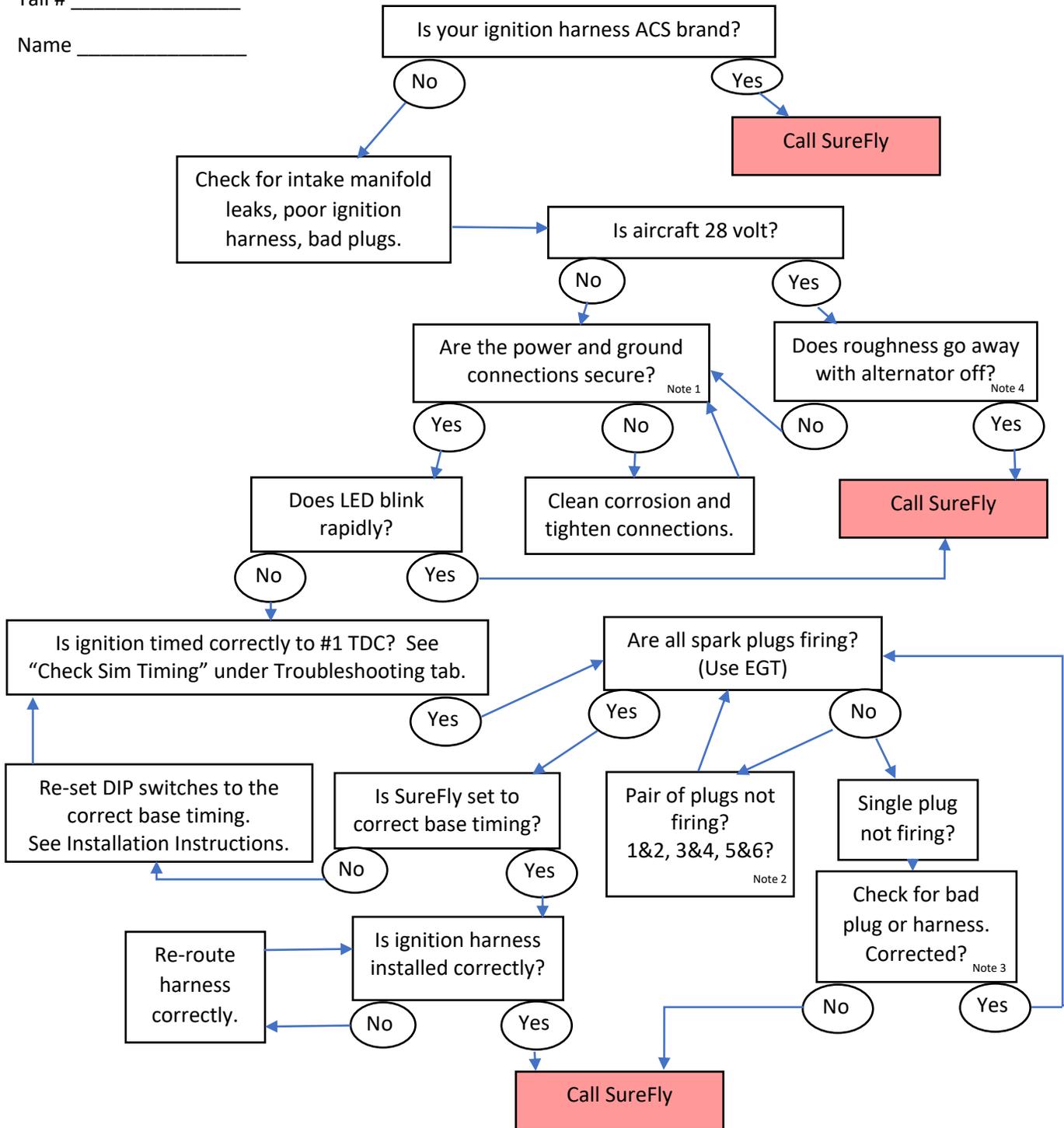


# Engine runs rough

Tail # \_\_\_\_\_

Name \_\_\_\_\_



**Note 1:** Verify the security of the power wire connections, fuse holder, and ground straps. If there is corrosion in the ground connection, it can cause intermittent power interruptions.

**Note 2:** Verify security of wire and shield terminations. Verify the springs inside the cap extend to the bottom of the sockets. When trouble shooting by swapping plugs, swap both plugs in coil pack pairs, for instance, if #1 is cold, swap 1 and 2 with 3 and 4. Recommended plug gap is 0.022".

**Note 3:** Champion suggests plug resistance should be roughly 500 to 5000 ohms. The plug wires should read roughly 3 ohms per foot.

Note 4: Installers have reported that a small number of 28V aircraft have noisy electrical systems that generate momentary voltages beyond 30 VDC. The SureFly SIM is engineered, approved, and tested to perform between 8.5 VDC and 30 VDC. And actually, in practice, each SureFly SIM is proven and tested to perform between 5.5 VDC and 35.7 VDC. But with a small number of 24V aircraft, since the SureFly protection circuit is so much faster than some aircraft voltage regulators (normally limited to 32 VDC max), momentary aircraft electrical system inputs more than 35.7 VDC to the SIM will trigger the SIM's over-voltage protection circuit in order to protect the internal components from the high voltage. The operator may perceive this as engine "stumbling" in certain phases of ground or flight operation.

Aircraft electrical noise may be caused by any number of factors unique to each aircraft and/or phase of operation. To prevent this condition for any (and all) airframes, SureFly has developed and received approval for a power conditioner. The PC17V is a power conditioning module that is installed between the aircraft electrical system and the SureFly. The PC17V consistently provides 17 VDC to the SureFly SIM. Combined with a capacitor, this setup provides stable power to the SIM even in the worst cases making the SureFly SIM even more robust and compatible with all applicable airframes regardless of the cause of the aircraft's electrical noise. Speak to a SureFly technician to better understand if your particular 24V aircraft may perform best with the SureFly PC17V.