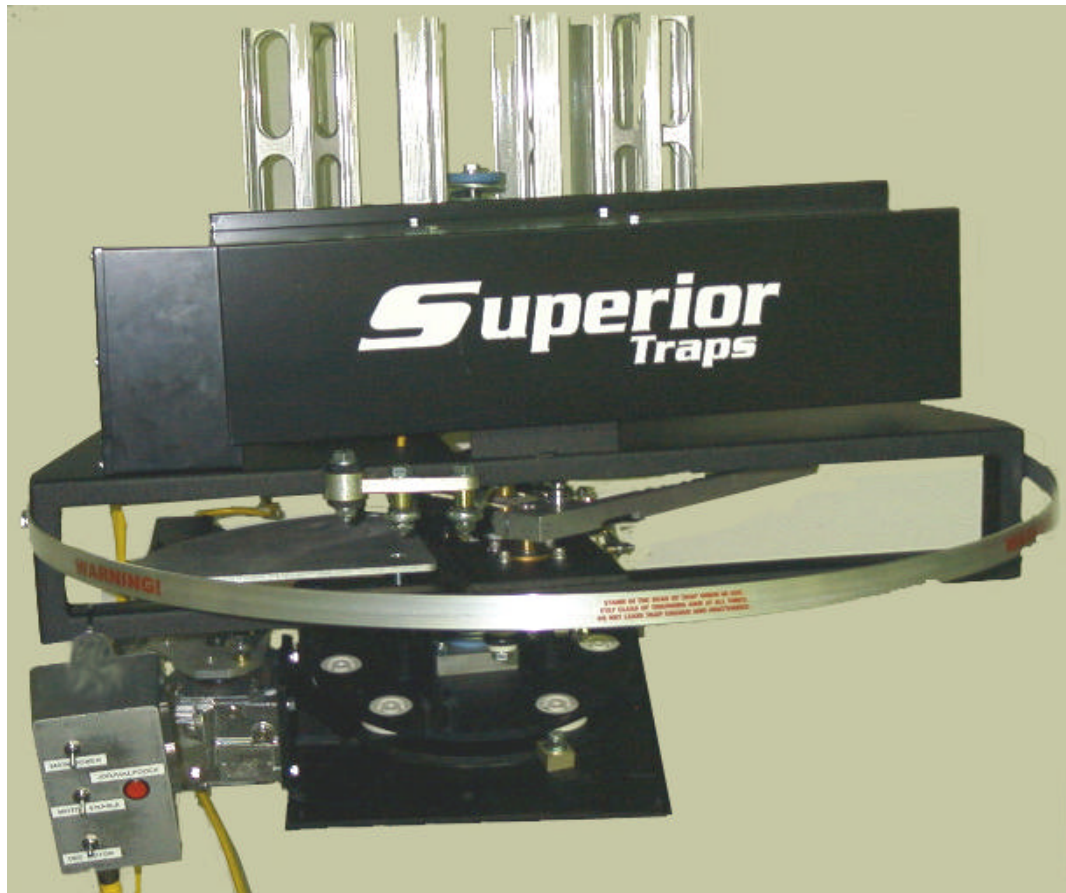


# Owners Manual



Model 400  
ATA



Read and follow all Safety Guidelines prior to  
operating machine

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Congratulations on your purchase  
of your new  
**Superior Traps**  
Model 400  
**ATA**

This machine has been designed and built to give many years of trouble free service.

As with any machine with strong springs and moving parts, there are certain risks involved in the operation of this machine.

Always keep **Safety** your **First priority.**

**Failure to follow safety, operation and maintenance guidelines could cause severe injury or death.**

# Safety Guidelines

**Failure to follow these instructions could cause serious injury or death.**

1. Only properly trained safety conscious personnel should operate this machine.
2. **NEVER stand in front of the machine.**
3. Turn off Motor switch, press Halfcock button (**this will release arm and throw target**) and turn off Main power switch before loading or adjusting machine.
4. Disconnect power before working on machine.
5. Do not operate while standing in water. Use a cover when exposed to rain.
6. Do not use this machine if it is not in good working order.
7. Keep all hands, fingers and other body parts away from the moving parts of this machine.
8. Eye protection should be worn by anyone loading, operating or servicing this machine.
9. Fill magazine evenly, with targets that are not cracked or broken. **Stand at rear of machine while loading.**
10. Never leave machine unattended without first clearing machine(Halfcock) and shutting off power.

