

# **KUFATEC Complete Set Active Sound Including Sound Booster Instruction Manual**

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**Installation Instructions** Complete Set Active Sound incl. Soundbooster v1.3 (01.07.2022)



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#### **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 preunderstanding 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 manufac- turer'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). Ac- cording 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,

#### 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.

#### **General notes**

While developing this product, your personal safety combined with the best operating service, modern de- sign 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)

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.

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

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

#### 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 form 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 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 de-scribed 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 &
   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 & KG assumes no liability.
- Kufatec GmbH & 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
- Kufatec GmbH & KG reserves the right to change the device specifications without notice.
- · Subject to errors and changes.

#### 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.

#### How to connect a cable to another

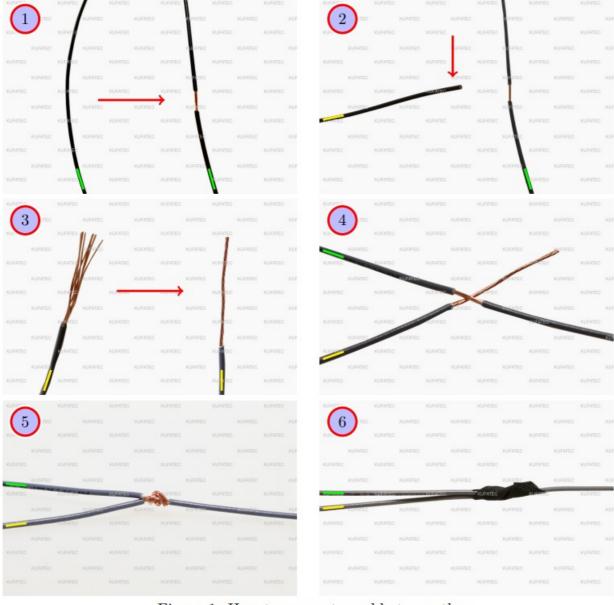


Figure 1: How to connect a cable to another

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 t he 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 s trip 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 v ehicle  |      |
| 5   | and wrap the cable you want to connect around the cable of the vehicle.   |      |
| 6   | Lastly, stick insulating tape around the connection point. Make sure that the isolation is put onto the connection professionally to prevent corrosion.                     |      |

## 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.

## **Assembly Instructions**

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

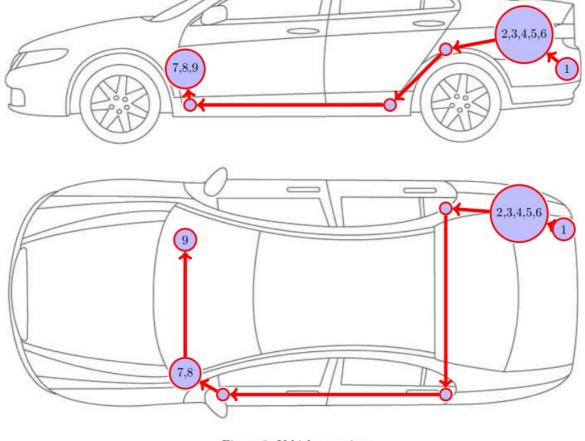


Figure 3: Vehicle overview

- 1 External sound generator mounting plate
- 2 Control unit for engine sound generation
- 3 Sound Booster Pro (module)
- 4 Ground connection
- 5 Ignition plus (terminal 15) connection
- 6 CAN connection version B
- 7 Button
- 8 CAN connection version C
- 9 CAN connection version A

Please be aware that this overview is only for illustration purposes. Always lay the cable set in the most convenient and shortest way possible. For a detailed description of the cable routing, please refer to the relevant sections of the following manual.

