

Steering column, removing and installing

The steering column is supplied as an assembly through the Parts Department. The steering column is serviced by replacement only.

The ignition lock from the faulty steering column can be refitted ⇒ [page 48-82](#) .

WARNING!

Before removing the steering wheel:

- ◆ ***Observe all safety precautions before starting work on any part of the airbag system ⇒ [page 48-62](#) .***
- ◆ ***Disconnect the battery Ground (GND) strap.***
- ◆ ***With wheels in the straight-ahead position, unplug the single-pin connector for the airbag system power supply.***

Non compliance with the above can cause failure of the airbag system.

Notes:

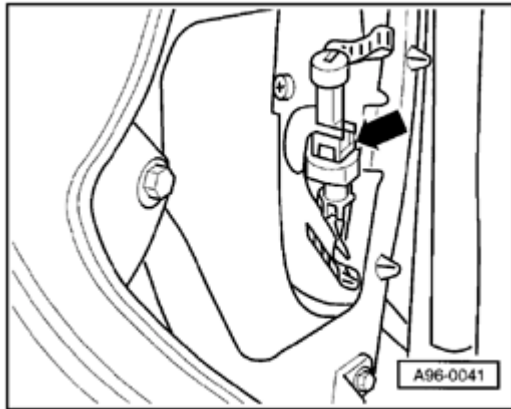
- ◆ ***Removing and installing driver's-side airbag unit***

⇒ [page 48-64](#) (for sport steering wheel ⇒ [page 48-68](#)).

- ◆ *Check Diagnostic Trouble Code (DTC) memory for the airbag system before unplugging the single-pin connector:*

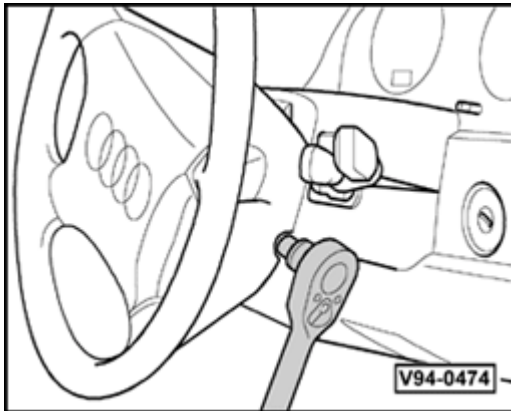
⇒ [Repair Manual, Body On Board Diagnostic \(OBD\), Repair Group 01](#)

48-72



A The red single-pin connector for the airbag system power supply is located on the right behind the instrument panel cover.

- Open front passenger door, remove cover and disconnect single-pin connector.

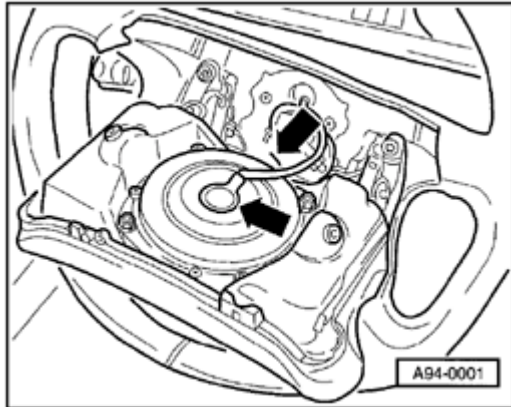


A - Unbolt airbag unit from behind at left and right sides of steering wheel using T30 Torx[®] bit.

Tightening torque: 7 Nm (62 in. lb)

WARNING!

Always observe the safety precautions for airbag systems when performing any work on the components of the airbag system ⇒ [Repair Manual, "Body Interior," Repair Group 69](#) and ⇒ [Repair Manual, "Body On Board Diagnostic \(OBD\), Repair Group 01](#).



- Carefully fold back airbag unit.

