## Instructions for installing a Retrofit Cruise Control System to a Transporter T5 GP

Please ensure you DO NOT have a 086 BCM.

Due to the relay carrier [J329] on RHD vehicles being moved to near the BCM & the loom will not reach the fuse box, please use a fuse holder.

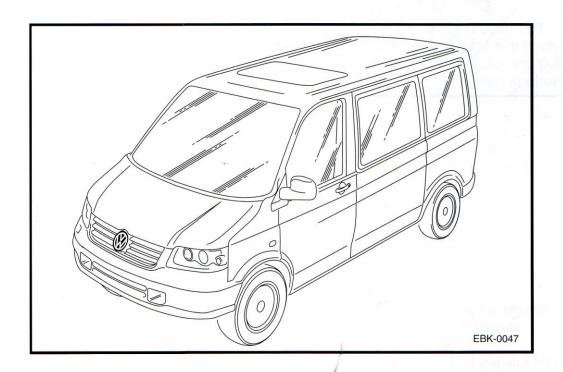
Use the relay shown on the far right [number shown may differ]



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# Installation description for retrofitting a cruise control system in the Transporter T5 from 2010

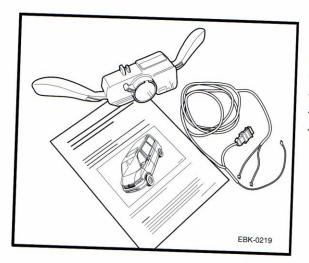


#### Note:

In view of the applicable safety regulations in the handling of airbag components, this retrofit kit may only be installed in a partnerworkshop of Volkswagen AG.

Modifications are necessary to the engine controller and on-board network controller.

These also have to be carried out in a partner workshop of Volkswagen AG.



### Contents of the retrofit kit:

- 1 pc. steering column combination lock
- 1 pc. wiring loom for cruise control
- 1 pc. connector housing
- 1 pc. installation description
- 1 pc. fuse 5 A

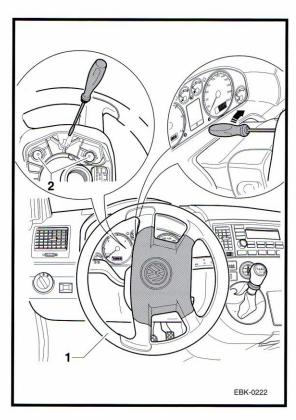
## Required special tools, operating equipment, test and measuring equipment, as well as auxiliary material

- Repair Guideline Electrical System
- Repair Guideline Body Installation Work Interior
- Torque wrench V.A.G 1332
- Cable harness repair set VAS 1978 B
- Vehicle diagnosis, testing and information system VAS 5051A or VAS 5051B
- Removal wedge -3409- or -T10039/1-
- Electric drill with 10 mm drill

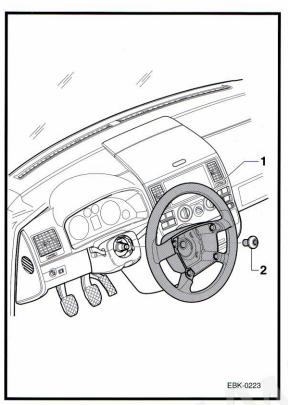
### Carry out the following operations:

#### Note:

- For the following work steps, be sure to follow the Repair Guideline Body Installation Work Interior and Repair Guideline Electrical System.
- Note the battery code before disconnecting the battery.



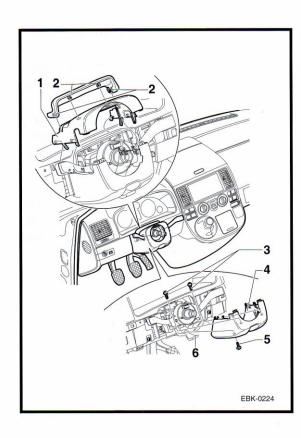
- Turn steering wheel **-1-** to the position shown.
- Insert a screwdriver as far as possible into the hole on the rear side of steering wheel -1-.
- Push the screwdriver upwards -arrow-.
  This disengages the two latches -2- of
  the airbag unit on the right-hand side of
  the steering wheel.
- Turn steering wheel -1- through 180°.
- Disengage the latches of the airbag unit.
- Disconnect the plug connector and pull the airbag unit out of the steering wheel.



