

INTEGRATED FLIGHT SYSTEMS, INC.
4607 B AIRCENTER CIRCLE
RENO, NV 89502

FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

FOR

EUROCOPTER FRANCE

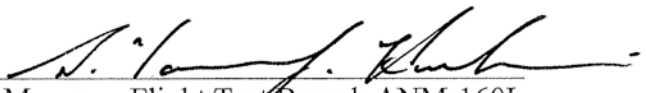
MODEL: EC 130 B4

REGISTRATION NO.: _____

SERIAL NO.: _____

This supplement must be attached to the DGAC approved Rotorcraft Flight Manual, November 29, 2000 when Integrated Flight Systems, Inc. air conditioning system is installed in accordance with Supplemental Type Certificate number SH3509SW. The information contained herein supplements the basic Rotorcraft Flight Manual only in those areas listed. For limitations, procedures, and performance information not contained in this supplement, consult the basic Rotorcraft Flight Manual.

FAA APPROVED:

acting 
Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
Transport Airplane Directorate

Date: *February 6, 2004*

Integrated Flight Systems, Inc.
4607 B Aircenter Circle
Reno, NV 89502
RFM Supplement Air Conditioner Kit
RFM-130-00-031HP STC#SH3509SW

Rotorcraft Flight Manual
Supplement for Eurocopter
France EC 130 B4

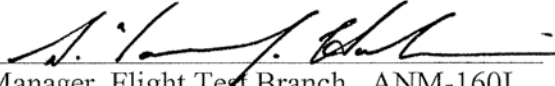
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LOG OF REVISIONS

REVISION:ORIGINAL ISSUE

<u>PAGE</u>	<u>DATE</u>	<u>REVISION NO.</u>
1	February 6, 2004	Original
2	February 6, 2004	Original
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5	February 6, 2004	Original
6	February 6, 2004	Original
7	February 6, 2004	Original
8	February 6, 2004	Original
9	February 6, 2004	Original

REVISED PAGES WILL BE DENOTED WITH “ * “ FOLLOWING PAGE NUMBER

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Date: Feb. 6, 2004

NOTE: Revised portions of affected pages are
identified by vertical black line in the
margin adjacent to the change.

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1.0 GENERAL

The installation consists of a belt drive vapor-cycle air conditioning system driven at the transmission for further description refer to Appendix A.0 System & Description.

2.0 OPERATING LIMITATIONS

The air conditioning system must be "OFF" during engine start.

Operation of the air conditioning system is prohibited if the total electrical load will exceed continuous load rating (green range) or if generator is inoperative.

3.0 EMERGENCY PROCEDURES

3.1 ENGINE or ELECTRICAL FAILURE PROCEDURES

In the event of an engine failure, turn air conditioner "OFF"

In the event of electrical power failure, turn air conditioner "OFF".

3.2 FIRE or SMOKE in CABIN

In the event of any of the following, turn air conditioner "OFF".

1. Cabin or other fire
2. Presence of smoke in cockpit

4.0 NORMAL PROCEDURES

4.1 Ground Operation

Air conditioning system operation: The air conditioning control switches are located on or near the instrument console.

To turn air conditioner “OFF” – Move switch to “OFF”.

For air circulation without cooling – Move switch to “FAN”.

For air circulation with cooling – Move switch to “A/C”

Select desired blower speeds.

4.2 Flight Operations

Ventilation Control – as desired (Close for cockpit/cabin cooling)

Air conditioning Control Switch – As desired.

Air conditioning Fan Speed Control Switch – As desired

5.0 PERFORMANCE

5.1 Hover In Ground Effect

If air conditioner is operating reduce gross weight capability determined from Figure 5-5 of the basic RFM by 30 pounds for pressure altitudes above 5,400 feet.

5.2 Hover Out of Effect

If air conditioner is operating reduce gross weight capability determined from Figure 5-6 of the basic RFM by 30 pounds.

APPENDIX

A.O SYSTEM AND DESCRIPTION

The air conditioning installation consists of a belt driven vapor cycle air-conditioning system using R-134A as the refrigerant.

