

# TRIOUS<sup>®</sup> *Traps*

## *Instruction Manual*

**Trius 1 Step** Page 2



**Trius Birdshooter** Page 5



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### **Congratulations**

You have just purchased a unique design and easy to use target trap.  
Please read all directions before assembling and using your new trap.

Trius<sup>®</sup> a subsidiary of Lyman Products Corp 475 Smith Street, Middletown, CT 06457  
800-22-LYMAN or 860-632-2020 [www.triustraps.com](http://www.triustraps.com)

# TRIOUS 1-STEP Target Trap Model ST-2

## IMPORTANT

### ADJUSTING HEIGHT AND RELEASE CHAIN:

Pedal should be at bottom of stroke when trigger releases arm.

**TO ADJUST** - Remove chain at pedal.

Secure frame at desired angle. (middle holes most popular). (Ill. B)

**FLAT:** bottom hole, difficult shot, short air time for targets

**MEDIUM:** middle holes, most popular, best for beginners

**HIGH:** top hole, most difficult shot

Arm should be extended in the release position.

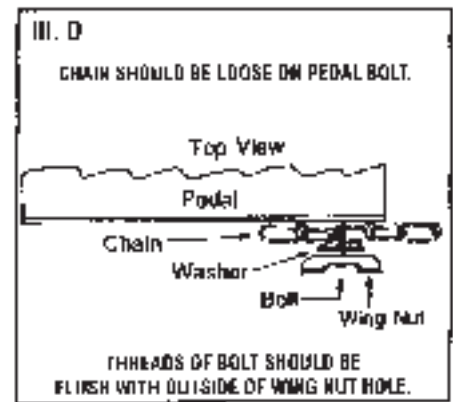
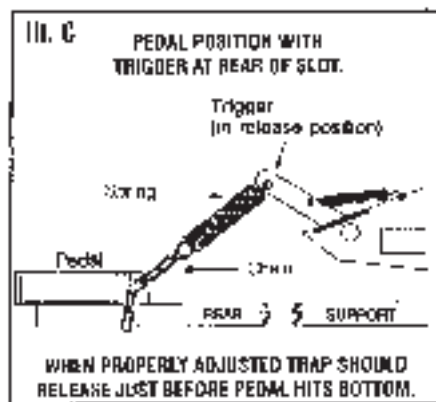
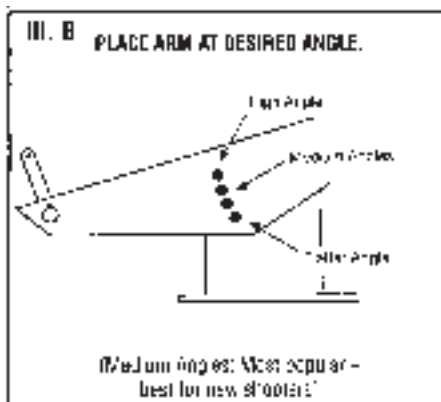
With pedal at bottom of stroke – resting between rear stabilizer, pull chain snug until release trigger is at rear of slot (Ill. C) with minimum tension on chain/spring.

Tighten wing nut so threads of bolt are flush with wing nut hole. (Ill. D)

Chain should be loose on pedal bolt. When adjusted properly, pedal should release trigger at bottom of stroke.

IF NOT RELEASING TARGETS, SHORTEN CHAIN ON PEDAL BOLT.

IF RELEASING TARGETS TOO SOON, LENGTHEN CHAIN ON PEDAL BOLT. Safe operation of your trap is as important as safe gun handling. DO NOT STEP ON PEDAL UNTIL PATH OF ARM AND TARGET(S) ARE CLEAR.



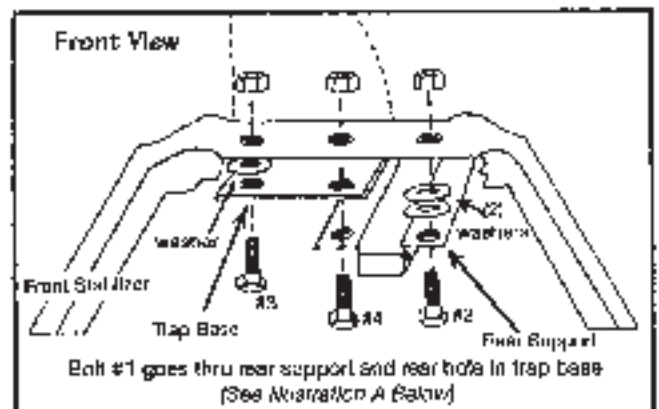
## Before Assembling 1 Step

Remove bag of bolts from behind cardboard in trap base. Remove the 3/8 x 1 bolt, nut and washer that holds the trap base to the rear support for shipping. Save these for use in assembly. Pedal and rear support remain assembled as shipped.

