Installation Instructions
Cable Set Active Sound incl. Sound Booster
v1.0 (22.05.2019)

Contents

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 form 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 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.**
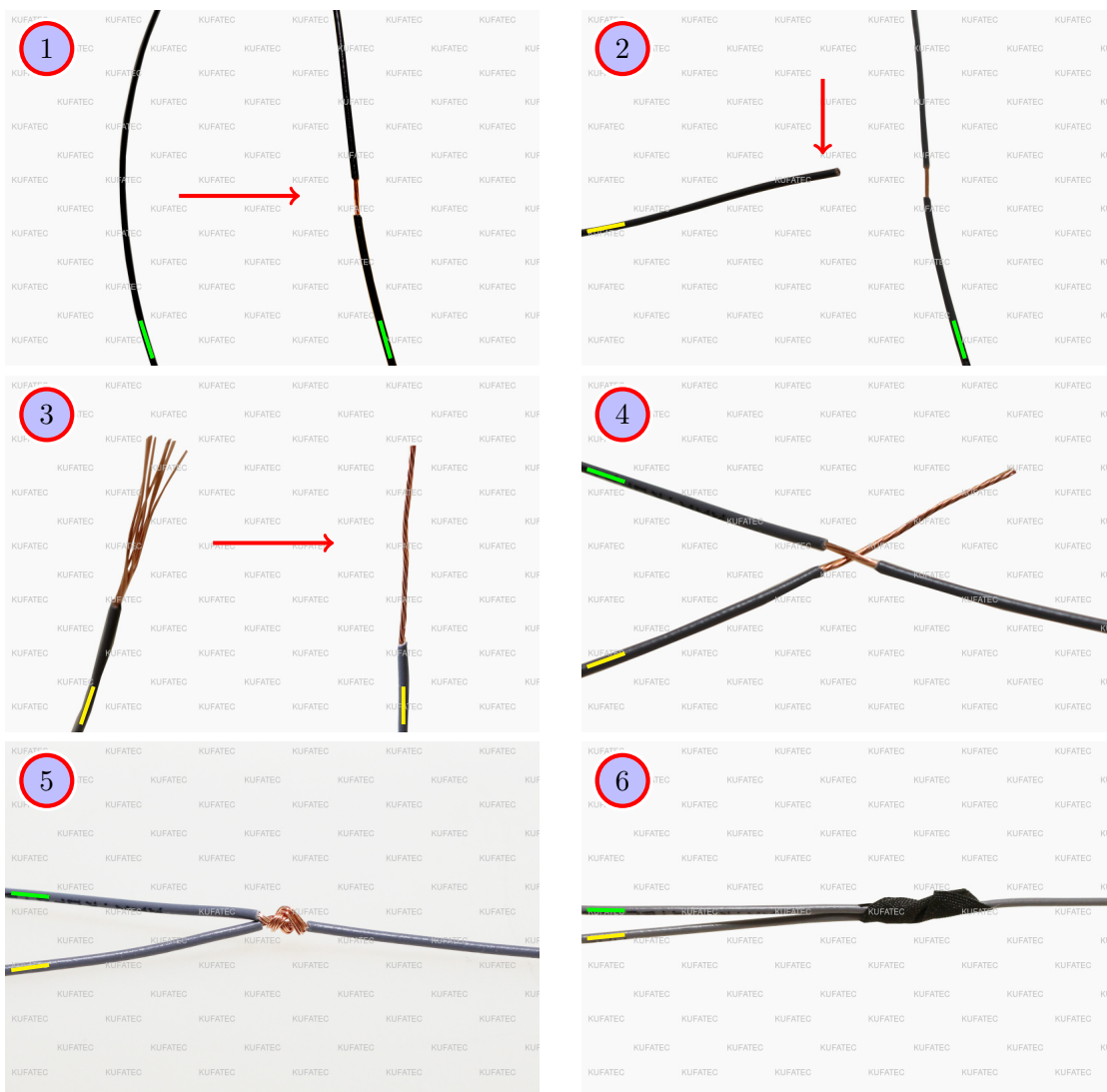
7 How to connect a cable to another

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 Note

Important note for the assembly

- The vehicle used for the assembly instruction was a **Nissan Navara D40**. Please make sure to keep that in mind.

