



## **Installation Instructions**

Complete Set Active Sound incl. Soundbooster

VW T4 7D

v1.2 (26.05.2017)

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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 manufacturers. Before the serial production, the cable sets will be adjusted and tested on an original vehicle. Therefore, the integration into the vehicle electronics follows the guidelines provided by the car manufacturer. Our installation instructions correspond to what is common in the vehicle electric/electronic regarding the required pre-understanding and the accuracy of the description in text and picture. They have proven its worth in practice hundreds of times.

If you should experience any difficulties while installing one of our products, we are available to provide support via phone or email. Additionally, we offer you to execute the installation in our workshop in Bad Segeberg.

Costs, arising from third parties assigned with the installation of our products, are not being covered by us. We will only compensate the proven costs of the assembly and the costs of the disassembly of the defective product, if it turns out that there is an issue with our product. We limit the reimbursement of costs up to 110 Euro gross and reserve the right to verify the claim in our workshop in Bad Segeberg. The costs for shipping will be refunded if the claim is justified.

We made the experience, that every professional workshop that is equipped with the necessary diagnostic devices, the diagnostic software and the manufacturer's circuit diagrams, is able to find any possible defects in one of our products in a short period of time. The assembly and disassembly including troubleshooting the issue should therefore only take up to 60 minutes.

We also made the experience, that many professional workshops are not able to cope with the manufacturer's circuit diagrams and can't read common wiring schemes, which results in the calculation of several hours for the simplest installations. You will understand the fact, that we can neither take the risk of finding a reliable workshop for you, nor can we finance the training of the employees of your trusted workshop.

Costs, arising from purchasing missing parts or replacements for defective parts from other suppliers, are covered by us up to the amount that the subsequent delivery would have caused (saved expenses). According to the legal warranty law, there would be no reimbursement right, if there was no deadline for the subsequent fulfilling set or the deadline for a subsequent fulfilling hasn't expired.

That being said, if you have any problems during the installation or operation of one of our products call us, write us an email, send us the product or come by our workshop in Bad Segeberg with your vehicle. We are certain, that we can find a solution for any kind of concern.

Kind regards,

Your Kufatec GmbH & Co. KG Team

## 2 Copyright

Our installation and operation instructions, installation plans, software and other written and/or pictured documentations are protected by copyright.

The publication or distribution of these documentations is only permitted with a written approval of Kufatec GmbH & Co. KG.

## 3 General notes

While developing this product, your personal safety combined with the best operating service, modern design and an up-to-date production technique was especially taken into account.

Unfortunately, despite the utmost care injuries and/or damages might occur due to improper installation and/or use.

Therefore, please read the following instruction manual fully and thoroughly and keep it!

All articles of our production line pass through a 100% check – for your safety and security.

We reserve the right to carry out technical changes which serve the improvement at any time.

Depending on each product and purpose, it might be necessary to check each country's legal regulations before installing and starting it.

In case of warranty claims, the product has to be sent back to the seller in the original packaging with the attached bill of purchase and detailed defect's description. Please, pay attention to the manufacturers return requirements (RMA). The legal warranty directions are valid.

The warranty claim as well as the operating permission becomes invalid due to:

- unauthorized changes to the device or accessories which have not been approved or carried out by the manufacturer or its partners
- opening the casing of the device
- repairing the device on one's own
- improper use/operation
- brute force to the device (drop, willful damage, accident etc.)

During the installation, please pay attention to all safety relevant and legal directions. The device should only be installed by trained personnel or similarly qualified people.

**In case of installation problems or problems concerning the functionality of the device, limit the time to approx. 0,5 hours for mechanical or 1,0 hours for electrical troubleshooting.**

To avoid unnecessary costs and time-loss, send in an immediate support-request, via the Kufatec-contact-form (<http://www.kufatec.de/shop/de/infocenter/>).

In case of, let us know the following:

- Car chassis number/vehicle identification number
- Five-digit part number of the device
- Exact description of the problem
- Steps you have taken to solve the problem

## 4 Safety Instructions

The installation should only be performed by trained personnel. Only perform installations while in a voltage-free state. For example, disconnect the battery. Please pay attention to the instructions provided by the manufacturer.

