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Technical Service Handbook

VIN: **WVWZZZ3DZ68001674**

Model year: **2006**

Sales code: **3D264A**

Model description: **Phaeton 4M4-sea 230_TDI6at**

Engine code: **AJS**

Gearbox code: **HPS**

Official licence plate number:

Final drive code:

Username: **erwin**

Service advisor name:

Technical product information

Transaction No.: **2021809/4**

Electrics: Adaptive Cruise Control (ACC) doesn't work, warning light on

Release date: 03-Feb-2011

Customer statement / workshop findings

Electrics: Adaptive Cruise Control (ACC) doesn't work, warning light on

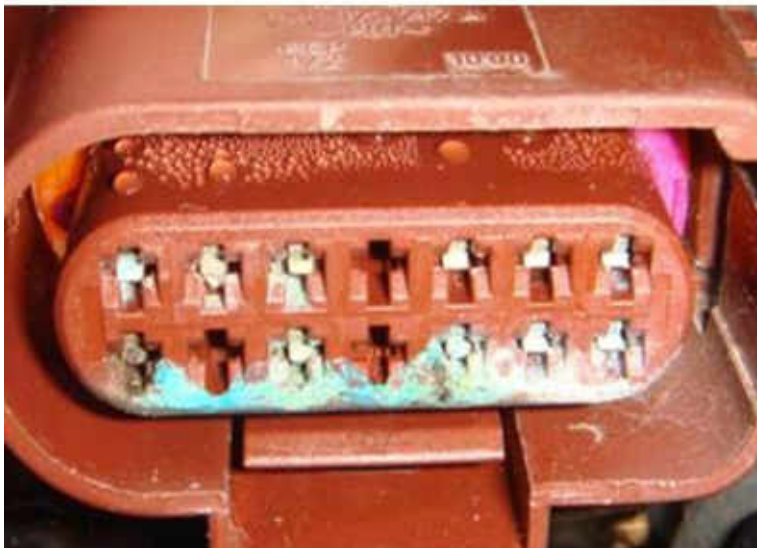


Illustration 1: Water ingress/contacts corroded on the connection (brown) of the brake servo control unit



Illustration 2: Installation overview of connection on control unit

Technical background

Production change

Flat contact housings (part number **4H0 973 717 index B and C**).

- Grommets no longer fitted on the housings
- From Chassis No. **WVW ZZZ 3D Z A 8000028**

Measure

Repair connectors/cables

Check the connectors on the brake servo control unit and on the brake servo for humidity and water ingress.

- Corroded cables must be replaced.
 - Fit the wiring loom **part number 3D1 970 221 N**.

It consist of 2 parts:

- Green/black cables twisted with earth connection(illustration 3). **These cables are normally not needed as replacement parts.**
- Adapter cable between brake servo control unit and brake servo (illustration 4)
- Fit also over the E-box in the plenum chamber the cover with **part number 3D0 907 299** (illustration 5).



Illustration 3: Green/black cables twisted with earth connection



Illustration 4: Adapter wiring loom between brake servo control unit and brake servo



Illustration 5: cover over E-box in plenum chamber



All further repairs depend on the following symptoms - see point A, B or C.

A) Only the contacts in the brown plug on the brake servo control unit are corroded.

- Remove the wrapping tape on the adapter wiring loom (illustration 6, red arrow)
Illustration 7 shows the wiring loom without black wrapping tape.

