



Installation instructions

Complete set active sound including sound booster

v1.0 (09/06/2021)

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Disclaimer of liability

Dear buyer,

Our cable sets are developed on the basis of the circuit diagrams and circuit diagrams of the respective vehicle manufacturer and are adapted and tested on an original vehicle before series production. The integration into the vehicle electronics therefore follows the specifications of the vehicle manufacturer. Our installation instructions correspond, as far as the necessary prior understanding is concerned, and the accuracy of the representation in text and images, to those usual in vehicle electrics / electronics and have already proven themselves hundreds of times in practice.

Should difficulties arise during the installation of one of our products, we will provide you with telephone and electronic support by e-mail at any time. We also offer you to carry out the installation in our factory in Bad Segeberg.

On the other hand, we do not assume any costs that arise from commissioning third parties to install our products. Only if it turns out that there is a defect in our product will we reimburse the proven costs of installation and removal of the defective product, whereby we limit the reimbursement of costs to EUR 110 gross and reserve the right to check the alleged defect in our factory in Bad Segeberg. The shipping costs for the factory inspection will be reimbursed if the complaint is justified.

We have made the experience that every specialist workshop that has the necessary diagnostic equipment, the diagnostic software and the circuit diagrams of the manufacturer can find any faults in one of our products within a short period of time, so that installation and removal including fault diagnosis can be done in a maximum of 60 minutes.

We have also made the experience that many specialist workshops cannot cope with the manufacturer's circuit diagrams and cannot read the usual circuit diagrams, so that various hours are written down for the simplest installation work. You will understand that we can neither take on the risk of finding a reliable specialist workshop, nor finance the employee training of the workshop you trust.

We will reimburse costs incurred because you obtain missing parts or replacements for defective parts from other providers up to the amount of the costs incurred as a result of a subsequent delivery (saved expenses). According to the statutory warranty law, there would be no right to reimbursement in this case as long as we have not been set a deadline for subsequent performance or a deadline set for subsequent performance has not expired.

So if you have problems installing or operating one of our products, give us a call, send us an email, send us the product or bring your vehicle to our factory in Bad Segeberg. We are sure to find an appropriate solution for every concern.

Kind regards

Your Kufatec GmbH & Co. KG team

Copyright

Our installation and operating instructions, installation plans, software and other documentation in text and image form are protected by copyright.

Any publication or distribution of this documentation is only permitted with the written approval of Kufatec GmbH & Co. KG.

General information

During the development of the product, particular attention was paid to your personal safety, combined with the best possible ease of use, modern design and current production techniques.

Despite the greatest possible care, improper installation or use, or incorrect operation, can lead to injuries and / and property damage.

Therefore, please read these operating instructions carefully and completely and keep them!

All items from our production go through a 100% test - for your safety.

We reserve the right to make technical changes at any time in the interest of progress.

Depending on the article and intended use, it may be necessary to check the legal provisions of the respective country before installation or commissioning.

In the event of a warranty claim, the device is to be sent to the seller in its original packaging with the enclosed proof of purchase and a detailed description of the fault. Please note the manufacturer's return transmission regulations (RMA). The statutory warranty regulations apply.

The guarantee claim and also the operating license expired by:

- unauthorized changes to the device or accessories that have not been carried out or approved by the manufacturer or its partners
- Open the housing " of a device "
- Self-made repairs to the device
- improper use / improper use / operation
- Violent impact on the device (falling, willful destruction, accident, etc.)

When installing, observe all safety-relevant and legal provisions. The device may only be installed by trained specialists or similarly qualified persons.

In the event of assembly or functional problems, limit troubleshooting to approx. 0.5 hours for mechanical or 1.0 hours for electronic work.

In order to avoid unnecessary additional work and to save costs, send us an inquiry to our technical support immediately using the Ku-fatec contact form (<http://www.kufatec.de/shop/de/infocenter/>).

Be sure to state the following:

- Chassis number
- Part number of the retrofit kit "
- Exact description of the problem
- Work steps already carried out

Safety instructions

The installation may only be carried out by trained specialists. Only carry out installations in the de-energized state. For this purpose, E.g. disconnect the battery from the vehicle electrical system, please observe the vehicle manufacturer's specifications.

- Never use safety-relevant screws, bolts or other fastening points on the steering, braking system or other components in order not to endanger your own driving safety.
- Only connect the device to 12V vehicle voltage with a ground connection to the body. This sub-assembly is not approved for use in trucks or other vehicles with 24V on-board voltage.
- Avoid installing the device in places that restrict driving safety or the functionality of other sub-assemblies installed in the vehicle.
- This module may only be used in combination with the following vehicle types and model series; Installation may only be carried out using the connections specified in the installation instructions.
- Kufatec GmbH & Co. KG assumes no liability for damage caused by improper installation, the use of unsuitable connections or installation in vehicle types and models that are not intended.
- We would like to point out that the module processes the data described below from the MOST protocol of the vehicle. When installing the module, access is therefore made to a model-specific overall system of which we, as the manufacturer of the named assembly, are only partially known.
 - Therefore, especially in the case of changes within the same model series and the same model year the usability of our assembly cannot be guaranteed in every case. For one use

Kufatec GmbH & Co.

KG therefore accepts no liability.

- Kufatec GmbH & Co. KG assumes no guarantee that the installation of the component described here is permitted in accordance with the guarantee provisions of individual vehicle manufacturers. Therefore, please observe the installation guidelines and warranty conditions of your vehicle manufacturer before installation.
- The manufacturer reserves the right to change components without giving reasons.
- Errors and changes excepted

Requirements for normal operation

Only use the device in the area intended for it.

In the event of improper installation, improper use or modifications, the operating license and the guarantee will expire.

