

1                   **Supplemental Information & Instructions**  
2                                       **for**  
3                   **021-683 Heat Shield Kit, with Hardware**  
4                   **Austin Healey 3000 MK II BN7, BT7 (Tri-Carb), MK III BJ7, BJ8**  
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9                    *originally made from material containing asbestos, and aside from being a health hazard, they were*  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.*

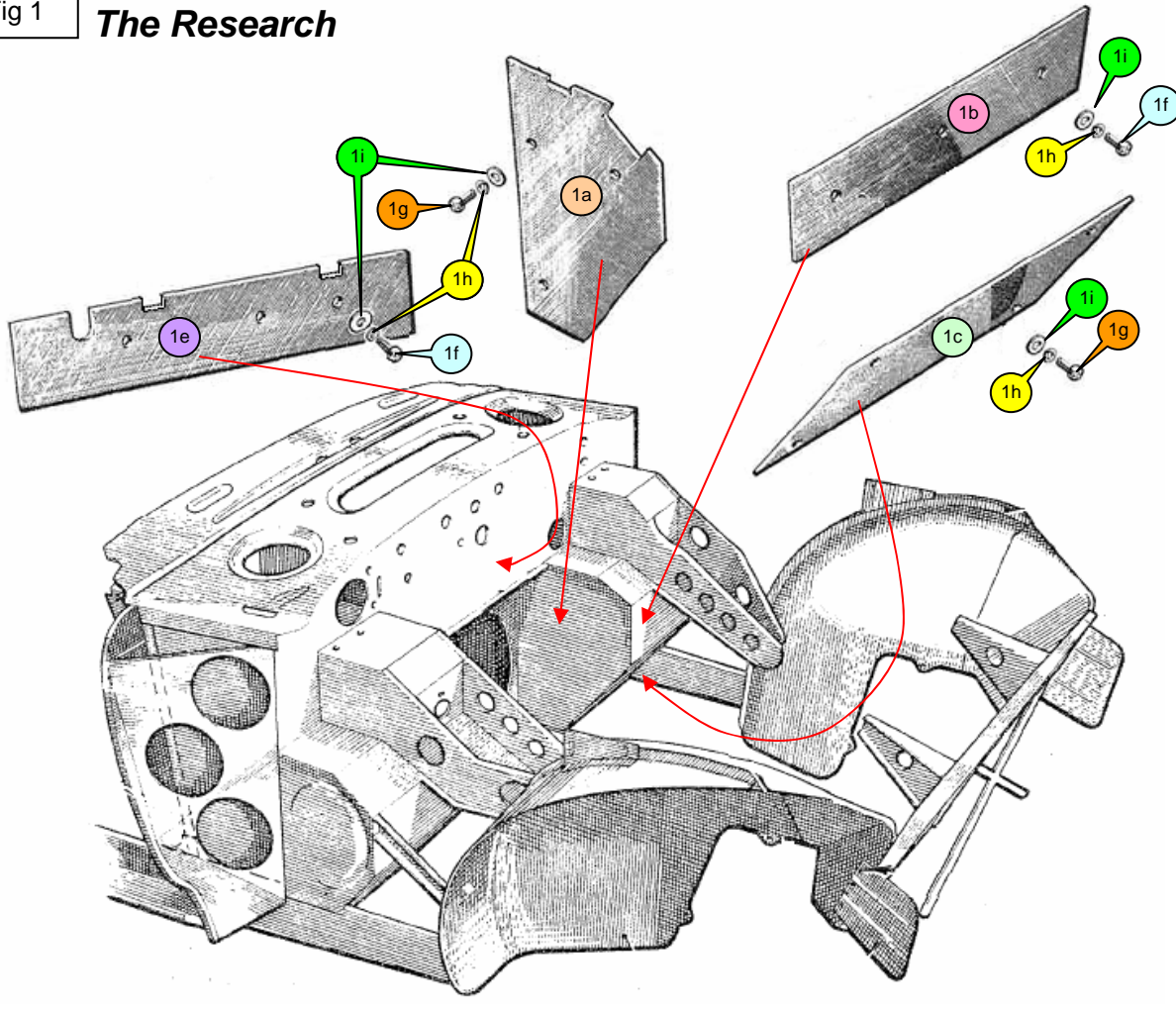
45                    *We are also including appropriate screws, lock washers, and most importantly, the larger, extra*  
46                    *thick flat washers which secure the panels. We had to have the large flat washers made in England by a*  
47                    *specialty hardware manufacturer 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			
14B 6761A Inner vertical face, no spacer blocks				14B 6761_B Inner vertical face, 3 spacer blocks				1	1a	14B6761_B
14B 6760A Front vertical face, notch in top edge				14B 6760_B Front vertical face, no notch				1	1b	14B6760_B
14B 6828A Front lower face, no spacer blocks				14B 6828_B Front lower face, 4 spacer blocks				1	1c	14B6828_B
14B 759 to (C)13750 Front upper face				Panel was not used on MK II or MK III						
14B 7804 Firewall, 3 rounded slots				AHB9210 Firewall, one rounded slot, two square notches				1	1e	AHB9210
PMZ310 (15)										
PMZ308 (replaces 2 PMZ310) for 1d										
PMZ310 (13) for 1a, 1b, 1c, 1e				PMZ310_A Phillips, 5/8 (6) for 1b, 1e				6	1f	373-960
				PMZ310_B Pozi-drive, 5/8 (6) for 1b, 1e				6		373-961
				PMZ314_A Phillips, 7/8, for 1a, 1c				7	1g	322-945
				PMZ314_B Pozi-drive, 7/8, for 1a, 1c				7		322-944
LWZ203 (15) used with all screws				LWZ203 Lockwasher used with all screws				13	1h	324-010
53K 3151 (15) used with all screws				53K 3151 large flat washer used with all screws				13	1i	315-032

