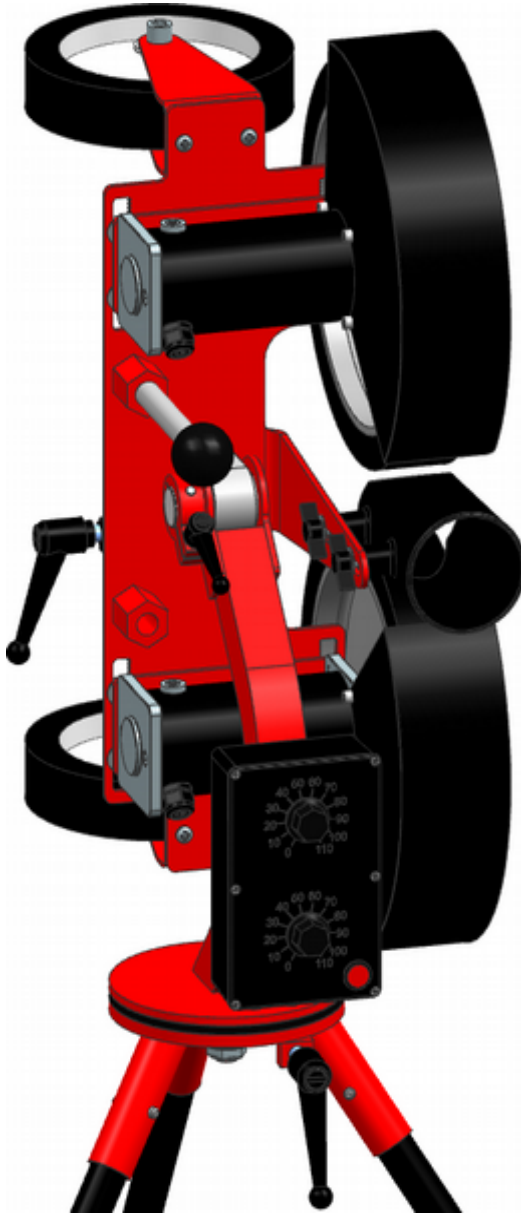




Pro Line Two Wheel Pitching Machine



CAUTIONS

- This machine is not a toy! Use under adult supervision only.
- Machine will throw balls and strikes- batters must stay alert and always wear a helmet.
- Use only regulation sports balls, or balls specifically designed for machine use.
- Hold machine steady when loosening joints for adjustments. The machine is not fully balanced and may move under its own weight if not held in place.
- Use a grounded (3 prong) outlet only. Use a GFCI outlet when machine is operated outdoors. Do not use the machine in wet conditions.
- Do not store the machine with the urethane wheel tread compressed against the ground. Flat spots will develop. Storing machine in very hot, humid conditions can accelerate wheel tread aging.
- Machine operator (person feeding balls into machine) should stay behind a protective screen.

FAST, FREE, FRIENDLY HELP

Rawlings® Pro Line 2 and 3 wheel pitching machines are manufactured, sold, serviced, and supported by Spinball Sports LLC. For assistance assembling or using your machine, please view our videos online, call us at 618-244-4587, or email us at info@spinballsports.com.

ASSEMBLY / SET UP

INSTALL HANDLES Thread the clamp handle into the shaft clamp on the back of the machine and tighten it so the machine doesn't pivot freely on the shaft. Thread the ball ended aiming handle into the top hexagonal base. See Figure 1.

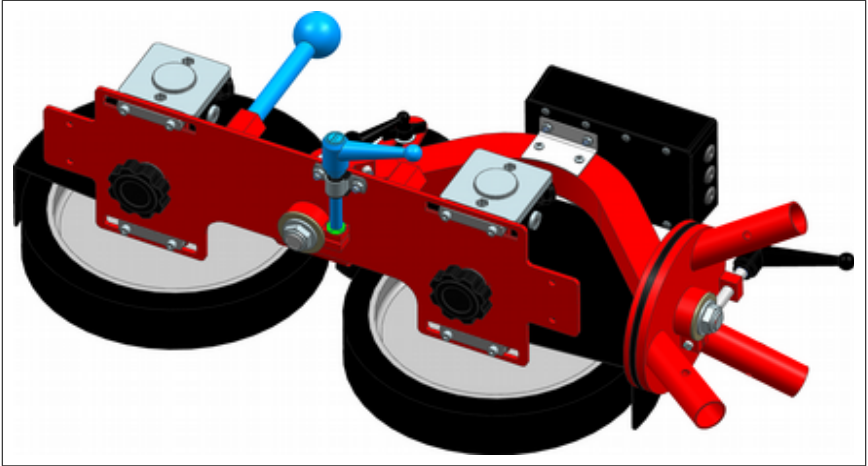


Fig. 1: Handles shown in blue. Note location of bronze washer shown in green.

