



Opel Combo (C), Corsa C (F08, F68, W5L), Tigra TwinTop



DANGER

Airbag unit can trigger unintentionally!

Airbag unit is a pyrotechnic component that can lead to death on improper handling!

Only specially trained employees may carry out any work on the airbag system.

Disconnect the battery.

Always store airbag unit with the padded side pointing upward.

Always transport airbag unit in appropriate packaging.

Never leave airbag unit unattended, but lock safely in an appropriate cabinet.

Do not open or repair airbag unit.

Only install airbag unit in undamaged condition.

Do not perform any measurements on the airbag unit using a test lamp or multimeter.

Wear protective gloves and safety goggles.

No person may stay inside the vehicle when re-connecting the battery.

NOTE

Ensure proper cleanliness when working on the servo-steering.

Steering column adjustment must remain locked during steering column removal.

Generally replace self-locking as well as corroded screws and nuts.

Repair work of any kind on the electromechanical steering column is not permissible, it must basically be completely replaced.

Observe disposal regulations!

Do not use oils, fats, chemicals and cleaners not approved by the manufacturer on airbag units.

The illustrations of these installation instructions are exemplary and are only intended for better understanding.

Required special tools



Socket and bit set
AUT (MKM-604-D)

Torques

Tightening torques

Self-locking screws and nuts must always be replaced.

Intermediate steering shaft screw(s) (1)	(see Figure 7)	Use screw-locking compound.	Screw(s), at steering column 24 Nm + 60°
Steering column (1)(2)	(see Figure 8)		Nut(s) 22 Nm; Screw(s) 22 Nm
Driver airbag screw(s)			8 Nm
Steering wheel nut(s)		Use screw-locking compound.	30 Nm

Remove:

Move steering wheel to the centre position and let steering lock engage.

Disconnect battery (negative terminal).

Keep waiting time of min. 1 min.

Remove driver's airbag.

Required special tools:

Socket and bit set **AUT (MKM-604-D)**
- Bit socket **AUT (MKM-604-29)**

Demount steering wheel.

Remove tilt adjustment handle from steering wheel. **(If present)**

Unscrew and remove steering wheel height adjustment handle screw(s). **(1)**

Remove height adjustment handle from steering wheel. **(2)**

Unlock steering column shroud upper engagement pins. **(3)**

Remove upper steering column shroud. **(4)**

Unscrew and remove steering column shroud(s) lower screw(s). **(5)**

Remove lower steering column shroud. **(6)**

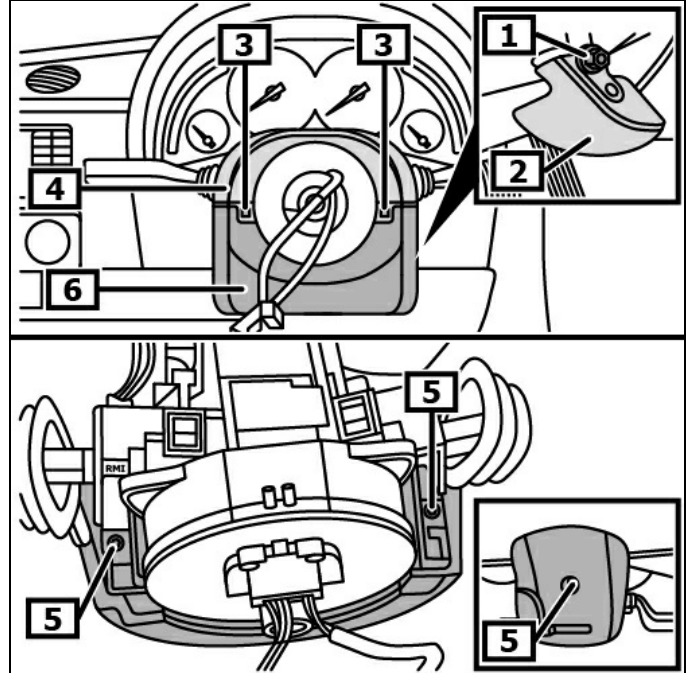
(see Figure 1)