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Chassis 13750 was the last MK I 3000. The actual shape and configuration of these panels changed when the first 3000 MK II 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 part number, we have added an A or B suffix to indicate the existence of variants.

90 **Contents of the Kit**

91 **2a 14B 6761\_B**

92 Footbox, inner vertical face  
93 *There are three spacer blocks (2f) glued to the*  
94 *back of the panel, as original.*

96 **2b 14B 6760\_B**

97 Footbox, front vertical face

99 **2c 14B 6828\_B**

100 Footbox, front angled down face  
101 *There are four spacer blocks (2f) glued to the*  
102 *back of the panel, as original.*

104 **2d AHB 9210**

105 Firewall, center section  
106 *Single U-shaped slot, two squared off notches.*  
107 *The early version of this panel (14B7804)*  
108 *was fitted to all BN6, 3000 MK I BN7 and BT7*  
109 *to (C)13750. It was superseded by AHB9210*  
110 *with the first 3000 MK II BN7 & BT7 (the Tri-*  
111 *Carbs, in May of 1961). The change was*  
112 *necessary due in part to the installation of the*  
113 *bracket on the firewall which supports the*  
114 *end of the throttle shaft. (See 5a below)*

116 *Note: We are including two kinds of screws*  
117 *because the factory changed the specifications*  
118 *on these screws from Phillips to Pozidrive in*  
119 *around 1963. Use the screws that are*  
120 *appropriate for your car.*

