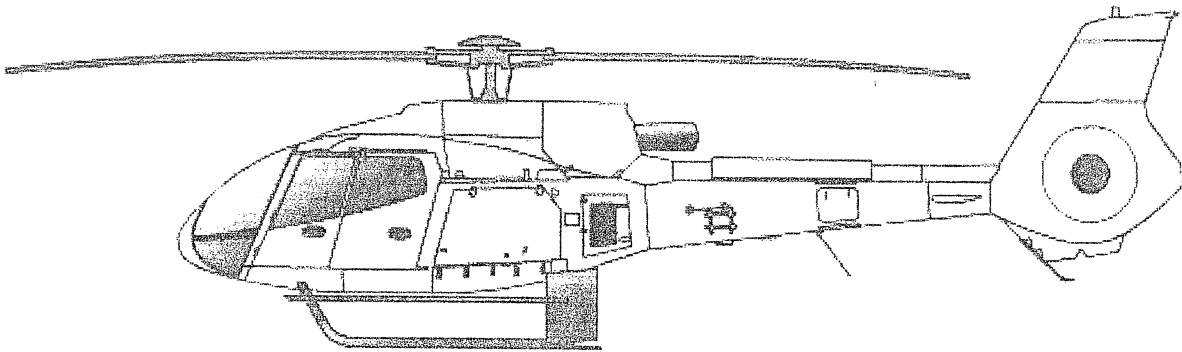


**AIR COMM CORPORATION  
3300 AIRPORT ROAD  
BOULDER, CO. 80301**

**DOCUMENTS FOR THE INSTALLATION OF THE  
EUROCOPTER MODEL EC130B CABIN AIR CONDITIONING SYSTEM**





**LIST OF EFFECTIVE PAGES**

LIST OF REVISIONS

Revision 0 (Original Issue)... 1 October, 2003  
 Revision 1, addition of EC130- 202, 12 Dec. 2005  
 Revision 2, Addition of EC130-690, 11 Nov. 2006

LIST OF EFFECTIVE PAGES

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## CHAPTER 0 INTRODUCTION

This document contains information, which is required for the installation and operation of the Air Comm Corporation's air conditioning system installed in the Eurocopter EC130B series helicopter. After completion of the installation of the air conditioner system the Weight & Balance Information, Flight Manual Supplement, and the Supplemental Type Certificate must be removed from this document and placed with the appropriate existing aircraft documents.

### 1. SCOPE

The scope of this document encompasses the general procedures and reference documentation necessary to install the Air Comm Corporation air conditioning system in the Eurocopter EC130B series helicopter.

### 2. PURPOSE

The purpose of this document is to provide the aircraft mechanic in the field the necessary information and documentation to install the air conditioning system.

### 3. ARRANGEMENT

This document is arranged by chapters, which are broken down into paragraphs and sub-paragraphs. All of the chapters and paragraphs are listed in the front of this document in the Table of Contents, and are further identified by their individual page number.

### 4. APPLICABILITY

This document is applicable to Eurocopter Helicopter models EC130B that are equipped with the Air Comm Corporation kit number EC130-200 & EC130-202 air conditioner system.

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**CHAPTER 1**  
**GENERAL INSTALLATION PROCEEDURE & REFERANCE DOCUMENT**

1. GENERAL INSTALLATION PROCEEDURE

This section is intended to supplement the information contained on the installation drawings. All details and notes contained on the drawings should be reviewed carefully. As instructions for installation are provided on the installation drawing where appropriate, and are not repeated in this document.

It will be necessary to remove the transmission cowlings, the main cabin headliner, Chin bubbles, to facilitate the installation of this kit.

The system components and associated hardware are packaged separately. Prior to beginning the installation it is recommended that the hardware be inventoried and placed in separate (labeled) boxes to prevent mixing.

Care should be taken to prevent contamination of the air conditioner system! All plugs on the plumbing assemblies and system components should *not* be removed until just prior to installation of the part. The exception to this procedure is the installation of the receiver / drier bottle. The receiver / drier should be left capped and not installed until just prior to servicing the system with refrigerant. This prevents the desiccant inside the bottle from becoming saturated with water.

