

PRO1
Racing



PRO1 2004
THE ULTIMATE RACING MACHINE



Dear Customer

Enclosed you will find several data sheets and illustrations for the 2004 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:

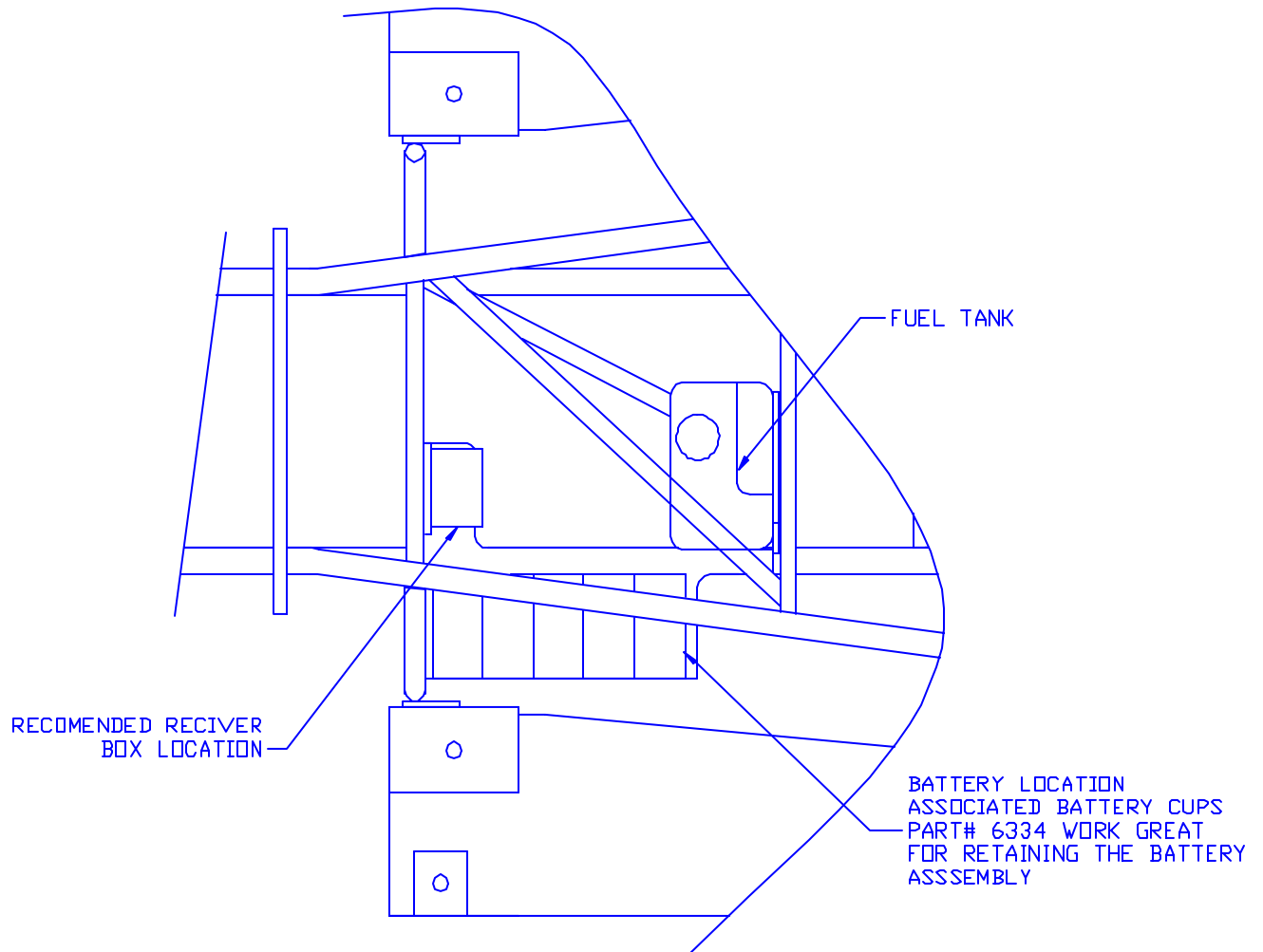
- Keep the car clean
- Rebuild shocks every 3 to 4 races
- Always check the suspension for free movement, replace damaged components.
- Make sure servos and servo savers are functioning properly. Never bottom out servos at end points.
- Tire maintenance is very important, all ways check for proper wear 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
118 E Swan Ave
Konawa, OK 74849
580-320-7761
www.pro1z.com