122 **3f 373-961 PMZ 310\_A (6)**

123 Screw, 10-32 x 5/8", Pan Head, Phillips

124 **373-961 PMZ 310\_B (6)**

125 Screw, 10-32 x 5/8", Pan Head, Pozi

127 **3g 322-945 PMZ 314\_A (7)**

128 Screw, 10-32 x 7/8", Pan Head, Phillips

129 **322-944 PMZ 314\_B (7)**

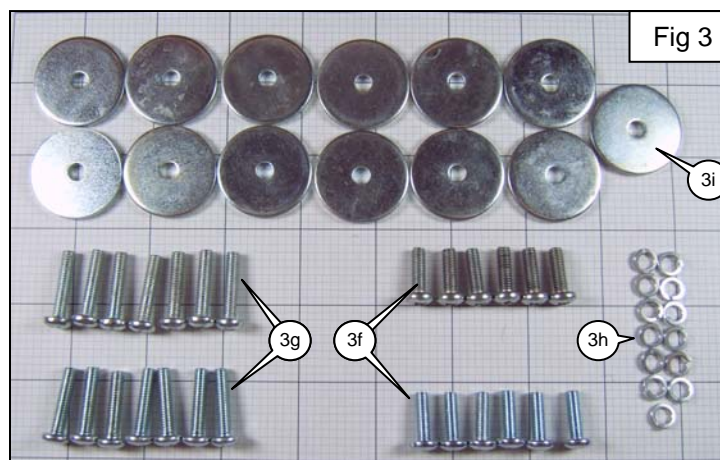
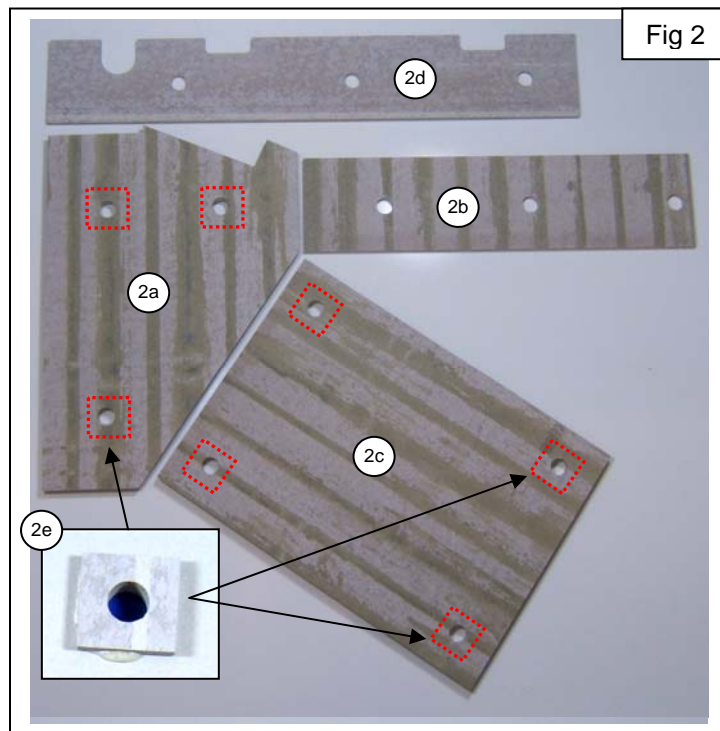
130 Screw, 10-32 x 7/8", Pan Head, Pozi

132 **3h 324-010 LWZ 203 (13)**

133 Lock washer, #10

135 **3i 315-032 53K 3151 (13)**

136 Flat Washer, #10 x 1 1/4" OD, 0.115" thick  
137 *This unusually thick and wide flat washer was*  
138 *not available commercially, so we had them*  
139 *made by a specialty hardware manufacturer*  
140 *in England.*



*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.*

## 144 **Reference Photographs**

### 145 **67 HBJ8 L 37511**

146 The original firewall panel has several  
147 'notches' along the top edge to clear various  
148 bulkhead fittings. There is a single "u-  
149 shaped" notch (4a) at the extreme right.  
150 Under the wiring harness you can see the  
151 first of two shallow more or less squared off  
152 notches (4b). As with all the heat shield  
153 panels, this one is secured with 10-32  
154 screws, lock washers, and the unusually  
155 large (and thick) flat washers.

