



Installation Instructions

Rear View Camera

v1.2 (24.11.2021)

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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 How to connect a cable to another

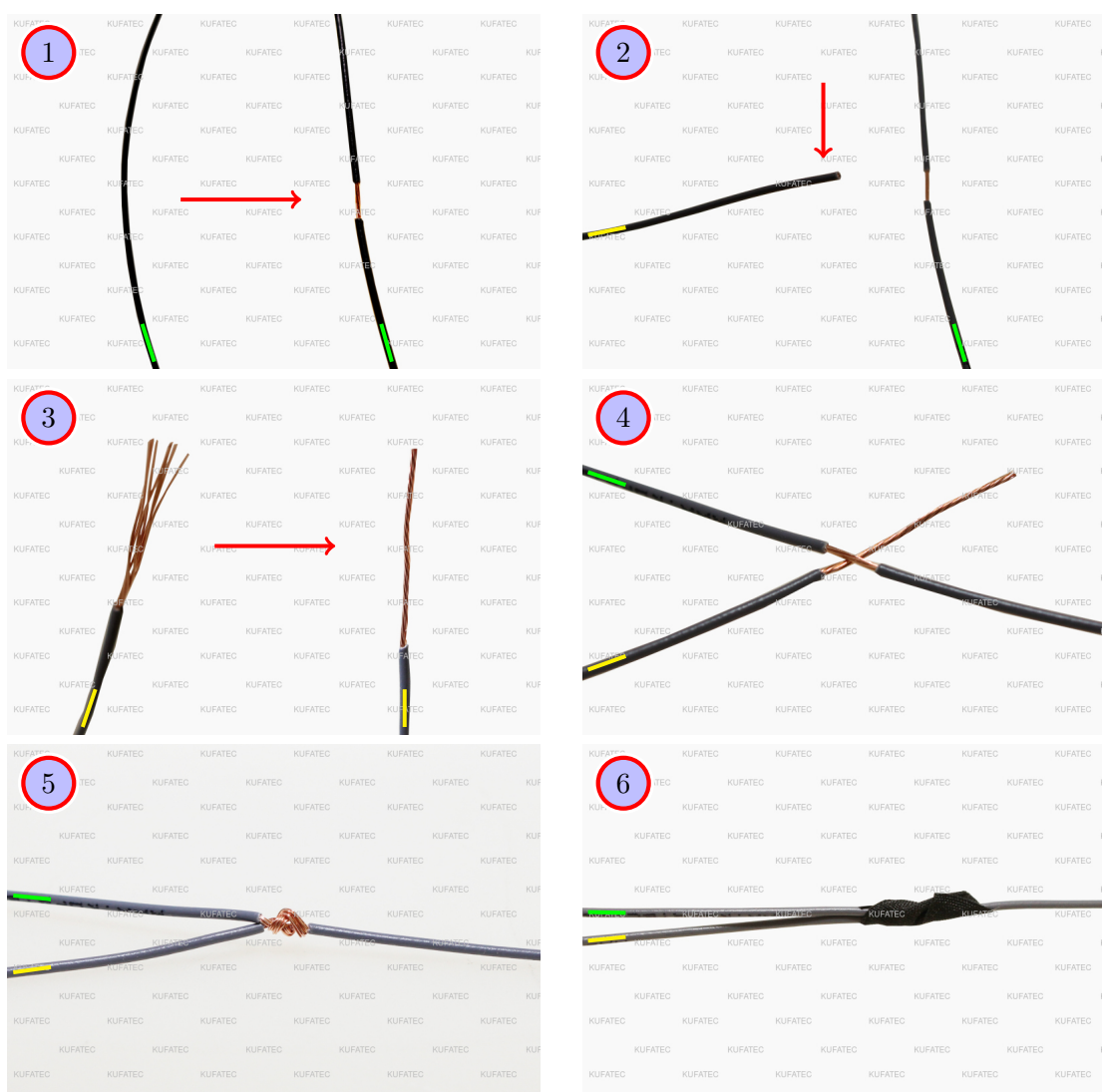


Figure 1: How to connect a cable to another

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. Make sure that the isolation is put onto the connection professionally to prevent corrosion.	

7 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.