Our tip: Connect one cable to another

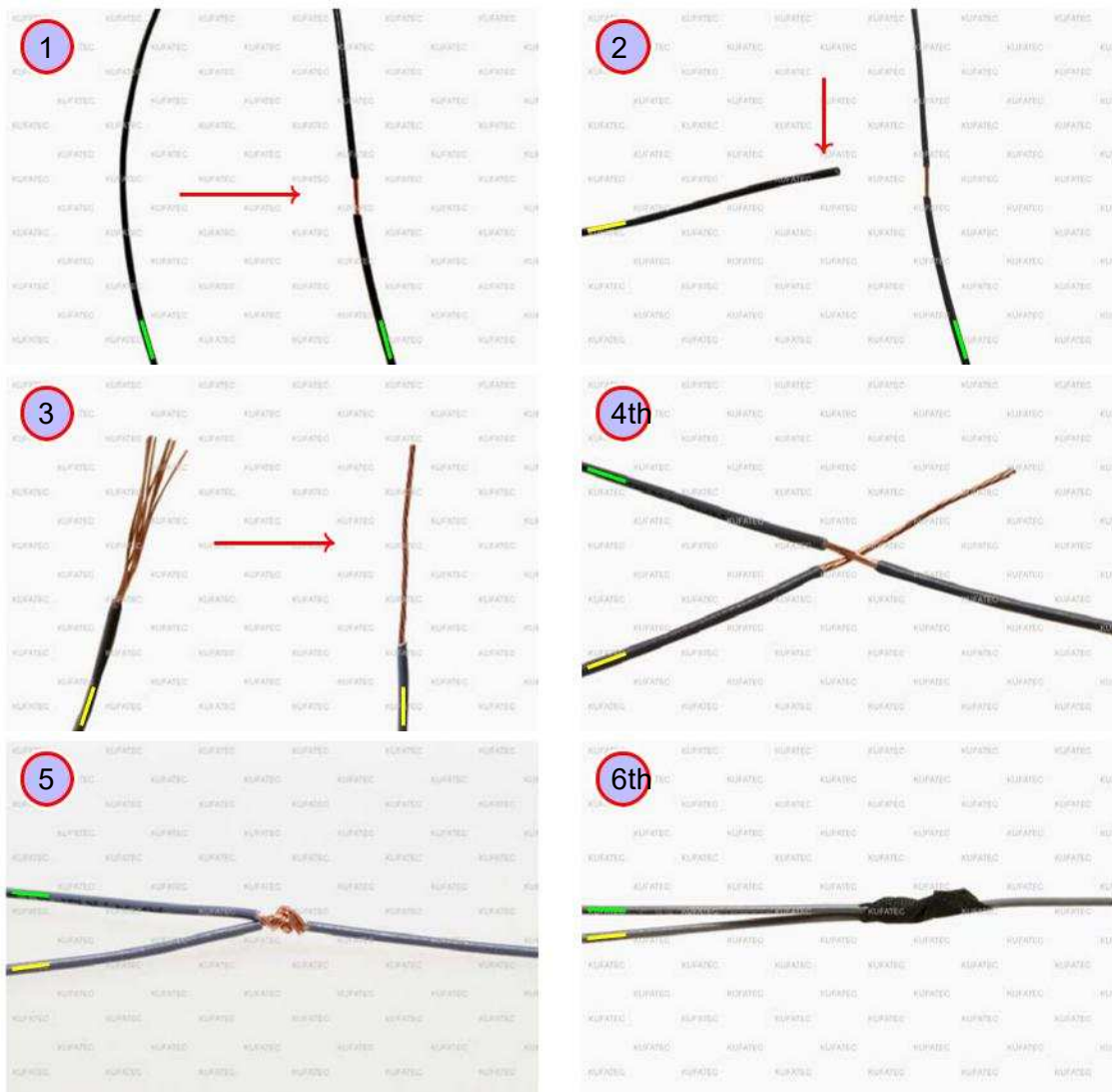


Figure 1: Connect one cable to another

Table 1: Instructions for connecting one cable to another

No.	Work step	Note
1	Take the cable from the vehicle that you want to connect to (here green marked) and isolate it at one point with a suitable tool (wire stripper / cutter knife).	
2	Now take the cable from the cable set that you want to connect (here yellow marked) and isolate it at the end.	
3	Twist the wires of the stripped cable together.	
4	Place the end of the cable to be connected under the stripped point of the Cable from the vehicle ...	
5	... and wrap the cable to be connected around the vehicle cable.	
6	Lastly, put electrical tape around the joint. Make sure that The insulation is properly attached to prevent subsequent corrosion of the connection to avoid.	

Note cable imprint / colors



Figure 2: Cable imprint

If the cable set consists of colored lines, connect the cables according to the color at the end of the lines. If all cables of the cable set are of the same color, connect the cables according to the cable imprint at the end of the lines.

Assembly Instructions

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

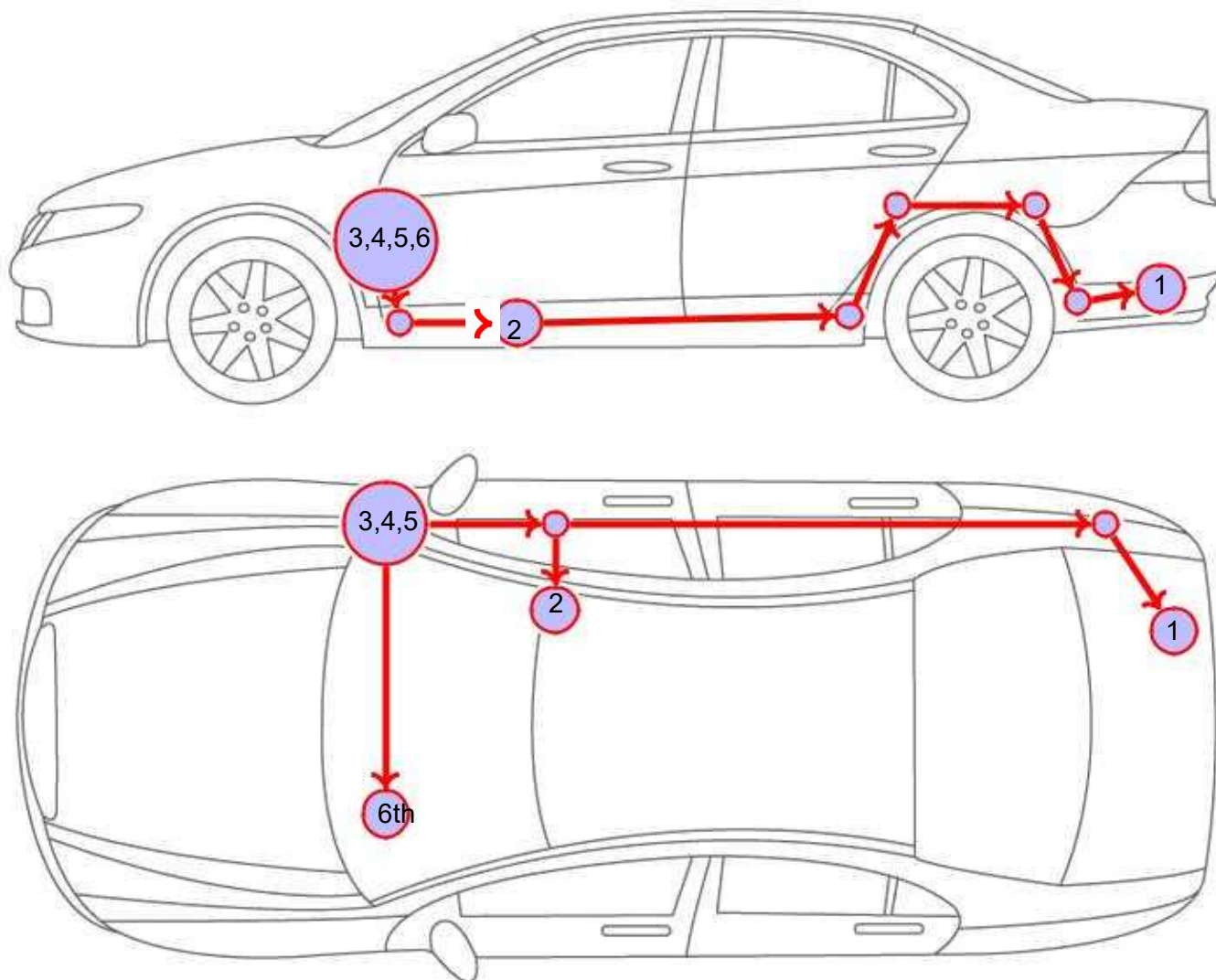


Figure 3: Vehicle overview

- 1 external noise generator including bracket
- 2 ground connection
- 3 Control unit for engine noise generation
- 4 Sound Booster Pro (module)
- 5 Connection ignition plus " terminal 15
- 6 buttons

