

**Service Kit**

**FAA/DER APPROVED**

**Service Kit:** SK-EC145-622

**Title:** Eurocopter EC145 (BK117 C1 & C2) Aft Evaporator Brushless Blower Motor Up-grade Kit.

**Date:** March 19, 2007

**Applicability:** Eurocopter EC145 (BK117 C1 & C2) equipped with the Air Comm Corporation Air Conditioner System EC145-200 (**Kit Serial EC145-001 & EC145-002**).

**Reference:** STC SR00601DE; Eurocopter Model EC145 Air Conditioner System.  
Drawing EC145-200, General Arrangement  
Drawing EC145-620, Aft Evaporator Installation  
Drawing EC145-622, Aft Evaporator Installation  
Drawing EC145-680, Air Distribution Installation  
Drawing EC145-800, Electrical Installation  
Drawing EC145-804, Electrical Installation

**Compliance:** Optional, at the discretion of the operator, or the failure of the Aft Evaporator "Brush type" Blower assemblies.

**Purpose:** To replace the Aft Evaporator brushed blower assemblies, with brushless blower assemblies.

**Discussion:** The EC145 Aft Evaporator Blower Assemblies were originally equipped with brushed type blower assemblies (P/N ES73073-1), which had a TBO of 1000 hours. The new brushless blower assembly (P/N S-6220EC-2) has a TBO of 3000 hours, or 3 years which ever comes first.

**Weight and Balance:**

There is no weight change to system, and therefore no adjustment to the weight and balance is required.

**Installation Instructions:**

Remove and replace those components listed in the Bill of Materials section of this document using the reference documents listed above, and the removal & installation section of this document.

**Bill of Materials**

Item	Qty.	Description	Part Number to be Removed	Part Number to be Installed
1	2	Aft Evaporator Blower Assembly	ES73073-1	S-6220EC-2
2	1	AC Relay Panel	EC145-8420-1	EC145-8420-2
3	1	Inlet Assy.	EC145-6815-1	EC145-6815-2
4	1	Terminal	N/A	36160
5	1	Inlet Assembly	EC145-6815-1	EC145-6815-2

**Contact Air Comm Customer Service Department for the current price and availability of this kit. Phone 303-440-4075, Fax 303-440-6355, E-mail, [info@aircommcorp.com](mailto:info@aircommcorp.com)**

**Removal & Installation:**

**CAUTION**

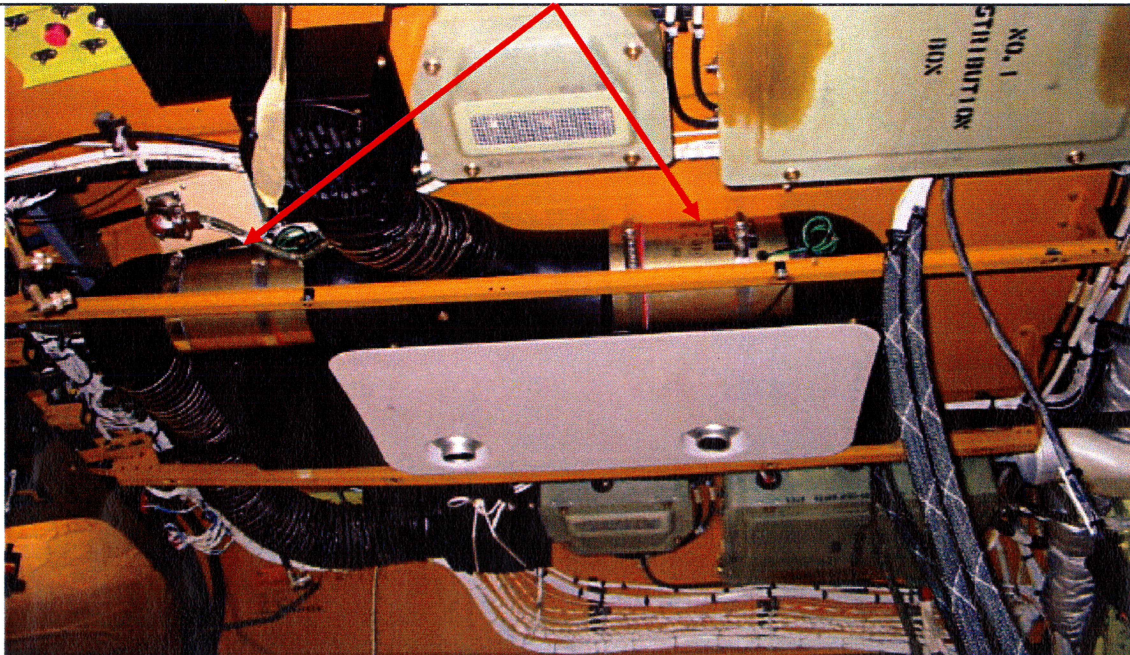
Disconnect the aircraft battery and external power supply prior to starting work.

