

Billet Scale Systems Racks, Levelers & Roll-Off Pads

The Right Way to Corner Balance a Racecar

Corner balancing, or scaling, is a fundamental part of a well-handling racecar. Management of the weight on each tire allows a racer to maximize grip in critical situations. Performing adjustments and measurements in a particular order ensure accurate results because any suspension change can affect how weight is distributed to each tire.

“Understanding how the racecar’s weight is distributed among the tires is critical for tuning its handling. When the margin of victory is less than a second on any given weekend, we need a scale system with impeccable accuracy and the flexibility of reliable wireless communication. Intercomp’s wireless Microflex™ system, with its 4-load cell design, fits the bill in all respects.”
Nate Bellows, Car Chief - No. 18 Joe Gibbs Racing NASCAR Monster Energy Cup Series Toyota Camry

First, set the desired static ride height at each corner, which will be different based on the type of racing, chassis design and preferred handling characteristics. Obtain these values from a chassis manufacturer, prep shop or a competitor who runs a similar car. Next, set the static camber, caster & toe-in measurements and deploy the RFX™ Scale System.

For the most accurate results, Intercomp recommends the use of a drive-on scale rack, levelers with a roll-off pad or individual pad levelers, with any system. The levelers allow adjustment to height and angle of each pad so they are level and at the same height. After turning on and zeroing the system, place the car on the scale pads and record or save the weight at each corner. If weights are above or below the target, begin by moving ballast, or equipment within the vehicle, to get close to the ideal distribution.

For racecars with adjustable ride height, small changes can fine-tune the vehicle’s weight distribution, which may require several small changes to reach desired values. In general, lowering ride height increases weight on that corner, while raising the ride height disperses weight from a corner. Finally, re-check suspension settings to achieve the desired static values.

Using this procedure, a racer can optimize grip levels where and when it is needed most. For circuit racers, this means the car is predictable during cornering, while drag racers can maximize acceleration and speed. With greater consistency, a driver can increase focus on how to go faster and win races.



The Joe Gibbs Racing No. 18 NASCAR Cup Car is weighed on Intercomp Microflex™ RFX™ Wireless scale pads set in Billet Levelers with Roll-Off Pad in the team’s Huntersville, NC shop.



Intercomp’s SW777RFX™ Professional Wireless Scale System is the highest-quality, all-in-one scale system in the motorsports industry.



A Late Model racecar is corner balanced on a set of RFX™ Wireless scale pads and Quik Ramp lightweight, modular scale rack.

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