## **Assembly Note**

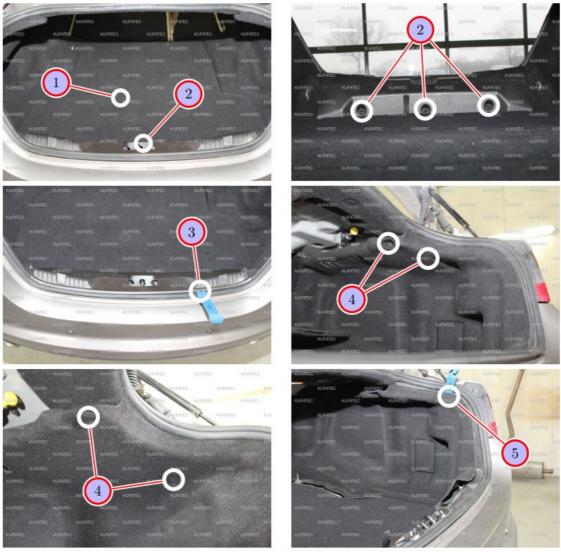
#### Important note for the assembly

The vehicle used for the assembly instruction was a Jaguar XF. We would like to point out, that the disassembly of the individual parts can vary depending on the type of vehicle. Please make sure to keep that in mind.

#### Note for assembling the vehicle

Before you start assembling the vehicle, the system must first be tested for proper function.

#### Disassembly trunk coverings



 $\label{eq:Figure 4: Disassembly trunk coverings} \parbox{Table 2: Instructions to disassemble the trunk coverings}$ 

| No. | Work step  | Note |
|-----|--|------|
| 1   | Remove the trunk floor.  |      |
| 2   | Loosen the three marked plastic clips of the load sill guard.                  |      |
| 3   | Remove the load sill guard using an assembly lever.                            |      |
| 4   | Loosen the two upper plastic clips of the trunk's side covering on both sides. |      |
| 5   | Remove both side coverings using an assembly lever.                            |      |

# Connection CAN High/Low, ignition plus, ground



Figure 5: Connection CAN High/Low, ignition lead and ground

Table 3: Connection CAN High/Low, ignition lead and ground – instructions

| No. | Work step  | Note |
|-----|--|------|
| 1   | The cable set includes the following cables: 2x blue/white twisted with white. These split int o 2x white twisted and 2x blue/white twisted. Finally, these cables turn into 1x white and 1x blue white. |      |
| 2   | Look for the line section where both bundles are twisted separately. Connect as follows (see notes on page 6):   |      |
|     | CAN High (black/white) to blue/white   |      |
|     | CAN Low (black/yellow) to white  |      |
| 3   | Connect the ground cable (brown) to a ground pin.  |      |
| 4   | Connect the cable for ignition plus (red/white) (terminal 15) to the white/orange cable of PIN  1. Measure with a multimeter to be sure that this cable is the ignition plus cable in your car.          |      |

Alternative: Connection CAN High/CAN Low

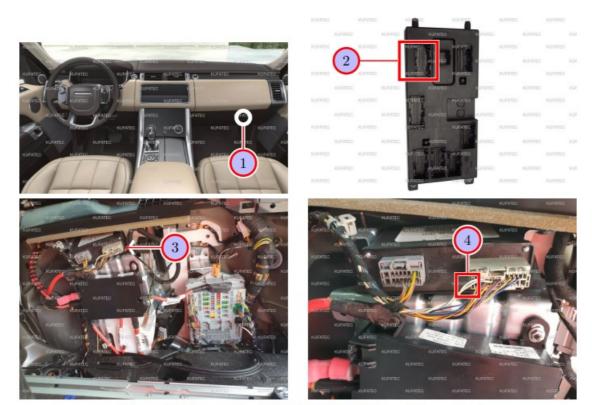
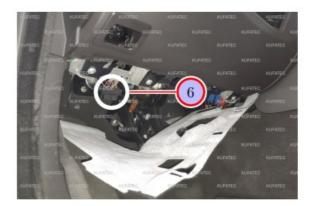


Figure 6: Connection CAN High/CAN Low (alternative)