Note that this overview is for illustrative purposes only. Relocate the Cable set always on the most suitable and shortest route. A detailed description of the For cable routing, please refer to the relevant chapters in the following instructions.

Installation note

Important note on installation

- These installation instructions were carried out using a BMW X6 F16 as an example. We would like to point out that the dismantling of the individual paneling parts may differ for other vehicle types. We therefore ask you to take this into account.

In the first step, please check whether the noise generator can be installed in the position described in the installation instructions. If this is not the case, contact customer service and abort the installation until you have clarified.

The use of a sound booster is without entry in the vehicle documents in the Area of the StVZO not allowed. The retrofit " increases the noise emission of the vehicle". The regulations of the StVZO must be observed. The inquiry" with regard to a specific registration option with the responsible TUV / DEKRA Position before retrofitting is therefore recommended. Outside of Germany, please note the Vehicle registration laws in force in your country.

Note on dismantling the vehicle

- **Before you begin to dismantle the vehicle, the system must first be tested for proper function.**

Dismantling of the front passenger side trim

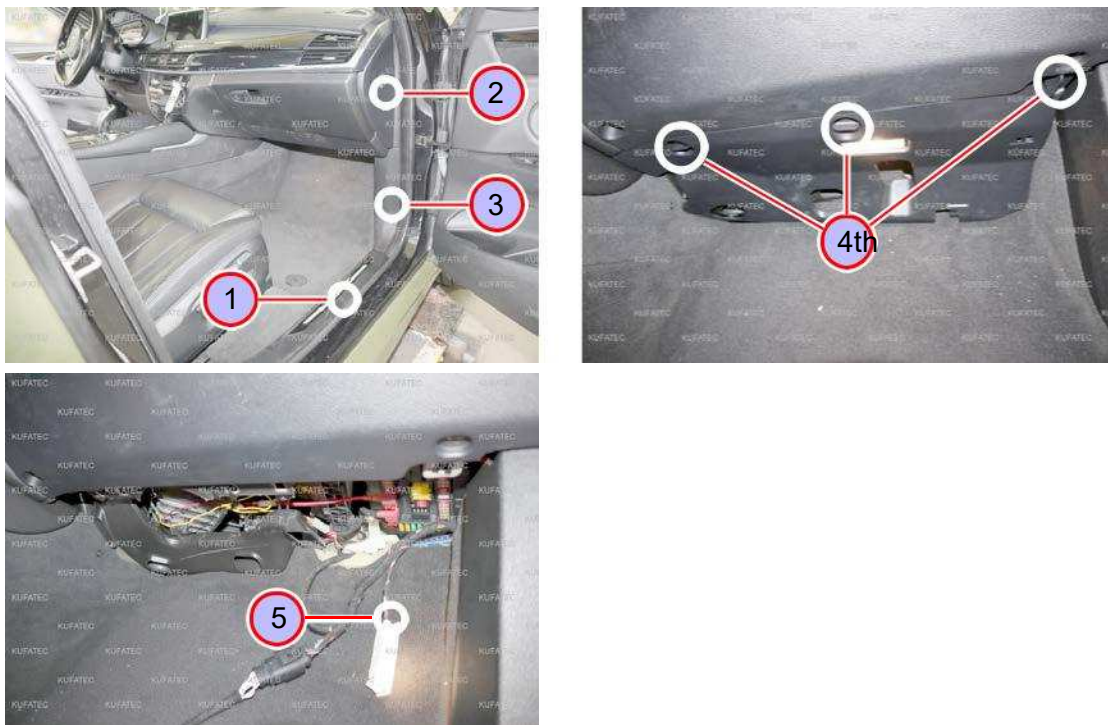


Figure 4: Disassembly of the cladding on the front passenger side

Table 2: Instructions for dismantling the panel on the front passenger side

No.	Work step	Note
1	Loosen the door sill by pulling it out with the help of an assembly lever pry off at the top.	
2	Loosen and remove the side cover of the dashboard by pulling Lever it off with the help of an assembly lever.	
3	Loosen and remove the lower A-pillar trim, by pulling it with the help of lever off an assembly lever.	
4	Turn the marked latches on the lower dashboard trim 90 degrees and carefully pull the panel down.	
5	Remove the plug from the footwell lighting and remove the clothing complete.	

Dismantling the rear seat bench

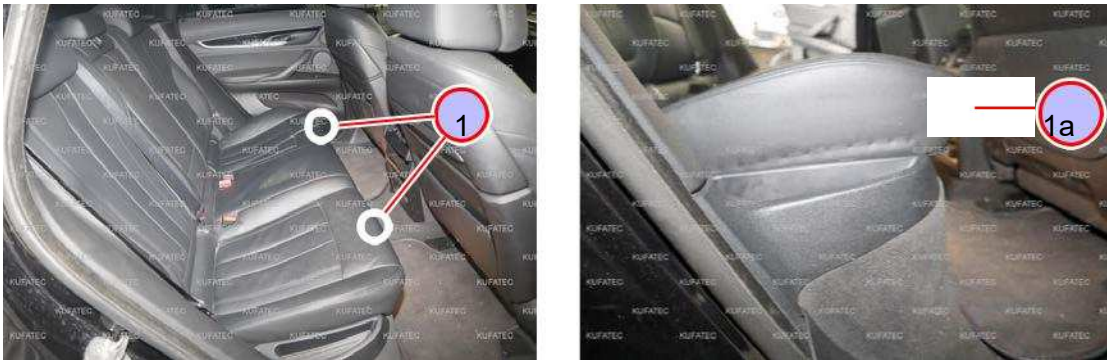


Figure 5: Dismantling the rear seat bench

Table 3: Instructions for dismantling the rear seat bench

No.	Work step	Note
1	Pull the seat upwards until it is unclipped. Print it out then backwards and take it up (1a).	
	Then remove the seat completely from the vehicle.	