8 Assembly Instructions

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

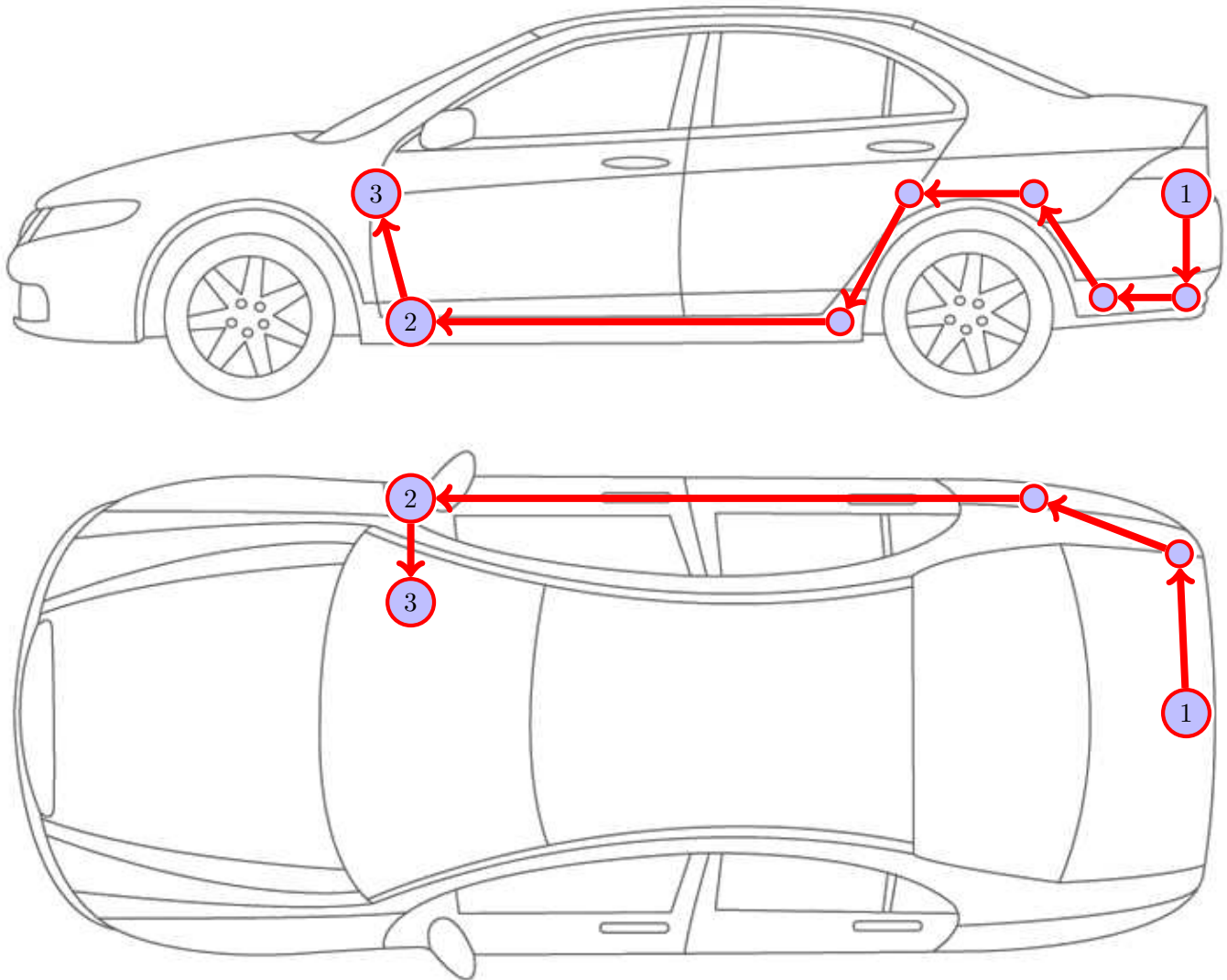


Figure 3: Vehicle overview

- 1 Rear view camera
- 2 Ground
- 3 Connection cable set

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.

9 Assembly Note

Important note for the assembly

- The vehicle used for the assembly instruction was a **Audi Q3 F3**. 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.**

