

# REVISION LIST

## CHAPTER 22: CABIN VENTILATION

The following list of revisions will allow you to update the Legacy construction manual chapter listed above.

Under the “Action” column, “R&R” directs you to remove and replace the pages affected by the revision. “Add” directs you to insert the pages shows and “R” to remove the pages.

PAGE(S) AFFECTED	REVISION # & DATE	ACTION	DESCRIPTION
22-1 through 22-2	0/02-15-02	None	Current revision is correct
22-3	0/09-18-02	R&R	Corrected Fig. 22:B:1
22-4	0/09-18-02	R&R	Text Correction
22-1	2/06-30-04	R&R	Updated parts list.
22-2	2/06-30-04	R&R	Corrected figure 22:A:1.
22-1	3/12-15-04	R&R	Updated table of contents with page numbers.
22-3	3/12-15-04	R&R	Removed reference to figure 22:B:3 which does not exist.
22-1	4/09-30-06	R&R	Corrected two part nbrs. in parts list.
22-2	4/09-30-06	R&R	Corrected two part nbrs.
22-1, 22-3	6/08-10-07	R&R	Changed part numbers only.

## Chapter 22: Cabin Ventilation

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## 1. INTRODUCTION

The Legacy cabin ventilation consists of a fresh air system and cabin heat.

1. Fresh Air. On each side of the fuselage there is a NACA scoop which is the intake for the fresh air. As part of the fresh air system we suggest installing adjustable eyeball vents available through KCI.

2. The source of the cabin heat is through a heat muff installed on the exhaust. The heat muff is installed on the left exhaust pipe on the Continentals and on the right exhaust pipe on Lycomings. The heated air is routed to a cabin heat valve installed on the firewall. From the heat valve the air is either dumped overboard or routed to the defroster or directly into the cabin.

The cabin heat system is optional and available through KCI.

An important part of the cabin air system is an exit. We suggest providing a passage in the baggage bulkhead for the air to exit. One creative way of doing this is to find a nice (smaller) loud speaker cover. This will allow the air to exit into the tail cone and out through the elevator weldment covers.

## 2. PARTS LIST

#	PART NO. (P/N)	QTY	DESCRIPTION	OPTIONAL ITEM (not included with kit)
<b>FRESH AIR (UNHEATED)</b>				
1)	4021-01	1	NACA Scoop Closeout	
2)	4021-02	1	NACA Scoop Closeout	
3)	KEY0110	2	Eyeball Vent	**Yes
4)	MS24693-C46	8	Machine Screw	**Yes
5)	K1000-08	4	Nutplates	
6)	MSC-34	8	Rivets	
<b>CABIN HEAT*/CABIN DEFROSTER*</b>				
1)	4933-01	1	Cabin Heat Valve	**Yes
2)	4933-02	1	Cabin Heat Valve Cap	**Yes
3)	AN3-3A	1	Bolt, Undrilled	**Yes
4)	AN3-7	1	Bolt, Drilled	**Yes
5)	A700-BK-3	1	Cable, Button Lock	**Yes
6)	145-0004 5416K15	2	Clamp, Hose	**Yes
7)	145-0005 5416K16	3	Clamp, Hose	**Yes
8)	MS21919-DG20	1	Clamp, Loop Type	**Yes
9)	AN742D4	1	Clamp, Plain Loop Type	**Yes
10)	SCAT - 5	14'	Ducting	**Yes
11)	SCEET - 6	11'	Ducting	**Yes
12)	561	1	Inlet Flange	**Yes
13)	AN363-1032	4	Locknut	**Yes
14)	AN365-1032A	2	Locknut	**Yes
15)	05-16100	1	Terminal Bolt Kit	**Yes
16)	AN960-10L	4	Washer, Flat	**Yes
17)	AN960-10	1	Washer, Flat	**Yes

**Note:** 4933 Cabin Heat System, w/ Above Items

**Note:**

**Optional Parts available through :**

(\*) Lancair Avionics

(\*\*) Kit Components, Inc.



