

B1-Curveball

Pitching Machine

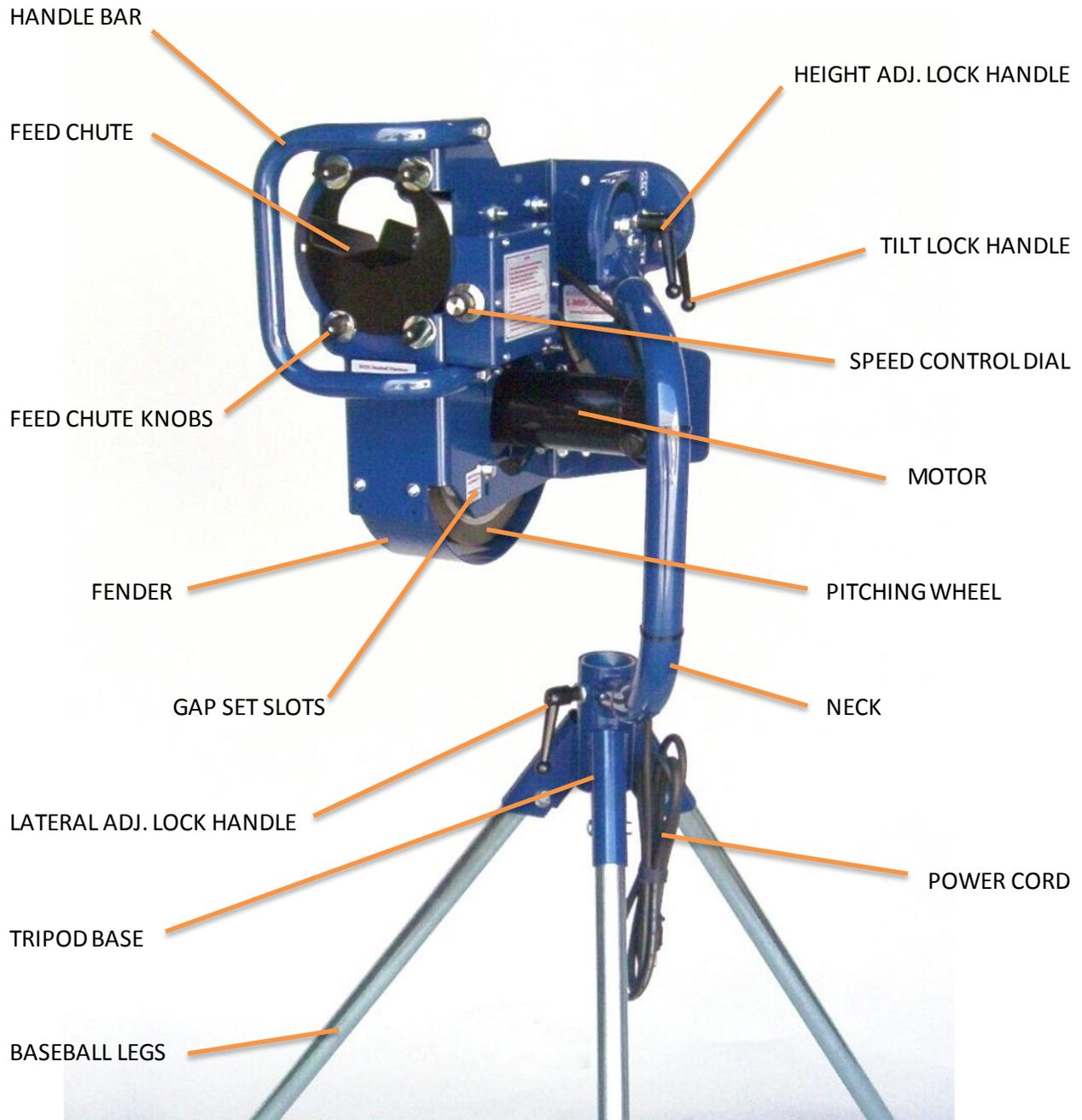
Owner's Operating Manual

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B1-Curveball Pitching Machine

PARTS OF THE MACHINE



REMOVING CONTENTS FROM PACKAGE

1. Before removing the main part of the machine from the box, set up the **Tripod Stand** assembly. If you ordered the QRL with the machine, it has been factory installed. Slide each of the 1¼ diameter x 40 straight baseball legs (below left) or 1¼ x 24 bent softball legs (below right) into the Tripod Base and secure them with the nuts and bolts provided, or QRL, (already installed in the Base). Hold each leg with your hand as you tighten the nut. Rotate the leg as you tighten. Tighten the nut or QRL handle until the leg will not rotate.



2. Remove the lock handle, carriage bolt, and washer, which have been pre-installed, from the Tripod Spindle.
3. After setting up the Tripod Stand, remove the main part of the machine from the box/crate. There are four ½" hex nuts holding the body of the machine to the wooden pallet. Remove the nuts and washers, and (using two people to lift it), lift the machine out of the box and place it directly onto the stand.

4. Install the 3/8" x 1" carriage bolt from the inside of the Spindle. Slip the flat washer onto the bolt from the outside, then thread the Lock Handle back onto the bolt. The carriage bolt may be rotated in increments of 90 degrees. If you want to change the lever angle of the Lock Handle, loosen the handle about ¼", enough to allow the carriage bolt to be pushed out of the slot on the inside of the Tripod Spindle. Once the square pilot of the carriage bolt is free from the slot, rotate it as needed, then tighten the Lock Handle back onto the bolt.



5. Option: Once the Neck is on the Tripod Base and the Lock Handle is installed, you may feed the power cord down through the center of the Tripod Spindle to keep it out of the way.
6. If you ordered the Transport Wheels Kit, install it now. Scroll down for instructions.
7. If you ordered a Baseball only machine, it is factory set for baseball. If you ordered a Softball only machine, it is factory set for softball. If you ordered a Combo machine, it is factory set for baseball unless otherwise specified. (See GAP SELECTION).

WARNING

This machine is NOT guaranteed to 100% accurate. Although each machine is thoroughly inspected and tested before leaving the factory, occasional errant pitches may occur (and should be expected), due to balls in poor condition, moisture or debris, careless or negligent use, improper settings, improper maintenance, mechanical failure, or other factors.

EXPECT TO HAVE TO REACT TO ERRANT PITCHES IN THE SAME WAY YOU WOULD IF YOU WERE BATTING OFF A REAL PITCHER.

It is important to make sure that all safety precautions are taken, and to instruct all participants on proper operating procedures and rules prior to allowing them to use your machine. It is your responsibility to make sure that your machine is maintained in proper operating condition.

SAFETY INSTRUCTIONS

1. Never use this machine in wet or moist conditions.
2. Never stand or walk in front of the machine while it is running.
3. Wear eye protection when manual feeding.
4. Keep hands away from all moving parts.
5. Wear a batting helmet when batting.
6. Turn the machine OFF and wait for the wheels to stop rotating before making adjustments to the machine (other than speed and location).
7. DO NOT attempt to stop the wheels from rotating, and DO NOT touch anything to the wheels, even after turning OFF the machine.