10 Disassembly tailgate covering

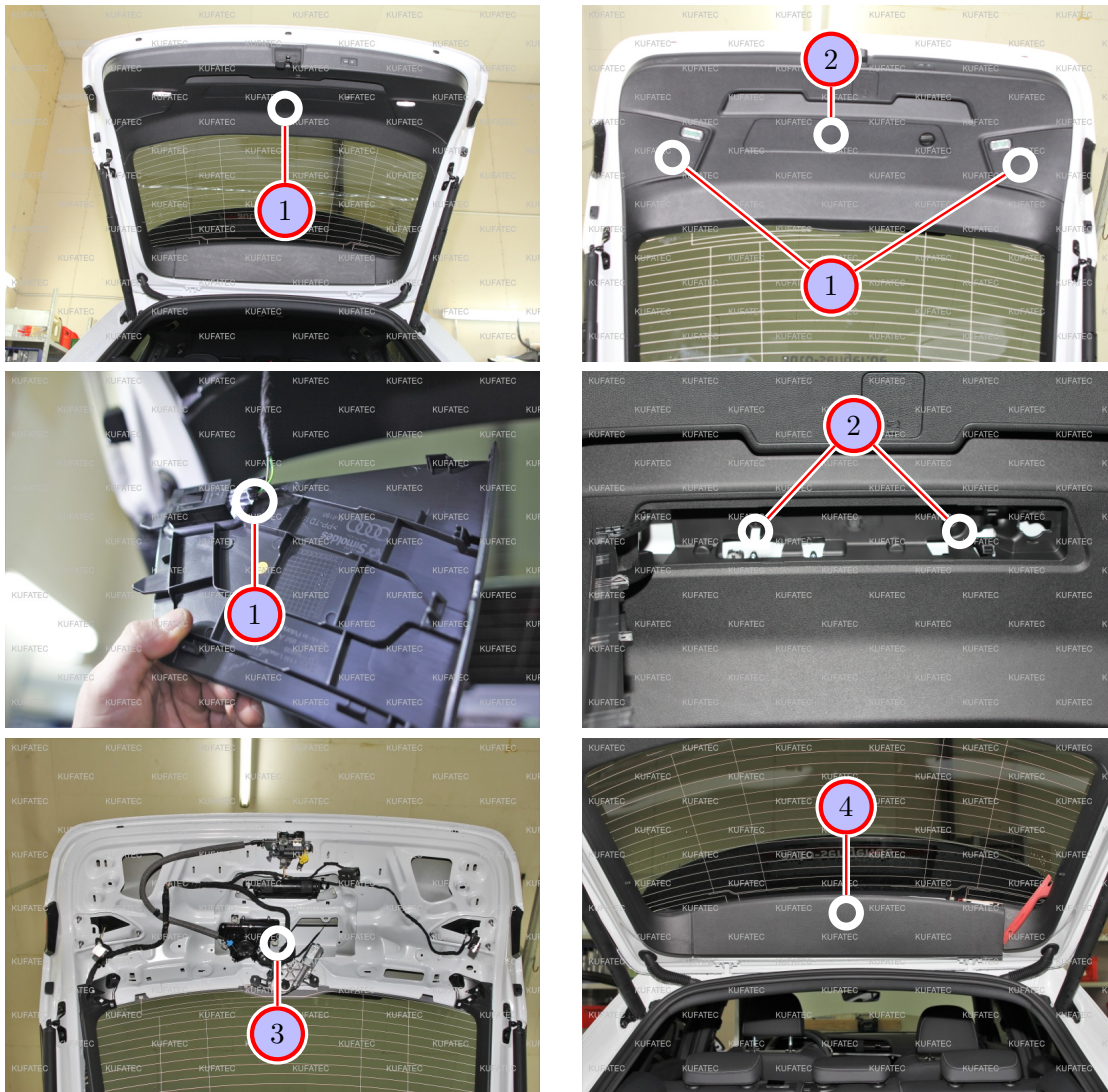


Figure 4: Disassembly tailgate covering

Table 2: Instructions to disassemble the tailgate covering

No.	Work step	Note
1	Remove the tailgate covering by carefully removing the two marked maintenance flaps first. They are only clipped in and can be pulled down.	
	Loosen the plug connection of the tailgate lighting from both maintenance flaps.	
2	Open the warning triangle compartment and remove the warning triangle. Loosen and remove the two screws that are located in that compartment.	2xT25
3	The covering can now fully be removed by using an assembly lever.	
	Note: If the vehicle has an electric tailgate already, the plug connection of the tailgate button has to be removed in order to remove the covering from the vehicle.	
4	The marked covering of the tailgate can now be loosened and removed as well by using an assembly lever.	



Figure 5: Disassembly tailgate covering

Table 3: Instructions to disassemble the tailgate covering

No.	Work step	Note
1	Loosen and remove the plastic clip (on each side) from the tailgate in order to remove the side tailgate covering.	
	The two covering pieces can now be loosened and removed by using an assembly lever.	

