The information contained in this document is FAA Approved material, which must be carried in the applicable Airplane Flight Manual after installation of the Cabin Air Conditioning System in accordance with Mooney Aircraft Corporation Drawing No. 950255. The information in this document supplements or supercedes the basic manual only in the areas contained herein. For Limitations, Procedures, and Performance Data not contained in the supplement, consult the basic Airplane Flight Manual.

Date: 3-20-87
MOONEY AIRCRAFT CORPORATION  
P. O. BOX 72  
Kerrville, Texas 78029  

LOG OF REVISIONS

<table>
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<tr>
<th>Revision Number</th>
<th>Revision Pages</th>
<th>Description of Revision</th>
<th>FAA Approved*</th>
<th>Date</th>
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<tr>
<td>A</td>
<td>Page 5</td>
<td>Revised Performance Data to latest Mfg.'s data.</td>
<td></td>
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<tr>
<td></td>
<td>Pages 4 &amp; 5</td>
<td>Relocated data.</td>
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The revised portions of affected pages are indicated by vertical black lines in the margin.

*L.B. Andriesen, Manager, Aircraft Certification Division
SECTION I - GENERAL

The cabin air conditioning system is a freon type which consists of an engine driven compressor, a condenser and an evaporator. The function of the compressor is to pump freon R-12 throughout the system circuit. The function of the condenser is to remove heat energy from the refrigerant by forcing outside air across the condenser heat exchanger. The function of the evaporator is to remove heat and moisture from the cabin, by forcing cabin air across the evaporator heat exchanger. The system controls consist of a switch which can be positioned to A/C, BLOWER or OFF. In the A/C mode, the complete cooling system is activated. In the BLOWER mode, only the evaporator blower is operating as a means of providing cabin air circulation. A HI/LO blower speed switch is provided for airflow adjustment. An infinitely adjustable air temperature control switch is provided for selection of evaporator outlet air temperature. Window defogging can be accomplished by simultaneous operation of the air conditioner and the cabin heater.

SECTION II - LIMITATIONS -

PLACARDS AND MARKINGS

Located on headliner - to identify system switches.

MAG COMPASS DEVIATION MAY BE EXCESSIVE WITH AIR COND OR BLOWER ON

Located on top of instrument panel, below compass.
WHEN USING AIR CONDITIONER DURING FLIGHT, MANAGE ELECT. LOAD IF REQUIRED TO AVOID BATTERY DISCHARGE.

Located on center console directly below the existing “check-list placard.

SECTION III - EMERGENCY PROCEDURES -

Operate air conditioner switch to OFF, for any of the following emergencies:

- Engine Failure
- Engine Over temperature
- Insufficient Power
- In Flight Fire

SECTION IV - NORMAL PROCEDURES -

PREFLIGHT CHECK (EXTERIOR)

Compressor - check security.
Compressor drive belt - check tension and general condition.
Condenser - check security.

ENGINE PRESTART CHECK

A/C Switch - OFF.

BEFORE TAKEOFF

A/C SWITCH as desired.
Select HI/LO Blower as desired.
Select temperature as desired.

NOTE

The following engine RPM speeds are required to maintain a positive battery charge, when using the air conditioner.

Battery discharge during taxi is permissible:

<table>
<thead>
<tr>
<th>Equip. ON</th>
<th>RPM-One Alternator.</th>
<th>RPM-Two Alternators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C-LO Blower.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Nav.</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>1 Com.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* A/C-HI Blower.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Nav.</td>
<td>1700</td>
<td>1000</td>
</tr>
<tr>
<td>1 Com</td>
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</tbody>
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FAA APPROVED
AFM SUPPLEMENT - CABIN AIR CONDITIONING SYSTEM-
M20K S/N 25-1000 thru 25-TBA

IN FLIGHT OPERATIONS
A/C SWITCH as desired.
Select HI/LO blower as desired.
Select temperature as desired.

DESCENT AND LANDINGS
A/C SWITCH as desired.
Select HI/LO blower as desired.
Select temperature as desired.

NOTE
The evaporator air duct outlet is equipped with an adjustable louver. The outboard side of the occupants head can be flooded with conditioned air, by adjusting the louver to deflect air either left or right.

CAUTION
Lack of cooling may be an indication of loss of refrigerant. If outlet air is not cool, turn A/C OFF, or to BLOWER to preclude damage to the compressor.

SECTION V - PERFORMANCE DATA -

When the A/C is operating, the performance data in the basic flight manual should be adjusted as shown below:

- Takeoff Distance - Increase AFM ground roll distance by 5%.
- Increase AFM Total Takeoff Distance over a 50 foot obstacle by 10%.
- Rate of Climb - Reduce AFM data by 50 fpm.

SECTION VI THRU X

NO CHANGE