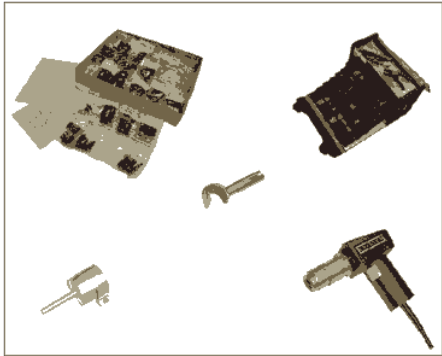
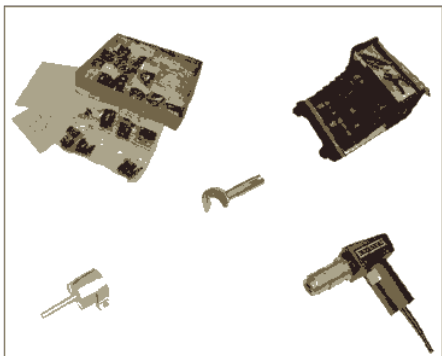


The present document was valid at the time of print. A later version may be available online

WM 976555 Replacing wire harness for anti-lock brake system (ABS)

Tools

| Designation | Type | Number | Description | |
|---------------------------------|--------------|----------|-------------|--|
| repair kit for wiring harnesses | Special tool | Nr.155-1 | |  |
| repair kit for harnesses | Special tool | NR.155-1 | |  |

Technical values

| Location | Description | Type | Basic value | Tolerance 1 | Tolerance 2 |
|--|-------------|-------------------|----------------------|-------------|-------------|
| Fastening screw securing wheel sensor connector socket to wheel carrier (M6) | | Tightening torque | 10 Nm (7.5 ftlb.) | | |
| Fastening nut securing wheel sensor connector socket to wheel carrier (M6) | | Tightening torque | 10 Nm (7.5 ftlb.) | | |

Preliminary work

Preliminary work on front ABS wire harness

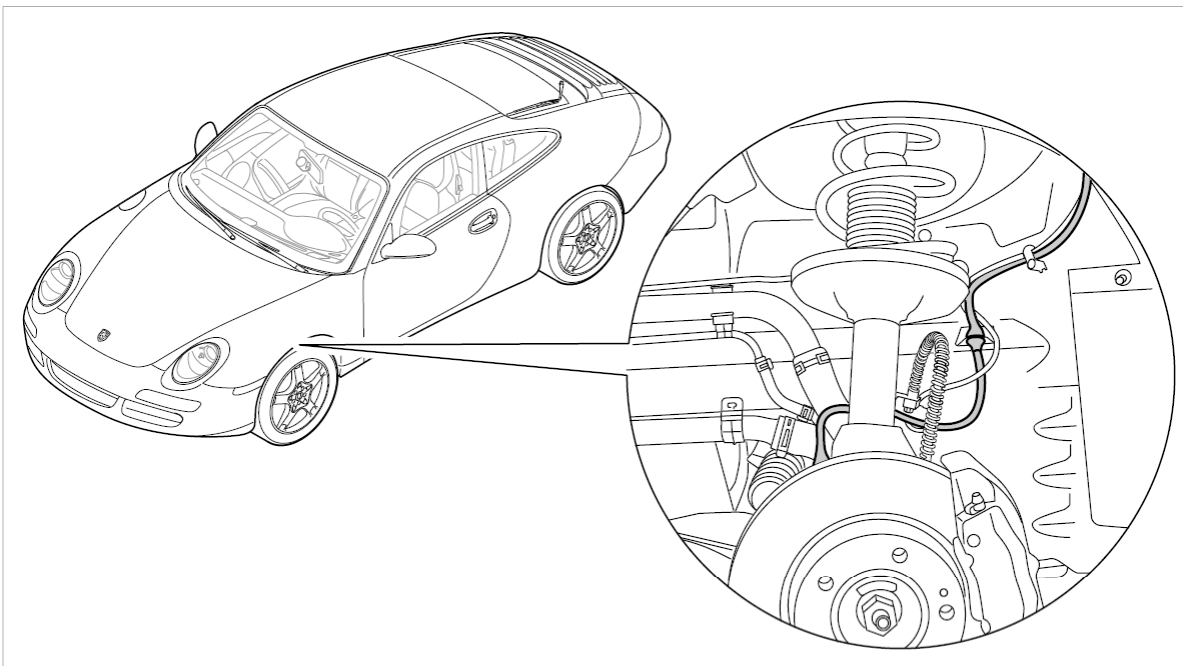
1. Disconnect battery. → *27061N Working instructions after disconnecting the battery*
2. Remove front wheel housing liner (rear section). → *505619 Removing and installing front wheel housing liner - section on "Removing"*
3. Remove plenum panel cover. → *852219 Removing and installing cover - section on "Removing"*