8. Place a protective screen in front of the machine to protect the machine and operator. The warranty does not cover damage from batted balls.
9. If any unusual or loud noises occur with the machine, disconnect the power immediately and discontinue use until the cause can be resolved.

GAP SELECTION

The term “GAP” refers to the space between the pitching wheel and the Compression Pad. This machine will throw different types and sizes of balls. However, a different GAP is required for each. For example, a softball requires a larger GAP than a baseball (Combo machines).

It is not necessary to change the GAP very often, if at all, unless you plan to use different types of balls. For example, if you are going to pitch only leather baseballs, you can leave the GAP at the factory setting. If you are going to pitch baseballs sometimes and softballs sometimes, you will need to change the GAP accordingly for each type of ball.

When your machine is new, pay attention to the LEATHER BASEBALL / LEATHER SOFTBALL settings, indicated by a sticker near the lower left motor mount bolt.

STICKER

(shown in SOFTBALL position)



Three of the four slots for the Motor Mount Bolts are elongated completely. The bolt (near the STICKER) is used to set the location of the Motor Mount. As indicated, the upper of the two short slots is for Baseball. The lower of the two slots is for Softball.

With the Motor Mount located with the bolt at the bottom of the slot, it is in the LEATHER ball setting.

With the Motor Mount located with the bolt at the top of the slot, it is in the DIMPLED ball setting. It is important to note, however, that the DIMPLED setting for Baseball is not needed unless you are using a dimpled baseball that is relatively soft.

Normally, our BATA Dimpled Baseball will pitch just fine with it in the LEATHER BASEBALL setting.

To change the setting, using a ½" wrench, loosen the 3 motor mount nuts just enough to allow the motor mount to slide, remove the locator bolt, and position it as needed. Re-install the bolt, and tighten the bolt and the nuts to secure it.

NOTE: The Feed Chute must also be changed if switching from baseball to softball or vice versa. The Fender location must also be positioned properly. For baseball, the Fender may be in either the upper location or the lower. For softball, the Fender MUST be in the lower location. If you plan to change back and forth from baseball to softball, you may leave the Fender in the softball (lower) position.

NOTE: FAILURE TO SET THE GAP PROPERLY MAY DAMAGE THE MACHINE.

The following information is somewhat technical and wordy. Please don't let it confuse you. We are including it for future reference. When your machine is new, most of it will be irrelevant. Keep your Operating Manual for future reference.

If, at some point, the pitching wheels have worn significantly, or you are using a ball that is either not a regulation baseball or a BATA Dimpled ball, you may experience inconsistent or errant pitching. The following information may help you trouble-shoot the situation.

If the GAP is too loose, the wheels will not grip the ball tightly enough to pitch it accurately and consistently. This results in pitches that sometimes "die" and fall short of the target, and/or miss the strike zone left or right.

If the GAP is too tight, it will put excessive stress on the motors, resulting in damage to the motors, shortening the life of the motors at the very least, bending or breaking the motor shafts at worst. It will also cause erratic pitching.

There are literally dozens of different brands of dimpled balls on the market, and they are NOT all the same.

A regulation leather baseball has a hardness of about 90 (Rockwell A scale) when new. BATA Dimpled Baseballs have a hardness of about 84. Some dimpled baseballs (other brands) are as soft as 50.

Our machines are designed and calibrated to pitch our dimpled balls and regulation leather balls. We have made adjustments available on the machines to accommodate other softer varieties of balls, but we cannot guarantee that our machines will pitch them properly.

You've just spent a lot of money on a pitching machine. Buying balls at your local store to save \$5 on a dozen balls might not be a good idea. Your best bet is to use balls that are proven to provide quality results with the machine that you purchased. BATA Dimpled balls pitch very well in BATA machines, therefore, we recommend that you use BATA Dimpled balls in your machine (or regulation, high quality leather balls. Low seams are better than high seams).

Double-check your setting. The GAP should measure approximately as follows:

Dimpled Baseball:	2-1/8"	_____	<input type="checkbox"/>
Leather Baseballs:	2-5/16"	_____	<input type="checkbox"/>
Dimpled Softballs:	3"	_____	<input type="checkbox"/>
Leather Softballs:	3-3/16"	_____	<input type="checkbox"/>

Your machine is factory set at one of the following 2 predetermined GAP settings:

Leather Baseballs: (Motor Mount at the bottom of the upper slot): 2-5/16"

Leather Softballs: (Motor Mount at the bottom of the lower slot): 3-3/16"

BASEBALLS:

When your machine is new and the wheels are still full size (no wear), you can pitch leather baseballs and BATA Dimpled Baseballs at the LEATHER (factory) setting up to full speed. Once the pitching wheels have worn down some, you may need to adjust the GAP if you want to pitch at high speeds. See "MEASURING THE GAP WITH WORN WHEELS" (below).

SOFTBALLS:

For pitching softballs, the motor mount is set at the bottom slot. Whether the Motor Mount is set at the top or the bottom of the slot, however, will depend on the type of ball being pitched and the speed.

If you are pitching real leather softballs, the motor mount must be in the down position (bottom of the slot). If you are pitching dimpled softballs, you may need to raise the Motor Mount some in order to get enough compression to grip the ball properly, especially if you are pitching at high speeds. Again, this depends on the hardness (and outer texture) of the ball.

Try your dimpled balls at the standard setting first. If you are pitching at high speeds, you may need to close the GAP some. The tell-tale sign that the GAP is not tight enough is that some of the pitches will look like change-ups. If all of the pitches seem to die and fall short, and seem slower than expected, it is likely that the GAP is way too loose.

If some of the pitches come out at the expected speed, but some die and look like change-ups, the GAP is probably just a little loose. We recommend closing the GAP about 1/16" at a time until you get consistent pitching. Once you have determined the ideal GAP to match your dimpled balls, make a note of it. When the wheels wear, you may need to re-adjust the GAP.

If you purchased a **B1-Curveball Baseball** or **B1-Curveball Combo** machine, the machine is factory set for (harder) BASEBALLS, unless otherwise specified. If you purchased a **B1-Curveball Softball** machine, it is factory set for 12" (harder) SOFTBALLS (real softballs).

You may also pitch 11" softballs in your machine. You can pitch 11" softballs at the 12" softball setting up to about 40 mph. If you want to pitch 11" softballs faster than 40 mph, you may need to reduce the GAP using the DIMPLED SOFTBALL setting.

DO NOT PITCH 12" SOFTBALLS WITH THE GAP AT THIS WIDTH.

It will damage the motors.