Notes for assembling the vehicle

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

10 Overview Cable Inscription

Overview Cable Inscriptions

- **The cables from our cable set will mostly be inscribed in German. For your understanding, please see the following table.**

Inscription	Translation	
Masse	Ground	
Zuendungsplus	Ignition plus	
Dauerplus	Steady plus	
links aussen	far left	
schwarz/weiss	black/white	
schwarz/gelb	black/yellow	

11 Important Note

Cable Set Sound Booster

- **Please lay the cable set in a convenient and hidden way to the following connections.**

Cable assignment

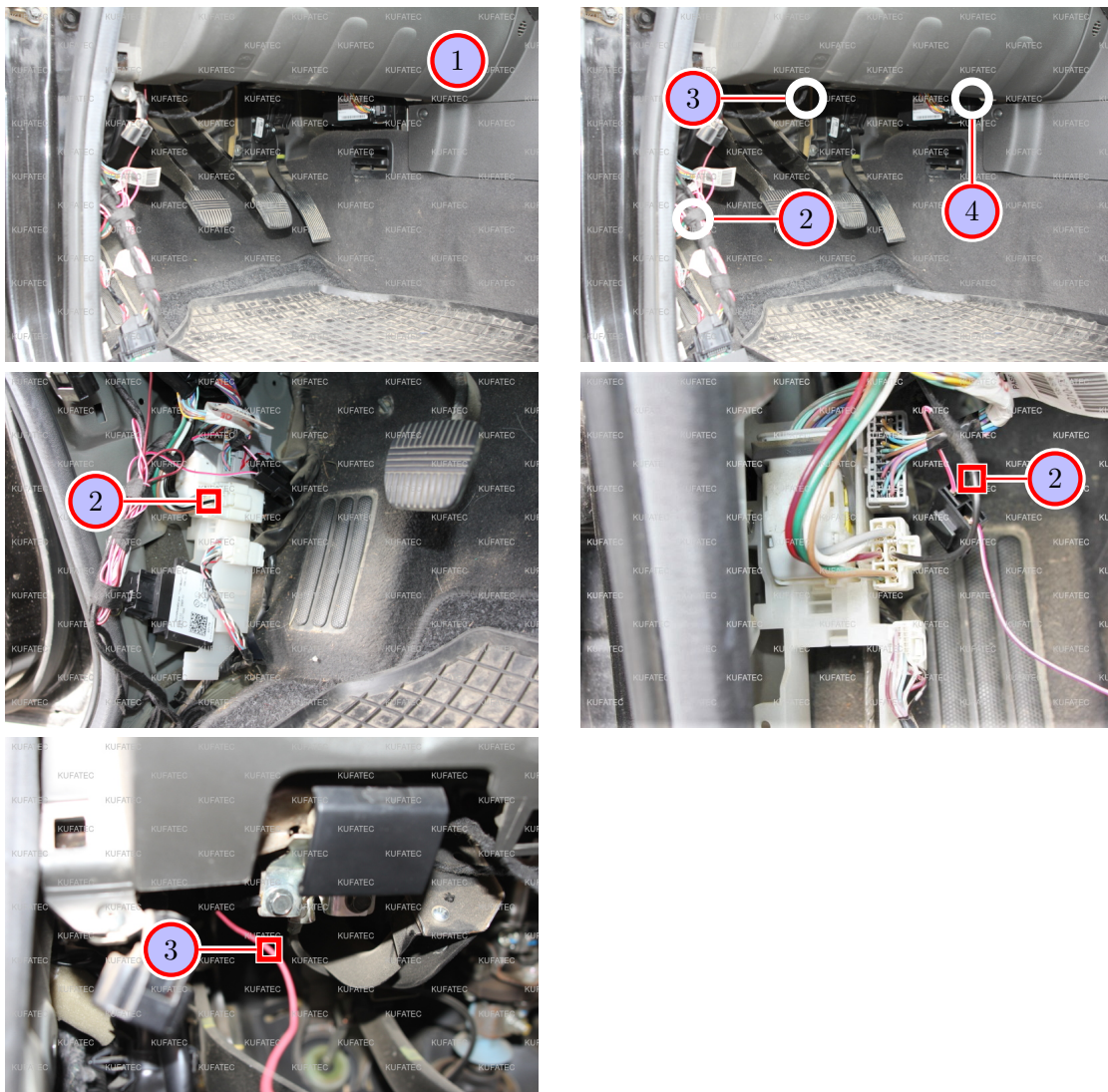| Cable	**Inscription** / Connection	
Plug 18-pole	Control unit Sound Booster	
Plug 8-pole	Control unit Sound Booster 2	
Plug 2-pole	Connection sound bell	
Single cable double / MCP	**Pin 1 links aussen** / Connection plug T8/8-pole tail light driver's side outside Pin 1	
Ground blank	**Masse** / Connection cable pink dashboard	
Plus cable blank	**Zuendungplus Kl.15** / Connection cable black (plug white) A-column	
Cable 2er twisted	**schwarz/weiss, schwarz/gelb** / Connection OBD-Interface Can High to cable blue Pin 6, Can Low to cable pink Pin 14	

