

Installation Instructions

Complete Set active Sound including Soundbooster
Mercedes Vito W639

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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

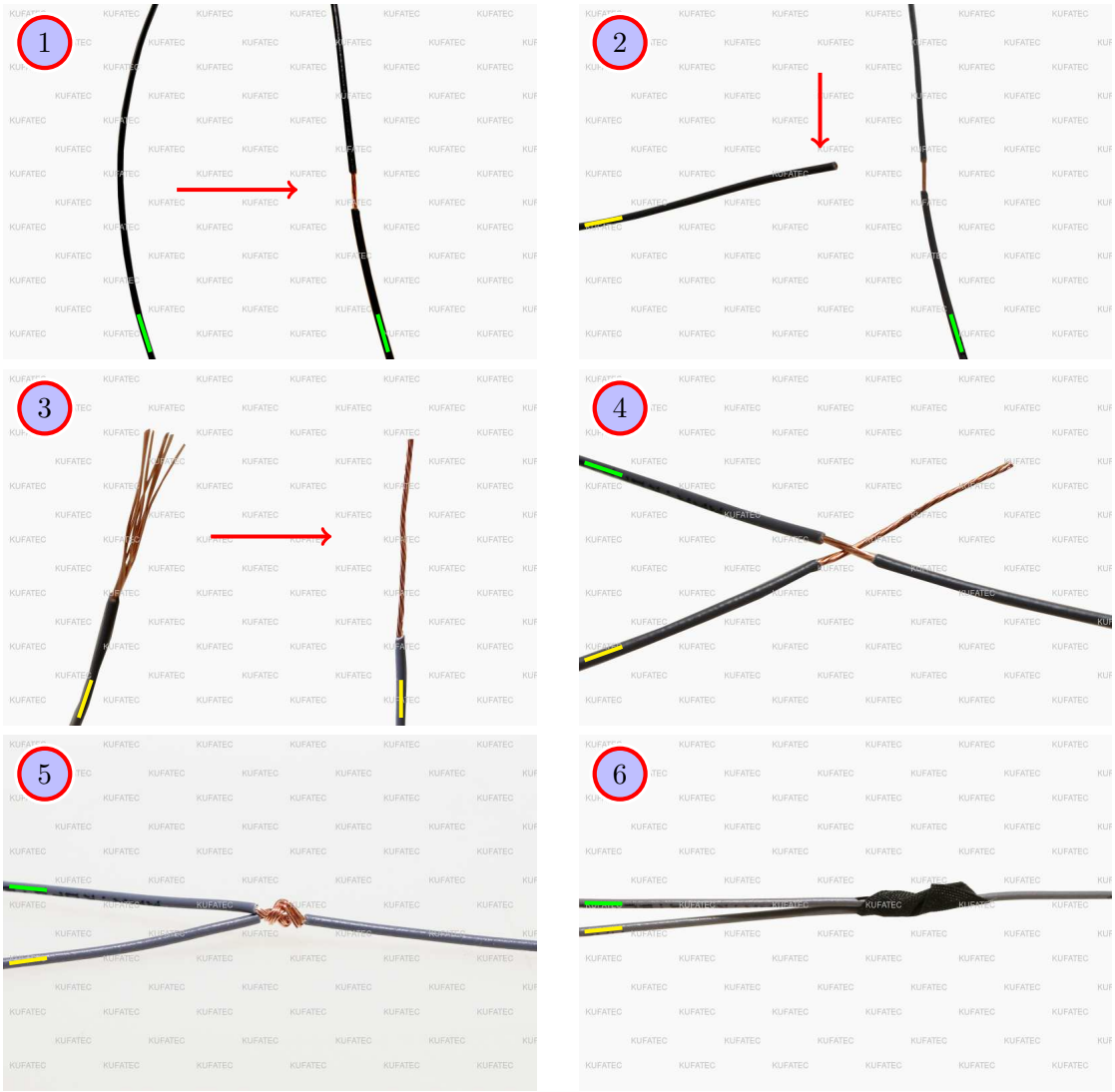


Figure 1: How to connect a cable to another

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.	
6	Lastly, stick insulating tape around the connection point.	

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 Installation Instruction

The following description shows the Cable Routing as well as the Position of the single components.

