



Installation Instructions

Complete Set Active Sound incl. Sound Booster
Audi A7 4K

v1.0 (01.02.2019)

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1 Liability Exclusion

Dear Customer

Our cable sets are developed according to the connection- and circuit diagrams of the corresponding car manufacturer. Before the original production the cable sets will be tested on an original car. Therefore, the integration into the car electronics will be executed according to the instructions of the manufacturer. Regarding the necessary pre-understanding and the accuracy of the presentation of texts and pictures our mounting guidelines correspond to the usual ones in car technology and car electronics. Practically, they have been proved one's worth a hundred times.

However, should there be any difficulties during the installation of our products we will be at your disposal any time for support by phone or by mail. Moreover, we offer you to execute the installation at our works in Bad Segeberg.

Costs which may arise because a third person will execute the installation of our products will not be supported by us in any case. Only if there is a mistake caused by our product we will pay the proved costs of the installation as well as the costs of the removal of the defective product. The refund of expenses will be limited to gross EUR 110,- ; we reserve the right to check the described mistake in our works in Bad Segeberg. In case of a proved reclamation the costs for dispatch for the check in our factory will be transferred to you.

According to our experience each specific factory which has the necessary diagnostic device, diagnostic software and the circuit diagrams of the manufacturer can find possible mistakes at our products within a short time. So the installation and removal including diagnostic inspection can be realised in at most 60 minutes.

We also made the experience that many specific factories cannot work with the circuit diagrams of the manufacturer, and that they cannot read usual wiring diagrams. Therefore, very easy installation works will take many hours. You will understand that we neither take the risk to find a reliable specific factory nor the financing of the training of the staff of your favoured factory.

Costs which will arise because you buy missing parts or spare parts at other suppliers will be refunded by us up to the amount of the costs which had been arisen by additional supply (saved expenses). In this case, there would be no right for refund according to the legal guarantee right as long as we have no deadline for supplementary performance or a deadline for supplementary performance has not expired.

So if you have any problems with the installation or operation of one of our products please call us, send us an email, send us the product or take your car to our factory in Bad Segeberg. We are sure to find an appropriate solution for each concern.

With best regards

Your Kufatec GmbH & Co. KG Team

2 Copy Right

Our installation- and removal instructions, installation plans, software and other documentation with texts or pictures are protected by copy right.

A publication or distribution of these documents is only permitted with a written approval of Kufatec GmbH & Co. KG.

3 General Notes

Regarding the development there has especially been paid attention to your personal safety together with the most possible operating comfort, modern design and actual product technologies.

Despite most possible accuracy in case of incorrect installation or use or in case of incorrect operating, it is possible that injuries or damages of property may arise.

Therefore, please read the operating instructions you have received carefully and completely, and keep it with you.

All articles of our production will be checked at 100% — for your safety.

We reserve the right to make technical changes which serve the progress at any time.

Before the installation or startup it may be necessary, depending on the article and purpose of use, to check the legal instructions of each country.

In case of warranty claim the device has to be sent to the seller originally packed together with the sales receipt and a detailed description of the mistake. Please consider the manufacturer's instructions for return (RMA). The legal warranty instructions are valid.

The warranty claim and also the permission for startup will expire in case of:

- unauthorised changes on the device or the accessories which have not been executed or approved by the manufacturer or its partners
- opening of the box
- repair of the device on your own
- incorrect use / no normal use / startup
- influence of force on the device (falling down, wilful damage, accident, etc.)

During the installation please consider all safety and legal instructions. The device may only be installed by trained qualified personnel or persons who are similar qualified.

In case of installation- or function problems please reduce the search of the mistake to approx. 0,5 hours for mechanical works or 1,0 hours for electronic works.

To avoid unnecessary additional work and expenses, please send immediately an inquiry to our technical support with the Kufatec contact form (<http://www.kufatec.de/shop/de/infocenter/>)

Please absolutely mention the following:

- car chassis number
- part number of the add-on kit
- exact description of the problem
- work steps already made

4 Safety instructions

The installation may only be executed by trained qualified personnel. Please execute the installations only in a condition of dead voltage. Here please separate for example the battery from the main power supply and consider the instructions of the car manufacturer.

- In order to not endanger your own driving safety please never use security relevant screws, bolts or other fixation pieces at steering, brake system or other components.
- Connect the device only at 12V wiring system voltage with ground connection to the autobody. This assembly is not allowed for the use in trucks or other cars with 24V wiring system voltage.
- Please avoid the installation of the device at positions where the driving safety or the functional efficiency of other subassembly integrated in the car are restricted.
- This module may only be used together with the following mentioned car types and models; the installation may be executed exclusively by use of the circuit points mentioned in the assembly instructions.
- Kufatec GmbH & Co. KG does not assume liability for damages which are caused by incorrect installation, the use of inapplicable circuit points or the installation into car types and -modules which are not foreseen.
- We would like to draw your attention to the fact that the module processes the data of the MOST-protocol of the car mentioned below. Therefore, during the installation of the module it will be used a model-specific complete system which we as the manufacturer of the mentioned construction line only know partly.
- Especially in case of changes within the same model line and the same year we therefore cannot guarantee the applicability of our construction line in each case. Kufatec GmbH & Co. KG does not assume liability for the applicability of our construction line with changes made by the manufacturer.
- Kufatec GmbH & Co. KG does not assume liability that the installation of the here described component has been permitted according to the guarantee instructions of particular car manufacturers. Therefore, please consider the guidelines for installation and guarantee conditions of your car manufacturer before installation.
- The manufacturer reserves the right to change components without giving reasons.
- Subject to errors and changes

5 Requirements for the determinable operation

Please use the device only in its the corresponding area.

In case of unprofessional and untypical use, installation or modification the permission for operation and the warranty claim will expire.

6 Note

Make sure that there's enough space at the described position. If there is no space please cancel the installation and contact our technical support.

The use of a sound booster is not permitted without registration in the vehicle papers, in the area of the german StVZO. The noise emission of the vehicle is increased by this retrofit. The regulations of the StVZO must be observed. It is therefore recommended to ask for a specific registration option at the responsible TÜV/DEKRA office before retrofitting. Outside Germany, please observe the laws on vehicle licensing applicable in your country.

