

VOLLEYBALL



**TOTAL
ATTACK**™
VOLLEYBALL MACHINE

TOTAL ATTACK™ VOLLEYBALL MACHINE
PATENTS APPLIED FOR

INSTRUCTION MANUAL

OPERATION · SETUP · USE & CARE · SERVICE



SPORTS ATTACK LLC. | 800.717.4251 | 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 10% 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 service department a call at 800.717.4251.

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 our website:
sportsattack.com/warranty

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

Sports Attack
Customer Service Dept.
Ph 800.717.4251
Fx 775.345.2883

RETURNS

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

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 product.

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INTRODUCTION

Thank You for purchasing this Sports Attack LLC. equipment.

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 setup the Total Attack, and to use, care for and maintain the Total Attack in a manner which will ensure their optimum performance.

RECEIVING THE PRODUCT

Please check the contents of your boxes to ensure you have received all parts for the machine. If anything is missing or damaged, call Sports Attack Customer Service, 800-717-4251. If the product or package has been damaged in shipping, note on shipping tag, save all evidence of damage along with related documents and contact the shipper immediately.

To register the Warranty, please return the Warranty Registration Card to:

Sports Attack, LLC.
P.O. Box 1529
Verdi, NV 89439

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

Sports Attack
Customer Service Dept.
Ph 800.717.4251
Fx 775.345.2883

RETURNS

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

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 product.

SAFETY INSTRUCTIONS

ELECTRICAL SAFETY

Use a 115 volt single phase 3-wire grounded power source.

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

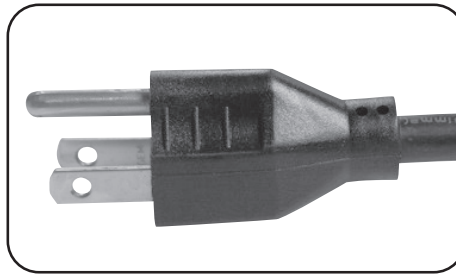
Over 200 ft. from power source, consult a licensed electrician for required power cord size.

OPTION B 208/220/230V

Green = Earth

White or Blue = Neutral

Black or Brown = Line



OPERATING SAFETY

1. Never reach hands into throwing wheel area.
2. Always use the Total Attack with throwing wheel shields in place.
3. Use the Total Attack only under adult supervision.
4. Use the Total Attack only for their intended purpose.
5. Do not operate the Total Attack with a damaged cord or plug, if the machine malfunctions or has been damaged.
6. Check machine before turning "ON" to make sure there are no foreign object in feed chute.
7. If ball becomes lodged and stops motor, immediately turn machine off before dislodging.
8. To dislodge ball from throwing wheel, unplug machine and push ball through chute. Do not reach hand into feed chute with the machine running.
9. Only one person at a time should operate the Total Attack.
10. Be sure chain is locked when standing on platform.
11. Do not allow anyone to walk directly in front of the machine. Keep face and hands away from ball exit.
12. A ball should always be test thrown from the Total Attack before beginning any drill. Throw several balls to verify end location.
13. Keep hands, hair and loose clothing away from moving parts.
14. Do not use near water or use damp or wet balls.

WARNING PERSONAL INJURY HAZARD

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

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

ELECTRICAL SHOCK HAZARD

Total Attack Volleyball Machine must be connected to a properly grounded electrical receptacle.

Do not operate on wet ground.

WARNING PERSONAL INJURY HAZARD

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

Carefully check machine for completeness and condition before connecting to electrical power.

EQUIPMENT ELECTRICAL DAMAGE

DO NOT plug in or energize the equipment until all Assembly and Operation Instructions are read and followed.

ASSEMBLY INSTRUCTIONS

Tools required: Two 1/2" wrenches and two 3/4" wrenches or two small crescent wrenches.
DO NOT TIGHTEN BOLTS ALL THE WAY UNTIL YOU COMPLETE ASSEMBLY.

STEP ONE

Lay out all parts and check them against the components list on page 4 Hardware kit on page 3. Call customer service immediately if any parts are missing. Please have applicable part numbers as shown on parts list.

EM	PART NO.	DESCRIPTION	QTY PER
1	280-4002	Wheel Guard Outside	3
2	280-4001	Wheel Guard Inside	3
3	530-4033	Throwing Head Frame	1
4	531-0007	Throwing Wheel	3
5	530-0032 530-0033	Controller - 90V Controller - 180V	1
6	271-0031	Rolling Tray Rollers	8
7	520-0107	Mast Assembly (includes shock absorber cord)	1
8	533-4035	Arm Assembly	1
10	530-1015 530-1016	Motor - 90V Motor - 180V	3
11	510-0019	Throw Head, Yoke Assembly	1
14	533-4037	Rear Frame Assembly	1
15	533-4036	Front Frame Assembly	1
16L	533-4001	Left-hand Side Panel	1
16R	533-4000	Right-hand Side Panel	1
18	533-4014	Platform	1
19	281-0015	Locking Castor	2
20	271-0105	Castor Wrench	1
20L	533-4030	Left-hand Caster Brace Assembly	1
20R	533-4029	Right-hand Caster Brace Assembly	1
22	533-4005	Rolling Assembly	1
23	281-0014	Non-locking Castor	2
24	271-0032	Cord Roller (Top and Bottom)	2
25	533-4032	Bracket Mast Upper Support	1

OPTIONAL ACCESSORIES

EM	PART NO.	DESCRIPTION
	120-3000	Ball Bag Kit (bag and frame)
	120-3001	Ball Bag (only)
	533-4015	Ball Bag Frame (only)
	120-3002	Machine Cover

CAUTION PERSONAL INJURY HAZARD

Failure to use the special tool provided to install the casters could result in personal injury.