CHANGING FROM BASEBALL TO SOFTBALL

NOTE: When you change from Baseball to Softball, you must change the position of the Fender (surrounding the wheel) to the lower (Softball) position. If you plan to switch back and forth from Baseball to Softball, you may leave the Lower Fender in the SOFTBALL position to save time.

Also, when changing from Baseball to Softball, or vice versa, the Feed Chute must be changed to accommodate the ball. The Baseball Feed Chute (lower left) will accommodate only baseballs. Baseballs would fit into the Softball Feed Chute, however, the Softball Feed Chute (lower right), would rub against the lower wheel if you have the wheel in the Baseball position. Therefore, you **CAN NOT** use the Softball Feed Chute to pitch baseballs. The Softball Feed Chute must be installed in order to pitch softballs.

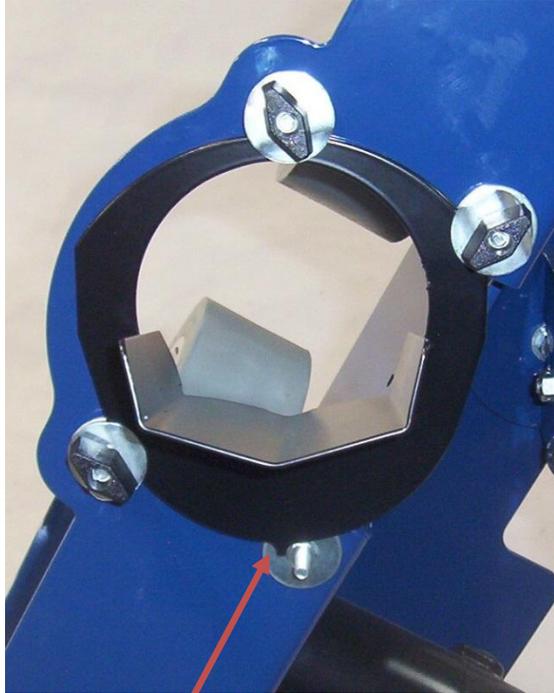


BASEBALL FEED CHUTE



SOFTBALL FEED CHUTE

NOTE: If you are going to pitch both leather AND dimpled balls, you must leave the GAP at the **larger** setting. Pitching leather balls at the “dimpled ball” setting will damage the machine.



POINT

IMPORTANT NOTE:

For Softball, the Feed Chute may only be rotated a maximum of 30 degrees either way (for throwing pitches that tail or break to one side or the other).

Do not rotate the head of the machine any more than will allow the chute to be oriented properly. There is a small point at the bottom of the Softball Feed Chute that limits the rotation.

The POINT must be oriented directly under the ball.

Softball Feed Chute (left)

MEASURING THE GAP WITH WORN WHEELS

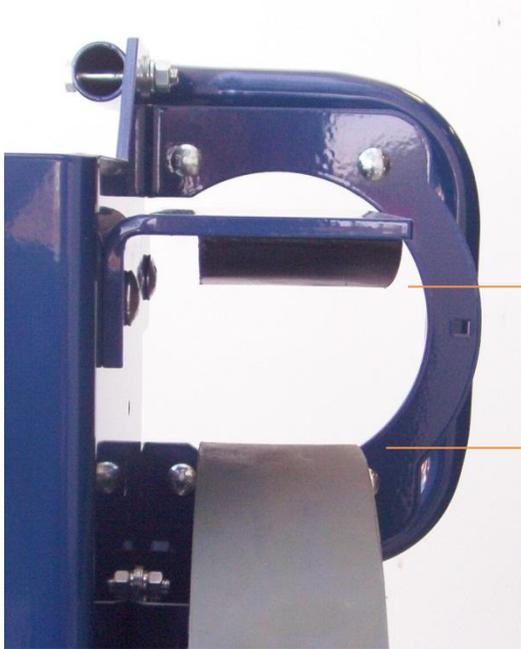
After a lot of use, you will notice a “concave dip” being worn into the rubber on the wheel. This is normal. (See photo, lower right below).

As the dip becomes deeper, the GAP becomes wider. There may come a time when you will need to make adjustments to the machine to reduce the GAP. When the wheel is new, the GAP at the edge of the wheel is the same as the GAP in the center. Once the wheel has worn, the measurement will be different.

How much can the wheel wear before you have to adjust the GAP? That depends on how fast you’re pitching the ball. At lower speeds, a wider GAP will still work. At higher speeds, too wide of a GAP will allow too much slippage, and inconsistent pitching will occur.

To measure the GAP, take a ruler or tape measure and measure from the edge of the wheel to the Compression Pad at the closest point. When the wheel is new, this measurement will be about 2-5/16” (with the GAP at the factory Baseball setting), or 3-3/16” (at the factory Softball setting).

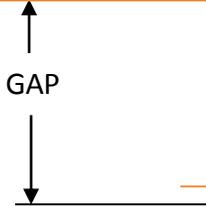
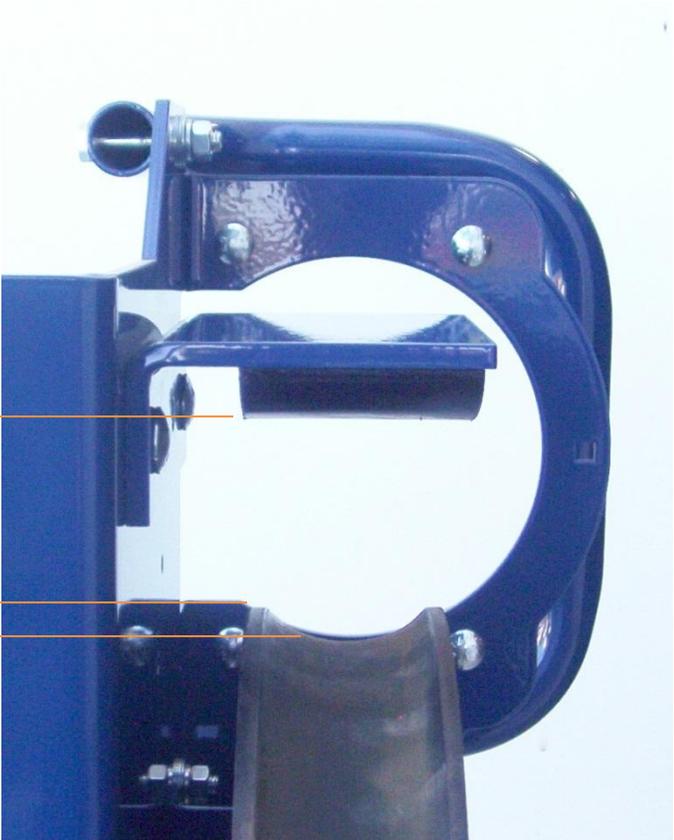
When the wheel is worn, you must do a calculation to determine the ideal GAP. The ideal GAP will be the average between the measurement at the edge of the wheel and the bottom of the concave dip (as shown below, lower right).