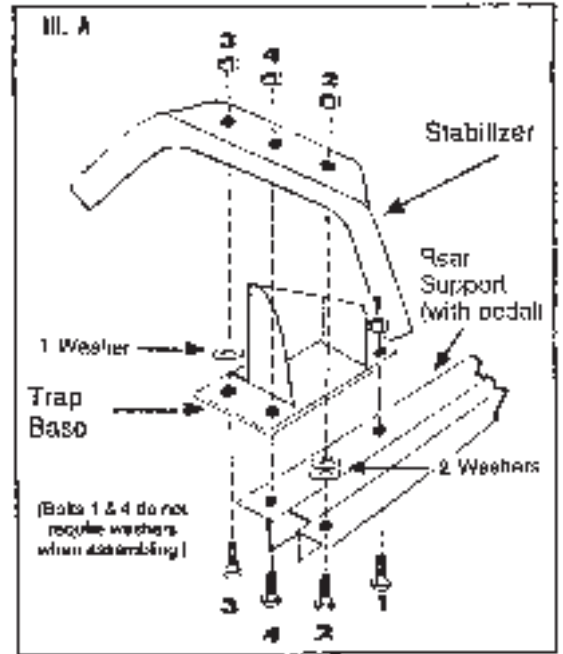
## ASSEMBLY INSTRUCTIONS:

Tools Needed: 2 adjustable wrenches or 9/16 socket/open end or box end wrenches. (1) 3/8" wrench and/or small adjustable wrench. Screwdriver (for slotted screws).

Your Trius 1 Step is preassembled as much as possible before shipping. The trap has been tested with the main spring that has been sent with it. By following the instructions, the trap should go together quickly and easily. Do not tighten nuts and bolts before all are in place. When tightening the lock nuts, remember lock nuts seem tight before really snug.



Put rear support with pedal, trap base and stabilizer together as shown in III. A. Please note that trap base goes in between the rear support and stabilizer. Put bolt #1 from bottom through rear support and trap base as shown. Tighten nut finger tight. Put bolt #2 from bottom through rear support, add 2 washers, then through the stabilizer. Tighten nut finger tight. Put bolt #3 from bottom through trap base, add 1 washer, then through stabilizer. Tighten nut finger tight. Put bolt #4 from bottom through rear support, trap base and stabilizer. Tighten nut finger tight. You are now ready to tighten all bolts and nuts.



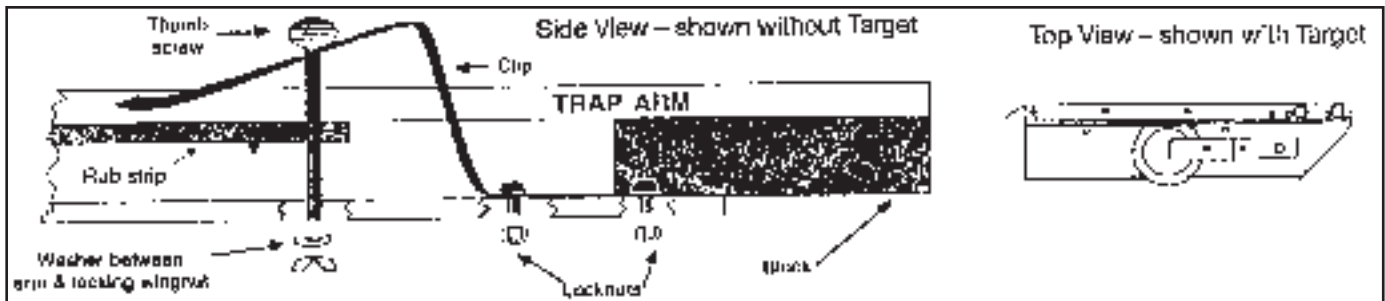
**CLIP ASSEMBLY AND ADJUSTMENTS:**

The TRIUS High Angle Clip and Stop is the result of testing, talking with shooters, and the influence of the new clay target games - Sporting/Hunter clays.

The clip and stop with its thumb screw adjuster allows the targets to be thrown in the exact same spot - excellent for teaching new shooters or giving the same shot to all shooters. This clip will also hold piggy back doubles (targets placed on top of each other).

When attaching clip to arm, use the holes already punched in arm closest to the block. Make sure the 10-24 machine bolts and lock nuts are tight. (Lock nuts sometimes seem tight before snug.) After bolting clip on arm, place thumb screw through holes in clip and arm, then place 1/4" washer and 10-24 locking wing nut on end of thumbscrew. Hold wing nut when turning thumbscrew. (See diagram below)

ALL ADJUSTMENTS SHOULD BE MADE WITHOUT THE TARGET(S) UNDER THE CLIP. THE CLIP TENSION SHOULD BE THE MINIMUM TO KEEP THE TARGETS FROM SLIDING OFF THE ARM BETWEEN LOADING AND THROWING.

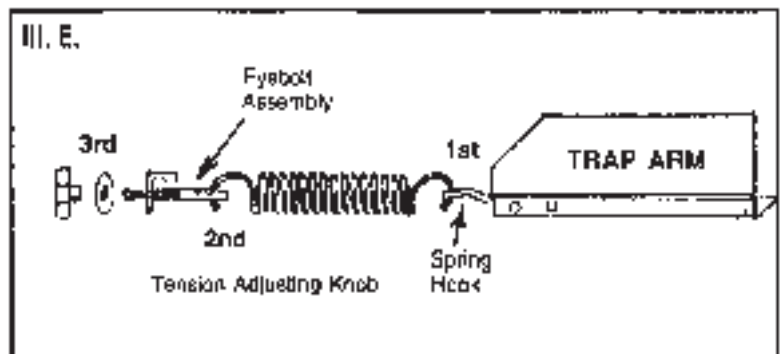


**ATTACHING MAIN SPRING:**

(III. E.) Raise pedal, extend arm forward, attach main spring to spring hook, then onto eyebolt assembly. Put eyebolt through rear bracket, add washer and adjusting knob. Important: Put spring through spring hook as shown. Do not push on pedal until chain is adjusted properly!

