

# Federal Aviation Agency



AC NO: AC 20-40
AIRCRAFT
EFFECTIVE : 8/11/65

**SUBJECT :** PLACARDS FOR BATTERY-EXCITED ALTERNATORS INSTALLED IN LIGHT AIRCRAFT

---

1. **PURPOSE:** This advisory circular sets forth an acceptable means of complying with placarding rules in Federal Aviation Regulations 23 and 27 with respect to battery-excited alternator installations.
2. **REGULATIONS AFFECTED:** Federal Aviation Regulations 23.1541(a)(2) and 27.1541(a)(2).
3. **BACKGROUND:** Since an alternator is but one class of generator, approval of alternator installations in light aircraft have been made by the Agency under those rules in FAR 23 and 27 which deal with generator systems. It has been found, however, that certain types of alternators (which are apparently used in a number of automotive applications) obtain their field excitation from the battery. When field excitation is obtained in this way, there is the danger that, if the alternator is turned off in flight, subsequent loss or discharge of the battery would result in loss of the alternator as well. This unusual design feature invokes the provisions in §§23.1541(a)(2) and 27.1541(a)(2).
4. **ACCEPTABLE MEANS OF COMPLIANCE:** With respect to battery-excited alternator installations, an acceptable method of complying with §§23.1541(a)(2) and 27.1541(a)(2) is to provide a placard advising the pilot not to turn off the alternators in flight, except in case of emergency.

  
George S. Moore  
Director  
Flight Standards Service