

## N1921R Links

RV-6A, SN 25088

Continental Titan O-360 PV, 8.5:1, vert sump, dual SDS EFI EM-5-4F

### Electrical:

- I follow the design philosophy of Bob Nuckolls / Aeroelectric Connection.
- [My N1921R electrical Design Files](#) BTW I will use [Brian Adams Skyview Hub](#)
- [Aeroelectric Connection links](#)
- [Z schematic origins](#)
- [FAR 23.1361 Master switch arrangement](#)
- [FAR 23.1357 Circuit protective devices](#)
  - “(d) If the ability to reset a circuit breaker or replace a fuse is essential to safety in flight, that circuit breaker or fuse must be so located and identified that it can be readily reset or replaced in flight.”
    - In the Aeroelectric Connection world this applies only to alternator field CBs where crowbar OV protection is used and nuisance trips can occur.
- [John Bright Z101 blurb on VAF](#)
  - I was excited to incorporate Z101 when it came out in 2020 but...
  - ... when the Monkworkz MZ-30 came out in 2022 I moved to my own unique power schematic with MZ-30's B lead on the engine bus.  
MZ-30 is a game changer in the vacuum-pad electrical power source world because it puts out 30A at 1800 and up Lycoming crankshaft RPM and it will unquestionably start and run with no battery present.
- [John Bright fuses versus current limiters blurb on VAF](#)
- Crimping multiple feeders into one uninsulated ring terminal reduces terminal stack height (potentially eliminating need for a fat wire tie point) and eliminates an FMEA SPOF (loose nut disconnects the feeders from one another). [Ref spreadsheet](#)
- New in 2021, Monkworkz vacuum pad PM generator that makes 30A at 1800 and up Lycoming RPM. [Monkworkz website](#) [Monkworkz VAF thread](#)  
I see it as a game-changer in terms of keeping an electronically fuel injected engine running until fuel exhaustion in the failure mode of battery disconnected and pilot inadvertently turns off both alternators (a wound field alternator will not likely restart with no battery present).  
There's also the shorted battery scenario which some folks talk about. I know of one case where [this happened to an Odyssey AGM battery](#) but the battery

was installed in an oversize box with foam around it and I have reason to believe it was in a discharged state when the aircraft took off. The foam seems like a bad idea to me because foam is an insulator and the battery heats itself due to internal resistance when it is delivering or receiving current. (Yes it is an Odyssey battery, confirmed by Odyssey, different case color than we are used to seeing in the U.S. due to material availability around the world.)

I brainstormed power schematics for incorporating the Monkworkz PM vacuum pad alternator as a backup on an electronically fuel injected engine and decided on a production version for my RV-6A, N1921R. Find the files in folder 1) [here](#).

- [Instrument Panel Design Files](#)

## Mechanical

- [Nose gear tapered pin mod](#)
- [Fuel tank access cover Permatex sealant test](#) for easier service versus proseal. Note the link in the upper right-hand corner to view the entire thread. As of 2023 I personally am planning to use proseal.
- [Engine Oil notes](#) from Mike Busch webinar.

## Photos

- [Construction Photos](#)
- [EAA Builder's Log](#) - I stopped updating it in favor of Google Photos