

A/C TYPE EC 155BA/C REGN 9M-SAS (6583)




TYPE OF CHECK \_\_\_\_\_

EUROCOPTER SOUTH EAST ASIA PTE LTD  
48 Loyang Way Singapore 508740NO: **15841** FORM NO: M/003

JOB NO. \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

## DEFECT AND RECTIFICATION WORKSHEET/CERTIFICATE OF RELEASE TO SERVICE

ITEM NO.	REPORTED BY DATE	DEFECT/WORK REQUIRED	ACTION TAKEN	COMPONENT CHANGES		G.I.N.NO. OR O/H/AUL REPORT NO.	MAN HOURS	MECH	LIC/ APP NO. DATE
				S/N OFF	S/N ON				
1	Evan. 05.11.03.	Reported Defect: Pilot's PFD. Horizontal white line across bottom of screen.	Pilot's PFD replaced. Configuration clout. Functional cx clout 'SATIS'. (p/w: C19209V611)	480	474	50843/2003.	1	JML 05.11.03.	<i>[Signature]</i> 05/11/03 
2	ANDREW 06.11.03	TO CARRY OUT SB NO. 31A008 (INDICATING AND RECORDING SYSTEMS :- MODIFICATION OF THE POWER SUPPLY TO K/G PCB 10411 ✓)	SB NO. 31A008 CARRIED OUT AND FOUND 'SATIS'.			M0315/2003		FOC Mandatory Ment 8-B.	<i>[Signature]</i> 07/11/03 
3	Evan. 06.11.03.	To carry out SB No 34-004 Subject: Navigation Pelican Rack - Improved Air Ventilation System.	SB No: 34-004 Subject: Navigation Pelican Rack - Improved Air Ventilation System clout. 'SATIS'. Fan module p/w: E13106AA removed Fan module p/w: E13106AB installed	285	337	70269/2003.	2	JML 06.11.03.	<i>[Signature]</i> 06/11/03 

THE WORK RECORDED ABOVE HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS FOR THE TIME BEING IN FORCE AND IN THAT RESPECT THE AIRCRAFT/ EQUIPMENT IS CONSIDERED FIT FOR RELEASE TO SERVICE:

 SINGAPORE AIR NAVIGATION ORDER

 JAR 145 NO : F-04E



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 MALAYSIAN CIVIL AVIATION REGULATIONS

 MANUFACTURER'S PUBLICATIONS





6						Contrôle d'exécution des modifications et des Services Bulletins <i>Modification and Service Bulletin checking</i>						
Numéro No.		Nature de la modification Type of modification				Unité ou société d'exécution Performing unit or contractor		Date d'exécution et tampon de contrôle Date of embodiment and inspection stamp				
5		Unité ou société Contractor		Date Date		Version et N° Appareil Aircraft Version and S/N		Fonctionnement Operation			Attestation / Certif.	
												
		SEXTANT AV.		06-2000							Fab/Manif. Récept/Receipt	
											Destockage/Depreservation	
											V.P/Periodic Overhaul	
		EC		09-2000		EC155B 6583		0h		0h		Montage/Fitting 

FICHE MATRICULE / LOG CARD *					Fiche n°								
					Log card n° 1								
1							Identification du matériel <i>Material identification</i>						
Dénomination Name		ECRAN 45H VIDEO MISSION SCREEN 45H VIDEO MISSION											
Nomenclature OTAN NATO Nomenclature													
Référence EC EC Part number		704A45751153											
Référence fabricant Manufacturer's Part number		C19209VF11			Code OTAN fabricant F9111 NATO Manuf code								
Configuration de livraison Delivery configuration							Version Version						
Numéro de série Serial number		480					Amendements C Amendments						
Fabricant Supplier		SEXTANT AVIONIQUE					Type Type						
2							Marché ou commande <i>Contract or order</i>						
Référence Reference							Date Date						
Organisme émetteur Issuing agency							N° ou lot Kit n°						
Fournisseur Contractor							Adresse Address						
3							Garantie <i>Guarantee</i>						
Matériel Equipment		Date de livraison Date of delivery		Durée garantie de stockage Guaranteed storage period			Date de mise en service Service date		Durée Garantie de fonctionnement Guarantee operation period				
Fab/Man													
4							Renseignements particuliers <i>Special information</i>						
Annexe au tableau 4 : Appendix to table 4							oui/non * yes/no		Nb de page 1/___ Number of pages				
Inventaire des pièces à Durée de Vie : Inventory of lifed components							oui/non * yes/no		Nb de page 1/___ Number of pages				
Fiche Matricule de Transfert : Transfer sheet							oui/non * yes/no		Nb de fiche 1/___ Number of sheet				
Limite de fonctionnement Operating limit							Limite de vie Life limit						

\* Rayer la mention inutile

\* Delete as necessary



GSAC

# AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

*Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.*

**Translation of 'Consigne de Navigabilité' ref. : 2003-323(A)  
In case of any difficulty, reference should be made to the French original issue.**

## EUROCOPTER

### EC 155 helicopters

Indicating and recording systems - Landing gear PCBs 10 and 11 Alpha (ATA 31)

#### **1. EFFECTIVITY**

EC 155 helicopters, versions B and B1, equipped with ASU board 10 Alpha 2 (PN SE 07451) :

- After embodiment of drawing 365 PCS 76023 or compliance with EUROCOPTER EC 155 Telex Alert No. 31A005,
- Before embodiment of MOD 07 39C22.

#### **2. REASON**

This Airworthiness Directive (AD) is issued following a case of the landing gear not extending in "NORMAL" and "EMERGENCY" modes.

#### **3. MANDATORY ACTIONS AND COMPLIANCE TIME**

The following actions are rendered mandatory from the effective date of this AD :

- Before June 30, 2004, modify the wiring and finalize the harnesses in compliance with the instructions described in paragraph 2 of referenced EUROCOPTER EC155 Alert Service Bulletin (ASB) No. 31A008.

REF. : \_\_\_\_\_  
EUROCOPTER EC 155 Alert Service Bulletin No. 31A008.  
(or any further approved revision).

**EFFECTIVE DATE : SEPTEMBER 13, 2003**

September 03, 2003	EUROCOPTER EC 155 helicopters	2003-323(A)  1 / 1
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EUROCOPTER  
DIRECTION TECHNIQUE SUPPORT  
13725 MARGNANE CEDEX FRANCE

CIVIL VERSION(S): B, B1

# ALERT SERVICE BULLETIN

**No. 31A008**

**SUBJECT: INDICATING AND RECORDING SYSTEMS**  
Modification of the Power Supply to Landing Gear PCB 10 and 11 ALPHA

Corresponds to MOD 365P08.8837.01 and MOD 0739C22

LIST OF APPROVED REVISIONS	REVISION No. 0 APPROVED
Not applicable	Date: August 20, 2003



## 1. PLANNING INFORMATION

### 1.A. EFFECTIVITY

#### 1.A.1. Helicopters

EC 155 helicopters - Versions B and B1, in the following configuration:

- Equipped with ASU PCB 10 ALPHA 2 (SE07451)
- Post drawing 365PCS 76 023 or Alert Service Bulletin No. 31A005.
- Pre MOD 0739C22.