11 Assembly camera

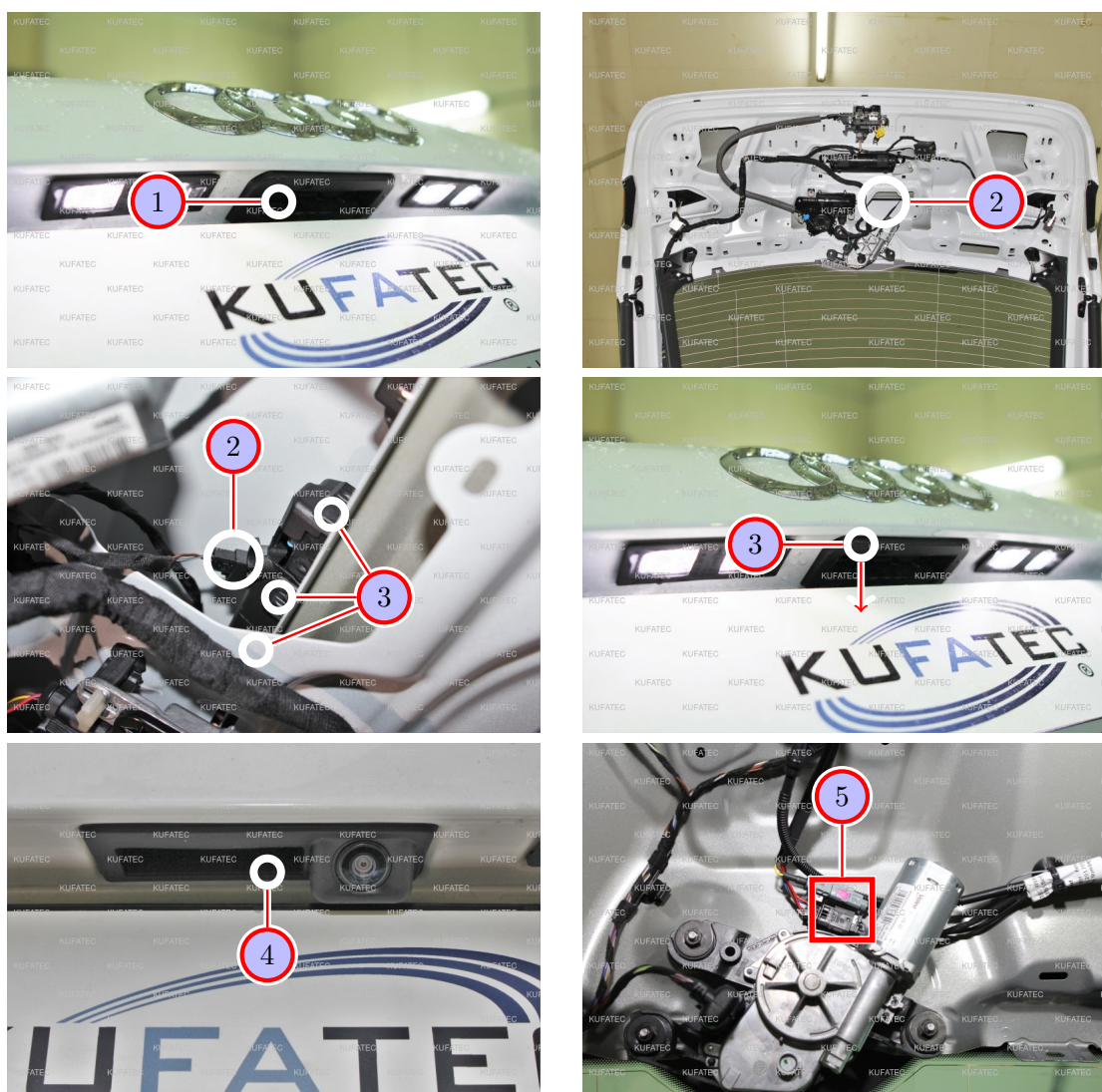


Figure 6: Assembly camera

Table 4: Instructions to assemble the camera

No.	Work step	Note
1	Replace the factory-made tailgate button with the new button with the built-in rear view camera.	
2	Loosen the marked plug from the tailgate button first.	
3	Loosen the marked latching noses all around the button. The button can now be pushed out.	
4	Insert the new button with the built-in rear view camera. Connect the previously loosened plug back to the new button.	
5	Connect our cable set with the cables of the rear view camera.	
	The cable with the imprint PIN 1 is no longer needed and can be tied back.	

12 Disassembly A-column covering / sill trim passenger's side



Figure 7: Disassembly A-column covering / sill trim passenger's side

Table 5: Instructions to disassemble the A-column covering and the sill trim on the passenger's side

No.	Work step	Note
1	Loosen and remove the side dashboard cover on the passenger's side by using an assembly lever.	
2	Remove the marked A-column covering.	
3	Loosen and remove the back part of the sill trim by using an assembly lever first in order to remove the marked sill trim.	
4	Loosen the A-column covering by using an assembly lever. The sill trim can now be fully removed from the vehicle.	

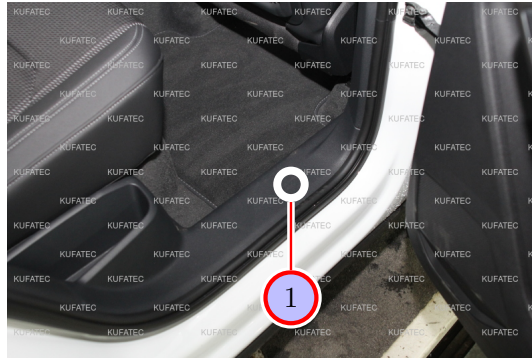


Figure 8: Disassembly A-column covering / sill trim passenger's side

Table 6: Instructions to disassemble the A-column covering and the sill trim on the passenger's side

No.	Work step	Note
1	Loosen the back sill trim on the passenger's side a little bit by using an assembly lever.	

