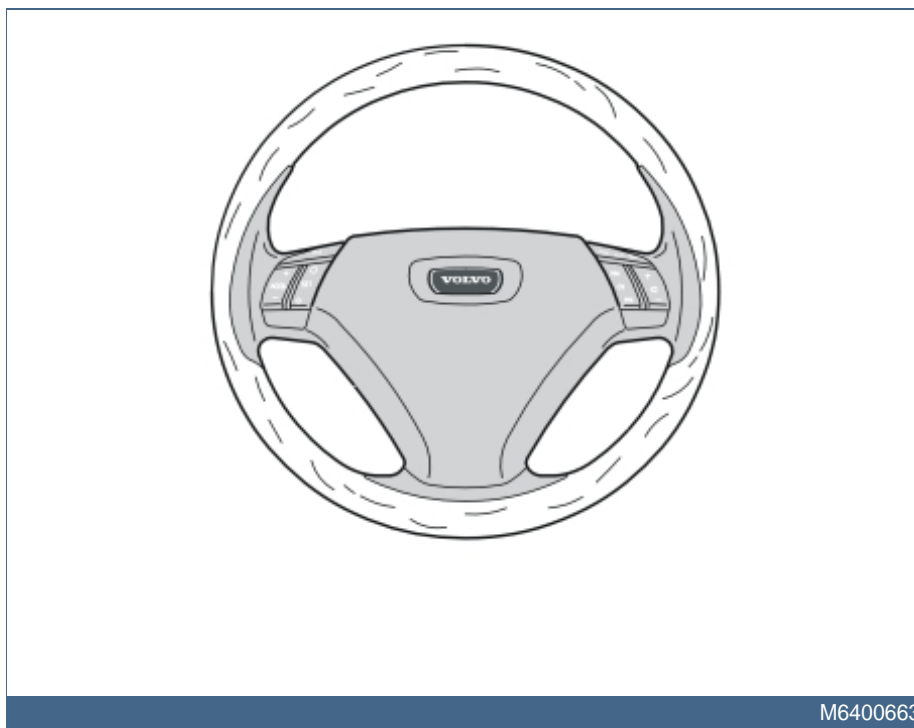




S60 / S80 / V70 / V70 XC / XC70 / XC90

Section	Group	Weight(Kg/Pounds)	Year	Month
6	641	2 / 4.3	2005	12





Required tools

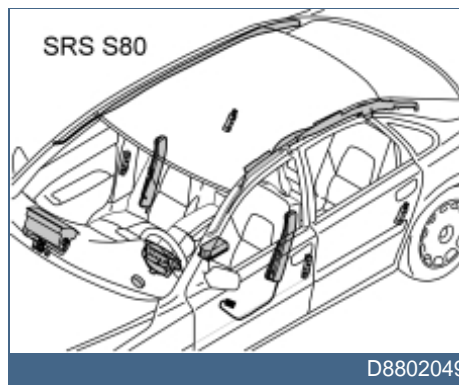
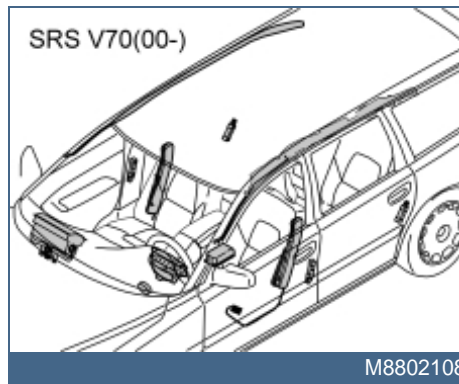
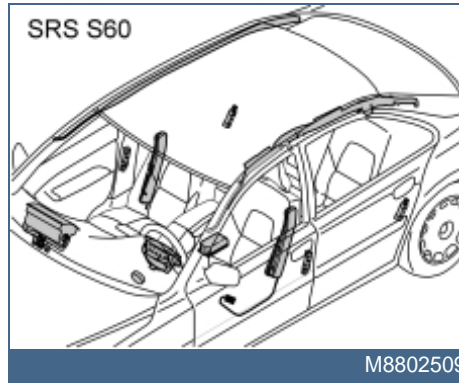


