

Installation instructions

Front parking aid

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Audi A4 (8W) Saloon 2016 ▶ 2020

Audi A4 (8W) Avant 2016 ▶ 2020

Audi A4 (8W) Allroad 2016 ▶ 2020

Audi A5 (8W) 2017 ▶ 2020

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Audi A5 (PA) (8W) 2020 ▶

for scope of delivery 8W0.054.630

Audi Genuine Accessories

Edition 01

Installation instructions

Front parking aid

Audi A4 (8W) Saloon 2016 ▶ 2020

Audi A4 (8W) Avant 2016 ▶ 2020

Audi A4 (8W) Allroad 2016 ▶ 2020

Audi A5 (8W) 2017 ▶ 2020

for scope of delivery 8W0.054.630

Audi Genuine Accessories

Edition 01



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1 General notes

Please read these instructions carefully and note the Warning, Caution and Note descriptions before installing the parking aid.



WARNING

Text with this symbol contains information concerning your safety and indicates potential accident and injury risks.



Caution

Text with this symbol indicates the risk of damage to your vehicle.



Note

Text with this symbol contains additional information.

Audi AG shall not accept responsibility in the event of failure to comply with these installation instructions



2 Safety instructions

2.1 General safety notes

 **WARNING**

Please read these installation instructions carefully before starting installation. Non-compliance with these installation instructions and safety notes will compromise your safety and that of third parties.

 **WARNING**

All mechanical and electrical connections must be checked to make sure that they are positioned and installed correctly.

 **WARNING**

Repairs or the replacement of parts must only be performed by a qualified workshop. It is recommended that genuine spare parts available from your Audi partner are used.



3 Repair instructions

3.1 Contact corrosion

Contact corrosion can occur when unsuitable connecting elements (screws, nuts, washers) are used.

For this reason, only connecting elements with a special surface coating are fitted.

Additionally, rubber or plastic parts and adhesives are made of materials that are not electrically conductive.

If you are in any doubt about the suitability of parts, use new parts as a general rule ⇒ Electronic parts catalogue.

Please note:

- ◆ We recommend using only genuine spare parts; these parts have been tested and are compatible with aluminium.
- ◆ We recommend using Audi Genuine Accessories.
- ◆ Damage caused by contact corrosion is not covered by the warranty.

3.2 Routing and securing lines

- ◆ To prevent confusion and to make sure that they are replaced in their original installation position, mark lines for e.g. fuel, hydraulics, vacuum, the activated charcoal filter system or electrical wiring lines before removal. If necessary, create sketches or take photos.
- ◆ To avoid damage to lines in the engine compartment due to the limited space available, make sure that there is adequate clearance in relation to all moving or hot components.



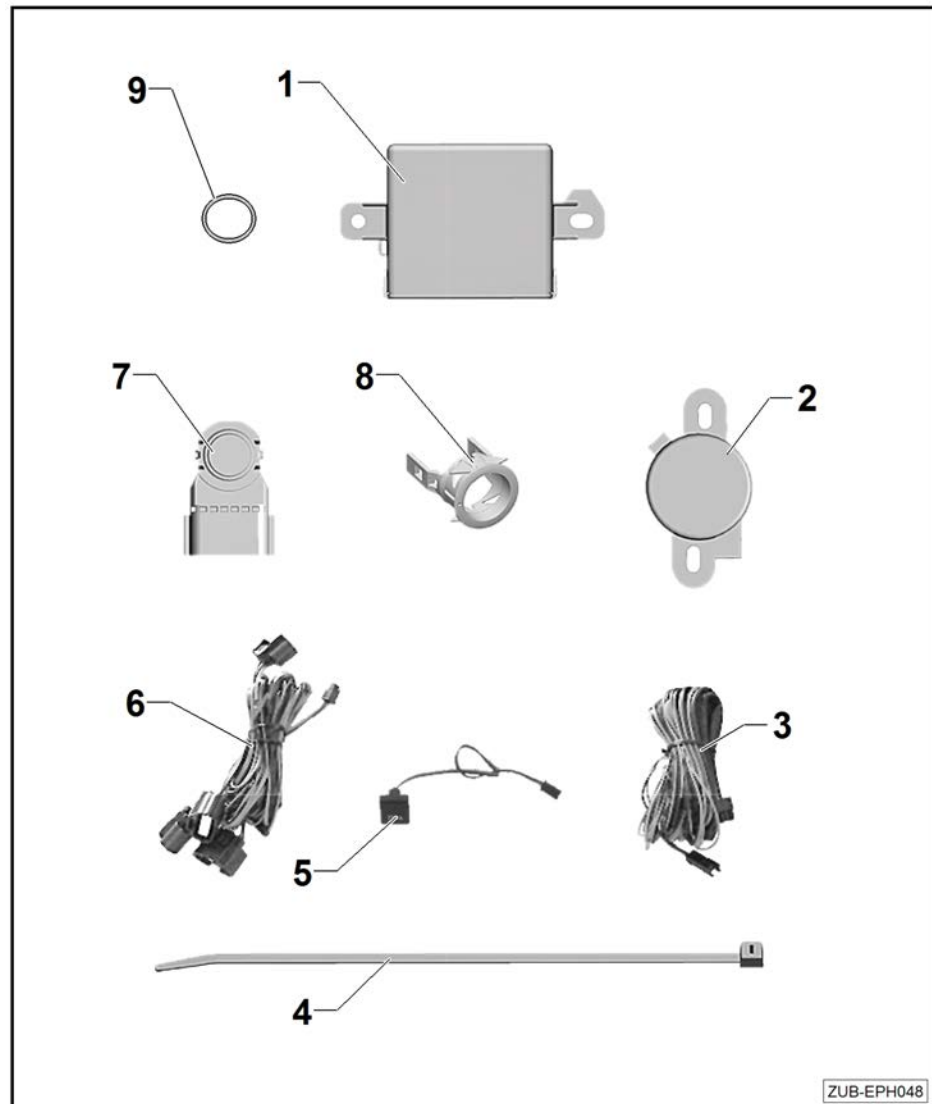
4 Scope of delivery and overview of components

4.1 Scope of delivery

Quantity	Component
1	Control unit for the parking aid
1	Acoustic warning device for the parking aid
1	Switch for the parking aid
4	Sensors for the parking aid
1	Wiring harness for the sensors for the parking aid
4	Snap-on element
1	Wiring harness for the on-board supply
1	Set of securing material

4.2 Overview of components

- 1 - Control unit for the parking aid
- 2 - Acoustic warning device for the front parking aid
- 3 - Wiring harness for the on-board supply
- 4 - Securing material
- 5 - Switch with indicator lamp for the parking aid
- 6 - Wiring harness for the sensors for the front parking aid
- 7 - Sensors for the front parking aid
- 8 - Snap-on element
- 9 - Seal for sensor





5 Preparing and installing the front parking aid

Applies to all vehicles

Note

- ◆ The parking aid must be installed by a specialist workshop. Improper installation can cause damage to the vehicle or to the parking aid.
- ◆ The work to be performed on the vehicle, as detailed in these fitting instructions, may change as a result of measures to upgrade models. Consequently, modifications to the wire colours or even the fitting location, for instance, cannot be ruled out. For this reason, make sure that you always refer to the most current wiring diagram and/or the current repair manuals for the vehicle.

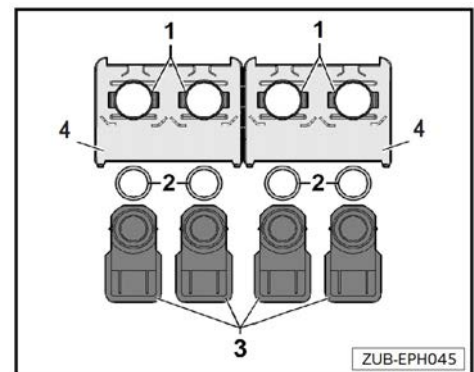
5.1 Removing and fitting the front bumper cover

- Remove the bumper cover ⇒ General body repairs, exterior; Rep. gr. 63; Front bumper; Removing and installing the bumper cover

5.2 Painting sensors and snap-on elements for the parking aid

Note

- ◆ Remove the seals -2- prior to painting the sensors -3-.
- ◆ The sensors -3- and snap-on elements -1- should be colour-coded with the relevant installation position. When positioned on unpainted bumpers or a single frame, the sensors are not painted.
- ◆ For additional general information on the topic of painting see: self-study programme no. 214/215 and 531.
- ◆ The sensors -3- and snap-on elements -1- must not be cleaned with silicone remover prior to painting. Use alcohol to clean these components.
- ◆ The sensors -3- and snap-on elements -1- can be painted while in the supplied plastic bracket -4-, which can be used as a painting aid.



WARNING

After the sensors and snap-on elements have been painted and have dried, re-fit the seals -2- on the sensors -3-.

5.3 Mounting the sensors and snap-on elements for the front parking aid

Applies only to the Audi A4 (8W) Saloon, Avant, Allroad
2016 ► 2020



Special tools and workshop equipment required

- ◆ Power drill
- ◆ Adhesive tape
- ◆ 2-mm drill bit
- ◆ Core hole drill with an outer diameter of 20 mm
- ◆ Flat key file of 1 mm
- ◆ Measuring and marking tool
- ◆ Diagonal cutting pliers

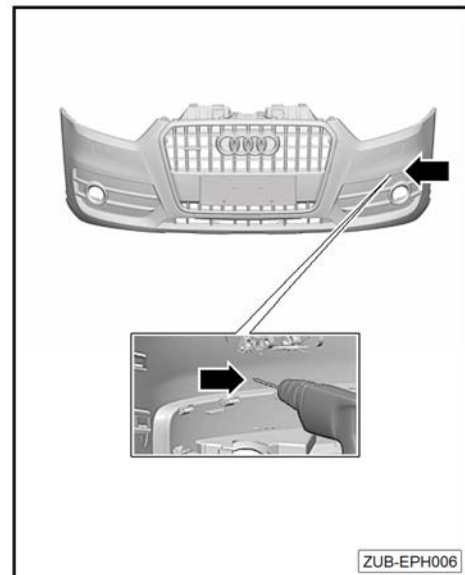
Note

The right-hand and left-hand sensors and the two snap-on elements must be painted in the vehicle colour and dried prior to installation in the bumper.

