Keith

Environmental Systems

INSTALLATION INSTRUCTION AND SERVICE MANUAL

FOR INSTALLATION OF AIRCONDITIONING KITS

MODEL CESSNA 340/340A

REPORT NO. 34-010-59M

REPORT DATE: October 19, 1977

PREPARED BY: _____

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REV B		

REV.	DATE	DESCRIPTION OF REVISION	BY	APPROVAL
	8-11-81	Last revision was 10-19-77. No record of previous revisions. Updated to Parker Format.	KR	
A	10-22-84	Kit List raised to Rev E. Kit List Rev E removed from Install Instructions. Added Table of Contents to Install Instruction. Added "Item" pages I, II, III. Added STC, Weight & Balance, FMS to III Aircraft Documents section.	KS	
B	1-11-88	Revised to ADD required publications section for new format ECN287-59.	REH	
C	4/3/92	Deleted warranty information	KS	

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SECTION I

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS
CESSNA MODEL 340/340A

1. PREPARATION FOR INSTALLATION

   a. Remove pilot's seat and all passenger seats on left hand side of aircraft.

   b. Remove console on left hand side of aircraft housing switch and circuit breaker panels.

   c. Remove left forward baggage compartment floors.

2. PLUMBING AND WIRING INSTALLATION
   (Reference Drawings 34-010 and-050)

   a. Install switches and circuit breakers in appropriate panels on a "space available" basis and route wiring.

   b. Install pressure grommet mounting holes and grommets as shown on 34-010 and 34-050 drawing in the forward and aft pressure bulkheads; install drain valve solenoid.

   c. Route plumbing as indicated.

   d. Seal pressure grommets with silicone sealer, assuring adequate lengths of hoses are present to make connections.

   CAUTION: Before starting installation, assertain exactly which installation kit is being installed.

3. COMPRESSOR/MOTOR PALLET INSTALLATION
   (Reference Drawings 34-050)

   a. Install Z section supports at stations 77 and 91.5 as indicated.

   b. Install compressor pallet assembly per drawing.

   c. Connect freon lines and electrical wiring.

4. PROVISIONS FOR THE CONDENSER FAN INSTALLATION
   (Reference Drawing 34-050)

   a. Position skin doubler as indicated and scribe cut out of the skin; remove doubler and complete cutout; deburring and smoothing edge.

   b. Install doubler, drilling through the skin using the pilot holes in the doubler as a pattern. Rivet in place.

   c. Position the fan in position as shown, assuring clearance from compressor pallet assembly; mark attach holes on doubler, remove fan assembly and drill through.

4. PROVISIONS FOR THE CONDENSER FAN INSTALLATION cont'd

   d. Install deflector from the inside; hold in position and drill through flange from front two holes installed in Step C previously; set aside until later.

5. INSTALLATION OF AIR INLET DEFLECTOR
   (Reference Drawing 34-050)

   a. Position the skin doubler as shown externally and scribe cutout in skin; and using pilot holes as a pattern, drill all holes; remove and complete cutout; deburr and smooth edge of cutout.

   b. Position doubler on the inside and rivet in place.

   c. Position inlet deflector on inside over cutout and drill holes thru skin, doubler and flanges. Install mounting hardware.

   d. Position screen and secure as shown.

6. INSTALLATION OF CONDENSER
   (Reference Drawing 34-050)

   a. Install forward lateral floorboard angle to station 62.0 structure as indicated.

   b. Mount the condenser to the forward floor panel to clear structure as indicated.

   c. Notch the legs of the angles on the aft edge of forward panel and the forward edge of the aft panel to provide clearance for the upper inboard freon hose.

   d. Install the forward floor panel with condenser and freon lines attached by positioning both floors before installing rivnuts to assure correct location.

7. INSTALLATION OF CONDENSER FAN

   a. Using washers as shims to match contours, install the fan with provided hardware thru the previously installed doubler. (Install screen and negative scoop at the same time.)

   b. Install ducting between condenser and condenser fan.

   c. Make electrical connections.

8. INSTALLATION OF EVAPORATOR ASSEMBLY
(Reference Drawing 34-010)

a. Floor-Mounted Alternate

1) Remove carpeting and bulkhead upholstery panel.

2) Locate evaporator box and wooden cover box in right rear corner. Locate clips to hold down evaporator per drawing. Locate clips to hold evaporator cabinet in place. Locate drain tube outlet and install in bottom of evaporator. Drill clearance hole in floor panel for drain and hose locations. Add duct clip to top of box.

3) Attach hoses and drain tube and secure evaporator box. Secure evaporator cabinet over it.

4) Attach the duct assembly.

b. Aft Overhead Centerline Mounting

1) Locate the ZEEs under headliner and clip into frames at stations 232 and 242.