12 Instructions to connect the cable set

Figure 3: Instructions to connect the cable set

Table 2: Instructions to connect the cable set

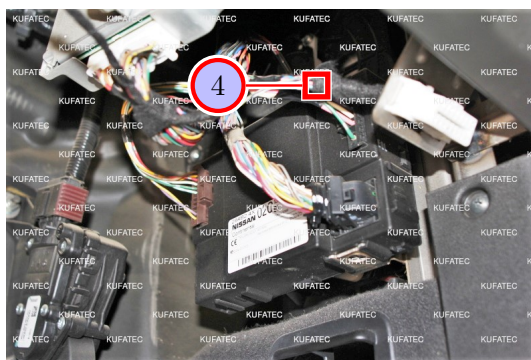| No.	Work step	Note
1	Loosen and remove the A-column covering as well as the lower dashboard covering.	
2	Lay the plus cable **(ignition plus Kl.15)** to the marked white plug at the A-column. Connect the cable professionally to the already exisiting (marked) **black** cable. Isolate the connection spot professionally by using factory materials.	
!	**Note: Please measure beforehand, if the black cable (in your vehicle) is connected to ignition plus (Kl. 15) by using a multimeter.**	
3	Lay the **ground** to the ground pin. It is located under the dashboard. Connect the cable set to the **pink ground cable** of the vehicle. Isolate the connection spot professionally by using factory materials.	

