

BK.15 - WINDSCREEN & MIRROR PLINTH

The laminated windscreen is bonded to the high strength aluminium alloy windscreen frame and composite body front bulkhead, using a polyurethane adhesive/sealant, and contributes to the rigidity of the body structure. In order to maintain the integrity of this joint, it is necessary to follow this procedure in detail, paying particular attention to the cleaning and priming operations using materials supplied with Betaseal Kit A075B6158J.

If the windscreen is to be removed/replaced, it will also be necessary to replace the following parts:

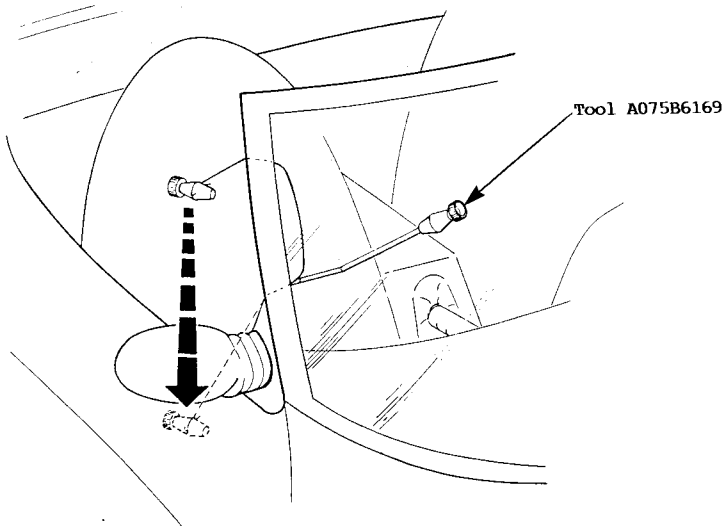
- Windscreen edge finishers (top and sides, plus corner caps);
- Screen pillar weatherstrips;
- Interior mirror mounting plinth.

Precautions

Avoid skin or eye contact with the Betaseal adhesive, and inhalation of the vapour from the cleaners or primers. High concentrations of the vapours are noxious - use in conditions of good ventilation. Flash point 12 - 15°C.

Windscreen Replacement

1. Remove both windscreen wiper arms.
2. Remove the screen pillar interior trim and header rail trim panels (see section VD).
3. Remove the screen pillar weatherstrips, by prising out the retaining buttons at the top and bottom of each seal, and peeling out of the carrier channel on the screen pillar. Since the weatherstrips are sealed with Sikaflex adhesive, they are unlikely to be removed undamaged, and should be replaced. Remove the weatherstrip carrier channels after releasing their retaining screws.

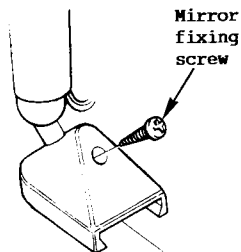
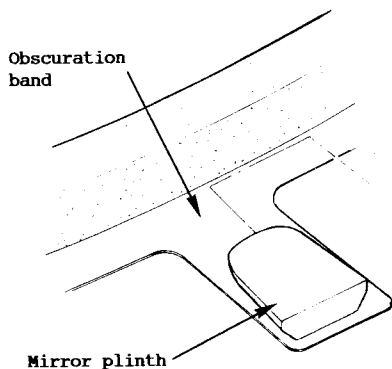




4. Bore a small hole through the windscreen edge finisher and Betaseal bead, and insert a length of piano wire or similar (supplied in Betaseal Kit) approx. 1 metre long, through the hole. With the aid of an assistant inside the car, use a sawing action to cut through the Betaseal and free the screen from the car. Alternatively, use wire cutting tool A075B6169 or a proprietary hot knife cutting tool. Take great care not to damage the interior trim or paintwork during this operation. If using a cutting wire, beware of snagging the wire in the joints between header rail and screen pillars.
5. Remove excess Betaseal from the screen aperture with a sharp blade. Note that it is not necessary to remove all traces of the sealant, but a uniform surface must be available for bonding the new screen. Do NOT abrade the bonding surface on the alloy windscreen frame or body.
6. **Mirror Mounting Plinth:**  
The interior rear view mirror is secured to a mounting plinth which is itself bonded to the windscreen glass. The plinth is not removeable from the glass, and must be renewed if the windscreen is replaced. The plinth, which is most easily fixed before the screen is fitted, is supplied as part of a kit (A100B6230S) which includes adhesive 'Penloc GZH', and is applied as follows:

**WARNING:** Contains trichloroethanes and acrylic acid derivatives. Refer to precautions on product packaging.

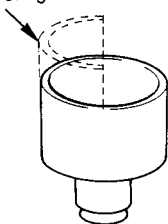
- i) Thoroughly clean bonding face of mirror plinth and corresponding area on inside surface of windscreen using a sharp razor or steel wool.
- ii) Bend the PRIMER vial in order to crack the interior flask container. This will allow the primer material to saturate the felt tip. Remove the cardboard cylinder protecting the felt tip and apply primer so as to coat the bonding surface on both plinth and windscreen. Allow five minutes for the primer to dry.
- iii) Apply a thin coat of adhesive to the bonding surface of the mirror plinth. Position the plinth on the windscreen with the rounded end towards the top and hold in place for 2 to 3 minutes. Allow at least 10 minutes curing time before fitting the mirror to the plinth.



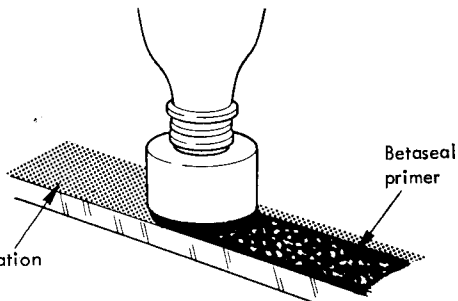


7. If a windscreen pillar or header rail has been replaced or re-fitted, check that the joint gaps between pillar and header rail, or pillar and body have been sealed with Sikaflex adhesive/sealant, and the screen landing joints are filled.
8. Cut the special paper provided in the Betaseal kit into two. With one half, use the wipe cleaner fluid to clean the peripheral edge of the glass, and the whole of the obscuration band on the inside surface of the screen. Also clean the whole of the bonding area on the body flange, screen pillars and header rail. Clean the underside of the two screen top corner finishers, and the lower half of the outside surface of the screen pillars. With the other half of the paper, wipe dry the areas cleaned.
9. Shake the Betaseal primer container for at least 40 seconds before opening and pouring into the plastic bottle. Cut off the guide portion of the applicator head and fit to the bottle with the sponge pad inserted. Apply a band of primer around the outside edge of the inside surface of the glass, on top of the pre-applied obscuration band; 25mm width (one applicator head) along the base and sides, and 50mm width along the top edge. If the obscuration band has a gap to display a vehicle identification plate which is not used, use masking tape to produce a straight edge, and black out the gap with primer.  
Also apply primer:
  - around the peripheral edge of the glass to help prevent moisture ingress;
  - to the underside of the screen top corner finishers;
  - to the lower half of the outside edge of the screen pillars (25mm width);
  - to the outside surface at each top corner, for the corner finishers.

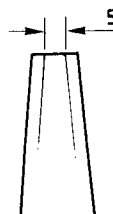
Cut off guide section



Obscuration band

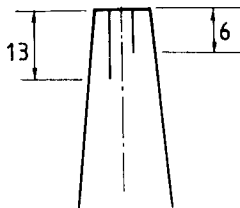


10. When the primer has fully dried (min. 5 minutes, max. 48 hr), fit the finisher to the top edge of the screen, with the lip towards the inside (the finisher channel has pre-applied adhesive), and press firmly into position. Offer up the two side finishers, and trim the bottom ends to the shape of the screen lower edge, but do not fit at this stage.
11. Cut the Betaseal application nozzle to produce the correct bead shape:
  - i) Cut off the end of the nozzle to achieve an inside diameter of 5mm.



