

MOONEY AIRCRAFT COMPANY, INC.
LOUIS SCHREINER FIELD
KERRVILLE, TEXAS 78028

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

MOONEY AIRCRAFT MODELS

M20M, 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.

FAA APPROVED:



6-2-05


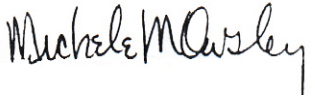
- Michele M. Owsley
- Manager, Aircraft Certification Office
- FEDERAL AVIATION ADMINISTRATION
- 2601 Meacham Blvd.
- Fort Worth, Texas 76137-0150

Issue Date: 1-96
Revision A: 7-97
Revision B: 12-97
Revision C: 2-99
Revision D: 5-05

Issue Date: June, 2005

PAGE 1 of 5

LOG OF REVISIONS

| Rev. No. | Revised Pages | Description of Revision | FAA Approved | Date |
|----------|---------------|--------------------------------------|--|--------|
| C | All Pages | Added M20S effectivity to all pages. |  | 2/7/99 |
| D | All Pages | Added M20M Air Conditioner Equipped |  | 6-2-05 |

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

TABLE OF CONTENTS

| SECTION | TITLE | PAGE |
|----------------|----------------------|-------------|
| I. | GENERAL | 3 |
| II. | LIMITATIONS | 3 |
| III | EMERGENCY PROCEDURES | 3 |
| IV | NORMAL PROCEDURES | 4 |
| V THROUGH X | | 4 |

SECTION I - GENERAL

The Standby Alternator for the M20M/R & S consists of a 20 Amp standby alternator mounted to the engine accessory case vacuum pump drive pad. The alternator is a 28 volt unit. The system includes a voltage regulator unit, annunciator light, EMERG BUS switch, and an electrical bus (Emergency Bus) 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, and on the M20M equipped with optional engine driven air conditioner. On M20M aircraft equipped with optional air conditioning, the standard M20M dual 70 amp alternators are replaced with a primary 100 amp capable alternator and the 20 amp standby alternator. 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/Bs) or those identified in the confines of the band marked ESSENTIAL BUS on the circuit breaker panel.

| DX Aircraft | GX Aircraft (G-1000 Equipped) |
|-------------------------------------|--------------------------------------|
| 1. Turn Coordinator | 1. PFD |
| 2. Engine Instrument Module #1 & #2 | 2. MFD |
| 3. Tachometer | 3. AHRS |
| 4. HSI | 4. ADC |
| 5. Pitot Heat | 5. Stby Gyro |
| 6. Ice Light (if installed) | 6. Ice Light (if installed) |
| 7. TKS System (if installed) | 7. TKS System (if installed) |
| 8. Glareshield Lights | 8. Glareshield Lights |
| 9. NAV 1 | 9. GPS1/NAV 1 |
| 10. COM 1 | 10. COM 1 |
| 11. Audio Panel | 11. Audio |
| 12. Phone (Headset) | 12. Phone (Headset) |
| 13. Transponder | 13. Transponder/Encoder |
| 14. Encoder | |

CAUTION

ALT VOLTS annunciator light may be flashing denoting a lower than normal DC voltage.

PLACARDS REQUIRED:

None

SECTION III - EMERGENCY PROCEDURES

When main alternator goes off-line the RED "ALT VOLTS" light in the Annunciator Panel will flash or illuminate steady depending on the nature of the failure. 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:

1. Push "EMERG BUS" switch ON (this activates the Emergency Bus circuitry, the Standby Alternator system and initializes load shed capability).

- A. The AMBER "EMERG BUS" annunciator light illuminates.
- B. The RED "ALT VOLTS" 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. This will shed load to minimum flight required systems.
3. Check AMMETER to assure battery is not being discharged (negative ampere indication and ALT VOLTS annunciator light flashes).

The systems shown under limitations (1 through 14) above will operate (YELLOW sleeves on C/B's or those items identified in the confines of the band marked ESSENTIAL BUS on the Circuit Breaker Panel)

4. 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
Verify RED ALT VOLTS annunciator light extinguishes.
2. ALT FIELD Switch OFF
Verify RED ALT VOLTS annunciator light on.
3. EMERG BUS switch ON
Verify AMBER EMERG BUS annunciator light illuminates.
4. EMERG BUS switch OFF
Verify RED ALT VOLTS annunciator light on.
5. ALT FIELD Switch ON
Verify RED ALT VOLTS annunciator light extinguishes.

//////////
/// WARNING ///

On DX aircraft, 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.
On GX (G-1000 equipped) aircraft, the Stall Warning Sonalert will function.

SECTION V thru X

No Change to these Sections.