



## **Installation Instructions**

Complete set active sound incl. soundbooster

Porsche Macan

v1.3 (01.11.2018)

## Contents

1	Liability Exclusion	3
2	Copy Right	4
3	General Notes	4
4	Safety instructions	5
5	Requirements for the determinable operation	5
6	Note	5
7	How to connect a cable to another	6
8	Note Cable Inscription/Color	7
9	Assembly Instructions	8
10	Removing front trim panel passenger's side	9
11	Removing rear trim panel passenger's side	10
12	Connection ground / routing cable set rear	11
13	Connection CAN High/Low / routing cable set in the front	12
14	Removing trim panel of the dashboard driver's side	13
15	Removing trim panel of the dashboard driver's side	14
16	Cable routing pushbutton / ignition lead	15
17	Connection ignition lead / installation pushbutton	16
18	Routing connecting cable sound generator	17
19	Installation sound generator	18
20	Software	19
21	Software	20
22	Software	21
23	Important Information Sound Booster	22

# 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

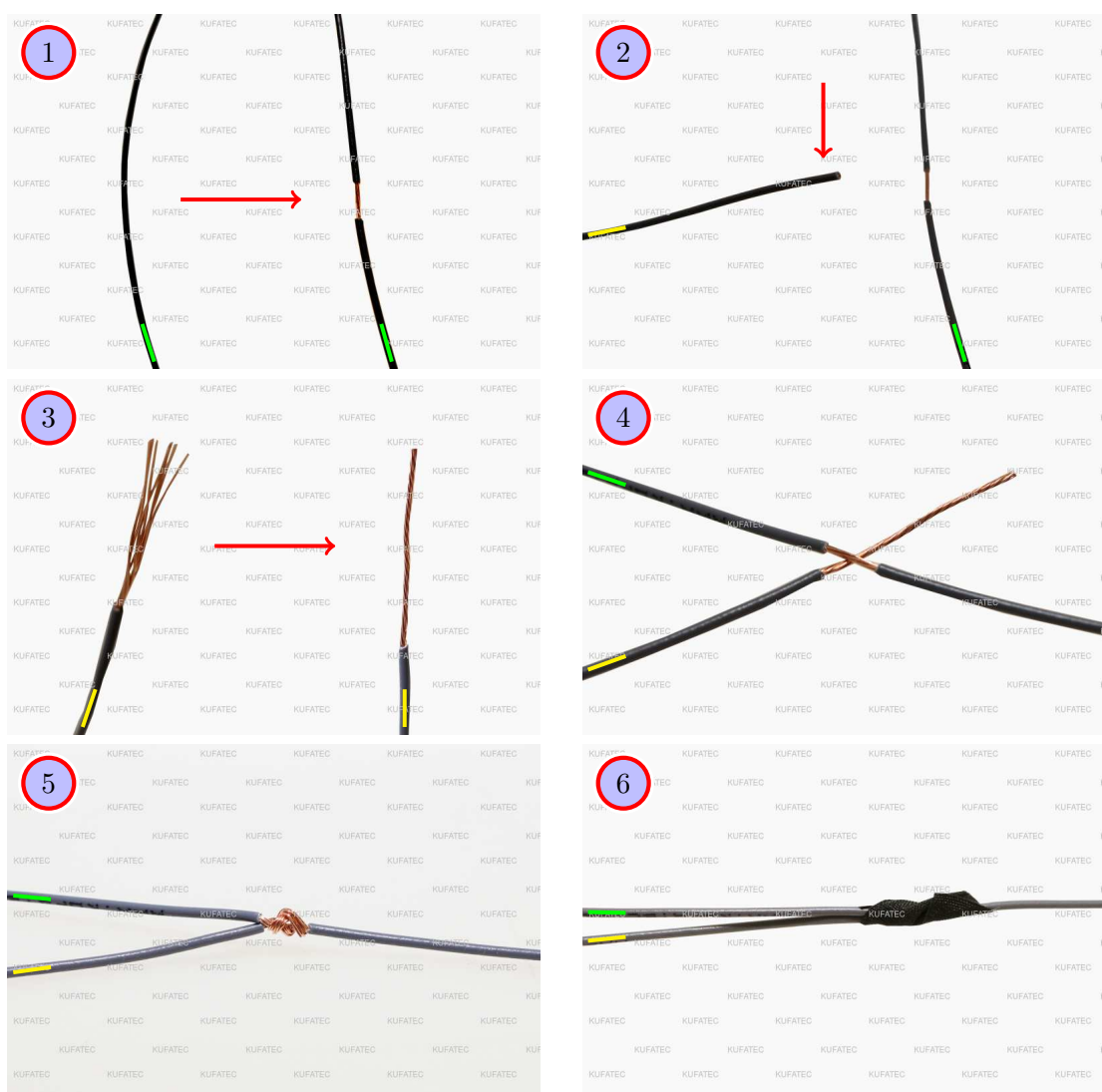


Figure 1: How to connect a cable to another

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.