Table 4: Instructions to connect CAN High/CAN Low (alternative)

| No. | Work step  | Note |
|-----|--|------|
|     | Version A: Body control module passenger's footwell  |      |
| 1   | Connect the two CAN cables to PT-CAN which is located at the plug C2BP01H of the body control module. The body control module is located behind the glove compartment at the fr ont bulkhead (interior). |      |
|     | In order to reach the control unit, reach behind the glove compartment from below.  Alternatively, the glove compartment can be removed for a better access to the control unit.                         |      |
| 2   | Disconnect the plug C2BP01H from the body control module. Connect the two CAN cables as follows:   |      |
|     | Connect CAN High (black/white) to the orange/green cable in pin 42.  |      |
|     | Connect CAN Low (black/yellow) to the grey/blue cable in pin 43.   |      |
| !!  | Note: Be aware that the colors of the CAN cables in pin 42 and 43 can vary depending on the model year or the vehicle's equipment.   |      |
|     | Version B: Control unit trunk passenger side   |      |
| 3   | The two CAN cables must be connected to the marked right connector which is located at the marked control unit. The control unit is located behind the side covering on the passenger's side (trunk).    |      |
| 4   | Connect the two cables to the (twisted) CAN cables as follows:   |      |
|     | Connect CAN High (black/white) to the white/yellow cable.  |      |
|     | Connect CAN Low (black/yellow) to the white/blue cable.  |      |





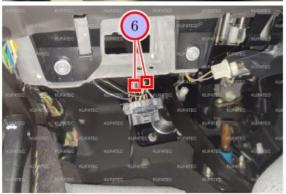
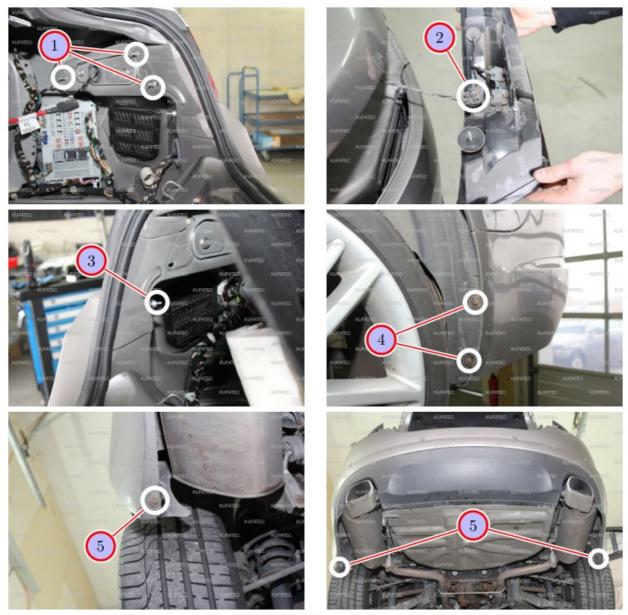


Figure 7: Connection CAN High/CAN Low (alternative)

Table 5: Instructions to connect CAN High/CAN Low (alternative)

| No. | Work step   | Note |
|-----|---|------|
|     | Version C: OBD plug driver's footwell   |      |
| 5   | The two CAN cables must be connected to the OBD plug which can be found in the driver's footwell. |      |
| 6   | Disconnect the plug, then connect the two CAN cables as follows:                                  |      |
|     | Connect CAN High (black/white) to the blue/white cable in pin 6.                                  |      |
|     | Connect CAN Low (black/yellow) to the white cable in pin 14.                                      |      |

# Disassembly taillights and bumper



 $Figure~8:~Disassembly~taillights~and~bumper\\ \textbf{Table 6:}~Instructions~to~disassemble~the~taillights~and~bumper\\$ 

| No. | Work step   | Note   |
|-----|---|--------|
| 1   | Loosen the three marked female screws of each taillight.    | 3xSW10 |
| 2   | Pull the taillights out and then unplug them.               |        |
| 3   | Loosen the inner bumper female screws on both sides.        | 1xSW10 |
| 4   | Loosen the two bumper screws in each wheel housing.         | 2xSW10 |
| 5   | Loosen the screw at the bottom of the bumper on each side . | 1xSW10 |