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163 *Looking at the other end of the same panel,*  
164 *you can see the bracket (5a) on the firewall*  
165 *that necessitated the change in the notch on*  
166 *this side.*

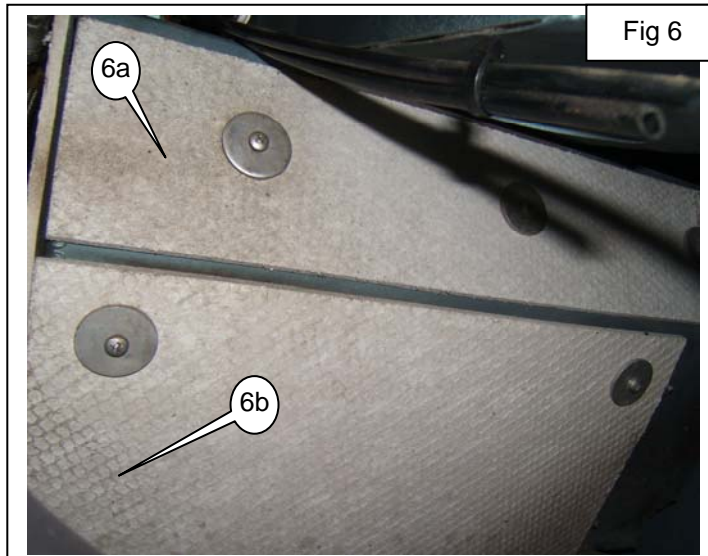
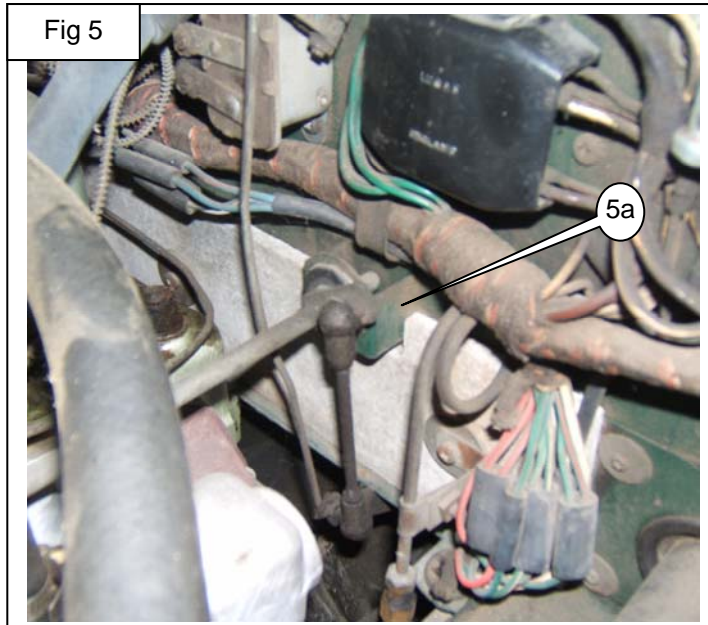
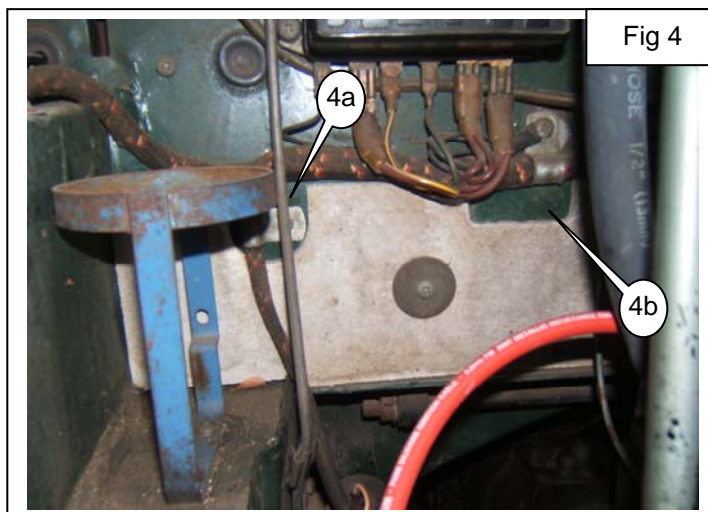
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172 *The texture of the original panel is clear in*  
173 *this photograph (Fig 6). Not all panels show*  
174 *exactly the same pattern, which implies that*  
175 *the panels may have come from several*  
176 *suppliers, which would not be unusual.*

