

## ASSEMBLY INSTRUCTIONS AND OWNERS MANUAL

THIS PITCHING MACHINE IS A PRECISION PIECE OF EQUIPMENT AND HAS BEEN ENGINEERED FOR YEARS OF ENJOYMENT. HOWEVER, LIKE ALL MACHINES, PROPER CARE AND MAINTENANCE MUST BE PROVIDED BY THE OWNER TO INSURE THAT YOU GET THE FULL POTENTIAL OF THIS PITCHING MACHINE. READ THE INSTRUCTIONS AND MANUAL COMPLETELY BEFORE PUTTING THIS MACHINE INTO USE. USERS MUST BE 18 YEARS OLD AND MUST BE PROPERLY TRAINED.

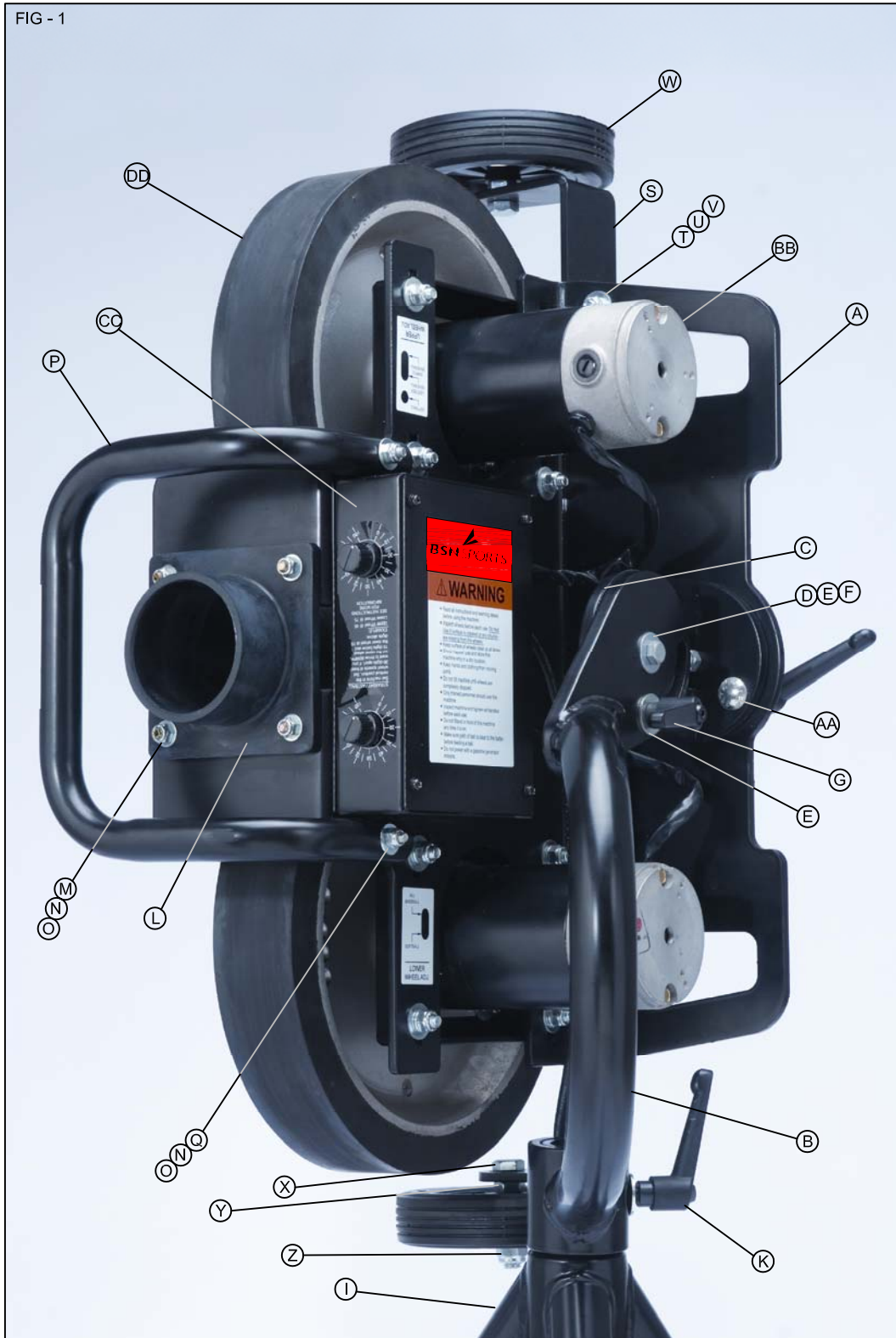




# BSN SPORTS™

1-800-527-7510

FIG - 1





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ITEM	DESCRIPTION	QTY
A	MAIN FRAME	1
B	PIVOT ARM	1
C	LARGE NYLON WASHER	1
D	HEX BOLT	1
E	WASHER 3/8"	4
F	NYLON LOCK NUT	1
G	TILT LOCK HANDLE	2
H	LEGS	3
I	TRIPOD BASE	1
J	SPRING BUTTONS	3
K	SWIVEL LOCK HANDLE	1
L	BALL CHUTE	1
M	CARRIAGE BOLT 1/4" X 1"	4
N	WASHER 1/4"	8
O	LOCK NUT 1/4"	2

ITEM	DESCRIPTION	QTY
P	HANDLE	1
Q	HEX BOLT 1/4" X 1 3/4"	2
R	LEFT WHEEL BRACKET	1
S	RIGHT WHEEL BRACKET	1
T	HEX BOLT 5/16" X 1"	4
U	WASHER 5/16"	8
V	LOCK NUT 5/16"	4
W	TRANSPORT WHEEL	2
X	HEX BOLT 1/2"	2
Y	HEX NUT SPACER 1/2"	2
Z	LOCK NUT 1/2"	2
AA	CARRIAGE BOLT 3/8"	2
BB	MOTOR	1
CC	CONTROLLER	1
DD	PITCHING WHEEL	2

## ASSEMBLY AND SET UP INSTRUCTIONS

Unpack and lay out all parts to verify that there has been no shipping damage.

- STEP 1)** Attach Pivot Arm (*item B*) to the Main Frame (*item A*). Place Large Nylon Washer (*item C*) between *items B & A*. Now attach *B to A* using Hex Bolt, two Washers and Nylon Lock Nut (*items D, E, F*) see *figure 1*.
- STEP 2)** Insert Carriage Bolt (*item AA*) through the square hole in Main Frame and through slot in Pivot Arm then add Washer (*item E*) and Tilt Lock Handle (*item G*) see *figure 1*.
- STEP 3)** Insert the Legs (*item H*) into the Tripod Base (*item I*), line up spring buttons (*item J*) with holes see *figure 2*.
- STEP 4)** Requires 2 people. With both of the Tilt Lock Handles (*item G*) tight, lift the Main Frame and place it into the Tripod Base (*item I*). Insert the Swivel Lock Handle (*item K*) and Washer (*item E*) see *figure 1*.
