

From:

7-20-2010

Camp Ranger – Camp Durant
Attn: George
4637 Old Carthage Road
Carthage, NC 28327

To:

Long Range LLC
Attn: Jeremy
20 Canal Street, Ste 4N
Franklin, NH 03235

Dear Sir:

I spoke with you a few days ago regarding the boy scout camp's new LT-200 Skeet throwers. Our #1 thrower will always operate but you must hold the #1 thrower button down and you never know when the thrower will operate. We switched to the # 2 LT-200 and use the # 2 button and everything seems to work fine.

I am returned the #1 LT-200 as you requested. My cell phone # is 919-791-6514. Please leave a message if I don't answer since the cell phone reception is spotty here at scout camp.

Would you also send us an operation manual?

Thank you all your help.

Sincerely,

George W. McKellar

George W. McKellar
Shooting Sports Director
Camp Durant

P.S. The # 3 button worked on the # 1 thrower for a while but then started to act up like the # 1 button.
This is a skeet set up. #1 button works #1 thrower, #2 works #2 thrower & #3 button works both #1 & #2 throwers.
THANKS
George

OVER →

RECEIVER TESTS OUT OKAY. I SENT
YOU A NEW TRANSMITTER TO LEARN
TO YOUR OTHER RECEIVER. INST. INCLUDED.
CALL IF YOU HAVE ANY TROUBLE.

800.987.6749

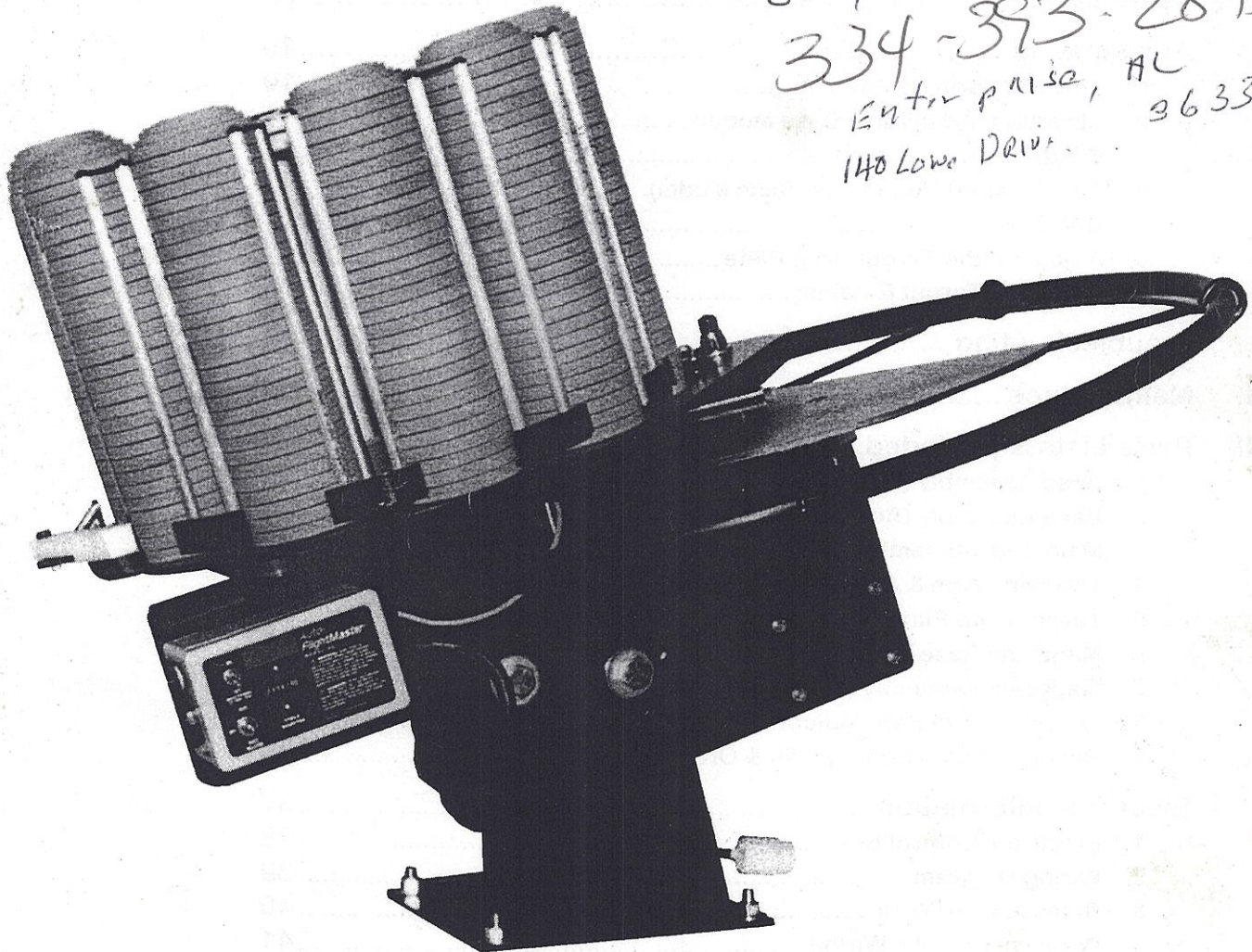
JEREMY

CHAMPION[®]
Traps & Targets

Auto-FlightMaster[™]

