

This is what I used to create the original thread. Unfortunately, I only had the pictures separate before tinypic died. These are approximately in the right spot. Should get enough info to be useful.

After going through the archives and not finding anything similar to this 3rd gen post:  
[Heater Core Restoration w/Photos](#)

Here's a similar pictorial walkthrough of the heater core on an FB.

I decided this was necessary after finding a mouse nest in the core. Darn things made taking the dash out to disinfect everything sort of a must... every vent, the fan blower, carpet and all soft goods have to be steam cleaned too! yay.

This was done on a manual controlled heater core. The only difference with the solenoids would be removing those and keeping track of how they link up to the cams.

Here's what I used for the foam with McMaster part numbers.

8785K17 High-Temperature Silicone Foam Sheet, Adhesive-Back, 3/16" Thickness, 12" X 12", Ultra Soft

8647K22 Weather- and Abrasion-Resistant Foam Sheet, Blended EPDM, Ultra Soft, 3/16" Thickness, 42" WD, 1' LG

93695K54 Oil-Rst Fire-Retardant Blended Buna-N Foam, 50 ft. Adhesive-Back Strip, 1/4" Thickness, 1/2" WD

Line	Product	Ordered	Shipped	Balance	Price	Total
1	8785K17 High-Temperature Silicone Foam Sheet, Adhesive-Back, 3/16" Thickness, 12" X 12", Ultra Soft	1 Each	1	0	29.32 Each	29.32
2	8647K22 Weather- and Abrasion-Resistant Foam Sheet, Blended EPDM, Ultra Soft, 3/16" Thickness, 42" WD, 1' LG	1 Foot	1	0	7.44 Per Foot	7.44
3	93695K54 Oil-Rst Fire-Retardant Blended Buna-N Foam, 50 ft. Adhesive-Back Strip, 1/4" Thickness, 1/2" WD	1 Each	1	0	8.78 Each	8.78

The only gripe I have with McMaster is they determine shipping costs after the order is made and the sizing on the boxes they use is say... interesting. Not a big deal at all though.

I decided to use high temperature silicone for the baffles that would be near the core and oil resistant foam elsewhere instead of the ones used in the 3rd gen thread. The adhesive backed strip is a little weird, it is very light and airy and once stuck to a surface the foam rips apart instead of the adhesive peeling off. I ended up using lacquer thinner to clean up the old foam, just pour it on and wipe away. It helps to have a shop vac handy to clean up the eraser boogers and old foam dust.

I also did this to an NA miata heater core and heater blower; similar steps overall. That one I actually used and had time to troubleshoot a few things. The black foam was a little too stiff to get a consistent seal on the fresh air flap when closed. Adjusting the cable got it to seal well. That is also why I would lean towards using the softer silicone (and maybe even a little thicker material) on the fresh air flap in the blower.















To take the two halves apart, pop off the spring clips all the way around, including a tiny one at the top. Easiest way to do this is with a flat head into one side of the clip and pry towards the center. To pop the lever arms off the rods I used an adjustable wrench and a flat head screw driver.



Then unscrew all of the lever arms that hook up to the flaps.



Unscrew the copper tubing mounts.





Once done, the whole thing can be pulled apart. It is a pretty tight fit on the core itself, there is a good amount of resistance.

















Once apart, I cleaned up all the surfaces, straightened the fins and soaked the entire core in Lysol overnight. Some of the mouse debris was not able to be sucked up or blown out... so disinfecting it was the only thing I could think of.







That blue stuff is the Lysol. The orange scented stuff smells odd.



