

# How to Dismantle a Ford Focus Mk2+Mk2.5 Push Button Switch.

**Author: Captain Haddock**

**Date: © 18th August 2013**

**Location: The Captain's Table (literally).**

## Why ?

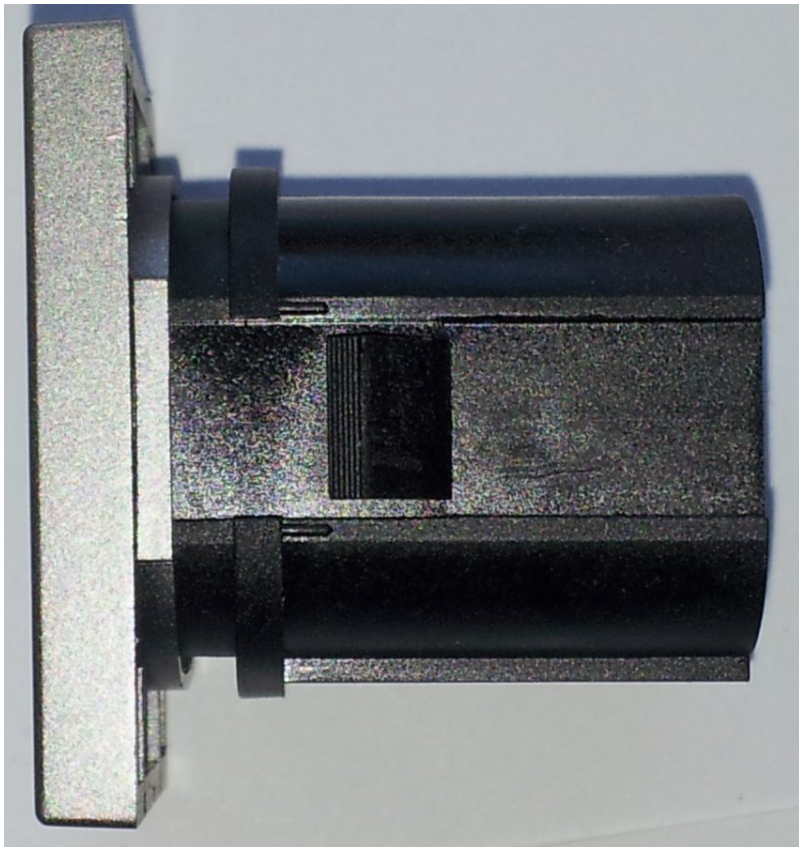
Curiosity in my case, but others may want to change the colour of the LEDs inside the switches. As such I've marked the two LEDs in differing colours so you can distinguish between their functions.

## How ?

Tools required :

1. A clean work surface; so you don't scratch the paint on the face of the switch.
2. Two narrow flat pointy things; I used two Swann Morton No.11 craft knife blades (these are basically un-sterilised scalpel blades).  
**WARNING:**  
If you do use the afore-mentioned blades then be **exceptionally** careful as when new they are **\*\*\*\*dy sharp** and are easily capable of slicing your hand open. They can even cut through your finger nails (don't ask how I know, but it was over 35+ years ago).
3. A cylindrical object about 8mm in diameter with flat ends; I used a Pilot V5 pen.  
It isn't compulsory to be flat each end, but it's far easier when you're trying to push the little circuit board out of the switch body whilst manipulating the two fragile securing latches.
4. A pair of square-edged tweezers (about a 3mm blade width).
5. These next items are only required if you are intent on changing the colour(s) of the internal LEDs :
  - Surface Mount LEDs of your chosen colour(s)
  - Soldering Iron with a small tip (about 3mm)
  - A pair of tweezers (as per item 4)
  - Solder
  - Steady hands
  - Something to keep the circuit board steady (e.g. a large dollop of Blue-Tack).  
I used a small angle bracket when taking the pictures.