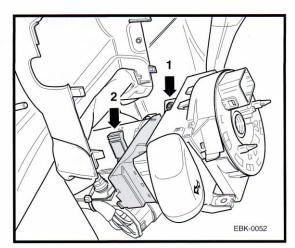
- Turn steering wheel -1- to the middle position and loosen multi-splined socket-head screw -2-.
- Pull the steering wheel off the steering column.

#### Note:

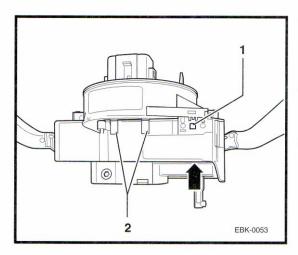
Please follow the instructions in the Repair Guideline Electrical System.



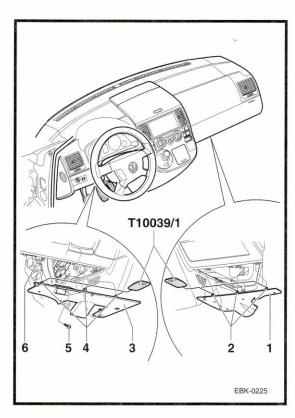
- Unclip cladding -1- from cladding -4- and pull off upwards.
- Release the 4 latches -2- of the gap cladding and unclip the gap cladding from the upper steering column cladding -1-.
- Remove upper steering column cladding **-1-**.
- Loosen the 2 bolts -3- (1.5 Nm) and bolt -5- (3.5 Nm).
- Release steering column locking lever
   -6- and pull out lower cladding -4towards the driver's seat.



- Loosen bolt -arrow 1- and then unlock connector housing -arrow 2-.
- Pull the steering column switch off the steering column.



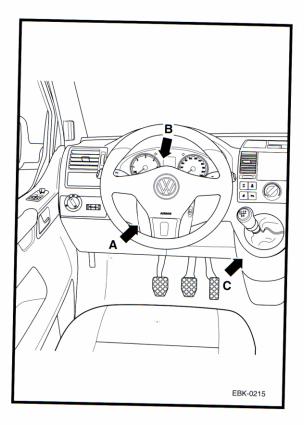
- To open the latch, push a small screwdriver into the flat opening on the steering column switch -arrow- and carefully release the latch -1-.
- Release the 2 latches on both sides -2-(4 in total) and remove the return ring for the airbag.
- Install the return ring for the airbag on the new steering column switch (in scope of supply).



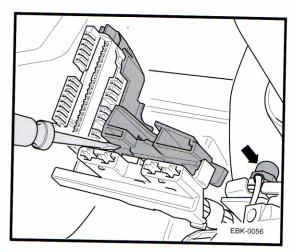
- Lever the cover in the passenger footwell -1- out of the retainers in the area of clamps -2- using assembly wedge -T10039/1-.
- Pull cover -1- out of the rear retainers.
- Loosen screw **-5-** (1.5 Nm) of diagnostic plug **-6-**.
- Lever the cover in the driver's footwell
   -3- out of the retainers in the area of clamps -4- using assembly wedge
   -T10039/1- and remove the cover.

#### Note:

The further removal procedure depends on the vehicle configuration. Please follow the work steps in the Repair Guideline Body Installation Work Interior (chapter 68).



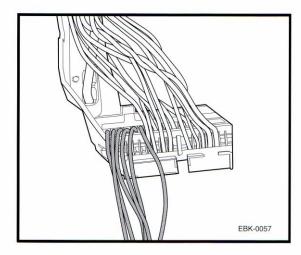
- Lay the cruise control cable harness along steering column -arrow A- (see diagram EBK-0216, page 8), behind instrument cluster -arrow B- (see diagram EBK-0218, page 7) to the power supply relay of terminal 15 -J329-, in the middle of instrument panel -arrow C- (see EBK-0217, page 8).



Release the secondary latch of the plug connector for the steering column combination switch using a screwdriver.

#### Note:

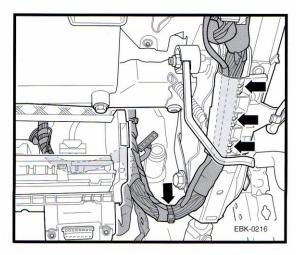
The ground lead **-arrow-** can be disconnected to allow more space for working.