7 How to connect a cable to another

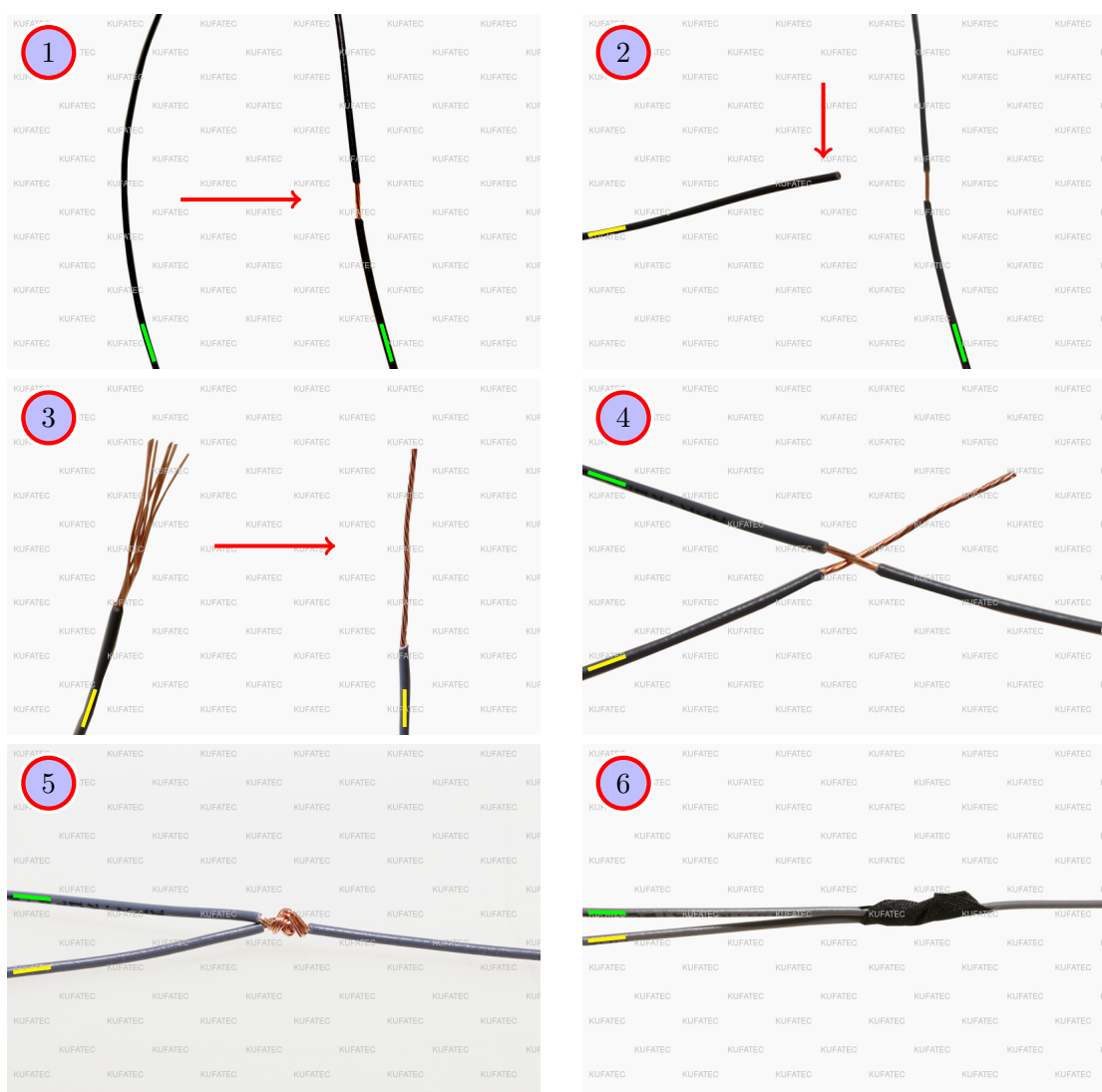


Figure 1: How to connect a cable to another

Table 1: How to connect a cable to another

No.	Work step	Note
1	Take the cable of the vehicle, to which you want to connect, (green marked here) and strip the insulation at one point with a suitable tool (cable stripper/cutter knife).	
2	Now take the cable of the cable set, which you want to connect, (yellow marked here) and strip the insulation at the end.	
3	Twirl the wires of the stripped cable together.	
4	Place the end of the cable you want to connect under the stripped point of the cable of the vehicle...	
5	... and wrap the cable you want to connect around the cable of the vehicle. Solder the connection professionally.	
6	Lastly, stick insulating tape around the connection point. Make sure that the isolation is put onto the connection professionally to prevent corrosion.	

8 Note Cable Inscription/Color

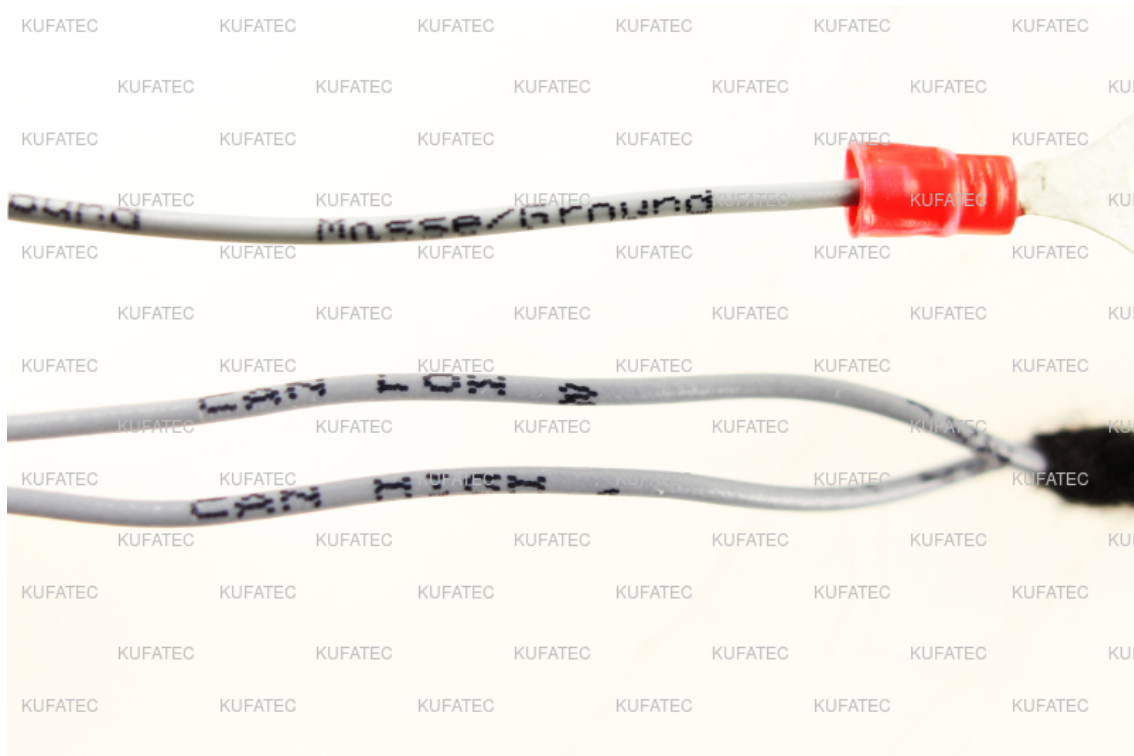


Figure 2: Cable Inscription

If our cable set consists exclusively of grey wires, connect the wires according to the cable inscription.

9 Assembly Instructions

The following illustration shows the cable routing as well as the position of the individual components.

