


# Steering Column - Steering Column

Removal and Installation

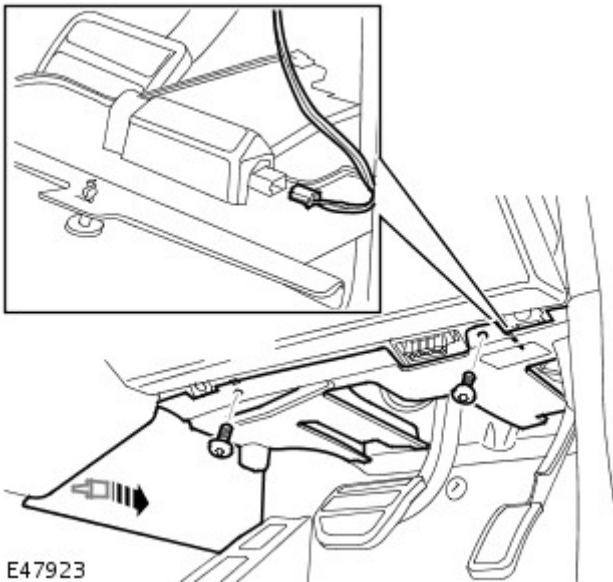
## Removal

 **WARNING:** Take care if releasing the adjustment lever when the column has been removed from the vehicle. The spring is under a high tension, and if released, could cause personal injury. Make sure fingers are clear from any areas, likely to be trapped.

 **CAUTION:** Air tools MUST NOT be used on steering column bolts.

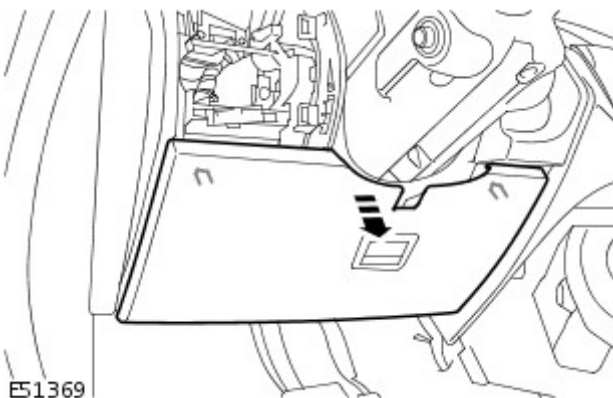
All vehicles

1. Fully extend the steering column for access.
2. Remove the steering wheel.  
For additional information, refer to: [Steering Wheel](#) (211-04 Steering Column, Removal and Installation).
3. Remove the driver side register trim panel.  
For additional information, refer to: [Driver Side Register Trim Panel](#) (412-01 Air Distribution and Filtering, Removal and Installation).



4. Remove the driver side closing trim panel.

- Release the clip.
- Remove the 2 screws.
- Disconnect the electrical connector.

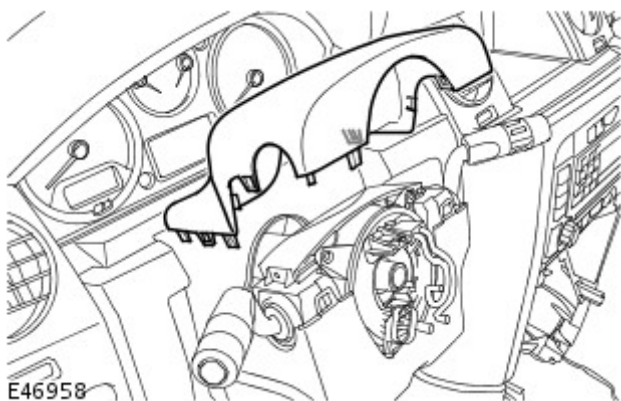


5. Remove the instrument panel access panel.

- Release the 2 clips.

