



KEITH PRODUCTS, INC.

CERTIFICATION REPORT NO. CR-172-9

AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR CESSNA MODEL 172R, S S/N: _____ REG: _____

WITH KEITH PRODUCTS, INC. AIR CONDITIONING SYSTEM

This supplement shall be attached to the applicable FAA approved flight manual when a Keith Products refrigerant R134a air conditioning system is installed in accordance with STC No. SA09457SC.

The information contained herein supplements the basic manual only in those areas listed herein. For limitations, procedures, performance, and weight and balance information not contained in this supplement, consult the basic flight manual.

APPROVED:

S. Frances Cox, Manager

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Fort Worth, TX 76193-0190

FAA APPROVED:	MAR	06	2000
REVISION:	С		

REV.	PAGE NO.	DESCRIPTION	FAA APPROVAL	DATE
ORIG.	1 thru 5	Original Release	BY/FOR Gary B. Roach	4/01/98
			Sury B. Modeli	4/01/90
A	1 thru 5	COVER PAGE: Removed FAA Project No. ST4844SC-A Added "S" to model	S. Frances Cox	4/15/99
В	5	Added paragraph 5) to Section 4 - Air Conditioning	Not issued	Supersede by Rev C
С	5 1 thru 6	Added Electrical Malfunction Procedures to Section 3. Change resulted in addition of page 6. Updated to Rev C. Deleted "REVISION DATE:"	L fry Cer	3.6.02
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SECTION 1

GENERAL

DESCRIPTIVE DATA

The air conditioning system is electrically powered and consists of the following components:

- An engine driven compressor.
- A condenser assembly mounted in the tail section area.
- An evaporator assembly mounted in the baggage compartment area.
- Air distribution ducting mounted on the cabin floor.
- Refrigerant hoses routed from the engine compartment, along the cabin floor, and aft to the tail section.
- Control switches mounted on the instrument panel, with associated wiring running aft with existing wiring bundle.

SECTION 2

LIMITATIONS

PLACARDS

(1) AIR CON MUST BE TURNED OFF WHEN PITOT HEAT IS ON

Location: Under Pitot Heat switch, lower left-hand instrument panel.

(2) TURN AIR CONDITIONER
OFF FOR T/O AND LANDING

Location: Under Air Conditioning control switches.

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(3)

100 POUNDS MAXIMUM
BAGGAGE AND/OR AUXILIARY PASSENGER
FORWARD OF BAGGAGE DOOR LATCH
50 POUNDS MAXIMUM
BAGGAGE AFT OF BAGGAGE DOOR LATCH
MAXIMUM 100 POUNDS COMBINED
FOR ADDITIONAL LOADING INSTRUCTIONS
SEE WEIGHT AND BALANCE DATA

Location: Interior side of baggage compartment door.

(4)

AIR CONDITIONING

Location: Above air conditioning system circuit breaker.

SECTION 3

EMERGENCY PROCEDURES

ENGINE FAILURES:

Engine Failure Immediately After Take-off

Air Conditioning

OFF

Engine Failure In Flight

Air Conditioning

OFF

FIRES:

Engine Fire In Flight

Air Conditioning

OFF

Electrical Fire In Flight

Air Conditioning

OFF

Cabin Fire

Air Conditioning

OFF

ELECTRICAL SUPPLY POWER SYSTEMS MALFUNCTIONS

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Ammeter Shows Excessive Rate of Charge (Full Scale Deflection)

Air Conditioning

OFF

Low Voltage Annunciator Illuminates During Flight (Ammeter Indicates Discharge)

Air Conditioning

OFF

ICING

Air Conditioning

OFF

AIR CONDITIONING

In the event of an air conditioning/fan system failure or malfunction, the system should be de-activated as follows:

1) Left hand selector switch

OFF

SECTION 4

NORMAL PROCEDURES

AIR CONDITIONING

Air conditioning may be operated with the engine operating and the aircraft electrical system is providing 28 VDC to the main buss. To operate the system proceed as follows:

- 1) Turn on air conditioning system by placing left-hand control switch in the AIR COND position.
- 2) For maximum cooling, place center control switch in the HI-FAN position and close cabin and baggage doors.
- 3) Turn off air conditioning system by placing left-hand control switch in the OFF position.
- 4) Cabin air may be recirculated without the air conditioning system operating by placing the left-hand control switch in the FAN position.
- The air conditioning system is designed to load shed if power is applied to either the landing light or pitot heat during system operation.

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SECTION 5

PERFORMANCE

No Change.

SECTION 6

WEIGHT AND BALANCE

No change to the original weight and balance limits. See the Aircraft Weight and Balance Data, located in the Airplane Flight Manual. It includes the air conditioning system and new empty weight, C.G. and moment.

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