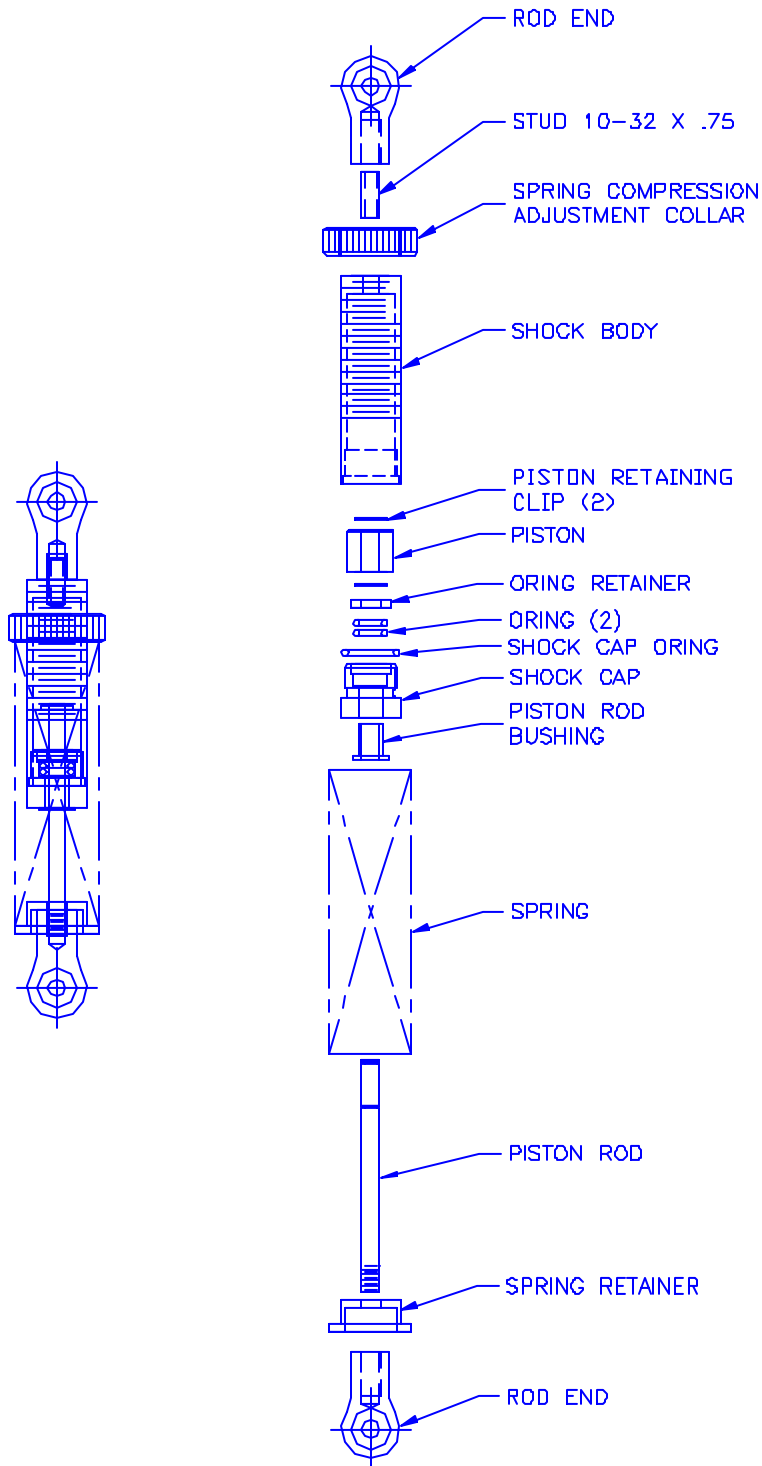


RECOMMENDED RECEIVER BOX AND BATTERY MOUNTING





SHOCK ASSEMBLY DIAGRAM





SPRING COLOR CODE
AND RATES

<u>COLOR</u>	<u>RATE (in /lb)</u>
ORANGE	8
YELLOW	10
WHITE	14
SILVER	18
GREEN	20
BLUE	22
RED	31
BLACK	38



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: 1/8" tow in

Front Camber, left: positive 2 ½ degrees

Front Camber, right: negative 2 ½ degrees

Rear Camber, left: positive 3 ½ degrees

