



WESTFALIA

Automotive

GB

**Installation instructions:
13 Pin Electrical system for towing hitch**

General data

Part number		Vehicle
Westfalia	Vehicle Manufacturer	
321 538 300 153	ZGB 1T0 055 204	Volkswagen Touran MY 2003>

Important notes

Read the installation manual prior to starting work.

The electrical kit should only be installed by qualified personnel.



Caution – Disconnect the battery!

Danger of damage to the vehicle's electronic system. Data which are stored electronically may get lost, this includes security codes.

Check there are any faults in the diagnostic system before starting any work.

► Note

During installation special attention has to be paid to the following points:

- Cables must not be pinched or damaged.
- All sealing elements have to be installed properly.
- The socket gasket has to be positioned on the insulating sleeve and not on the individual wires.
- Route wiring so that it does not chafe against the vehicle.
- Do not lay any cables near the exhaust system.

Failure of a trailer light (also direction indicator lamps, but not back-up light or rear fog lamp) is indicated by the light failure monitoring system on the combination instrument. There is no additional indicator light (C2) for monitoring the direction indicators on the trailer in the vehicle.

When a trailer is used, the rear fog lamp of the traction vehicle is deactivated.

In the case of trailers without rear fog lamp, a rear fog lamp has to be retrofitted.

A socket adapter may only be used in conjunction with a trailer. When the trailer is no longer used, remove the socket adapter.

Correct trailer operation has to be checked using a trailer or a test instrument with load resistors.

Subject to technical alterations!

Installation overview

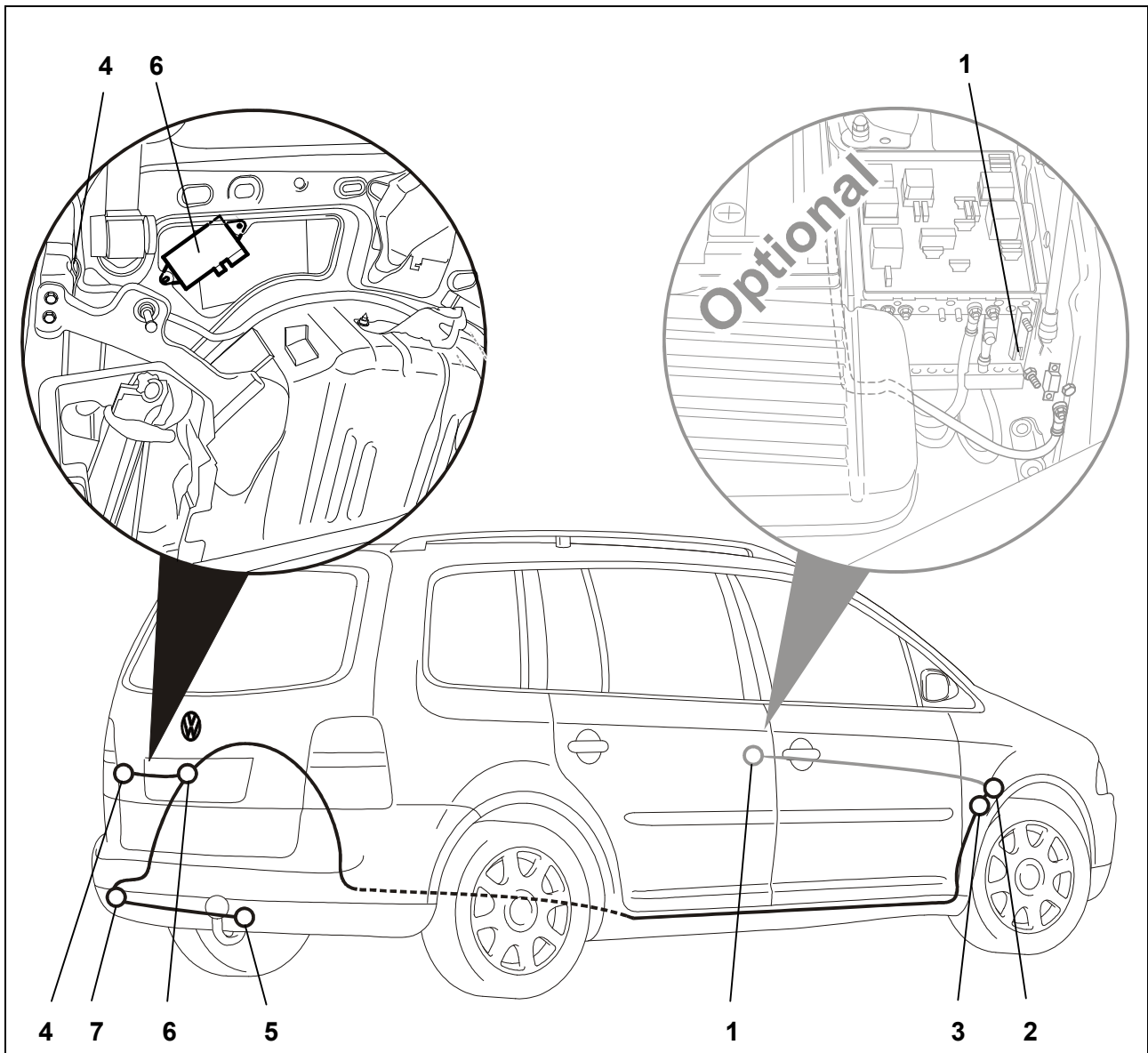


Fig. 1: Installation overview

- | | |
|---------------------------------------|---------------------------|
| 1 Constant plus connection (optional) | 5 Trailer socket |
| 2 Network control unit | 6 Trailer connection unit |
| 3 Fuse carrier | 7 Cable leadthrough |
| 4 Ground point | |