Mounting the sensors in the right- and left-hand side of the bumper

- Use a standard drill bit to pre-drill a hole on the inside of the bumper cover at the location marked ex works (standard position) -arrow-.

Size of hole = 2 mm

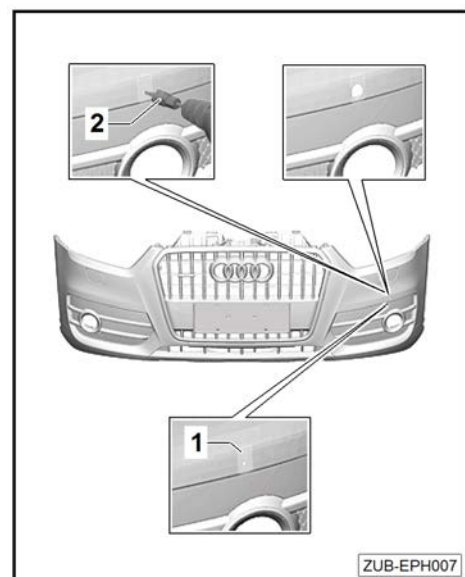


- Stick adhesive tape on the outside of the bumper around the pre-drilled holes -1-.

Note

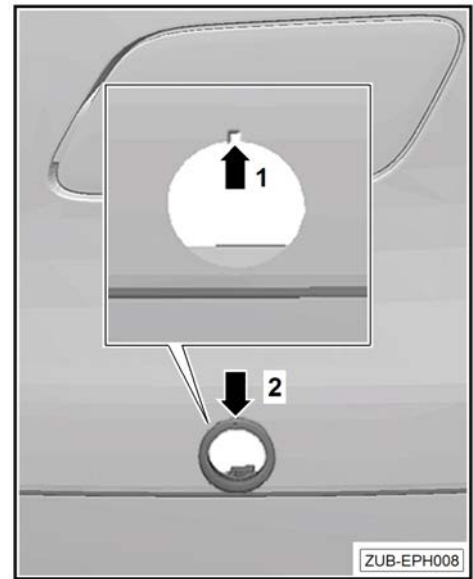
The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the left-hand and right-hand parking sensors.





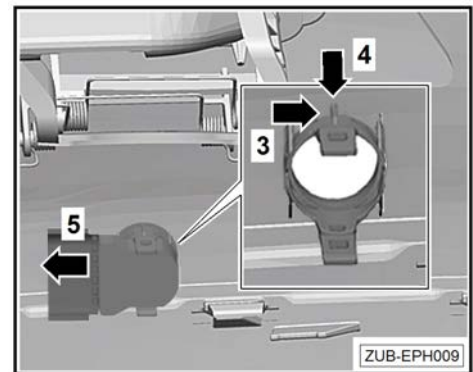
- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position -arrow 1-.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-.



Note

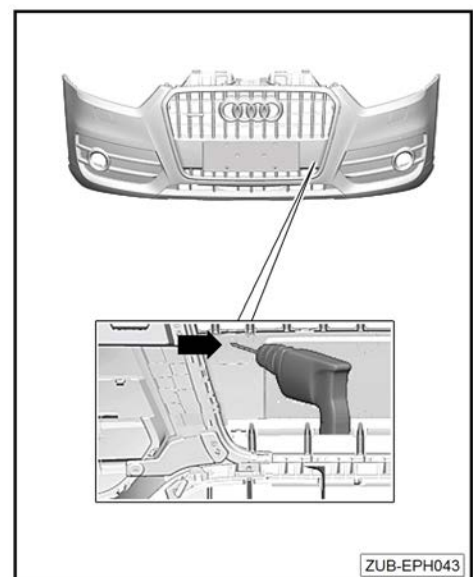
- ◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.

Mounting the sensors in the right- and left-hand side of the radiator grille



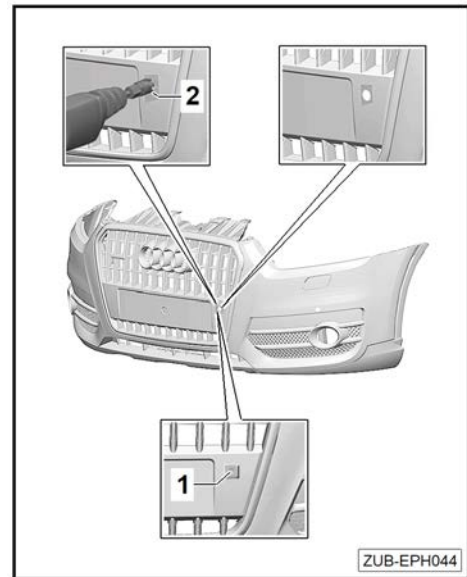
Applies only to the Audi A4 (8W) Saloon, Avant, Allroad 2016 ► 2020

- Use a standard drill bit to pre-drill a hole on the inside of the bumper cover at the location marked ex works (standard position) -arrow-.

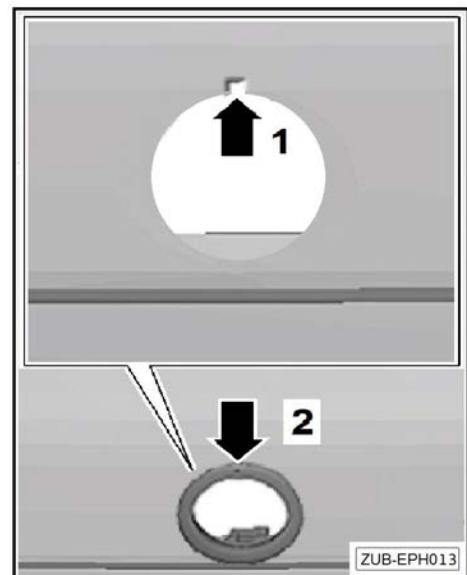




- Stick adhesive tape -1- around the hole.
- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the parking sensors in the radiator grille.

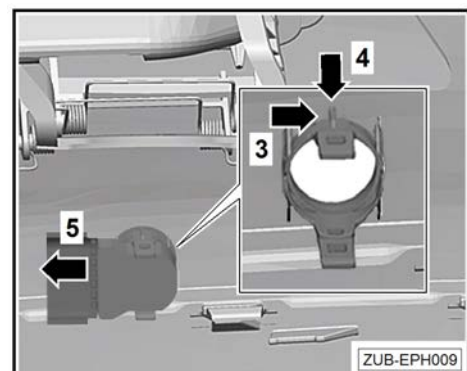


- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.



i Note

- ◆ The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.



5.4 Mounting the sensors and snap-on elements for the front parking aid

Applies only to the Audi A5 (8W) 2017 ► 2020



Special tools and workshop equipment required

- ◆ Power drill
- ◆ Adhesive tape
- ◆ 2-mm drill bit
- ◆ Core hole drill with an outer diameter of 20 mm
- ◆ Flat key file of 1 mm
- ◆ Measuring and marking tool
- ◆ Diagonal cutting pliers

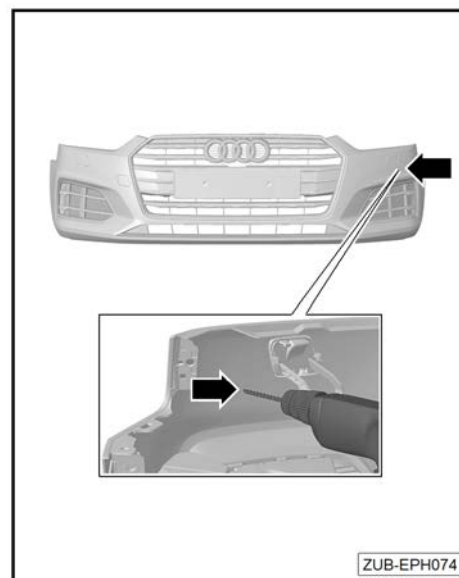
Note

The right-hand and left-hand sensors and the two snap-on elements must be painted in the vehicle colour and dried prior to installation in the bumper.

Mounting the sensors in the right- and left-hand side of the bumper

- Use a standard drill bit to pre-drill a hole on the inside of the bumper cover at the location marked ex works (standard position) -arrow-.

Size of hole = 2 mm

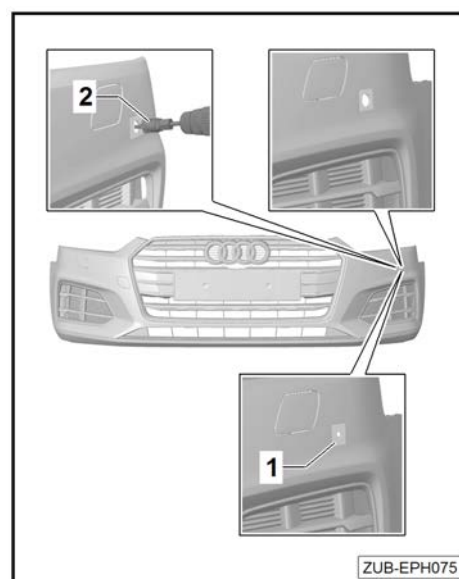


- Stick adhesive tape on the outside of the bumper around the pre-drilled holes -1-.