- STEP 5)** Attach Ball Chute (*item L*) with Carriage Bolts, Washers and Lock Nuts (*items M, N, O*) see *figure 1*.
- STEP 6)** Attach Handle (*item P*) to Main Frame using Hex Bolts, Washers and Lock Nuts (*items Q, N, O*) see *figure 1*.
- STEP 7)** Attach Left and Right Wheel Brackets (*items R, S*) using Hex Bolts, Washers and Lock Nuts (*items T, U, V*) see *figure 1*.
- STEP 8)** Attach Transport Wheels (*item W*) using Hex Bolts, Hex Nut Spacer and Lock Nut (*items X, Y, Z*). Tighten Hex Nut Spacer *Y* to hold Hex Bolt in place then hold Wheel in place with Lock Nut *Z* do not over tighten, Wheel must be able to rotate.

## OPERATING INSTRUCTIONS



The pitching machine IS NOT designed to pitch real baseballs or softballs. Use **DIMPLED** pitching machine balls only.



- STEP 1)** Familiarize yourself with the 3 types of Pitching Wheel angle adjustments.  
**#1 - HORIZONTAL TILT ADJUSTMENT (see item G)**  
This adjustment is used to throw left and right handed breaking balls and fastballs.  
**#2 - PITCH HEIGHT ADJUSTMENT (see item G)**  
This adjustment is used to raise or lower your pitch and also to throw grounders and pop-ups.  
**#3 - LEFT TO RIGHT PITCH ADJUSTMENT (see item K)**  
This adjustment is used to move the pitch right or left.
- STEP 2)** Your machine was shipped to you with the Pitching Wheels set up for Baseball. If you are using it to throw Softballs the Pitching Wheels will need to be adjusted to throw Softballs **see Pitching Wheel Adjustment**.
- STEP 3)** Set the machine in the desired location. Place a protector screen in front of the machine. Batter and operator must wear a batting helmet. Be sure the path of the ball to the plate is clear. Allow no one in front of the pitching machine.
- STEP 4)** Attach your machine to a standard 110 volt AC power supply **see Power Sources**.
- STEP 5)** Before allowing a batter in the batters box, throw some practice pitches until you have the desired speed and trajectory of the ball consistently in the strike zone **see Speed and Pitch Type adjustments**.

