

Instructions for installing a Retrofit Cruise Control System to a New Shape 3C Passat.

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VAG-COM Procedures

Recalibrating Sensor for Steering Angle (G85)

Prerequisites:

- Start the vehicle.
- Drive in a short distance straight line on a level surface at a speed not higher than 20 km/h.
- While driving turn the steering wheel one turn to the right and one turn to the left.
- When having the steering wheel straight again stop the vehicle with the wheels pointed straight.
- Ensure that the steering wheel is not moved again.
- Keep the engine running and do not switch off the ignition.
- System voltage at least 12.0 V.

[Select]

[03 - Brake Electronics]

[Security Access - 16]

Enter 40168, to enable the basic setting.

[Do it!]

[Basic Settings - 04]

Group 060

[Go!]

Activate the Basic Setting.

[ON/OFF/Next]

After a successful basic setting, field 3 should say "OK".

[Done, Go Back]

To make sure the basic setting was successful, check the sensor again.

[Measuring Blocks - 08]

Group 004

[Go!]

Check field 1, the value has to be between -1.5 and +1.5 °.

[Done, Go Back]

[Close Controller, Go Back - 06]

Activating Cruise Control Coding

The following table applies to Control Modules with Software Version 0101 or lower.

- **0?xxxxx:** *Vehicle Type*
 - 0 = Normal
 - 1 = Special Purpose (e.g Taxi)
- **0x?xxxx:** *Transmission*
 - 0 = Manual Transmission
 - 1 = Automatic Transmission
- **0xx?xxx:** *Steering Wheel*
 - 0 = Steering Wheel without Multifunction
 - 1 = 3-Spoke Steering Wheel without Multifunction
 - 2 = 3/4-Spoke Steering Wheel with Multifunction without Cruise & Voice Control
 - 3 = 3/4-Spoke Steering Wheel with Multifunction with Cruise & Voice Control
- **0xxx?xx:** *Additional Equipment*
 - +1 = Tiptronic (Shift Paddels)
- **0xxxx?x:** *Board Computer / Cruise Control System (CCS)*
 - 0 = w/o Board Computer and w/o Cruise Control System (CCS)
 - 1 = with Board Computer and w/o Cruise Control System (CCS)
 - 2 = w/o Board Computer and with Cruise Control System (CCS)
 - 4 = with Board Computer and with Cruise Control System (CCS)
- **0xxxxx?:** *Rear Wiper*
 - 1 = Rear Wiper not installed
 - 2 = Rear Wiper installed

The following table applies to Control Modules with Software Version 0110 or higher.

- **0?xxxxx:** *Driver-Assistance-Systems*
 - 0 = Driver-Assistance-Systems not installed
 - 0 = Message for Driver-Assistance-Systems active w/o Button
 - 1 = Message for Driver-Assistance-Systems inactive w/o Button
 - 2 = Message for Driver-Assistance-Systems active with Button
 - 3 = Message for Driver-Assistance-Systems inactive with Button
- **0x?xxxx:** *Vehicle Type*
 - 0 = Normal
 - 1 = Special Purpose with Multi-Function Control Module (Steer. Column. Contr. Mod. as Master)
 - 2 = Special Purpose with Multi-Function Control Module (Multi-Function Contr. Mod. as Master)
- **0xx?xxx:** *Transmission*
 - 0 = Manual Transmission
 - 1 = Automatic Transmission
- **0xxx?xx:** *Multi-Function Steering Wheel*
 - 0 = Multi-Function Steering Wheel not installed
 - 5 = Multi-Function Steering Wheel w/o Tiptronic and w/o Push-To-Talk (PTT) installed
 - 6 = Multi-Function Steering Wheel with Tiptronic and no Push-To-Talk (PTT) installed
 - 7 = Multi-Function Steering Wheel w/o Tiptronic and with Push-To-Talk (PTT) installed
 - 8 = Multi-Function Steering Wheel with Tiptronic and with Push-To-Talk (PTT) installed
- **0xxxx?x:** *Cruise Control System (CCS) and Adaptive Cruise Control (ACC)*
 - 0 = Cruise Control System (CCS) not installed
 - 1 = Cruise Control System (CCS) with 6 Positions via separate Stalk installed
 - 2 = Adaptive Cruise Control (ACC) with 6 Positions via separate Stalk installed
 - 3 = Cruise Control System (CCS) with 4 Positions via Blinker Stalk installed
 - 4 = Cruise Control System (CCS) via Multi-Function Steering Wheel installed
 - 5 = Adaptive Cruise Control (ACC) via Multi-Function Steering Wheel installed
- **0xxxxx?:** *Rear Wiper and Board Computer*
 - 1 = Rear Wiper not installed / Board Computer via Wiper Stalk not installed
 - 2 = Rear Wiper installed / Board Computer via Wiper Stalk not installed
 - 3 = Rear Wiper not installed / Board Computer via Wiper Stalk verbaut
 - 4 = Rear Wiper installed / Board Computer via Wiper Stalk installed