Dismantling the door sill trim on the rear passenger side



Figure 6: Dismantling the door sill trim on the rear passenger side

Table 4: Instructions for dismantling the door sill on the rear passenger side

No.	Work step	Note
1	Loosen the door sill by pulling it out with the help of an assembly lever pry off at the top.	

Dismantling trim trunk



Figure 7: Dismantling the trunk area cladding

Table 5: Instructions for dismantling the trunk cover

No.	Work step	Note
1	Fold the trunk floor up.	
2	Remove all plastic clips all around from the cover and take out the Cover from the trunk.	

Adjustment of plastic shelf in trunk

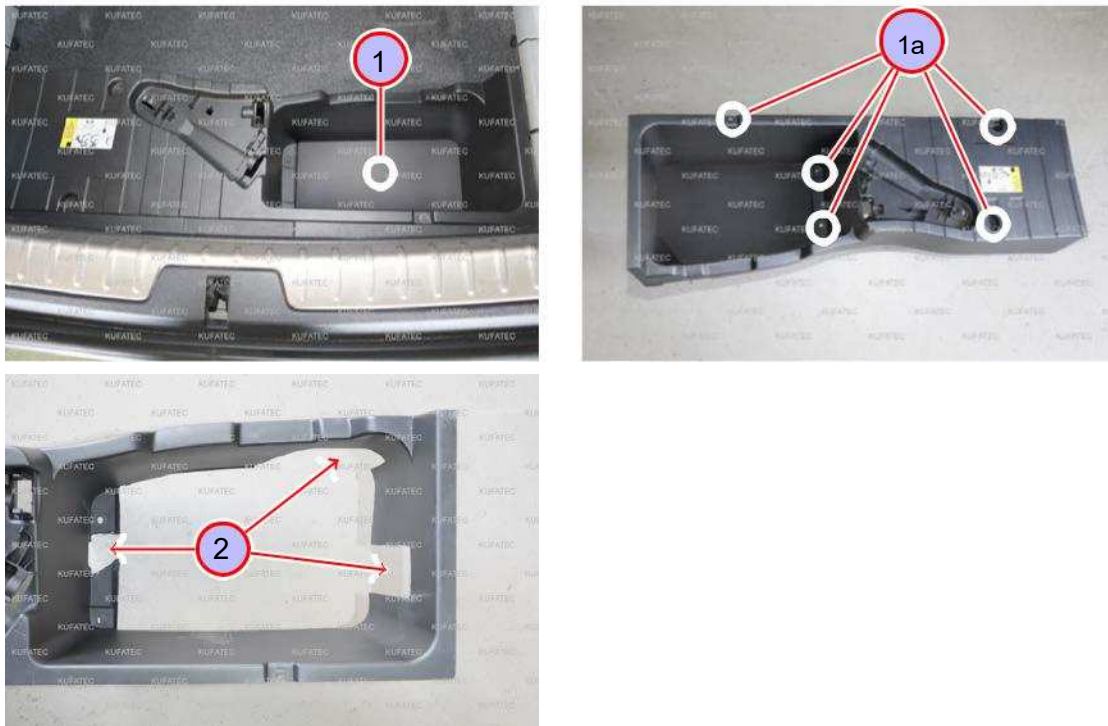


Figure 8: Adjustment of the plastic shelf in the trunk

Table 6: Instructions for adjusting the trim in the trunk

No.	Work step	Note
1	Loosen and remove the five marked screws (1a) securing the plastic shelf to remove from the trunk.	
2	Use a suitable tool to cut a suitable opening for the noise in the shelf.	
	Note: Draw the positioning for the with a suitable marker Neckline.	

Installation of the sound generator



Figure 9: Installation of the noise generator

Table 7: Instructions for installing the noise generator

No.	Work step	Note
1	Remove the marked rubber grommet by unscrewing the four marked screws (1a) at the bottom of the rubber grommet.	4x ??
	To be able to remove the screws on the rubber grommet, bend the heat shield downwards (1b). Carefully move the protective plate downwards (1b).	
2	Insert the noise generator in the installation position and fasten it at the marked points with the appropriate screws (2a, not included in the scope of delivery contain).	

