



RUGBY TRAINING MACHINE



DROP ATTACK™ RUGBY MACHINE  
PATENTS APPLIED FOR

## INSTRUCTION MANUAL

OPERATION · SETUP · USE & CARE · SERVICE



SPORTS ATTACK LLC. | 800.717.4251 | [www.sportsattack.com](http://www.sportsattack.com)

## WARRANTY STATEMENT

What is most important to Sports Attack is that your machine meets your expectations of quality and performance. We stand behind the material and workmanship of our machines for five (5) years from the date of original purchase for institutional and residential use and one (1) year for commercial environments, with the following exceptions:

- Throwing Wheels are warranted for two (2) years;**
- Electronic Controller is warranted for two (2) years; and,**
- Throwing Wheel Motors are warranted for two (2) years.**

This warranty excludes any cosmetic issues or normal wear and tear of the unit, and is not in effect if the machine has been misused, misapplied, improperly assembled, or modified without the express written permission of Sports Attack. In addition, this warranty does not apply to damage in transit, in any accident unrelated to the direct operation of the equipment, or by fire, flood or act of God.

If you encounter any issues during the warranty period, Sports Attack will quickly get your machine back in working order. If the warranty repair involves a replacement part, we will make sure you get both the part and easy instructions for replacement at no cost to you. If a service person is needed, Sports Attack will pay the pre-approved labor charge to get your machine back in working order.

**EFFECTIVE IMMEDIATELY: Warranty components such as motors, etc. now require a picture of the component when submitting replacement request.**

Please know that any problem can quickly be resolved with a phone call to our experienced, responsive customer service department at 800.717.4251. We are here to answer your questions and to make sure your machine provides you years of service.

## RETURNS

Sports Attack manufactures the highest quality sports training equipment in the world. If for any reason you are not satisfied, a machine can be returned within 30 days of receipt for any reason for a full refund less a 15% restocking fee. Cost of shipping the unit back to Sports Attack will also be the responsibility of the purchaser. Please note that the refund amount may be reduced by any non-cosmetic damage to the machine.

*If you have any questions or concerns, please give our experienced, responsive customer*

## SHIPPING DAMAGE CLAIMS PROCEDURE

**NOTE:** For your protection, please note that equipment in this shipment was carefully inspected and packaged by skilled personnel before leaving the factory.

Upon acceptance of this shipment, the transportation company assumes full responsibility for its safe delivery.

### IF SHIPMENT ARRIVES DAMAGED:

1. **VISIBLE LOSS OR DAMAGE:** Be certain that any visible loss or damage is noted on the freight bill or express receipt, and that the note of loss or damage is signed by the delivery person.
2. **FILE CLAIM FOR DAMAGE IMMEDIATELY:** Regardless of the extent of the damage.
3. **CONCEALED LOSS OR DAMAGE:** If damage is unnoticed until the merchandise is unpacked, notify the transportation company or carrier immediately, and file "CONCEALED DAMAGE" claim with them. This must be done within fifteen (15) days from the date the delivery was made to you. Be sure to retain the container for inspection.

Sports Attack, LLC. cannot assume liability for damage or loss incurred in transit. We will, however, at your request, supply you with the necessary documents to support your claim.

To register the Warranty,  
please go to  
[sportsattack.com/warranty](http://sportsattack.com/warranty)

For repairs and service  
after the warranty period,  
please call:

Sports Attack  
Customer Service Dept.  
Ph 800.717.4251 or  
775.345.2882  
Fx 775.345.2883

## RETURNS

To return an item, please  
contact our Customer Service  
Department at 800.717.4251  
or 775.345.2882.

A 15% restocking fee will be  
charged for any items accepted  
for return. It is the customer's  
responsibility to handle the  
repacking and shipment (as well  
as all associated fees) back to  
Sports Attack.

No returns will be accepted after  
30 days of receiving  
this product.

