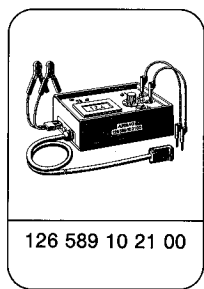
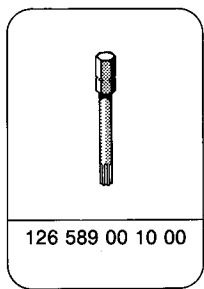


91-622 Removing and installing control unit for airbag and belt tensioners

Op. No. of Job Texts and Work Units,
Standard Texts and Flat Rates

A. Up to 09/87

Special tools



Conventional tools	Order Number	e.g.
Ratchet (1/4")	Item No. 415	Eduard Wille GmbH
Connector (1/4 ")	Item No. 412	Postfach 12 01 03 D-5600 Wuppertal 12

1st version

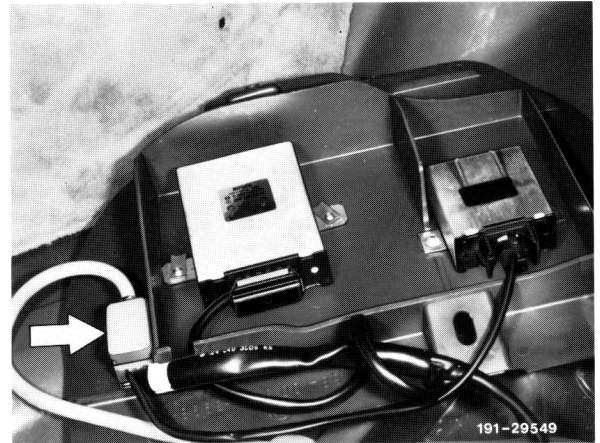
Note

The 2nd version differs in the

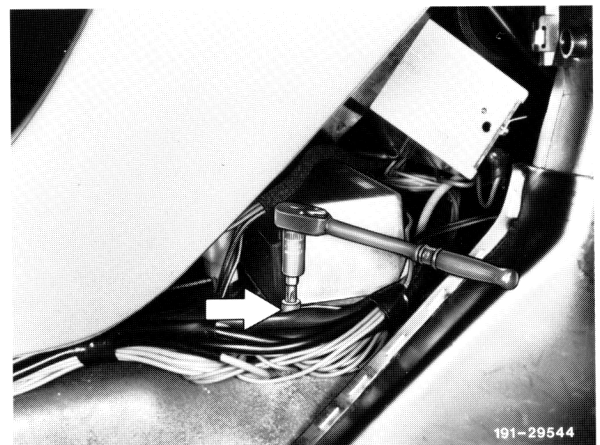
- modified routing of the cables for the triggering unit under the heater box to the right as far as the passenger's footwell
- modified location of the red 10-pin plug connection from the foot rest to the plate located under the foot rest.

Removing

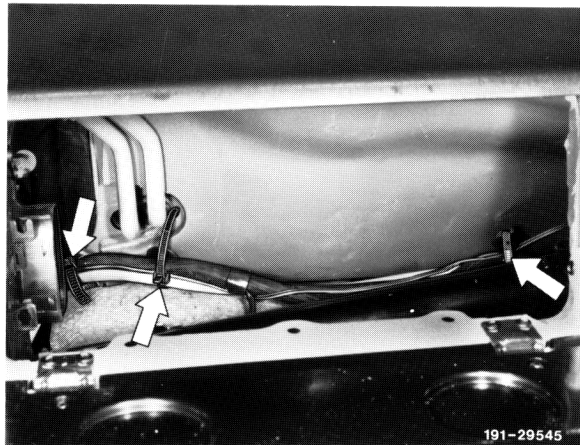
- 1 Turn ignition key to position "0", disconnect battery negative terminal and cover.
- 2 Remove front foot mats and insulators.
- 3 Unscrew nuts (arrows) on the foot rest in the passenger's footwell.
- 4 Disconnect red 10-pin plug connection for the control unit on the foot rest.
- 5 Remove front right-hand panel under dashboard.
- 6 Remove glove box and take out air hose to right-hand side nozzle.
- 7 Remove side tunnel panelling on left and right (68-205).



- 8 Unscrew retaining bolts for control unit.



