

Service Instruction: M20-78

Date: 6-20-86

**SUBJECT:** Retrofit of Voltage Regulator, VR-802, to Revision C Configuration

**MODELS/  
S/N AFFECTED:** Mooney M20K, S/N 25-1000 thru 25-1038, 25-1040, 25-1041

**TIME OF  
COMPLIANCE:** Within next 10 flight hours or sooner.

**INTRODUCTION:** The VR-802 voltage regulator is designed to regulate alternator voltage as well as protect the aircraft systems from voltage spikes generated by the alternator or when a high power draw component is turned ON or OFF. The basic configuration of the VR-802 accomplished this, however the overvoltage circuit reacted much faster than was needed. Revision C configuration has been modified to allow the voltage spikes to last a few milliseconds longer to prevent nuisance trips of the alternator field circuit breaker.

- INSTRUCTIONS:**
1. Voltage regulator is located under instrument panel just above copilot's left knee next to console.
  2. Follow wire bundle from voltage regulator to the connector (pin/socket).
  3. Cut the two plastic tyrapts securing the connector to instrument panel structure. Connector and wire bundle should be free to allow disconnection of the connector.
  4. Remove the four (4) nuts and screws securing the voltage regulator to panel structure.
  5. Remove the existing voltage regulator if it does not have "Rev. C" imprinted on data plate area.
  6. Install new modified voltage regulator "VR-802, Rev. C", to panel structure and connect the pin/socket together.
  7. Secure the connector (pin/socket) with tyrapts to the instrument panel as it was.
  8. Start and run engine to verify electrical system is functioning properly.
  9. Enter Compliance Note into Aircraft Log Book.
  10. Mooney will allow 0.5 hours for labor to accomplish this task. Cost of the new voltage regulator will be charged to your account and when the old voltage regulator, with properly completed warranty paper, is received by Service Parts Department, your account will be credited for that value.

**REFERENCE DATA:** N/A

**PARTS LIST:** 1 ea. VR-802, Rev. C Voltage Regulator

**FIGURE/TABLES:** N/A