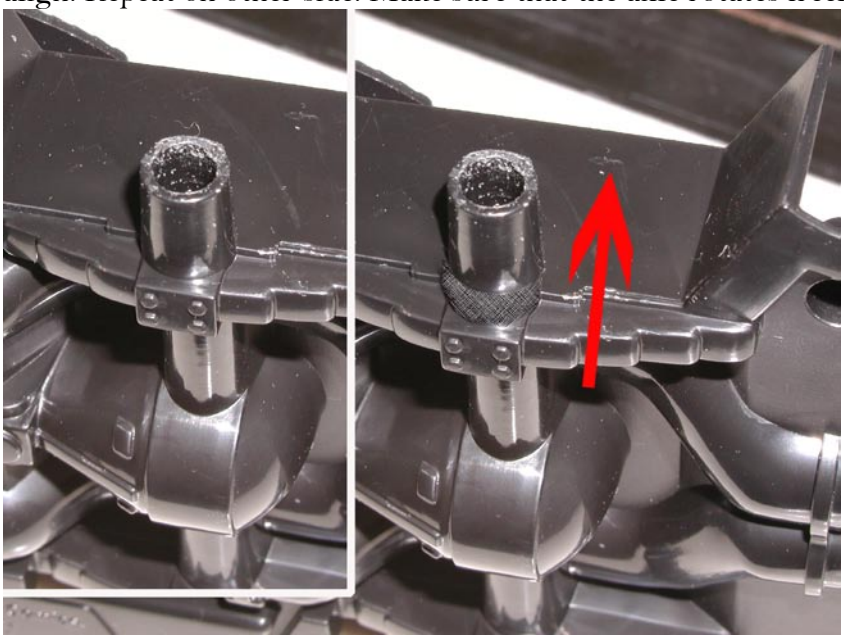
Instructions for lowering a Mattel 1/18 Batmobile

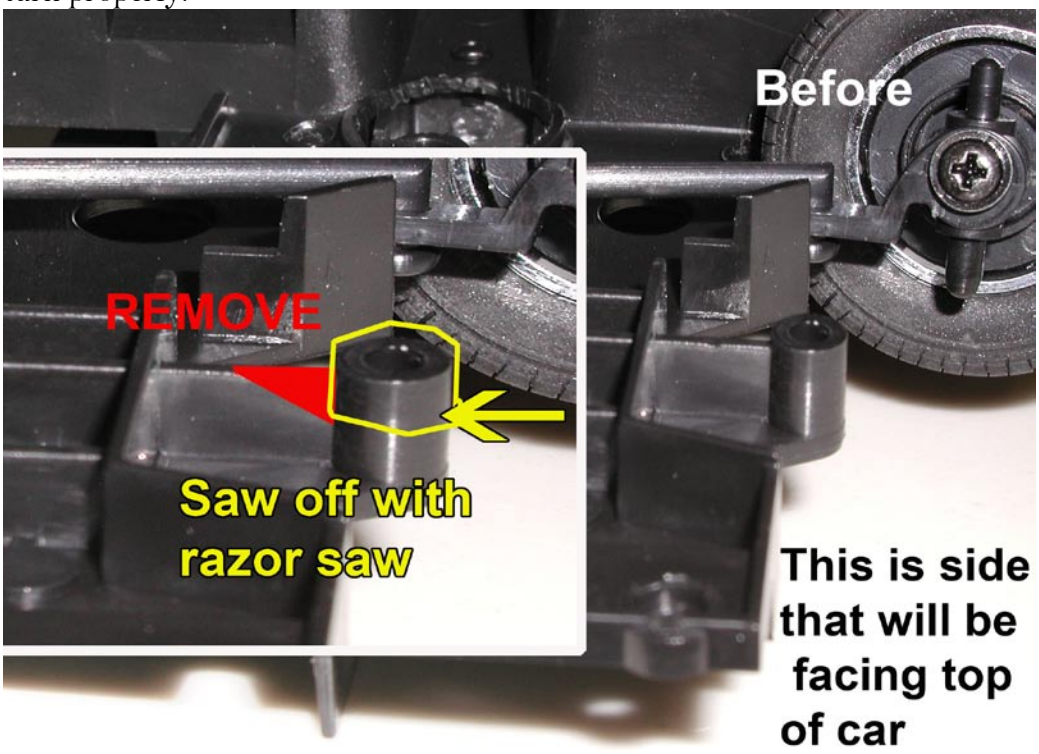
Here is the way I chose to lower my standard Hot Wheels Batmobile. It seems to be a simple, but effective way to go about it. I've also added the additional modifications to also do the Elite and Super Elite versions below.

1) Disassemble the Batmobile so you have the chassis separated from the body.
2) I started at the rear axles. I used an Exacto razor saw and flush-cut off the spacers for the rear axles.