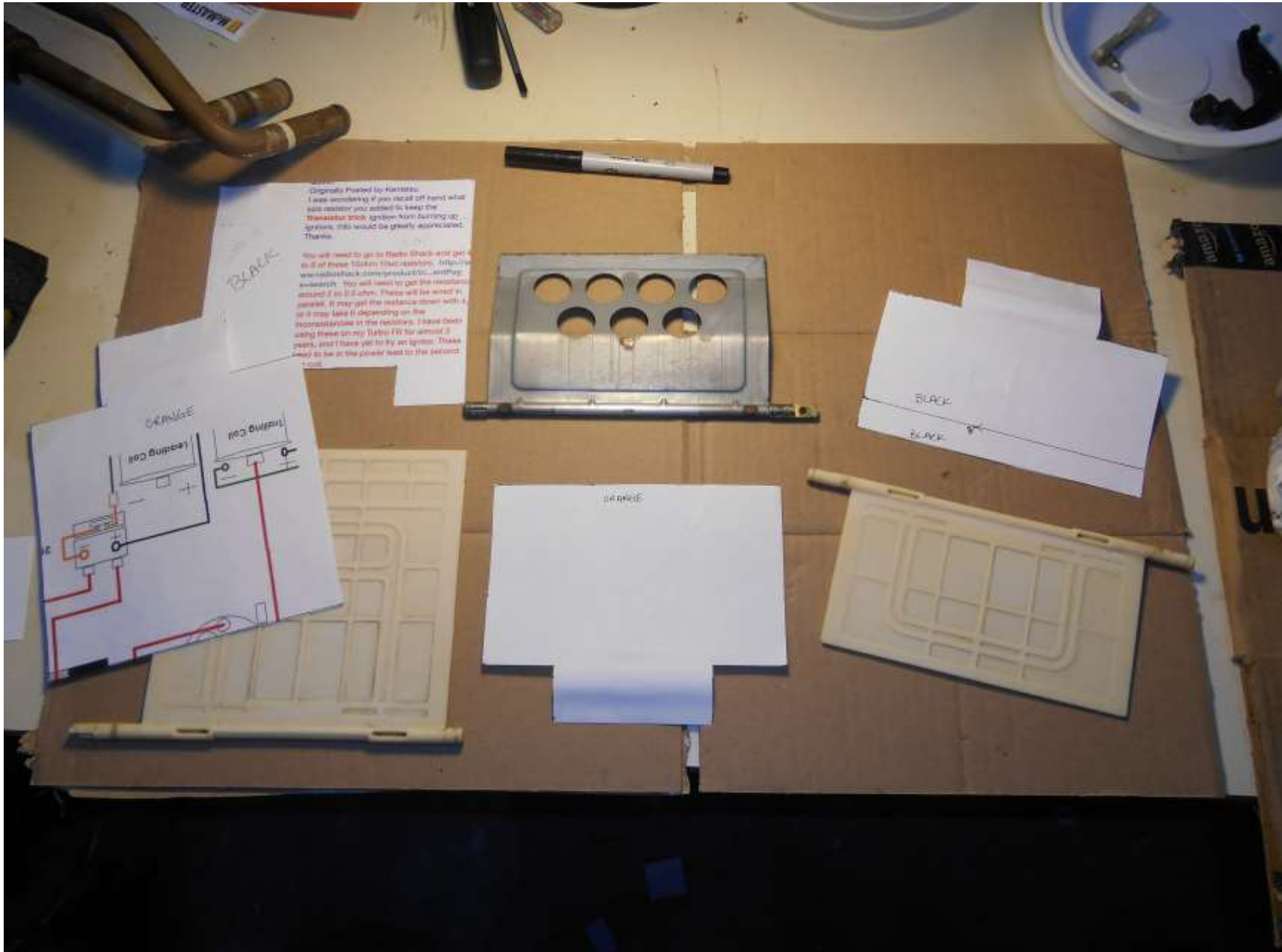
Baffles cleaned up, ready for foam.





