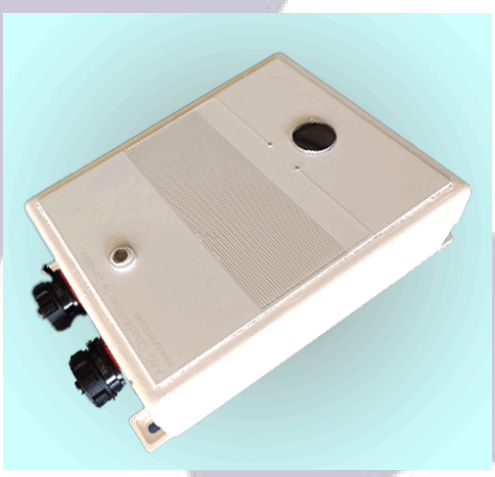
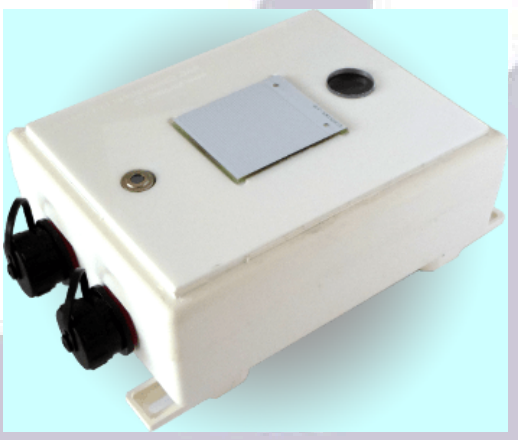
Rain Sensor Calibration

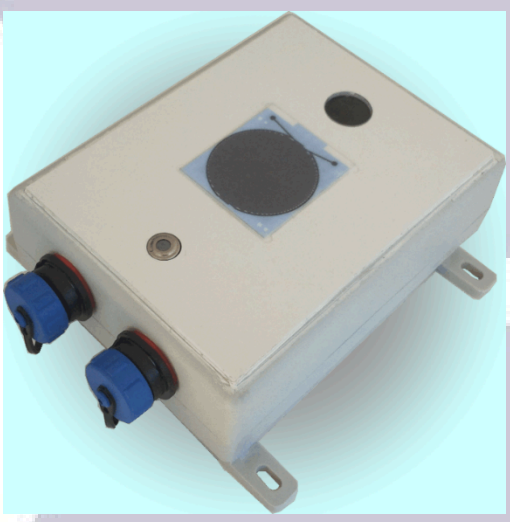
Depending on the age of your CloudWatcher it may be fitted with one of three sensors. Calibration varies according to sensor type and is described on the following pages.



Sensor C



Sensor B

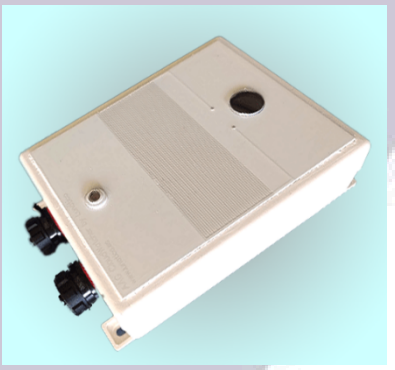


Sensor A

While the three models are similar, they behave slightly differently. There are just three parameters in the software that may need adjusting, the dry/wet/rain limits.

Quick Calibration

Sensor C

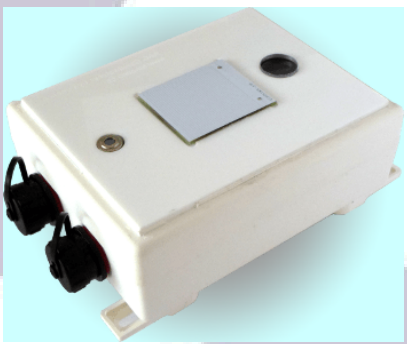


This is the current sensor model.
The default values are:

- Dry – 3200
- Wet – 2800
- Rain – 10

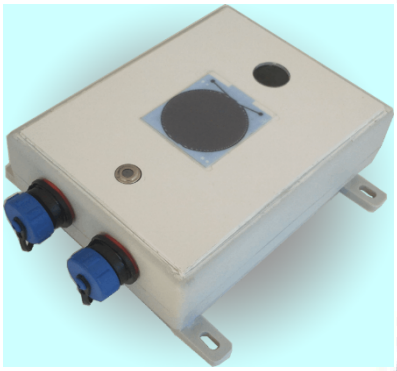
Enter these limits in the CloudWatcher software / Solo.

Sensor B



CloudWatchers with this sensor require calibration.
Begin by taking the highest value observed on a clear sunny day. This is the *dry* value. Set the *wet* limit to 3% to 5% below the dry value. Set the *rain* limit to 20% below the dry limit.

Sensor A



This sensor does not require calibration.
Use the default values:

- Dry – 2000
- Wet – 1700
- Rain – 400

No further calibration is normally required.

Detailed Calibration

For the most accurate calibration, place your CloudWatcher over a table, connect the software, and make sure the rain sensor is totally dry – do not touch its surface with your bare fingers.

Now note the rain sensor reading.

With a stick, the tip of your pen, or similar, place a small drop of water on the surface
of the sensor. Wait a few seconds and take note of the new reading. Should be 100 or so lower than the previous one.

Now place 2 or 3 big drops of water, wait a bit, take note again. Now the value should have dropped quite a lot (several hundreds to thousands).