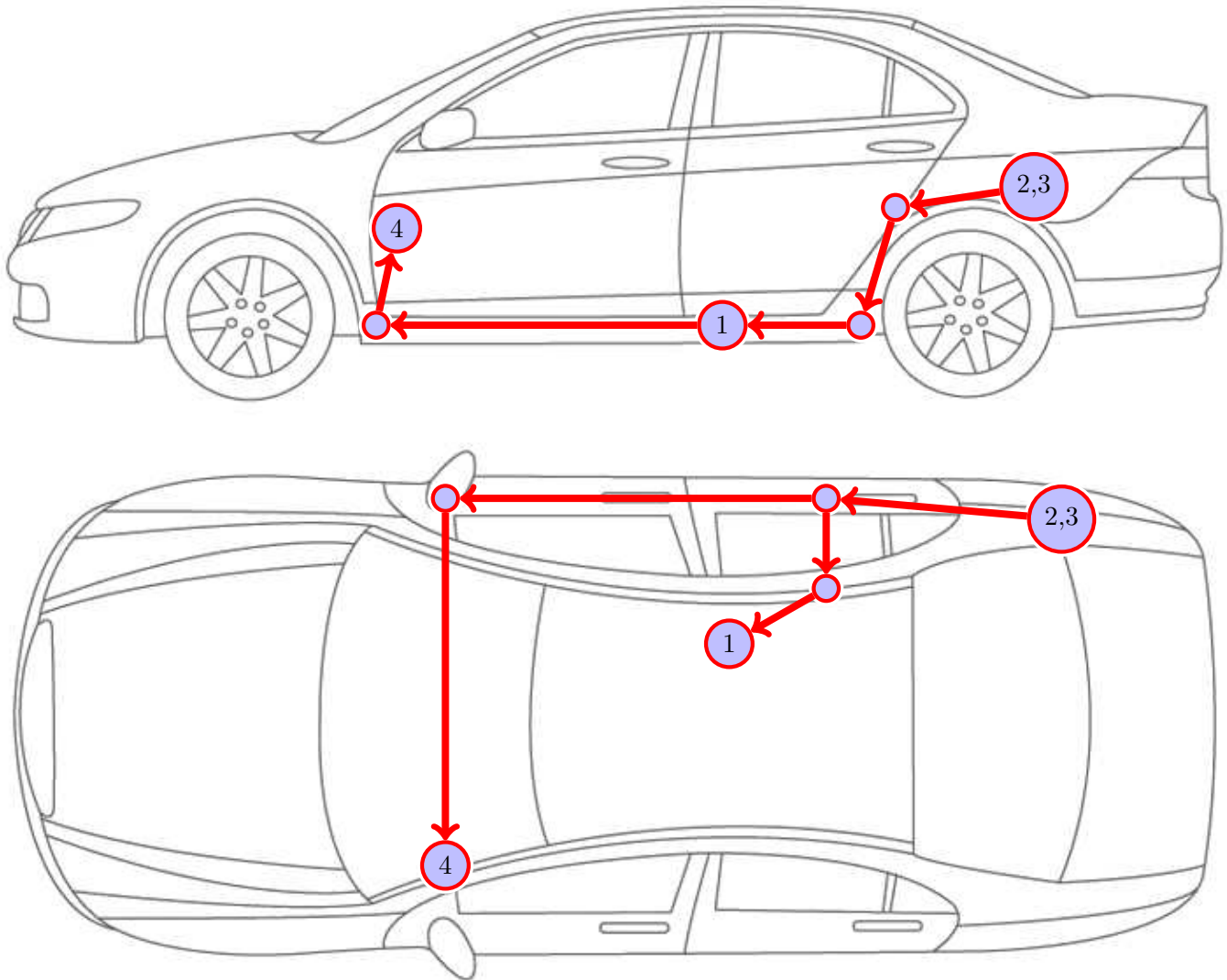


Figure 3: Vehicle overview

- 1 External sound generator incl. mounting plate
- 2 Control unit for engine sound generation
- 3 Sound Booster Pro (module)
- 4 Pushbutton



## 10 Removing front trim panel passenger's side



Figure 4: Removing front trim panel passenger's side

Table 2: Removing front trim panel passenger's side - instructions

Nr.	Work step	Note
1	Remove the lateral covering of the dashboard with a trim tool.	
2	Loosen and remove the upper trim panel of the a-pillar with a trim tool.	
3	Afterwards remove the sill trim.	
4	Loosen the upper trim panel of the b-pillar with a trim tool.	
5	Loosen and remove now the lower trim panel of the b-pillar with a trim tool.	

## 11 Removing rear trim panel passenger's side

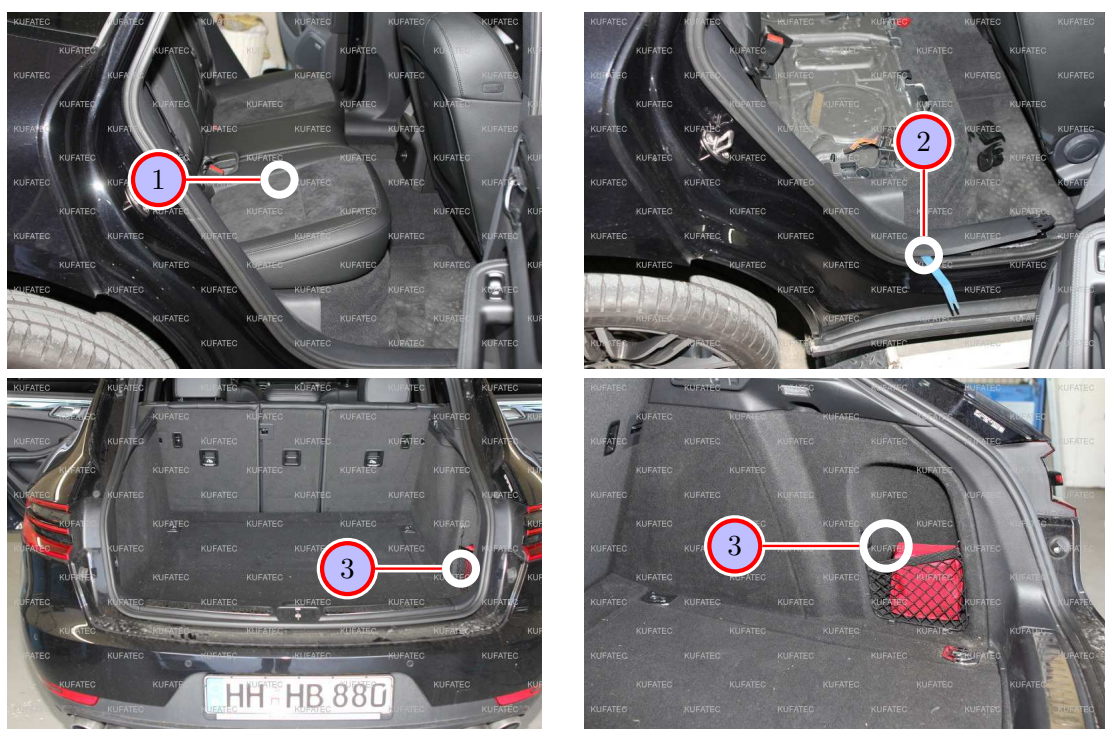


Figure 5: Removing rear trim panel passenger's side

Table 3: Removing rear trim panel passenger's side - instructions

Nr.	Work step	Note
1	Remove the back seats by pulling them up in the front carefully.	
2	Loosen the sill trim with a trim tool and pull it up carefully.	
3	Remove the lateral covering.	