2. REFERANCE DOCUMENT

The approval basis of the system covered by this document is Supplemental Type Certificate **SR00543DE**

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**CHAPTER 2  
WEIGHT & BALANCE INFORMATION**

This page must be removed and placed with the appropriate existing aircraft documents.

Weight breakdown – Eurocopter EC130B series air conditioning system:  
Dwg. **EC130-200** (Belly mounted condenser)

Weight & Balance

| Item  | Wt. (lbs) | X-Arm (in) | X-M (in-lb) | Y-Arm (in) | Y-M (in-lb) |
|---|-----------|------------|-------------|------------|-------------|
| Total EC130B with Single Fwd & Aft Evaporator (With fresh air option)     | 88.40     | 99.01      | 8,752       | -3.30      | -292        |
| Total EC130B with Single Fwd & Aft Evaporator (with out fresh air option) | 86.40     | 98.50      | 8,510       | -2.83      | -244        |

Weight breakdown – Eurocopter EC130B series air conditioning system:  
Dwg. **EC130-202** (Side compartment mounted Condenser)

| Item  | Wt. (lbs) | X-Arm (in) | X-M (in-lb) | Y-Arm (in) | Y-M (in-lb) |
|---|-----------|------------|-------------|------------|-------------|
| Total EC130B with Single Fwd & Aft Evaporator (With fresh air option)     | 83.34     | 105.08     | 8,786       | -1.22      | -102.02     |
| Total EC130B with Single Fwd & Aft Evaporator (with out fresh air option) | 81.34     | 105.42     | 8,547       | -.66       | 54.02       |

Weight breakdown - Optional Auxiliary Ventilation System (If Installed):  
Ref. Dwg. Ec130-690

| Item  | Wt. (lbs)   | X-Arm (in)   | X-M (in-lb) | Y-Arm (in)  | Y-M (in-lb) |
|---|-------------|--------------|-------------|-------------|-------------|
| <b>Total EC130-690 Auxiliary Ventilation System</b> | <b>2.26</b> | <b>117.2</b> | <b>265</b>  | <b>19.0</b> | <b>42</b>   |

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**CHAPTER 3  
FLIGHT MANUAL SUPPLEMENT**

1. FLIGHT MANUAL SUPPLEMENT

The following document must be removed and placed with the appropriate existing aircraft documents.

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SUPPLEMENT TO  
EC130B4 RFM

Air Comm Corporation  
Document No. EC130B4-2

SUPPLEMENT TO  
EC130B4 RFM

AIR COMM CORPORATION  
3300 AIRPORT ROAD  
BOULDER, COLORADO 80301

EUROCOPTER EC130B4

CABIN AIR CONDITIONING SYSTEM

CABIN AIR CONDITIONING SYSTEM

FLIGHT MANUAL SUPPLEMENT

Document No. EC130B4-2

FAA APPROVED

The information contained in this document is FAA approved material which must be carried in the basic Flight Manual after the rotorcraft has been modified by installation of the Cabin Air Conditioning System in accordance with Air Comm Corporation STC No. SR00543DE.

This document is applicable to the EC130-202 Air Conditioning system (Condenser located in the LH or RH baggage compartment).

The information in this document supplements or supersedes the basic manual only in the items contained herein. For Limitations, Procedures, and Performance Data not contained in this supplement consult the basic Flight Manual.

