

**Model 500/800 Aquaflame Servicing Instructions**

Important: - Use the gloves provided and wear protective eyewear at all times. Read through the instructions before starting the service work.

- Before removing the cover ensure the machine is disconnected from the mains supply and the fuse is removed.
- Remove the screws from the case cover and remove top. Detach fan and case earth leads.
- If the cell is full then carefully siphon out the solution using the pump provided into a suitable container. The solution must be disposed of safely.
- **The solution is caustic so do not under any circumstance attempt to siphon by mouth.**
- Remove the M8 nut connecting the transformer to the red inner cell top.
- Unscrew the 2 white plastic sight tube brackets and the metal bracket.
- Unscrew the nuts from the top cell and remove the white plastic cell insulators and washers. Separate the 2 cell parts and remove the rubber gasket. Dispose of the rubber gasket safely.
- Remove the outer cell from the base of the machine by unscrewing the four locating nuts underneath the case and take out the cell.
- Then remove the diodes and aluminium heat sinks from either side of the cell.
- Rinse the inner cell with hot water; do not use any cleaning agents. Scrub the inner cell with the abrasive wool pad provided.
- Remove the sight tube from the outer cell and rinse the cell with hot water, do not use any cleaning agents. Scrub the cell inside with the wire brush provided.
- Clean the heat sinks with the wire brush provided.
- Dry both the inner and outer cell with a hot air gun to prevent surface rust.
- While the cells are drying brush out any accumulated dust inside the machine with the bristle brush provided. Make sure none of the wiring is disconnected.
- If the base has any signs of dried solution then clean with the wire brush provided.
- Replace the small blue gasket provided on the pressure switch.
- Replace the black aluminium cylinder body provided on the internal flash back.
- Connect the pressure switch and flash back with the shorter length of 5mm clear PVC tube. This may need trimming to length.
- Connect the longer length of 6mm clear PVC tube to the outer cell & secure with the wire ties provided.
- Change the white electrical braid provided onto the transformer leads.
- Remove the M8 nuts connecting the diodes to the transformer leads and replace the white electrical braids. Take off the old electrical braids and replace with the new ones. Secure the M8 nuts as tight as possible.
- Connect the diodes and aluminium heat sinks back onto the outer cell.
- Secure the outer cell to the base using the larger M6 washers and M6 nuts provided.
- Put the new gasket onto the inner cell and place them both into the outer cell.
- Replace the new white plastic cell insulators onto each of the four cell rods and through the holes in the inner cell.

- Replace the small M6 washers and the M6 nuts onto the cell rods do not tighten yet.
- Place the case top back on and use this as a jig to centralise the inner cell moving the filler tube to place the cell into position.
- Remove the case top and check the rubber gasket is covering the entire outer cell.
- Then tighten the nuts on the inner cell.
- Replace the plastic white sight tube holders and metal bracket with the screws.
- Replace the longer 5mm PVC tube from the flash back to the top cell.
- Connect the shorter 6mm PVC tube from the cell top to the gas outlet and secure with the wire ties provided.
- Reconnect the transformer with the large M8 nut and M8 washer provided make sure this is tight.
- Replace the rubber case top insulator with the one provided.
- Connect the fan and earth case wires back on and secure the top case with the screws.
- Carefully pour fresh electrolyte solution into the cell.
- Replace the polo and plain washers inside the grey plastic top cell cap and tighten to the cell filling tube.
- Change the sight tube on the stainless steel booster with the new one provided. Replace the polo and plain washers inside the steel booster top cap.
- Put fresh MEK solution in the booster and tighten the steel booster cap.
- Connect the torch and booster to the machine with the new neoprene rubber tube provided.
- Place fuse back into the fuse holder and plug machine into a circuit breaker.
- Turn on the machine and allow 2 minutes for the gas to generate through the system.
- Do the leak tests as indicated on the front of the machine to check the unit is sealed correctly.
- Fit the corrosive label provided to the top of the machine near to the deionised water filler cap.

*The PVC tubes are a tight fit so gently apply a heat gun to soften the tubes before attaching. A small amount of petroleum jelly on the metal components will also help to slide the tubes into place.*