2) With the evaporator plastic cover removed match drill mounting panel in conjunction with the ZEEs and attach nut-plates in the ZEEs.

3) Attach the evaporator using provided screws.

4) Hook up plumbing connections and drain hose to drain valve in lower skin, penetrating bulkhead.

5) Install plastic evaporator cover.

6) Install forward overhead centerline distribution duct or free-blow outlet, which ever is applicable.

9. CHARGING AND TESTING

a. Charge and test system in accordance with Service data.

b. Install aft nose compartment floor.

10. WEIGHT AND BALANCE

a. Forward Installation	58 lb at Station 79
b. Aft Installation (Top)	15 lb at Station 280

10. WEIGHT AND BALANCE cont'd

c. Alternate Aft Installation (Floor)	14.8 lb at Station 244.6
d. Alternate Aft Installation (Ceiling Evaporator)	15.0 lb at Station 242.0
Alternate Aft Installation (Ceiling Duct)	6.0 lb at Station 183.0

SECTION III

SERVICE AND MAINTENANCE MANUAL

II. REQUIRED PUBLICATIONS TO INSTALL34-010-59 AIRCONDITIONER KIT

INSTALLATION DRAWINGS:

34-010 (SHTS. 1, 2, & 4) GENERAL ARRANGEMENT AND INSTALLATION

34-050 (SHTS. 1 - 4) INSTALLATION COMPRESSOR/CONDENSER

INSTALLATION MANUALS:

34-010-59 P/L COMPUTERIZED PARTS LIST

34-010-59M INSTALLATION INSTRUCTIONS (THIS DOCUMENT)

SERVICE DOCUMENTS:

TR128 AIRCONDITIONING SERVICE MANUAL

DESCRIPTION - AIRCONDITIONING SYSTEM

The KEITH Airconditioning unit is composed to two major component installations: 1) the equipment package and 2) the evaporator package.

The Equipment Package comprises the compressor, drive motor, condenser fan, coil, and receiver drier.

The Evaporator Package consists of the evaporator coil, blower, blower drive motor, and the expansion valve.

The control for the system is located on the pilot's switch panel and consists of a simple on-off switch; some units carry a fan only position.

When the switch is placed in the ON position, the compressor, driven by an electric motor, compresses the Freon gas to a high pressure and high temperature. This gas is routed to the condenser where cooling from the fan removes heat from the gas, condensing it to a liquid. The liquid is then stored in the receiver drier, adjacent to the compressor, until it is used. The Freon is metered to the evaporator through the expansion valve at a rate to allow all the liquid to evaporate and return to the compressor at a reduced pressure. The cabin heat is absorbed from air passing over the evaporator cooling fins. See Figure No. 1.

CAUTION

WHEN THE AIRCONDITIONER IS TURNED OFF, IT IS RECOMMENDED THAT A MINIMUM OF THREE MINUTES ELAPSE BEFORE IT IS TURNED ON AGAIN: THIS ALLOWS THE COMPRESSOR HEAD PRESSURE TO BLEED OFF AND BRING THE STARTING LOAD TO NORMAL.

TROUBLE SHOOTING THE AIRCONDITIONING SYSTEM

TROUBLE	PROBABLE CAUSE	CORRECTION
Insufficient or no cooling	Inoperative evaporator blower	Check wiring, circui breaker, repair or r place blower
	Complete loss of Freon charge	Evacuate system. Recharge system and check for leaks.
	Partial loss of Freon charge (continual foam in sight glass after turning system on).	Recharge system and check for leaks.
(Low side gauge reads High, High side gauge reads Low)	Compressor malfunction Head gasket failure or valves not seating	Replace compressor
(Low side gauge reads High, High side gauge reads High)	Condenser malfunction Condenser Fan malfunction Condenser blocked	a) Check fan circuit to verify correct functioning.
		b) Blow out condens
		c) Replace condenser
(Low side gauge reads High, High side gauge reads High)	Expansion Valve mal-function	Purge system, re-place valve, evacuat and recharge.
(Low side gauge reads Low, High side gauge reads Low)	Expansion Valve mal-function	Purge system, re-place valve, evacuat and recharge.
Insufficient or no cooling		Service valves im-properly set (should be maximum counter clockwise).
	Compressor belts broken	Replace belts. (Tension to 30 lbs.)
	Expansion valve in-operative, stays open or closed	Replace expansion valve.
(Gauges read pressure as normal)	Moisture or air in system	Evacuate system and re-charge (per charg procedure).
	Inoperative compressor motor	Inspect wiring, circ breakers. Repair or replace compressor m

TROUBLE SHOOTING THE AIRCONDITIONING SYSTEM (Cont'd)

TROUBLE	PROBABLE CAUSE	CORRECTION
Noisy Compressor	Loose, torn or misaligned belt	Align or replace belt.
	Foreign material or damaged port in compressor	Remove and replace compressor.
	Compressor loose on bracket	Tighten compressor.
Noisy Fan	Fan striking housing	Check fan travel.
	Fan shaft bearings out	Replace bearings.

