

## My altimeter started recording before launch

The Mercury could start recording accidentally if it sees a sudden pressure drop and the accidental launch protection is turned off. A pressure drop could be caused if you are attempting a flight on a very windy or gusty day and have a low launch detect setting. It could also happen if you pull your nose cone off, or payload section open quickly to check on something.

We suggest leaving the launch detect on the default 25 meter setting unless you are expecting to fly below 40–50 meters.

The accidental launch protection (Launch ALP) is described in more detail on this page.

## My flight log was not saved

This should be quite a rare occurrence, however there are some ways that it could happen. We have made a recoverable flash buffer in the Mercury's firmware and the altimeter will try to recover any flight log that did not save correctly the next time you turn it on. Please be patient though as it can take 10 to 45 seconds depending on how large the unsaved flight was.

As the recovery system will recover any unsaved flight logs, to not have one would suggest the altimeter never detected launch. The most likely reasons are:

1. Your rocket did not reach the launch detection altitude you have set.
2. Your altimeter ran out of power before launch.
3. Your altimeter is in a sealed section of your rocket without any holes to sense altitude change.
4. Your rocket reached 60°C inside and the altimeter shut itself down for safety.
5. You forgot to turn the Mercury on (it does happen!).
6. You have connected a USB lead to the Mercury in your rocket which is preventing it from entering flight mode.
7. Faulty or damaged hardware.

## I can't see the Mercury's WiFi network to connect to it

If the Mercury is in WiFi mode it will show either a solid slow strobing status LED in blue or green. This is achieved by connecting a power supply USB-C cable to the device and turning it on.

If the LED is **blue** then it is running in Access Point WiFi but is not connected to the internet. If it's **green** then it's running Access Point mode as well as being connected to the internet.

The Mercury only works in 2.4 GHz WiFi mode, so if you can't see its network your device may be set to a mode that doesn't permit 2.4 GHz (such as 5 GHz only). It could also be that the USB cable you've connected is faulty, so power is not being supplied and the Mercury won't enter WiFi mode.

## My Mercury can't find or connect to my internet WiFi

The Mercury only operates in 2.4 GHz mode. The most common reason for not finding your WiFi network is if it's only running in 5 GHz mode. Many mobile hotspots, for example, may need you to tell them to work in 2.4 GHz mode and not just 5 GHz.

## There are large spikes of noise in my altitude data

The pressure sensor used on the Mercury can see spikes in the data if it receives a strong gust of wind or light shining directly into the sensor. Our cases are made from black nylon and prevent this from happening, so it may be that you are operating the Mercury out of its case. If so, you will need to find a way to prevent direct wind gusts or sunlight from hitting the pressure sensor on the battery side of the PCB.

It is also possible that you have turned off or selected low values for the filters in your Mercury's settings. This will result in more noise in your data. The default settings are our suggested starting point if in doubt.

Don't forget that if you install your Mercury in a part of your rocket that is exposed to your ejection charge, it will see a pressure spike when this occurs.

## My tilt angles are wrong

The altimeter must be mounted to your rocket in a chosen orientation to get the correct upwards tilt angle. You can choose the

orientation in the settings that you want to mount your altimeter in. It won't work if your altimeter is loose on a shock cord — you do need to mount the altimeter to use the angles.

You should also ensure you calibrate your sensors to get the most accurate results if you have not done so.

### **How do I know when the battery is fully charged?**

The Mercury has a charging indicator light labelled as “CG” on the front side of the board, just below the power button. When the Mercury is fully charged (around 1 hour from fully empty) this LED will go out.

From hardware revision 2 onwards, the Mercury also has a 5-LED battery bar on the front of the board. This will be on in WiFi mode, and blink every 4 seconds in flight mode with its state.

### **My device ran out of power during flight**

The Mercury offers over 6 hours of battery life from a full charge, so as long as you fully charge your device before you go to fly you should be able to use it all day without trouble.

If your device is running out of charge quickly after a full charge then it's likely you have a faulty or damaged battery.

Replacements can be purchased on our store, or if you're within your warranty period then contact us to arrange testing and replacement.

### **My device blinks purple when connected to the internet**

This is nothing to worry about. The purple blinks indicate when the Mercury is sending a check-in notification to the Altimeter Cloud. If you have a low-latency connection they occur around every 1–2 seconds. On slower connections the device will send check-ins less frequently, around every 4–5 seconds.

### **The USB WiFi configuration tool gets stuck on “Connecting...”**

This will happen if your altimeter is already connected to another USB tool, such as a USB serial monitor. This would prevent the USB WiFi configuration tool from connecting to the device. Close any other tools that may be using the USB connection and try again.

### **My Mercury gets quite warm in WiFi configuration mode**

When WiFi mode starts, the altimeter will consume an average of around 150 mA instead of the usual 5–15 mA. This raises the temperature of the Mercury by 14–18°C. It's completely normal and nothing to worry about.

It's worth letting your device cool for a few minutes when you return to flight mode before flying, for the most accurate data.

If you're in a hot country, take care that the Mercury does not exceed 55°C in WiFi mode as this is our maximum safe operating temperature. If you are seeing temperatures more than 20–25°C above ambient for the board temperature, please contact us to investigate.

### **The firmware update tool or Web USB WiFi configuration tool do not work**

These tools are only certain to work on recent versions of **Google Chrome**, **Microsoft Edge**, or **Opera** web browsers on PCs and laptops. While it's possible the tools will work in some other browsers or on some mobile devices, it's not guaranteed.

If you've been trying in a different browser, please switch to one of the above and try again. If issues persist, contact us for assistance.

### **The charts on the Altimeter Cloud are not loading**

The charts on the Altimeter Cloud run using JavaScript, so it's possible this is turned off or blocked in your browser. You would need to enable JavaScript to resolve the issue.

As an alternative, you can download the chart's CSV data and create your own charts in the software of your choosing.

### **The firmware update tool shows no device to connect to**

The first thing to try is to put the device into boot mode. It should update without this, but sometimes it needs to be done:

Hold down the **BUTTON** (right-hand button) and then tap the power button. This will reboot the Mercury into boot mode, ready for updates.

If that doesn't work, check that your USB cable is not damaged or a type that is power-only and doesn't support data transfer.

If neither of these options help, please contact us so we can assist you.

### **I've connected a USB cable, but the Mercury has not entered WiFi mode**

Please ensure you have turned the device on after connecting the cable. If you were using a serial monitor, the device could have shut down with the status light still on, so it looks on even though it is not.

Check that the USB cable you are using is supplying power. The Mercury needs to see 5V from the USB cable to activate WiFi mode. You may have a bad cable, or you've connected to a device that doesn't output power (some older phones, for example).

### **My altimeter kept recording all the way up to 12,000 samples**

Please check the **Recording stop** setting in your device's configuration. If you have changed this to "Manual: press button" then the recording will only stop when you press the button or it reaches the maximum samples limit in the settings.