## 12 Connection ground / routing cable set rear

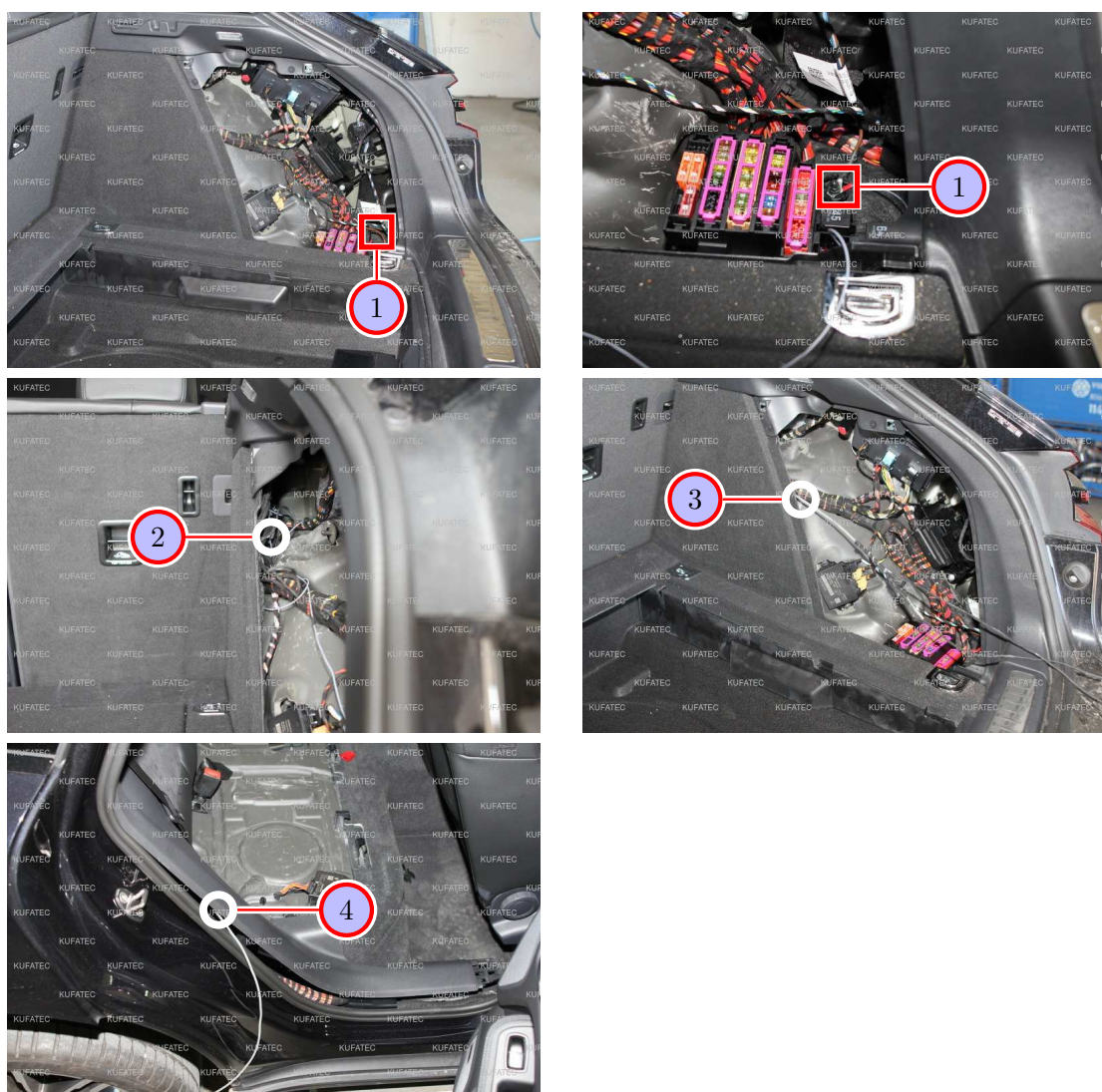


Figure 6: Connection ground / routing cable set rear

Table 4: Connection ground / routing cable set rear - instructions

Nr.	Work step	Note
1	Connect the ground cable (brown) to the marked ground spot.	10er socket
2	Connect the cable set to the delivered control units and place them at the marked position.	
3	With a pull through aid, pull the cable set behind the trim panel in the direction of the back seats.	
4	Pull the cable set further through.	

## 13 Connection CAN High/Low / routing cable set in the front

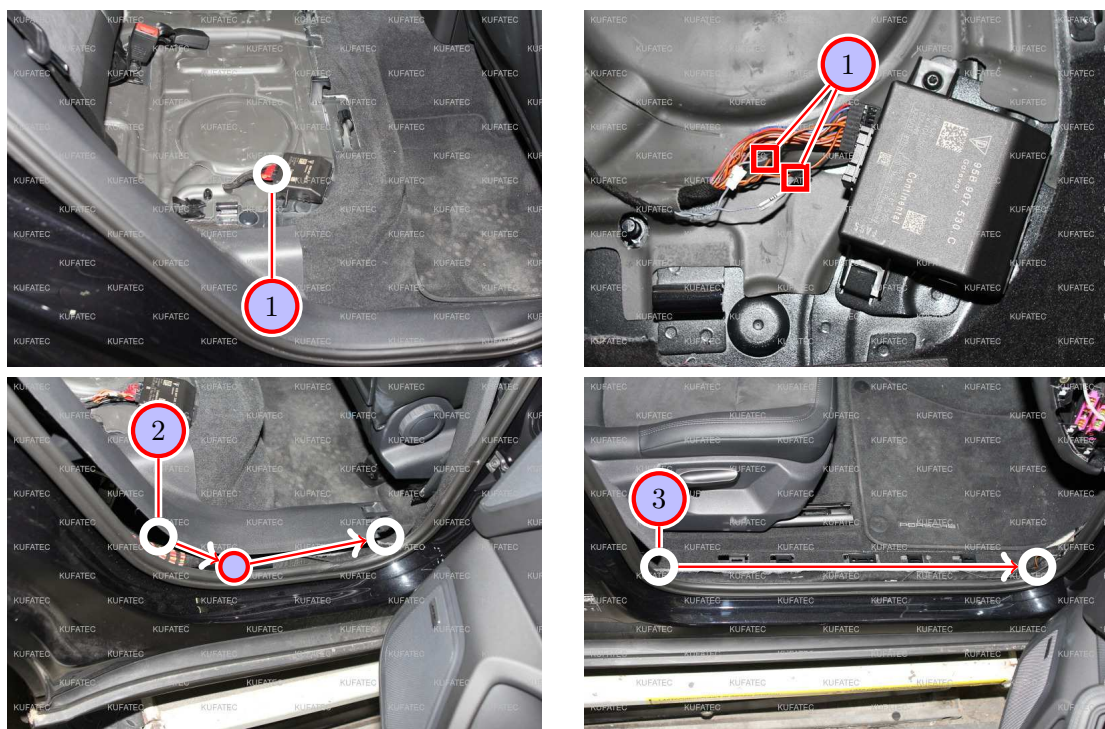


Figure 7: Connection CAN High/Low / routing cable set in the front

Table 5: Connection CAN High/Low / routing cable set in the front - instructions

Nr.	Work step	Note
1	Remove the marked plug from the CAN Gateway and connect CAN High/Low as follows: CAN High (black/white) to PIN 16 (orange/black) CAN Low (black/yellow) to PIN 6 (orange/brown)	
2	Route the cable for the pushbutton as well as the cable for ignition lead along the rear sill trim to the b-pillar.	
3	Now pull the cable set through behind the trim panel of the b-pillar and route it along the front sill trim to the dashboard.	