Installation Instructions

Automatic cruise control system (ACC), Passat 2006 ►

Kit contents:

- ◆ 1 x Steering column mounted switch
- ◆ 1 x Sticker "ACC"
- ◆ 1 x Control wire with black marking
- ◆ 1 x Control wire with yellow marking
- ◆ 1 x Wiring grommet (plug)
- ◆ 8 x Cable ties
- ◆ 1 x Installation instructions

Special tools, test and measuring equipment, and ancillaries required:

- ◆ Phillips screwdriver
- ◆ Flat-bladed screwdriver
- ◆ Torx Allen keys (set)
- ◆ -V.A.G. 1331- torque wrench
- ◆ Vehicle diagnosis, measurement and information system

Accessories ¹⁾:

- ◆ Lower steering column trim (note the colour code of the interior fittings!)

¹⁾ not included in the set contents, please order separately from your VW partner.

1 Procedure:

Note

- ◆ Fitting of the original automatic cruise control (ACC) system should be carried out by a competent workshop. Incorrect fitting may lead to damage to the vehicle or to the automatic cruise control (ACC) system.
- ◆ The work to be performed described in these fitting instructions may change due to model servicing schedules. For example, changes to the wiring colours or even the fitting sites should not be discounted. For this reason, always consult the relevant up-to-date wiring diagram or the current vehicle repair manual.
- ◆ Secure the wires so that they cannot come into contact with any rotating or other moving parts and so that they cannot chafe on any sharp metal or plastic edges.
- ◆ All rights to make technical changes reserved.

1.1 Fitting the components

- cut the battery.
- ⇒ Vehicle electronics, electrical system; repair group 27; starter motor, power supply, ACC, connecting and disconnecting the battery
- Remove the steering wheel complete with airbag unit.
- ⇒ Running gear, running gear, axles, steering repair group 48; steering, overview of steering column fitting; removing and fitting the steering wheel
- Remove the steering column trim.
- ⇒ Exterior bodywork; interior bodywork tasks; repair group 68; shelves; covers and trim; removing and fitting the steering column trim
- Remove the shelf beneath the left dashboard.
- ⇒ Exterior bodywork; interior bodywork tasks; repair group 68; shelves; covers and trim; removing and fitting the steering column trim

Page 2 - figure 1

- Unlock the plug connectors by pulling the latch -arrow A- then pull the plug -1- away from the control unit for the steering column electronics.
- Pull the lock -3- out of the plug connector -2-.
- Unlock -arrow B- the plug connector -2- and then pull it away from the control unit for the steering column electronics.

Page 2 - figure 2

- Unscrew both screws -arrow- from the steering column module.
- Pull the steering column module away from the steering column towards the vehicle interior.

Page 2 - Fig. 3

- Slightly raise both retaining clips -arrow- at the coiled spring for the airbag and return ring with slip ring -1- and pull the coiled spring out from the steering column module.

Note

Ensure that, the coiled spring is located in the middle position and is not rotated.