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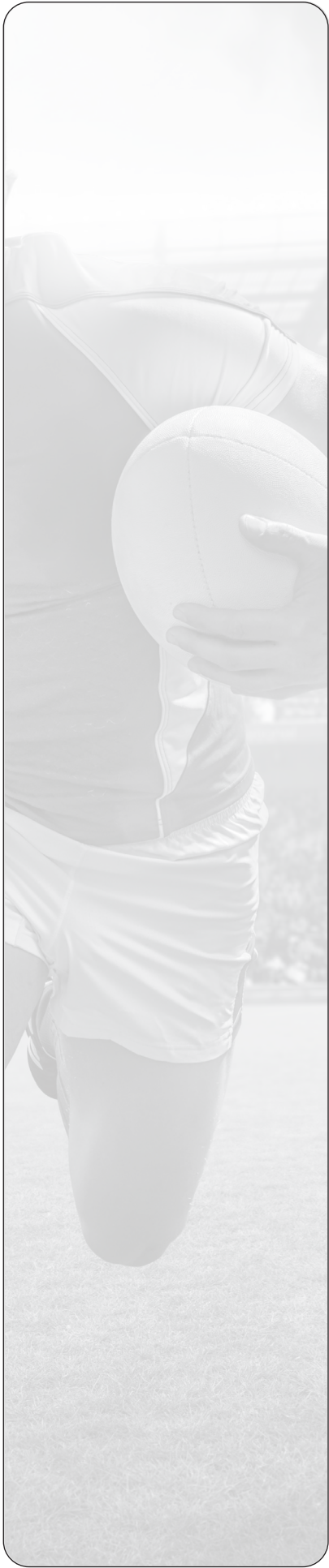
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INTRODUCTION

Thank you for purchasing this Sports Attack, LLC. equipment. Your Drop Attack will be shipped in the right-hand spin position.

Proper assembly, careful operation and consistent maintenance of this equipment will ensure that it gives you the very best performance and a long, economical service life.

This manual contains the information needed to properly set up the Drop Attack Rugby Machine, and to use, care for and maintain the Drop Attack in a manner which will ensure its optimum performance.



## SAFETY INSTRUCTIONS

### ELECTRICAL SAFETY

Use a 110 or 220 volt (to match the power source) single phase 3-wire grounded power source.

Up to 200 ft. from power source, use a minimum #14/3 grounded 3-wire extension cord.

Over 200 ft. from power source, consult a licensed electrician for required power cord size.

### OPERATING SAFETY

**CAUTION:** Never reach down near moving throwing wheels for any reason! If it is necessary to reach into the throwing wheels, **ALWAYS:**

1. Turn speed dial to "0".
2. Turn the power switch "OFF".
3. Unplug Drop Attack from power source.
4. Wait until the throwing wheels have come to a complete stop before reaching hands or fingers anywhere near the throwing wheels.

**CAUTION:** Carefully check Drop Attack for completeness and condition before connecting to electrical power.

Carefully check the throwing wheels frequently for cleanliness, chips and cracks. Do not use the machine if the throwing wheels are damaged, or if chips or cracks appear in the wheels. (For damage within warranty period, see Warranty Statement, page xi.)

**ALWAYS** set the speed control to "0" before connecting the machine to power. Check that the speed control is at "0" before turning the throwing wheels "ON".

Do not allow anyone to walk in front of the Drop Attack Rugby Machine if it is connected to electrical power.

**CAUTION: DO NOT** plug in or energize this equipment until all assembly instructions and operation instructions are read and followed.

### BALL SELECTION

Balls must be official size and consistent in type to produce repeatability.

Never use wet or damp balls! Ball air pressure must be between 9.5-10.0 lbs.

## WARNING PERSONAL INJURY HAZARD

Carefully read all instructions in this manual, and all labels and warnings on Drop Attack before using this machine.

Use machine only under adult supervision. Failure to operate Drop Attack as described in this manual can result in severe personal injury or death.

## ELECTRICAL SHOCK HAZARD

The Drop Attack must be connected to a properly grounded electrical receptacle.

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Do not operate on wet ground.

## CAUTION PERSONAL INJURY HAZARD

Keep hands away from throwing wheels anytime the machine is connected to a power source.