#### 1.A.2. Component(s) Affected

Not applicable.

### 1.B. ASSOCIATED REQUIREMENTS

Not applicable.

### 1.C. REASON

To modify the electrical system to enhance the reliability of the NORMAL and EMERGENCY landing gear extension functions by separating their power supplies.

This Alert Service Bulletin invalidates the instructions given in Alert Service Bulletin No. 31A005.

This Alert Service Bulletin forms the subject of a DGAC Airworthiness Directive.

### 1.D. DESCRIPTION

Following failure of the landing gear to extend in NORMAL and EMERGENCY modes, EUROCOPTER has issued Alert Telex No. 31A005, which introduces, as a precautionary measure, a modification designed to prevent further occurrence of this phenomenon.

This Alert Service Bulletin describes the final measure to be applied to rectify this problem.

This modification consists in:

- Modifying the power distribution wiring of the EMERGENCY landing gear extension controls (10 ALPHA).
- Modifying the power distribution wiring of the NORMAL landing gear extension controls (11 ALPHA).
- Modifying the wiring of the "L/G PUMP" switch on overhead panel 12 ALPHA.
- Modifying the wiring of connectors 41 ALPHA 09-B1 and 41 ALPHA 09-B2.
- Removing the emergency pump operating limitation placard located on panel 12 ALPHA.



**1.E. COMPLIANCE**

EUROCOPTER renders compliance with this Alert Service Bulletin mandatory.

1.E.1. At the works

1.E.1.a. On Aircraft

Ensure compliance from the following date and/or aircraft serial number: July 1, 2003.

**NOTE**

*This date is given for information only. Refer to the Certificate of Conformity (or RIC – Individual Inspection Record) to identify the actual modification status of the aircraft.*

1.E.1.b. On Spares

Not applicable.

1.E.2. Retrofit Action at the Operator's Site

1.E.2.a. On Aircraft

Comply with this Alert Service Bulletin before June 30, 2004.

1.E.2.b. On Spares

Not applicable.



## 1.F. APPROVAL

Approval is limited to civil version helicopters subject to an Airworthiness Certificate.

### 1.F.1. Modification Approval

The information or instructions relate to:

- MOD 365P08883701, which was approved on July 4, 2003 by the DGAC.
- MOD 0739C22, which was approved on July 4, 2003 by the DGAC.

### 1.F.2. Alert Service Bulletin Approval

The technical information contained in this Alert Service Bulletin, No. 31A008, was approved on August 20, 2003 under the authority of DGAC Design Organisation Approval No. F.JA01.

## 1.G. MANPOWER

- Qualification: 1 electrician.
- Time: approximately 8 hours.

## 1.H. WEIGHT AND BALANCE

- Weight: Not applicable.
- Moment: Not applicable.

## 1.I. EFFECT ON ELECTRICAL LOADS

Not applicable.

**1.J. SOFTWARE MODIFICATION EMBODIMENT STATE**

Not applicable.

**1.K. REFERENCES**

Standard Practices Manual (MTC):  
Work Cards: 20.07.03.406 and 20.07.03.408.

Aircraft Maintenance Manual (AMM):  
Tasks : 24-00-00-911, 29-00-00-911,  
29-20-00-481, 32-30-00-721,  
34-42-01-065 and 53-55-00-061.

Aircraft Maintenance Manual (AMM):  
Sub-Tasks: 32-30-00-721-002 of Task 32-30-00-721,  
07-10-00-581-002 of Task 07-10-00-581.

**1.L. OTHER DOCUMENTS CONCERNED**

- Wiring Diagrams Manual (WDM).

**1.M. INTERCHANGEABILITY AND MIXABILITY OF PARTS**

**1.M.1. Interchangeability**

Not interchangeable.

**1.M.2. Mixability**

Not applicable.

## 2. ACCOMPLISHMENT INSTRUCTIONS

### 2.A. GENERAL

- Comply with the general instructions for:
  - . Electrical power, as per Task 24.00.00.911.
  - . Hydraulic power, as per Task 29.00.00.911.

### 2.B. OPERATIONAL PROCEDURE

#### 2.B.1. Preliminary Steps

Refer to Figure 1:

- Open radome (A).
- Remove LH landing light fairing (T) as per Task 53-55-00-061.

#### 2.B.2. Procedures

##### 2.B.2.a. Removing the PELICAN Rack

- Remove the radar antenna drive mechanism support as per Task 34-42-01-065.

Refer to Figure 1:

- Remove screws (D) and washers (E) securing PELIKAN rack (C).
- Remove PELICAN rack (C) rear connectors.
- Remove PELICAN rack (C).

##### 2.B.2.b. Modifying the Wiring (Suppressing the Modification Introduced by Telex Alert No. 31A005)

Modification of 10 ALPHA (Refer to Figures 2 and 3):

- Remove connector 10 ALPHA 2 (H) from fixed connector 10 ALPHA 2 (J).
- Remove identification marker 10 ALPHA 2 CP1 and retain it.
- Remove the clamp holding the harness and the green protective sheath on the cleat at the rear of connector 10 ALPHA 2 (H).
- Remove the clamps holding the green protective sheath on the harness.
- Remove the clamps holding the spreaders that support connectors (M), (N) and diode (P).
- Remove and discard diode (P).
- Remove and discard blanks (Q) on connector 10 ALPHA 2 CP1 (H).
- Disconnect wire REP5380A from terminal 1A and connect it to terminal 1C on connector (M).
- Disconnect wire 1GA24NE from terminal 2B and connect it to terminal 2C on connector (M).
- Take wire (8) and cut 2 lengths of 140 mm.
- Strip both ends of each length of wire (8).
- Crimp contacts (2) at one end of wires (8), and contacts (3) at the other.
- Connect a wire (8) between terminal 18 on connector 10 ALPHA 2 CP1(H), and terminal 1B on connector (M).
- Connect the other wire (8) between terminal 15 on connector 10 ALPHA 2 CP1(H), and terminal 2B on connector (M).