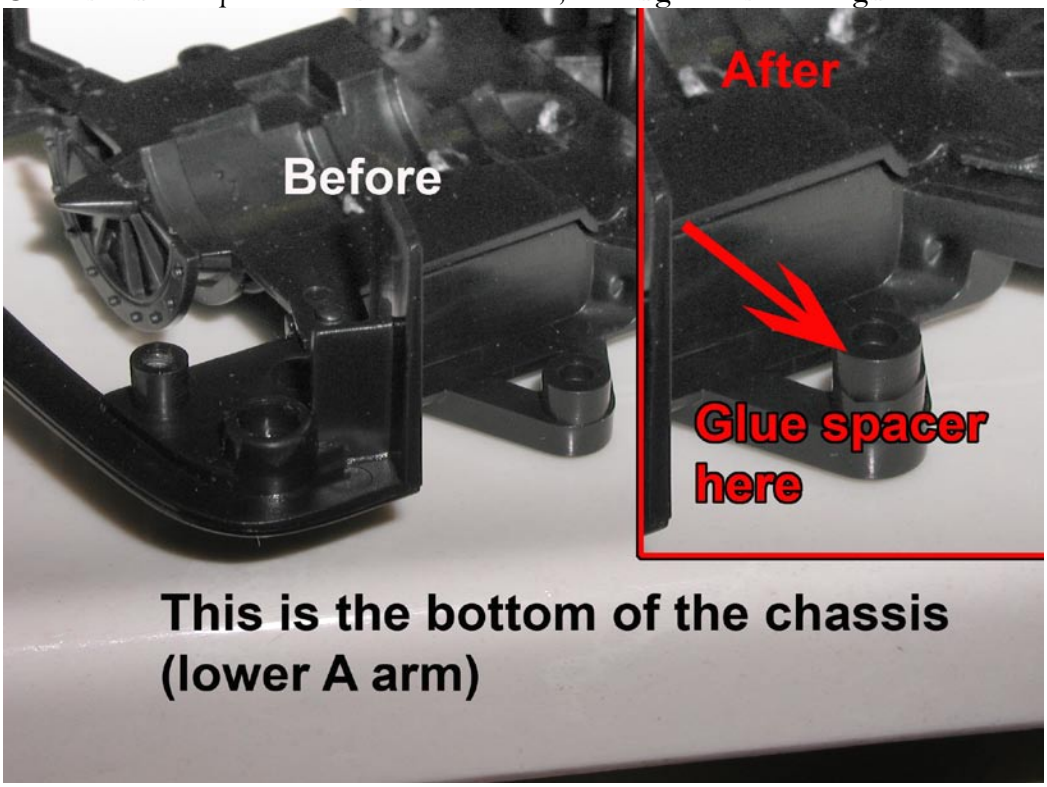
3) Choose whatever amount you want to use to lower your car, and drill a new hole that will allow the axles to pass through easily. I chose 1/4" and reglued them to the chassis, making certain that the holes align. Repeat on other side. Make sure that the axle rotates freely.



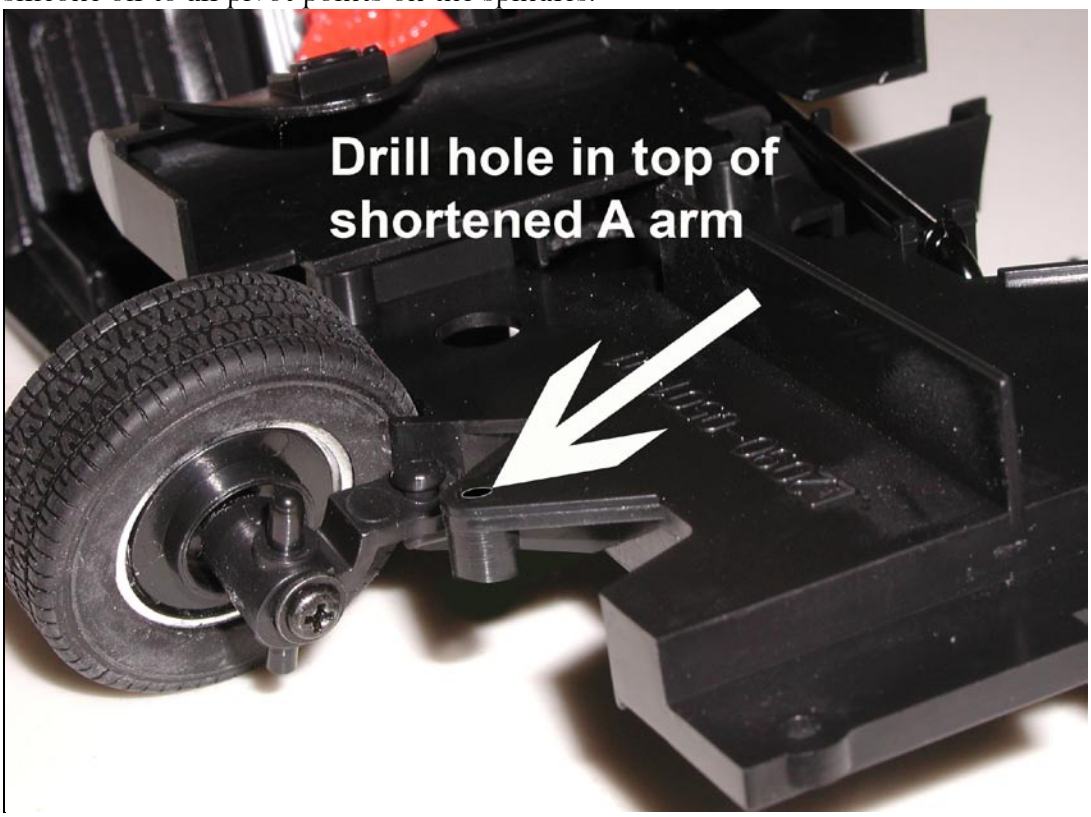
4) Take the 3 screws out to allow the front upper portion of the chassis to be separated from the lower main chassis.
5) I cut a ¼" section (or whatever amount you chose to use on the rear) of the upper A arm off to form a spacer to be used on the lower A arm (again using razor saw) Try to keep your cut as uniform as possible so the spacer is equally level, otherwise spindle will not turn properly). I also cut a small portion of the chassis (shown in "red" in the photo) to allow a little extra clearance for everything to turn properly.