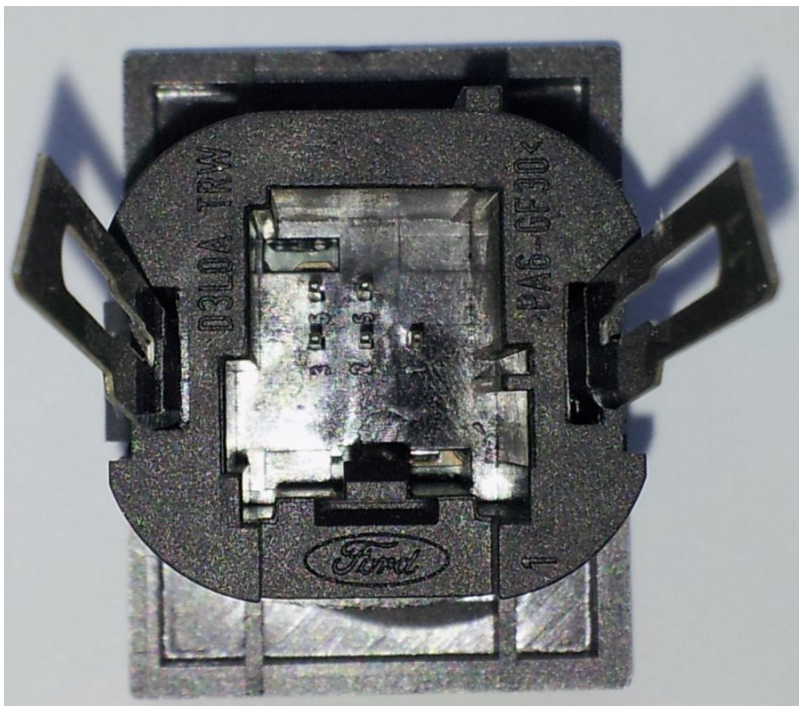
## Method



### Step 1

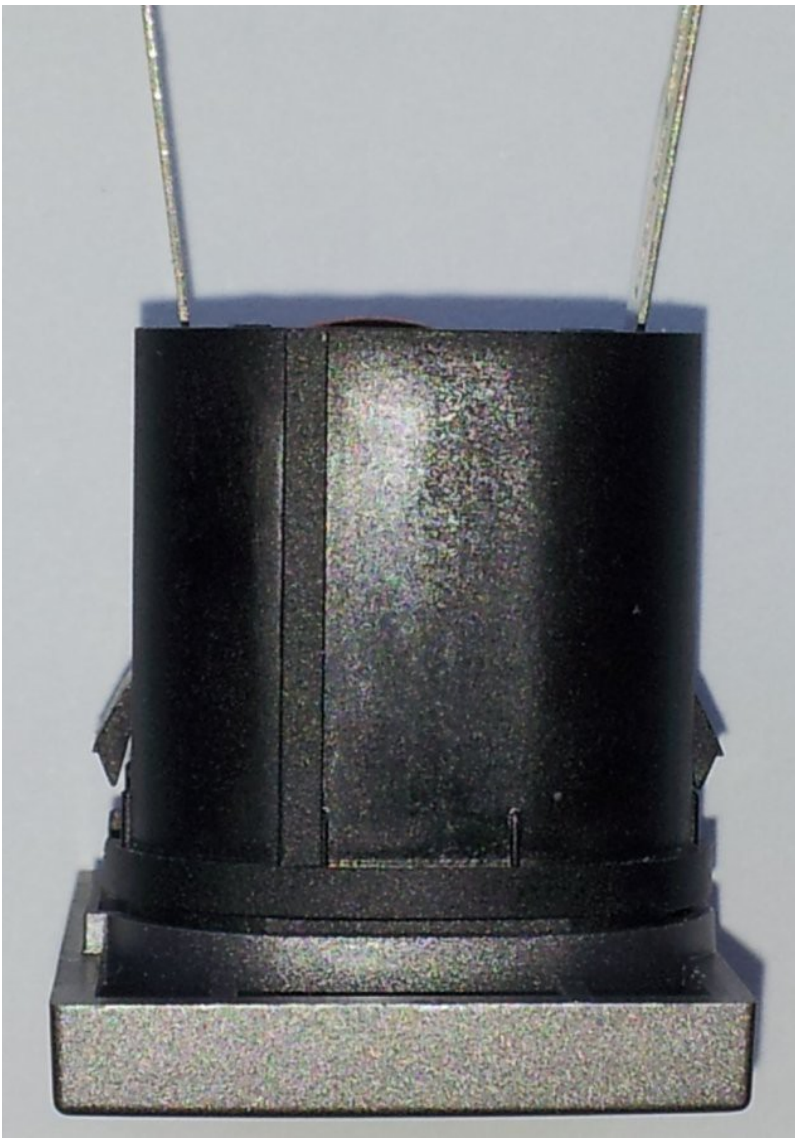
Unbox your switch, place on the table and admire it whilst it's still in one piece and in a working state :-).

Notice the small gap between the switch top (silver) and ring on the switch body (black); it's about 2mm.