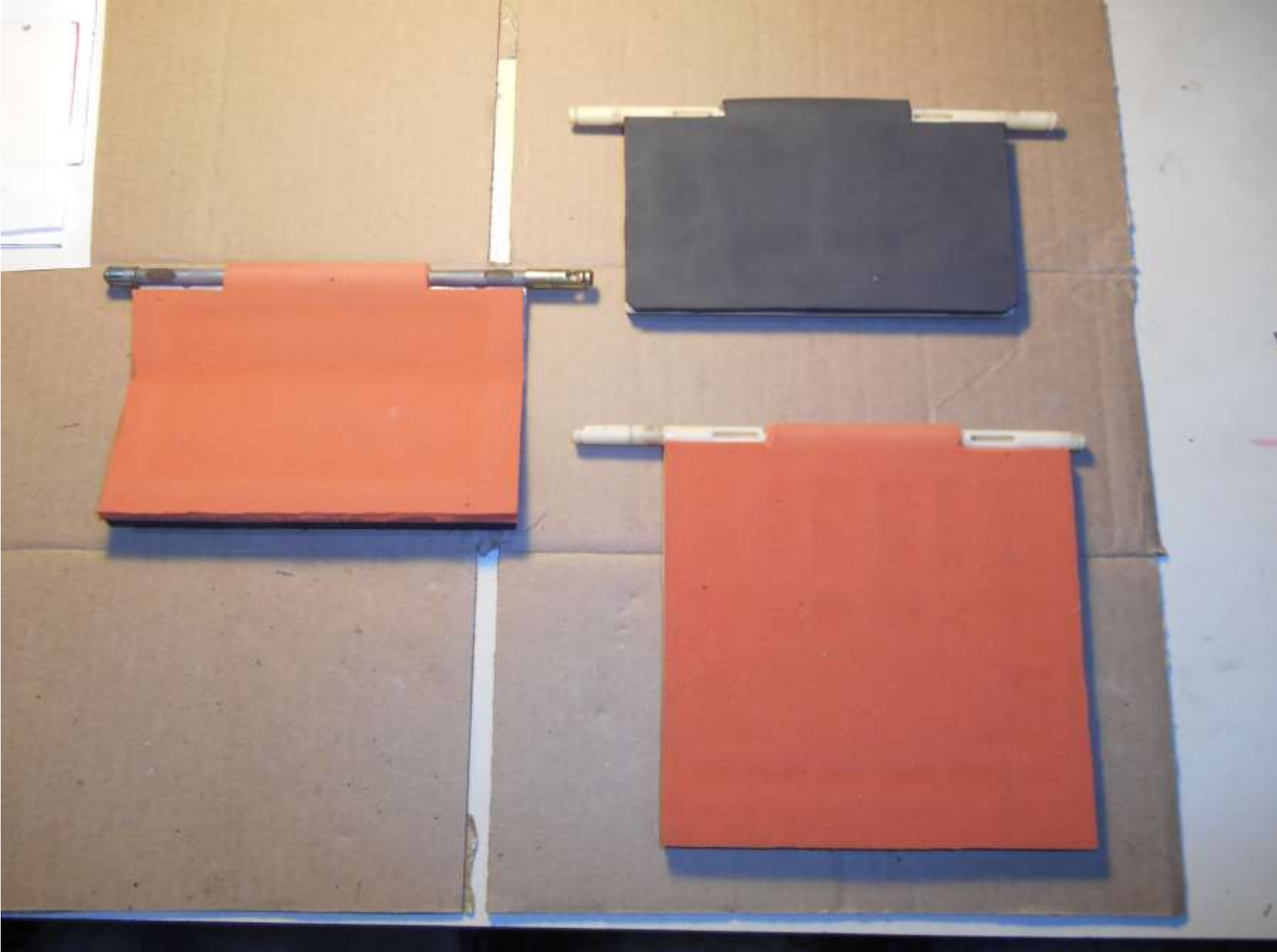


Made some templates out of paper (used whatever was handy). Dry fit, then glue time. The adhesive backed silicone foam stuck very well to the metal flap and pretty well to the clean plastic one. I used a good amount of jb weld on the plain black foam for the rest.





Flaps the next day after drying, looking pretty good.



These areas will have to be closely checked upon reassembly. The foam I used was a little thick and caused too much friction when the flaps were installed. I cut the thickness down and then sanded the surface smooth again. Both foams sanded reasonably well.