Note

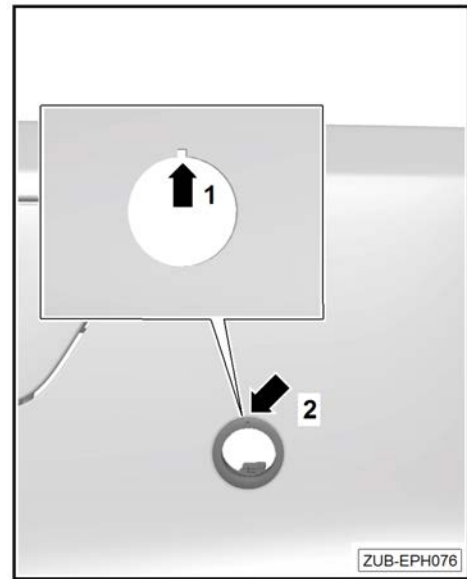
The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the left-hand and right-hand parking sensors.





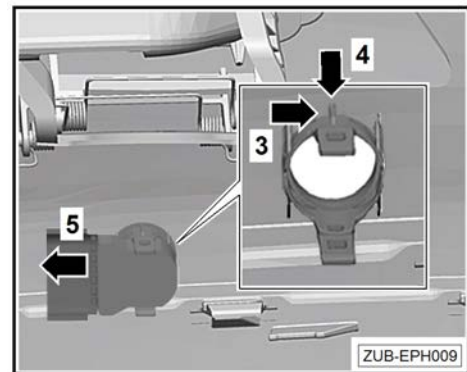
- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position -arrow 1-.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.



Note

- ◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.

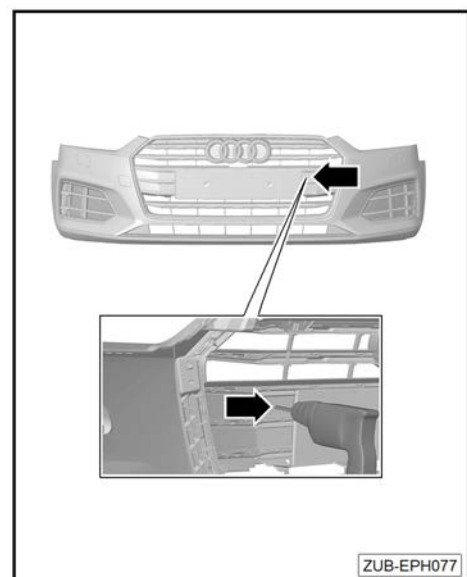
Mounting the sensors in the right- and left-hand side of the radiator grille



Applies only to the Audi A5 (8W) 2017 ► 2020

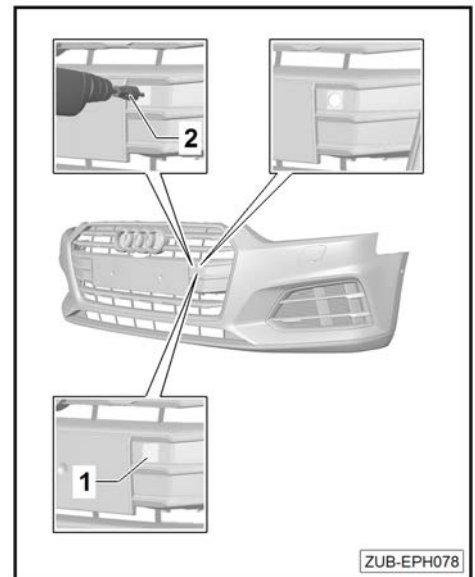
- Drill to the right and left below the top rib -arrow- and -304 mm- from the centre axle.

Size of hole = 2 mm

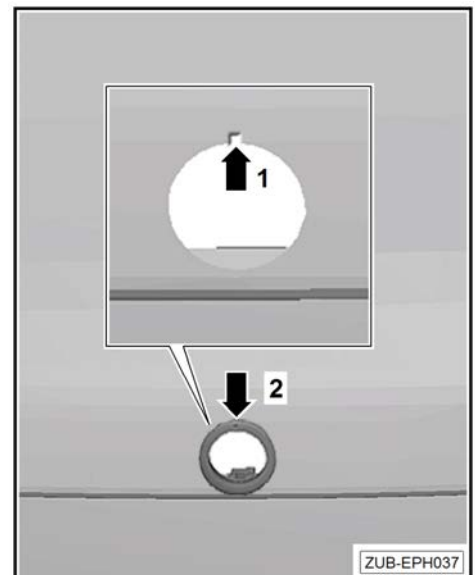


Note

- ◆ *Both sensors and snap-on elements for the radiator grille remain in the original colour.*
- Stick adhesive tape -1- around the hole.
- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the parking sensors in the radiator grille.

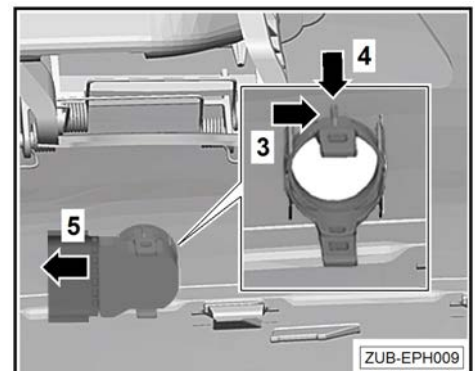


- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position -arrow 1-.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-.



Note

- ◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.





5.5 Removing the foam moulded part

Applies only to the Audi A5 (8W) 2017 ► 2020

- Remove the foam moulded part ⇒ General body repairs, exterior; Rep. gr. 63; Front bumper; Removing and installing add-on parts

5.6 Preparing the foam moulded part

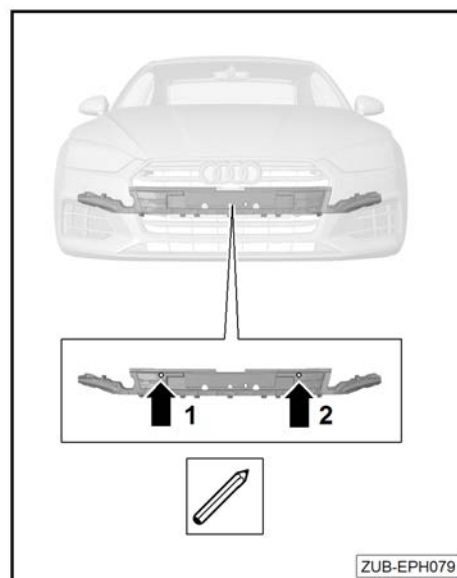
Applies only to the Audi A5 (8W) 2017 ► 2020

Special tools and workshop equipment required

- ◆ Cutting knife/metal fine-toothed saw blade
- ◆ Measuring tool
- ◆ Pencil

Note

- ◆ *To correctly position the holes for the sensors for the parking aid on the vehicle, cut-outs must be made in the foam moulded part.*
- ◆ *To correctly mark the locations for the cut-outs, unclip the sensors for the parking aid from the snap-on element on the trim.*
- Place the trim for the foam moulded part on a workbench.
- Place and align the foam moulded part in the trim and mark the holes for the parking sensors on the foam moulded part using a pencil -arrow 1- and -arrow 2-.





Dimensions of the cut-outs or the foam moulded part:

Note

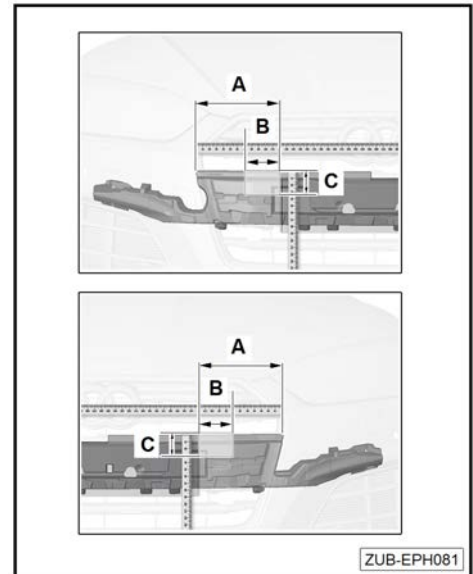
- ◆ Dimension -A- is measured from the edge of the foam carrier. Mark the dimension on the foam carrier.
- ◆ Dimension -B- is measured from the marking for dimension -A-.
- ◆ Dimension -C- is measured downwards from the horizontal edge.

Dimension A = 120 mm

Dimension B = 80 mm

Dimension C = 40 mm

- Then use the cutting knife or the fine-toothed saw blade to cut out the corresponding cut-outs for the parking sensors.
- Re-attach the cut foam moulded part to the impact beam.
- Clip the sensors for the parking aid back into the snap-on elements with the connectors facing outwards.



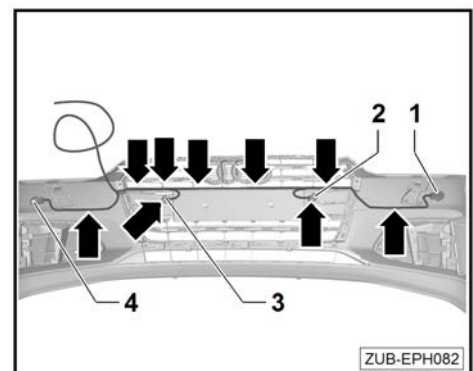
5.7 Routing the wiring harness for the sensors for the parking aid from the outside to the inside

Next steps for all vehicles

Note

The supplied wiring harness is ready for connection and can be routed in the outer area of the engine compartment.

- The wiring harness for the parking sensors is fitted in the area of the bumper -arrows- using the supplied securing elements.
- -1-First attach the connector (longest wire) on the right-hand side as seen in the direction of travel; wires "2" to "4" are then attached and secured in order.
- The wiring harness is then routed below the headlight via the battery side in the outer area of the wheel housing to the wing panel up to a suitable sealing cap or to a leadthrough for the wiring harness into the vehicle interior.



Note

The method of leading the wiring harness for the parking aid into the vehicle interior may vary depending on vehicle variant.