Figure 4: Instructions to connect the cable set

Table 3: Instructions to connect the cable set

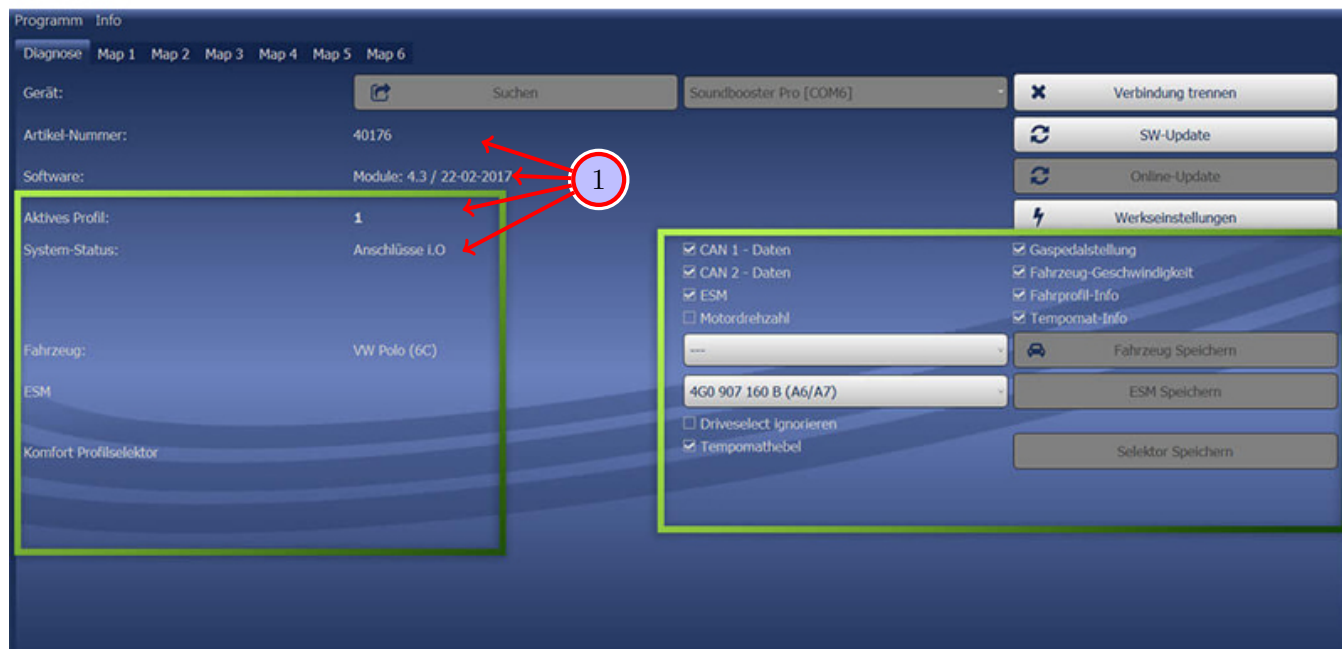| No.	Work step	Note
4	Lay the two CAN-cables (black/white and black/yellow) to the white Interface-plug (OBD). Connect both CAN-cables to the OBD-Interface as follows:	
	Connect cable **CAN High (black/white)** with the **blue cable** to **Pin 6**.	
	Connect the cable **CAN Low (black/yellow)** with the **pink cable** to **Pin 14**.	
5	Attach the sound bell (Sound Booster) to a convenient spot in the vehicle.	
!	**Important: The sound bell has to additionally be secured in order to prevent it from falling down. In order to do so, use the provided steel cable. The steel cable has to be connected to the sound bell and the vehicle.**	
6	Lay the **2-pole plug** to the sound bell (Sound Booster). Insert the 2-pole plug to the sound bell.	
7	The push button stays in the driver's room. Attach the button to a convenient spot in the driver's footwell/dashboard.	
8	Connect the two plug connections **8-pole** as well as **18-pole** to the two modules (control unit engine sound generator as well as module Sound Booster).	