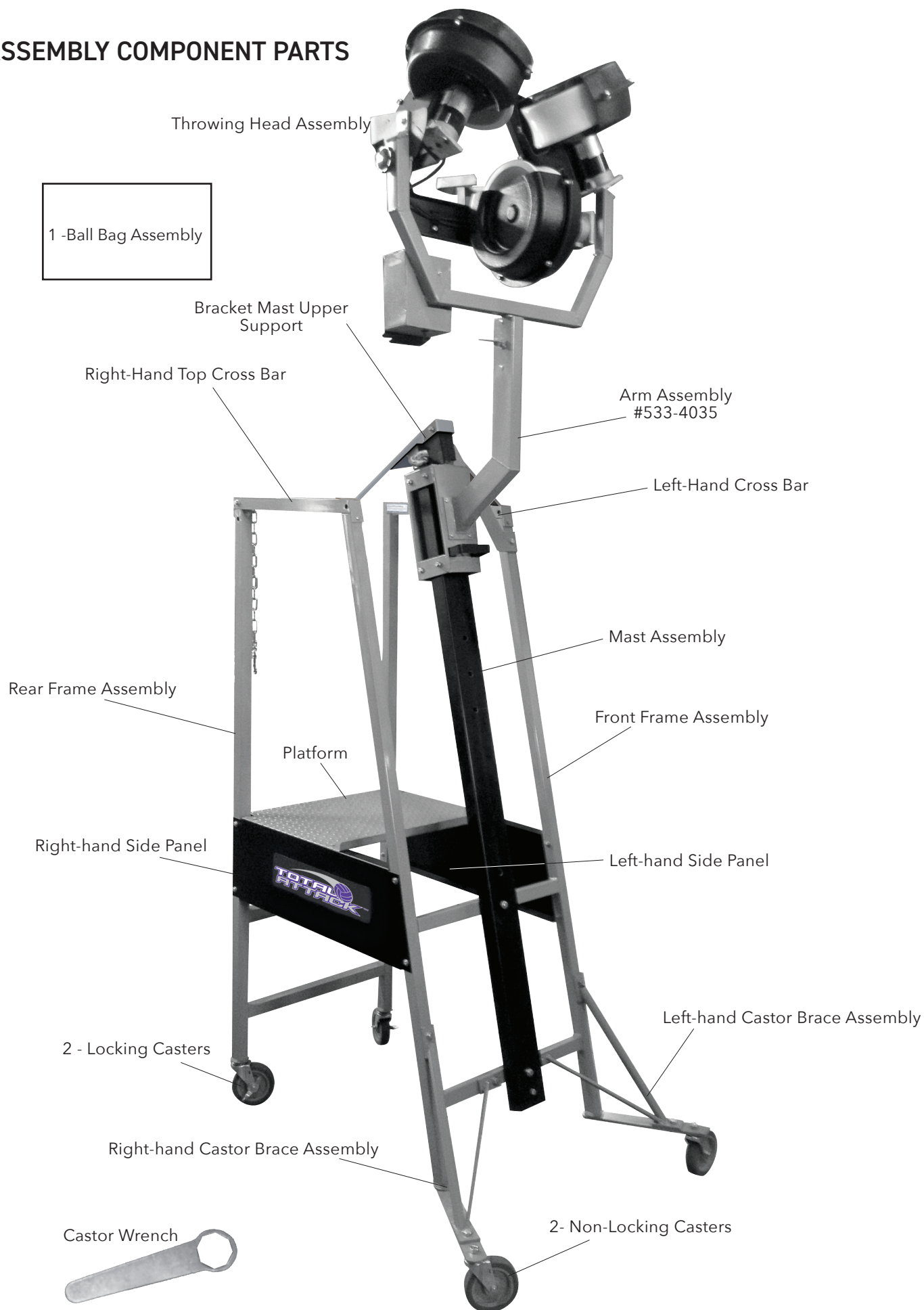
EQUIPMENT DAMAGE

Failure to use the special tool provided to install the casters could result in equipment damage.

HARDWARE KIT Item# 520-9001

Qty	Item
4	1/4" - 20 x 3/4" Bolts
8	1/4" - 20 x 2" Bolts
6	1/4" - 20 x 2 1/4" Bolts
1	1/4" - 20 x 2 3/4" Bolt
19	1/4" USS Washers
19	1/4"-20 Nylon Nuts w/Flange
4	5/16" - 18 x 3/4" Bolts
4	5/16" Split Lock Washers
4	5/16" SAE Washers
2	3/8" - 16 x 4 1/2" Bolts
4	3/8" - 16 x 2 1/2" Bolts
8	3/8" SAE Washers
4	3/8" USS Washers
6	3/8" - 16 Nylon Nuts
2	1/2" - 13 x 1" Bolts
2	1/2" Split Lock Washers
2	1/2" - 13 Nylon Nuts
2	Castors, 8" Non-locking
2	Castors, 8" Locking
1	Caster Wrench