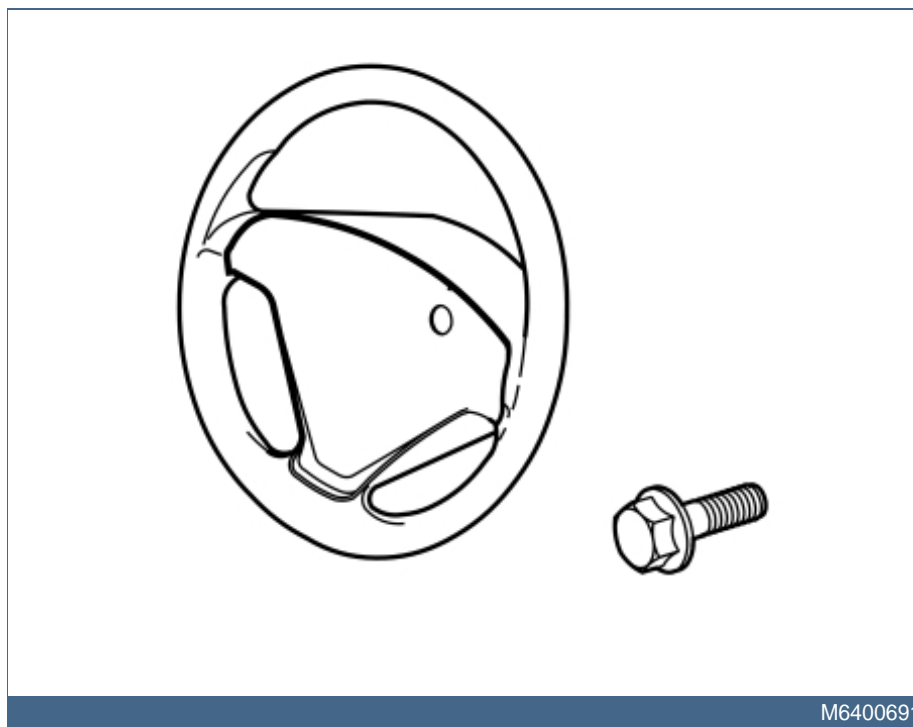
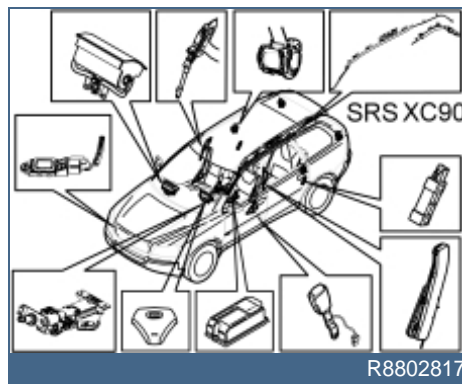
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Any comments on this publication? Please contact your nearest retailer. Thank You!

Publ.no:	Issue:	Kit no:
Comments:.....		
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IMG-213320



INTRODUCTION

- **NOTE! Read through the entire text before carrying out any work.**
- The front page gives the date of this edition and the edition it replaces
- The second page shows the tools needed for the installation and the contents of the installation kit
- The illustrations display the procedure in order of operation. The order of operation is repeated in the text section
- Cut out the text page in order to follow the illustrations and text at the same time.

Cars equipped with SRS/SIPS (Airbag)

Warning!

Extra care must be taken when working on cars equipped with SRS/SIPS air bags. This is important to prevent:

1. Personal injury
2. Damage to or malfunction of the SRS/SIPS system.

Work on the SRS/SIPS systems or related components must always be carried out by an authorised Volvo workshop.

Is the car equipped with SRS (supplemental restraint system)?