EVACUATION AND CHARGING PROCEDURES

The evacuation and charging procedures given are factory recommended. If followed, these procedures will give optimum results. The following equipment must be available to properly service the air-conditioning system.

a) Charging manifold and hoses

b) Refrigerant can adapter

c) R-12 refrigerant cans or R-12 cylinder

d) Vacuum pump capable or operating at least 28 to 29 inches Hg

e) 1/4" open end wrench

CONNECTING THE MANIFOLD AND HOSE

a) Remove caps from service ports on compressor

b) Connect compound gauge (low pressure) hose to suction port

c) Connect high pressure gauge hose to discharge port

d) Close valves on the charging manifold (turn clockwise)

RECHARGING THE SYSTEM

Whenever it becomes necessary to replace any of the refrigerant components or lines, the refrigerant pressure must be discharged.

Open oil filler plug in compressor until seal is broken and Freon escapes slowly.

CAUTION

EXERCISE CARE WHEN RELEASING REFRIGERANT GAS. THIS IS A HIGH PRESSURE SYSTEM: GOGGLES AND GLOVES SHOULD BE WORN FOR PROTECTION.

EVACUATION OF THE REFRIGERANT SYSTEM

a) Connect manifold and hose in accordance with Connecting Procedures.

b) Connect center hose from charging manifold to vacuum pump and turn pump on.

c) Open service valves halfway (turn counter clockwise) on compound gauge (low pressure).

d) Continue to pull a vacuum on the system for 30 minutes after compound gauge reaches 28 inches or more on vacuum gauge.

e) Periodically check for leaks by closing valves and verifying that system is holding vacuum.

NOTE

IN THE EVACUATING PROCEDURES GIVEN, THE SPECIFICATION FIGURE, 28 INCHES OF MERCURY OR MORE IS USED. THIS FIGURE IS ONLY ATTAINABLE AT OR NEAR SEA LEVEL. FOR EACH 1000 FEET OF FIELD ELEVATION WHERE THIS OPERATION IS BEING PERFORMED, LOWER THE SPECIFICATION FIGURE ONE (1) INCH.

f) Close hand valve (clockwise) on compound gauge.

g) Turn off vacuum pump and disconnect from charging hose.

CHARGING THE REFRIGERANT SYSTEM

a) Connect manifold and hose in accordance with Connecting Procedures.

CAUTION

USE ONLY R-12 IN THIS SYSTEM

b) Connect center manifold hose to R-12 can, using can adapter or R-12 cylinder. Open valve on can adapter or cylinder.

c) Slightly loosen connect of center hose at manifold to purge any air trapped in hose. (This should take approximately one second.) Tighten center hose connection.

d) Open low side valve and do not exceed 40 PSI on low side gauge.

NOTE

MOST OF THE FIRST CAN WILL BE PULLED INTO UNIT SYSTEM BY VACUUM.

e) Connect APU or start engines and turn on airconditioning system, refrigerant will begin to be pumped from the can into the condensing unit.

f) Charge to a High Pressure Reading as follows:

Ambient Temperature	High Side Pressure
80 F	150 - 170 psi.
90 F	175 - 195 psi.
95 F	185 - 205 psi.
100 F	210 - 230 psi.
105 F	230 - 250 psi.

(Low side reading should be 20 - 40 psi.)

CHARGE ONLY UNTIL THE SIGHT GLASS IN THE RECEIVER DRIER IS CLEAR OF BUBBLES.

g) Close hand valve (clockwise) on compound gauge and close valve on can adapter or cylinder.

h) Disconnect charging hoses from high side unit. (Some refrigerant trapped in the hoses will be expelled at this time and sound as though the system is leaking. This is normal.)

i) Back seat service valves (fully counter clockwise); replace caps on suction and discharge ports.

CLEANING INSPECTION AND REPAIR

A. Cleaning

1. The airconditioning components should be wiped clean with a cloth and a stream of low pressure dry air.

B. Inspection

To avoid invalidating warranty, the following procedure must be followed:

1. Dual Polyflex Belts

   a. After five (5) hours or airconditioning operation, tension belts to 30 pounds.

   b. Each time belts are removed and/or replaced, initial tension must be 30 pounds. After one-half (1/2) hour of ground operation, tension to 30 pounds. Run one-half (1/2) hour and tension - then follow 1.