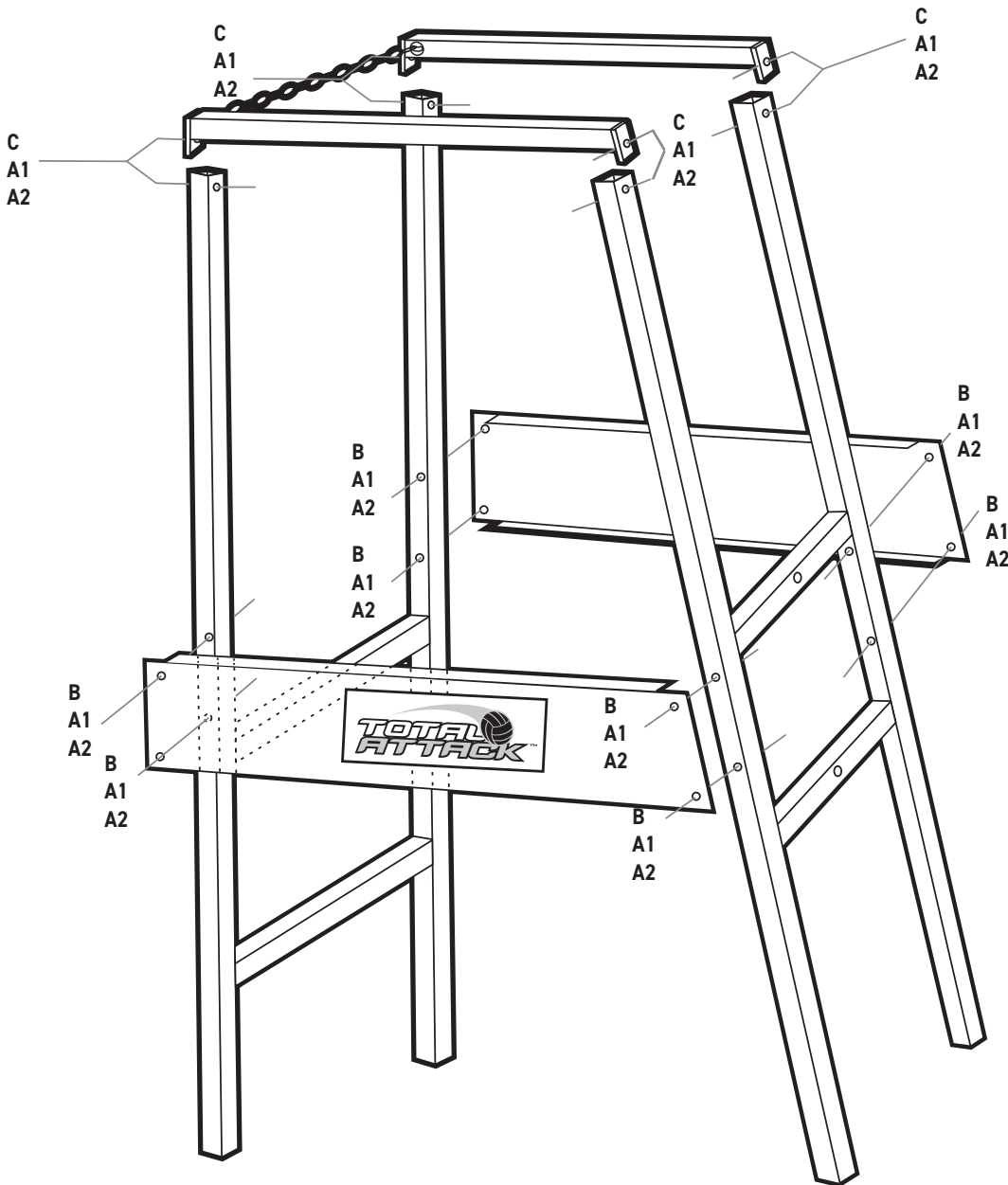
ASSEMBLY COMPONENT PARTS



IMPORTANT: as you assemble the machine, leave bolts very loose. Tighten only after the Total Attack machine is completely assembled.

STEP TWO

Lay out rear frame assembly, front frame assembly and right- and left-hand panels. Assemble as shown below. **Leave all bolts loose.**



CAUTION PERSONAL INJURY HAZARD

Failure to use the special tool provided to install the casters could result in personal injury.

EQUIPMENT DAMAGE

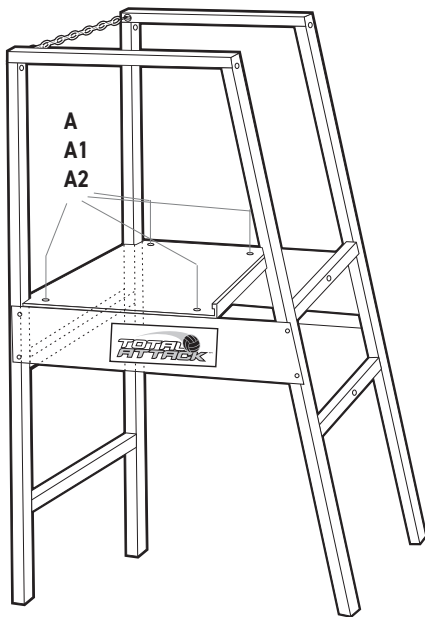
Failure to use the special tool provided to install the casters could result in equipment damage.

HARDWARE KIT Item# 520-9001

Ref.	Item
A	1/4" - 20 x 3/4" Bolts
B	1/4" - 20 x 2" Bolts
C	1/4" - 20 x 2 1/4" Bolts
D	1/4" - 20 x 2 3/4" Bolt
A1	1/4" USS Washers
A2	1/4"-20 Nylon Nuts w/Flange
E	5/16" - 18 x 3/4" Bolts
E1	5/16" Split Lock Washers
E2	5/16" SAE Washers
F	3/8" - 16 x 4 1/2" Bolts
G	3/8" - 16 x 2 1/2" Bolts
F1	3/8" SAE Washers
F2	3/8" USS Washers
F3	3/8" - 16 Nylon Nuts
H	1/2" - 13 x 1" Bolts
H1	1/2" Split Lock Washers
H2	1/2" - 13 Nylon Nuts
2	Castors, 8" Non-locking
2	Castors, 8" Locking
1	Caster Wrench