LEGS Slide the legs into the sockets on the tripod base until the spring loaded buttons pop up and set the machine upright. See Figures 2a & 2b.

BALL FEEDER TUBES Use the 3" tube for baseballs, tennis balls, or cricket balls, and the 4" tube for softballs. Attach the tube to the machine using the two included thumb screws. Position the feeder tube to clear the wheels by 1/4 - 1/2". Placing the tube in contact with the wheels will damage the tube and wheels, and may cause the tube to be grabbed and thrown. Placing the tube too far away from the wheels will diminish the machine's accuracy. See Figure 3.

TRANSPORT WHEELS The two transport wheels are installed with two screws each. These screws (and matching nuts and washers) are shipped pre-installed in the bracket holes. See Figure 3.

MOTOR / WHEEL POSITION The gap between wheels is a critical adjustment to maximize pitch speed and accuracy. The optimal distance between wheels depends on the size and compressibility of the ball being used. Softer, more compressible balls require a smaller gap

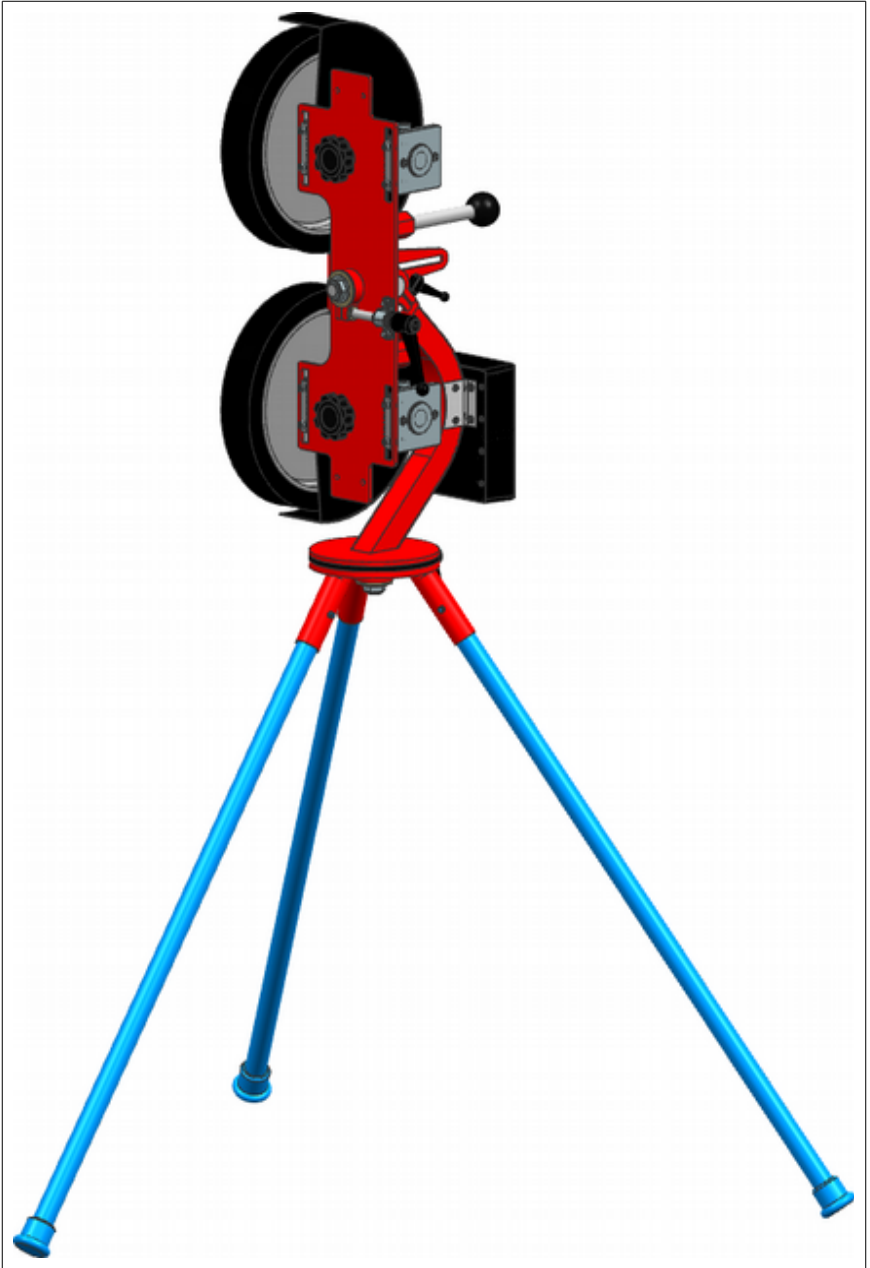


Figure 2a: *Baseball leg installation*

than harder balls do. And of course, softballs require a much larger gap than baseballs. Too small of a gap will slow the wheels noticeably when pitches are thrown, producing a loud “thunk”. Too large of a gap will not

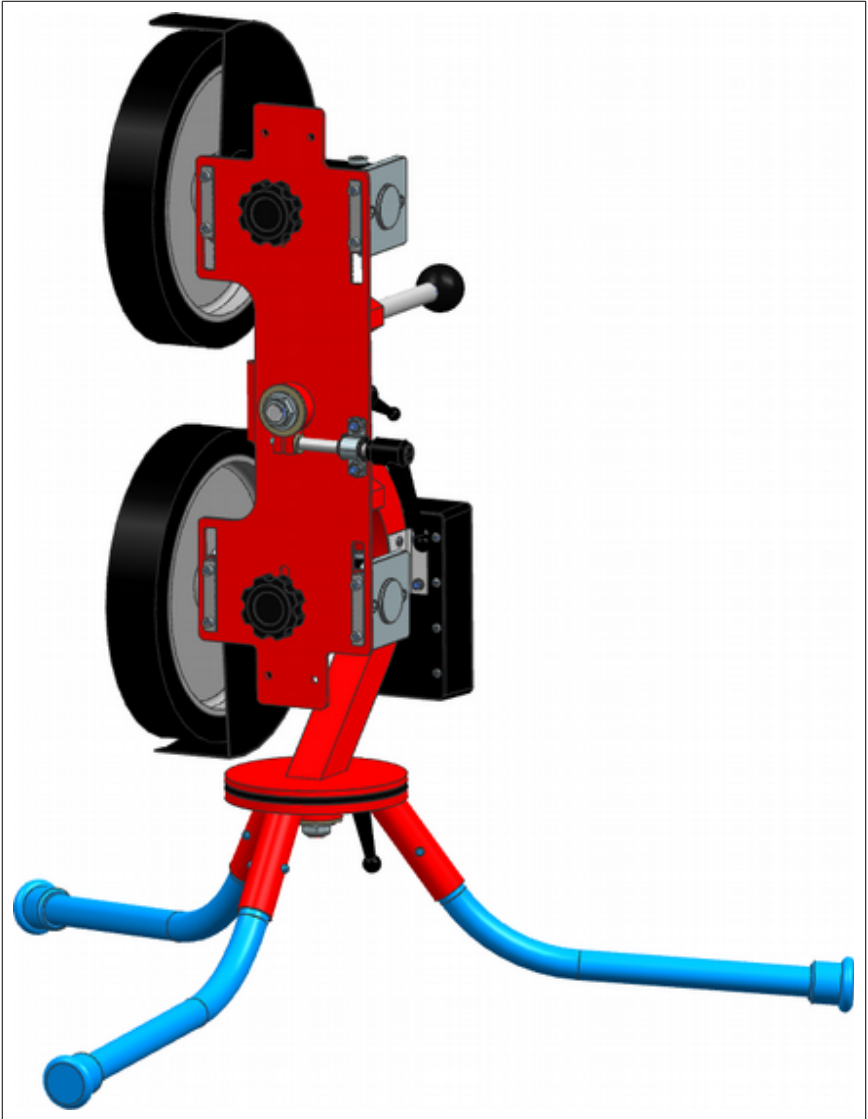


Figure 2b: Softball leg installation

generate enough squeezing force on the ball, and pitches will be too slow, without enough spin. As a general rule, when the gap is correct, you should be able to feed a ball through an unpowered machine by rotating the wheels by hand with a moderate effort.