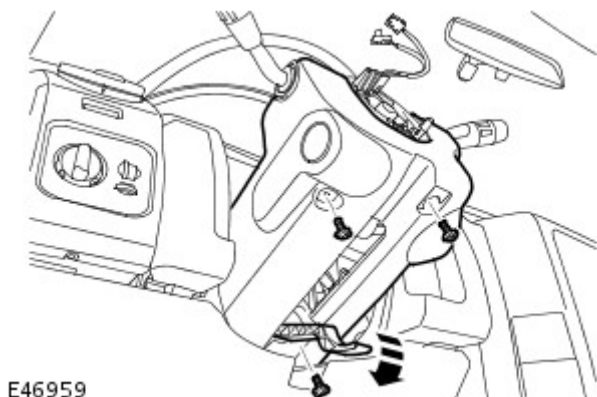
6. Remove the steering column upper shroud.

- Release the 6 clips.



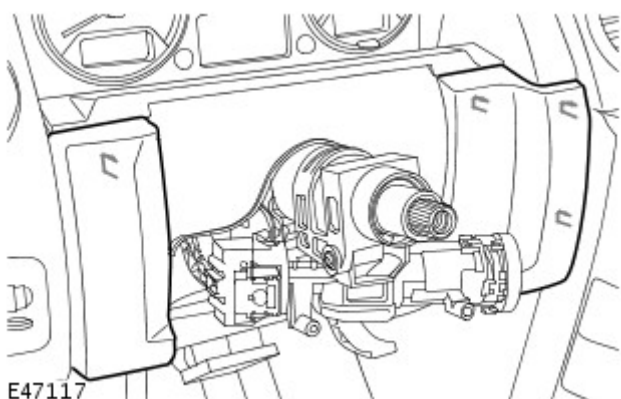
7. Remove the steering column lower shroud.

- Remove the 3 Torx screws.
- Release the steering column adjustment lever.

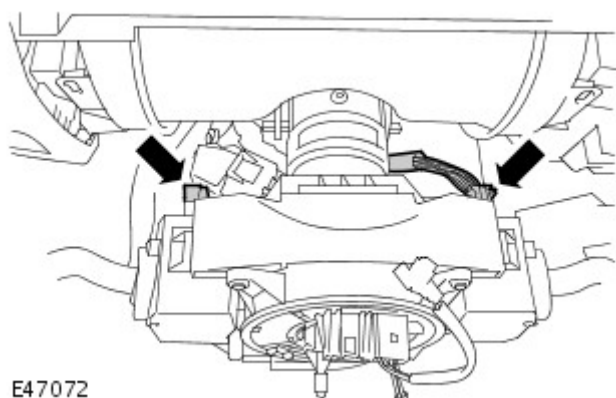


8. Remove the steering column side trim panel.

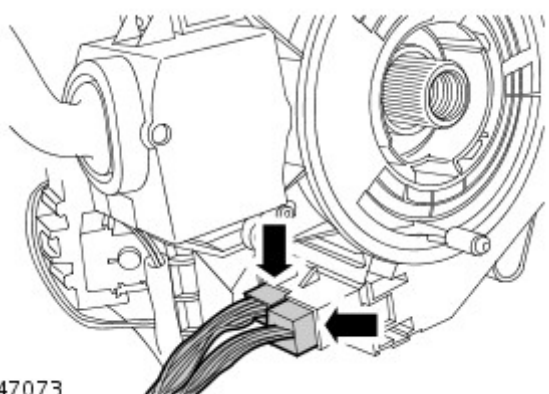
- Release the clips.
- Repeat the above procedure for the other side.