**TENSION ADJUSTMENT:**

Tighten tension knob just enough to have eyebolt take up full thread of knob. This should throw a fine target and just right for teaching new shooters. For faster more difficult targets, increase tension by tightening knob. Doubles usually require higher tension. A regulation trap target flight is between 8 and 12 feet high at a point 10 yards from the trap, and the horizontal distance is between 48 and 52 yards. For mini and midi targets see paragraph below.

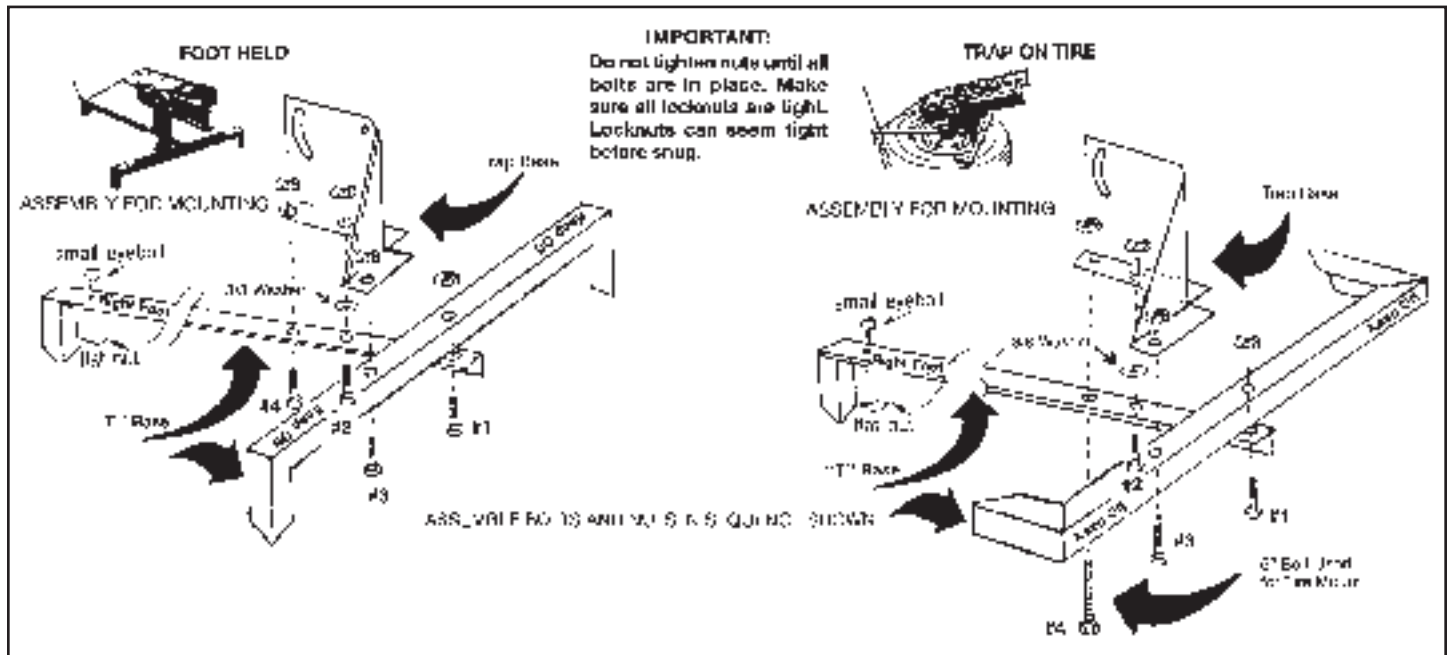




## TRIUS BIRDSHOOTER TARGET TRAP MODEL "D4"

**ASSEMBLING TRAP:** Tools needed - 2 adjustable wrenches or 9/16" sockets/open end or box end. Remove the 3/8" nut holding frame to base at slotted vertical adjustment, (use this 3/8" nut when mounting "T" base to trap base) replace the nut with knob, leaving the serrated and regular washers in place.

**IMPORTANT:** Do not tighten nuts until all bolts are in place. Make sure all locknuts are tight. Locknuts can seem tight before snug. The bolts and nuts needed for mounting are furnished with the trap. Put small eyebolt with flat nut at end of right foot per illustration. PLEASE NOTE: When mounting trap base to a permanent base, i.e. concrete – we recommend a cushion (old pieces of tire, machinery vibration materials, etc.) between trap base and permanent base. Tighten bolts enough to allow slight movement.



**MAIN SPRING & EYEBOLT ASSEMBLY:** Place spring on spring hook first. (Arm should be in the extended uncocked position.) Place eyebolt on spring, then through rear bracket and add wing nuts as shown in the exploded view below. (Be sure it is free to move at each end.) Make sure eyebolt threads are through the wing nuts.



**TENSION ADJUSTMENT:** Tighten the wing nuts only enough to remove any looseness or rattle in the spring linkage. This tension throws a fine target that has ample flight and yet is easy on the operator and easier to hit. After determining desired tension, tighten small wing nut against large wing nut to lock in place.

Become familiar with the trap and flight of the targets before trying a higher tension. Doubles require a higher tension.