Loosen contact unit electric plug connection. **(1)**

Remove contact unit. **(2)(3)**

(see Figure 2)

Figure 1



1 Steering wheel height adjustment handle screw(s)

2 Height adjustment handle

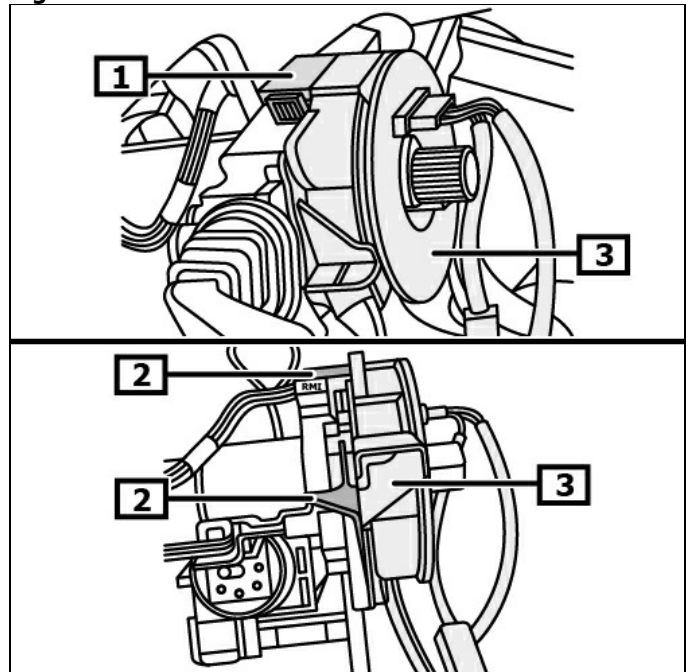
3 Engagement pins

4 Upper steering column shroud

5 Steering column shroud(s)

6 Lower steering column shroud screw(s)

Figure 2



1 Electrical connection(s)

2 Engagement pins

3 Contact unit

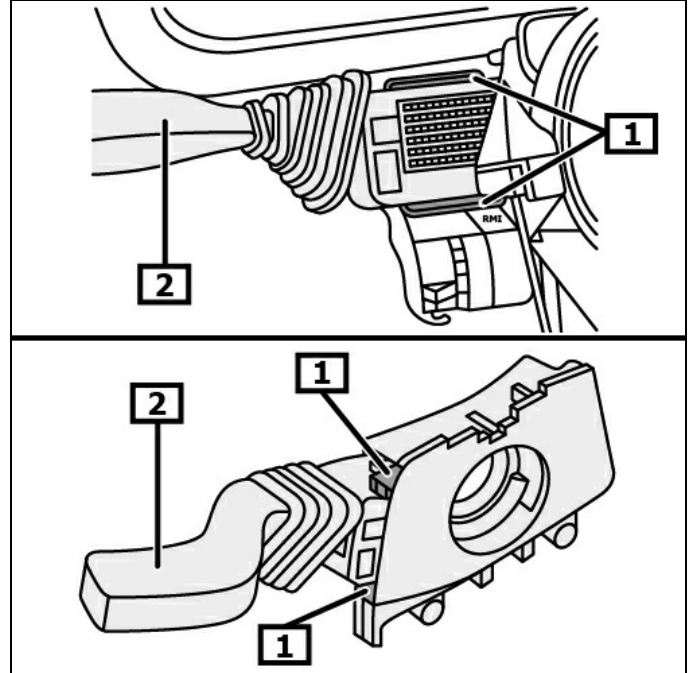
Perform following workflow on both sides.

