Standard fault finding logic for Ecoflam on / off oil burners

START

Does fan motor run? — Yes → **Is ignition on?** — Yes → **Does burner light straight away without pre-purge?** — No → **Does burner lock out before the end of pre-purge?** — No → **Does oil solenoid energise releasing fuel into chamber?** — Yes → **Does flame establish?** — Yes → **Does flame go out after 5 to 10 secs?** — No → **Is combustion set to manufacturers instructions?** → RUN

Does fan motor run? — No → **Is there L & N 230 v supply to the appliance?**
- No → **Replace fuse**
- Yes → **Are boiler / cooker controls made?**
  - No → **Check controls**
  - Yes → **Is motor or pump seized?**
    - Yes → **Replace capacitor does motor run?**
      - No → **Is there 230 v to motor?**
        - Yes → **Replace motor**
        - No → **Replace control box**
    - No → (continues)

Is lockout lamp On? — Yes → **Press Reset once**

Is ignition on? — No → **Are electrodes set to fig A?**
- No → **Set electrodes to Fig A**
- Yes → **Are HT leads disconnected or damaged?**
  - Yes → **Re-connect / replace**
  - No → **Is there 230v to pump coil?**
    - No → **Replace pump solenoid stem**
    - No → **Is there 230v to transformer?**
      - Yes → **Replace transformer**
      - No → **Replace control box**

Remove pump, is motor free?
- No → **Is fan catching?**
  - No → **Free fan, replace if damaged**
  - Yes → **Free fan, replace if damaged**
- Yes → **Replace Pump**

Does burner light straight away without pre-purge? — Yes → (continues)

Does burner lock out before the end of pre-purge? — Yes → **Is photocell correctly located?**
- No → **Relocate photocell**
- Yes → **Is there approx 110v to solenoid coil ?**
  - Yes → **Remove photo-cell wiring from control box base**
    - **Re-try burner, does not light**
      - Yes → **Fit new new photocell**

Does oil solenoid energise releasing fuel into chamber? — No → **Is there 230v to solenoid coil?**
- Yes → **Is there a pressure reading on gauge?**
  - No → **Is pump drive coupling worn?**
    - No → **Is there fuel in tank?**
      - Yes → **Have you removed air from pump / line?**
        - Yes → **Is there continuity across the solenoid coil ?**
          - Yes → **Replace oil pump**
          - No → **Replace oil pump solenoid coil**
        - No → **Bleed pump**
      - No → **Replace fuel**
    - Yes → **Replace coupling**
  - Yes → **Replace nozzle**

Does flame establish? — No → **Is air set to manufacturers data?**
- Yes → **Is pump pressure set to manufacturers data?**
  - Yes → (loops)
- No → **Set air to correct setting**
  - No → **Set oil pressure to correct data**

Does flame go out after 5 to 10 secs? — Yes → **Is photocell window dirty?**
- Yes → **Clean window**
- No → **Does pressure on gauge remain static?**
  - Yes → **Replace photocell**
    - **Does burner stay on?**
      - No → (loops)
  - No → (loops)

Is combustion set to manufacturers instructions? — No → **Are burner settings correct to data?**
- No → **Set to manufacturers data**
- Yes → **Is nozzle dirty or suspect?**
  - Yes → **Replace nozzle**
  - No → **Check appliance eg baffles and flues**