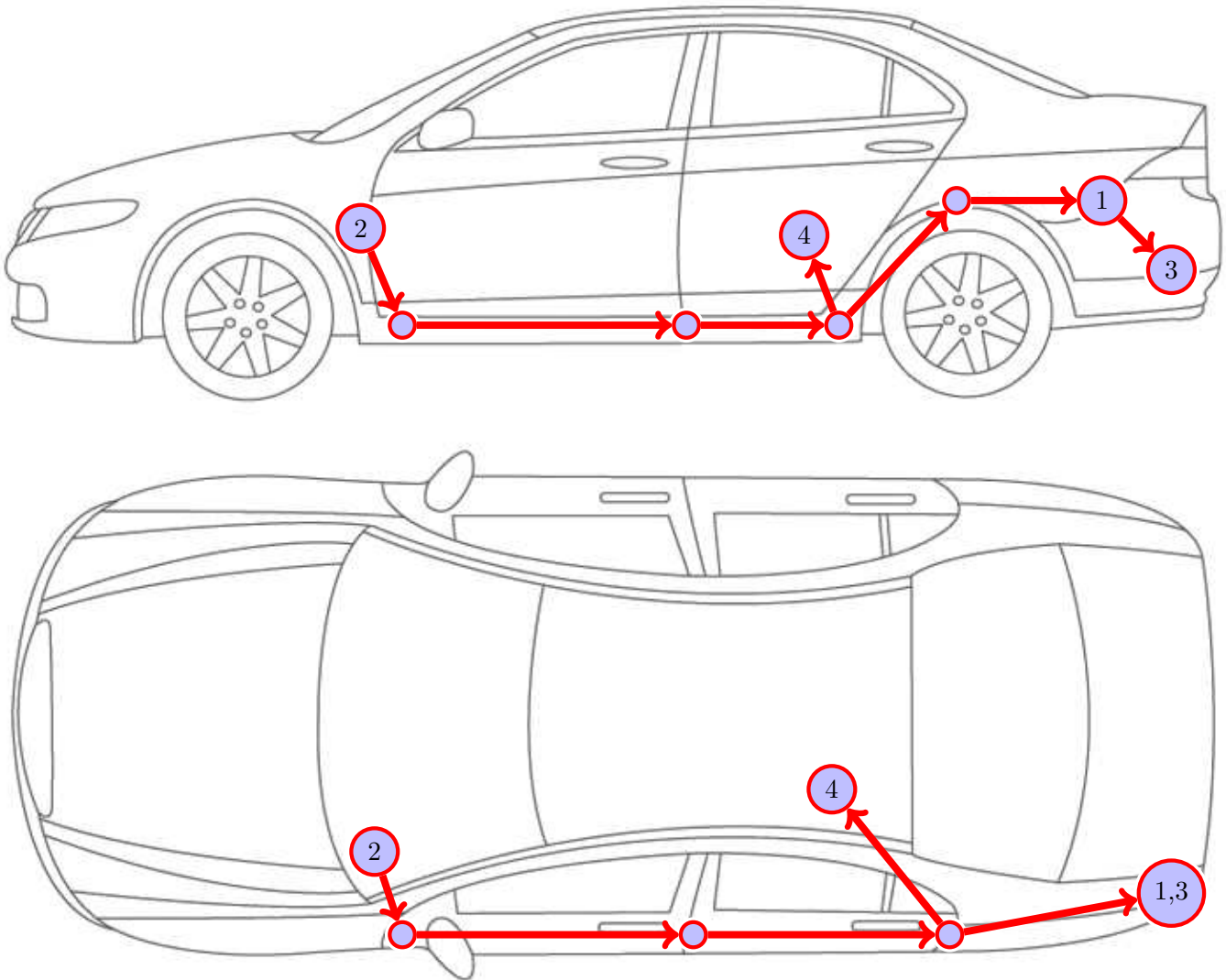


Figure 3: Vehicle overview

- 1 Control units for sound generator
- 2 Button
- 3 External sound generator
- 4 Connection cable set

10 Disassembly covering driver's side front

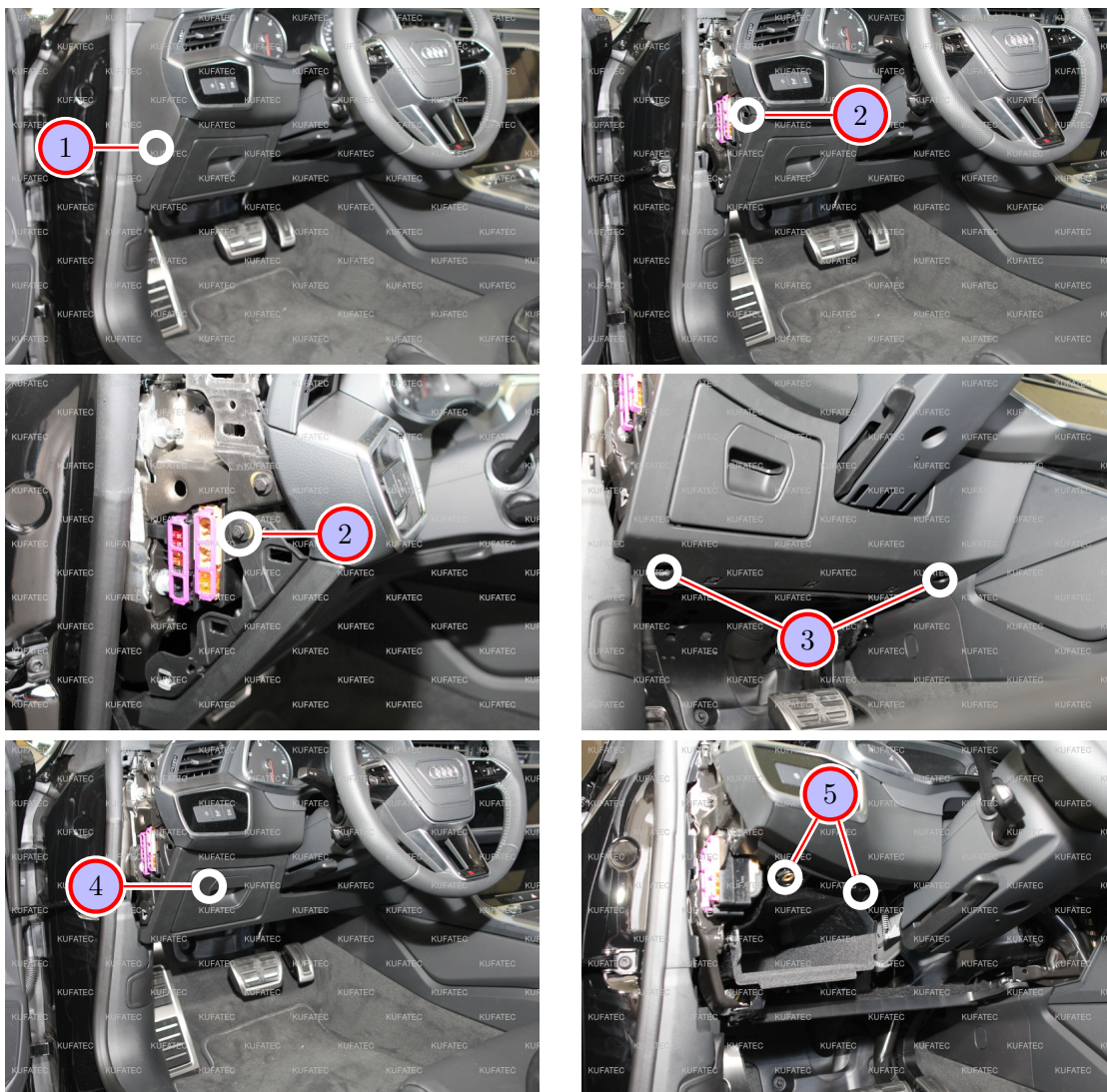


Figure 4: Disassembly covering driver's side front

Table 2: Instructions to disassemble the covering on the driver's side in the front

No.	Work step	Note
1	Remove the side panel of the dashboard by using an assembly lever.	
2	Loosen the marked screw from the side of the dashboard.	1x8er nut
3	Loosen the two marked screws at the bottom of the dashboard.	2x8er nut
4	Loosen and remove the panel of the compartment. Carefully pull off the lower dashboard.	
5	Loosen the two marked screws and completely remove the compartment from the dashboard afterwards.	2x8er nut