13 Cable routing trunk

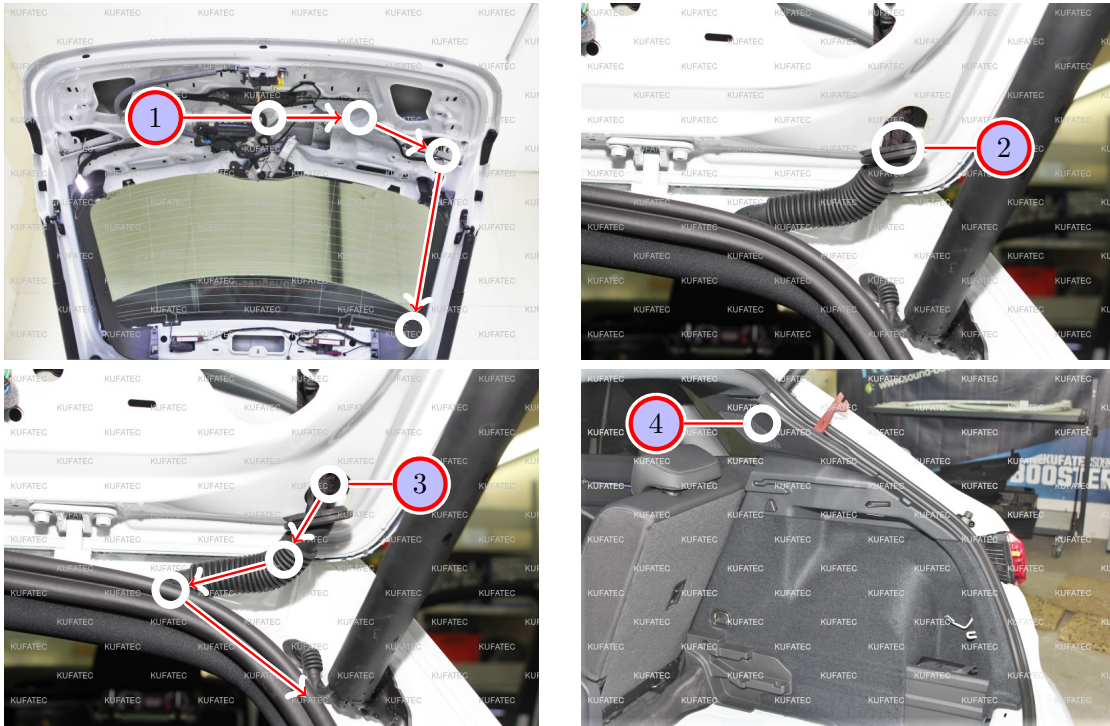


Figure 9: Cable routing trunk

Table 7: Instructions to route the cable to the trunk

No.	Work step	Note
1	Lay the cables along the original wire harness to the bushing (tailgate) and attach them by using factory materials.	
2	Loosen the marked rubber grommet by using an assembly lever.	
3	Lay the cables through the rubber grommet by using a pulling tool.	
4	Loosen the upper C-column covering slightly by using an assembly lever. Pull the cable further into the upper C-column covering.	