Connection in the passenger footwell

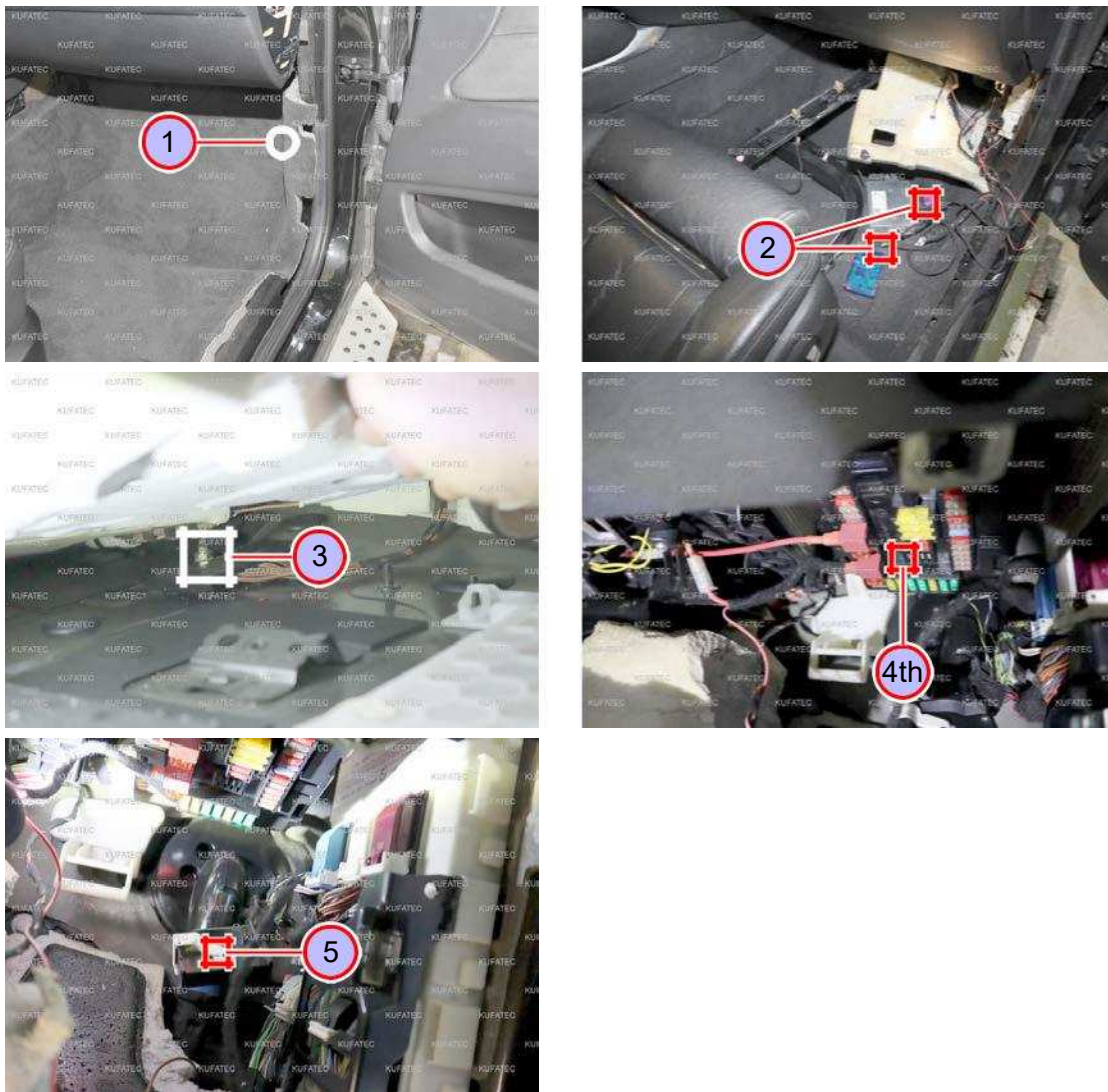


Figure 10: Connection in the passenger footwell

Table 8: Instructions for connection in the passenger footwell

No.	Work step	Note
1	Carefully pull the carpet on the A-pillar out from under the glove compartment towards the center console.	
2	Connect our module and the control unit to the cable set and stow them away this in a suitable place behind the carpet on the A-pillar. Note: Should no pushbutton be installed, but the operation of the noise only via the app, the button line can be tied back. If a button is installed, follow the instructions in Chapter 10.	
3	Connect the ground wire to the marked ground point under the carpet in the passenger footwell.	
4	Close the ignition plus line Class 15 on the fuse holder.	
5	Release the black plug from the control unit on the A-pillar and close CAN high and CAN Low as follows: CAN high (black / white) connect to red with. CAN Low (black / yellow) connect to blue / red with.	

Cable routing from the passenger footwell to the trunk

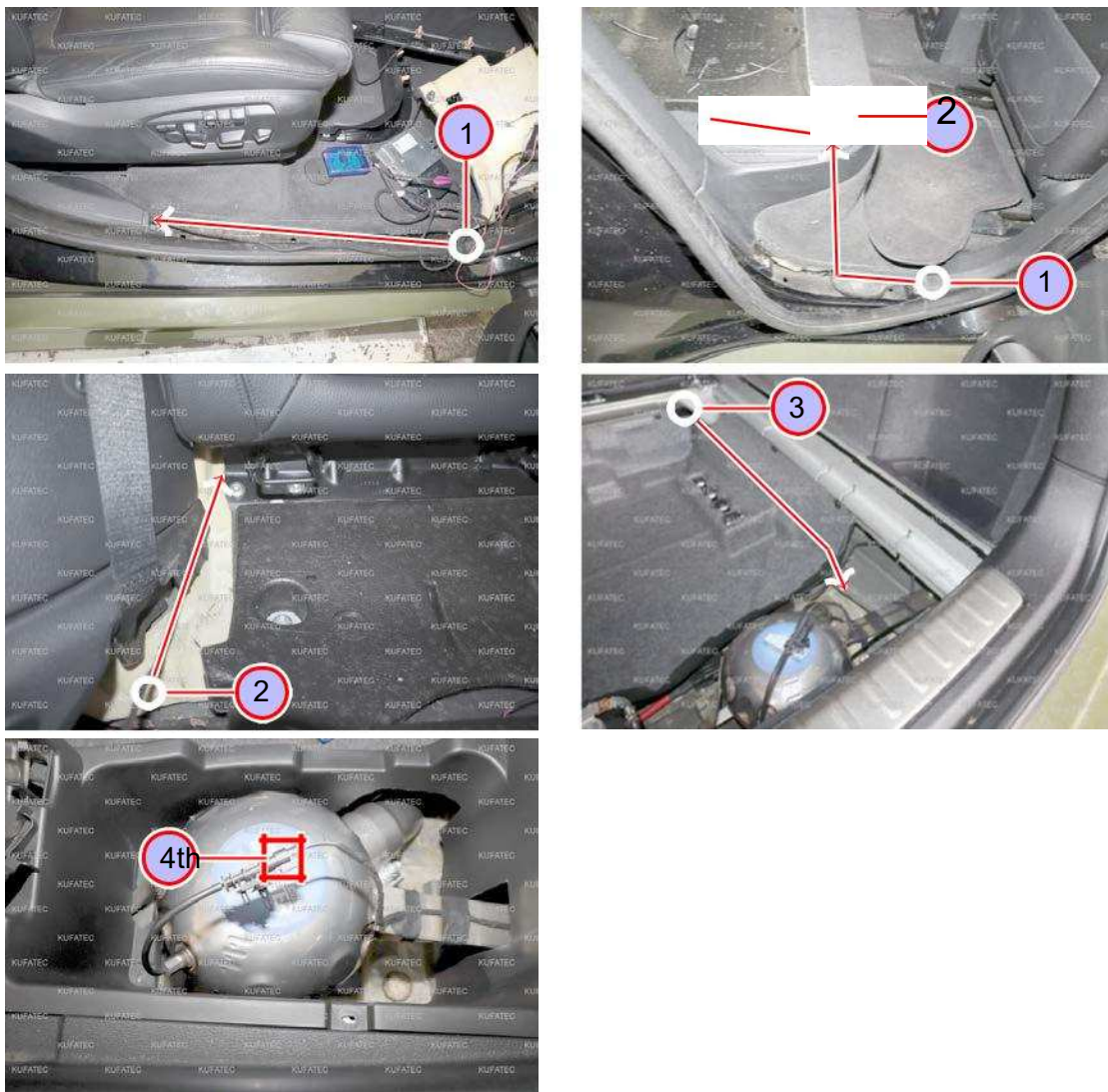


Figure 11: Cable routing from the passenger footwell to the trunk

Table 9: Instructions for laying cables from the passenger footwell to the trunk

No.	Work step	Note
1	Lay the cable from the passenger footwell under the door sill along and further behind the B-pillar trim " to the rear seat ". Use a Pull-through aid.	
2	Use a pull-through aid to lay the cable further over the rear seat bench the trunk.	
3	Use the pull-through aid to lay the line in the trunk up to the noise producer.	
4th	Connect the line to the noise generator. The plastic shelf can then be reassembled.	