MODEL SCII - 110VAC

CORY Howell -
334-393-2843
Enterprise, AL 36330
140 Lowe Drive



Instruction Manual

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I. Introduction

The CHAMPION Auto-FlightMaster™ Sporting Clays Model Trap is a fully automatic trap for sporting clays style shooting. It features a 110 VAC cocking motor and a low voltage control circuit, allowing it to be hooked up to a 12 volt wireless release system.

Features of the Sporting Clays Model Trap include:

- ◆ **Ten column magazine**
 - 300 target capacity
- ◆ **115 VAC motor**
 - Designed to operate at 115 +/-10% VAC
 - Total maximum power consumption is 15 amps
- ◆ **Release controls**
 - Low voltage control circuitry
 - Low voltage release cord
 - Optional wireless release system
- ◆ **One-way clutch bearing on throwing arm**
 - Reduces power usage by re-cocking from 3/4 position
 - Reduces vibration
- ◆ **Easy flight adjustments**
 - No tools required for adjustments to windage, elevation, curl & distance
- ◆ **Fast re-cock time**
 - 1.7 second re-cock time.
- ◆ **Throwing arm path indicator ring**
 - Provides visual indication of throwing arm path for safety
- ◆ **Throws variety of clay pigeons**
 - Throws standard 108 mm American and 110 mm International targets
- ◆ **Pre-wired electrical boxes**
 - Fast trap installation
 - Uses existing field wiring on most installations.
- ◆ **Open trap design**
 - Easy access to routine maintenance items

II. Safety



DANGER: THIS MACHINE CAN CAUSE SERIOUS INJURY!!!!



! THOROUGHLY READ INSTRUCTIONS BEFORE INSTALLING OR OPERATING TRAP!

1. Before performing any work or maintenance on the trap, make sure that the throwing arm is in the uncocked position by pressing the on/off/safe release switch to the "safe release" position, and then make sure the switch on the electrical control box is in the "off" position after safely releasing the throwing arm and disconnect the trap from the power source.
2. All personnel operating this trap should be thoroughly familiar with the operating instructions and the safety issues relating to the trap.
3. Do not leave trap in the cocked position. Not only is this potentially dangerous, but it puts undo stress on the mainspring.
4. Do not stand in front of the trap when it is in the cocked position. Serious injury can result.
5. Keep hands and body away from the trap and throwing arm path while the trap is operating.
6. Always load magazine from the rear of the trap

! CAUTION: FAILURE TO FOLLOW SAFETY RULES CAN RESULT IN SERIOUS INJURY!

III. Installation

1. Unpacking

1. Carefully inspect the carton and trap machine to be sure that damage hasn't occurred during shipping. Report any damage found immediately to the shipper.
2. Select an area that will allow ample room to work during assembly.
3. Carefully remove wooden shipping box from the pallet it was shipped on.
4. Remove the four bolts that secure the trap to the shipping pallet.
5. Using two or more people, carefully lift the trap by the magazine plate, lower base and/or main body high enough to slide the pallet out from the bottom of the trap.
⚠ CAUTION: Do not lift trap by the electrical box, throwing arm or drop plate, as doing so may damage them, requiring replacement!
6. Dispose of all packing material in a proper manner.
7. Refer to the following installation instructions prior to assembling the trap.

2. Mounting the Trap

1. The trap may be mounted to any suitable platform or surface, providing it is sturdy and provides a means to bolt the trap down in four places. Overall trap dimensions are shown in figures 1 and 2.
⚠ CAUTION: Trap must be bolted down to operate safely and efficiently!
2. Do not install in an area that does not allow safe access to the trap during loading and use. Provide ample clearance around trap. The on/off/safe release switch is provided on the control box to allow the trap to be uncocked before approaching it. Provide for safe access to the switch that will not require anyone to walk in front of the trap to load targets or perform work on it.
3. A 110vac power supply will be required to operate this trap, make sure wiring is sufficient to provide constant power to the trap. Make sure wiring meets all Federal, State, and Local Electrical Codes.
NOTE: It is recommended that a GFI (Ground Fault Interrupted) circuit be used.
4. Carefully lift the trap and place it on the mounting surface.
⚠ CAUTION: Do not lift trap by the electrical box, throwing arm or drop plate, as doing so may damage them, requiring replacement!
5. Install suitable 1/2" dia. mounting bolts and securely fasten trap to mounting surface. See figure 3 for trap base plate mounting hole locations.