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178 *The 14B 6760 panel that covers the front*  
179 *vertical face of the footbox (6a) changed*  
180 *with the introduction of the 3000 MK II. Up to*  
181 *that point, the panel was 4.36" tall, with a*  
182 *notch to clear the pedal box assembly. We*  
183 *call that version 14B 6760\_A. The later*  
184 *version (14B 6760\_B) shown here is only 4"*  
185 *tall, and therefore does not need a notch in*  
186 *the top edge.*

187 *The 14B 6828 heat shield that covers the*  
188 *"angled down" panel also changed with the*  
189 *3000 MK II. The early 14B 6828\_A*  
190 *heatshield was flat- it did not have the four*  
191 *spacer blocks on the back. The later version*  
192 *(14B 6828\_B) had spacer blocks to hold the*  
193 *panel away from the sheetmetal. This was*  
194 *necessary to clear the raised sections of the*  
195 *footbox. Without the spacer blocks,*  
196 *tightening the screws would snap the panel.*

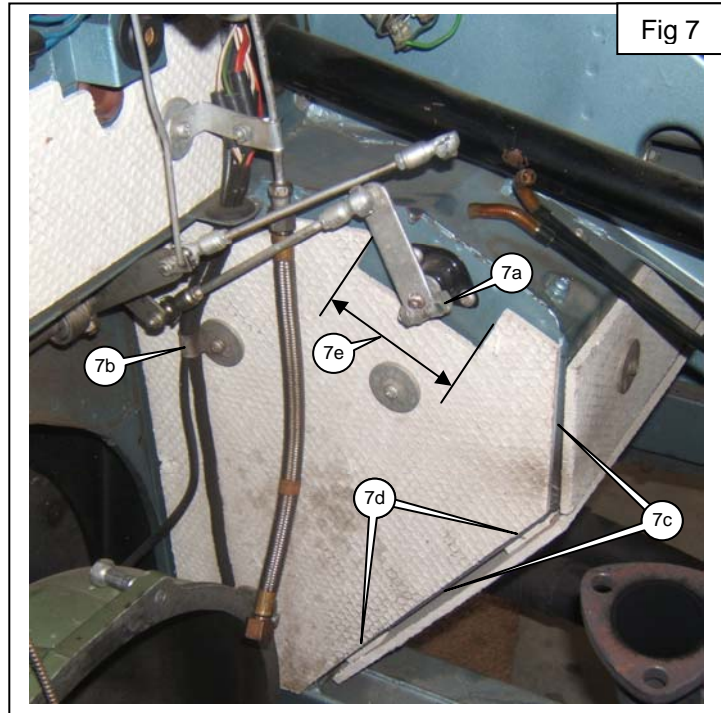


197 **62 3000 MK II, HBN7 L 13997**

198 *The odd shaped panel that is secured to the*  
199 *vertical inside face of the L/H foot box had*  
200 *the same 14B 6761 part number throughout*  
201 *the production of the 3000 MK II and MK III.*  
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203 *However, the early 14B 6761\_A heat shield*  
204 *was a simple flat panel, and the late 14B*  
205 *6761\_B heat shield fitted to 3000 MK II & III*  
206 *had three spacers block on the back side. In*  
207 *addition, the shape of the top edge of the*  
208 *panels is very different. The most obvious*  
209 *difference is the width of the relief for the*  
210 *throttle linkage (7e). The width is 3.1" on the*  
211 *early version, and 5.0" on the later. When*  
212 *you fit this panel, make sure that the panel*  
213 *does not interfere with the throttle linkage*  
214 *(7a).*  
215