## PITCHING WHEEL ADJUSTMENT

**WHEEL SPACING MUST BE ADJUSTED TO THROW BASEBALLS OR SOFTBALLS.**

**KNOW YOUR MACHINE:**

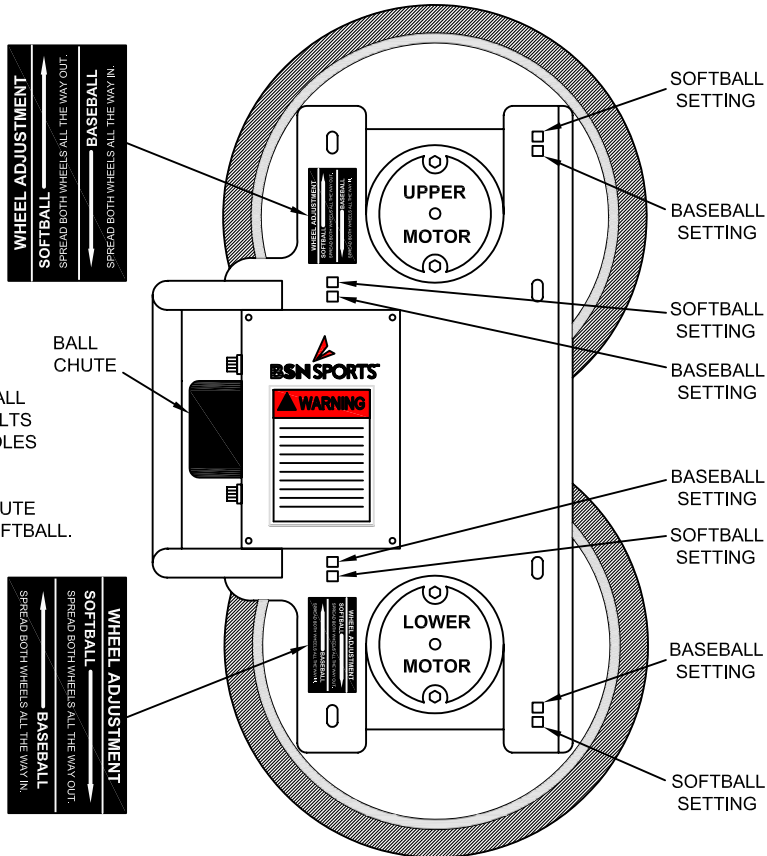
WE RECOMMEND EACH OPERATOR SPEND AT LEAST AN HOUR EXPERIMENTING WITH THE MACHINE SO YOU WILL FULLY UNDERSTAND ITS CAPABILITIES. TRY DIFFERENT ANGLES AND SPEED SETTINGS TO KNOW FULLY WHAT TO EXPECT WHEN YOU START PITCHING TO A LIVE BATTER.

**NOTES:**

YOUR PITCHING WHEELS ARE SET FROM THE FACTORY TO PITCH BASEBALLS.

**STEP 1.** TO CHANGE SETTING FROM BASEBALL TO SOFTBALL, REMOVE ALL 4 NUTS AND BOLTS FROM EACH WHEEL AND PLACE THEM IN HOLES MARKED SOFTBALL SETTINGS.

**STEP 2.** MAKE SURE APPROPRIATE BALL CHUTE AND LEGS ARE USED FOR BASEBALL OR SOFTBALL.



## POWER SOURCES

YOUR MACHINE REQUIRES A STANDARD 110 VOLT, AC POWER SUPPLY. FOR AN ALTERNATE SOURCE, YOU MAY USE A GENERATOR. BE SURE THE GENERATOR HAS AN OUTPUT OF AT LEAST 1400 WATTS.

**EXTENSION CORD:**

USE ONLY A 3-WIRE CORD THAT HAS A 3-PRONG PLUG AND 3-POLE RECEPTACLE THAT WILL ACCEPT THE POWER CORD PLUG ON THE MACHINE. USE ONLY AN EXTENSION CORD THAT IS RATED FOR OUTDOOR USE. IT IS IMPORTANT TO USE A CORD WITH THE PROPER WIRE GAUGE SIZE. THE LONGER THE CORD, THE BIGGER THE WIRE MUST BE. (THE SMALLER THE GAUGE NUMBER, THE LARGER THE WIRE.) REFER TO THE CHART BELOW FOR THE PROPER SIZE.