# Warning:

## Do Not Stand In Front Of Machine

### At Any Time

#### ATA. Start -Up Procedure:

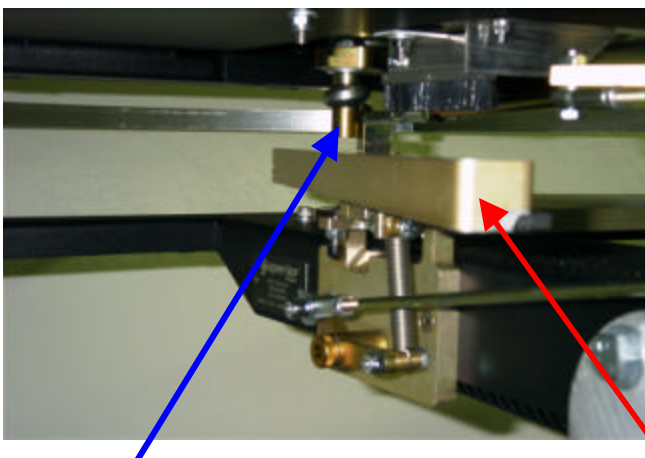
Make sure switches are in the off position.  
Attach power cable and cable from remote box to electrical box.  
Attach release cable to remote box.  
Plug into standard 110volt grounded power source.  
Turn on **Main power** switch.  
Turn on **Motor Enable** switch. This will cock the machine and make ready to fire.

**Note:** The safety circuits on a 110 volt machine will cause it to delay and to cock slowly the first time after power down or power failure. This is normal.

#### Power-Down Procedure:

Turn off the **Motor** switch.  
Press the, **Half cock, Jog button**, this will release the throwing arm and throw a target.  
Turn off the **Main Power** switch.

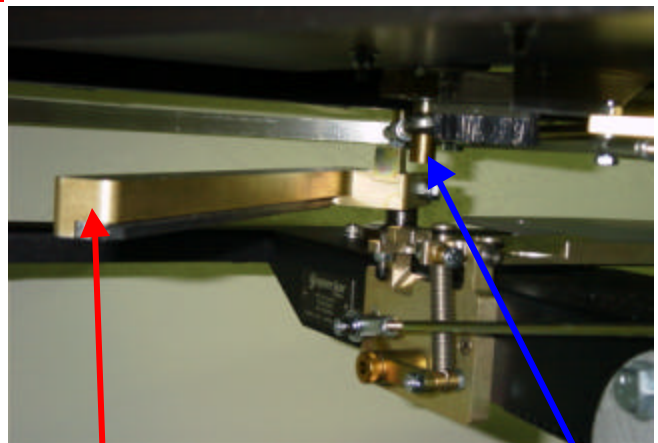
*The machine is in a safe condition only when the cocking bolt is in front of the throwing arm and the motor and power switches are in the off position.*



Cocking Bolt

Throwing Arm

**Unsafe**



Cocking Bolt

**Safe**

# Superior Electronics

All Superior Traps machines use a Programmable logic controller to control the electronics to the machine.

The 110 Volt AC machines use a drive board to control the motor. The safety circuits on a 110 volt machine will cause it to delay and to cock slowly the first time after power down or power failure. This is normal.

The programmable controller and drive boards have numerous adjustments on them, none of which should be changed by the customer.

All machines are live fire tested prior to leaving the factory. If you should experience a problem we will be glad to take care of it.

**ANY ATTEMPT, BY THE CUSTOMER,  
TO ADJUST ANYTHING INSIDE THE  
ELECTRICAL BOX WILL VOID THE  
WARRANTY.**

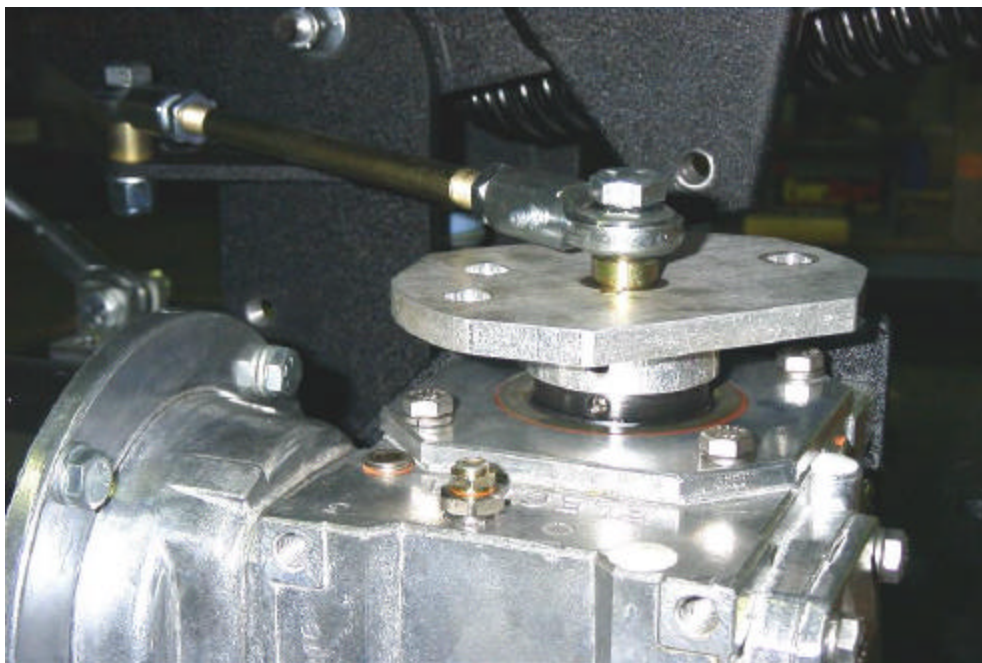


# Centering the shot pattern

In preparation for shooting targets off of this machine, one must first center the shot pattern in the middle of the trap field. This is done by mounting the oscillation linkage bolt in the middle of the oscillation gearbox shaft.(machine is normally shipped in this position)

By loosening the jam nuts on the linkage rod and rotating the rod, the length can be adjusted so that the target is shot in the middle of the field.