- Never use bolts or nuts from the car's safety devices for installation. If bolts or nuts from the steering wheel, brakes or other safety devices are used for installation of the device, it may cause an accident.
- Use the device with a DC 12V negative ground car. This device cannot be used in large trucks which use a DC 24V battery. If it is used with a DC 24V battery, it may cause a fire or accident.
- Avoid installing the device in places that would restrict you from driving safe or where it could damage the car's other fittings.
- This device should only be used in combination with the mentioned vehicles. Only connections described within this instructions guide are allowed or required to use for installation.
- For damages caused by faulty installation, unsuitable connections or inappropriate vehicles, Kufatec GmbH & Co. KG assumes no liability.
- We advise you that these devices process data from the MOST – protocol of the vehicle. As the supplier of this device we don't know the overall system you are working with. If your device causes damage, due to other changes made to the vehicle, Kufatec GmbH & Co. KG assumes no liability.
- Kufatec GmbH & Co. KG supplier does not guarantee the use of the product for changes within a new vehicle series.
- If the car manufacturers don't agree with the installation of our device by reason of warranty, Kufatec GmbH & Co. KG assumes no liability. Please, check conditions and warranty before you begin the installation.
- Kufatec GmbH & Co. KG reserves the right to change the device specifications without notice.
- Subject to errors and changes.

## 5 Requirements for the intended use

**Only use this device in its intended area.**

**In case of unprofessional installation, improper use or modification, the permission for the 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