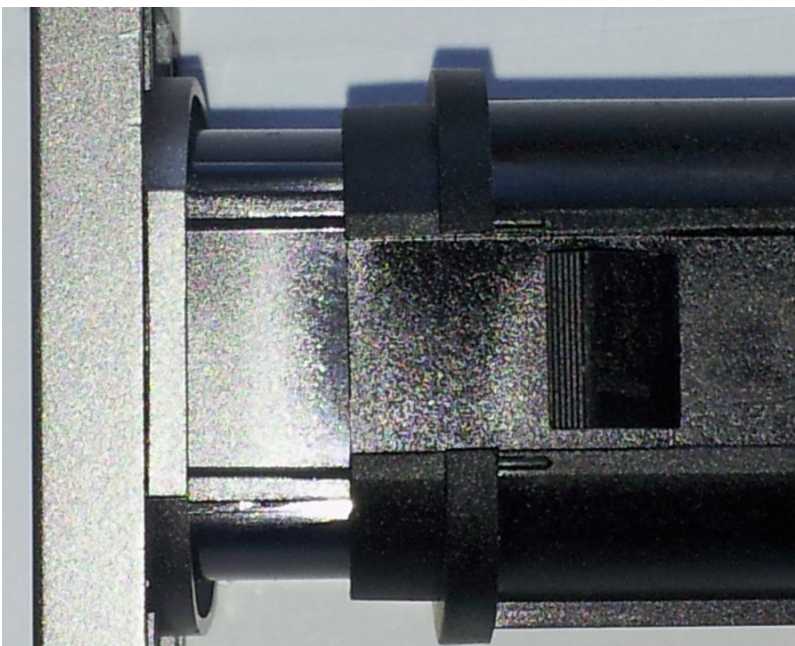


### Step 2

Turn the switch button side down to your **CLEAN** work surface, align it as shown, press down on the switch body (i.e. as though you were trying to 'switch on') and **gently** insert the two pointy objects through the two slots at the rear of the switch at an angle similar to that in the second diagram. Note the second one should be easier to insert than the first.



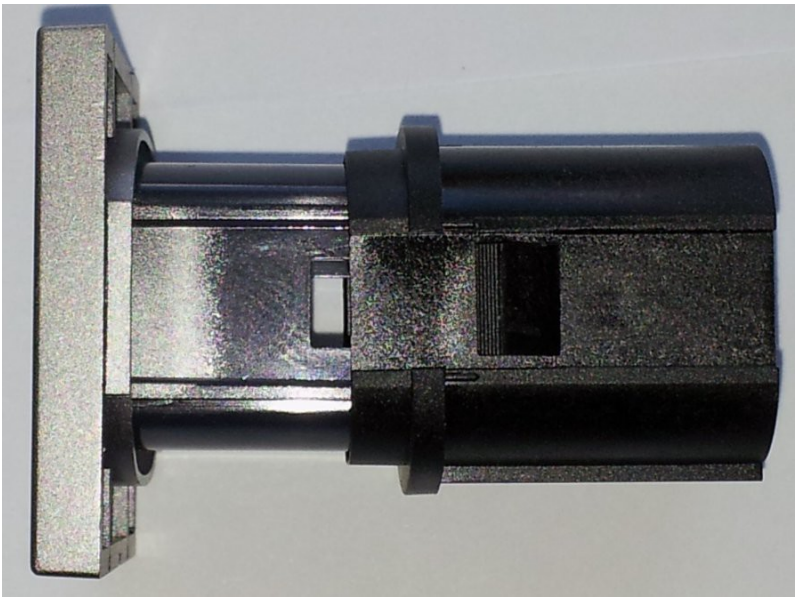
If you've got the insertion correct then the switch top should be in the position shown;  
i.e. **no** gap between the switch top and the switch body and the the two pointy things at about the angles in this picture.