### 2.B.2.c. Modifying the Wiring

Modifying 10 ALPHA (Refer to Figures 2 and 4):

- Remove identification marker 10 ALPHA 2 DP1 and retain it.
- Remove the clamp holding the harness and the green protective sheath on the cleat at the rear of connector 10 ALPHA 2 (H).
- Remove the clamps holding the green protective sheath on the harness.
- Unplug wire 1GA6J from connector 10 ALPHA 2 CP1.
- Fit cap (7) to wire 1GA6J.
- Fit blank (9) to terminal 20 on connector 10 ALPHA 2 CP1.
- Unplug wire 1GA17H from connector 10 ALPHA 2 DP1.
- Fit cap (7) to wire 1GA17H.
- Fit blank (9) to terminal 10 on connector 10 ALPHA 2 DP1.
- Unplug wire 1GA22E from connector 10 ALPHA 2 DP1.
- Fit blank (9) to terminal 1 on connector 10 ALPHA 2 DP1.
- Take wire 1GA22E out of electrical harness 10 ALPHA 2 DP1 at the rear of the PELICAN rack, where the main harness divides.
- Fit wire 1GA22E into green protective sheath (1).
- Route and secure wire 1GA22E, under its sheath, to the harness toward 11 ALPHA 2 AP1 using clamps (4), (5) and (6).

Modifying 11 ALPHA (Refer to Figures 2 and 4):

- Remove connector 11 ALPHA 2 (K) from fixed connector 11 ALPHA 2 (L).
- Remove identification marker 11 ALPHA 2 AP1 and retain it.
- Remove the clamp holding the harness and the green protective sheath on the cleat at the rear of connector 11 ALPHA 2 (K).
- Remove the clamps holding the green protective sheath on the harness.
- Connect wire 1GA22E to wire 1GA36E with extension lead (10) close to connector 11 ALPHA 2 AP1.

Modifying 41 ALPHA (Refer to Figures 2 and 4):

- Remove connector 41 ALPHA 09 from fixed connector 41 ALPHA 09.
- Unplug wire 1GA17H from connector 41 ALPHA 09-B2P1.
- Fit cap (7) to wire 1GA17H.
- Fit blank (9) to terminal X on connector 41 ALPHA 09-B2P1.
- Unplug wire 1GA6J from connector 41 ALPHA 09-B1.
- Fit cap (7) to wire 1GA6J.
- Fit blank (9) to terminal B on connector 41 ALPHA 09-B1P1.

Modifying 12 ALPHA (Refer to Figures 4 and 5):

- Remove overhead panel 12 ALPHA.
- On "L/G PUMP" switch (S).
- Disconnect wire 1GA56F from contact 1B and connect it to contact 1C.
- Fit crimp contacts (3) to wire 1GA64E (8).
- Connect wire 1GA64E (8) to contacts 1B and 2C.
- Install clamps (4) to hold the wires on the harness of 12 ALPHA.
- Install overhead panel 12 ALPHA.
- Remove "LIMITATION" label (R) from overhead panel 12 ALPHA.



#### 2.B.2.d. Finalizing the Harnesses

- Fit the protective sheaths in correct position on harness 10 ALPHA 2.
- Install clamps (4), (5) or (6) to hold the sheaths making up the harness.
- Fit identification marker 10 ALPHA 2 CP1 (previously retained).
- Fit identification marker 10 ALPHA 2 DP1 (previously retained).
- Plug connector 10 ALPHA 2 (H) into fixed connector 10 ALPHA 2 (J).
- Install clamp (4) to hold the harness and the green protective sheath on the cleat at the rear of connector 10 ALPHA 2 (H).
  
- Fit the protective sheaths in correct position on harness 11 ALPHA 2.
- Install clamps (4), (5) or (6) to hold the sheaths making up the harness.
- Fit identification marker 11 ALPHA 2 AP1 (previously retained).
- Plug connector 11 ALPHA 2 (K) into fixed connector 11 ALPHA 2 (L).
- Install clamp (4) to hold the harness and the green protective sheath on the cleat at the rear of connector 11 ALPHA 2 (K).
  
- Fit the protective sheaths in correct position on harness 41 ALPHA.
- Install clamps (4), (5) or (6) to hold the sheaths making up the harness.
- Plug connector 41 ALPHA 09 into fixed connector 41 ALPHA 09.

#### 2.B.2.c. Installing the PELICAN Rack

Refer to Figure 1:

- Install PELICAN rack (C) rear connectors.
- Install PELICAN rack (C) using screws (D) and washers (E).
- Install the radar antenna drive mechanism support as per Task 34-42-01-065.

#### 2.B.2.d. Landing Gear System Functional Tests

Comply with:

- Task 32-30-00-721 to test the electric pump in the NORMAL and EMERGENCY modes.
- Task 29-20-00-481 to test the electric pump in the TEST mode.

#### 2.B.3. Reconditioning (Figure 1)

- Comply with Sub-Task 07-10-00-581-002 of Task 07-10-00-581 to lower the helicopter onto its wheels.
- Close radome (A).
- Install LH landing light fairing (T) as per Task 53-55-00-061.
- Connect all electrical power sources as per MTC Work Card 20.07.03.406.
- Perform the appearance and cleanliness checks on the aircraft as per MTC Work Card 20-07-03.408.

**2.C. IDENTIFICATION**

- Record compliance with this Alert Service Bulletin in the aircraft documents.
- Enter Modification 365A0739C22 in the Individual Inspection Record.

**2.D. OPERATING AND MAINTENANCE INSTRUCTIONS**

**2.D.1. Operating Instructions**

Not applicable.

**2.D.2. Maintenance Instructions**

Not applicable.

