

Is your car incontinent? Symptoms include steamy windows, interesting fungal growths, and 'Gardeners Delight', that oh so delicious aroma of well rotted compost.

TECHNICAL TALK

Left untreated your floor carpet will become a haven for cress and other water-loving flora, and the condensation on the inside of your windows will attract unfavourable comment, particularly from those who have a suspicious nature.

The cause of the malady is most often due to a defective windscreen seal and/or a leaking ventilation flap, although there are a number of more obscure causes.

Renewal of the seal is a relatively straightforward task, but there are pitfalls for the unwary. While the job can be done single handed it is made very much easier by having a docile assistant. The principle of replacement is the same on both Paris and Slough built cars, although if Plan B is adopted there are small variations.

Before attempting removal of the screen protect the scuttle and bonnet from damage by covering with a rug or cardboard. Disconnect the opening mechanism from the screen, allowing the screen to open out to its maximum extent. This will reveal six cunningly concealed slotted screws that hold the frame to the hinges. These screws are likely to

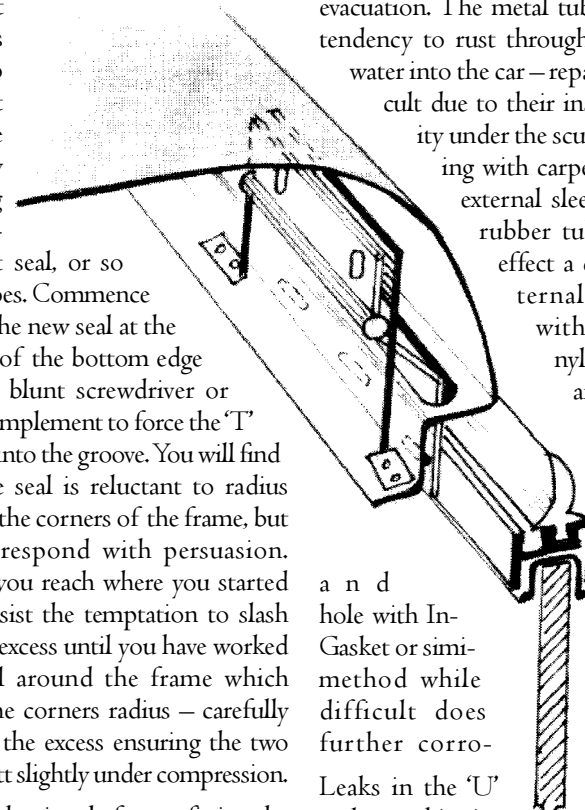
present problems as they thread into a steel block that gets wet. Equip yourself with a good screwdriver with a square blade that fits the full width of the screw slot. If you shear the head off do not fret, the block into which the screws thread, is easily removed and can be drilled out and re-tapped. If in your endeavours you damage the head of the screw[s] plan B must be adopted. This entails splitting the two sections of the hinge apart [see diagram] which will require access to the top of the hinge – this is done by removing the sun visors, and the section of windscreen metal reveal trim on the inside, this will then allow removal of the cloth covered plywood trim above the screen. The two parts of the hinge are held together with two slot headed screws per side, which fortunately have very deep heads which allow tweaking with mole grips should they prove recalcitrant. Note the elongated holes for horizontal and vertical adjustment of the windscreen frame within the bodywork recess; you may need to employ these if your seal does not make a good fit.

Once the screen is out the old seal can be removed from its groove. Your new seal will have arrived neatly curled up looking like a giant liquorice whorl – resist the temptation to sink your teeth into it. The seal can be fitted in two ways, the right way

and the wrong way. Only the right way will prevent water getting into the car, and mistakes are easily made as I can attest. Fitted correctly the seal should before fitting to the car curve back towards the body. When fitted it presses up against the body making a watertight seal, or so one hopes. Commence fitting the new seal at the middle of the bottom edge using a blunt screwdriver or similar implement to force the 'T' section into the groove. You will find that the seal is reluctant to radius around the corners of the frame, but it will respond with persuasion. When you reach where you started from resist the temptation to slash off the excess until you have worked the seal around the frame which helps the corners radius – carefully cut off the excess ensuring the two ends butt slightly under compression. This is the time before re-fitting the screen to investigate the more obscure leaks, which fall into three distinct categories, the 'L' shaped metal drain tubes which evacuate the screen recess, the gasket which sandwiches the glass in the frame, and the gutters. The 'L' shape drain tubes discharge through the bulkhead into rubber

tubes, which terminate at floor level. A little known fact recently revealed to me by the Technical Editor is that when the car is in forward motion, the ends of these pipes are under slight negative pressure which assists evacuation. The metal tubes have a tendency to rust through allowing water into the car – repair is difficult due to their inaccessibility under the scuttle. Binding with carpet tape, or external sleeving with rubber tubing may effect a cure – internal sleeving with 1/2" OD nylon tube is an alternative, finishing the joint of tube drain-stant lar, this more prevent sion. Leaks in the 'U' section the windscreen glass in the frame are best dealt with by sealant – refrain from replacing this gasket if not of an equable temperament.

The third category of leaks are by far the most common and can be infuriatingly difficult to conquer – they are due to the position of dis-



charge of the gutters either side of the front doors. The gutters are inclined towards the body of the car, and a master stroke of design dictates that under heavy rain a steady

Carefully apply mastic or other sealant to the body side of the gutter until the desired direction of flow is achieved – if done well the water will actually fall clear of the bodywork,

with the last few drops draining between the glass

and the door. The sealant when set can be painted over, although I rather like the contrasting orange colour of Instant Gasket.

Two things to note – parking your car on a camber is likely to nullify this modification, and even cars which do have pliable rubber seals still leak. Parking facing uphill on a 1:3 gradient undoubtedly helps providing you have confidence in your handbrake. Continuing the sill seam further up the door reveal would seem a worthwhile modification, and if mig-welded from inside should cause little damage to paintwork.

When re-installing the windscreen a second pair of hands is a great help – make sure the seal is not trapped or deformed, and if necessary re-centre the screen within the recess of the bodywork. If after all this work your car still manifests symptoms of incontinence then a trip to the local genito-urinary clinic is advised.

Chris Ryle

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stream of water trickles into the joint between the door and bodywork. If your door seals are in good condition and pliable they will normally prevent the water from entering the car, and it will drain harmlessly over the sill. Meanwhile back on planet Earth the water will find its way past the seal, assuming it to be there in the first place, trickle down the inside edge of the door reveal, and cross over into the car just at the point where the seam of the inner and outer sill becomes seamless – it will then flow undetected between the carpet and the inner sill. Continuing the seam up the edge of the reveal for another few millimetres would have cured the problem but that would have been too easy!

All is not lost even though you may have no rubber seal or the pressing which retains it on the door. The trick is to alter the camber of the gutters so that the water drains away from the body. This is not achieved by seizing the end of the gutter in your mole grips and viciously tweaking; which if tried is likely to fracture the spot weld by which it is affixed to the bodywork, or cause the gutter to foul the top of the door.