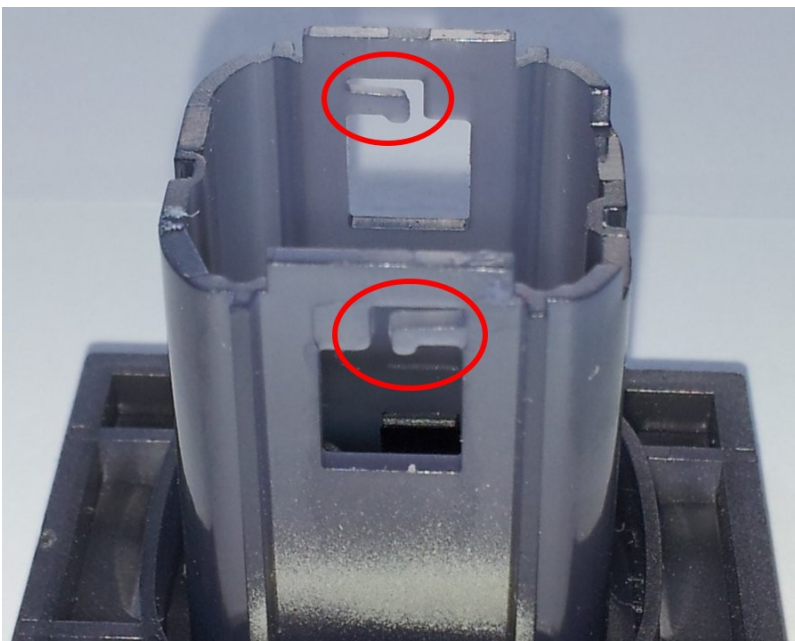
### **Step 3**

Position the switch as shown and ease the switch top out of the body until there's a gap of about 6mm between the switch top and switch body.  
At this point you can ease the two pointy objects out of the back of the switch body being careful to keep the switch top from moving back towards the switch body.

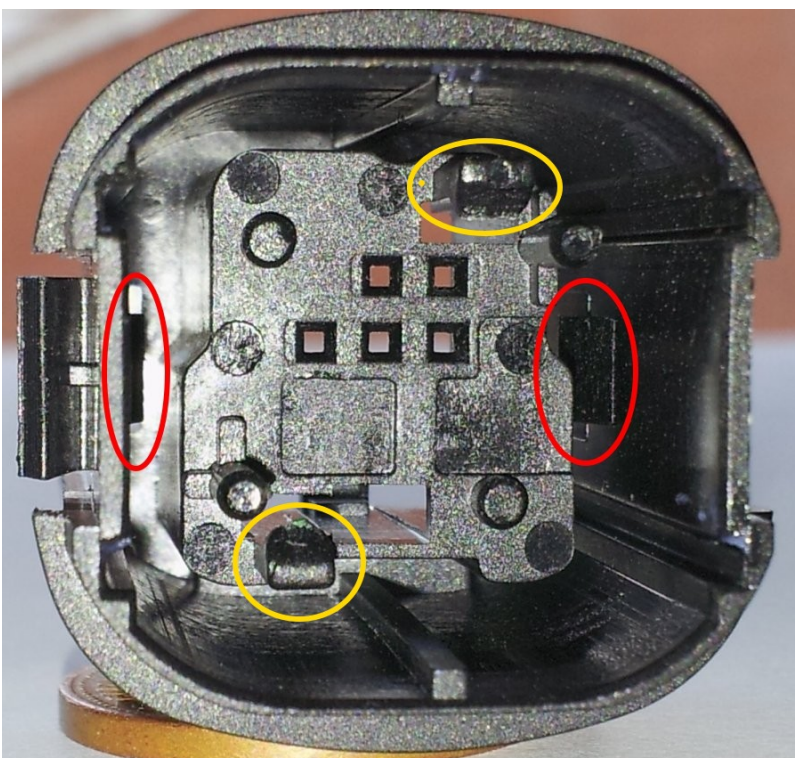




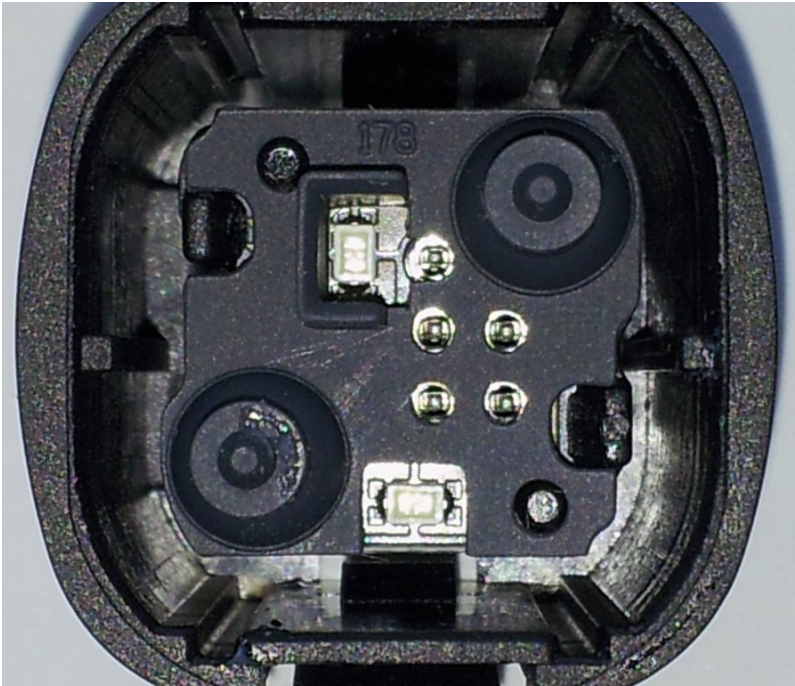
As you continue to ease the switch top out of the switch body you should see two holes appear (one each side of the switch). Keep easing the switch top out of the switch body until it comes free.



