

**PRO**1  
*Racing*



**PRO1 2001, THE ULTIMATE RACING MACHINE**



## Dear Customer

Enclosed you will find several data sheets and illustrations for the 2001 PRO1 race car. All this data is based on what our factory engineers and drivers have developed in design, testing and actual racing conditions.

The PRO1 1/4 scale race car is a precision built machine. For it to operate properly the following must be adhered to:

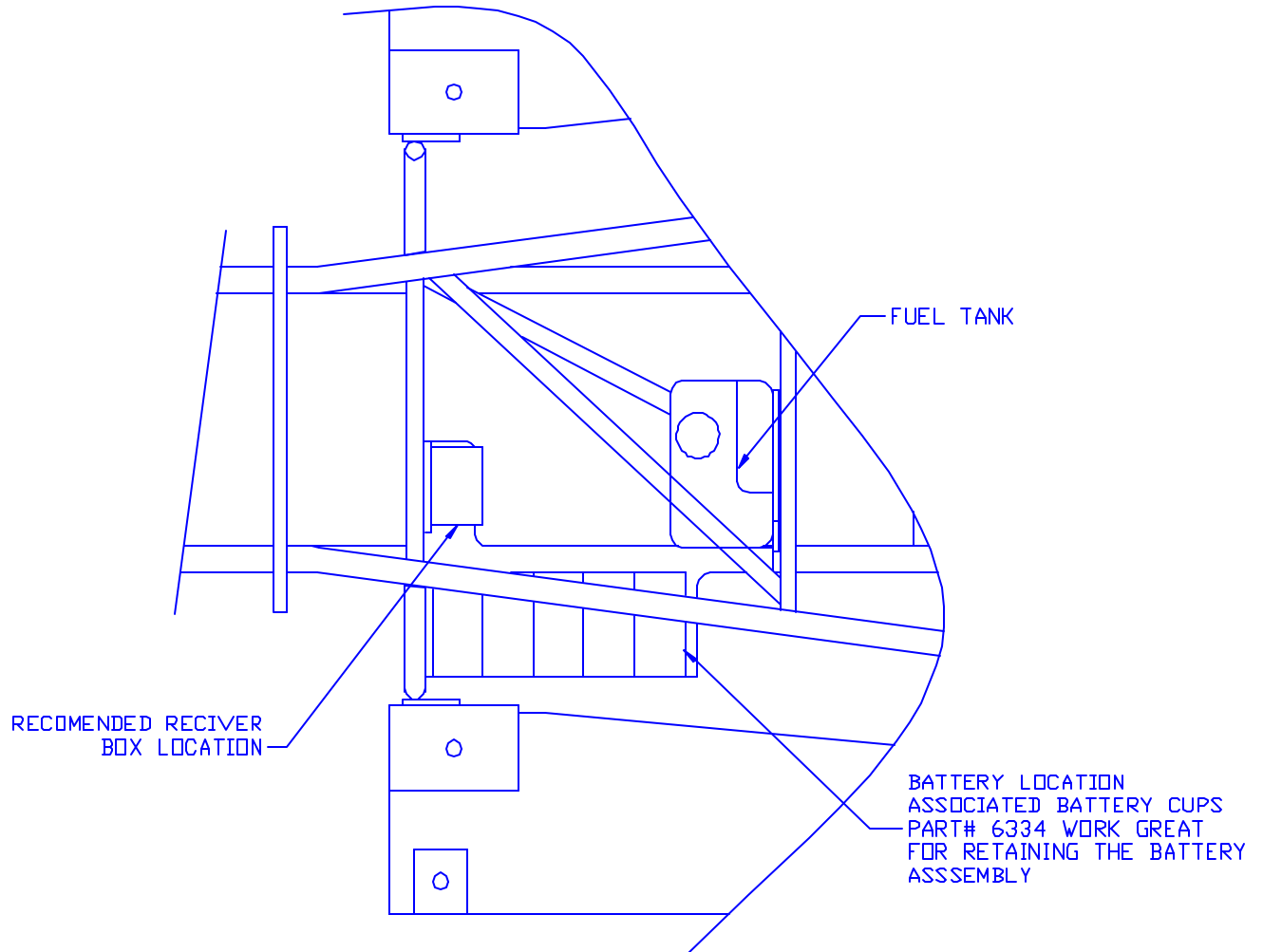
- Keep the car clean
- Rebuild shocks every 3 to 4 races
- Always check the suspension for free movement, replace damaged components.
- Make sure servos and servo savers are functioning properly. Never bottom out servos at end points.
- Tire maintenance is very important, all ways check for proper wear and loose Bands.
- Use a quality fuel such as VP16 and keep the air filter clean.
- Do not over tighten the drive belt, make sure it has about 1/4" deflection at the center of the belt.
- Have a check list that you can go by every time you put your PRO1 on the track

Sincerely

PRO1 Racing  
5103 Wightman Ct.  
Houston, TX 77069  
281-893-8602  
[www.pro1race.com](http://www.pro1race.com)