Installing the electrical kit

1. Disconnect the negative battery terminal.
2. Remove the following coverings and panels:
 - In the luggage trunk
 - Covering of luggage trunk bottom
 - Loading edge covering
 - Covering of the left side of the luggage trunk
 - On the right-hand side of the vehicle
 - Entrance panel at door on driver's side
 - Covering on the left and right of the steering column
 - In the engine compartment (optional)
 - Covering of central electrical system
 - Remove the air filter housing
 - Remove the battery, the battery holder and the air filter
3. Remove the vehicle's 40 mm hole cover in the side plate on the left-hand side at the rear of the vehicle (Fig. 1/7).
4. Fasten the trailer connection unit in its intended place in the vehicle's rear area on the left side using the supplied fastening screws, washers and nuts (Fig. 1/6).
5. Lay the cable end with the 16-pin plug from the outside through the cable leadthrough to the trailer connection unit (Fig. 1/6). Lay the other end to the socket holder plate (Fig. 1/5).
6. Insert the rubber grommet into the cable leadthrough (Fig. 1/7).

Installing the socket

7. Press the contact insert into the socket housing and push the rubber grommet towards the socket.
8. Screw the socket onto the holding plate (Fig. 1/5) using the supplied screws.

Connecting the trailer connection unit

9. Insert the 16-fold connector housing into the intended slot of the trailer connection unit (Fig. 1/6) and let it lock into place.
10. Insert the 12-fold connector housing of the eight-core cable set into the intended slot of the trailer connection unit (Fig. 1/6) and let it lock into place.

Installing the electrical kit

11. Connect the brown wires with the eyelets to the vehicle's ground point (Fig. 1/4).
 12. Route the 8-core cable set across from left to right along existing cable looms / cable ducts on the driver's side up to the control unit for the vehicle electrical system in the driver's footwell (Fig. 1/2).
 13. Push open the red latch on the network control unit. Unplug the black 12-pin plug (port G) and open the latch. Unlock the following wires and insert them into the black 3-pin socket housing provided on the cable set:
 - The orange/brown wire from compartment 7 into compartment 1.
 - The orange/green wire from compartment 8 into compartment 3.
 14. Insert the individual orange/brown and orange/green wires of the cable set into the now free compartments 7 and 8 of the 12-pin plug as indicated by the colours.
 15. Close the latch, plug the plug back into the network control unit and push the latch on the network control unit shut.
 16. Pull out the black 16-pin plug (socket E) from the network control unit and open the catch. Release the wire from chamber 2 and insert into chamber 2 of the 3-pin white socket housing on the cable set:
 17. Insert the black/red wire from the cable set into the freed chamber 2 of the 16-pin plug. Close catch.
 18. Re-connect plug to the vehicle electrical control system.
 19. In each case, plug the open 3-pin black and white housings together.
 20. Push open the purple latch on the fuse carrier (Fig. 1/3).
 21. Insert the following wires into the fuse-protected side of the fuse compartment.
 - black/blue wire into chamber 2 (⇒ MY 2005), into chamber 13 (MY 2006 ⇒).
 - red/black wire into chamber 40
 - red/blue wire into chamber 41
 22. If the original fuse positions 39 -41 are to be used and are not equipped with terminal 30 on the vehicle, the supplied cable adapter has to be installed. Otherwise continue with step 27.
 23. Plug the triple contact into the input side of slots 39-41 of the fuse carrier.
 24. Lay the cable end with the cable lug through a suitable opening in the mounting plate bush to the constant plus distributor (Fig. 1/1) of the central electrical system in the engine compartment.
- **Note**
Seal the new leadthrough in the mounting plate bush to prevent any ingress of humidity.
25. Insert the supplied M5 x 13 hexagon head bolt into the groove below the constant plus distributor and let it lock into place.
 26. Screw on the supplied 50 A fuse link together with the supplied lock washer and the nut and the cable lug of the red cable laid to this place (recommended torque: 4.5 Nm).

27. Insert the provided fuses as follows:

- 15 A fuses into sockets 40 and 41 or the alternative positions of the fuse holder.
- 5 A fuse into socket 2 (⇒ MY 2005), in socket 13 (MY 2006 ⇒).