New wheel (left):



Worn wheel (right):

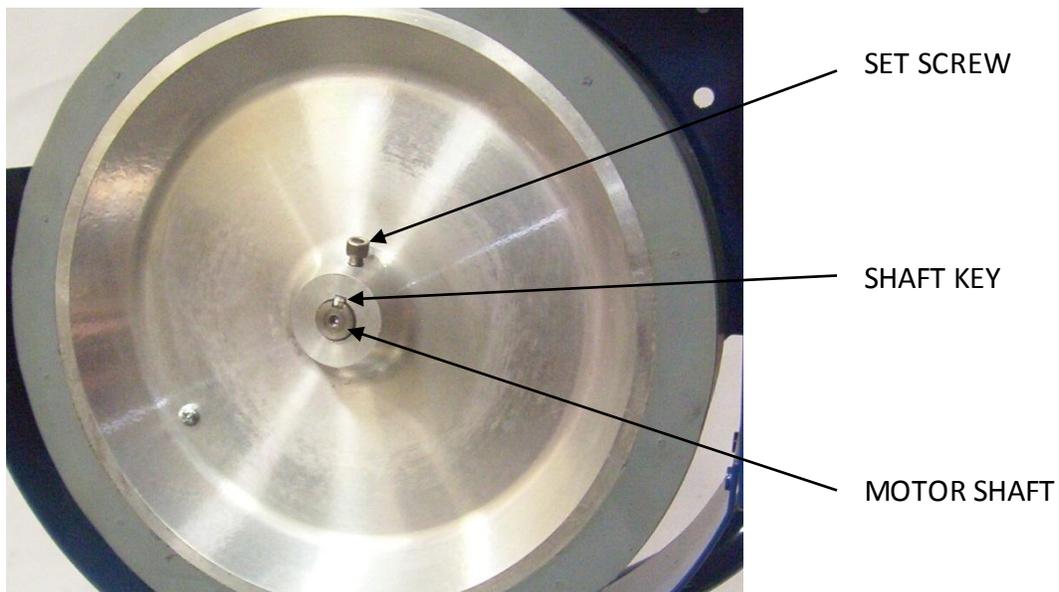


If, for example, if the wheel has 3/8" of wear, divide the total wear (3/8") by 2, that gives you 3/16". So, you would need to reduce the GAP by a total of 3/16". There are a couple of different ways to accomplish this.

One way to reduce the GAP is to move the motor mount within the shorter slots. However, this would only reduce the GAP by a maximum of 2/10". If you need to reduce the GAP by more, you may also use the "Inside" adjustments.

In order to adjust the GAP using the Inside Adjustments, you must remove the pitching wheel. The bolts that are used for this adjustment are located between the wheel and the motor mount. They are not visible without removing the wheel.

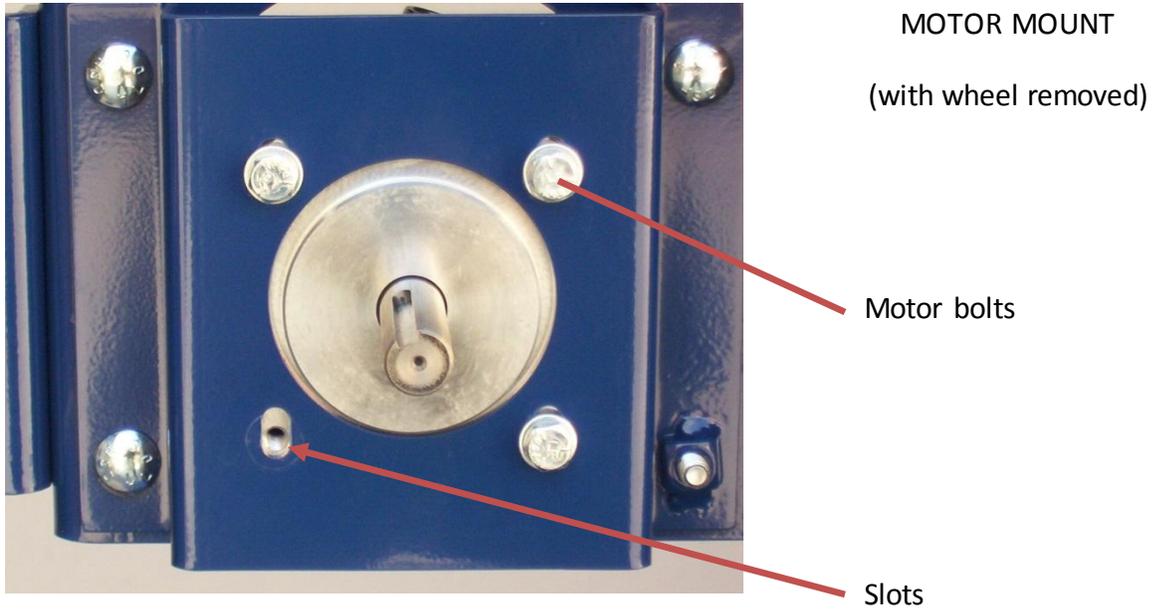
To remove the pitching wheel, using a 3/16" Allen wrench, loosen (do not remove) the set screw about 1/2 of a turn. The set screw tightens against the shaft key (the square pin between the motor shaft and the wheel hub). (Photo below).



Once the set screw is loosened, slide the wheel off the end of the motor shaft. If it does not come off easily, you may need to use a wheel-puller to get it off. Some WD-40 may also help. DO NOT hit the wheel with anything to get it off. This would damage the motor.

Once the wheel is off, you will notice that there are four bolts that hold the motor in the motor mount. These bolts go through slots as well. The slots are elongated 1/4". We use these slots to factory set the GAP properly, but there is still about 2/10" of adjustment available on each motor.

INSIDE ADJUSTMENT



There is a total of about 1/4" of adjustment available here.

Once you have the motor repositioned as needed, tighten the motor bolts. Be careful not to over-tighten them. The motor mounting face is made of aluminum. Then, slide the wheel back on the motor shaft, position the wheel properly on the motor shaft, insert the shaft key, and tighten the set screw.

SCROLL TO THE NEXT PAGE FOR WHEEL POSITIONING

WHEEL POSITION

One of the periodic checks that must be done is the position of the wheels on the motor shafts. This is very important for two reasons.

First, the wheel must be positioned properly so that it is centered to the feed chute.

Second, if the wheel is not properly positioned, the hub of the wheel may rub against the face of the motor, which can cause damage to the machine.



PROPER POSITION



IMPROPER POSITION

To correct it, using a 3/16" Allen wrench, loosen (do not remove) the set screw about 1/2 turn. Slide the wheel back to the proper position with about 1/32 – 1/16" of the end of the motor shaft sticking out past the outside of the wheel hub, and tighten the set screw. It threads into aluminum, so be careful not to over-tighten or strip the threads.

