

## FLY-OFF HANDBRAKE CONVERSION



Fig 1 showing standard pawl assembly

Back in my college days in the 60's a friend made a conversion to make my Midget hand-brake fly-off. Together we had a number of kits made, some of which I still have. If you want to make this "mod" here's how:



Fig 2 Remove ratchet and lever assembly

Remove the handbrake assembly from the car by removing the 3 bolts holding its mounting plate to the body and then removing the clevis pin which holds it to the brake cable.



Fig 3

On the bench, see Fig 2, undo the large nut and remove the arm and ratchet parts. Take out the split pins holding the activating rod to the pawl and the pawl to the handbrake lever, and slide off the pawl. The rod and button will now spring out, as in Fig 3.

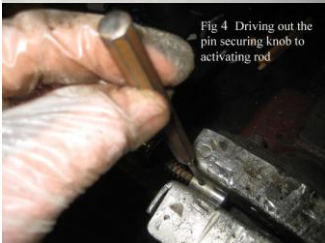


Fig 4 Driving out the pin securing knob to activating rod

Now put the button in the vice and using a fine drift, tap out the flush-fitting pin which fixes it to the rod. Set the pin carefully aside for re-use. Note: beneath the button is a rubber washer and then a steel washer, within the lever.



Fig 5 Exploded View

Fig.5 shows an exploded view of the whole mechanism, and Fig 6, the new plate and rivet which is you need to make the conversion.



Fig 6 Fly-off pawl bracket and rivet kit

The plate has now to be riveted against the side of the pawl assembly and it is best to put a bolt through the pivot hole and bolt the two together before tapping over the end of the steel rivet. Take care to make sure you have the right faces against each other before riveting them permanently, Figs.7/8. Offer the modified pawl on to the pivot and check that the rivet does not fowl on the lever edge.

Fig 7 Locating bracket & rivet on original pawl



Fig 8 Riveted pawl



Fig 9 re-shaping activating rod

Fig 10 Re-fit pawl assembly omitting washer beneath



Fig 11 Re-assembly of rod, washers spring and button, with drive pin



Fig 12 Fly-off pawl assembly



Next, you will need to modify the activating rod so that the crank, or bend, is angled the opposite way. Place the cranked end in the vice, Fig 9, and with a pair of water-pump pliers gently ease the rod round into the straight position, and then gradually bring it round until the angle between the long rod and its cranked end is approximately as before but to the opposite side. I have done this many, many, times and only once did I break one, so it should go OK.

Now you can begin re-assembly. Pass the modified rod through the lever and refit the button ~ just a reversal of its dismantling. Put the pawl assembly on to the pivot, Fig 10, this time without any washer under it, and secure it with a washer and split pin. Then insert the cranked end of the rod through the new part of the pawl and place the ratchet in place so that you can check the pawl engages with it, just as the button is nearly flush with the top of the lever. You may find it necessary to slightly alter the bend in the rod to get it just right. When satisfied, complete the assembly by putting a split-pin through the end of the activating rod and refitting the ratchet and cable lever before bolting it all down with the large nut.

With the handbrake back on the car, and the cable re-connected, adjust up the brake linings and cable length to their optimum positions as per normal. When the handbrake is applied just pull up the lever and press in the button. The tension in the cable holds it in position. To release, just pull on the lever without touching the button. It takes a little bit of getting used to but I have always found they work well and have made the modification to every Sprite or Midget I have owned. If you would like a pawl assembly kit, I have a few left: £3 each incl post.

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