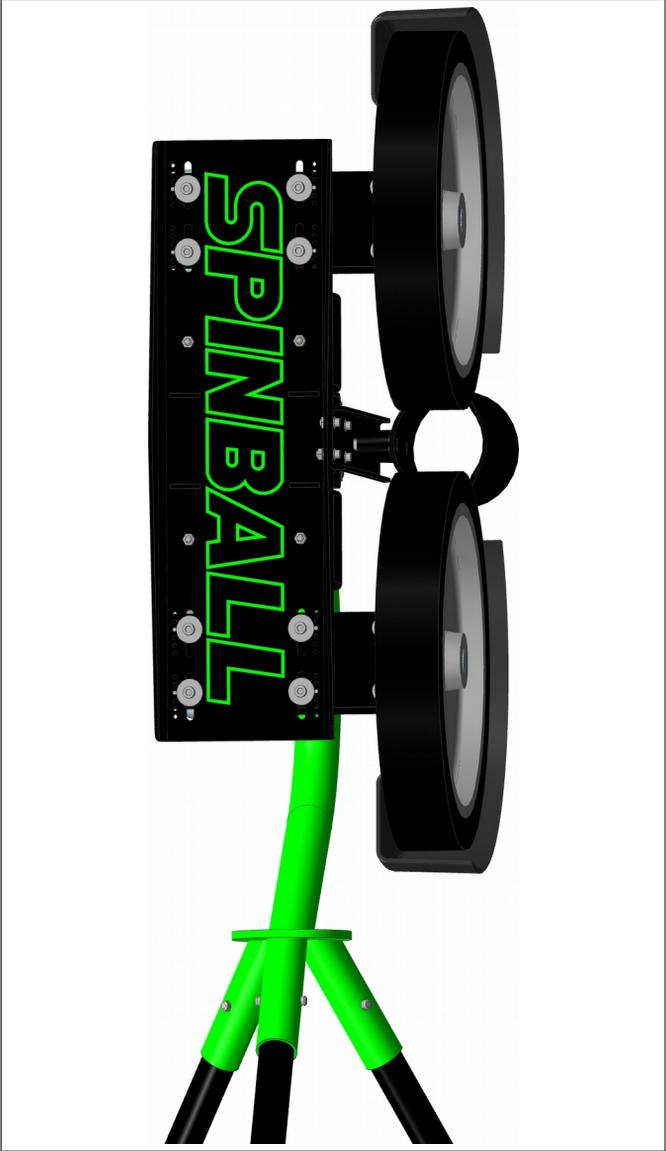


SPINBALL



Spinball Two Wheel Pitching Machine
Owner's Manual

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 ball joint for adjustments. The machine is not fully balanced on the ball joint and may move under its own weight if not held in place.
- Use a grounded (3 prong) electric 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.
- Never use a machine with a bent or deformed aluminum wheel.
- Machine operator (person feeding balls into machine) should stay behind a protective screen.

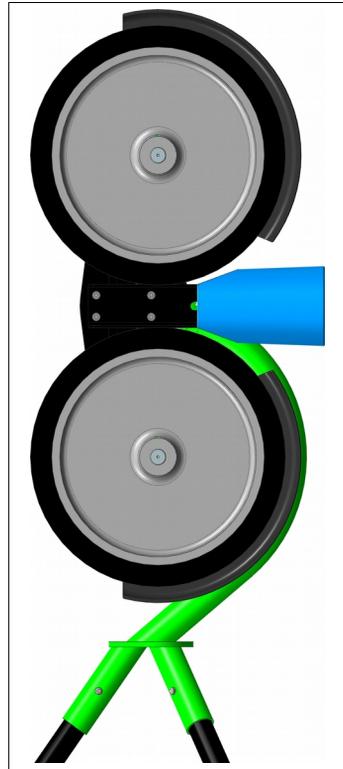
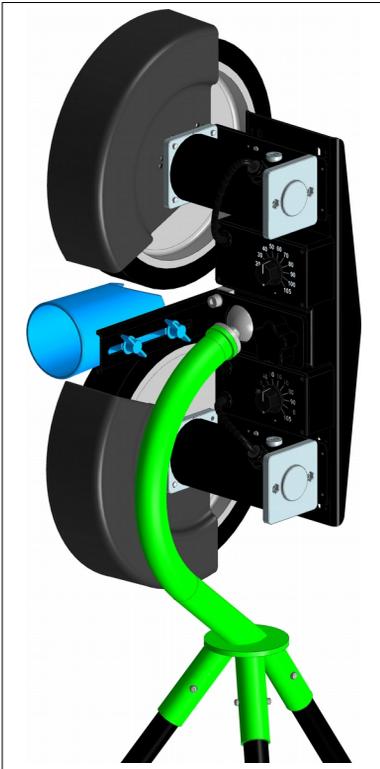
FAST, FREE, FRIENDLY HELP

For assistance assembling or using your machine, please view our videos online at www.spinballsports.com, call us at 618-244-4587, or email us at info@spinballsports.com.