- If a leadthrough is already present instead of a sealing cap and a wire is already routed, create an additional hole in the existing leadthrough and pull the wiring harness for the sensors into the vehicle interior.

Note

Prefabricated wire grommets are available for the retrofit wiring harnesses.



i Note

Seal the additional hole in the leadthrough using a suitable sealant.

- Connect the connectors to the parking sensors.
- Then refit the bumper.
- Install the bumper cover ⇒ General body repairs, exterior; Rep. gr. 63; Front bumper; Removing and installing the bumper cover

5.8 Removing the interior side trims as preparation for cable routing in the vehicle interior

- Remove the dash panel cover on the driver side ⇒ General body repairs, interior; Rep. gr. 68; Storage compartments, covers; Removing and installing the dash panel cover
- Remove the knee airbag with igniter on the driver side ⇒ General body repairs, interior; Rep. gr. 69; Knee airbags; Removing and installing the knee airbag with igniter, driver side

i Note

This must only be performed by qualified, trained personnel.

- Remove the A-pillar trim on the driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the A-pillar trim
- Remove the sill panel trim on the front driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the sill panel trim
- Remove the B-pillar trim on the driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the B-pillar trim on the driver side
- Remove the sill panel trim on the rear driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the sill panel trim
- Remove the C-pillar trim on the driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the C-pillar trim
- Remove the D-pillar trim on the driver side ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the D-pillar trim
- Remove the left-hand luggage compartment side trim ⇒ General body repairs, interior; Rep. gr. 70; Luggage compartment trims; Removing and installing the luggage compartment side trim
- The interior trim around the bottom of the side member must be removed as far as the luggage compartment.



5.9 Position of the required standard components and connectors in the vehicle

Note

Secure the control unit and the acoustic warning device for the front parking aid in a suitable position!

Vehicle	Signal	Position
A4 (8W) 2016 ► 2020 LHD and RHD vehicles	Reversing light bulb	The convenience system central control unit -J393- on the left-hand side of the luggage compartment
	Terminal 15	Gateway, centre of the rear bench seat
A5 (8W) 2017 ► 2020 LHD and RHD vehicles	Reversing light bulb	The convenience system central control unit -J393- on the left-hand side of the luggage compartment
	Terminal 15	Gateway, centre of the rear bench seat
A4/A5 (8W) 2016/2017 ► 2020 LHD and RHD vehicles	Earth	Select a suitable earth point in the vicinity

5.10 Installing and connecting the components for the parking aid

Note

Secure the control unit and the acoustic warning device for the front parking aid in a suitable position!

Vehicle	Component	Fitting location
Audi A4 (8W) 2016 ► 2020 LHD vehicles	Switch for activating the parking aid	On the right, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Driver's side, under the steering wheel
	Sensors for the parking aid	Right- and left-hand side of the bumper; standard position in the right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Driver's side, under the steering wheel
Audi A4 (8W) 2016 ► 2020 RHD vehicles	Switch for activating the parking aid	On the left, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Front passenger side, under the glove compartment
	Sensors for the parking aid	Right- and left-hand side of the bumper; standard position in the right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Front passenger side, under the glove compartment
Audi A5 (8W) 2017 ► 2020 LHD vehicles	Switch for activating the parking aid	On the right, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Driver's side, under the steering wheel



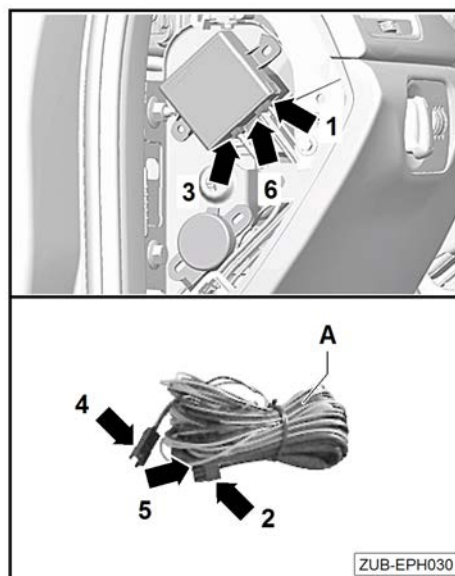
Vehicle	Component	Fitting location
	Sensors for the parking aid	Right- and left-hand side of the bumper; standard position in the right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Driver's side, under the steering wheel
Audi A5 (8W) 2017 ► 2020 RHD vehicles	Switch for activating the parking aid	On the left, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Front passenger side, under the glove compartment
	Sensors for the parking aid	Right- and left-hand side of the bumper; standard position in the right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Front passenger side, under the glove compartment

- The wiring harness is then routed under the dash panel insert into the footwell from the leadthrough for the main wiring harness into the vehicle interior.

Note

Depending on the vehicle type, the components for the acoustic warning device and control unit for the parking aid are placed at different fitting locations.

- The acoustic warning device for the parking aid is attached at the relevant fitting location -table- using double-sided adhesive tape/cable ties.
- The control unit for the parking aid is attached at the relevant fitting location -table- using double-sided adhesive tape/cable ties.
- Insert the connector for the wiring harness for the front parking sensors -arrow 1- into the relevant socket until the connector tangibly engages.
- The cable for the parking sensor is connected.
- The second connecting cable described in the scope of delivery -A- is for the voltage supply to the control unit for the parking aid, the audible warning device and the switch.
- Insert the connector -arrow 2- into the relevant socket for the acoustic warning device -arrow 3- until the connector tangibly engages.
- Insert the connector for the switch into the relevant socket on the connecting cable -arrow 4- until the connector tangibly engages.
- The switch is located in a different position depending on the vehicle -table-.
- Insert the connector for the on-board voltage supply -arrow 5- into the relevant socket on the control unit for the parking aid -arrow 6- until the connector tangibly engages.





- The connectors will only engage in one position in the connection sockets on the control unit or on the wiring harness.
- The two unconnected pins are for connecting to the on-board supply.

5.11 Tools

Special tools and workshop equipment required

- ◆ Set of unpinning tools -VAS 1978/35-



5.12 Connecting the parking aid to the on-board supply

Note

The vehicle ignition must be switched off.

- Disconnect the battery ⇒ Electrical system; Rep. gr. 27; Disconnecting and connecting the battery



- Push the cable pin -1- out of connector -A- for the convenience system central control unit -J393- reversing light using the set of unpinning tools -VAS 1978/35-.

- Press the cable pin -1- into pin assignment 1 on the supplied connector -I-.

- Attach connector -I- to connector -III- of the wiring harness for the parking aid.

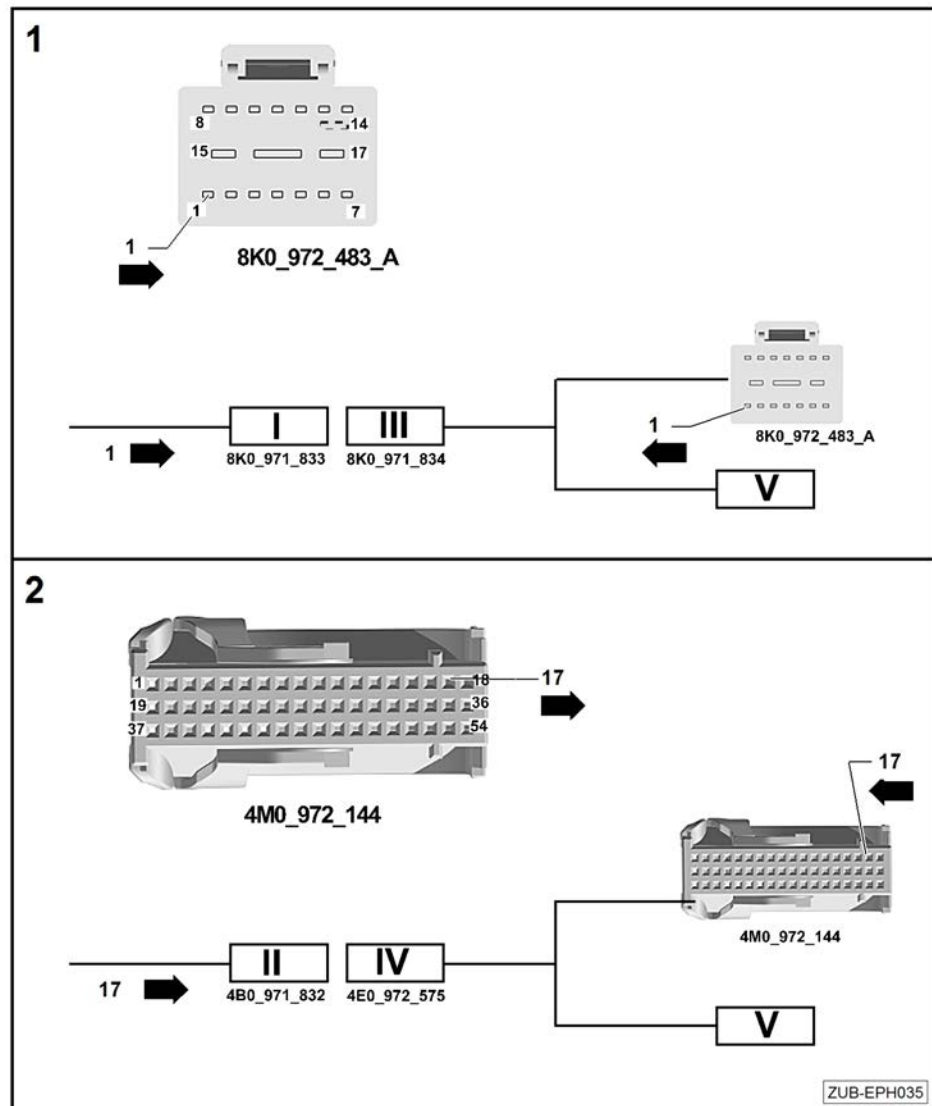
- Press the cable with the free pin on the connector for the parking aid -III- into the convenience system central control unit -J393- connector -A-, pin 1.