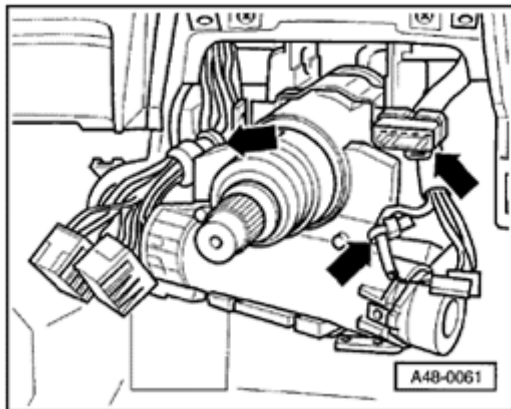
A

- Disconnect harness connector from airbag unit and place airbag unit aside.
- Unbolt steering wheel; when doing this, make sure that spiral spring is not twisted.
- Remove storage shelf on driver's side:

⇒ [Repair Manual, Body Interior, Repair Group 70](#)

- Remove steering column switch together with trim:

⇒ [Repair Manual, Electrical Equipment, Repair Group 94](#)



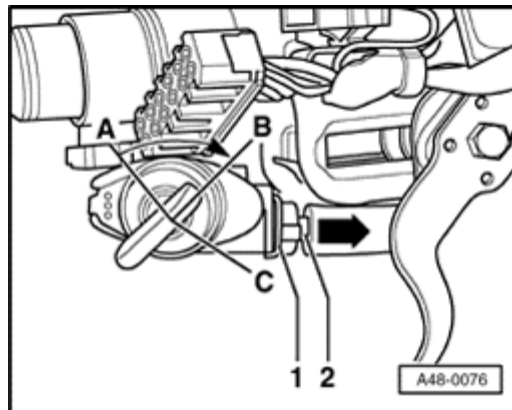
A

- Remove all tie wraps (arrows) and disconnect harness connectors.

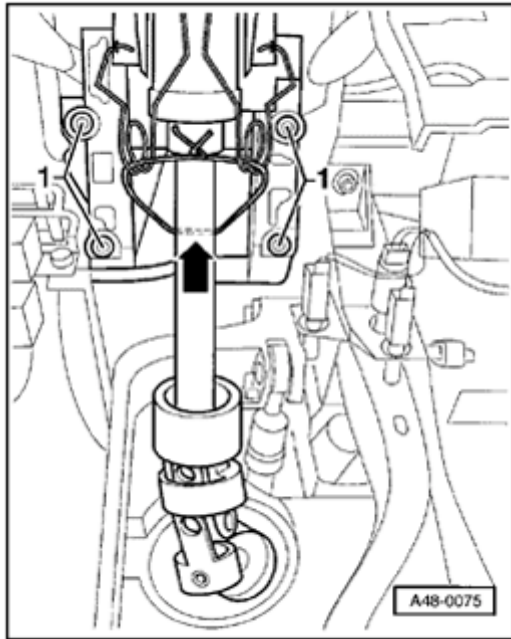
Disengaging lock cable

On vehicles equipped with an automatic transmission, the lock cable must be disengaged:

- Place transmission selector lever in Park position.
- A** - Turn ignition key to position -B- (ignition ON).
- Lift locking clip -1- slightly and remove Bowden cable -2- from steering lock housing.



Securing steering column prior to removal



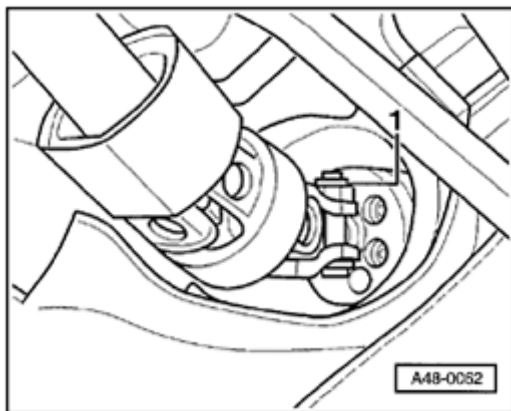
A

- Route safety wire through hole in bottom part of steering column (arrow) and spring to secure top and bottom parts of steering column before removing steering column from steering gear pinion.

The steering column can also be secured with a transportation safeguard ⇒ [page 48-76](#) .

CAUTION!