Unlock steering column switch engagement pin using suitable tool. **(1)**

Remove steering column switch from steering column module. **(2)**

(see Figure 3)

Figure 3



1 Engagement pins

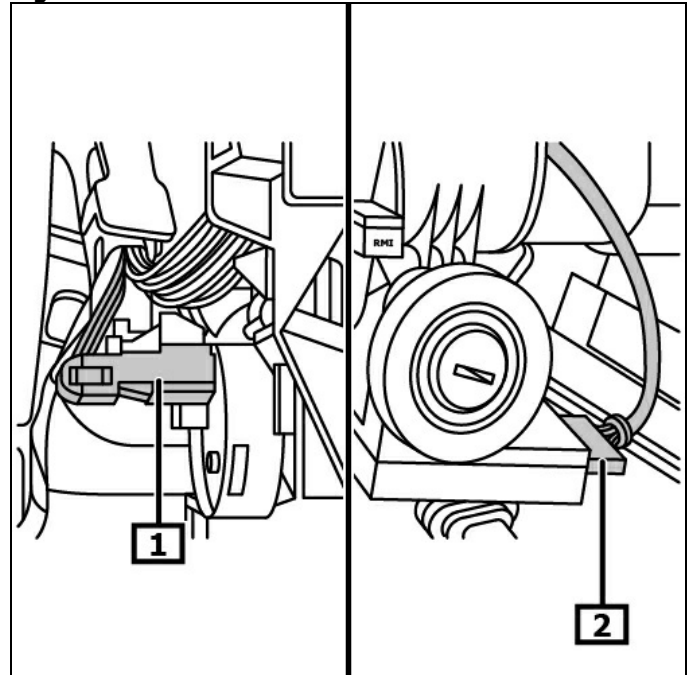
2 Steering column switch

Disconnect electric plug connection(s). **(1)(2)**

(see Figure 4)

Remove steering column module.

Figure 4



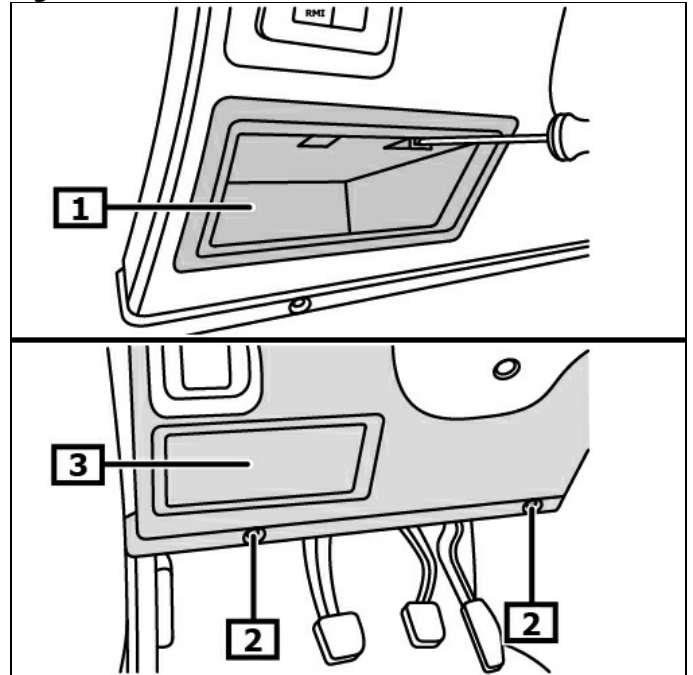
1 Electrical connection(s)

2 Electrical connection(s)

Remove storage box. **(1)**
 Unscrew screw(s). **(2)**
 Remove trim(s). **(3)**
(see Figure 5)

Unscrew and remove driver's side footwell paneling screw(s).
 Remove the footwell panelling.
 Remove driver's side footwell air duct.