6) Glue this new "spacer" to the lower A arm, making sure holes align.



7) Drill a hole the upper A arm to allow the now higher resting front spindle to fit. I also added a drop of silicone oil to all pivot points on the spindles.



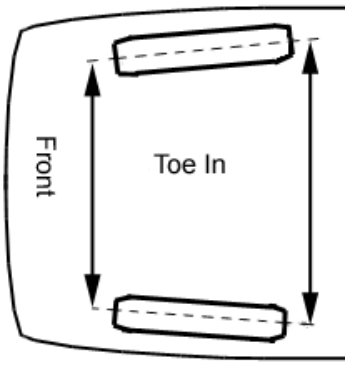
This is all that is necessary for a standard edition. If you have an Elite or Super Elite, there is one additional step. The steering arm on these 2 versions passes through the lower turbine housing. This method will allow you to not only make the mod with minimal disassembly and without disassembling the turbine housing, but also allows for the front wheels to turn wider, like the standard version. See the steps for this procedure below.

*Note: I had already shipped off my standard Batmobile I had done these modifications to. These are Photoshoped recreations of the steps I took. In the case of the Elite or SE, these are a rendition of what needs to be done.

I hope this helps.

Doug Switz/FanofBats/that Insane Detailing guy

Elite and Super Elite Mod *



1) Cut the plastic connecting steering arm an equal distance from each side of the spindles. Make certain to cut only on the inside section of the steering arm "n" (or "u" depending on how you look at it) that connects with the steering wheel linking arm (which attaches to the steering wheel). I cut it about ½" from the "n", which give you plenty of travel in the left/right arm movement, and still plenty of plastic to glue the new brass modification to.
2) You need to get a piece of solid brass rod (or equivalent rigid metal material), about ½ the diameter of the original plastic HW's steering arm. Use an appropriately sized drill bit to drill a hole into the remaining sections of the plastic steering arms, deep enough to allow proper strength after gluing. Using a long piece of brass rod (you can cut to length after forming bends), make an angled bend on the rod that equals no more than the height of the spacers you created (see photos). There is plenty of clearance already in the lower turbine housing holes. As long as you keep the overall height of the bend approximately the same, but no more, than the height of the spacers you created, it will be fine.
3) You can use the plastic piece you cut off to estimate the proper total length of the new modifyied brass part (allow for the extra holes that you will be gluing into on the original plastic steering arms). This bend will compensate for the amount of lowering you've done (since it has to pass through the existing holes in the turbine base). Cut the new metal section to length now. If you drill your holes a little deeper now, then it will give you a little adjustment room for adjusting "toe-in" when gluing.
4) Reassemble the chassis so it can set on the ground again. Now, use slower setting glue (I use 5 minute epoxy) to glue this new modified brass center steering arm to the remaining portions of the original plastic steering arms. By using a slower setting glue, you can rest the model on its wheels, and adjust the front wheels so that they are parallel (that "toe-in" thing). Make sure that the new metal steering arm bend is facing straight down towards the ground, perpendicular to the bottom of the chassis (so it will pass through the turbine hole.
5) Depending on how much you lowered the car, you might also have to trim a small amount of the driver's side engine compartment wheel well to allow for the higher setting steering arm "n" to pass freely.

For some reason, the turbine housing hindered the wheel rotation on the original Elite and Super Elite. By using the smaller diameter brass rod, this will allow the wheel to turn as wide as the standard version does (basically, until it runs into the chassis).

If you want to be really thorough, since the top of the A arm can be seen in the Elite and SE engine compartment, you can cover the hole you drilled with some sort of covering or "hex nut" replacement. Unless you significantly lowered your scar, the top of the spindles should not protrude out of the A arms.