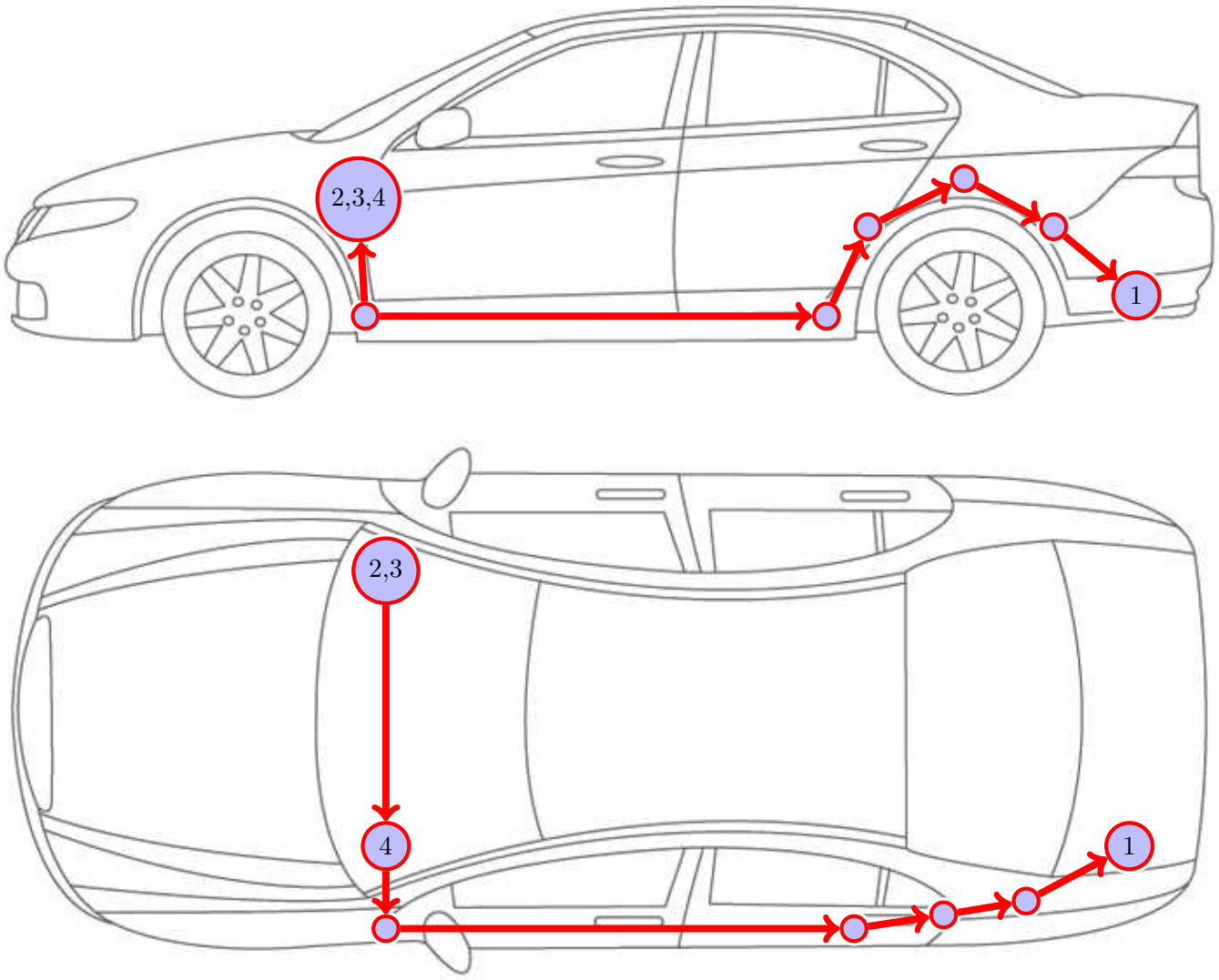


Figure 3: Car Overview

- 1 External Sound Booster including Holder
- 2 Control Unit for Motor Sound Booster
- 3 Sound Booster Pro (Module)
- 4 Sensing Device