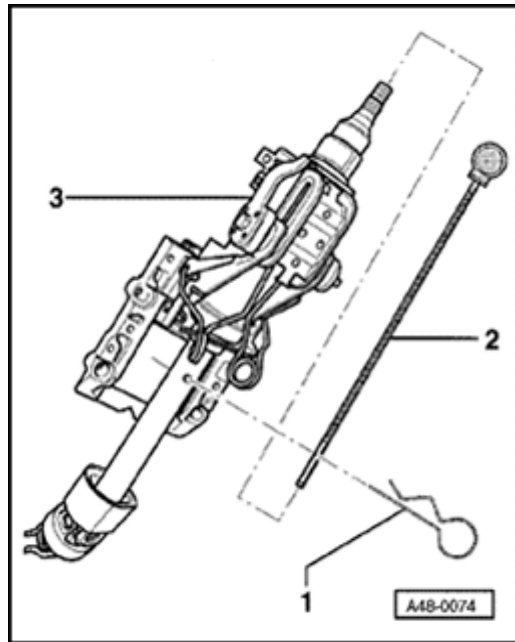
- ♦ **The splines between the top and bottom parts of the steering column must not be separated. If the two halves are separated and reassembled with the splines no longer in their original installed positions a rattling noise may result.**
- ♦ **Turn the steering wheel to the center position and do not alter position during repairs, otherwise the airbag unit spiral spring may be damaged.**



A

- Unscrew nut -1- at universal joint.
- To release eccentric, turn bolt (Torx[®] T50) clockwise and remove.
- Remove universal joint from steering gear pinion.
- Remove socket head bolts -1- (⇒ illustration A48-0075 above) and remove steering column.

Removing and installing steering lock housing ⇒ [page 48-82](#) .



Installing

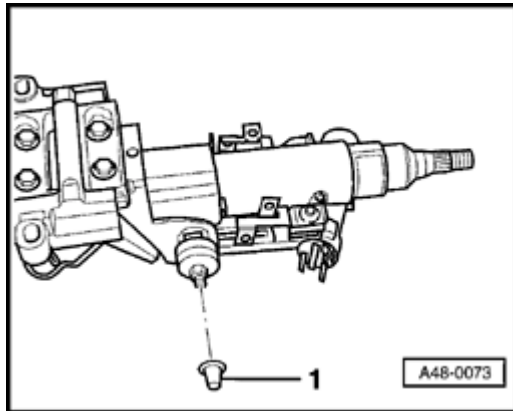
A

- 1 - Locking clip
- 2 - Plastic rod
- 3 - Steering column

New replacement steering columns are supplied with a transportation safeguard installed. This safeguard must be removed after installing the steering column in the vehicle.

Note:

It is recommended to save the transportation safeguard components for subsequent steering column removals.



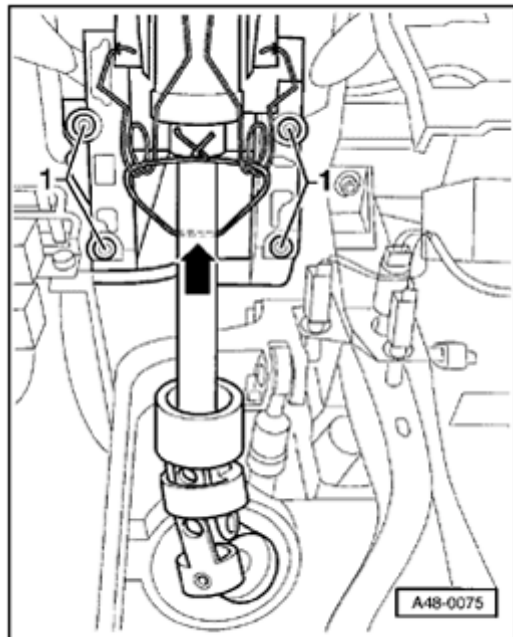
Installing

A

- When installing steering column, always make sure that cap -1- is installed.

CAUTION!

Cap -1- must always be reinstalled or retrofitted, otherwise the electrical wiring may become chafed.



