

Service Kit

Technical aspects of this Service Bulletin are FAA approved

Service Kit: SK-412AC-6032

Title: Spares replacement of 412 Aft Evaporator Blower Motors.

Date: July 9, 2010

Applicability: Bell Helicopter Models 412EP, 412HP and 412SP equipped with the Air Comm Corporation Air Conditioner System, Part Number 412AC-102.

Reference: STC SR00066DE, 412 Cockpit/Cabin Air Conditioning System

412AC-208M, Air Conditioner Service Manual; Revision 12
412AC-102, General Arrangement Drawing; Revision M
412AC-604, Aft Evaporator Installation Drawing; Revision H
412AC-6008, Aft Evaporator Assembly Drawing; Revision B

Compliance: Optional at the discretion of the operator.

Purpose: This Service Kit provides for the replacement of the existing aft evaporator blower motor (ES61062-1) with an alternate motor (ES61064-10). This change is required because the original motor is no longer available.

Installation Instructions:

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

Rev A	10/13/2010	Added no-change notices for Service Manual and FMS
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Bill of Materials (Parts to be removed)

Item	Qty.	Description	Part Number to be Removed	Revision
1	2	Motor	412AC-6006-1 (ES61062-1)	N/C
2	1	Blower Wheel, LH	ES73110-2	N/C
3	1	Blower Wheel, RH	ES73110-1	N/C
4	1	Housing Assembly, LH	412AC-6028-1	D
5	1	Housing Assembly, RH	412AC-6028-2	D
6	2	Ring Assembly, RH/LH	412AC-6028-3 / -4	D

Bill of Materials (Parts to be installed)

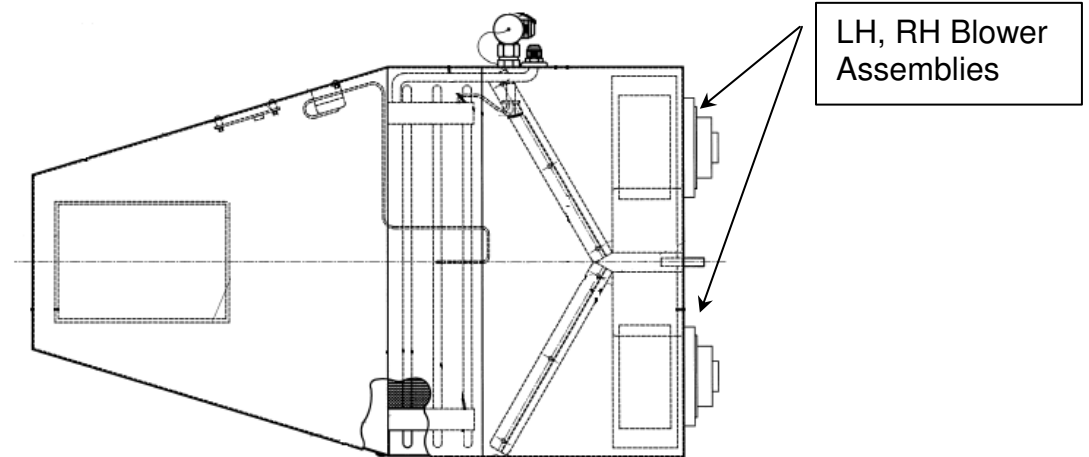
Item	Qty.	Description	Part Number to be Installed	Revision
1	2	Motor	ES61064-10	B
2	1	Blower Wheel, LH	ES73100-7	N/C
3	1	Blower Wheel, RH	ES73100-8	N/C
4	1	Housing Assembly, LH	412AC-6028-5	D
5	1	Housing Assembly, RH	412AC-6028-6	D
6	2	Shim	412AC-6008-18	B
7	1	Blower Mounting Plate	412AC-6032-1	N/C
8	6	Screws	AN525-10R10	-
9	18	Washer	NAS1149F0332P	-
10	12	Screw	NAS1801-3-13	-
11	23	Rivet	MS20426AD3-4	-
12	1	Template	412AC-6032-11	N/C

Contact ACC Customer Service Department to obtain these items.