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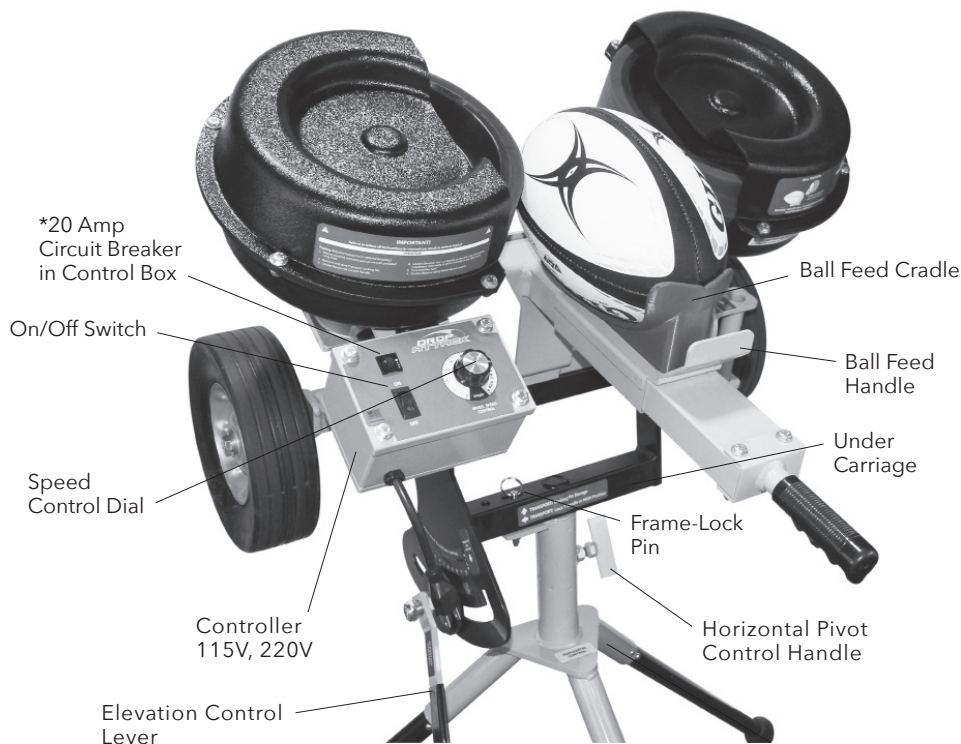
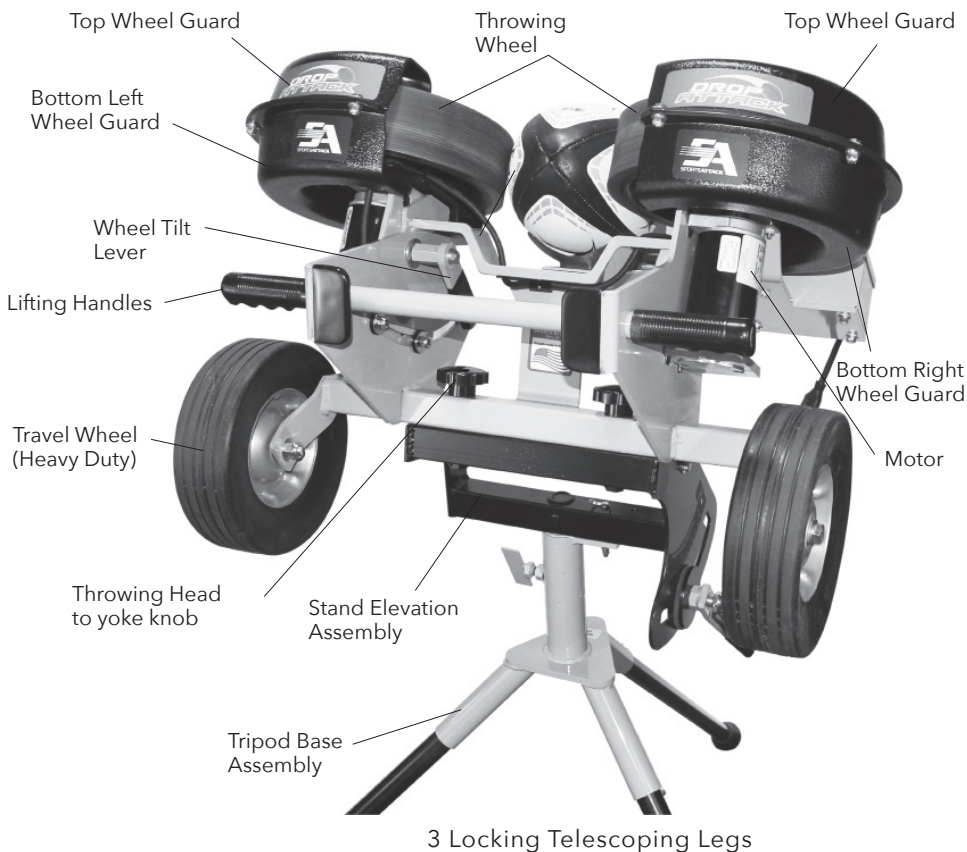
Carefully check the Drop Attack for completeness and condition before connecting to electrical power.

