

**\*\*THIS PROCEDURE CAN INVOLVE DISCONNECTING THE GAS SUPPLY MAKE SURE YOU ARE COMPETENT IN RECONNECTING THE GAS SUPPLY AND TESTING FOR LEAKS\*\***

To repairing flickering display and diesel heater not working correctly due to a bad earth connection on the shunt.

Tools required: spanners for gas supply and fixing screw to chassis, 5.5mm nut spinner, various allen keys, hexagonal drive bits and torx bits. You will also need to make up an earth lead.

1. Raise roof for ease of removing refrigerator. (\* **please note once the roof is raised and shunt removed you will not be able to lower roof, therefore make sure you have the parts at hand to carry out repair.**\*)
2. Depending on which model you have you may have to remove sink, which involves disconnecting gas supply to burners, sink waste, water supply to tap, the electrical connector to tap and 4 nuts and washers at corners of sink unit. I have attached pictures for ease.

Removal of refrigerator.

Removal of refrigerator has changed during ongoing production. The changes can be seen on the refrigerator box fastening on the right hand side. Basically if you can see the fixing screws removal of sink and hob unit is not necessary (image 1). If you can't see them (image 1a). you will need to remove sink and hob unit

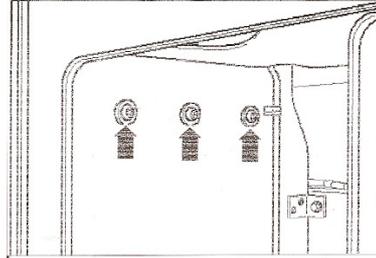


image 1

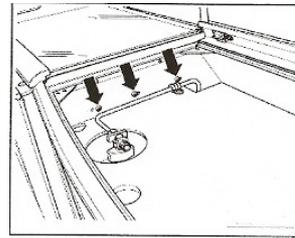


image 1a

Remove the three screws arrowed and remove the cover -1- (image 2)

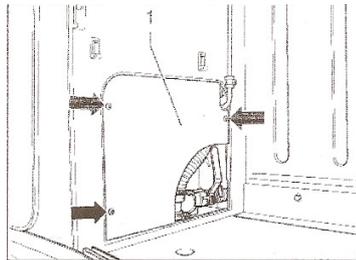


image 2

Remove external power supply socket -1- from onboard supply charger  
Remove the 2 arrowed connectors. (image 3)

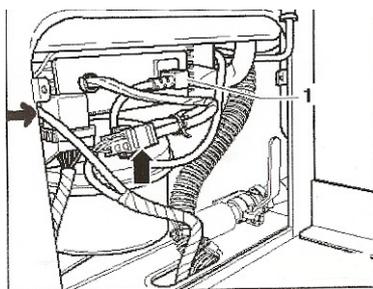


image 3

Remove refrigerator lid

Remove the self tapping screws -1- from the gas filled strut bracket

Remove the hinge screws from the hinges right and left side, be careful not to drop these tiny screws down the rear of unit. (I dropped two and only found one). (image 4). Don't drop lid!!!

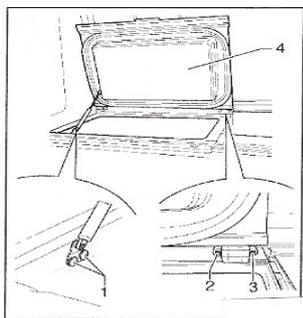


image 4

Remove 3 screws in cupboard and three screws in wardrobe. Image not necessary as this are obvious. These screws are fastened to 2 metal inserts that are attached to the side of refrigerator, with them being fastened in this way the metal brackets tend to pull against the furniture. See picture below. This will make it difficult to lift out refrigerator, so you may need a thin piece of plastic to insert between box and furniture. I used a couple of pallet knives from kitchen. Don't tell wife though!!!



Protect side of wardrobe I used duct tape.

Remove refrigerator box upwards. I used a dent puller on the inside of refrigerator, lifted on that with left hand and right hand pushed under refrigerator, and lifted out unit.