**NOTE**

It will be necessary to remove the main cabin headliner to access the blower motor assemblies.

Disconnect Molex electrical connectors (2 Pls.), and loosen the Band Clamps holding the blower motors to the Aft Evaporator Assembly. Remove the ducting from the forward end of the Blower and slide the duct forward to remove.

Slide ES73073-1 Blower assembly forward to remove from Aft Evaporator. (2 Pls.), and install new S-6220EC-2 Brushless Blower Assembly in the reverse order of its removal.



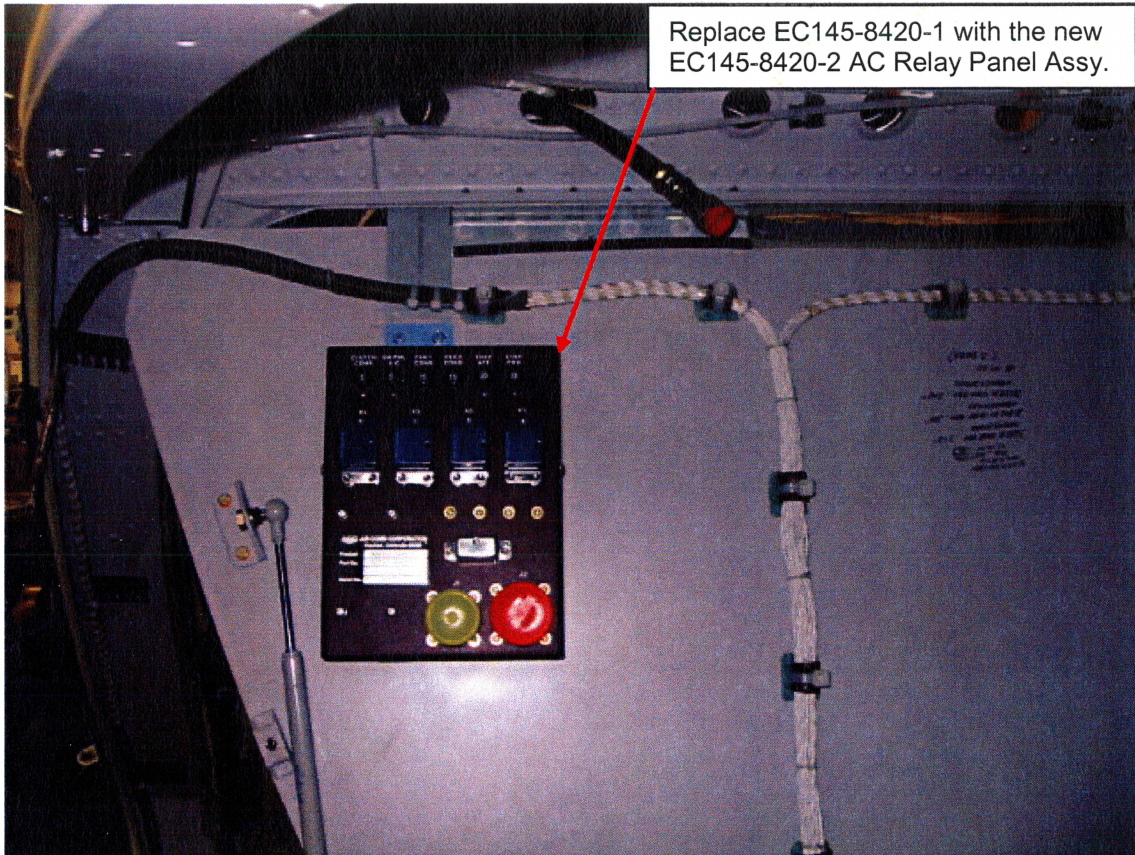
**View looking inboard & Up from aircraft left at Aft Evaporator Assembly.**

Continued

Removal & Installation continued:

**NOTE**

The exact location of the AC Relay Panel varies from installation to installation, depending on how the aircraft is configured. Typically this component is mounted on the aft avionic shelf.