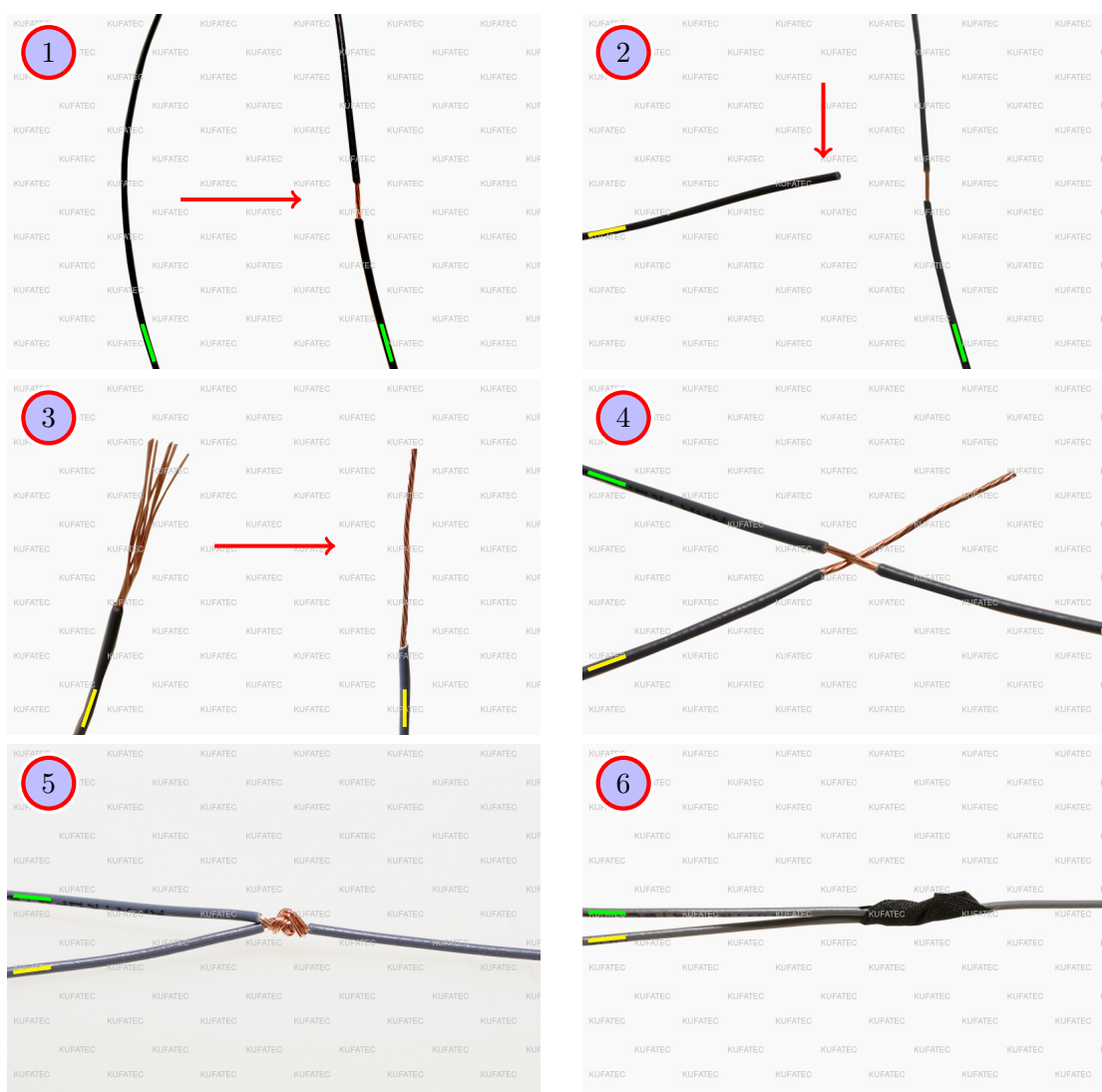


Figure 1: How to connect a cable to another

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 the cable set consists of colored cables, connect the cables according to the color. If all cables of the cable set have the same color, connect the cables according to the cable inscription.**