Rear Camber, right: negative 4 ½ degrees

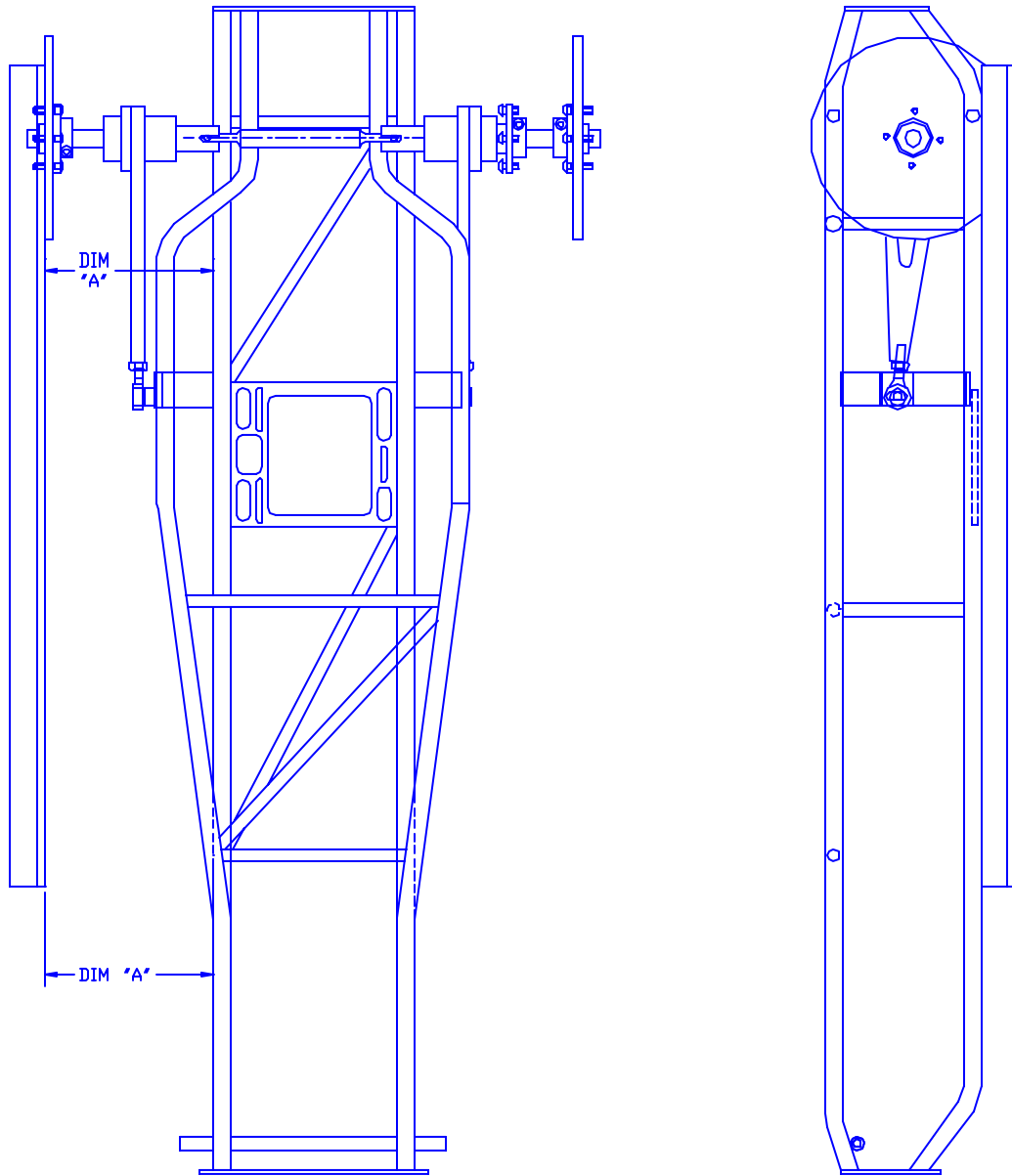
Shocks

Front left – red spring, 20w silicone shock oil

Front right – blue spring, 20w silicone shock oil

Rear left – white spring, 10w silicone shock oil

Rear right – red spring, 20w silicone shock oil



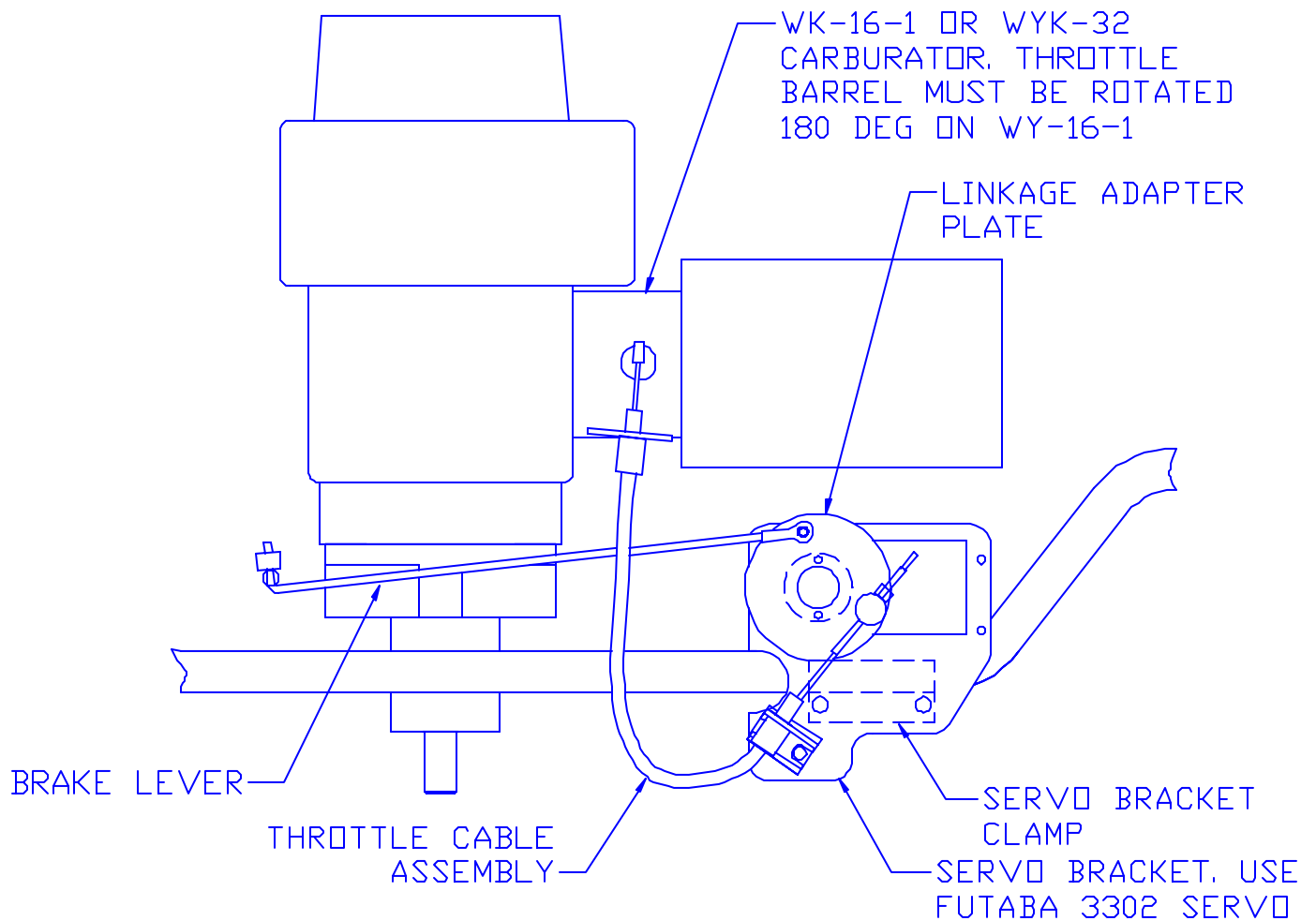
Rear Toe Measurement

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 1/8" towed in. 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