Figure 5



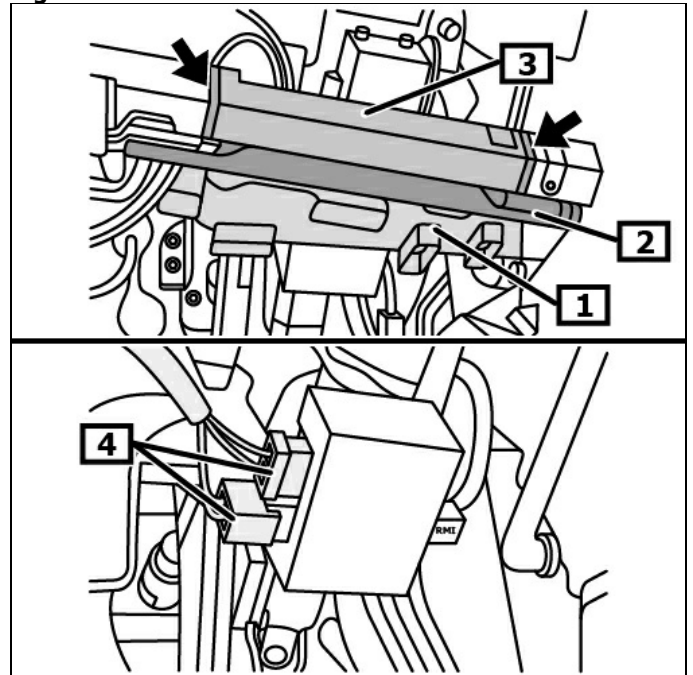
1 Parcel tray

2 Screw(s)

3 Trim

Remove driver's side footwell air duct. **(1)**
 Remove dashboard bracket in footwell. **(2)**
 Cut out footwell paneling bracket. **(3) (Arrows)**
 Remove electric plug connection from electric power steering control unit. **(4)**
(see Figure 6)

Figure 6



1 Driver's side footwell air duct

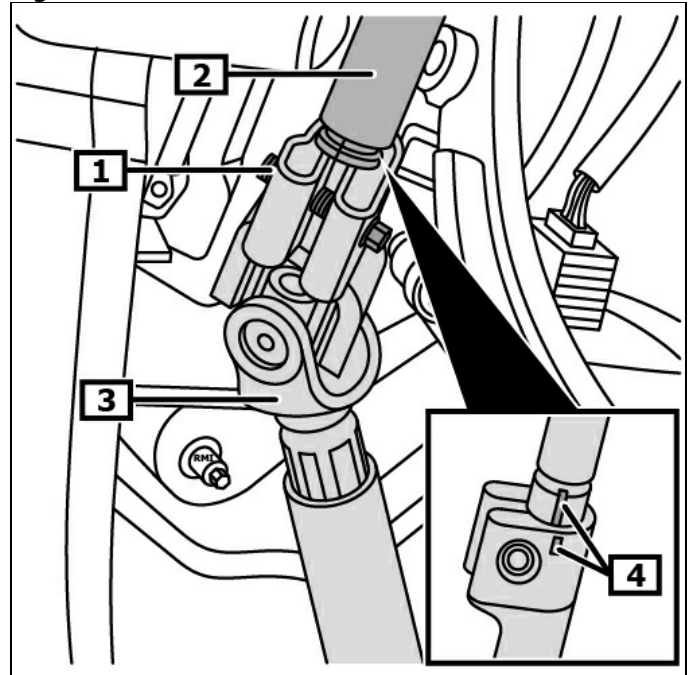
2 Dashboard bracket in footwell

3 Footwell paneling bracket

4 Electrical connection(s)

Unscrew and remove intermediate steering shaft screw. **(1)**
 Loosen intermediate steering shaft from steering spindle. **(2)**
(3)
(see Figure 7)

Figure 7



- | | |
|---|---------------------------|
| 1 Intermediate steering shaft screw(s) | 2 Steering spindle |
| 3 Intermediate steering shaft | 4 Mark(s) |

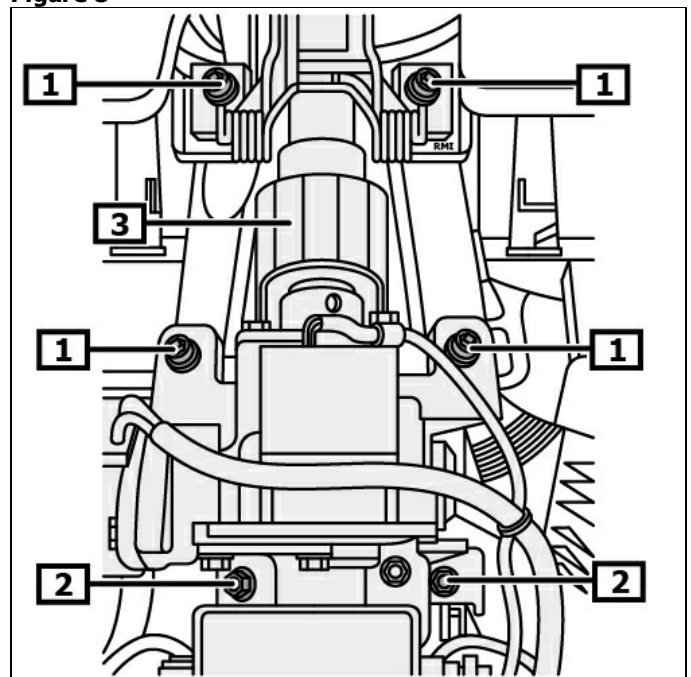
Steering column tilt adjustment must be locked!

