



ZEE SYSTEMS, Inc.
AIRCRAFT AIR CONDITIONING and
HEATING SYSTEMS

Z12-870 COMPONENT MAINTENANCE MANUAL

***Component
Maintenance
Manual***

with

Illustrated Parts List

for

Z12-870-SERIES

Blower Motor Assembly



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Record of Revision

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1.0 INTRODUCTION

1.1 This Component Maintenance Manual provides information on the maintenance, maintenance schedules and repair and replacement of parts.

1.2 Refer to the Illustrated Parts List (IPL) in Section 7 when using this manual or ordering replacement parts. Parts are identified in parenthesis (FIG-ITEM NO.).

1.3 This Blower Assembly is part of a vapor cycle air conditioning system.

1.3.1 The refrigeration charge of the vapor cycle components do not have to be disturbed or serviced when performing maintenance of the Blower Assembly.

2.0 SPECIAL TOOLS AND EQUIPMENT

2.1 TOOLS: No special tools are required to perform the maintenance described in this manual.

2.2 MATERIALS: There are no special materials required to perform maintenance described in this manual. Refer to Section 7 for part numbers when ordering replacement parts.

3.0 REPAIR AND REPLACEMENT OF COMPONENTS

CAUTION

BEFORE PERFORMING ANY SERVICE OF ELECTRICAL COMPONENTS MAKE SURE MAIN AIRCRAFT ELECTRICAL POWER IS DISABLED.

NOTE

SERVICE DESCRIBED IN THIS MANUAL SHOULD ONLY BE PERFORMED BY QUALIFIED PERSONNEL.

3.0.1 Refer to Addison Express installation drawings for instructions to access the Blower Assembly. Remove covers/panels as necessary.

3.0.2 Refer to AC43-13-1B for further guidance when performing maintenance on electrical systems and components.

3.0.4 There is no field repair of components. Defective components must be replaced.

3.1 MOTOR (1/2-1)

3.1.1 INSPECTION: On condition. Check for slow or noisy operation.

3.1.2 REMOVAL: It may be necessary to remove the Blower Motor Assy from the aircraft. Refer to Addison Express installation drawing for removal procedure. Remove the three screws and washers (1/2-11, -12, -17)



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and spacers (2-13) between the motor (1/2-1) and the blower housing. Disconnect the red wire from the fuse block (1-2) and the black ground wire from the ground post.

3.1.3 INSTALLATION: Note the spacing/position of the squirrel cage blower wheel on the motor shaft. Loosen the set screw on the squirrel cage and remove the defective motor and attach the squirrel cage blower wheel to the new motor shaft with the same aligning spacing.

3.1.3.1 Before attaching the motor (1-2) to the Housing Assy (1-3) check the condition of the foam insulation (2-22), replace insulation as necessary. Place two spacers (2-13) between the motor (1-2) and the housing assembly (1-3) before attaching the motor (1-2) to the housing assembly with hardware (1/2-11, -12, -17).

3.1.4 SERVICE: There is no field repair for this sealed motor. Replace if defective.

3.2 FUSE (1-14) (F15)

3.2.1 REMOVAL: Pry the defective fuse from the holder (1-2) clips. Discard the defective fuse. **CAUTION:** *This fuse has a glass body. Use care when prying fuse from holder clip.*

3.2.2 INSTALLATION: Press the new fuse into the holder (1-2) clips.

4.0 SERVICE SCHEDULES

4.1 MAINTENANCE SCHEDULE

ITEM DESCRIPTION	INSPECTION INTERVAL *	R&R/T.B.O. HRS
MOTOR (M3)	ON CONDITION	ON CONDITION
FUSE F15	ON CONDITION	ON CONDITION

5.0 TOLERANCES

5.1 TORQUE VALUES. Use standard torque values for bolts, nuts and screws.



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6.0 TROUBLE SHOOTING

6.0.1 Only a qualified aircraft electrician should perform trouble shooting duties.

6.0.2 When trouble shooting always check the condition of the wires to and from the relay panel. Check for proper grounds.