FAA Approved *D. F. May*

*F. Ronald F. May, Manager*  
Denver Aircraft Certification Office  
Northwest Mountain Region  
Denver, Colorado

Date MAR 31 2006

| Log of Revisions  |       |         |                  |
|---|-------|---------|------------------|
| Rev. No.  | Pages | Date    | FAA Approval     |
| Original  | 1-11  | 3/31/06 | <i>D. F. May</i> |
| <p>App'l <u><i>D. F. May</i></u><br/> <i>F. Ronald F. May, Manager</i><br/>           Denver Aircraft Cert. Office<br/>           Northwest Mountain Region<br/>           Denver, Colorado</p> <p>Date: <u>MAR 31 2006</u></p> |       |         |                  |

FAA Approved MAR 31 2006



SECTION 2

OPERATING LIMITATIONS

PLACARDS AND MARKINGS

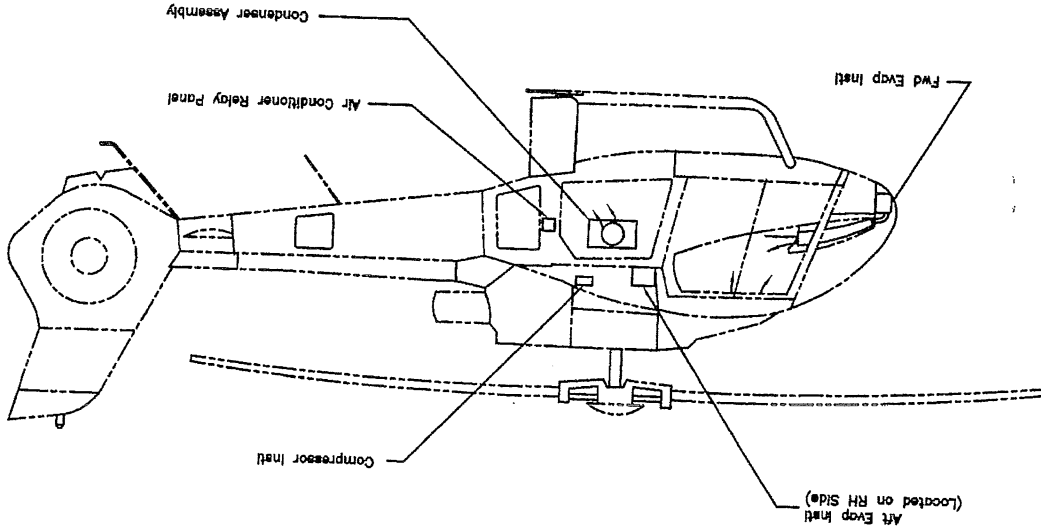
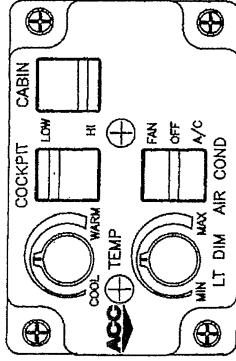
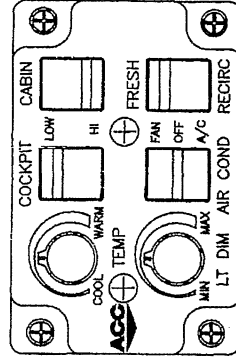


Figure 1

General Arrangement - Cabin Air Conditioner



AC Control Panel  
without Fresh Air Switch



AC Control Panel  
with Fresh Air Switch

Figure 2

AC Control Panel located in cockpit headliner  
(Alternate Location - Anywhere on RH side of instrument panel)

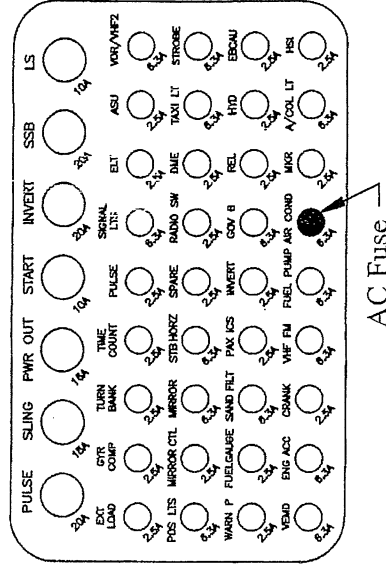


Figure 3

AC fuse is located in the cockpit fuse panel  
on the RH side of the instrument panel console