10 Connection CAN-High/CAN-Low

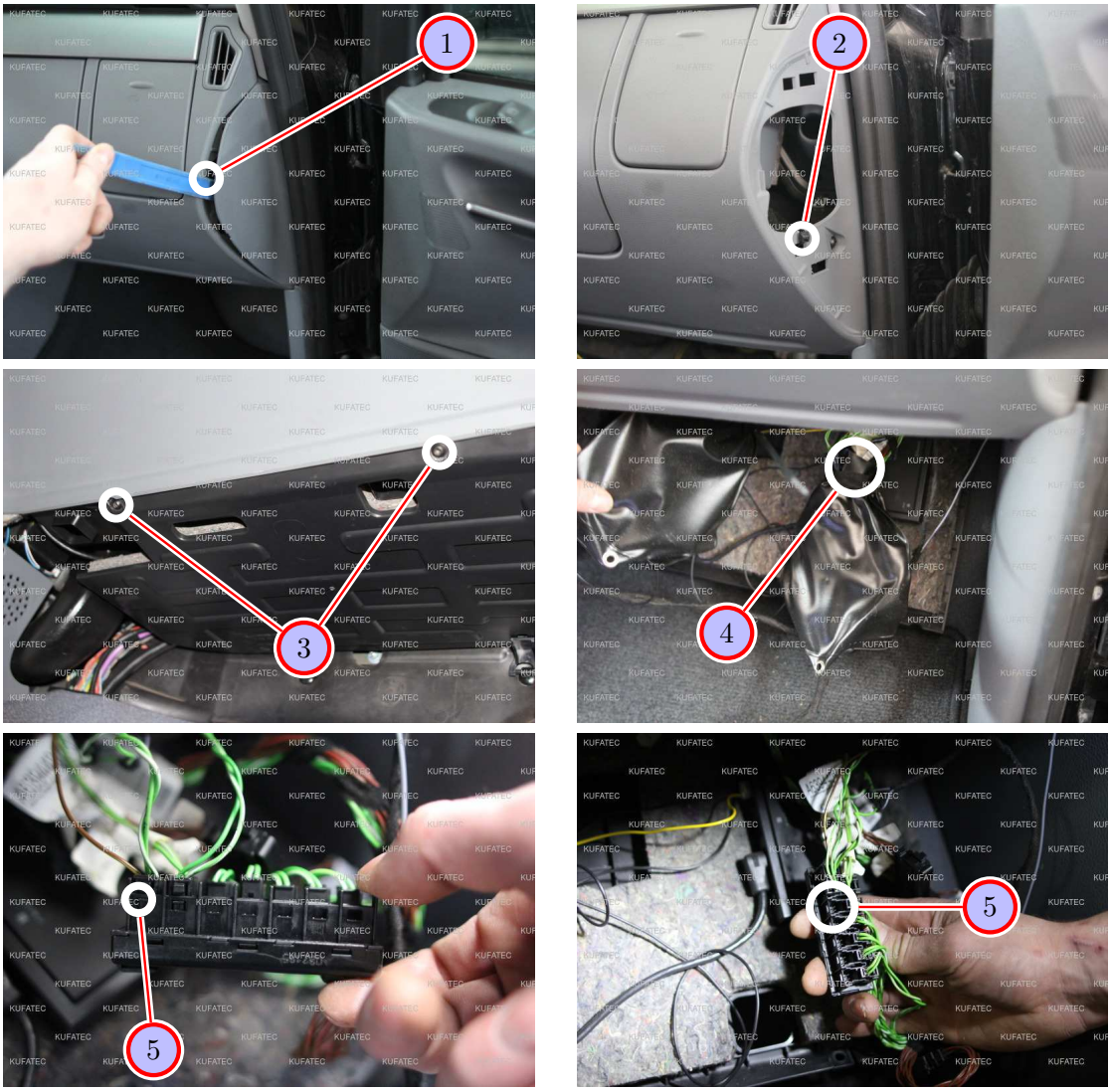


Figure 4: Pictures Connection CAN High und CAN Low

Table 2: Instructions for Connection of CAN High und CAN Low

Nr.	Procedure	Note
1	Remove the lateral covering of the car dashboard with an installation lever.	
2	Cut through the cable connector.	
3	Release the screw of the lower covering. Clap this to the bottom.	T20
4	Grasp behind the covering and pull down the black package in which you will find the CAN distribution board and open this.	
5	Take out the CAN distribution board of the package and put the 2-pole plug of the cable set (CAN High (black/white), CAN Low (black/yellow)) on a free slot on the CAN distribution board.	

11 Connecting Ground and Removing the Center Console Covering

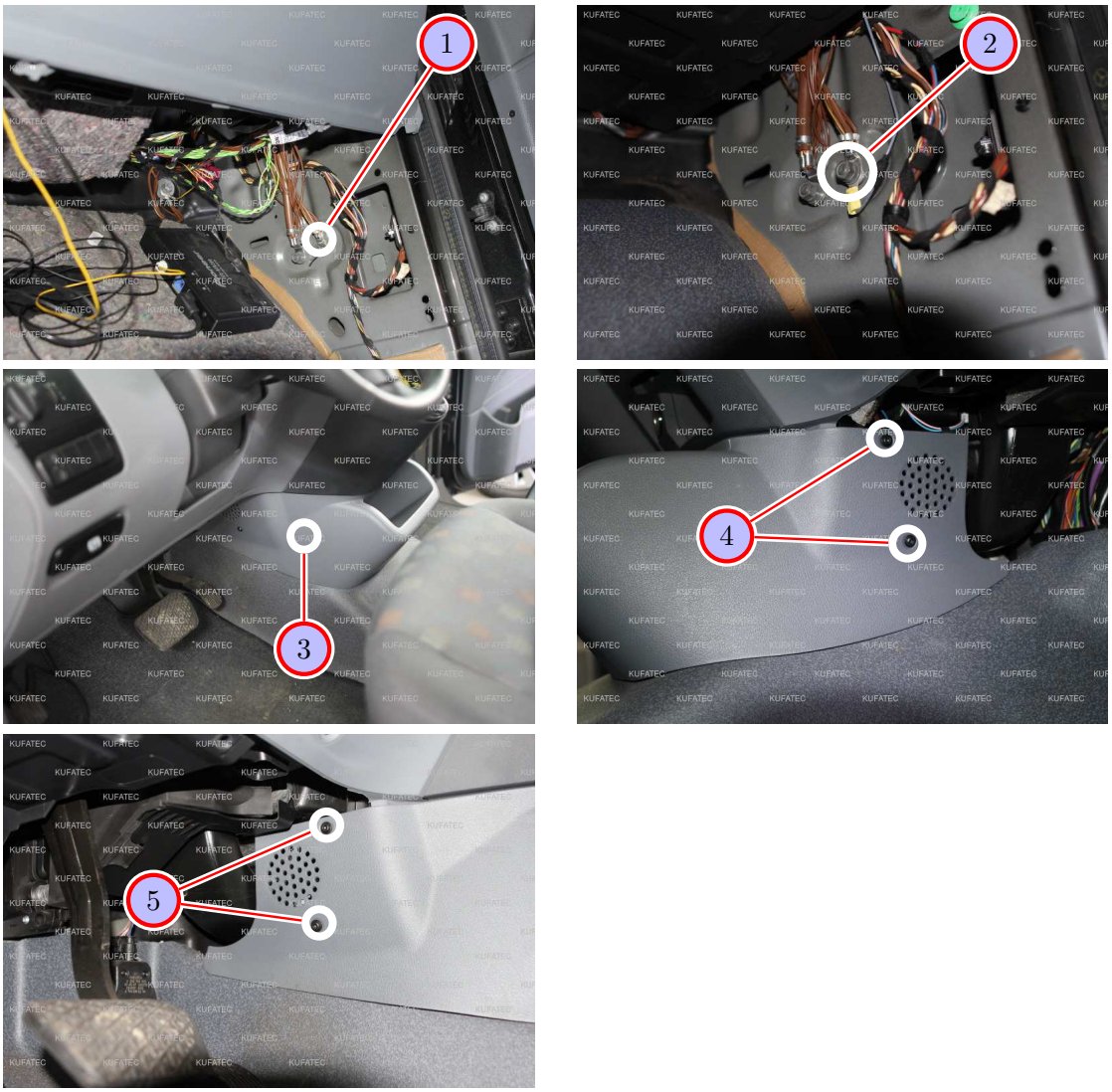


Figure 5: Pictures Connection Ground and Removing the Center Console Covering

Table 3: Instructions Connection Ground and Removing the Center Console Covering

Nr.	Procedure	Note
1	Remove the lower right A-column covering with an installation lever in the leg area of the co-drivers's side. The ground spot is located behind this.	
2	Connect the ground cable (brown) to the ground spot on the right side of the A-column.	
3	Remove the lower center console covering.	
4	For this, please release the 2 screws on the right side in the leg area of the co-driver's side.	T25
5	Release the 2 screws on the left side in the leg area of the driver's side. Pull out the released covering carefully to the front.	T25

