

1                                   **Supplemental Information & Instructions**  
2                                   **for**  
3                                   **021-688 Five Piece Heat Shield Kit, with Hardware**  
4                                   **Austin Healey 100-6 BN4, BN6, 3000 MK I BN7, BT7 (Dual-Carb)**  
5                                   **Left-Hand Drive**

6                                   **About this kit....**

7                                   *One of the distinctive features of the Big Healeys is the off-white asbestos heat shield panels*  
8                                   *attached to the foot box on the 100s, and the foot box and firewall of the 100-6 and 3000s, They were*  
9                                   *originally made from material containing asbestos, and aside from being a health hazard, they were*  
10                                   *fragile and prone to breaking, especially when being removed or installed.. The panels are also prone to*  
11                                   *deterioration, crumbling and simply falling apart.*

12                                   *Moss Motors has sold firewall heatshield kits from several different suppliers over the years. We*  
13                                   *have had problems with shipping damage, and we have also had a variety of complaints about the*  
14                                   *material, and the shape of the individual pieces. Many restorers would not buy the commercially available*  
15                                   *heatshield kits, preferring to make their own. In 2008 we started gathering data on original panels. We*  
16                                   *relied heavily on Eric Grunden (Absolutely British, Santa Maria, California). Eric, who has restored many*  
17                                   *Healeys to Concours standards, made patterns for his own use based on original panels from cars that*  
18                                   *he restored. Eric loaned us his collection of original samples, patterns, and library of photos of unrestored*  
19                                   *cars which we used to develop this kit. Roger Moment provided essential information on suitable modern*  
20                                   *materials and detailed instructions on painting the panels to achieve a finish that is both correct and*  
21                                   *durable. We are grateful to both Eric and Roger for their assistance with this project.*

22                                   *The 100-6 BN4, BN6, 3000 MK I BN7 and BT7 had five heat shield panels, while the 3000 MK II*  
23                                   *from (C)13751 (BN7 and BT7 tri-carb cars), the 3000 MK III BJ7 and BJ8 only had four heat shield*  
24                                   *panels. Despite the fact that the factory parts books show the same part numbers for all 100-6 and 3000s,*  
25                                   *the are different in many ways. That is why we decided to reproduce both the 5-panel heat shield set as*  
26                                   *fitted to the 100-6 and 3000 MK I (021-688), and the 4-panel set as fitted to the 3000 MK II and MK III*  
27                                   *(this kit, 021-683). The attaching hardware also changed, and we include the appropriate screws and*  
28                                   *washers with each kit.*

29                                   *Getting the patterns sorted was a major hurdle, but there remained two others- the material, and*  
30                                   *the surface finish. Talking to Roger and Eric, as well as other Healey enthusiasts, we quickly came to the*  
31                                   *conclusion that the soffit panels from the James Hardie Company were nearly perfect for our purpose. It*  
32                                   *has the right thickness, and is has a smooth side, and a side with a distinctive "waffle pattern". It is a*  
33                                   *reasonably good insulator, and all together it is a very good approximation for the original material. It is*  
34                                   *asbestos free. It is not exactly the right color, but Roger provided excellent instructions for painting the*  
35                                   *panels. The remaining question is a potentially contentious one. With two sides, one smooth and one with*  
36                                   *a distinctive pattern, we had to decide which side faced out. Roger has made a very strong case for the*  
37                                   *100s having heat shields with the smooth surface out, but the panels in the six cylinder cars appear to*  
38                                   *have been cut without regard to which side was out. Looking at the original samples, some panels have*  
39                                   *the textured side out, others have the smooth side out. Some cars have a mix of smooth and textured*  
40                                   *panels. We decided to produce these panels with the textured side out. We know for a fact that some of*  
41                                   *you will be more than willing to debate this point, but we could not offer individual pieces cut both ways,*  
42                                   *which would be necessary to satisfy everyone with an opinion. I think it is safe to say that based on the*  
43                                   *cars with original heat shields that have been examined; all the heat shield panels were installed textured*  
44                                   *side out on at least some of the cars.*

