

91-502 Removal and installation of front belt tensioner

Note

Replacement instructions for belt tensioner, refer to repair instructions "Body - Assembly jobs II, Model 201", job number 91-550.

Functional description, test instructions and safety instructions are included in microfilm Airbag and Belt tensioner.

When reeling up belt, noises on automatic reel are functional noises.

In the event of a complaint, excessive noises can be eliminated by replacing the belt tensioner. Never use oil or grease to eliminate noises.

Likewise, do not disassemble the automatic reel, since the preloaded spring may cause accidents. Automatic reels which have been opened are no longer recognized as a warranty case.

Complaint:

Lock tongue on belt twisted

Remedy:

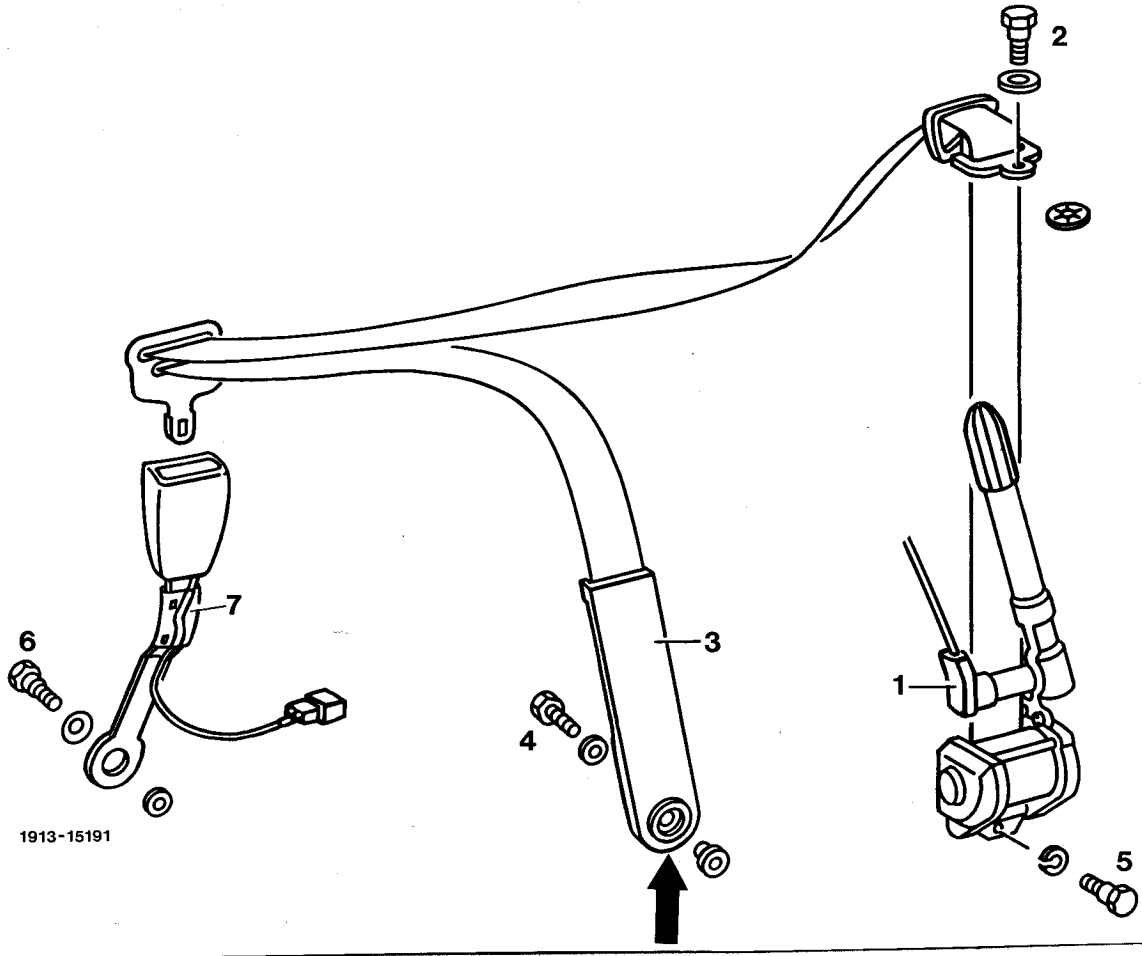
For belt as shown on illustration and pull lock tongue over belt into normal position.



191-25493

B. Coupe

Side wall trim in rear passenger comp. removed (68-456)
 Driver's and front passenger seat removed (91-100/11),
 when belt buckle 7 is removed.