Reassembly



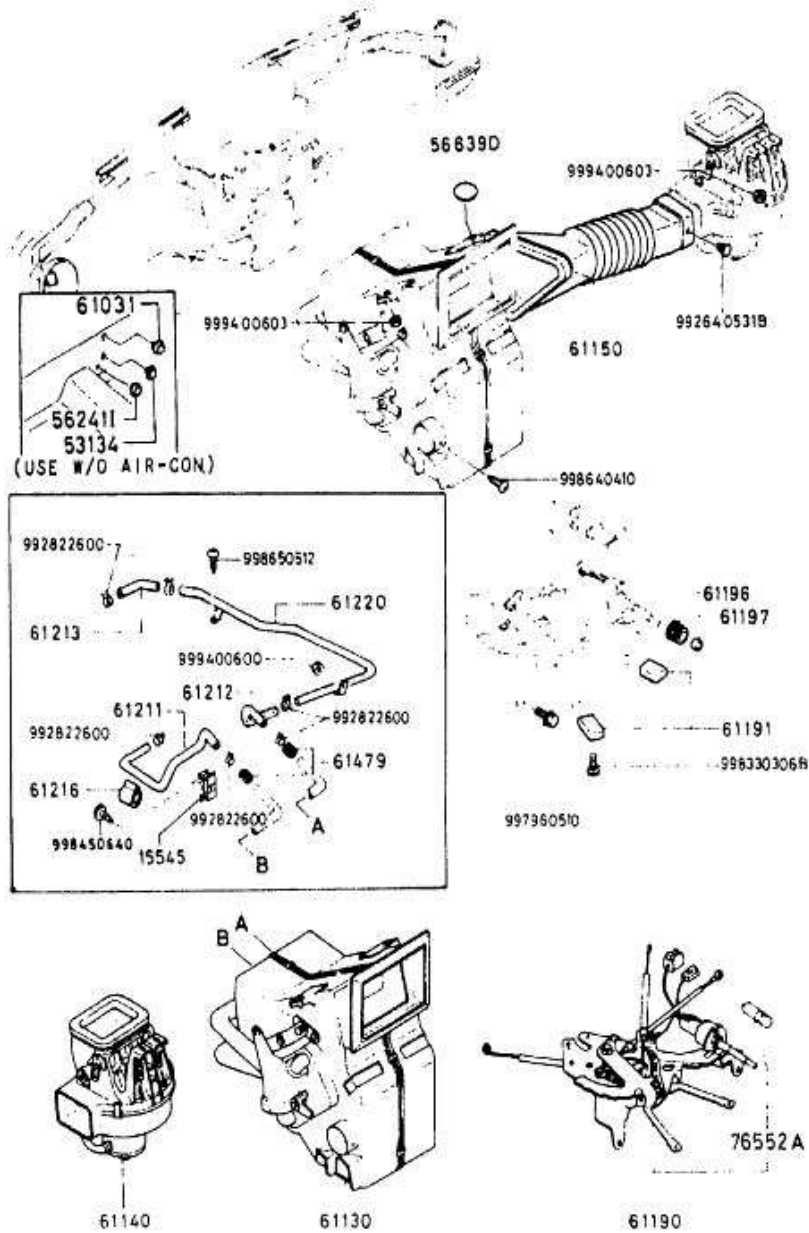






If I were to do it again, I would try and find a foam that has skin as a top layer with a low density backing similar to the top flap in the assembly originally. There are silicone sheets available with a skin. Overall the orange silicone that I used would work well on everything, just a little more expensive. The black stuff I found will work well enough though just a little too stiff. Everything came out pretty well. It will be much better than the mouse nest, foam dust, weird smell spewing thing it was before. For a future build where I am more concerned with getting everything exactly right, I would sand blast and powdercoat/paint all the metal parts and polish up the copper tubing.