Page 2 - Fig. 4

- Unlock the latch mechanism -arrows- and pull the segment sender for steering angle sensor -1- forwards away from the steering column module.

Page 3 - figure 1

- Unlock the locking latch -2- and pull the plug -1- from the steering column electronics control unit -3-.

Page 3 - figure 2

- Unlock the locking latch -4- and pull the plugs -2- and -3- from the steering column electronics control unit -1-.

Page 3 - figure 3

- Unscrew the screw -2- from the steering column electronics control unit -1-.

Page 3 - Fig. 4

- Unlock the latch -arrow- on the left side of the steering column module.

Page 4 - figure 1

- Unlock the latch -arrows- on the right side of the steering column module.
- Carefully pull the steering column electronics control unit off in a downward direction.

Page 4 - figure 2

- Fit the individual components, as supplied, to the steering column switch in reverse order.



Note

When fitting the segment sender for the steering angle sensor, ensure that it engages correctly.

Page 4 - Fig. 3

- Push the steering column module on to the steering column and tighten the securing screws -arrows- firmly.



Note

You can find the tightening torque in the current repair manual.

1.2 Fitting the components in the engine compartment

Page 5 - figure 1

- Remove the wiper system.
- ⇒ Vehicle electrics, electrical system; repair group 92; windscreen wiper and washer system

Page 5 - figure 1

- Unscrew the screw -arrow- and remove the cover.

Page 5 - figure 2

- Drill a 10 mm diameter hole in the cover, as shown in the figure.
- Remove the rubber coating from the rear side of the cover in the area of the drilled hole.
- Pull the plug out from the engine control unit.

Page 5 - Fig. 3

- Release the cable tie -1- and push the plug cover off -arrow-.

Page 5 - Fig. 4

- Use a screwdriver to lever the left and right latches out from the plug.

Page 6 - figure 1

- Use a screwdriver to lever the cover -1- and the seal -2- out of the plug housing.



Note

Dependent on the model version, the unoccupied pins may have a placeholder inserted. These should be plugged in again during assembly.

Page 6 - figure 2

- Carefully unlock the plug contact insert (black) using a screwdriver and pull it out of the housing.



- Plug in the supplied control wire in accordance with the following table.

Engine	PIN
1.6 l petrol engine ¹⁾	69
1.6 l petrol engine FSi	25
2.0 l petrol engine turbo FSi	18
3.2 l petrol engine FSi	18
1.9 l diesel engine	20
2.0 l diesel engine	20

¹⁾ Control wire with yellow marking

Page 6 - Fig. 3

- Fit the plug for the ECU in reverse sequence and renew the cable tie.
- Route the control wire so that it is free from kinks and rubbing points alongside the existing vehicle wiring harness in the plenum chamber towards the driver's side and secure the control wire with the supplied cable ties.



Note

Ensure that in the area of the windscreen wiper frame the control wire has sufficient clearance and, if necessary, secure it using one of the supplied cable ties.

Page 6 - Fig. 4

- Push the supplied wiring grommet -1- onto the control wire.

Page 7 - figure 1

- Carefully unlock the plug contact insert (black) using a screwdriver -arrow- and pull it out of the plug housing.

Page 7 - figure 2

- Push the control wire -1- into the unlocked PIN 16 of the plug housing, until you feel the plug contact engaging.
- Lock the plug contact insert within the plug housing.
- Insert the plug into the steering column electronics control unit.

Page 7 - Fig. 3

- Now route the control wire in the area of the steering column within the cable guide -1- and fasten the control wire with cable ties to the existing vehicle wiring harness.

1.3 Concluding work and activation of the cruise control

- Stick the supplied "ACC" sticker where it can be seen in the vicinity of the diagnostics connector.
- Replace all vehicle parts in reverse order.



Note

- ◆ The lower steering column cover is to be replaced by a cover for vehicles with a cruise control system (ACC). This is not included in the set contents and must be ordered separately.
- ◆ After disconnecting the battery, ensure that the vehicle accessories (radio, clock, electric window lift) are checked in accordance with the vehicle workshop manual and / or the instruction manual.
- Connect a car diagnosis, measurement and information system to the car's diagnostics plug.