## 9 Assembly Instructions

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

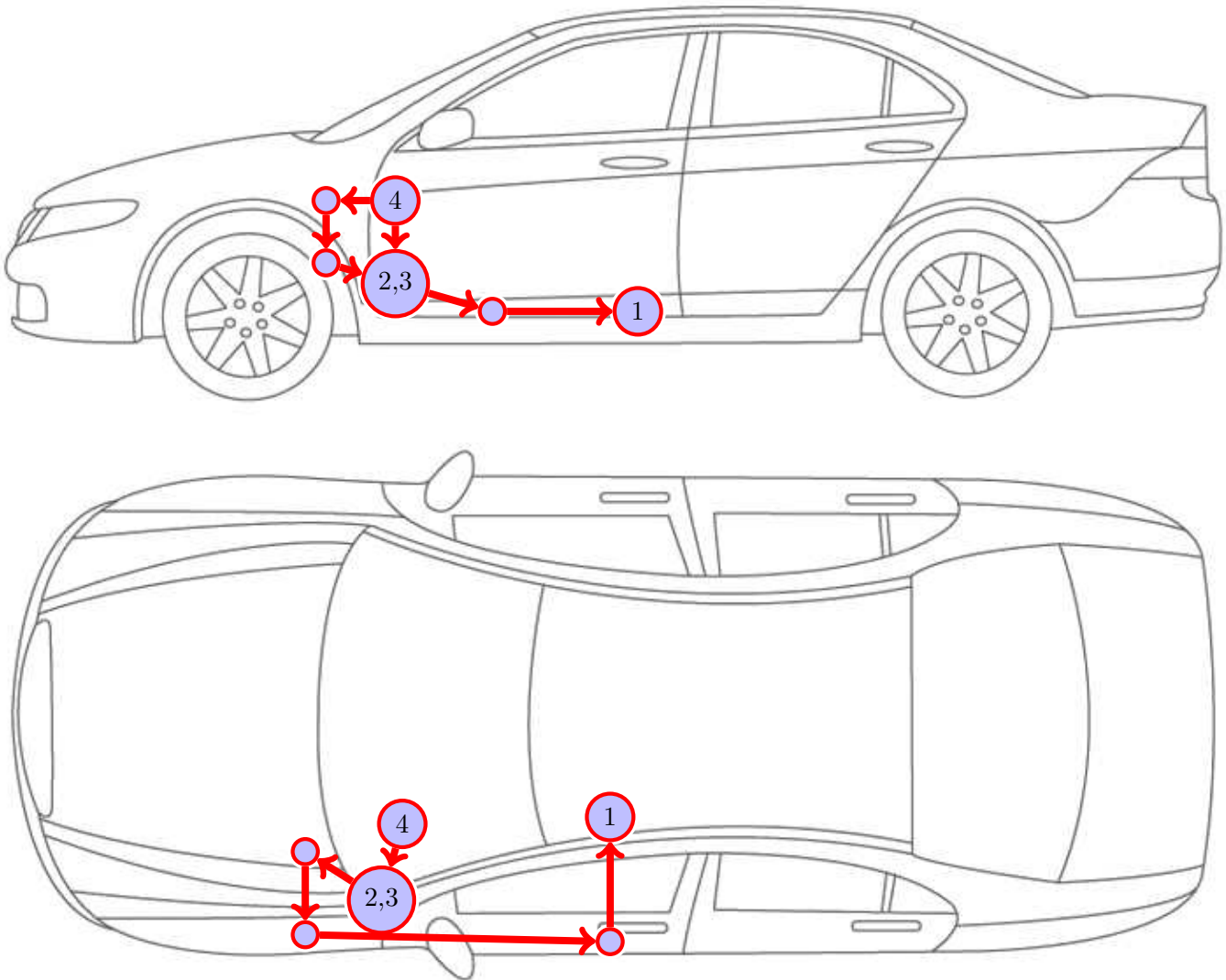


Figure 3: Vehicle overview

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



## 10 Removing trim panel driver's side

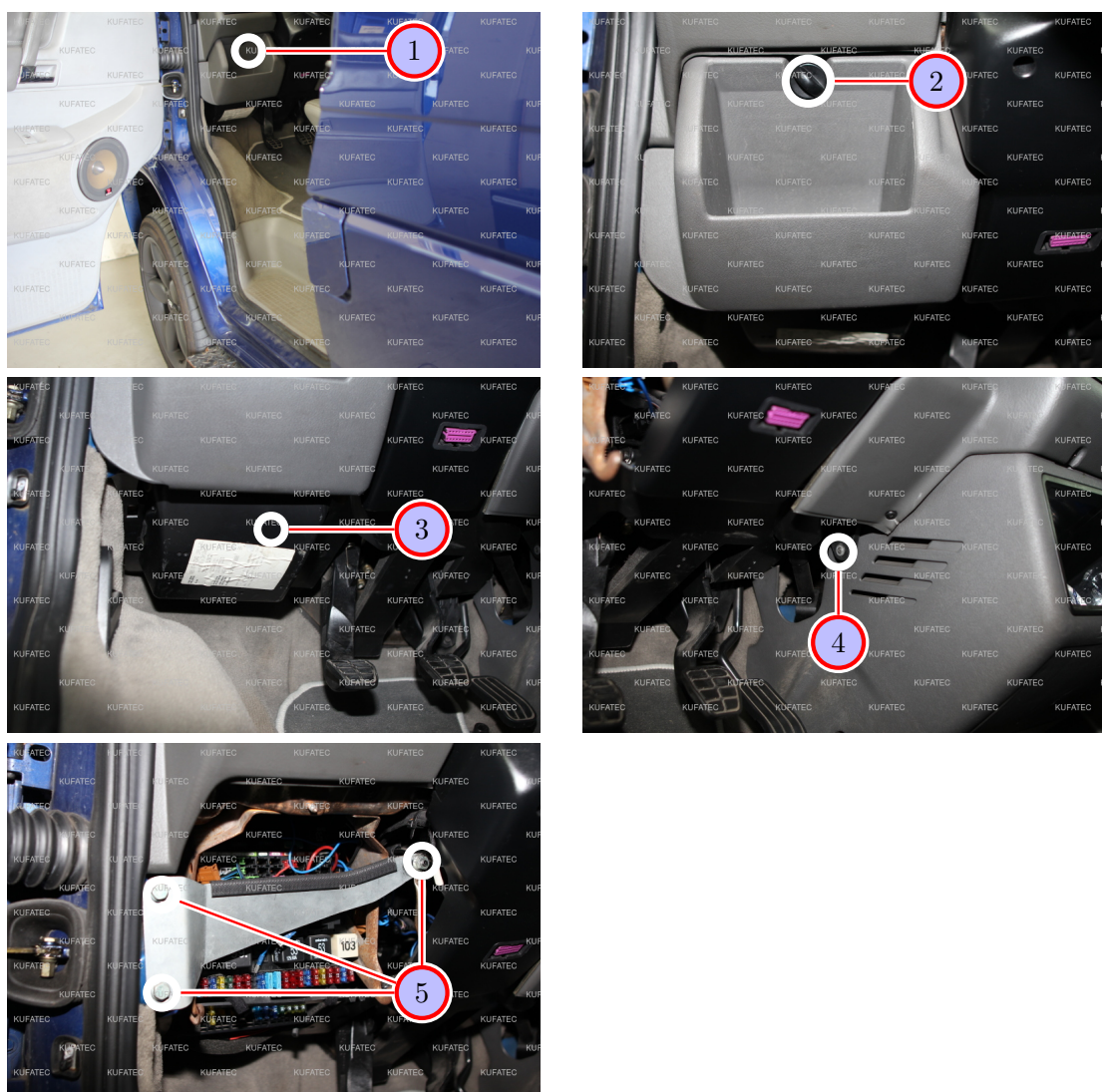


Figure 4: Removing trim panel driver's side - pictures

Table 2: Removing trim panel driver's side - instructions

Nr.	Work step	Note
1	Overview of the working area.	
2	Remove the upper grey covering to the left of the steering wheel.	
3	Remove the lower black covering.	
4	Loosen the marked screw with a cross-head screwdriver.	1xscrew
5	Loosen the three marked screws/nuts and remove the stirrup.	3xT13

## 11 Connection ground



Figure 5: Connection ground - pictures

Table 3: Connection ground - instructions

Nr.	Work step	Note
1	Remove the marked clip.	
2	Now remove the marked cross-head screw of the upper covering of the hood handle and remove the covering.	1xscrew
3	Remove the marked cross-head screw of the lower covering of the handle. Remove the handle and loosen the carpet.	1xscrew
4	Search the brown ground cable.	
5	Now connect the ground cable (brown) also to the ground spot.	