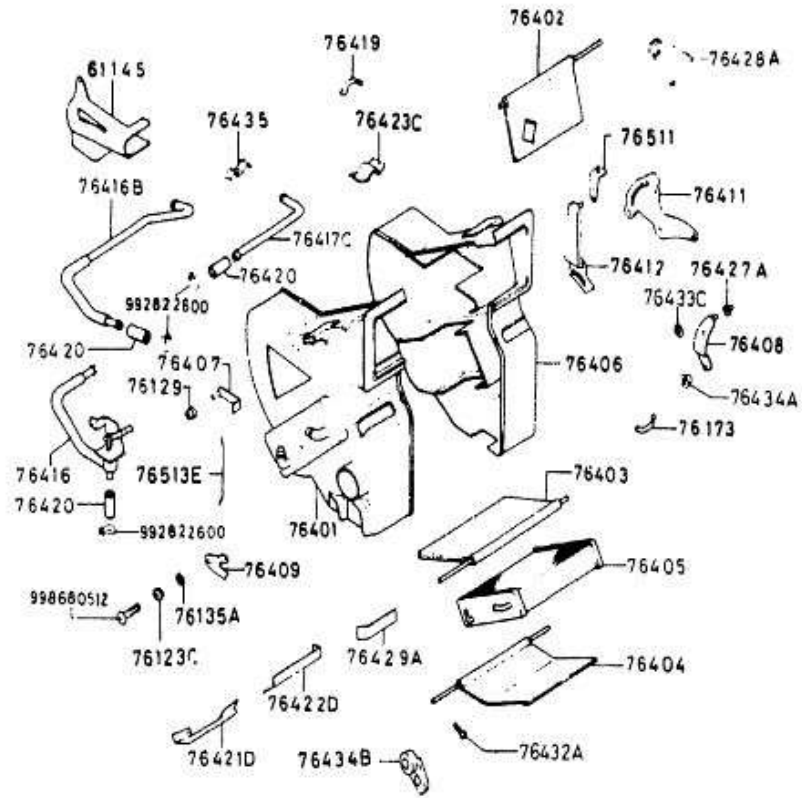
**6100A-1 HEATER**



ITEM NO.	D-CODE	DESCRIPTION	PART NO.	QTY	MODEL/DESCRIPTION	REMARKS
15 545		CLIP, HEATER HOSE	N231-15-545	1	'83 MODEL	
53 134		PLUG, DRAIN	0187-53-134	1	(USE W/O A/C)	
56 241		PLUG, DRAIN	0118-56-241	1	(USE W/O A/C)	
			< A >			
56 639D		COVER, SERVICE HOLE	B499-62-868	1		
			0810-56-639	1		
61 031		PLUG, HOLE	1708-61-031	1	(USE W/O A/C)	
61 130		HEATER UNIT	FA42-61-130	1		
61 140		BLOWER	8871-61-140A	1		
61 150		DUCT	8871-61-150	1	(USE W/O A/C)	
61 190		CONTROL, HEATER	FA01-61-190	1	'81 & '82 MODELS THRU JAN. '82 PROD.	FB331 ..500001-633360
			FA01-61-190A	1	'82 & '83 MODELS FROM FEB. '82 PROD.	FB331 ..633361-
61 191		KNOB NO. 1	8171-61-191A	2		
61 196		KNOB	8563-61-196A	1		
61 197		KNOB, A/C	8563-61-197B	1		
61 211		HOSE NO. 1, WATER	8871-61-230	1	'81 & '82 MODELS	
			N231-15-550	1	'83 MODELS	
61 212		HOSE NO. 2, WATER	8871-61-212	1		
61 213		HOSE NO. 3, WATER	8871-61-213	1	'81 & '82 MODELS	
			FA42-61-213A	1	'83 MODEL	
61 216		PROTECTOR	1011-61-216	1	'81 & '82 MODELS	
61 220		PIPE, HEATER	F001-61-220B	1	'81 & '82 MODELS	
			FA42-61-220C	1	'83 MODELS	
61 479		GROMMET	8871-61-219A	2		
76 552A		BULB	8595-76-552	1		

**6110A-1 HEATER UNIT**

COMPONENTS OF FA42-61-130



ITEM NO.	D-CODE	DESCRIPTION	PART NO.	QTY	MODEL/DESCRIPTION	REMARKS
61 145		COVER, HEATER	8871-76-418	1		
76 123C		BUSHING	8871-76-414	3		
76 129		BUSHING	8871-76-470	1		
76 135A		SPRING	8871-76-415	3		
76 173		CLAMP	8871-76-466	6		
76 401		CASE, HEATER	FA42-76-401	1		
76 402		SHUTTER NO. 1	FA42-76-403	1		
76 403		SHUTTER NO. 2	8871-76-405	1		
76 404		SHUTTER NO. 3	8871-76-410A	1		
76 405		CORE, HEATER	8871-76-402	1		
76 406		CASE, HEATER	FA42-76-400A	1		
76 407		LEVER NO. 1, CONTROL	8871-76-406	1		
76 408		LEVER, CONTROL	8871-76-413	1		
76 409		LEVER NO. 2, CONTROL	8871-76-407	1		
76 411		LEVER, CONTROL	8871-76-411A	1		
76 412		LEVER, CONTROL	8871-76-412A	1		
76 416		VALVE, WATER	8871-76-409	1		
76 416B		PIPE	8871-76-416	1		
76 417C		PIPE	8871-76-417	1		
76 419		CLIP	8871-76-471	1		
76 420		HOSE	8871-76-420	3		
76 421D		GUIDE	8871-76-421	1		
76 422D		GUIDE	8871-76-422	1		
76 423C		BAND, HOSE	8871-76-425	2		
76 427A		BUSHING	8871-76-427	1		
76 428A		SPRING	8871-76-428	1		
76 429A		GUIDE	FA42-76-429	1		
76 432A		WASHER & SCREW	8871-76-432	1		
76 433C		WASHER	8871-76-433	1		
76 434A		BUSHING, STEPPED	8871-76-434	1		
76 434B		PLATE	8871-76-430A	1		
76 435		CLIP	8871-76-419	2		
76 511		PLATE, HEATER UNIT	8871-76-404	1		
76 513E		SHAFT	8871-76-408	1		