SECTION 2

OPERATING LIMITATIONS

SECTION 2

OPERATING LIMITATIONS

PLACARDS AND MARKINGS (cont'd)

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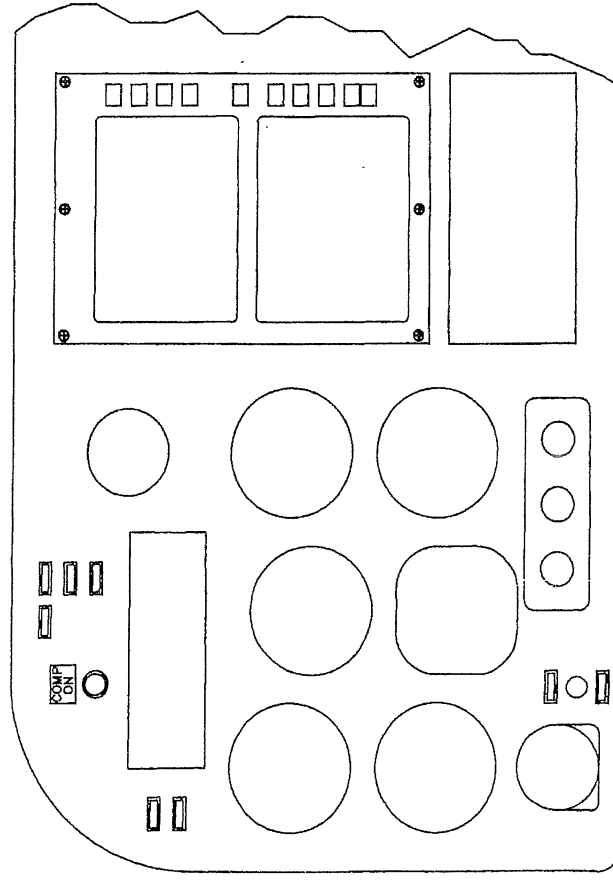
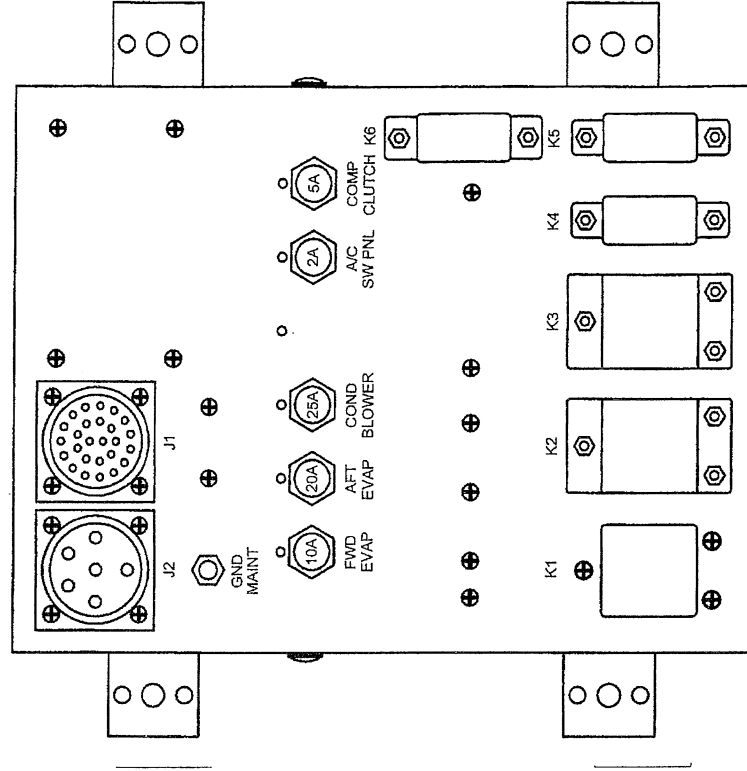


Figure 4  
COMP ON Annunciator  
(Approved Location - Anywhere on the instrument panel within view and reach of the pilot)

Figure 5  
AC Relay Panel  
(Mounted inside the right-hand baggage compartment)



SECTION 3

EMERGENCY PROCEDURES

SECTION 4

NORMAL PROCEDURES

Place the A/C-OFF-FAN (3 position switch) to the OFF position for any of the following emergencies:

- Smoke in the cabin
- Engine failure
- Engine over-temperature
- Generator failure
- Water landing

NOTE

Loss of generator output will activate the air conditioner auto load shed circuitry, which will de-energize the entire air conditioning system, including compressor clutch.