## 14 Removing trim panel of the dashboard driver's side

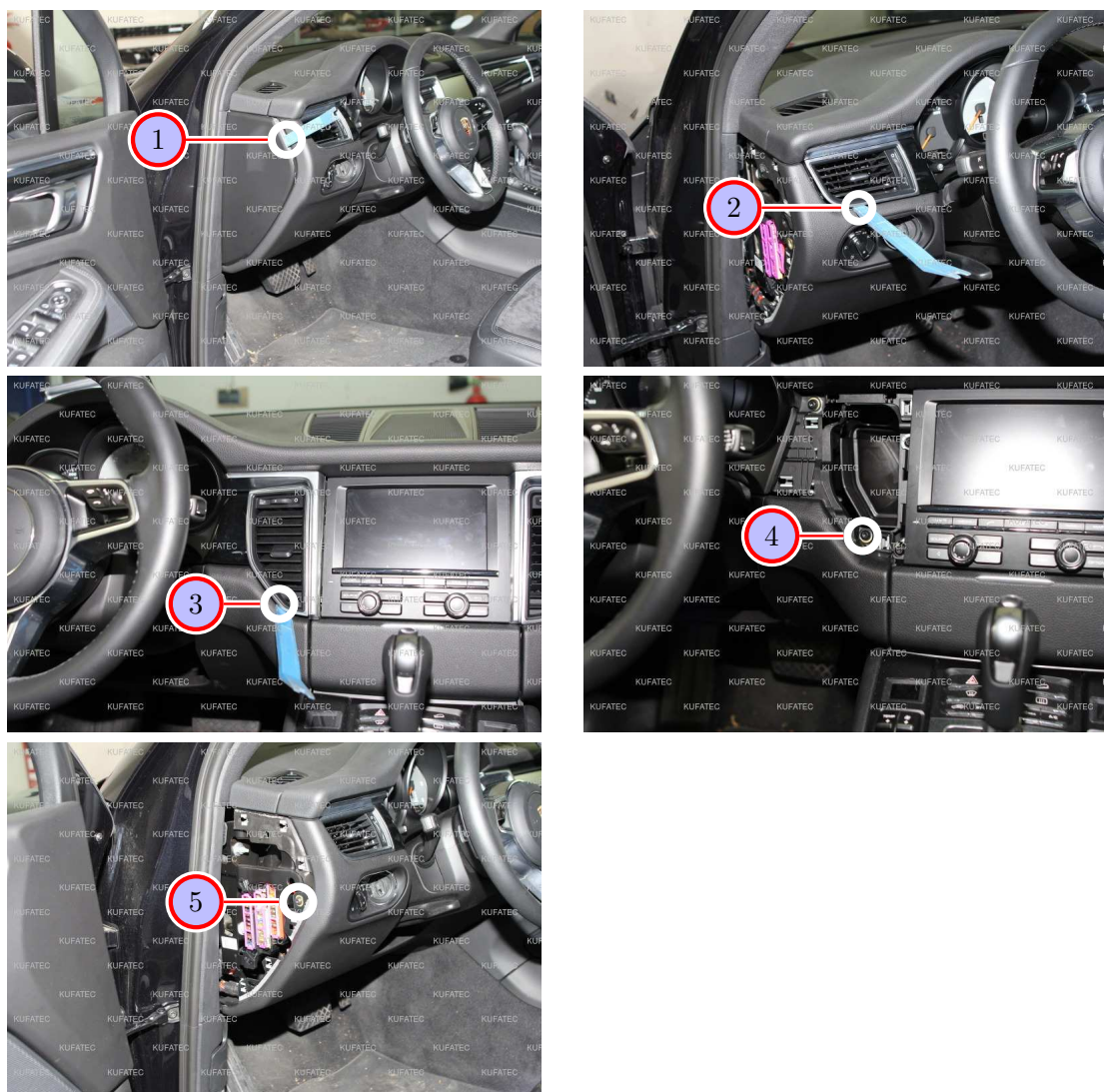


Figure 8: Removing trim panel of the dashboard driver's side

Table 6: Removing trim panel of the dashboard driver's side - instructions

Nr.	Work step	Note
1	Remove the lateral trim panel of the dashboard using a trim tool.	
2	Loosen and remove now the marked air discharge installation on the left side.	
3	Afterwards loosen and remove the air discharge installation on the right side.	
4	Loosen the marked screw behind the air discharge installation.	T20
5	Loosen the marked screw on the side of the dashboard.	T20

## 15 Removing trim panel of the dashboard driver's side

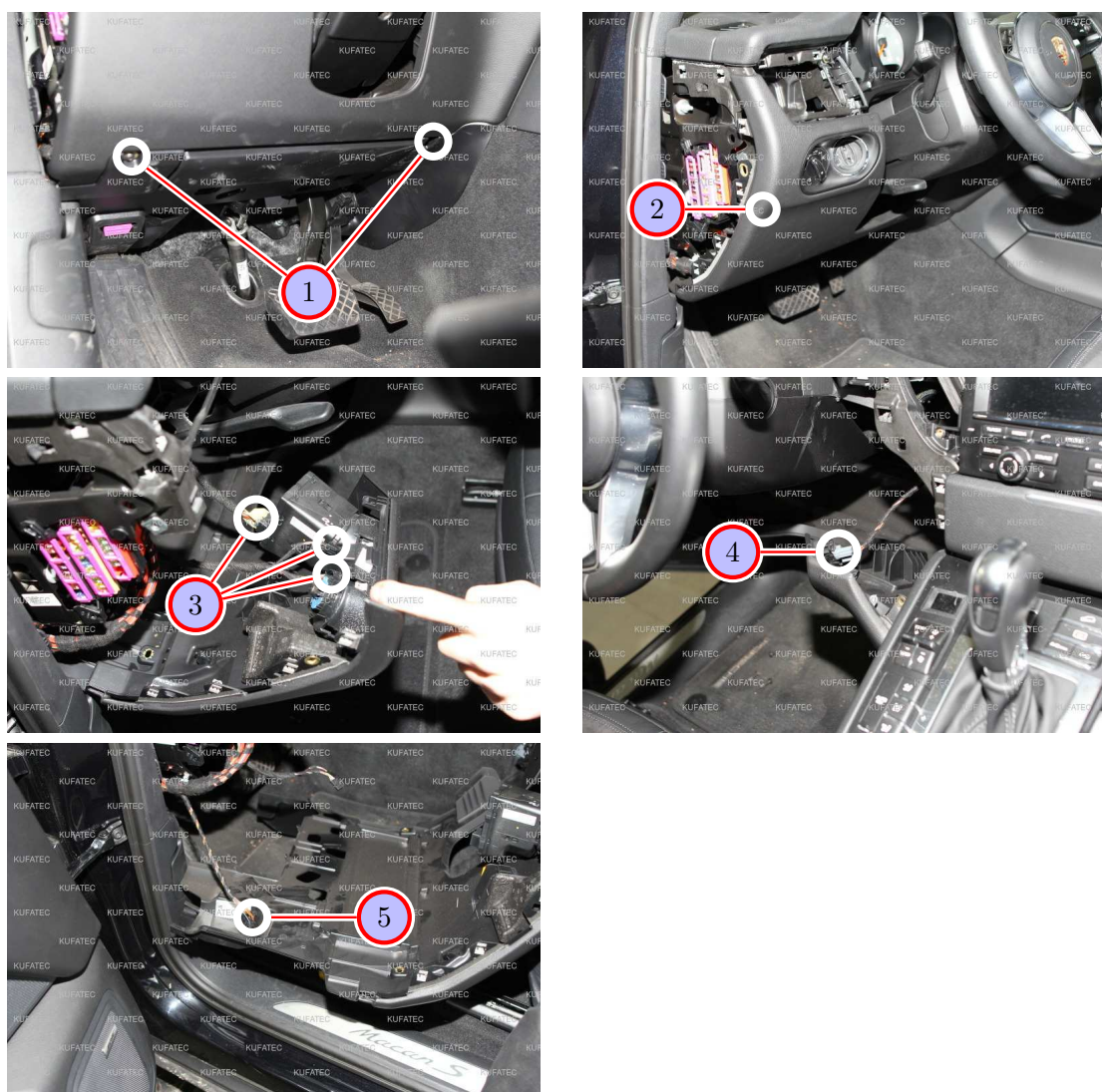


Figure 9: Removing trim panel of the dashboard driver's side

Table 7: Removing trim panel of the dashboard driver's side - instructions

Nr.	Work step	Note
1	Loosen the marked screws of the lower trim panel of the dashboard.	T20
2	Pull the front trim panel forward carefully.	
3	Remove the marked plug connections on the left side.	
4	Afterwards remove the plug connection on the right side.	
5	Loosen the OBD power outlet out of the trim panel and take the trim panel out completely afterwards.	



