



# #TechTipTuesday

## Seat Mounting

Many racers do not realize the importance of seat location and how seat stress effects a chassis' performance. Because a kart is non-suspended, the chassis itself is the suspension in which it must act like a big spring. Anything you bolt to this spring in some way affects its performance. The seat is the largest and most rigid component that is bolted to the chassis and because it is bolted to the chassis with a large four-point pattern, it greatly affects the chassis flex. In-house testing has shown seats to affect chassis flex up to 10%. Combine the effects of chassis flex with the effects of the driver's body position to weight transfer, and the seat becomes a very important factor in winning races. I'm not trying to make you afraid of mounting your seat; I am trying to educate you about the importance of doing it correctly. If you will follow this simple procedure, you will find the job of mounting your seat much easier and rewarding. Before you start mounting your seat you must first determine what position is best to start with for your driver and situation.

1. Left to Right Position. Take into consideration the size of the driver, track configuration and track condition. If you feel that you need high left side weight percentages then you want to mount the seat more to the left. On the contrary, if you feel that you need more side bite, then mount the seat more to the right for added weight transfer. One variable to take into consideration is the amount of weight you will be adding to the chassis. It is best to try and keep the amount of weight from left to right side of the seat as even and proportionate as possible.
2. Front to Rear Position. The driver's build greatly effects the nose weight of the kart so take into consideration where your driver is carrying the bulk of his/her weight; high, low, or in the middle. Take this information into consideration with what percentages you want to end up with on the scales and determine how far forward or back you want to mount the seat.
3. Seat Height. Again, consider the driver's build and your track information to determine how high to mount the seat. If you feel more weight transfer is needed for your situation then it's best to mount the seat a little higher. For less weight transfer (which is generally preferred), mount the seat in a low position but be sure to stay within the rules and safety limits.

**More Seat Mounting Tips.** If you have additional questions regarding where and how to mount your seat, consult an Authorized PRC Dealer, or contact us at PRC directly.

### How it's done

1. By now you should have a good idea what position you want to mount your seat. Start by adjusting the front seat slides (and/or seat bar) out to an even amount and slightly tighten the bolts (and possibly clamp) just enough to hold the mounting points in place. At this time, you should loosely attach both rear struts to the kart as well. *TIP: If you do not have a partner helping you, use some sort of a "stiff knee" to hold up the back of the seat while you position the seat in the kart for measuring.*



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2. Using the "stiff knee" or your partner, position the seat in the kart as you are intending to mount it. Inspect and measure the seat from all angles. Adjust the seat slides/bar and the stiff knee until you have the seat positioned exactly as you are going to mount it. *TIP: Be sure you have the rear seat height correct at this point and that the bottom of the seat is also positioned on a parallel plane with the bottom of the frame. To meet the 14" seat height rule, the top center back of the seat must measure a minimum of 8 3/8" off the top of the axle. This seat height measurement may vary depending on what class you run and your sanctioning body or tracks rules, so check your rules before deciding on this. Also your axle position, tire circumference and air pressures will affect it as well when you are at the track.*
3. Once you have the seat in position, mark the bottom holes with a marker or scribe. Drill the three marked holes with a 21/64th drill. Mount these holes using the correct hardware: (1) 5/16"-24 x 1 1/4" BHSC screw, (2) 5/16" SAE washers, (1) 5/16"-24 nylock nut and (1) rubber grommet for each mounting hole. Tighten each assembly just enough to slightly compress the rubber grommet. *TIP: When marking your seat mounting holes do not forget to take into consideration the thickness of the rubber grommets. If you do not allow for this, you could raise or lower the seat position when you install the grommets.*
4. Check to make sure the seat is still in the correct position. Mount the right side seat strut and tighten the clamp slightly so it can be adjusted as needed. Position the strut up to the seat in the mounting position with approximately 1/4" clearance between the strut and the seat. Check your rear seat height, and re-check the distance from the edge of the strut's clamp to the inner motor rail. Mark and drill the hole with a 21/64th drill. Mount and tighten with the same type hardware as the front mounts. *TIP: Depending upon the style and size of seat you use, you may need to slightly bend the mounting area of the seat struts and seat slides to match the seat itself. We take great efforts to manufacture these parts to prevent this but it is impossible to make them so they will match every seat perfectly. The rubber grommet should compress evenly and not just on one side.*
5. Repeat this same procedure for the left side strut. *TIP: All holes should line up without having to put the seat or chassis in a bind. If you have to manipulate the seat over 1/4" to install the bolt, you should drill another hole.*
6. Now that all points of the seat are mounted, securely tighten ALL fasteners EXCEPT the front seat slides. With them loose, twist the front of the seat to ensure the seat is not in a bind. If the seat appears to be in a bind, remount the seat. If not, securely tighten the seat slides. *TIP: You should periodically check your seat to make sure all mounting points are secure and that the seat is not in a bind.*