Installation Instructions

Complete set active Sound incl. Soundbooster
BMW 750d F-Serie

v1.3 (16.06.2017)

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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

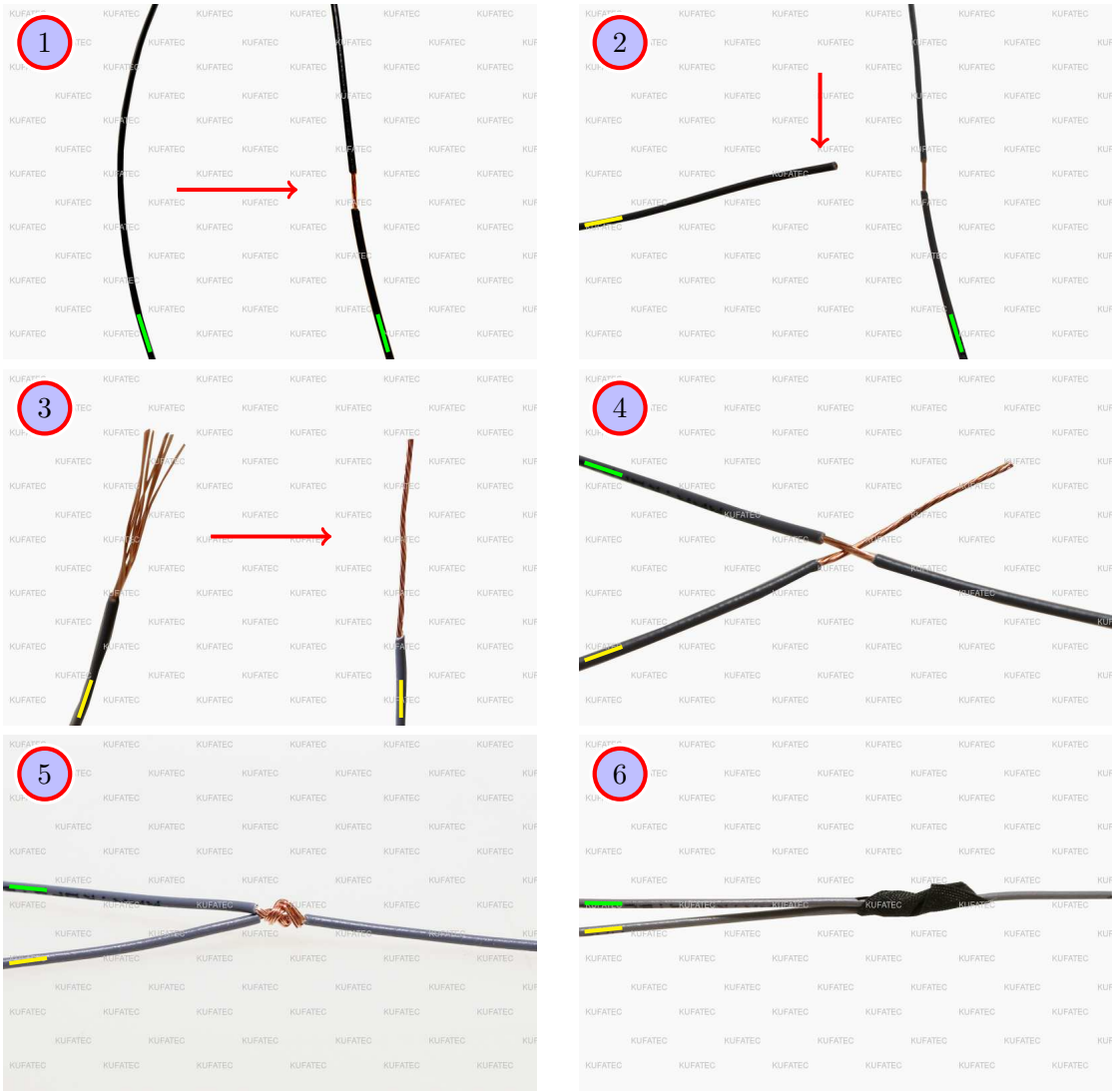


Figure 1: How to connect a cable to another

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 Safety Instructions for Works on the Airbag

Work on the Airbag system has to be executed exclusively by especially trained qualified personnel.

Notes for work on Airbag system:

- Remove the ignition key and disconnect the battery.
- Wait at least 5 minutes. Only then you can work on the Airbag system.
- Discharge yourself before you work on an Airbag unit by touching the latch of the door.
- Airbag units which have been removed are always put down face up.
- During the works on the Airbag system you have to be very carefull.
- Additionally, the safety notes of the corresponding manufacturer are valid.

Kufatec GmbH & Co. KG does not assume liability in any case of damage!

