

**MOONEY AIRCRAFT CORPORATION  
LOUIS SCHREINER FIELD  
KERRVILLE, TEXAS 78028**

**FAA APPROVED**

**AIRPLANE FLIGHT MANUAL SUPPLEMENT**

**FOR**

**MOONEY AIRCRAFT MODELS**

**M20R, M20S  
WITH  
STANDBY ALTERNATOR  
SYSTEM INSTALLED**

MODEL NO. \_\_\_\_\_

REG. NO. \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

This Supplement must be attached to the applicable FAA Approved Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) when the Standby Alternator System is installed in accordance with Mooney Drawing number 800379. The information contained herein supplements or supersedes the basic manual only in those areas listed. For limitation, procedures and performance information not contained in this supplement, consult the basic Airplane Flight Manual.


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 LOG OF REVISIONS

Revision Number	Revision Pages	Description of Revisions	FAA Approved	Date
C	All Pages	Added M20S effectivity to all pages.		2-99

The revised portions of affected pages are indicated by vertical black lines in the margin.

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**SECTION I - GENERAL**

The Standby Alternator for the M20R & M20S consists of a 20 Amp standby alternator mounted to the engine accessory case vacuum pump drive pad. The alternator is a 24 volt unit. The system includes a voltage regulator unit, annunciator light, Stby Alt ON/OFF switch, and an electrical buss (Emergency Buss) configuration to provide specific, dedicated equipment generated power.

The Standby Alternator system is required equipment for the installation of the certified flight into known icing TKS STC kit on the M20R & M20S. The system is offered as a separate optional equipment installation for the M20R & M20S for owners who desire a second source of electrical generation.

**SECTION II - LIMITATIONS**

When the Standby Alternator system is the only voltage generation system on, the use of installed equipment will be limited only to the following systems: (YELLOW sleeves on C/B's)

1. Turn Coordinator
2. Engine Instrument Module #1 & #2
3. Tachometer
4. HSI
5. Pitot Heat
6. Ice Light (if installed)
7. TKS System (if installed)
8. Glareshield Lights
9. NAV 1
10. COM 1
11. Audio Panel
12. Phone (Headset)
13. Transponder
14. Encoder

**CAUTION**  
**LOW VOLT annunciator light may be flashing.**

**PLACARDS REQUIRED**

None

**SECTION III - EMERGENCY PROCEDURES**

When main alternator goes off-line the RED "LOW VOLT" light in the Annunciator Panel will flash. If the normal Emergency Procedures shown in POH/AFM, Section III, do not bring the alternator back on-line, the following procedures are required to activate the Standby Alternator system:

**SECTION III - EMERGENCY PROCEDURES (con't.)**

1. Push "STDBY ALT/EMERG BUS" switch ON. (this activates the Emergency Buss circuitry & the Standby Alternator system)

- A. The AMBER "EMERG BUS" annunciator light illuminates.
- B. The RED "LOW VOLT" flashing annunciator light extinguishes.

**| NOTE |**

**The most efficient operating RPM is 2500 RPM or higher when operating on Standby Alternator System.**

- 2. Pull "BATTERY" circuit breaker.
- 3. Check AMMETER to assure battery is not being discharged (negative ampere indication and LOW VOLT annunciator light flashes).
- 4. Turn OFF non-essential equipment (if negative ampere indication appears).

**— The systems shown under limitations (1 through 14) above will operate — (YELLOW sleeves on C/B panel)**

5. Terminate flight as soon as practicable.

When approaching airport. . . . . Battery C/B - PUSH IN  
 . . . . . All airplane systems are now available **until battery is depleted.**

Repair main alternator system prior to next flight.

**SECTION IV - NORMAL PROCEDURES**

**BEFORE TAXI**

Complete all Before Taxi checks as listed in Basic POH.

Optional Equipment Checks . . . . . Reference Section IX

**— Standby Alternator Preflight Check —**

- 1. RPM . . . . . 1700 - 1800 RPM
- 2. ALT FIELD Switch . . . . . Verify RED LOW VOLT annunciator light extinguishes. OFF
- 3. STDBY ALT/EMERG BUS switch . . . . . Verify RED LOW VOLT annunciator light flashes. ON
- 4. STDBY ALT/EMERG BUS switch . . . . . Verify AMBER EMERG BUS annunciator light illuminates. OFF
- 5. ALT FIELD Switch . . . . . Verify RED LOW VOLT annunciator light flashes. ON
- . . . . . Verify RED LOW VOLT annunciator light extinguishes.

**//////  
 /// WARNING ///**

**If the primary alternator system becomes inoperative and the Stand-by Alternator system is the only power generating source, the Stall Warning Horn will not sound.**

**SECTION V thru X**

No Change to these Sections.