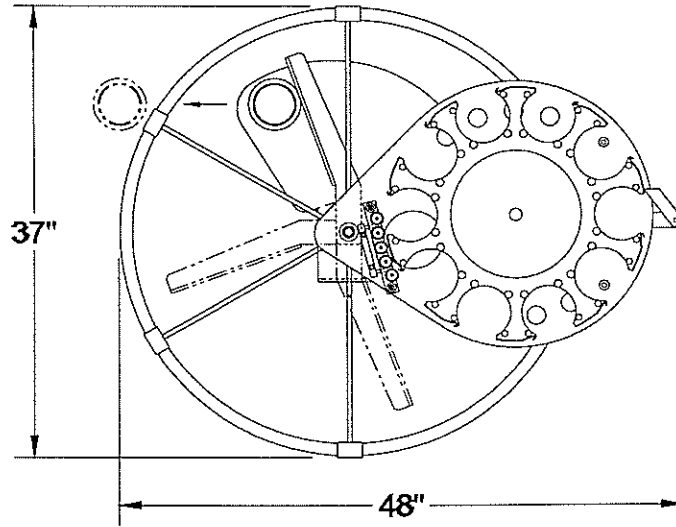


FIGURE 1 - PLAN VIEW

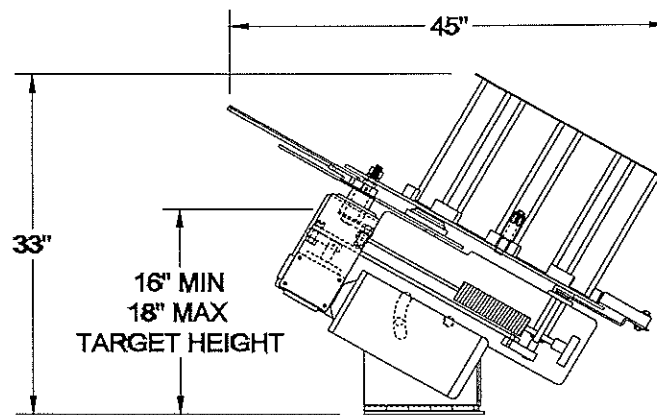


FIGURE 2 - ELEVATION VIEW

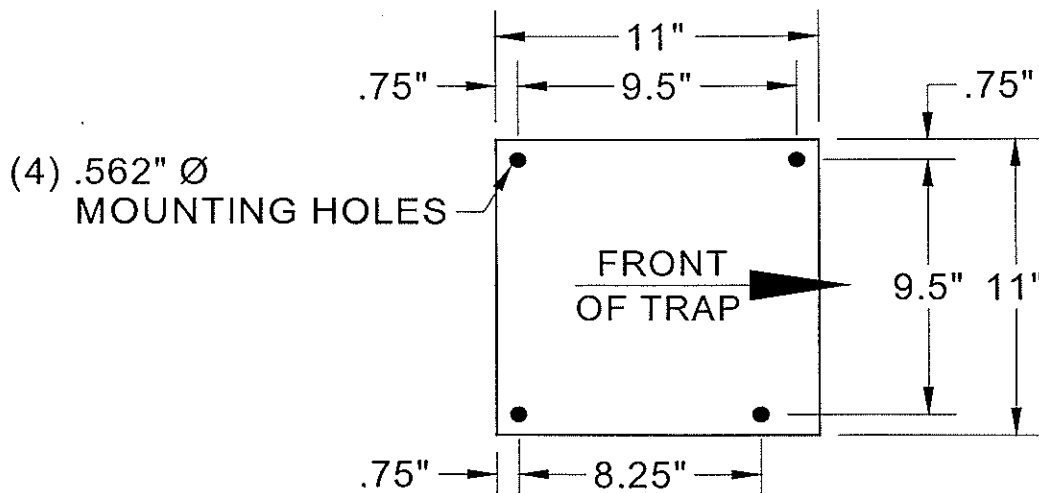


FIGURE 3 - BASE PLATE

3. Mounting the Throwing Arm Path Indicator

Assemble the throwing arm path indicator (see figure 4) by sliding the four (4) tubing support rods over the end of the safety tube. Position the support rods so the ends will line up with the mounting bracket located on the clutch bearing assembly. After inserting the four (4) support rods into the mounting bracket, push the two ends of the tube over the mounting pins located farther back on the trap.