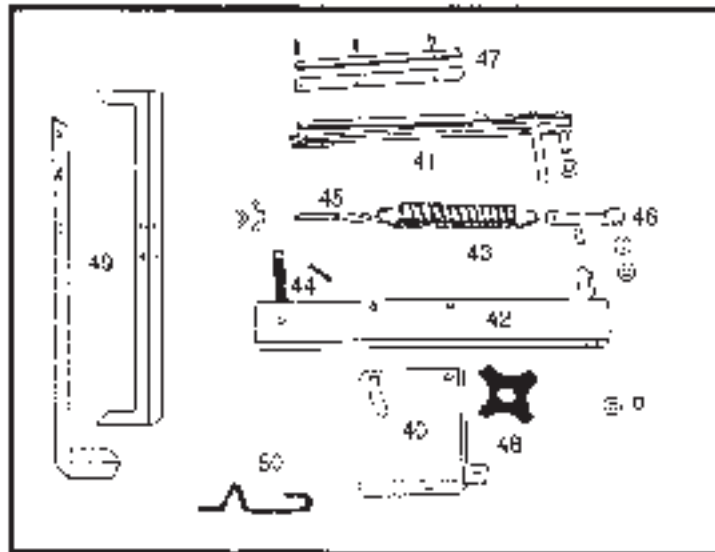
**SAFETY:** The carrier arm and the thrown targets can inflict serious injury. DO NOT walk in front of the trap. Place branches, stakes or other objects around the trap to prevent anyone from getting into the path of the carrier arm. The cocked trap should NOT be left unattended. No trap should be left where it can be cocked by strangers or trespassers.

**WARNING:** Remove main spring when not in use.

**NOTICE:** The TRIUS 1-Step, TRIUS TRAP, BIRDSHOOTER, and TRAPMASTER are designed for many years of casual shooting enjoyment. These models ARE NOT designed for extensive or commercial use by Gun Clubs. SUCH USE VOIDS THE GUARANTEE.

### TRIOUS MECHANICAL CLAY TARGET TRAP MODEL D4 PARTS LIST

Parts not shown on this parts list may be purchased locally. Parts listed should be ordered from Trius Products. Please add \$4.00 per order for postage and handling. Prices subject to change. Please call or visit our website for ordering and pricing information.



Part No.	Key No.	Part Name
10455M	40	Base
10458M	41	Arm Assembly includes Key Nos. 46 & 47
10470M	42	Frame Assembly
10313	43	Main Spring
10546	44	Small Trigger Spring
10731M	45	Eyebolt Assembly
10733M	46	Spring Hook (with bushing and washers)
10742M	47	Rub Strip (complete with screws)
10658	48	Adjusting Knob
10736M	49	"T" Base (nuts & bolts included)
10735M	50	High Angle Retainer (4 wire retainers, including foil tape)

# THE ORIGINAL TRIUS TRAP TARGET TRAP MODEL "92S"

**ASSEMBLING TRAP:** Tools needed - 2 adjustable wrenches or 9/16" sockets/open end or box end. Remove the 3/8" nut holding frame to base at slotted vertical adjustment, leaving the serrated and regular washers, and replace with knob. (If size difference use largest knob.) (Use this 3/8" nut on "T" base when mounting to trap base. Remove "keep off" from trap base. This bolt and nut will be used in assembly.

**IMPORTANT:** Do not tighten nuts until all bolts are in place. Make sure all locknuts are tight. Locknuts can seem tight before snug. The bolts and nuts needed for mounting are furnished with the trap. After determining the desired "T" base mounting (see below), use appropriate assembly illustration. Put small eyebolt with flat nut at end of right foot per illustration.

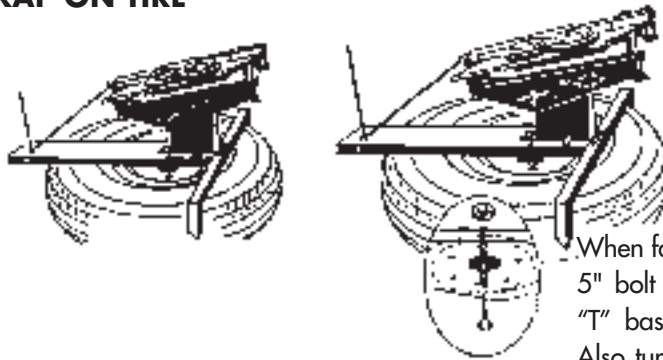
**PLEASE NOTE:** When mounting trap base to a permanent base, i.e. concrete – we recommend a cushion (old pieces of tire, machinery vibration materials, etc.) between trap base and permanent base. Tighten bolts enough to allow slight movement. Use locknuts so they will not loosen.

## FOOT HELD



Remove 3/8" nut holding frame to base at slotted vertical adjustment. Leave serrated and regular washers and replace with knob. Use 3/8" nut on "T" base when mounting to trap base.

