

MOONEY AIRCRAFT CORPORATION
P.O. BOX 72 KERRVILLE, TEXAS 78029-0072

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

MOONEY MODEL M20K

S/N 25-1000 THRU 25-TBA

WITH

CABIN AIR CONDITIONING SYSTEM -(M20K-100)

REG. NO. _____

SERIAL NO. _____

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 Condition 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.

FAA APPROVED:

Henry A. Armstrong

for

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AIRCRAFT CERTIFICATION DIVISION
FEDERAL AVIATION ADMINISTRATION
Southwest Region, Fort Worth, Texas

Date: 3-20-87

AFM SUPPLEMENT -CABIN AIR CONDITIONING SYSTEM-
M20K S/N 25-1000 thru 25-TBA

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LOG OF REVISIONS

Revision Number	Revision Pages	Description of Revision	FAA Approved*	Date
A	Page 5 Pages 4 & 5	Revised Performance Data to latest Mfg.'s data. Relocated data .	<i>W.A. Armstrong</i>	6-12-87

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

*L.B. Andriesen, Manager, Aircraft Certification Division

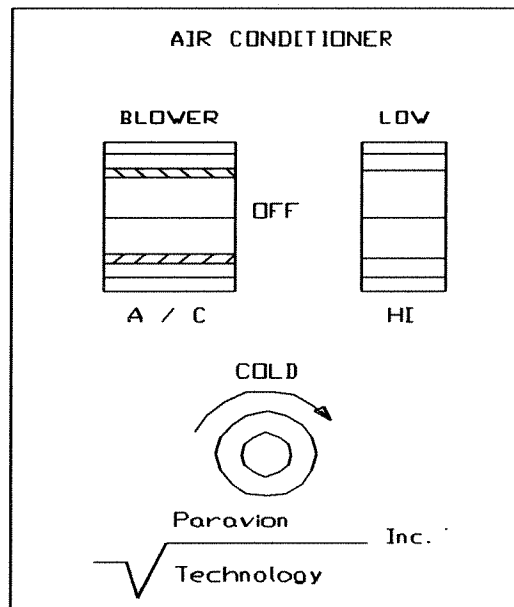
AFM SUPPLEMENT - CABIN AIR CONDITIONING SYSTEM-
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SECTION I - GENERAL

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.

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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:**

Equip. ON	RPM-One Alternator.	RPM-Two Alternators.
A/C-LO Blower.		
1 Nav.	1600	
1 Com.		
* A/C-HI Blower.		
1 Nav.	1700	1000
1 Com		

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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

REVISION A, 6-12-87

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