2. Single 3/8" "V" Belt

   a. Maintain belt tension at 40-50 pounds. This is quivalent to deflecting the belt .3 inch, measured at the center spam, with a 10 pound load being applied perpendicular to the belt.

   b. After installing a new belt, reset tension again after approximately one hour of operation.

Every 100 hours inspect the airconditioning system for the following:

1. Security of mounting

2. Compressor and fan belt or belts for proper tension

3. Sight gauge for proper refrigerant level

4. Empty condensate tank (Not all units)

5. Remove lint and grease from evaporator with a vacuum

C. Repair and Servicing

Repair to the airconditioning system is limited to the replacement of components.

SAFETY PRECAUTIONS

The refrigerant used in the airconditioning system is R-12. This refrigerant is non-explosive, non-inflammalbe, non-corrosive, has practically no odor, and is heavier than air. Although R-12 is classified as a safe refrigerant, certain precautions must be observed to protect parts involved and the person working on the unit.

SAFETY PRECAUTIONS cont'd

Liquid R-12, at normal atmosperic pressure and temperature, evaporates so quickly that it tends to freeze anything that it contacts. Care must be taken to prevent any liquid refrigerant from coming in contact with the skin and especially the eyes. R-12 is readily absorbed by most types of oil. Therefore, it is recommended a bottle of clean mineral oil and weak solution of boric acid be kept nearby when servicing the refrigerant system.

CAUTION

ALWAYS WEAR SAFETY GOGGLES WHEN SERVICING ANY PART OF THE REFRIGERANT SYSTEM. SHOULD ANY LIQUID REFRIGERANT GET INTO THE EYES, USE A FEW DROPS OF MINERAL OIL TO WASH THEM OUT, THEN USE A WEAK SOLUTION OF BORIC ACID TO WASH EYES, AND SEEK AID FROM A DOCTOR IMMEDIATELY EVEN THOUGH THE IRRITATION HAS CEASED.

It is important to keep the system tightly sealed, because the refrigerant system is always under pressure. Heat applied to any part would cause this pressure to build up excessively.

WARNING

TO AVOID EXPLOSION, NEVER WELD, USE A BLOW TORCH, SOLDER, STEAM CLEAN, BAKE AIRCRAFT FINISH OR USE EXCESS AMOUNTS OF HEAT ON, OR IN THE IMMEDIATE AREA OF ANY PART OF THE AIR COOLING SYSTEM OR REFRIGERANT SUPPLY TANK, WHILE THEY ARE CLOSED TO ATMOSPHERE WITH REFRIGERANT OR NOT. ALTHOUGH R-12, GAS, UNDER NORMAL CONDITIONS, IS NON-POISONOUS, THE DISCHARGE OF REFRIGERANT GAS NEAR AN OPEN FLAME CAN PRODUCE A VERY POISONOUS GAS. THIS GAS WILL ALSO ATTACH ALL BRIGHT METAL SURFACES. THIS POISONOUS GAS IS ALSO GENERATED IN SMALL QUANTITIES WHEN A FLAME-TYPE LEAK DETECTOR IS USED.

When checking the system for leaks, the system should be allowed to operate from 10 to 15 minutes prior to checking.

CAUTION

THE USE OF A FLAME-TYPE LEAK DETECTOR IS NOT RECOMMENDED FOR USE ON AIRCRAFT BECAUSE OF FIRE HAZARD.

The use of the electronic leak detector H-10 is recommended; however, if the H-10 leak detector is not available, leak detector solution conforming to MIL-L-25567 can be used to check each fitting, hose connection and airconditioning component.

CHECKING COMPRESSOR OIL LEVEL

Check the compressor oil level only if a portion of the refrigerant system is being replaced or if there is a leak in the system and the refrigerant is being replaced.

a) Operate airconditioning system for 15 minutes in temperatures of 60° F or above.

b) Turn off airconditioner.

c) Discharge the refrigerant system in accordance with Discharge Procedures.

d) Remove the oil filler plug from the compressor, rotate compressor until the keyway in the shaft is pointing towards the head of the compressor. This places the throws of the crankshaft into most favorable position for passage of the dipstick.

e) Insert a flattened 1/8 inch diameter rod in the oil filler hold until it bottoms. The rod should show from 13/16 inch to 1-3/16 inch of oil on the rod. The oil charge should be maintained between 6 ounces and 10 ounces maximum for best results.

f) If additional oil is needed in the compressor, add Sunisco 5 or Capella E refrigerant compressor oil, or equivalent.

g) Replace oil filler plug, evacuate and charge refrigerant system in accordance with Evacuating and Charging Procedures.

h) Check compressor filler plug for leaks using the H-10 Leak Detector or Leak Tek MIL-L-25567.

SIMPLIFIED PROCEDURES FOR CHARGING AND TESTING VAPOR CYCLE - FREON 12 AIRCONDITIONING SYSTEMS

These procedures apply to all conditions of charging and testing.