OPERATING INSTRUCTIONS

Before using your machine, perform the following routine checks:

1. Is the machine set to the right GAP?
2. Is the proper Feed Chute installed?
3. Is the wheel in the proper position on the motor shaft?
4. Has the machine been stored / unused for an extended period of time?
5. Are the motor cords connected properly at the plug connection?
6. Are there any loose nuts and bolts?
7. Are the balls dry and in good condition?
8. Do you have the proper power source? (Extension cord)?
9. Are you using a Surge Protector?

HOW TO USE THE B1-Curveball

1. Place the machine on the pitcher's mount or pitching area and visually aim it in the direction of home plate.
2. Select the type of pitch that you are going to throw.
3. Select the delivery angle.

Note: The Feed Chute must be rotated to match the delivery angle of the head. The V of the Feed Chute must be at the direct bottom (under the ball).

4. Select the power source.
 - a. Before plugging the machine into the power source, make sure that the speed control dial is in the OFF position. The dial will click ON and OFF at the "0" mark.

5. Plug a surge protector into the power source.
6. Start the machine by turning the speed control dial clockwise and set it at the chosen speed. (See Speed Control). Allow the wheel to get up to speed before pitching the first ball.
7. Visually aim the machine toward the strike zone. Do not allow anyone to stand near the home plate area yet.
8. Feed one ball into the Feed Chute.
9. Adjust the location up or down, inside or outside as needed.
 - a. To adjust the height, loosen the Height Adjustment Lock Handle about $\frac{1}{4}$ turn, and rotate the head of the machine up or down to change the location, then lock the handle.
 - b. To adjust the inside / outside location, loosen the Lateral Adjustment Lock Handle and rotate the head side to side to change the location, then lock the handle.
10. After setting the speed and location, pitch at least 10 balls to check the location before allowing batters to step in.

Note: There will be some variation from pitch to pitch due to the balls themselves. Do not adjust the location pitch to pitch unless it is off by a lot.

ALWAYS USE A SURGE PROTECTOR TO AVOID ELECTRICAL DAMAGE

NOTE: There is a break-in period for the wheels. You may need to pitch 100 balls or more before the rubber is adequately scuffed up. Do not pitch to batters or expect the machine to pitch accurately until the wheels are broken in.

PITCH SELECTION

IMPORTANT: The Feed Chute **MUST** be rotated to match the angle of the head.

After tilting the head to the desired delivery angle, loosen the four knobs that hold the Feed Chute in place. Rotate the Feed Chute so that the V in the bottom of the Feed Chute is at the bottom, as shown, directly underneath the ball. Tighten the knobs.

BASEBALL DELIVERY ANGLES



Left hand 3/4 Curve (baseball)



Overhand Curve (baseball)



Right hand Curve (baseball)



Left hand Slider



Overhand Fastball



Right hand Slider

For pitching softballs, the head may only be used in the LOWER position, with the Pitching Wheel below the Compression Pad. Softball pitchers do not pitch overhand, therefore the head is not used in the Overhand delivery positions.

Rather than calling the pitches “Curves” and “Sliders”, for softball, we say that they “curve to the left” or “curve to the right”. Less tilt will give you less movement to the sides.

SOFTBALL DELIVERY ANGLES



Curves to the left



Straight pitch



Curves to the right

Notice that the Feed Chute has been rotated to match the delivery angle of the head. The V and the small point on the bottom of the Feed Chute flange must be oriented directly underneath the ball.

Do not tilt the head (for softball) more than the Feed Chute position will allow. If the Feed Chute is not oriented properly, the ball will not roll into the center of the wheel. This could cause errant pitching and damage to the machine.

SPEED CONTROL

The speed will equal approximately 7 x the number on the dial. Maximum speed is 70 mph.

Typically, a slider is about 90% of the speed of the fastball, and the curve is 80%.

Example: Fastball – 70 mph, Slider – 63 mph, Curveball – 54 mph

MAINTENANCE

1. Do NOT operate this machine in temperatures of less than 40 degrees F, or more than 100. Extreme temperatures will affect the rubber tread on the pitching wheels, and the motors.
2. Before using the machine for the first time, and periodically thereafter, make sure that the pitching wheels are in the proper position on the motor shafts. The end of the motor shaft is visible in the center of the wheel's hub. The motor shaft should be positioned with the motor shaft sticking out past the hub of the wheel by about $1/32 - 1/16$ of an inch.

Sometimes in transit, and sometimes from normal use, the wheel may move out of position. If this occurs, using a $3/16$ " Allen wrench, loosen (do not remove) the set screw about $1/2$ turn, reposition the wheel, and tighten the set screw.

If the motor shaft is sticking out past the end of the wheel's hub about $1/8 - 3/16$ ", the wheel may rub against the face of the motor. If this occurs, it will make a grinding sound, and the machine may stop running. If this occurs, turn the speed controller OFF, reposition the wheel, then turn the controller back on.

3. Check the nuts and bolts regularly to make sure none of them have loosened up. At the points where the machine pivots, the bolts should be tight enough to keep some friction between the moving parts, but not so tight as to limit their movement. The pivot points should move with moderate resistance.
4. Store the machine in a clean, dry place. If you choose to leave your machine outside in your batting cage, just make sure that it is covered well enough to keep it dry. A BATA machine cover will do the job. To help prevent condensation from occurring, you may put a towel or other fabric sheet underneath the cover to absorb moisture.
5. Keep the pitching wheels clean, dry, and free of debris. Residue from balls does not need to be removed unless it is affecting the pitching. If you do need to clean the rubber surface of the wheels, do not use any chemicals. Instead, use 60 grit sandpaper. DO NOT sand the wheels with the machine running.
6. After a prolonged period of non-use, the rubber on the pitching wheels will become oxidized, making the rubber slick. This will affect the wheels' ability to grip the ball and pitch it properly. You may need to scuff up the rubber to get it back to a fresh rubber surface. Once the rubber is scuffed, regular use will prevent oxidation.
7. Check the GAP between the pitching wheels. It is extremely important that the GAP is adjusted properly for each type of ball. See GAP SELECTION.

SPECIFICATIONS

PITCHING WHEELS

Core material:	Aluminum
Tread material:	Natural non-marking gray rubber
Rubber hardness:	46-54A Rockwell.
Outside diameter:	11.75"
Width:	2.40"

MOTORS

Type:	Permanent Magnet DC
Horsepower:	1/4"
RPM rating:	(Wheel / Pad) Approximately 3200 rpm @ 90 volts DC.
Frame:	Welded steel plate, powder coated.
Legs:	1-1/4" diameter x .095" wall steel, clear zinc plated.
Current draw:	Approximately 3 amps per motor (full load).