Preliminary work on rear ABS wire harness

1. Disconnect battery. → *27061N Working instructions after disconnecting the battery*
2. Remove wheel. → *440519 Removing and installing wheel - removing*
3. Remove rear backrest. → *724719 Removing and installing rear backrest - section on "Removing"*
4. Remove the rear side trim panel. → *707519 Removing and installing rear side trim panel - section on "Removing"*
5. Remove trim panel for seat well. → *702919 Removing and installing trim panel for seat well - section on "Removing"*

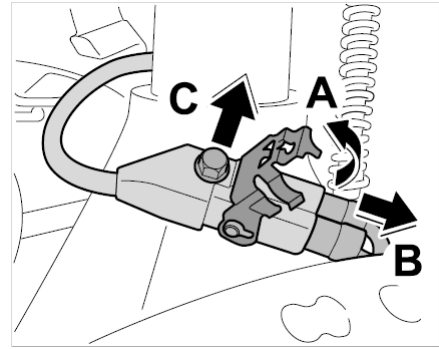
Removing wire harness for anti-lock brake system (ABS)

Removing front ABS wire harness



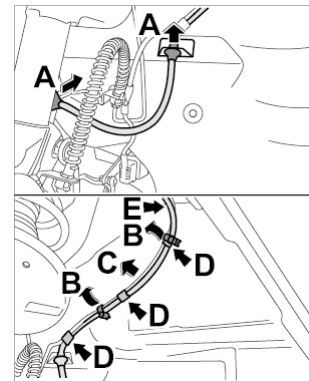
Installation position for front ABS wire harness

1. Release the cable retainer **-arrow A-** and pull off the two connectors **-arrow B-**.



Disconnecting plug connection for front wheel sensor

2. Unscrew the fastening screw and remove the connector socket **-arrow C-** .
3. Remove the ABS wire harness from the brackets **-arrows A-** .



Removing the ABS wire harness from the brackets

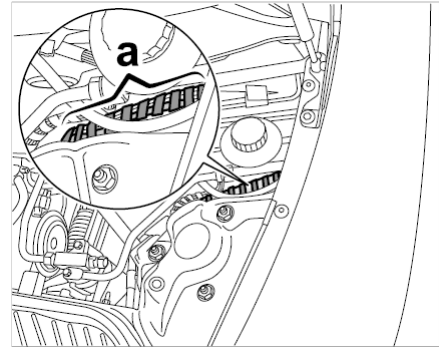
4. Open the clips **-arrows B-** and remove the ABS wire harness **-arrow C-** .
5. Remove the fabric tape **-D-** .



Information

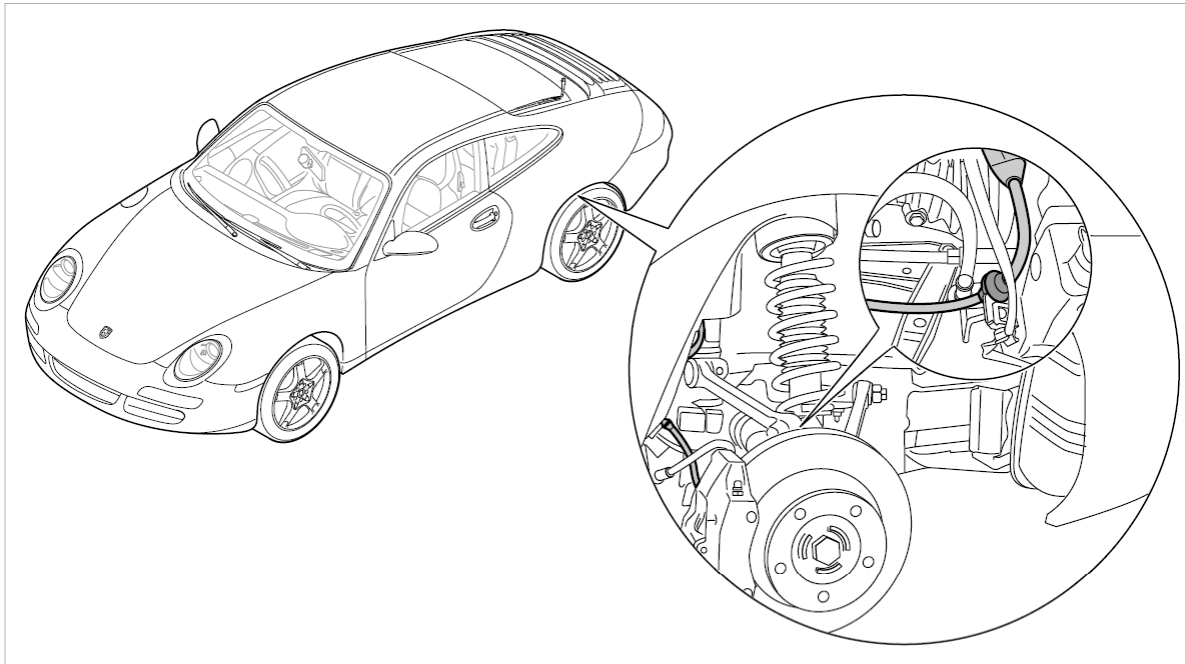
When cutting the ABS wire harness, make sure that there is enough line length left to join to the new lines.