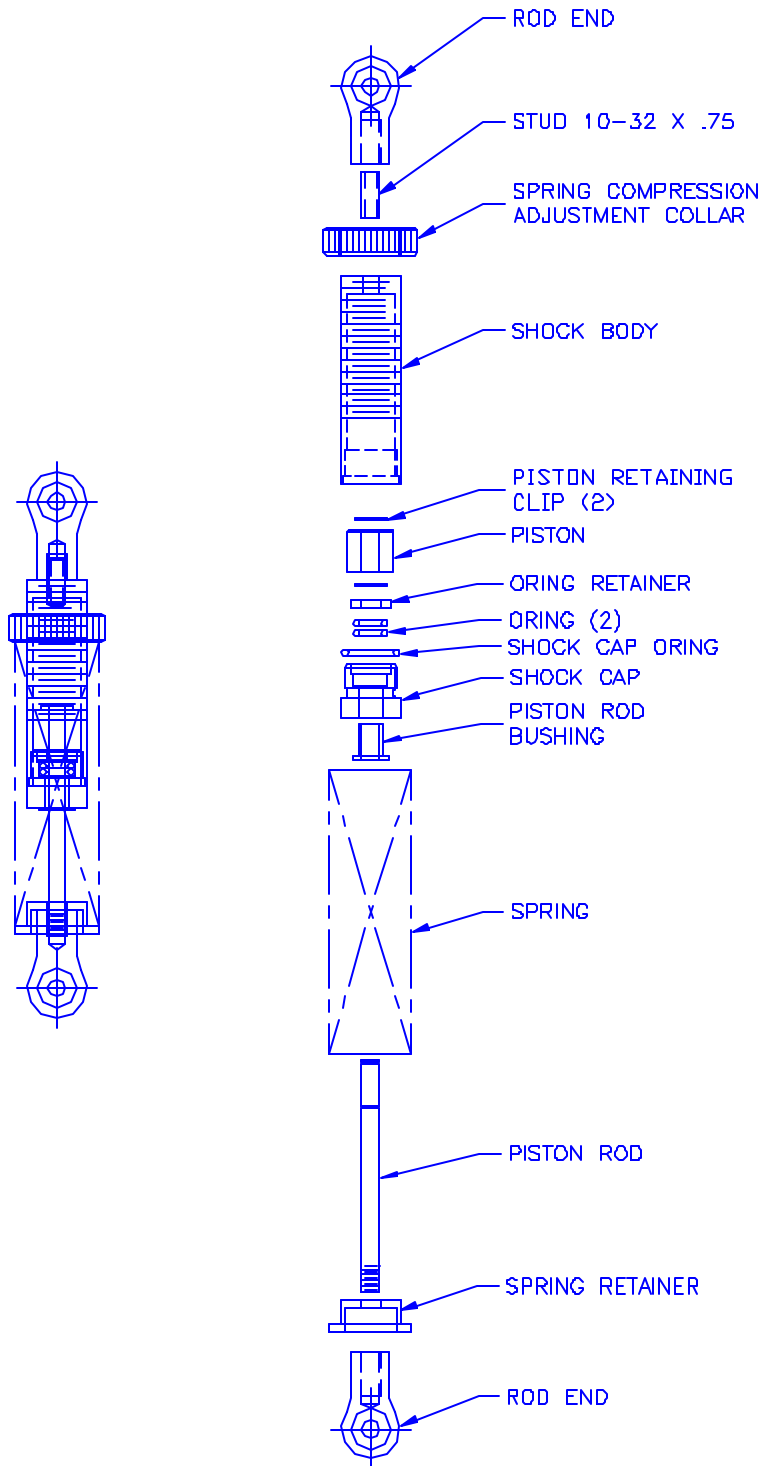


## RECOMMENDED RECEIVER BOX AND BATTERY MOUNTING





## SHOCK ASSEMBLY DIAGRAM





**SPRING COLOR CODE**  
**AND RATES**

<b><u>COLOR</u></b>	<b><u>RATE (in /lb)</u></b>
ORANGE	8
YELLOW	10
WHITE	14
SILVER	18
BLUE	22
RED	31
GRAY	39
BLACK	43



## **BASIC SETUP**

Front Tow: 1/8" tow out

Front Caster, left: 2 to 3 degrees positive (shim adjustable)

Front Caster, right: 4 to 6 degrees positive (shim adjustable)

Rear tow, left: 0"

Rear tow, right: 0"