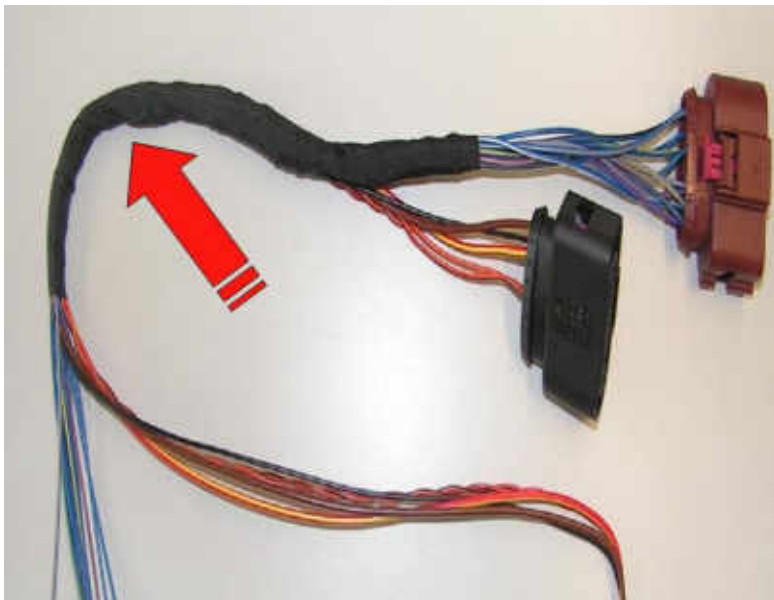


Illustration 6: Remove the wrapping tape



Illustration 7: Remove the wrapping tape

- Protect the adapter wiring loom (brown connector) and the 3 connectors to the brake servo with tape (illustration 8).



Illustration 8: Protection of adapter cable with tape

- Cut off the old cables on both sides; they can stay in the vehicle.
- Fit the adapter wiring loom **without** removing the air conditioning (including heat exchanger).
- The routing of the adapter wiring loom on the right plenum chamber (illustration 9, 9.1) is shown under the brake servo (10 and 10.1) and partition panels of the air conditioning.



