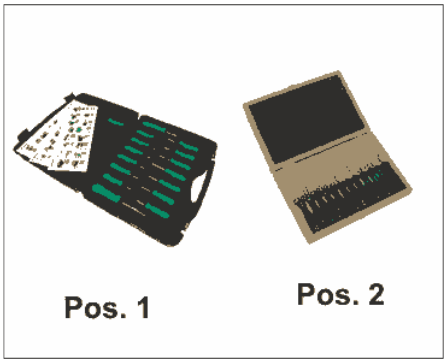
WM 977223 Installing optical waveguide

Tools

Designation	Type	Number	Description	
press-out and unlocking tools for tab and round plug connectors of all sizes	Commercially available tool	Nr.155		

Preliminary work

Preliminary work

Information

Release the main wire harness only until the damaged optical waveguide has been released and the new optical waveguide can be attached to the main wire harness.

Expose main wire harness. → *970919 Removing and installing main wire harness - chapter on "Removing"*

Optical waveguide variants

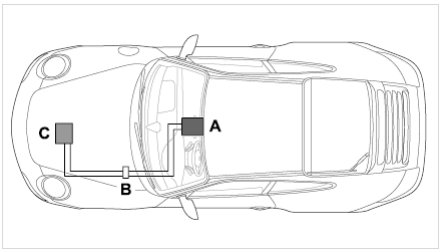
Optical waveguide variants

Information

Depending on the equipment I No., the installation positions of the audio components in the front luggage compartment differ.

MOST control units, variant A - B - C

- **A** - Radio/PCM
- **B** - Connection point interior/luggage compartment
- **C** - Loudspeaker amplifier



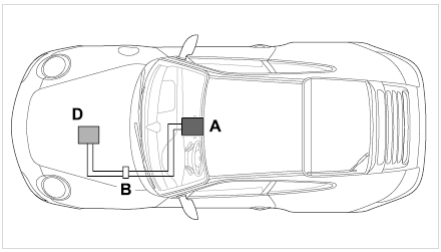
MOST control units, variant A - B - C, shown on the 911

MOST control units, variant A - B - D

A - Radio/PCM

B - Connection point interior/luggage compartment

D - CD changer



MOST control units, variant A - B - D, shown on the 911

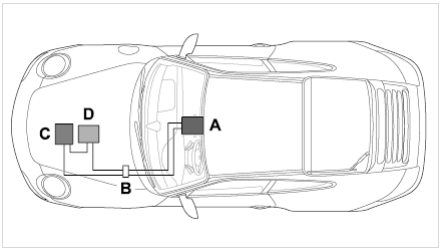
MOST control units, variant A - B - C - D

A - Radio/PCM

B - Connection point interior/luggage compartment

C - Loudspeaker amplifier

D - CD changer



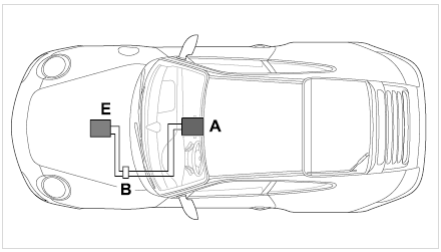
MOST control units, variant A - B - C - D, shown on the 911

MOST control units, variant A - B - E

A - Radio/PCM

B - Connection point interior/luggage compartment

E - Navigation unit



MOST control units, variant A - B - E, shown on the 911

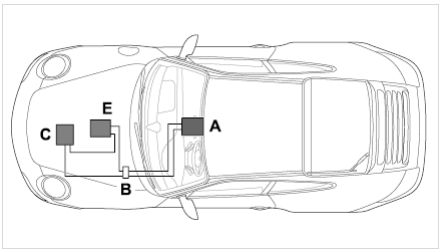
MOST control units, variant A - B - C - E

A - Radio/PCM

B - Connection point interior/luggage compartment

C - Loudspeaker amplifier

E - Navigation unit



MOST control units, variant A - B - C - E, shown on the 911

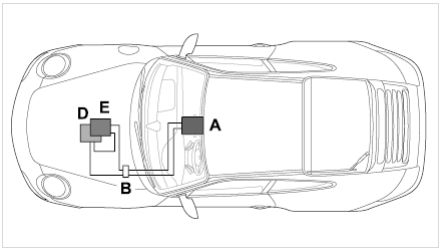
MOST control units, variant A - B - D - E

