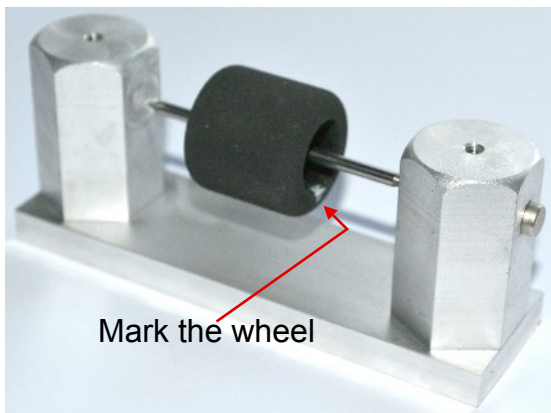


Why Static Balance wheels and gears? Both these items have considerable rotational mass and if they are out of balance this will cause vibration and rob smoothness and power from your slot car. It is not so noticeable at slower speeds, however, as speed increases so does any effect of an out of balance mass. Bear in mind also that vibration is a contributory cause of ballrace failure. Balancing will improve the performance of any slot car by making the car smoother in the corners, accelerate easier from the corner and improve maximum speed.

So how do we static balance wheels and gears? Well there are a number of methods but these are the basics;- Invariably the one component which is likely to cause an out of balance condition is the set screw. Some racers may wish to replace standard screws with hollow screws, or shorten the standard set screw, both of which will decrease weight. Additional compensation is made by adding a small amount of weight to a wheel or drilling the central web of the gear to compensate. Here we will concentrate on the two basic methods of balancing.

Balancing wheels by adding weight

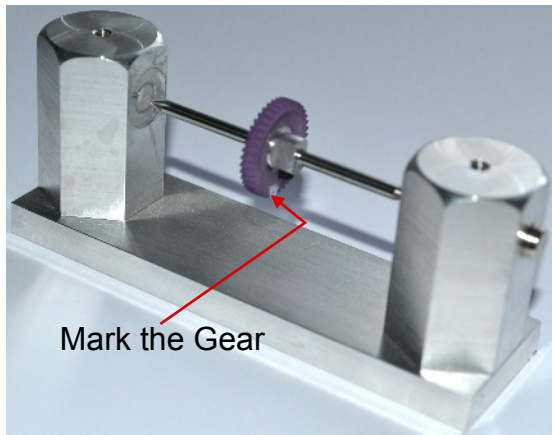
Set up the wheel on the balancer and gently spin the wheel. Note where the wheel stops and mark the inside of the hub. Spin again and see if it stops in the same place. Chances are it will.



Now cut a small piece of adhesive tape and place inside the wheel, exactly opposite the mark. Re-mount the wheel and spin. Note where the wheel stops. If the wheel stops at different positions with each spin, the wheel is in balance. If not, adjust the size / thickness of the tape until the wheel stops at random Positions.

Balancing gears by drilling the web

Set up the Gear on the balancer and gently spin the wheel. Note where the gear stops and mark the gear. Spin again and see if it stops in the same place. Chances are it will.



Note;
We have only used white tape and a white marker in these photos so they show up.

The JK Balancer can balance up to 40mm Diameter wheels, so it is ideal for all kinds of cars including Dragsters!

Using a small drill (0.75 or 1mm) drill a hole at the marked point, at a place on the gear where it will not weaken it. Re-mount the gear and spin. If the wheel stops at different positions every time, the wheel is in balance. If not, re-drill or slightly increase diameter of the hole until the wheel stops at random positions.