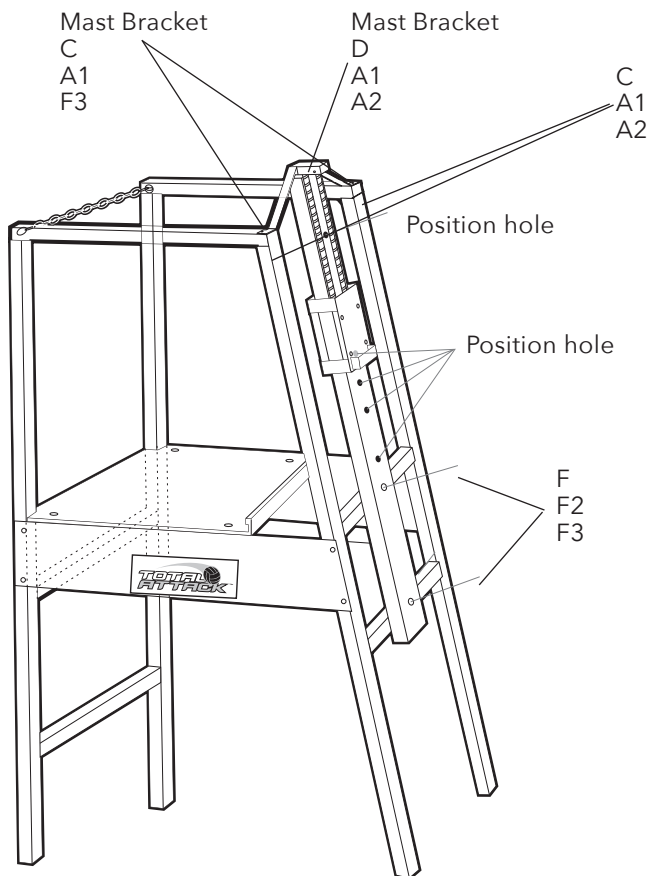
STEP THREE

With bolts from Step Two still loose, set platform in place and tighten bolts securely see below. Now go back and tighten bolts from Step Two assembly.



STEP FOUR

Bolt mast to frame assembly as shown below. Then attach mast bracket to mast and top cross tube. Do not tighten bolts until both are in place with the nuts on finger tight.



CAUTION PERSONAL INJURY HAZARD

Failure to use the special tool provided to install the casters could result in personal injury.

EQUIPMENT DAMAGE

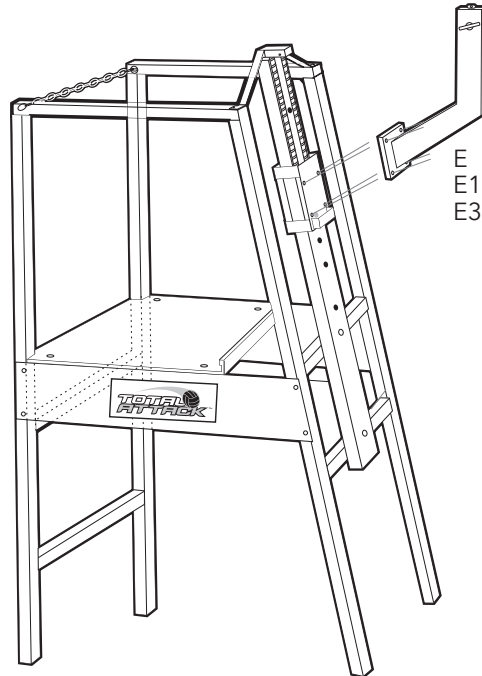
Failure to use the special tool provided to install the casters could result in equipment damage.

HARDWARE KIT Item# 520-9001

Ref.	Item
A	1/4" - 20 x 3/4" Bolts
B	1/4" - 20 x 2" Bolts
C	1/4" - 20 x 2 1/4" Bolts
D	1/4" - 20 x 2 3/4" Bolt
A1	1/4" USS Washers
A2	1/4"-20 Nylon Nuts w/Flange
E	5/16" - 18 x 3/4" Bolts
E1	5/16" Split Lock Washers
E2	5/16" SAE Washers
F	3/8" - 16 x 4 1/2" Bolts
G	3/8" - 16 x 2 1/2" Bolts
F1	3/8" SAE Washers
F2	3/8" USS Washers
F3	3/8" - 16 Nylon Nuts
H	1/2" - 13 x 1" Bolts
H1	1/2" Split Lock Washers
H2	1/2" - 13 Nylon Nuts
2	Castors, 8" Non-locking
2	Castors, 8" Locking
1	Caster Wrench

