



## **Installation Instructions**

Complete set active Sound incl. Soundbooster

BMW X5 E70

v1.1 (23.05.2017)

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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

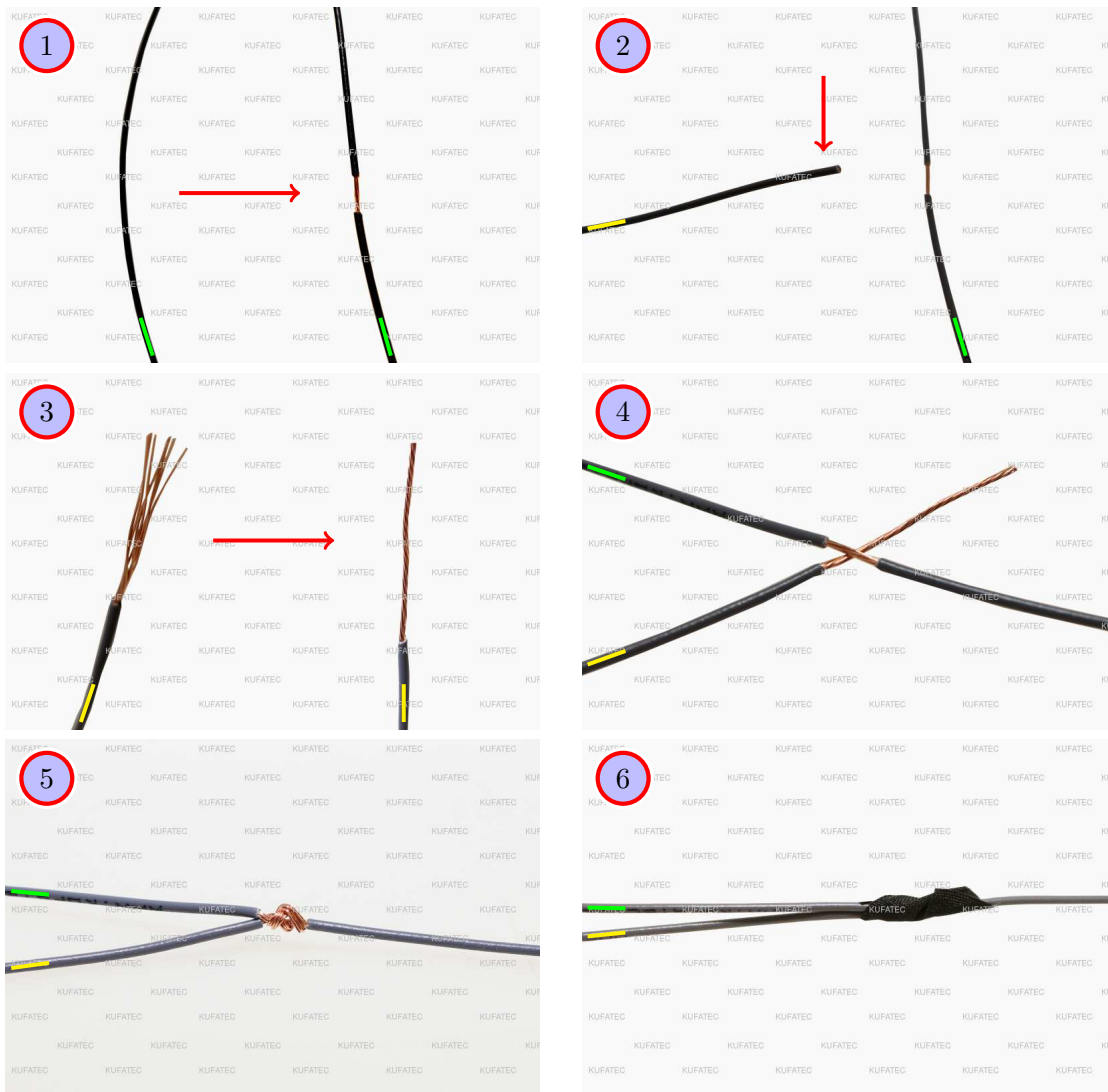


Figure 1: How to connect a cable to another

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 Assembly instruction

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

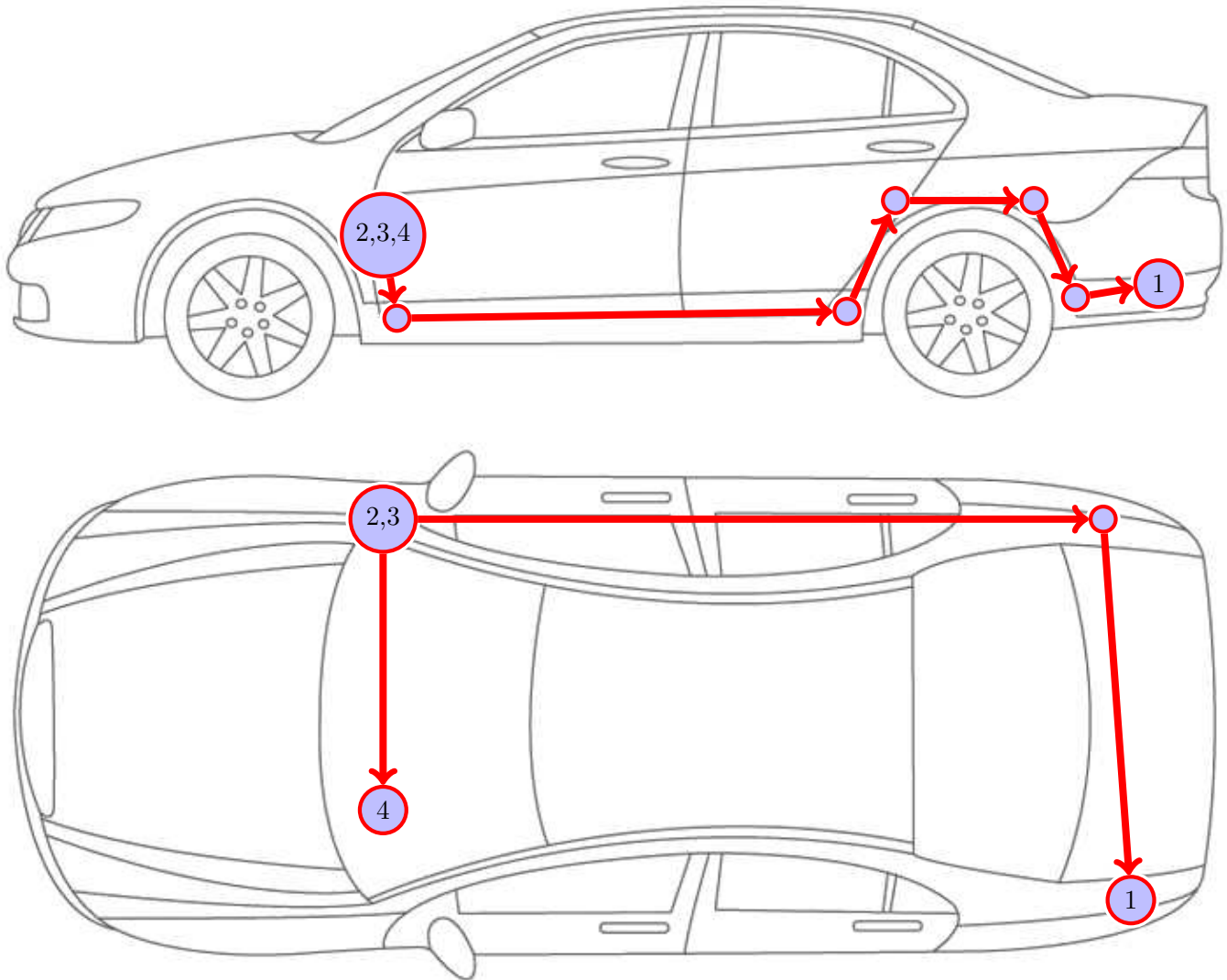


Figure 3: Vehicle overview