216 *There are several P-clips securing the wiring*  
217 *harness (7b). The P-clips sit on top of the*  
218 *large flat washers.*  
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221 *The edges of the panels do not overlap like they do on the BN1 and BN2. (7c)*  
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223 *You can also see the spacer blocks (7d) behind the heat shield on the lower front panel of the footbox.*  
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249 *Please Note: Heat shields can be installed on a car that is already built/complete, but it is significantly*  
250 *more difficult. At this time, we do not have specific instructions of the seven different models these*  
251 *panels fit. If you would like to help us in that regard, please take digital photos and make notes about your*  
252 *installation. We will incorporate additional information into this document as time and resources permit.*

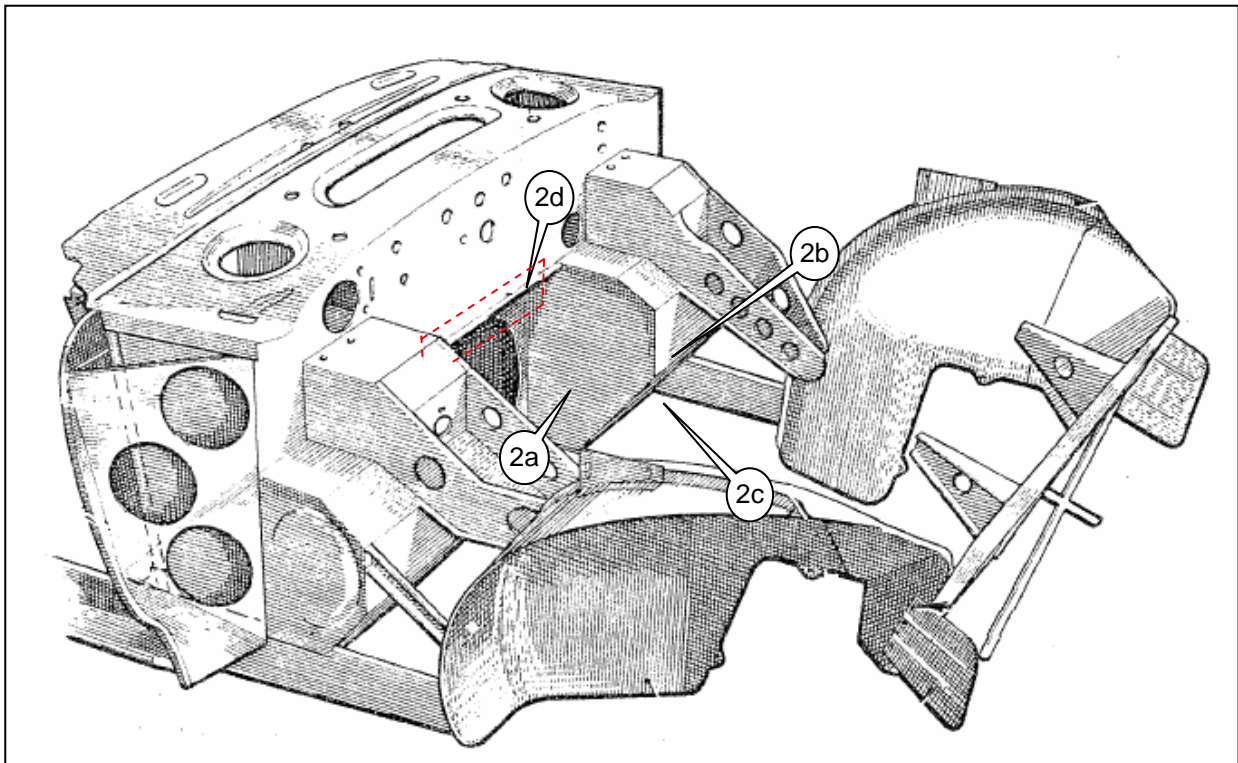
## 253 **Preparation**

254 **Note: The original heat shields are made from a pressed asbestos board. Wear a**  
255 **face mask when removing these and cleaning the underlying sheet metal. Wrap**  
256 **all asbestos pieces in plastic and take to a location where hazardous materials**  
257 **can be properly processed.**

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

276 **Installation**

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



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