Front Camber, left: negative 2 ½ degrees

Front Camber, right: positive 2 ½ degrees

Rear Camber, left: negative 3 ½ degrees

Rear Camber, right: positive 4 ½ degrees

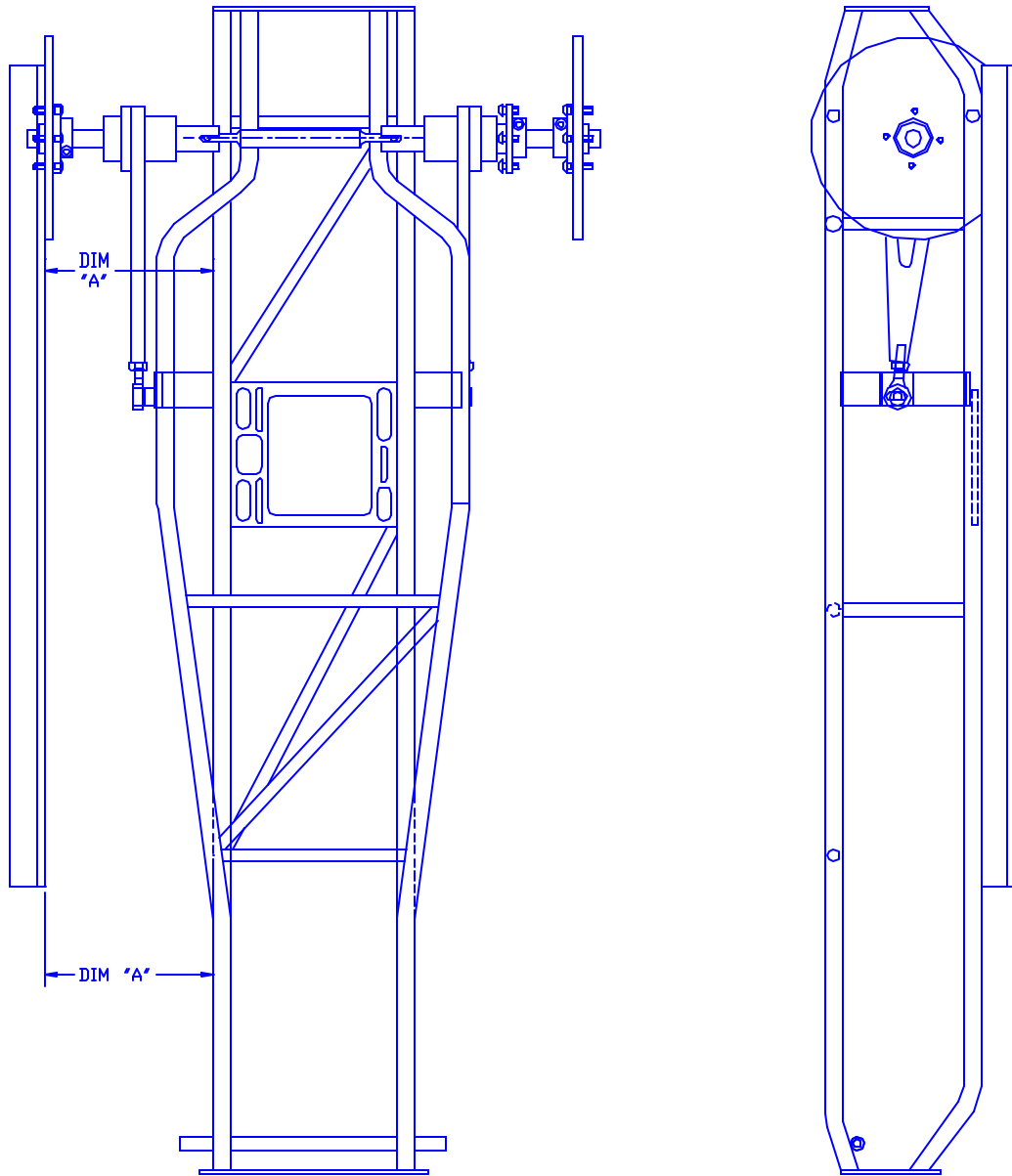
### **Shocks**

Front left – red spring, 25w silicone shock oil

Front right – blue spring, 25w silicone shock oil

Rear left – white spring, 15w silicone shock oil

Rear right – red spring, 20w silicone shock oil



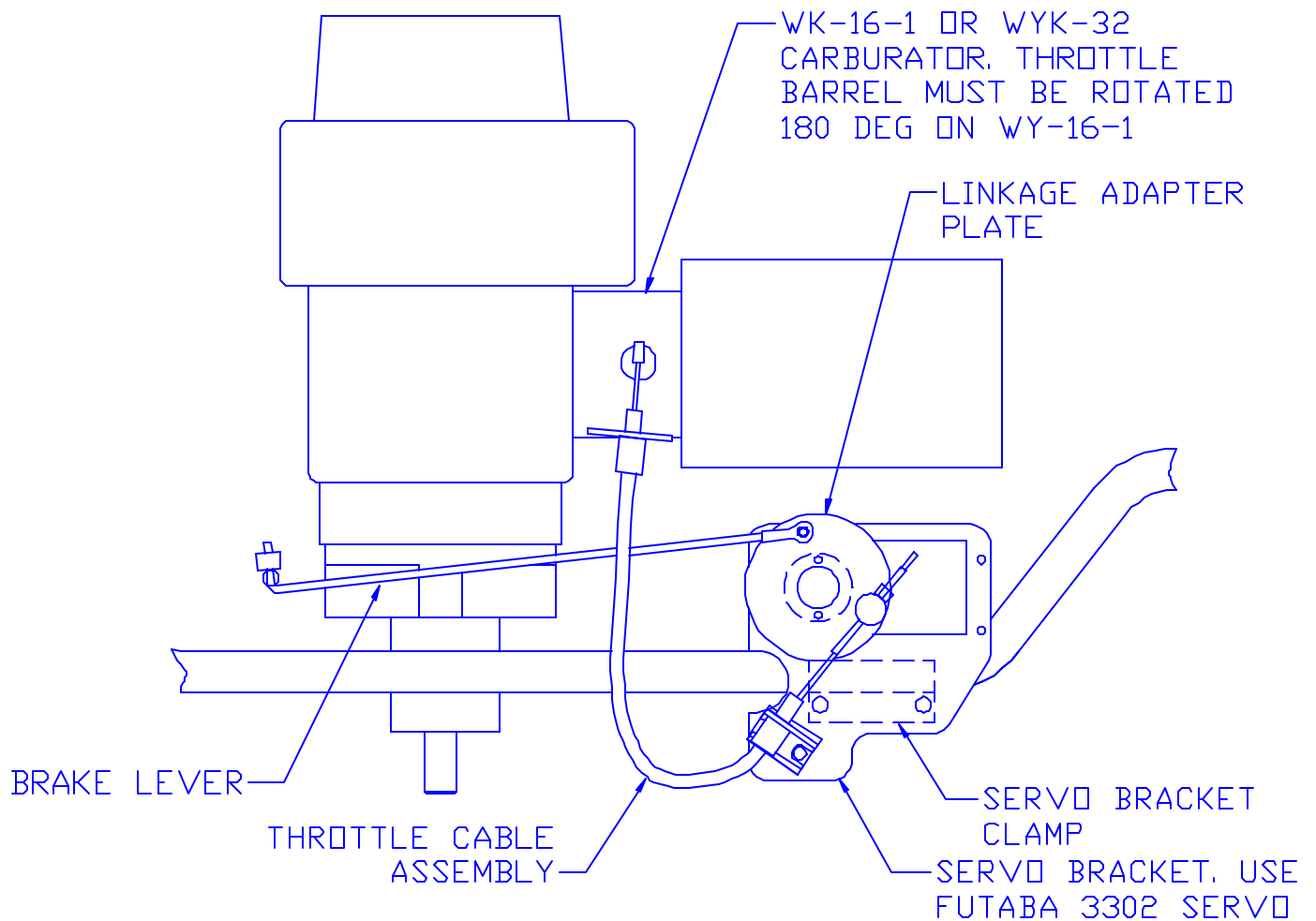
## Rear Toe Measurement

Mount 6" aluminum disks on the rear hubs. Clamp a straight edge on disk as shown. Using a 12" rule measure at points "A" and shimming trailing arm pivot point until "A" points are the same. Use trailing arm pivot points for gross adjustments and rear links for fine adjustments. When adjusting rear links turn them in or out equally. See "notes" page on how to fabricate your own straight edge and alignment disks.



## THROTTLE LINKAGE AND CLUTCH HOUSING DIAGRAM

FOR CARS BUILT AFTER TO 5-1-01



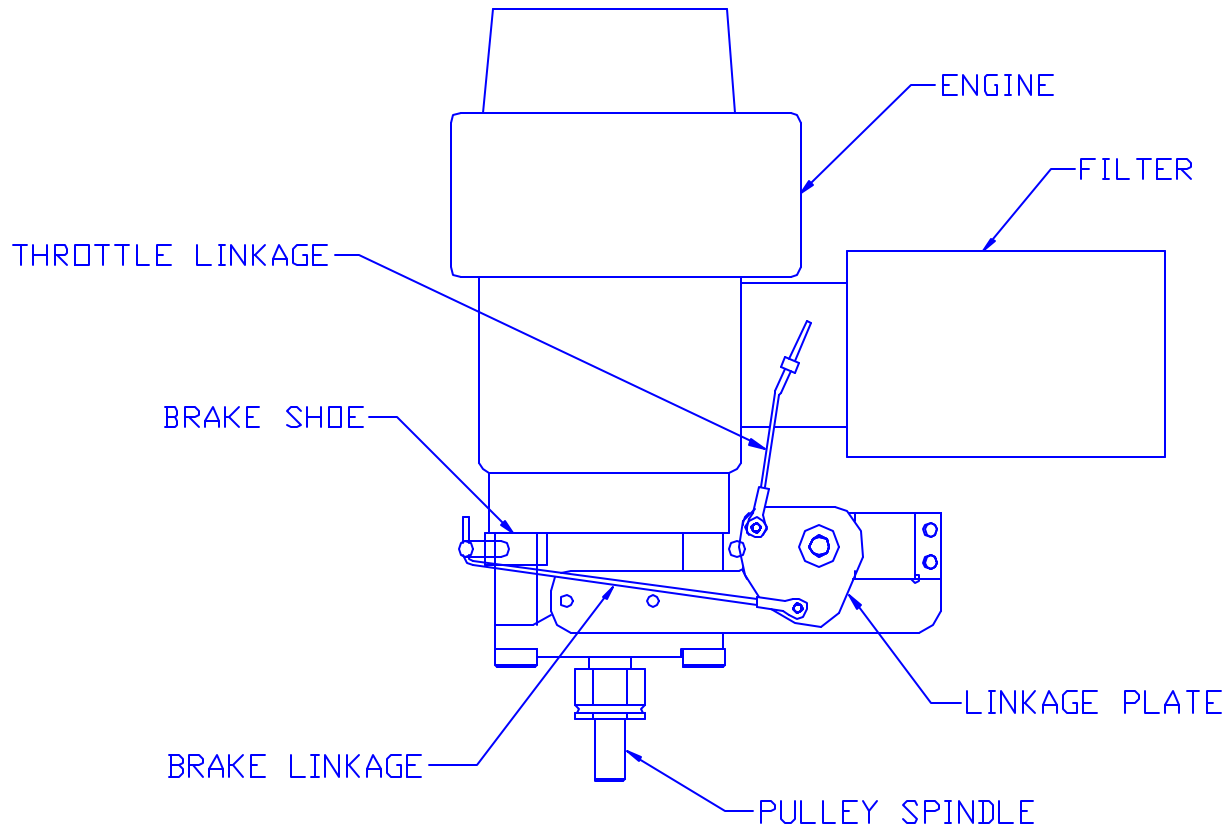
THE WY-16-1 OR WYK-32 CAN BE USED WITH THIS DESIGN. WHEN USING THE WY-16-1 THE THROTTLE BARREL MUST BE ROTATED 180 DEG. USE A FUTABA 3302 SERVO.