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



## 10 Removing trim panel co-driver's side front

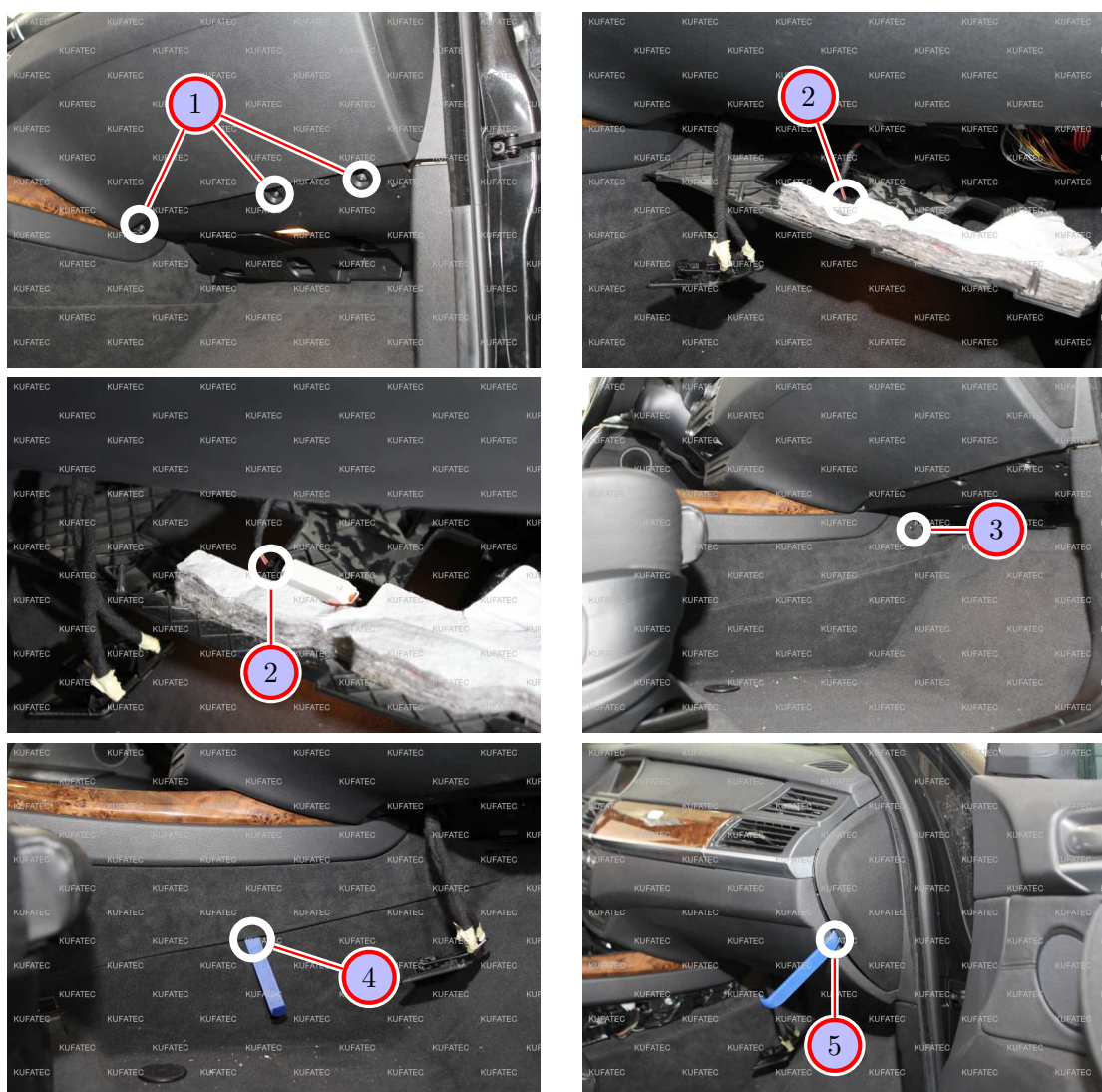


Figure 4: Removing trim panel driver's side front

Table 2: Instructions for removing trim panel co-driver's side front

Nr.	Work step	Note
1	Please loose the marked screws from the trim panel of the dashboard and pull the trim panel off carefully.	3x cross
2	Take off the plug from the lightning of the legroom and remove the trim panel completely.	
3	Loosen the marked screw from the trim panel of the central console.	1xT25
4	Loosen and take off the trim panel of the central console by using a trim tool.	
5	Finally loosen and remove the lateral trim panel of the dashboard.	



Figure 5: Removing trim panel driver's side front

Table 3: Instructions removing drivers's side front

Nr.	Work step	Note
1	Please loosen the front running board by using a trim tool.	
2	Loosen and remove the lower trim panel of the A-pillar by using a trim tool.	