# Disassembly bumper and cable routing



Figure 9: Disassembly bumper and cable routing

Table 7: Instructions to disassemble the bumper and route the cable set

| No. | Work step  | Note |
|-----|--|------|
| 1   | Loosen the four bottom plastic clips at the bumper.            |      |
| 2   | Detach the bumper carefully.                                   |      |
| 3   | Unplug the connector plug and remove the bumper completely.    |      |
| 4   | Push the cable through the cable bushing using a pulling tool. |      |

# Assembly sound generator

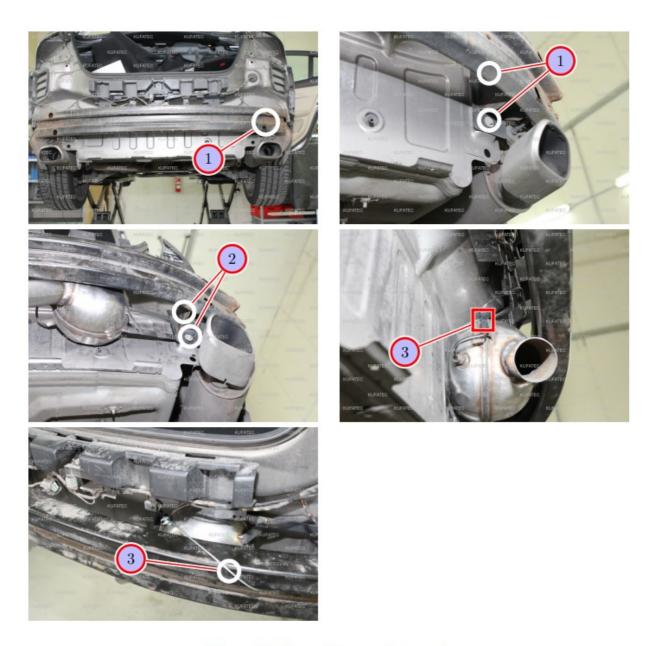


Figure 10: Assembly sound generator

Table 8: Instructions to assemble the sound generator

| No. | Work step  | Note   |
|-----|--|--------|
| 1   | Loosen the two screws at the impact absorbing beam on the passenger's side.                            | 2xSW13 |
| 2   | Attach the sound generator and fix it with the two screws of step 1.                                   |        |
| 3   | Connect the cable with the sound generator.  |        |
| 4   | Attach the delivered steel wire rope to the sound generator as well as to a suitable spot at t he car. |        |

# Disassembly coverings driver's side





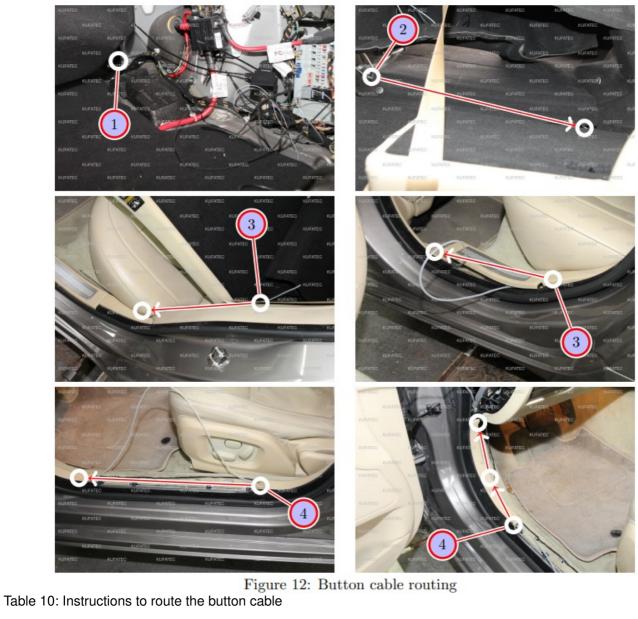




Figure~11:~Disassembly~coverings~driver's~side Table 9: Instructions to disassemble the coverings on the driver's side