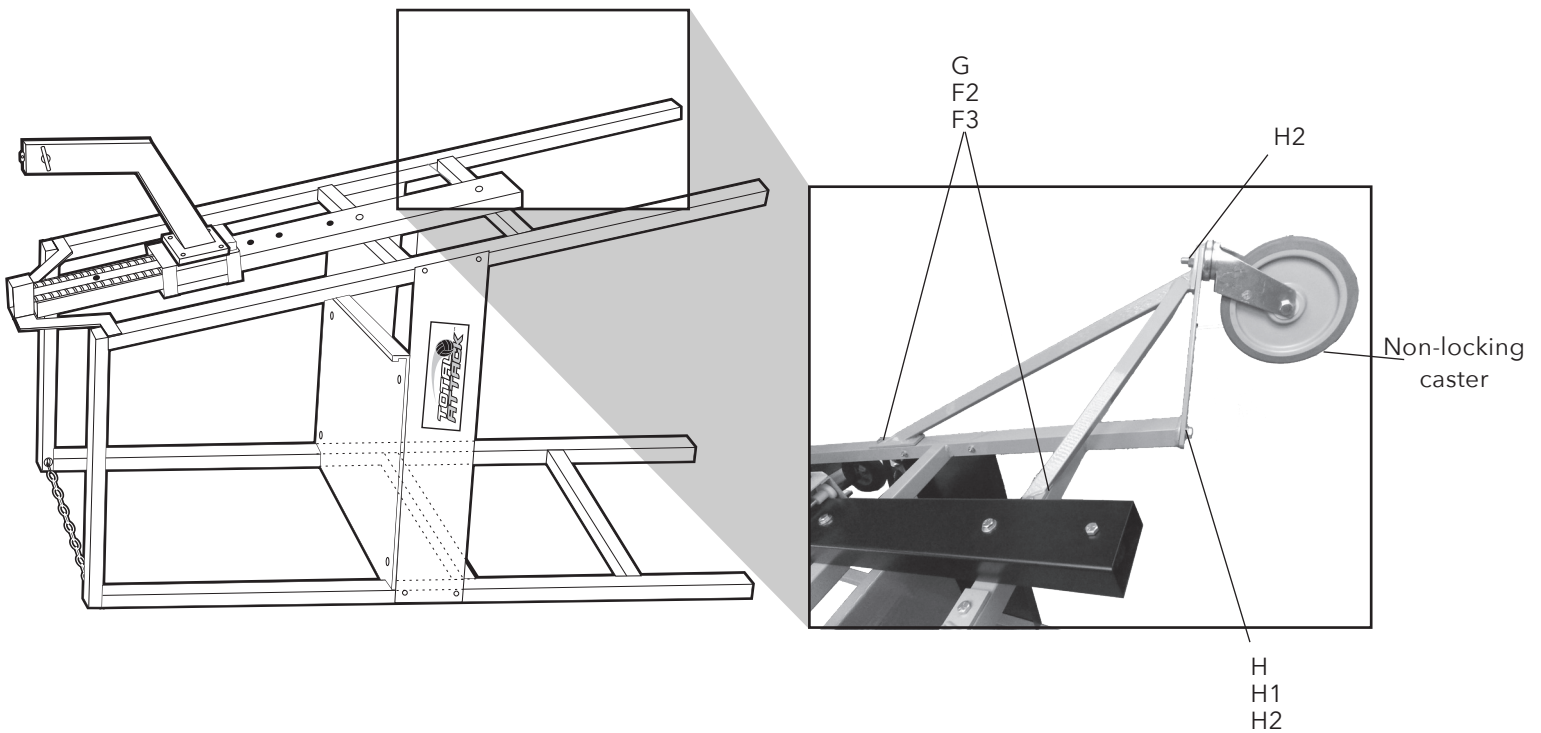
STEP FIVE

Bolt arm assembly onto rolling tray as shown below. Again do not tighten bolts until all four are in place.



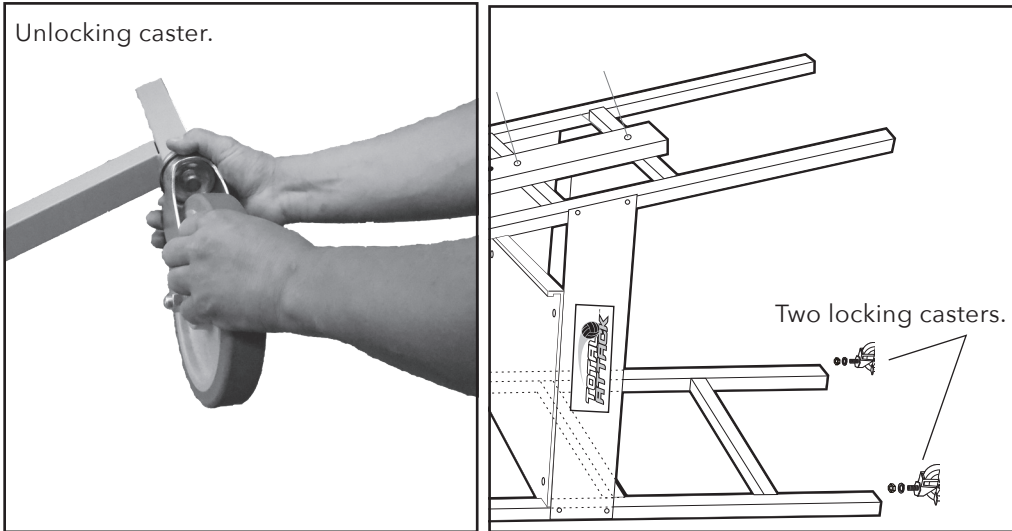
STEP SIX

Lay machine on the ground to attach right and left brace tube caster assembly. Bolt right and left brace tube caster assembly as shown below. Again, do not tighten bolts until all bolts are in place.



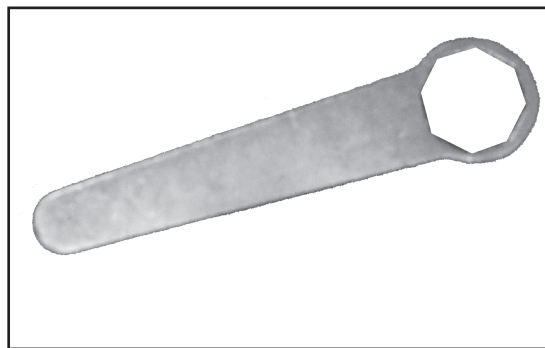
STEP SEVEN

Hand tighten locking casters to the rear frame as shown below and unlocking casters to the frame legs shown below. Casters are pre-applied with red locktite.



STEP EIGHT

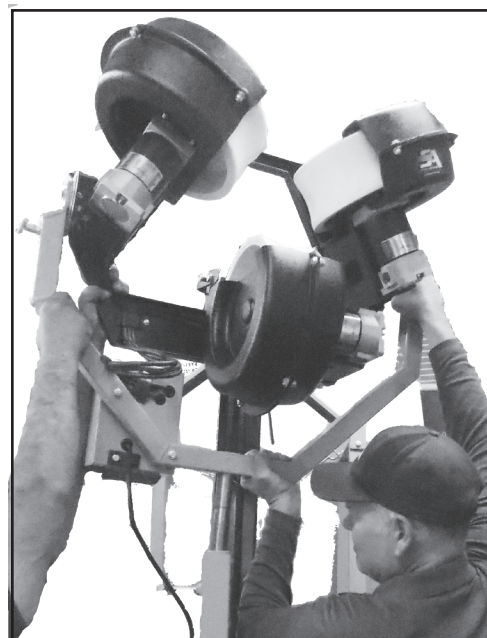
Tighten casters using wrench shown. Make sure casters are completely tightened into frame. (No threads showing).



STEP NINE

Loosen side-to-side swivel handle on arm assembly. LOWER the arm assembly to the lowest position and SECURE in the lowest position hole. And you can securely attach throwing head by inserting shaft into bearing provided in arm assembly and tighten side-to-side swivel handle (TWO PEOPLE NEED FOR THROWING HEAD ASSEMBLY).