Installation button

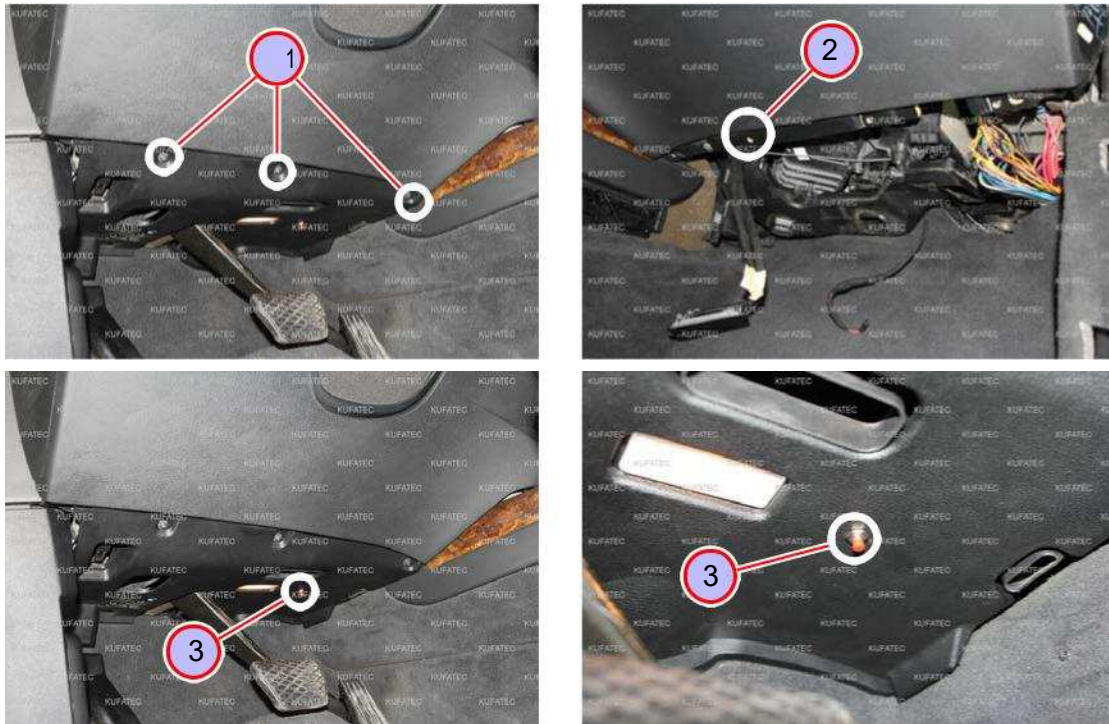


Figure 12: Push button assembly

Table 10: Instructions for mounting the button

No.	Work step	Note
1	Loosen the marked screws of the lower dashboard cover on the Driver's side. Gently pull it down.	
2	Guide the push-button cable behind the center console with the help of a pull-through aid along to the driver's side.	
3	Pull the cable out from behind the center console and mount the button the marked position. To do this, drill a corresponding hole in advance the button.	7mm

Software

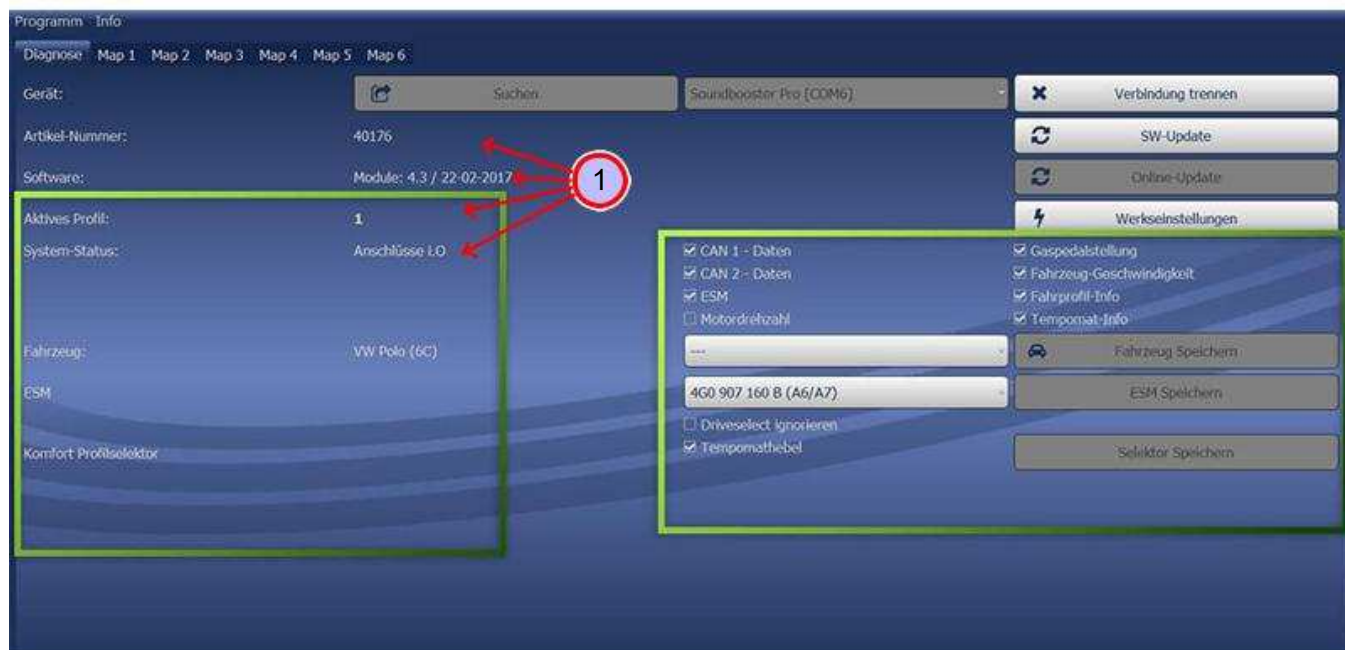


Figure 13: Software

Table 11: Notes for the software

No.	Work step	Note
1	<p>If the system does not work after the installation, please check first, like under the following link: https://www.sound-booster.com/de/debugging.html Describes whether the system has been installed correctly. For the in-</p> <p>Our Sound Booster software should help with commissioning or further troubleshooting PC / Mac can be used.</p> <p>Step 1: To do this, download the appropriate software under the following Link down: https://www.sound-booster.com.</p> <p>step 2: Now switch on the ignition " " of the vehicle and only then connect the PC / Mac with a USB cable with our module. It is important here that im Make sure in advance that plus and minus are correctly connected. Should this be If this is not the case, it can lead to a defect in the computer or control unit.</p> <p>step 3: Start the downloaded software and first click on Search and then click Connect.</p> <p>You will be automatically directed to the diagnostics page, where you can see an overview Can see the following things: "</p> <p>software: Software version / creation date</p> <p>Active profile: The currently activated profile is displayed here.</p> <p>vehicle: The automatically recognized vehicle is displayed there.</p> <p>System status: Under this point you can see whether the connections are correct are.</p>	