## THROTTLE LINKAGE AND CLUTCH HOUSING DIAGRAM

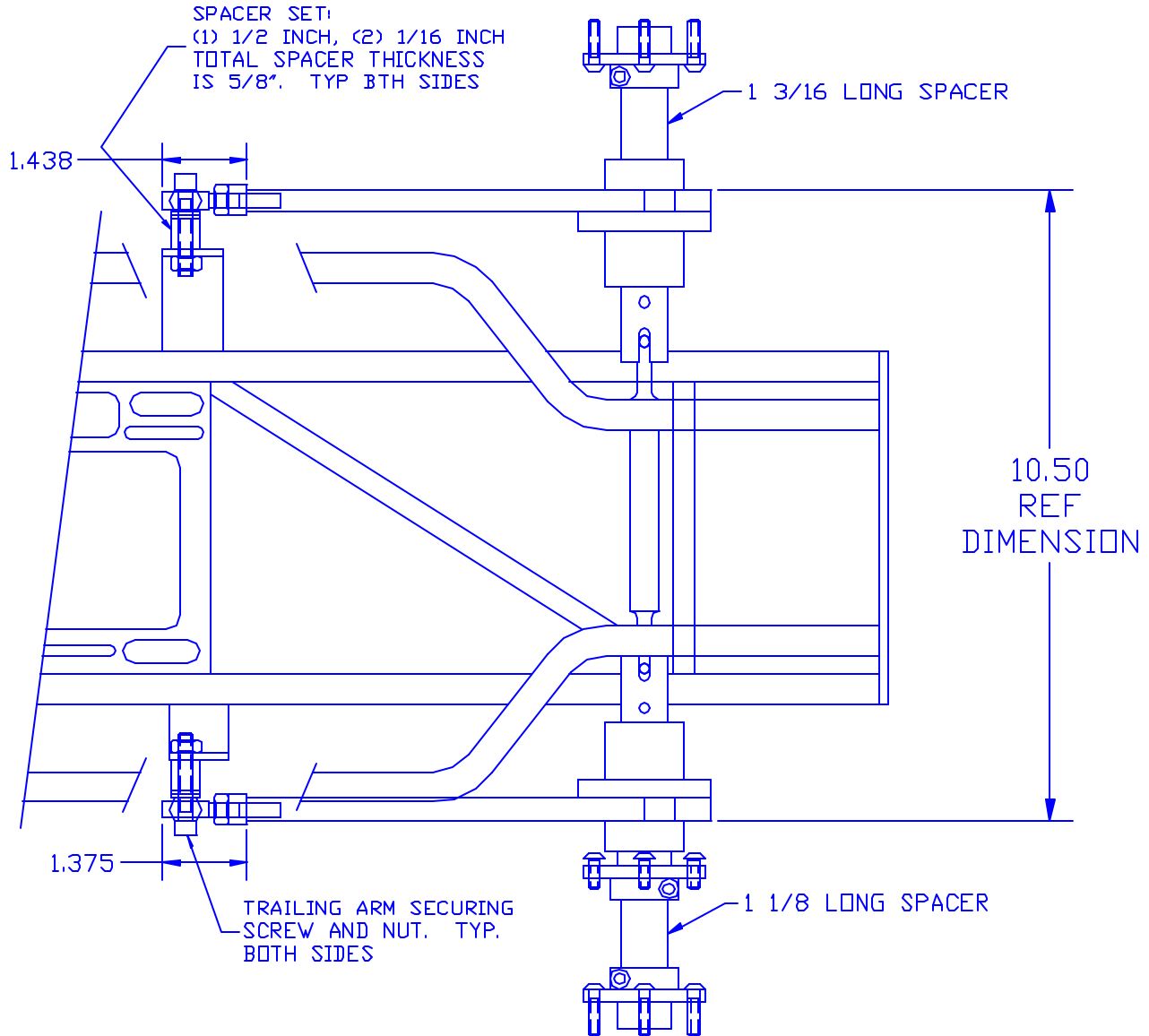
FOR CARS BUILT BEFORE TO 5-1-01



BREAKING DIRECTION OF SERVO TAKES VERY LITTLE MOVEMENT TO ACHIEVE ADEQUATE BRAKING FORCE, BE CAREFUL NOT TO HAVE TOO MUCH TRAVEL. NEW CABLE LINKAGE WILL BE DOWNLOADABLE OFF THE INTERNET IN MAY 2001.