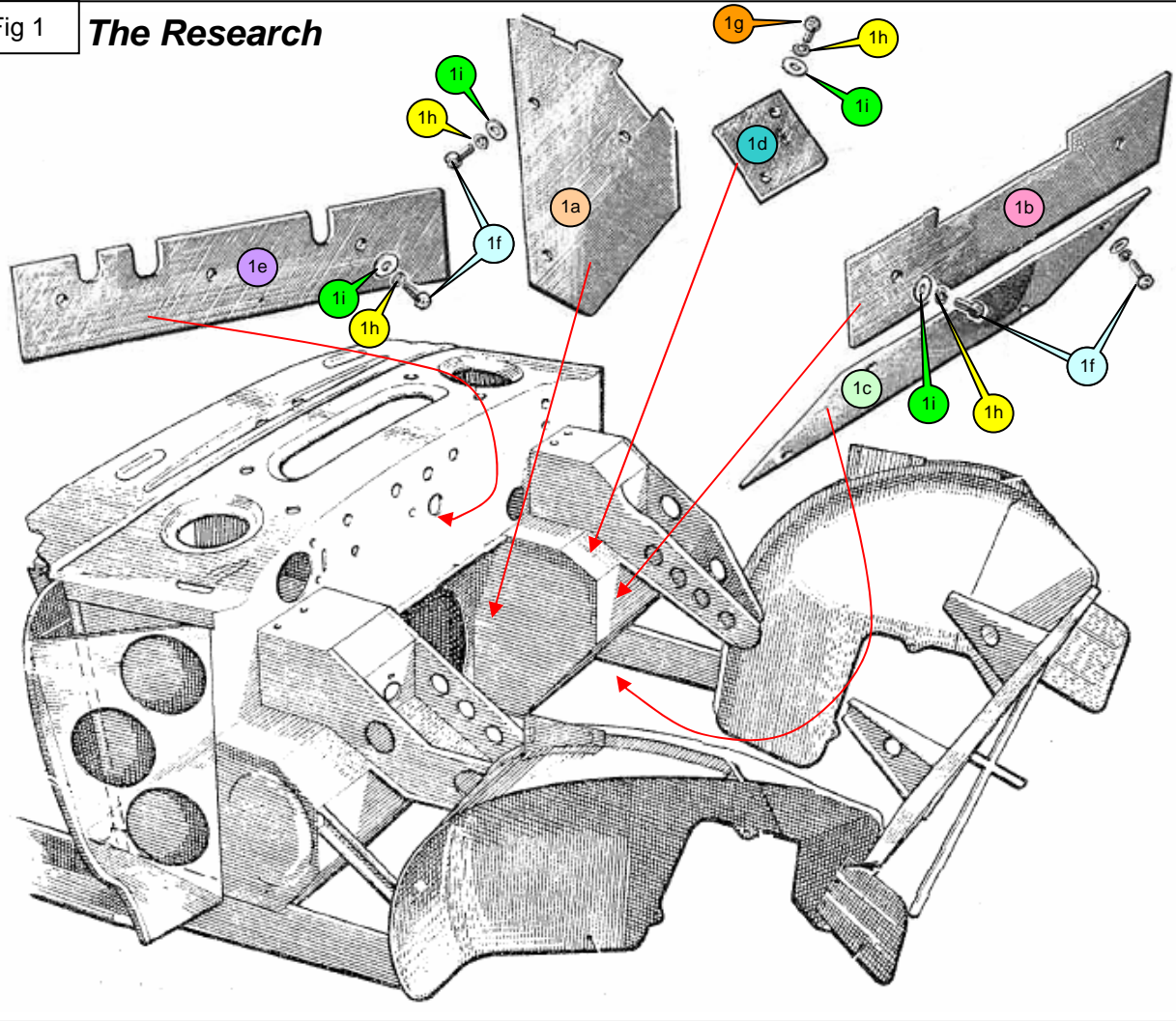
45                                   *We are also including appropriate screws, lock washers, and most importantly, the larger, extra*  
46                                   *thick flat washers which secure the panels. We had to have the large flat washers made in England by a*  
47                                   *specialty hardware manufacturer because they were not available commercially.*

48                                   *The best heat shield kit is of no value if it arrives broken. We have taken extraordinary steps to*  
49                                   *have these panels (which are made here in the US) packaged to as to minimize the chance of shipping*  
50                                   *damage.*

