

Thank you for buying a FAIRHAVEN MICRO VARIO!

The Fairhaven micro vario is designed for paragliding, hang gliding and paramotor pilots who want to find thermals and other rising air to maximise their flight times, with the minimum of equipment.

It uses the latest, most sensitive digital air pressure sensors which are incredibly small and immune to temperature change and radio interference. At only 15 grams and just over one inch square, it's the world's lightest, smallest and toughest little vario. Small enough to fit in your pocket and forget you have it, so it makes a great back up vario too!

Using you vario

Switches

The **power switch** is adjacent to the USB socket and the vario is switched on by moving it away from the socket as indicated by **<ON** on the front surface. Switch off when not being used.

Sensitivity

Next to the headphone jack is the **sensitivity switch**. 3 settings are provided to suit most requirements while being very quick to change if required. We recommend you start in the middle position. The position towards the jack (1) will smooth out fluctuations due to wind buffeting and the opposite position (3) will give a faster response and is combined with slightly larger thresholds to ensure silencing when there is little or no lift. See table below:

Switch Position	Lift tone sensitivity	Threshold m/s	Damping	Sink tone sensitivity	Threshold m/s
1	Max sensitivity	<0.1	High	High sensitivity	2
2	High sensitivity	<0.1	Medium	Lower sensitivity	3
3	Lower sensitivity	0.3	Low	Dangerous sink warning	4

Damping

Damping (or response time) varies across the 3 switch positions to give a faster response when the thresholds are wider (position 3) and a slower response in position 1 to detect very small rates of climb. Position 2 has an intermediate degree of damping and we recommend this as a starting point.

In use the vario may bleep occasionally with the finer threshold settings and will indicate any transition from sink to lift. On the ground or in buildings, the vario will indicate if wind causes pressure changes around the vario. Once you are flying the vario will tend to silence until lift is detected.

Audio tones

Tones are typical for an audio vario with a modulated "pip-pip" that increases in rate to indicate lift and a lower frequency "buzz-buzz" for sink. Frequency and interrupt rate vary according to rate of climb/descent. The sink indication starts quietly and becomes more noticeable with increasing descent rate. Averaging is typical, at around one second settling time. 3 metres per second of lift corresponds to approximately 3 bleeps per second. Sink tone is a lower tone range which is also interrupted and is continuous beyond 6 m/s.

Headphone/external bleeper socket

As well as having an internal audio sounder or “bleeper” the vario has a socket for an external bleeper that can be worn under the helmet even with open ear types, or inside a headset cup. This is particularly useful to paramotor fliers who use thermals, and even if you fly with a full sized alti-vario, the Fairhaven mini vario will always be easy to hear.

Additionally any type of stereo earbuds can be used, or the vario can be connected to an intercom for tandem or sailplane gliding, to your paramotor headset auxiliary input or as an aid if you have impaired hearing.

You can set the vario to match your headset type and volume preference with a moveable link inside the case, situated behind the power switch. Use the lower settings for headphones and the higher settings for the external piezo bleeper:

Link Position		Volume
1	Near side	Low
2	Middle	Medium
3	Near USB	High

Note:

With a **piezo extension bleeper** use a stereo jack plug and leave the jack's ring unconnected. (Fairhaven can supply this part).

With an **intercom or piezo earpiece**, use a mono jack, this will connect a filter to give a smoother sound.

Mounting

The vario can be mounted on the back of your helmet or inside the helmet's collar, to avoiding line snags. You can also fit it to your flying suit or harness, or it can be panel mounted and we supply 5 adhesive Velcro pads that will stick to most surfaces and can be sewn onto clothing.

Its tiny size makes it ideally suited to fix on your risers, right next to your ear! So we also supply a Velcro wrap for riser mounting and there's a cord provided as a backup, although the Velcro is surprisingly strong!

Battery

The battery is a 100mA re-chargeable Lithium Polymer type that is automatically re-charged when the vario is plugged in to any USB 5 volt supply, such as a computer, phone charger, satnav lead or solar charger and we have included a neat little charger that plugs into your car's cigarette lighter socket.

The vario lights up when charging and a full charge of one hour will supply the vario for up to 7 days of typical use. The charger will switch off automatically and the light will extinguish, but even a short charge is sufficient for most flights.



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