CAUTION: Failure to install the throwing arm path indicator can result in serious injury from being struck by the throwing arm during use.



CAUTION: Do not lift trap by throwing arm path indicator, it was not designed to be a lifting point.

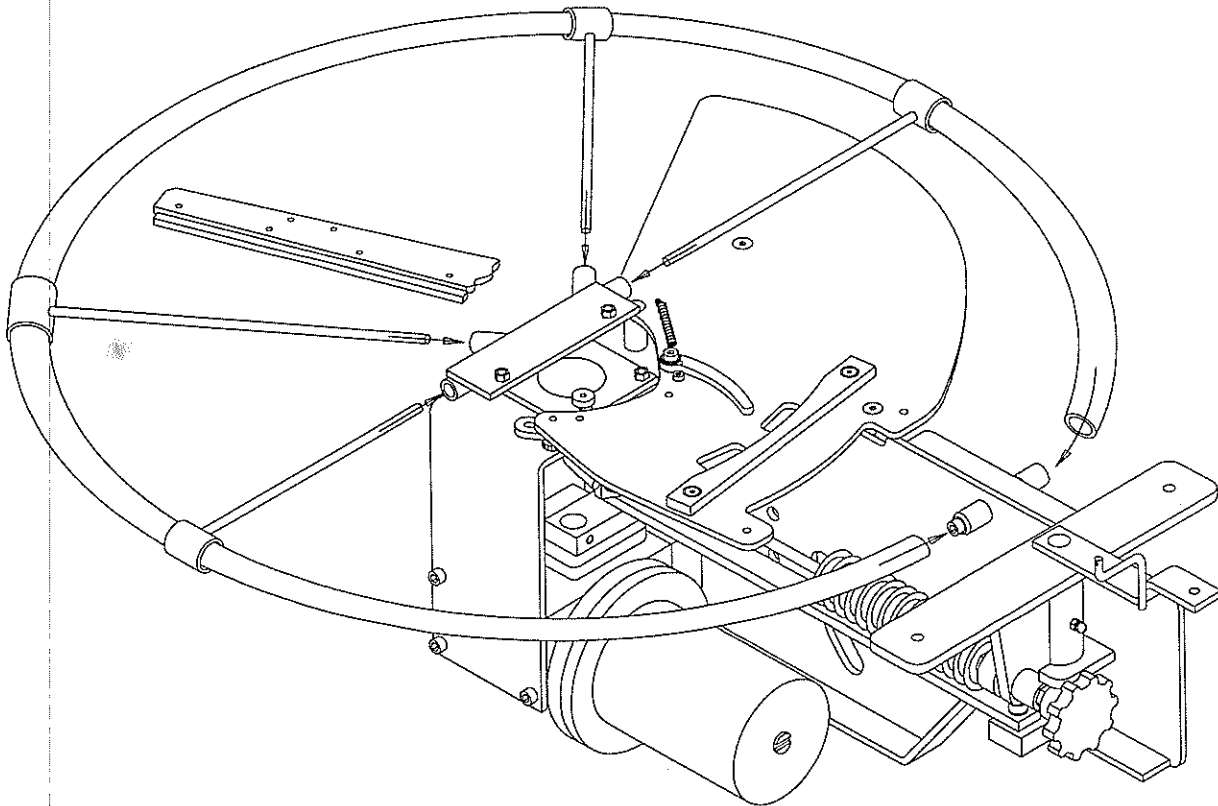


FIGURE 4 - THROWING ARM PATH INDICATOR MOUNTING
(some items removed for clarity)

4. Setting Initial Spring Tension

⚠ WARNING: This trap was shipped with the mainspring premounted to ease trap setup. It was shipped with zero tension on the spring. Failure to set initial tension on the spring can result in damage to the mainspring and/or spring hook. Follow the directions below to set initial tension.

1. Turn the spring tension adjusting knob clockwise until the spring is threaded onto the spring hook up to the piece of red tape. This tape marks the minimum tension point of 4-1/4 inches of spring hook threads showing out the end of the spring.

⚠ CAUTION: Never exceed this point, as damage to the spring or hook can occur due to spring "slap".

2. Remove the tape from the spring hook threads.
3. The throwing arm is in the cocked position as shipped from the factory and is now under minimum spring tension. Carefully turn the gearmotor advance screw clockwise with a screwdriver in the slot at the rear of the motor until the throwing arm is in the 12 o'clock position as shown in figure 5.
4. The throwing arm is now in the uncocked position and is under minimum tension.