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Fig 1

**The Research**



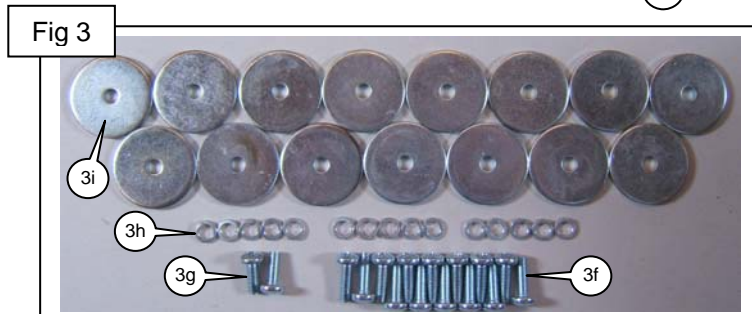
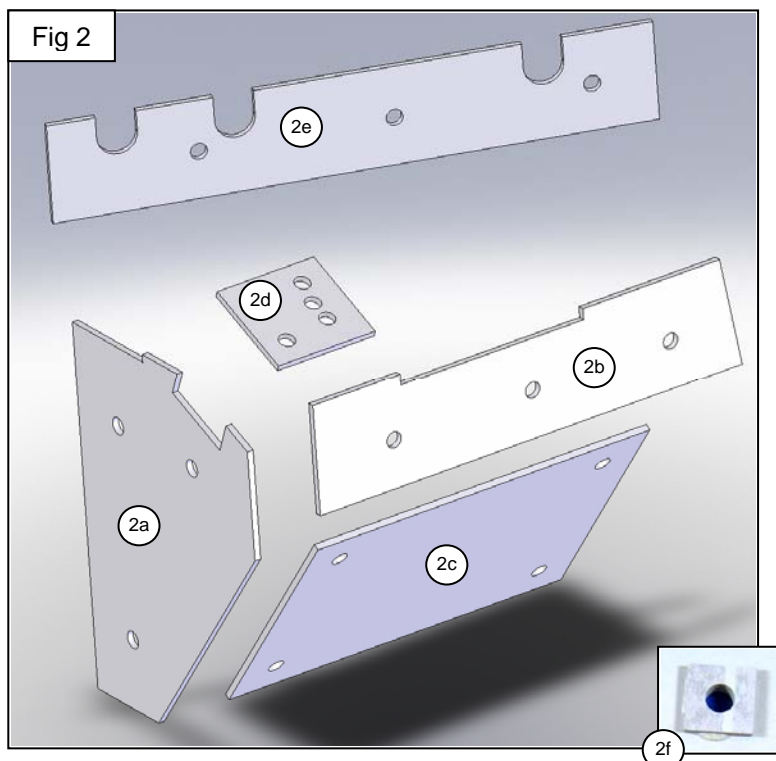
			100-6		3000 MK I to (C)13750		3000 MK II from (C)13751		3000 MK III	
Qty In Kit	Ref	Moss PN	BN4	BN6	BN7	BT7	BN7 Tri-Carb	BT7 Tri-Carb	BJ7	BJ8
1	1a	14B6761_A	14B 6761A Inner vertical face, no spacer blocks				14B 6761B Inner vertical face, 3 spacer blocks			
1	1b	14B6760_A	14B 6760A Front vertical face, notch in top edge				14B 6760B Front vertical face, no notch			
1	1c	14B6828_A	14B 6828A Front lower face, no spacer blocks				14B 6828B Front lower face, 4 spacer blocks			
1	1d	14B6759	14B 6759 to (C)13750 Front upper face				Panel was not used on MK II or MK III			
1	1e	14B7804	14B 7804 Firewall, 3 rounded slots				AHB9210 Firewall, one rounded slot, two square notches			
			PMZ310 (15)							
13	1f	373-960		PMZ310 (13) for 1a, 1b, 1c, 1e			PMZ310 Phillips (6) for 1b, 1e			
2	1g	373-961		PMZ308 (replaces 2 PMZ310) for 1d			PMZ310 Pozi-drive (6) for 1b, 1e			
							PMZ314 Phillips (replaces 7 PMZ310) for 1a, 1c			
							PMZ314 Pozi-drive (replaces 7 PMZ310) for 1a, 1c			
15	1h	324-010	LWZ203 (15) used with all screws				LWZ203 (13) used with all screws			
15	1i	315-032	53K 3151 (15) used with all screws				53K 3151 (13) used with all screws			

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Chassis 13750 was the last MK I 3000. The actual shape and configuration of these panels changed although the part numbers (with one exception) remained the same. The nature of the differences and the change point are shown in the table above. Where two versions exist under one factory parts number, we have added an A or B suffix to indicate the existence of variants.