10 Assembly Instructions

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

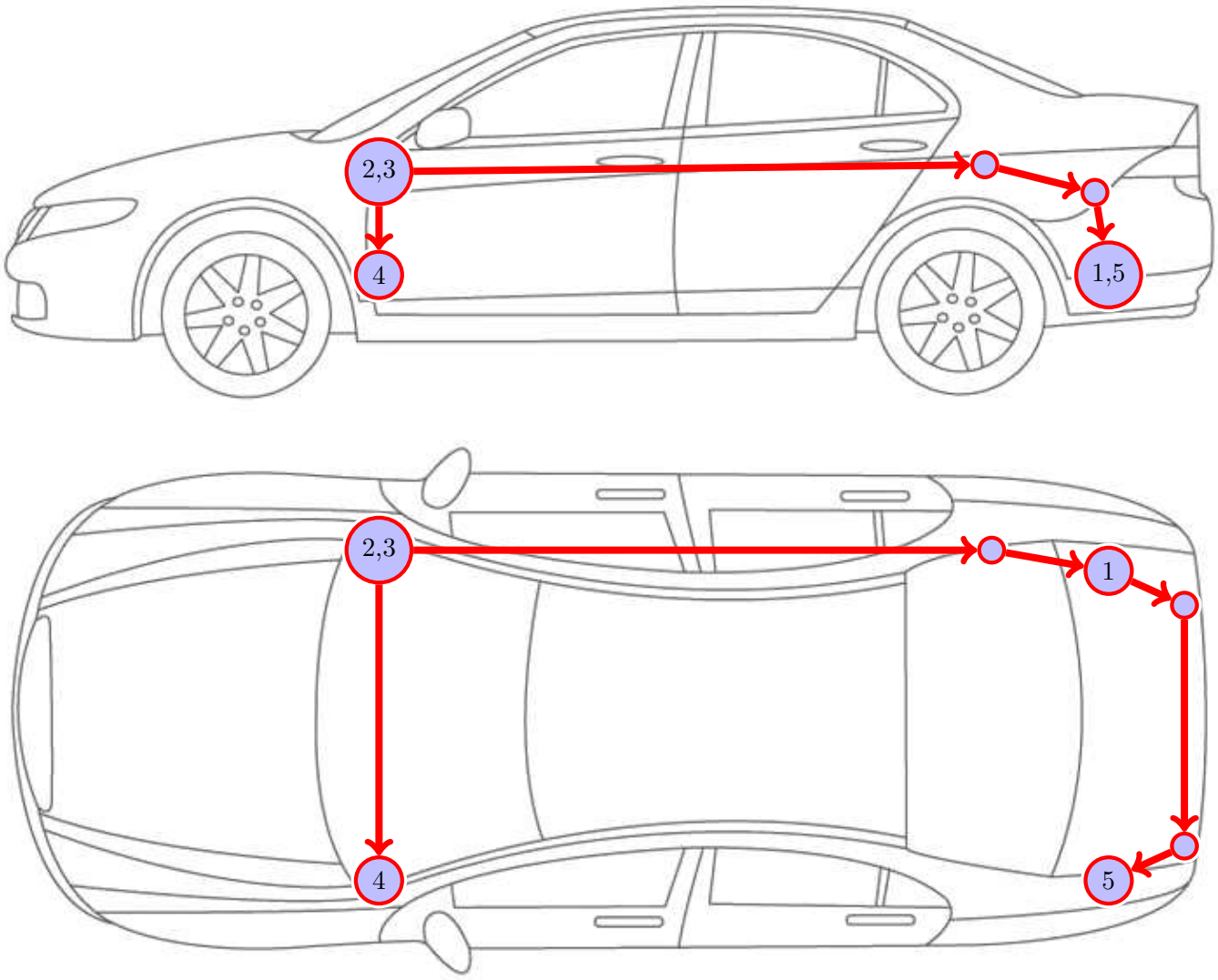


Figure 3: Vehicle overview

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

11 Removing trim panels on the passenger's side

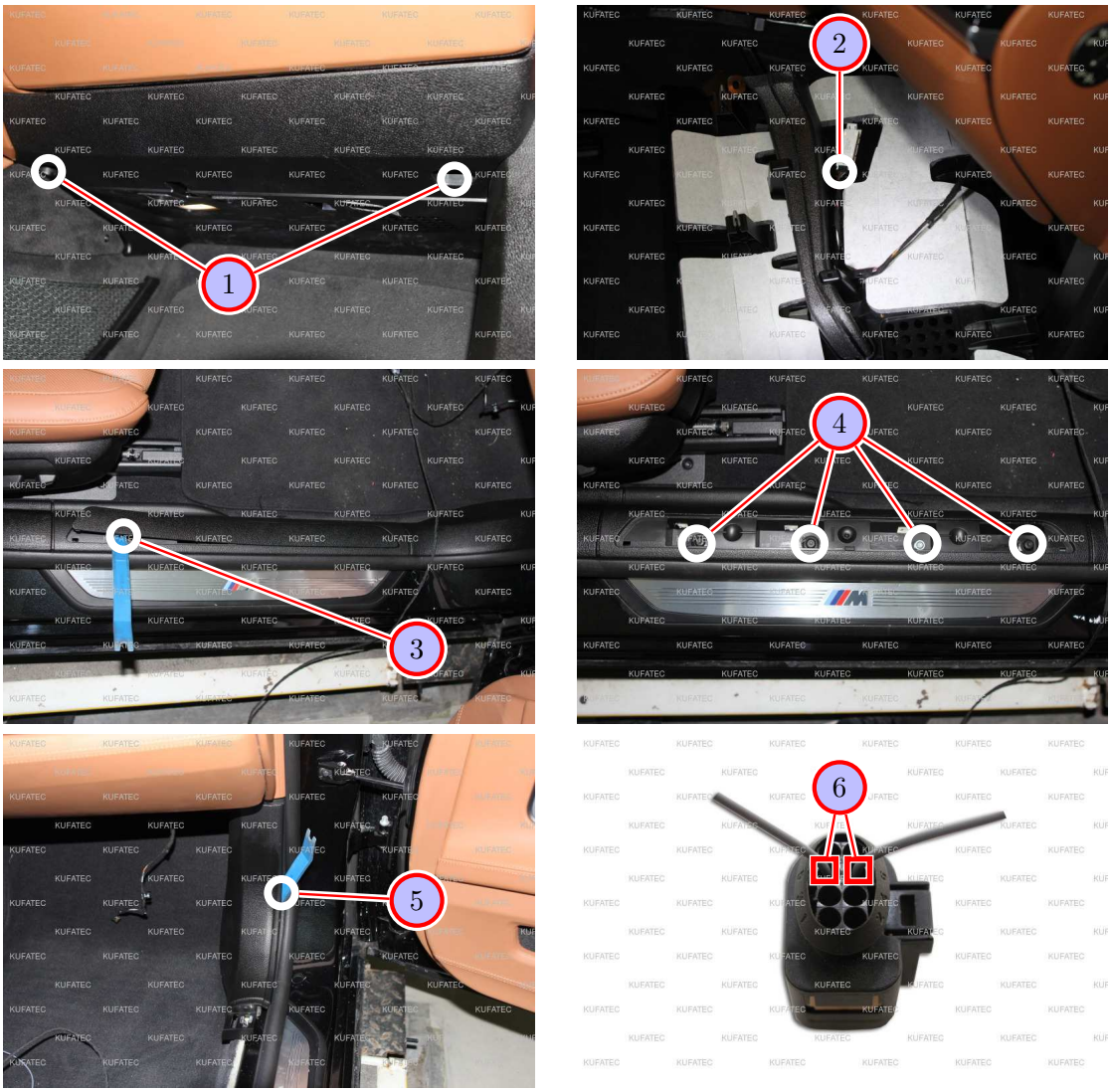


Figure 4: Removing trim panels on the passenger's side - pictures

Table 2: Removing trim panels on the passenger's side - instructions

Nr.	Work step	Note
1	Remove the lower trim panel of the glove compartment by loosening the two marked screws.	T20
2	Fold the trim panel down and move the plug of the footwell lighting off. Take the trim panel out completely afterwards.	
3	Remove the upper covering of the sill trim on the passenger's side with a trim tool.	
4	Loosen the four screws of the sill trim, which are located below. Take it up out afterwards.	T20
5	Remove the lower trim panel of the a-pillar with a trim tool.	
6	Take now the pictured 8-pole plug of the control unit for engine sound generation and place the two wires of the cable set of the soundbooster according to the wire inscription (pin 5 and pin 6).	