Cars equipped with a driver's airbag have the letters "SRS" imprinted on the centre panel of the steering wheel. Cars equipped with driver's and passenger airbags are marked with "SRS" on both the steering wheel centre panel and also on the dashboard close to the airbag.

If the car is equipped with SIPS (side impact protection system) a "SIPS" decal is marked on both the front seats.

Cars equipped with inflatable curtains have the marking "SRS" on one of the panels along the posts on the inside of the car.

Cars equipped with SRS (supplemental restraint system) also have an "SRS" decal on the front windscreen.

Warning!

The air bag inflation areas must not be obstructed. Never place any objects, such as upholstery or accessories, within these areas. The panels must be able to open in the correct manner at the right time, otherwise there is an increased risk of personal injury in the event of a collision.

Do not damage the SRS wiring!

Do not trap, chafe, pierce or damage the SRS wiring. SRS wiring has orange casing and/or is plaited.

Steering and front suspension

The contact reel in the SRS system can easily be damaged when working on the steering wheel, steering shaft or steering gear. Refer to the SRS (supplemental restraint system) Service Manual or service instructions in VIDA for information on carrying out such work. This is to prevent damage.

SRS warning lamp



If the SRS warning lamp lights after repairs have been carried out, take the car to an authorised Volvo workshop.

C30/S40(04-)/V50/S60/C70(06-)/V70/S80/XC90 Supplemental Restraint System Module (SRS)

The supplemental restraint system module (SRS) is located on the tunnel under the centre console, in front of the parking brake.

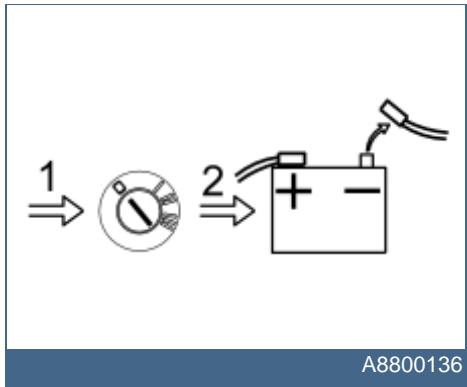
Warning!

The ignition must be in position "0" and the key removed from the ignition switch if any connector in the SRS system is to be unplugged. Then wait at least three minutes and disconnect the battery negative lead before unplugging any of the connectors. When work is completed, the ignition key must be turned to position "II" before reconnecting the battery negative lead.

Sports steering wheel, wood/leather



1

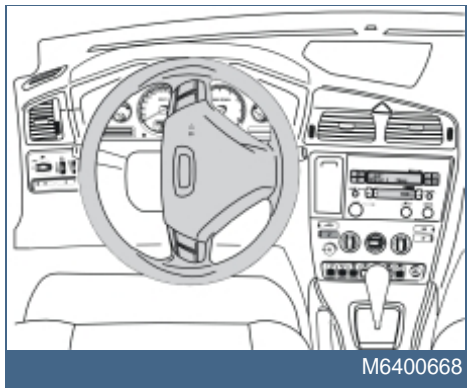


Preparations

- Turn the ignition key to position 0. Remove the ignition key from the ignition switch.
- Disconnect the battery negative lead.

Note!
Wait at least three minutes before unplugging the connectors or removing other electrical equipment.

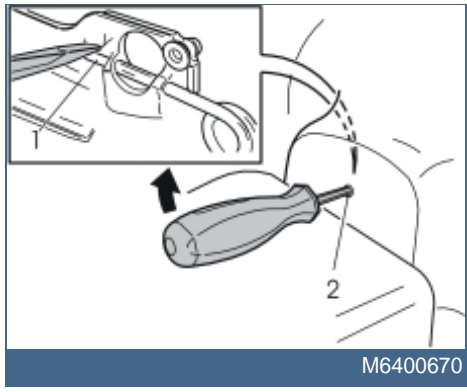
2



Removing the 3-spoke steering wheel

- Reinsert the ignition key and turn it to position "I" to prevent the steering lock from engaging.
- Turn the steering wheel a quarter turn so that the holes on the reverse of the steering wheel are accessible.