1. Check all hose and fitting connections to be sure they are tight. This includes all factory or assembly line connections, as well as the connections you make.

2. Connect vacuum pump with hoses to both suction and discharge service valve ports. Turn both compressor service valves approximately 4 turns clockwise from back seated position. (If installed.)

3. Pull vacuum on system for 20 minutes. Low pressure gauge should read about 23 inches of vacuum at 6000 feet altitude or 29 inches of vacuum at sea level within 5 minutes. If this is not attained, you should suspect a leak, in which case, shut off vacuum pump, charge enough R-12 into the system to show 30 PSI on both gauges, and check for leak with Sherlock or Halide Leak Detector.

   After leaks are repaired, repeat point 3 above.

4. After vacuum is obtained, shut off both valves on charging manifold. Then shut off vacuum pump. Next, connect charging line from manifold to R-12 cylinder. Open cylinder valve and bleed charging line at manifold.

   With R-12 cylinder valve open, and line bled, open low pressure (suction) line valve on manifold, and charge unit until 70 PSI is shown on both gauges, or until pressure stops rising.

5. You are now ready to run and charge the system. Start the system and continue to charge the unit until sight glass clears.

   Observe glass carefully, and stop charging immediately as soon as bubbles disappear in sight glass. This is important as overcharging electrically driven system can result in damage to the drive motor.

   Always charge with cylinder in upright position. If cylinder becomes very cold, indicating too low a pressure to force vapor into system, heat cylinder by placing it in a container of warm water.

6. When charging is finished, shut system off, and check every connection with Electronic Leak Detector. If any leak is detected, repair completely before you release unit for shipment or to a customer.

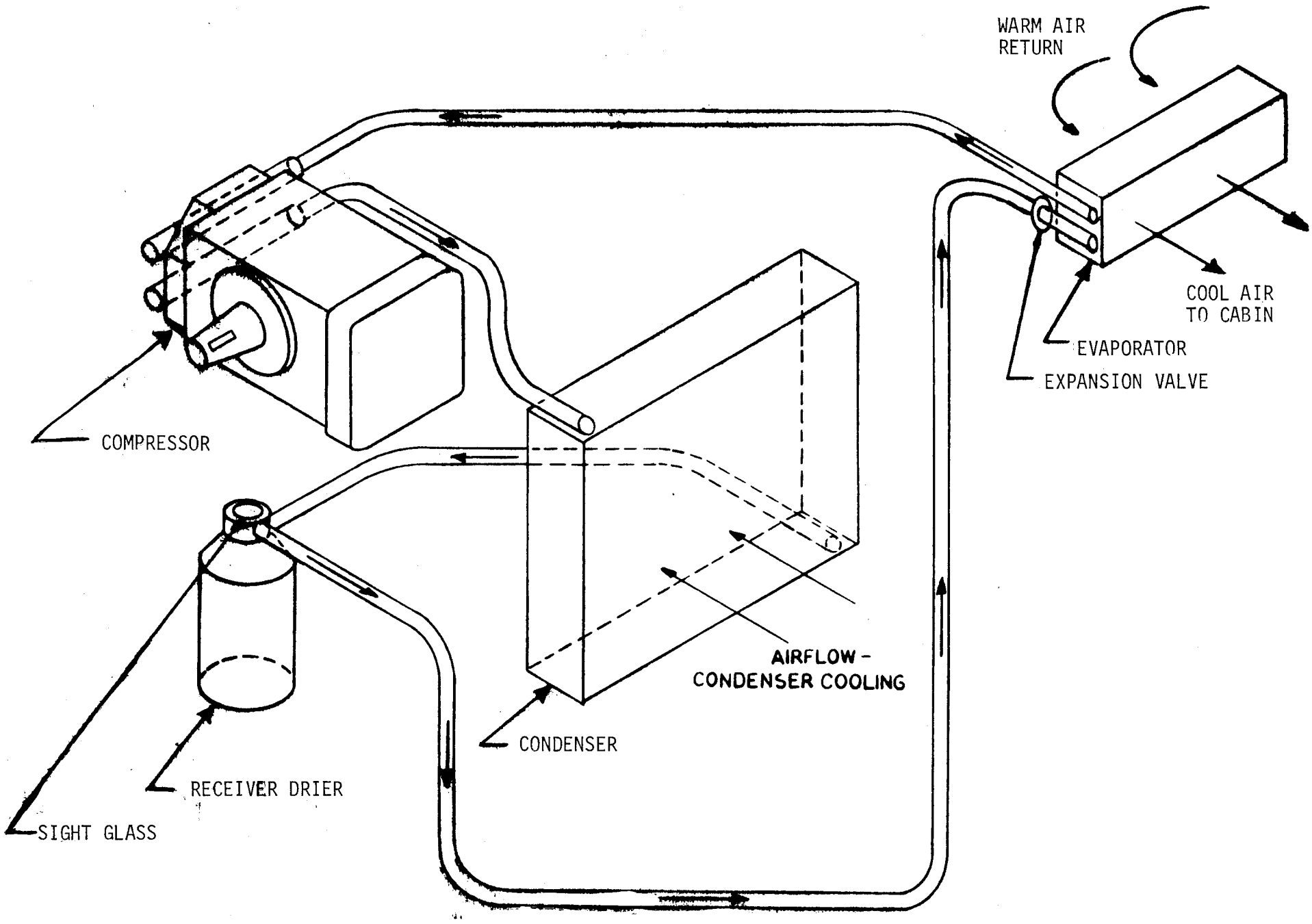
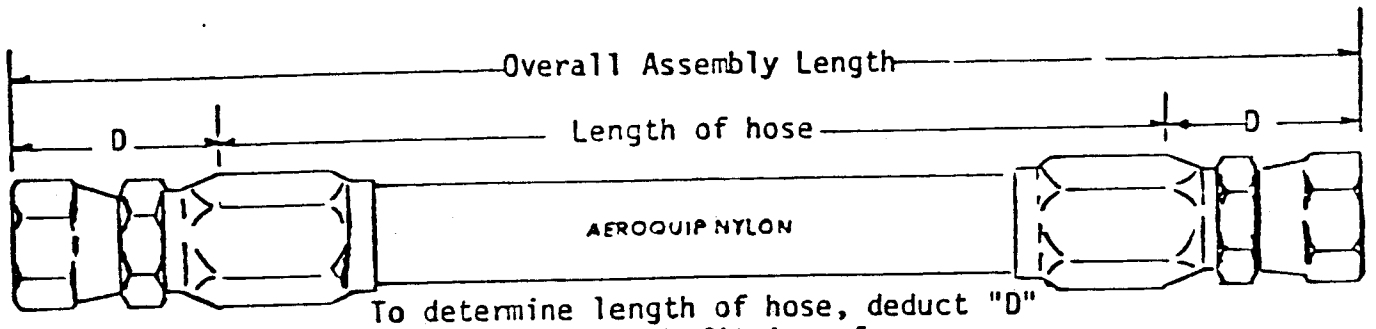