## 16 Cable routing pushbutton / ignition lead

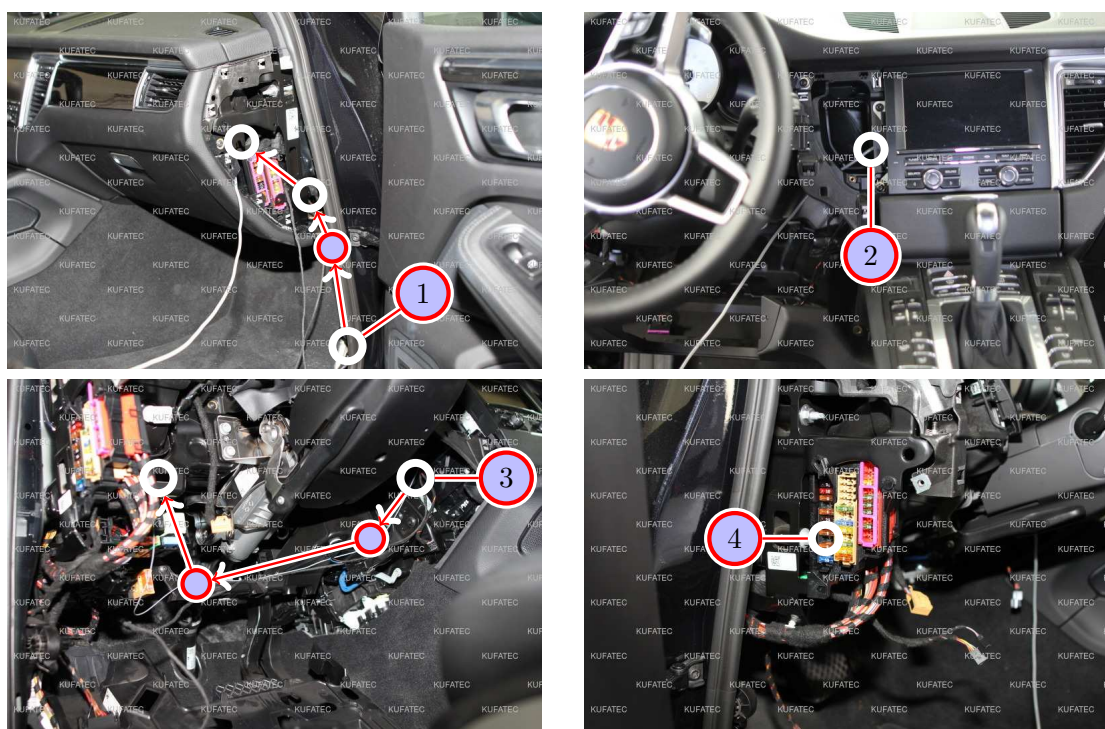


Figure 10: Cable routing pushbutton / ignition lead

Table 8: Cable routing pushbutton / ignition lead - instructions

Nr.	Work step	Note
1	Pull the cable for the pushbutton as well as the cable for ignition lead (red/white) at the a-pillar up to the fuse carrier and guide it behind the glove compartment and the center console to the driver's side afterwards.	
2	Pull both cables out from behind the center console.	
3	Route the two cables along the marking to the fuse carrier on the driver's side.	
4	Loosen the interlock of the fuse carrier and pull the fuse carrier backward.	

## 17 Connection ignition lead / installation pushbutton

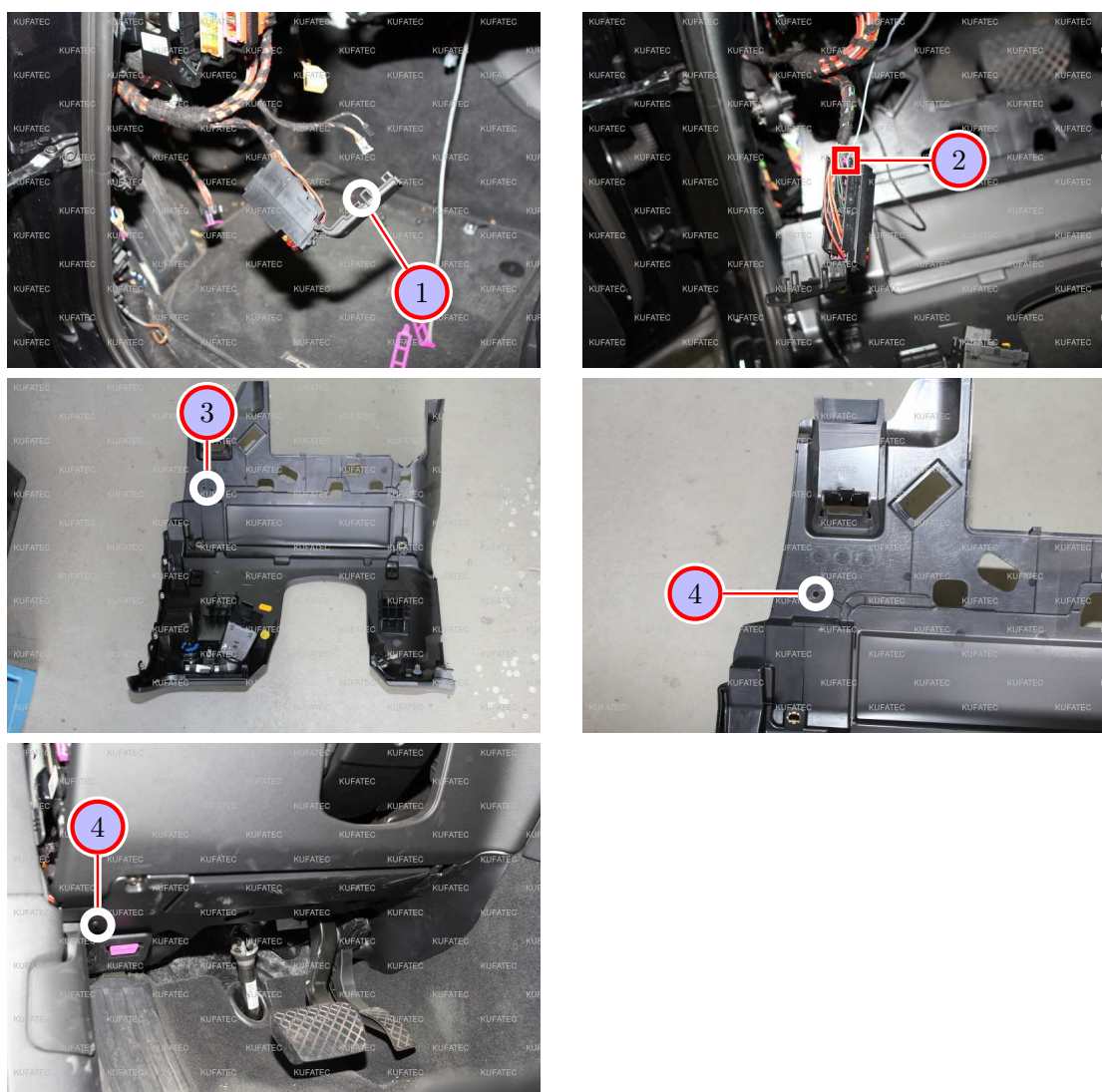


Figure 11: Connection ignition lead / installation pushbutton

Table 9: Connection ignition lead / installation pushbutton - instructions

Nr.	Work step	Note
1	Loosen the interlock of the fuse carrier and open the fuse carrier afterwards.	
2	Connect the cable for ignition lead (red/white) in a free fuse spot and protect this spot with a 7,5 ampere fuse. For this, measure with a multimeter which fuse spot carries ignition lead.	
3	Drill a suitable hole for the pushbutton at the marked position.	7mm
4	Afterwards install the pushbutton and install the trim panel under the dashboard.	