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Figure 5: Software

Table 4: Notes for the software

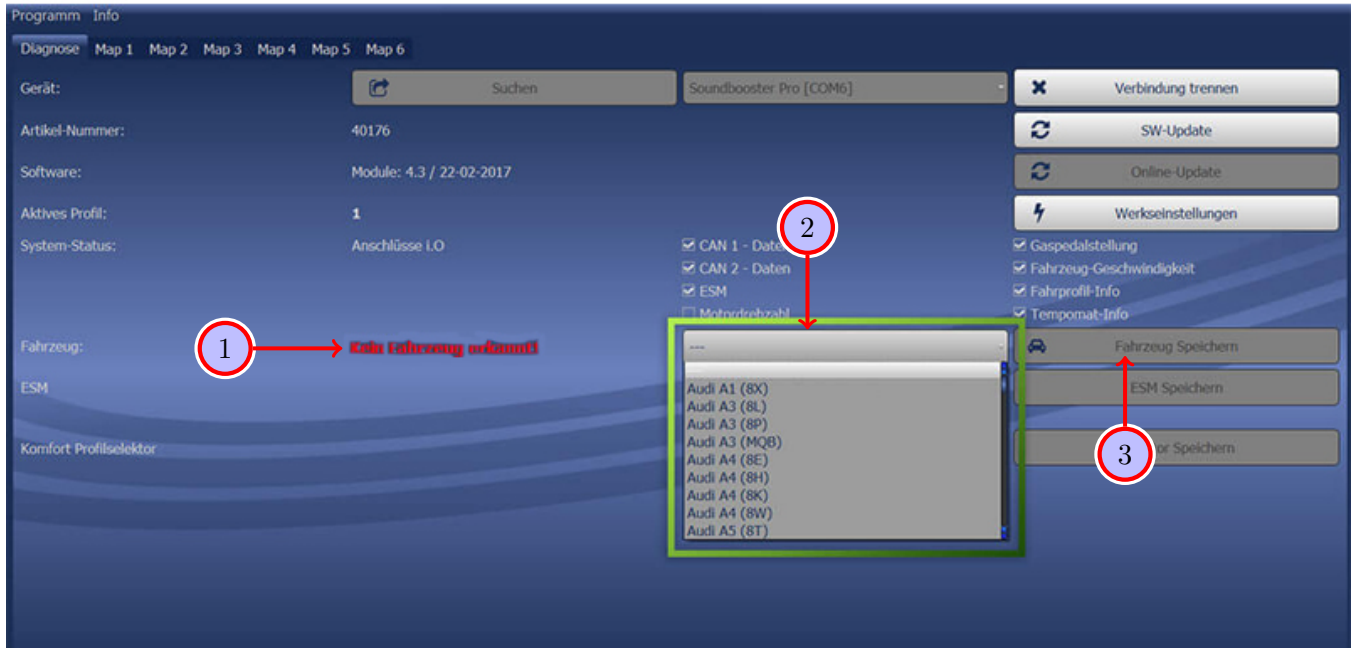| No.	Work step	Note
1	If the system does not work after the installation, please check if the system was installed correctly by having a look on the following link: `https://www.sound-booster.com/en/debugging.html`. Our Sound Booster Software for PC / Mac should be used for the commissioning or further debugging:	
	Step 1: Download the appropriate software via the following link: `https://www.sound-booster.com`.	
	Step 2: Turn the ignition of the vehicle on and only then connect the PC / Mac with a USB-cable to our module. It is important to check beforehand if plus and minus are connected correctly. 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 following 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.	