12 Connection Ignition Plus and Placing of Control Units

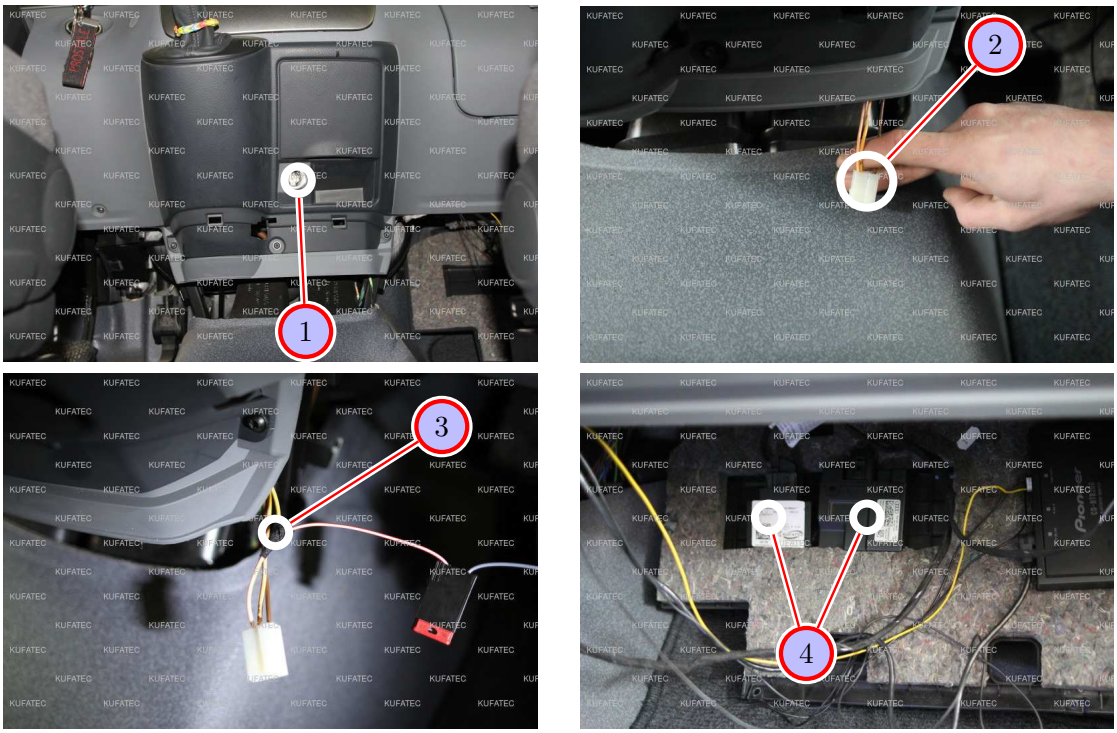


Figure 6: Connection Ignition Plus and Placing of Control Units

Table 4: Connection Ignition Plus and Placing of Control Units - instructions

Nr.	Procedure	Note
1	Grasp the plug of the cigarette lighter behind the covering and pull this out.	
2	Pull the plug for the cigarette lighter to the front.	
3	Connect the ignition plus cable (red/white) with the fuse holder at the Pink/Yellow channel. Isolate the connecting points with a suitable insulating tape.	
4	Fix the Soundbooster Pro Module and the control unit for the motor sound booster with workshop material at the lower covering of the car dashboard.	

