

Starter and Master Solenoids (Contactors): Modern Substitutes – March 2017

These are the modern versions of the solenoids (relays) used in our Birddogs. Because our original ones - by part and model number - are no longer in production, the FAA regulation re: parts for aged aircraft permit use of these with just a logbook entry by an A&P, noting that the old failed unit was removed and replaced. The entry should contain info along the lines of: Because the originally-installed solenoid (list the p/n in the entry) is no longer manufactured and available, it was replaced with a currently-available equivalent, maker & p/n listed in the entry, that's of identical or higher electrical and duty rating. The entry should also note that there's no change in maintenance requirements as the result of substitution.

Following is a pair of solenoids for the Birddog. Both are in stock at Aircraft Spruce and other sources and are generally stocked items. They are both superior to what originally came with our aircraft - these are well-sealed units. Our originals aren't:

1) For use as a "Master" solenoid or relay. This relay used to activate all power circuits except the power to the starter. Tho there are relays that are slightly less expensive, this one is a true aviation relay and is ruggedized. It's rated at 100 amps continuous duty - a good 100% above what our Birddogs draw, even with landing lights and pitot heat on:
<http://www.aircraftspruce.com/catalog/elpages/solenoidx610029.php> Cost is \$64.85

2) For use as a "Starter" solenoid or "Contactor" or relay. This relay is used to transfer power from the battery to the starter when the starter button is pushed. As with the other, there are slightly less-expensive relays, but this is a true aviation relay and is ruggedized. It's rated at 250 amps at up to 5 minutes - again, at least 100% above our Birddogs' starting demand. Can handle up to 900 amps surge:
<http://www.aircraftspruce.com/catalog/elpages/solenoidx610031.php> Cost is \$99.75

If either relay is ever needed, better to go this route than a used one or even a shelf-worn (oxidized contacts) NOS relay of 60 years ago.

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