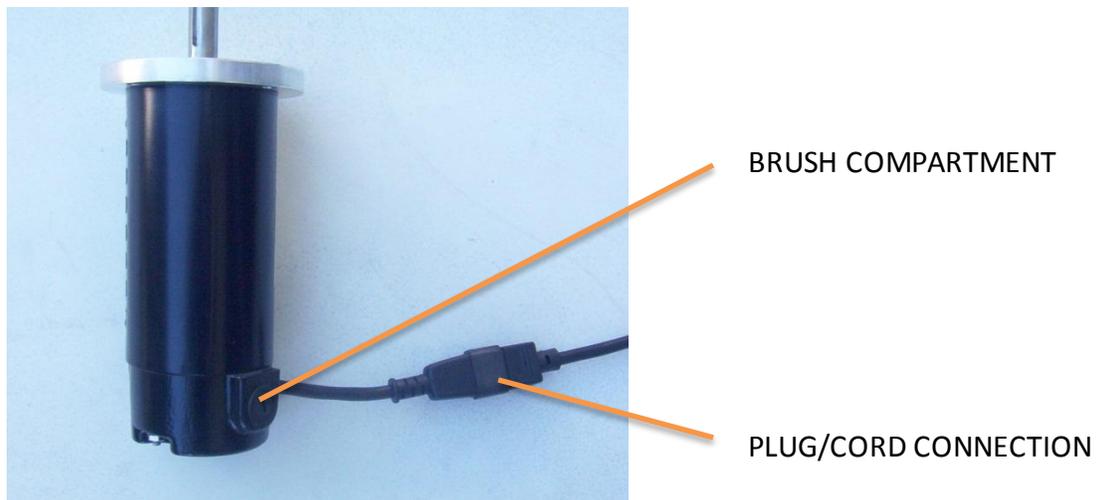
POWER SOURCES

Standard outlet:	110 – 120 volt AC
Generator:	110 – 120 volt AC output, 400 watts per motor minimum
Extension cords:	Up to 25' cord: 16 gage minimum
	50' cord: 14 gage minimum
	100' cord: 12 gage minimum
	150' cord: 10 gage minimum
	200' cord (+): 8 gage minimum

TROUBLE SHOOTING

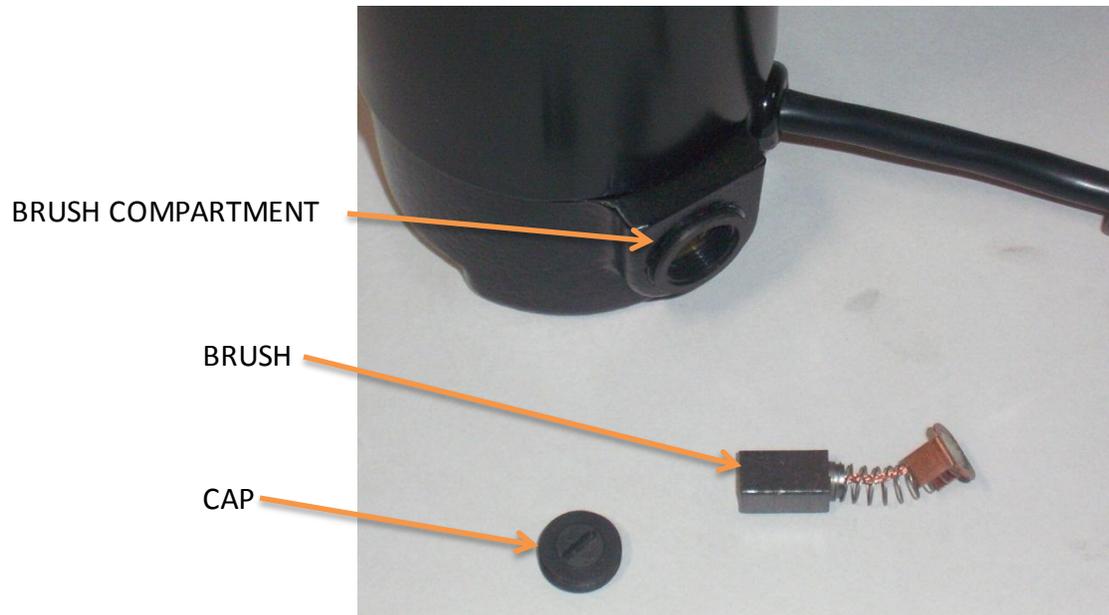
Problem: Motor will not turn on at all.

Solution 1: Check to make sure the plug connection (2010 machines and later) between the motor and speed control box is properly connected.



Solution 2: Check the motor brushes.

The brushes are not actually brushes at all, but rather an assembly consisting of a small metal tab, connected to a small rectangular piece of carbon via a spring and thin cable. The spring is supposed to feed the carbon “brush” into the part of the motor that is turning inside. This gives it its electrical connection. If the carbon block does not feed easily into the armature, the circuit is interrupted. This may be caused by the carbon block hanging up in the socket, which may be caused by friction.



To check the brushes, first unscrew the small cap that has the screwdriver slot. The first thing you will see is the metal tab. Using a very small screwdriver, lift the metal tab up until you can get it to pop up enough to get your fingers on it. Pull the brush assembly out of the socket by the metal tab. The assembly should slide in and out of the socket easily. If there is any friction, this would cause the carbon block to not feed in properly. In this case, the easiest solution is to very lightly sand the side of the carbon block with very fine sandpaper (400 grit). Just lay the sandpaper down on a flat surface and lightly drag the carbon block over it one time. Check the fit. Repeat if necessary.

When the brush assembly is out, check to make sure the spring and cable are not broken. If they are, the brush needs to be replaced.

Replace the brush assembly. Slide it into the socket, and push down on the metal tab, compressing the spring, until the metal tab seats down into the socket. Install the cap. Be careful when tightening the cap. It is thin and fragile.

Solution 3: Remove the cover of the speed control box and check the connections.

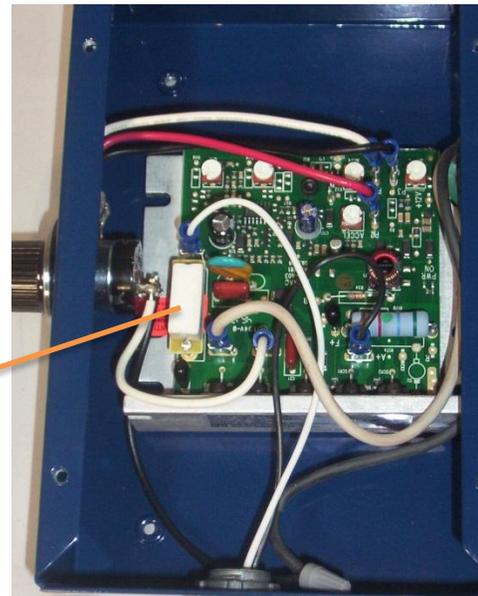
Gently tug on each wire connection to make sure that there are no loose wires. Gently wiggle each connection on the circuit board to see if any of the soldered connectors have broken loose from the circuit board. If so, the circuit board needs to be replaced.

Solution 4: Check the HP resistor.