## EQUIPMENT ELECTRICAL DAMAGE

Keep hands away from throwing wheels anytime the machine is connected to a power source.



## COMPONENT VIEW



## ADDITIONAL INFORMATION

If you have any questions regarding the safe operation of the Drop Attack, please call:

### Sports Attack Customer Service Department

Ph 800.717.4251 or

775.345.2882

Fx 775.345.2883

## GENERATOR INFORMATION

1. Drop Attack requires a generator capable of providing clean electricity (inverter technology) of a minimum 1000 watts at 120 or 220 volts 60hz.
2. Be sure the power switch is "OFF" before plugging Drop Attack into the generator.
3. Start the generator and allow it to reach full speed before turning the power switch "ON".

**IMPORTANT:** Generator speed fluctuations can damage the electronic speed control. Maintain adequate fuel in the generator at all times.

4. Turn the Drop Attack power switch "OFF" before shutting off the generator and before unplugging the Drop Attack.

## SET-UP & PREPARATION USING THE DROP ATTACK

**IMPORTANT:** Lock pin must be removed (See Figure 5) and stored in adjacent hole to left. This will allow machine to pivot horizontally.

**IMPORTANT:** For maximum distance, balls must be properly inflated.

### A. Setting machine up

1. Tilt machine up onto wheel guards.
2. Using wing nuts which are stored on bolts, attach throwing head to undercarriage, tighten wing nuts securely to passing stand (See Figure 6).
3. Insert 3 legs into sockets.
4. Using lifting handles tilt machine up onto all three tripod legs.
5. Remove lock pin and store in adjacent hole to left (See Figure 5).
6. Loosen horizontal control handle (See Figure 5).
7. Loosen stand elevation handle (See Figure 7).
8. Plug machine into power source. (110v or 220v)
9. Turn power switch "ON."
10. Dial wheel speed to approximate speeds.
11. Continue throwing test balls and adjusting speeds until desired distance and speed is achieved.
12. To tilt throwing wheel to throw either end over and drop kick or spiral passes loosen wheel tilt lever and pivot motor.



Figure 2 Remove wing nuts.

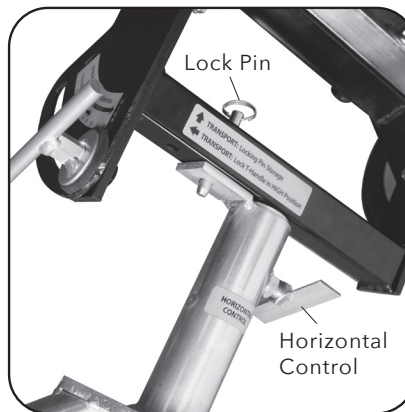


Figure 5 Lock pin inserted to lock throwing head into position for transporting.



Figure 6 Attaching throwing head to undercarriage.

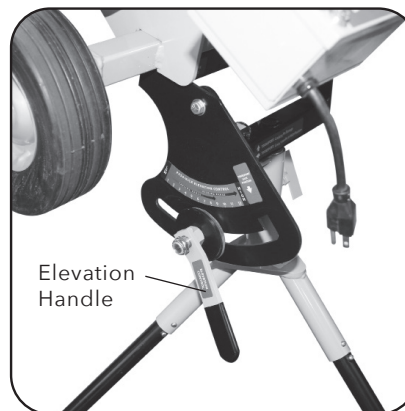


Figure 7 Loosen stand elevation handle.

## SAFETY HINT

When lowering or lifting, Drop Attack keep your back straight and lift with your legs. Be ready to grab the wheel guard and guide Drop Attack into the upright position.

## WARNING HAZARD FROM HIGH-SPEED PROJECTILES

Being struck by a thrown ball can cause serious injury or death. Make sure that no one steps in front of Drop Attack while it is connected to electric power. Clear everyone away from machine before connecting Drop Attack to electric power.



Figure 1 Use handles to lift or lower the Drop Attack.