## 18 Routing connecting cable sound generator

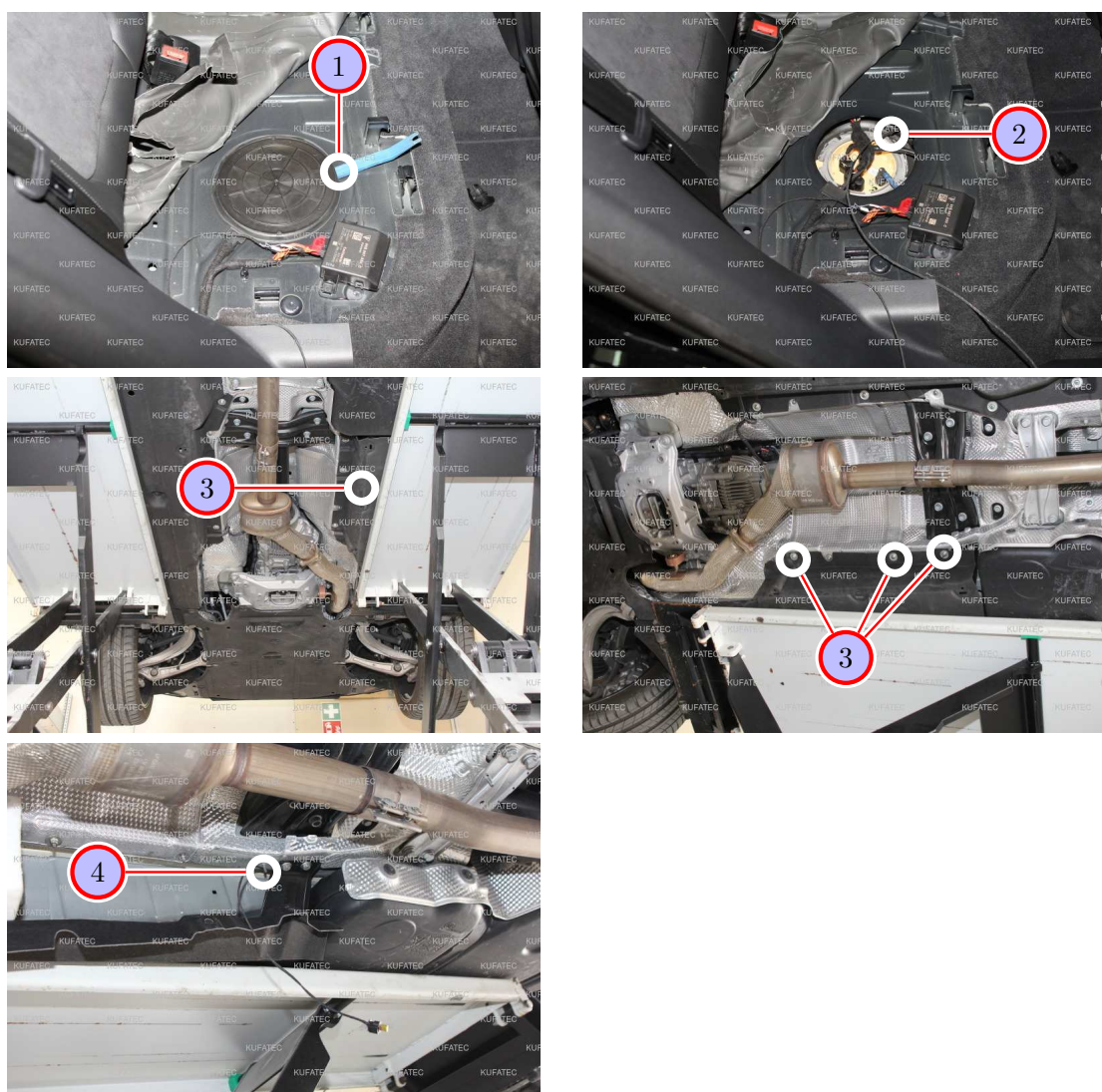


Figure 12: Routing connecting cable sound generator

Table 10: Routing connecting cable sound generator - instructions

Nr.	Work step	Note
1	Loosen the covering of the tank valve using a trim tool.	
2	Guide the connecting cable at the marked place to the underbody, using a pull through aid.	
3	Loosen the marked screws and fold the trim panel down.	10er socket
4	Pull the connecting cable for the sound generator further through.	