NOTE

If outlet air is not cool, place the A/C-OFF-FAN (3-position switch) to the OFF or FAN position to preclude damage to the compressor.

PREFLIGHT CHECK (EXTERIOR)

- Compressor – Check security
- Compressor Drive Belt – Check tension and general condition
- Compressor Belt Shield – Check security

ENGINE PRESTART Check A/C-OFF-FAN (3-position switch) – OFF  
BEFORE TAKEOFF

- A/C-OFF-FAN (3-position switch) – As desired
- EVAP FANS – FAN SPEED SWITCH – As desired
- FRESH AIR SWITCH – As desired

IN FLIGHT OPERATIONS

- A/C-OFF-FAN (3-position switch) – As desired
- EVAP FANS – FAN SPEED SWITCH – As desired
- FRESH AIR SWITCH – As desired

NOTE

Total air conditioning system electrical load is less than 43 amps. Monitor amps.

NOTE

Placing the FRESH/RECIRC switch in the FRESH position allows outside air to enter the aft evaporator. When maximum cooling is desired place this switch in the RECIRC position.

NOTE

Simultaneous operation of the cabin heater and air conditioner can be used to achieve cabin defogging.

SECTION 5

PERFORMANCE DATA

When the air conditioner is operating, the performance data in the basic flight manual should be reduced as shown below:

Rate of Climb Degradation

Reduce the rate of climb in the basic Flight Manual by the amount shown below:

R/C Reduction ..... 46 ft/min (14 m/min)

Hover Ceiling In Ground Effect and Out of Ground Effect

Add 40 lb (18 kg) to the actual IGE/OGE hover gross weight for takeoff power or maximum continuous power when entering the chart to determine hover ceiling.

**CHAPTER 4**  
**SUPPLEMENTAL TYPE CERTIFICATE**

1. SUPPLEMENTAL TYPE CERTIFICATE

The following document must be removed and placed with the appropriate existing aircraft documents.

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Department of Transportation—Federal Aviation Administration

# Supplemental Type Certificate

*Number* SR00543DE

*This certificate, issued to* Air Comm Corporation  
3300 Airport Road  
Boulder, Colorado 80301

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.*

*Original Product—Type Certificate Number:* H9EU  
*Make:* Eurocopter France  
*Model:* EC130 B4

*Description of the Type Design Change:*

Installation of Cabin Air Conditioning System in accordance with Air Comm Corporation Master Drawing List Report No. DL-EC130, revision B, dated February 27, 2004, FAA approved April 1, 2004, or later FAA approved revision.

*Limitations and Conditions:*

1. Instructions for Continued Airworthiness, Air Comm Corporation Report EC130-200M-1, dated October 20, 2003, FAA accepted January 8, 2004, or later FAA accepted revision is required for this installation.
2. FAA Approved Flight Manual Supplement, Document No. EC130B4-1, dated April 1, 2004, or later FAA approved revision is required.
3. FAA Approved Flight Manual Supplement, Document No. EC130B4-2, dated March 30, 2006, or later FAA approved revision is required for the EC130-202 Air Conditioning System (condenser located in LH or RH baggage compartment.).
4. This approval should not be extended to rotorcraft of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that rotorcraft.
5. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* September 29, 2003

*Date reissued:*

*Date of issuance:* April 1, 2004

*Date amended:* March 31, 2006



*By direction of the Administrator*

*David Grossman*

David Grossman (*Signature*), Rotorcraft Program Manager  
Northwest Mountain Region  
Denver Aircraft Certification Office  
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.