The objective is to ease these two delicate hook like catches and the back edge of the switch top ...

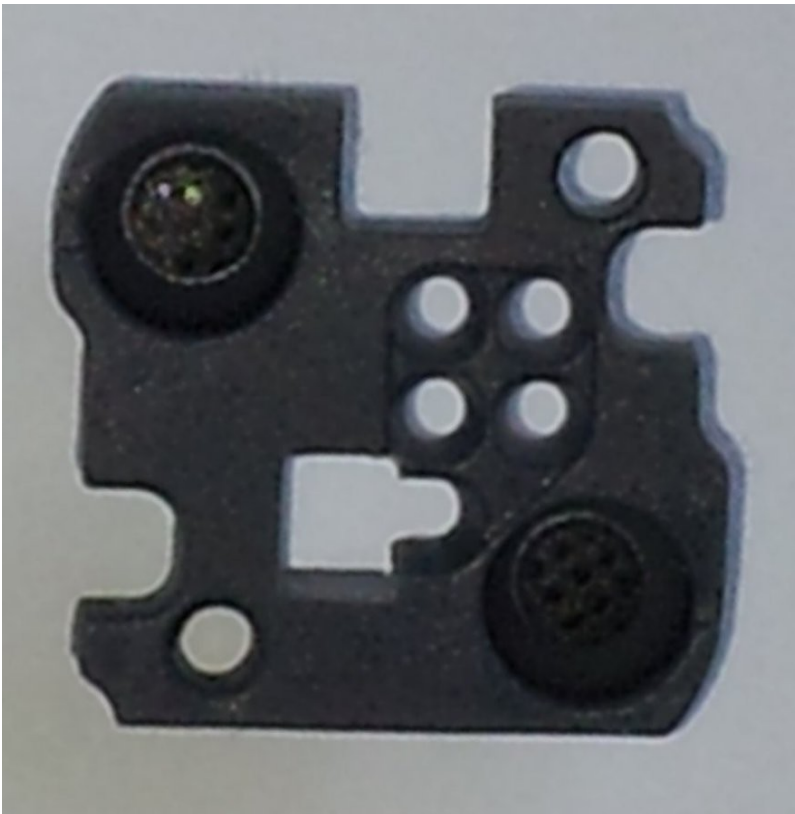


past those two ridges (outlined in RED) on the switch body. The two objects outlined in YELLOW are the securing pegs for the circuit board (see steps 4 and 5).



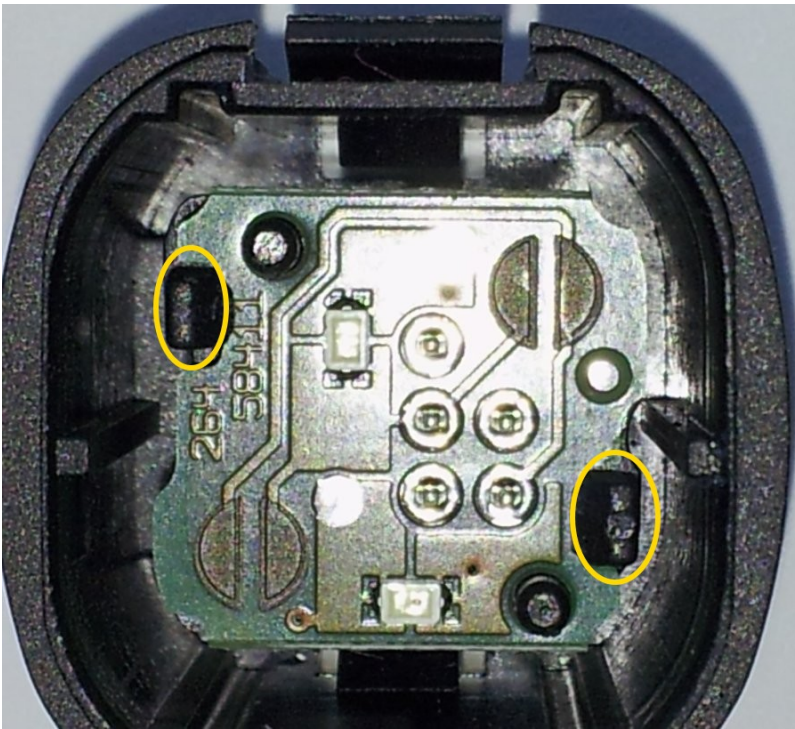
#### **Step 4**

The view inside the switch should now resemble this.