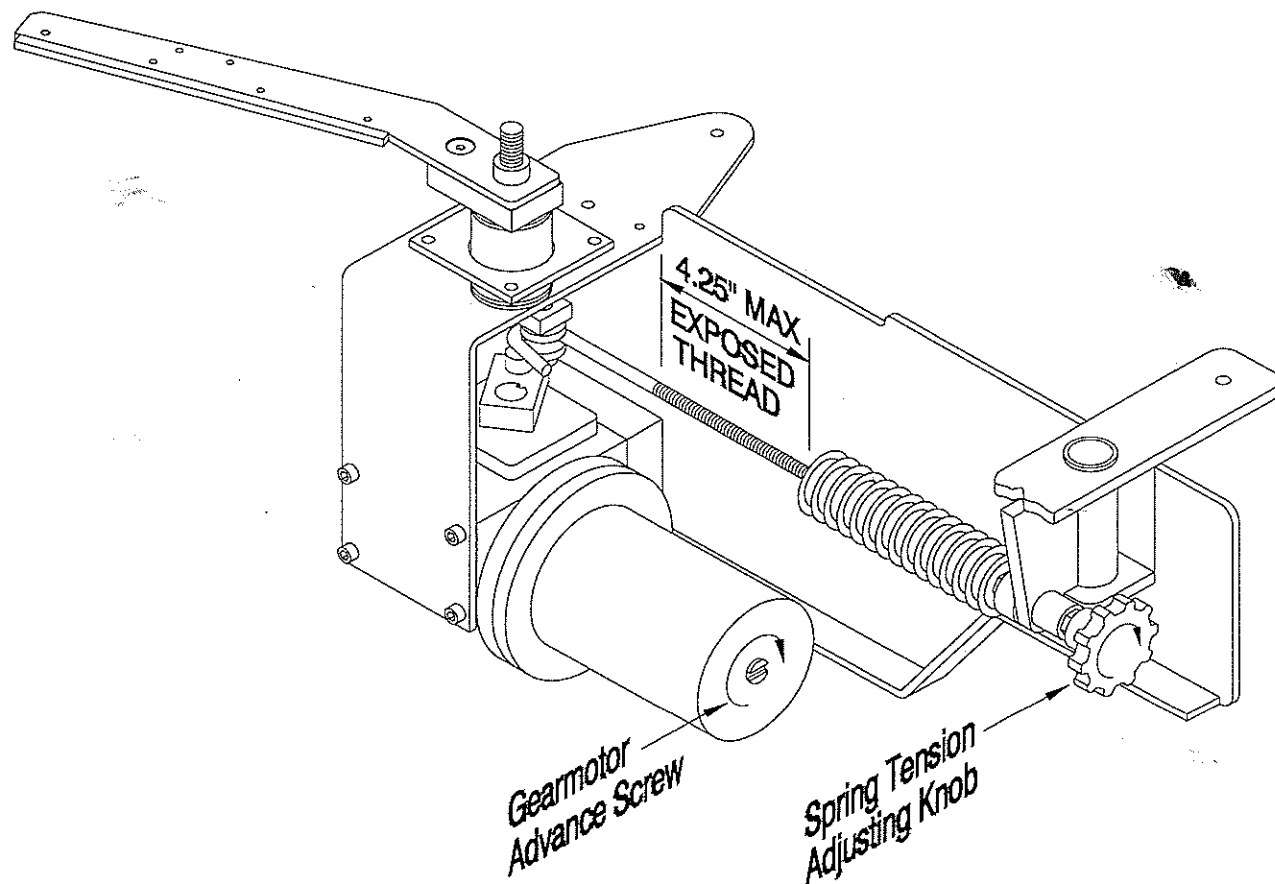


FIGURE 5 - MAINSPRING SETUP
(some items removed for clarity)

5. Setting Magazine Index Position

⚠ CAUTION: Failure to set the magazine index to the correct location prior to loading targets in the magazine will result in the index dog crushing the targets during index.

1. With the throwing arm in an uncocked, 3/4 cocked, or fully cocked position, manually rotate the magazine until the index dog is riding on top of one of the ten index cogs.

NOTE: The throwing arm should already be in the uncocked position following completion of the previous installation step of **Setting the Initial Spring Tension**.