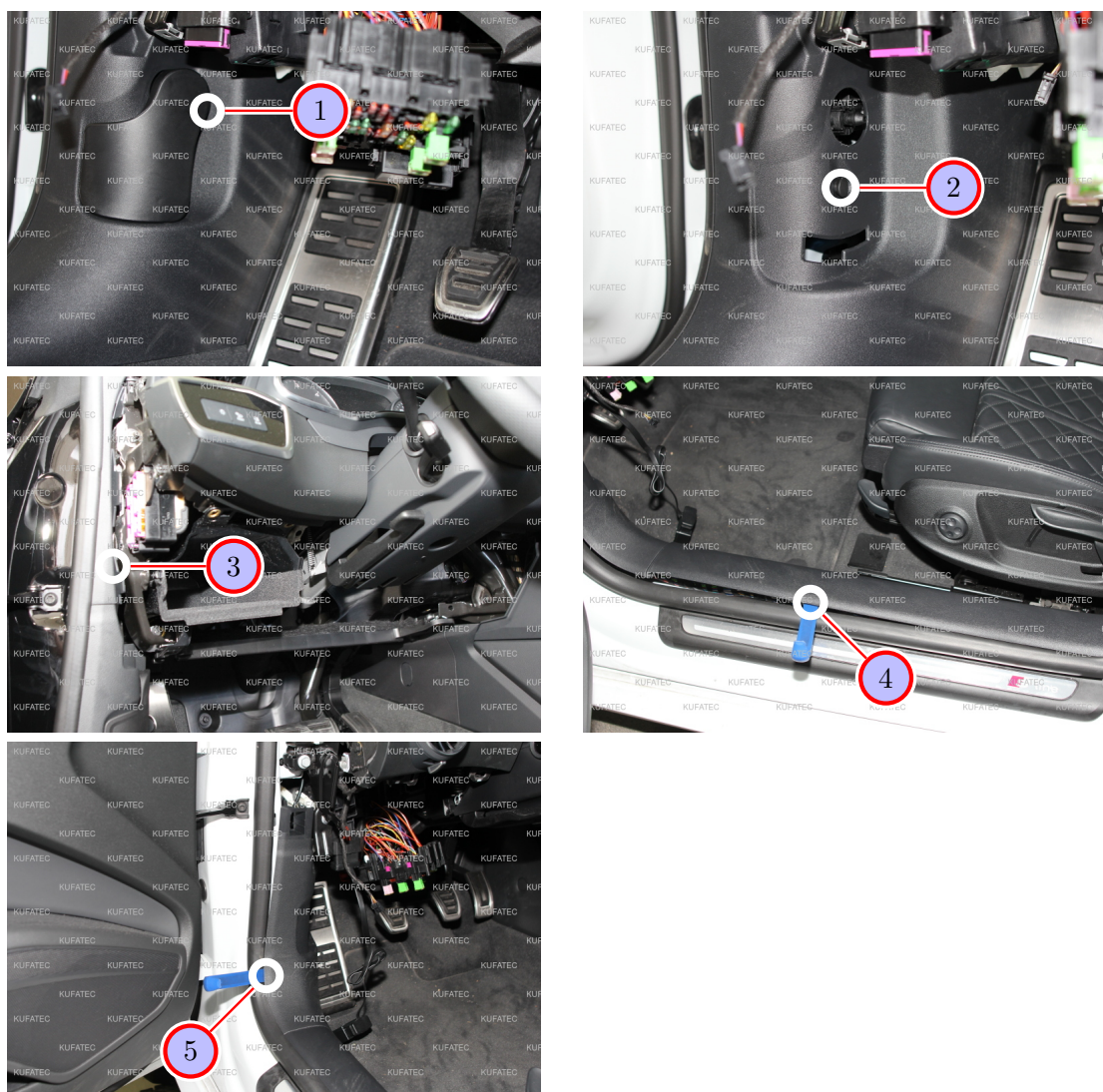


Figure 5: Disassembly covering driver's side front

Table 3: Instructions to disassemble the covering on the driver's side in the front

No.	Work step	Note
1	Loosen the latch and carefully lever out the latch for the hood release from behind afterwards. Pull the lever out to the side.	
2	Remove the marked screw cover and loosen the slotted screw that is located behind it.	
3	Remove the upper A-column covering by using an assembly lever.	
4	Loosen and remove the sill trim by using an assembly lever.	
5	Remove the lower A-column covering by using an assembly lever.	

11 Disassembly covering driver's side back

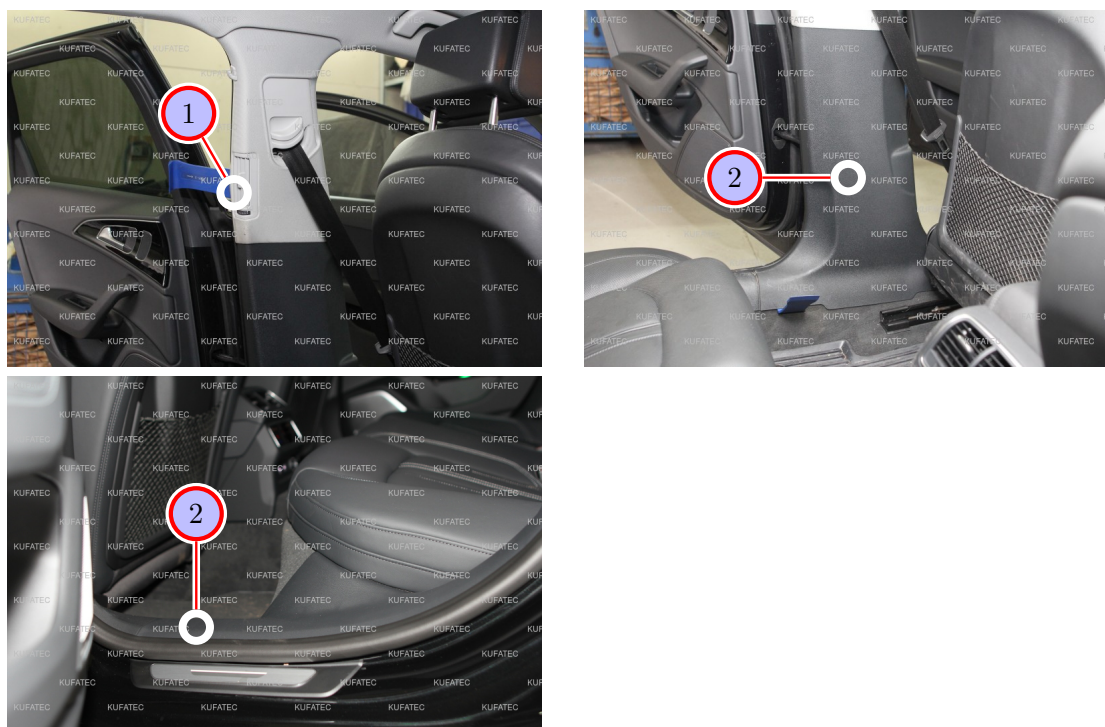


Figure 6: Disassembly covering driver's side back

Table 4: Instructions to disassemble the covering on the driver's side in the back

No.	Work step	Note
1	Loosen the upper B-column covering by using an assembly lever.	
2	Loosen and remove the B-column covering by using an assembly lever.	
3	Loosen the marked sill trim by using an assembly lever as well.	