14 Cable routing main unit

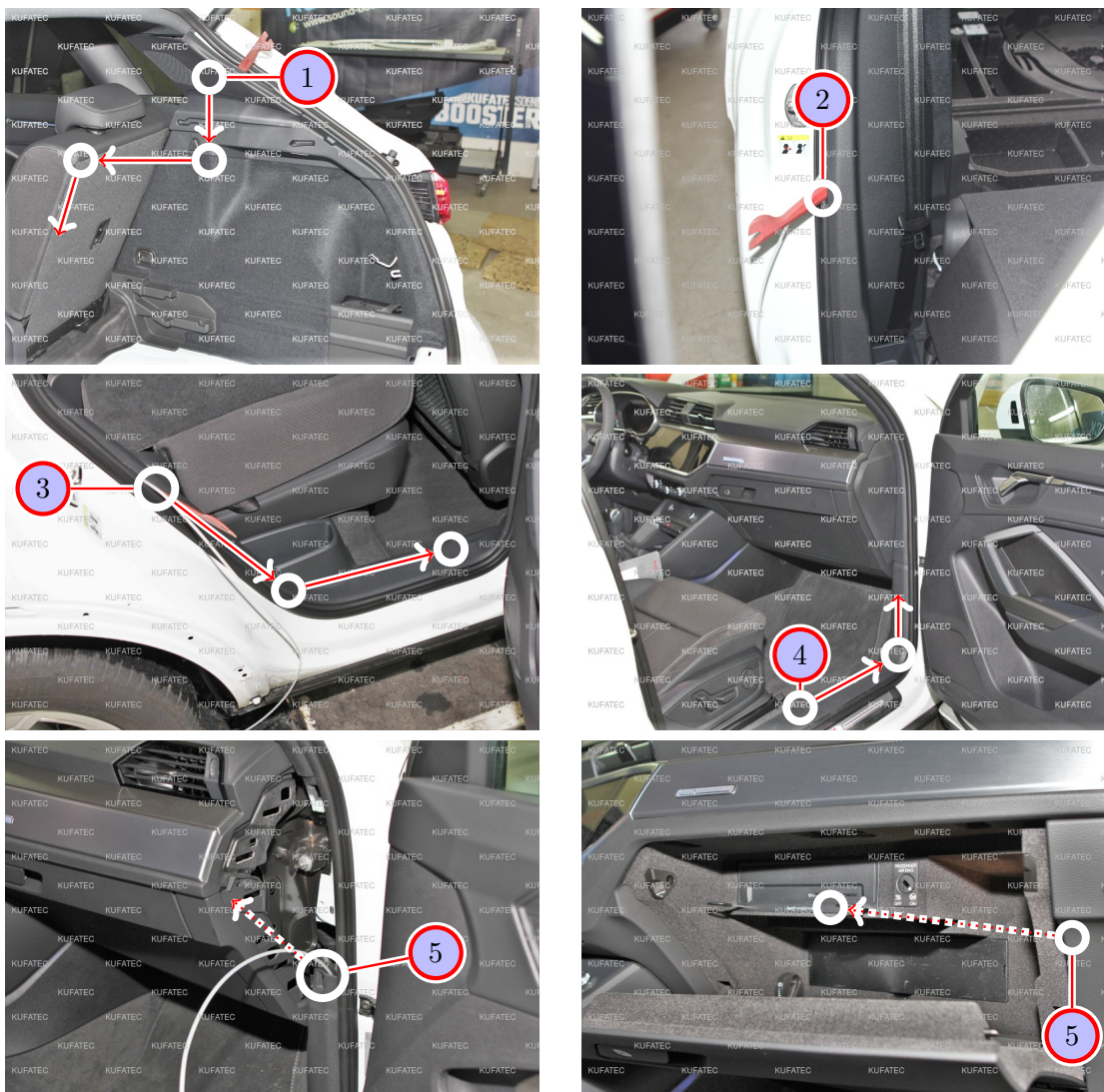


Figure 10: Cable routing main unit

Table 8: Instructions to route the cable to the main unit

No.	Work step	Note
1	Lay the cable from the upper D-column covering down into the side covering and from there forward towards the back seat. Use a pulling tool to do so.	
2	Loosen the upper lateral cover slightly by using an assembly lever.	
3	Pull the cable set underneath the upper lateral cover down to the sill trim and to the B-column afterwards. Use a pulling tool to do so.	
4	Pull the cables out from behind the B-column covering and lay them under the sill trim forward to the A-column.	
!	Note: Be aware that the ground cable has to stay at the A-column in the passenger's footwell for now.	
5	Pull the cable set to the upper A-column covering. Lay the cable set behind the dashboard (glove compartment) and to the assembly shaft of the main unit afterwards. Use a pulling tool to do so.	

15 Disassembly main unit

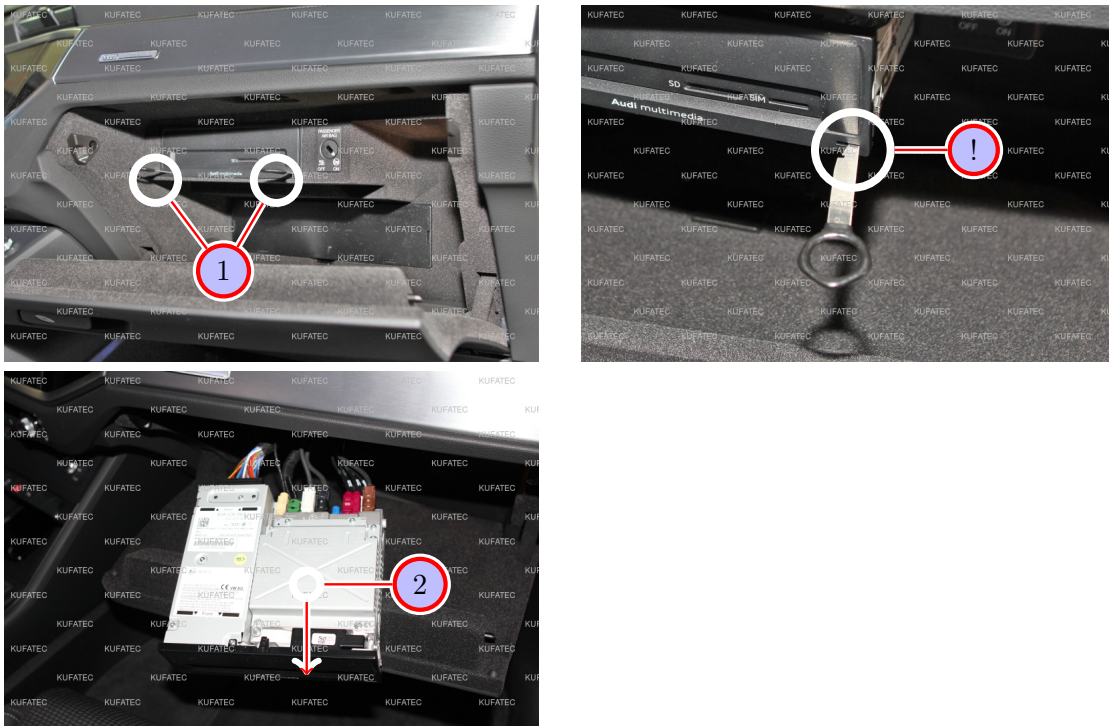


Figure 11: Disassembly main unit

Table 9: Instructions to disassemble the main unit

No.	Work step	Note
1	Unlock the main unit by using locking hooks. The main unit is located in the glove compartment.	
!	Note: Make sure to insert the locking hooks with the right side forward into the main unit.	
2	Carefully pull the main unit out of the assembly shaft.	