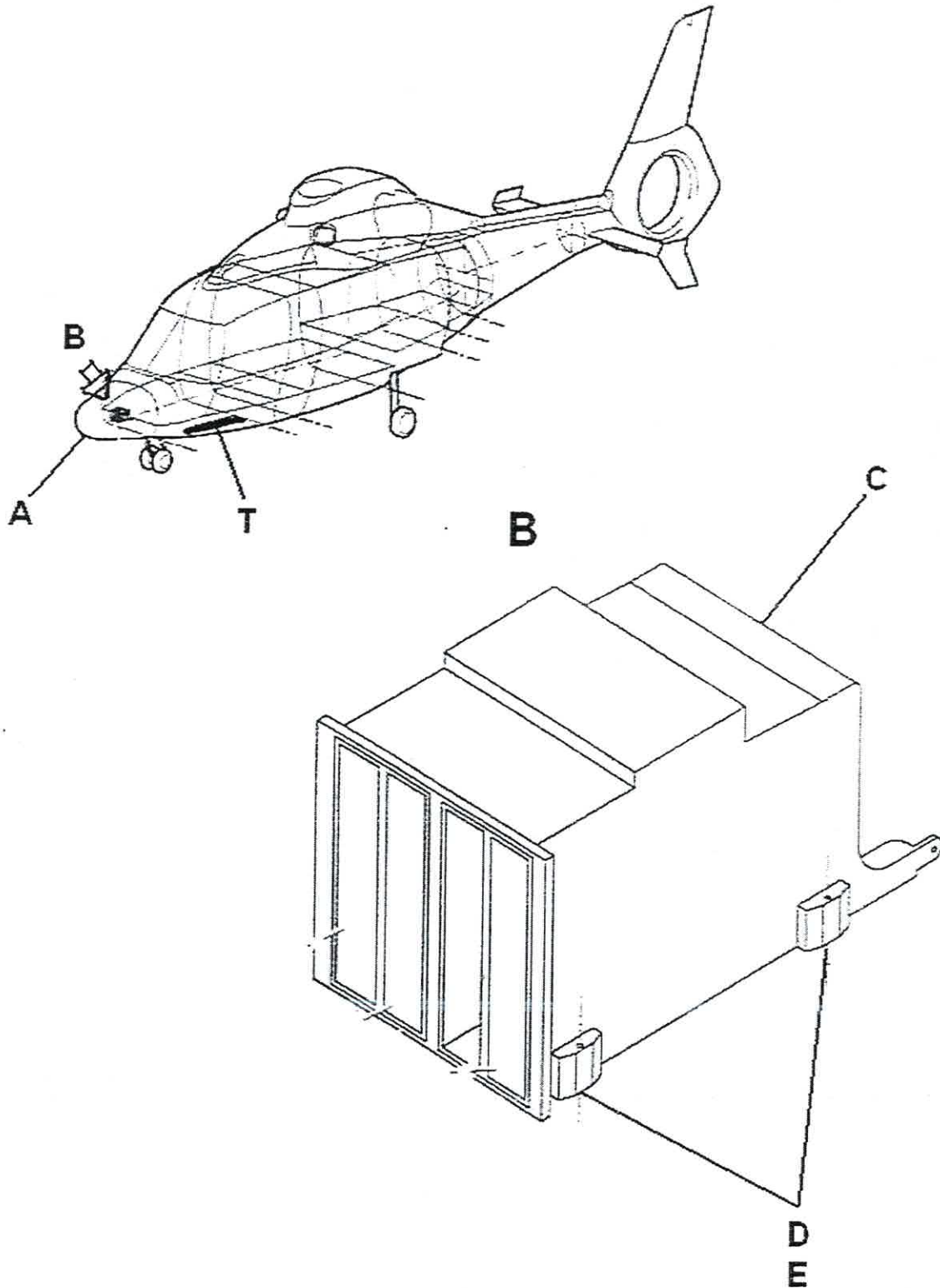


Figure 1



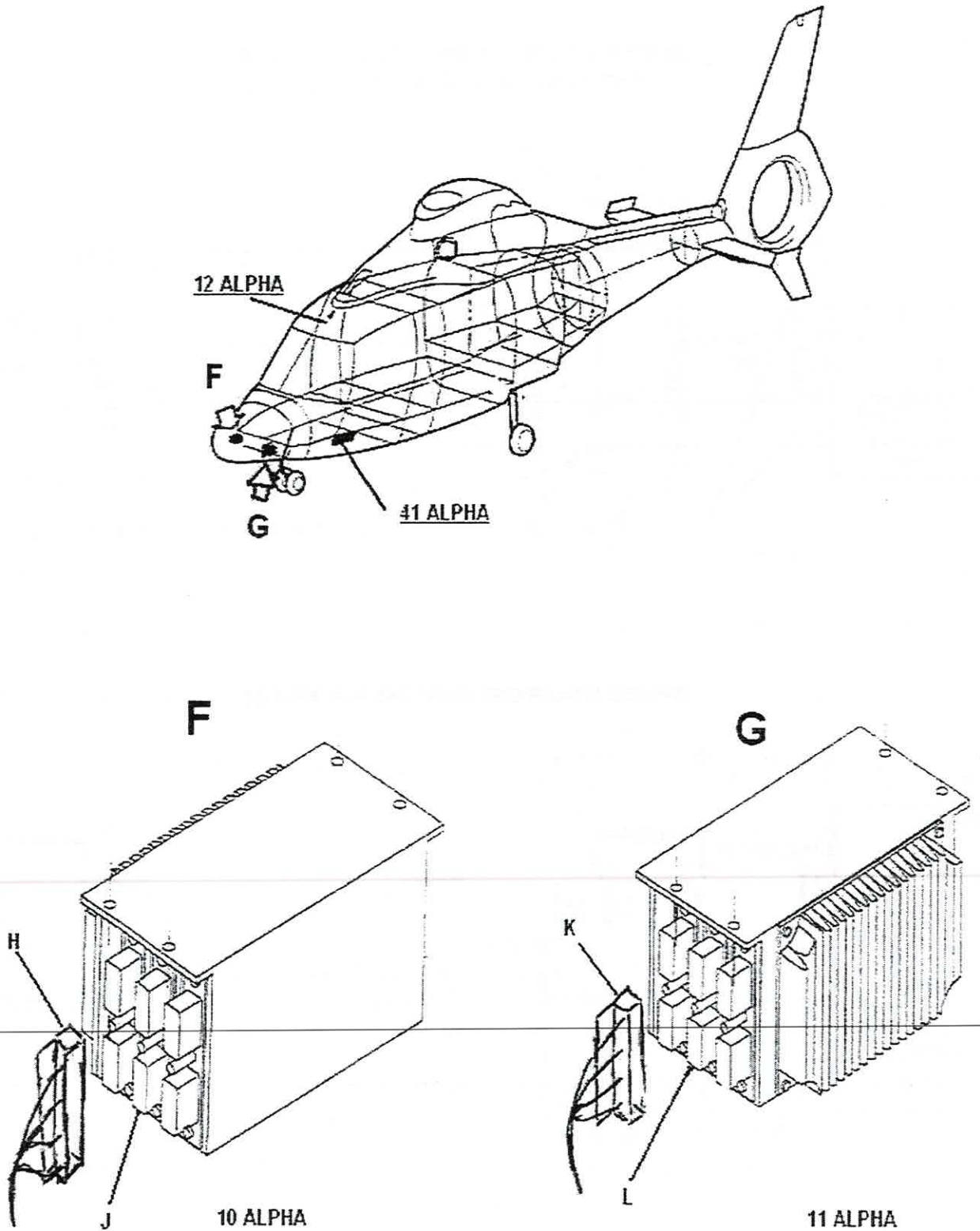
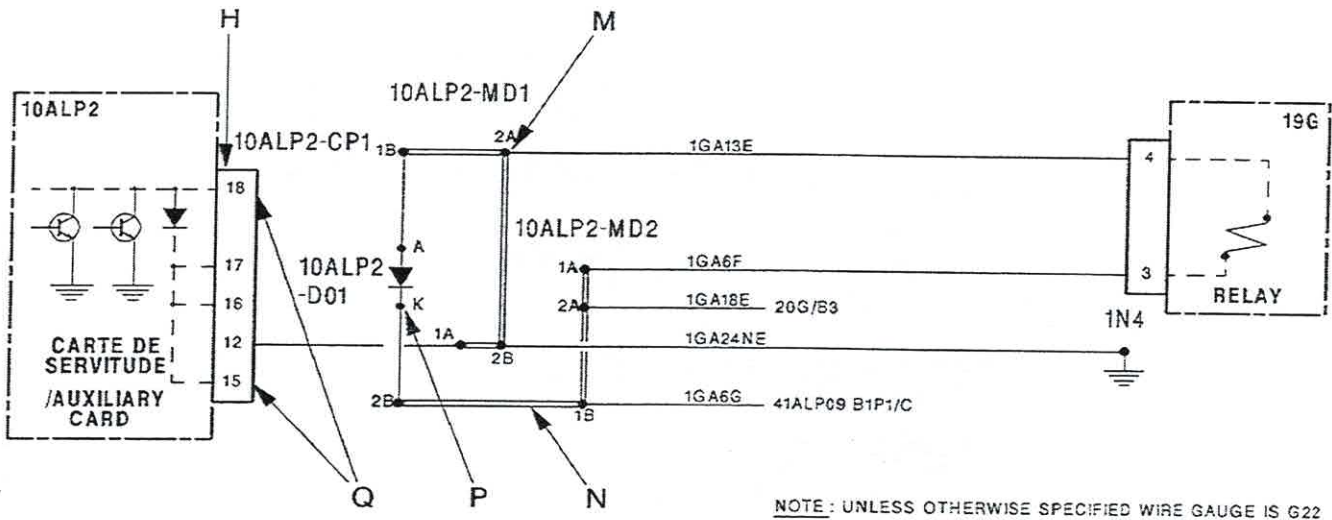