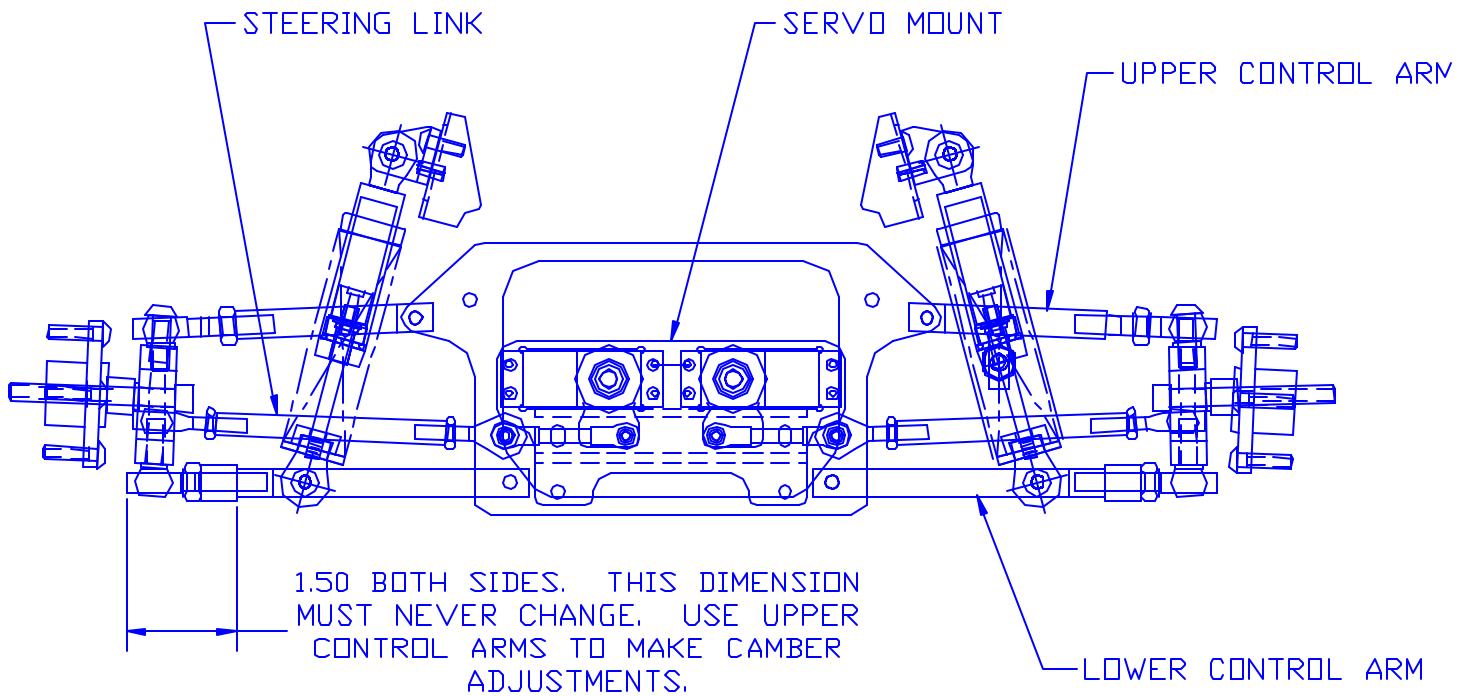
## REAR SUSPENSION REFERENCE DIMENSIONS



THE 10.5 DIMENSION IS A GOOD REFERENCE TO USE WHEN SETTING UP TRAILING ARMS. NOTE SPACER THICKNESS OF 5/8" CAN BE MADE UP OF ANY COMBINATION OF SPACERS. NOTE AXEL SPACERS ARE DIFFERENT 1 3/16 RIGHT, 1 1/8" LEFT.



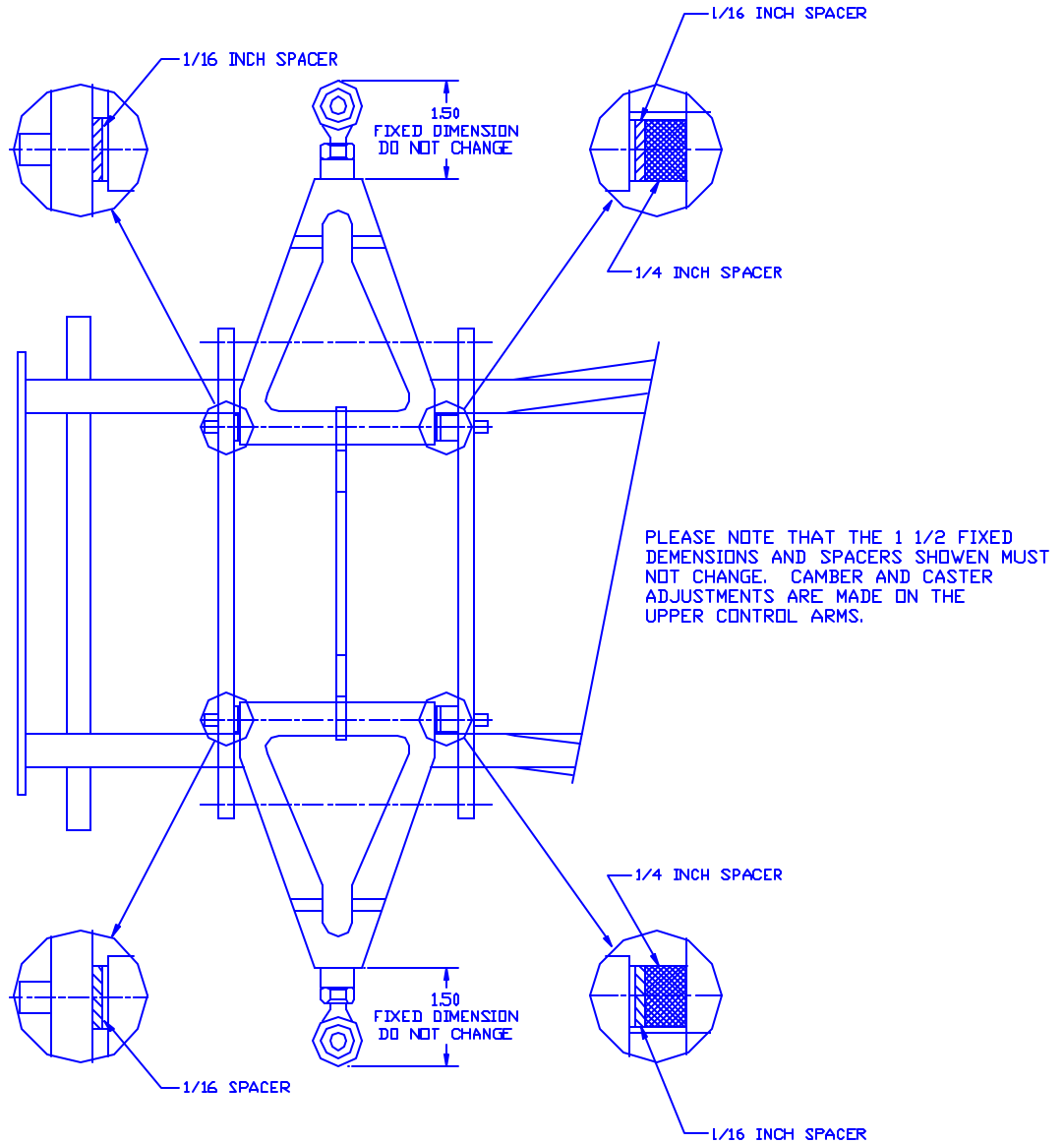
## FRONT SUSPENSION REFERENCE



THE 1.25 DIMENSION IS FIXED AND SHOULD NOT BE CHANGED. ALWAYS USE UPPER CONTROL ARM FOR ADJUSTMENTS.