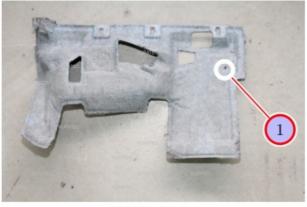
| No. | Work step   | Note |
|-----|---|------|
| 1   | Remove the lateral covering at the dashboard using an assembly lever. |      |
| 2   | Remove the front sill trim using an assembly lever.                   |      |
| 3   | Remove the rear sill trim using an assembly lever.                    |      |
| 4   | Remove the lower dashboard covering.                                  |      |

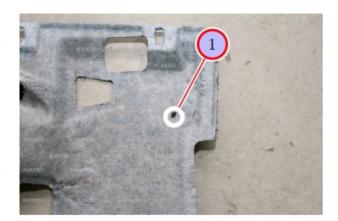
# **Button cable routing**



| No. | Work step   | Note |
|-----|---|------|
| 1   | Route the button cable behind the back seat.  |      |
| 2   | Route the button cable along the back seat to the driver's side.                          |      |
| 3   | Route the button cable under the rear sill trim to the B-pillar.                          |      |
| 4   | Continue routing the button cable along the front sill trim and finally to the dashboard. |      |

# Assembly button





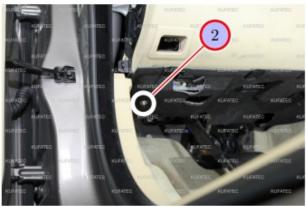


Figure 13: Assembly button

Table 11: Instructions to assemble the button

| No. | Work step  | Note |
|-----|--|------|
| 1   | Drill a hole through the lower dashboard covering for the button at the marked spot. | 7mm  |
| 2   | Attach the button at the lower dashboard covering.                                   |      |

## **Important Information Sound Booster**

Please use suitable screws that can withstand high loads of impact to attach the sound generator. In order to avoid losening 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.

## Configuration

#### Configuration

If a Bluetooth enabled module is available, the app "Kufatec-Link" is required for the configuration. The app is available to download for free for IOS as well as for Android.

For IOS in the Apple Store: <a href="https://apps.apple.com/app/kufatec-link/id1401203449">https://apps.apple.com/app/kufatec-link/id1401203449</a>



For Android in the Google Play Store: <a href="https://play.google.com/store/apps/details?id=com.kufatec.ktcLink">https://play.google.com/store/apps/details?id=com.kufatec.ktcLink</a>



