

AAG CloudWatcher

Read me first



Thank you very much for your purchase!

Lunático Astronomía hopes it will fulfil your expectations and help you enjoy astronomy.

WARNING

Please remove the plastic wrap and paper protecting the unit prior to use.

Do not touch the sensors – do not remove the white coating.

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Package Contents

The AAG CloudWatcher package contains the following:

- ☞ Main box
- ☞ A couple of Terminal Blocks
- ☞ Wall mounting kit (mounted in the unit)
- ☞ Read me first
- ☞ Software downloads and more information QR codes

Optional items:

- ☞ Anemometer
- ☞ 10, 7, 5, or 3 meter cable (optional)
- ☞ [SOLO CloudWatcher](#)
- ☞ Humidity sensor (in HS versions)
- ☞ Mounting bracket (two versions: pole and wall)



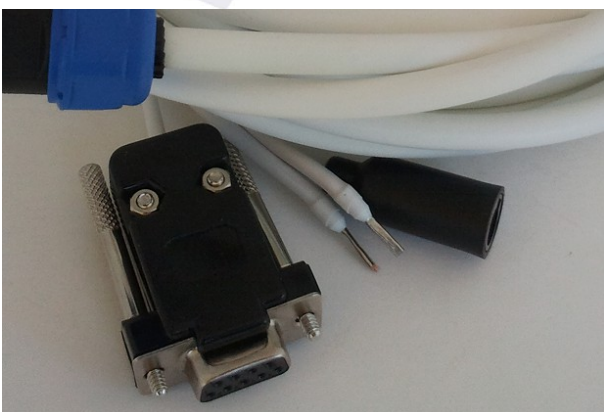
Image of the AAG & Anemometer in the pole mounting bracket.

Software installation

Please download the up-to-date software from [our website](#).. The program includes a simple installation wizard making the process a very simple one. It also incorporates a comprehensive help file.

Connecting the unit

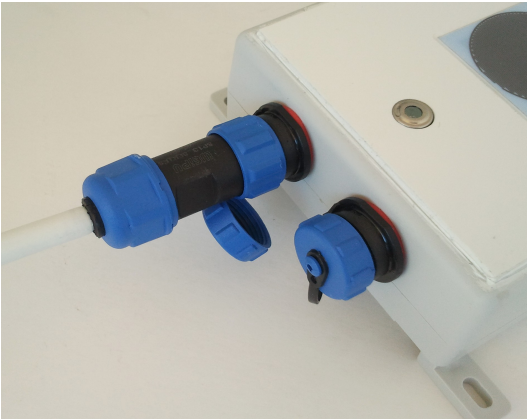
Regarding connections, there are three plugs at the end of the CloudWatcher, as seen in the image:



- A DB9 connector, for the PC's serial port (or the [USB/Serial converter](#))
- A jack plug for powering the unit. (12 or 15 V, less than 1A, any polarity)
- Two terminals (terminal blocks also included) for the relay output (this is of optional use to operate the opening/closing mechanism)

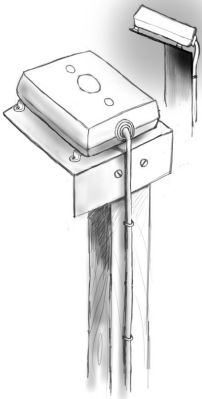
In the unit, we have two special, weather resistant IP68 sockets to connect both the main cable and our optional anemometer.

Please make sure you select the correct one (the one with just 3 male pines is for the anemometer).



ATTENTION! Do not remove the *anemometer cap* unless connecting an anemometer!

Physical CloudWatcher installation



To ease *water evacuation*, the device must be installed slightly tilted (10 to 15° is perfect); it is recommended to make the unit point to the zone where clouds more usually come from, thus allowing for an earlier detection.

Between the CloudWatcher lower side and its support, there must be *enough space* so both water and air can freely flow; please use the supplied (and already mounted) washers.¹

Also please note *the cable should be pointing slightly downwards*, as the drawing shows, to allow the drain of any water entering or condensing inside the unit.

A place with a wide sky view and as far as possible from high-radiation areas (such as roofs or concrete flooring) is best to place the unit. If there's no option other than placing the unit over such high-radiation areas, it should be installed high above it to minimize the radiation effects.

ATTENTION!

Avoid touching the sensors with your bare fingers.

Do not apply pressure over the sensors seeing that they are glued to the cover.

Be careful when touching the rain surface because it may be hot. The rain sensor is an active component that is subject to heating. The maximum temperature is limited by software and it depends on the constants chosen by the user.

The sensors are protected by a highly resistant product – **in no case remove it!**

¹ These washers are not needed if using our mounting bracket.

Technical specifications

- ⚙ Power 12 or 15v, current < 1 A
- ⚙ RS232 Serial port
- ⚙ Size: 110*85*37 mm.
- ⚙ 3, 5, 7 or 10m. long weather-proof cable

Calibration

Only the rain sensor needs calibration, and it can be done indoors, in 2 minutes. Simply note, with the software, what's the reading of the sensor being dry (do this after removing the plastic wrap). Then you can set the "dry" setting at approx 5% below that value, and the "rain" one at 15%, for instance:

Dry reading: 4400. Limits, dry > 4200, wet > 3740, rain >= 0.

Cloud detection thresholds are surely in need of adaptation to your particular conditions. Please read [this documentation](#).

Maintenance

The AAG CloudWatcher has been designed to need very low maintenance; nonetheless, with time, dirt (dust or even birds' droppings...) can handicap the quality of the readings from the unit. Cleaning the sensors' surface with soapy water, then clear water to rinse, will restore the unit to full performance (**do not use alcohol!**).

Be careful not to damage the protective coating – please contact us if it gets damaged so we can solve the problem before the actual sensor is impaired.

The two halves (upper and lower) of the box are hold together by pressure and secured by a **screw and knurled nut** arrangement. In case you need to open the box (for sensor replacement reasons), just fully unscrew the nut and gently pry both halves apart.

Follow this procedure to close the box again:

- 1) Hold firmly both halves together, taking care the screw from the lid goes through the hole in the bottom – also exercise care not to touch the sensors.
- 2) gently turn (screw on) the knurled nut until it touches the lower surface
- 3) last apply 1.5 extra turns for a bit of pressure.



Limitations

This device has been carefully manufactured and tested before shipping. Even if its goal is to detect atmospheric conditions, specially the cloudy condition, it must not be the only device to rely upon before exposing valuable equipment to the open. Especially in remote installations, an additional detecting device (such an all-sky camera) is recommended to make 100% sure of the sky conditions.

Never will Lunático Astronomía be liable of any damage derived from the use of this device.

The CloudWatcher software has been calibrated to the weather conditions at Lagoa (south Portugal), so it will maybe need some adjustments to work properly at your place. Please [read our Online help.](#)

Support

Lunático Astronomía is proud of the quality of the support it offers its customers. You can reach us at the our support [forum](#).

Repairs

Please contact us in case of failure or any other problem with your unit. We are committed to *preserving our environment*, and will always find the cheapest and most sustainable solution to extend the life of your CloudWatcher.

The most recent versions of the AAG CloudWatcher include a new system for easier sensor replacement, so the operation can be done even on the field by the user.

www.lunatico.es