- Push the cable pin -17- out of connector -gate A- of gateway using the set of unpinning tools -VAS 1978/35-.

- Press the cable pin -17- into pin assignment 1 on the supplied connector -II-.

- Attach connector -II- to connector -IV- of the wiring harness for the parking aid.

- Press the cable with the free pin on the connector for the parking aid -IV- into gateway connector A, pin 17.



- The connection between the wiring harness for the parking aid and the on-board supply is now established.

- Insert the connector for the control unit for the parking aid -V- until it tangibly engages.

- Connect the earth wire to a suitable earth point in the vicinity.

- Reassemble the vehicle by following the initial steps in reverse order.

- Connect the battery ⇒ Electrical system; Rep. gr. 27; Disconnecting and connecting the battery.

Before travelling, perform a functional check!

Installation instructions

Front parking aid

Audi A4 (PA) (8W) Saloon 2020 ►

Audi A4 (PA) (8W) Avant 2020 ►

Audi A4 (PA) (8W) Allroad 2020 ►

Audi A5 (PA) (8W) 2020 ►

for scope of delivery 8W00.54.630

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1 General notes

Please read these instructions carefully and note the Warning, Caution and Note descriptions before installing the parking aid.



WARNING

Text with this symbol contains information concerning your safety and indicates potential accident and injury risks.



Caution

Text with this symbol indicates the risk of damage to your vehicle.



Note

Text with this symbol contains additional information.

Audi AG shall not accept responsibility in the event of failure to comply with these installation instructions



2 Safety instructions

2.1 General safety notes

 **WARNING**

Please read these assembly instructions carefully before starting installation. Non-compliance with these installation instructions and safety notes will compromise your safety and that of third parties.

 **WARNING**

All mechanical and electrical connections must be checked to make sure that they are positioned and installed correctly.

 **WARNING**

Repairs or the replacement of parts must only be performed by a qualified workshop. It is recommended that genuine spare parts available from your Audi partner are used.



3 Repair instructions

3.1 Contact corrosion

Contact corrosion can occur when unsuitable connecting elements (screws, nuts, washers) are used.

For this reason, only connecting elements with a special surface coating are fitted.

Additionally, rubber or plastic parts and adhesives are made of materials that are not electrically conductive.

If you are in any doubt about the suitability of parts, use new parts as a general rule ⇒ Electronic parts catalogue.

Please note:

- ◆ We recommend using only genuine spare parts; these parts have been tested and are compatible with aluminium.
- ◆ We recommend using Audi Genuine Accessories.
- ◆ Damage caused by contact corrosion is not covered by the warranty.

3.2 Routing and securing lines

- ◆ To prevent confusion and to make sure that they are replaced in their original installation position, mark lines for e.g. fuel, hydraulics, vacuum, the activated charcoal filter system or electrical wiring lines before removal. If necessary, create sketches or take photos.
- ◆ To avoid damage to lines in the engine compartment due to the limited space available, make sure that there is adequate clearance in relation to all moving or hot components.



4 Scope of delivery and overview of components

4.1 Scope of delivery

Quantity	Component
1	Control unit for the parking aid
1	Acoustic warning device for the parking aid
1	Switch for the parking aid
4	Sensors for the parking aid
1	Wiring harness for the sensors for the parking aid
4	Snap-on element
1	Wiring harness for the on-board supply
1	Set of securing material

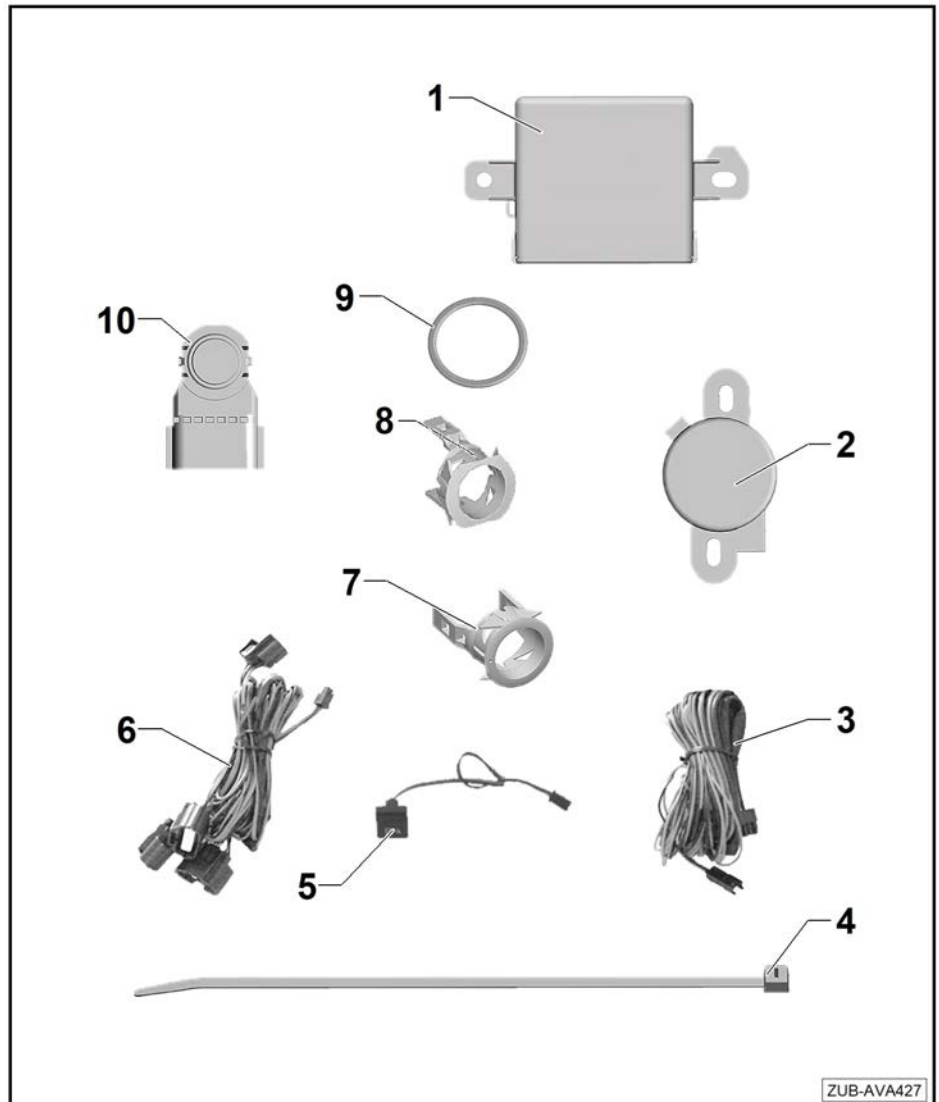
Additional components required, not included in the scope of delivery, to be ordered via ETKA:

Applies only to the Audi A5 (PA) (8W) 2020 ►

2x flat snap-on element 8V0.054.635.B

4.2 Overview of components

- 1 - Control unit for the parking aid
- 2 - Acoustic warning device for the front parking aid
- 3 - Wiring harness for the on-board supply
- 4 - Securing material
- 5 - Switch with indicator lamp for the parking aid
- 6 - Wiring harness for the sensors for the front parking aid
- 7 - Snap-on element
 - Approx. 4x
- 8 - Flat snap-on element
 - Only for the A5 PA, not in the scope of delivery and must be ordered separately.
 - 2x
- 9 - Sensors for the front parking aid
- 10 - Seal for sensor





5 Preparing and installing the front parking aid

Applies to all PA vehicles

Note

- ◆ The parking aid must be installed by a specialist workshop. Improper installation can cause damage to the vehicle or to the parking aid.
- ◆ The work to be performed on the vehicle, as detailed in these fitting instructions, may change as a result of measures to upgrade models. Consequently, modifications to the wire colours or even the installation location, for instance, should not be ruled out. For this reason, make sure that you always refer to the most current wiring diagram and/or the current repair manuals for the vehicle.

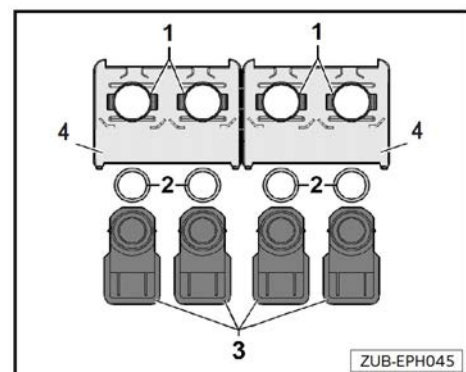
5.1 Removing and fitting the front bumper cover

- Remove the bumper cover. ⇒ General body repairs, exterior; Rep. gr. 63; Front bumper; Removing and installing the bumper cover

5.2 Painting sensors and snap-on elements for the parking aid

Note

- ◆ Remove the seals -2- prior to painting the sensors -3-.
- ◆ The sensors -3- and snap-on elements -1- must be painted only in the vehicle colour if the bumpers are painted. If the bumpers are not painted, do not paint the sensors.
- ◆ Only the sensors -3- and snap-on elements -1- for the right-hand and left-hand fitting locations on the bumper must be painted. No painting is required on the radiator grille area.
- ◆ For additional general information on the topic of painting see: self-study programme no. 214/215
- ◆ The sensors -3- and snap-on elements -1- must not be cleaned with silicone remover prior to painting. Use alcohol to clean these components.
- ◆ The sensors -3- and snap-on elements -1--4- can be painted while in the supplied plastic bracket, which can be used as a painting aid.



WARNING

After the sensors and snap-on elements have been painted and have dried, re-attach the seals -2- on the sensors -3-.



