



# Troubleshooting the AAG CloudWatcher

This is a compendium of the *most common problems* reported during the operation of the [CloudWatcher](#). After more than 1500 units sold, many of them with 10+ years on operation, we've seen them all. Well, most of them.

Many problems are just configuration issues, other however are caused by failure, worn or damaged sensors.

Please check the list and follow the steps outlined before contacting us for further support. If this does not solve the problem.

## Installation / first use problems

### ➔ No communication with the PC

- Make sure the correct serial port is selected (has to be in the range 1 to 16; the port assigned to a USB/Serial adapter can be checked in the "device administrator")
- The program "checking ok" the port just means it can open the port, not that the CloudWatcher is physically attached to it.
- Make sure the CW is getting correct power (see below)

## Problems after a period of working correctly

### ➔ No communication with PC

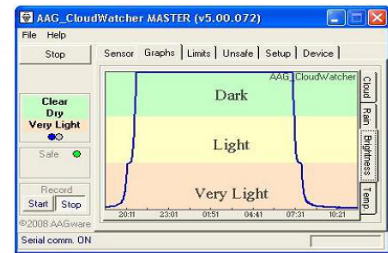
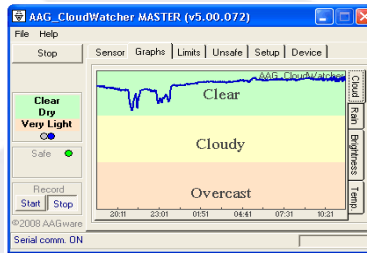
- Check power supply; modern units (from serial number 1206) have a **LED** than

can be seen, from below, in the dark. It should blink slowly.

- Check cabling
- Replace USB/Serial converter if one is in use (they are the source of most communication problems)

### ➔ Rain / Clouds not detected

- If the graphs for rain and clouds behave correctly (going up and down following the real conditions) then most likely it is just a configuration problem.
- For *clouds*, please check:
  - <http://lunatico.es/aagcw/enhelp/scr/Operational%20Aspects/25-TunningParameters.htm>
  - <http://lunatico.es/aagcw/enhelp/scr/Operational%20Aspects/23-TemperatureFactor-.htm>
- For *rain sensor*, please read:
  - <http://www.lunatico.es/docs/RainSensorCalibration.pdf>



### ➔ Rain sensor reads 0

- This usually means a failure of the sensor, but can be also caused by *dirt on its surface*
- Visually check (and clean if needed) the rain sensor
- Replace the Rain sensor if not fixed

*The rain sensor has a limited life, several years on average, but depending on the harshness of the conditions, specially the UV radiation.*



### ➔ Wrong IR (and possibly ambient) temperature readings



- Check the IR temperature offset in the configuration
- Visually inspect the IR sensor for something covering its small glass window
- Replace the IR sensor

➔ **Very high / weird humidity readings (for units with the option external RH sensor)**

- [Update to the latest firmware](#) (at least v.5.8)
- Replace the RH sensor

➔ **Wrong readings in general, loss of communication, strange behavior**

- Check the constants ( Windows: device tab, constants section; Solo: check the [\\aagsolo\tmp\CWConstants.txt](#) file, a few minutes after a reboot ); the values should be:
  - Zener voltage: between 2.4 and 3.1 volts, typically (in the Solo file 2.5V will appear as 250, and so on)
  - LDR max resistance: 2000
  - Pull-up res: 56
  - Rain beta factor: 3450
  - Rain resistance at 25°: 1
  - Rain pull-up res: 1

If the constants are wrong, [please update to latest firmware version](#) (7.51 or more recent), the constants are hardwired in them.

➔ **Unsafe being reported while all values are within limits**

- 100% of the times this is a consequence of either:
  - The “Delay after unsafe” setting, or,
  - Values that sporadically close the boundary safe/unsafe but do not make to the graph (composed of discrete samples)

If using a Solo, you can check the [\\aagsolo\tmp\debug.log](#) file – you'll see each unsafe triggered when and why.

- *We are adding some logging also to the Windows program, but rest assured, in all cases investigated, the device / software was working correctly.*

➔ **Other problem not covered here**

- Contact us, ideally via the support forum:  
[https://groups.yahoo.com/neo/groups/lunaticoaastro\\_en/info](https://groups.yahoo.com/neo/groups/lunaticoaastro_en/info)
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