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Chapter 22

REV. 6/08-10-07

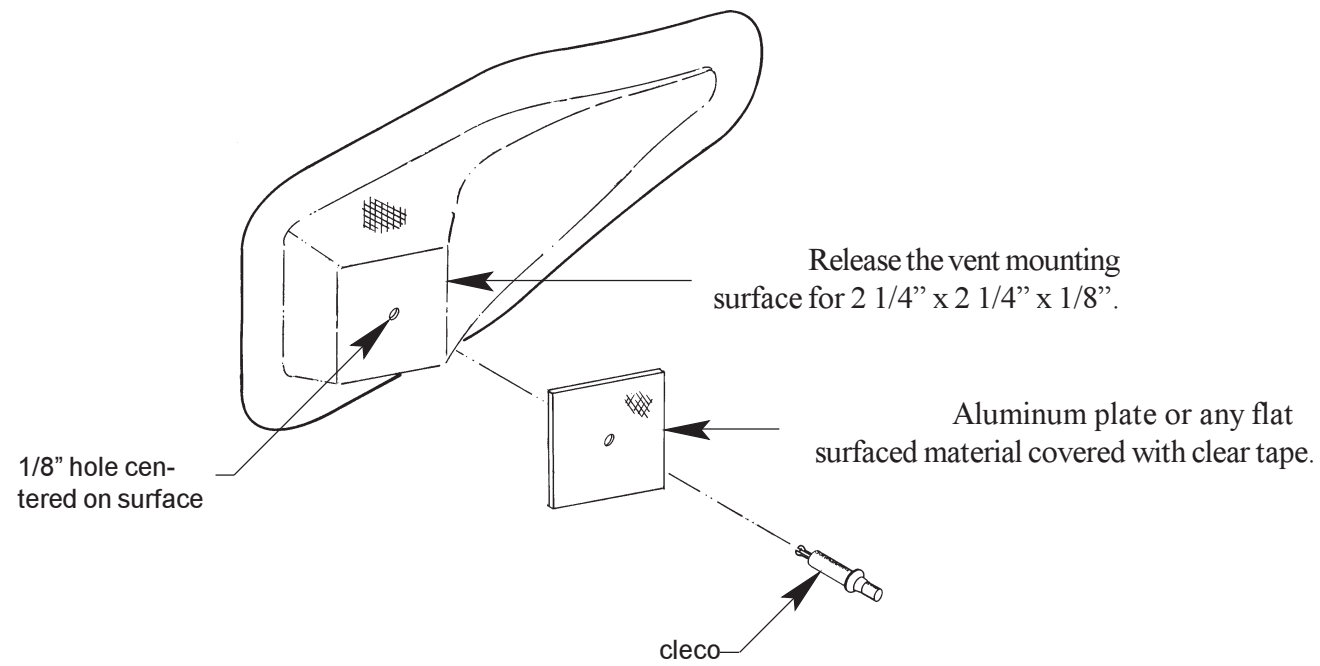
CABIN VENTILATION

### 3. CONSTRUCTION PROCEDURES

#### A. Fresh Air (Unheated)

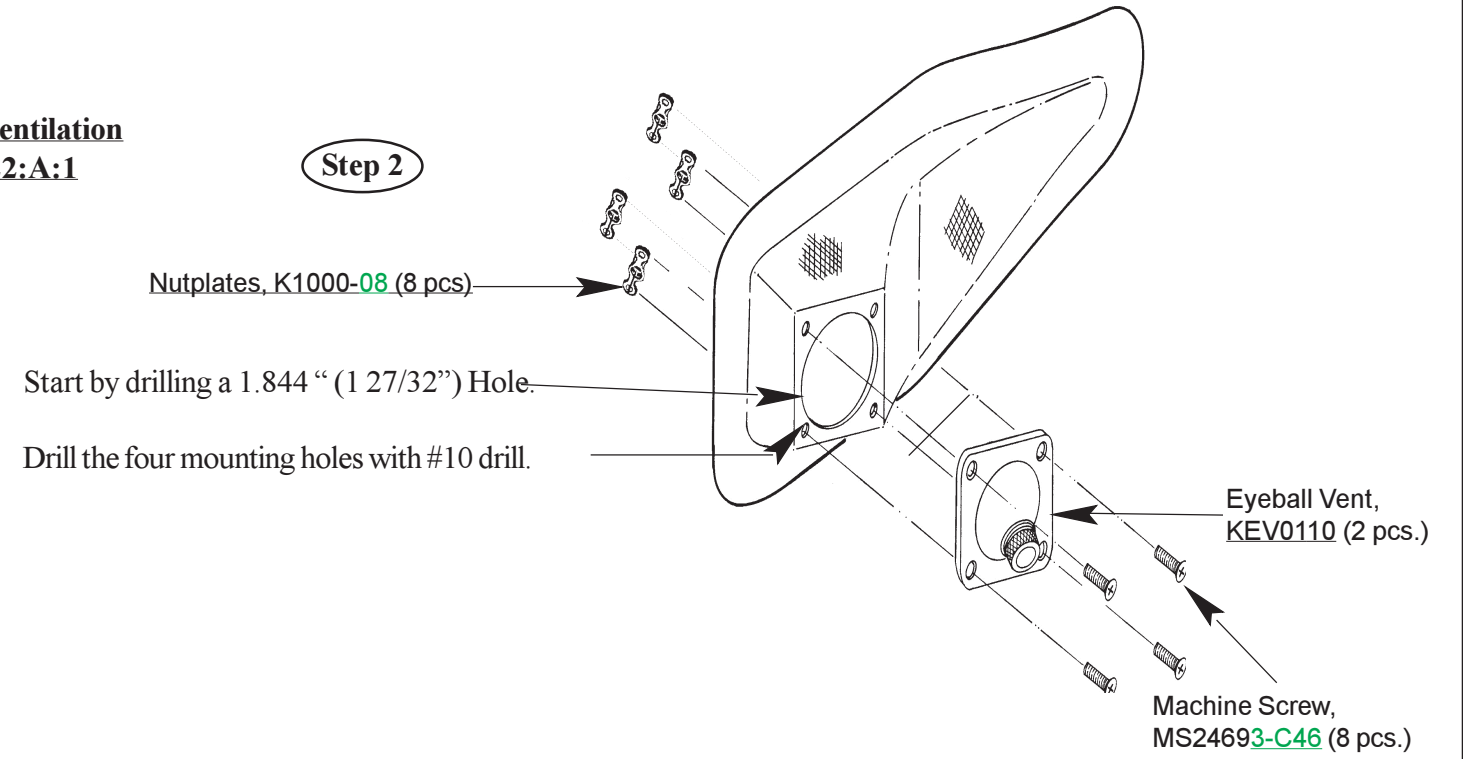
The eyeball vents for fresh air install on the inside of the premolded NACA scoops. In order to mount the eyeball