

Service Kit

FAA/DER APPROVED

Service Kit: SK-EC145-704

**Title:** Eurocopter EC145 (BK117 C1 & C2) Condenser Air Inlet & Pressure Switch Up-grade Kit.

**Date:** August 17, 2007

**Applicability:** Eurocopter EC145 (BK117 C1 & C2) equipped with the Air Comm Corporation Air Conditioner System (**Kit Serial numbers EC145-001 thru EC145-005**).

**Reference:** STC SR00601DE; Eurocopter Model EC145 Air Conditioner System.  
Drawing EC145-200, General Arrangement  
Drawing EC145-500, Plumbing Installation  
Drawing EC145-704, Condenser Installation

**Compliance:** Optional, at the discretion of the operator.

**Purpose:** To incorporate the installation of additional condenser air inlets, and replace the high / low pressure switch in those aircraft which were not originally so equipped.

**Discussion:** This kit is intended to up-grade those Eurocopter EC145 helicopters which are equipped with the Air Comm Corporation air conditioning system. These changes are intended to increase the air flow over the air conditioner condenser, and provide an increased margin of operation in extreme operating conditions.

**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	1	High / Low pressure switch	ES57010-1	ES57178-1
2	1	Duct Assy.	*	EC145-7024-1
3	1	Duct Assy.	*	EC145-7024-2
4	2	Nutplate Ring	*	EC145-7024-3
5	1	Support (Fwd)	*	EC145-7024-4
6	1	Support (Aft)	*	EC145-7024-5
7	1	Angle	*	EC145-7024-13
8	1	Angle	*	EC145-7024-14
9	4	Clip	*	EC145-7024-15
10	1	Support Rod	*	EC145-7024-16
11	2	Foam Ring	*	EC145-7026-1
12	2	Screen	*	EC145-7028-1
13	2	Scoop	*	S-7024EC-1
14	3	Clamp	*	S325G80
15	5	Clamp	*	MS21919WCH6
16	8	Rivet	*	CR3523-4-2
17	14	Screw	*	MS27039-08-09
18	4	Screw	*	MS27039-08-10
19	2	Screw	*	MS27039-1-08
20	16	Screw	*	AN525-8R10
21	46	Washer	*	NAS1149FN832P
22	4	Washer	*	NAS1149F0332P
23	4	Washer	*	NAS1149C0332R
24	2	Bolt	*	AN3C-3A
25	26	Nut	*	MS21042L08
26	2	Nut	*	MS21042L3
27	2	Nut	*	MS21043-3
28	1	Charging Placard	*	S-2507EC-16
29	1	Drawing	*	EC145-704

**Contact Air Comm Customer Service Department for the parts listed above. The parts will be provided at no charge, no labor however will be provided. Phone 303-440-4075, Fax 303-440-6355, E-mail, 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 aft engine cowlings to install the air inlets, and it will be necessary to access the High / Low pressure switch, located behind the interior side wall panel on aircraft left, and just forward of the "clamshell doors".

**NOTE**

It will not be necessary to discharge the system to accomplish the installation of this kit.

Continued

**Removal & Installation continued:**

**A. High / Low Pressure Switch:**

1. Disconnect spade connectors from the top of the existing ES57010-1 High / Low pressure switch, and unscrew the switch from the refrigerant plumbing Schrader valve and discard.
2. Install the new High / Low pressure switch (P/N ES57178-1) in the reverse order of the removal of the old switch.

**B. Condenser Air Inlet Scoops & Ducting Installation:**

1. Installation of the condenser air inlet scoops & ducting should be done in accordance with Air Comm Corporation drawing EC145-704, Revision C, Sheets 4, 17, 18, 19, and 20.

**NOTE**

It is important to review and understand all of the notes, views, and dimensions prior to starting the up-grade of this system.

2. Paint the S-7024EC-1 Scoops as required to match the exterior paint scheme as necessary.

**C. System Refrigerant Servicing & New Charging Placard:**

**CAUTION**

Servicing the system should be done by qualified personnel only!

When reclaiming refrigerant, be sure to note any oil that is removed from the system, and replace the lost oil before or during re-servicing. Reduced compressor life will result if the total system oil charge is not maintained.

Refrigerant Charge was previously called out at 2.6 lbs for this system, this number has now been changed to **4.5 lbs.**

This change will also require the installation of a new S-2507EC Charging Placard I/A/W the EC145-500 Plumbing Installation Drawing.

**Weight and Balance:**

Item	Wt. (lbs)	X-M (in-lb.)	Y-M (in-lb)
Total EC145 with Single Forward & Single Aft Evaporator (EC145-202)	4.13	1076	-49