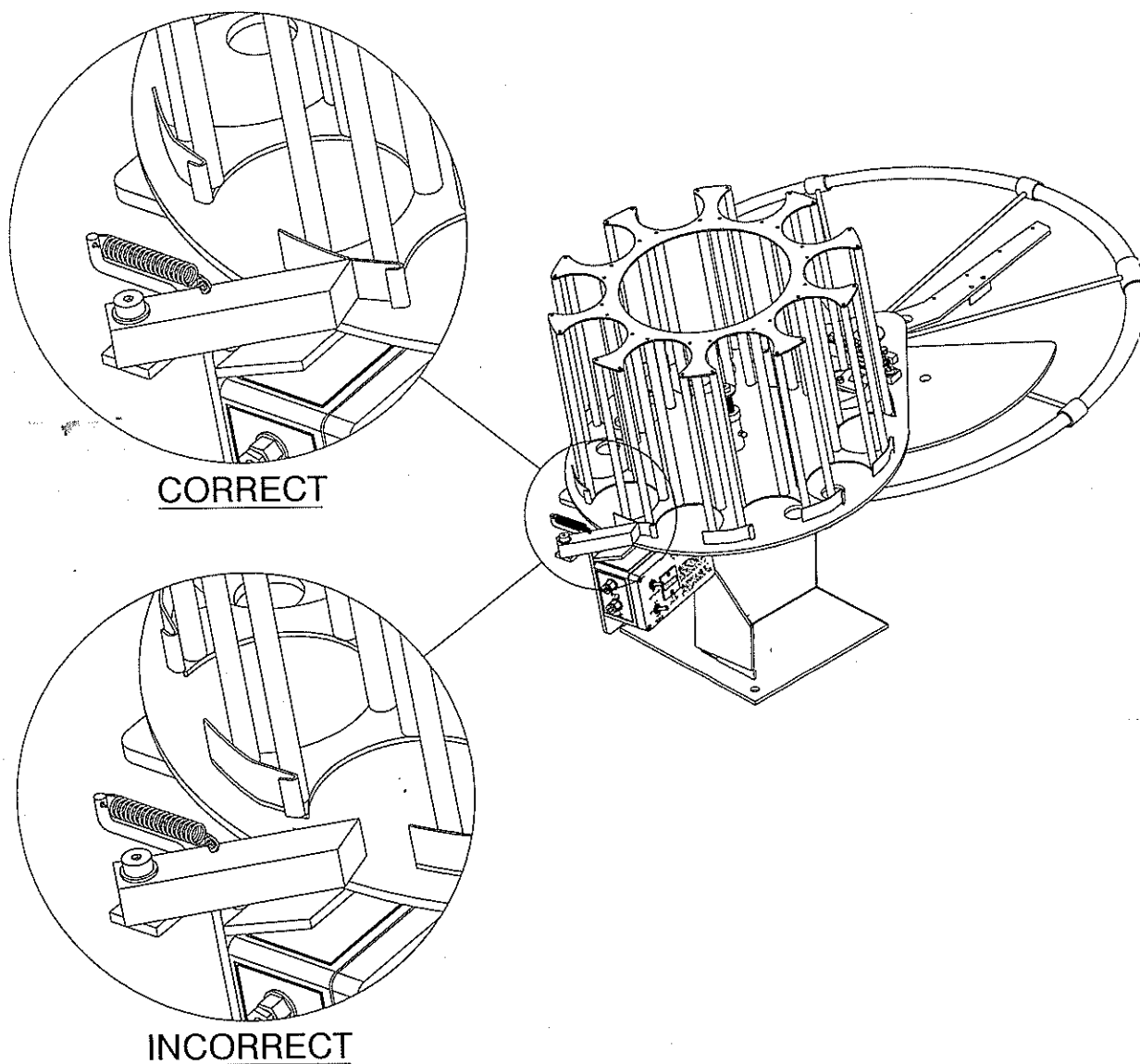


FIGURE 6 - MAGAZINE INDEX POSITION

6. Power Supply and Release Cord Installation

⚠ CAUTION: Make sure all switches are set to the "OFF" position before connecting power to the trap.

WARNING! Make sure that all power is disconnected in trap house before installing trap.

- A. All wiring should be completed by a qualified person and in accordance with the current National Electrical Code (NEC) as well as all local codes. Full load amperage of the ½ hp cocking motor is 9 amps. The Main Power On/Off Circuit Breaker switch is rated for 15 amps at 115VAC. Make sure wiring to trap is adequate.
- B. It is highly recommended that a grounding rod be attached and connected to the ground (green) wire at the trap house where the 115VAC power enters the house.
- C. Plug Release cord into female plug end that is secured to front of trap.
- D. Plug 115VAC power cord into approved electrical outlet (ground fault circuit interrupter recommended)