Each motor & wheel assembly has two profiled blocks that interlock with profiled pockets in the frame. There are 11 possible locations. By counting the number of empty notches on either side of the blocks, you

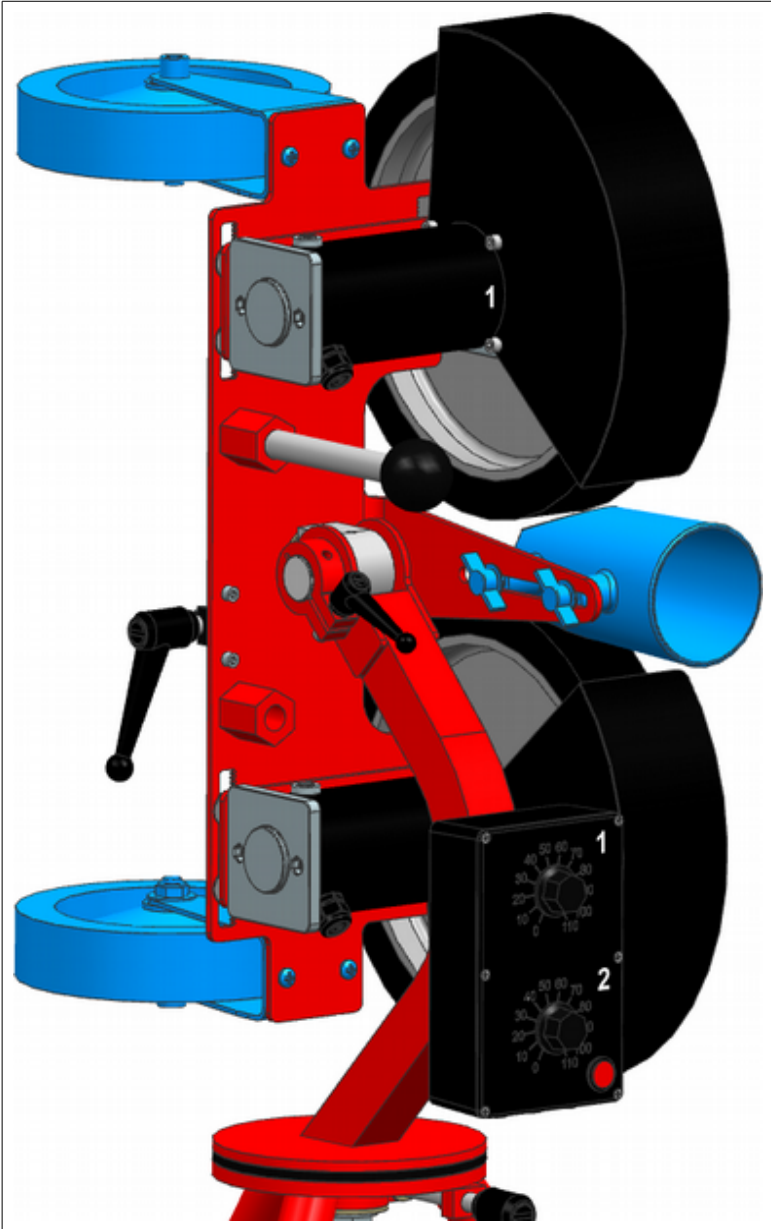


Figure 3: Ball feed tube and transport wheel installation

can quickly and precisely locate each of the wheels. See Figures 4 and 5 for the typical positioning for real baseballs and softballs. For baseball, the blocks are in the center position, with 5 empty notches on each side of the block. For softball, the blocks are located at the outermost position,