12 Connection CAN-Bus, ignition lead and ground

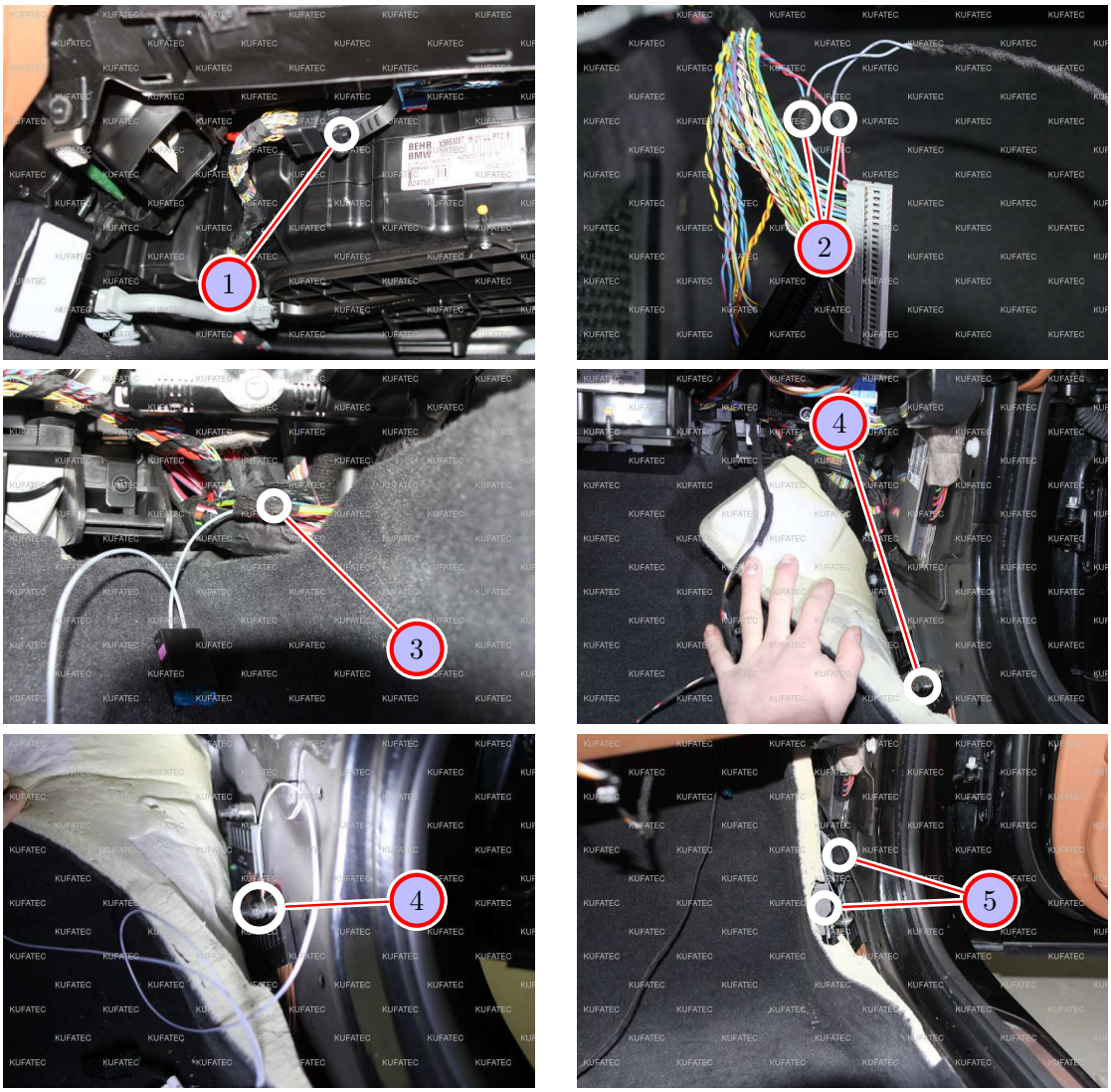


Figure 5: Connection CAN-Bus, ignition lead and ground - pictures

Table 3: Connection CAN-Bus, ignition lead and ground - instructions

Nr.	Work step	Note
1	Move the plug from the airbag control unit off. It is located behind the removed trim panel. Remove the plug housing.	
2	Connect the CAN-Bus wires to the grey plug unit as follows:	
	CAN-High to the cable of PIN 52 (blue/red)	
	CAN-Low to the cable of PIN 26 (red)	
3	The wiring harness, to which ignition lead is connected, is located in the upper right field of the passenger's footwell. Connect ignition lead (red/white) to the green/yellow cable.	
4	The marked ground spot is located in the lower field of the a-pillar, connect the ground cable (brown) there.	
5	Place the module and the control unit behind the carpet of the passenger's footwell.	

13 Installation pushbutton

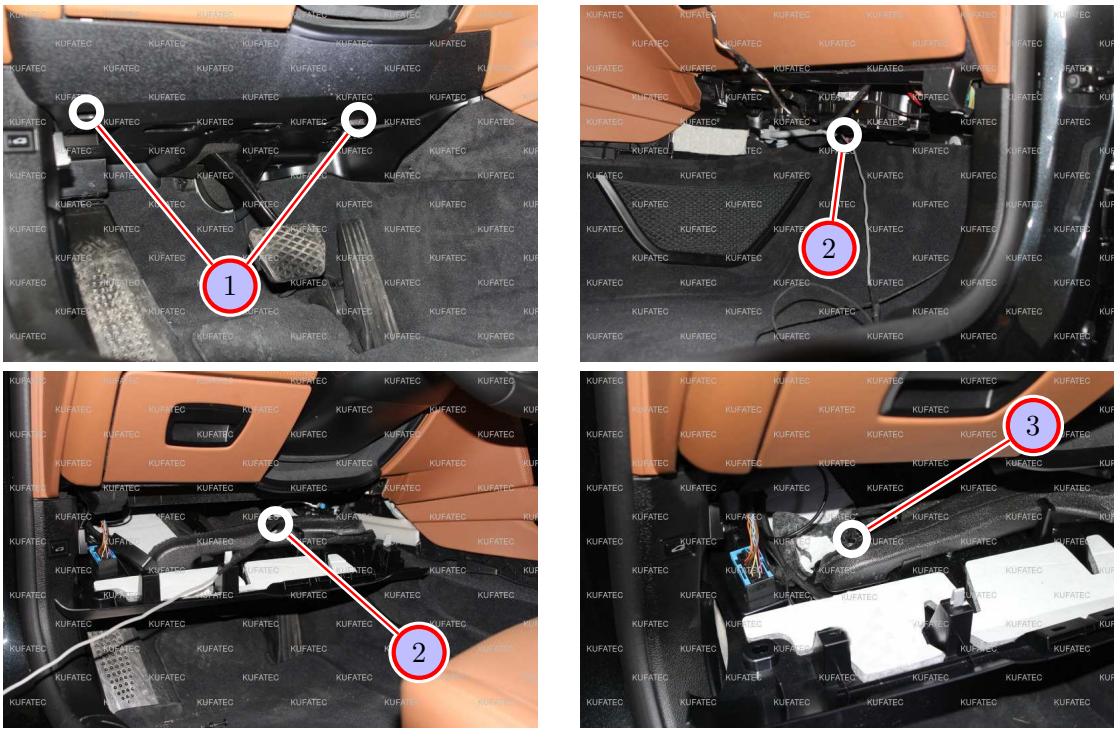


Figure 6: Installation pushbutton - pictures

Table 4: Installation pushbutton - instructions

Nr.	Work step	Note
1	Remove the lower trim panel of the dashboard in the driver's footwell. For this loosen the two marked screws.	T20
2	Guide the pushbutton now in the driver's footwell with a pull through aid.	
3	Drill a hole for the pushbutton at the marked position and mount the pushbutton afterwards.	7mm drill