## 11 Connection cable assembly

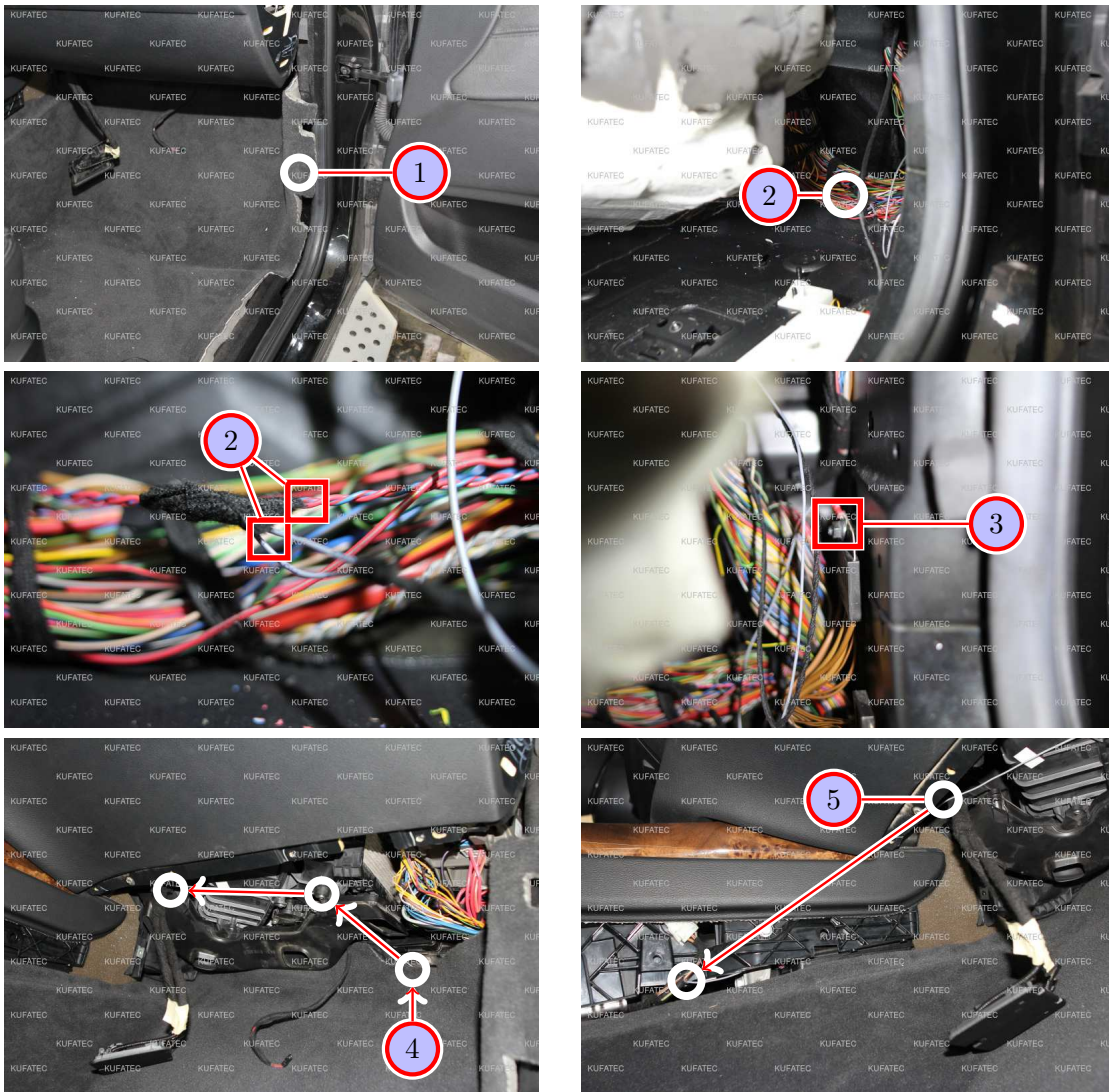


Figure 6: Connection cable assembly

Table 4: Instructions for connection cable assembly

Nr.	Work step	Note
1	Please pull the carpet from below the glove box forward in direction to the central console carefully..	
2	Behind the carpet resides a main cable harness, in which both cables, coloured blue/red and red twisted, are located. Please connect CAN high and low as follows: CAN high (black/white) to blue/red. CAN low (black/yellow) to red.	
3	Please connect the ground cable (brown) at the marked ground spot.	1x8er socket
4	Guide the cable with ignition lead (red/white) along the marking to the marked position.	
5	Afterwards please guide the cable along the marking to the plug of the cigarette lighter.	



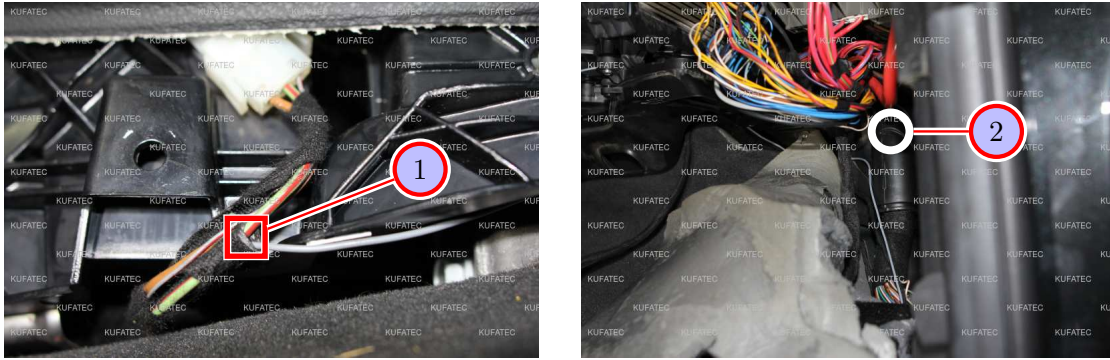


Figure 7: Connection cable assembly

Table 5: Instructions for connection cable assembly

Nr.	Work step	Note
1	Please connect the cable ignition lead with the cable coloured green/red (PIN 2) of the cigarette lighter.	
2	Afterwards please connect our module as well as the control unit with the cable assembly and put this at a suitable place behind the carpet.	