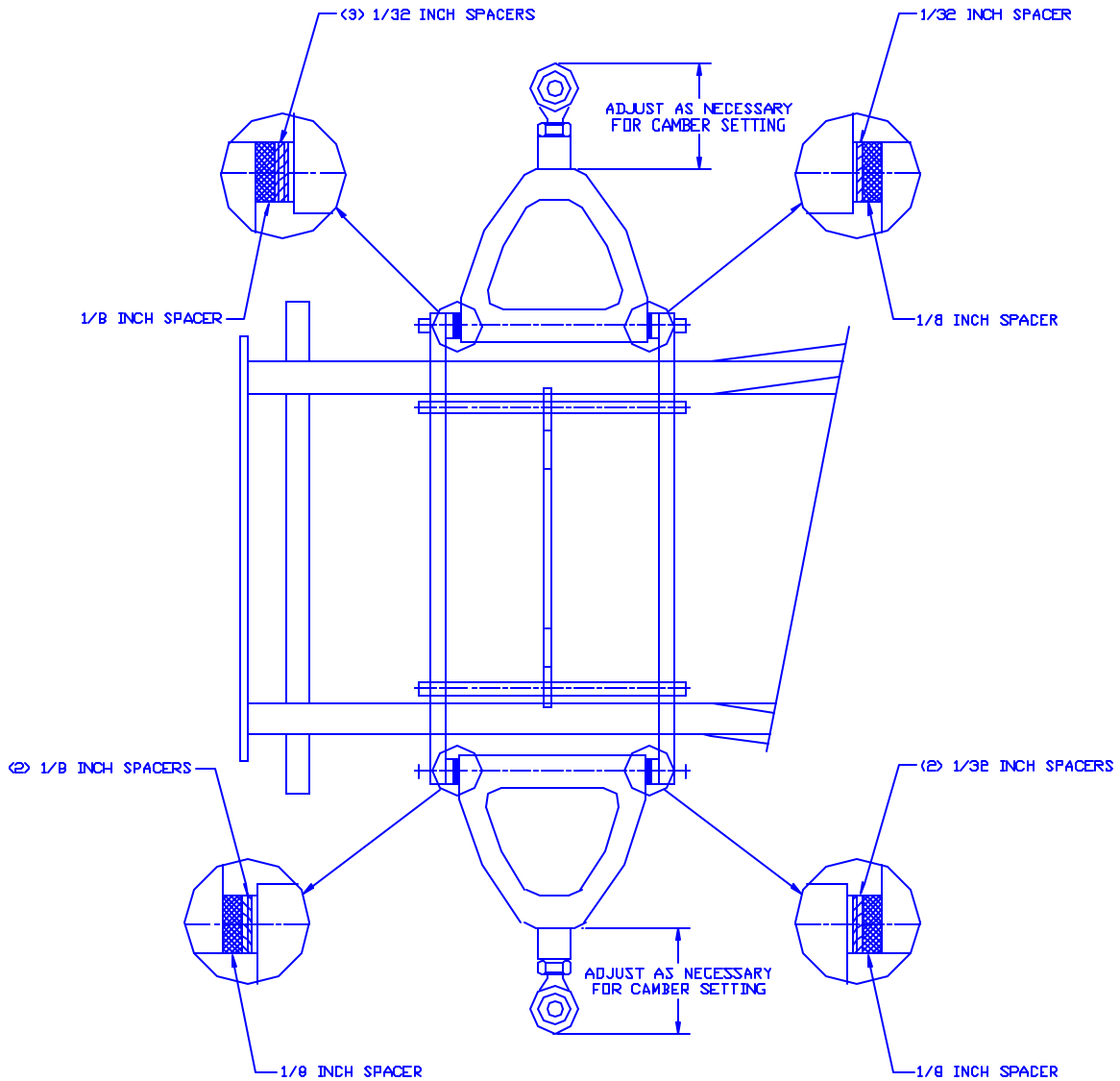
## LOWER CONTROL ARM SETTINGS



THE POSITIONING OF THE CONTROL ARMS ARE FACTORY SETTINGS AND ARE FOR YOUR REFERENCE. FOR PROPER PERFORMANCE KEEP SETTINGS AS SHOWN. ADJUSTMENTS FOR CASTER ARE MADE ON THE UPPER CONTROL ARMS.



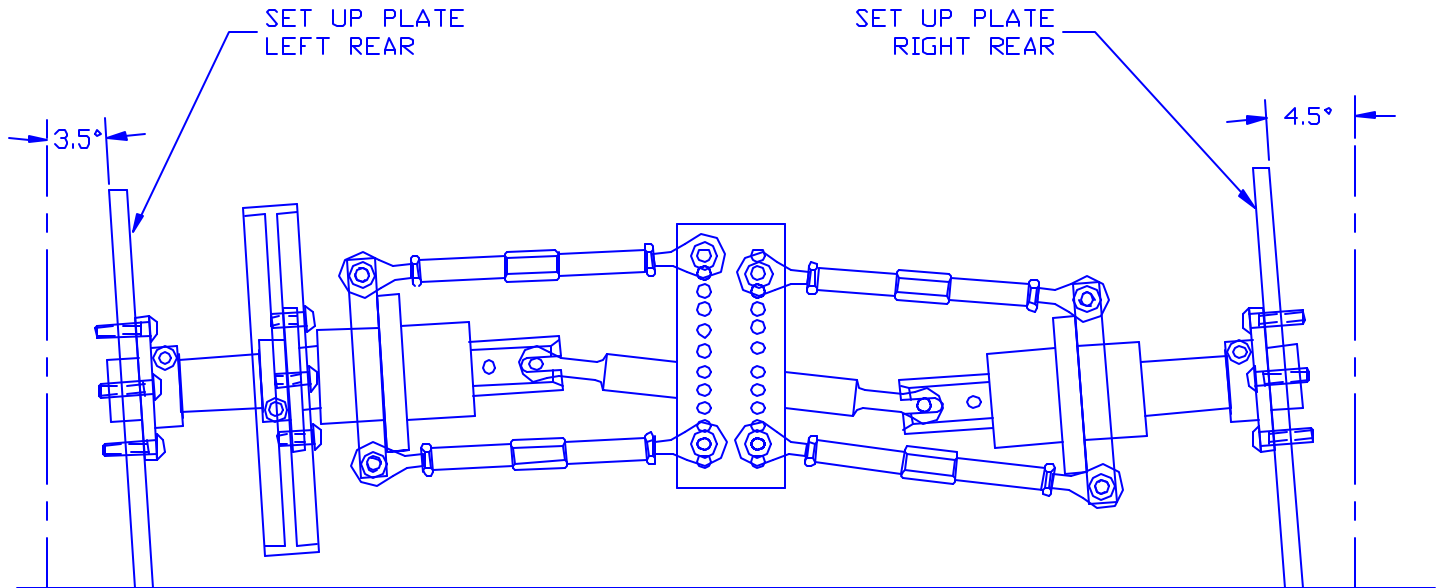
## UPPER CONTROL ARM SETTINGS



THE POSITIONING OF THE CONTROL ARMS ARE FACTORY SETTINGS AND ARE FOR YOUR REFERENCE. RIGHT CASTER ANGLE IS 4.25 DEG., LEFT CASTER ANGLE IS 3.50 DEG. BOTH BEING POSITIVE. A 1/32 INCH SPACER CHANGE WILL CHANGE THE CASTER ANGLE BY .75 DEG. WHEN MAKING CAMBER ADJUSTMENTS NEVER OVER TIGHTEN THE JAM NUTS.