5.3 Mounting the sensors and snap-on elements for the front parking aid

Applies to all vehicles A4/A5 (PA) 2020 ►

Special tools and workshop equipment required

- ◆ Power drill
- ◆ Adhesive tape
- ◆ 2-mm drill bit
- ◆ Core hole drill with an outer diameter of 20 mm
- ◆ Flat key file of 1 mm
- ◆ Measuring and marking tool
- ◆ Diagonal cutting pliers

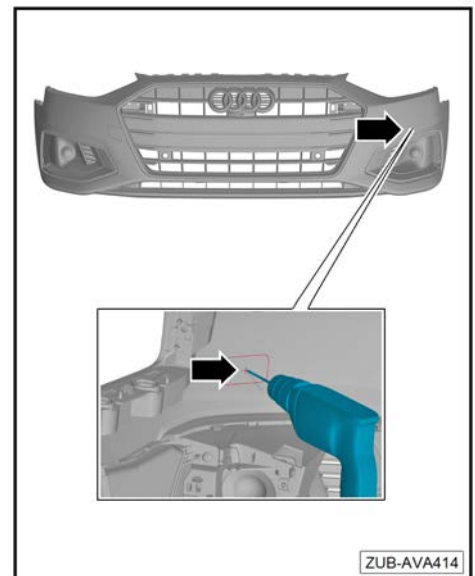
Note

- ◆ *The right-hand and left-hand sensors and the two snap-on elements must be painted in the vehicle colour and dried prior to installation in the bumper.*
- ◆ *The instructions describe the mounting process for the left-hand side, the mounting process for the right-hand side is exactly the same.*

Mounting the external sensors in the bumper

- Use a standard drill bit to pre-drill a hole on the inside of the bumper cover at the location marked ex works -arrow-.

Size of hole = 2 mm



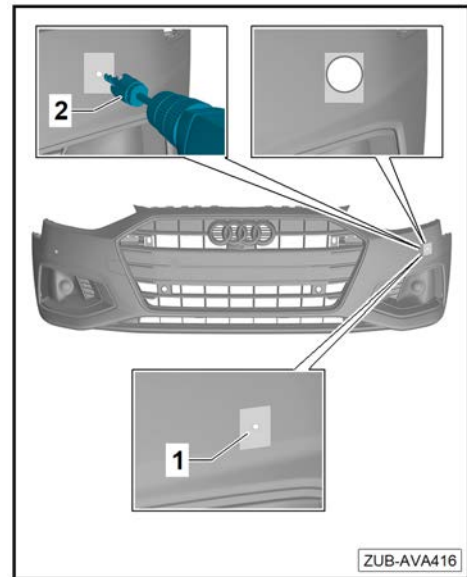


- Stick adhesive tape on the outside of the bumper around the pre-drilled holes -1-.

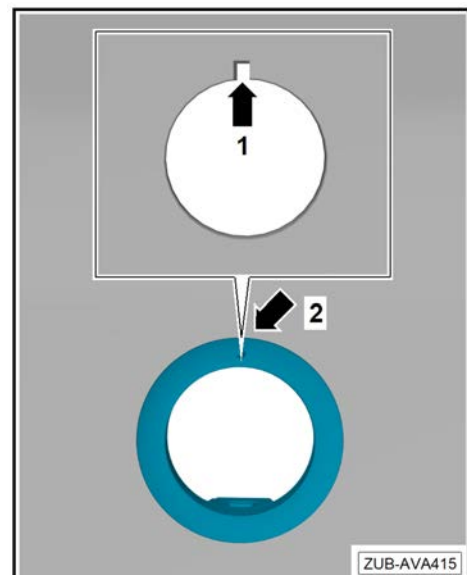
i Note

The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the left-hand and right-hand parking sensors.



- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position -arrow 1-.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.



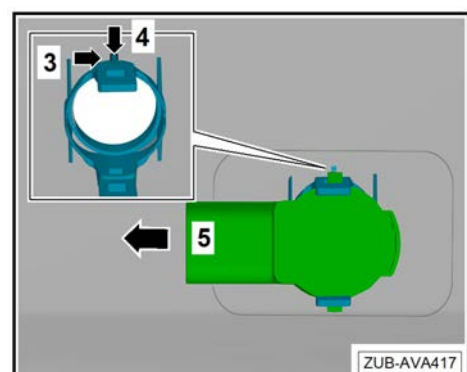
i Note

◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*

- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.

i Note

The other side is mounted in the same way.

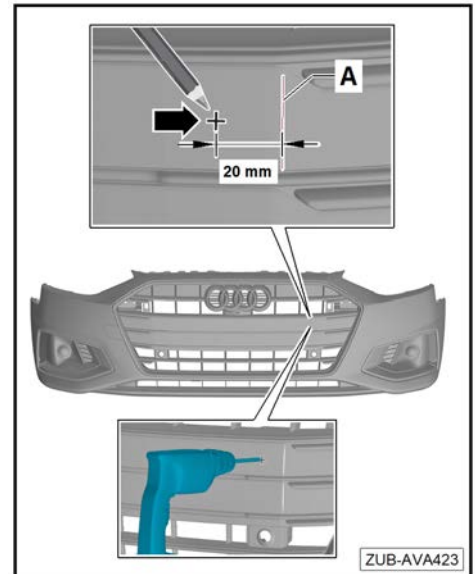




Mounting the sensors in the radiator grille of the A4 (PA) Saloon and Avant 2020 ► with basic package!

- Use the upper closed radiator rib of the two closed radiator ribs.
- Locate contour edge -A- where the oblique bumper overlaps the straight bumper.
- Measure and mark the point -20 mm- inwards from contour edge -A-.
- Use a drill to pre-drill the marked area on the radiator grille.

Size of hole = 2 mm

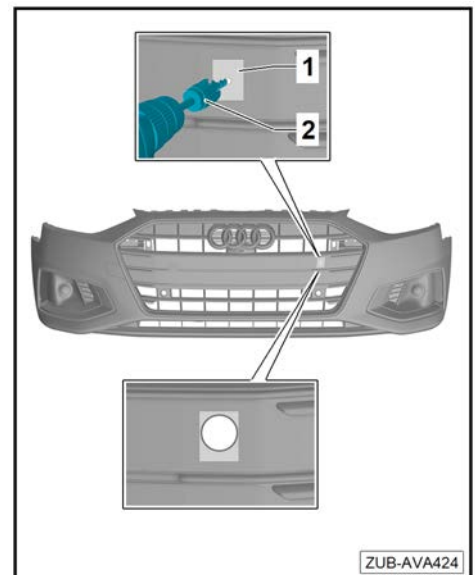


- Stick adhesive tape on the outside of the bumper around the pre-drilled holes -1-.

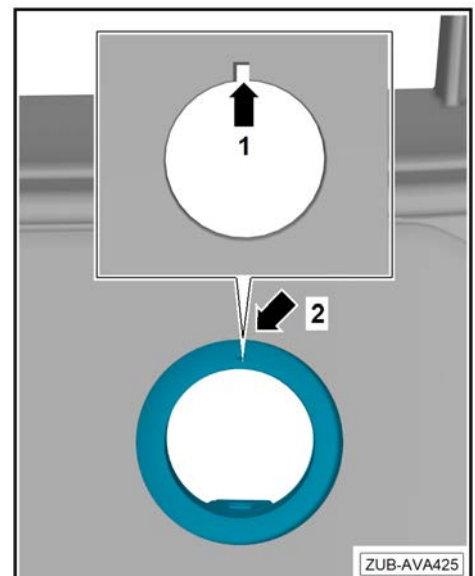
Note

The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the left-hand and right-hand parking sensors.



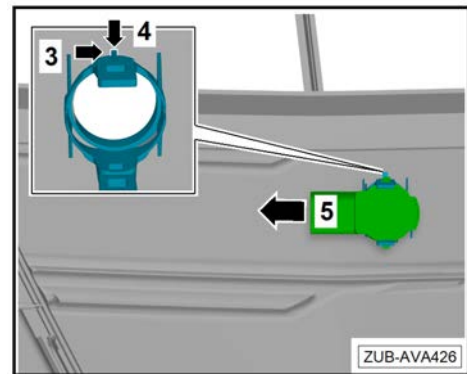
- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position -arrow 1-.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.





i Note

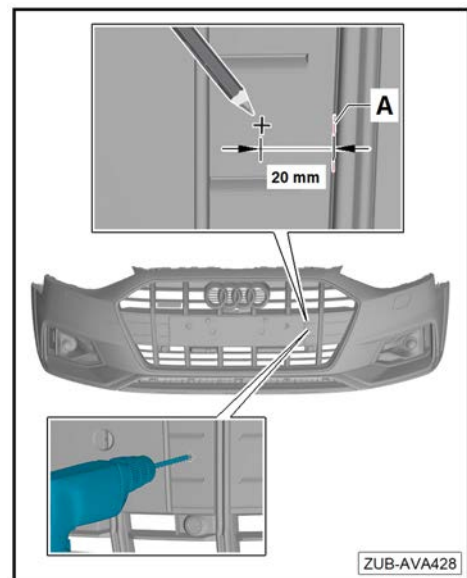
- ◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.



Mounting the sensors in the radiator grille of the A4 (PA) Allroad 2020 ►

- Use the middle radiator rib of the large closed radiator rib section.
- Locate inner edge -A- from the vertical bar, and measure and mark the point -20 mm- inwards from there.
- Use a drill to pre-drill the marked area on the radiator grille.