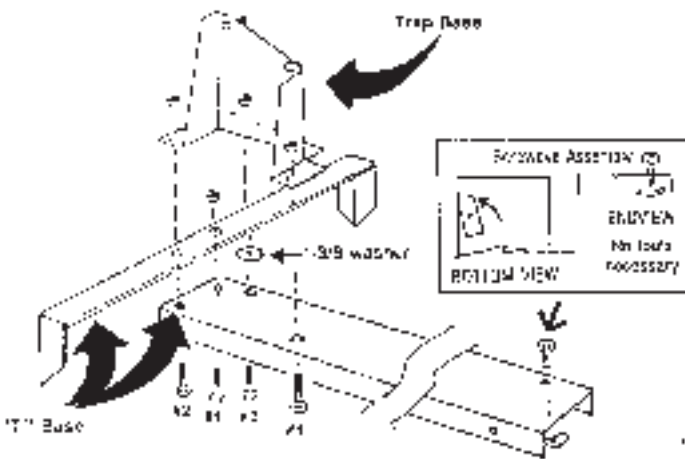
## TRAP ON TIRE



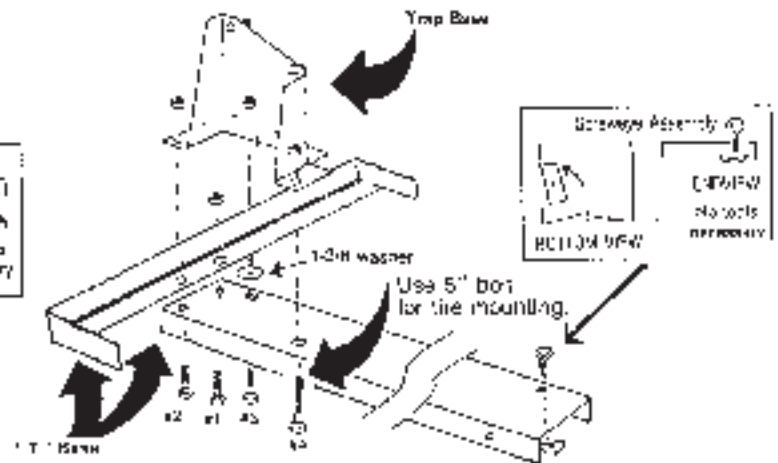
When fastening trap to tire with 5" bolt be careful not to bend "T" base when tightening nut. Also turn Keep Off so legs are parallel to tire (see diagram).

## Assemble bolts and nuts in sequence shown.

### FOOT HELD ASSEMBLY FOR MOUNTING

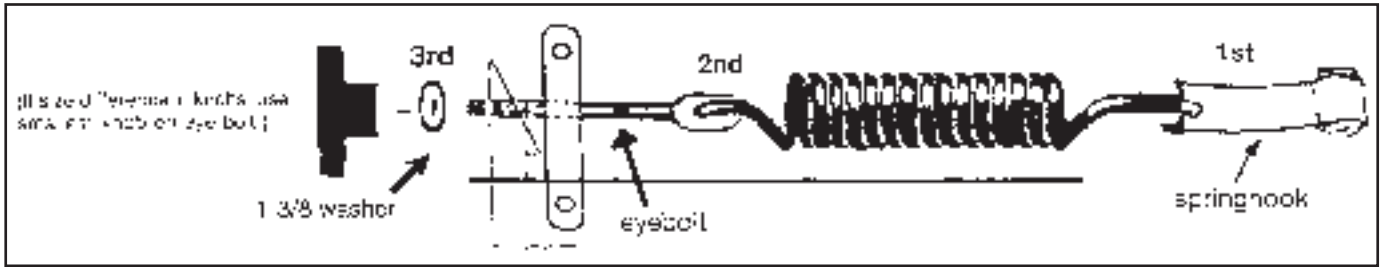


### TRAP ON TIRE ASSEMBLY FOR MOUNTING



**MAIN SPRING & EYEBOLT ASSEMBLY:**

Place spring on spring hook first. (Arm should be in the extended uncocked position.) Place eyebolt on spring, then through rear bracket as shown in the exploded view below. Put washer on eyebolt and add knob. (Be sure it is free to move at each end.) Make sure eyebolt threads are through the wing nuts.



**TENSION ADJUSTMENT:** Tighten the knob only enough to remove any looseness or rattle in the spring linkage. This tension throws a fine target that has ample flight and yet is easy on the operator and easier to hit. Become familiar with the trap and flight of the targets before trying a higher tension. Doubles require a higher tension. Tightening the tension screw about 3/4 of an inch more is sufficient for doubles and fast singles. See other side for adjusting for Mini 60mm and Midi 90mm.

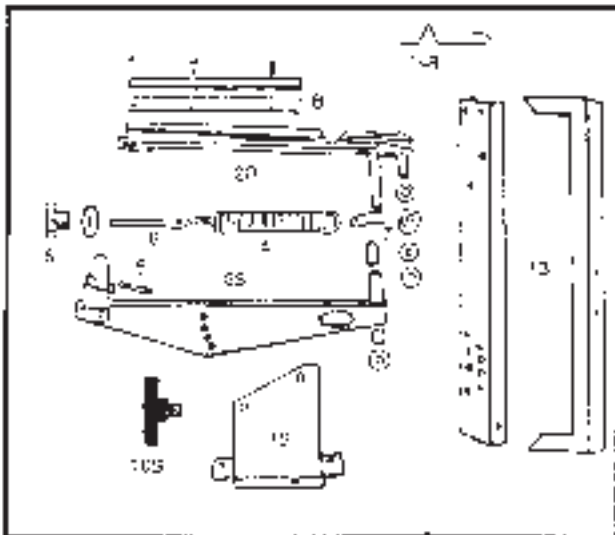
**SAFETY:** The carrier arm and the thrown targets can inflict serious injury. DO NOT walk in front of the trap. Place branches, stakes or other objects around the trap to prevent anyone from getting into the path of the carrier arm. The cocked trap should NOT be left unattended. No trap should be left where it can be cocked by strangers or trespassers.

**WARNING:** Remove main spring when not in use. Shooters should be right of the trap; NEVER forward of the trap.

**NOTICE:** The TRIUS TRAP, TRIUS 1-STEP, BIRDSHOOTER, and TRAPMASTER are designed for many years of casual shooting enjoyment. These models are not designed for extensive or commercial use by Gun Clubs. SUCH USE VOIDS THE GUARANTEE.

**TARGET TRAP MODEL "ORIGINAL TRIUS TRAP" "92S" PARTS LIST**

To expedite delivery of parts we suggest you order them directly from TRIUS Products. When ordering, give Trap Model Number, Part No. and Part Name. Parts not shown on this parts list may be purchased locally. Prices subject to change. Please call or visit our website for ordering and pricing information.