Figure 2

**APRES CROQUIS/POST DRAWING 365PCS 76 023  
AVANT MOD / PRE MOD 365P08.8837.01**



**APRES MOD/POST MOD 365P08.8837.01**

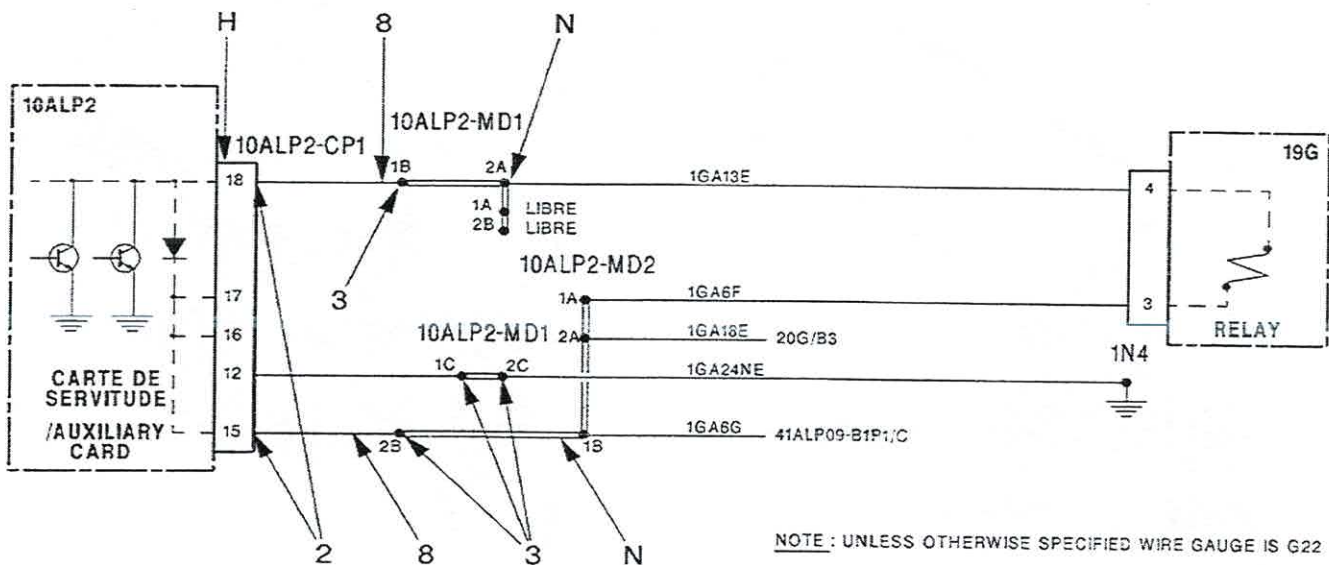


Figure 3

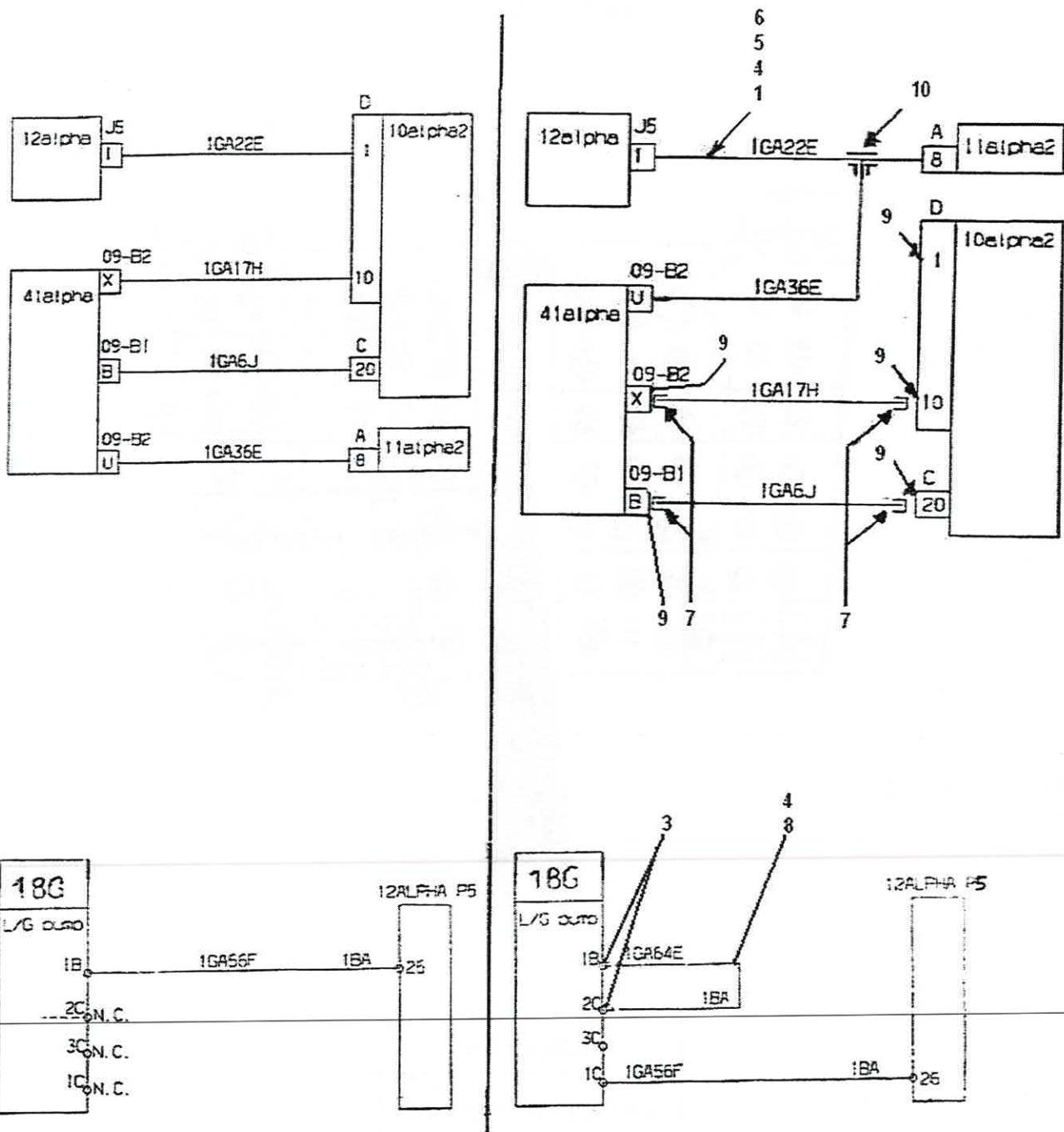
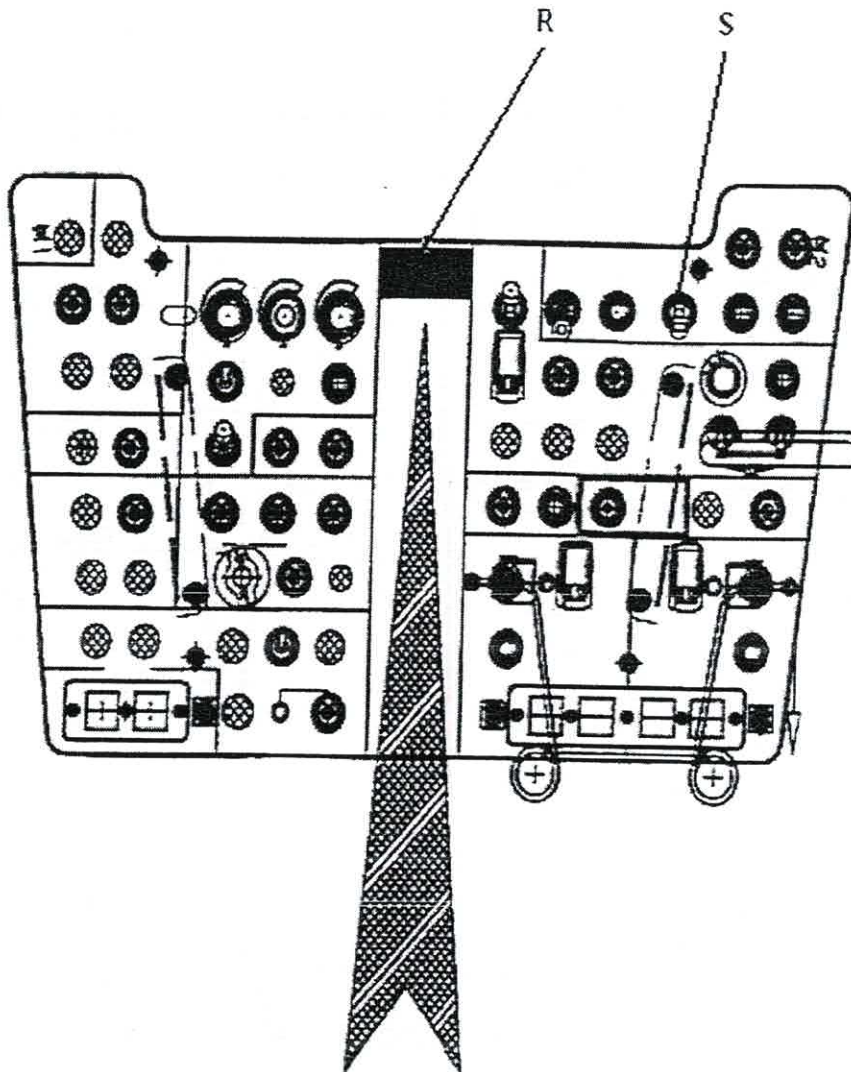


Figure 4

PANEL 12 ALPHA



**CAUTION**  
EMER LG PUMP USE LIMITATION  
ON GROUND OPERATION TIME  
RESTRICTION ACCORDING TO  
TELEX ALERT 31A005

Figure 5

**3. MATERIAL INFORMATION**

**3.A. MATERIAL : COST - AVAILABILITY**

For any information, contact the Customer Support Sales Department.

**3.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT**

The material will be supplied free of charge on customer's order.

**3.C. MATERIAL REQUIRED FOR EACH AIRCRAFT, ENGINE/COMPONENTS**

**3.C.1. Kit or Component(s) to be Ordered**

New P/N	Qty	Item	Key Word	Former P/N	Instructions Disposition
<b><u>365A07-39C22-71</u></b>		<b><u>Kit, comprising</u></b>			
EN6049-003-04-5	2 m	1	Protective sheath		
EN3155-003F2222	2	2	Crimp contact		
EN3155-016M2018	6	3	Crimp contact		
E0043-5C0	50	4	Cable-tie		
E0043-4C0	50	5	Cable-tie		
E0043-3C0	50	6	Cable-tie		
E0737B0816	4	7	Cap		
E0719BN22	1 m	8	Electrical wire		
E0775-22-01	5	9	Blank		
E0541-10	1	10	Extension lead		

*M0315/2003*

**3.C.2. Items to be Ordered Separately**

Not applicable.

**3.C.3. Items Supplied by the Customer**

Not applicable.

