

Race Diagnostics Ltd

# LiquidLEON Kit Assembly Manual

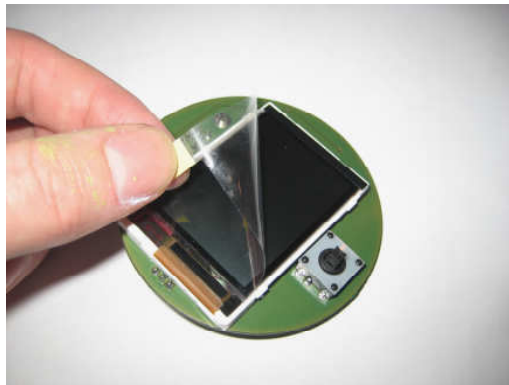
## Required components

The liquidLEON kit contains the following items:

One Aluminium or Black Aluminium facia.

One liquidLEON pcb

See pictures below.



## **Tools and components required to complete the assembly (not included in the kit).**

Hot glue or acid free silicone gun.

Take care to use a suitable glue for the climate you will use the unit in.

Hot melt glue has the advantage of being reversible if is desired to change the fascia or/lcd module etc. and is fast to set.

Silicone may have a wider temperature durability but take a long time to set.

A 2 part epoxy glue is not recommended as repairs will be virtually impossible.

### **WARRANTY NOTICE**

**USE OF ANY GLUE OTHER THAN HOT MELT GLUE OR ACID FREE SILICONE WILL INVALIDATE YOUR WARRANTY DUE TO THE DIFFICULTY TO DISMANTLE THE UNIT.**

Masking tape.

Dermel type tool.

Hack saw.

Leon Mk2 air vent, disassembled.

## **WARNING – ESD PRECAUTIONS MUST BE USED DURING THE KIT ASSEMBLY**

The liquidLEON PCB must be handled very carefully as it can easily be damaged by static electricity discharges.

Do not remove the PCB from its protective ESD bag. Before handling the PCB be sure to ensure that both yourself and the tools you plan to use are fully discharged. For example by touching an earthed item within your planned work area.

### **Kit conditions of sale:**

Before assembling the liquidLEON kit, the purchaser must first test the pcb.

- 1) Keeping the PCB in the protective anti static bag, take it and the OBD2 cable to your TT.
- 2) Remove the pcb from the antistatic bag, holding it only by its edges and plug in the 9 pin OBD2 cable to the pcb.
- 3) With the engine off, plug in the other end of the OBD2 cable to the OBD2 diagnostics port.
- 4) Turn on the ignition and start the engine. The liquidLEON should start to fully function.
- 5) Unplug the liquidLEON and replace in the antistatic bag.

If there is any problem at this stage, then return the PCB to Race diagnostics in its original packaging for a replacement.

If a problem is reported after the KIT has been assembled there will be a minimum £100+postage and packing fee to pay for a rework of the unit.

If you are not confident of your abilities to assemble the kit, then either purchase the exchange unit or complete assembled product.

**Please note that assembling the kit using epoxy glue will invalidate your warranty. In addition, if the 10 pin header area on the PCB is obstructed by glue, this will also invalidate your warranty.**

## Assembly instructions

First the fascia needs to be glued into the original air vent front piece.

It is best to use a tiny amount of heat glue to hold it in place and then a light covering of silicone glue.

Note that the fascia must be refitted back to the body of the vent before the silicone glue hardens and that any heat glue must not obstruct reassembly.

**TAKE GREAT CARE TO ENSURE THAT THE ALIGNMENT IS CORRECT.**



Ensure that the PCB is correctly aligned in the disassembled vent, do this by checking to see that the edge of the pcb is parallel to the indentations on the side of the vent.

**TAKE GREAT CARE TO ENSURE THAT THE ALIGNMENT IS CORRECT.**

Glue the PCB in place, I use a combination of heat glue to allow a quick placement and silicon for back up in case of hot temperatures.