The HP (horsepower) resistor is the largest component on the circuit board, white and beige colored, rectangular shaped, and located near the back side of the speed control switch (potentiometer). The HP resistor actually plugs into the circuit board into two tiny sockets. Sometimes the resistor can get knocked loose or out of the sockets completely. If it is out of the sockets, push it back in. Get it started with your fingers, then, using a straight blade screwdriver, push down on each end of the resistor where the wires are soldered. Do a little on each end at a time until it is all the way in.

Check very closely to see if the small wires that come out of each end of the beige and white block are intact or broken. If they are broken, or if the block is broken, the HP resistor needs to be replaced.

HP RESISTOR



Solution 5: Check for burned spots on the circuit board assembly. If there is any burned area, it is likely that your speed controller was damaged by a power surge. In this case, the circuit board assembly needs to be replaced. Note: You can avoid power surge damage by using a Surge Protector.

Solution 6: Check for water damage. If your machine got wet, it may be that your speed controller has water damage. Sometimes you can blow the moisture out with an air hose and it will dry out enough to work again, sometimes not. If there is water damage, it probably means that you will need to replace the speed controller.

Problem 2: Motor speed fluctuates or runs full speed all the time.

Solution 1: This probably means that there is a malfunction in the speed control circuit board. In this case, the controller probably needs to be replaced.

Problem 3: Wheel stopped rotating or is making a grinding noise.

Solution 1: Check the position of the wheel on the motor shaft. It is possible that the wheel may have been pushed onto the motor shaft enough to make the hub rub on the motor face. (You would not be able to see in between the wheel hub and the motor face). If the wheel is positioned properly, there should be about $1/32''$ of the end of the motor shaft showing past the outside of the wheel hub. If it is more, perhaps closer to $3/16''$, then the hub is likely rubbing on the motor face, causing friction, which would cause the wheel to slow down and even stop.



PROPER POSITION



IMPROPER POSITION

To correct it, using a 3/16" Allen wrench, loosen (do not remove) the set screw about 1/2 turn. Slide the wheel back to the proper position with about 1/32 – 1/16" of the end of the motor shaft sticking out past the outside of the wheel hub, and tighten the set screw. It threads into aluminum, so be careful not to over-tighten or strip the threads.

For any other trouble-shooting problems, call Customer Service at 1-800-762-2282.

Do not make any changes or adjustments that you are not sure of. Call us for help.

TRANSPORT WHEELS KIT



The Transport Wheels Kit may be attached either of two ways: Upper position (photo, upper left), or Lower position (photo upper right).

To install:

1. Insert the two 5/16 x 1-3/4" hex bolts through the front of the frame sticking out to the front.
2. Slide the square tube onto the bolts, and install the flat washers, lock washers, and nuts.
3. Insert the 1/2" threaded end (pre-installed in each wheel) through the hole in the U-shaped bracket.
4. Install the Lock Nut.

Quick-Release Leg Lock Kit

The QRL allows you to install and remove the legs of your machine without a wrench.



If you ordered a QRL with your machine, it has been factory installed. If you ordered it later:

Remove the existing carriage nuts, bolts, and washers, and install the longer 2" carriage bolts that came with the QRL.

Place the flat washer on the end of the carriage bolt, and thread the lock handle onto the bolt. Make sure it threads on easily. Be careful not to cross-thread it.

Slide the legs into the sockets, and tighten the lock handles until the legs cannot rotate.

The Lever part of the lock handle may be repositioned by pulling out against the spring and rotating the Lever to the desired position. Let it spring back in. Check to make sure it is fully engaged before loosening or tightening the lock handle.

BATA 20-Baseball / 15-Softball Auto Feeder

Assembly Instructions

The legs may be oriented in a few different ways, depending on the height required. Each leg has a 10-degree angle bend 6 inches from one end (as shown).



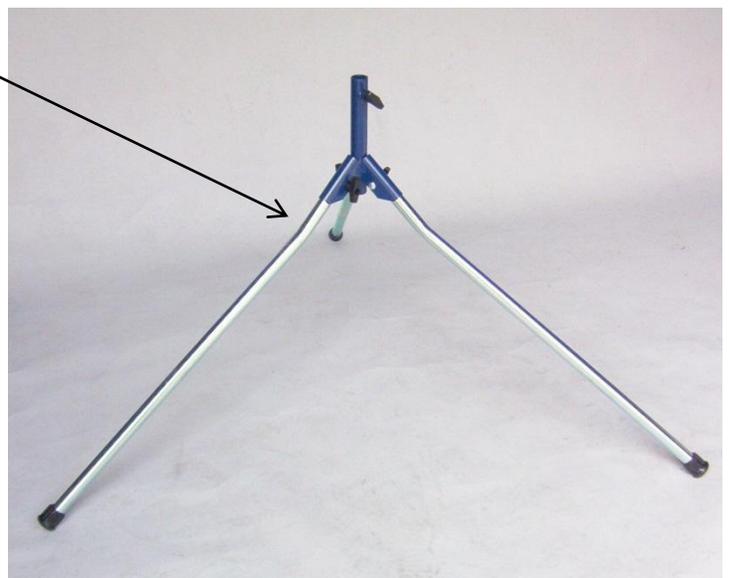
For Baseball – Install the rubber leg tips on the long side of the bend as shown (right).

BEND

LEG TIP

For Softball – Install the leg tips on the short end of the bend as shown (right).

BEND





TRIPOD BASE

Slide each of the legs into the sleeves of the Tripod Base.

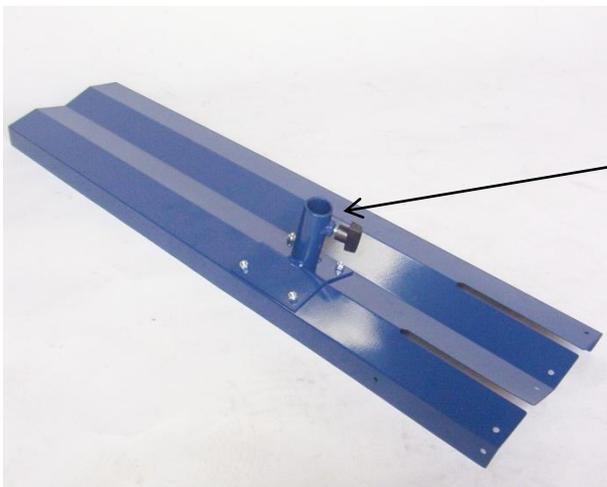
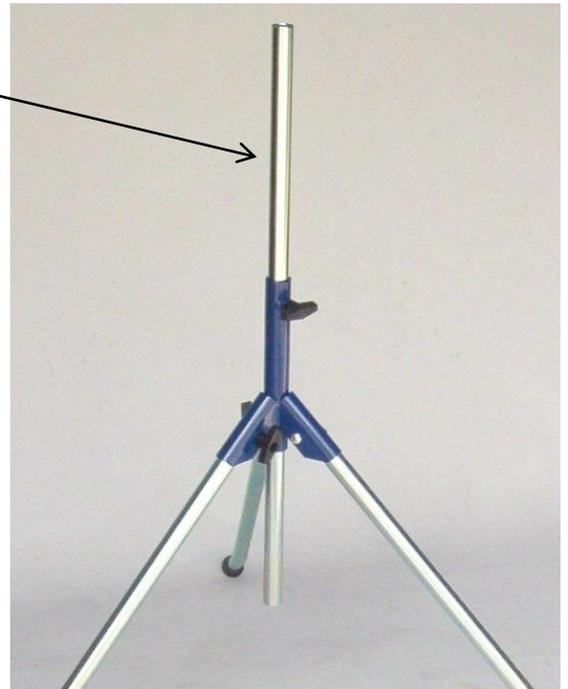
Orient the bends downward (as shown left) to make the stand taller.