## Contents of the Kit

- 90  
91 **2a 14B 6761**  
92 Footbox, inner vertical face  
93  
94 **2b 14B 6760**  
95 Footbox, front vertical face  
96  
97 **2c 14B 6828**  
98 Footbox, front angled down face  
99  
100 **2d 14B 6759**  
101 Footbox, front angled up face  
102 *This panel is secured by two screws. The*  
103 *extra holes are to clear nuts welded to the*  
104 *surface of the steel footbox panel.*  
105  
106 **2e 14B7804**  
107 Firewall, center section  
108 *The firewall panel was introduced with the*  
109 *100-6 BN6. The early panel 14B 7804 was*  
110 *fitted to all BN6, 3000 MK I BN7 and BT7 to*  
111 *(C)13750. Although it was superseded by*  
112 *AHB9210 (introduced with the first 3000 MK*  
113 *II BN7 & BT7 (the Tri-Carbs) in May of 1961)*  
114 *we are supplying the correct early panel.*  
115  
116 **021-691 Hardware kit, consisting of:**  
117 **3f 373-960 PMZ 310 (13)**  
118 Screw, 10-32 x 7/8", Pan Head, Phillips  
119  
120 **3g 323-005 PMZ 308 (2)**  
121 Screw, 10-32 x 1/2", Pan Head, Phillips  
122 *These two short screws are required because*  
123 *longer screws will interfere with the throttle*  
124 *linkage. Although the factory books show the*  
125 *BN4 using the long (373-960 or PMZ310)*  
126 *screws for all panels, we are supplying the 2*  
127 *short screws called for with the BN6 & 3000.*  
128  
129 **3h 324-010 LWZ 203 (15)**  
130 Lock washer, #10  
131  
132 **3i 315-032 53K 3151 (15)**  
133 Flat Washer, #10 x 1 1/4" OD, 0.115" thick  
134 *This unusually thick and wide flat washer was*  
135 *not available commercially, so we had them*  
136 *made by a specialty hardware manufacturer*  
137 *in England.*  
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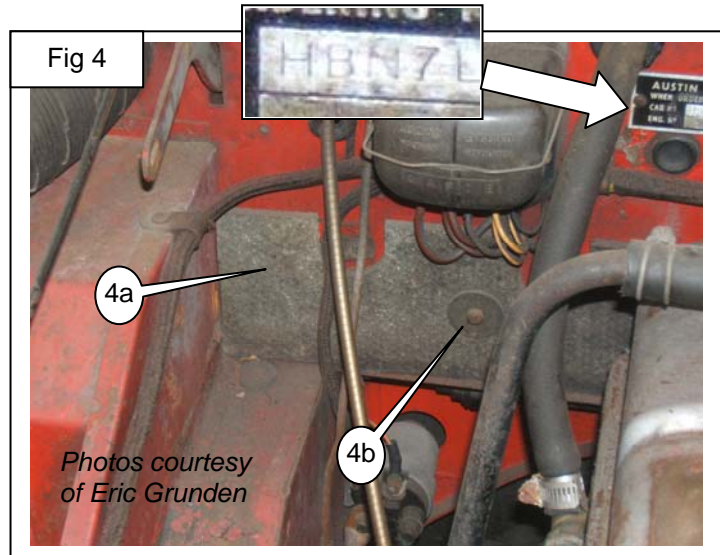


*The Phillips head was invented specifically for use in assembling aluminum aircraft. It was designed to prevent assemblers from over tightening screws to the point that the aluminum threads stripped. The Phillips screw driver will "cam out" before that happens (as many of us can attest to!). In 1962-63 (after the last 3000 MK I was built) the British automotive industry phased out all Phillips head screws in favor of the "Pozi-drive" design, which will not cam out if a proper Pozi Drive screwdriver is used. Because the screw driver will not cam out, high torque can be applied. However, many if not all companies simply adopted the new specifications without changing part numbers. We are supplying screws with Phillips heads, which would be correct for all 100-6 and 3000 MK I.*