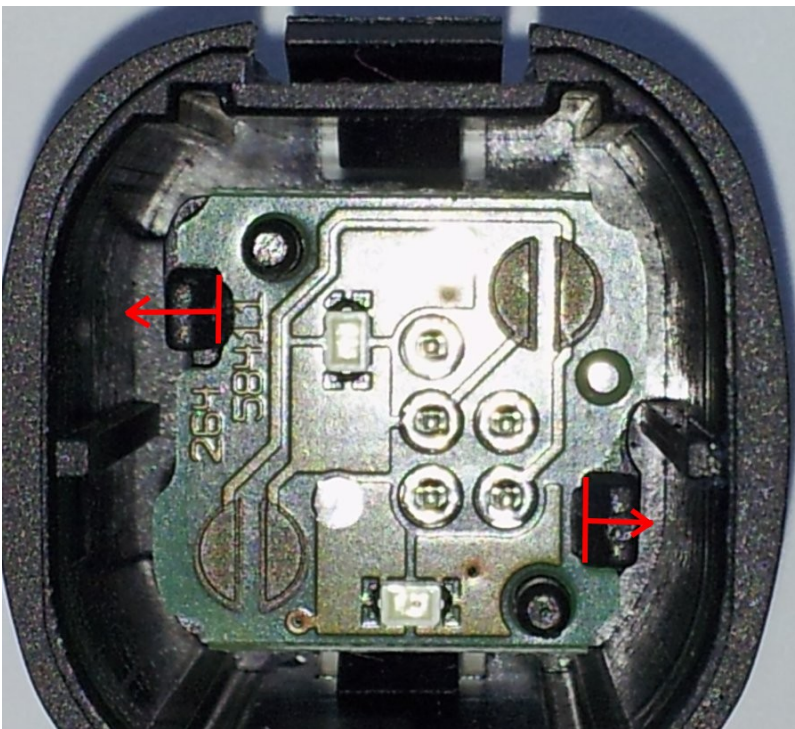


Using the tweezers lift off the rubbery resistive contact pad (circuit board side shown) ...





to expose the circuit board underneath and its securing latches (outlined in YELLOW).

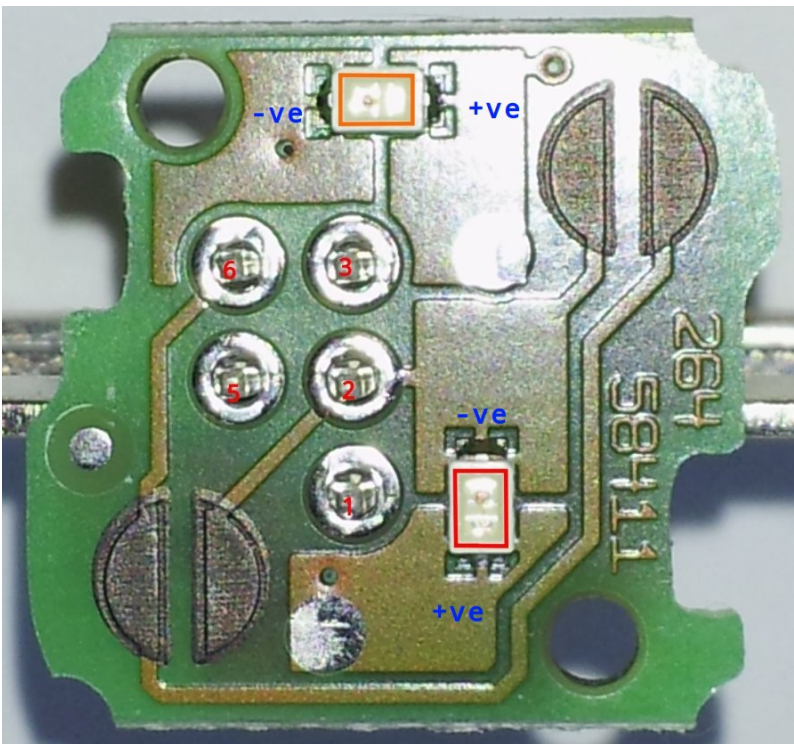


#### **Step 5**

Place the flat face of the cylindrical object against the points of the connectors in the rear of the switch body and apply light pressure. Using your tweezers **gently** push the two black latches one at a time in the direction of the **RED** arrows until each of the circuit board's edges is released.