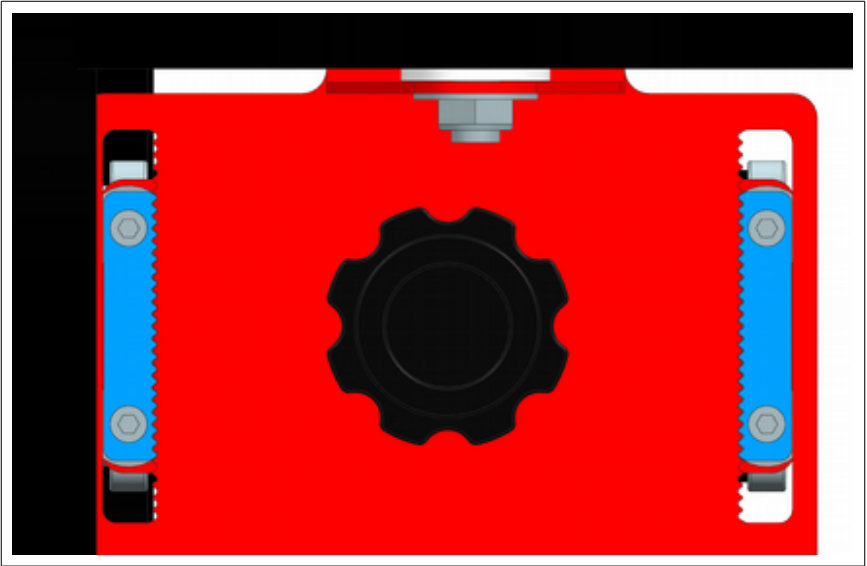


Figure 4a: Real baseball positioning block location (top wheel)

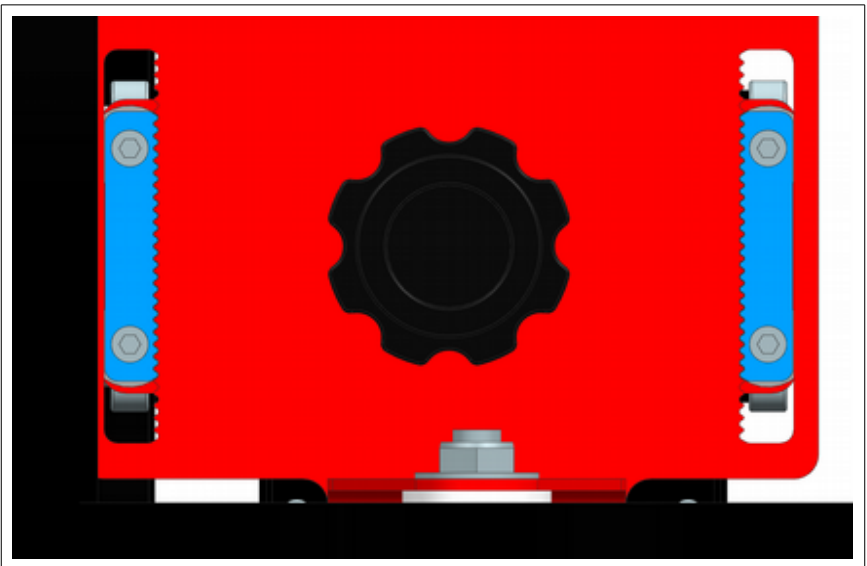


Figure 4b: Real baseball positioning block location (bottom wheel)

with all 10 empty notches on the inside. Each wheel and motor assembly should be moved one step inward from these locations when using soft dimpled balls, creating a tighter grip on the compressible ball.

The wheels are moved by loosening or removing the clamping knob that

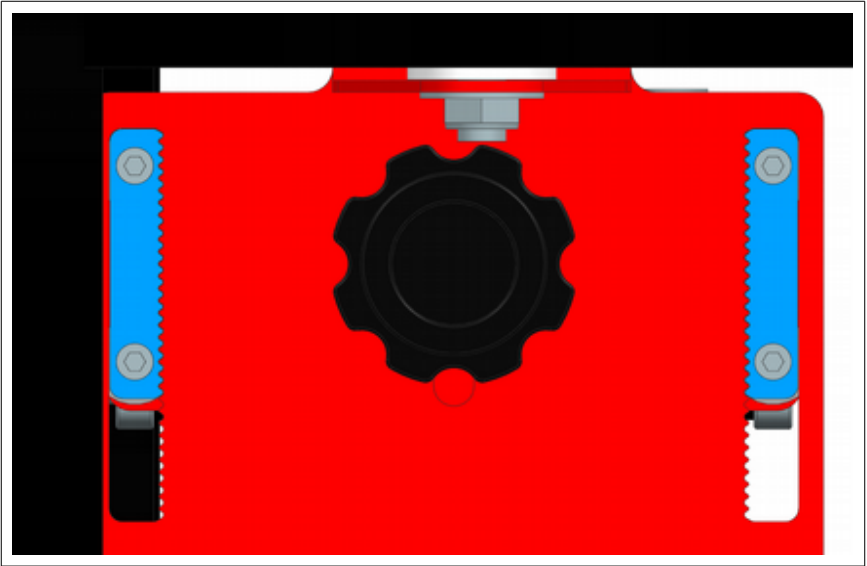


Figure 5a: Real softball positioning block location (top wheel)