12 Disassembly back seat

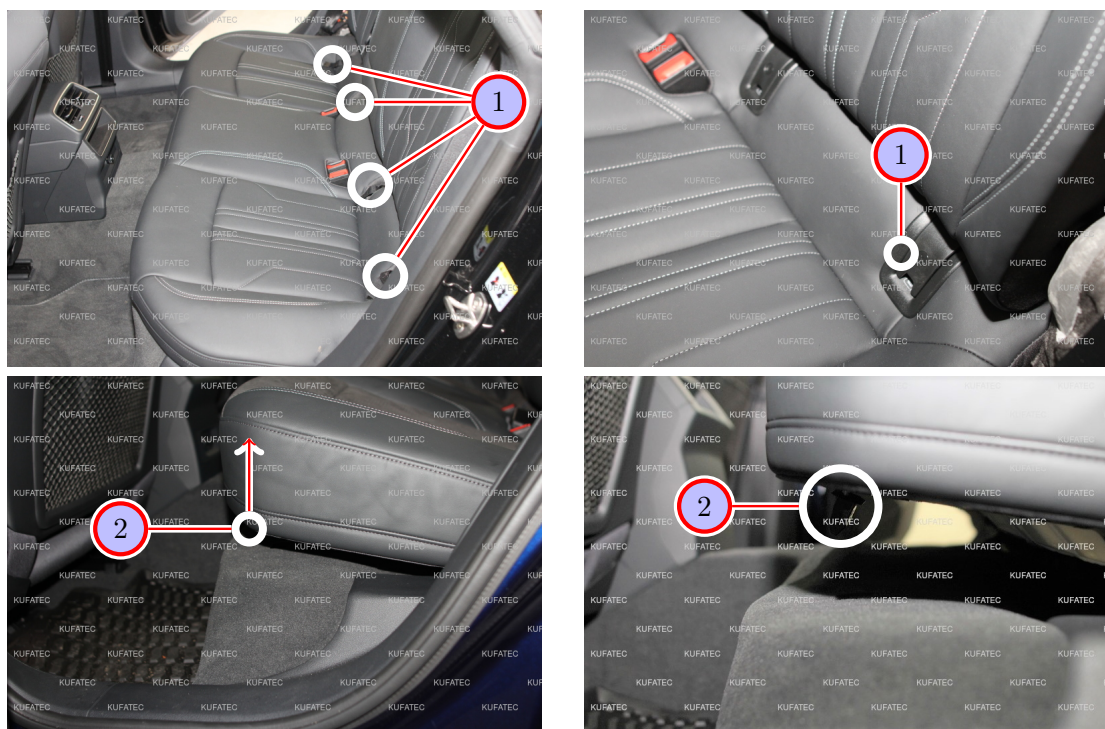


Figure 7: Disassembly back seat

Table 5: Instructions to disassemble the back seat

No.	Work step	Note
1	Remove the caps from the Isofix-holders.	
2	Pull the back seat upwards in order to loosen it out of the anterior holders. Lever the back seat out of the rear anchoring afterwards.	

13 Disassembly rear bumper

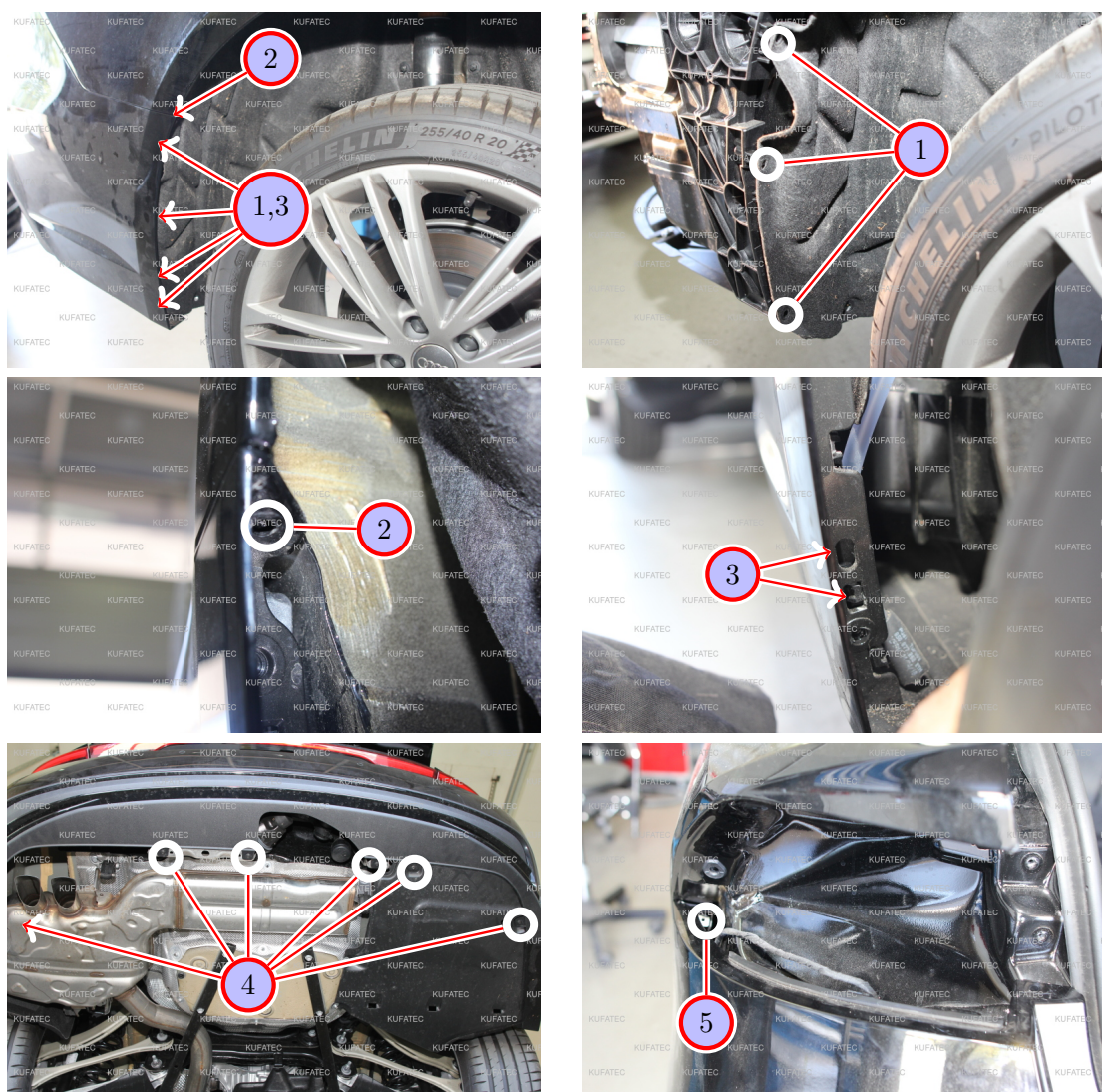


Figure 8: Disassembly rear bumper

Table 6: Instructions to disassemble the rear bumper

No.	Work step	Note
1	Loosen the three marked screws of the wheelhouse covering in the wheelhouse.	3xT25 each side
2	Another screw is located hidden behind the wheelhouse covering. Loosen this one as well.	1xT25 each side
3	Loosen the four latching noses of the wheelhouse. They are located hidden behind the wheelhouse covering.	
4	Loosen and remove the six screws at the underbody.	6xT25
5	Loosen the marked latch by pulling it out to the top.	
	Repeat the steps 1, 2, 3, 5 on the other side of the vehicle as well.	



Figure 9: Disassembly rear bumper

Table 7: Instructions to disassemble the rear bumper

No.	Work step	Note
1	Loosen and remove the load sill guard by using an assembly lever to loosen it and pull it out to the top afterwards.	
2	Loosen and remove the two marked screws that are located behind the load sill guard.	2x10er nut
3	Remove the panel of the maintenance flap at the side covering. This one can easily be pulled off. There is a screw behind it, which needs to be loosened as well. Repeat this on the other side of the vehicle.	1x10er nut each
4	Carefully loosen and remove the rear bumper by pulling it off on the sides first. In order to remove the bumper, the antenna (if existing), located in the rear bumper on the passenger's side, has to be loosened first.	
	To prevent any damages to the bumper due to a sudden drop, only remove the bumper with the help of another person.	