Orient the bends upward (as shown above left) to make the stand shorter.

Tighten each of the 3 hex nuts to secure the legs in place. Tighten the nuts enough to keep the leg tubes from rotating.

Install the vertical Post through the center of the Tripod Base (as shown right). Secure it in place with the lock knob.

POST



TRAY BRACKET

Attach the Tray Bracket to the Tray (as shown left) using the #10-24 x 5/8" Phillips screws, washers, and lock nuts.



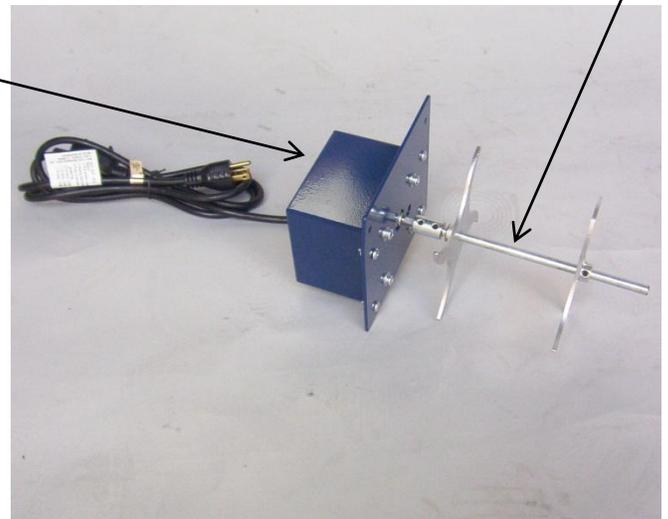
TRAY

Slide the Tray assembly onto the Post, and secure it in place with the lock knob.

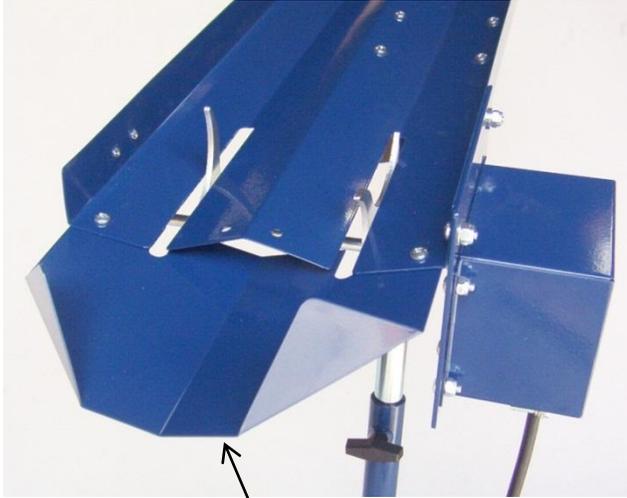
INDEX ASSEMBLY

MOTOR ASSEMBLY

Slide the Index assembly onto the Motor shaft. Align the set screw with the flat on the motor shaft, and (using the Allen wrench provided) secure it in place by tightening the set screw.



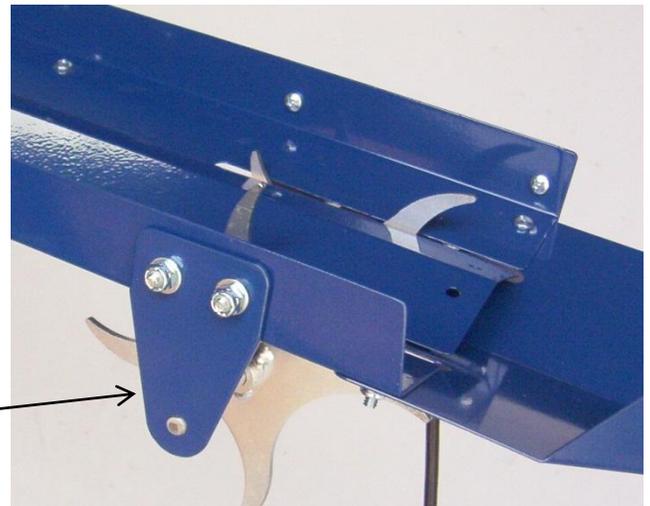
Attach the Motor assembly to the Feeder Tray (as shown left) using the 10-24 x 5/8" Phillips screws, washers, and lock nuts.



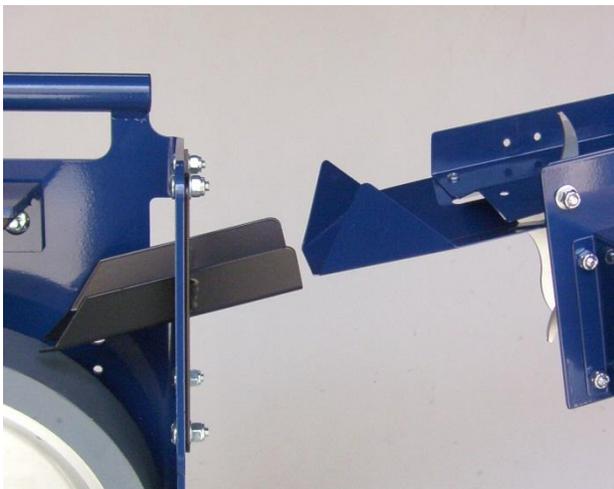
FUNNEL

Attach the Shaft Guide (as shown) to the Feeder Tray using the #10-24 x 5/8" Phillips screws, washers, and lock nuts.

Attach the Funnel to the Feeder Tray using the 10-24 x 5/8" Phillips screws, washers, and lock nuts.



SHAFT GUIDE



Set up your pitching machine first.

Set up the machine and aim the pitch into the strike zone, then set the Feeder behind the machine.

Adjust the height of the Feeder so that the Funnel is about 1/4" behind the Feed Chute of the pitching machine.

Place up to 20 baseballs or 15 softballs onto the Tray. Start the Feeder with the inline On/Off switch or a Remote Control On/Off.