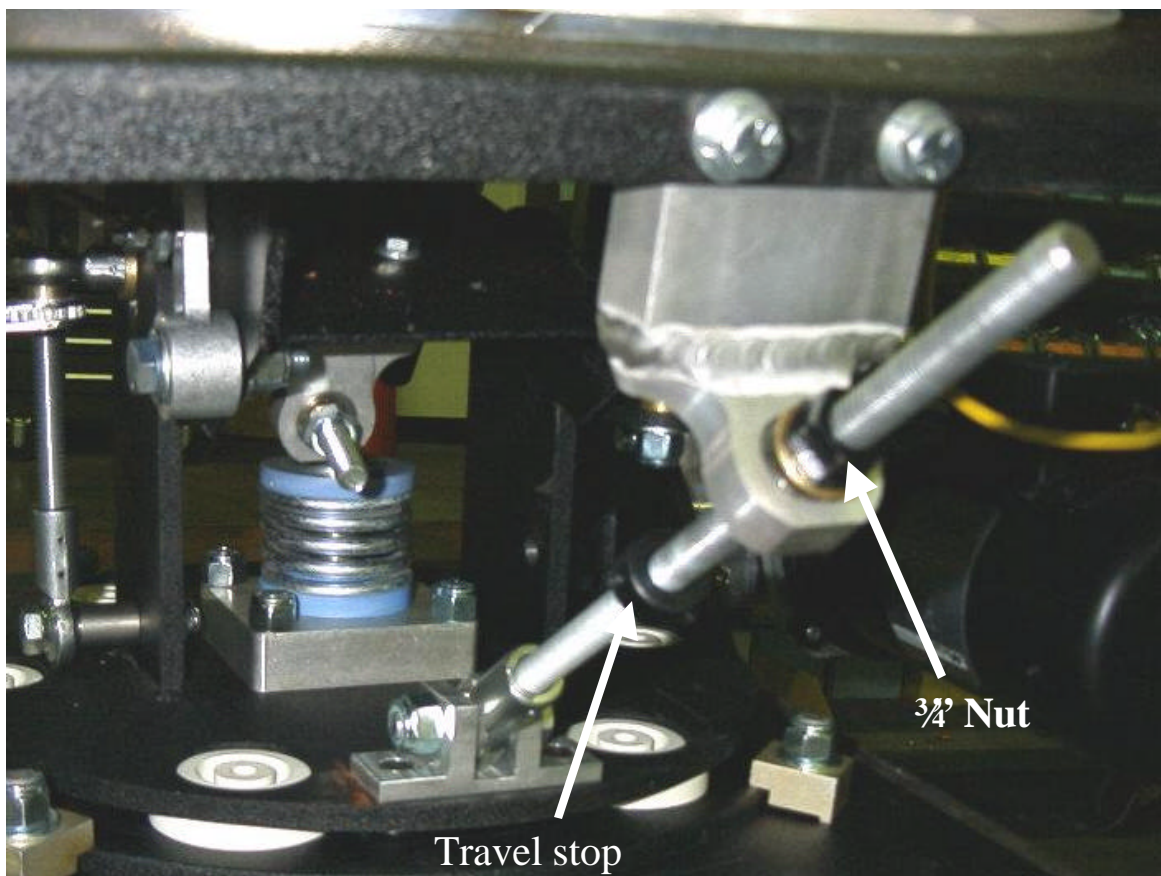
After adjusting the center position, move bolt to one of the operating positions, (see page nine) and install with  $\frac{3}{4}$  hex nylon locking nut. Make sure that the jam nuts are tightened on the adjusting rod.



# Adjusting Shooting Height

To adjust the shooting height, simply raise or lower the front of the machine using the  $\frac{3}{4}$ " nut at the back of the machine.

Note that moving the travel stop could result in the spring hanger interfering with the base spring!