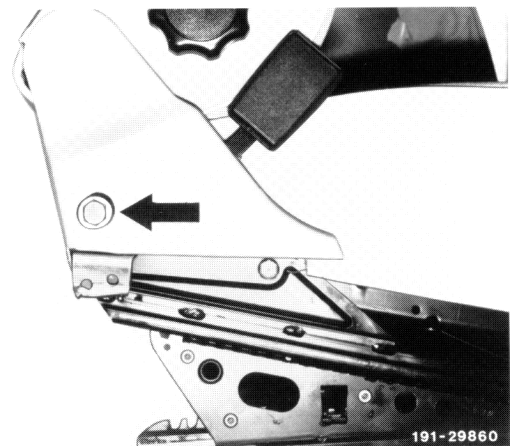
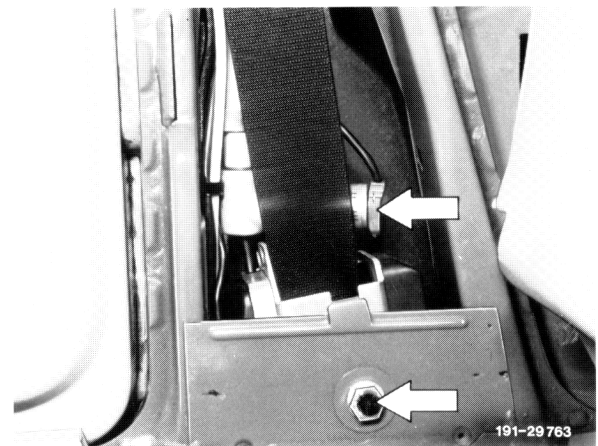
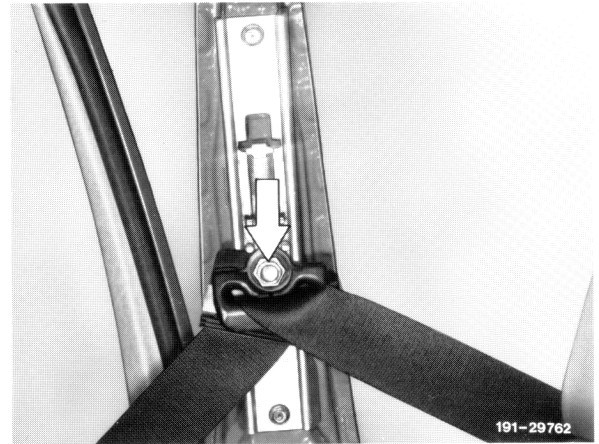
1913-15191

Ignition key in 0-position	turn
Battery negative pole	disconnect and insulate
With airbag 10-point plug connection	separate
Plug connection (1) of belt tensiometer ignition pellet	pull off
Screw (2) on belt guide fitting	unscrew (35 Nm)
Trim (3) of swivel fitting	open with plastic wedge (arrow), pay attention to installation note
Screw (4) on side member	unscrew (35 Nm).
Screw (5) on automatic reel	unscrew (35 Nm) and remove belt tensiometer. Pay attention to installation note

A. Sedan and T-sedan

Removal, installation

- 1 Turn ignition key into 0 position, disconnect battery negative pole and cover.
- 2 Remove trim on center pillar (68–470).
- 3 Unscrew screw on belt guide fitting.
- 4 Pull off plug connection, remove screw on belt tensioner and take off belt tensioner.
- 5 Remove driver's or front passenger's seat (91–100 or 91–110).
- 6 Remove screw on belt lock while applying counterhold to belt lock.
- 7 Remove belt lock.
- 8 For installation proceed vice versa.



Cover on reclining seat fitting	pull toward the rear, pull off laterally and remove
Screw (6) on belt buckle	unscrew
Cable straps under seat cushion	open
Belt buckle complete with line (7)	remove

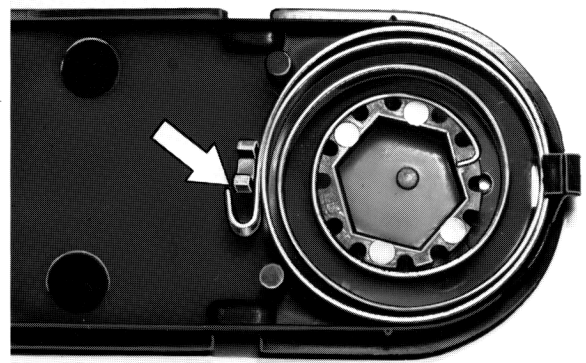
For installation proceed vice versa.

Installation note

When installing belt tensioner, pay attention to different versions (left and right) and to perfect seat in lock.

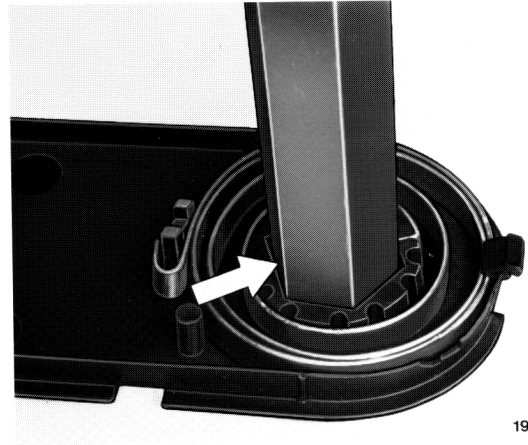
- 1 When installing a new belt tensioner, open trim on swivel fitting with plastic wedge. Screw in screw on side member (35 Nm). Close cover on swivel fitting. Pull out lock for holding spring on swivel fitting.