NOTE

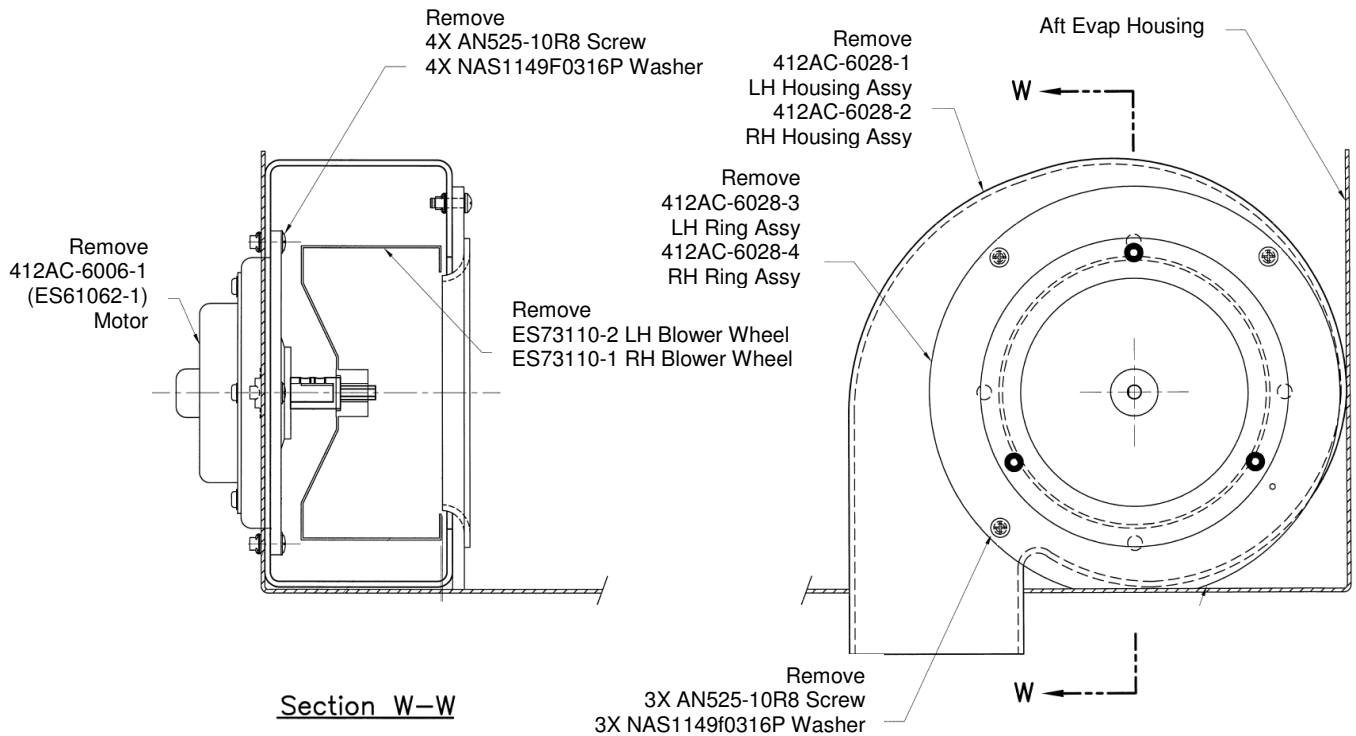
It will be necessary to remove the forward transmission cowling to gain access to the aft evaporator assembly and accomplish removal and replacement of the aft evaporator for modification.