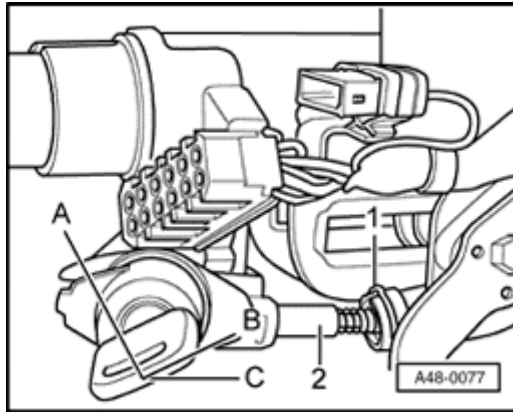
A

- Mount steering column onto crossmember with four socket-head bolts - 1-.
- Attach universal joint to steering gear pinion.
- Insert clamping bolt (Torx® T50) through bottom part and engage by turning counterclockwise. Install nut + washer and tighten to 40 Nm (30 ft lb).

CAUTION!

The splines between the top and bottom parts of the steering column must not be separated. If the two halves are separated and reassembled with the splines no longer in their original installed positions a rattling noise may result.

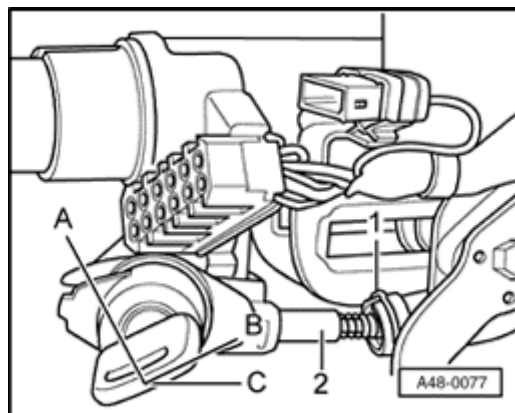
Engaging lock cable on vehicles with automatic transmission

**A**

- Ignition key must be in position -B- (ignition ON) to engage lock cable
- Move selector lever to park position.
- Insert lock cable -2- into steering lock housing.
- Make sure locking clip -1- engages.

Checking function of lock cable

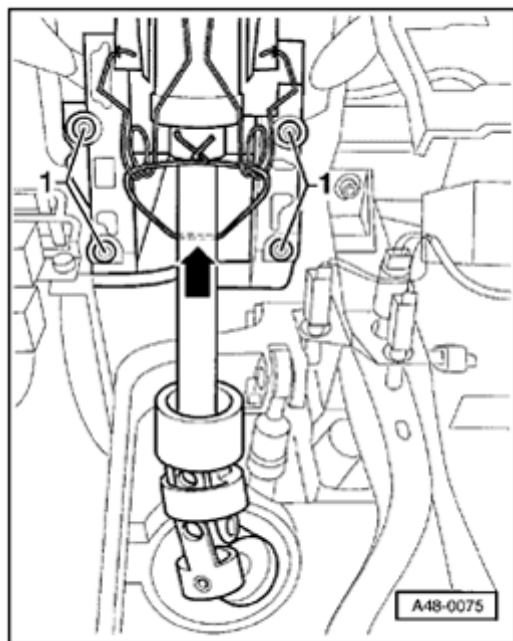
Applies only to vehicles with automatic transmission.



- ⚠
- Turn ignition key to position -B- (ignition ON).
 - ◆ It must be possible to move selector shift lever smoothly out of Park position
 - ◆ It must only be possible to remove ignition key with selector lever in Park position
 - Move selector lever to park position.
 - ◆ Ignition lock must function smoothly
 - ◆ It must not be possible to move selector lever with ignition key in position -A- (ignition OFF). Ignition key can be removed

Lock cable, removing, installing and adjusting:

⇒ [Repair Manual, 5 Spd. Automatic Transmission 01V, Repair Group 37](#)



Installing, continued for all vehicles

A

- Remove safety wire between top and bottom parts of steering column.
- Install steering column switch with trim:

⇒ [Repair Manual, Electrical Equipment, Repair Group 94](#)

- Align steering column relative to trim and make sure joints (gaps) are even.
- Tighten socket-head bolts -1-.
Tightening torque: 22.5 Nm (17 ft lb)
- Install storage shelf on driver's side:

⇒ [Repair Manual, Body Interior, Repair Group 70](#)

- Install steering wheel and airbag unit:

⇒ [Repair Manual, Body Interior, Repair Group 69](#)

WARNING!