- 2 For re-installation of removed belt tensioner, place coil spring with plastic insert into swivel fitting top and engage spring.



191-23119

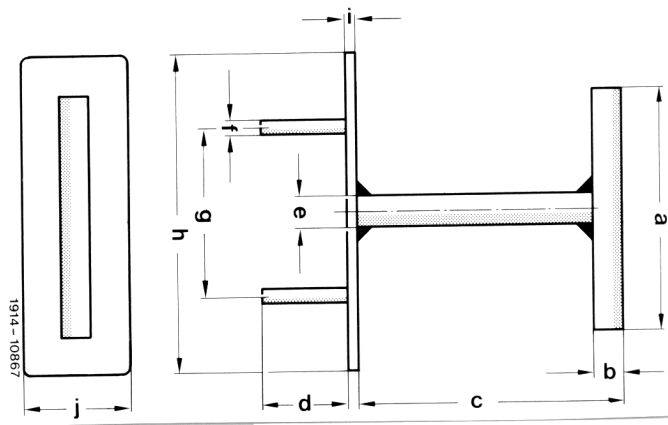
3 Insert hex. socket wrench into plastic insert and pretension spring by 180°.



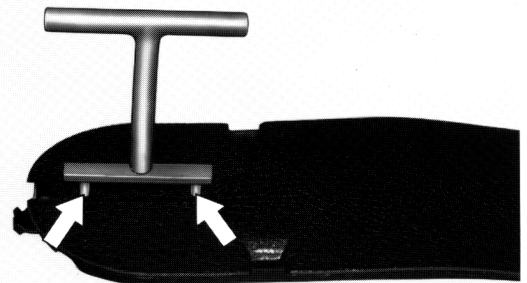
191-23118

4 Make special tool
(unless already available)

a	45 mm
b	∅ 4 mm
c	35 mm
d	8 mm
e	∅ 4 mm
f	∅ 2 mm
g	24 mm
h	40 mm
i	1.5 mm
j	8 mm



5 Lock preloaded plastic insert from back of top by means of special tool



191-23125

Note: The swivel fitting on side member should pull the seat belt, if it is not worn, downward into rear corner under influence of spring, so that no downward loop will be established.

Following installation, check whether belt is completely rolled up.

To check, pull belt out diagonally in downward direction and feed back manually together with catch of buckle up to guide bracket of belt positioner.

The so-called open/closed signal for the affected side is set (in control unit memory) when the affected doors are moved from the open to the closed position. This signal is set regardless of the ignition key position, elapsed time and whether the belt tongue is inserted into the belt buckle. The door open/closed signal is reset 60 min. after the last change in the door contact or the ignition/starter switch. This time limitation reduces the number of so-called ghost functions, i.e. unnecessary extension of the seat belt extender when the front seat is not occupied.

(Automatic) activation of a seat belt extender starts the following cycle: The seat belt extender moves to the foremost position, then – without pausing – back approx. 25 mm (time-controlled) to the so-called offering position. Here the seat belt extender arm waits 30 s and then moves to the rearmost position. If the cycle was actuated automatically the stored door open/closed signal is cancelled after completion of the complete offering time of 30 s. However if, during this cycle, one of the following actions is accomplished before completion of the offering time, the affected seat belt extender moves to its initial position immediately and any door open/closed signal present is not cancelled:

1. The seat belt tongue is inserted into the belt buckle associated with the affected seat belt extender (signal from belt buckle switch).
2. The affected door is opened (signal from door contact switch).
3. The ignition/starter switch is turned to position 0 (affects both seat belt extenders).

If the seat belt extender meets an opposing force during extension, the seat belt extender arm stops and moves back approx. 25 mm (time-controlled) however not farther than to the rearmost stop, for relief and remains there for 1 s. This operation can be repeated a maximum of 7 times when the opposing force is present for a longer period. If the foremost position is not reached after the eighth attempt, the arm returns to its original position.

If the seat belt extender arm does not actuate one of the 3 microswitches

Extender arm extended switch (A10s2, A11s2),
Extender arm retracted switch (A10s1, A11s1)
Force limit switch (A10s3, A11s3)

within 8 s when the motor is receiving power, the so-called total switch-off is actuated. This causes the seat belt extender arm to move back immediately to the stop (the motor (A10m1, A11m1) runs for 8 s in the retract direction when the polarity was in the extend direction before expiration of the operating time of 8 s). Then no more signals of any type are output for the affected seat belt extender by the control unit (N42). After total shut-off the system can be put back into operation by turning the ignition/starter switch from position 0 to 1.

The left and right seat belt extenders have no effect on one another.

Diagnosis is described in the Diagnosis Manual, Body, Volume 3.