



## CALCULATING WEIGHTS AND PERCENTAGES

Most modern scale systems give you all this information, but here is the formulas for calculating percentages. The only way to change the percentages of a race car is to move the physical weight in the chassis (ballast weight), change the location of the rear end and front end, or by changing the frame heights or wheel offsets. Also the physical weight of the tires will have an effect on percentages.

### Left Side Percentage

LF <b>470</b>	RF <b>310</b>
LR <b>730</b>	RR <b>710</b>

$$\text{LF WEIGHT} + \text{LR WEIGHT} \div \text{TOTAL WEIGHT} = \text{LEFT SIDE \%}$$

$$470 + 730 \div 2220 = .5405 \text{ or } 54\%$$

### Rear Percentage

LF <b>470</b>	RF <b>310</b>
LR <b>730</b>	RR <b>710</b>

$$\text{LR WEIGHT} + \text{RR WEIGHT} \div \text{TOTAL WEIGHT} = \text{REAR \%}$$

$$730 + 710 \div 2220 = .6486 \text{ or } 64.9\%$$

### Diagonal or Cross Percentage

LF <b>470</b>	RF <b>310</b>
LR <b>730</b>	RR <b>710</b>

$$\text{LR WEIGHT} + \text{RF WEIGHT} \div \text{TOTAL WEIGHT} = \text{DIAGONAL \%}$$

$$730 + 310 \div 2220 = .4684 \text{ or } 46.8\%$$

### Left Rear Weight

LF <b>470</b>	RF <b>310</b>
LR <b>730</b>	RR <b>710</b>

$$\text{LR WEIGHT} + \text{RR WEIGHT} = \text{LEFT REAR WEIGHT}$$

$$730 - 710 = 20\# \text{ LR WEIGHT}$$

#### WARNING

ALL CHASSIS SETTING AND ADJUSTMENTS ARE INTENDED FOR USE BY PROFESSIONAL RACE TEAMS AND TO BE PERFORMED BY QUALIFIED TECHNICIANS. IF YOU ARE NOT QUALIFIED TO DO THE WORK, SEEK THE ASSISTANCE OF A QUALIFIED TECHNICIAN. IF YOUR DRIVER IS NOT EXPERIENCED IN THE OPERATION OF A RACE CAR OF THIS TYPE, SEEK THE ASSISTANCE OF A QUALIFIED RACE DRIVING INSTRUCTOR OR SCHOOL BEFORE OPERATING THIS RACE CAR.

**SERIOUS INJURY OR DEATH CAN OCCUR IN AUTO RACING.**

#### CHASSIS ADJUSTMENTS TO IMPROVE PERFORMANCE IN SPECIFIC AREAS

Auto Racing, especially on dirt tracks, require finding a delicate balance of adjustments which will maximize the performance of the race car both relating to acceleration and top speed on the straights and reducing the needs to slow or increasing the speed through the corners. Any adjustment which will improve the performance of the race car relating to its ability to accelerate in a straight line, may decrease its ability to maintain speed while cornering. Conversely, those adjustments, which will enable the race car to go faster while cornering, may decrease its ability to accelerate in a straight line.

DRIVER'S ABILITY TO CONTROL THE RACE CAR MAY BE ADVERSELY AFFECTED AFTER CHASSIS ADJUSTMENT. USE CAUTION WHEN RESUMING OPERATION AFTER ANY CHASSIS ADJUSTMENT.

**DO NOT WORK ON RACE CAR BEFORE SUPPORTING IT ON ADEQUATE JACK STANDS OR OTHER SUITABLE WORK STANDS. NEVER WORK NEAR OR UNDER A RACE CAR SUPPORTED ONLY ON A JACK. WORK ONLY ON A LEVEL, HARD SURFACE CAPABLE OF SUPPORTING STANDS.**