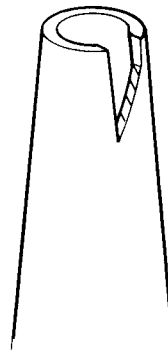
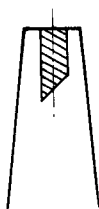


- ii) Make two parallel cuts, 5mm apart to depths of 6 and 13 mm as shown.

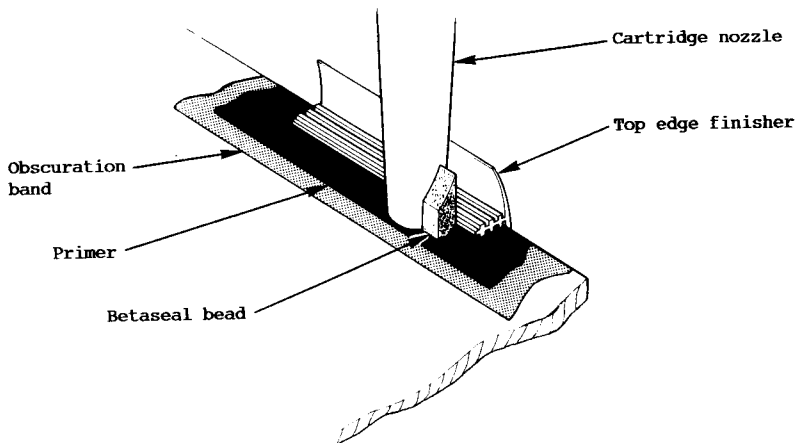


Finished nozzle shape

- iii) Join the two ends of these cuts and remove the piece of nozzle to form the bead profile.



12. Push in the bottom of the Betaseal cartridge and remove the desiccant. Pierce the membrane in the cartridge thread, screw on the application nozzle, and insert in the cartridge gun. Holding the gun vertically, and using a gloved finger as a guide, extrude a continuous bead of Betaseal counterclockwise around the perimeter of the glass.





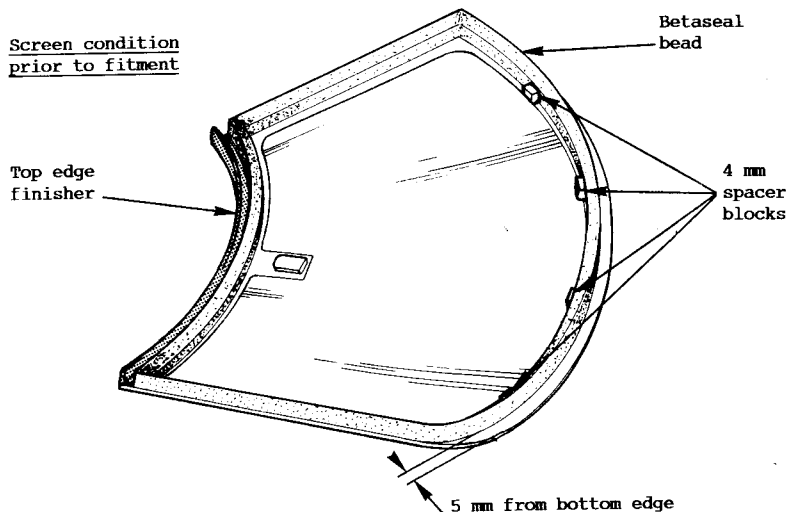
The bead should be positioned:

- adjacent to each side edge;
- 5mm up from the bottom edge of the screen;
- adjacent to the edge of the top finisher.

Ensure that the correct orientation of the nozzle is maintained throughout the operation. Manipulate the two ends of the bead to ensure they are completely 'welded' together.

13. Cut the plastic spacer blocks supplied in the Betaseal Kit to make four 4 mm spacers, and insert these, equally spaced, into the inside edge of the Betaseal bead along the lower edge of the glass.