Note

If the ESP lamp lights up and if the fault memory contains steering angle sensor fault 00778 with the comment "no or incorrect basic setting", the steering angle sensor -G85 must undergo a new teach-in procedure. Recalibrate the steering angle sensor using the "assisted troubleshooting system".

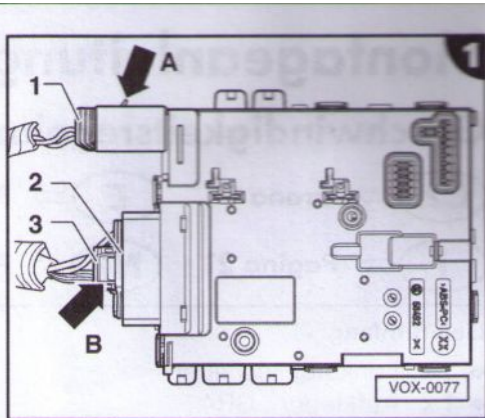
Page 8 - figure 1

- Encode the steering column control unit (ACC) with the vehicle diagnostic, Measurement & Information System in the "Guided Troubleshooting" dependent on accessories fitted.
- Activate Automatic Cruise Control in the engine control unit using the vehicle diagnostics-, Measurement & Information system in the "Guided Troubleshooting".
- Take the vehicle for a test drive and check that automatic cruise control (ACC) switches off when the clutch or brake pedal are used.

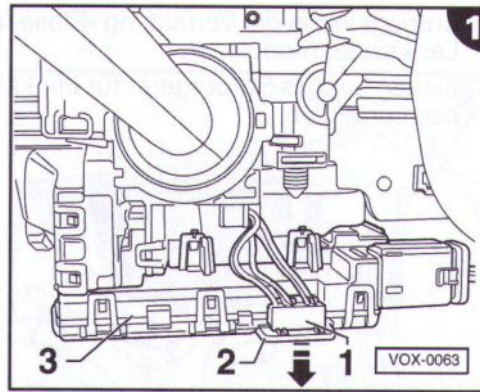
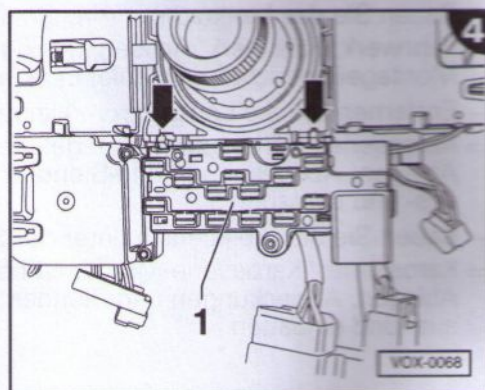
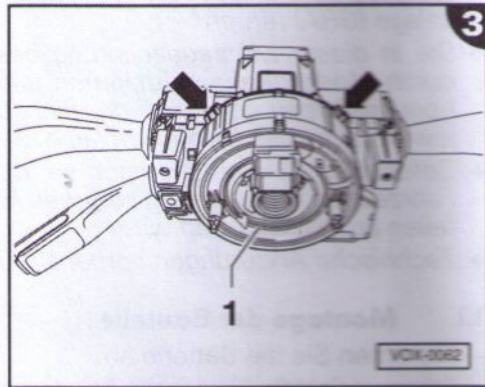
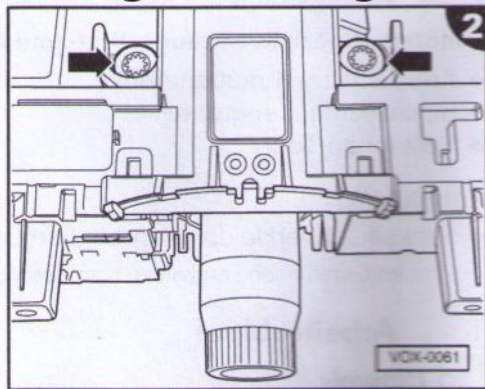


