

Miniplane Top 80 Assembly instructions

Congratulations on your purchase of the Miniplane Top 80 Paramotor. We have been making engines and paramotors since 1989 and pride ourselves on creating lightweight, highly reliable machines.

With the correct maintenance regime, the Miniplane will give you many hundreds of hours of trouble free flying!

The paramotor should be built with the assistance of your instructor/dealer. It's important that it is assembled correctly and a **THOUROUGH** pre-flight inspection carried out before **EVERY** flight. All PPG engines create a lot of vibrations through the frame, this can lead to nuts/bolts working loose over time. Per Il Volo and Miniplane UK will not be held liable for any warranty issues caused by lack of pre flight inspection or failing to keep to the recommended [maintenance schedules](#)

Before you start you will need a space large enough to assemble the unit and some tools:



Step 1

Open the box and carefully remove and check the contents, you should have:

- Main chassis and engine
- Foot section
- Exhaust system
- Propeller and covers
- Cooling shroud – may already be fitted
- Bag of connections/oil/etc
- Harness
- Airbox



Step 2

Carefully place the main chassis/engine on a flat surface – the transport box lid is good for this, remove the spring clips in either side of the connection tubes at the base:

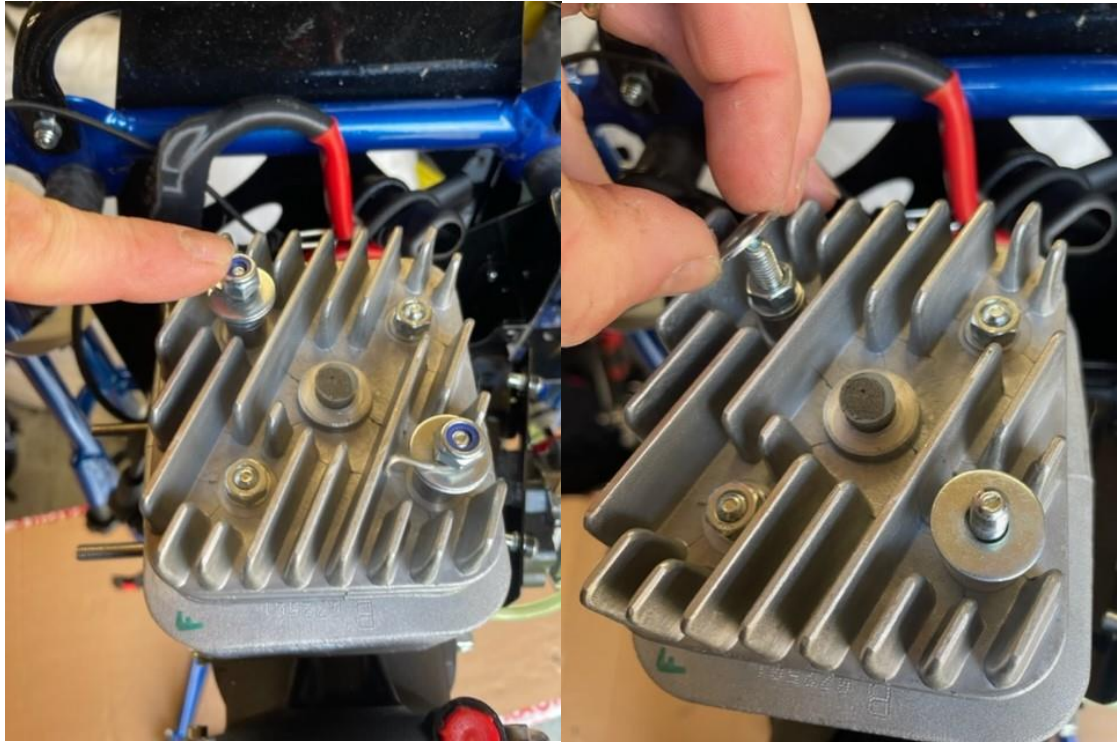


Slide the foot section onto the connection tubes of the main chassis until the holes align and insert the frame clips fully:



Step 3:

Stand the unit up, be careful, until it is fully assembled it can easily fall over. Remove the 2 10mm nuts from the longer cylinder head studs, remove the wire clip and 1 large washer, leave a single large washer on each of the longer studs:



Step 4:

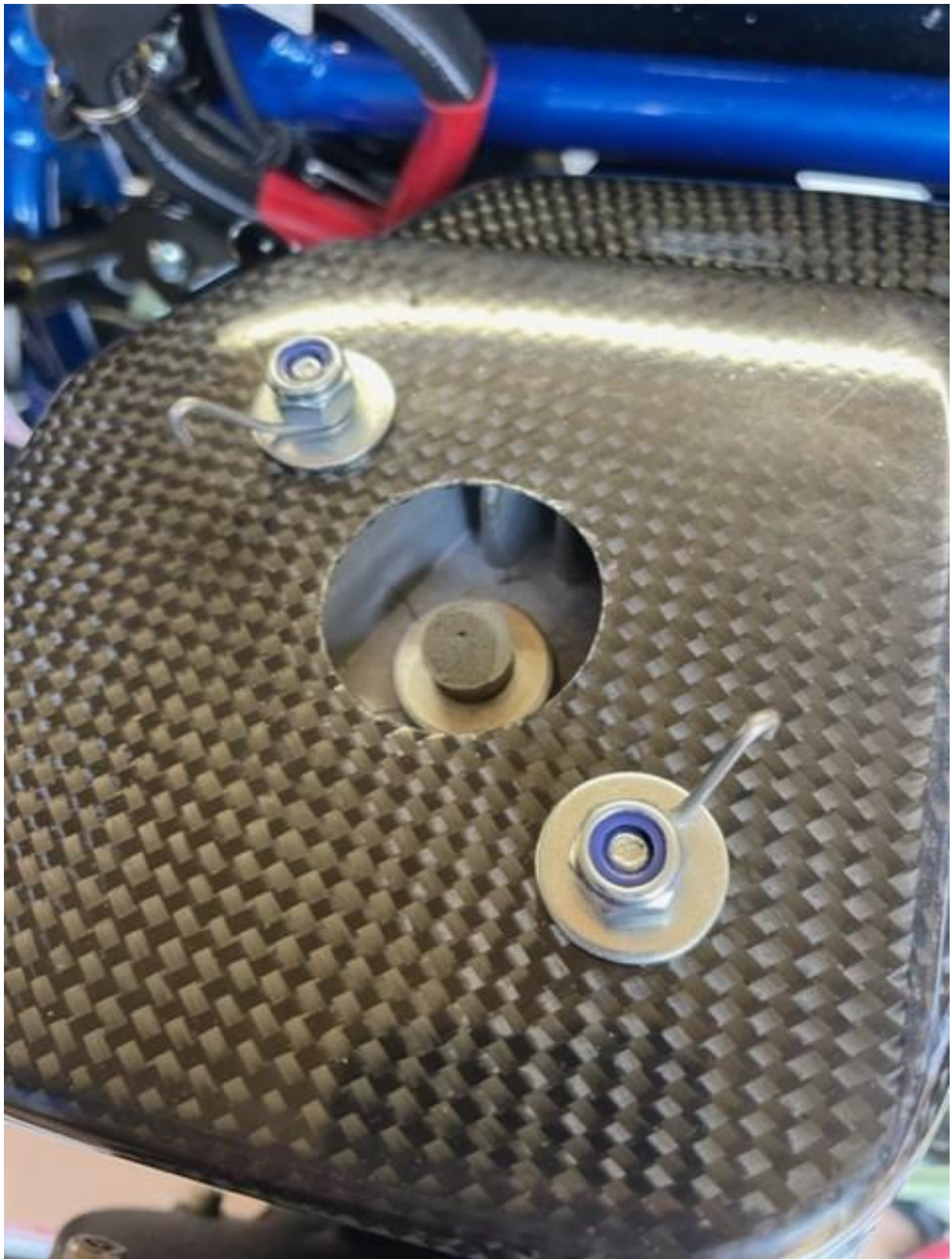
Remove the 2 small bolts and plastic washers that will be used to secure the cooling shroud:



Step 5:

Carefully fit the carbon cooling shroud over the cylinder head, you will need to start by placing it over the exhaust manifold studs and easing it over the cylinder and onto the 2 locating holes, place a large washer, the spring clip and a 10mm nut on each of the protruding cylinder head studs:





Step 6:

Remove the rubber travel bung, fit the spark plug and torque to the [required specs](#). Fit the plug cap and secure with the rubber band. Fit the 2 small bolts/washers to secure the cooling shroud, ensure a drop of threadlock compound is used on these bolts:





Secure the Spark plug lead with the clip and screw:



Step 7:

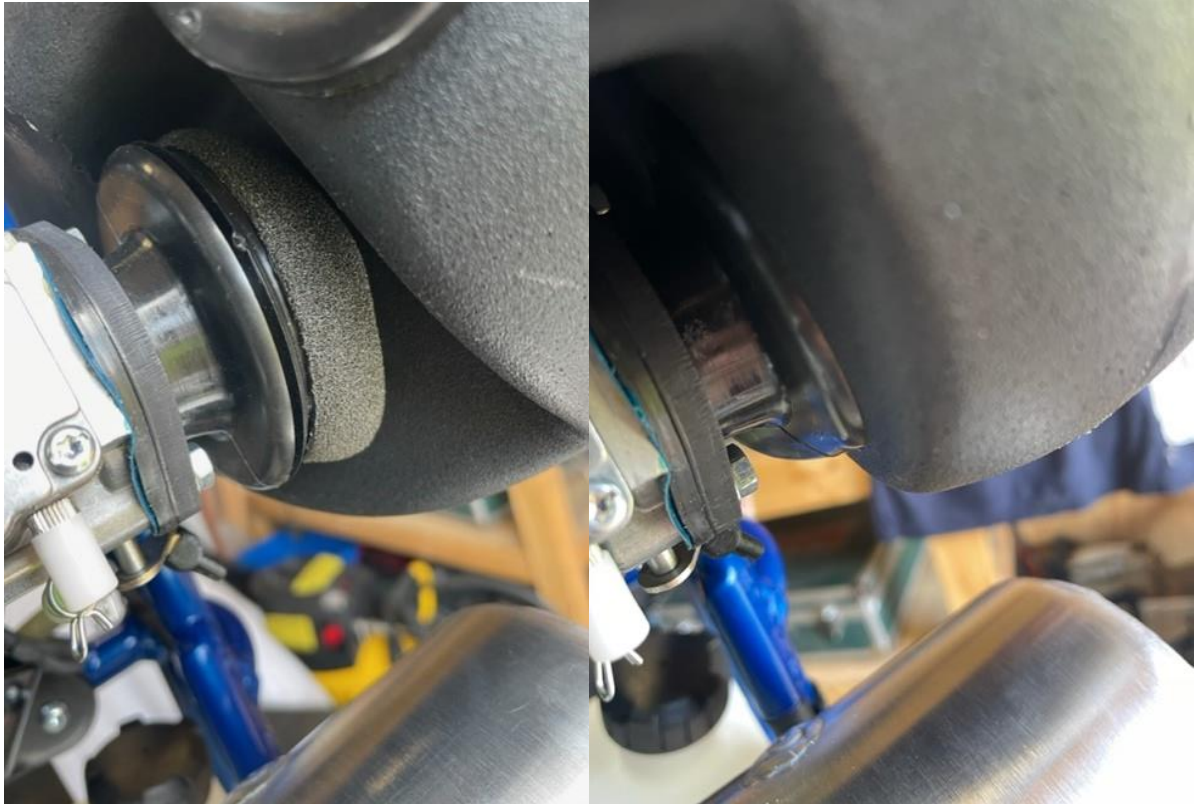
Place the copper exhaust gasket over the studs, fit the exhaust system in place using the supplied button head Allen bolts and exhaust springs/nuts set, use thread lock to secure the bolts. Don't fully tighten the nuts on the cylinder head studs, only tighten until the springs are approx. halfway compressed, you should be able to fit a 0.5mm feeler gauge in between the coils of the spring:





Step 8:

Fit the airbox over the air filter, make sure it houses correctly in the groove. Use the screw and nut to secure through the lower hole on to the frame:



Step 9:

Fit the harness top mount attachment screws through the holes in the top of the frame, don't overtighten the bolts or you will crack the plastic clamps!



Step 10:

Screw the swinging arms into the frame, tighten the bolt until the arm swings up and down but there is no lateral movement. Use the nyloc nut supplied as extra security:





Attach the Lower straps to the buckles:



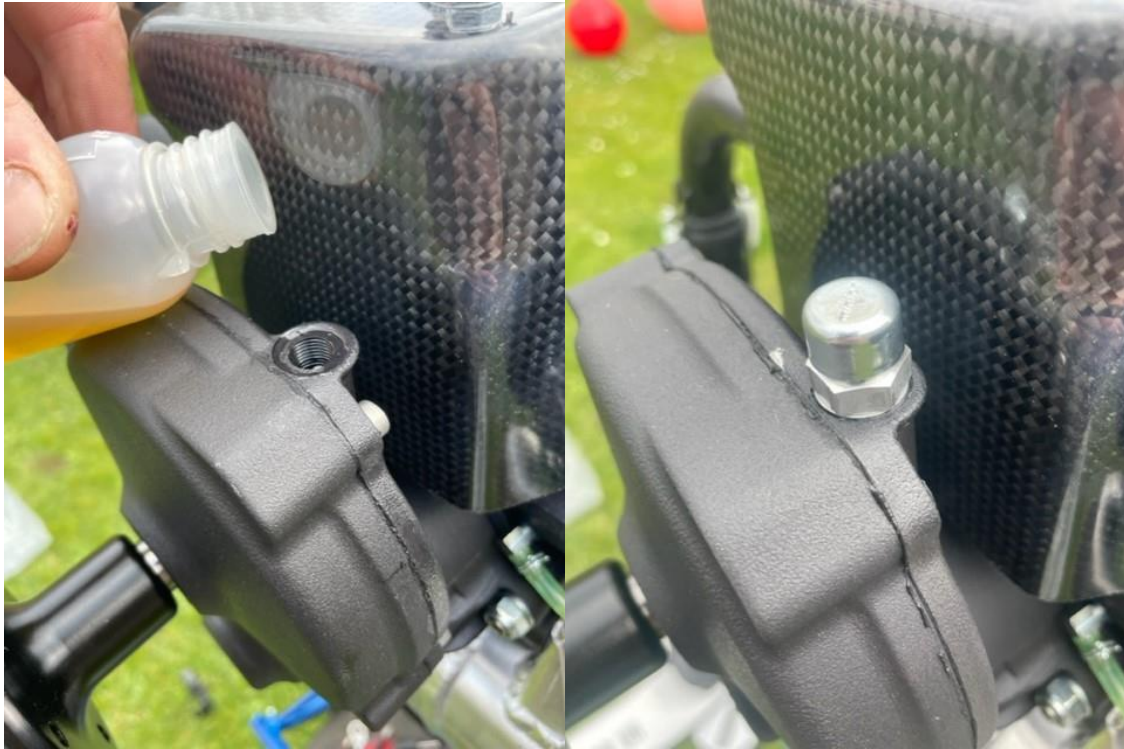
Make sure the straps are secured:



Step 11:

Remove the travel cap from the gearbox and fill with HALF of the supplied oil. A funnel or syringe can make this easier. Then fit the breather cap:





Step 12:

Carry out a THOROUGH check of the entire unit to double check the security of all the nuts and bolts. You are now ready to assemble the frame and propeller.