6.0.3 Check the Fuses and Current Limiters on the Relay Panel. A blown fuse or current limiter is result of higher than desired current. This may be an indication of another problem. Check for worn or frayed wires, loose connections or other defective components.

6.0.4 These trouble shooting steps are for the Blower Motor Assembly only.

TROUBLE	POSSIBLE CAUSE	REMEDY
Blower does not operate.	F15 Blown	REPLACE FUSE
	Defective Motor Slow or noisy operation	REPLACE MOTOR REPLACE MOTOR



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7.0 ILLUSTRATED PARTS LIST

7.1 EXPLANATION OF SYMBOLS:

ALT - The Part Number shown is an approved alternate, either part number may be used.

MOD "X" Refers to modification information of this part as applicable to this assembly.

NP - Not Procurable individually, see next higher assembly.

NS - Not Shown

OBS - Obsolete

USAGE/QTY - This identifies parts used on specific applications (not common to all units).

. - Part of higher assembly.

*/# - See explanation at end of parts list.

FIG-ITEM	PART NUMBER	NOMENCLATURE	QTY	USAGE CODE
	Z12-870-1	BLOWER MOTOR ASSEMBLY		
1/2 -1	SZ63-021-1	MOTOR	1	
1 -2	Z12-033-1	FUSE HOLDER	1	
1/2 -3	Z12-308-1	HOUSING ASSY	1	
1/2 -4	Z12-312-1	DUCT ASSY	1	
1 -5	Z12-313-1	DUCT	2	NP
1/2 -6	Z12-402-1	ANGLE	1	NP
1/2 -7	Z12-402-2	ANGLE	1	NP
1/2 -8	Z12-402-3	ANGLE	1	NP
1/2 -9	Z12-402-4	ANGLE	1	NP
1 -10	AN507-8R8	SCREW ALT: MS24693-50	1	
1/2 -11	AN935-8	WASHER, LOCK ALT: MS35338-42	6	
1/2 -12	AN960-8L	WASHER, FLAT ALT: NAS1149FN816P	6	
1/2 -13	AN960-10	WASHER, FLAT ALT: NAS1149F0363P	8	
1 -14	MDL-6	FUSE (F15)	1	
1 -15	MS20470AD4-7	RIVET	12	
1/2 -16	MS35206-245	SCREW	4	
1/2 -17	MS35206-246	SCREW	3	
1 -18	MS35335-31	WASHER, STAR, EXTERNAL	2	
1 -19	N3	CLAMP, NYLON	1	
1 -20	02150800	THREADCERT	8	NP
NS -21	264280-1	I.D. PLATE	1	NP
1/2 -22	67470	INSULATION	AR	
1 -23	840836	COVER, FUSE	1	
1 NS	SZ63-326CCW-5/16	BLOWER WHEEL ALT: SZ63-326CCW-5/16M	1	



