

pocketCW

User's manual



Thanks for purchasing this device!

If you haven't done so, install the pocketCW app for your phone,

[iPhone / iPad / iPod](#)
[Android](#)



... check **bluetooth** is on, and launch the app.

You'll see the screen with all the information. If the CloudWatcher is powered on, in a few seconds the information will be filled with all relevant data.

You can set *alarms* on any of the data, and more: just touch the "settings" (gears) icon, all configurable items will begin to "dance", touch one, and you'll see what can be configured. Touching the pocketCW logo launches the general configuration, where the sound can be chosen, vibration, etc.

Mon May 21 2018 - 12:05:44
Alarms ignored for 26 secs Data is 7 secs old

Relative humidity and dew point	24% DP: -4°C	Ambient brightness (in luxes) 57.749
Sky temperature (IR received, minus the ambient temperature)	-3.0°C	Ambient temperature 17.0°C
Battery charge	93%	General configuration
Settings	gear icon	pocketCW logo

pocketCW v.1.0 - Lunático Astronomía

Most things are self explanatory, with just a few exceptions:

- the **dew point alarm** is set in relation to the delta with the *ambient temperature*. We are interested in condensation, avoiding it actually, so the alarm specifies how many degrees higher than dew point is considered safe.
- for **best cloud protection**, we recommend setting the alarm each night, at 15°C / 27°F above that of the clear sky. If the sky is not 100% clear when leaving the equipment working, that number should be reduced.

Let's say we're going to sleep for a while leaving the telescope taking images. The night is nicely clear, with a sky temperature of -10°C / 14°F. We can set the clouds alarm at 5°C / 41°F. This suggestion is however not carved in stone and may be different for your place – just check the sky condition and temperature and in no time you'll find it easy to predict.

Important: in order to provide effective protection, the app must be active at all times. The app will disable the “auto sleep” while running, so you just have to remember to have the pocketCW *screen visible*. Recommended to lower the screen brightness and, for prolonged periods, connect the smartphone to a charger.

Also noteworthy: the app will not fire any alarm unless it has established an initial connection to the pocketCW. Make sure data is received before going to sleep.

About battery and power

The pocketCW can run from its internal battery (will last for almost 2 days when full and new, at normal temperatures) or from a external 12V dc power supply (centre positive). If the external power supply is used, it will also charge the battery.

0.04A (40mA) is more than enough for both charging and operating the device.

Remember cold temperatures shorten battery life.

Android location

For [Google reasons](#), using Bluetooth LE requires the *location permission*. Our app will not use that information, not even request it, at all.

Some technical notes:

- Range of operation: that depends on the *smartphone model*, and of course obstacles. We've tested with an iPhone, and received data at more than 20m. (no obstacles). With a low cost chinese android phone, 15m. was the farthest we could get.
- Bluetooth: this device implements [Bluetooth Low Energy \(BLE\)](#) - which is very different to the old, plain Bluetooth (even if the name is the same). Not all Android phones with a suitable Android version (4.3+) have BLE support, even if most relatively modern phones do. Please check your phone specifications. BLE is also called Bluetooth Smart, or Bluetooth ULP (ultra low power). BLE is included in Bluetooth since v. 4.0.

So if your smartphone has Bluetooth 4.0 (or better), or Bluetooth ULP, or smart, or just Bluetooth Low Energy, it will communicate with the pocketCW.

Safety warnings:

- use a proper power supply; reverse polarity or higher voltage may, and most likely will, damage your pocketCW
- do not leave the device under the rain or other heavy weather conditions – for a weather resistant check its bigger brother the [AAG CloudWatcher](#)
- use only batteries supplied or recommended by Lunatico Astronomia
- dispose of old batteries properly