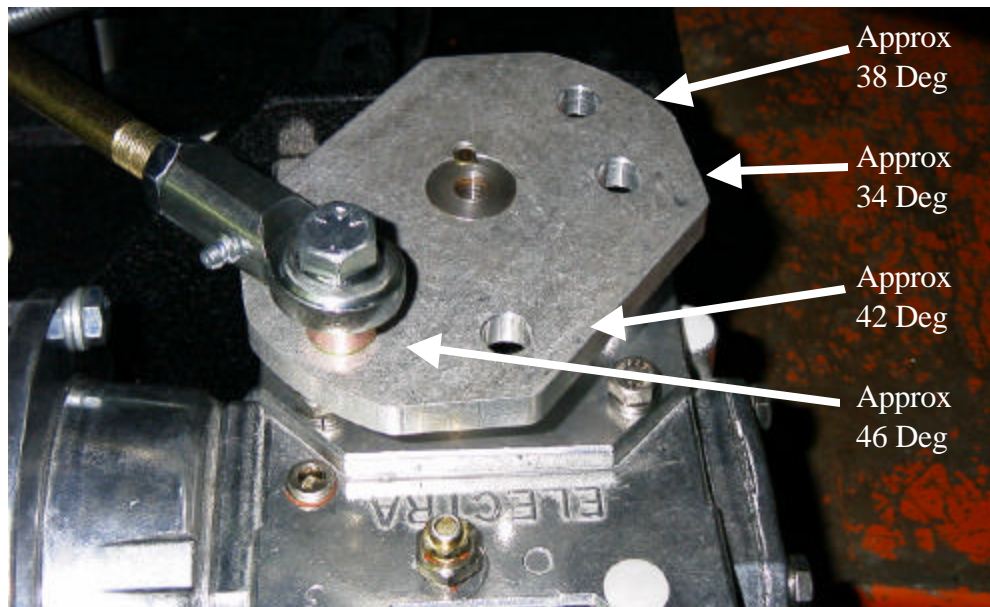




# Adjusting Oscillation

The oscillation is turned on by the osc switch on the control box. There is a timer in the circuit to pause the oscillation so shooters can not “time” their shots. The width of the oscillation can be adjusted by mounting the linkage bolt in a different hole in the oscillation plate.

There are four holes to choose from, giving approximately 34 deg to 46 deg of oscillation.



# Adjusting Windage

The Superior Traps ATA can be tilted to adjust for windage.

To adjust simply loosen the jam nut and raise or lower (using the attached wrench) the side of the machine with the adjustment until you get a level target presentation. Retighten the jam nut when finished.

Tighten  $\frac{3}{4}$  nut on opposite side of frame (axle) after setting. Hold spherical rod end while tightening nut to keep perpendicular to acme threaded rod.

After adjusting, lock the wrench in the rearward position by moving the wrench rearward and switching the ratcheting lever so that it stays in that position.



# Pinchroller Adjustment

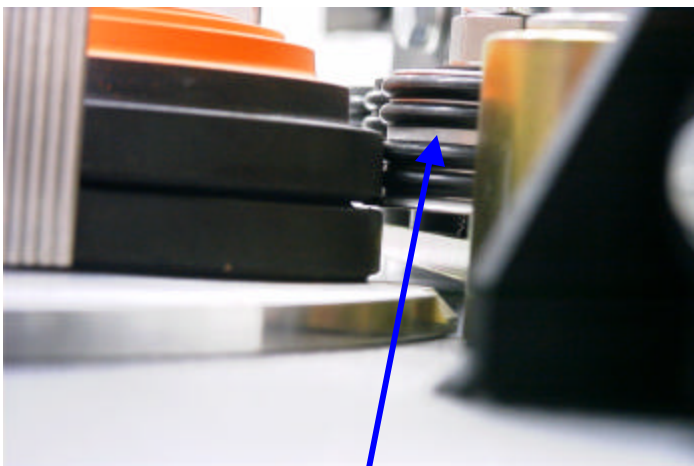
Proper Pinchroller adjustment is critical to proper machine performance.

Your machine has been adjusted and test fired at our factory.

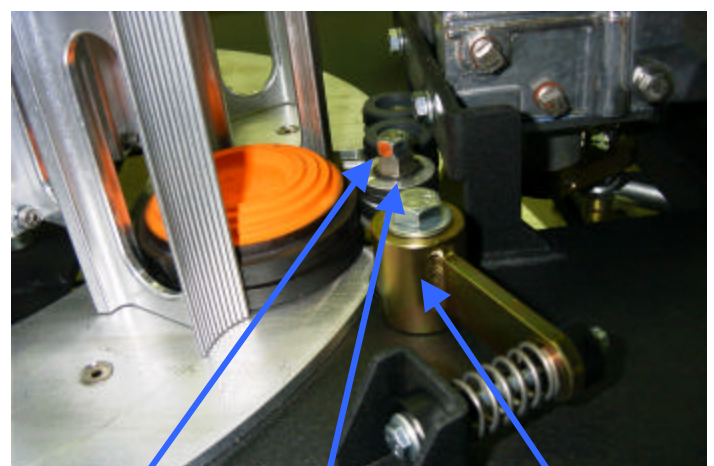
Prior to making any pinchroller adjustments make sure that all pinchrollers are reasonably clean and well lubricated. The majority of pinchroller problems are do to insufficient lubrication.

The only adjustment that may be necessary is the height of the splitter roller. This is due to the fact that some manufacturers clay targets are slightly taller than others. The object of the splitter roller is to separate targets that stick together due to moisture, paint, etc. It is important that the splitter be set in such a manner that it slightly lifts the targets above it without cutting into the targets above or below. To adjust, hold the 5/8 inch arbor while loosening the 9/16 jam nut, turn arbor up or down to properly position splitter, tighten 9/16 jam nut while holding 5/8 arbor.

Loosening or tightening the nut on the 1/4-20 bolt on the pinchroller spring will not change the spring pressure on the pinchroller. This adjustment only affects the travel of the pinchroller not the pressure.