## 19 Installation sound generator

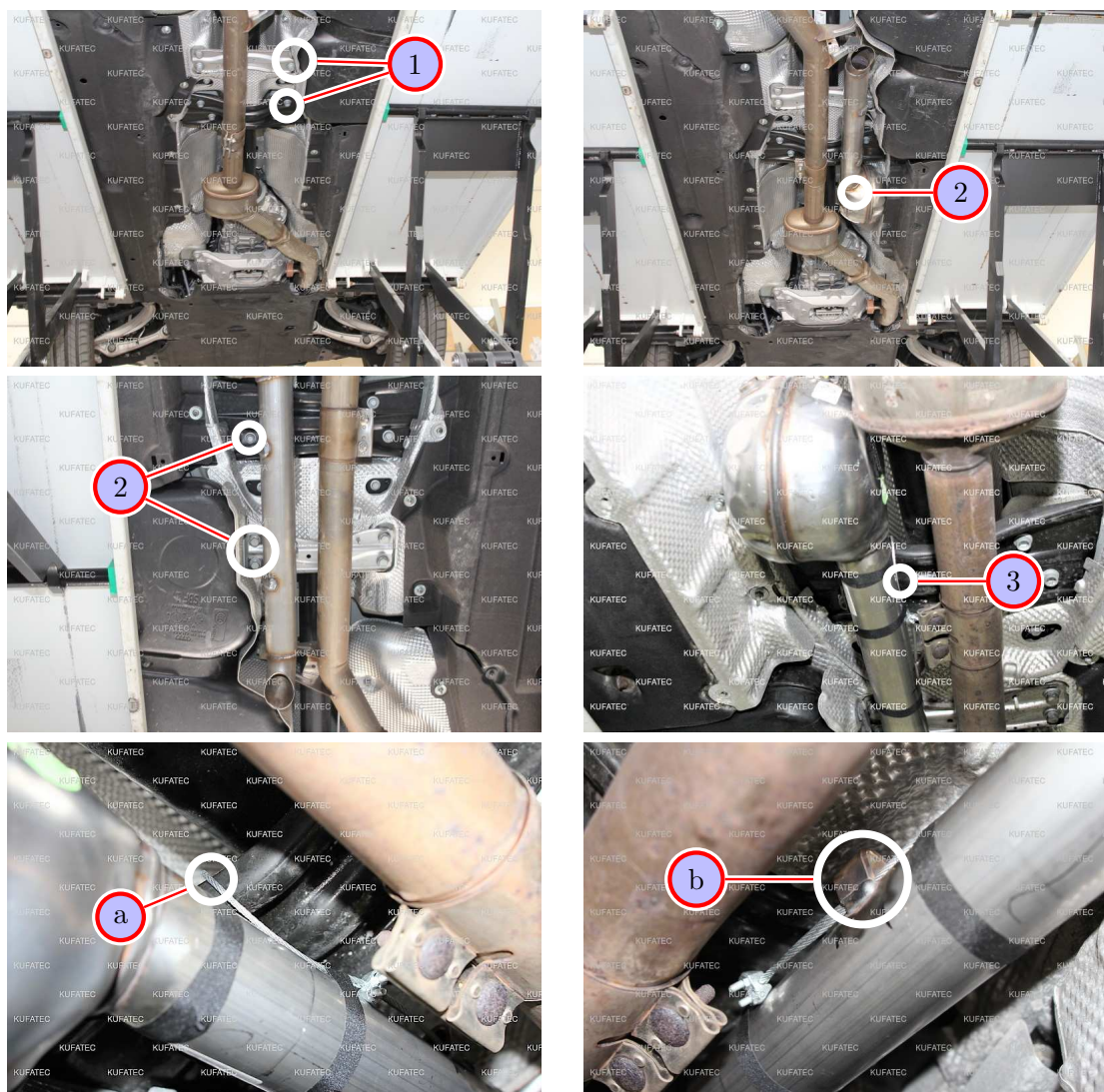


Figure 13: Installation sound generator

Table 11: Installation sound generator - instructions

Nr.	Work step	Note
1	Loosen the marked screws at the underbody.	13er socket
2	Afterwards install the sound generator with the just loosened screws and connect the connecting cable.	
3	Secure the sound Booster by using the supplied steel cable by mounting the steel cable to the sound booster and the vehicle.	
	First lay the steel cable over the <b>cross member stiffener (a)</b> and the pull it through the <b>sound booster protection point (b)</b> . Screw the two ends of the steel cable properly.	

## 20 Software

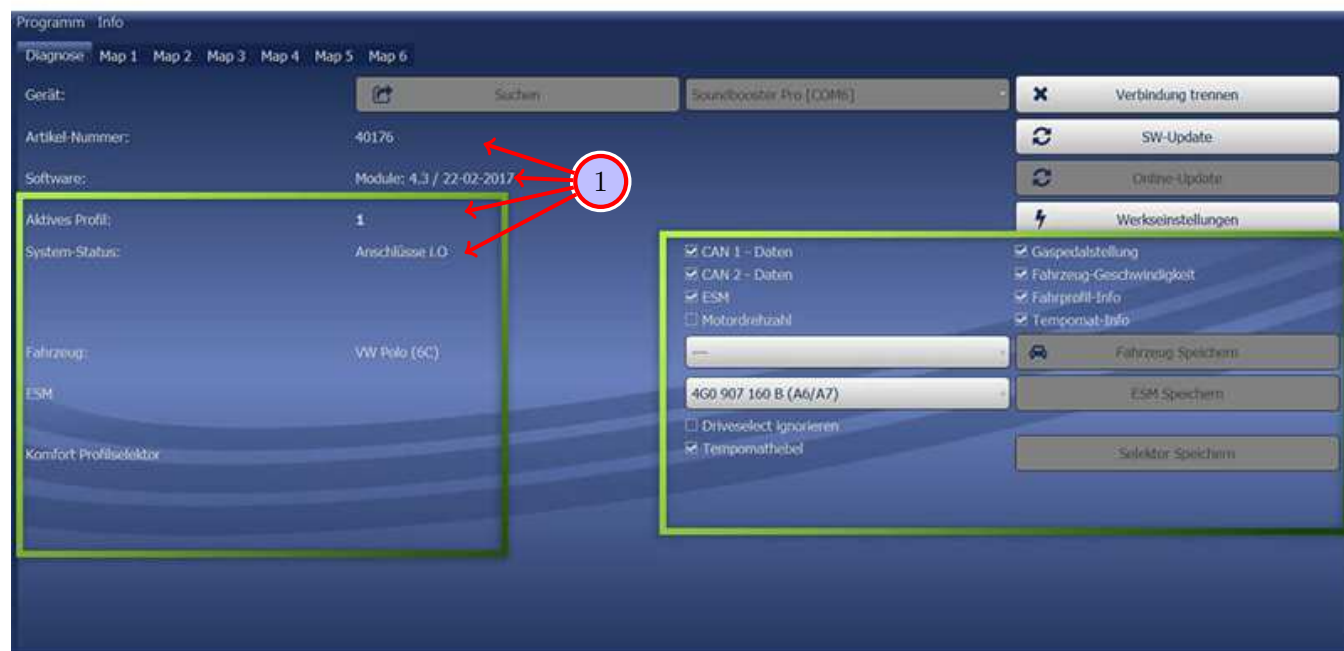


Figure 14: Software

Table 12: Notes for the software

Nr.	Work step	Note
1	If the system does not work after you have installed everything, please check by having a look on to the following Link: <a href="https://www.sound-booster.com/en/debugging.html">https://www.sound-booster.com/en/debugging.html</a> if everything is correct as described. For the further commissioning or debugging, our Sound Booster Software for PC / Mac should be used:	
	<b>Step 1:</b> Download the appropriate software via the following link: <a href="https://www.sound-booster.com">https://www.sound-booster.com</a> .	
	<b>Step 2:</b> Turn the ignition of the vehicle on and only then connect the PC / Mac with a USB-cable with our module. It is important here to make sure previously that plus and minus are connected correctly. If this is not the case, a damage at the computer or at the control unit can result.	
	<b>Step 3:</b> Start the downloaded software and first click on search and afterwards on connect.	
	You will be forwarded automatically to the diagnosis side, on which you can see the following things at a glance:	
	<b>Software:</b> Software version / creation date	
	<b>Active profile:</b> The actually activated profile is indicated here.	
	<b>Vehicle:</b> The automatically identified vehicle is indicated here.	
	<b>System Status:</b> You can see here, if the connections are correct.	



