

# MiTo Bumper Rivnut Upgrade

We've discussed before the process of removing the front bumper (screws in the wheel arches, screws underneath, screws on top and gently release the bumper from the bumper brackets which are mounted on the wings), but anyone who has removed their front bumper will know that sometimes, however gentle you are, the bumper brackets can break.



The design of the bracket is such that the front corners of the bumper are held in place by the protruding triangle end-section of each bracket, which is the first (and weakest) part that typically snaps off. So if the front of your bumper (circled below) isn't flush and tight with the lines of the car, you have a broken bumper bracket.



This is a result of two things: firstly, garages and previous owners haven't been as careful as you, so your brackets are quite probably already broken or at least weakened. But the second reason is that they are simply not a very good design. They are plastic, not terribly strong, and are riveted to the underside of the wing. So those rivets are points of strength, resulting in any pressure being applied to the bumper being transferred directly to the plastic of the brackets, typically breaking them.

So what can you do to fix this ongoing problem? In truth, there's nothing you can do about the clips yet. I have on

my enormous to-do list the option of designing and re-manufacturing sturdy bumper clips, but at present they are a cheap replacement part and are currently readily available. The top table on the previous page shows that the same parts are used across all MiTos, with part numbers 50510294 (right) and 50510295 (left).

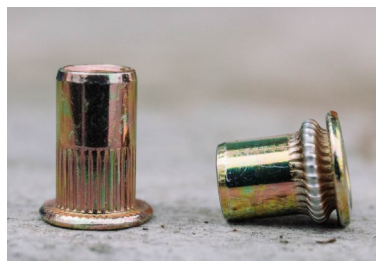
But replacing them is an annoying process as they are riveted to the metal of the wing. So removing each bracket involves carefully drilling out both rivets in each bracket, then re-fitting the brackets and riveting them to the wing again.

So given that you or future owners are bound to end up replacing one or both at some point, there is a small and simple upgrade process that makes removal and re-fitting of bumper brackets a very simple task.

And that is by replacing the rivets with RivNuts, or 'threaded rivet nuts'.



The principle is simple, and similar to rivets, but a rivnut has an internal thread which means you can fit them just once then screw the brackets on rather than permanently rivet them. So if the bracket does break in future, you can simply unscrew them and fit the replacement



bracket in minutes rather than having to drill out and replace the rivets every time.

Clearly, this doesn't actually address the underlying issue of the weakness of the bumper bracket, but it does make life easier for you and the next owner.

Now I'm not suggesting you rush out and spend £30 on a RivNut tool kit, but having been recently introduced to them I can see there are lots of uses for them, so certainly worth considering as and when a bumper bracket breaks.



The process of replacing the rivets is relatively straightforward and if you end up having to replace your bumper brackets it's the perfect time to upgrade to rivnuts. The image below is an existing (left hand side) bumper bracket with the front triangle section broken and the rivets still in place.



## Step 1. Remove Rivets

The existing rivets must be carefully drilled out.



## Step 2. Apply Anti-Corrosive Wax

Whenever drilling or exposing metalwork, ensure you spray a liberal coating of anti-corrosive wax.

## Step 3. Apply RivNuts

Using a rivnut tool, use the existing rivet holes (or drill slightly larger ones if you need to) and apply rivnuts in each hole.



The underside of the wing now has rivnuts firmly in place, ready to have brackets screwed in place (and easily replaced in future) rather than riveted.



## Step 5. Bolt New Brackets On

With the rivnuts in place, you can now simply bolt the brackets to the rivnuts before re-fitting the bumper. Then the next time your bracket breaks it's a simple un-bolt/bolt-on job to replace them.