Splitter Roller



9/16 Jam nut

5/8 Arbor

Pinchroller Assy

# Sensor trip

## Adjustment Instructions

The SUPERIOR TRAPS A.T.A uses a sensor and sensor trip mounted on top of the gearbox to adjust the position in which the throwing arm stops when fully cocked.

Setting the Sensor Trip involves working around the Throwing Arm; **ALWAYS** make sure you keep **SAFETY** your **FIRST PRIORITY**. **NEVER** stand in front of the machine while making any adjustments.

Any time adjustments are made, make sure the machine is in Halfcock position and the Main Power and Motor Power switches are both in the off position.

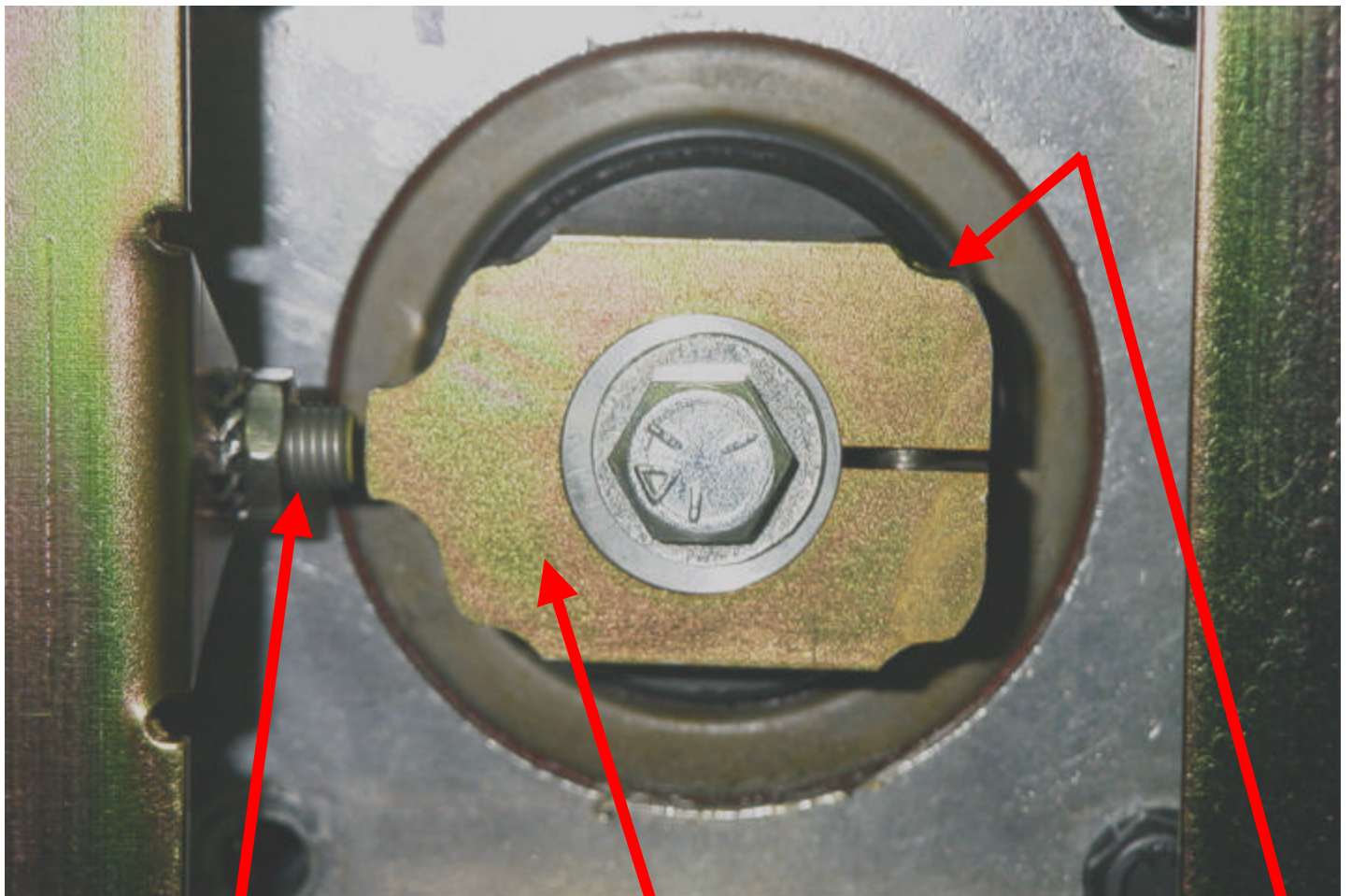
If the Arm is stopping too soon, Halfcock the machine (**this will release arm and throw a target**) and turn off both the Main and the Motor switch. It would be to your advantage at this time to put a pencil mark on the end of the shaft and sensor trip so you can keep track of your changes. Loosen the Adjustment screw on the Sensor Trip (using a 3/16 Hex key wrench) and rotate it clockwise (as viewed from above the machine). Move in increments of approximately 1/32 of an inch. Tighten Adjustment screw and retest.