13 Cable Routing of the Sound Booster and the Sensing Device

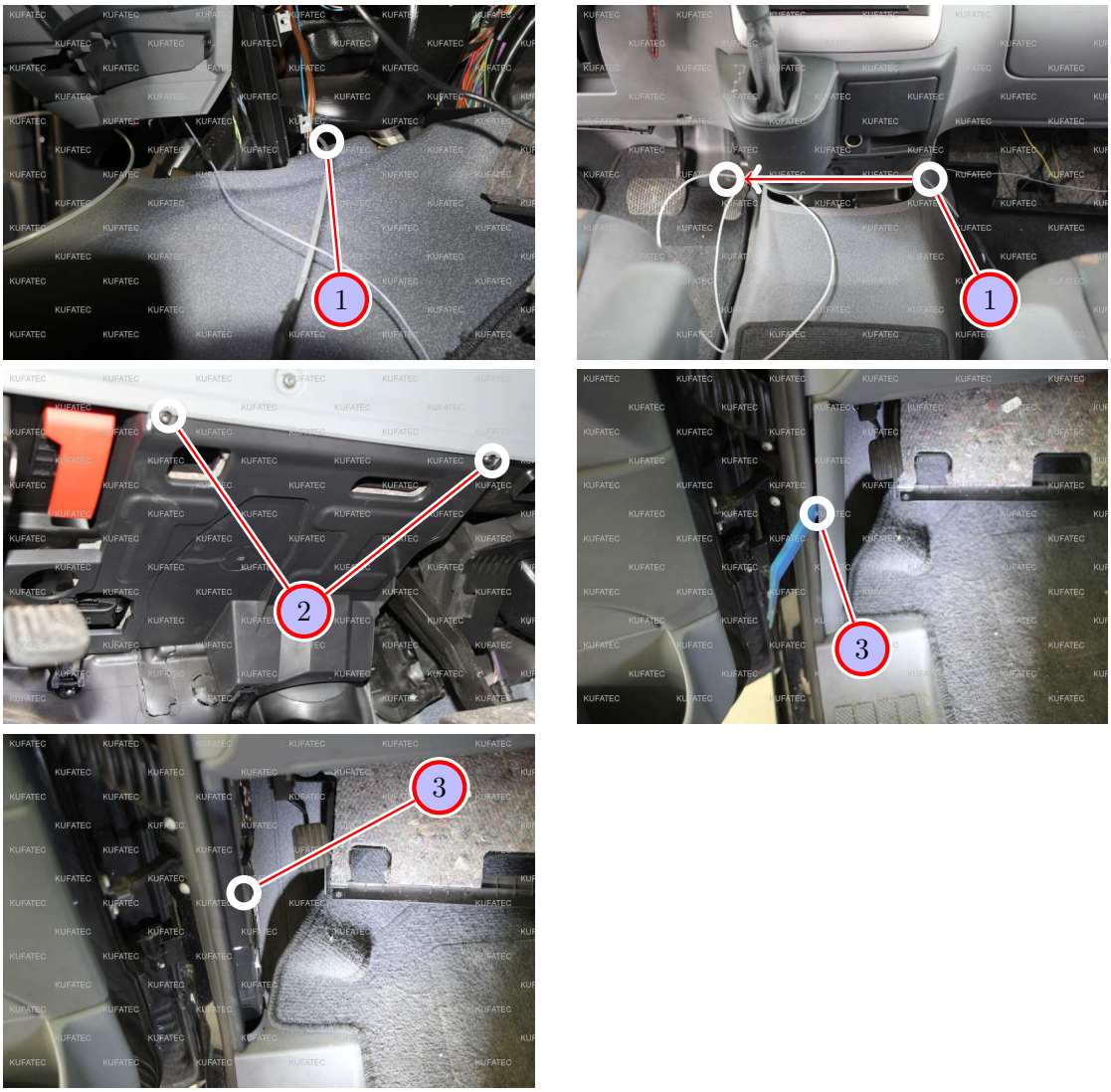


Figure 7: Pictures of Cable Routing of the Sound Booster and the Sensing Device

Table 5: Instructions of Cable Routing of the Sound Booster and the Sensing Device

Nr.	Procedure	Note
1	Pull the cable for the Sound Booster and the Sensing Device with a pull-through assistance towards the leg area on the drivers's side.	
2	Release the 2 screws of the upper covering in the leg area on the driver's side. Remove them.	T25
3	Remove with an installation lever the lower left A-column covering.	

14 Placing the Sensing Device

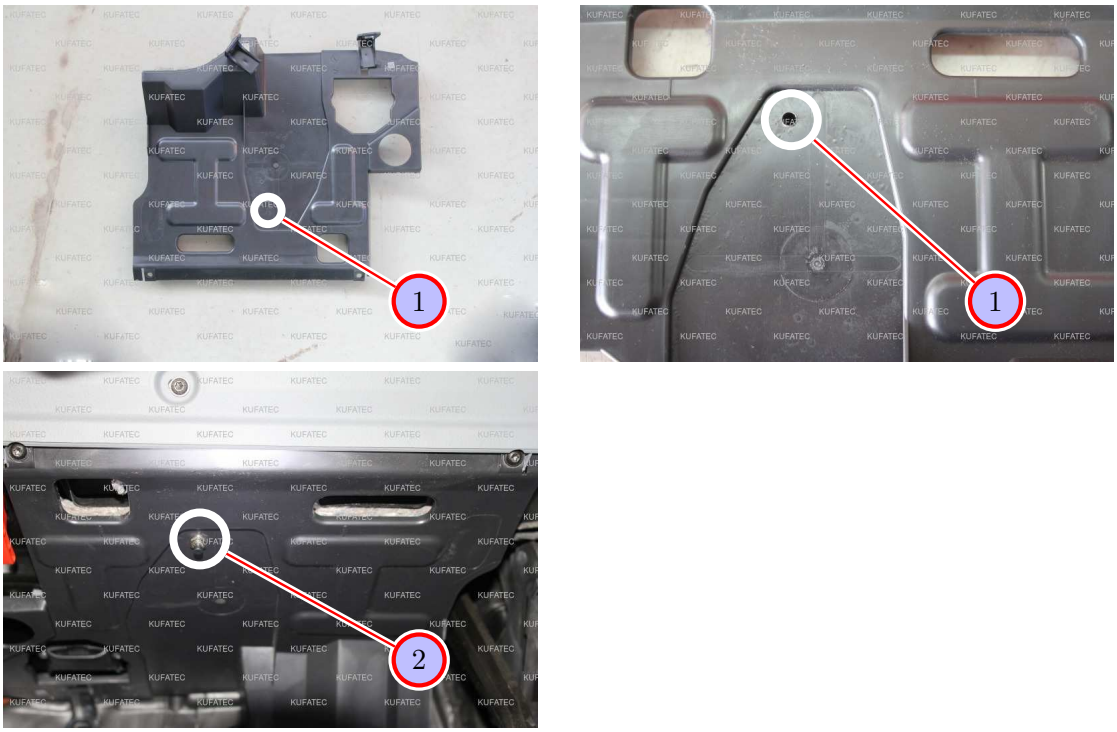


Figure 8: Pictures of Placing the Sensing Device

Table 6: Instructions of Placing the Sensing Device

Nr.	Procedure	Note
1	Drill a hole at the indicated position of the leg area covering removed before with a diameter of 7 mm.	Drill d=7mm
2	There install the sensing device for the Sound Booster. The cable has to be positioned above the covering.	10er Nut