14 Software

Figure 6: Software

Table 5: Notes for the software

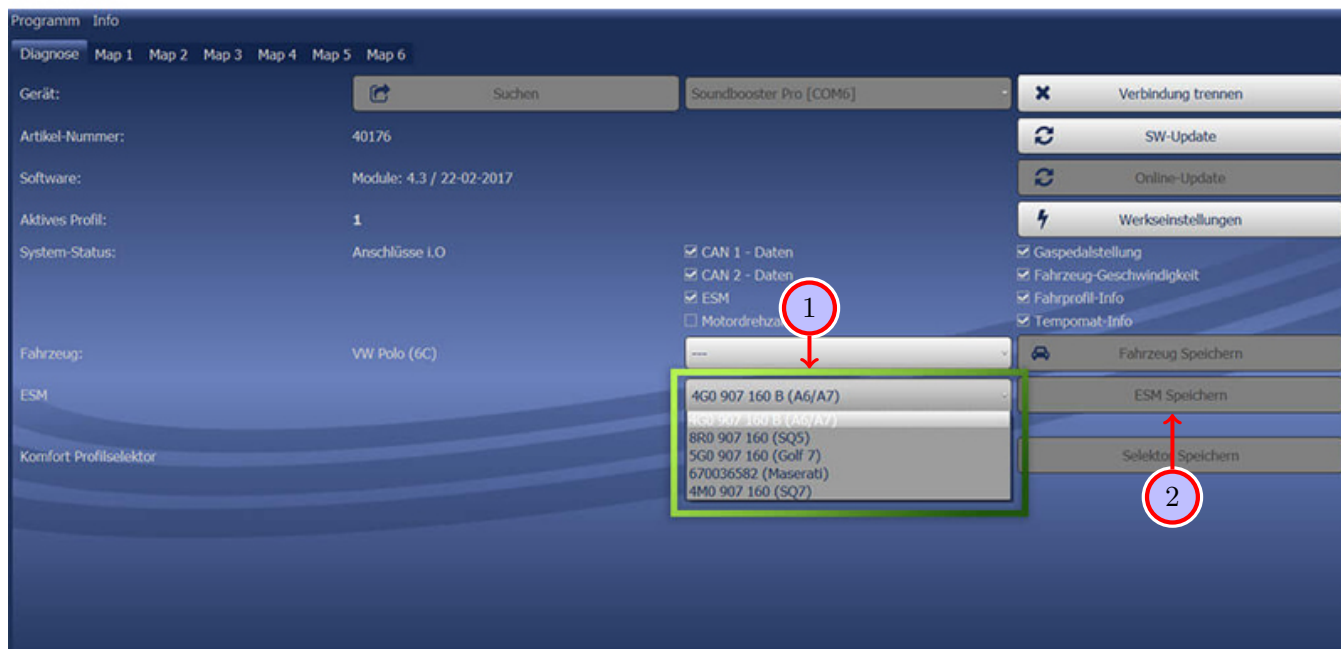| No.	Work step	Note
1	If no current vehicle is identified, you have to select the vehicle via the manual selection as follows:	
2	Open the dropdown-menu, search for your vehicle and select it.	
3	Click on Save Car to permanently save the vehicle to the module.	
	If you don't find your vehicle in the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

15 Software

Figure 7: Software

Table 6: 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 ESM **4G0 907 160 B (A6/A7**. If you installed the Maserati control unit instead of the Audi control 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: info@kufatec.de or by phone: +49 (0) 4551 / 80 810 888. We will check the issue as soon as possible.	

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 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.

Notes for assembling the vehicle

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

17 Bus rest

Final work / bus rest

- **Important note: After the coding has been completed, you need to wait for the bus rest.**

- **Proceed as follows:**
  - Switch off ignition and close all doors.
  - Close up the car by remote control.
  - Leave the car for about 10 minutes.
  Important: Make sure that the key is not inside or nearby the car if it is equipped with keyless go system.

18 Connection/Troubleshooting cable set

Sound Booster

From Sound Booster control unit 18-pole MQS to:

- **CAN Gateway**
  - Pin 17 to Pin 14 (cable pink / OBD-Interface CAN Low)
  - Pin 18 to Pin 6 (cable blue / OBD-Interface CAN High)

- **Ground/Ignition plus Kl.15**
  - Pin 9 to Ground (cable pink dashboard)
  - Pin 1 to Pin 2 (Kl.15 ignition plus 2-pole)
  - MPT Pin 1 to Kl.15 ignition plus (cable black A-column)

- **Control unit 8-pole MiT**
  - Pin 15 to Pin 1 (CAN Low)
  - Pin 16 to Pin 3 (CAN High)

- **Push button 2-pole MiT**
  - Pin 4, 13 to Push button

From plug connection control unit 8-pole MiT to:

- **Sound Booster control unit 18-pole MQS**
  - Pin 1 to Pin 15 (CAN Low)
  - Pin 3 to Pin 16 (CAN High)

- **Ground/Ignition plus**
  - Pin 9 to Ground (cable pink dashboard)
  - Pin 1 to Pin 2 (Kl.15 ignition plus 2-pole)
  - MPT Pin 1 to Kl.15 ignition plus (cable black A-column)

- **Sound Booster 2-pole MiT**
  - Pin 7 to Pin 2
  - Pin 8 to Pin 1

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