Illustration 9: Routing of the adapter wiring loom on the plenum chamber

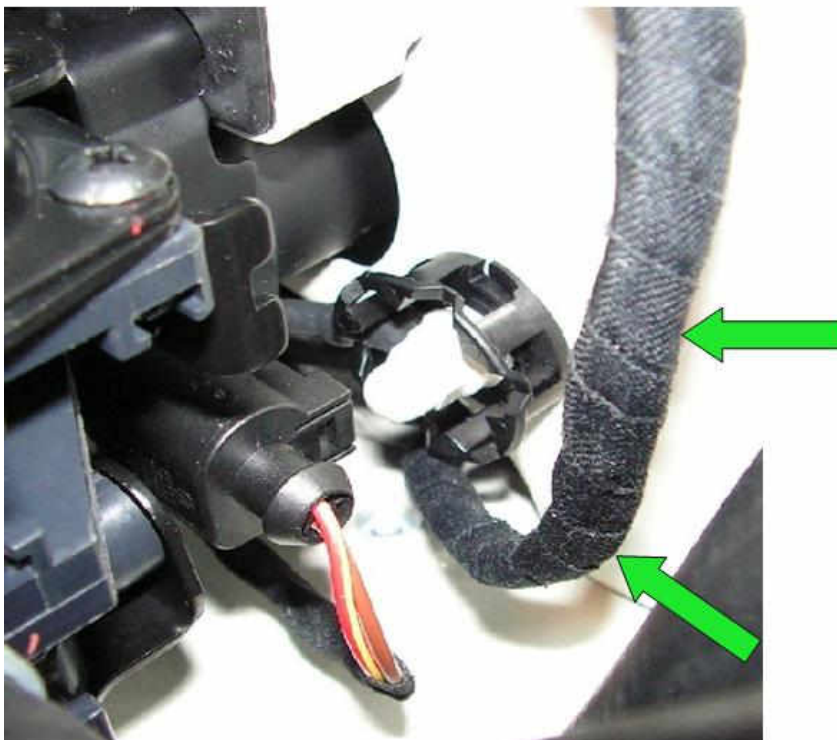


Illustration 9.1: Routing of the adapter wiring loom on the plenum chamber

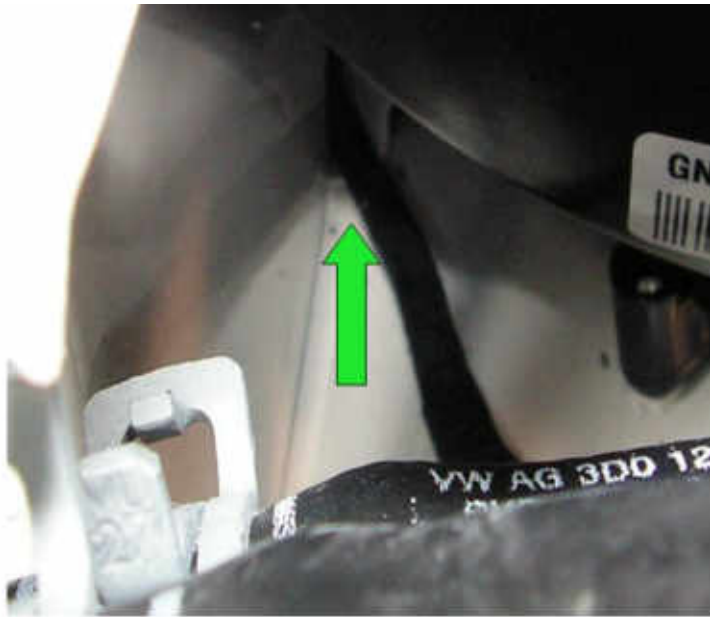


Illustration 10: Routing of the adapter wiring loom under brake servo



Illustration 10.1: Routing of the adapter wiring loom under brake servo



When replacing the adapter cable make sure the routing is correct.

- The cables should not be twisted or in contact with sharp edges.
- When fitting the brown plug observe the additional locking (illustration 11).
 - It must be locked by hand (illustration 11, green arrow). But this is only possible, if the plug is completely slotted in.

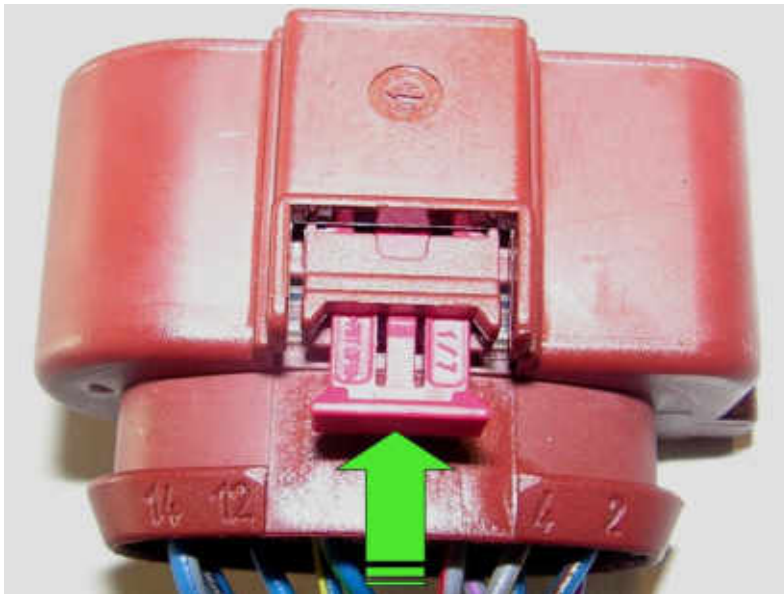


Illustration 11: Attachment of brown plug



The components itself may also have to be replaced because of corroded contacts on brake servo control unit and brake servo, illustration 12 and 13.



Illustration 12: corroded brake servo control unit contacts



Illustration 13: corroded contacts on brake servo

) Only the contacts in the black plug on the brake servo control unit are corroded:

- Remove the wrapping tape on the adapter wiring loom (illustration 14, red arrow). Illustration 15 shows the wiring loom without black wrapping tape.