14 Routing cables for soundboosters

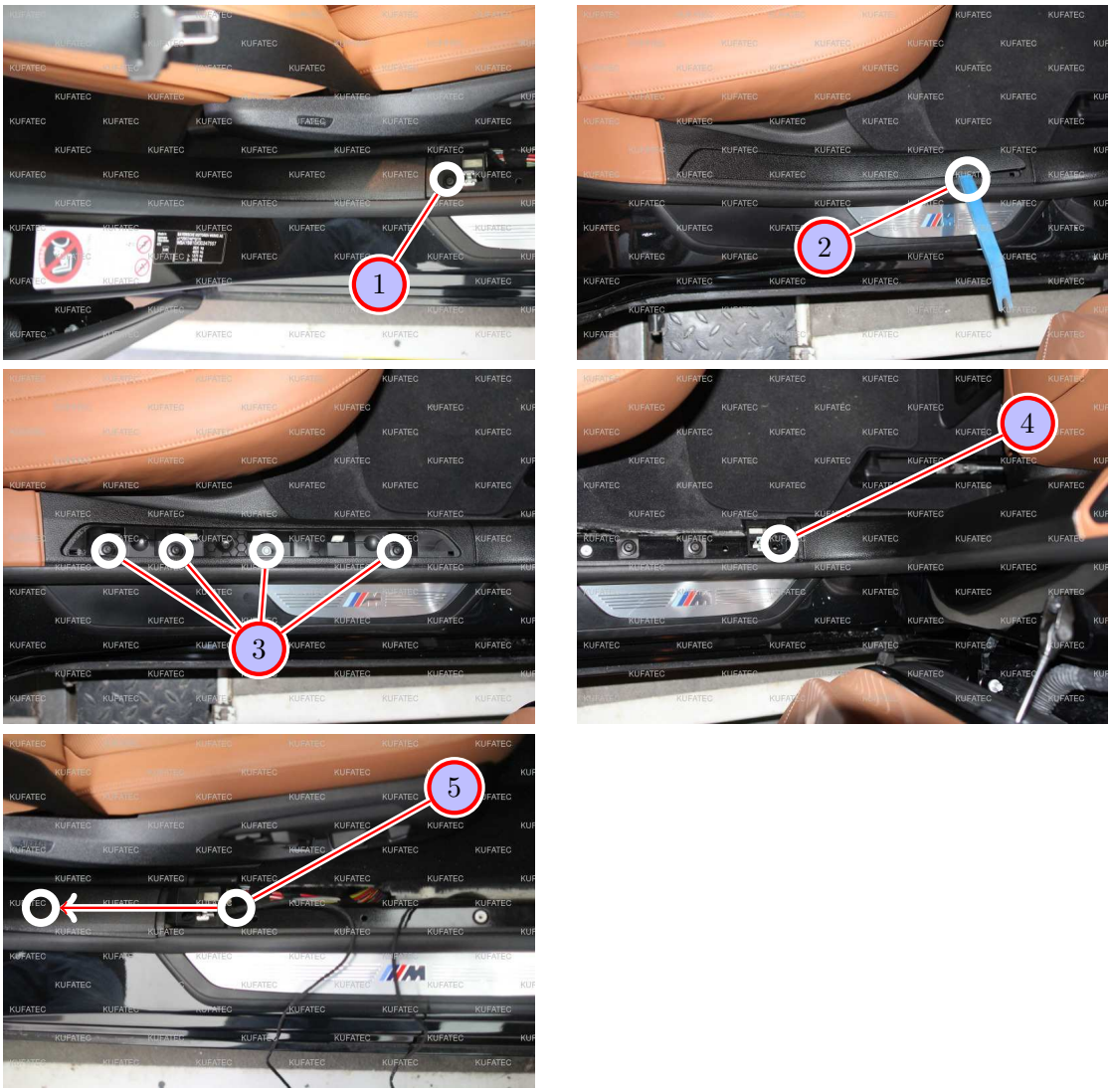


Figure 7: Routing cables for soundboosters - pictures

Table 5: Routing cables for soundboosters - instructions

Nr.	Work step	Note
1	Loosen the marked screw of the trim panel of the b-pillar.	T20
2	Remove the upper covering of the sill trim of the back seat on the passenger's side.	
3	Loosen the four screws, that are located below, and take the sill trim up out.	T20
4	Loosen now the screw of the trim panel of the b-pillar in the back field and pull it slightly in direction of the interior.	T20
5	With a pull through aid, guide the cables for the soundboosters under the trim panel of the b-pillar from the passenger's footwell in direction of the back seat.	