Note

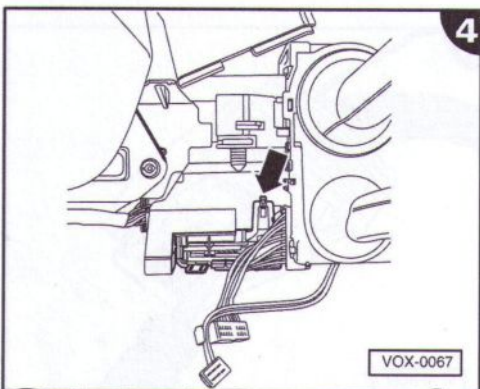
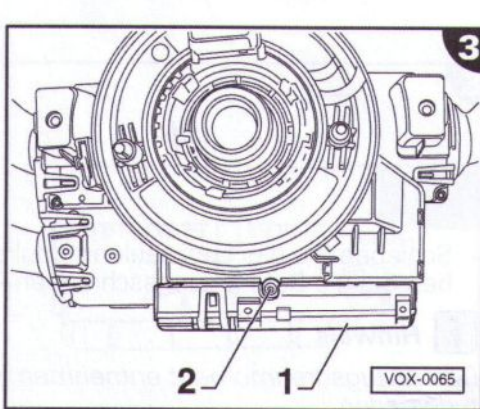
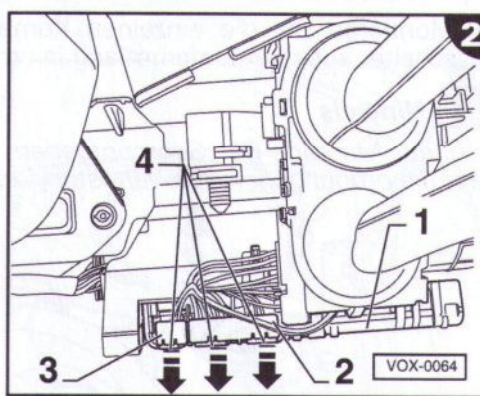
Dependent on the version of the combination instrument, activation of ACC will be indicated by illumination of the ACC light or by the switch position of the blinker switch.