15 Laying the Cable of the Sound Booster

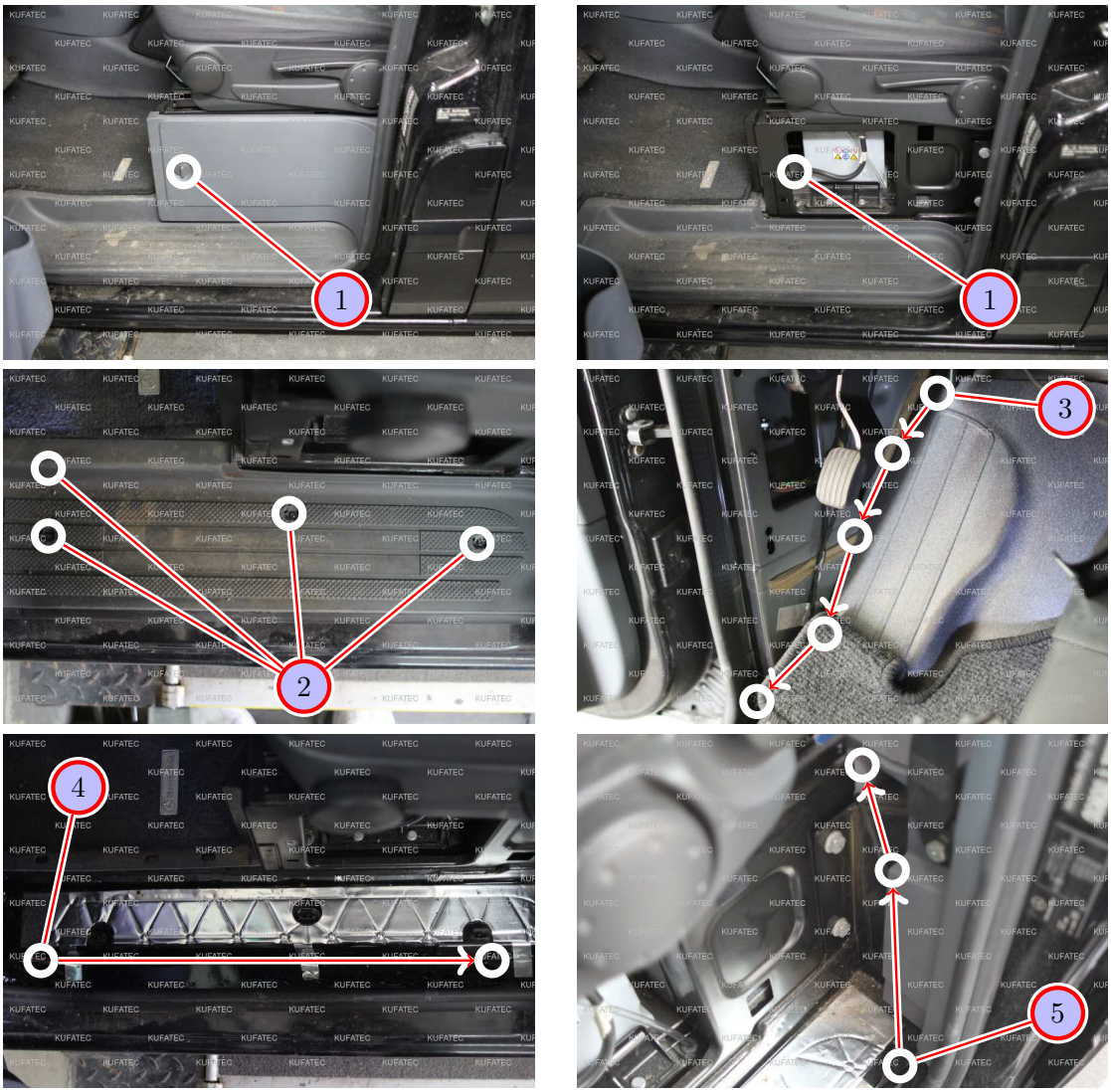


Figure 9: Pictures Laying the Cable of the Sound Booster

Table 7: Instructions for Laying the Cable of the Sound Booster

Nr.	Procedure	Note
1	Remove the indicated seat covering.	
2	Remove the 4 caps of the screws of the entering guide rail on the driver's side and unscrew them. Take out the entering guide rail to the top.	T25
3	Lay the cable for the Sound Booster with a pull-through assistance corresponding to the arrow under the left foot shelf until you will come out at the front part of the entering guide rail.	
4	Continue laying the cable for the Sound Booster along the arrow direction. Fix the cable with workshop material at the already existing cable loop.	
5	Now lay the cable behind the covering up to the end of the marking. Lead the cable which still has not been laid to the back area of the car, behind the front seats. The further laying will be done in the interior room.	