9 Open cable straps in region of firewall.



191-29545

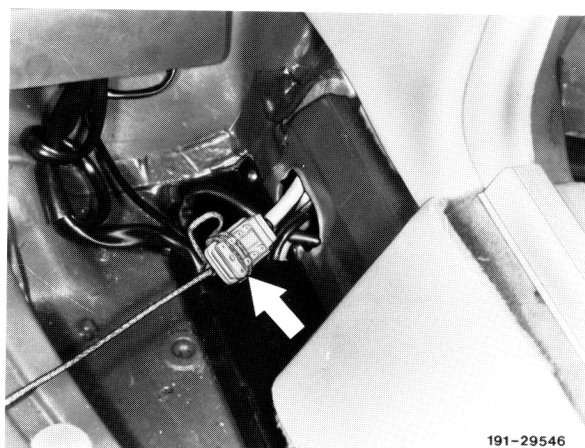
10 Tie string to red 10-pin plug of control unit.

Note

This string makes it easier to pull the new cable through the front wall pillar.

11 Pull out connecting cable from front wall pillar.

12 Remove control unit with connecting cable.



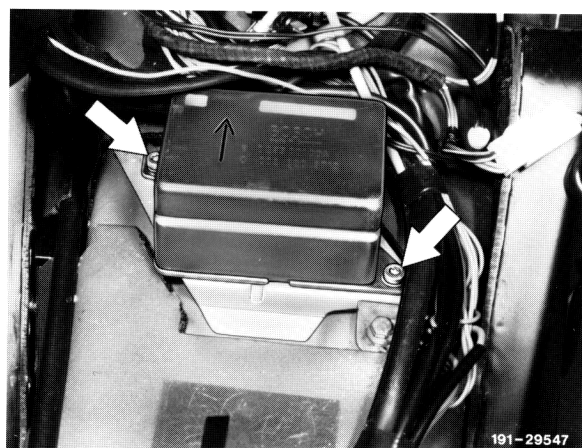
191-29546

Installing

13 Tighten bolts holding control unit on transmission tunnel (tightening torque 10Nm).



The arrow on the control unit must point in the direction of travel.



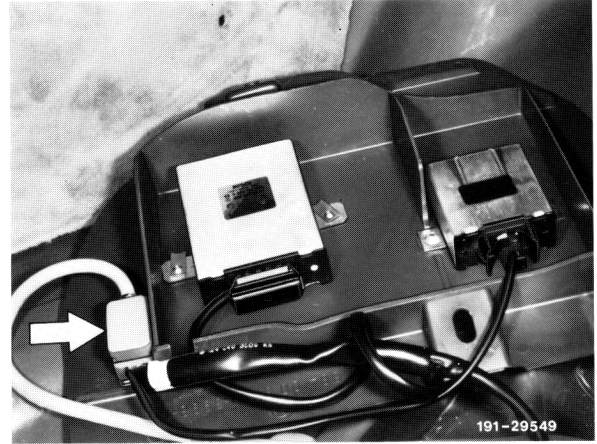
191-29547

14 Connect red 10-pin plug connection (arrow) with cable harness.

15 Connect battery, turn ignition key to position "1" and test system by means of the RS warning lamp.

16 Turn ignition key to position "0". Disconnect battery negative terminal and cover.

17 Disconnect red 10-pin plug connection (arrow).

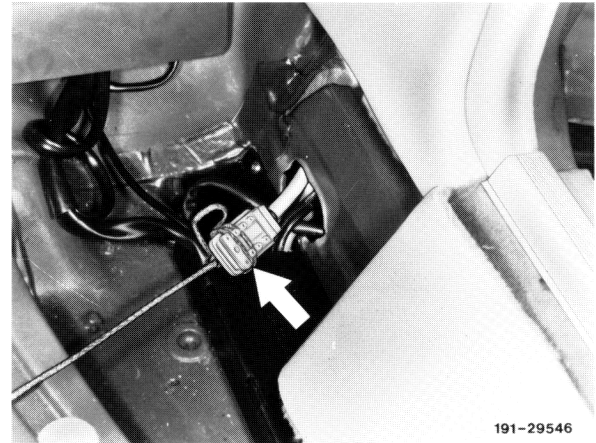


18 Tie string to red 10-pin plug of control unit and route connecting cable through the front wall pillar with the aid of this string.