## REAR CAMBER SETUP (LOOKING FROM REAR OF CAR)

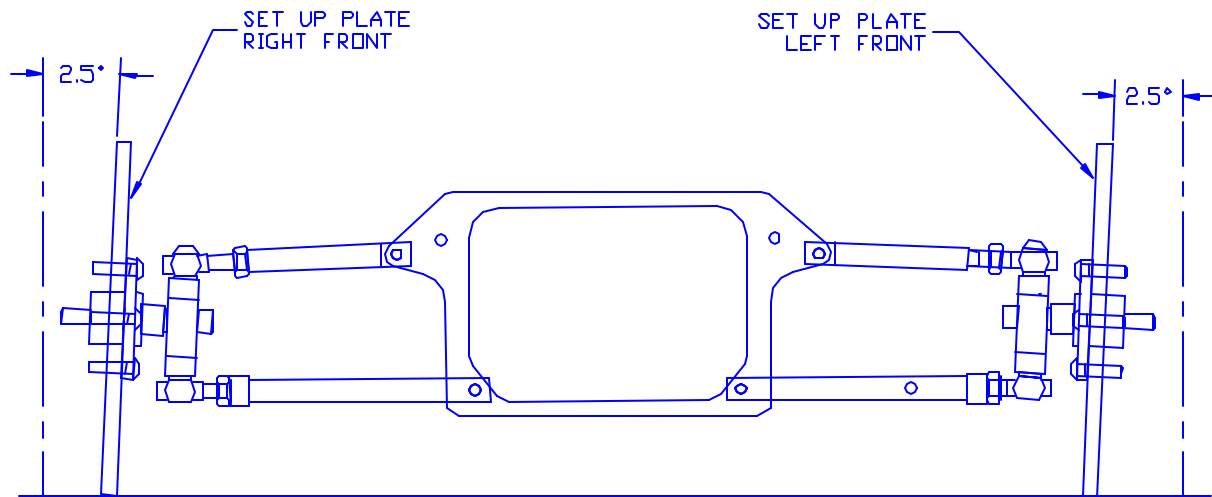


**Left Rear:** 3.5 deg. is the factory setting. Increasing the angle will tighten the car up and decreasing the angle will loosen up the car.

**Right Rear:** 4.5 deg is the factory setting. Increasing the Angle will tighten the car up and decreasing the angle will Loosen up the car.

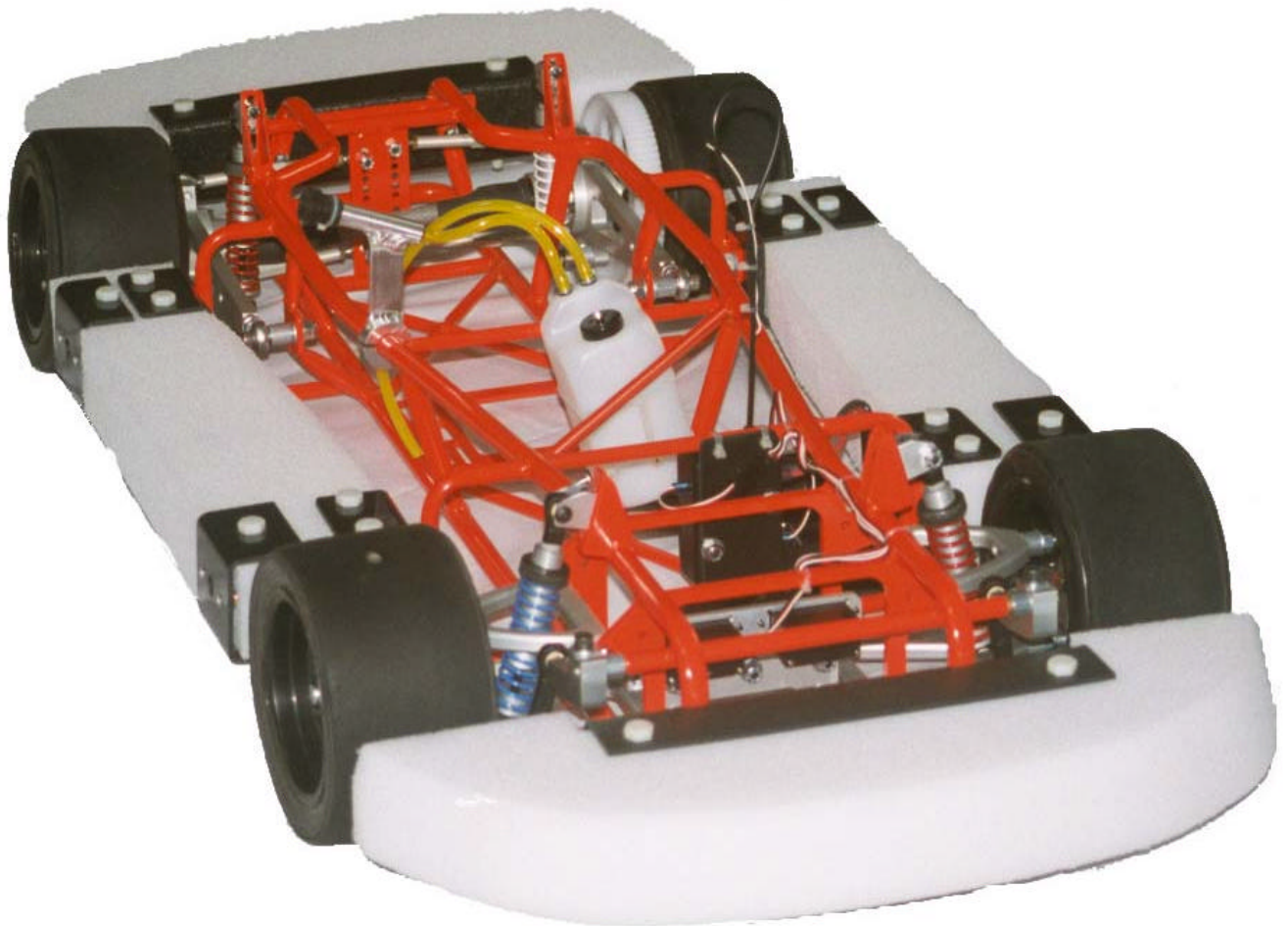


## FRONT CAMBER SETUP (LOOKING FROM FRONT OF CAR)



**Right Front:** 2.5 deg. is the factory setting. Increasing the angle will cause the car to turn into the corner. Decreasing the angle will cause the car to push.

