How to replace the AAG CloudWatcher rain sensor

> **NOTE**
> If you notice the *PCB is damaged*, then, instead of replacing the sensor by yourself, the unit should be sent for checking to Lunatico Astronomia.

Very important: the rain sensors supplied since January 2019 are covered with a **white plastic comformal coating** (Plastidip ®)[1].

To ensure its long life it is a must not to damage or remove this coating.

1) Open the CW box, you'll notice a few wires joining the sensors on the cover to the PCB.

2) You'll notice the rain sensor wires, center in the image, with some white protection product:

> *To remove it, either use some solvent or carefully cut along the rim (both inside and outside) with a sharp blade; don't cut the sensor, just the protective cover! Then press firmly from the inside to free the sensor*
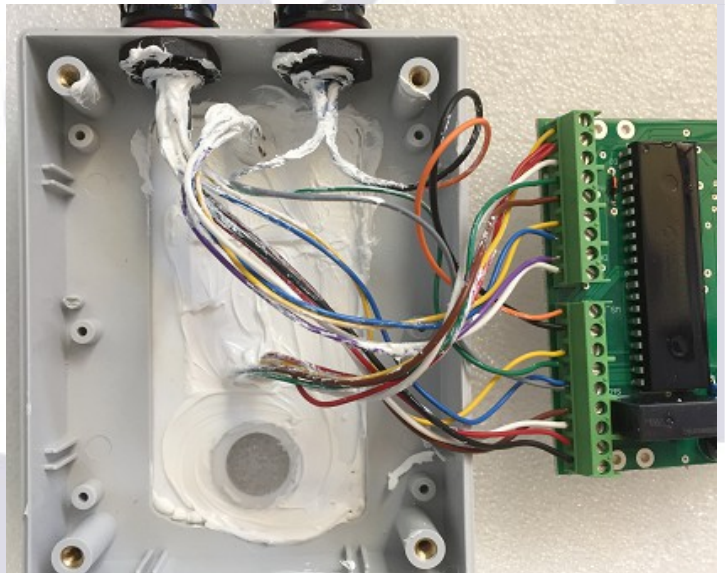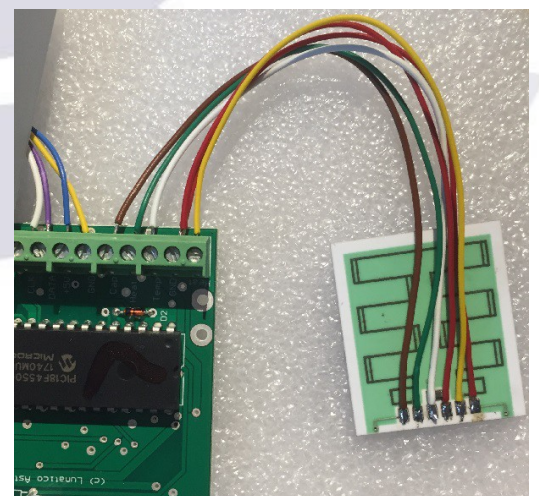

Now depending on the serial number of your CloudWatcher, the procedure varies:

- For units from serial number 1206 (June 2017)

3) Loosen the 5 screw terminals holding the wires from the old rain sensor

4) Take note of the colors of the wires of the new

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1   Check our document How to apply Plastidip to protect the CW rainsensor if you need to apply a new layer.

sensor, and number them 1 to 6, from top to bottom (or bottom to top, it is reversible, 1 to 6 is the same as 6 to 1).

Insert them in the terminals, as shown in the image

- For units up to serial number 1205 (June 2017)

3) Take note of the color of the wires, yours won't look so clean but will be easy enough. The colors or color order may be different from that in this image!:


4) Unsolder or cut (easier) the wires from the old sensor, and solder the new one.
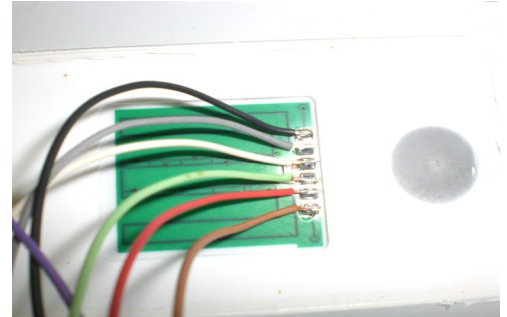
And now in both cases, the last step is the same:

5) Last, place new sensor into place, and apply a sealant to both the inside (generously, covering the whole surface and the solderings) and outside (scarcely here, just to fill the gap but avoiding to touch the sensitive – central – part).

For sealant, we currently use **Plastidip** ® [1], so far the best option we've found. Alternatively, you can use a polyurethane based sealant, and even silicone – just remember to check the sensor from time to time.
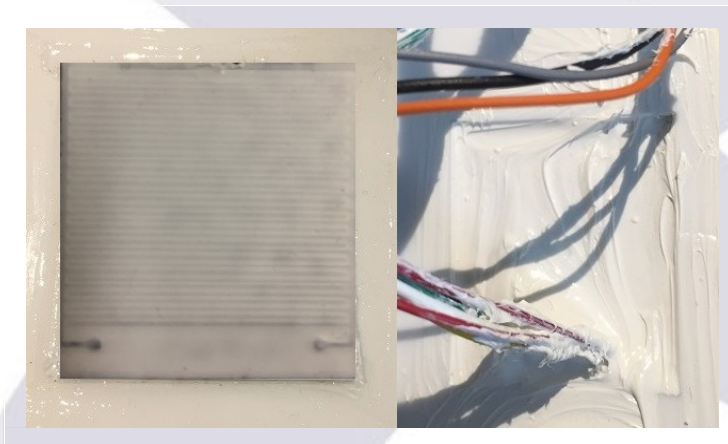
Now, you only need to **calibrate the sensor** according to this instructions.

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1 Check our document How to apply Plastidip to protect the CW rainsensor if you need to apply a new layer.