6. Cut off the ABS wire harness around **-E-** and remove it.
7. Cut through the fabric tape in the plenum panel, in the area around **-a-** , and expose the remaining ABS lines.



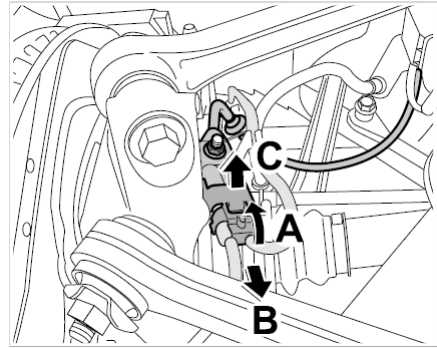
Exposing ABS wire harness

Removing rear ABS wire harness



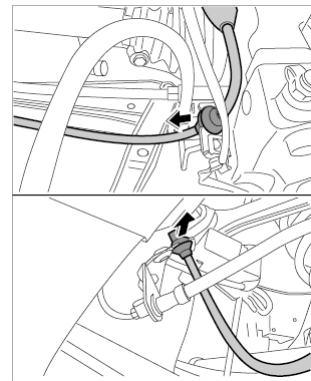
Installation position for rear ABS wire harness

1. Release the cable retainer **-arrow A-** and pull off the two connectors **-arrow B-**.



Disconnecting plug connection for rear wheel sensor

2. Unscrew the fastening nut and remove the connector socket **-arrow C-** .
3. Remove the ABS wire harness from the brackets **-arrows-** .



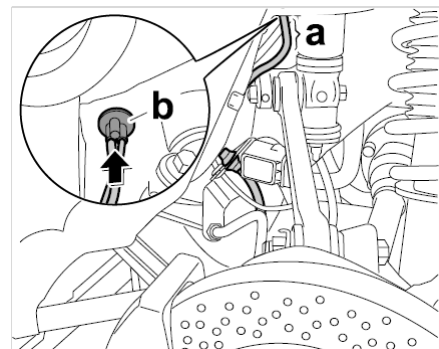
Removing the ABS wire harness from the brackets



Information

When cutting the ABS wire harness, make sure that there is enough line length left to join to the new lines.

4. Cut off the ABS wire harness around **-a-** and press inward with the rubber sleeve **-b-** **-arrow-** .



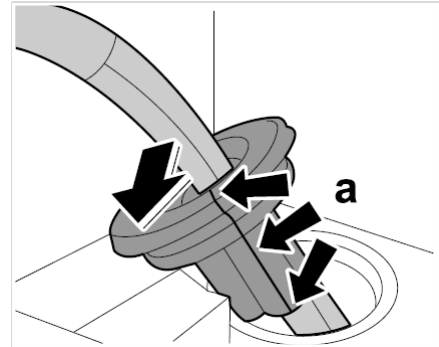
Cutting off ABS wire harness



Information

Only for vehicles with TPM.

5. Cut through the rubber sleeve at the side of the HBA line **-a-** and remove the HBA line **-arrow-** .

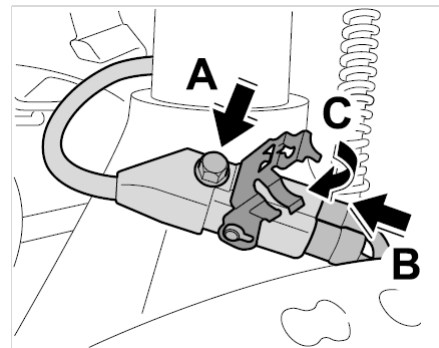


Cutting off rubber sleeve

Installing wire harness for anti-lock brake system (ABS)