Assembly is now complete, make sure all nuts and bolts are tightened securely and your Total Attack Volleyball Machine is ready for use. See instructions in the manual and on the decals on the machine for operating procedures and options.



CAUTION PERSONAL INJURY HAZARD

Failure to use the special tool provided to install the casters could result in personal injury.

EQUIPMENT DAMAGE

Failure to use the special tool provided to install the casters could result in equipment damage.

INSTALLING A BALL BAG



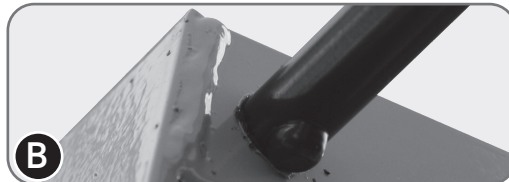
Step 1 Insert one arm of the ball bag frame into the appropriate holes on the platform frame.



Step 2 Carefully apply firm pressure to bend the other arm so that it lines up with the corresponding holes on the platform frame.



Step 3 Insert arm of ball bag frame into the holes on the platform frame.



Step 4
A Use your palm to "whack" the ball bag frame.
B Button will rest against frame.



Step 5 Both arms are securely in place.



Step 6 Tie ball bag straps.

STEP 1

Insert one arm of the ball bag frame into the appropriate holes on the the platform frame. The second arm of the ball bag frame will not line up with the set of corresponding holes on the platform frame. This is intentional.

STEP 2

Holding on to the platform frame as shown in the photo for Step 2, carefully apply firm pressure on the second arm and bend it until it lines up with the corresponding holes in the platform frame.

STEP 3

Insert arm into the corresponding holes on the platform frame.

STEP 4, A & B

Still holding on to the platform frame with one hand, use the palm of your other hand to "whack" the frame (photo A) until the button rests against the frame (photo B).

STEP 5

Both arms are now securely in place with the proper amount of tension to keep ball bag in place.

STEP 6

You may now tie the ball bag straps to the platform frame.

To order additional parts, like the ballbag, please contact:

**Sports Attack
Customer Service Dept.**

Ph 800.717.4251

Fx 775.345.2883

VOLLEYBALL OPERATION

The Total Attack Volleyball Machine is a total practice machine. No special training other than the complete, careful reading of this manual is required to operate the machine. Many coaches have broadened and refined their own coaching skills by its use.

ELEVATING AND LOWERING THE MACHINE HEAD

1. Release the locating pin on the sliding tray.
2. Position the throwing head into one of five elevation settings to the required height.
3. Locating pin will snap into place.

INCREASE OR DECREASE SPEED

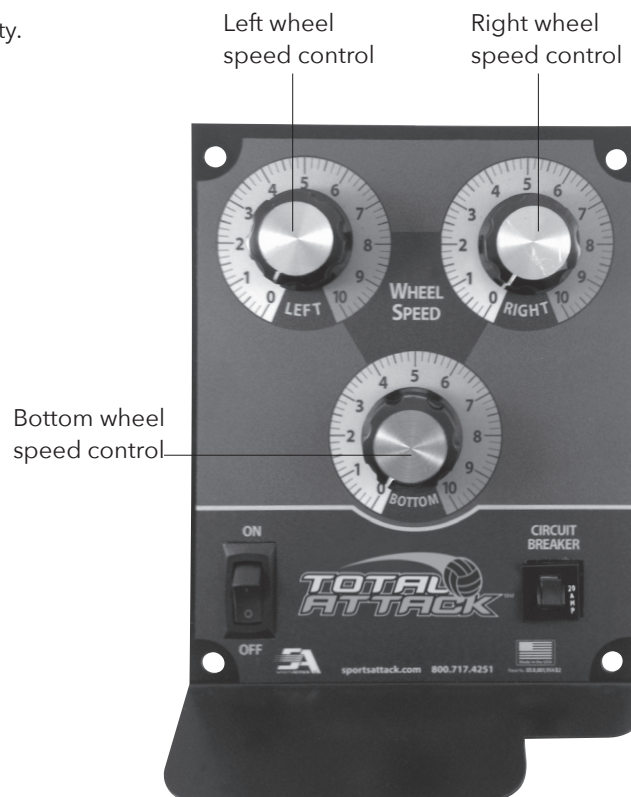
1. Before turning machine "ON," turn dials located on the throwing head to the "0" position.
2. Turn on/off switch to "ON." The wheels will spin slowly. Turn speed control knobs clockwise to increase speed.
3. Turn the speed control knobs counter-clockwise to decrease speed.

BALL SPIN, BREAK OR MOVEMENT

1. **Floater:** All 3 knobs turned to the same setting, making the wheels spin at the same RPM.
2. **Top Spin:** 2 upper wheels turning fast, lower wheel turning slowly. Variations of the ball spin and break are determined by the wheel speeds.
3. **Breaking:** Refer to speed chart on machine

HORIZONTAL CONTROL

1. Loosen to vary direction.
2. Tighten for repeatability.



WARNING PERSONAL INJURY HAZARD

Never reach down near throwing wheels for any reason! Always turn all three speed control dials "OFF", turn the on/off switch "OFF", unplug Total 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.

VOLLEYBALL SHUTTING DOWN

TURNING TOTAL ATTACK "OFF"

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

TRANSPORTING

1. Turn the machine "OFF" and unplug.
2. Lower throwing head to the lowest position on the sliding tray. The locating pin will snap into place.

DO NOT STORE OR TRANSPORT WITH THROWING HEAD ELEVATED.

CARE, CLEANING & MAINTENANCE

LUBRICATION

Throwing Wheel Motors

Motors are sealed and require no lubrication.