 Plug the leads of the cruise control cable harness into the chambers of the plug connector for the steering column combination switch as listed below:

#### Contacts:

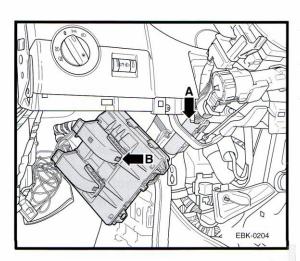
<ul> <li>black-yellow</li> </ul>	Chamber 26
<ul><li>white</li></ul>	Chamber 27
<ul> <li>black-blue</li> </ul>	Chamber 28
<ul> <li>black-yellow</li> </ul>	Chamber 29
<ul> <li>blue</li> </ul>	Chamber 31
<ul> <li>red-vellow</li> </ul>	Chamber 30



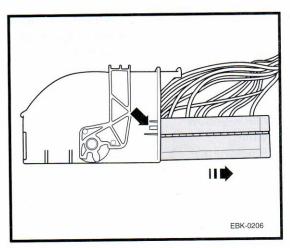
- Open the latches of the cable guide -arrows-.
- Lay the cruise control cable harness into the cable guide of the steering column kink-free so that it cannot rub on the column.

#### Note:

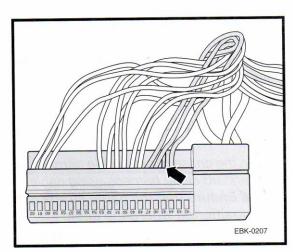
Fasten the cruise control cable harness to the standard cable harness using cable straps. Ensure that the cable straps are only positioned where the cable harness is wrapped with fabric tape.



- Loosen relay carrier and place to one side.
- Loosen on-board controller -J519- from the latch and pull out to the front.
- Release latch on plug (white) for onboard controller and pull plug (white) out of the on-board controller.



- Loosen plug contact housing using a small screwdriver -arrow-.
- Pull plug contact housing out of connector housing in -direction of arrow-.

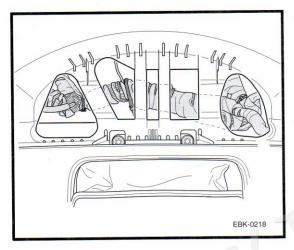


- Plug leads into the following chambers:

#### Contacts:

red-yellow
black-yellow
blue
white
Chamber 44
Chamber 45
Chamber 46
Chamber 47

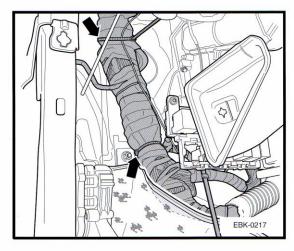
 After connecting the plug contacts, push plug contact housing into connector housing again and plug into on-board controller -J519-.



 Lay cruise control cable harness along the standard cable harness behind the instrument cluster kink-free and so that it cannot rub.

#### Notes:

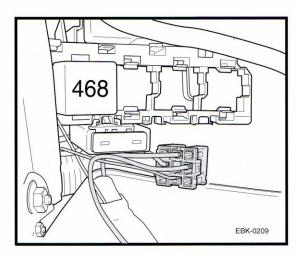
- The instrument cluster has been removed in the diagram for better illustration.
- Fasten the cruise control cable harness to the standard cable harness using cable straps. Ensure that the cable straps are only positioned where the cable harness is wrapped with fabric tape.



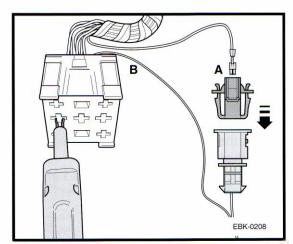
 Lay cruise control cable harness along the standard cable harness to the relay for the power supply to terminal 15
 -J329- in the area of the centre instrument panel kink-free and so that it cannot rub.

#### Note:

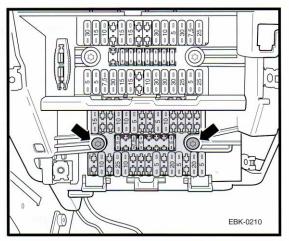
Fasten the cruise control cable harness to the standard cable harness using cable straps. Ensure that the cable straps are only positioned where the cable harness is wrapped with fabric tape.



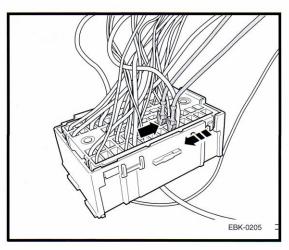
- Release relay carrier under middle of instrument panel.
- Pull out relay for power supply to terminal 15 -J329- (relay carrier (2) cockpit, slot 3).
- Unclip relay base to the rear.