Cable	Position	Amperes	Function
black/blue	2 / 13	5	Terminal 15 of trailer connection unit
red/black	40	15	Power supply for trailer lights
red/blue	41	15	Power supply for trailer lights

28. Close latch on the fuse carrier.

29. Using the 3-pin connector for the constant plus extension kit, the functions "Constant plus", "Charge lead" and "Ground for charge lead" can be retrofitted.

Checking correct operation

30. Reconnect the ground of the vehicle's battery.

31. The factory-fitted Gateway must be coded for function extension 'towing hitch' using the V.A.G. service tester as follows.

- 19 Diagnosis interface for data bus
 - Read/write long coding
 - 69 Trailer function (code)

32. >>MY2007: Adapting the PDC offset value on vehicles equipped with parking distance control:

- Address word 76 (Parking distance control)
 - Adaptation
 - Channel 2
 - 0 – 30 cm (Guideline value: 11 cm)

33. MY2008>>: Change coding as follows with vehicles with park guidance assistant/PDC:

- 10 park guidance assistant
 - Coding (Dienst \$22)
 - Byte 0: change Bit 0 from "0" to "1"

34. For vehicles from model year 2006 onwards (from 06.06.2005), which are fitted with a control unit in the factory which supports the trailer stabilisation system, this function must be activated.

To do so, adjust the ABS-control unit -J104 with the selected diagnostics as follows:

- Selected diagnostics
 - Select vehicle
 - > Continue (vehicle system test)
 - > Continue
 - With 'Jump" to 'Function-component selection"
- Suspension
 - Break system
 - 01 - Self-diagnosis-capable systems
 - Anti-blocking system
 - Functions
 - Adjustment - J104 with trailer stabilisation system
 - Continue to follow the menu instructions

If this adjustment option is not listed in the control unit menu, the trailer stabilisation system is not supported by the control unit installed.

35. "When using a trailer, the vehicle's central fuse, relay and terminal box must coded as follows to deactivate the rear fog lamp:

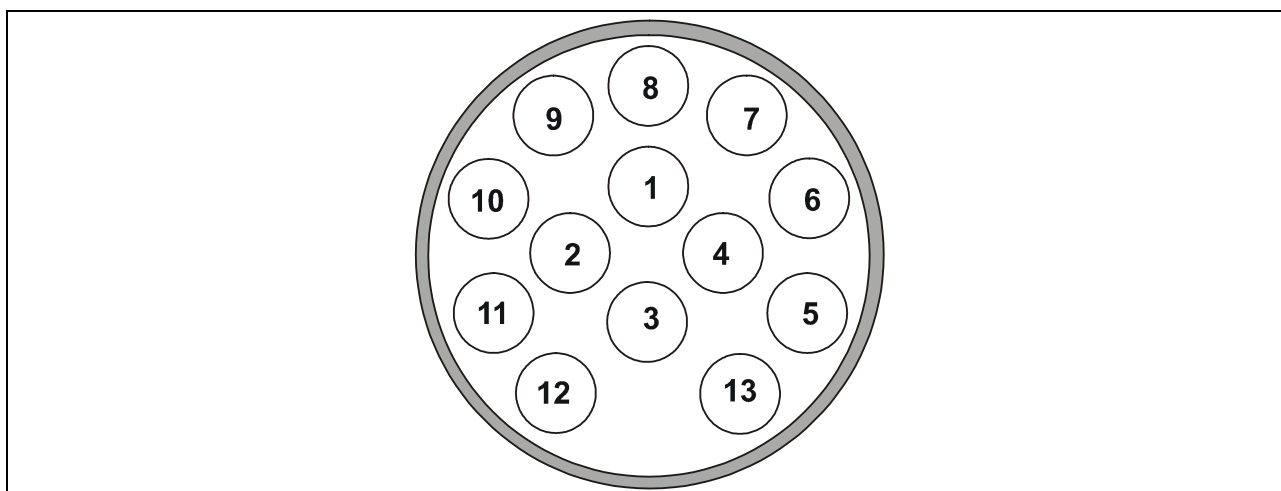
- Select vehicle system: 09 Central electronic fuse, relay and terminal box
 - Identification: Continue
 - Select diagnostic function: 007 – Coding (Technical Support 1A)
 - Select vehicle system: Electrical system control unit Coding lang
 - Change coding value: Byte 8 bit character set x1xxxxxx (x: enter the current values in the input field), and switch to input mode [BIN]."

36. Check the trailer function with the help of a suitable test instrument (with load resistors) or with the help of a trailer.

37. Secure all cables using cable ties.

38. Refit any parts removed for installation.

Socket pin assignment



Pin	Circuit	Wire Colour
1	Indicator lamp, left-hand side	black/white
2	Rear fog lamp	gray/blue
3	Ground (circuit 1-7)	brown
4	Indicator lamp, right-hand side	black/green
5	Tail light, right-hand side	gray/red
6	Stop lamp	black/red
7	Tail light, left-hand side	gray/black
8	Back-up light	black/blue
9	Constant plus	red
10	Charging lead	yellow
11	Ground (circuit 10)	brown/white
12	Trailer identification	--
13	Ground (circuit 9)	brown