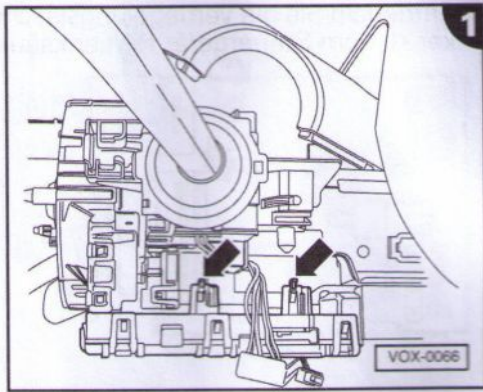


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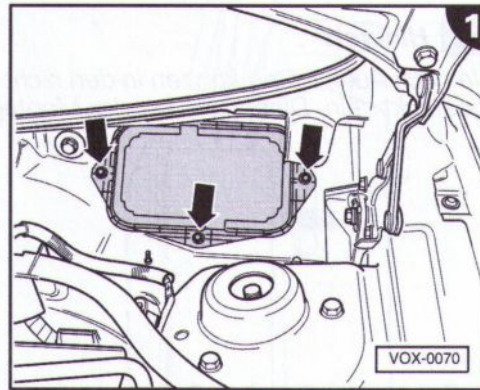
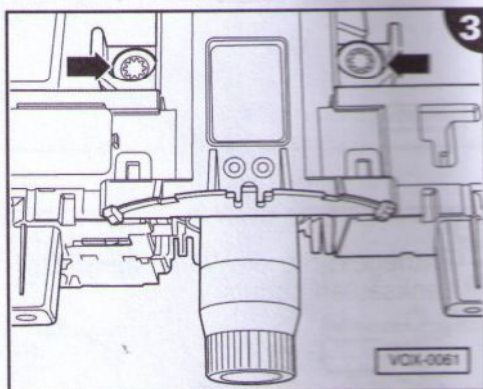
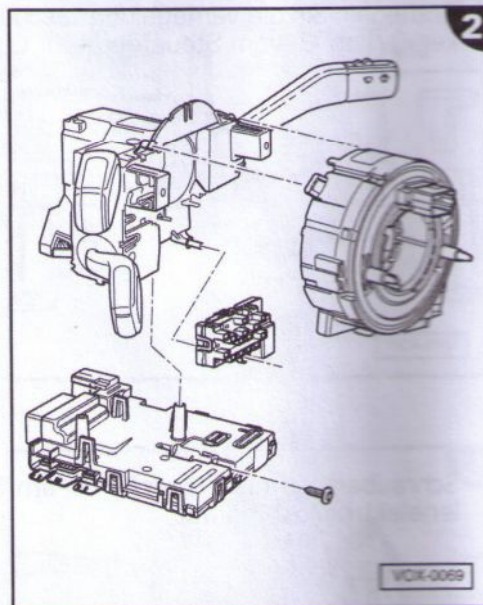


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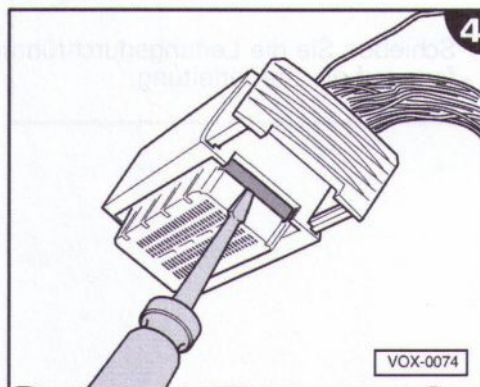
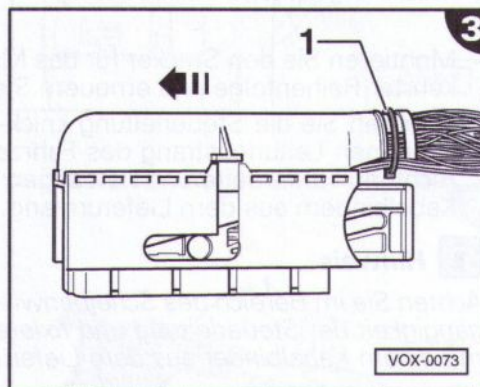
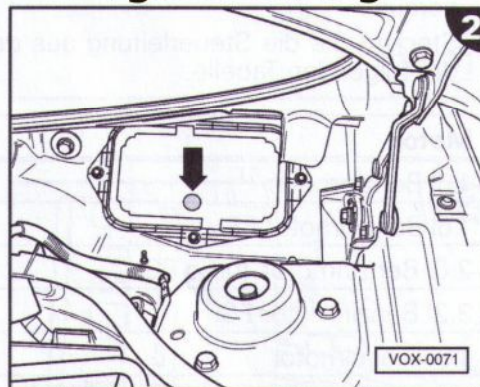


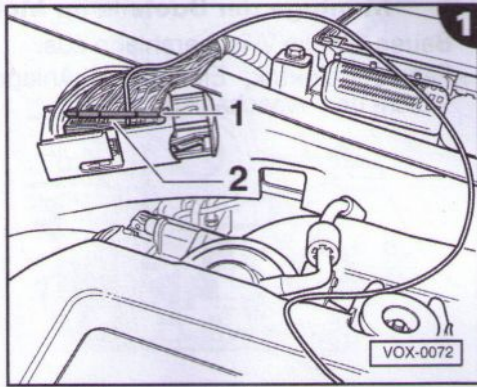


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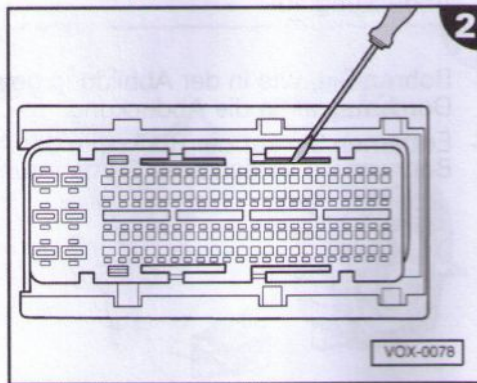