3



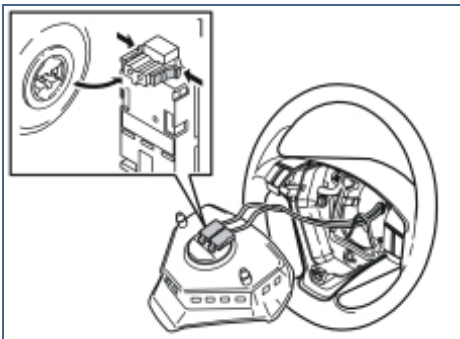
Removing the 3-spoke steering wheel

- Insert a screwdriver in the hole (2) on the reverse side of the steering wheel at right angles to the rear surface.

Insert the screwdriver as far as possible to locate the end of the locking spring (1).
- Position the end of the screwdriver on the top of the spring clip as illustrated
- Pry the screwdriver upwards towards the upper edge of the hole (2) so that the end of the screwdriver presses the spring clip down (1) until one side of the steering wheel module springs out and releases from the mounting
- Turn the steering wheel a half turn in the opposite direction. Carry out the same operation on the other side
- Turn the steering wheel to a neutral position.



4



M3903271

Removing the 3-spoke steering wheel

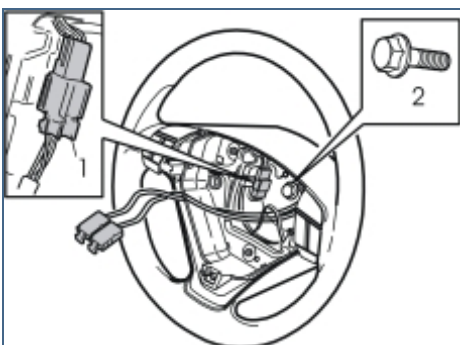
- Fold the steering wheel module out
- Remove the two connectors (1) for the ignition cables for the airbag. First press in the catches on the sides. Then pull the connectors straight out.

Note!

The connectors are tightly secured. However, tools must not be used when removing.

- Place the steering wheel module to one side.

5



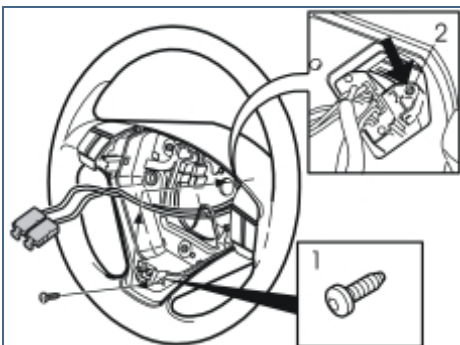
M6400685

Removing the 3-spoke steering wheel

Remove:

- the connector (1)
- the screw (2) that holds the steering wheel, leave the steering wheel in place.

6



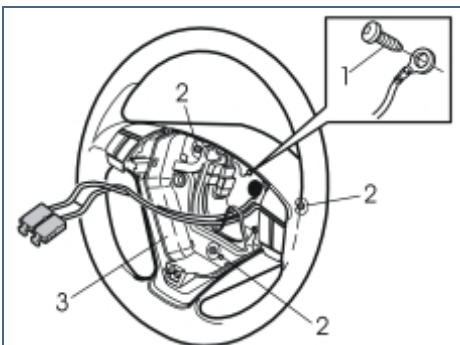
M6400686

Removing the 3-spoke steering wheel

Remove:

- the screw (1). Install the screw in the contact reel (2).
- the steering wheel. Pull the wiring out through the hole in the steering wheel.

7



M6400687

- Remove the screw (1) and detach the ground lead.

Applies to cars without RTI keypad mounted to the steering wheel

- Remove the three screws (2) and lift out the horn ring (3).