Part No.	Key No.	Part Name
10386M	1S	Base
10328M	2R	Arm Assembly includes Parts Nos. 7 & 8
10622M	3S	Frame Assembly
10313	4	Main Spring
10546	5	Small Trigger Spring
10730M	6	Eyebolt Assembly
10733M	7	Spring Hook (with bushing and washers)
10741M	8	Rub Strip (complete with screws)
10679	10S	Adjusting Knob w/stud (5/16")
10737M	13	Steel "T" Base (nuts and bolts included)
10735M	14R	High Angle Retainer (4 wire retainers, including foil tape)

## TRIOUS TRAPMASTER MODEL TT3

Your Trius TrapMaster is quality constructed of heavy duty material and with reasonable care will give you many years of shooting enjoyment with a minimum of maintenance. The operator should familiarize himself with the trap and its operation before using it.

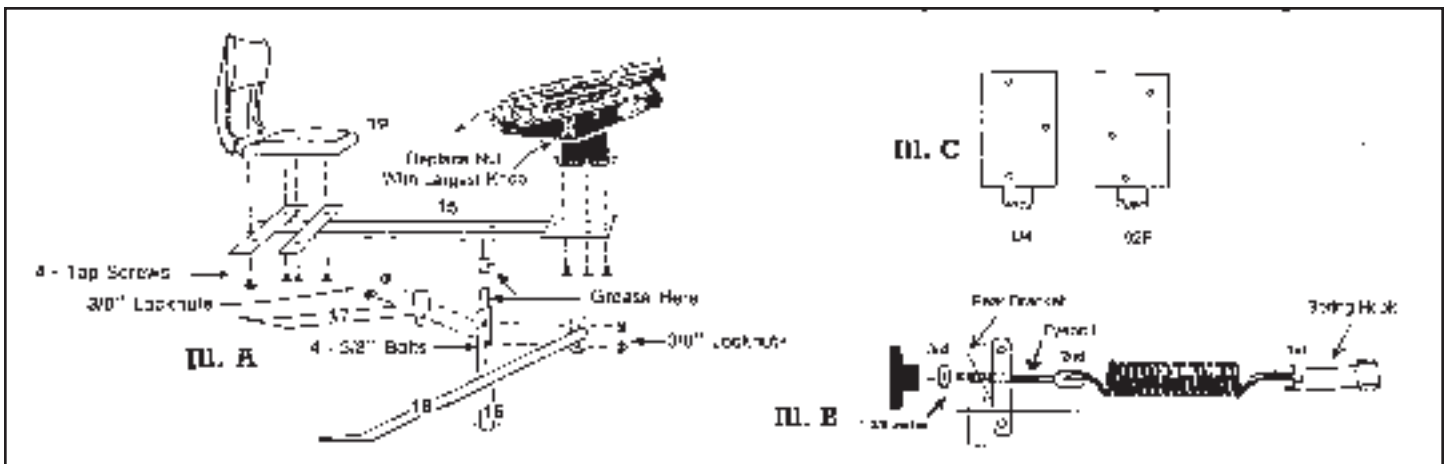
**TRAPMASTER ASSEMBLY:** Tools Required: 2 – 9/16" wrenches or 2 adjustable crescent wrenches, plus 1 – 3/8" wrench or 1 screwdriver.

1) Using 4 lock nuts and bolts, fasten the tubular legs (17 & 18) to the center support post (16) as in Illustration (A). Put nuts on outside of leg brackets. Use 2 - 9/16 wrenches or 2 adjustable crescent wrenches.

**IMPORTANT:** Do not tighten nuts until all bolts are in place. Make sure all locknuts are tight. Locknuts can seem tight before snug.

2) Fasten the operator's seat (19) to the pivoting channel frame (15). Use 3/8" wrench, screwdriver or adjustable wrench. Place channel (15) onto the center support post (16). A small amount of grease has been applied to the pivot pin when packaged. Important: Keep this pivot pin well greased or oiled.

3) Remove the 3/8" nut holding trap frame to base at slotted vertical adjustment, leaving the serrated and regular washer and replace with knob. (if size difference, use largest knob.) Use the 3/8" nut to fasten trap assembly to the pivoting channel frame (15). Referring to Illustration C match the trap with correct holes.



**MAIN SPRING & EYEBOLT ASSEMBLY:** Assemble the spring and eyebolt as shown in Illustration B. Arm should be in the extended uncocked position. Place spring on spring hook and then onto eyebolt. Place through rear bracket, add washer and put on tension knob as shown in Illustration B. If size difference in knobs, use smallest knob on eyebolt. Be sure spring is free to move at each end.

**TENSION ADJUSTMENT:** Tighten the knob only enough to remove any looseness or rattle in the spring linkage. This tension throws a fine target that has ample flight and yet is easy on the operator and easier to hit.