16 Connection cable set

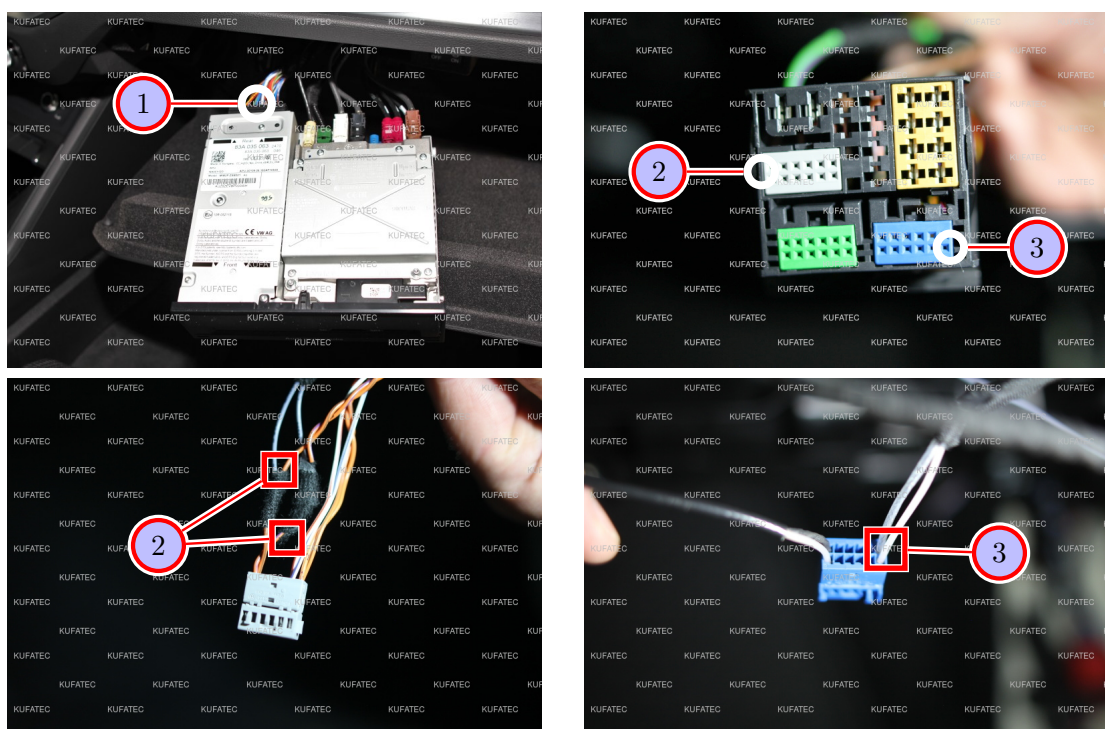


Figure 12: Connection cable set

Table 10: Instructions to connect the cable set

No.	Work step	Note
1	Loosen the marked quadlock plug that is located on the left side of the main unit. Lay the cable set from the assembly shaft (main unit) to the quadlock plug.	
2	Loosen the grey plug insert from the quadlock plug. Connect CAN High + Low as follows: Connect CAN High (black/white) to cable violet in PIN 6 Connect CAN Low (black/yellow) to cable orange/brown in PIN 12	
3	Loosen the blue plug insert from the quadlock plug. Pin the video cable in the plug insert as follows: Pin transparent cable in PIN 6 Pin black cable in PIN 12	
!	For vehicles from model year 2021 the two cables video and shield cable are delivered as FAKRA connection (plug green). This is connected to the rear of the main unit. The connection port is located directly to the left of the 2-pole connector (bottom row, centre).	



Figure 13: Connection cable set

Table 11: Instructions to connect the cable set

No.	Work step	Note
4	Connect the cable with the imprint steady plus (K1.30) to cable green/violet in PIN 18 (quadlock plug). Please measure.	
5	Connect the ground cable to the ground pin in the passenger's footwell. The ground pin is located at the A-column (passenger's side).	