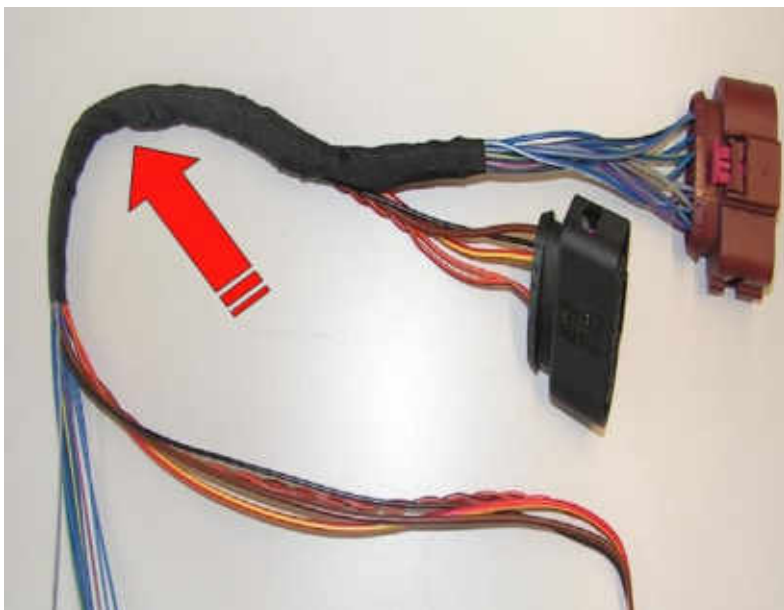


Illustration 14: remove the wrapping tape



Illustration 15: wrapping tape removed

- Replace only the cables with corroded contacts.
- Replace the affected cables from where the copper strand is blank.
- The necessary crimp connector must be watertight (illustration 16)



Illustration 16: crimp connector



Avoid positioning the crimp connector in the dry area (E-box in plenum chamber).

The new cables would be pulled through the sealed grommet, making leaks likely.

When fitting the black plug observe the additional locking (illustration 17).

- It must be locked by hand (illustration 17, green arrow). But this is only possible, if the plug is completely slotted in.

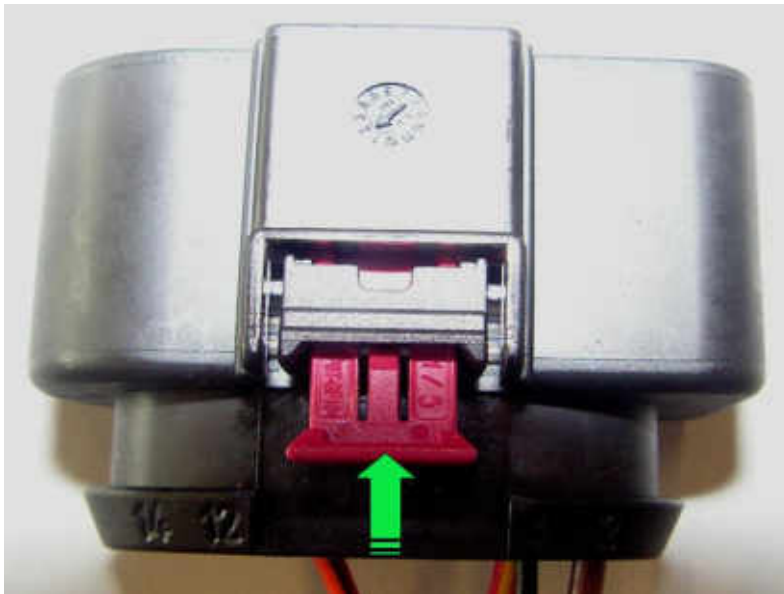


Illustration 17: attachment of black plug

Because of corroded contacts the brake servo control unit must also be replaced (illustration 18).



Illustration 18: corroded brake servo control unit contacts

C: The contacts of both plugs on the brake servo control unit are corroded:

- Combine the work of **A)** and **B)**. It may not be necessary to remove the wrapping tape (illustrations 6/7 or illustrations 14/15).

Warranty accounting instructions

Service number/damage code/manufacture: 9713/ 0033/ ...



- The labour times are correct at the time of publication. The time units (TU) may differ slightly, if the repair catalogue has been updated. The information in the repair operations catalogue applies, except for the open time items (... 99).
- The necessary time for using the diagnostic tester are not included in the above times; they must be accounted separately with the print-out of the tester.
- For removals and installations use the repair operations from the repair operations catalogue.

Accounting with APOS:

	Repair operation number	Designation	Time units (TU)
Phaeton 3D*			
Main operation	01 50 00 00	GFF/ guided function	*
Main operation	97 13 41 99	Repair engine wiring loom	*
The repair operations include all the work of this TPI.			

Accounting with APOS/2:

Model	Illustration	Position	Number	Designation	Activity	Time units
3D*	STA-02	1	S00032	Guided fault finding	00	*
3D*	971-80	1	971140	Repair engine wiring loom	42	*
The repair operations include all the work of this TPI.						