## 12 Connection ignition lead and CAN-High/CAN-Low

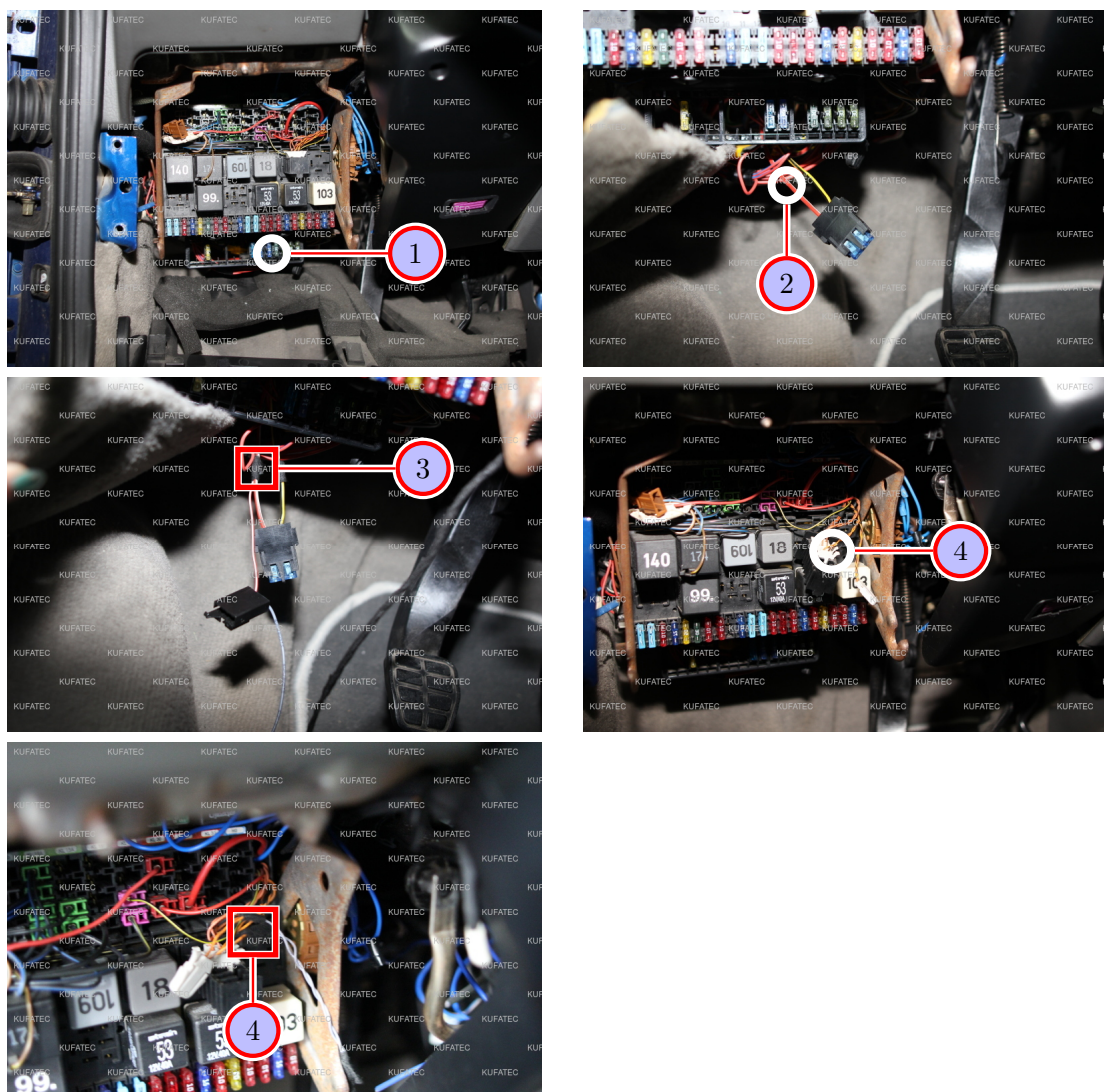


Figure 6: Connection ignition lead and CAN High/CAN Low - pictures

Table 4: Connection ignition lead and CAN High/CAN Low - instructions

Nr.	Work step	Note
1	Search the ignition lead using a multimeter.	
2	Pull the cable out from behind, so that you reach the cable.	
3	Connect clamp 15 (red/white) also to the ignition lead.	
4	Now connect CAN-High and CAN-Low as follows:	
	CAN-High (black/white) to orange/black	
	CAN-Low (black/yellow) to orange/brown	

## 13 Connection control units and pushbutton

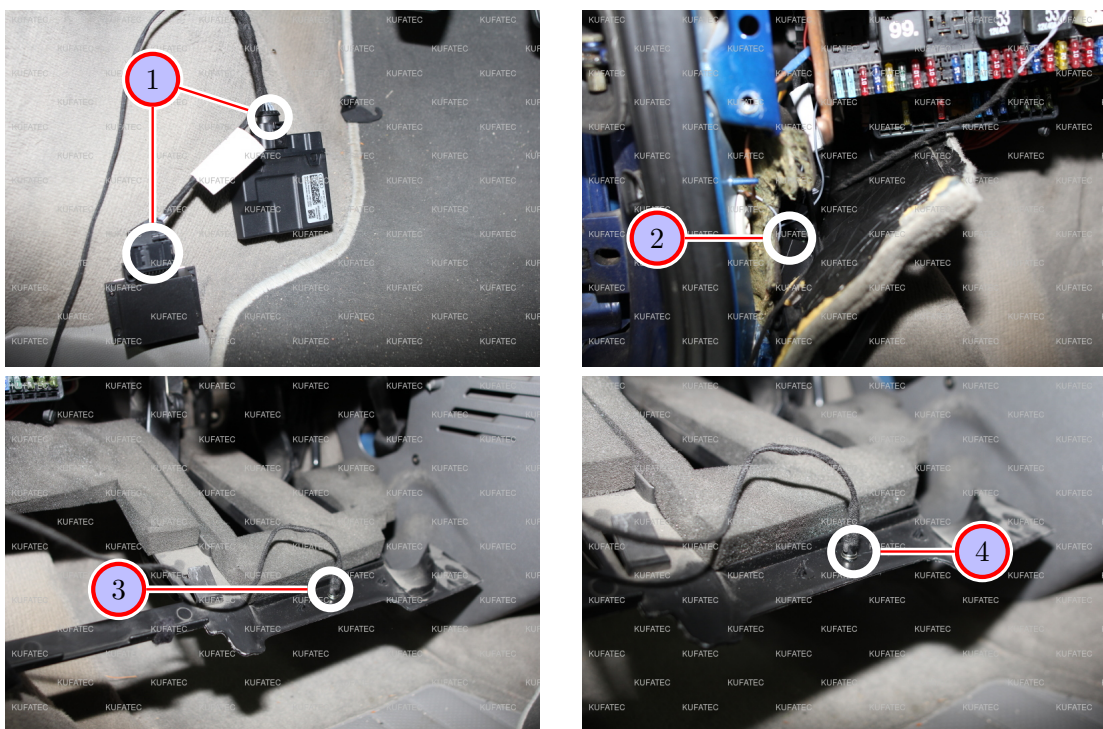


Figure 7: Connection control units and pushbutton - pictures

Table 5: Connection control units and pushbutton - instructions

Nr.	Work step	Note
1	Connect both control units to the cable harness.	
2	Place the control units and the cables behind the carpet, let the cable with the pushbutton hang out at the top.	
3	Loosen the lowermost trim panel in the footwell. Search a suitable position at the trim panel, where you want to attach the pushbutton , and mark this position.	
4	Remove the trim panel and drill a hole at the marked position (drill 7mm). Now attach the trim panel and install the pushbutton (pushbutton has a screw thread). Reattach the black and the grey covering.	drill 7mm