vents it is necessary to form a flat mounting surface. This is accomplished by performing a release as described below. Then the eyeball vents are mounted and the NACA scoop closeout installed.

Step 1



Cabin Ventilation  
Fig 22:A:1

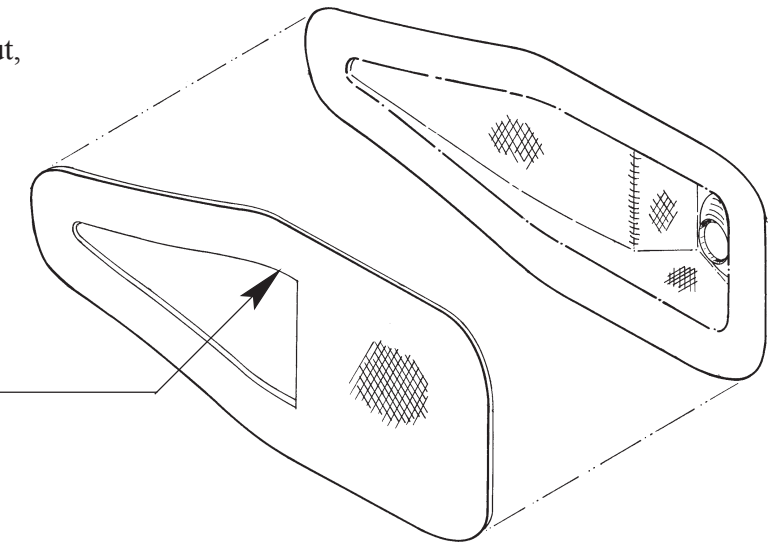
Step 2



Step 3

Fit and bond the NACA scoop closeout, 4021-01/02, to the joggle.