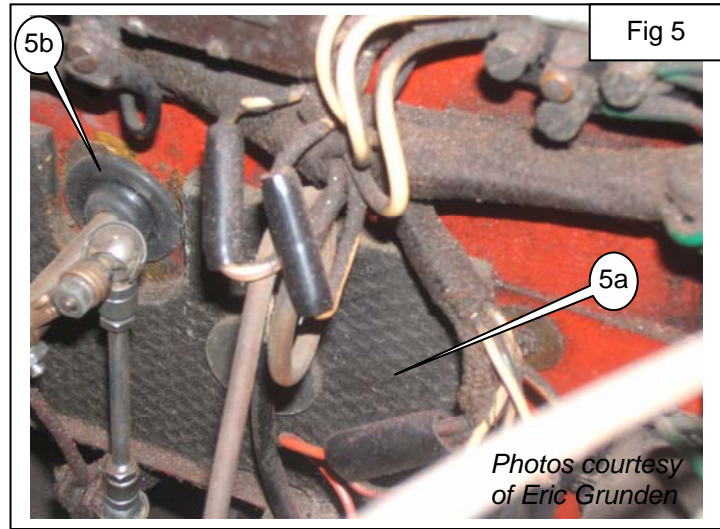
140 **Reference Photographs**

141 **61 BN7**

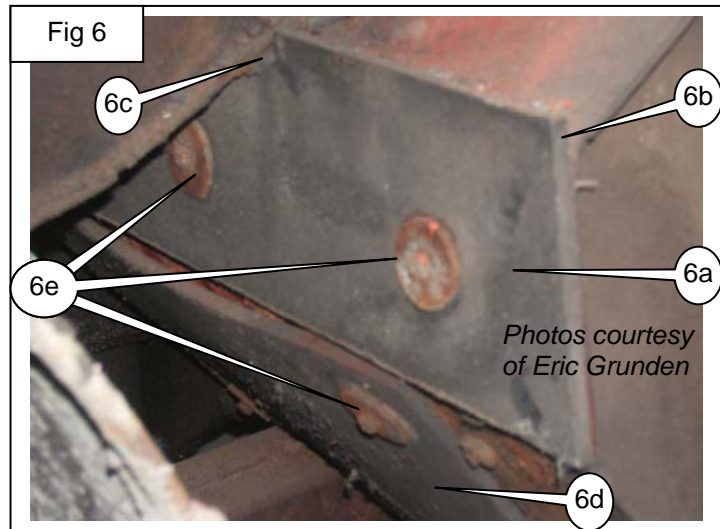
142 The original firewall panel (4a) has  
143 several 'notches' along the top edge  
144 to clear various bulkhead fittings. As  
145 with all the heat shield panels, this  
146 one is secured with 10-32 screws,  
147 lock washers, and the unusually large  
148 (and thick) flat washers (4b).



158 *The texture (5a) of the original panel is clear*  
159 *in this photograph. Not all panels show*  
160 *exactly the same pattern, which implies that*  
161 *the panels may have come from several*  
162 *suppliers, which would not be unusual. The*  
163 *rounded notch on the driver's end of the*  
164 *panel is necessary to clear the bushing (5b)*  
165 *that supports the end of the throttle linkage*  
166 *rod.*



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176 *The panel that covers the front vertical face*  
177 *of the footbox (6a) was always identified as*  
178 *"14B 6760" in the factory parts books. It*  
179 *actually came in two different versions. The*  
180 *panel fitted to the 100-6 and 3000 MK I*  
181 *extended above the sheetmetal at the top*  
182 *edge (6b), necessitating a notch (6c) to clear*  
183 *the chassis brace. This is the panel we*  
184 *reproduced for this kit.*



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186 *The rusty condition of the attaching*  
187 *hardware is typical, and that will make*  
188 *removing the panels a difficult task. You*  
189 *may find that a product like "PB Blaster" or*  
190 *"Penetrating Oil" will loosen the rusted*  
191 *screws.*