ASSEMBLY / SET UP

LEGS Slide the legs into the sockets on the tripod base until the spring loaded buttons pop up and set the machine upright.

BALL FEEDER TUBE 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 can 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 Figures 1 & 2.



Figures 1 & 2: Install ball feeder tube as shown. Tube shown in blue.

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 than harder balls do. Too small of a gap will slow the wheels when pitches are thrown, producing a loud “thunk”. Too large of a gap will not generate enough squeezing force on the ball, and pitches will be too slow, without enough spin.

The Spinball Wizard uses a pegboard type system to ease wheel alignment and spacing. A grid of mounting holes provides a fixed number of positions for motor placement and automatically aligns the motor and wheel in each of those positions. See Figures 3 & 4 for a typical laced baseball setup.

The wheels are moved by removing the four socket (Allen) head cap screws that hold each motor sled to the frame. A 3/16” Allen wrench is

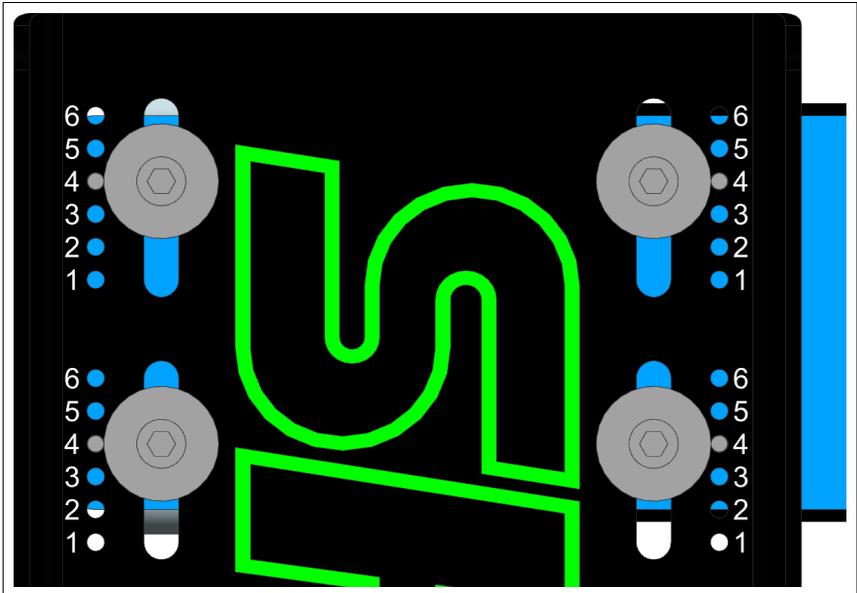


Figure 3: Top motor position numbering system. Motor sled locating pins shown in position 4 of 6. Motor sled shown in blue for clarity. Hole numbers are shown to illustrate numbering system only, and do not actually appear on machine.