14 Cable routing

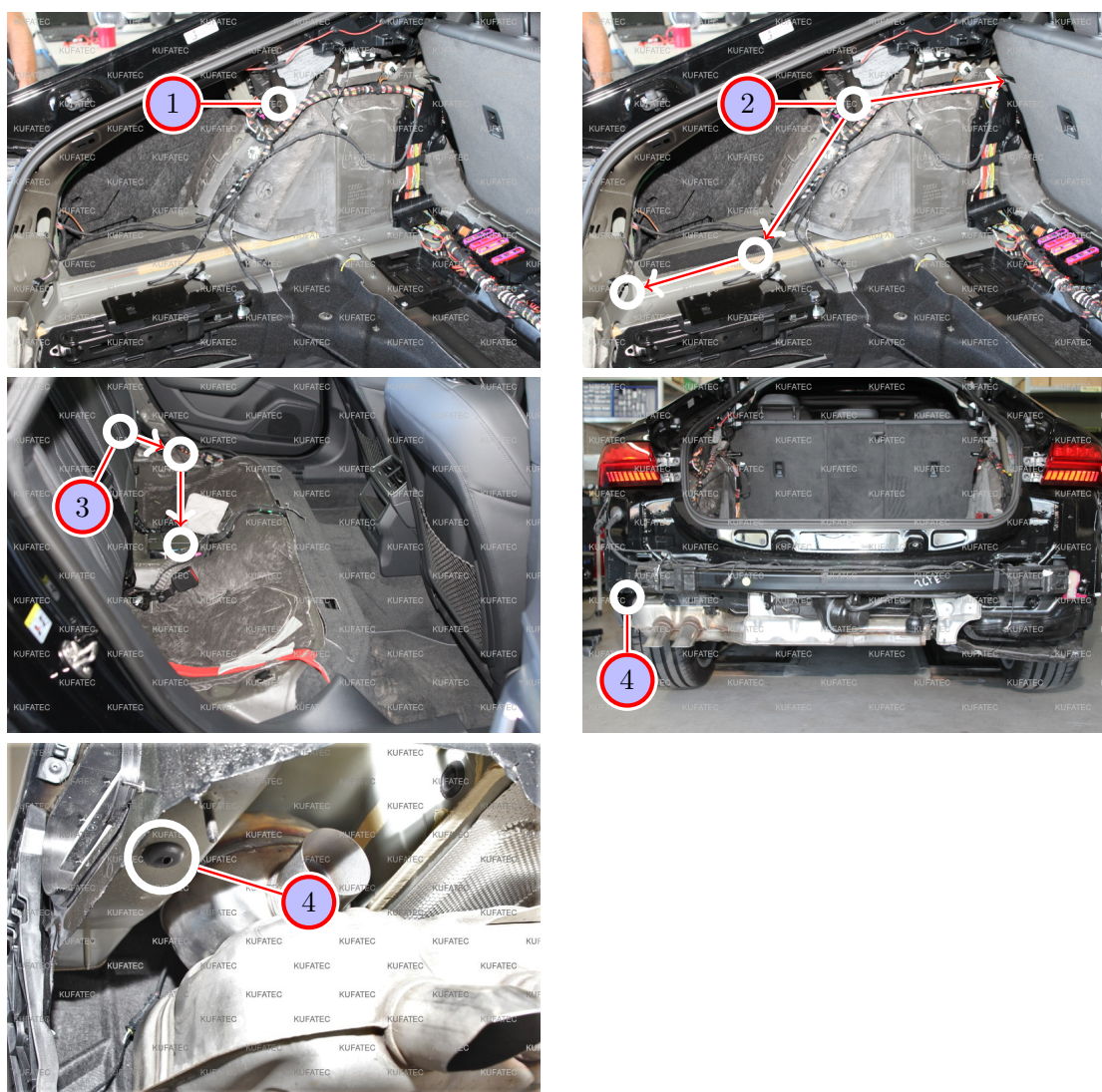


Figure 10: Cable routing

Table 8: Instructions to route the cables

No.	Work step	Note
1	Attach the Sound Booster module at a convenient place in the side covering (driver's side) professionally by using factory materials.	
2	Pull the CAN cable behind the side covering forward to the back seat afterwards. Lay the cable connection Sound Booster to the marked rubber grommet at the rear. Use a pulling tool to do so.	
3	Lay the cables further to the gateway under the back seat.	
4	Pull the cables for the sound generator through the marked rubber grommet down to the exhaust system (driver's side). Use a pulling tool to do so.	
	Note: Be aware that the ground cable as well as the ignition plus K1.15 cable has to stay in the side covering for now.	

15 Connection cable set



Figure 11: Connection cable set

Table 9: Instructions to connect the cable set

No.	Work step	Note
1	Connect the provided cables for CAN High and CAN Low to the cables of the marked black plug as follows: CAN-High (black/white) to PIN 12 (green) CAN-Low (black/yellow) to PIN 30 (orange/brown)	
2	Lay the cable ignition plus K1.15 (red/white) to the fuse box in the trunk. Look for an ignition plus slot by using a multimeter. Pin the cable in the fuse box and secure it with a 10A-fuse .	
3	Connect the ground cable (brown) to the ground pin. It is located in the side covering on the driver's side.	

16 Assembly sound generator

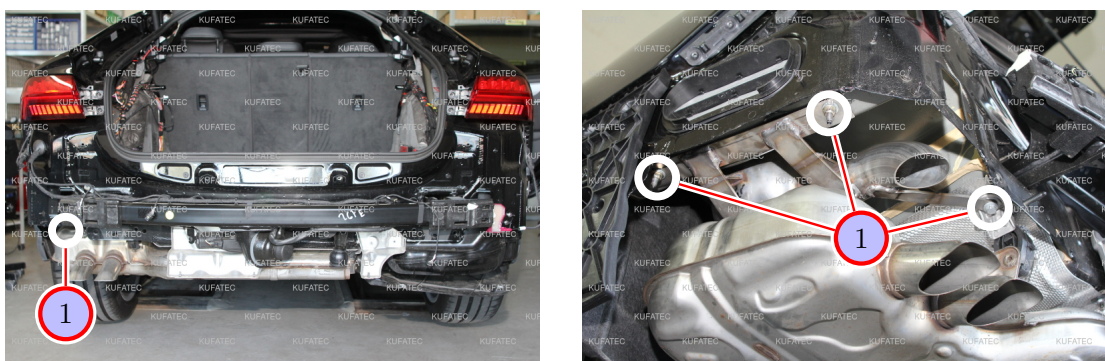


Figure 12: Assembly sound generator

Table 10: Instructions to assemble the sound generator

No.	Work step	Note
1	Attach the sound generator to the marked position above the exhaust pipe on the driver's side.	3x13er nut
2	Attach the provided steel cable to the sound generator and at a convenient place to the vehicle.	

