**Renault dashboard kit fitting instructions updated 08/09/2013**

**contents**

**1/switching transistor--- location(1)**

**2/smoothing capacitors- locations (2+3)**

**3/ fuse----------------------- location (4)**

**4/ control ic ----------------location (5)**

**A little bit of Background**

**the Johnson controls (made for Renault) panel suffers from breakdown of the solder joints around the 4 areas enclosed in red this is due to (a\vibration b\heating and cooling of the panel and c\breakdown of the capacitors(2+3)).**

**Eventually any one of the solder joints can lose contact resulting in loss of important voltages from the ic(5) which controls the switching transistor(1), the transistor then switches fully on (this causes the display to go off) the transistor then overheats, and the capacitors become overstressed.**

 **this all happens briefly in the early stages (a tap on the display often bringing it to back on) however everytime it occurs the components become more damaged and change slightly in value this causes the circuit to become more and more unstable and the fault to happen more often, eventually two things happen the fuse will blow and/or the memory ic becomes corrupt.**

**if the memory ic has become corrupt it will need to be reprogrammed by an auto electrician or dealer this would also apply to a newly purchased display from the dealer, consider that on a brand new display the memory will be blank and the dealer will program certain aspects such as manual or automatic /mph or kph / abs etc .**

**nb the display will still be usable and may even pass the mot but functions may be wrongly displayed**

**ie mph/ kph/ door open/check abs/etc**

**The repair**

**1/remove the display from the car disassemble it removing the torx screws and plastic covers until you are left with the glass display and pcb to which it is soldered, if you look at the glass displays bottom edge you will see that it is soldered at many points along the bottom edge of the pcb whereas the top edge is soldered at only three points, using flux and desoldering braid or a solder sucker remove the solder from only the top edge pins**

**2/once the joints are cleared of solder you can flex the top edge of the display away from the pcb (gently) revealing the pcb and faulty components beneath**

 **3/In order to create an effective repair to the display you must replace the solder at all of the joints within the red boxes removing the old solder with good quality desoldering wick and flux (available from maplin)**

 **clean the pcb and add new solder to each joint. It is important to be aware that failure to carry out this procedure will result in premature failure of the new parts**

**4/Once the resoldering has been carried out install the components from the kit, again use the desolder wick and flux. (note) in order to remove the transistor(1) it will be necessary to use a hot air desoldering gun or a minimum 60w iron as the metal tab is soldered to a groundplane which requires a lot of heat to desolder, when fitting the control ic(5) it must be fitted in the same orientation as the old ic the ic has a sloped edge which can be seen under a magnifier if you are unsure then take a note of the orientation of the writing on the old chip and make sure the new chip is fitted in the same orientation!!**

**Be carefull when fitting the control chip(5) not to bridge any two pins as this will cause the transistor to switch either full on or full off when the components have been refitted carefully resolder the glass display back onto the pcb refit the covers and reattach it to the vehicle**

**If the microprocessor needs to be reprogrammed any of the following may be present on the dash**

**(Wrong mileage) (auto gearbox) (airbag error) (check brakes) these and others will be corrected by reprograming**