CLEANING THE THROWING WHEELS

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

1. Turn the on/off switch "OFF" and allow the wheels to come to a complete stop. Unplug machine from electric power.

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, or medium sandpaper may be used sparingly. **Methyl Ethyl Ketone (M.E.K.)** may be required to help loosen the build-up of dirt or ball residue.

EXAMINE THE MACHINE

Examine Total Attack for condition and completeness before every use:

1. Throwing wheels must be tight on the motor shafts. Check that the keyway retaining bolts are tight.
2. Wheel guard must be securely fastened to the throwing head.
3. Check rolling casters once a year for tightness. Tighten bolts securely using wrench provided, but do not over-tighten. See Page 8, Schedule 3.
4. Check all casters and bolts of frame once a year for tightness.

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 machine before cleaning the wheels or performing any kind of service.

CHEMICAL HAZARD

Methyl Ethyl Ketone (M.E.K)

Read and follow the directions and safety instructions on the M.E.K container.

FIRE HAZARD

Methyl Ethyl Ketone (M.E.K)

M.E.K. is flammable. Do not use M.E.K. around a fire or flame. Do not use M.E.K. near a running generator or other source of ignition.

COMPONENT REPLACEMENT

THROWING WHEEL REPLACEMENT

1. Turn the throwing wheels "OFF" and unplug the power cord. Remove four bolts holding the wheel guard to the motor-side 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 9).
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. A slight wobble is also 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 before turning the unit "ON".
- e. Be sure the wheel guard is properly and securely reinstalled.

NOTE: Check bolts for tightness once a season. Tighten bolts securely, but do not over-tighten.

MOTOR REPLACEMENT

1. Turn the on/off switch "OFF" and unplug the power cord.
2. Remove the throwing wheel (see above) and two wheel guards.
3. Remove four screws holding controller into main electrical box. Note the position of the motor wires on the controller, then disconnect the wires. See Page 14.

When connecting the female plugs onto the male spades on the circuit board, check that all female connectors connect securely. If they are loose, use pliers to close the female connectors. So they will fit securely.

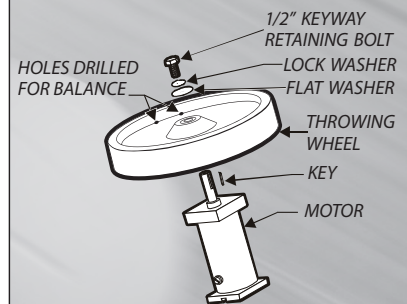
4. Note the routing of the motor wires. Loosen any wire clamps.
5. Remove bolts holding the motor to the main frame.

Reassemble in reverse order.

NOTE: Check bolts for tightness once a season. Tighten bolts securely, but do not over-tighten.



Figure 9 Hold wheel while loosening bolts.



COMPONENT REPLACEMENT (cont'd)

CONTROLLER REPLACEMENT

1. Turn the on/off switch "OFF" and unplug the power cord.
2. Remove the four screws holding controller faceplate. Note the position of the main power and motor wires on the controller, then disconnect the wires.

Reassemble in reverse order.

- a. Be sure wires are correctly reinstalled. Motor wire connectors are different sizes. Be sure they are installed on the correct size terminal.
- b. When attaching the knobs, turn the speed control shafts fully counter-clockwise, then install the knobs with the pointer to "0."

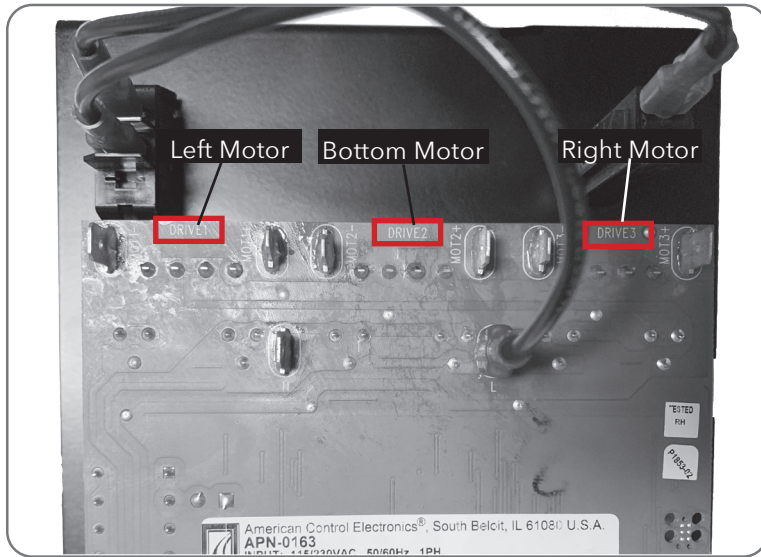


Figure 12 Wiring diagram from the control board side.