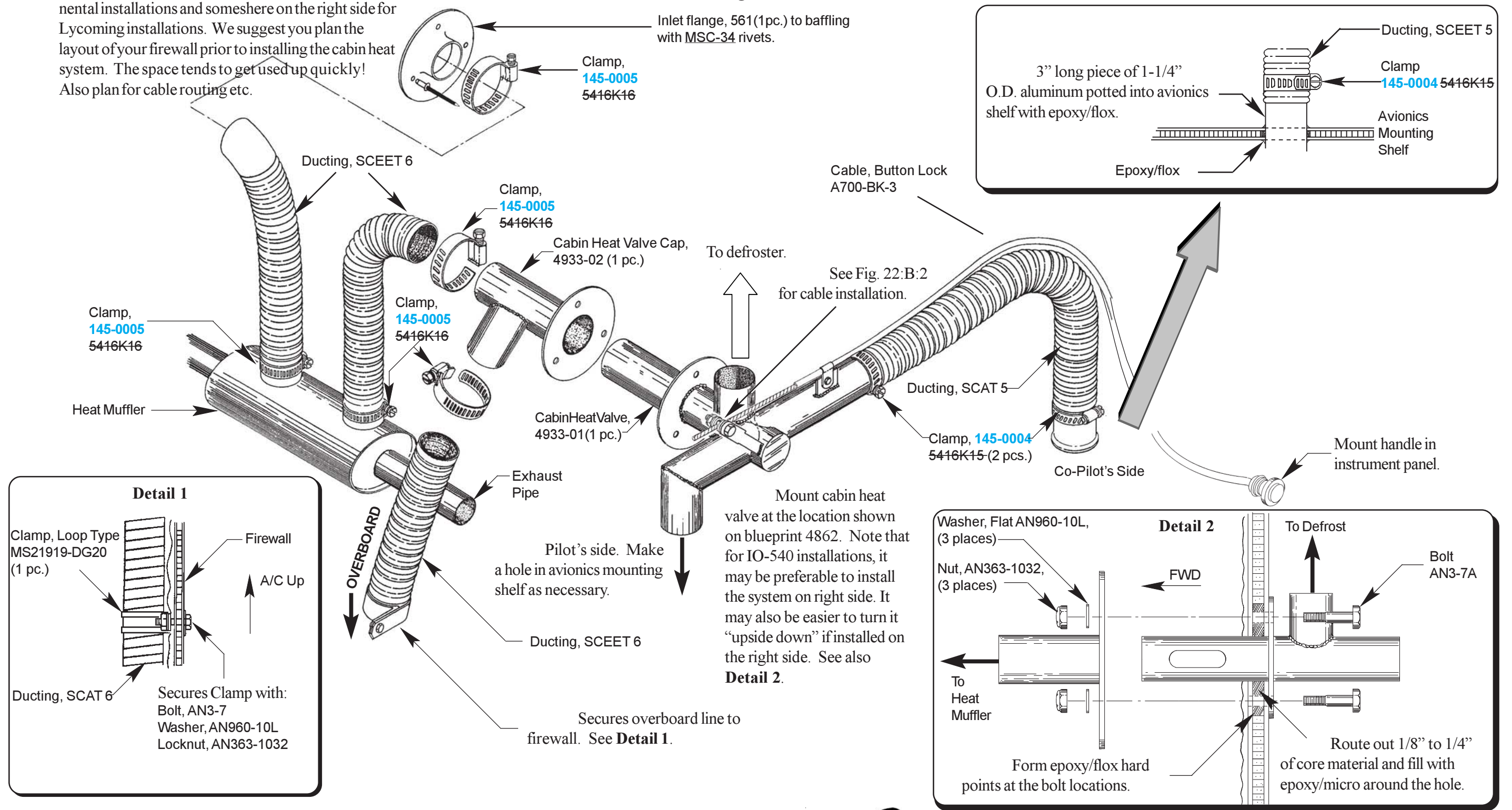
Trim the opening to the scribe line after bonding.