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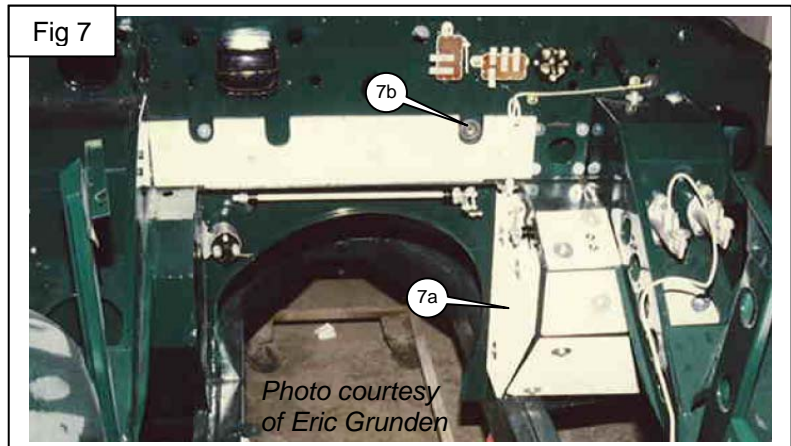
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### 100-6 BN6

The odd shaped panel (7a) is secured to the vertical inside face of the L/H foot box with three screws.

The edges of the panels do not overlap like they do on the BN1 and BN2.

The throttle shaft is supported by a bushing that is actually in the firewall (7b).



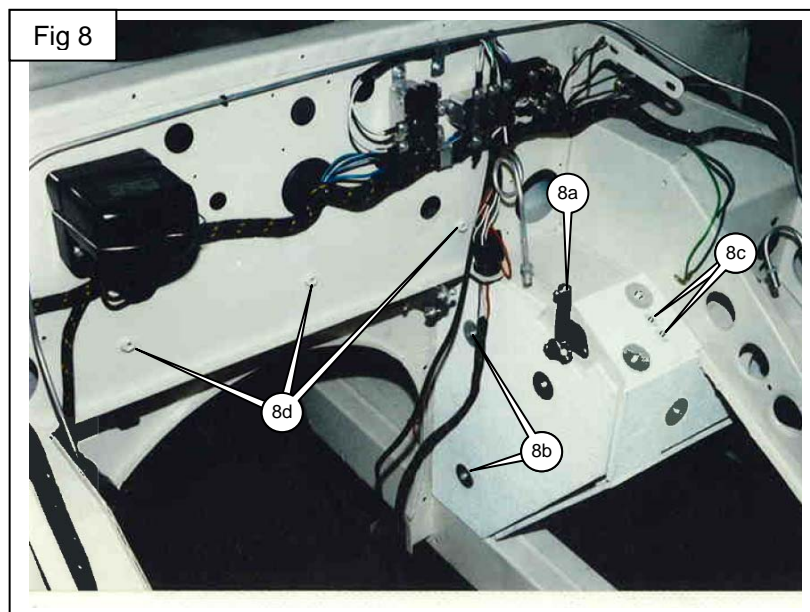
### 3000 MK I BT7

The throttle linkage (8a) must move freely and clear the panel.

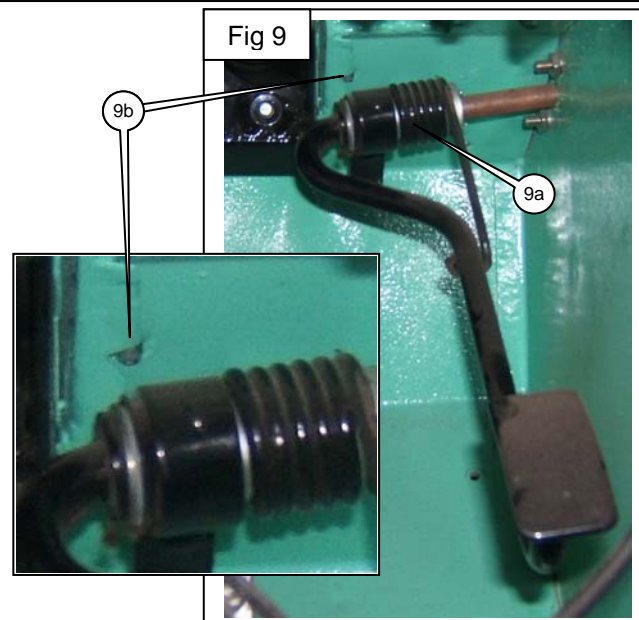
Although they are not yet fitted, there will be two p-clips installed on top of the large flat washers (8b) to control the wiring harness.