## SHUTTING DOWN & TRANSPORTING

### TURNING Drop ATTACK "OFF"

1. Set each speed control dial to "0".
2. Turn the power switch "OFF".
3. Unplug Drop Attack from the power source.

### TRANSPORTING

1. Be sure machine is turned "OFF" and wheels are not turning.
2. Unplug cord from extension cord, standard outlet or generator.
3. Transport lock pin must be inserted in hole to right, locking head into position for transporting (See Figure A).
4. Using the elevation control, tilt the throwing head up (to high position) and lock into place (See Figure B). This will facilitate transporting.
5. Using handles (See Figure C) tip machine up and over onto the wheel guards.
6. Lift rear leg and roll machine (See Figure D).

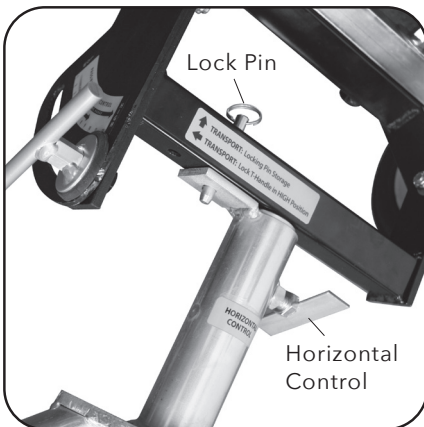


Figure A Lock pin inserted to lock throwing head into position for transporting.

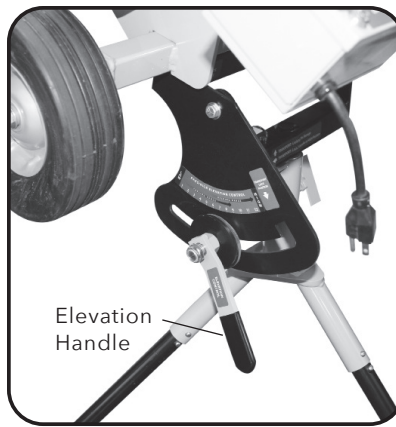


Figure B Loosen stand elevation handle.



Figure C Use handles to lift or lower the Drop Attack.



Figure D Lift rear leg and roll. Shown being used with pass and punting stand.

## WARNING PERSONAL INJURY HAZARD

Never reach down near throwing wheels for any reason! Always turn all three speed control dials "0", turn the power switch "OFF", unplug Drop Attack from the power source and wait until the throwing wheels have come to a complete stop before reaching hands or fingers anywhere near throwing wheels.

## CARE, CLEANING & MAINTENANCE

### LUBRICATION (once per season, or as required):

1. Elevation Control Handle  
Apply fresh grease to threads.
2. Horizontal Swivel Lock
  - a. Completely remove the horizontal swivel lock. Clean all old grease, dirt, etc. from the threads.
  - b. Wipe the threads with a very small amount of fresh grease.
  - c. Reinstall.

### THROWING WHEEL MOTORS

Motors are sealed and require no lubrication.

Check bolts for tightness once a season. Tighten bolts securely, but do not over-tighten. See page 11.

### CLEANING THE THROWING WHEELS

The throwing wheels must be kept clean to maintain accuracy. Clean the wheels periodically to control the build-up of grass and dirt.

1. Turn the power switch "OFF" and allow the wheels to come to a complete stop.  
Unplug Drop Attack from electric power.
2. Dampen a rag with soap and water. Turn the throwing wheel by hand and scrub the wheel until the build-up is removed. For very heavy build-up, a synthetic scouring pad, such as a Scotch-Brite® scouring pad, may be used sparingly.

### EXAMINE THE MACHINE

Examine Drop Attack for condition and completeness before every use:

1. Throwing wheels must be tight on the motor shafts. Check that the four bolts holding the motor to the throwing head assembly are tight.
2. Wheel guard and ball cradle must be securely fastened.

## CAUTION PERSONAL INJURY HAZARD

Never attempt to clean the throwing wheels while they are turning. Rags or implements caught in spinning wheels can cause serious injury.

Unplug the machine before cleaning the wheels or performing any service.



## COMPONENT REPLACEMENT

### THROWING WHEEL REPLACEMENT

1. Turn the throwing wheels "OFF" and unplug the power cord. Remove 4 bolts holding the top wheel guard to the bottom wheel guard.
2. Hold the wheel so that it cannot move. Turn the keyway retaining bolt counter-clockwise using a box end wrench (See Figure 10).  
SUGGESTION: If the bolt is too tight, give the opposite end of the wrench a series of light taps with a hammer making sure the wrench remains on the bolt.
3. Remove the bolt and washers.
4. Work the wheel off of the motor shaft. Be sure to catch the key as it is freed from the keyway.
5. Ball throwing wheels are machine balanced. Small holes in the side of the wheel are applied at the factory and are normal.