17 Routing button cable

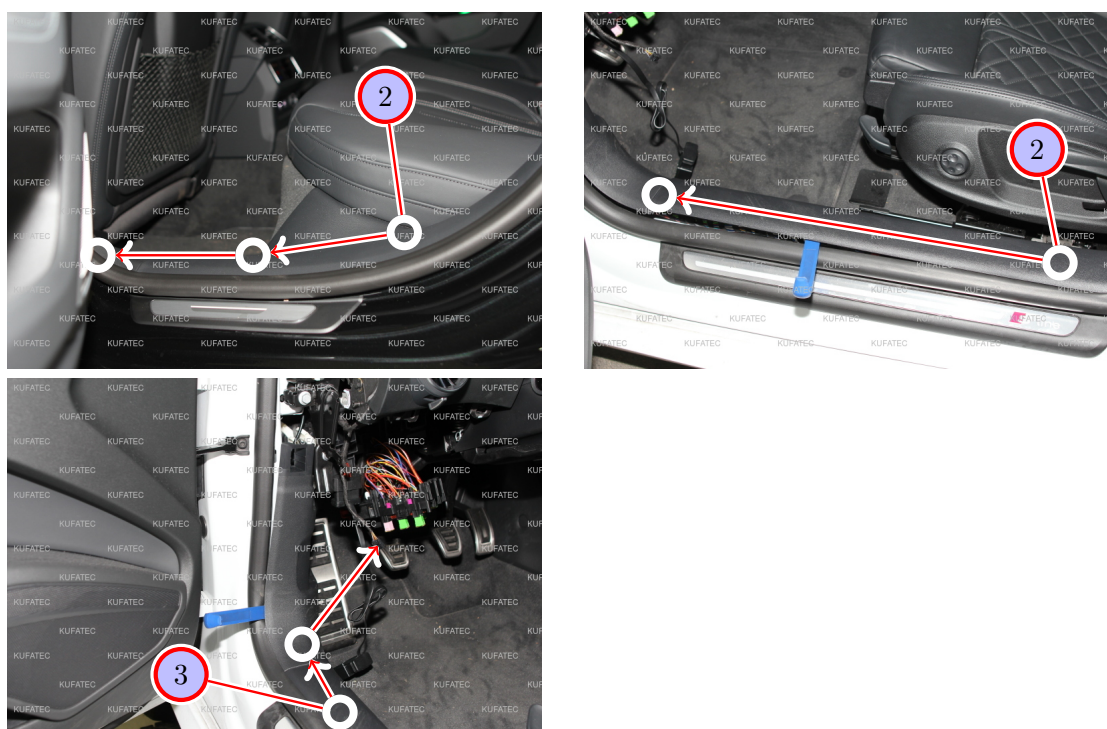


Figure 13: Routing button cable

Table 11: Instructions to route the button cable

No.	Work step	Note
1	Assemble the Sound Booster module to a convenient position in the covering of the driver's side and attach it by using factory materials.	
2	Lay the button cable along the previously removed sill trims up into the driver's footwell.	
3	Lay the cable to the desired button position inside the driver's footwell.	

18 Important Information Sound Booster

Please use suitable screws that can withstand high loads of impact to attach the sound generator. In order to avoid loosening of the screws due to the vibration, please secure the screws with appropriate factory material e.g. threadlock. Please additionally check the stability of the Sound Booster regularly and if necessary retighten the screws. In case of non-compliance we do not assume liability for possible damages.

After a successful installation we recommend to cover the sound generator with a zinc spray. Make sure that you cover the opening of the sound generator so that the zinc spray can't get inside the sound generator.

As additional safety the delivered steel cable and the retaining clips have to be attached to the Sound Booster as well as at a suitable position to the car. This safety cable is an additional security should the tightening screws be released due to the vibration.

19 Software

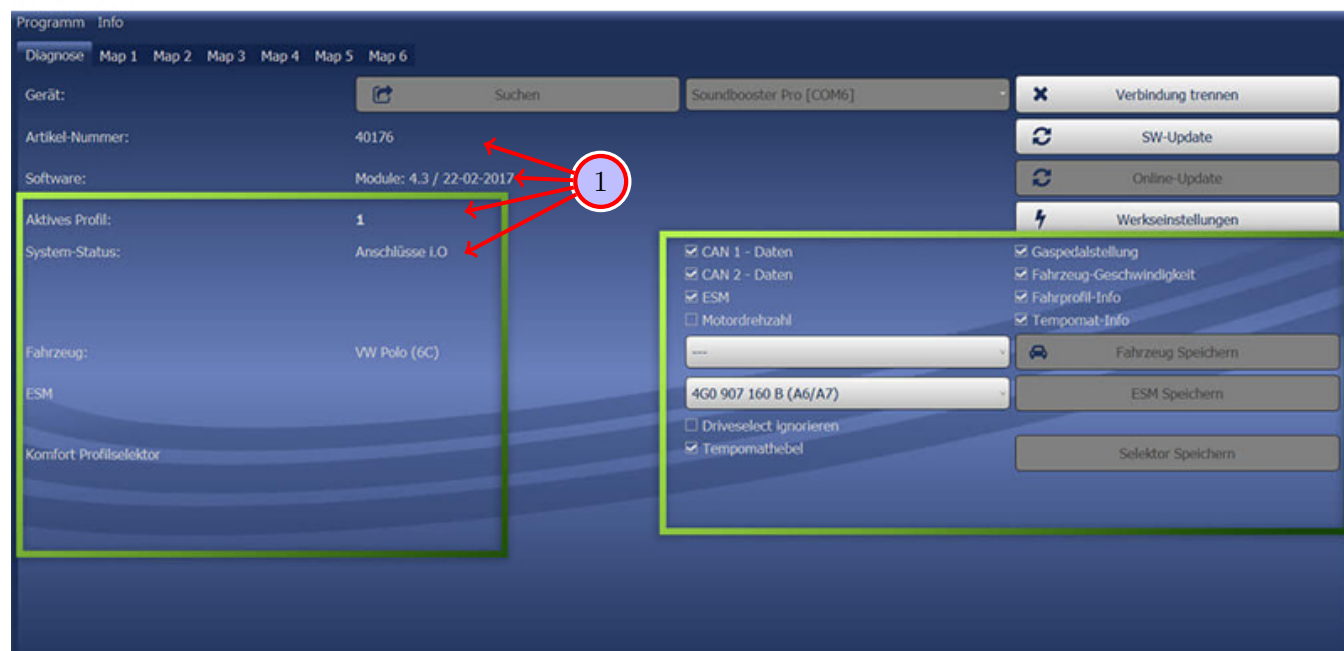


Figure 14: Software

Table 12: Notes for the software

No.	Work step	Note
1	If the system does not work after the installation, please check if the system was installed correctly by having a look on the following link: https://www.sound-booster.com/en/debugging.html . Our Sound Booster Software for PC / Mac should be used for the commissioning or further debugging:	
	Step 1: Download the appropriate software via the following link: https://www.sound-booster.com .	
	Step 2: Turn the ignition of the vehicle on and only then connect the PC / Mac with a USB-cable to our module. It is important to check beforehand if plus and minus are connected correctly. If this is not the case, it could result in a damage to the computer or to the control unit.	
	Step 3: Start the downloaded software and click on search first and then on connect. You will be automatically forwarded to the diagnosis site, on which you can see the following things at a glance:	
	Software: Software version / creation date	
	Active profile: The actually activated profile is indicated here.	
	Vehicle: The automatically identified vehicle is indicated here.	
	System status: Here you can tell, if the connections are correct.	