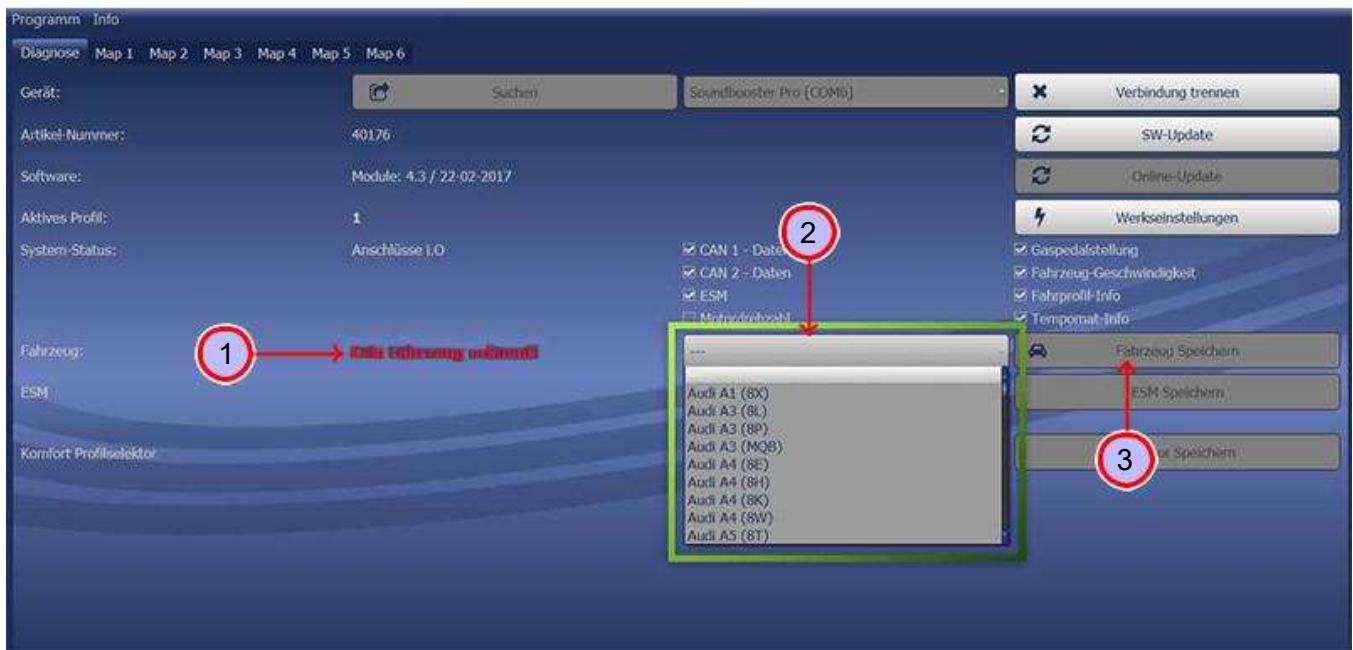


Figure 14: Software

Table 12: Notes for the software

No.	Work step	Note
1	If no current vehicle is detected, the vehicle must use the manual Selection can be set as follows:	
2	Open the dropdown menu, " search for your vehicle and select" it the end.	
3	Click on Save Vehicle to permanently save the vehicle on the module save.	
	If you cannot find your vehicle in this list, it may be necessary that the software needs to be adapted to your vehicle. Please contact us for this please send an email to info@kufatec.de or call +49 (0) 4551 / 80 810 888. We will make an appointment with you to have the Adapt the software to your vehicle using the Team Viewer (remote maintenance).	

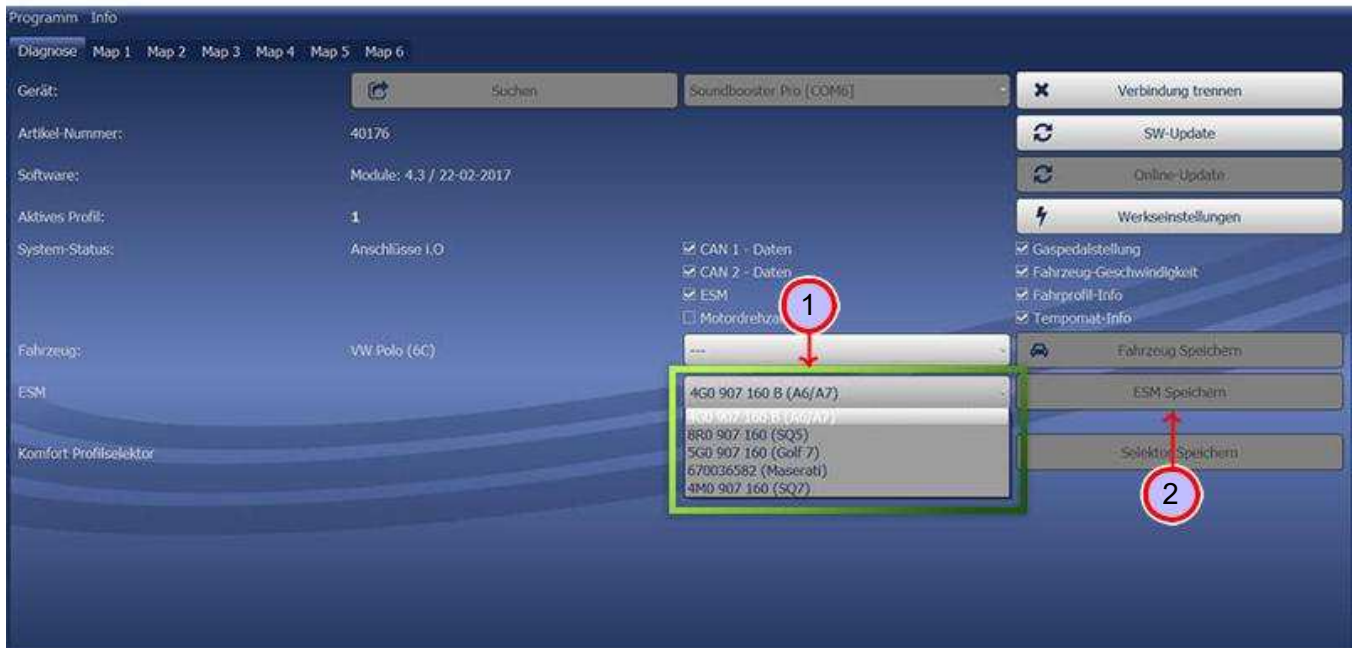


Figure 15: Software

Table 13: Notes for the software

No.	Work step	Note
1	It must also be checked whether the correct ESM is stored in the software is:	
	Open the dropdown menu, " search for the installed ESM and select " it the end.	
2	Click ESM Save to permanently save the selection on the module. to cherish.	
3	For example, if you received a complete set with an Audi control unit from us, The ESM 4G0 907 160 B (A6 / A7) must always be selected in the software will. If the Maserati control unit was installed instead of the Audi control unit, you must select the ESM 670036582 (Maserati) accordingly.	
4th	If the system still does not work afterwards, contact us please contact us at the e-mail address info@kufatec.de or by phone at +49 (0) 4551/80 810 888. We will deal with the problem as soon as possible.	

