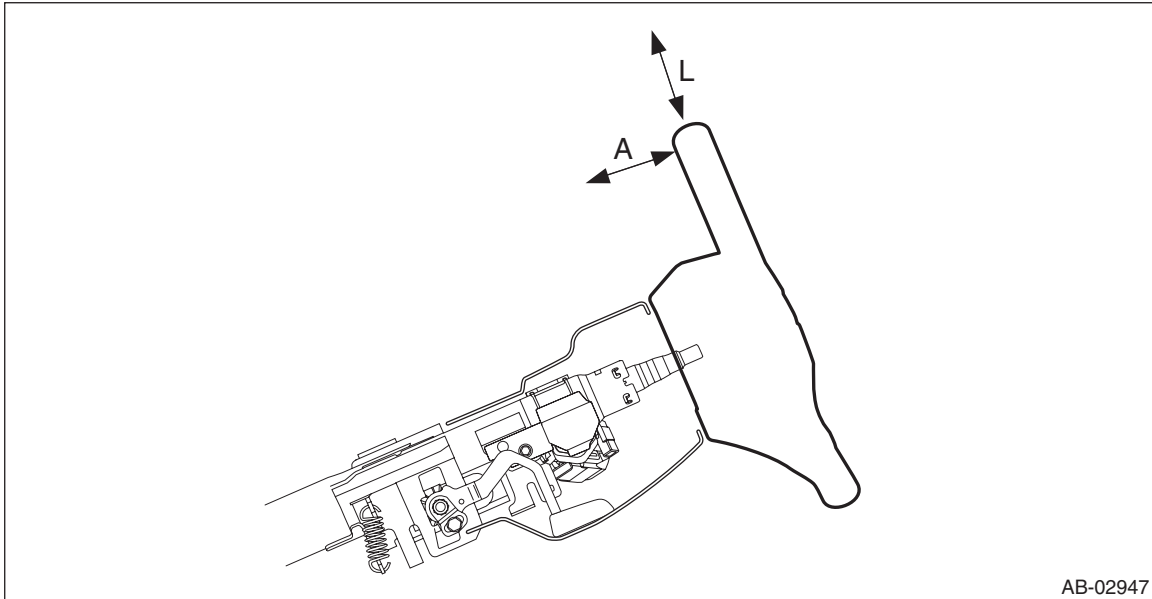
Specification:

Axial deflection A (deflection of steering wheel)

Less than 6 mm (0.24 in)

Vertical deflection L (runout of steering wheel)

Less than 17 mm (0.68 in)



2. INSPECTION OF AIRBAG SYSTEM

Refer to "Airbag System" for airbag inspection procedure. <Ref. to AB-33, INSTALLATION, Driver's Airbag Module.>