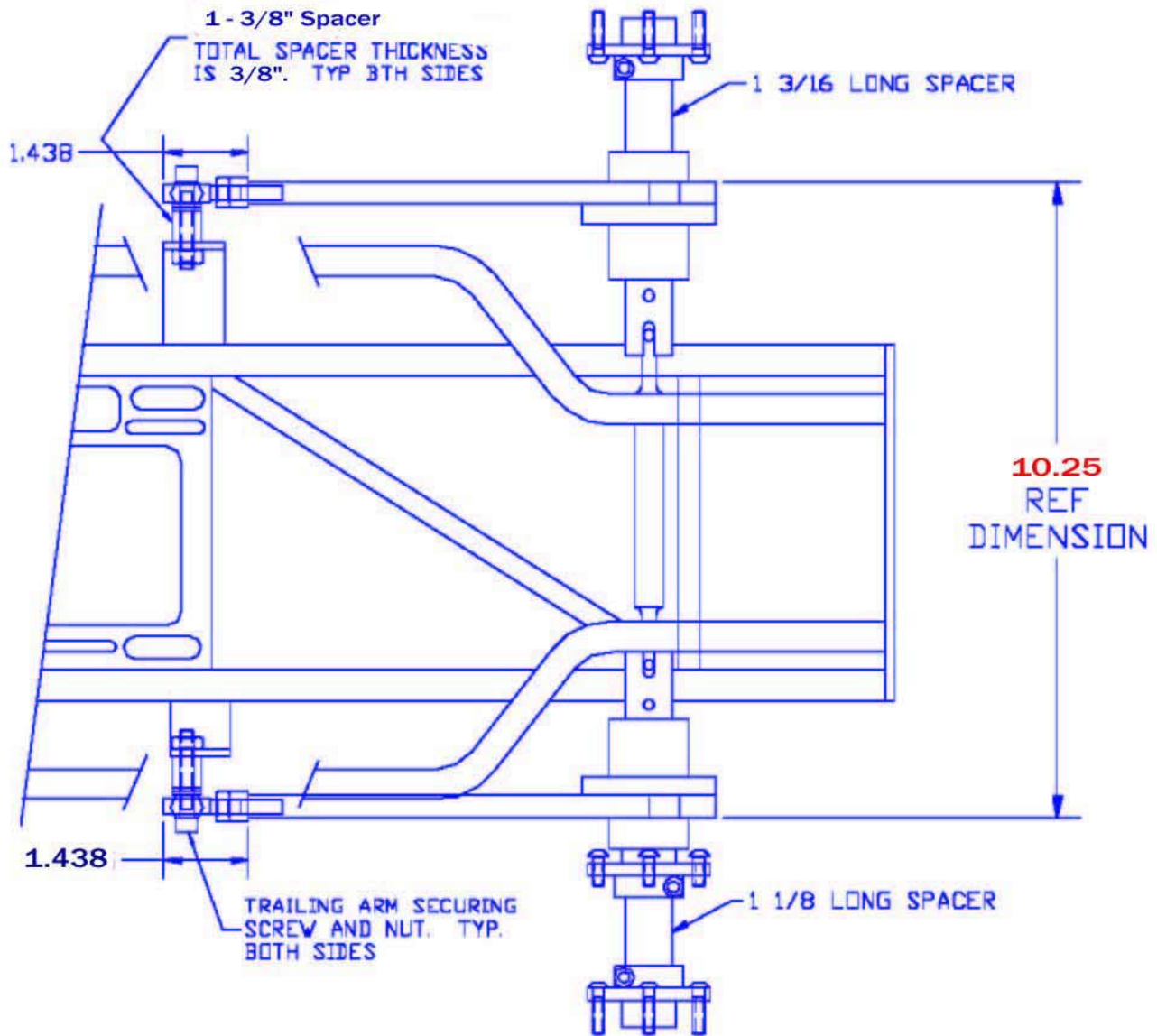
FOR CARS BUILT AFTER TO 5-1-01



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.