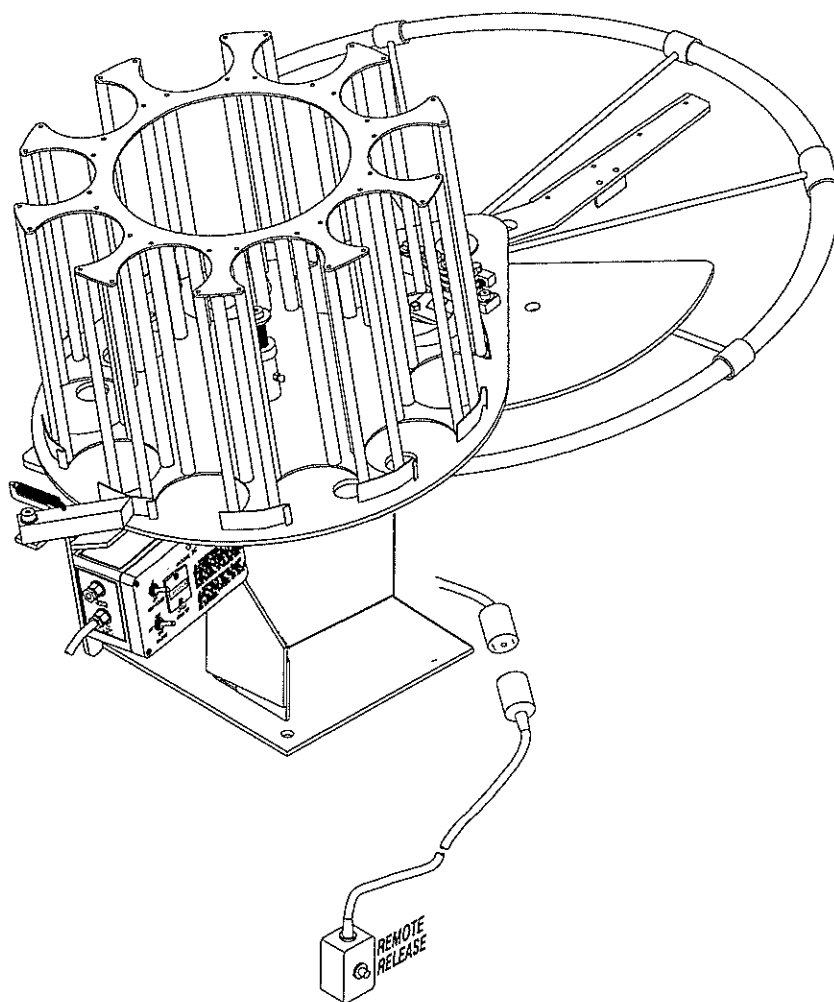


FIGURE 7 - EXTERNAL WIRING

IV. Operation

⚠ CAUTION: Do not stand in front of trap or in the path of the throwing arm!
Serious injury may result!

1. The throwing arm path indicator must be mounted properly before using trap.
2. Confirm that the magazine is in the proper indexing position.
3. Ensure that there is an adequate power supply connected to the trap and that the remote release cord is plugged into the trap control box.
4. Make sure that the on/off/safe release switch is in the "off" position.
5. Turn the main power switch to the "on" position.
6. Turn the remote on/off/safe release switch to the "on" position.
7. At this time the trap should index the magazine one position and cock the throwing arm.
8. Pressing the "fire" button on the remote release should release the throwing arm, index the magazine, and recock the throwing arm.
9. If any problems arise, please refer to the troubleshooting section in the instruction manual.
10. If everything functions satisfactorily, **uncock the trap** by safely releasing the throwing arm, then **turn the power off** and proceed to load the magazine (see figure 8). The magazine holds ten columns of thirty targets each for a total of 300 targets. Load the columns in one of the two following ways:
 - I. Does not require turning the trap on:
 - A. Fully load nine columns except for the one over the bird drop retainer.
 - B. Manually index the magazine counter-clockwise one position.
 - C. Fully load the tenth column.
 - D. Carefully remove the bird that dropped on the throwing plate.
 - II. Does require turning the trap on:
 - A. Fully load nine columns except for the one over the bird drop retainer.
 - B. Manually index the magazine counter-clockwise one position.
 - C. Turn the trap on to cock the arm.
 - D. Safely release the throwing arm. This will index the magazine and not recock the arm.
 - E. Turn power back off and fully load the tenth column.