## 21 Software

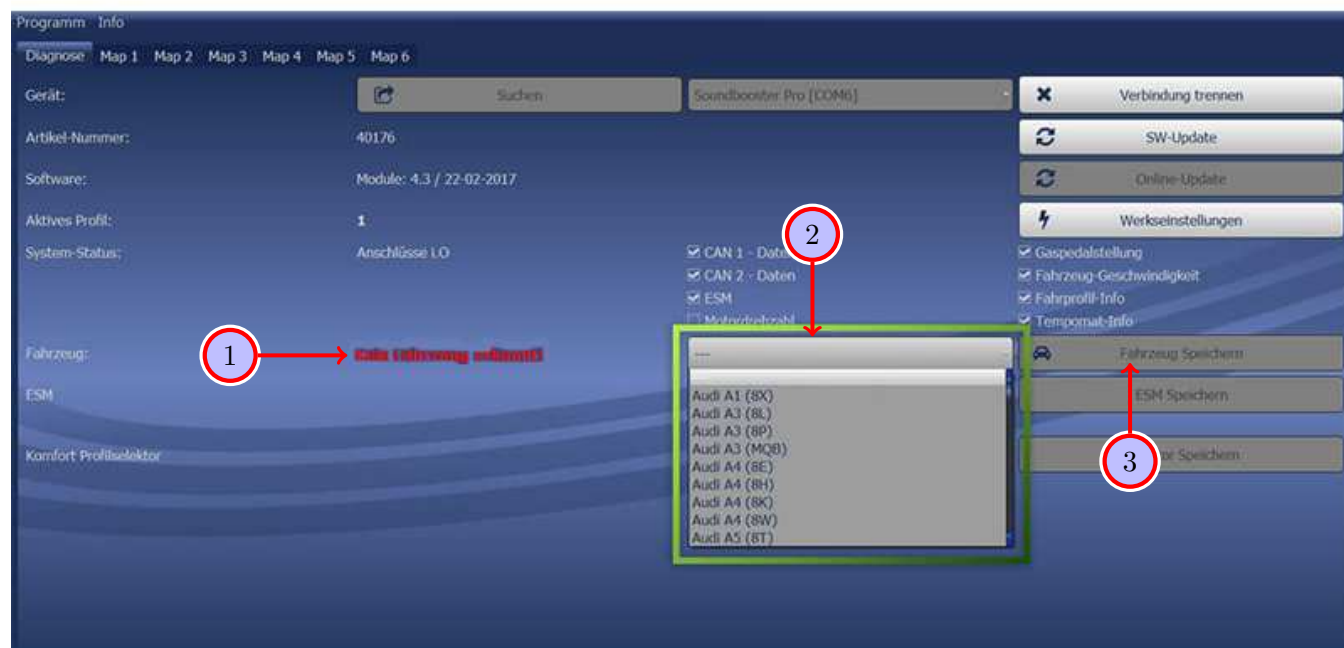


Figure 15: Software

Table 13: Notes for the software

Nr.	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 save the vehicle on the module permanently.	
	If you don't find your vehicle in this list, it is possibly necessary that the software has to be adapted to your vehicle. For this, please contact us via e-mail: <a href="mailto:info@kufatec.de">info@kufatec.de</a> or by phone: +49 (0) 4551 / 80 810 888. We will make an appointment with you, at which we will adapt the software to your vehicle per Team Viewer (telemaintenance).	

## 22 Software

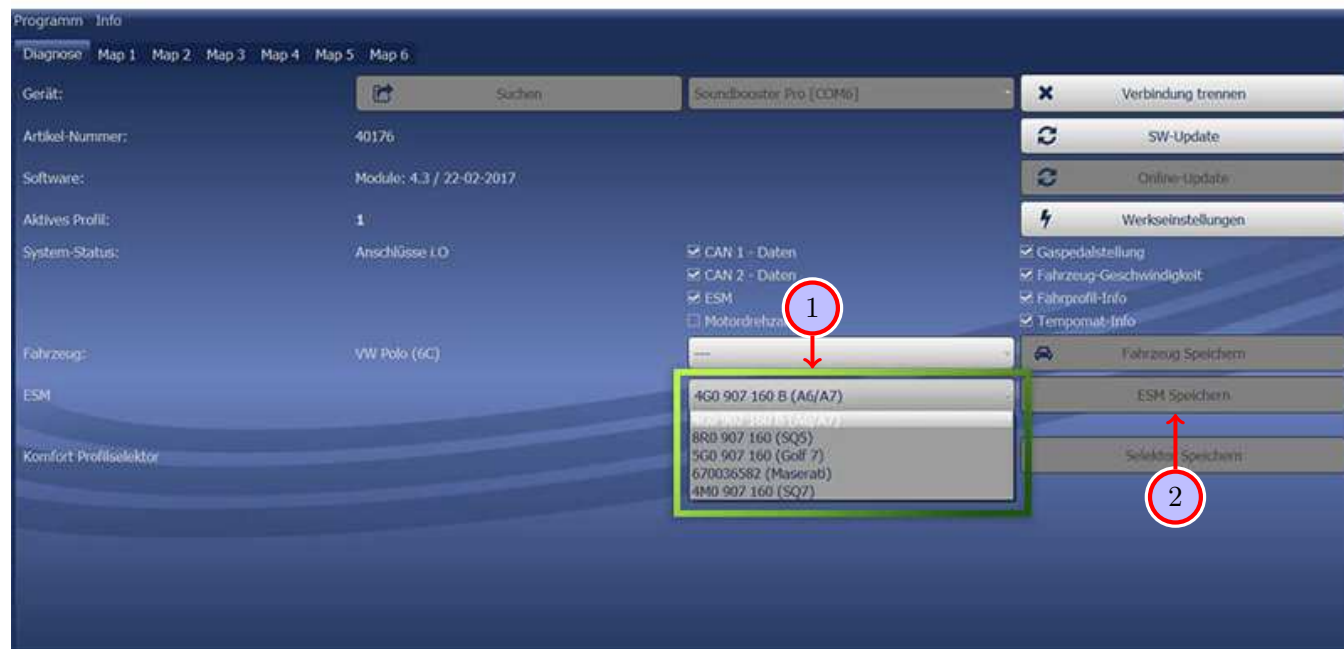


Figure 16: Software

Table 14: Notes for the software

Nr.	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 save the ESM on the module permanently.	
3	If you, for example, has ordered a complete set with Audi control unit you need to choose as ESM <b>4G0 907 160 B (A6/A7)</b> . If you install the Maserati Control unit you need to choose the ESM <b>670036582 (Maserati)</b> If the system does not work after all please get in contact with us via e-mail: <a href="mailto:info@kufatec.de">info@kufatec.de</a> or by phone: +49 (0) 4551 / 80 810 888. We will check the issue as soon as possible.	

## 23 Important Information Sound Booster

Please use for the fixation of the Sound Booster suitable high tensile screws. In order to avoid loosening of the screws by vibration please make the screws safe 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 no consideration we do not assume liability for possible damages. After 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 no zinc spray can't get inside the sound generator.

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

## List of Figures

1	How to connect a cable to another . . . . .	6
2	Cable Inscription . . . . .	7
3	Vehicle overview . . . . .	8
4	Removing front trim panel passenger's side . . . . .	9
5	Removing rear trim panel passenger's side . . . . .	10
6	Connection ground / routing cable set rear . . . . .	11
7	Connection CAN High/Low / routing cable set in the front . . . . .	12
8	Removing trim panel of the dashboard driver's side . . . . .	13
9	Removing trim panel of the dashboard driver's side . . . . .	14
10	Cable routing pushbutton / ignition lead . . . . .	15
11	Connection ignition lead / installation pushbutton . . . . .	16
12	Routing connecting cable sound generator . . . . .	17
13	Installation sound generator . . . . .	18
14	Software . . . . .	19
15	Software . . . . .	20
16	Software . . . . .	21

## List of Tables

1	How to connect a cable to another . . . . .	6
2	Removing front trim panel passenger's side - instructions . . . . .	9
3	Removing rear trim panel passenger's side - instructions . . . . .	10
4	Connection ground / routing cable set rear - instructions . . . . .	11
5	Connection CAN High/Low / routing cable set in the front - instructions . . . . .	12
6	Removing trim panel of the dashboard driver's side - instructions . . . . .	13
7	Removing trim panel of the dashboard driver's side - instructions . . . . .	14
8	Cable routing pushbutton / ignition lead - instructions . . . . .	15
9	Connection ignition lead / installation pushbutton - instructions . . . . .	16
10	Routing connecting cable sound generator - instructions . . . . .	17
11	Installation sound generator - instructions . . . . .	18
12	Notes for the software . . . . .	19
13	Notes for the software . . . . .	20
14	Notes for the software . . . . .	21