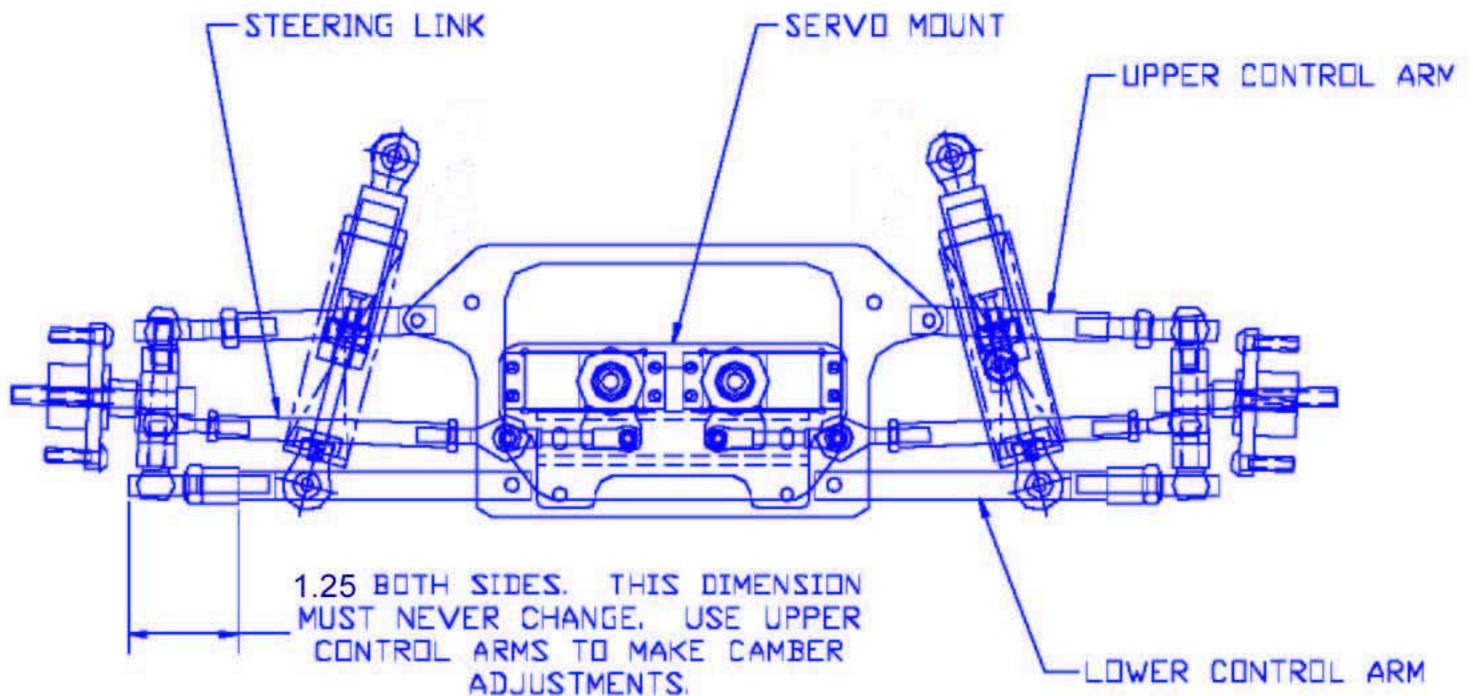
REAR SUSPENSION REFERENCE DIMENSIONS



THE 10.25 DIMENSION IS A GOOD REFERENCE TO USE WHEN SETTING UP TRAILING ARMS. NOTE SPACER THICKNESS OF 3/8" CAN BE MADE UP OF ANY COMBINATION OF SPACERS. NOTE AXEL SPACERS ARE DIFFERENT 1 3/16" ON RIGHT SIDE AND 1 1/8" ON LEFT SIDE.