19 Check system using tester (91-700).

20 Continue installation in the reverse sequence.

21 Check system with the aid of the RS warning lamp.



2nd version

Removing

1 Turn ignition key to position "0". Disconnect battery negative terminal and cover.

2 Remove front right-hand foot mats and insulators.

3 Unscrew bolt underneath foot rest and remove foot rest.

4 Disconnect red 10-pin plug connection (X29/9) on plate. Open cable strap.

X29/9 Plug connection



5 Remove right-hand side tunnel panelling (68-205).

6 Unscrew retaining bolts for control unit. Remove control unit and pull out connecting cable.



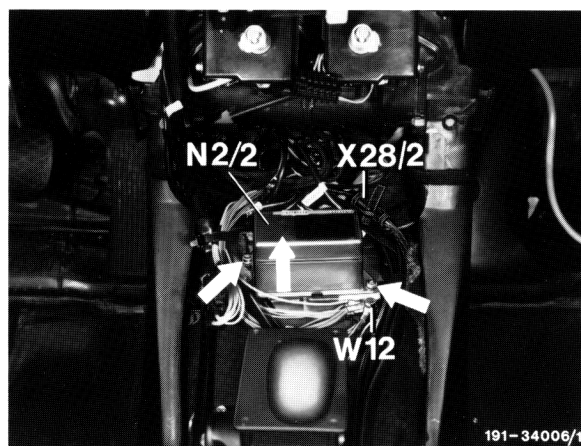
Installing

7 Secure control unit to transmission tunnel with bolts (tightening torque 10 Nm).



The arrow on the control unit must point in direction of travel.

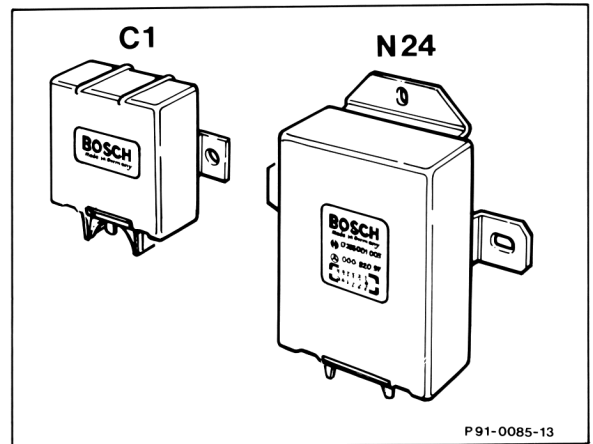
Illustrated with the center console removed
N2/2 Control unit



- 8 Connect red 10-pin plug connection with the cable harness.
- 9 Connect battery, turn ignition key to position "1" and test system with the aid of RS warning lamp.
- 10 Disconnect red 10-pin plug connection.
- 11 Check system using tester (91-700).
- 12 Continue installation in the reverse sequence.
- 13 Check system using the RS warning lamp.



When installing a modified airbag control unit, the voltage transformer (M24) and reserve power source (C1) must be removed, the cable ends insulated with black insulating tape and fastened to the existing cable harness.



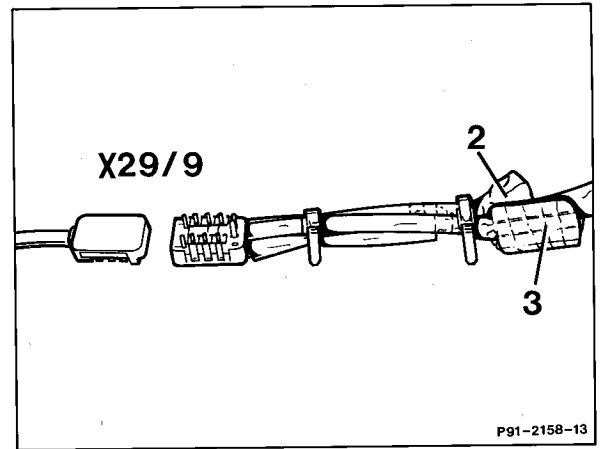
C1 Reserve power source
N24 Voltage transformer

1. Renewing control unit with cable

Refer to repair guide on microfilm for airbag and belt tensioner (91-620).

2. Additional work

- Remove voltage transformer (N24) (not present in all vehicles) and insulate plug connector (3).
- Remove reserve power source (C1) and insulate plug connector (2).
- Fasten cables to existing cable harness using cable straps.
- Test airbag system using airbag tester, part no. 126 589 10 21 00.



- X29/9 Test coupling/plug connection, airbag, 10-pin
- 2 Plug connector, reserve power source
- 3 Plug connector, voltage transformer

Note

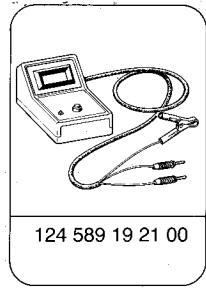
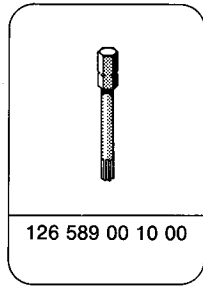
Revised test

Test steps 2, 6 and 7 are no longer required

- Connect test coupling/plug connection, airbag, 10-pin (X29/9).
- Switch on ignition
The RS or SRS warning lamp must go out after approx. 4 s.