Reassemble in reverse order.

- a. Install wheel to motor shaft with key slots aligned.
- b. Be sure the key is in place, and inserted so that it is flush with the boss at the wheel center.
- c. Be sure the Washer and Lock Washer are installed in the right order, and that the keyway retaining bolt is tightened.
- d. Test the wheel by spinning it by hand and making sure that it spins freely without wobble before turning the unit "ON".
- e. Be sure the top wheel guard is properly and securely reinstalled.

**NOTE:** Check bolts for tightness once a season. Tighten bolts securely, but be sure not to over-tighten.

### MOTOR REPLACEMENT

1. Turn the power switch "OFF" and unplug the power cord.
2. Remove top wheel guard.
3. Remove the throwing wheel (See page 11).
4. Remove bottom wheel guard.
5. Remove four screws holding the controller into the control box casting. Note the position of the motor wires on the controller, then disconnect the wire for the motor to be replaced (See Figure 14 on page 13).
6. Note the routing of the motor wires. Loosen wire clamps and pull wire away from machine.
7. To remove motor, remove the 1 -  $\frac{1}{4}$ " nylon nut using a  $\frac{7}{12}$ " socket. Then remove the 2 - nylon nuts using a  $\frac{1}{2}$ " socket.
9. Reassemble in reverse order.

**NOTE:** Check bolts for tightness once a season. Tighten bolts securely, but be sure not to over-tighten.



Figure 10 Hold wheel in place while loosening bolts.



### MOTOR REPLACEMENT TOOLS

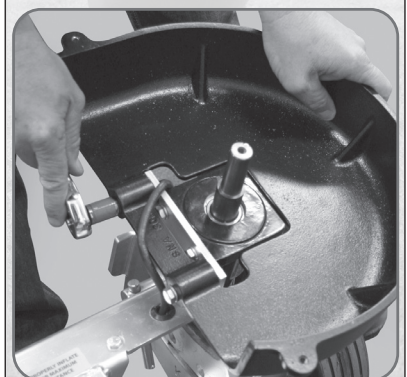
When replacing the motor, you will see two sets of bolts:

2 -  $\frac{1}{4}$ " x  $\frac{3}{4}$ " coarse Allen flat socket cap screw

2 -  $\frac{5}{16}$ " x 1" coarse thread bolts

The Allen wrench needed for the  $\frac{1}{4}$ " Allen screw is a  $\frac{5}{32}$ ".

The wrench or socket size needed for the  $\frac{5}{16}$ " bolt is a  $\frac{1}{2}$ ".



Removing bottom wheel guard, shown using a  $\frac{1}{2}$ " socket.

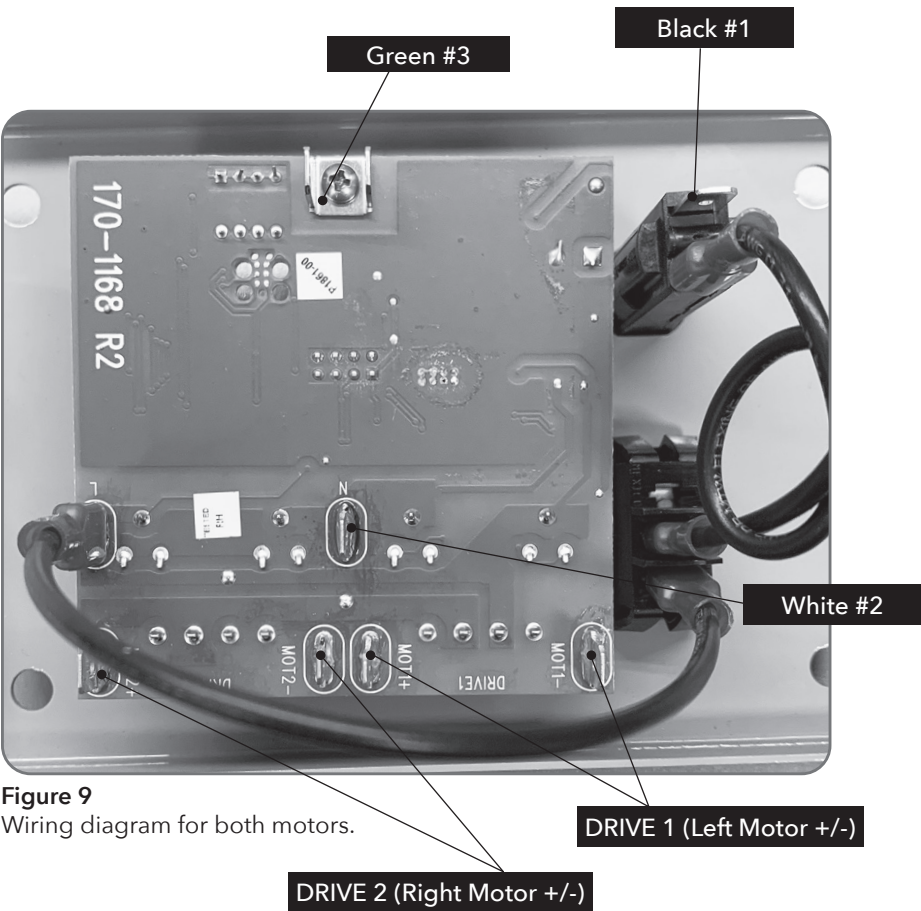
COMPONENT REPLACEMENT (cont'd)