WARM AIR
RETURN
COOL AIR
TO CABIN
EVAPORATOR
EXPANSION VALVE
COMPRESSOR
AIRFLOW -
CONDENSER COOLING
CONDENSER
RECEIVER DRIER
SIGHT GLASS

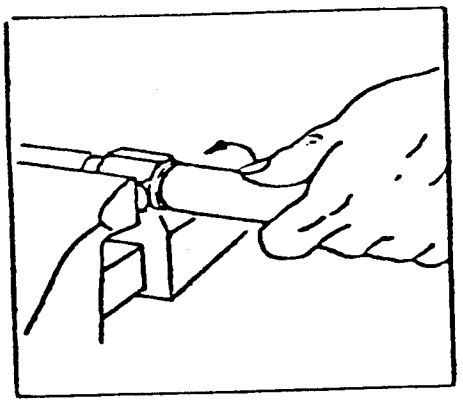
FIG. 1

ASSEMBLY INSRUCTIONS
for
Nylon Hose and Reusable Fittings

In order to keep foreign objects and debris out of components attached to these lines, it is recommended that the hose be cut with a sharp knife rather than a hacksaw. Any burrs or loose particles should be removed from within the end of the hose and from the end of the hose before assembly. This will prolong equipment life. It is especially important that on hand assembly within the aircraft these cleanliness measures be observed.

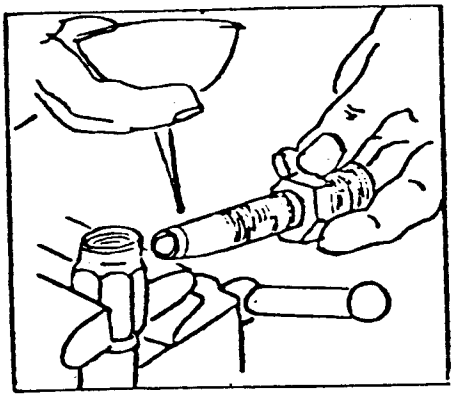


To determine length of hose, deduct "D" dimensions of both fittings from overall assembly length.