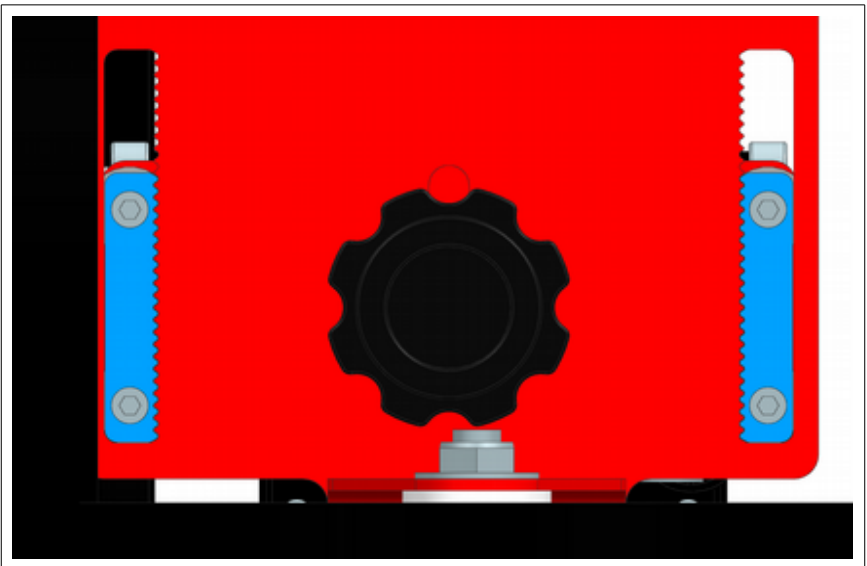


Figure 5b: Real softball positioning block location (top wheel)

holds each motor to the frame. Be sure to support the motor / wheel assembly when removing the knobs – do not let the motor fall or hang by its cord. Reposition the motor & wheel assembly as desired, then re-tighten the clamping knob.

The positions shown in Figures 4 & 5 are just starting points and may require adjustment for optimal performance. Each motor does not need to be set at the same distance from center, but they should not be more than one setting apart.

Feel free to experiment and deviate from these suggestions to determine the optimal wheel gap for your situation. For example, cold weather will cause both the balls and wheels to harden, requiring a larger wheel gap than when the same machine is used in hot weather. Also, once the wheels begin to wear, they will need to be moved closer together to compensate.

OPERATION

SPEED CONTROLS The wheel speeds are individually controlled by rotary knobs. Both the knobs and the motors are labeled '1' and '2' to keep track of which motor is controlled by which knob even if the machine is rotated upside down. Because softballs are heavier than baseballs, actual softball pitch speed will be 15% slower than indicated.

ADJUSTING MACHINE ORIENTATION The machine is positioned using 3 different clamping handles: horizontal, vertical, and twist angle. The horizontal and vertical pin joints are used to aim the pitch while the twist angle is used to change the direction of ball spin and therefore ball curve. When using the machine for defensive drills, the horizontal and vertical pin joints can be left loose to let the machine swivel freely, but the twist angle should always be locked during use to prevent accidental movement.

Each joint is locked by turning the clamping knob clockwise until tight. To adjust the machine, grasp the machine's ball ended aiming handle and turn the clamping knob counterclockwise until the joint is loose enough to move. The machine can then be rotated to the desired position and the joint locked back in place.

Be sure to grab the aiming handle before loosening any joint to keep the machine from rotating under its own weight. The best practice is to loosen the joint just enough that you can adjust the machine with a little effort, but not loosen it enough that it can flop around on its own. For small horizontal adjustments, it is often easier to rotate the entire machine instead of adjusting the joint, but it is a matter of personal preference.

When the machine is inverted, it may be necessary to move the aiming handle to the other hexagonal base so that it clears the rest of the

machine as it is aimed.