CONTROLLER REPLACEMENT

- 1. Turn the **power switch** "OFF" and unplug the power cord.
- 2. Remove knob from the controller.
- 3. Remove four screws holding controller faceplate into main casting. Note the position of the main power and motor wires on the controller, then disconnect the wires. See Figure 9 for the two motor wires.
- 4. Loosen the nuts holding the speed control shaft (potentiometer) to the faceplate, then remove the controller.

Reassemble in reverse order.

Be sure wires are correctly reinstalled. Motor wire connectors are different sizes. Be sure they are installed on the correct size terminal. See Figure 9 for the two motor wires.



POWER CORD WIRE

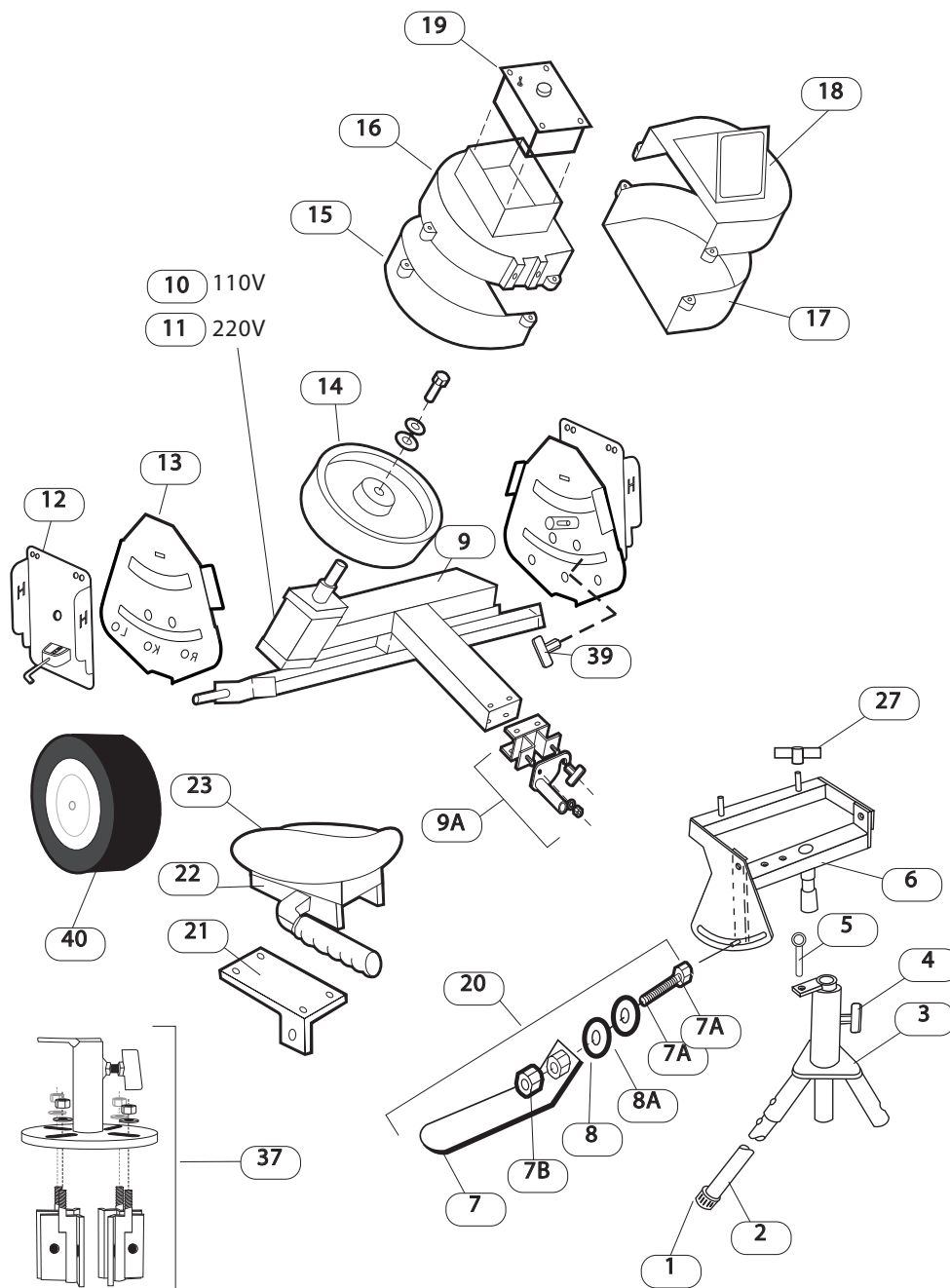
- Black (#1)**  
On/Off switch
- White (#2)**  
N on green control board
- Green (#3)**  
Grounds to machine