**View Looking at Relay Panel mounting on the aft electronics shelf.**

**NOTE**

The change of the AC Relay Panel Assy. & Aft Evaporator Blower Assemblies, does require some minor rewiring to accomplish this Service Kit installation.

Wiring Changes (Ref. EC145-800 & EC145-804 Electrical Installation Drawings):

Item	Qty.	Description	Wire Number from the old, EC145-800 Drawing.	Wire Number from the new, EC145-804 Drawing.
1	1	Wire from J2, Pin D	ACCA24A14	ACCA24A14
2	1	Wire from new S-6220EC-2 aft evaporator blower to ground	N/A	ACCA36A14N

Continued

Removal & Installation continued:

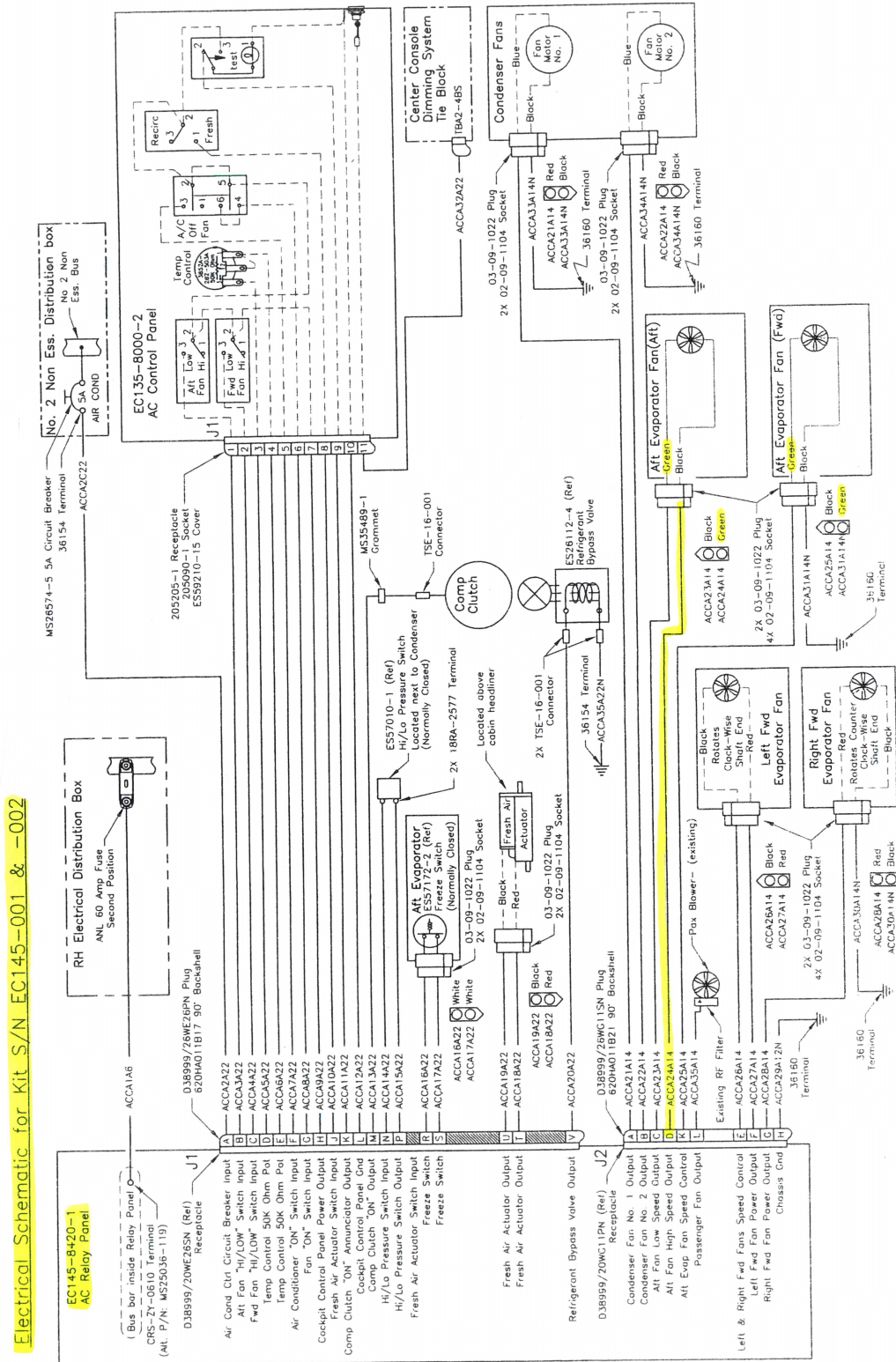


Figure 1-1, EC145-804 Electrical installation drawing (Old configuration, with ES73073-1 Blowers)



Removal & Installation continued:

Remove existing EC145-6815-1 Inlet Assy., from the R/H side of the main cabin roof area, and replace with EC145-6815-2 Inlet Assy., using the existing hardware.