LENGTH	GAUGE OF WIRE
25 FEET	16
50 FEET	14
100 FEET	12
150 FEET	10
200 FEET	08

**GROUND THE MACHINE:**

YOUR MACHINE IS MANUFACTURED WITH A 3-PRONG GROUNDING PLUG AND MUST BE PLUGGED INTO AN EXTENSION CORD AS DETAILED ABOVE. PROPER GROUNDING IS ESSENTIAL TO INSURE YOUR SAFETY SHOULD A MALFUNCTION OCCUR. THE UNIT MUST BE CONNECTED TO A GFCI OUTLET THAT MEETS ALL LOCAL AND STATE CODES. IF YOU HAVE ANY DOUBTS ABOUT THE ELECTRICAL CONNECTIONS CONTACT A LICENSED ELECTRICIAN.

**USING A GENERATOR:**

- START THE GENERATOR
- PLUG THE SURGE PROTECTOR INTO THE GENERATOR
- PLUG THE PITCHING MACHINE INTO THE SURGE PROTECTOR
- TURN ON THE PITCHING MACHINE

**CAUTION: ALWAYS USE A SURGE PROTECTOR WHEN USING A GENERATOR. POWER SURGES CAN DAMAGE THE SPEED CONTROLLERS.**

## SPEED AND PITCH TYPE ADJUSTMENTS

THIS MACHINE WAS DESIGNED AND DEVELOPED TO AID YOU IN IMPROVING YOUR BATTING SKILLS. HITTING BALLS THAT ARE THROWN TOO FAST WILL NOT ALLOW YOU TO IMPROVE THE MECHANICS OF YOUR SWING. REMEMBER, EXCESSIVE SPEEDS CAN BE DANGEROUS. SEE SPEED CHART AS A GENERAL GUIDE. DIFFERENT BALLS MAY THROW AT DIFFERENT SPEEDS. FOR ACCURATE SPEEDS USE A RADAR GUN.

**SPEED CONTROL:**

THE SPEED CONTROL KNOBS SHOULD ALWAYS BE SET A MINIMUM OF 2 DIGITS APART THIS WILL CAUSE SPIN ON THE BALL WHICH ALLOWS IT TOO FLIGHT STRAIGHTER THROUGH THE AIR. THE SPEED CONTROL KNOBS SET AT THE SAME EXACT NUMBER WILL CAUSE NO SPIN ON THE BALL ACTING AS A KNUCKLE BALL WHICH HAS ERRATIC FLIGHT. WITH THE CONTROL KNOBS SET AT 8 OR MORE DIGITS APART WILL CAUSE A BREAKING BALL.

**FASTBALLS:**

SET WHEELS IN VERTICAL POSITION. SET THE UPPER WHEEL 2 DIGITS SLOWER THAN THE LOWER WHEEL. SEE SPEED CHART AS A GENERAL GUIDE TO DESIRED SPEEDS.


**RIGHT HANDED BREAKING BALL:**


SET THE WHEELS WITH APPROXIMATELY A 45 DEGREE ANGLE; TOP WHEEL LEANING TO OPERATORS RIGHT. SET THE UPPER WHEEL 8 DIGITS FASTER THAN THE LOWER WHEEL. SEE SPEED CHART AS A GENERAL GUIDE.


**LEFT HANDED BREAKING BALL:**

SET THE WHEELS WITH APPROXIMATELY A 45 DEGREE ANGLE; TOP WHEEL LEANING TO OPERATORS LEFT. SET THE UPPER WHEEL 8 DIGITS FASTER THAN THE LOWER WHEEL. SEE SPEED CHART AS A GENERAL GUIDE.