- ♦ **Make sure that no person is in the vehicle when re-connecting the battery Ground strap.**
- ♦ **Observe all safety precautions (⇒ [Repair Manual, Body Interior, Repair Group 69](#)) whenever working on an airbag equipped vehicle.**

Steering column, checking for damage

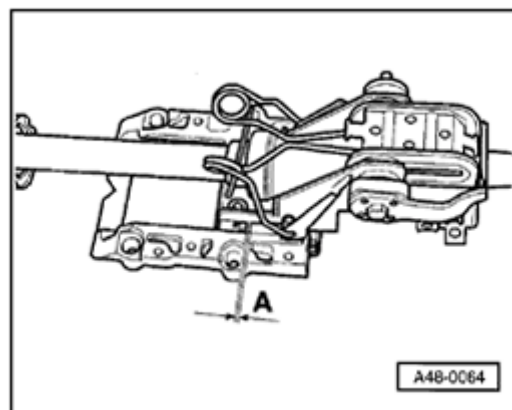
Determining if steering column must be replaced following an accident:

Visual check

- Check all steering column components for damage.

Functional check

- Make sure steering column turns easily without jerking.
- Make sure steering column can be adjusted for height and reach.



A

- Check gap (dimension -A-) between slide and mounting bracket.
 - If dimension -A- is larger than 0.5 mm (0.20 in.), steering column is damaged and must be replaced

Steering lock housing, removing and installing

WARNING!

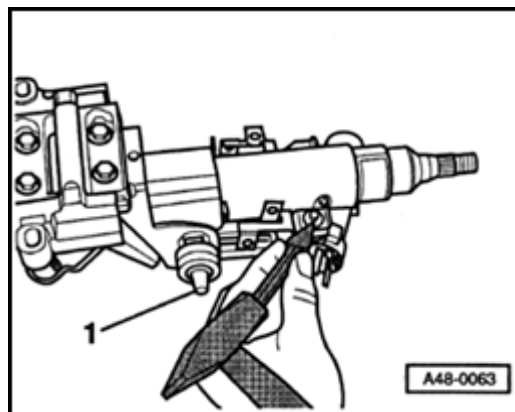
- ◆ **Before removing the steering column, make sure the wheels are in the straight-ahead position.**
- ◆ **Observe the safety precautions for working on airbags ⇒ [page 48-62](#) .**

Non compliance with the above can cause failure of the airbag system.

- Remove steering column ⇒ [page 48-71](#) .

Notes:

- ◆ *The steering column must be removed and clamped in a vise to chisel off the shear bolts. If the shear bolts are chiseled off with the steering column installed the steering column mounting bracket will be damaged.*
- ◆ *Do not clamp the steering column in a vise at the mounting bracket otherwise the plastic coating will be damaged.*



▲ Chiselling open shear bolts

Shear torque of new bolts is ≥ 20 Nm (15 ft lb).

- Make sure that cap -1- is installed to avoid risk of chafing electrical wiring when installing.
- Remove lock cylinder:

⇒ [Repair Manual, Electrical Equipment, Repair Group 94](#)

- On vehicles with automatic transmission, disengage lock cable ⇒ [page 48-74](#) .

Installing

- Install new shear bolts.
- Tighten shear bolts until head shears off.
- On vehicles with automatic transmission, engage lock cable ⇒ [page 48-78](#) .
- Check function of lock cable ⇒ [page 48-79](#) .
- Install lock cylinder and ignition switch:

⇒ [Repair Manual, Electrical Equipment, Repair Group 94](#)

- Make sure turn signal lever is in neutral position (to avoid damaging reset cam of switch) and install steering wheel.
- Install airbag unit ⇒ [page 48-64](#) .