9. Disconnect the 2 electrical connectors from the steering column multifunction switches.

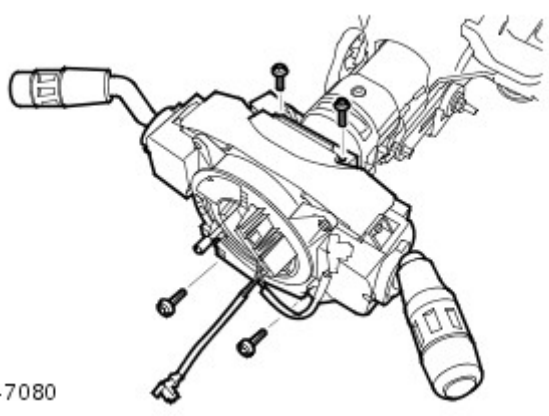


10. Disconnect the 2 electrical connectors from the clockspring.



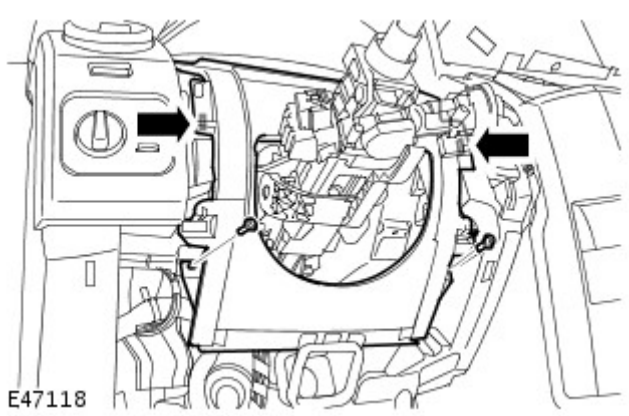
E47073

11. Remove the steering column switch assembly.
- Remove the 4 Torx bolts.



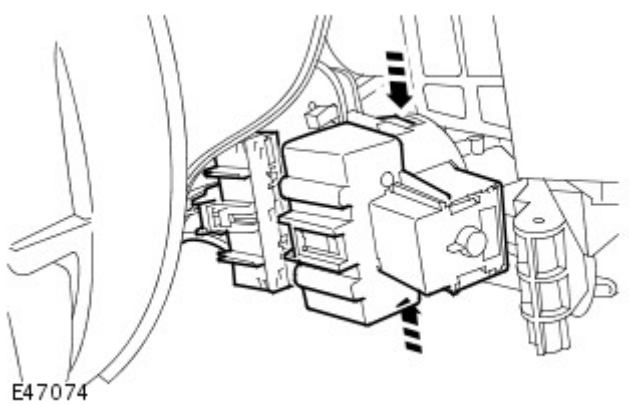
E47080

12. Remove the steering column gaiter panel.
- Remove the 2 Torx screws.
  - Release the 2 clips.



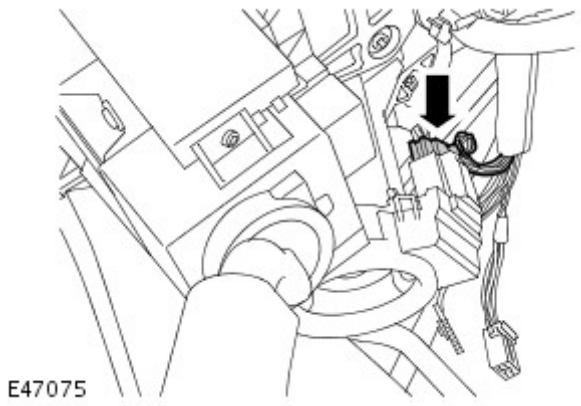
E47118

13. Disconnect the ignition switch electrical connector.

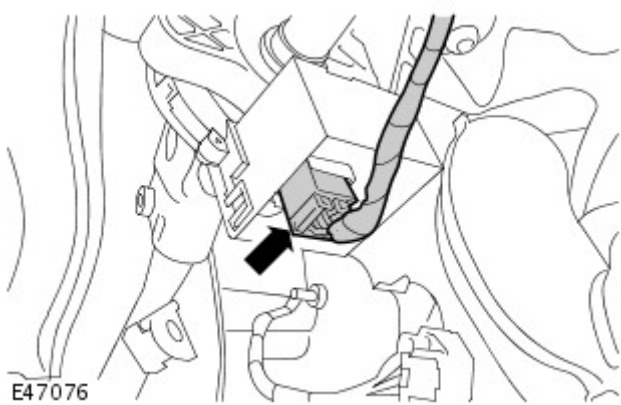


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14. Disconnect the passive coil electrical connector.