THROWING DIFFERENT PITCHES Thrown balls will tend to curve in the direction they are spinning, and the greater the spin, the more the curve. Spin is imposed on the ball by setting one wheel to turn faster than the other- the ball will spin & curve away from the faster wheel. By rotating the machine on twist angle pin joint, you can set the curve in any direction. The speed of the ball will be the average of the wheel speed settings. For example, setting one wheel at 60 and the other at 90 will result in a 75 mph pitch. A laminated chart is included for guidance, but it should be considered a starting point.

The most common mistake for new users is to set both wheels to the same speed for a fastball. If both wheels are set to the same speed, the machine will throw a knuckleball. A fastball has backspin, so the lower wheel must be set to a higher speed (by 20-40 mph) than the top wheel.

ACCURACY The primary factor behind pitch accuracy is the consistency of the balls. While you can use many types of balls (real or dimpled / high or low seam / compressible or hard) you can not mix them in one setup and get consistent results. They must be dry and in good condition. Dimpled machine balls will be more accurate than leather baseballs, especially after use. Softer balls tend to be more accurate than harder balls because the wheels grip them better. Lower seams are better than high seams (and cause less wheel wear). Rolling the ball into the feeder tube so that the wheels grab across the seams is better than along the seams (4 seam is better than 2 seam). The more consistent the balls are, the more consistent the pitches will be.

Another key factor is the distance between wheels - see *Motor / Wheel Position* earlier in this manual for a full discussion.

A third factor is the cleanliness of the wheels. After use, especially with new plastic balls (both dimpled and laced), the wheels can accumulate a residue from the balls. The residue is slick and prevents the wheel from grabbing the ball sufficiently. The wheels can easily be cleaned with solvent cleaners such as MEK or lacquer thinner. Cheap synthetic leather baseballs wear quickly and leave excessive residue, so we recommend against their use. We also recommend not using the Jugs brand Pearl® baseballs. They seem to be very slick and not as accurate as standard baseballs, at least with our machines.

If pitches seem to wander during use, check that the pin joints are all tight. Also check that the entire machine is not moving from recoil. When used on a hard slick flooring surface such as hardwood or cement, the machine should be set on a carpet scrap or nonslip mat.

SPEED The speed displays are very close to actual pitch speeds, but they are not exact. There is no economical way to compensate for the different types, weights, and conditions of the variety of balls that might be used. The speed settings are, however, very consistent and repeatable, so that once a machine is set, it will deliver consistent speed and accuracy.

MISCELLANEOUS

WHEEL BALANCING Our wheels are balanced 10X more accurately than a typical car tire. Should your wheels require re-balancing for any reason we will rebalanced them for you for free. Shipping each way is not covered. Bent wheels can not be rebalanced.

GENERATORS This machine may be powered by a standard household outlet or a portable gas generator. The machine will pull a maximum continuous load of 3 Amps (360 Watts) at 120V AC, but we recommend a generator capacity of 700W minimum. Be sure when selecting a generator that you check the actual electric output power rating, not the gas engine output, which is often how they are advertised.

INVERTERS You can also power your machine with a 12V marine battery with a 120V AC inverter. However, only true sine wave inverters, which are much more expensive than modified sine wave (MSW) or square wave inverters, will work. 1000W is the minimum recommended output due to high startup currents.

MAINTENANCE If stored outdoors, always keep the machine covered to protect it from rain. Tarps are available at any local hardware store, but even a large black trash bag will work. Do not leave the machine outside during storms. High winds can blow the machine over and damage the wheels and/or motor shafts. This is not normal use, and is therefore not covered by warranty. Ball residue may be cleaned from the wheel tread with a rag and a solvent cleaner such as lacquer thinner or MEK.

WARRANTY If your machine doesn't perform like you expect, please contact Spinball and we will attempt to diagnose the problem for you. If a part fails during the warranty period and you feel confident you can install it yourself, we will send the replacement part for free. If something goes wrong during the first 30 days you have the machine, you can also choose to exchange it for a new one. After 30 days, if you need to return the machine for repairs, you will have to pay for return shipping. We will repair the machine and return the machine back to you at our expense.

All components of your machine are covered for non-commercial use for five years from the date of purchase, but wheels are wear items which are prorated just like car tires. For example, if a wheel only lasts 3 years, you will receive 40% off the price of a new one. The warranty does not cover cosmetic issues, normal wear, or misuse of the product. For commercial use, the warranty period is one year.