### SPEED CHARTS (BASEBALL)

 FASTBALL	MPH
$\frac{8}{10}$	38-40
$\frac{9}{11}$	53-56
$\frac{10}{12}$	65-67
$\frac{11}{13}$	75-77
$\frac{12}{14}$	85-87
$\frac{13}{15}$	91-93
$\frac{14}{16}$	94-96
$\frac{15}{17}$	97-99
$\frac{16}{18}$	100-102

 RIGHT-HANDED BREAKING BALL	MPH
$\frac{13}{5}$	43-45
$\frac{14}{4}$	48-50
$\frac{15}{6}$	53-55
$\frac{16}{6}$	58-60
$\frac{18}{6}$	63-65
$\frac{16}{8}$	68-70
$\frac{20}{6}$	71-73
$\frac{20}{9}$	78-80
$\frac{20}{10}$	85-87

 LEFT-HANDED BREAKING BALL	MPH
$\frac{13}{5}$	43-45
$\frac{14}{4}$	48-50
$\frac{15}{6}$	53-55
$\frac{16}{6}$	58-60
$\frac{18}{6}$	63-65
$\frac{16}{8}$	68-70
$\frac{20}{6}$	71-73
$\frac{20}{9}$	78-80
$\frac{20}{10}$	85-87

**\*SOFTBALL SPEEDS WILL BE 10 MPH SLOWER ON AVERAGE THAN BASEBALL SPEEDS\***

## **TRANSPORTING THE MACHINE**

- \* Rotate Pitching Wheels to their horizontal position.
- \* Loosen the Swivel Lock Handle on the Tripod Base and rotate the machine until two of the Legs are parallel with the Transport Wheels.
- \* Now with the help of a second person lower the machine to the floor by holding onto the Frame.
- \* Pick up the two Legs and roll the machine on the wheels to desired location.
- \* Do not let Pitching Wheels touch the ground while rolling the machine. Do not roll over rough or uneven terrain.

## **MAINTENANCE**

- \* Before each use check that all Nuts, Bolts and Levers are tight.
- \* Before each use check the power cord for any cuts or abrasions.
- \* Before each use check that Pitching Wheels are in good condition, no cracks, no missing chunks and no excessive vibration.

## **STORAGE**

- \* Store machine in clean, dry area.
- \* Cover the machine when not in use. **CAUTION:** Do not use a plastic cover. Plastic will sweat and cause damage to your machine.
- \* Pitching Wheels should never be left in the sunlight or high heat area for prolonged periods. This can cause the material to deteriorate.



### **IMPORTANT SAFETY INFORMATION**



**READ ALL INSTRUCTIONS AND WARNING LABELS.** Become familiar with your machine before using. Know its potential and limitations.

**INSPECT THE MACHINE BEFORE EACH USE.** The wheels must be clean and free of any cracks in the urethane. Clean machine and wheels with a clean damp cloth. Never use chemicals or solvents. Be sure to tighten all levers after each setting change.

**SHOCK HAZARD.** Use and store this machine only in a dry location. Do not use if the machine becomes wet. Wipe any water from the machine and allow to completely dry before using again.

**EXTENSION CORD.** Use only a 3-prong power cord. If the ground prong has been broken off, do not use. Use a power cord with the proper gauge wire for the length you are using. (see chart for proper size.) An under size cord will cause a drop in voltage and will cause overheating.

**CARE OF EXTENSION CORD.** Do not use a cord that is cracked or otherwise damaged. Keep cord away from moving wheels. Be sure cord on ground does not present a tripping hazard.

**DO NOT TOUCH ROTATING WHEELS.** Make no adjustments or move the machine until the wheels are completely stopped.

**BE AWARE OF YOUR SURROUNDINGS.** Stay alert at all times. Be aware of people around the machine while in use. Keep them behind you and the machine. Keep your eye on the batters box. Be sure only the batter is in the path of the ball.

**ONLY TRAINED PERSONEL TO OPERATE THIS MACHINE.** Operators shall be properly instructed in the use and care of this machine. No one under 18 years of age shall use this machine.

**ALWAYS USE A PROTECTOR SCREEN.** Place a protector screen in front of the machine to protect the machine as well as the operator.

**BATTERS MUST ALWAYS WEAR A BATTING HELMET.**

**OPERATOR MUST WEAR SAFETY GLASSES.** Debris on the wheel could be projected and cause injury.

**DO NOT POWER WITH A GASOLINE GENERATOR INDOORS.** Harmful fumes can cause illness or death.

# REPLACING BUSHINGS ON MOTOR

**⚠ CAUTION-DISCONNECT POWER ⚠**



## STEP1

ALL 4 BUSHINGS MUST BE  
CHANGED AT THE SAME TIME.

## STEP2

UNSCREW BLACK CAPS ON MOTORS  
AND REMOVE BUSHINGS



## STEP3

REPLACE BUSHINGS AND SECURELY  
SCREW ON CAPS.

**IMPORTANT  
CHANGE ALL BUSHINGS AFTER  
1800 HOURS USE**