A - Radio/PCM

B - Connection point interior/luggage compartment

D - CD changer

E - Navigation unit



MOST control units, variant A - B - D - E, shown on the 911

MOST control units, variant A - B - C - D - E

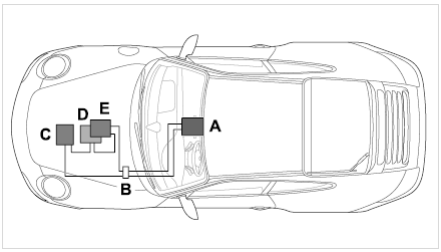
A - Radio/PCM

B - Connection point interior/luggage compartment

C - Loudspeaker amplifier

D - CD changer

E - Navigation unit



MOST control units, variant A - B C - D - E, shown on the 911

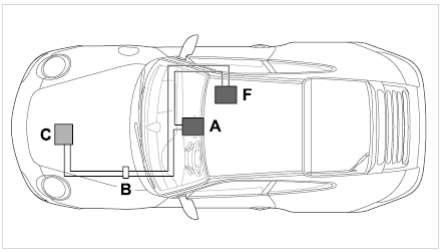
MOST control units, variant A - B - C - F

A - Radio/PCM

B - Connection point interior/luggage compartment

C - Loudspeaker amplifier

F - Telephone control module



MOST control units, variant A - B - C - F, shown on the 911

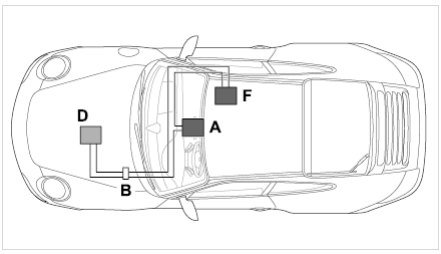
MOST control units, variant A - B - D - F

A - Radio/PCM

B - Connection point interior/luggage compartment

D - CD changer

F - Telephone control module



MOST control units, variant A - B - D - F, shown on the 911

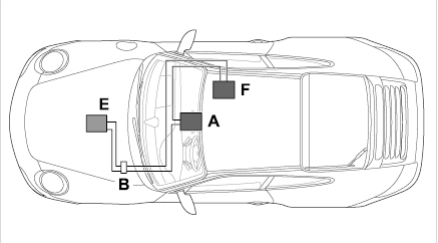
MOST control units, variant A - B - E - F

A - Radio/PCM

B - Connection point interior/luggage compartment

E - Navigation unit

F - Telephone control module



MOST control units, variant A - B - E - F, shown on the 911

Installing optical waveguide

Disconnecting optical waveguide

Information

Observe the general information on optical waveguides. → *General information on optical waveguides - MOST bus*

NOTICE

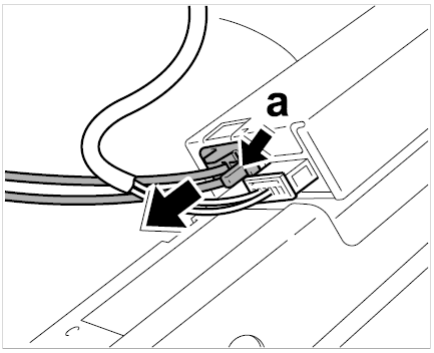
Voltage peaks

- **Risk of damage to load or to the control unit**

→ Remove the ignition key and switch off load before disconnecting or removing load.

1.

2. Release the connectors of the damaged optical waveguides on the affected components **-arrow a-** and disconnect them. The illustration shows the connector on the CD changer as an example.

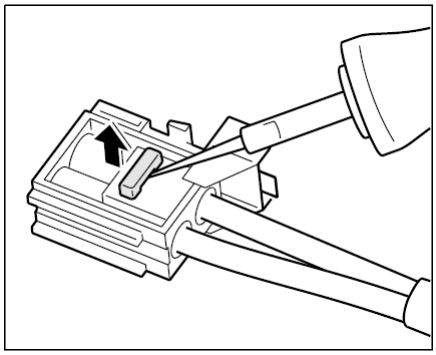


Disconnecting connector for optical waveguide

3. Cut off the connector of the damaged optical waveguide, isolate it and tie it to the main wire harness.

Removing and installing optical contacts on connector side

1. Open the secondary locking mechanism using the **press-out and unlocking tools for tab and round plug connectors of all sizes Nr.155**. Insert the tool into the opening provided and lift the locking mechanism. The locking mechanism engages in the upper position.