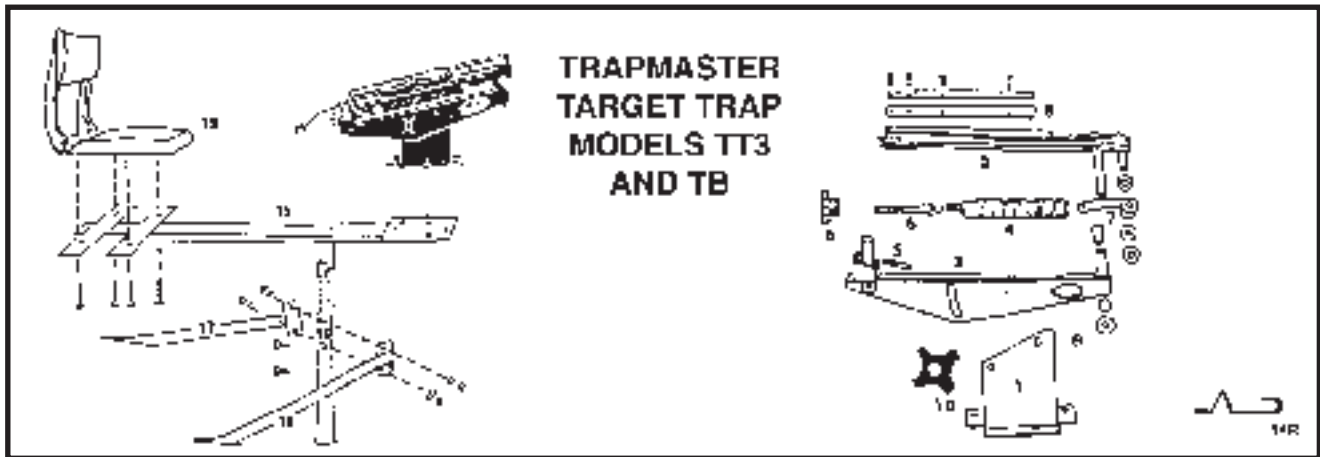
Become familiar with the trap and flight of the targets before trying a higher tension. Doubles require a higher tension. Tightening the tension screw about 3/4 of an inch more is sufficient for doubles and fast singles.

**SAFETY:** Safety must be practiced at all times when using the TrapMaster as you would anytime you are using a gun. The carrier arm and thrown target can inflict serious injury. Do not walk in front of the trap. Place branches, stakes, or other objects around the trap to prevent anyone from getting into the path of the carrier arm or target. Forethought must be given to protection for the operator from those shooting. The operator himself must keep his hands and legs clear of the carrier arms path. Keep feet off the tubular legs. Never leave the trap arm in a cocked position when sitting down or getting off the operator's seat. Always remove spring when finished shooting and/or transporting trap.

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### TARGET TRAP TRAPMASTER MODEL TT3 PARTS LIST

Parts not shown on this parts list may be purchased locally. Please call or visit our website for ordering and pricing information.



Part No.	No. Key	Part Name
10383M	1	Base
10328M	2	Arm Assembly – includes Parts Nos. 7 & 8
10302M	3	Frame Assembly
10313	4	Main Spring
10546	5	Small Trigger Spring
10730M	6	Eyebolt Assembly
10733M	7	Spring Hook (with bushing and washers)
10741M	8	Rub Strip (complete with screws)
10658	10	Adjusting Knob
10735M	14R	High Angle Retainer (4 wire retainers, including foil tape)
10330M	15	Pivoting Channel Frame
10329M	16	Center Support Post
10337M	17	Left Leg
10336M	18	Right Leg
10501	19	Seat Assembly

## DIRECTIONS AND SUGGESTIONS FOR ALL TRIUS TARGET TRAPS

**SAFETY:** The carrier arm and the thrown targets can inflict serious injury. DO NOT walk in front of the trap. Place branches, stakes or other objects around the trap to prevent anyone from getting into the path of the carrier arm.

The cocked trap should NOT be left unattended. No trap should be left where it can be cocked by strangers or trespassers.

**WARNING:** Remove main spring when not in use. Shooters should be right of the trap; NEVER forward of the trap.

**OPERATION OF THE TRAP:** When using a foot held trap stand to the REAR and LEFT SIDE of the trap to cock it. MAKE SURE RIGHT FOOT IS ON PIECE MARKED "RIGHT FOOT" WHEN COCKING. Cock by grasping the rear raised portion of the carrier arm (marked PULL HERE) with one or both hands. DO NOT PULL ON THE THIN FORWARD EDGE OF THE ARM. NOTE: The target must be placed against the rubber rub strip, otherwise it may break.

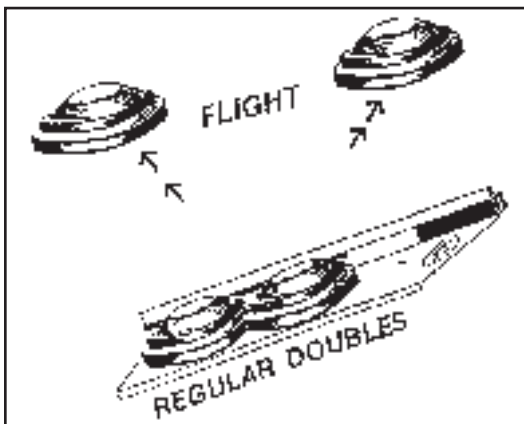
OIL the bronze bushings and threads OCCASIONALLY. Oil the trap when you oil your guns.

**TENSION ADJUSTMENT:** Tighten the knob or wing nuts only enough to remove any looseness or rattle in the spring linkage. This tension throws a fine target that has ample flight and yet is easy on the operator and easier to hit. Make sure eyebolt threads are through the knob or wing nuts. Become familiar with the trap and flight of the targets before trying a higher tension. Doubles require a higher tension. Tightening the tension about 3/4 of an inch more is sufficient for doubles and fast singles. See below for adjustments needed for throwing Mini (60mm) and Midi (90mm).