**3.C.4. Tooling**

Not applicable.



**3.D. MATERIAL REQUIRED FOR EACH SPARE PART**

Not applicable.

**3.E. RE-IDENTIFIED PARTS**

Not applicable.

**3.F. TOOLING : COST - AVAILABILITY**

For any information, contact the Customer Support Sales Department.

**3.G. PROCUREMENT CONDITIONS**

Order the required quantity

from

EUROCOPTER  
Etablissement de Marignane  
Direction VENTES Service Client  
S.C.  
13725 MARIIGNANE CEDEX  
FRANCE

**NOTE 1**

*On the purchase order, please specify the mode of transport,  
the destination and the serial numbers of the aircraft to be  
modified.*

**NOTE 2**

*For ALERT SERVICE BULLETINS, order by:  
Telex: HELICOP 410 969F  
Fax: +33 (0)4.42.85.99.96.*

**4. APPENDIX**

Not applicable.

A/C S/N 6583  
AWM/024/01 #28

SERVICE BULLETIN EC155

EUROCOPTER  
DIRECTION TECHNIQUE SUPPORT  
13725 MARGNANE CEDEX FRANCE

CIVIL VERSION(S): B

# SERVICE BULLETIN

No. 34-004

<b>SUBJECT:</b> NAVIGATION
<p>PELICAN RACK - Improved Air Ventilation System</p> <p><i>TRACK P/N C1284TBA S/N 285 FITTED.</i></p> <p><i>FRE MOD 0739B98.</i></p>
Corresponds to MOD 0739B98

LIST OF APPROVED REVISIONS	REVISION No. 0 APPROVED
Not applicable	Date: February 19, 2003





## **1. PLANNING INFORMATION**

### **1.A. EFFECTIVITY**

Refer to THALES AVIONICS Service Bulletin paragraph 1.A. in Appendix 1.  
This Service Bulletin does not apply to aircraft post MOD 0739B98.