Size of hole = 2 mm

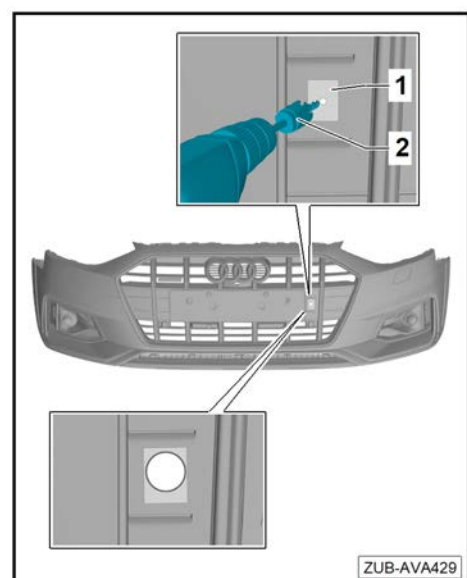


- Stick adhesive tape -1- around the hole.

i Note

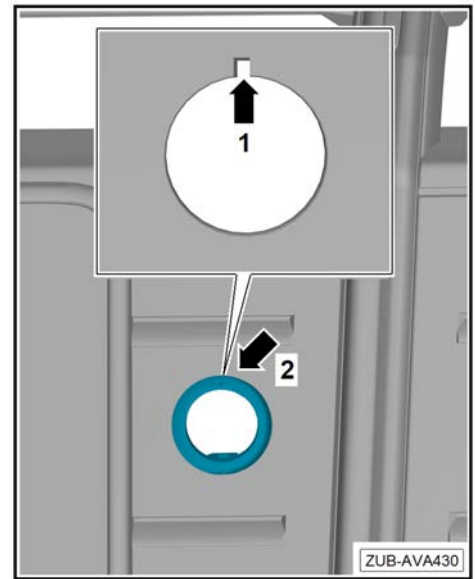
The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the parking sensors in the radiator grille.



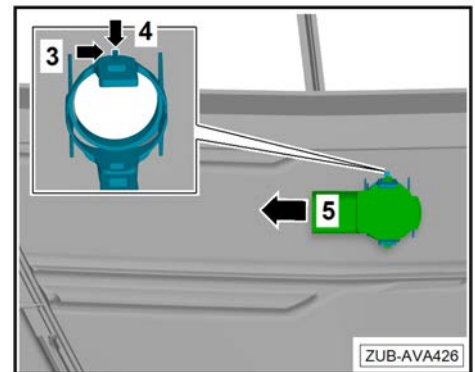


- Using the flat key file, make a 1 mm-long vertical slot at the -12 o'clock- position.
- Insert the snap-on element into the hole for the sensor so that the marking point faces upwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.



Note

- ◆ The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.
- Clip the parking sensors into the snap-on elements with the connector facing outwards -arrow 5-.



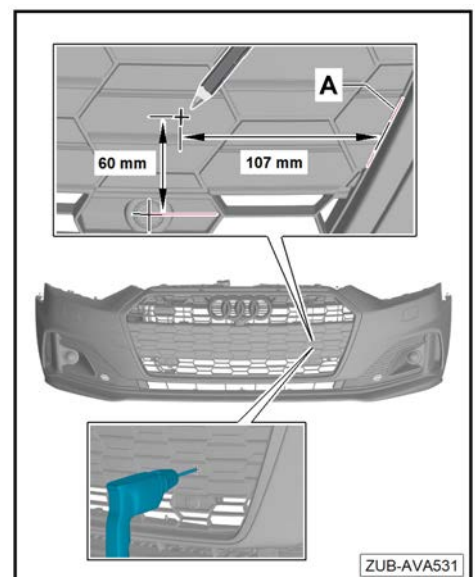
Mounting the sensors in the radiator grille of the A5 (PA) 2020 ► with basic package

Note

Use flat snap-on elements for the sensors ⇒ “Scope of delivery and overview of components” on page 4.

- Mark the point -66 mm- up from the centre of the point marked ex works.
- Locate inner edge -A- from the vertical bar, and measure and mark the point -107 mm- inwards from there.
- Determine the point where these measurements intersect on the closed rhombus of the radiator grille.
- Use a drill to pre-drill the marked intersection point on the radiator grille.

Size of hole = 2 mm



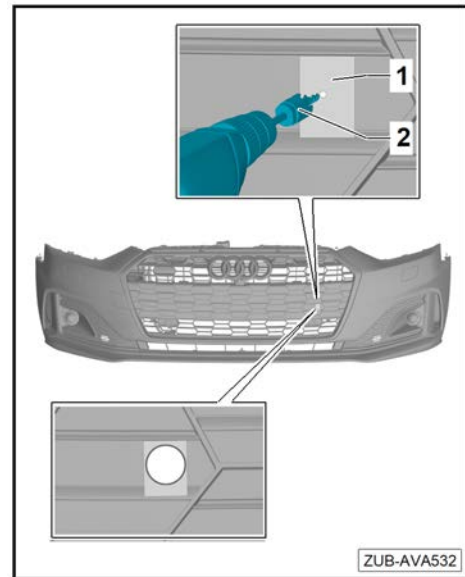


- Stick adhesive tape -1- around the hole.

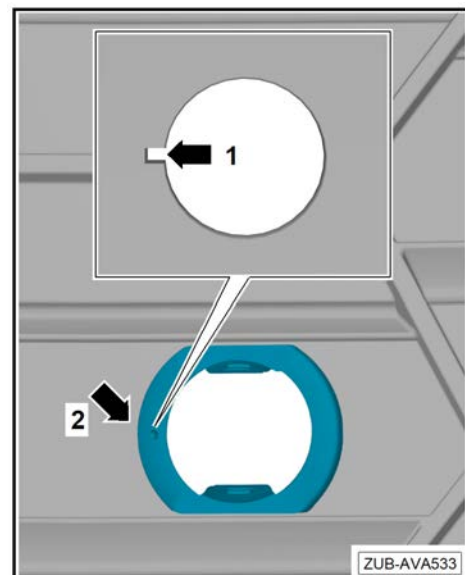
i Note

The adhesive tape helps to prevent damage to the paintwork when drilling the holes for the sensors in the bumper.

- Place the core hole drill (with an outer diameter of 20 mm) so that the centring tip sits in the pre-drilled hole -2-.
- Using a low drill speed, drill the two holes for the parking sensors in the radiator grille.



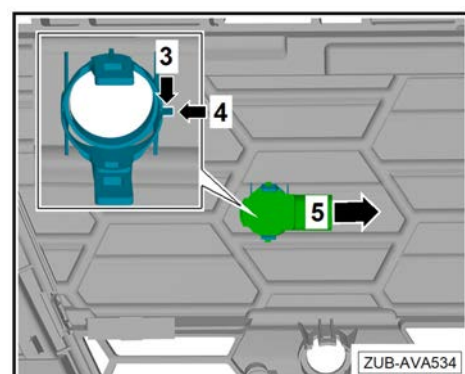
- Using the flat key file, make a 1 mm-long vertical slot at the -3 o'clock- position.
- Insert the snap-on element into the hole for the sensor so that the marking point faces inwards -arrow 2-. To do this, press together the retaining lugs on the snap-on element.



i Note

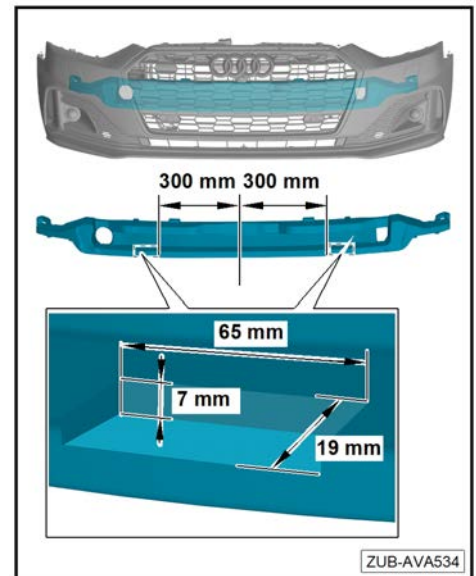
- ◆ *The key on the snap-on element -arrow 3- must sit inside the filed cut-out -arrow 4-.*

Inserting the cut-out for the sensor in the foam section –



Only applies to Audi A5 (PA) 2020 ► with basic package

- Measure and mark the points -300 mm- to the right and left of the centre of the foam piece.
- Measure and mark the point -65 mm- outwards from the marking.
- Measure and mark the point -19 mm- from the front edge.
- Cut out the marked area of the foam part -7 mm- deep using suitable workshop equipment.



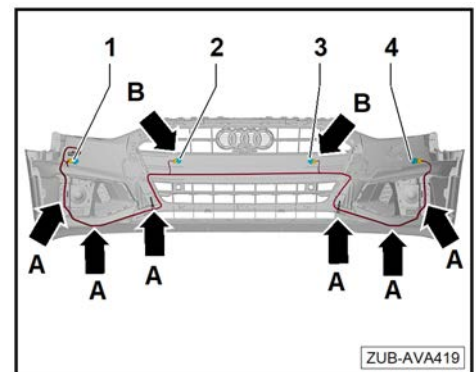
5.4 Routing the wiring harness for the sensors for the parking aid from the outside to the inside

Next steps for all PA vehicles

i Note

The supplied wiring harness is ready for connection and can be routed in the outer area of the engine compartment.

- The wiring harness for the parking sensors is fitted in the area of the impact damper -arrows- using the supplied securing elements.
- First attach the connector -1- (longest wire) on the right-hand side as seen in the direction of travel; wires -2 to 4- are then attached and secured in order.
- The wiring harness is then routed below the headlight via the battery side in the outer area of the wheel housing to the wing panel up to a suitable sealing cap or to a leadthrough for the wiring harness into the vehicle interior.



i Note

The method of leading the wiring harness for the parking aid into the vehicle interior may vary depending on vehicle variant.

- If a leadthrough is already present instead of a sealing cap and a wire is already routed, create an additional hole in the existing leadthrough and pull the wiring harness for the sensors into the vehicle interior.

i Note

Prefabricated wire grommets are available for the retrofit wiring harnesses.



i Note

Seal the additional hole in the leadthrough using a suitable sealant.