Do **NOT** apply a lot of pressure otherwise you will break the two black latches (see the last picture of step 4, top right and bottom left outlined in Yellow) and then your switch is broken.

I suppose you could glue the circuit board to the switch body if you're desperate; although that would be a one-shot deal.

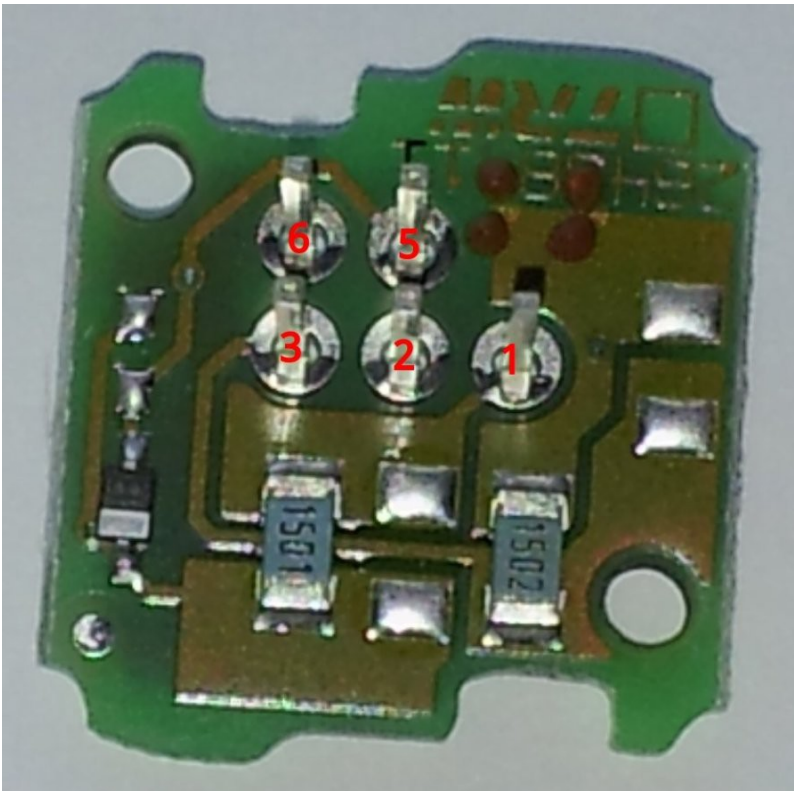


### **Step 6**

Your circuit board should now be free from the switch body and its top side will look something like this.

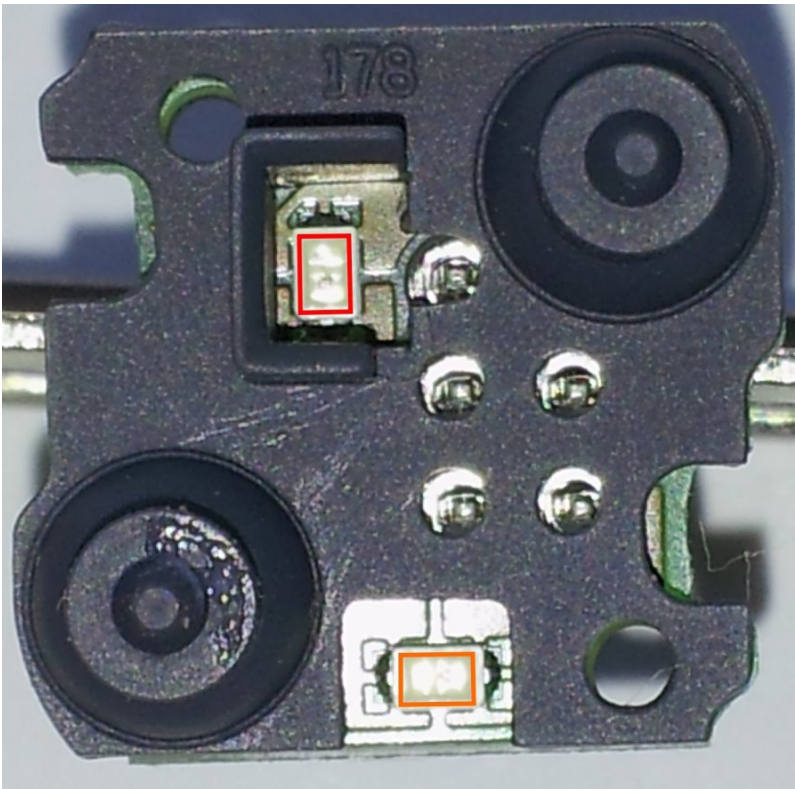
I've outlined the LED that backlights the switch when the sidelights are switched on in **RED (lower)** and the LED that lights up when the switched item (e.g. Heated front screen) is ON in **ORANGE (upper)**.