16 Laying the Sound Booster Cable Interior Room

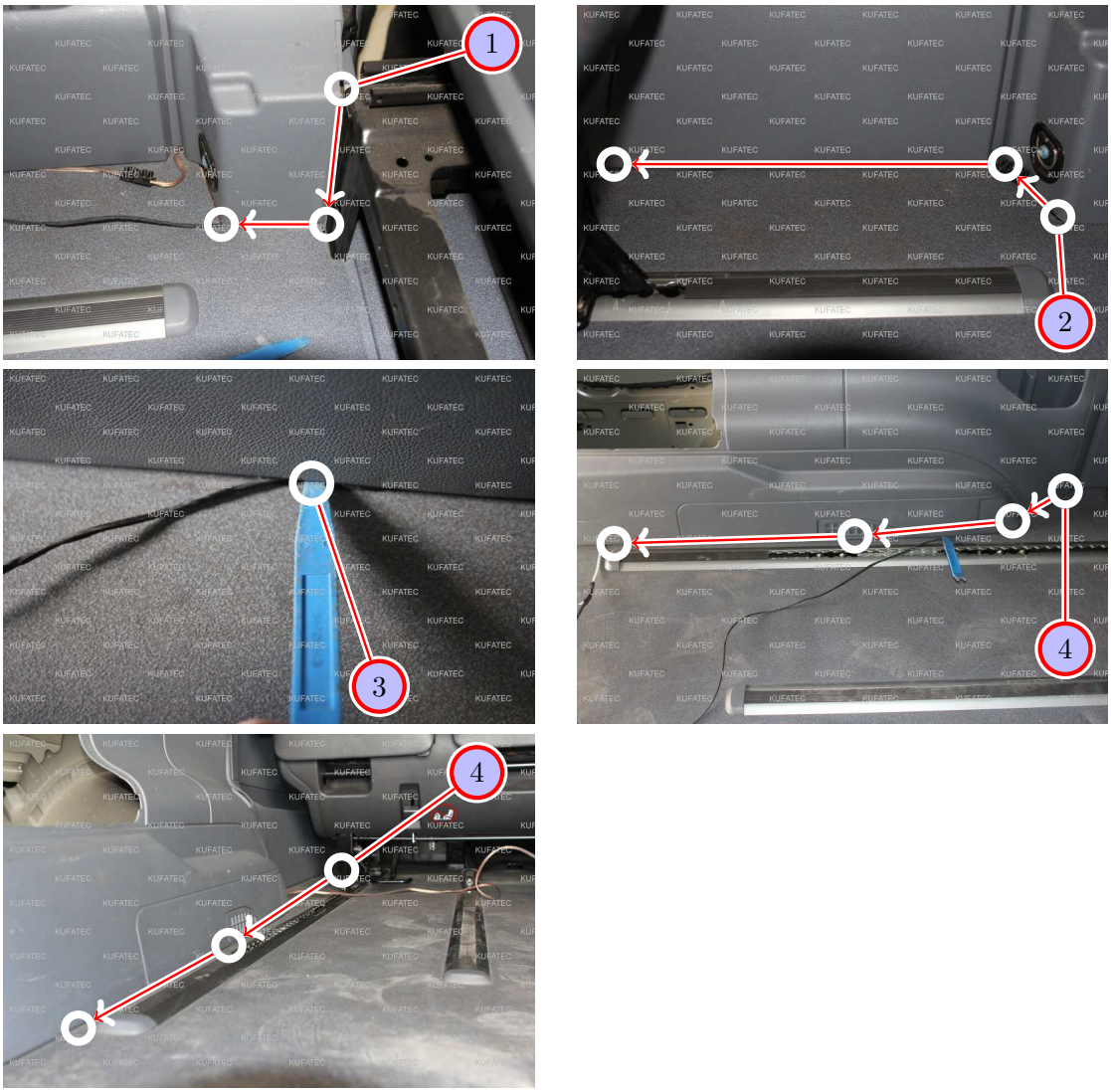


Figure 10: Pictures Laying the Sound Booster Cable Interior Room

Table 8: Instructions Laying the Sound Booster Cable Interior Room

Nr.	Procedure	Note
1	Lay the cable behind the covering along the arrows. Push it, as described at Point 3, in the floor area under the covering.	
2	Repeat here the laying as at Point 1. Here also push it under the covering.	
3	Push the cable with a retainer key under the covering.	
4	Continue laying the cable for the Sound Booster along the arrows until you have reached with cable the level of the left depostion shelf compartment.	