If the Arm is stopping too late (or throwing thru), Halfcock the machine (**this will release arm and throw a target**) and turn off both the Main and the Motor switch. It would be to your advantage at this time to put a pencil mark on the end of the shaft and sensor trip so you can keep track of your changes. Loosen the Adjustment screw on the Sensor Trip (using a 3/16 Hex key wrench) and rotate counterclockwise (as viewed from above the machine). Move in increments of approximately 1/32 of an inch. Tighten Adjustment screw and retest.

[See photo on following page](#)



This is the sensor and sensor trip as viewed from above the machine. The shaft turns counterclockwise.



**Sensor**

**Sensor trip**

**Adjusting screw**

Use 3/16 Hex key wrench



# Lift Plate

Experienced, Safety conscious personnel only should attempt this procedure, as it requires working around the throwing arm.

The photos on the following page will show you the proper adjustment for the lift plate while in both the full up and full down positions.

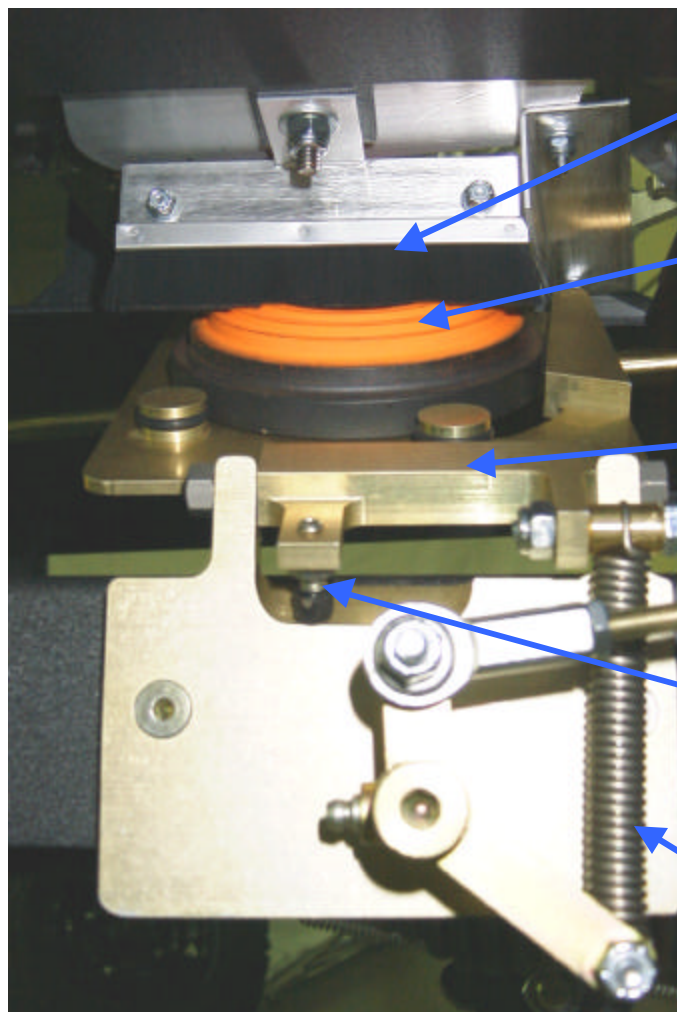
When in the full up position the target brush should rub the second land on the target as the target falls. This holds the target and helps keep it in the proper position on the lift plate. This is adjusted using the  $\frac{1}{4}$ 20 setscrew (using a  $\frac{1}{8}$  Hex key wrench) and jam nut on the end of the lift plate nearest the lift plate spring.

When in the full down position the lift plate should be *slightly* ( $\frac{1}{64}^{\text{th}}$  of an inch approx) higher than the throw plate. This insures that the target does not catch the throw plate while moving from the lift plate to the throw plate. This is adjusted using the 5/16-18 setscrew (using a 5/32 Hex key wrench) and jam nut mounted in the frame under the lift plate.