17 Alternativ Connection CAN High + Can Low

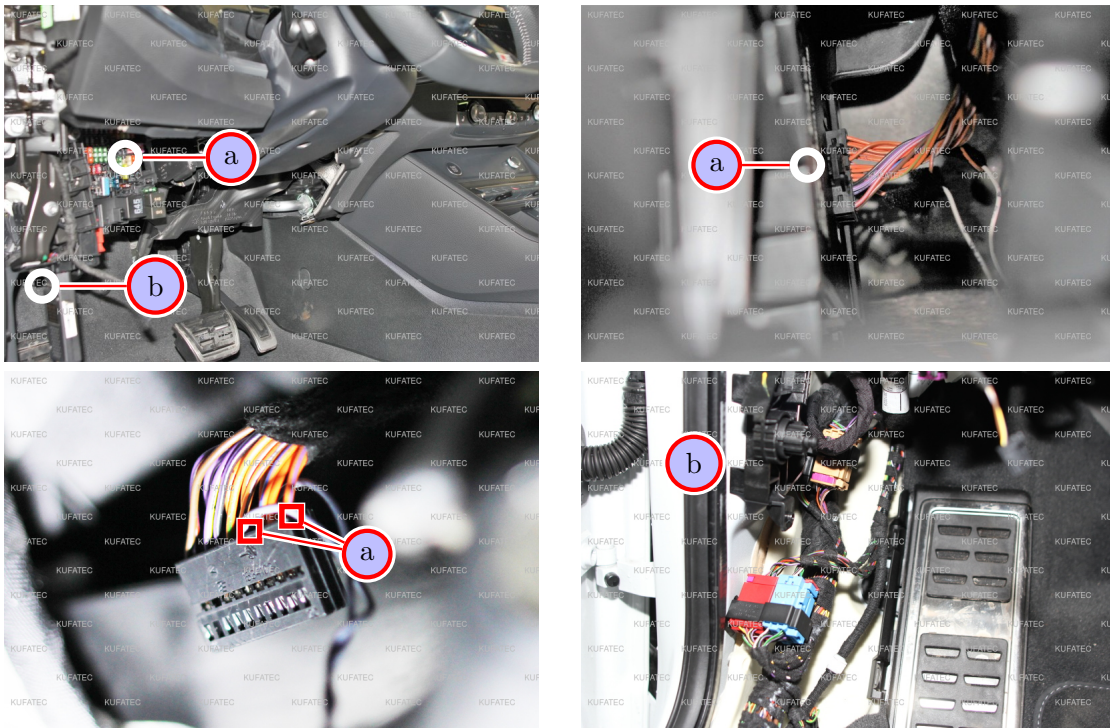


Figure 14: Alternativ Connection CAN High + CAN Low

Table 12: Instructions to connect CAN High + CAN Low

No.	Work step	Note
a	Loosen the plug connection from the CAN gateway. The gateway is located behind the fuse beam in the driver's footwell. Connect CAN High + Low to the gateway as follows:	
	CAN High with (violet) Pin 20	
	CAN Low with (orange/brown) Pin 10	
b	The CAN partition plug T17b is located at the marked position. Connect the cables for CAN-High and CAN-Low to it as follows:	
	CAN High with (violet) Pin 10	
	CAN Low with (orange/brown) Pin 11	

18 Coding with Coding Interface

Instructions for using the Coding Interface

- **Important note:** For the models from model year 2019 (VW, Audi, Skoda, Seat) - the bonnet must be opened before coding. It must remain open during the coding process.
- Switch on the ignition. Please note that the **engine will not be started**. Wait approximately 30 seconds and plug the Interface into the diagnostic interface (OBD II plug) of the car. The diagnostic box is situated in the driver's leg area on the left side above the foot rest.
- On a coding dongle with one LED, as soon as the coding has been started, there will be one red LED, which will illuminate permanently. As soon as the LED turns off, the coding has been executed and the Interface can be removed. According to the car or retrofit, the coding can take up to three minutes.
- On a coding dongle with two LEDs, as soon as the coding has been started, there will be one red and one green LED which will illuminate. While the coding the green LED flashes or rather flickers. As soon as the red LED turns off and the green LED illuminate permanently, the coding has been executed and the Interface can be removed. According to the car or Retrofit the coding can take up to three minutes.

19 Coding Interface

- **Dongle for executing the coding:** In order to carry out the coding for the vehicle, the following dongle is required: Article number 40264 – included in the scope of delivery for the complete set 43260.

20 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.

Note for assembling the vehicle

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

21 Anschluss/Fehlersuche Kabelsatz

From rear view camera tailgate 8-pole H9 to:

- **CAN High + Low / grey plug insert quadlock plug**
 - Pin 12 to cable orange/brown (CAN Low)
 - Pin 6 to cable orange/violet (CAN High)
- **Power supply**
 - Pin 5 to Ground (Ground pin A-column passenger's side)
 - Pin 1 to cable green/violet in Pin 18 (Steady plus (Kl.30) / Quadlock plug)

From rear view camera tailgate FAKRA socket to:

- **Blue plug insert quadlock plug**
 - Video cable (transparent) in Pin 6
 - Shielded cable (black) in Pin 12

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