- Connect the connectors to the parking sensors.
- Then refit the bumper.
- Install the bumper cover ⇒ General body repairs, exterior; Rep. gr. 63; Front bumper; Removing and installing the bumper cover

5.5 Removing the interior side trims as preparation for cable routing in the vehicle interior

- Remove the side trims ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Removing and installing the side trims
- The interior trim around the bottom of the side member must be removed as far as the luggage compartment.
- The trim in the driver's footwell under the steering column must be removed.

5.6 Position of the required standard components and connectors in the vehicle

i Note

Secure the control unit and the acoustic warning device for the front parking aid in a suitable position!

Vehicle	Signal	Position
A4/A5 2020 ► LHD and RHD vehicles	Reversing light bulb	The convenience system central control unit -J393- on the left-hand side of the luggage compartment
	Terminal 15	Gateway, centre of the rear bench seat
Applies to all vehicles	Earth	Select a suitable earth point in the vicinity

5.7 Installing and connecting the components for the parking aid

i Note

Secure the control unit and the acoustic warning device for the front parking aid in a suitable position!

Vehicle	Component	Fitting location
Audi A4 2020 ► LHD vehicles/Audi A5 2020 ► LHD vehicles	Switch for activating the parking aid	On the right, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Driver's side, under the steering wheel
	Sensors for the parking aid	Right- and left-hand side of the bumper; right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Driver's side, under the steering wheel



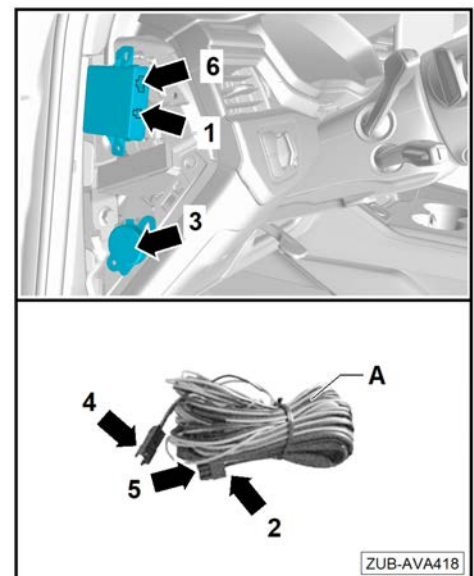
Vehicle	Component	Fitting location
Audi A4 2020 ► RHD vehicles/Audi A5 2020 ► RHD vehicles	Switch for activating the parking aid	On the left, next to the steering column on the lower steering column trim
	Control unit for the parking aid	Front passenger side, under the glove compartment
	Sensors for the parking aid	Right- and left-hand side of the bumper; right- and left-hand side of the radiator grille
	Acoustic warning device for the parking aid	Front passenger side, under the glove compartment

- The wiring harness is then routed under the dash panel insert into the footwell from the leadthrough for the main wiring harness into the vehicle interior.

Note

Depending on the vehicle type, the components for the acoustic warning device and control unit for the parking aid are placed at different fitting locations.

- The acoustic warning device for the parking aid is attached at the relevant fitting location -table- using double-sided adhesive tape/cable ties.
- The control unit for the parking aid is attached at the relevant fitting location -table- using double-sided adhesive tape/ cable ties.
- Insert the connector for the wiring harness for the front parking sensors -arrow 1- into the relevant socket until the connector tangibly engages.
- The cable for the parking sensor is connected.
- The second connecting cable described in the scope of delivery -A- is for the voltage supply to the control unit for the parking aid, the audible warning device and the switch.
- Insert the connector -arrow 2- into the relevant socket for the acoustic warning device -arrow 3- until the connector tangibly engages.
- Insert the connector for the switch into the relevant socket on the connecting cable -arrow 4- until the connector tangibly engages.
- The switch is located in a different position depending on the vehicle -table-.
- Insert the connector for the on-board voltage supply -arrow 5- into the relevant socket on the control unit for the parking aid -arrow 6- until the connector tangibly engages.
- Connect the earth connection to a suitable earth point.
- The connectors will only engage in one position in the connection sockets on the control unit or on the wiring harness.
- The two unconnected pins are for connecting to the on-board supply.

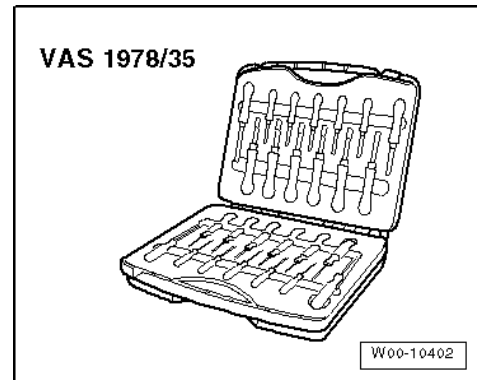




5.8 Tools

Special tools and workshop equipment required

- ◆ Set of unpinning tools



5.9 Connecting the parking aid to the on-board supply

Connection process for the Audi A4/A5 2020 ► LHD and RHD vehicles

 **Note**

The vehicle ignition must be switched off.

- Disconnect the battery⇒ Electrical system; Rep. gr. 27; Disconnecting and connecting the battery



- Push the cable pin -1- out of connector -A- of the convenience system central control unit -J393- for the reversing light using the set of unpinning tools -VAS 1978/35-.

- Press the cable pin -1- into pin assignment 1 on the supplied connector -I-.

- Attach connector -I- to connector -III- of the wiring harness for the parking aid.

- Press the cable with the free pin on the connector for the parking aid -III- into the convenience system central control unit -J393- connector -A-, pin 1.

- Push the cable pin -17- out of connector -gate A- of the gateway using the set of unpinning tools -VAS 1978/35-.

- Press the cable pin -17- into pin assignment 1 on the supplied connector -II-.

- Attach connector -II- to connector -IV- of the wiring harness for the parking aid.

- Press the cable with the free pin on the connector for the parking aid -IV- into gateway connector A, pin 17.

- The connection between the wiring harness for the parking aid and the on-board supply is now established.

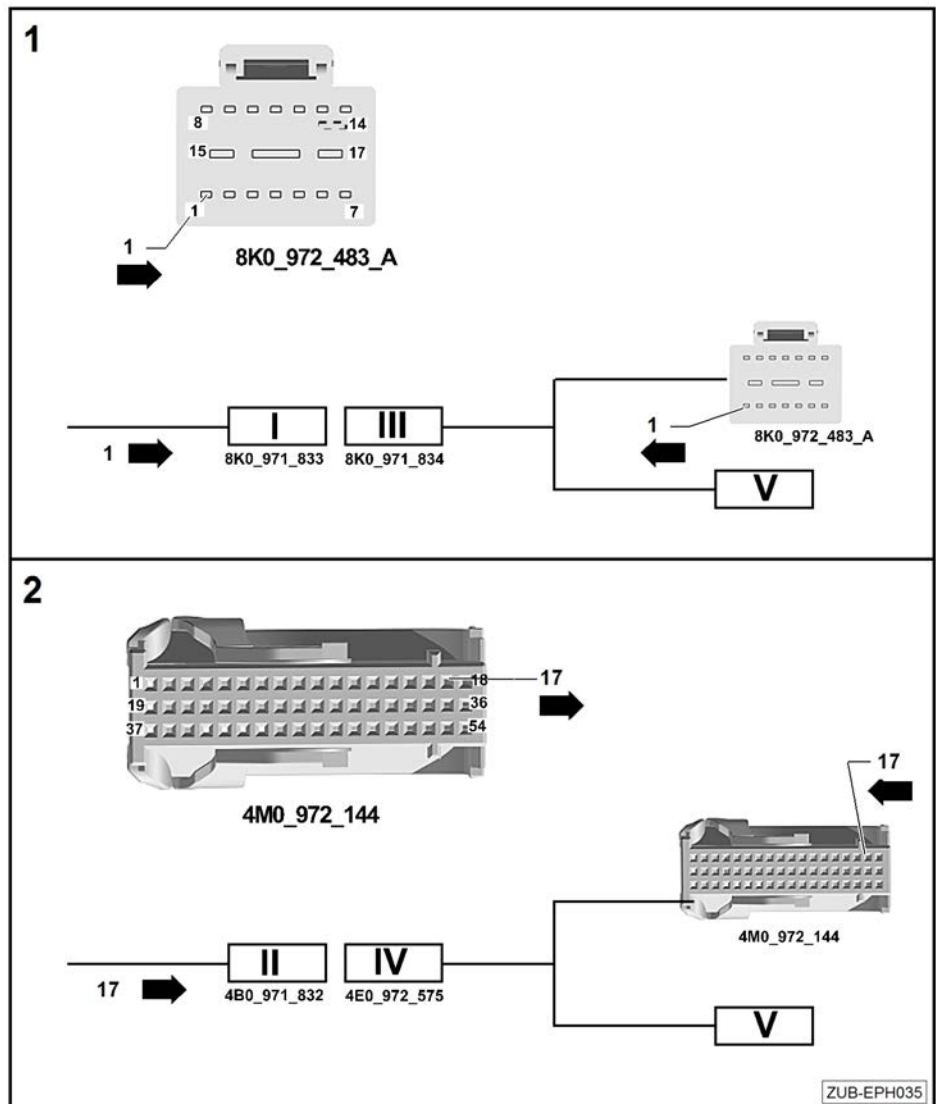
- Insert the connector for the control unit for the parking aid -V- until it tangibly engages.

- Connect the earth wire to a suitable earth point in the vicinity.

- Reassemble the vehicle by following the initial steps in reverse order.

- Connect the battery ⇒ Electrical system; Rep. gr. 27; Disconnecting and connecting the battery.

Before travelling, perform a functional check!



ZUB-EPH035