**Always remove spring before making adjustments to the lift plate.**

**Do not make adjustments with spring on and machine cocked.**

See photos next page



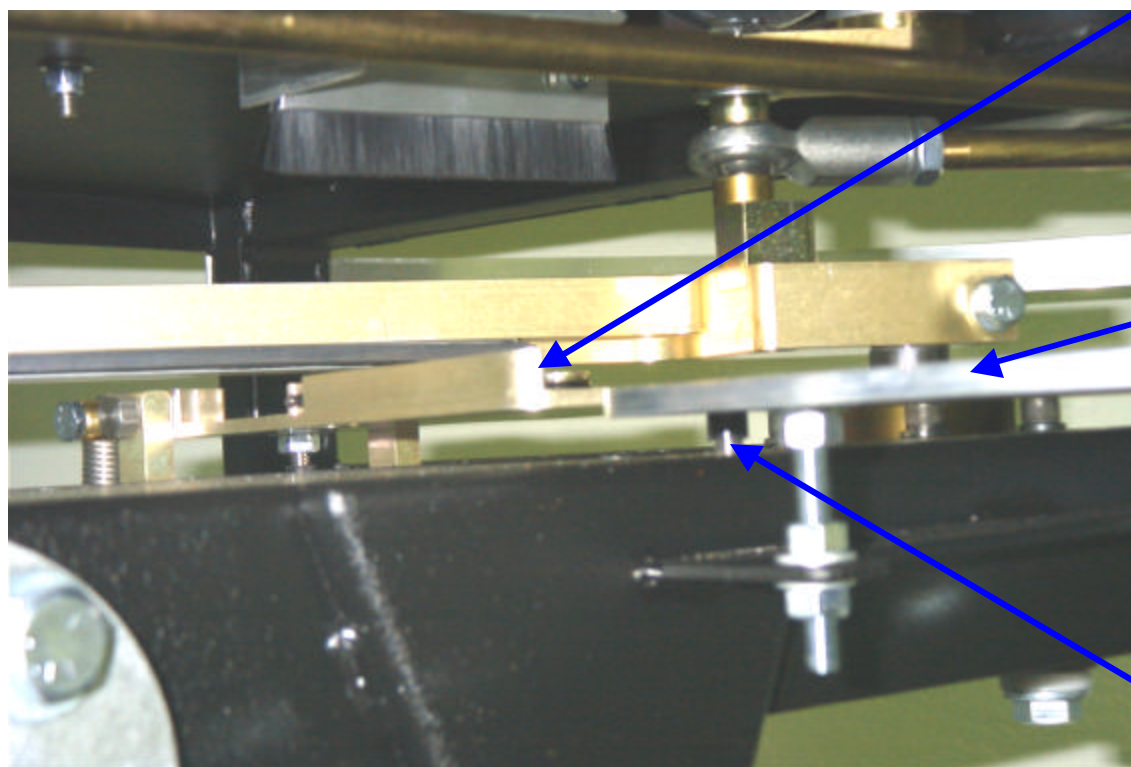
**Target brush**

**2<sup>nd</sup> land on target**

**Lift plate**

**1/4-20 set screw and jam nut**

**Lift plate spring**



**Lift plate**

**Throw plate**

**5/16-18  
Setscrew**

# Mainspring/Procedure for changing

Experienced, Safety conscious personnel only should attempt this procedure, as it requires manually manipulating the Throwing arm.