## 14 Cable routing

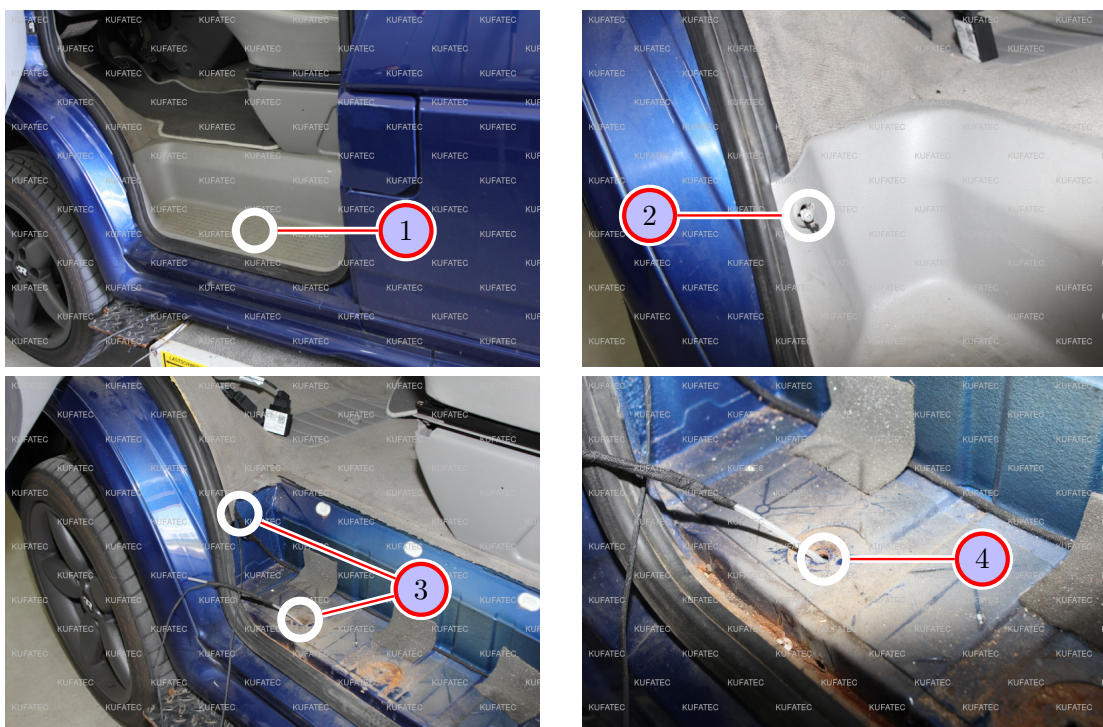


Figure 8: Cable routing - pictures

Table 6: Cable routing - instructions

Nr.	Work step	Note
1	Overview of the working area.	
2	Loosen the marked cross-head screw and remove the covering of the sill trim.	1xscrew
3	Now guide the cable behind the carpet along the wheel housing to the sill trim. Fix the carpet and mount the handle.	
4	Pull the cable through the hole of the sill trim to the underbody using a pull through aid.	