15. Disconnect the steering angle sensor electrical connector.



Vehicles with electric steering column

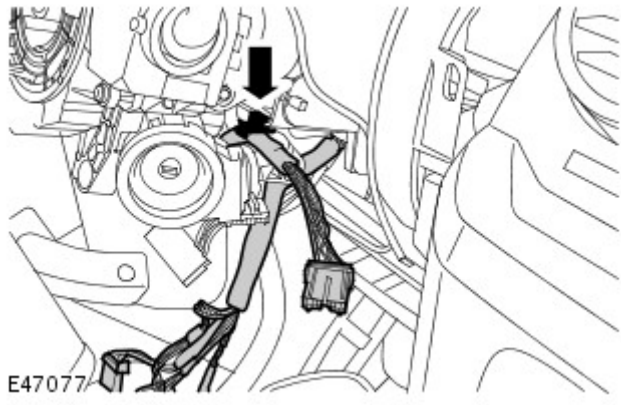
16. Disconnect the steering column adjustment motor electrical connector.



All vehicles

17. Position the steering column wiring harness aside.

- Release the clip.

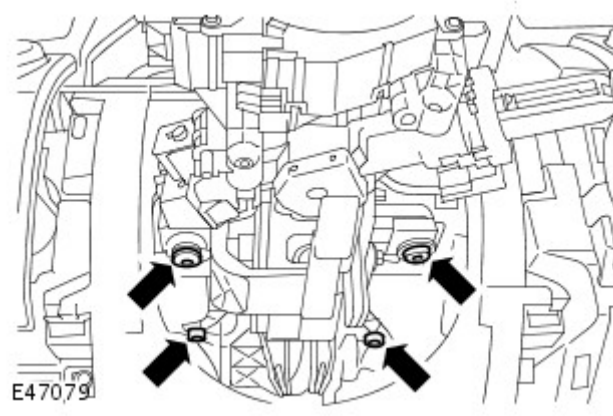


18. Disconnect the steering column intermediate shaft from the steering column.




E49465

- Note the fitted position.
- Remove the special bolt and discard the nut.



E47079

**19.**  **WARNING:** Take care if releasing the adjustment lever when the column has been removed from the vehicle. The spring is under a high tension, and if released, could cause personal injury. Make sure fingers are clear from any areas, likely to be trapped.

 **CAUTION:** If the steering angle sensor is damaged upon removal of the steering column, the sensor **MUST** be replaced.

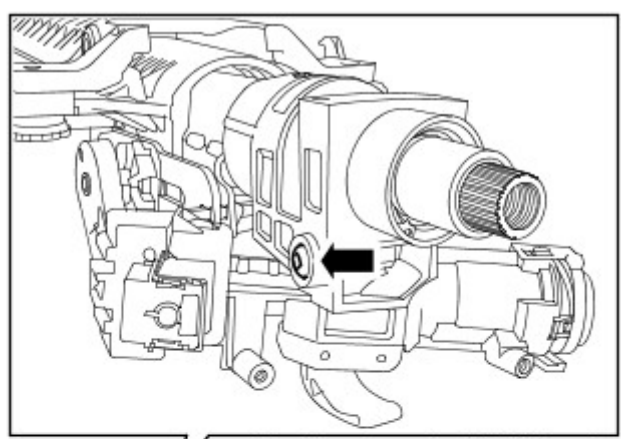
With assistance, remove the steering column.

- Remove the 4 Torx bolts.

**20.** **NOTE:** Do not disassemble further if the component is removed for access only.

Remove the ignition switch assembly.