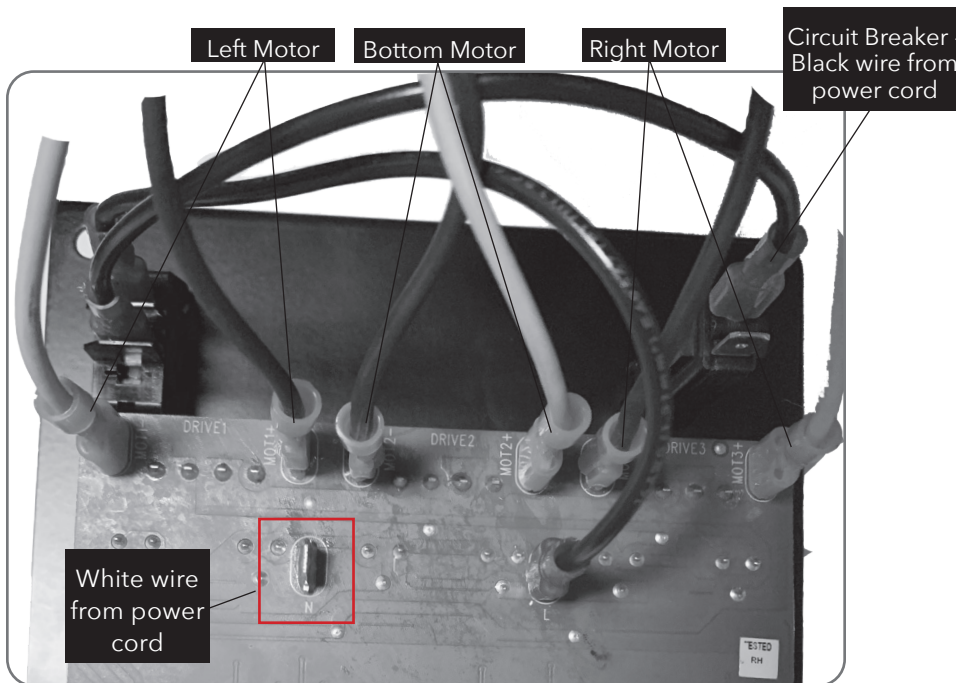


Figure 13 Wiring diagram for all three motors.

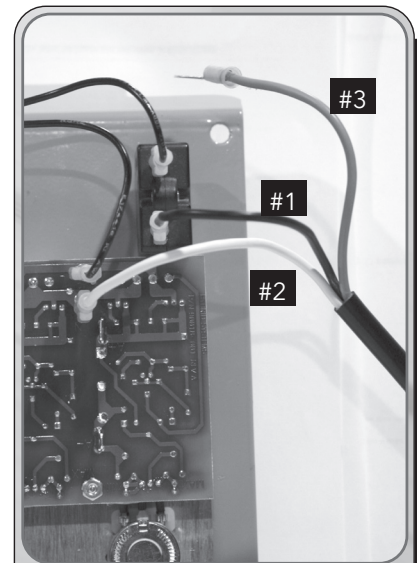


Figure 14

POWER CORD WIRE

Black (#1)

Circuit breaker

White (#2)

"N" on green control board

Green (#3)

Grounds to machine

CONNECTING WIRES

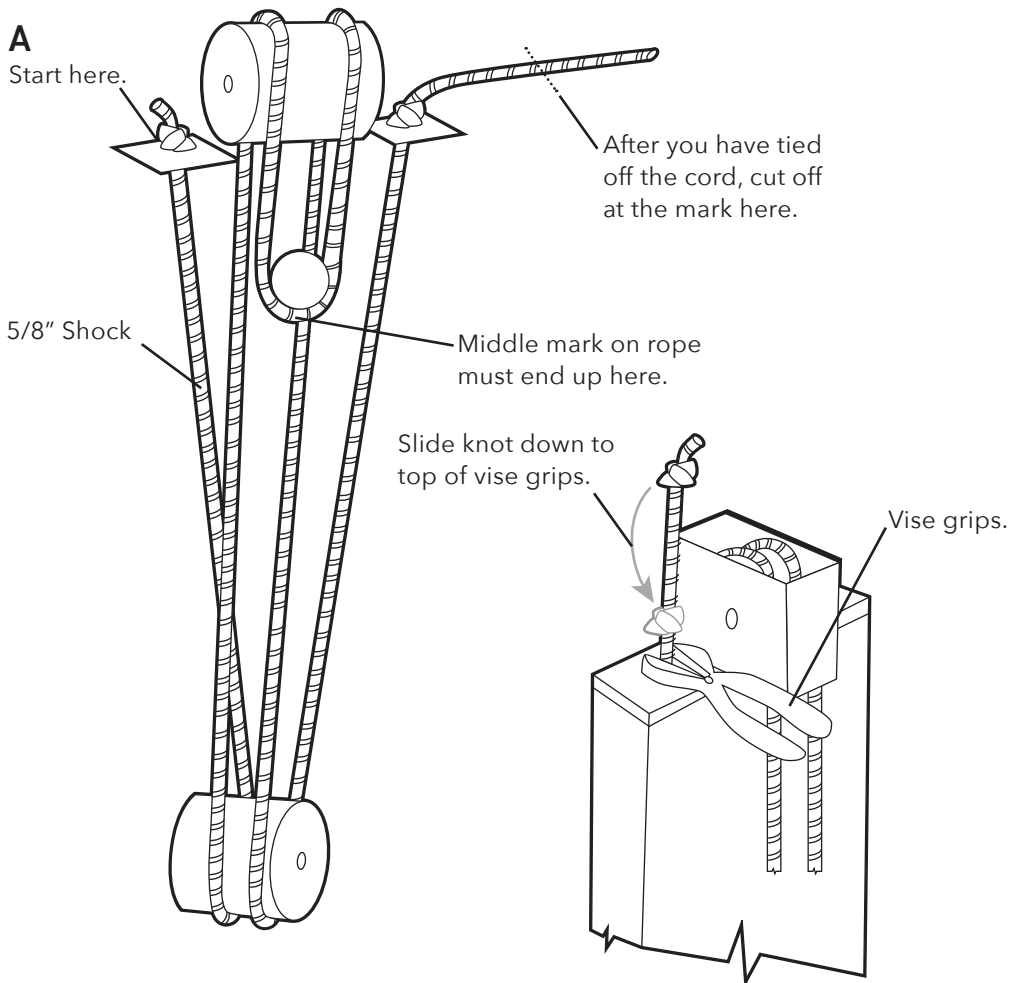
Motor	Black Wire	White Wire
Right	A-	A+
Left	A+	A-
Bottom	A-	A+

NOTE: Black motor wires are 3/16" female disconnect and white wires are 1/4" female disconnect.

INCREASING TENSION INSTRUCTIONS

STEPS IN INCREASING TENSION ON THROWING HEAD (LOCATED AT A)

1. Stretch cord approximately 12" (this distance can be adjusted as required)
2. Using vise grips as shown, clamp tightly to hold shock absorber cord.
3. Loosen knot and slide it down to top of vise grips.
4. Repeat process on opposite side.



COMPONENT PARTS