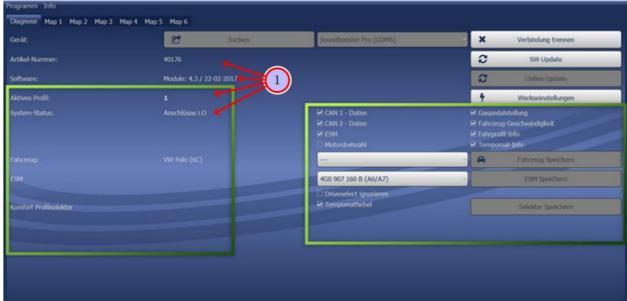


Figure 14: Software

Table 12: Notes for the software

| No. | Work step   | Note |
|-----|---|------|
|     | If the system does not work after the installation, please check if the system  |      |
| 1   | was installed correctly by having a look on the following link: <a href="https://www.sound-booster.c">https://www.sound-booster.c</a> <a href="https://www.sound-booster.c">om/en/debugging.html</a> . Our Sound Booster Software for PC / Mac should be used for the commissioning or further debugging: |      |
|     | Step 1: Download the appropriate software via the following link: <a href="https://www.sound-booster.com">https://www.sound-booster.com</a> .   |      |
|     | Step 2: Turn the ignition of the vehicle on and only then connect the PC / Mac with a USB-c able to our module. It is important to check beforehand if plus and minus are connected cor rectly. If this is not the case, it could result in a damage to the computer or to the control unit .             |      |
|     | Step 3: Start the downloaded software and click on search first and then on connect.  |      |
|     | You will be automatically forwarded to the diagnosis site, on which you can see the followin g things at a glance:  |      |
|     | Software: Software version / creation date  |      |
|     | Active profile: The actually activated profile is indicated here.   |      |
|     | Vehicle: The automatically identified vehicle is indicated here.  |      |
|     | System status: Here you can tell, if the connections are correct.   |      |

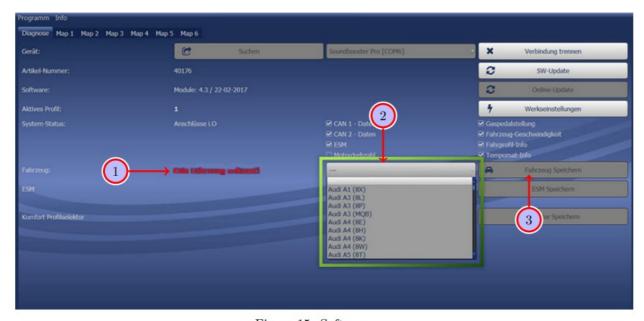


Figure 15: Software

Table 13: Notes for the software

| No. | Work step  | Note |
|-----|--|------|
| 1   | If no current vehicle is identified, you have to select the vehicle via the manual selection as f ollows:  |      |
| 2   | Open the dropdown-menu, search for your vehicle and select it.   |      |
| 3   | Click on Save Car to permanently save the vehicle to the module.   |      |
|     | If you don't find your vehicle in the list, it might be necessary that the software has to be ada pted to your vehicle. In that case, please contact us via e-mail: <a href="mailto:info@kufatec.de">info@kufatec.de</a> or by phone: +49 (0) 4551 / 80 810 888. We will make an ap- pointment with you, where we will a dapt the software to your vehicle per Team Viewer (remote maintenance). |      |

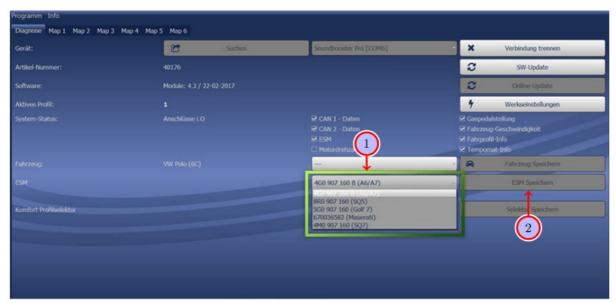


Figure 16: Software

Table 14: Notes for the software

| No. | Work step   | Note |
|-----|---|------|
| 1   | You also need to check if the right ESM is selected in our software:  |      |
|     | Open the dropdown-menu, search for the correct ESM and select it.   |      |
| 2   | Click on Save ESM to permanently save the ESM to the module.  |      |
| 3   | For example, if you ordered a complete set with a Audi control unit you need to select the E SM 4G0 907 160 B (A6/A7. If you installed the Maserati control unit instead of the Audi cont rol unit you need to select the ESM 670036582 (Maserati). |      |
|     | If the system does not work after all please get in contact with us via e-mail: <a href="mailto:info@kufatec.de">info@kufatec.de</a> or by phone: +49 (0) 4551 / 80 810 888. We will check the is- sue as soon as possible.                         |      |



#### **Documents / Resources**



**KUFATEC Complete Set Active Sound Including Sound Booster** [pdf] Instruction Manual Complete Set Active Sound Including Sound Booster, Active Sound Including Sound Booster, Including Sound Booster, Sound Booster, Booster

## References

- Contact form | Support, phone | KUFATEC Deutschland
- User Manual

Manuals+, Privacy Policy