

Brake Adjustment:

Brake Bleeding Guide:

1. Check the feel of the brake pedal, it should feel firm without any sponginess.
2. Ensure the master cylinder lever always has some free play in it. If there is no free play the master cylinder will always have pressure on it and be trying to engage the brake. The lever can be freed up by adjusting the tie rod length or the pedal stop on the brake pedal.
3. If the pedal feels spongy the system should be bled using Dot 4 or better grade hydraulic brake fluid. Under no circumstances use a silicon brake fluid.
4. Prior to bleeding retract the dust cover on the master cylinder and confirm that the piston is against the circlip. Adjust the pushrod if necessary.
5. To bleed the brakes attach a tube to the bleed screw on one side of the brake caliper so that surplus/old fluid can be directed to a jar and avoid spillage.
6. Depress the master cylinder lever and maintain pressure on the lever while opening the bleed screw on one side of the brake caliper. Keep the pressure on the lever until the bleed screw is retightened and then release the pressure.
7. Repeat this process while maintaining the reservoir fluid level until all the old fluid is flushed from the system and replaced by new fluid.
8. It is critical that no air enters the system from the reservoir running dry or from a back-feed through the bleed screw (A brake-bleeding tool that screws into the reservoir cap thread to give a constant fluid feed is recommended for this operation).
9. Repeat the whole process on the other side of the brake caliper and if the kart has front and rear brakes repeat the process for the front brakes.
10. On karts with front and rear brakes the brake bias must be adjusted at the brake bias bar after bleeding to equalise the braking between front and rear. With the kart on a stand adjust the bias bar until both front and rear wheels can just be turned by hand with pressure on the brake pedal.

Bedding in replacement pads:

After installing new brake pads and before racing the pads should be heat cycled to bed them in, this will assist in avoiding brake fade/malfunction during racing and preserve the life of the pads:

- For approximately 2 laps lightly apply the brakes only gradually increasing pressure to about 40% of full braking
- Going *slowly*, do 1 lap without using the brakes at all** so that they can cool off totally.
- For a further 2 laps gradually increase pedal pressure so that braking is occurring at approximately 75% of full braking by the last half lap of overall lap 5.
- Going *slowly*, do 1 lap without using the brakes at all** so that they can cool off totally
- Do 2 laps at 75% full braking and then for the next 2laps work the brakes hard, riding the brakes and letting off for 2 seconds, then riding them again. Continue until the brakes are very hot and start to fade away & lose stopping power.
- From this point drive very slowly, do not use the brakes at all**, allowing them to cool, return to the pits and leave the brakes to cool completely before returning to the track.

**Clearly if it is necessary to use the brakes for safety reasons during the cool down phases then the brakes must be applied.