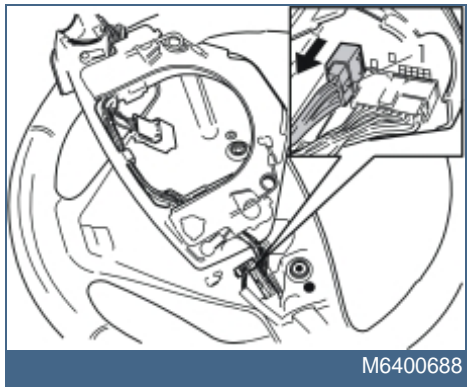
- Place the steering wheel to one side.

Applies to cars with RTI keypad mounted to the steering wheel

- Remove the three screws (2) and detach the horn ring (3).



8

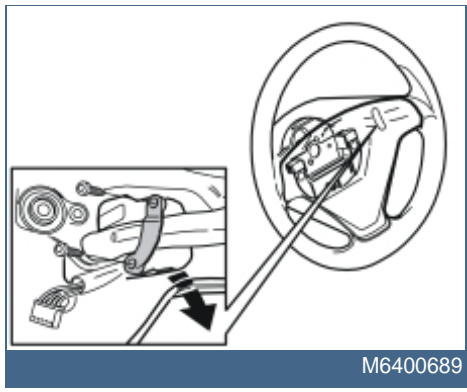


M6400688

Applies to cars with RTI keypad mounted to the steering wheel

- Carefully rotate the horn ring upwards and position it as illustrated.
- Remove the connector for the RTI keypad mounted to the steering wheel. Press in the catch (1) and pull out the connector.
- Place the horn ring to one side.

9



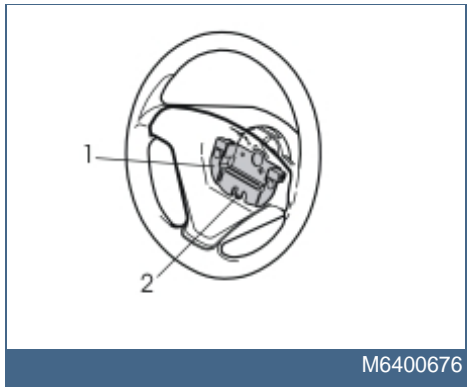
M6400689

Applies to cars with RTI keypad mounted to the steering wheel

Remove:

- the two screws in the bracket for the RTI keypad
- the bracket and press the keypad out from the steering column cover.
- Place the steering wheel to one side.

10

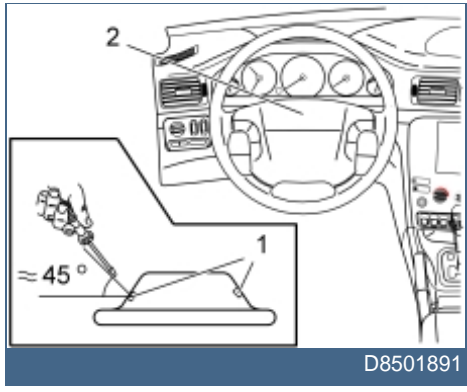


M6400676

Applies to cars with vibration damper

- Remove the screw (2) and the vibration damper (1).
- Place the steering wheel to one side.

11



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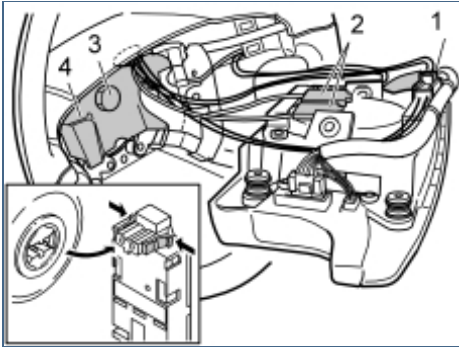
Removing the 4-spoke steering wheel

- Reinsert the ignition key and turn it to position "I" to prevent the steering lock from engaging.
- Detach both spring-loaded screws (1) on the reverse side of the steering wheel with a Torx T30 screwdriver.
- Unscrew the screws until they release from the threads and spring back.
- Fold out the steering wheel module (2).

Note!
Handle the cables with care.



