



## Setup Procedure for 13" Wheels Using Squaring Blocks

### Front of Car preparation:

- Jack up the front of the car
- Loosen the front coil nuts or torsion jacker bolt screws the whole way
- Unhook the rear shocks, this eliminates their influence on the car
- Remove front wheels
- Mount the front toe plates on the front hubs
- Place a 4-1/4" block under the left front frame, between the frame and the ground
- Place a 5" block under the right front frame
- Remove jack

### Rear of car preparation:

- Jack up rear of car
- Loosen the rear torsion jacker bolt screws the whole way
- Remove rear wheels
- Slide on the gold wheel replicator spacers
- Replace the outer spacers and the axle nuts
- Hand tighten the axle nuts
- Place the taller of the two squaring blocks under the right rear gold spacer
- Place the other squaring block under the left rear gold spacer
- Place a 4-1/4" block under the left rear frame
- Place a 5" block under the right rear
- Remove jack



The car will now be setting on the blocks and the axles will be held up by the front toe plates and the rear squaring blocks.

### Rear of car:

- Time the rear bearing carriers. If using Hyper Racing bearing carriers, set the bubble level in the center or alternatively lean the left rear carrier forward 5 degrees and the right rear forward 7 degrees.
- Align the bearing carriers side to side such that the torsion bar rod ends are in the center or slightly to the inside of the bearing carrier stand offs. You can adjust the Jacob's ladder rod end side to side, bend torsion arms, or space bearing carriers on the rear axle to achieve this.

### Squaring the rear axle:

- Slide the squaring rod into the 1" hollow torsion bar of the left rear
- Measure the distance from the back of the squaring rod to the back of the rear squaring block. Document this number. On a Hyper midget or Lightning Sprint this number should be about 11-15/16". Do this by adjusting the top radius rod and the bottom torsion arm rod end the same amount. This way the bearing carrier timing will not change.
- Slide the rod through the bar until it now sticks out the right side of the car, but keep it in the left rear torsion bar
- Measure the distance from the front of the rod to the back of the right rear squaring block. Make this number the same as the left rear
- Make sure the Jacob's ladder is not bound up in any way. If it is, you may need to move the rear axle front or back.

### Front of car:

- Set the toe
  - Measure between the front of the toe plates along the ground
  - Measure between the back of the toe plates

- Adjust the steering rods so that the front number is 1/16" to 1/8" larger than the back number
- Set the front panhard bar height to 4" from the center of the rod end to the top of the bottom rail
- Set the caster
  - Using an angle finder placed on top of the right side steering arm, set the front caster to 6 degrees for a Lightning Sprint and 12 degrees for the midget
  - More caster will make the car harder to steer
  - Not enough caster will make the car "wonder" going down the straights
- Rough measure the front axle offset by measuring from the bottom rail to the wheel mounting face of the left and right front hubs
- Adjust the front panhard bar until the right side offset is 3" larger than the left (this assumes you are using Hyper's 45" Midget and Lightning Sprint front axle)

#### **Squaring the front of the car:**

- Hook a tape measure onto the rear squaring block center line and measure up to the centerline mark on the front toe plates.
- Adjust the front radius rods until both the left and the right side are equal. On the Hyper Chassis, this number should be about 72"

#### **Blocking front of car:**

- Jack the front of the car
- Set the setup block to the desired height
- Place the setup block between the front axle and the frame
- Zero the coil nuts or the torsion jacker bolts
- Add or remove the desired turns

#### **Blocking rear of car:**

- Jack the rear of the car
- Set the setup block to the desired height
- Place the setup block between the front axle and the frame
- Zero the torsion jacker bolts
- Add or remove the desired turns
- Put the wheels back on the car
- Set the car on the ground
- Set the final rear wheel offset to the desired numbers from the setup sheet

Check counter steer, must be at least 40 degrees for winged and 45 degrees wingless