The air conditioning system provides for cabin comfort during all operations both on the ground and in flight. During ground operations when the engine is running, cooling may be provided. Controls for the air conditioning system are located on or near the instrument panel. Three switches are provided. The Master Control Selector consists of a rocker type switch, labeled "A/C", "OFF", and "FAN". Selecting the "A/C" position turns on the system's dual evaporator fans, and condenser blower, and belt driven compressor. The second rocker switch is "HIGH", "LOW" evaporator fan speed selection for the forward cockpit. A third rocker switch provides two (2) speed evaporator blower speed selection for the aft cabin. All three switches are located next to each other.

A 5-amp circuit breaker located with the switches disconnects 28 VDC power for controlling air conditioning system power relays placarded as "Master" if pulled the system will be disable electrically and will be inoperative at this time.

A high-pressure safety switch, located under cabin floor, outboard of the right side keel beam disengages the compressor clutch and stops operation of the system in the event of excessive refrigerant pressures. This can occur due to failure of the condenser blower or restricted air intake. The switch will automatically reset itself.

A low-pressure safety switch is located under the cabin floor, outboard of the right side keel beam. It opens and stops operation of the compressor clutch in the event refrigerant loss occurs. The switch will automatically reset. Although both safety switches will reset, the occurrence of the either fault causes a 1-amp circuit breaker in the "Master A/C Electrical Panel" to trip. The compressor clutch and condenser blower are electrically disengaged when this occurs. Maintenance personnel MUST correct the fault once the aircraft is on the ground. Air circulation is still available, even if a fault occurs. The evaporator fan system may be used anytime air circulation is desired. This is accomplished by placing the selector switch in the "FAN" position Temperature control is not provided.

A.1 Electrical loading

The maximum electrical loads of the air conditioning system components:

Condenser blower	1 each @	19amps =	19 amps
Compressor clutch coil	1 each @	2amps =	2 amps
Evaporator fan (fwd)	1 each @	13amps =	13 amps
Evaporator fan (aft)	1 each @	13amps =	13 amps
Vent servo	1 each @	1 amp =	1 amp
System	Total =		48 amps

Load Shedding

Automatic electrical load shedding will not occur if a DC generator failure occurs.

NOTE **During conditions of high DC current use, such as battery recharging after engine start or use of landing lights, it is possible that the electrical load requirements with the air conditioning operating may exceed the rated output of the DC generator system.