**Left Front:** 2.5 deg. is the factory setting. Adjust angle as required to obtain even tire wear.



The PRO1 ¼scale race car is a precision crafted machine. The frame is constructed of 4130 Chrome moly tubing which is CNC formed and fixture welded. The space frame impact resistant bumper design has a solid track record for protection of all critical components. Precision components are CNC machined for accuracy, interchangeability and structural Integrity. Over 2500 hours of engineering, research and development have been performed on this car to assure you the customer that you have the ultimate racing machine.





## **PRO 1** ¼ Scale Racing Machine

### FEATURES

- **2 Years engineering, research and development**
- **Precision Racing Chassis**
  1. Frame structure: 4130 chrome moly steel tubing.
  2. Rigid design: Computer analysis's of chassis.
  3. Maximum protection: Impact resistance space frame design.
  4. Finish: Powder coat finish
- **Front Suspension**
  1. CNC machined upper and lower control arms with bushings at the pivot points.
  2. Custom shock absorbers with a variety of machined pistons, o-ring sealing and heavy duty rod end connections.
  3. Adjustable ride height with double shear connection at both ends of the shock absorbers.
  4. New steering rack design.
  5. Heavy duty spindles, axles and precision ball bearings.
  6. Sway bar.
  7. BRP tires
- **Rear Suspension**
  1. CNC machined trailing arms.
  3. Custom shock absorbers with a variety of machined pistons, o-ring sealing and heavy duty rod end connections.
  4. Adjustable ride height.
  5. Ridged pivot point connection for trailing arm assembly
  6. Heavy duty rear hubs and axles with precision ball bearings.
  7. Precision dog bone design, CNC machined.
  8. BRP tires



- **Drive System**

1. 2 HP Zenoah engine, G2D70
2. Dual bearing clutch assembly with precision ball bearings.
3. Low rotating mass clutch spindle.
4. 8 oz fuel tank.
5. Aluminum drive gear and nylon driven gear  
A large range of gears are available.

- **Adjustable Features**

- Camber
- Caster
- Toe, front and rear
- Ride height
- Sway Bar
- Shock spring rate and oil viscosity

This racing machine has a solid design foundation, is fully adjustable and fun to race.

The **PRO 1** is available fully assembled and ready to race. A full line of spare parts are also available.

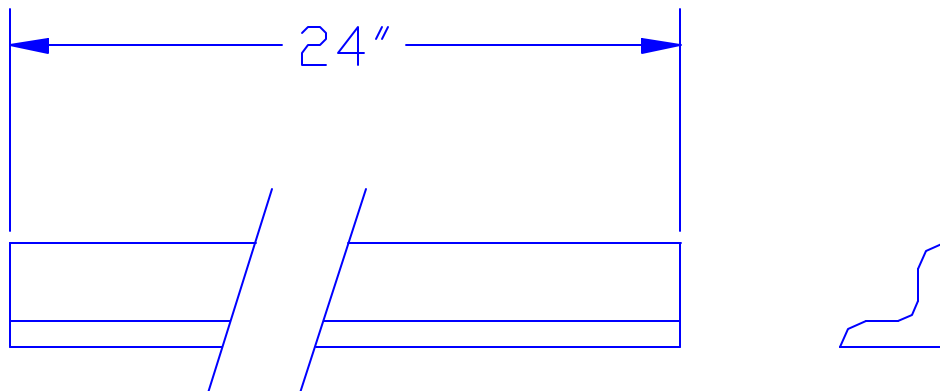
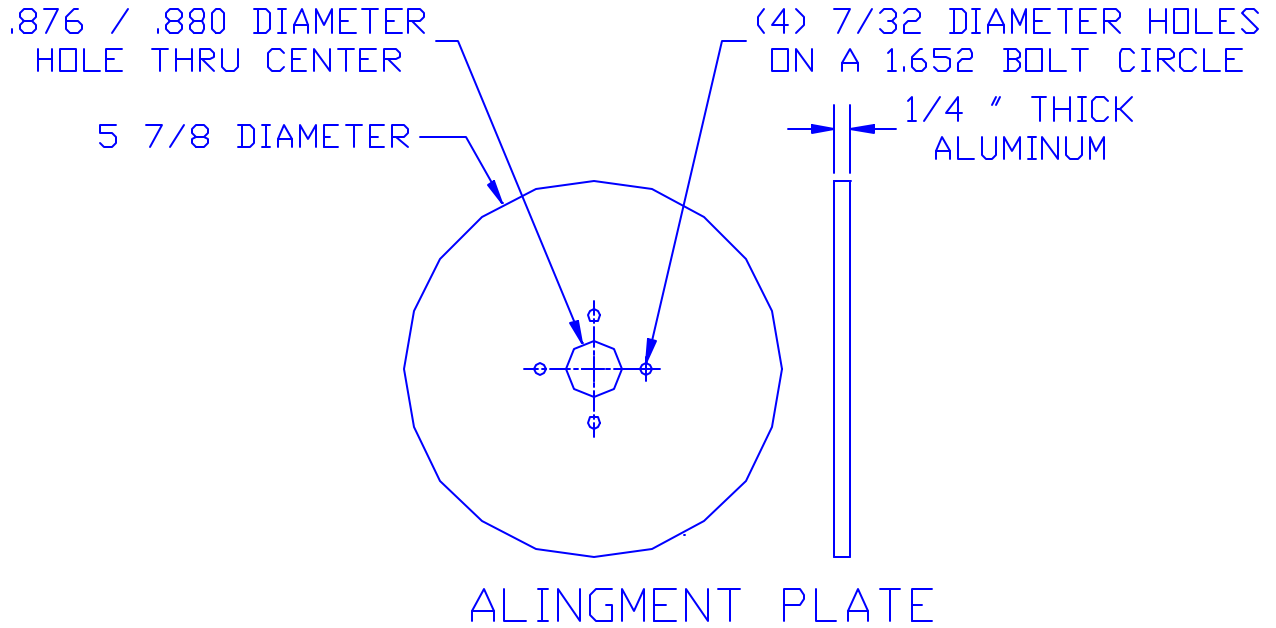
**Price: \$1,595.00 fully assembled, less electronics and body**

**Terms: 50% with order, 50% at delivery, sales tax and shipping are extra.**



**NOTES**

**Straight edge and alignment disk drawings**



STRAIGHT EDGE  
1 X 1 X 1/4 INCH  
ALUMINUM ANGLE



NOTES



**NOTES**