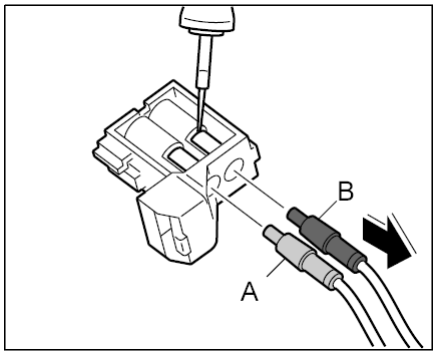


Unlocking secondary locking of the optical contacts (connector side)

2. **Press-out and unlocking tools for tab and round plug connectors of all sizes Nr.155** must be positioned on the primary locking mechanism. Then lift the locking mechanism.

A - Optical contact, grey

B - Optical contact, black



Unlocking primary locking of the optical contacts (connector side)

3. Carefully pull on the optical waveguide **-A and B-** in **-arrowrichtung-** . If it is not possible to pull out the optical waveguide, check again if the secondary locking mechanism is completely released and if the primary locking mechanism is raised sufficiently.

Perform visual inspection of locking mechanisms, connector housings and contacts for possible damage, and exchange the damaged parts, if necessary.

Installing optical contacts on connector side

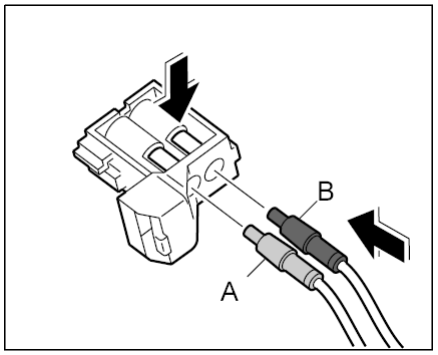
Remove the dust boot right before plugging.

Check the proper condition of the contacts.

1. Insert the optical contact **-A and B-** in the connector until it engages audibly.

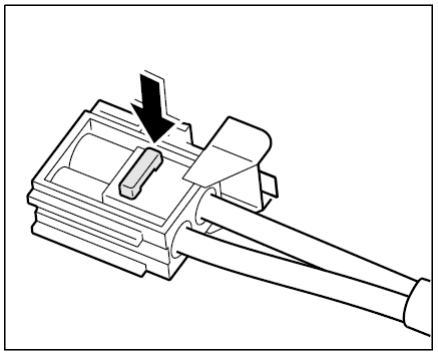
A - Optical contact, grey

B - Optical contact, black



Locking primary locking of the optical contacts (connector side)

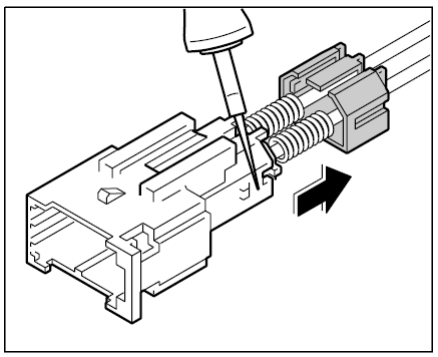
2. Lock the secondary locking and check the optical contacts for tightness.



Locking secondary locking of the optical contacts (connector side)

Removing and installing optical contacts on socket side

1. Release the spring cap on both sides using the **press-out and unlocking tools for tab and round plug connectors of all sizes Nr.155** and remove it.



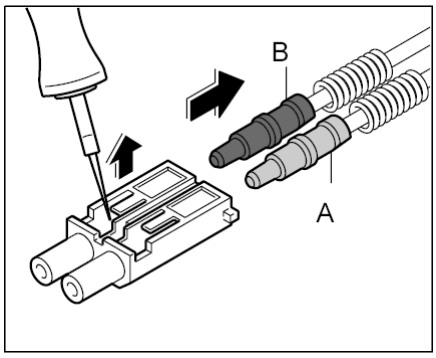
Unlocking spring cap of the optical contacts (on the socket side)

2. Remove optical waveguide module from connector.

3. Position the **press-out and unlocking tools for flat-type and round plug connectors of all sizes Nr.155** for releasing the contact locking mechanism of the optical waveguide module and lift up the locking mechanism.

A - Optical contact, grey

B - Optical contact, black



Unlocking contact locking of the optical contacts (on the socket side)

4. Carefully pull on the optical waveguide **-A and B-** in **-arrowrichtung-** . If it is not possible to pull out the optical waveguide, check again if the locking mechanism is completely released.