Screen condition  
prior to fitment



14. Fit the screen onto the body and position so that the screen is centralised, with the edges of the glass aligning as far as is possible with the top and sides of the windscreen frame. Fit plastic or wooden chocks at the base of the screen to support the glass in this position. Fit the two side finishers, pushing them onto the glass edge and into the Betaseal bead. Press gently all round the edge of the glass to ensure adequate joint compression and recheck positioning. Examine the whole length of the joint, and if necessary, use a spatula to paddle extra sealant into any localised area.
15. Wipe off any Betaseal extruded from the joint or from the side finishers, and apply sealant to each top corner of the screen, pushing a little beneath the ends of the edge finishers. Fit the corner finishers, wipe off any extruded Betaseal and tape into position.
16. Extrude a narrow bead of Betaseal along the base of the screen to fill the gap between screen and topshell moulding, from the outboard wiper plinth to the bottom corner of the screen on each side. Use only the minimum amount of sealant necessary, or subsequent removal of the topshell will be impeded.



17. Do not disturb the screen until the Betaseal has fully cured, which will take approximately 4 hours dependent on atmospheric conditions, taking longer in a dry atmosphere.
18. Refit the screen pillar seal carriers and weatherstrips (see below), and water test thoroughly before fitting interior trim.
19. Refit interior trim panels and wiper arms.

#### Spillage of material

- a) Any spillage of Betaseal onto unprimed glass can be readily peeled off after it has cured.
- b) Any spillage onto the body can be removed with either Wipe Cleaner No. 4, or white spirit.

#### Shelf Life

- a) Betaseal has a shelf life of over 6 months at ambient temperature in the original unopened package.
- b) Betaseal primer has a useful life of only about 24 hrs after it has been exposed to the air, after which it starts to become spongy. If the material is spongy DO NOT USE. Always use glass primer immediately on opening, and replace lid after use.

#### Contents of Betaseal Kit A075B6158F.

- i) One part adhesive sealant Betaseal 71904 in a 300 cc cartridge, standard viscosity.
- ii) Cartridge applicator nozzle.
- iii) Glass primer applicator bottle.
- iv) Glass primer applicator head.
- v) Glass primer applicator sponge pad.
- vi) Glass primer, black.
- vii) Wipe cleaner.
- viii) Piano wire 0.6 mm diameter x 120 cm long.
- ix) Special cleaning paper.
- x) 4 off rubber spacing blocks, approximate 10 x 14 x 20 mm. Cut to size.

#### BK.16 - WINDSCREEN PILLAR WEATHERSTRIPS

The seal between the door glass and windscreen pillar takes the form of a moulded skinned foam weatherstrip, mounted in a steel carrier channel itself screwed to the alloy screen pillar.

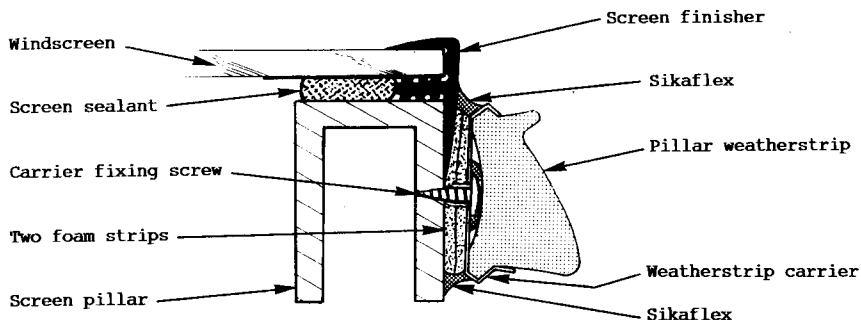
#### To Remove

As a polyurethane elastomeric adhesive is used to seal the weatherstrip into its carrier, and to the windscreen frame/body, it is likely to be damaged on removal.