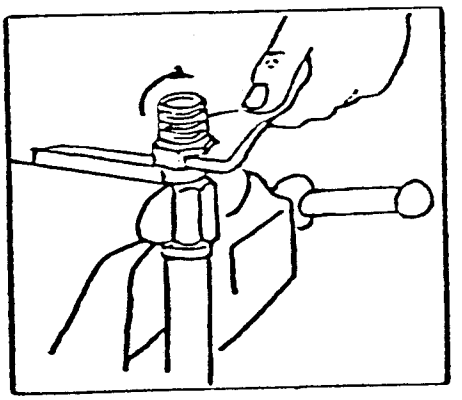
STEP 1

Cut hose square to length. Put socket in vise and screw counter-clockwise into socket until hose bottoms.



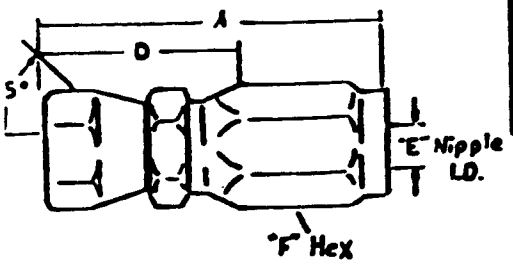
STEP 2

Oil nipple threads and inside of hose liberally. *Use compressor oil only.



STEP 3

Screw nipple clockwise into socket and hose until hex contacts socket.



Part number ES48144	Vendor part number	O.D. tube size	thread	A	cut-off D	E	F
-1	FC9158-0606S	3/8	5/8-18	2.26	1.48	.28	.75
-2	FC9158-0808S	1/2	3/4-16	2.84	1.68	.40	.94

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PRESSURIZED AIRCRAFT CONDENSATE DRAIN VALVE OPERATION

One result of an aircraft air conditioning system operating is the removal of moisture from the warm air in the cabin as the system circulates the air over the evaporator coil. Because of this, the evaporator has a drain pan and drain tube to allow the accumulated moisture to run overboard. Non-pressurized aircraft normally have an open drain system functioning all the time.

All pressurized aircraft equipped with KEITH PRODUCTS air conditioning systems are equipped with a condensate drain valve in the line with an instrument panel mounted switch.

The purpose of the valve is to allow the pilot to control the outflow of water from the evaporator pan. Any momentary application of the drain switch allows a small amount of pressurization air to escape through the drain tube and valve. However, past experience has shown that the aircraft pressurization systems have more than adequate capacity to handle even inadvertently leaving the switch on for extended periods of times.

Aircraft operated in high humidity areas can generate a large amount of water in the evaporator in a short period of time from takeoff to cruise altitude.

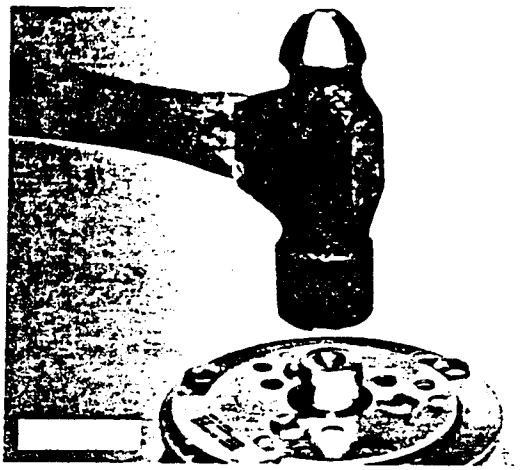
The condensate drain switch should be put in the "ON" position for two (2) to three (3) minutes after reaching cruise altitude to drain off the excess water. The switch should then be returned to the "OFF" position.

Since the capacity of the drain pan is not necessarily large, continued operation in a high humidity environment could result in a spillage of water out of the evaporator box into the interior of the aircraft, if the system is not drained.

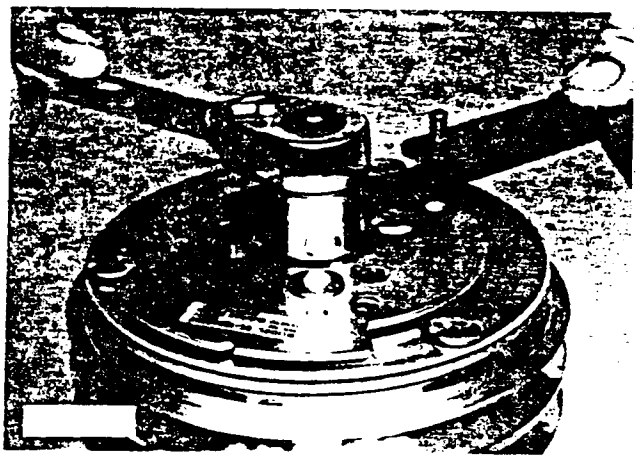
Good practice would be to drain the line for a moment or two before shutting the aircraft down at the destination airport, thus assuring drain pan capacity at the next takeoff.