15 Removing side trim panel trunk

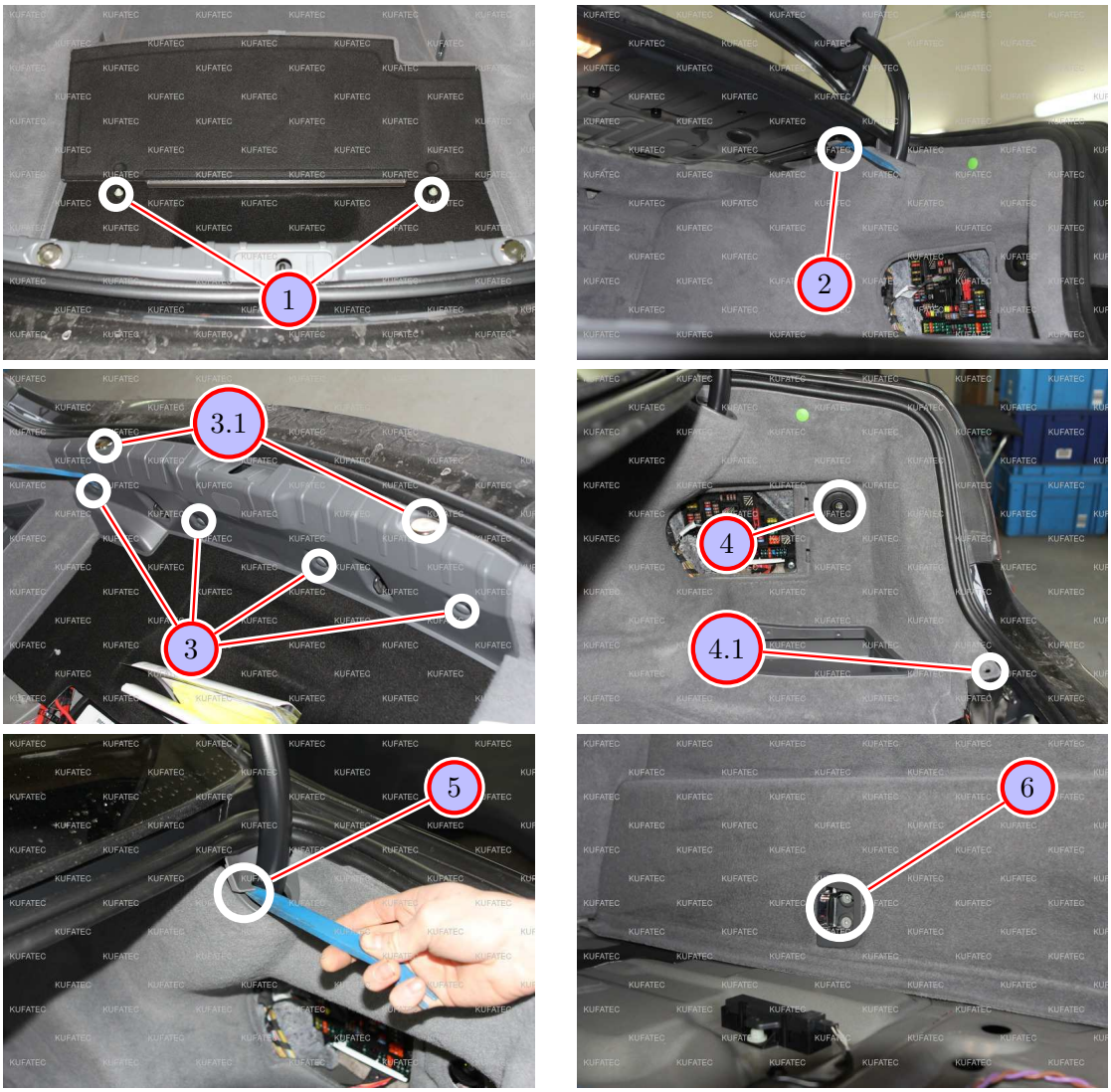


Figure 8: Removing side trim panel trunk - pictures

Table 6: Removing side trim panel trunk - instructions

Nr.	Work step	Note
1	Loosen the two nuts of the trunk carpet and take it out.	10er socket
2	Remove the marked clip with a trim tool.	
3	Loosen the 4 marked clips of the trim panel of the trunk sill. Unscrew the silver screw caps (3.1) with workshop instruments. Pull the trim panel up and out.	
4	Loosen the covering of the pushbutton for the trailer hitch.	
4.1	Remove the clip at the bottom right at the trunk sill.	
5	Remove the plastic guidance of the hatch door with a trim tool.	
6	Loosen the two screws of the lashing eye. Repeat now the steps 2, 4.1, 5 and 6 on the left side and so remove the left trim panel of the trunk.	