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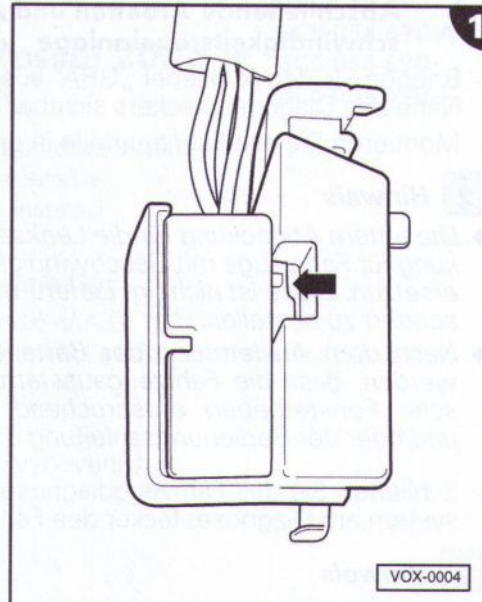
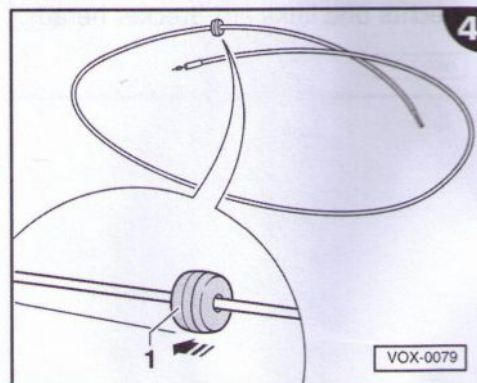
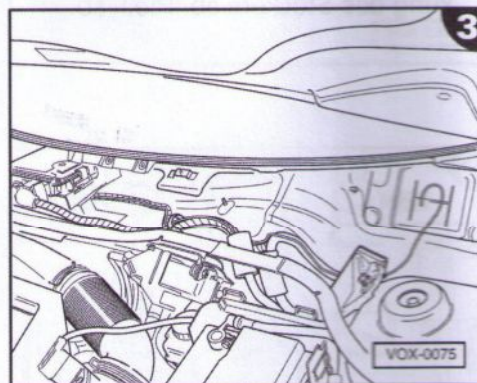




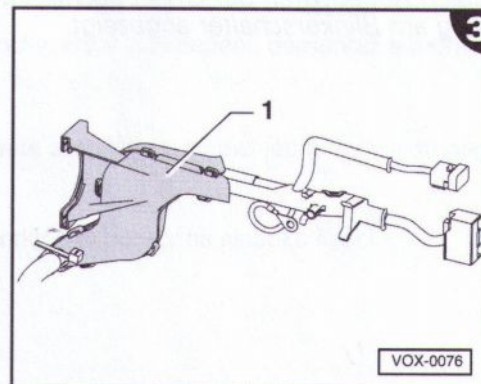
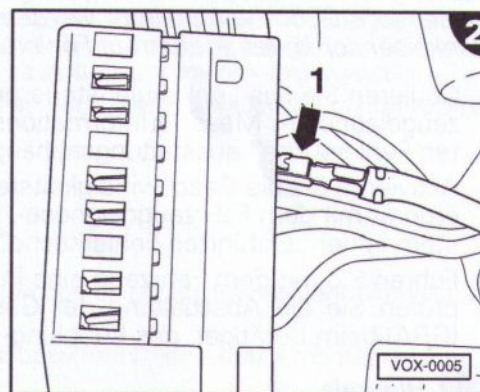
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