## 15 Installation soundbooster

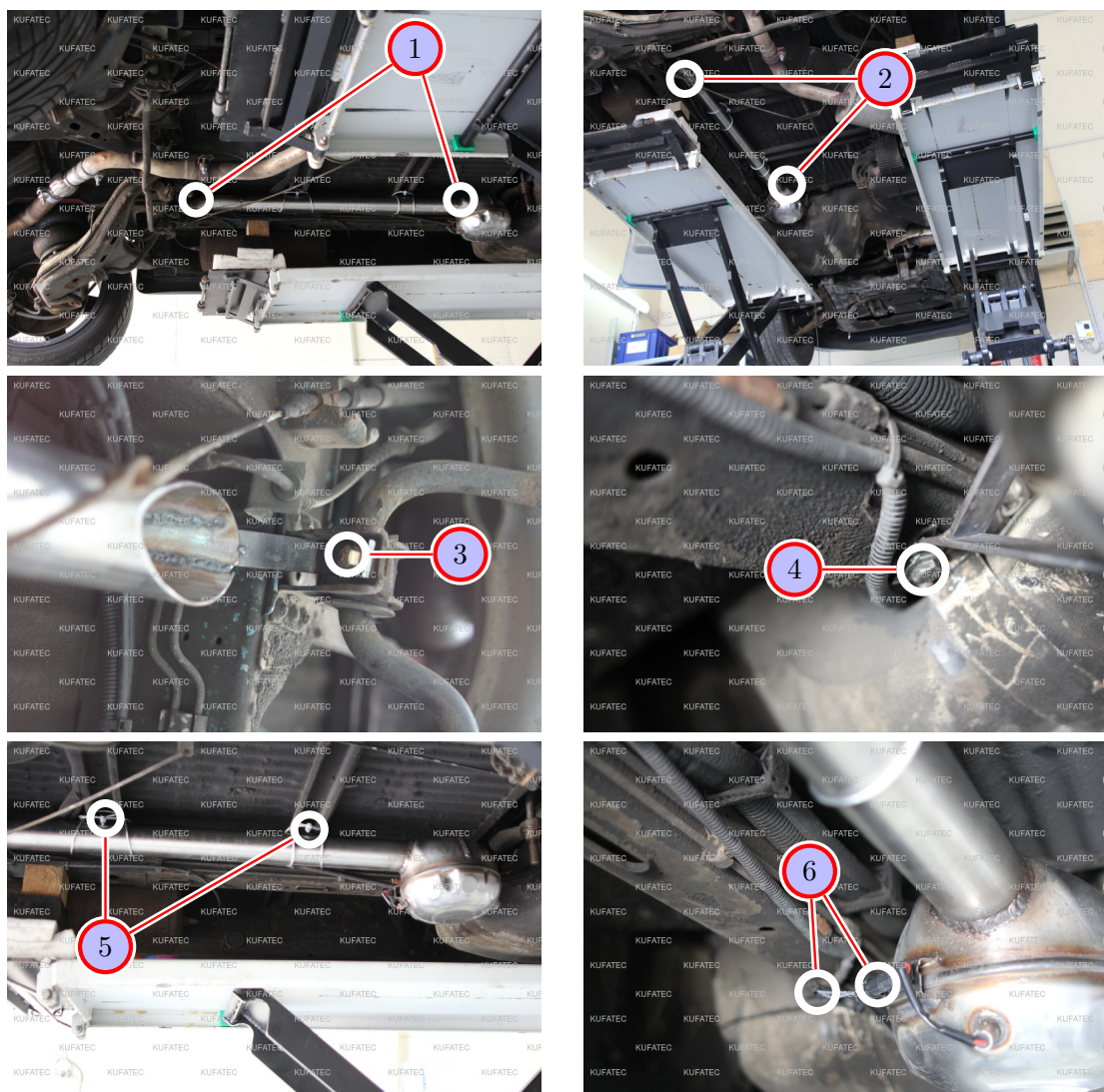


Figure 9: Installation soundbooster - pictures

Table 7: Installation soundbooster - instructions

Nr.	Work step	Note
1	Overview of the working area.	
2	Attach the soundbooster below the tank along the side.	
3	Attach mounting plate behind at the underbody with screw.	1xT13
4	Attach mounting plate ahead at the underbody with screw.	1xT13
5	Attach the pipe at the underbody. Use the steel wire ropes that were delivered.	2xsteel wire rope
6	Pull the cable along at the side of the tank and plug the plug of the cable and of the soundbooster together. Attach the cable at the original cable that runs laterally below the trim. Now reattach the covering of the sill trim.	

## 16 Important Information Sound Booster

Please use suitable screws that can withstand high loads of impact to attach the sound generator. In order to avoid loosening of the screws due to the vibration, please secure the screws 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 non-compliance we do not assume liability for possible damages.

After a 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 the zinc spray can't get inside the sound generator.

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

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