**ADJUSTING DIRECTION OF FLIGHT:** A regulation trap target flight is between 8 and 12 feet high at a point 10 yards from the trap, and the horizontal distance is between 48 and 52 yards. A target placed near the middle of the carrier arm will throw a straight-away target. Use the straight-away target to judge flight and to adjust the angle of the trap. If you desire to throw targets at a greater angle than regulation, the targets may have a tendency to slide down the arm. If this occurs, we suggest you use the High Angle Retainer.

Placing the target at various positions on the arm will vary the horizontal angle of flight. If the target is placed too far from the center of the arm, good results will not be obtained. However, some shooters may desire erratic targets to simulate hunting conditions.

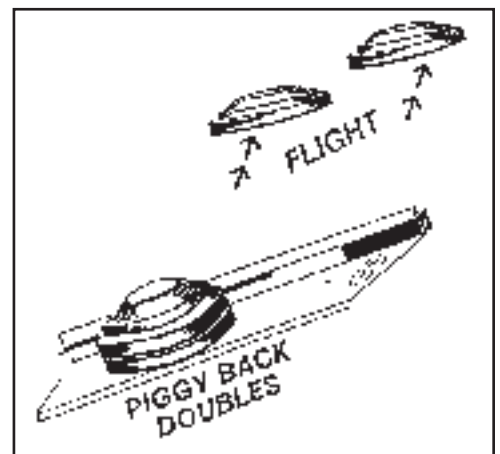
At the highest tension, targets placed near the pivot pin may break when thrown. If that happens move the target toward the middle of the arm or reduce the tension.



**REGULATION TYPE DOUBLES** place one target against rub strip near the block and pivot pin and the other target below it.

**PIGGY BACK DOUBLES**, place targets on top of each other and then put both targets on arm.

If piggy back doubles break - either reduce the amount of spring tension, move the targets away from the pivot pin, or both.



## HIGH ANGLE RETAINER

Only needed when throwing abnormally high targets that slide down the arm. Cock arm and gently place target over retainer, resting inside edge of target against retainer. Piggy back doubles – put one target on top of the other and gently place both targets over retainer. Place targets against rub strip before throwing.

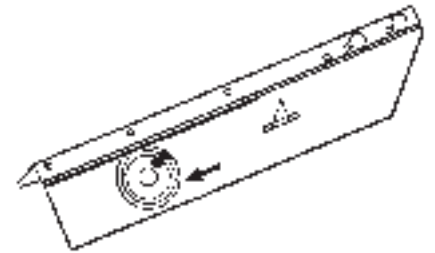
## THROWING MINI (60 mm) and/or MIDI (90 mm) TARGETS

These targets, used in sporting clays/hunter's clays, may require several adjustments because of the distance a TRIUS trap will throw standard targets at almost minimum tension. You will need to possibly make 2 adjustments to throw the smaller targets.

- 1) Place the targets toward the end of arm away from pins and block.
- 2) You may have to reduce spring tension – but make sure the eyebolt is at least through the knob or wing nuts.



2nd view of High Angle Retainer

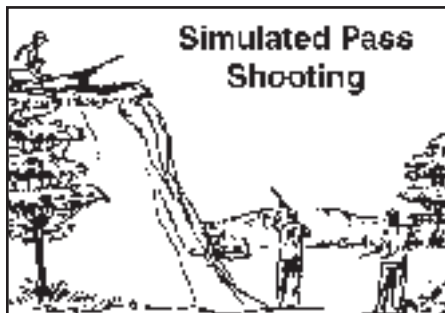
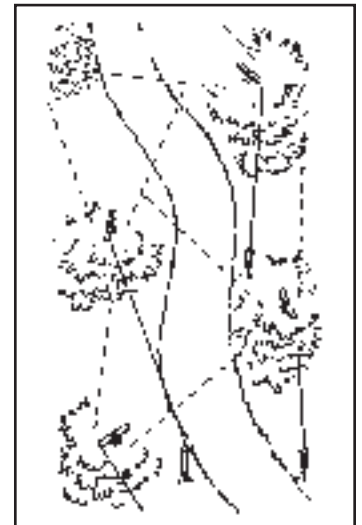


## HUNTER'S CLAYS

Where clay targets fly like game birds. The idea of Hunter's Clays is to simulate shots you'll encounter when hunting for your favorite game. Two traps are enough for a good layout. Three or four traps will make your layout better. This game is designed to take advantage of the natural terrain in your area.

You position the traps where you want. To improve your duck, dove or goose shooting skills, throw high targets from a hill or barn. If you hunt for grouse or woodcock, place the traps in appropriate cover. For rabbits, throw target close to the ground. You also decide whether you want each trap to throw single or double targets.

Get together with friends and set up a Hunter's Clays layout. Good Shooting! Above the traps are located along a path and concealed by natural cover so the direction of flight is not known. The Trius Trap is particularly well suited for this use since doubles as well as singles can be thrown from the same trap. A walk of 4 traps gives a shooter 5 shots down the walk - 3 singles and a double. Changing the trap on which the double is thrown can add variety. Use the low tension for slow flight, since the target leaves the trap much faster than a flushing bird. For this reason, this type of shooting requires faster gun handling than hunting. Until the shooter is skilled, it is advisable for the operator to say "bird", "target" or "pull" an instant before tripping the trap so the shooter can be alerted. Handicap the better shooter by having him shoot from a greater distance from the trap. Keep the games simple so good scores can be made. "The pleasure is in the hitting." Allow the novice to stand closer to the trap until he learns to hit regularly. "The shooter learns only by hitting."



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