## 12 Removing trim panel co-driver's side back

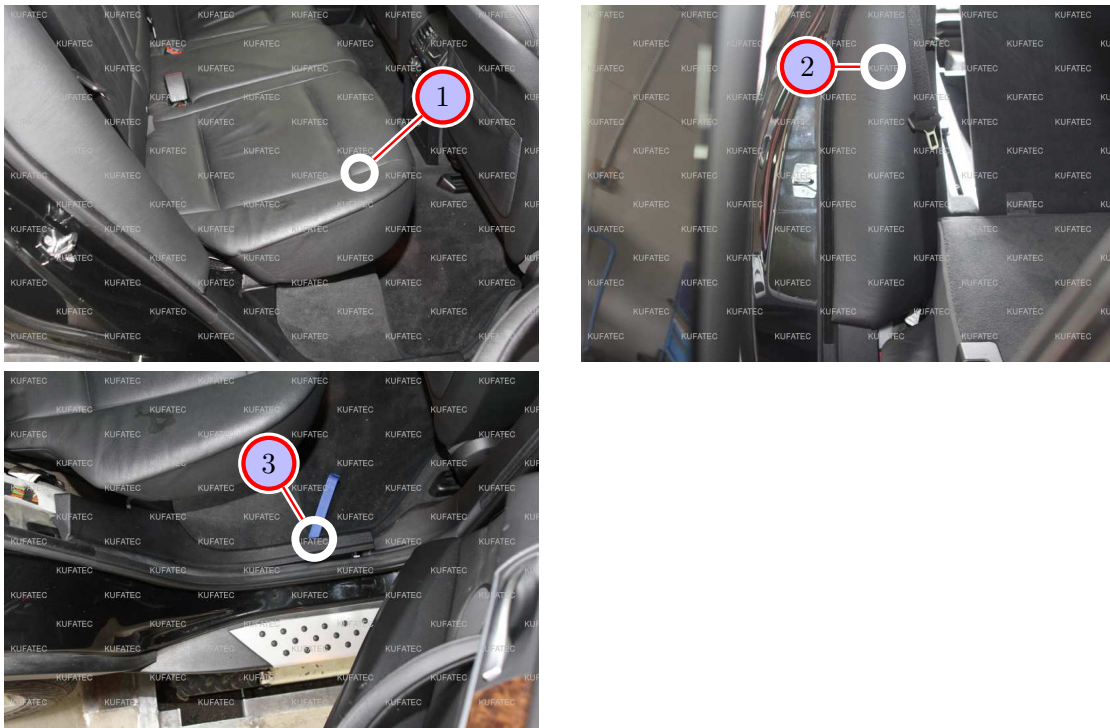


Figure 8: Removing trim panel co-driver's side back

Table 6: Instructions for removing trim panel co-driver's side back

Nr.	Work step	Note
1	Please pull the backseat at the marked position up out of the locking und pull it a bit forward.	
2	Pull the side bolster at the marked position out of the locking and pull it up afterwards.	
3	Loosen the running board by using a trim tool.	

### 13 Removing trim panel of the car boot

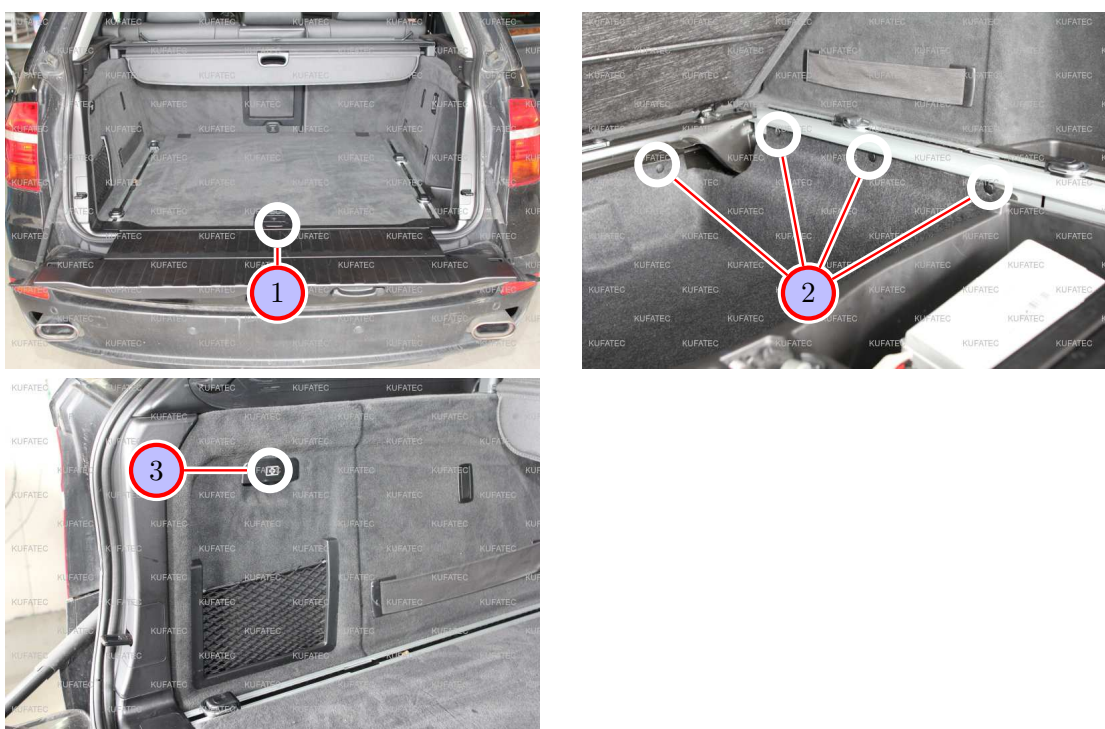


Figure 9: Removing trim panel of the car boot

Table 7: Instructions for removing trim panel of the car boot

Nr.	Work step	Note
1	Please raise the car boot.	
2	Remove all marked plastic clips around the covering and take the covering out of the car boot.	
3	Afterwards remove the lateral covering by pulling it out.	