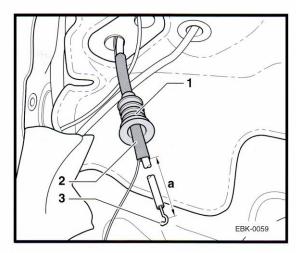
- Press cable of chamber **8** out of the relay base using a suitable pusher tool.
- Insert lead **-B-** of the supplied cable harness into chamber **-8-**.
- Plug the pushed-out line -A- into the connector housing supplied and push the plug connector together.
- Assembly is performed analogously in the reverse sequence.



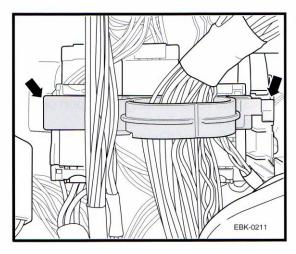
- Loosen the bolts -arrows-.
- Pull the fuse holder out of the instrument panel from the rear.



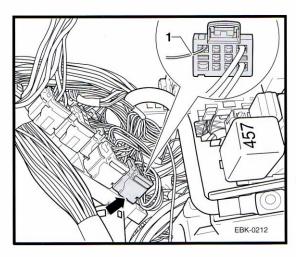
- Release the secondary lock by pulling/ pushing in -the direction of the arrow-.
- Insert the black lead of the cable harness supplied into row A of chamber
   9 -arrow-.
- Insert the black-blue lead into row B of chamber 9 -arrow-.
- Fasten the secondary lock.
- Insert the fuse holder into the instrument panel again.
- Insert a 5 A fuse into fuse socket SC9.



- Loosen the Bowden cable for the hood release inside the vehicle and pull grommet -1- out of the bulkhead.
- Remove grommet from black-yellow cruise control lead.
- Fit an approx. 8 cm long shrink hose -2to the black-yellow cruise control cable harness and Bowden cable.
- Position shrink hose -2- approx. 4 cm -a-from the leading end of Bowden cable
   -3-, then shrink completely.
- Then install Bowden cable, lead and grommet -1- again.
- Remove battery and battery bracket from engine compartment.
- Remove E-box cover in engine compartment left.



- Fix cruise control cable harness in the engine compartment with cable straps kink-free and so that it does not rub.
- Pull coupling point bracket in area of -arrows- up out of the bracket.

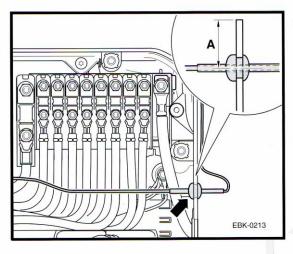


- Separate plug connector T10 -arrow-.

#### Note

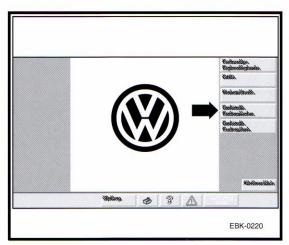
There are 2 black connector housings in the E-box. Risk of confusion!

- Insert black-yellow cruise control lead
   -1- into chamber 1.
- Assembly is performed analogously in the reverse sequence.



- Below the screw retainers on the lefthand side of the E-box, drill a hole with a diameter of 10 mm at a distance -A- of 20 mm from the top.
- Pull the grommet off the cruise control lead and lay through the bore -arrowkink-free and so that it does not rub.
- Push the grommet onto the cruise control lead again.

## Activate cruise control with vehicle diagnostic system

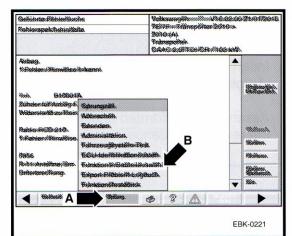


#### Test precondition:

- Connect vehicle diagnostic system VAS 5051B to the diagnostic port on the vehicle and switch on.
- Select field for "Guided troubleshooting"
   -arrow-.

## Follow menu prompts of the vehicle diagnostic system:

- Select vehicle model.
- Perform the vehicle system test.
- Perform function test.
- Read out error memory contents.



- Select field -arrow A- "Jump".
- Select "Function/component selection"
   -arrow B- on the monitor.
- Open menu item "Software version management".
- Select "Adapt software".
- Under Service42 point 3, confirm "Modification/retrofit solution" for the function description with field 3 to enter the measure code.
- Enter function description "09" via fields 0-9 and confirm with "Q".
- Enter user name and password.
- Follow menu prompts of the vehicle diagnostic system.

#### Notes:

- The task code is always provided on the Volkswagen NFZ ServiceNet.
- After activation of the cruise control, carry out a test run (e.g. check the deactivation of the cruise control when the clutch pedal or brake pedal is pressed).