Photo: Gareth Bird

Park it on the ground . . . start it on your back. No ifs, no buts . . .

'It will never happen to me . . .'

PAUL MARTIN GETS REAL ABOUT GROUND STARTING

We've all seen videos on social media of people starting their paramotor with it standing on the ground. These often spark a number of comments or angry emoji responses, but safety in our sport is a serious matter. There have been far too many nasty injuries from ground starting.

If you ever go to a competition, organised event or fly-in, the briefing will always mention that engines must always be started on your back, and that there aren't any exemptions. If you need help someone will always assist you. The rule is there for your, and others' safety. But somehow some pilots think these rules don't apply when they are on their own, or with their mates down at the local field. Accidents won't happen to them.

I've had a number of engines and frames over the years, and some of them haven't been the easiest to start until you get used to the right technique. Modern paramotors are designed to be started on your back without any assistance, but without the correct technique, starting even the most recent machines can be difficult. When I was learning, starting an engine on the ground seemed acceptable, but over the years there have been far too many preventable accidents, and today ground starting is seriously frowned upon.

Technique. The secret to successfully starting your motor on your back is knowing the technique that works for you, the engine and the frame. Different setups will require different techniques, so you may have to experiment until you find what works best. For me (on float bowl carb machines, Polini 250 and 202) the technique that works is this:

Prime the carb until fuel returns back into the tank via the overflow. Then, with the pull start, give it three or four slow pulls to get the fuel into the engine and the piston just over TDC.

Then give it one long, steady pull (*not* like I'm trying to punch someone I don't like) until the flash starter releases (letting the energy in the flash start spring do the work), which will be enough to start the engine.

I've found this technique will work first time, 95% of the time. I never bother with the choke. Other engines may require a different technique, but correct priming is always the key. Work out what's best and works for you.

Another factor can be is the location of the pull start pulley. On most machines it is located around the top of the main chassis above your shoulder. It's best to have this on your dominant side, the one you're normally stronger on. Some older PAP frames have a foot start attachment allowing you to use the stronger muscles in your leg, but this does require being able to balance on one leg or hold onto something.

Whatever your setup, if you're having difficulties starting it on your back. look to see how others have set their machine up. Of course many of these issues go away with electric start, but it still helps to develop a technique that works best and doesn't require long runs of the starter motor. This will flatten your battery if you keep trying.

Safety devices. There are a number of devices now on the market that provide some additional safety, such as Scout Paramotors' Safe-Start and Fly Henry's new PPG meter, which allow you to limit the engine revs for the first second or so on start up. This is great to help prevent accidents where the throttle may be unintentionally or mechanically stuck open on start-up. If the revs exceed a set limit the devices immediately cut the engine. But a safe start device does nothing if you accidently squeeze the throttle after the initial starting sequence.

For clutched machines it is possible to put strap round your propeller to prevent it spinning. However this isn't advisable as it could cause clutch issues, and may not be enough to prevent a full-throttle start. Personally I'd never recommend using a prop retaining strap. Some people have made clamping systems to hold the frame, and although these may prevent the machine from moving, it's not very practical down at the field. And you have the issue of getting the machine on your back and getting strapped in while the engine is running.

It's also not recommended running an engine without a prop, as this allows the engine to rev much higher than designed and can quickly cause damage.

If you really can't find a technique that works to start your machine on your back, get someone who knows what they're doing to assist you in starting your engine until you've worked out what that technique is.

Stay safe and remember, if you can't start your machine on your back, there is no embarrassment in getting someone to help you. It's better than losing a few fingers.