



SUBJECT: Aircraft Batteries During Storage or Extended Periods Between Flights
[CHAPTER 24 - ELECTRICAL POWER]

MODELS/ SN M20U - All

AFFECTED: M20V - All

TIME OF COMPLIANCE: **AS REQUIRED**

INTRODUCTION: When an Aircraft is placed in storage or remains dormant for an extended period of time (more than a 3 weeks), it is best to disconnect the batteries or use a Battery Tender. This practice will eliminate unnecessary drain on the battery if parasitic loads are present. Parasitic loads can deplete battery capacity and result in battery sulfation or low state of charge condition. To prolong the battery service life, conditions leading to sulfation should be prevented as much as possible. For example, if the master switch is inadvertently left on and the battery becomes deeply discharged, it should be charged as soon as possible. Another case of sulfation is a parasitic load that drains the battery capacity during extended dormant periods. Yet another cause of sulfation is repetitive short duration flights that do not give sufficient time for the battery to become fully charged. In this case, a periodic maintenance charge should be included to assure the battery becomes fully charged so as to minimize the buildup of sulfation. Batteries are sensitive to temperature and will not charge properly when temperatures are very cold. The key to long battery life is to keep batteries cycled, charged and discharged and never stored in a discharged state.

INSTRUCTIONS: **Read entire procedures before beginning work.**

-WARNING-

Lead-acid batteries can produce explosive mixtures of hydrogen and oxygen while on charge or discharge, which can explode if ignited. Wear proper eye and face protection when servicing batteries.

- 1.1. If the aircraft is to be stored for an extended period of time, the following steps are recommended for protection of the battery:
- 1.2. Turn the Master Switch to Off position.
- 1.3. Remove LH/RH tailcone panels.

Recommended for periods up to 3 weeks:

- 1.4a. From Tailcone area, locate "CABIN LIGHT" Circuit Breaker (5A) located between batteries and pull upward to shed electrical load to cabin lights.

OR

Recommended for periods 3 weeks or longer:

- 1.4b. Connect an approved battery tender to battery (per Manufacturer's Instructions) this will keep batteries charged while in storage or sitting idle between flights.
- OR**
- 1.4c. Remove batteries by disconnecting the ground cable first, store in a cool place and charge batteries as necessary.



-CAUTION-

When either battery voltage is low, inspection should be conducted to determine condition of battery and/or reason for battery being low. Replacement or servicing of batteries is essential and charging for at least one hour should be done before engine is started. Batteries must be serviceable and IT IS RECOMMENDED THAT BATTERIES BE FULLY CHARGED TO OPERATE AIRCRAFT. Electrical components may also be damaged if aircraft is operated when batteries are low.

- 1.5a. If Circuit Breaker was pulled, push to energize electrical load to cabin lights.
OR
- 1.5b. If Battery Tender was used, disconnect from batteries.
OR
- 1.5c. If Batteries were removed, install charged batteries back into aircraft, start with positive cable first. Refer to Chapter 24 - Electrical Power in the applicable Service and Maintenance Manual for more details.
- 1.6. Install LH/RH tailcone panels.
- 1.7. Return aircraft to service.
- 1.8. Procedure complete.

WARRANTY: N/A

REFERENCE DATA: 1. Mooney Service and Maintenance Manual (applicable A/C)
2. Manufacturer of Approved Battery and Battery Tender Service Manuals

PARTS LIST: Parts Kit P/N: **Service Instruction Kit - N/A**