Perform visual inspection of locking mechanisms, connector housings and contacts for possible damage, and exchange the damaged parts, if necessary.

Installing optical contacts on socket side

Remove the dust boot right before plugging.

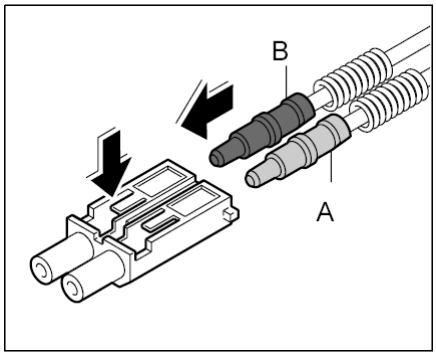
Check the proper condition of the contact.

At a force of 10 N (7.5 lb.) the springs installed in the connection point will be compressed. This leads to an increase in attenuation, which could lead to system impairment and system failure. Therefore a maximum force of 10 N (7.5 lb.) may be used to pull on optical waveguides at connection points.

1. Insert optical contact **-B-** into the optical waveguide module until it is felt to engage, and check the optical contact is seated securely.

A - Optical contact, grey

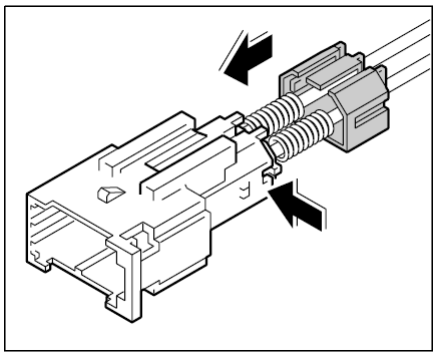
B - Optical contact, black



Locking contact locking of the optical contacts (on the socket side)

2. Insert optical waveguide module into the connection point on the socket side.

3. Slide the spring cap on the connection point until it can be felt to engage **-arrow-** .



Locking spring cap of the optical contacts (on the socket side)

Installing optical waveguide

Information

Observe the general information on optical waveguides. → *General information on optical waveguides - MOST bus*

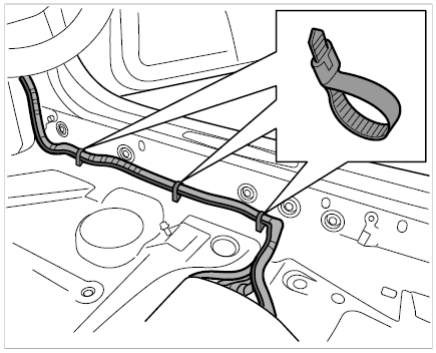
1. Cut off the opticsl contacts of the damaged optical waveguide, isolate it and tie it to the main wire harness.

Information

The range of spare parts available for optical waveguides depends on the vehicle equipment. Depending on the vehicle equipment, there is a specific set containing the individual optical waveguides.

Select the required optical waveguide and remove it from the set.

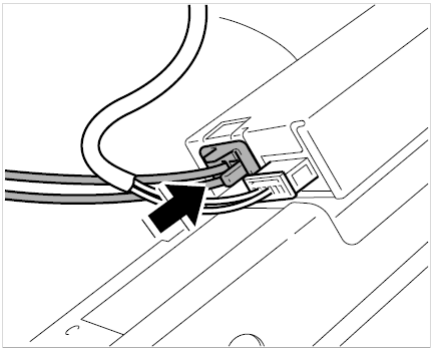
2. Route the new optical waveguide along the main wire harness, guide it through the existing cable ducts and tie it to the main wire harness using tie-wraps.



Tying optical waveguide to main wire

harness

3. Connect the connectors for the new optical waveguide to the affected parts until the connectors are felt to engage. The illustration shows the connector on the CD changer as an example.



Connecting connector for optical waveguide

4. Read out fault memory and erase if required.

5. Check operation of audio components.

Subsequent work

Subsequent work

Install components for releasing main wire harness. → *970919 Removing and installing main wire harness - chapter on "Installing"*

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, 997830, 997840, 997841, 997850, 997851, 997140, 997141, 997450, 997451, 997650, 997651, 997720, 997721, 997820, 997860, 997861, 997150, 997151, 997160, 997161, 997170, 997350, 997351, 997360, 997361, 997370, 997460, 997461, 997560, 997561, 997660, 997661

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