## 14 Cable routing to the car boot

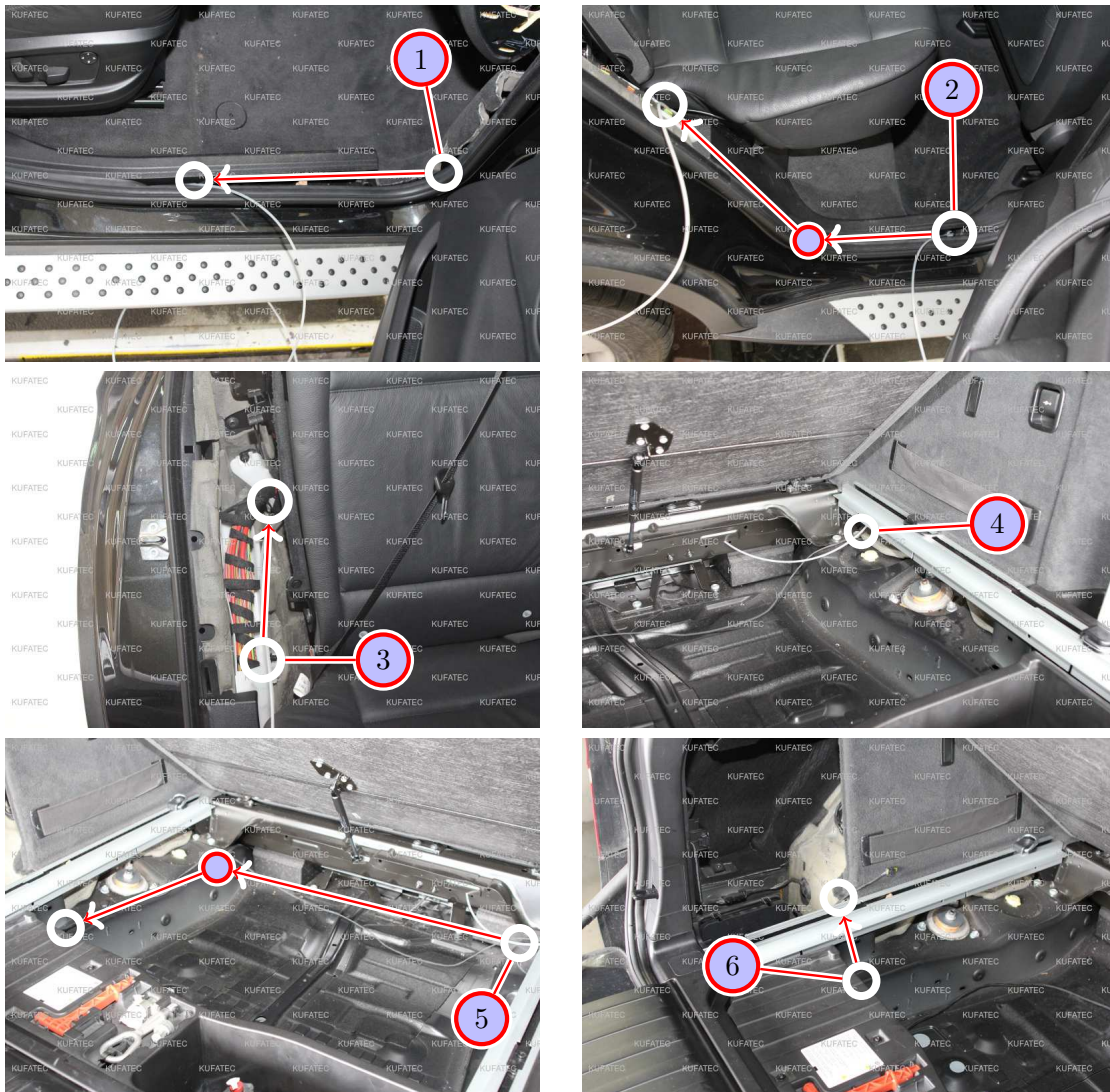


Figure 10: Cable routing to the car boot

Table 8: Instructions for cable routing to the car boot

Nr.	Work step	Note
1	Place the cable along the running board forward to the B-pillar.	
2	Please pull the cable from the back of the B-pillar und place the cable along the back running board up to the back of the side bolster.	
3	Transfer the cable up to the marked position und guide this into the car boot.	
4	Please pull the cable forth under the lateral trim panel.	
5	Place the cable along the marking to the driver's side.	
6	Afterwards guide the cable into the oddments tray at driver's side.	