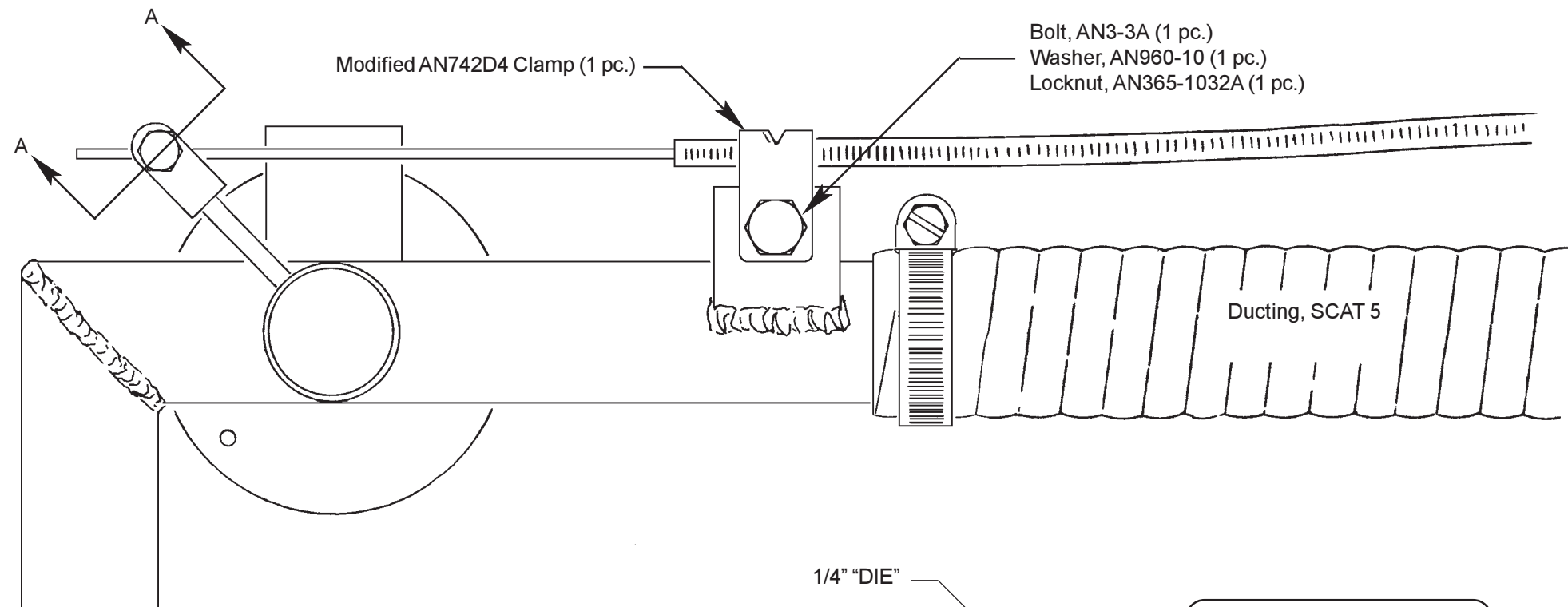
## B. Cabin Heat\*/Cabin Defroster\*

Location: We suggest somewhere on the left side for continental installations and somewhere on the right side for Lycoming installations. We suggest you plan the layout of your firewall prior to installing the cabin heat system. The space tends to get used up quickly! Also plan for cable routing etc.

**Cabin Heat/Defroster**  
**Fig 22:B:1**

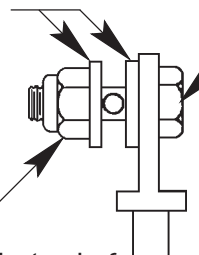


**Mounting Cable On Mixer Valve**  
**Fig 22:B:2**



**VIEW AA**

Washer, Flat, AN960-10  
 Provided with terminal  
 bolt kit.



Bolt provided with  
 terminal bolt kit  
 05-16100.

Locknut  
 AN365-1032A  
 Use this Locknut instead of  
 checknuts provided with ter-  
 minal bolt kit (05-16100).

Parts from terminal bolt  
 kit 05-16100  
 + One AN 365-1032A Bolt  
 + Two AN960-10L Washers  
 (Check nuts not used)