Important information Sound Booster

Use suitable screws for fastening the noise generator that can withstand high loads. To prevent the screws from loosening on their own due to vibration, secure them
unscrew the screws with suitable workshop material. Check " additionally" in regular"
Clear the strength of the noise generator and tighten the screws if necessary. In the event of
failure to comply, we accept no liability for any damage.
After successful installation, we recommend coating the noise generator with a zinc spray
treat. Make sure that you cover the opening of the noise generator with it
no zinc spray can get inside.

LED status display / error diagnosis

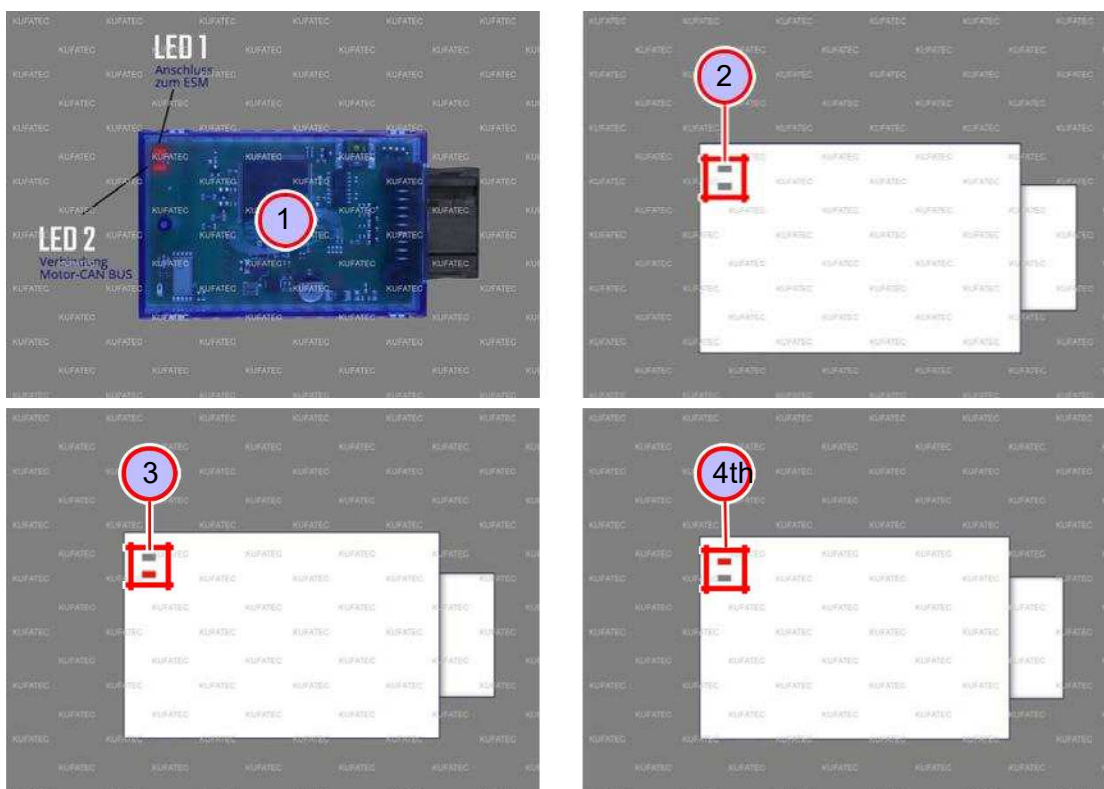


Figure 16: LED status display / error diagnosis

Table 14: Instructions for the LED status display / error diagnosis

No.	Work step	Note
1	Once the system has been installed as described, the ignition " " can be switched on will. After switching on the ignition " LED 1 lights up every second and the LED 2 flickers very quickly. If this is the case, the system is ready for use.	
!!!	Check The first thing you should do is check whether the connector is correctly connected The clip of the plug must be vertical and the plug up to the horizontal Mark sunk.	
2	If no LED lights up on our module, proceed as follows:	
	Opportunity 1: Verify that the module is connected to a power source	
	Opportunity 2: Update the firmware using our software.	
	Opportunity 3: Check whether the module is connected to the correct CAN bus (Powertrain / engine CAN) is connected.	
	Opportunity 4: The module was damaged during installation. In this case, please contact us, stating the invoice number and a brief error message & description to the e-mail address info@kufatec.de .	
3	If LED 1 does not flash, please proceed as follows:	
	Opportunity 1: Check the connection to the ESM (external sound module) (Error message: CAN connection).	
	Opportunity 2: Verify that the module is connected to a power source	
4	If LED 2 does not light up, please proceed as follows:	
	Opportunity 1: Verify that the module is connected to a power source	
	Opportunity 2: Check whether the module is connected to the correct CAN bus (Powertrain / engine CAN) is connected (error message: CAN 1 connection).	

Deconstruction

Note on dismantling the vehicle

- Before you begin to dismantle the vehicle, the system must first be tested for proper function.

Configuration

configuration

If a Bluetooth-enabled module is available, the app is used for configuration "Kufatec link "needed. The app can be downloaded free of charge for both IOS and Android.

- For IOS in the Apple Store:

<https://apps.apple.com/app/kufatec-link/id1401203449>



- For Android in the Google Play Store:

<https://play.google.com/store/apps/details?id=com.kufatec.ktcLink>



Additional vehicle function

Note Additional vehicle function

- Please note the specific operation of your vehicle in order to obtain the additional to be able to activate / use certain functions. This can be found in the vehicle documents / logbook.

Connection / troubleshooting cable set

Soundbooster active sound

From the 18-pin soundbooster module plug to:

- **Fuse holder 2-pole**
 - Pin 1 on connector / connector on pin 2 fuse holder"
- **Dimensions**
 - Pin 9 on connector / connector on passenger footwell ground point
- **CAN bus**
 - Pin 17 CAN Low black / yellow on red line (control unit A-pillar, passenger footwell)
 - Pin 18 Can High black / white on the blue / red line (control unit A-pillar, passenger footwell)
- **8-pin connector for sound booster control unit**
 - Pin 15 to pin 1
 - Pin 16 to pin 3
 - Pin 1 on connector / connector on pin 4
 - Pin 9 on connector / connector on pin 2

From the 8-pin plug of the Soundbooster control unit to:

- **Fuse holder 2-pole**
 - Pin 2 on connector / connector on ignition positive terminal 15
- **Dimensions**
 - Pin 4 on connector / connector on passenger footwell ground point
- **18-pin plug sound booster module**
 - Pin 1 to pin 15
 - Pin 3 to pin 16
 - Pin 4 on connector / connector on pin 1
 - Pin 2 on connector / connector on pin 9
- **2-pole soundbooster plug**
 - Pin 7 to pin 2
 - Pin 8 to pin 1

From fuse holder 2-pole to:

- **Power supply**
 - Pin 1 to ignition positive terminal 15