Removal:



**AFT Evaporator Assembly
Figure 1-1**

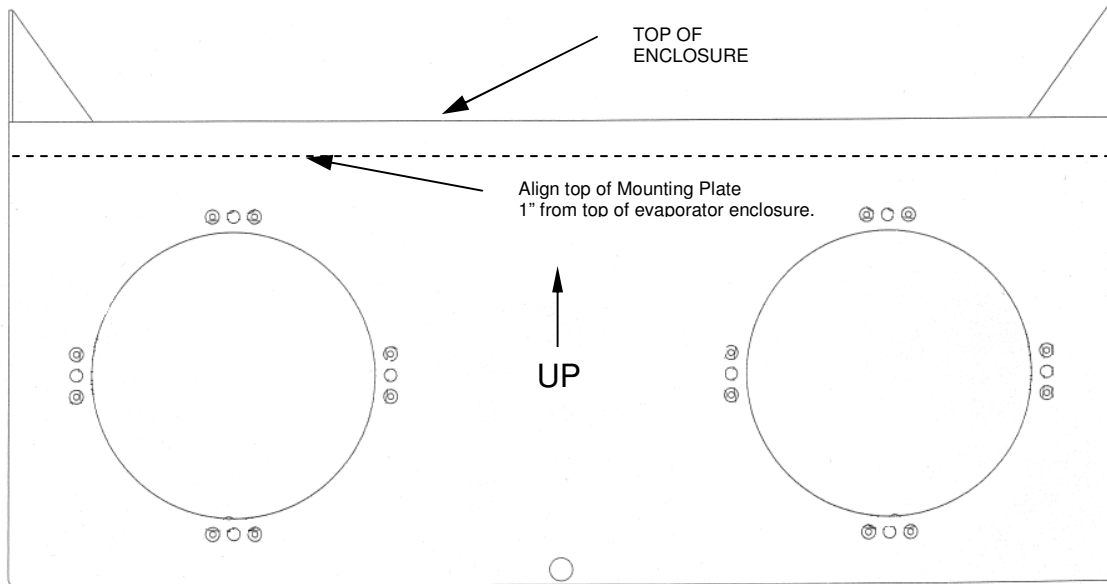
1. Evacuate (discharge) the refrigerant from the air conditioning system in accordance with ICA 412AC-208M and remove the aft evaporator assembly (Fig. 1-1).
2. Remove evaporator lid to access the blower assemblies.
3. Remove and discard existing mounting hardware that secures the ring assemblies to the LH and RH housing assemblies (Fig. 1-2).
4. Remove and discard the existing hardware that secures the LH and RH blower motors and blower wheels within the blower housing (Fig. 1-2).
5. Remove and discard the blower housings (Fig. 1-2).



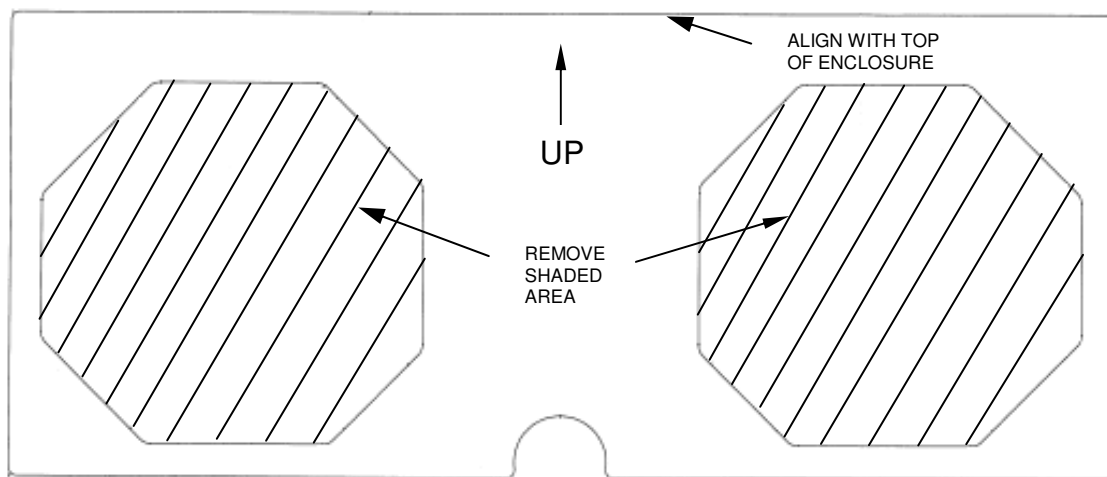
**Old Blower Assembly
 Figure 1-2**

Modification:

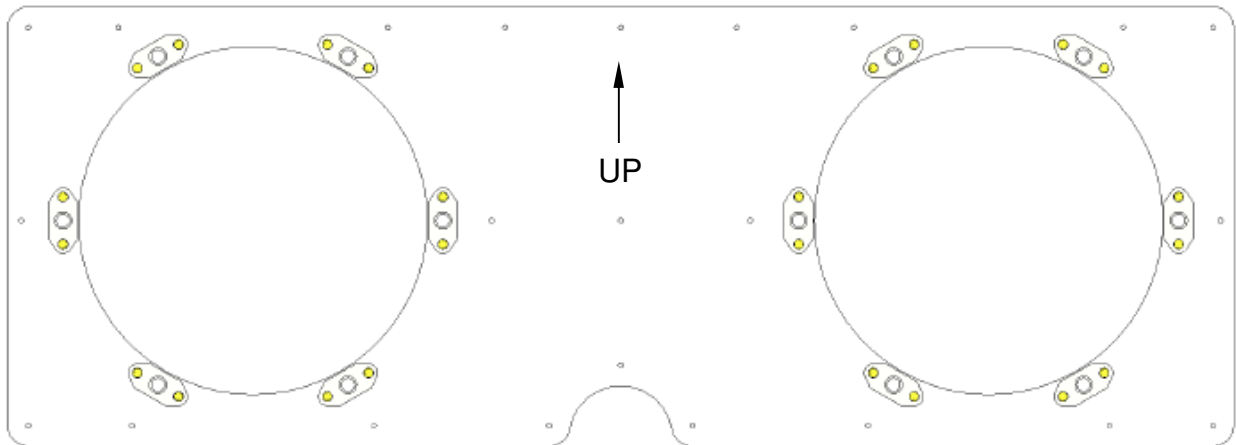
1. Using cutout template 412AC-6032-11, align top of the template with the top of the enclosure. Center template side to side and mark cutout on the evaporator enclosure. Remove shaded areas from enclosure (Fig. 1-4).
2. Install 412AC-6032-1 Blower Mounting Plate Assembly (Fig. 1-5) on outside of evaporator enclosure assembly with nutplates facing out. Align Mounting Plate Assembly 1 inch from top of evaporator enclosure (Fig. 1-3). Install flush side of MS20426AD3-4 rivets on the inside of the enclosure, $\text{Ø}.180 \times 100^\circ$ countersink. Seal mounting plate fayed surfaces using Pro-Seal 890 or equivalent.



**Aft Evaporator Enclosure
Figure 1-3**



**412AC-6032-11 Cutout Template
Figure 1-4**



412AC-6032-1 Blower Mounting Plate
Figure 1-5

Installation:

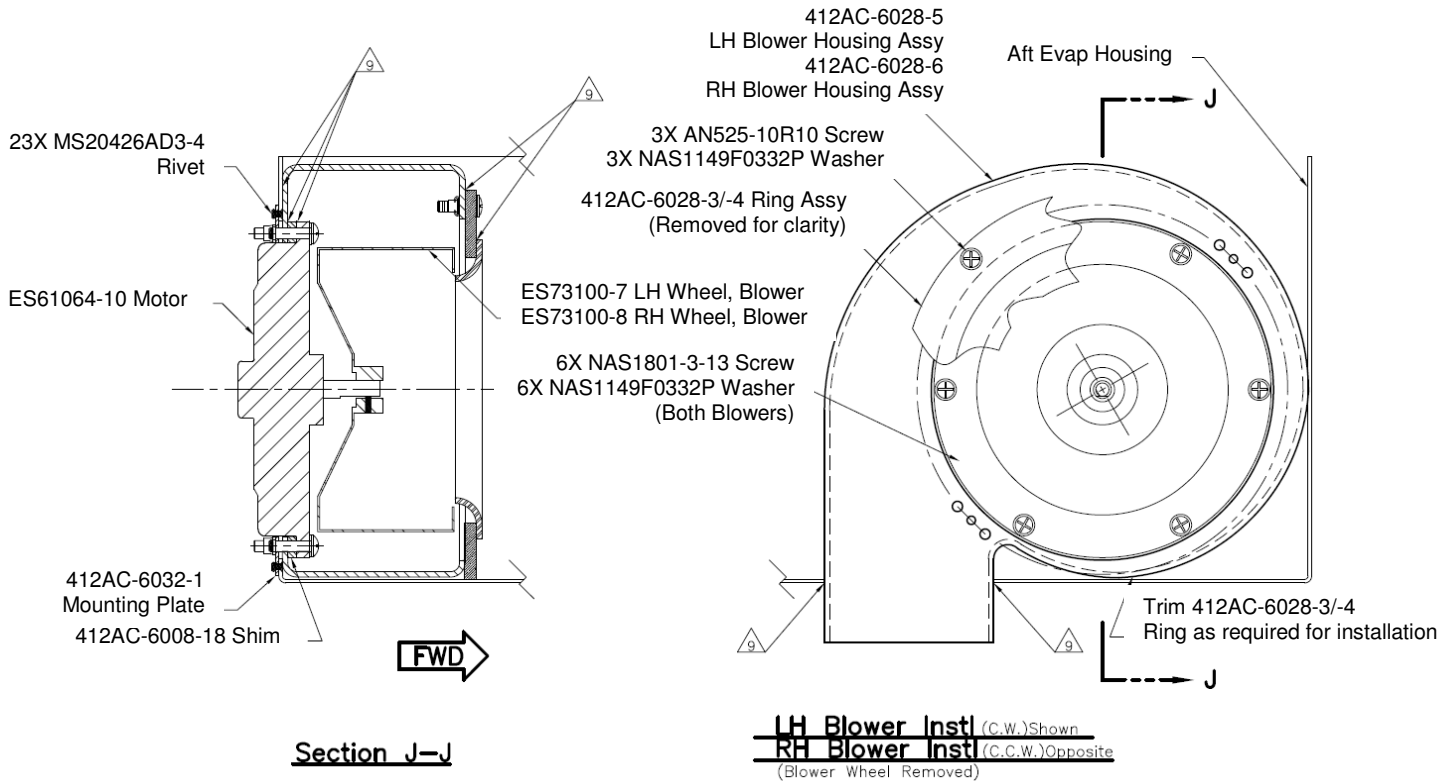
1. Install new blower housing assemblies, motor and wheel assemblies, and ring assemblies in reverse order of removal. Seal areas indicated on Figure 1-6 with Black RTV per flag note 9.

NOTE

It may be necessary to trim 412AC-6028-3 / -4 ring assemblies and 412AC-6028-5 / -6 housings if required for installation fit.

2. Reinstall evaporator assembly lid. Seal edges of lid with Black RTV.

3. Reinstall evaporator assembly and charge system in accordance with ICA 412AC-208M.



△ Seal with Black RTV Macklanburg-Duncan or equivalent.

New Blower Assembly Figure 1-6

Weight and Balance:

No change to the aircraft weight and balance will be necessary for this Service Kit, as the weight change for the installation of the new evaporator blower motors is negligible.

Changes to Service Manual:

No change to Service Manuals 412AC-208M/210M will be necessary for this Service Kit.

Changes to Flight Manual Supplement:

No change to the Flight Manual Supplement FMS 412AC-104 will be necessary for this Service Kit.