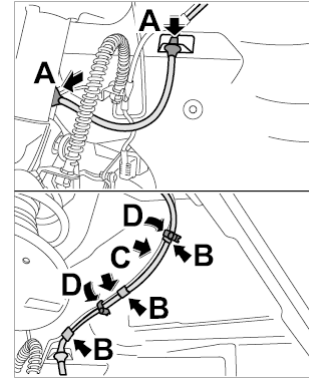
Installing front ABS wire harness

1. Place socket in installation position **-arrow A-** and screw on the fastening screw. → **Tightening torque: 10 Nm (7.5 ftlb.)**



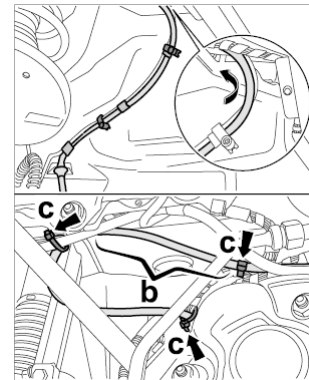
Connecting plug connection for front wheel sensor

2. Plug in the two connectors **-arrow B-** .
3. Fold back the cable retainer **-arrow C-** until it engages correctly at the connectors.
4. Press the ABS wire harness into the supports by pressing on the rubber sleeves **-arrows A-** .



Pressing ABS wire harness into supports

5. Secure line for headlight levelling system to the ABS wire harness using fabric tape **-B-** .
6. Place ABS wire harness in installation position **-arrows C-** and close clip **-arrows D-** .
7. Push through ABS wire harness to plenum panel **-arrow-** .



Routing and connecting ABS wire harness



Information

Select a place for the joint where there is enough space to join all the lines present.

Do not cut the lines too short in case they have to be laid in a different position if there is insufficient space in the area of the joint.



Information

The electric lines are located in the plenum panel and are thus exposed to the highest demands.

The greatest care must be used in the individual work steps for stripping insulation from, crimping, and shrinking/insulating the electric lines.

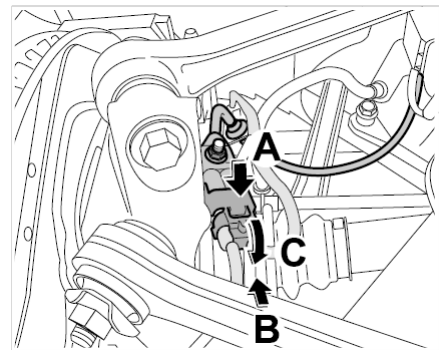
The procedure for stripping insulation from, crimping, and shrinking/insulating the electric lines must be complied with and observed. The procedures are described in detail in the **repair kit for harnesses NR.155-1**.

Crimping samples are to be prepared before beginning work.

8. Crimp lines in area around **-b-** .
 - 8.1. Cut off lines in different lengths (due to the shrink-fit connections).
 - 8.2. Slide shrink-fit hoses onto the lines.
 - 8.3. Strip 10 mm of insulation off the wires.
 - 8.4. Crimp the lines using crimping sleeves and the **hand crimping pliers** from the **repair kit for wiring harnesses Nr.155-1**.
 - 8.5. Slide the shrink-fit hoses over the crimp connections and carefully shrink them using the **hot-air blower with special nozzle** (recommended accessories for the repair kit for harnesses) so that they are watertight.
 - 8.6. Wrap commercially available PVC tape all around the area of the connection points.
9. Secure the repaired area to the neighbouring wire harnesses using tie-wraps **-c-** .

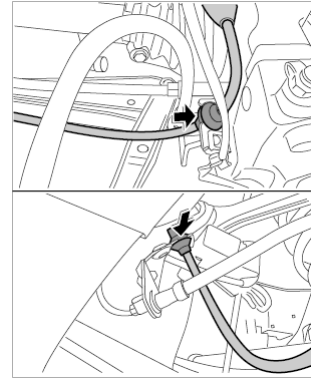
Installing rear ABS wire harness

1. Place socket in installation position **-arrow A-** and screw on the fastening nut. → **Tightening torque: 10 Nm (7.5 ftlb.)**



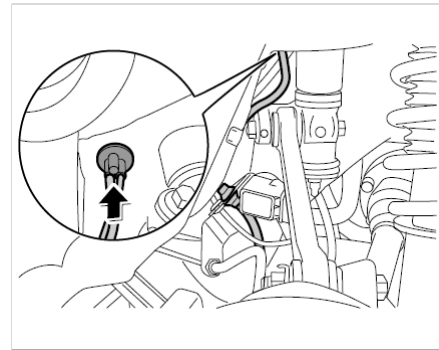
Connecting plug connection for rear wheel sensor

2. Plug in the two connectors **-arrow B-** .
3. Fold back the cable retainer **-arrow C-** until it engages correctly at the connectors.
4. Press the ABS wire harness into the supports by pressing on the rubber sleeves **-arrows-** .