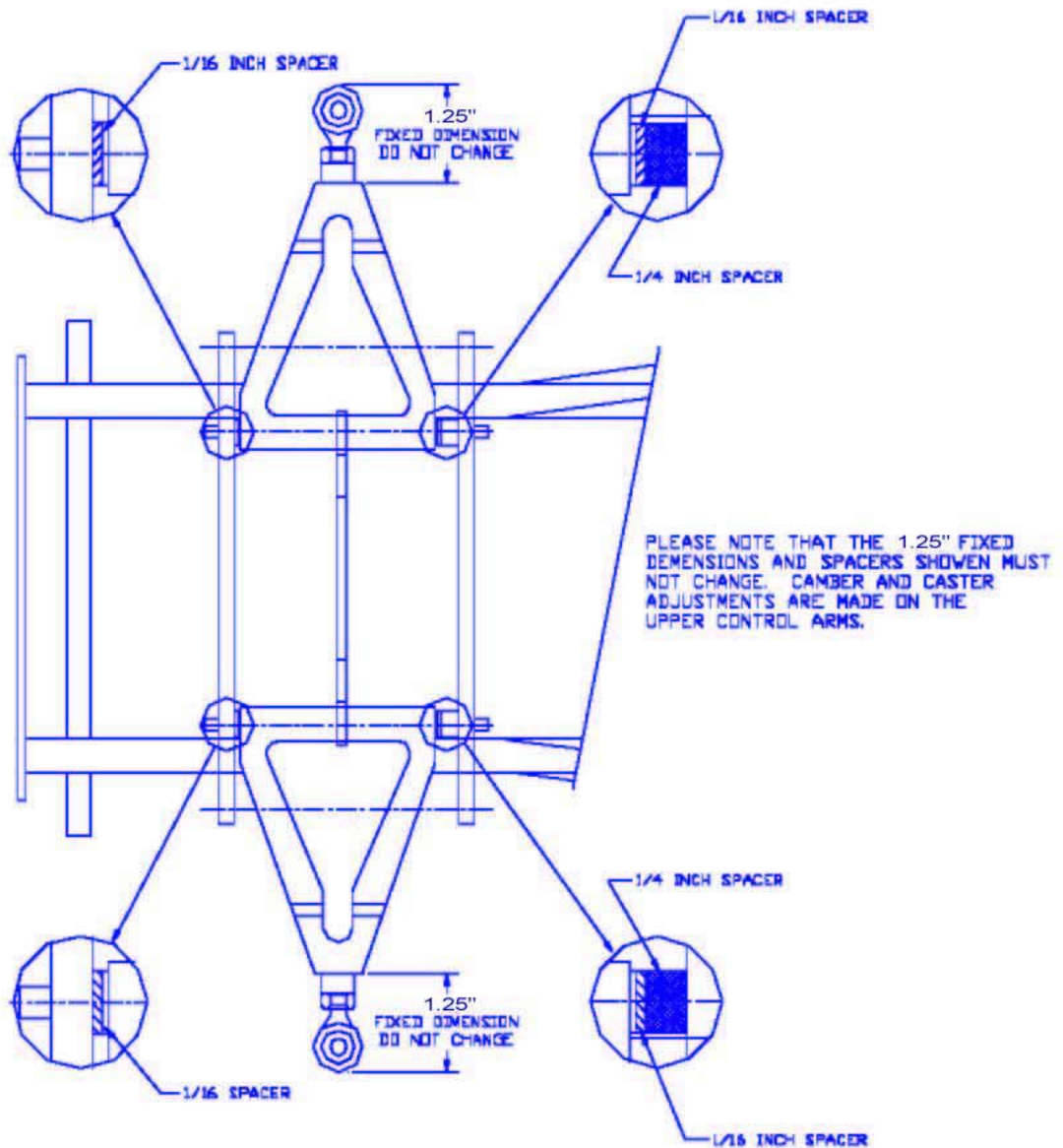
FRONT SUSPENSION REFERENCE



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



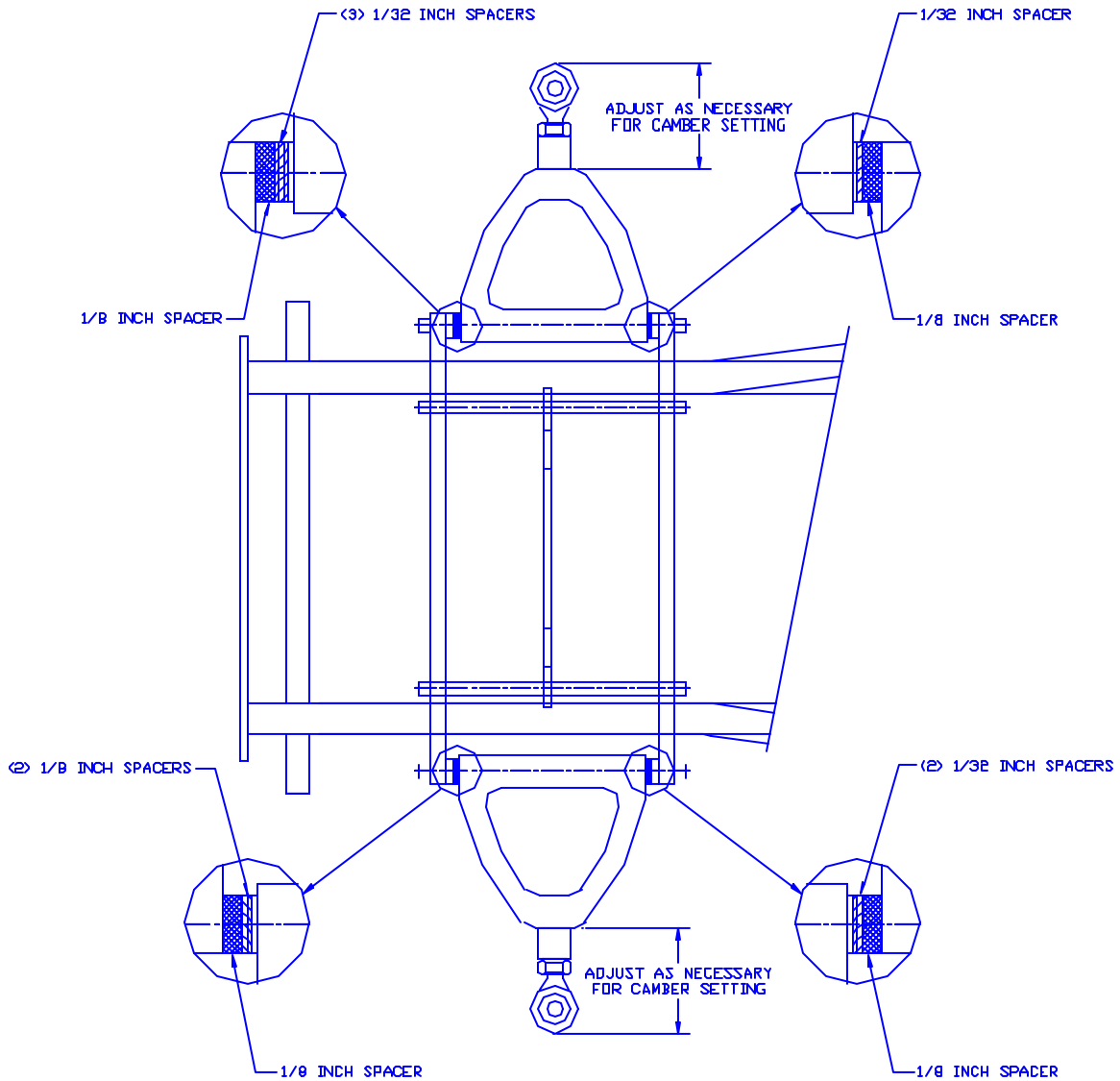
LOWER CONTROL ARM SETTINGS



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.