F. COMPRESSOR OVERHAUL PROCEDURES (Cont'd.)

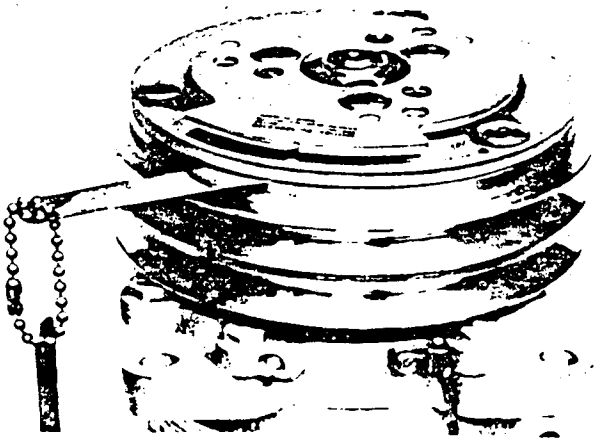
ASSEMBLY PROCEDURES (Cont'd.)



STEP 6



STEP 6



STEP 7

SECTION IV

AIRCRAFT DOCUMENTS

STC # SA16RM
Weight and Balance
Flight Manual Supplement

SAMPLE

OVERHEAD MOUNTED EVAPORATOR CONFIGURATION

WEIGHT AND BALANCE SUPPLEMENT

MODEL CESSNA 340

SERIAL NUMBER

REGISTRATION NUMBER

ITEM	WEIGHT	ARM	MOMENT
1. Previous Empty Weight			
2. Add Airconditioner			
a) Compressor/Condenser	58.0	79.0	4582.00
b) Evaporator	15.0	280.0	4200.00
c) Hoses/Fittings/Electrical	4.0	150.0	600.00

New Empty Weight

New Aircraft Empty Weight C.G.

New Useful Load

Keith
Environmental Systems

DATE

AIRCRAFT WEIGHT & BALANCE DATA

CUSTOMER:

Name_____

Address_____

_____

New Empty Weight_____

New C/G._____

New Moment_____

AIRCRAFT:

Make_____

Model_____

Serial_____

Registration_____

Licensed Gross Weight_____

New Useful Load_____

UNIT	WEIGHT	CG	MOMENT

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SAMPLE

FLOOR MOUNTED EVAPORATOR CONFIGURATION

WEIGHT AND BALANCE SUPPLEMENT

MODEL CESSNA 340

SERIAL NUMBER

REGISTRATION NUMBER

ITEM	WEIGHT	ARM	MOMENT
1. Previous Empty Weight			
2. Add Air conditioner			
a) Compressor/Condenser	58.0	79.9	4582.0
b) Evaporator	14.75	244.6	3607.80
c) Hoses/Fittings/Electrical	4.0	150.0	600.00

New Empty Weight

New Aircraft Empty Weight C.G.

New Useful Load

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

CESSNA MODELS 340/340A

Registration No. _____

Serial No. _____

This supplement is part of the FAA approved operating limitations and must be carried in the aircraft when a freon-type airconditioning system is installed in accordance with STC SA16RM . The information contained herein supplements or supersedes the basic data only in those areas specified. For limitations, procedures, and performance information not contained in this supplement, consult the original approved manual material, markings, and placards.

FAA APPROVED: Gerald E. Goodlad Date: 10/26/73

Engineering and Manufacturing Branch, ARM-210
Federal Aviation Administration
Rocky Mountain Region, Aurora, CO 80010

REVISION C

I. LIMITATIONS:

Placards on Instrument Panel:

DO NOT USE AIRCONDITIONER WITH ONE ALTERNATOR INOPERATIVE.

MAG. COMPASS DEVIATION MAY BE EXCESSIVE WITH AIRCONDITIONER ON.

II. EMERGENCY PROCEDURES:

In the event of alternator failure, turn off airconditioner.

III. NORMAL PROCEDURES:

Airconditioning system operation. The airconditioner switch is located on the pilot's instrument panel.

To turn airconditioner ON - Move switch to 'AIRCONDITIONER'.

To turn airconditioning OFF - Move switch to 'OFF'.

For circulation without cooling - Move switch to 'FAN ONLY'.

Do not attempt a battery start of the engine with airconditioner on. Turn off

IV. PERFORMANCE:

No Change.

FAA APPROVED: Gerald E. Goodlow DATE October 26, 1973

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REVISION NUMBER	PAGES NO.	PAGES DATE	DESCRIPTION	FAA APPROVED
A	1	10/6/77	Added 340A	H. E. Goodblood
B	All	1/22/80	Changed to new format Corrected orig. date	J. P. Chudy
C	1	2/4/81	Revised company name.	J. P. Chudy

FAA APPROVAL Gerald E. Goodblood DATE October 26, 1973

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