12



M8802904

Removing the 4-spoke steering wheel

Remove:

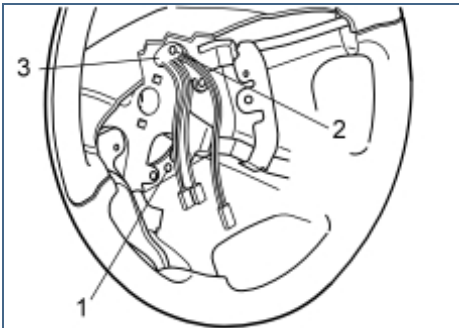
- the connector (1) for the horn.
- the SRS connectors (2). Press in the catches on the sides and carefully pull the connectors straight back.

Note!

Although the connectors are tightly secured, do not use any tools when removing.

- the steering wheel module. Place the steering wheel module safely with the front side facing upwards.
- the bolt (3), but leave the steering wheel in place.
- the vibration damper (4), if applicable.
- the connector for the RTI keypad, if applicable.

13



M8802905

Removing the 4-spoke steering wheel

Remove:

- the screw (1). Install the screw in the contact reel (2).
- the steering wheel. Pull the wiring out of the hole (3).

14

Installing the new steering wheel

- Install the new steering wheel.

Applies to cars with vibration damper

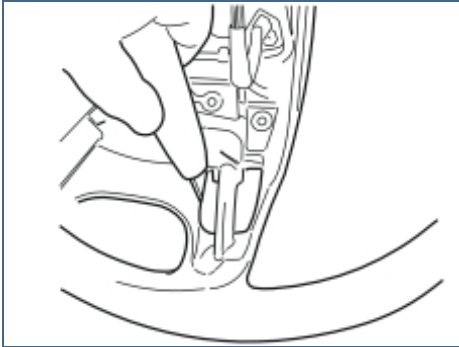
- Install the vibration damper in the new steering wheel and secure it with the screw, see step .

Note!

Make sure the screw is properly tightened and that the vibration damper is secure. The screw is self-tapping, which can make it difficult to tighten.



15A



M3903760

Installing the new steering wheel

Applies to cars with RTI keypad mounted to the steering wheel when installing in a wooden steering wheel

Illustration A

- Place the steering wheel in a suitable position and cut along the existing marks with a small knife.

Note!

When cutting, make sure to hold the knife so that the cuts are perpendicular to the reverse side of the steering wheel. This will reduce the risk of cutting a hole that is too large since the edge around the keypad is only a few millimetres larger than the keypad itself.

15B



M3903761

Illustration B

- Cut away some of the material on the reverse side of the steering wheel spoke.
- Test and cut until the keypad fits properly.

16



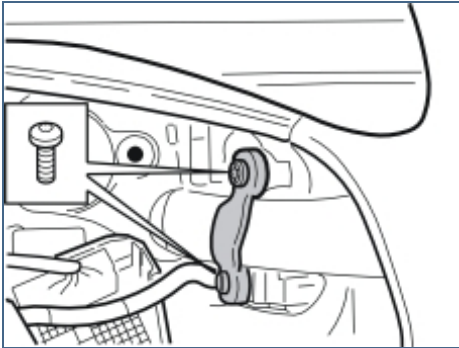
M3903762

Installing the new steering wheel

Applies to cars with RTI keypad mounted to the steering wheel when installing in a wooden steering wheel

- Install the keypad, two screws and clamp. Make sure the cable is positioned on the underside of the steering wheel spoke.
- Insert the keypad into the hole in the steering wheel with the text on the buttons facing out. Press until it connects securely against the steering column cover.