The two captive nuts for the throttle pedal brackets (8c) are just visible through the holes in the small panel. The two screws securing this panel must be very short (1/2") or the screws will hit the throttle pedal.

The three captive nuts on the firewall (8d) are still visible as the firewall heat shield has not yet been fitted.



Looking at the foot box up where the gas pedal (9a) is secured shows why the two screws that secure the heat shield in this area are so short. The end of the 1/2" long screw (9b) is just visible when the throttle pedal is loose and hanging down. When it is properly installed, the throttle pedal will be hard up against the sheetmetal, right where that screw would come through if it were longer. We supply the correct 1/2" long screws with this kit.



247 *Please Note: Heat shields can be installed on a car that is already assembled or restored, but it is*  
248 *significantly more difficult. At this time, we do not have specific instructions for the four different models*  
249 *these panels fit. If you would like to help us in that regard, please take digital photos and make notes*  
250 *about your installation. We will incorporate additional information into this document as time and*  
251 *resources permit.*

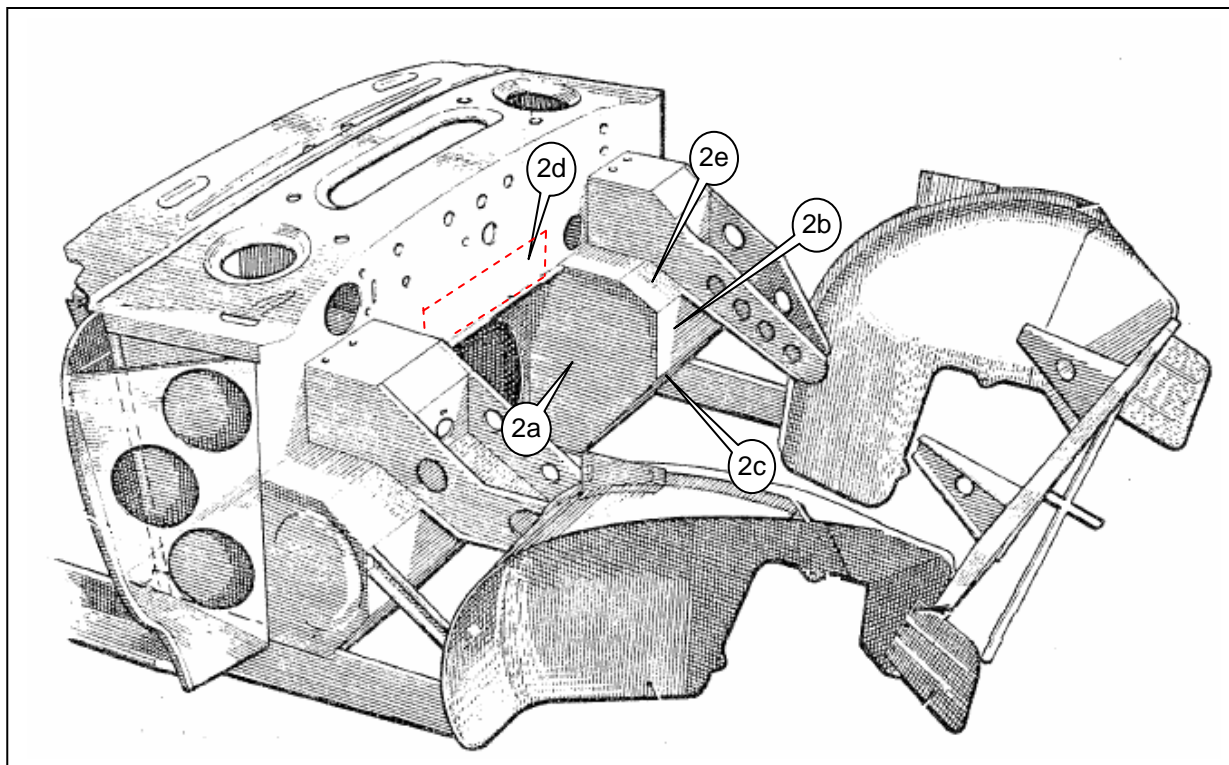
## 252 **Preparation**

253 **Note: The original heat shields are made from a pressed asbestos board.**  
254 **Asbestos poses a severe health risk. (Our panels do not contain asbestos.)**  
255 **Wear a face mask when removing these and cleaning the underlying sheet metal.**  
256 **Wrap all asbestos pieces in plastic and seal the bags with tape.**  
257 **Take the bagged panels to a location in your area where hazardous materials can**  
258 **be disposed of properly.**

- 259
- 260 1) Take enough digital photographs of the footbox and firewall for future reference.
- 261
- 262 2) Remove all screws attaching the heat shields to the foot box and firewall.
- 263
- 264 3) Using a wet sponge, clean off any residual shield material from the sheet metal. You may need to
- 265 also use a wet Scotchbrite pad.
- 266
- 267 4) If the panels are being fitted to an assembled car, we suggest that you take care of the rust problems
- 268 as they are exposed by the removal of the original panels.
- 269
- 270 5) Clean up all mounting screws and washers. You may refurbish them and reuse them if they are in good
- 271 condition, but new hardware is included in the kit.
- 272
- 273 6) Lay out the panels on a clean surface as shown in Fig 2. The textured surface faces up.
- 274
- 275 7) Compare the new panels to the panels removed, noting any differences that may affect the fit or
- 276 operation of various components. *The only way to ensure that there will be no trouble later is to fit the*
- 277 *various components while you test fit the panels. Minor modifications to the panels can be made with a*