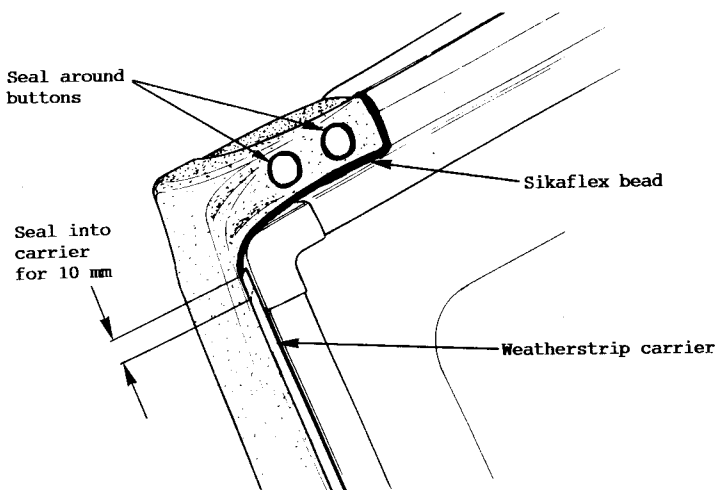
1. Prise out the buttons securing the top and bottom ends of the weatherstrip, and peel from the body, carrier channel and windscreen frame. Clean off the old adhesive.
2. If necessary, remove the weatherstrip carrier channel from the screen pillar after releasing the retaining screws. Clean off the old adhesive from the carrier and screen pillar.

To Refit

1. Apply two strips of 3mm thick foam, A082U6067F, one on top of the other, to the back of the weatherstrip carrier channel.
2. Fit the carrier to the screen pillar using the screws and washers. Apply a 3mm bead of Sikaflex 221 (A089B6174V) down the inside of the carrier channel, around the top of the pillar to the end of the header rail, and down the 'A' post for the length of the seal.
3. Fit the weatherstrip into the carrier and position so that the top end retaining buttons may be fitted without straining the seal, the bottom end button may be fitted, and the ridge on the weatherstrip starts to taper away at the point where the door mirror plinth seal meets the weatherstrip. Push the base of the weatherstrip beneath the flanges of the carrier, and insert the retaining buttons, pushing fully home.



4. Use Sikaflex 221 to seal around the weatherstrip top end, and to seal between the carrier channel and screen pillar along top and bottom sides, as shown in the illustration. Use a spatula to smooth out the sealant for a neat finish.









FUNCTION CODE	CONTENTS: Glazing, Weatherstrips & Seals	QUANTITY		REMARKS
		PRIOR VIN *	FROM VIN *	
11.01A	PART DESCRIPTION	PART NUMBER		
	"Betaseal" Screen Fitting Kit comprises:	A075B6158J	A/R	A/R
	Betaseal 71904 in 300cc cartridge		1	1
	Glass primer applicator bottle		1	1
	Glass primer applicator head & felt pad		1	1
	Glass primer, black, 84132-11		1	1
	Wipe Cleaner No.4		1	1
	Piano Wire 0.6mm x 120cm		1	1
	Special Cleaning Paper		1	1
	Spacing Blocks 10 x 14 x 20mm		4	4
1	Fixing Kit, interior rear view mirror	A100B6230S	1	1
	Windscreen, bronze tint	A100B0013F	1	1
	" green "	C100B1124F	1	1
	" no tint	C100B0887F	1	1
2	Spacer Block	A075U0588Z	4	4
4	Seal, scuttle panel to bonnet	A100V0078F	1	1
5	Finisher, windscreen upper edge	A100B0727F	1	1
6	" " sides	A100B0728F	2	2
7	Cap, windscreen finishers	A100B0661F	2	2
8	Screw, No.4 x 1/2, cap securing	A100W5149F	4	4
9	Carrier, 'A' pillar seal, LH	A100U0487F	1	1
10	" " " RH	A100U0488F	1	1
11	Screw, M4 x 12, seal carrier to 'A' post	A100W5189F	1	1
12	Seal, 'A' pillar, LH	B100V0117F	1	1
	" " " RH	B100V0118F	1	1
14	Drive Fastener, seal fixing	A079W6159F	6	6
15	Drain Tube, 'A' post	A100B1139K	2	2
16	Connector, drain tube	A100B1138F	2	2
17	Grommet, drain tube thro' 'A' post	X054J6007Z	2	2
18	Clip, drain tube securing	A100B6158F	4	4
	Watershield, 'A' post, LH	B100B1135K	1	1
21	" " " RH	B100B1136K	1	1
22	Push Fastener, watershield to body	A079W6159F	4	4

\* VIN M 8161

Eian  
Page 1 11.01A