17



M3903757

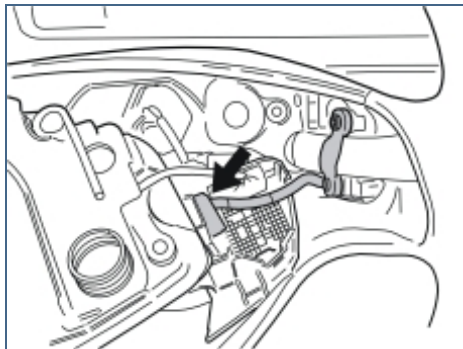
Installing the new steering wheel

Applies to cars with RTI keypad mounted to the steering wheel when installing in a wooden steering wheel

- Install the screws and attach the keypad with the clamp around the steering wheel spoke.



18



M3903758

Installing the new steering wheel

Applies to cars with RTI keypad mounted to the steering wheel

- Position the horn ring as illustrated.
- Plug in the keypad connector to the terminal on the reverse side of the keypad located on the right-hand side of the horn ring. The wire from the installed keypad is very short and it can be difficult to install the connector.

19

Installing the new steering wheel

- Reinstall the horn ring in the steering wheel, see steps - . Make sure that the three springs on the underside are correctly positioned. Check that the ground lead is not trapped.
- Install the three screws in the horn ring and tighten crosswise them to **8 ± 2 Nm (6 ± 1.5 lbf.ft.)**.

Note!

The screws are self-tapping.

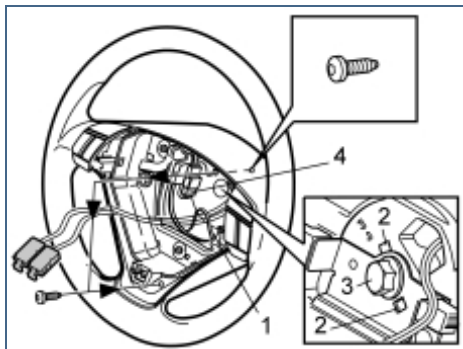
- Reinstall the ground lead. Tighten.

Note!

Make sure the screw is properly tightened and that the ground lead is secure. The screw is self-tapping, which can make it difficult to tighten.

- Check the function of the horn by pressing the horn around its entire circumference. A metallic noise should be heard when the three contact points come into contact

20



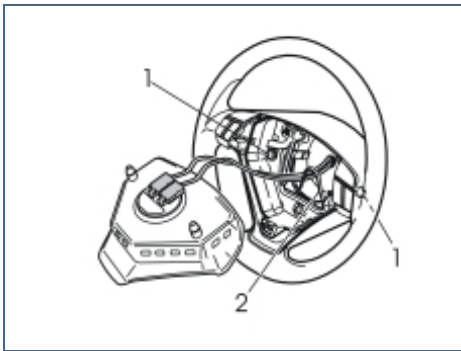
M6400690

Installing the new steering wheel

- Insert the wiring through the hole in the new steering wheel. Insert the airbag ignition cables through the holder (1).
- Carefully install the new steering wheel by holding it straight and aligning the locating pins (2) on the contact reel.
- Remove the screw from the contact reel and reinstall the screw in the holder. See step .
- Install the new screw (3). Tighten to **40 Nm (30 lbf.ft.)**.
- Plug in the connector (4).



21

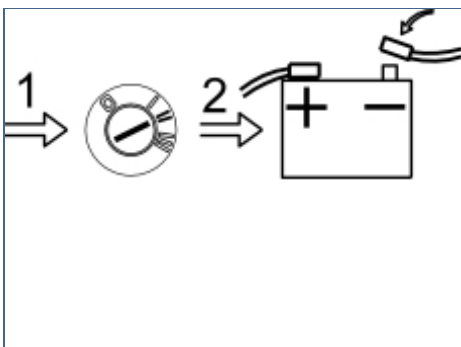


M6400669

Installing the new steering wheel

- Check that the two springs (1) are in position
- Press the two connectors for the ignition cables for the airbag into the steering wheel module
- Insert the two pins on the reverse of the steering wheel module in the two springs. Ensure that the ignition cables are not trapped
- Press the steering wheel module firmly into its mountings. (Two clearly audible clicks should be heard)

22



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Supplementary work

- Turn the ignition key to position II.
- Reconnect the battery negative lead.