- 278 *coarse file.*

279 **Installation**

- 280 1) Test-fit the panel 2a against the side of the footbox and verify, using screws, that the holes line up  
281 properly and the edges follow those of the footbox.  
282 2) Mount the panel temporarily.  
283 3) Note that there are two wiring harness P-clips (8b) that attach to the top and bottom rear screws.  
284 4) Fit the upper bell crank (8a) on the throttle pedal shaft. Verify that the bell crank arm and the ball stud  
285 at the end of the arm do not contact the panel. **WARNING! The throttle linkage must move freely**  
286 **through its FULL range of travel!! If not, the engine may not reduce speed when you take your foot**  
287 **off the pedal, with potentially dangerous consequences.**  
288 5) Remove panel 2a and set it aside.  
289 6) Test-fit panel 2b. Slide the panel up so the top edge projects above the top edge of the sheetmetal.  
290 Verify that the notch clears the chassis brace (Fig 6).  
291 7) Remove panel 2b and set is aside.  
292 8) Repeat the test fit process with the remaining panels 2c, and 2d.  
293 9) Once each panel piece has been fitted and removed, give it a very light coat of Rustoleum white  
294 clean metal primer. *That is nearly an exact match for the color of the original panels. However, the*  
295 *primer is flat and thus holds dirt and oil, and you will not be able to keep them clean.*  
296 10) To protect the primer and give you a surface you can keep clean, coat the primed panels with Minwax  
297 spray satin clear urethane. *With a light coat this provides a surface that can be kept clean fairly*  
298 *easily, and it is barely visible. If you lay on too much urethane, the panels will be shiny, which is not*  
299 *what you want.*  
300 11) Install the panels in order- 2a, 2b, 2c, 2d, 2e



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331 *Moss Motors could not have created this heat shield kit without the assistance of Eric Grunden. We are*  
332 *deeply indebted for their time, knowledge, and patience.*

333 **Notes**


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Although every effort has been made to ensure the accuracy and clarity of this information, errors and/or omissions on our part are almost inevitable. Any suggestions that you may have that will improve the information (especially detailed installation notes) are welcome. Please use the simple email form on the **"Contact Us"** page on the Moss website:  
<http://www.mossmotors.com/AboutMoss/ContactUs.aspx>  
If you prefer, you may call our Technical Services Department at 805-681-3411. So many people call us for help that we are often not able to answer the calls as fast as we'd like, and you may be asked to leave a message. We apologize in advance for the inconvenience. We will get back to you within 2 business days.



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