

**Ample Power Company**



## Modifying Internally Regulated Alternators

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### **In Theory . . .**

All alternators can be converted to external regulation. Sometimes, however, regulator replacement spacers need to be fabricated. If required, some spacers may need to be conductors, and other spacers will need to be insulators.

### **Temperature is the Real Issue**

More importantly, however, is the alternator cooling issue. Alternators designed with internal regulators use temperature of the alternator to cut back charging Amps to prevent alternator burn-out. An external regulator doesn't pay attention

to alternator temperature, only the batteries, so the alternator will run at full output as long as the batteries will accept the charge rate. Many stock alternators will burn up if used in this manner.

### **Will it be worth it?**

Some stock alternators of 50 Amps output or less will be reasonably reliable when externally regulated. Most stock alternators with higher output ratings will not tolerate external regulation. It's far better to keep the stock alternator as a spare and purchase a hot-rated alternator.