### **Removal of sink and hob unit (if need to)**

Ensure gas supply shut off red valve -1- is closed, remove union nut -2- and disconnect line from shut off valve. (image 5)

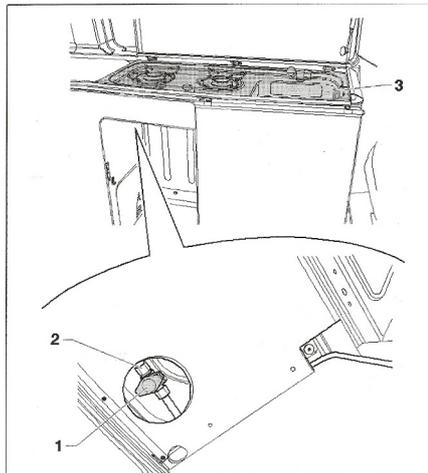


image 5

Remove drawer under the sink  
 Open cover  
 Secure cover to stop it falling  
 Remove securing screw -1- and gas filled strut -2- and stud -3-. (image 6)

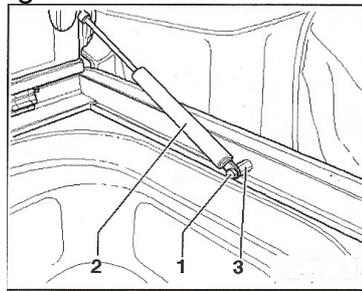


image 6

loosen hose clamp -1- and pull fresh water line -2- off tap. Remove foam tube -3- and disconnect connector (a bit fiddly). Loosen hose clamp -4- and pull waste water line -5- off sink. (image 7)

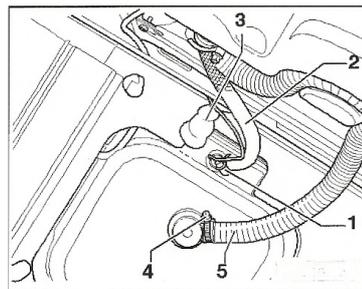


image 7

Remove the four nuts and washers (5.5mm nut spinner with ext.) –arrowed- one located in each corner of sink. (image 8)

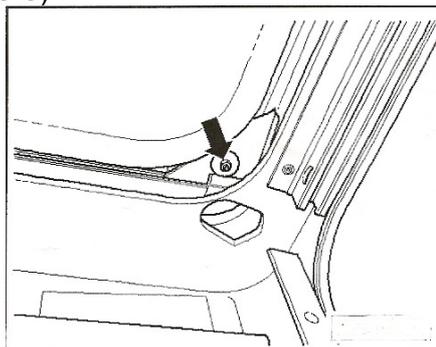


image 8

remove sink and hob unit then go to removal of refrigerator earlier in the document.

### **REPAIRING FAULTY EARTH CONNECTION ON SHUNT**

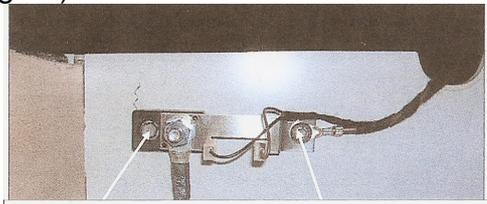
Now down to the nitty gritty

VW give 3 options to rectifying this fault they are:

- 1 Repair by tightening the screw to the left of the shunt in image 9
- 2 Repair by replacing the above screw with a rivet
- 3 Which I think is the best option by making up a new earth lead and fastening with a bolt to the metal chassis of the van. I have used this option.

You can buy from VW van centres a modification kit involving all the necessary parts. I used Listers of Coventry for this, and found them very helpful. They also posted the kit to me.

Remove shunt by disconnecting wires and give it a good clean using emery paper and clean all connections. (Image 9)



A image 9 B

- 1 Remove screws A and B
- 2 Screw in by hand a twin screw N.908.575.02 with the long thread side as far as it goes into the rivet nut position B and tighten
- 3 Place the shunt and one end of the added earth lead on to the thread of the twin screw and screw in together with nut N.011.006.27 tighten the screw nut and hold with the hexagon of the twin screw
- 4 With screw N.010.264 screw in the shunt at position A and tighten
- 5 Prepare the chassis contact area by cleaning back to bare metal, apply some contact grease G.052.119.A1 on to the contact area
- 6 With a toothed lock washer, a washer N.011.655.5 and a screw 3B0.857.799 fasten the other end of the earth lead at the screw point in the area of the wheel arch (image 10) On the side of the chassis use a toothed lock washer, then earth lead, then washer and screw. I think I had to use a 17mm socket for the screw. Then tighten it up as tight as possible.

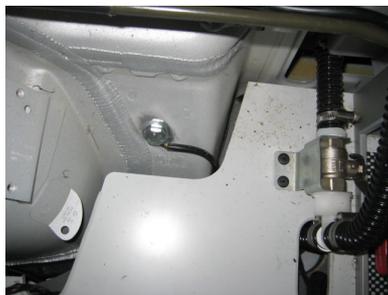


image 10

Refit refrigerator and sink unit in reverse order.

### **TEST GAS FOR LEAKS IF WAS DISCONNECTED**