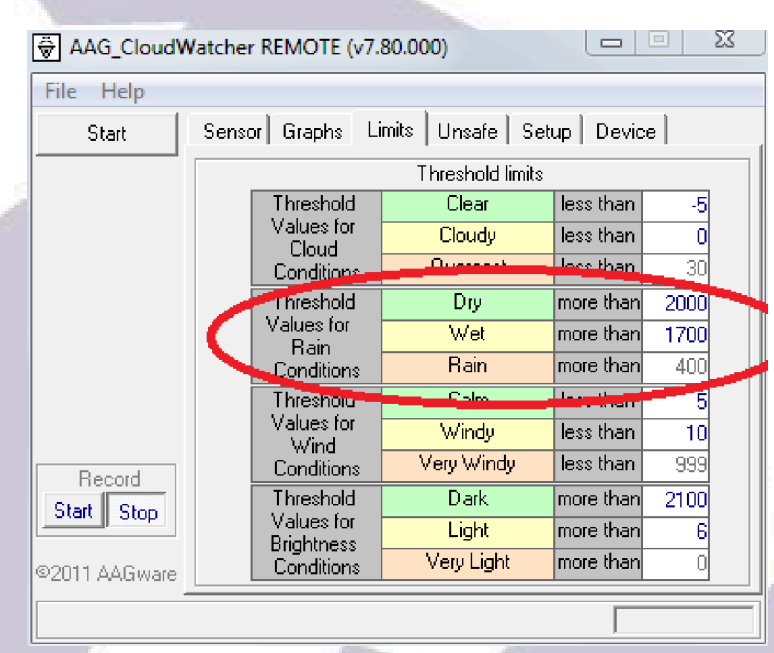
For the example, let's say the values read are:

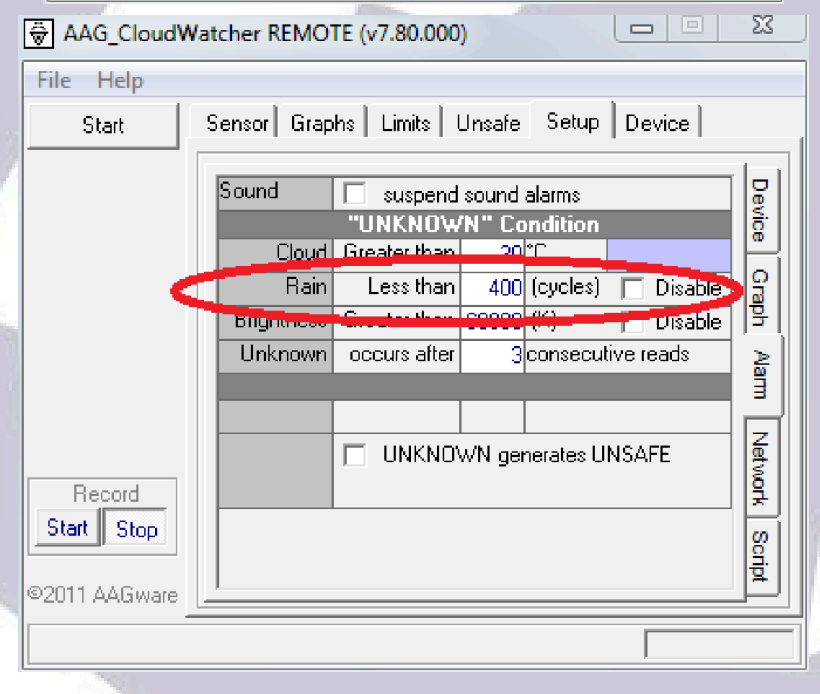
- 4400 for totally dry
- 4200 for a drop of water
- 3000 for several drops over the sensor

... with these, we'll have for the 3 settings:
– in between the drier values, for Dry >, so 4300
– in between the wetter values, for Wet > , so 3800
– 0 for the lowest possible value.

Software Calibration

To configure the software, just check the images. Note that in Windows, the 0 is entered in the Setup tab, Alarm section.


AAG_CloudWatcher REMOTE (v7.80.000)
File Help
Start
Sensor Graphs Limits Unsafe Setup Device
Threshold limits
Threshold Values for Cloud Conditions
Clear less than -5
Cloudy less than 0
Threshold Values for Rain Conditions
Dry more than 2000
Wet more than 1700
Rain more than 400
Threshold Values for Wind Conditions
Windy less than 10
Very Windy less than 999
Threshold Values for Brightness Conditions
Dark more than 2100
Light more than 6
Very Light more than 0
Record
Start Stop
©2011 AAGware


AAG_CloudWatcher REMOTE (v7.80.000)
File Help
Start
Sensor Graphs Limits Unsafe Setup Device
Sound
suspend sound alarms
"UNKNOWN" Condition
Cloud Greater than 20 °C
Rain Less than 400 (cycles) Disable
Unknown occurs after 3 consecutive reads
UNKNOWN generates UNSAFE
Device
Graph
Alarm
Network
Script
Record
Start Stop
©2011 AAGware

Load current config
Load previous config
Load default config
UNITS
°C & Km/h
°F & MPH
Anemometer model:
Model 1 (gray)
Relative humidity sensor
Dry: < 30 %
Normal: < 80 %
Humid: < 100 %
Rain sensor
Dry: > 5000
Wet: > 4800
Rain: >= 0
Max. rain graph: > 5500
Lightness sensor
Dark: > 2100
Light: > 6
Very Light: > 0
Max. light graph: > 59950
Switch & limits
Use switch:
Unknow is unsafe:
Delay after unsafe: 300 s
Clouds: > -12 °C
Rain: < 4800
Light: < 2100
Wind: > 20 Km/h
Humidity: > 81 %