## 15 Installation sound generator

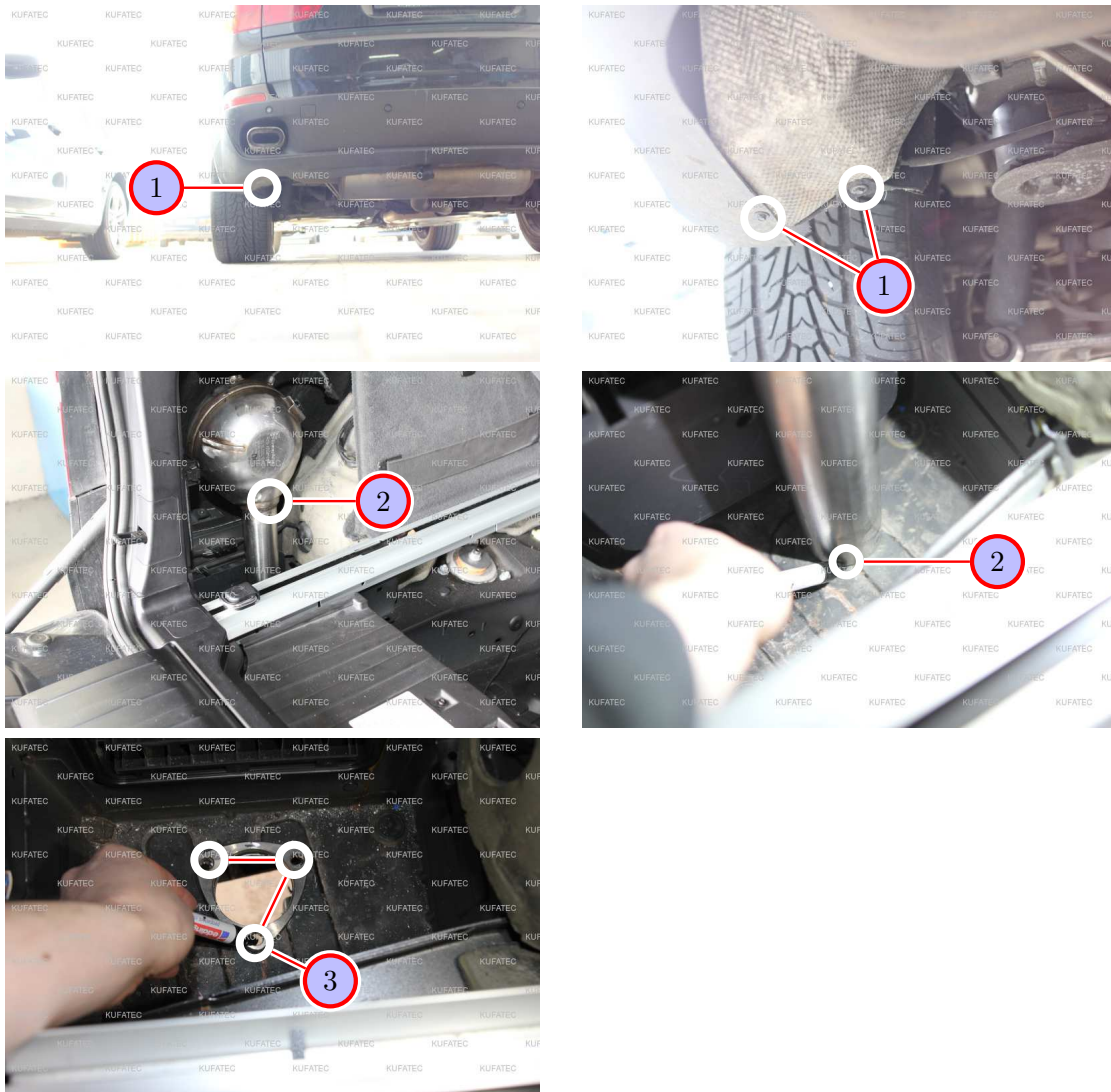


Figure 11: Installation sound generator

Table 9: Instructions sound generator

Nr.	Work step	Note
1	Please loosen both marked screws of the heat protection plate und bend this aside carefully. In some cars a holder is located behind the heat protection plate, which has to be bent too.	2x8er socket
2	Insert the sound generator into the oddments tray, so that there is enough air between car body and sound generator to all sides. Afterwards you mark with an appropriate marker the position on the bottom plate. Then please drill a correspondent opening.	60mm
3	Please put the opposite side of the flange up on the opening und mark the holes for the screws. Then drill appropriate holes for the screws.	