### **1.B. ASSOCIATED REQUIREMENTS**

Not applicable.

### **1.C. REASON**

Refer to THALES AVIONICS Service Bulletin paragraph 1.C. in Appendix 1.

### **1.D. DESCRIPTION**

Refer to THALES AVIONICS Service Bulletin paragraph 1.D. in Appendix 1.

### **1.E. COMPLIANCE**

Refer to THALES AVIONICS Service Bulletin paragraph 1.E. in Appendix 2.

### **1.F. APPROVAL**

The technical information contained in this Service Bulletin was approved on February 19, 2003 under the authority of DGAC Design Organisation Approval No. F.JA01.



**eurocopter**

an EADS Company

SERVICE BULLETIN EC155

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**1.G. MANPOWER**

Qualification: Refer to THALES AVIONICS Service Bulletin paragraph 1.G. in Appendix 2.

**1.H. WEIGHT AND BALANCE**

Refer to THALES AVIONICS Service Bulletin paragraph 1.H. in Appendix 2.

**1.I. EFFECT ON ELECTRICAL LOADS**

Refer to THALES AVIONICS Service Bulletin paragraph 1.I. in Appendix 2.

**1.J. SOFTWARE MODIFICATION EMBODIMENT STATE**

Refer to THALES AVIONICS Service Bulletin paragraph 1.J. in Appendix 2.

**1.K. REFERENCES**

Refer to THALES AVIONICS Service Bulletin paragraph 1.K. in Appendix 2.

**1.L. OTHER DOCUMENTS CONCERNED**

Refer to THALES AVIONICS Service Bulletin paragraph 1.L. in Appendix 2.

**1.M. INTERCHANGEABILITY AND MIXABILITY OF PARTS**

Refer to THALES AVIONICS Service Bulletin paragraph 1.M. in Appendix 2.



**2. ACCOMPLISHMENT INSTRUCTIONS**

**2.A. GENERAL**

Refer to THALES AVIONICS Service Bulletin paragraph 3.A. in Appendix 5.

**2.B. OPERATIONAL PROCEDURE**

Refer to THALES AVIONICS Service Bulletin paragraphs 3.B., 3.C. and 3.D. in Appendix 5.

**2.C. IDENTIFICATION**

Record compliance with this Service Bulletin in the aircraft documents.

**2.D. OPERATING AND MAINTENANCE INSTRUCTIONS**

Refer to THALES AVIONICS Service Bulletin paragraph 3.F. in Appendix 6.

**3. MATERIAL INFORMATION**

**3.A. MATERIAL - COST - AVAILABILITY**

Refer to THALES AVIONICS Service Bulletin paragraph 2.A. in Appendix 3.

**3.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT**

Refer to THALES AVIONICS Service Bulletin paragraph 2.B. in Appendix 3.

**3.C. MATERIAL REQUIRED FOR EACH AIRCRAFT, ENGINE/COMPONENTS**

Refer to THALES AVIONICS Service Bulletin paragraph 2.C. in Appendix 3.

**3.D. MATERIAL REQUIRED FOR EACH SPARE PART**

Refer to THALES AVIONICS Service Bulletin paragraph 2.D. in Appendix 4.

**3.E. RE-IDENTIFIED PARTS**

Refer to THALES AVIONICS Service Bulletin paragraph 2.E. in Appendix 4.

**3.F. TOOLING – COST – AVAILABILITY**

Refer to THALES AVIONICS Service Bulletin paragraph 2.F. in Appendix 4.

**3.G. PROCUREMENT CONDITIONS**

Not applicable.

**4. APPENDICES**

9 appendices.

**THALES**  
AVIONICS  
**SERVICE BULLETIN**

TECH. DOC.

Thales Avionics

FEE 15341AB

FEE 15341AC

Eurocopter Mod.

: None

INDICATING/RECORDING SYSTEMS – 4 MODULES EQUIPPED RACK C12847XX

HARDWARE SEGREGATION IMPROVEMENT OF FAN POWER INPUT

DEFINITIONS

Operator                      Airline which operates in regular revenue service the aircraft on which the modified equipment is installed.

1. Planning Information

A. Effectivity

This Service Bulletin is applicable to the Thales Avionics 4 MODULES EQUIPPED RACK PN C12847BA, C12847CA.

In production, the unit will include this modification from serial number 351.

B. Concurrent Requirements

Not applicable.

C. Reason

To improve the hardware segregation of the fan power input

D. Description

In this modification :

- The electronic board of the cooling module is redesigned.
- The rack modification label and the PN labels are replaced.

Date : 2002/01/31

**C12847-31-002**

Rev . :

Page: 1 of 9

© THALES AVIONICS

APPENDIX 1



**THALES**  
AVIONICS  
**SERVICE BULLETIN**

**E. Compliance**

For the work to do on the 4 Modules equipped racks P/N C12847BA and C12847CA:

- The work must be done by an authorized operator.
- The operator must contact Thales Avionics for the procurement of the modification kit.
- The operator will return the removed cooling module to Thales Avionics.

**F. Approval**

The technical information contained in this Manufacturer's Service Bulletin was approved by EUROCOPTER under the prerogatives awarded by the DGAC Design Organization Approval No. F.JA01 only for the EUROCOPTER helicopter range concerned.

**G. Manpower**

The estimated time necessary to do the work in this Service Bulletin is: 2 hours.

**NOTE:** This time does not include testing.

**H. Weight and Balance**

None.

**I. Electrical Load Data**

Not Changed.

**J. Software Accomplishment Summary**

Not applicable.

**K. References**

Equipment Modification Leaflet (FEE) No 15341AB, 15341AC.

CMM with IPL for 4 Modules Equipped Rack, PN C12847XX, ATA No 31-41-05, dated 30/04/01.

CMM - Standard Practices, ATA No 22-09-04.

**L. Other Publications Affected**

Not applicable.

**M. Interchangeability or Intermixability of parts**

Not applicable.

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2. Material information

A. Material - Price and Availability

Necessary parts to do this modification are available in the form of one modification kit:

(1) PN F1316672

Price : Free Of Charge.

For kit procurement, please contact:

TECHNICALINE . HEL  
Customer Support and Services

Tel: 33 5 56 13 65 52

Fax: 33 5 56 13 50 25

e-mail: [technicaline.hel@thales-avionics.com](mailto:technicaline.hel@thales-avionics.com)

B. Industry Support Information

The work is done by an Authorized operator.