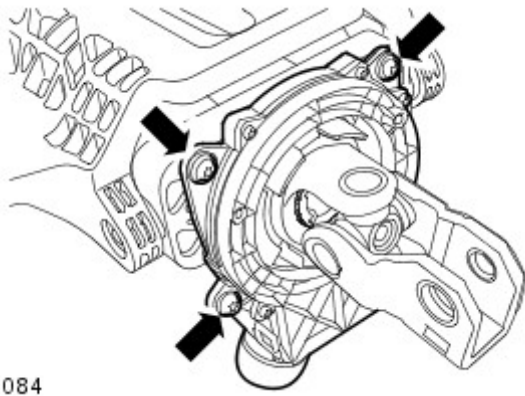
- Remove and discard the 2 shear bolts.



E47082

**21.** Remove the steering angle sensor.


- Remove the 3 Torx screws.



E47084

## Installation

Vehicles with electric steering column

1.  **CAUTION:** The potentiometer adjustment values are unique for each steering column. Failure to enter the correct code during calibration may result in damage to the vehicle.






Note the potentiometer hexadecimal code on the new steering column label for future reference.

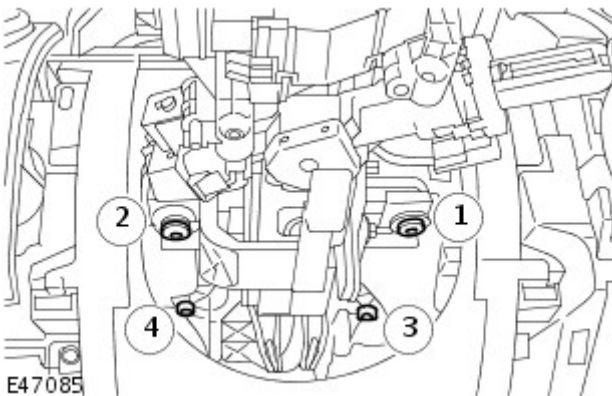
E102064

All vehicles

2. Install the steering angle sensor.
  - Tighten the Torx screws to 3 Nm (2.2 lb.ft).
3. Install the ignition switch assembly.
  - Tighten the shear bolts until the heads shear off.

### 4. CAUTIONS:

-  Make sure the bolt holes are clean and free of swarf.
-  The steering column bolts must be tightened by hand a minimum of 3 revolutions.
-  Air tools **MUST NOT** be used on steering column bolts.



E47085

With assistance, install the steering column.

- Tighten the bolts in sequence to 25 Nm (18 lb.ft).
5. Connect the steering column intermediate shaft.
    - Install the special bolt and tighten the new nut to 22 Nm (16 lb.ft).
  6. Secure the wiring harness to the steering column.

#### Vehicles with electric steering column

7. Connect the steering column adjustment motor electrical connector.

#### All vehicles

8. Connect the steering angle sensor electrical connector.
9. Connect the passive coil electrical connector.
10. Connect the ignition switch electrical connector.
11. Install the steering column gaiter panel.
  - Secure with the clips.
  - Tighten the Torx screws.
12. Install the steering column switch assembly.
  - Tighten the Torx bolts to 3 Nm (2 lb.ft).
13. Connect the clockspring and multifunction switch electrical connectors.
14. Install the steering column side trim panels.
  - Secure with the clips.
15. Install the steering column shrouds.
16. Install the instrument panel access panel.
  - Secure with the clips.
17. Install the closing trim panel.
  - Connect the electrical connector.
  - Secure the clip.
  - Tighten the screws.
18. Install the steering wheel.

For additional information, refer to: [Steering Wheel](#) (211-04 Steering Column, Removal and Installation).
19. Install the driver side register trim panel.

For additional information, refer to: [Driver Side Register Trim Panel](#) (412-01 Air Distribution and Filtering, Removal and Installation).
20. Calibrate the steering angle sensor using the Land Rover approved diagnostic tool.

#### Vehicles with electric steering column

21. If a new electric steering column is fitted re-calibrate the steering column potentiometer using the Land Rover approved diagnostic system.