17 Laying the Cable of the Sound Booster to the under-floor

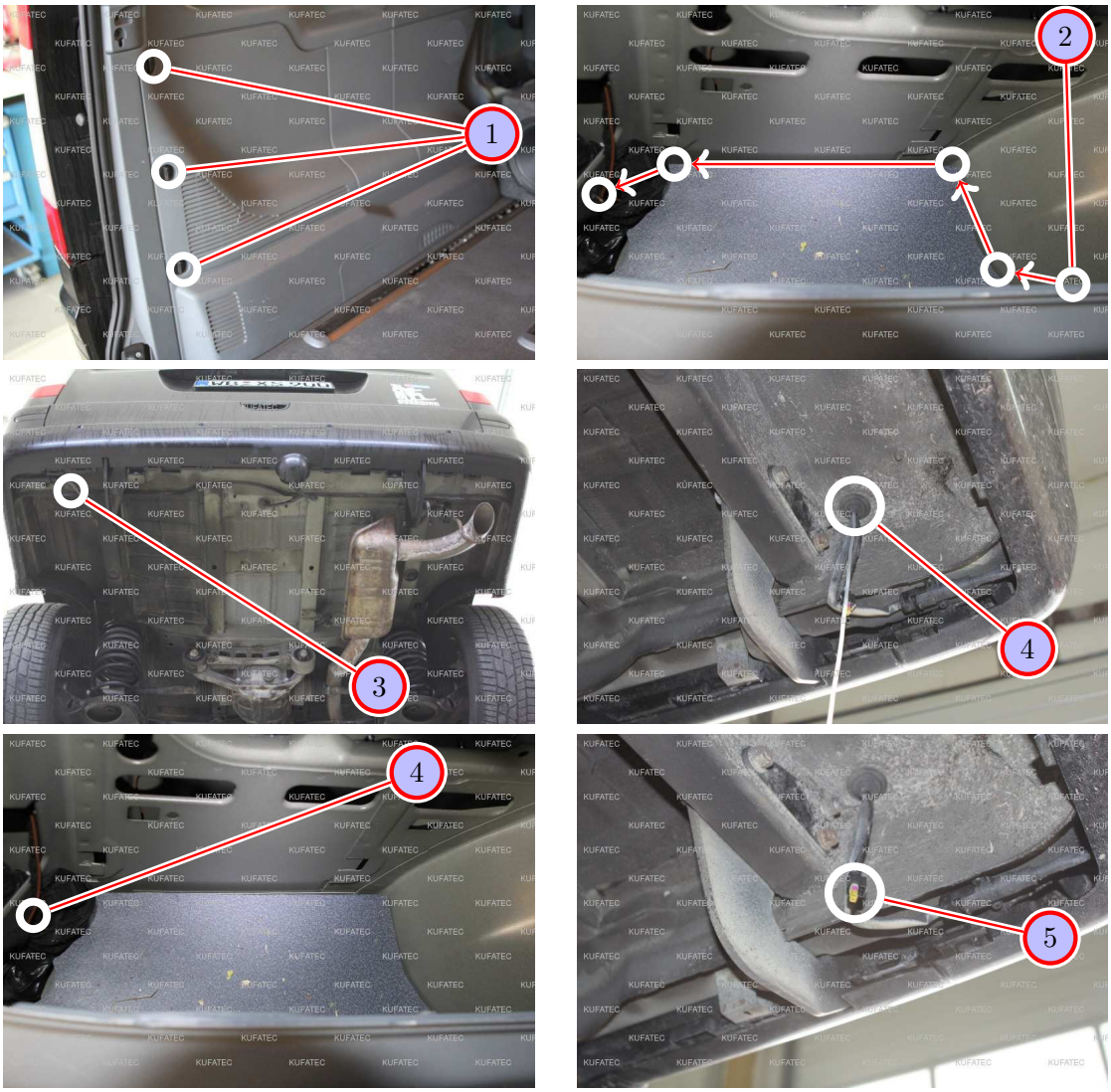


Figure 11: Pictures Laying the Cable of the Sound Booster to the under-floor

Table 9: Instructions for Laying the Cable of the Sound Booster to the under-floor

Nr.	Procedure	Note
1	Release the left covering of the deposition shelf compartment. For this please turn the indicated self-sealing couplings.	
2	Push the cable of the Sound Booster under the covering of the depositon shelf compartment and lay it along the arrows up to the cable guiding which leads the cable loom to the under-floor.	
3	Lift the car. You will find the cable guiding behind on the left side.	
4	Now lead the pull-through assistance from the bottom through the cable guiding to the interior in the depositon shelf compartment behind on the left side.	
5	Fix the cable of the Sound Booster with (for example an insulating tape) and now pull it carefully with the pull-through assistance to the bottom.	

18 Fixing the Sound Booster at the under-floor

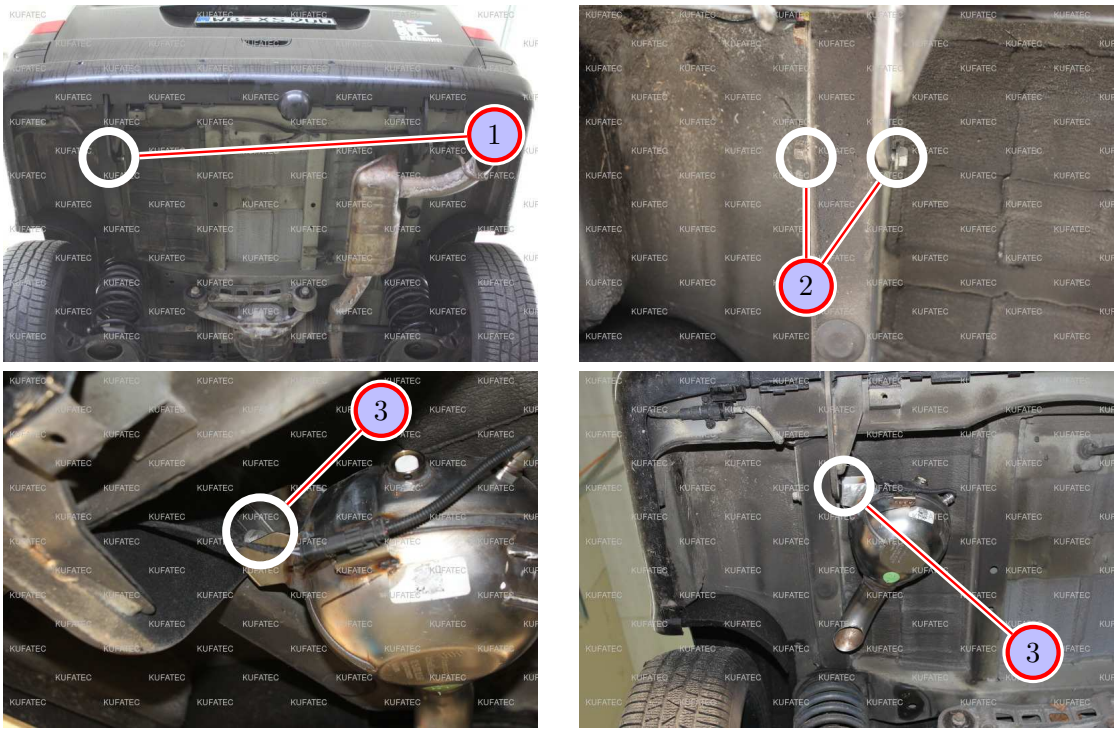


Figure 12: Pictures Fixing the Sound Booster at the under-floor

Table 10: Instrucitons for Fixing the Sound Booster at the under-floor

Nr.	Procedure	Note
1	Look for the indicated bolt at the lower longitudinal carrier on the left side.	
2	Release the screw nut so far until there arises at the indicated side a crack of 5-7 mm width.	18er Nut
3	Push the Sound Booster, according to the holder, into the crack and fix it as you can see it on the picture. Retighten the released screw nut. Put the plug on the Sound Booster.	18er Nut

19 Important Information Sound Booster

Please use for the fixation of the Sound Booster suitable high tensile screws. In order to avoid losening 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.

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