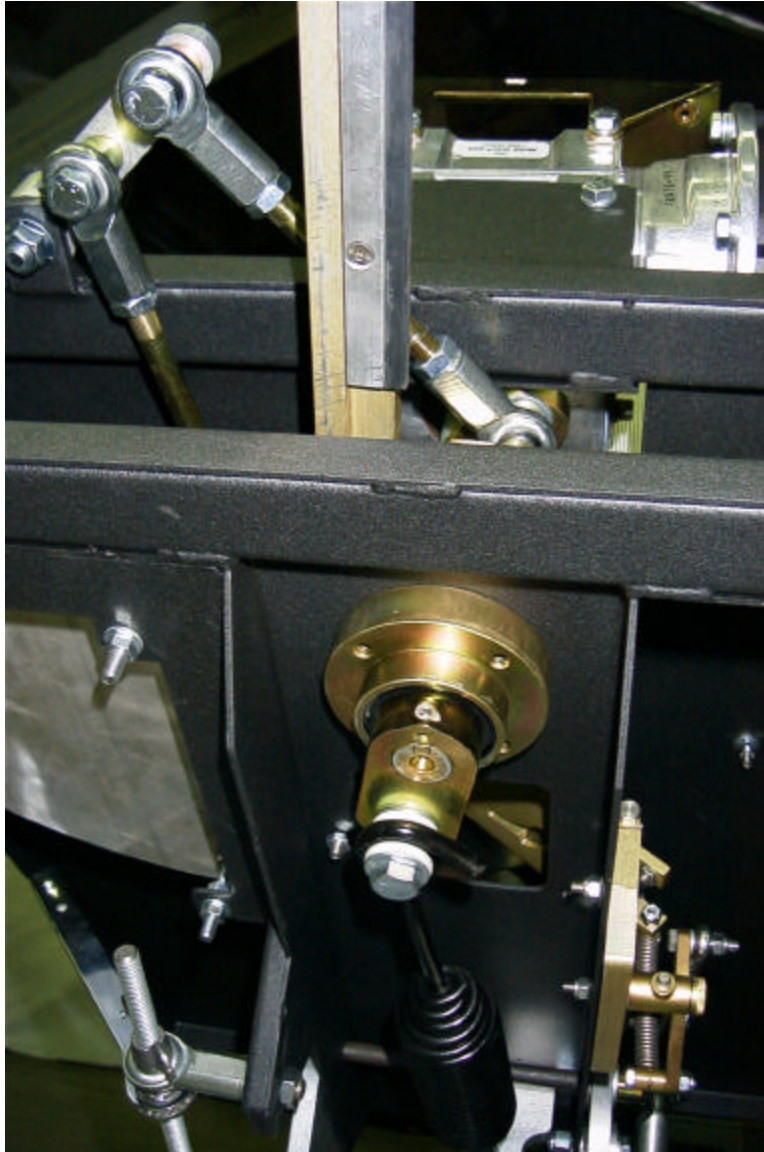
**EMPTY ALL TARGETS FROM MAGAZINE**

**STAY CLEAR OF THROWING ARM AT ALL TIMES**

1. Turn on both Main and Motor switches. This will bring the machine to the cocked and ready position.
2. Turn Motor switch to the off position.
3. Press Halfcock button one time only. **This will release arm and throw target.**
4. Turn Main Power switch to the off position.
5. Manually push Throwing Arm (**using a 2x4 or other piece of wood**) around until the Spring Bolt touches the Cocking Bolt.
6. Turn on the Main Power.
7. Repeat steps 3 thru 6. Do this two times.
8. Turn Motor switch on and off until Throwing Arm is pointing out the front of the machine. (**See picture, next page**). This is the Safe Spring change position.
9. Turn off Main power switch.
10. Disconnect power source.
11. Remove 1/2-13 nut from rear of spring, replace spring. Make sure you position the hook on the spring as shown in the picture on the following page (hook toward lift plate side of machine).

**DO NOT USE YOUR HAND TO  
MANUALLY MOVE THROWING ARM!**

**See photo next page**



This is the position that the Throwing arm must be in to change springs.

The Arm must be pointing toward the front of machine with the spring at minimum tension.

**Stay clear of Throwing Arm at all times.**

# Maintenance

With a little preventative maintenance your **Superior Traps ATA** will give you many years of dependable service.

We recommend that you visually inspect the machine after every 5-10 magazine loads of targets.

You should look for any worn or damaged parts, such as, throwing arm rubbers, springs, o-rings, etc.

We also recommend weekly lubrication of all moving or rotating parts, such as pivot points, pinchrollers, linkage rod ends, magazine shaft, etc.

**We recommend and use LPS Greaseless lubricant #1.**

We understand that, by nature, trap machines get very dirty. Keep in mind, the cleaner you can keep your machine the better.

**DO NOT** use a machine with worn or damaged parts as this may cause a dangerous situation.



**Thank You**  
**For purchasing a**  
**Superior Traps**  
**Model 400 ATA**

**We believe that you have purchased the finest  
A.T.A. machine made.**

**We do not anticipate you having any problems with  
your new machine and believe it will give you years of  
trouble free service.**

**In the event you should encounter a problem, or have  
a concern or suggestion,  
please feel free to contact any of our dealers or call us  
direct.**

**Superior Traps**  
**(602) 548-2262**  
**[www.superiortraps.com](http://www.superiortraps.com)**

# ***Superior Traps***

**17641 N. Black Canyon Hwy.**

**Suite C**

**Phoenix, AZ 85023**

**Ph.: (602) 548-2262**

**Fax: (602) 564-9622**

**E-Mail: customerservice@superiortraps.com**

## **Limited Warranty**

For ONE YEAR from the original date of purchase, SUPERIOR TRAPS will repair any defects in material or workmanship on PARTS ONLY. These defects must be determined by our examination.

The owner shall, at his own expense and risk, return the machine or defective parts to SUPERIOR TRAPS with all transportation charges to be prepaid.

All replacements will be FOB our factory. We shall not be liable for any drayage or labor costs.

THIS LIMITED WARRANTY IS IN ADDITION TO ANY STATUTORY WARRANTY.

We do not authorize any person or representative to make any other warranty, or assume for us any liability, other than those contained herein. Any agreement outside of, or contradictory to the foregoing, shall be void and of no effect. The free parts replacement portion of this warranty applies only to the SUPERIOR TRAPS clay target throwers owned and operated in North America.

The following are not considered defects and are not included in the warranty:

1. Damage resulting from improper line voltage.
2. Service required as a result of damage due to misuse.
3. Service required as a result of accidents, alteration, fire, flood or Acts of God.
4. Service required to regular wear parts such as service cords, throwing arms, switches, springs, etc.

The warranty registration must be returned to SUPERIOR TRAPS within 30 days of purchase or warranty is null and void.

THIS LIMITED WARRANTY ENDS AND OUR RESPONSIBILITY CEASES if any changes are made to the machine, if the electronics are tampered with in any way, if the serial number is mutilated, altered or removed, or if any parts or devices not manufactured or distributed by SUPERIOR TRAPS are added to the working mechanism of the machine.

Limited Warranty  
Rev. 6/00

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**Phoenix, AZ 85023**

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**Fax: (602) 564-9622**

**E-Mail: customerservice@superiortraps.com**

## **Limited Warranty Registration Form**

Purchaser's Name:		Phone:
Address:		
City:	State:	Zip Code:
Purchased From (Company Name):		
Address:		
City:	State:	Zip Code:
Date of Purchase:		Packaged by:
Product Part Number:		Product Description:
Make/Model/Year		
Installer's Name		
Date Installed:	Installed By: Owner_____ Dealer_____	

Enclose a copy of dated sales receipt and installation work order (if installed by a dealer); sign below and mail to Superior Traps within 30 days of purchase.

I, the undersigned, am the original end-user of the above product. I have read and fully understand the terms and conditions of the limited warranty provided by Superior Traps on this product. In addition, I am registering this product under the terms and conditions stated in the Superior Traps Limited Warranty.

Purchaser Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Limited Warranty Reg.  
Rev. 6/00