16 Routing cables of the soundboosters in direction of the underbody

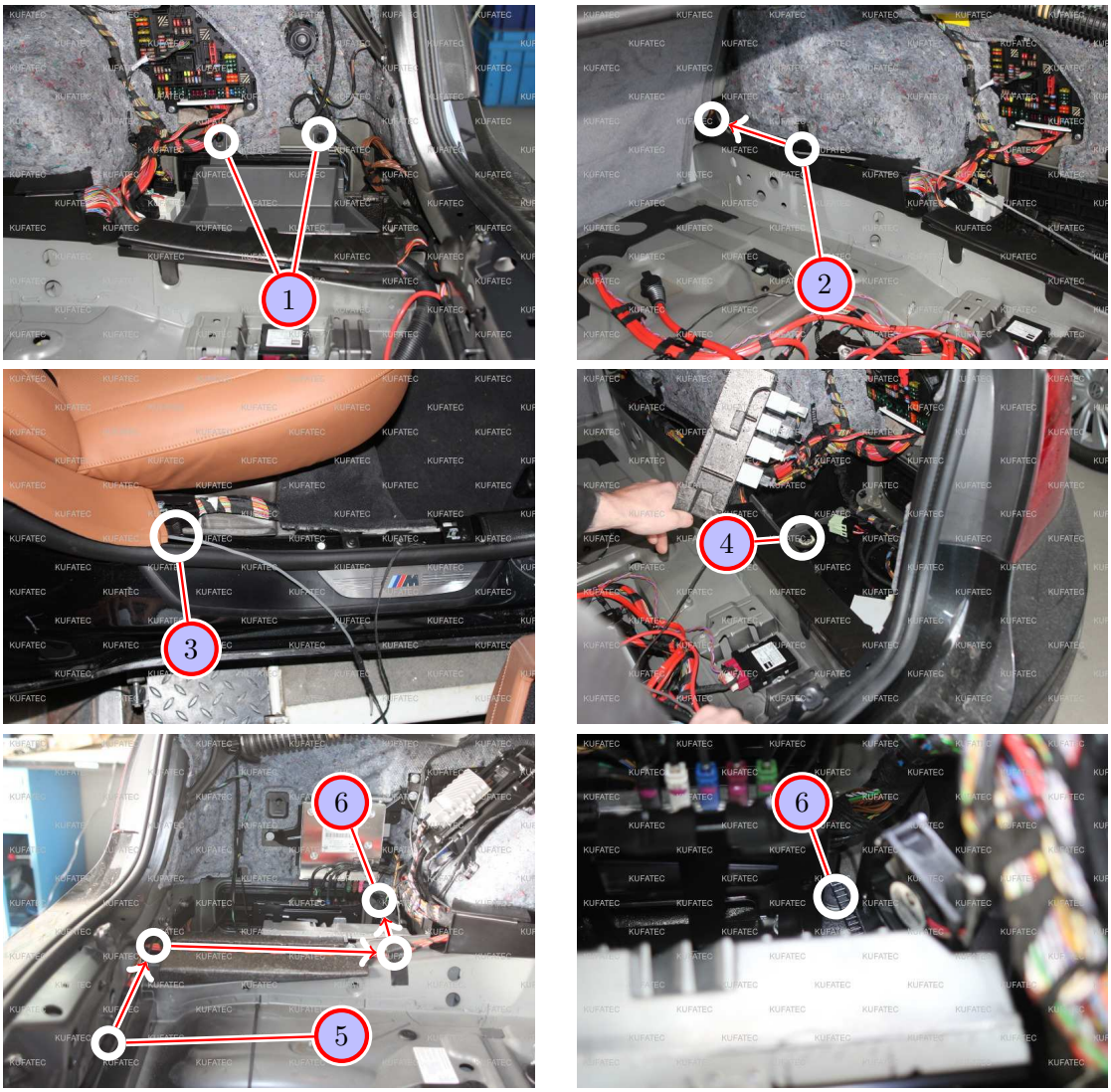


Figure 9: Routing cables of the soundboosters in direction of the underbody - pictures

Table 7: Routing cables of the soundboosters in direction of the underbody - instructions

Nr.	Work step	Note
1	Loosen the two screws of the oddments tray and take it out.	T20
2	Guide a pull through aid along the cable channel in direction of the back seats till you come out at point 3.	
3	Attach the cables for the soundboosters and then pull them under the trim panel of the c-pillar back in the trunk with the pull through aid.	
4	Route the cables for the soundboosters along the wiring harness on the right side into the rear right oddments tray. Fold the foam up and guide the cable for the right soundbooster through the marked grommet in direction of the underbody.	
5	Guide the cable for the second soundbooster at the original wiring harness, along the arrows, into the left oddments tray to point 6.	
6	The picture shows the grommet in the left oddments tray to the right of the control unit. The cable is routed through this grommet to the underbody on the left side at a later instant of time.	