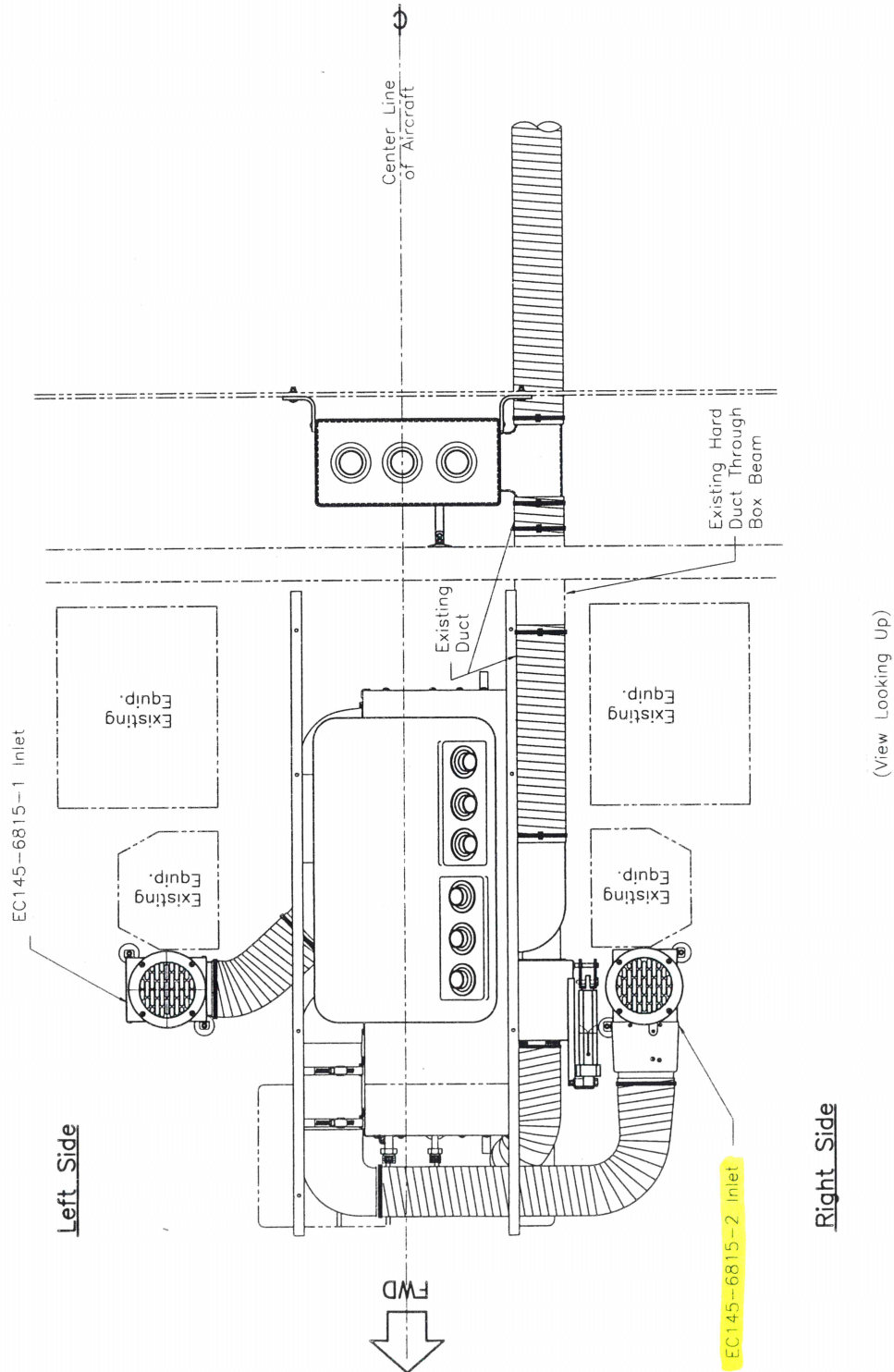


Figure 1-3, EC145-680 Air Distribution Installation (Inlet EC145-6815-2 Installation)