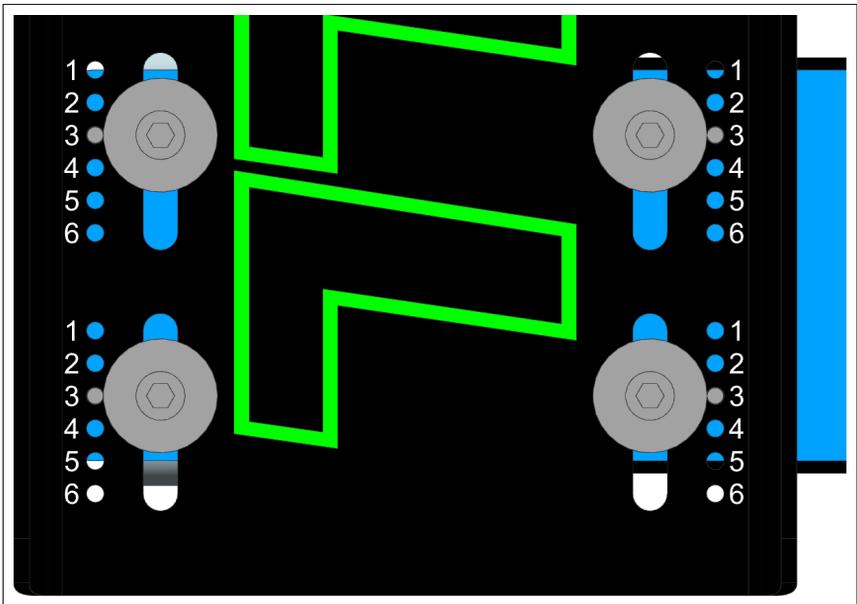


Figure 4: Bottom motor position numbering system. Motor sled locating pins shown in position 3 of 6. Motor sled shown in blue for clarity.

stored in a plastic clip on the back on the machine. Be sure to support the motor / wheel assembly when removing the screws – do not let the motor fall or hang by its cord. Reposition the motor & wheel assembly as desired, then re-install the four screws. (The screws don't necessarily need to be fully removed during this process - you can just back them off enough to be able to move the motor.)

Table 1 provides guidelines on where to position the motors for various types of balls. Top and bottom motors do not need to be at the same location, but they should not be more than one setting apart. Feel free to experiment and deviate from these locations to determine the optimal wheel gap for your particular 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 wear down, they will need to be moved closer together to compensate.

Ball Type	Top Motor / Wheel Pin Location	Bottom Motor / Wheel Pin Location
Soft Dimpled Baseballs < 85 mph	3	3
Soft Dimpled Baseballs > 85 mph	3	2
Real Baseballs	4	3
Soft Dimpled Softballs	5	5
Real Softballs	5	6

Table 1: Typical motor / wheel location setups for a new machine. A ball is considered “soft” if you can push your thumb into it 1/16” or more. To get technical, “soft” is a durometer or 70A or less.

This system is unique to Spinball built pitching machines. Adjusting the wheel gap may seem like extra work, but the improved performance is well worth the effort.

OPERATION

SPEED CONTROLS The wheel speeds are individually controlled by rotary knobs. The actual pitch speed for baseballs will be the average of the two wheel speeds - see "Throwing Different Pitches" below. Because softballs are heavier than baseballs, they are thrown roughly 15% slower than baseballs. A small deadband, where the motor clicks but doesn't actually turn, is normal below a speed setting of 10-15mph.

ADJUSTING MACHINE ORIENTATION The machine is positioned by use of a single ball and socket joint. The joint is locked by turning the clamping knob clockwise until tight. To adjust the machine, grasp the machine's frame and turn the clamping knob counterclockwise until the joint is loose enough to move. Then rotate the machine to the desired position and lock the joint in place. 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 horizontal adjustments, it is often easier to rotate the entire machine slightly instead of adjusting the ball and socket joint a tiny amount.

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 its ball joint, you can set the curve in any direction. The speed of the pitch 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 only be considered a starting point. Please feel free to call or email us with questions.

The most common mistake for new users is to set both wheels to the same speed to throw a fastball. However, if both wheels are set to the same speed, the ball will have no spin and the pitch will actually be 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 to throw it.

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. Balls 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. Low seams are better than high seams (and cause less 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 for top accuracy is setting the proper 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 be cleaned with lacquer thinner and a Scotch Brite pad.

Cheap synthetic leather baseballs wear quickly and leave excessive residue, so we strongly discourage their use. This includes the Wilson A1010S.

If pitches seem to wander during use, check that the ball and socket joint is 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.

We have found that Jugs' Pearl brand baseballs are slicker than standard baseballs, and because of that, they are far less accurate in our machines than standard baseballs.

SPEED The speed dials are very close to actual baseball 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 or deformed aluminum wheels must be replaced.

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 4 Amps (480 Watts) at 120V AC, but we recommend a generator capacity of 800W 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 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 lacquer thinner and a Scotch Brite pad.

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 like car tires. For example, if a wheel or motor 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. Warranties are not transferable.

We don't want anyone to be unhappy with their purchase, so products may be returned at your expense for any reason within 30 days for a full refund minus a 15% restocking fee. This fee is the lowest in the industry and covers both our outgoing shipping costs and minor cosmetic damage to the machine. Refunds will be reduced to cover any non-cosmetic damage.

THANK YOU! Thank you for buying from Spinball Sports. We hope you will enjoy your new pitching machine for many years to come. If you have any questions or comments please email us at info@spinballsports.com or call us at 618-244-4587. And thanks again!