Unscrew the steering column screw(s). **(1)**
 Unscrew and remove steering column nut(s). **(2)**
 Remove the steering column. **(3)**
(see Figure 8)

Convert following components when replacing the steering column:

- Electric power steering control unit
- Immobilizer control unit
- Ignition starter switch
- Ignition lock

Figure 8



- | | |
|------------------------------------|---------------------------------|
| 1 Steering column screw(s). | 2 Steering column nut(s) |
| 3 Steering column | |

Install:

Installation in reverse order of removal.

Screw in but do not tighten steering column screw(s) and nut(s). **(1)(2)**

Tighten steering column nut(s). **(2)**

Tighten steering column screw(s). **(1)**

(see Figure 8)

Markings must flush when installing the steering spindle and intermediate steering shaft. **(4)**

(see Figure 7)

Check before installation whether the slip ring is in center position.

- The slip ring can be installed when the slip ring is in center position and the markings flush. **(1)**

- Put the slip ring into center position as follows if the slip ring markings do not flush. **(1)**

Press and keep slip ring retaining device depressed. **(2)**

Turn slip ring internal part counterclockwise up to first resistance. **(3)**

(3)

Turn back slip ring internal part clockwise by 2,5 turns.

Keep on turning slip ring internal part until markings flush. **(1)**

(3)

(see Figure 9)

Continue assembly in reverse order of removal.

Code radio and reprogram vehicle settings if required.

Check electrical system for function.

Check driving position to the front, adjust if needed.

Teach the steering angle sensor.

Switch on ignition.

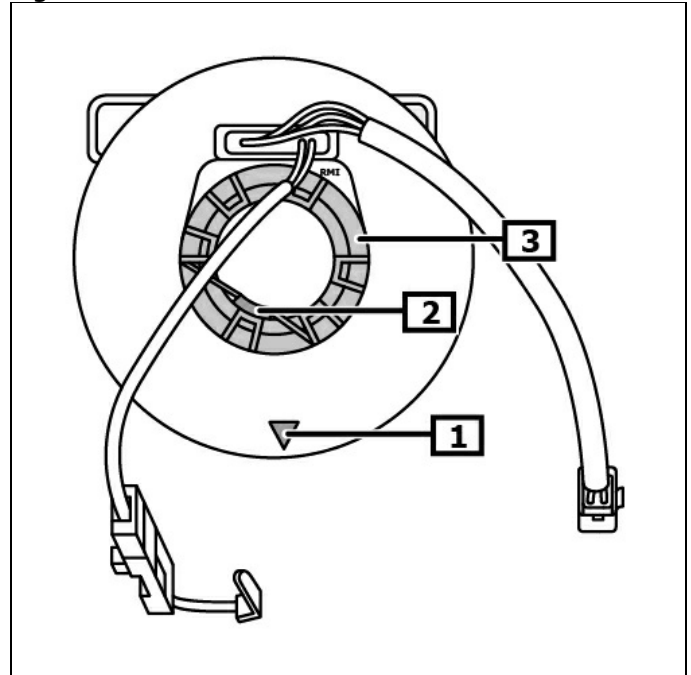
Turn the steering wheel up to the right and left stop.

Power steering indicator light goes out.

Steering-angle sensor needs to be taught-in using a suitable diagnostic unit if power steering indicator light does not go out.

Note position of EOBD connection.

Figure 9



1 Mark(s)

2 Slip ring internal part retaining device

3 Slip ring internal part