I've also numbered the switch contact pins (1,2,3,5,6) and shown the +ve and -ve sides of the LEDs.

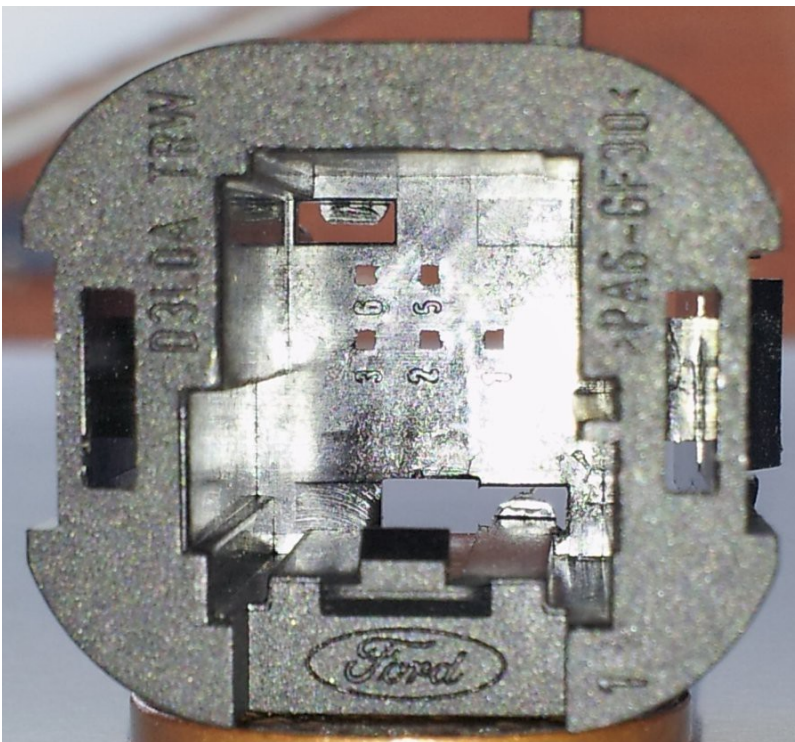


Pin side of the circuit board.





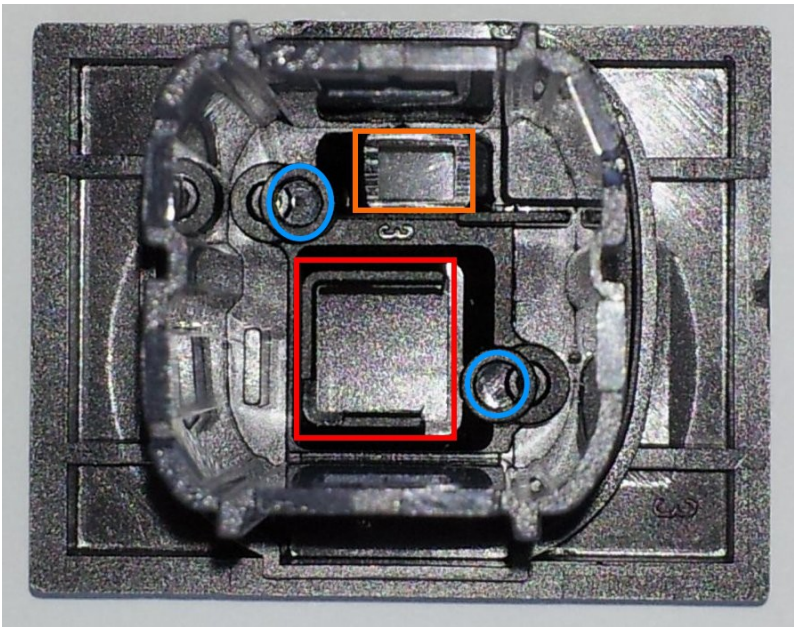
Circuit board with rubber resistive contact pad in place (same outlining of the LEDs as before).



**Rear view of the empty switch body**

In the right hand slot you can see one of the ridges that secure the switch top.





### **Rear view of the switch top**

The **BLUE** circles are where the rubber resistive cones are pressed on.

The **RED** rectangle is the area where the backlight LED (when the sidelights are on) shines through.

The **ORANGE** rectangle is the area where the switched item is active (e.g. Heated front screen).

Finally in the immortal words of a Haynes manual ...

*Re-assembly is the reverse of the disassembly procedure.*