CONNECTING WIRES

Motor	Black Wire	White Wire
Right	MOT2-	MOT2+
Left	MOT1+	MOT1-

Left is the side with the Control Plate as you stand behind machine.  
Black motor wires are 3/16" female disconnect and white wires are 1/4" female disconnect.

## EXPLODED VIEW - DROP ATTACK™



- 1 Cane Tip
- 2 Leg
- 3 Swivel Assy
- 4 Handle Horizontal Swivel Lock
- 5 Locking Pin Frame to Swivel
- 6 Undercarriage Assy
- 7 Handle, Elevation Bolt, Carriage
- 7B 5/8" Nylon Nut
- 8 Disc, Elevation Elevation Clutch
- 9 Throwing Head Assy Snapping Tube Elevation Mount
- 10 Motor 110V
- 11 Motor 220V
- 12 Motor Mount Plate with Pin
- 13 Smile Plate
- 14 Throwing Wheel
- 15 Wheel Guard, Lower Left
- 16 Wheel Guard, Upper Left
- 17 Wheel Guard, Lower Right
- 18 Wheel Guard, Upper Right
- 19 Controller (110V/220V)
- 21 Slide, Lower Cradle Slide
- 22 Slide, Upper Cradle Slide
- 23 Ball Cradle
- 27 Throwing Head to Yoke Knob
- 39 Knobb, Motor Lock
- 40 Travel Wheel
- 37 Universal Cart Clamp

Exploded View



## PARTS LIST

PART NO.	DESCRIPTION	QTY PER
280-1003	Cane Tip	3
532-0007	Leg	3
533-2014	Undercarriage	1
533-2011	Frame, Elevation Control	1
533-2025	Yoke	1
280-2009	Throwing Head Mount knob	1
533-2026	Elevation Control Handle	1
340-2019	Elevation Clutch	1
533-2027	Elevation Control Washer	1
280-4002	Wheel Guard, Outside	1
280-4001	Wheel Guard, Inside	1
531-0013	Throwing Wheel	2
530-1012	Motor 110V	2
530-1013	Motor 220V	2
533-2506	Throwing Head Frame	1
281-0010	Travel Wheel	2
533-2038	Motor Mount, Right	1
533-2046	Motor Mount, Left	1
533-2041	Wheel Tilt Locking Handle	1
533-2043	Ball Feed Handle	1
280-2011	Handle Grip	2
533-2049	Control Box	1
530-0055	Contoller 110V	1
530-0056	Controller 220V	1
232-0000	Power Cord	1
280-2003	Speed Control Knob	1
280-2015	Ball Cradle	1
520-0259	Ball Feed Slide	1
533-2052	Position Pointer	1

To order additional parts,  
please contact:

Sports Attack  
Customer Service Dept.  
Ph 800.717.4251  
Fx 775.345.2883

