ACC Air Comm Corporation

Service Kit

FAA/DER APPROVED

Service Kit: SK-412AC-508

Title: Replacement of Model 412 air conditioner receiver drier bottle, attaching hardware and plumbing connections.

Date: January 6, 2003
March 20, 2007 Rev 1, change ES57008-2 to ES57010-1

Applicability: Bell Model 412 equipped with the Air Comm Corporation air conditioner system part number 412AC-102-1 and –2.

Reference: STC SR00066DE; Bell Model 412 Cabin Air Conditioner System.

Compliance: Optional, at the discretion of the operator.

Purpose: To provide a higher capacity receiver drier bottle for the air conditioner system to reduce the occurrences of air conditioner failures caused by moisture saturated desiccant.

Discussion: When the receiver drier desiccant becomes saturated by moisture, the desiccant beads compact and begin to restrict the flow of refrigerant through the receiver drier bottle. This restriction can result in diminished system performance, and in some isolated cases has resulted in the desiccant becoming dislodged from the receiver drier bottle causing blockage at the expansion valves.

Bill of Materials

Items to be removed:

Item	Part Number	Description	Qty.
1	804-297	Receiver Drier Bottle	1
2	412AC-5048-P12	Tube Assy.	1
3	412AC-5048-P19	Tube Assy.	1
4	412AC-5048-P5	Tube Assy.	1
5	*ES57008-1	Hi/Lo Pressure Switch	1

*ES57008-1 Hi/Lo Pressure Switch was provided on earlier kits, and may or may not apply to your aircraft.

Continued

Bill of materials continued:

Items to be installed:

Item	Part Number	Description	Qty.
1	ES43032-1	Receiver Drier Bottle	1
2	412AC-5026-H14	Hose Assy.	1
3	412AC-5026-H15	Hose Assy.	1
4	412AC-5048-P26	Tube Assy.	1
5	ES57010-1	Hi/Lo Pressure Switch	1
6	FT9514	Schrader Valve	1
7	412AC-2508-2	Bracket	1
8	AN3-3A	Bolt	2
9	NAS1149F0332P	Washer	2
10	MS21042L3	Nut	2
11	MS21919WDG48	Clamp	2
12	MS21919WDG15	Clamp	1
13	440-840	#6 O-ring	4
14	2-012-N1173	#6 O-ring	3
15	520-266	R134a Polyester Refrigerant Oil 8 oz.	1

Removal, Installation / Replacement Instructions

CAUTION

It will be necessary to recover the refrigerant from the system. This should be preformed by qualified personnel only!

NOTE

Disconnect battery and remove external power source before starting work.

NOTE

It is necessary to remove the forward & aft main transmission cowlings to gain access to the air conditioner receiver drier bottle, and attaching plumbing.

Removal:

A. Recover / Discharge the refrigerant from the air conditioner system.

B. Disconnect 412AC-5048EC-P5, -P12, & -P19 Tube Assemblies that connect the Condenser, Receiver Drier, and the Aft Evaporator Assembles. Remove these tube assemblies from the aircraft and discard.

CAUTION

Always use a back-up wrench when tightening or loosening refrigerant fittings.

C. Disconnect the electrical connectors at the Hi/Lo pressure switch located on the top of the Receiver Drier.

D. Remove the 804-297 Receiver Drier, attaching hardware, and existing Hi/Lo pressure switch from the aircraft and discard.

Installation / Replacement:

A. Install 412AC-2508-2 Support Bracket, and attaching hardware as shown in Drawing 412AC-508, Sheet 12 of 17, View P-P.

B. Install ES43032-1 Receiver Drier, Clamps, and attaching hardware as shown in Drawing 412AC-508, Sheet 12 of 17, Views P-P & S-S.

Continued

Installation / Replacement (continued):

NOTE

Keep Caps on receiver drier bottle until just prior to system charging.

CAUTION

Always use a back-up wrench when tightening or loosening refrigerant fittings.

NOTE

Apply a thin coat of polyester based refrigerant oil to the o-ring prior to installation.

C. Install 412AC-5026-H15 Hose Assy. to the fitting at bottom of Condenser Assembly. Torque 30 to 35 inch lbs..

D. Install 412AC-5048-P26 Tube Assy. Between the ES40634-6 Tee, and the Expansion Valve on the Aft Evaporator Assy. as shown in Drawing 412AC-508, Sheet 10 of 17, View J-J. Torque 30 to 35 inch lbs..

E. Install 412AC-5026-H14 Hose Assy. to the ES40634-6 Tee as shown in Drawing 412AC-508, Sheet 10 or 17, View J-J. Torque 30 to 35 inch lbs..

F. Remove plug from the top of the Receiver Drier ES43032-1 and install the FT9514 Schrader Valve, as shown in Drawing 412AC-508, Sheet 12 of 17, View R-R. Torque 20 to 25 inch lbs.

G. Fill the 412AC-5026-H15 Hose Assy. with 2 oz. of R134a Polyester Refrigerant oil and connect the hose to the in-let fitting on the ES43032-1 Receiver Drier as shown in Drawing 412AC-508, Sheet 12 of 17, View R-R. Torque 30 to 35 inch lbs.

H. Connect 412AC-5026-H14 Hose Assy. to the outlet of the ES43032-1 Receiver Drier as shown in Drawing 412AC-508, Sheet 12 of 17, View R-R. Torque 30 to 35 inch lbs.

I. Install the ES57010-1 Hi/Lo switch on the FT9514 Schrader Valve, and re-connect the electrical connections to the top of the switch.

NOTE

Servicing of the Air Conditioner system should be preformed by qualified personnel only!

J. Evacuate system for forty five (45) to sixty (60) minutes to remove any possible air or moisture contamination that may be present in the system.

K. Service the system with 6.25 lbs of R134a Refrigerant, and perform static leak check using an electronic leak detector.

L. Re-install the forward main transmission cowling.

Weight and Balance

The total change in the system weight is 2.3 lbs. This is considered to be a negligible change to system weight and therefore no adjustment to the weight and balance is required.

Required Documents

Dwg. # 412AC-508

Rotorcraft Maintenance Manual 412AC-208M

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