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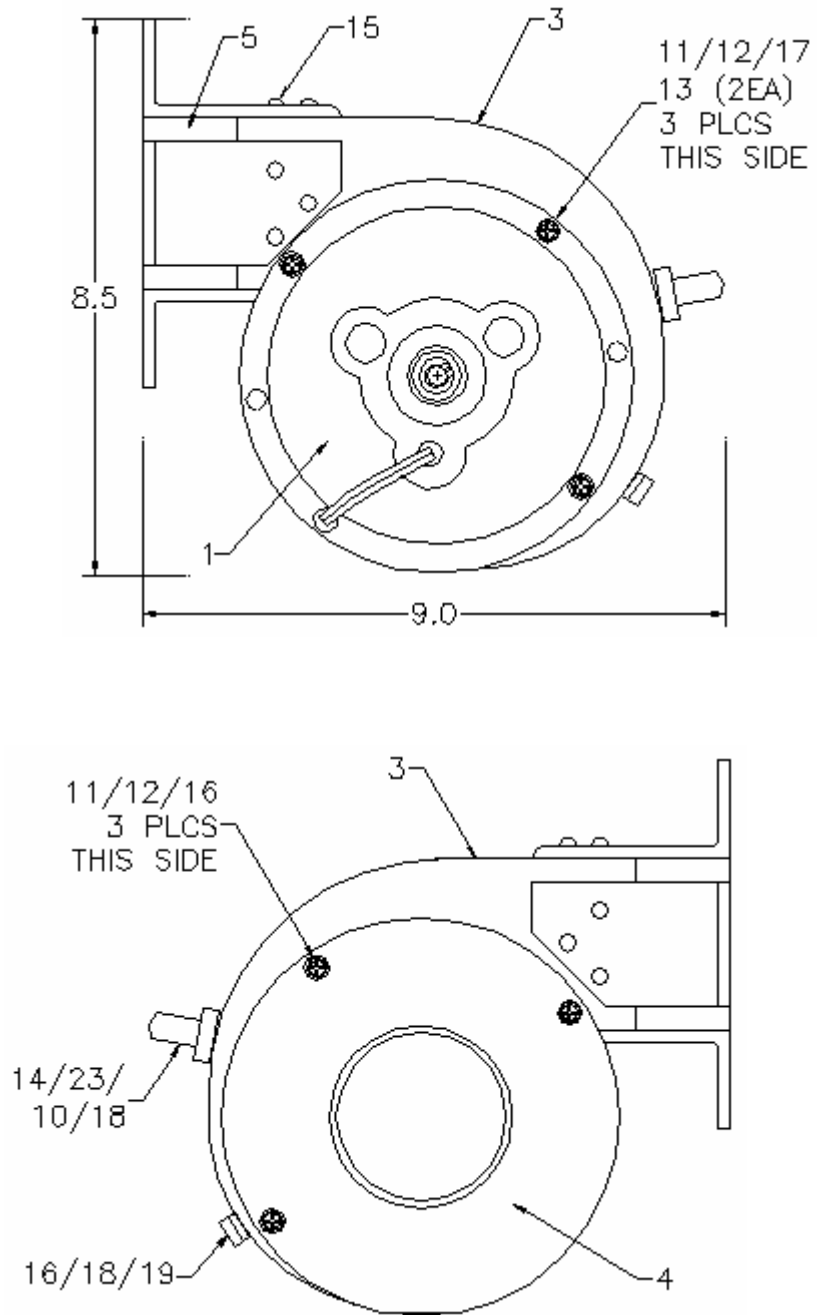


FIG. 1



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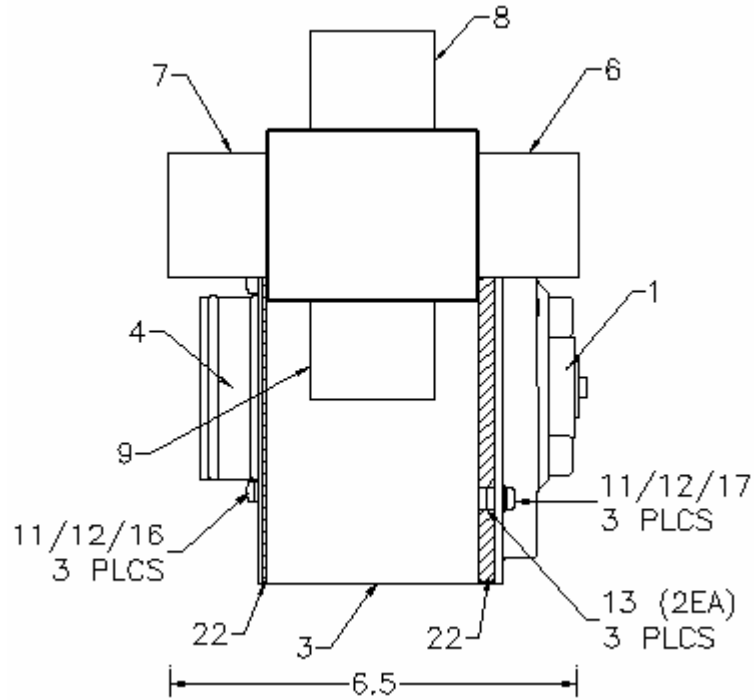


FIG. 2