Pressing ABS wire harness into supports

5. Push the ABS wire harness inward **-arrow-** .



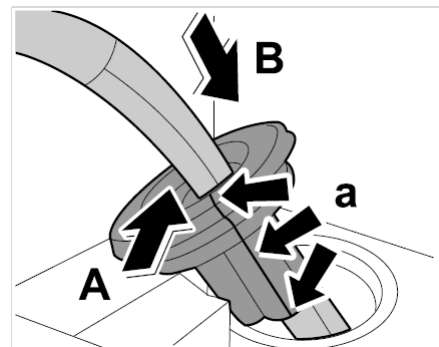
Pushing the ABS wire harness inward



Information

Only for vehicles with TPM.

6. Cut through the rubber sleeve **-a-** and insert the HBA line **-arrow A-** . Stick the rubber sleeve together at the cut edge **-a-** using a commercially available PUR adhesive and seal. Press the rubber seal into the opening **-arrow B-** .



Stick rubber sleeve together.



Information

Select a place for the joint where there is enough space to join all the lines present.

Do not cut the lines too short in case they have to be laid in a different position if there is insufficient space in the area of the joint.



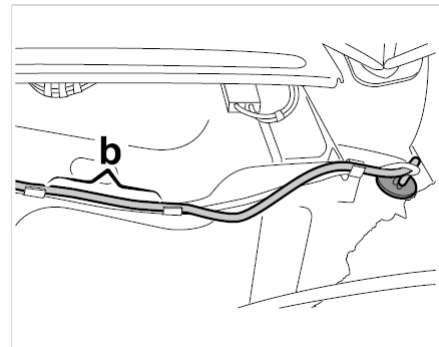
Information

The greatest care must be used in the individual work steps for stripping insulation from, crimping, and shrinking/insulating the electric lines.

The procedure for stripping insulation from, crimping, and shrinking/insulating the electric lines must be complied with and observed. The procedures are described in detail in the **repair kit for harnesses NR.155-1**.

Crimping samples are to be prepared before beginning work.

7. Crimp lines in area around **-b-** .
 - 7.1. Cut off lines in different lengths (due to the shrink-fit connections).
 - 7.2. Slide shrink-fit hoses onto the lines.
 - 7.3. Strip 10 mm of insulation off the wires.
 - 7.4. Crimp the lines using crimping sleeves and the **hand crimping pliers** from the **repair kit for wiring harnesses Nr.155-1**.
 - 7.5. Slide the shrink-fit hoses over the crimp connections and carefully shrink them using the **hot-air blower with special nozzle** (recommended accessories for the repair kit for harnesses) so that they are watertight.
 - 7.6. Wrap commercially available PVC tape all around the area of the connection points.



Crimping lines

Subsequent work

Subsequent work on front ABS wire harness

1. Install plenum panel cover. → *852219 Removing and installing cover - section on "Installing"*
2. Install front wheel housing liner (rear section). → *505619 Removing and installing front wheel housing liner - section on "Installing"*
3. Carry out work instruction after disconnecting the battery. → *2706IN Work instructions after disconnecting the battery*

Subsequent work on rear ABS wire harness

1. Install trim panel for seat well. → *702919 Removing and installing trim panel for seat well - section on "Installing"*
 2. Install rear side trim panel. → *707519 Removing and installing rear side trim panel - section on "Installing"*
 3. Remove rear backrest. → *724719 Removing and installing rear backrest - section on "Installing"*
 4. Install wheel. → *440519 Removing and installing wheel - installing*
 5. Carry out work instruction after disconnecting the battery. → *2706IN Work instructions after disconnecting the battery*
-

997110, 997111, 997120, 997121, 997310, 997311, 997320, 997321, 997410, 997411, 997420, 997421, 997430, 997431, 997510, 997511, 997520, 997521, 997610, 997611, 997620, 997621, 997630, 997631, 997810, 997811, 997840, 997841, 997850, 997851, 997140, 997141, 997450, 997451, 997650, 997651, 997720, 997721, 997820, 997830, 997860, 997861

Model year as of 2005

C00, C02, C05, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C32, C33, C34, C35, C36, C37, C38, C39, C45, C46, C98, C99