17 Mounting soundbooster and safety rope on the right side

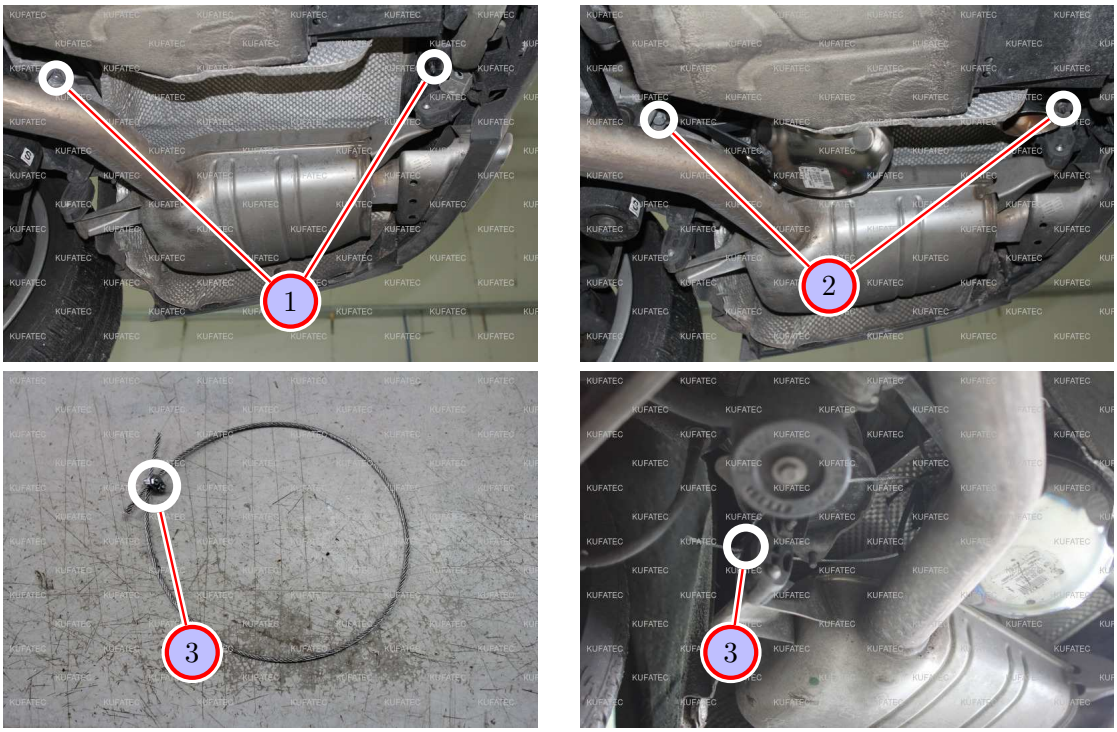


Figure 10: Mounting soundbooster and safety rope on the right side - pictures

Table 8: Mounting soundbooster and safety rope on the right side - instructions

Nr.	Work step	Note
1	On the right side, loosen the nut of the anti-roll bar bracket (left marking) and the nut of the exhaust bracket (right marking).	13er socket
2	Attach the soundbooster at these two points. Pay attention that the cable for the soundbooster don't abut on the exhaust.	
3	Now attach the safety rope to the soundbooster and to a suitable place at the underbody.	

18 Mounting soundbooster and safety rope on the left side

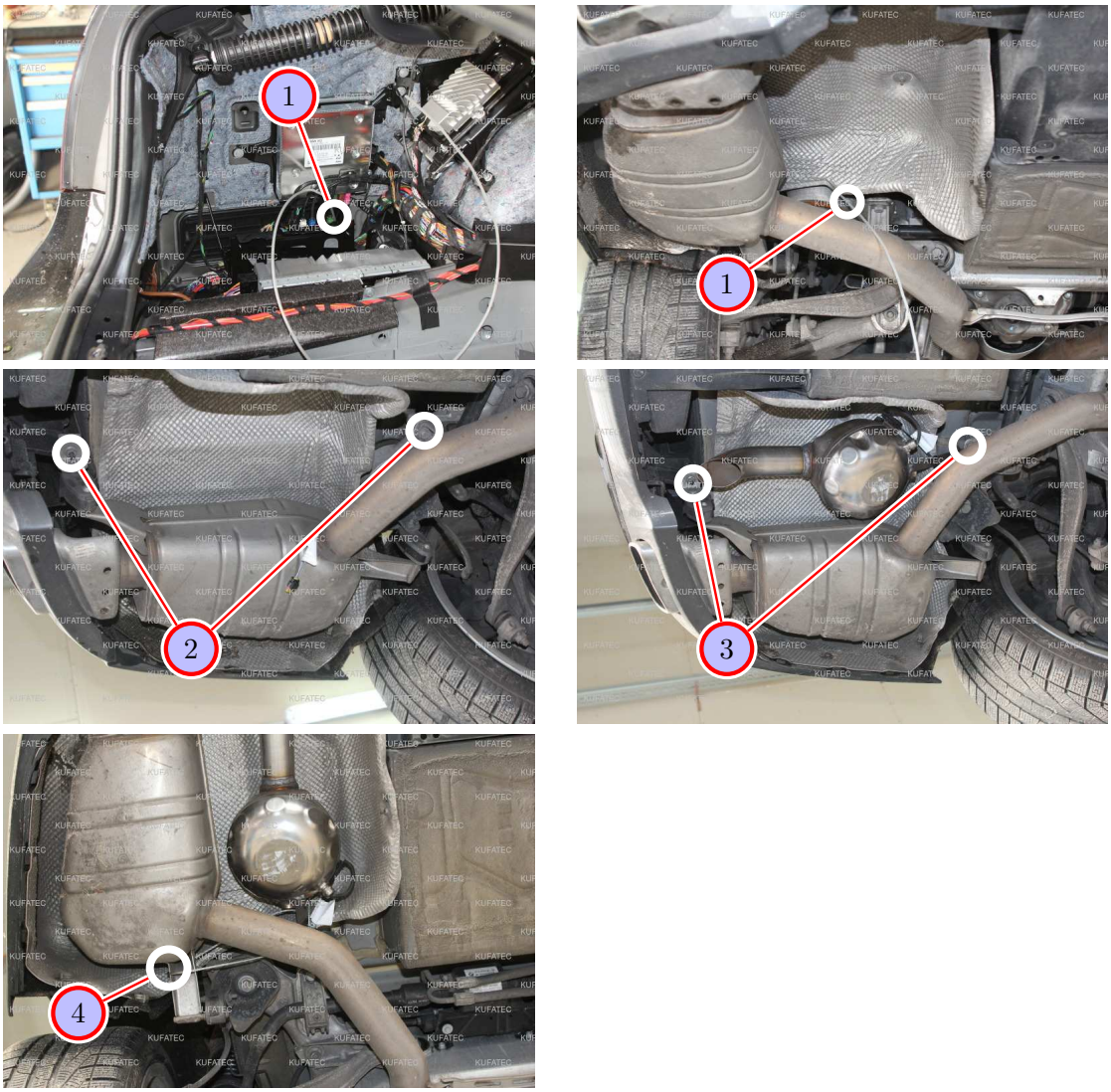


Figure 11: Mounting soundbooster and safety rope on the left side - pictures

Table 9: Mounting soundbooster and safety rope on the left side - instructions

Nr.	Work step	Note
1	Guide the cable now to the underbody with a pull through aid.	
2	On the left side, loosen the nut of the anti-roll bar bracket (right marking) and the nut of the exhaust bracket (left marking).	13er socket
3	Attach the soundbooster at these two points. Pay attention that the cable for the soundbooster don't abut on the exhaust.	
4	Now attach the safety rope to the soundbooster and to a suitable place at the underbody.	

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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