20 Software

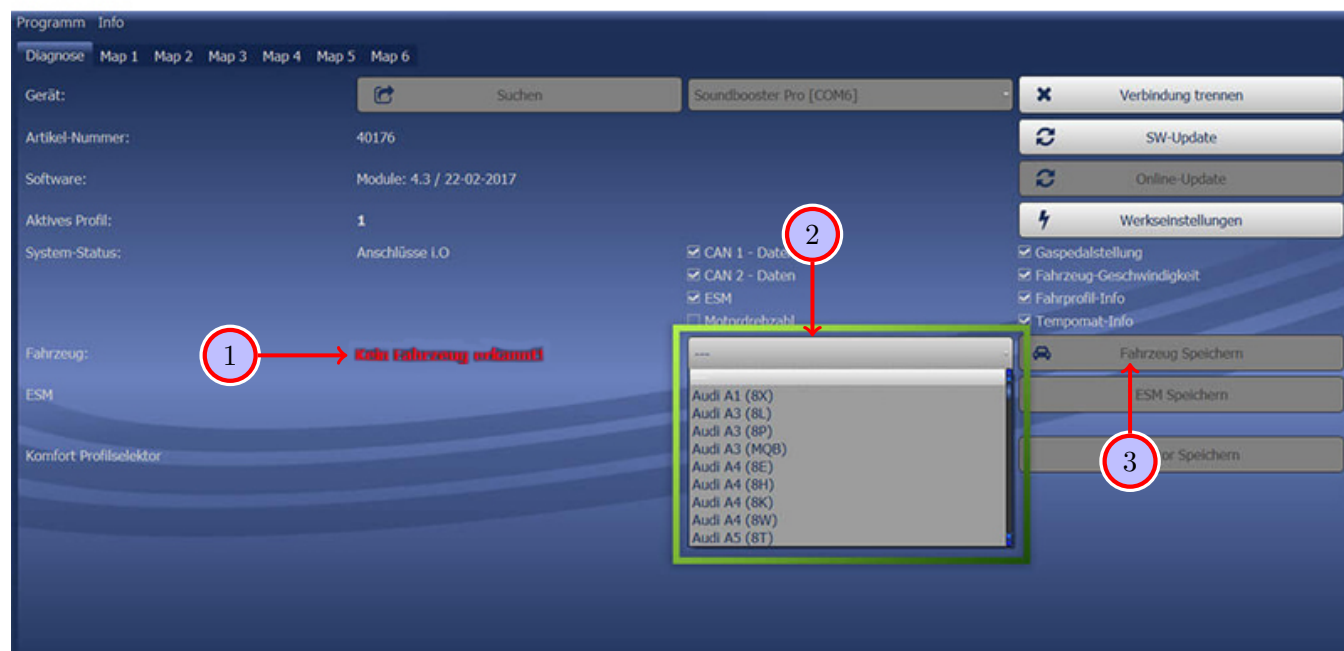


Figure 15: Software

Table 13: Notes for the software

No.	Work step	Note
1	If no current vehicle is identified, you have to select the vehicle via the manual selection as follows:	
2	Open the dropdown-menu, search for your vehicle and select it.	
3	Click on Save Car to permanently save the vehicle to the module.	
	If you don't find your vehicle in the list, it might be necessary that the software has to be adapted to your vehicle. In that case, please contact us via e-mail: info@kufatec.de or by phone: +49 (0) 4551 / 80 810 888. We will make an appointment with you, where we will adapt the software to your vehicle per Team Viewer (remote maintenance).	

21 Software

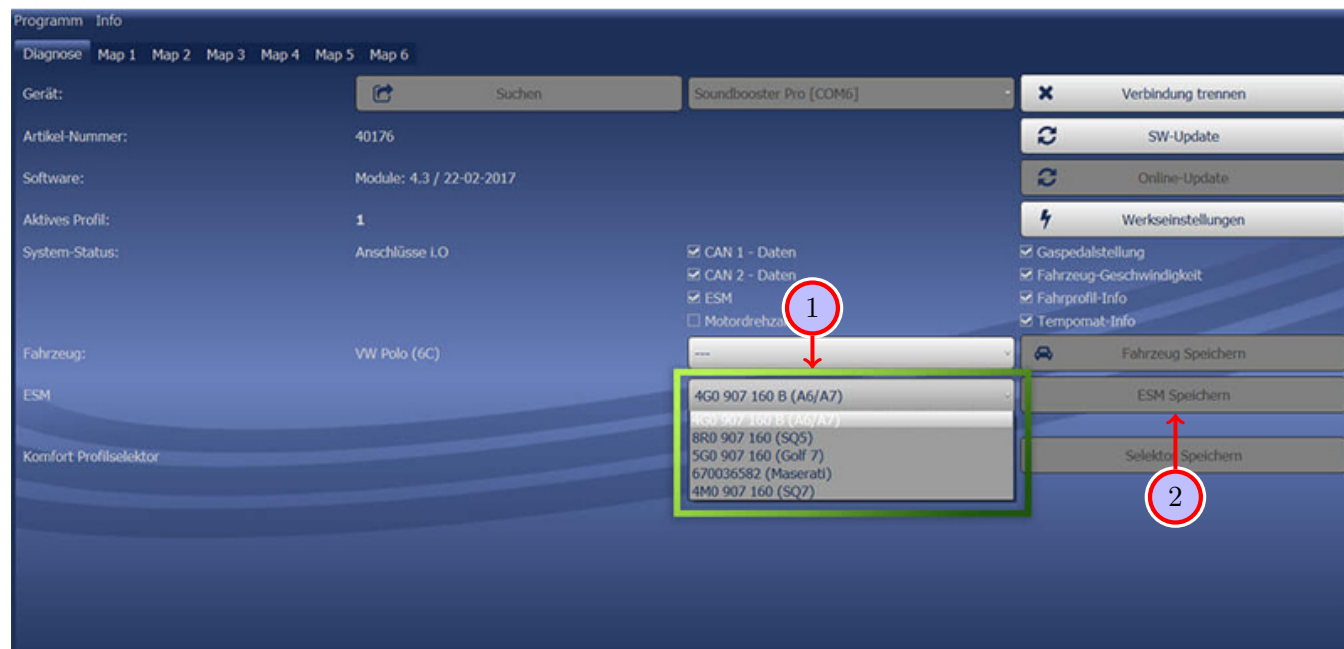


Figure 16: Software

Table 14: Notes for the software

No.	Work step	Note
1	You also need to check if the right ESM is selected in our software: Open the dropdown-menu, search for the correct ESM and select it.	
2	Click on Save ESM to permanently save the ESM to the module.	
3	For example, if you ordered a complete set with a Audi control unit you need to select the ESM 4G0 907 160 B (A6/A7) . If you installed the Maserati control unit instead of the Audi control unit you need to select the ESM 670036582 (Maserati) . If the system does not work after all please get in contact with us via e-mail: info@kufatec.de or by phone: +49 (0) 4551 / 80 810 888. We will check the issue as soon as possible.	

22 Connection/Troubleshooting cable set

Sound Booster

From Sound Booster control unit 18-pole MQS to:

- **CAN Gateway**
 - Pin 17 to Pin 30 (orange/brown CAN Low)
 - Pin 18 to Pin 12 (green CAN High)
- **Ground/ Ignition plus**
 - Pin 9 to Ground
 - Pin 1 to Kl.15 Ignition plus
- **Control unit 8-pole MiT**
 - Pin 15 to Pin 1 (CAN Low)
 - Pin 16 to Pin 3 (CAN High)
- **Push button 2-pole MiT**
 - Pin 4, 13 to Push button

From plug connection control unit 8-pole MiT to:

- **Sound Booster control unit 18-pole MQS**
 - Pin 1 to Pin 15 (CAN Low (black/white))
 - Pin 3 to Pin 16 (CAN High (black/yellow))
- **Ground/Ignition plus**
 - Pin 2 to Ground (brown)
 - Pin 4 to Kl.15 Ignition plus (red/white)
- **Sound Booster 2-pole MiT**
 - Pin 7 to Pin 2
 - Pin 8 to Pin 1

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