B. As of 09/87

Special tools



Conventional tools

Order Number

e.g.

Ratchet (1/4")
Connector (1/4")

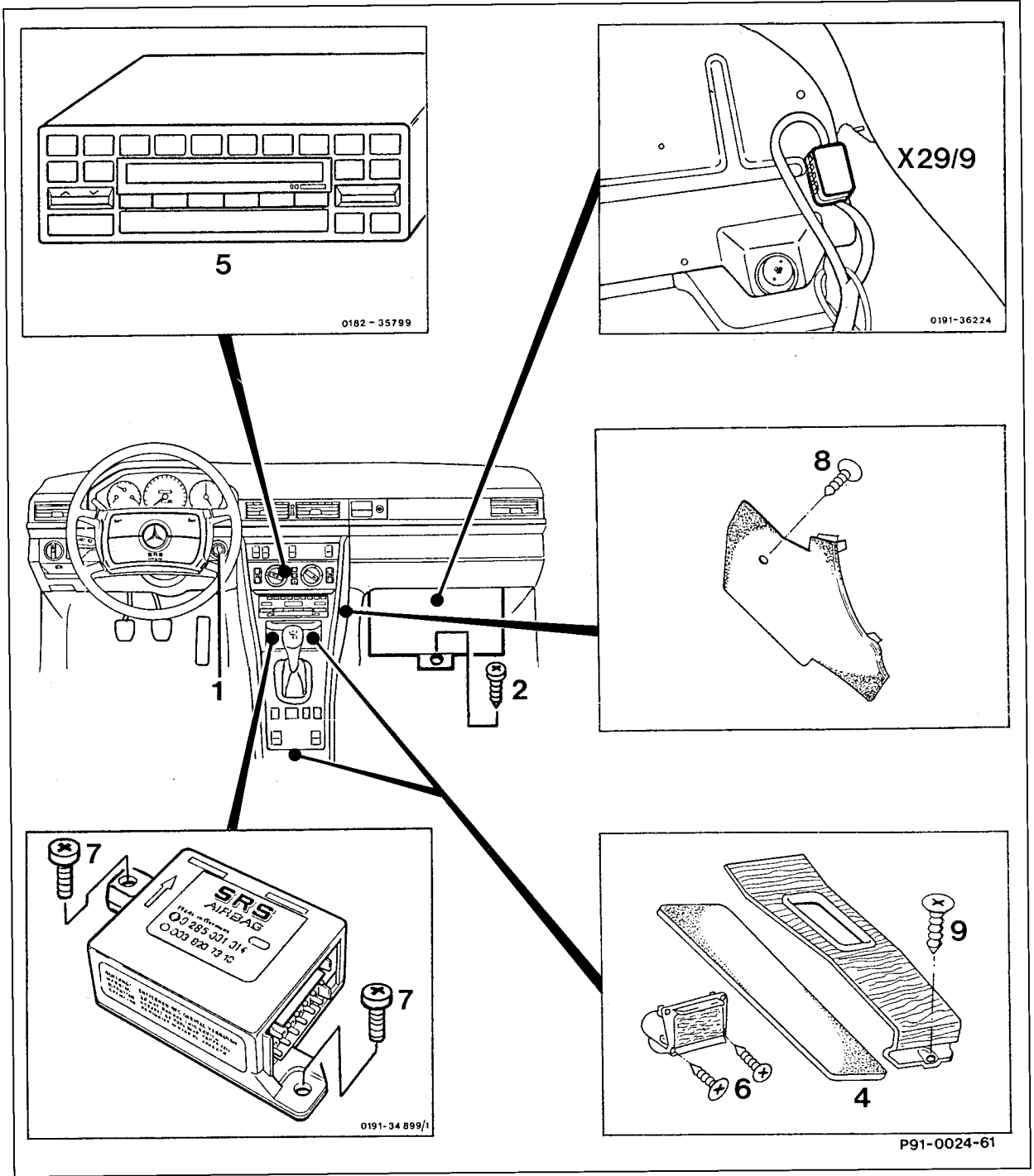
Item no. 415
Item no. 412

Eduard Wille GmbH
Postfach 12 01 03
D-5600 Wuppertal 12

Testing

After working on the driver's airbag and belt tensioner restraint system, the system must be tested by means of the pulse display.