C. Material Necessary to modify one Rack

New PN	Key Word	Old PN	Qty	Unit	Special Instructions/ Price USD	Disposition
F1316672	MODIFICATION KIT, contains :	/	1	FOC		
F2000014	LABEL, IDENTIFICATION	F2000014	1	/		Replaced
E13106AB	FAN MODULE	E13106AA	1	/		Replaced
F2000079	LABEL, IDENTIFICATION	F2000079	1	/		Replaced
F2000247	LABEL, MODIFICATION	F2000247	1	/		Replaced
A1236453	Loctite 221	/	1	/	/	

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**D. Material Necessary for Each Spare**

Not applicable.

**E. Reidentified Parts**

Not applicable.

**F. Tooling - Price and Availability**

Not applicable.

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APPENDIX 4





# THALES AVIONICS SERVICE BULLETIN

## 3. Accomplishment Instructions

### A. General

**NOTE** : Under no circumstances shall Thales Avionics be held responsible for any damage, whether consequential or not, arising out of faulty workmanship, negligence or misuse by the User and/or Operators, on equipment modified under this Service Bulletin.

### B. Disassembly

Work to do on the equipped rack

- (1) Remove the connectors connected to J01 and J02 (Fig. 2).
- (2) Remove the six screws and washers attaching the cooling module to the rack (1) Fig. 1.
- (3) Remove the cooling module PN E13106AA (1) Fig. 1.

### C. Assembly

- (1) Install the new cooling module PN E13106AB.
- (2) Attach the cooling module to the rack with the six screws and washers (on each screws put loctite 221 on two threads maximum).
- (3) Tighten the screws with a torque setting wrench set to 0.07 Nm.
- (4) Reconnect the two connectors to J01 and J02.

### D. Change Identification

After the change in this Service Bulletin, the PN of the RACK:  
C12847BA Amdt. A becomes C12847BB  
C12847CA Amdt. A becomes C12847CB.

- (1) Remove the front panel Fig. 3.
  - (2) Replace the PN label (Fig. 3: PN label, F cut view).
  - (3) Replace the PN label (Fig. 3, outside) and write the Serial Number and the date on the label.
  - (4) Replace the modification label (Fig. 3: Amendment label, outside).
- Note:** For steps 5 and 6 it may be necessary to remove the optional module if it is present.
- (5) Remove the PN label (Fig. 4, inside) if present.

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(6) Remove the modification label (Fig. 4, inside) if present.

**E. Sub-assembly PN change**

The PN of the cooling module changes from E13106AA to E13106AB.

**F. Testing**

Fan module testing refer to Aircraft Maintenance Manual EC155.

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4. Appendix

Family Tree Charts of Modification Relationships



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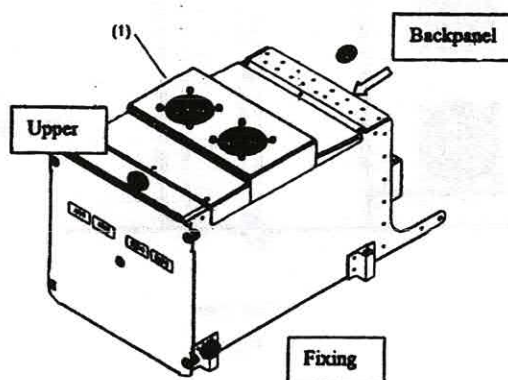
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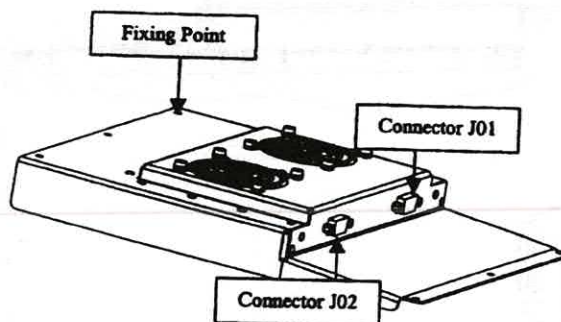
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Global View

Fig. 1



Fan Module

Fig. 2

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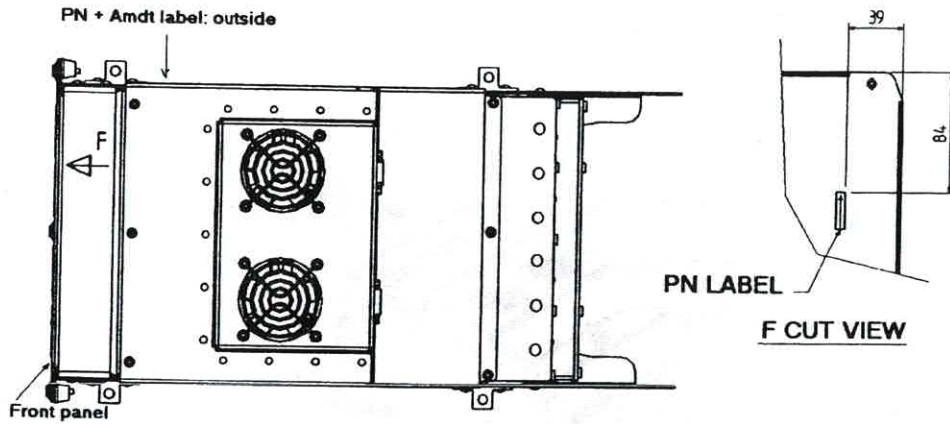
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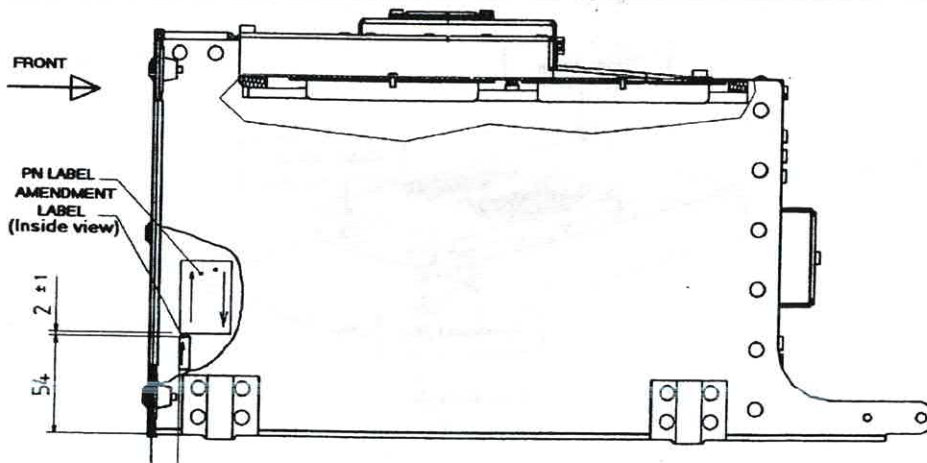
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Top view

Fig. 3



Left side view (when looking at connectors)

Fig. 4

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