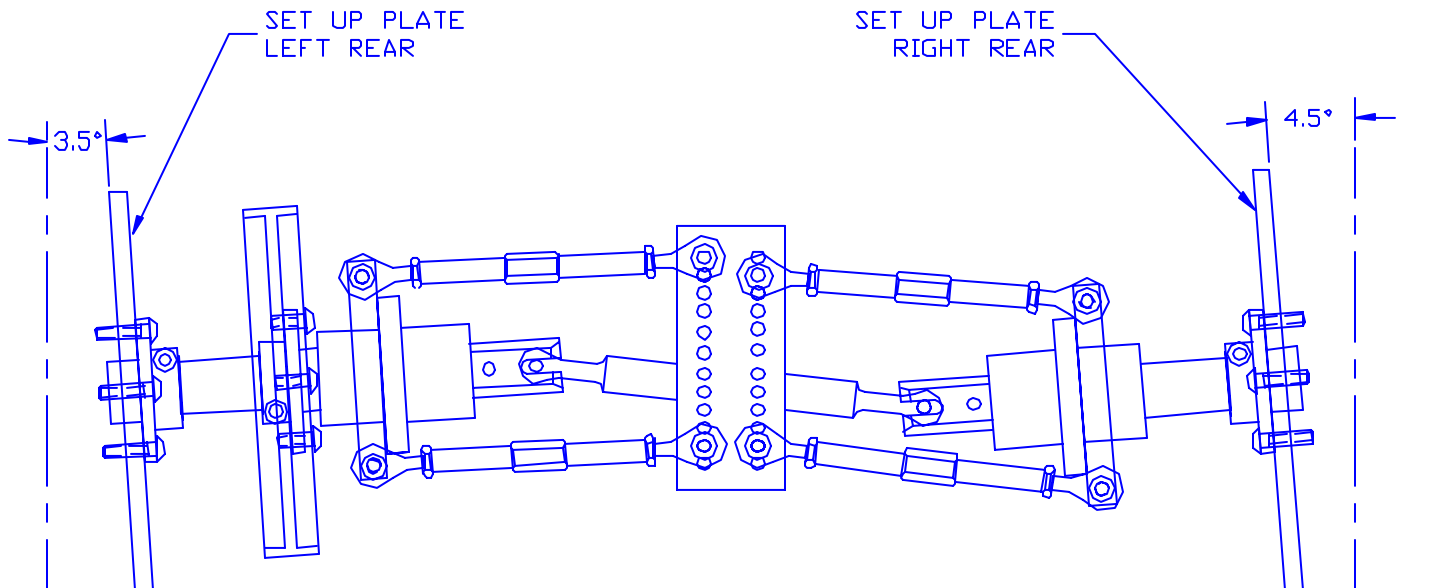
UPPER CONTROL ARM SETTINGS



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)

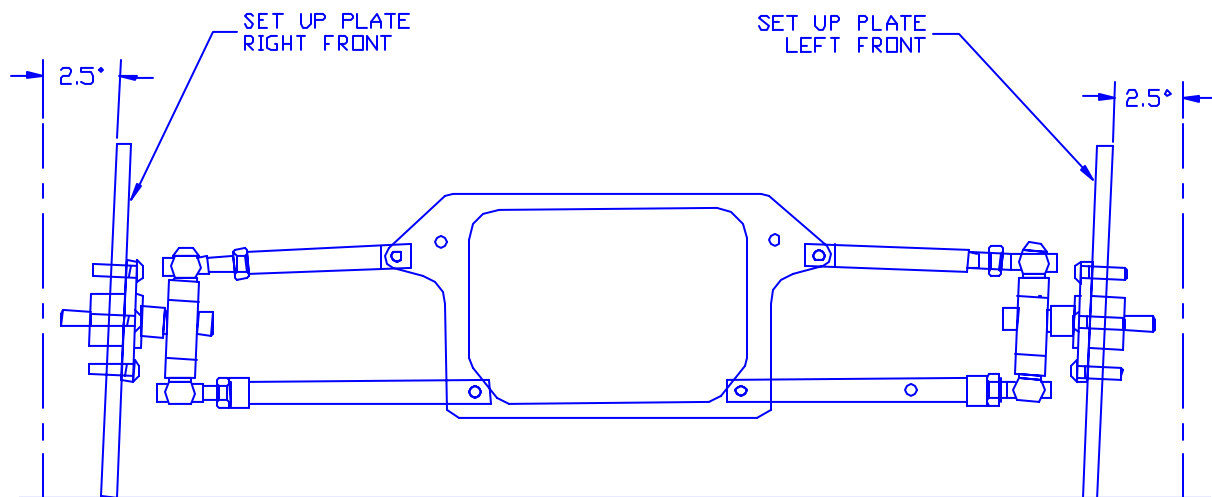


Left Rear: 3.5 deg. is the factory setting. Increasing the angle will tighten the car up and decreasing the angle will loosen up the car.

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.