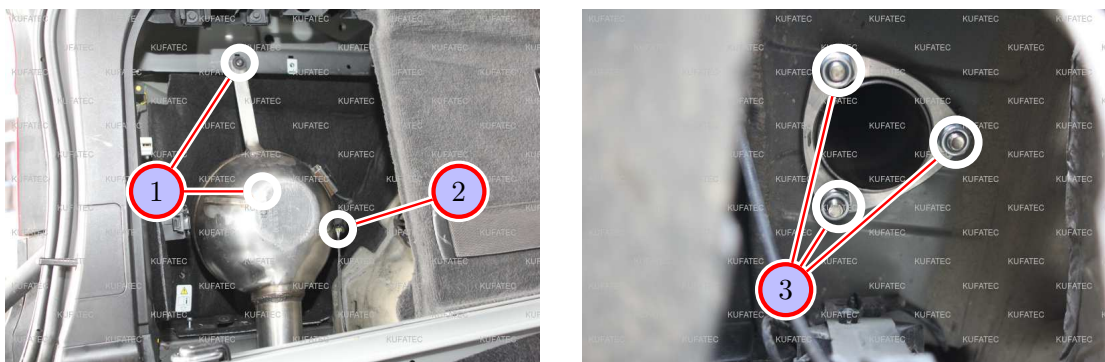


Figure 12: Installation sound generator

Table 10: Instructions sound generator

Nr.	Work step	Note
1	Insert the sound generator into the hole and fix it at the marked position with an appropriate screw (not included in shipment).	
2	Connect the placed cable with the sound generator.	
3	Please fix the sound generator from the bottom with the flange and the marked screws. Afterwards please seal the duct waterproof.	3x10er socket

## 16 Installation pushbutton

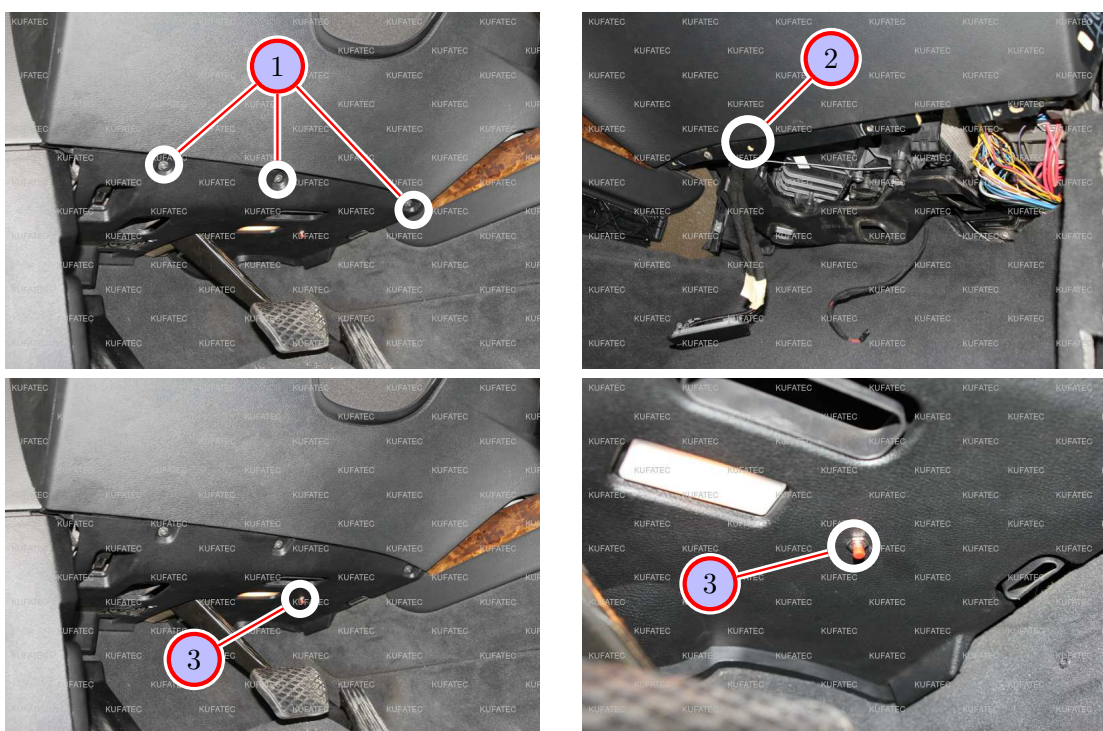


Figure 13: Installation pushbutton

Table 11: Instructions installation pushbutton

Nr.	Work step	Note
1	Remove the marked screws of the lower dashboard trim panel at driver's side and pull this down carefully.	
2	Guide the cable of the push button by using a pull-through-aid behind the central console along to driver's side.	
3	Afterwards pull the cable out of the back from the central console und install the pushbutton at the marked position. Therefor please drill prior to this an appropriate hole for the pushbutton.	7mm

## 17 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.

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