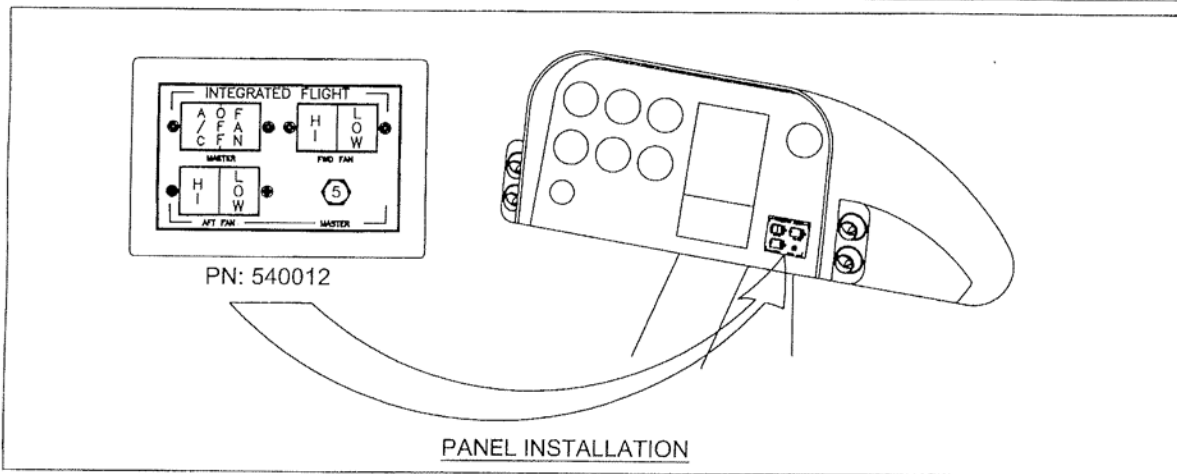
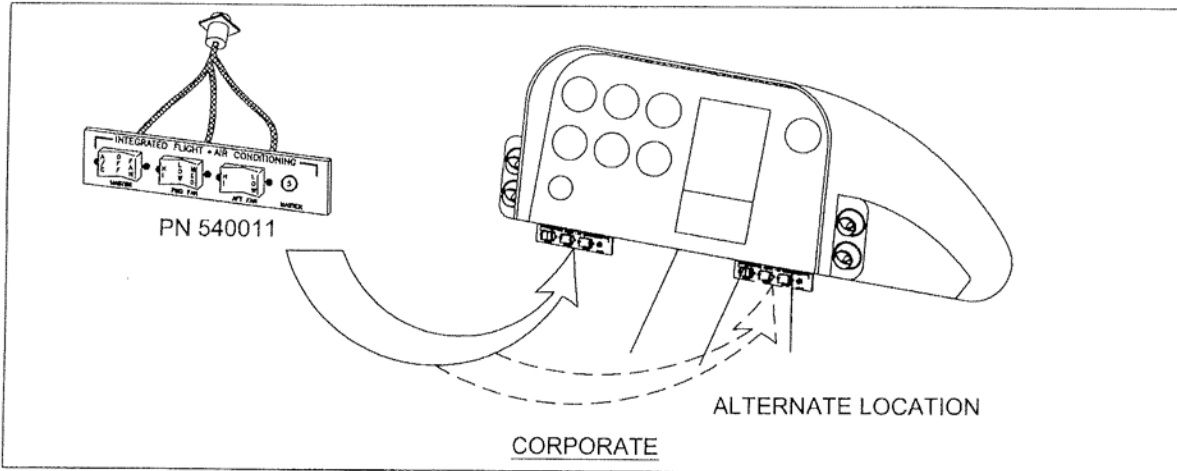
A.2 WEIGHT AND BALANCE

Weight and Balance must update to show air conditioning system installation once installation has been performed. Approximate weight is 89 pounds.

See Instructions supplied with kit for actual weights and moment information.

A.3 CONFIGURATIONS / OPTIONS

This system may be utilized in multiple applications. See the following possible Configurations and application for each specific installation possibility.

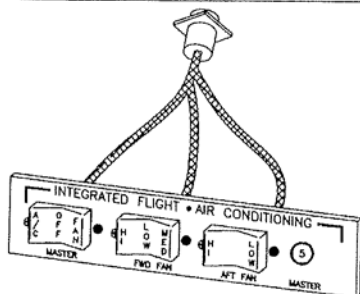


(FOR FUTURE CONFIG)

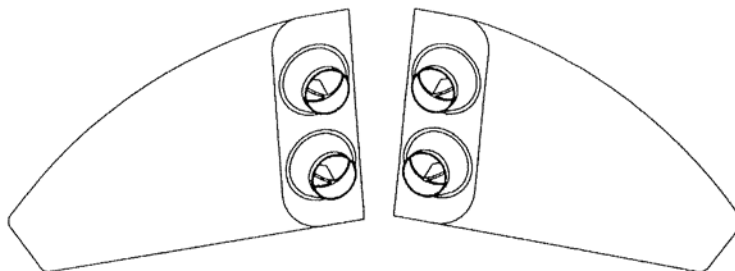
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SPECIAL OPTIONS

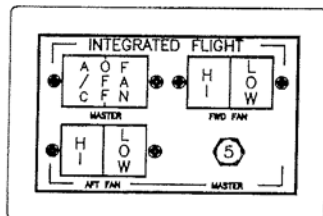


PN 540011: AIR CONDITIONING
CONTROL SWITCHES



PN 500001: LEFT SIDE
AIR OUTLET

PN 500002: RIGHT SIDE
AIR OUTLET



PN: 540012 PANEL MOUNT
SWITCH ASSEMBLY

(THESE ARE STANDARD ITEMS AT THE TIME OF THIS RELEASE,
 FUTURE CONFIGURATIONS AND OPTIONS WILL DEPEND ON CUSTOMER
 REQUEST AND EXISTING MODIFICATIONS TO AIRCRAFT.)

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