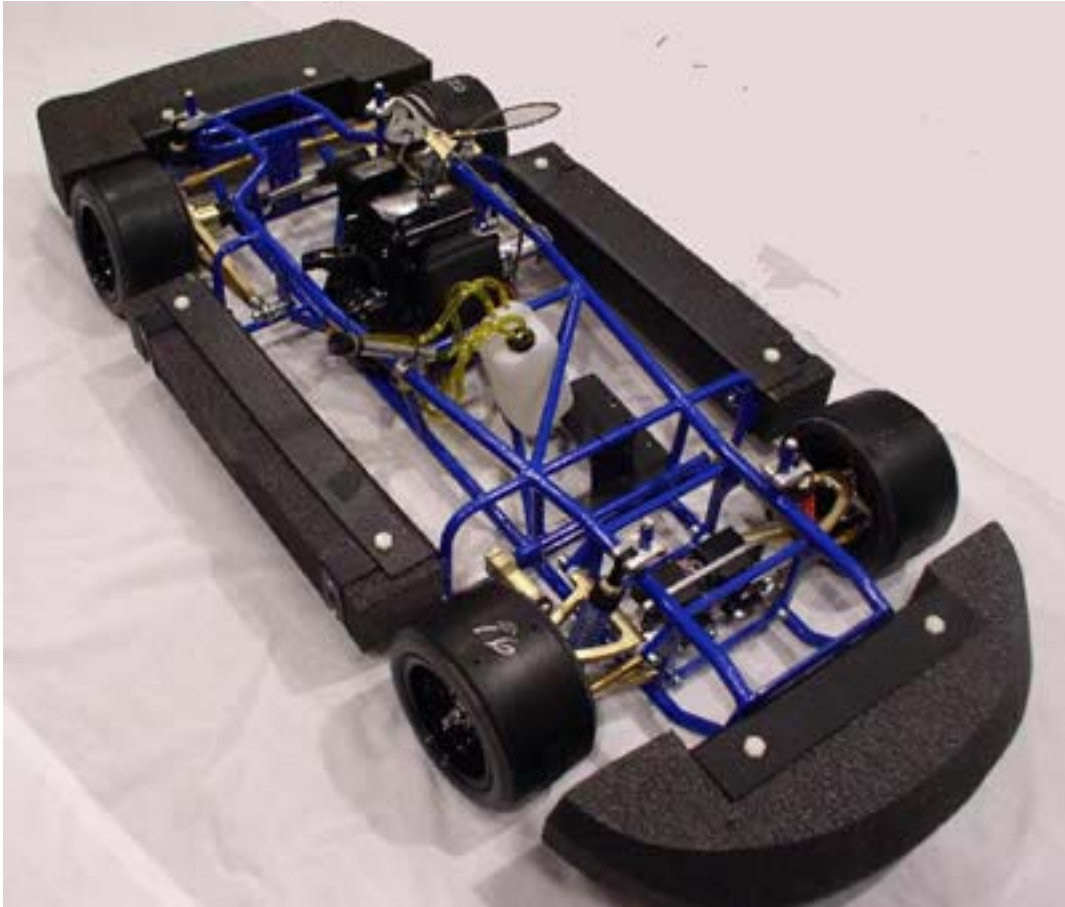


FRONT CAMBER SETUP (LOOKING FROM FRONT OF CAR)



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 ¼ scale 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 3500 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

- 5 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. RC230 Zenoah engine
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.

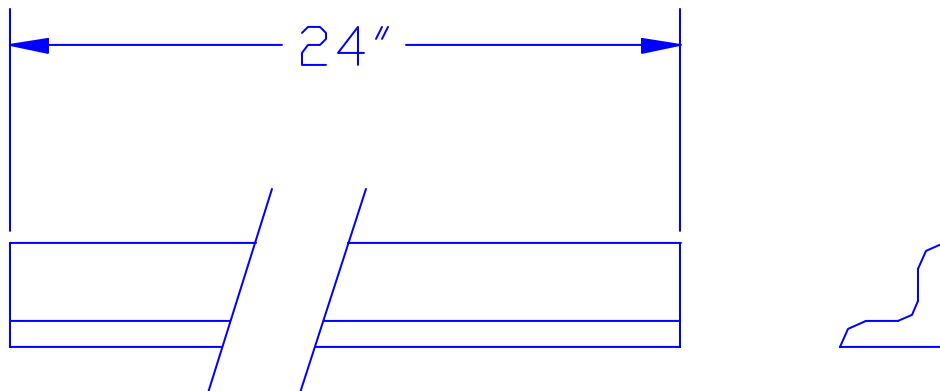
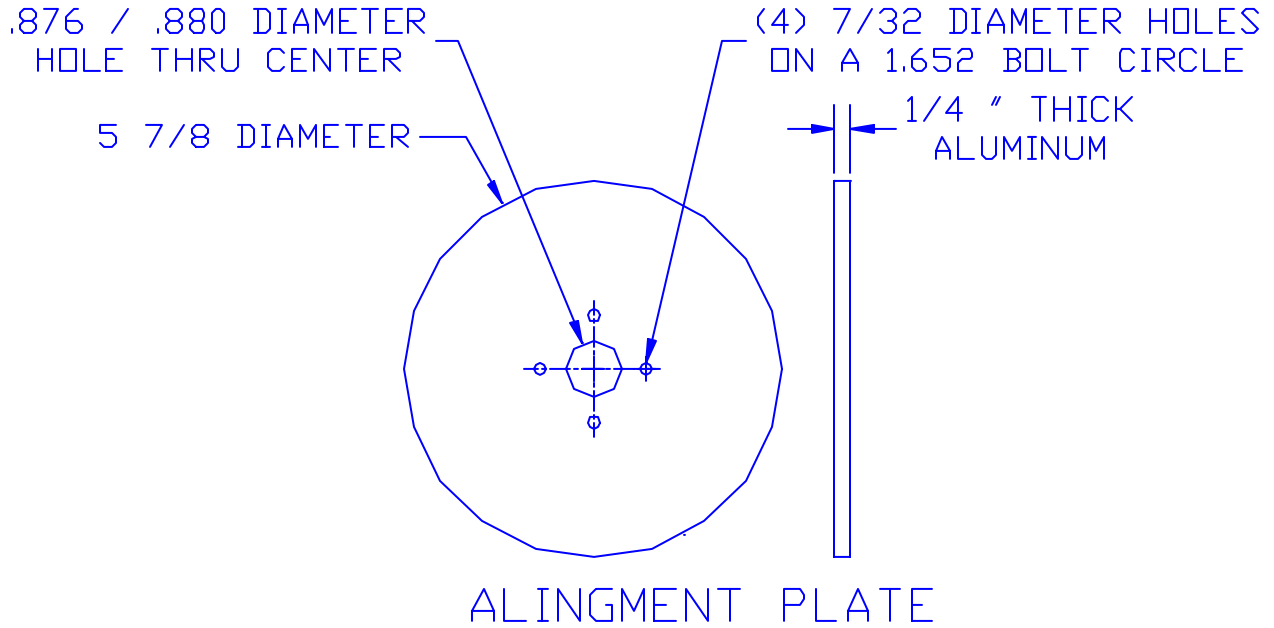
Price: \$1,595.00 fully assembled, less electronics and body

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