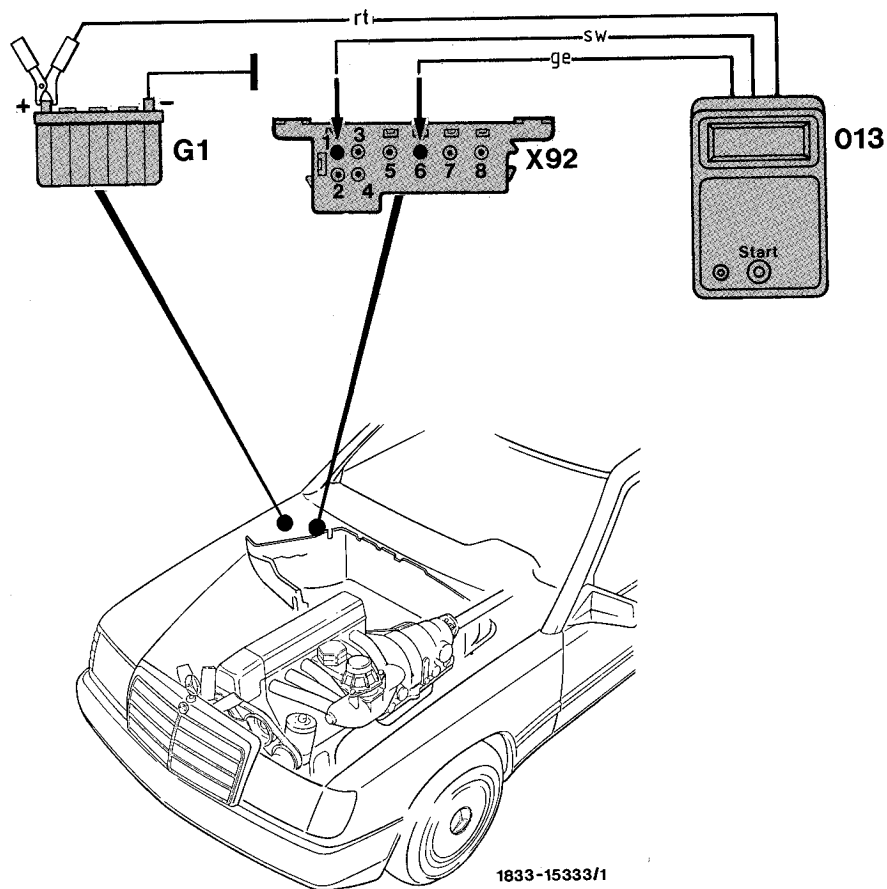
This test is described at the end of this operation number.



Ignition
 Battery negative terminal
 Foot mat in passenger's footwell
 Cross-head screw on foot rest (2)

Switch off.
 Disconnect and cover, connect.
 Remove, install.
 Unscrew, screw in.

Foot rest	Detach in an upwards direction, install.
Red 10-pin plug connection for airbag (X29/9) ...	Disconnect, connect.
Carpet (4) in center console	Remove, install.
Cross-head screw (9) on cover for gear shift/selector lever	Unscrew, screw in.
Ashtray	Remove, install.
Cross-head screws (6) on ashtray housing	Unscrew, screw in.
Radio (5)	Remove, install.
Cross-head screw (8) on right-hand side of tunnel panelling	Unscrew, screw in.
Tunnel panelling	Remove forwards and to the right, install.
Plug connection on control unit	Disconnect, connect.
2 torx socket screws (7) on control unit	Unscrew, screw in.
Control unit	Remove, install.



- 013 Pulse meter
- G1 Battery
- X92 Test coupling for diagnosis, 8-pin (flashing code)

Testing after renewing the control unit

There is a diagnosis program integrated in the control unit to test the control unit and the electrical components of the airbag system. When a fault is detected, the warning lamp (A1e15) does not go out after 4 s (previously 10 s). The faults detected are stored and may be called up in the form of a pulse display by means of the warning lamp (A1e15) or digitally by means of a pulse meter.

Note on pulse display

The digits 1-10 appear on the display of the pulse meter.

A 1 signifies that no fault is stored in the system. All other numbers are assigned to a certain group of faults. If there are several faults in the system the fault with the lowest pulse number is displayed first.

- If the light-emitting diode "U-Batt" lights up after **connection**, the pulse meter and power supply for the pulse meter are in order.
- When the first number reappears during the **test** after at least two or more pulse outputs (numbers) all faults have been read.

Diagnosis with pulse display

- Connect pulse meter in accordance with the connection diagram.

Note

The light-emitting diode "U-Batt" in the display must light up.

- Switch on ignition.
- Press the start button for between 2 and 4 s.
- Display 1 means no fault in the system. If another number appears, rectify the fault in accordance with the fault-finding flow diagram.