Next, remove the protective film from the face of the LCD

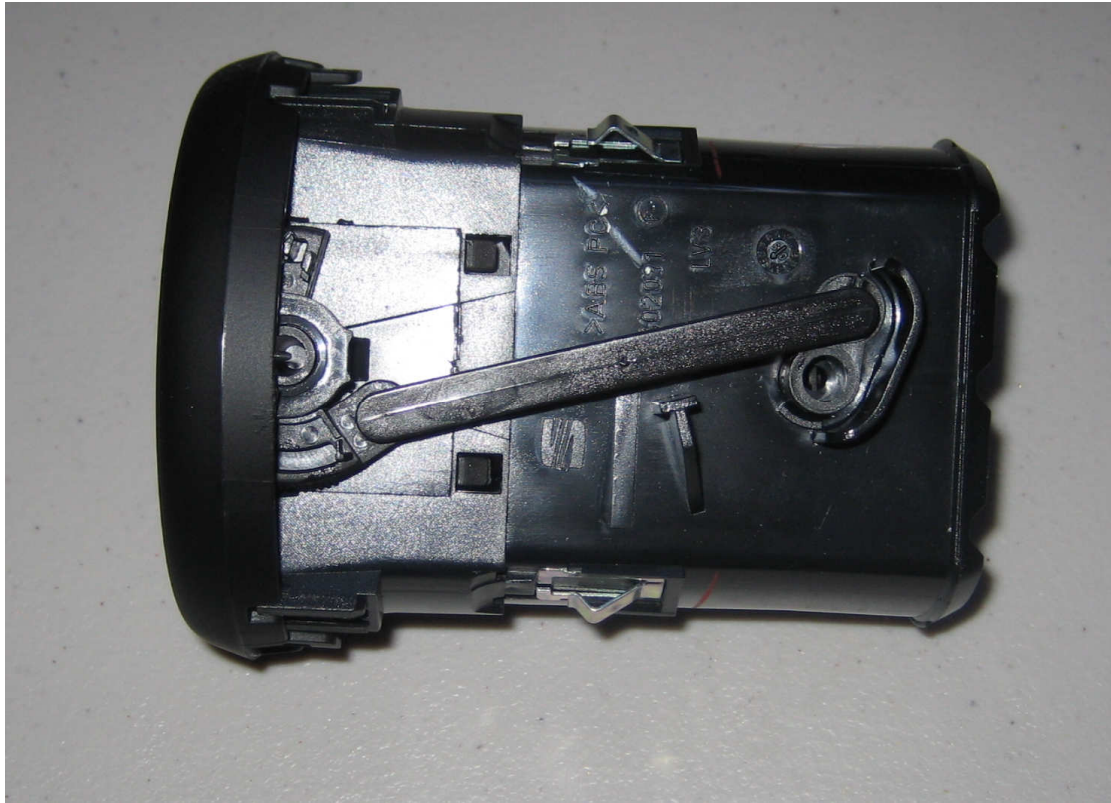
Refit the two parts of the vent back together.



## Appendix 1 – Leon MK2 Air vent disassembly

The air vent needs to be disassembled to allow the liquidLEON PCB to be fitted.

Remove lever from side of vent.



Remove front fascia by gently prizing open the clips below.



Remove the flaps using pliers.





Remove this mechanism.

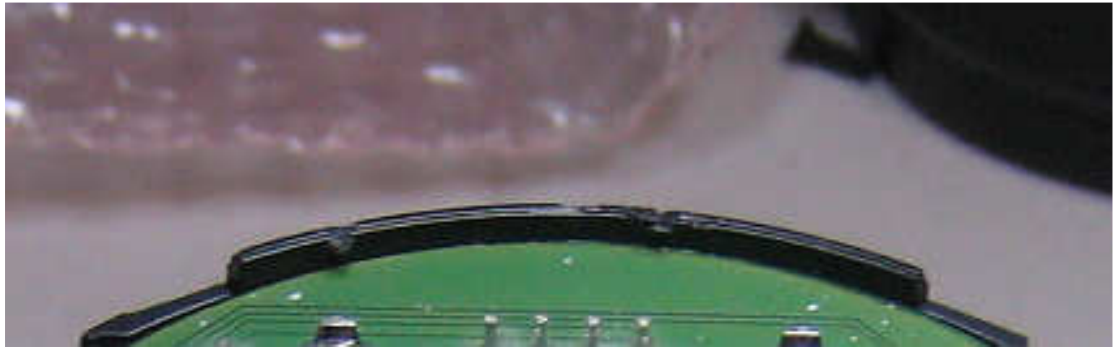


The section below must be cut off with a hack saw.





Also trim off this lip.



Use a dremel type tool to mill out the area shown. This needs to be done on both sides.



This needs to be done so that the lcd screen sits flush with the top edge of the vent.