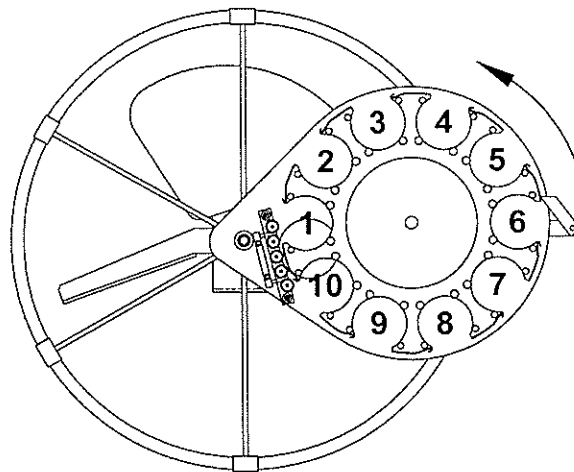


FIGURE 8 - LOADING THE MAGAZINE

V. Adjustments

1. Throwing Arm Limit Switch

1. Loosen the limit switch bracket thumbscrews and adjust switch clockwise to increase arm travel or counter-clockwise to decrease arm travel. (see figure 9)
2. Adjust arm so that it stops within the range of 6-1/2" to 9" from the tip of the arm to the main body. The edge of the cutout in the drop plate is approximately the 6-1/2" point. (see figure 10)

NOTE!: Adjusting the arm to stop at a point more than 9" results in a delay in release due to the extra travel needed at time of firing.

CAUTION: Adjusting the arm to stop at a point less than 6-1/2" results in a the possibility of the arm not stopping during cocking causing continuous firing.

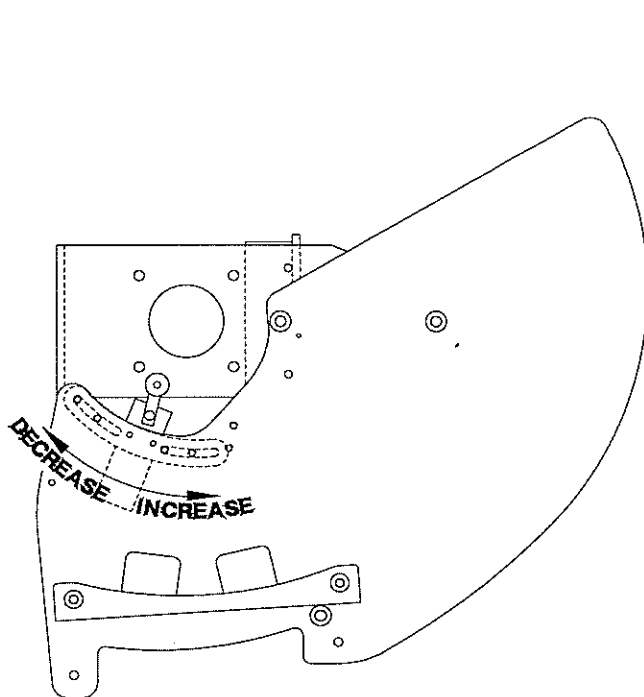


FIGURE 9 - ADJUSTING LIMIT SWITCH

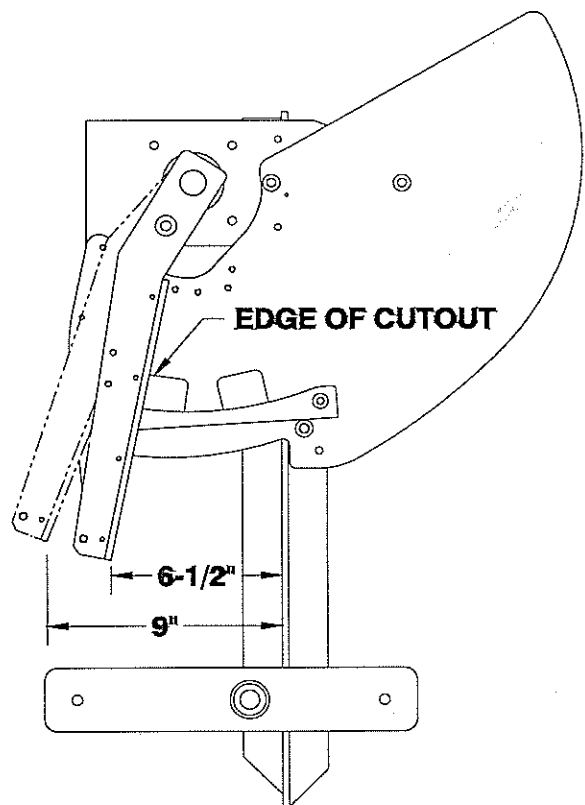


FIGURE 10
ARM STOPPING RANGE

2. Elevation Adjustment (Adjustable Base Model)

1. The trap has an adjustable elevation range of 0 to 45 degrees.
2. There are two adjustments to change the elevation of the trap. (see figure 11)
3. Course changes to trap elevation are made by moving the top mounting bolt of the elevation turnbuckle to one of the 3 holes in the main body. The 3 holes give the following elevation ranges:
 - a) Lower hole - 0 to 15 degrees elevation.
 - b) Middle hole - 15 to 30 degrees elevation
 - c) Upper hole - 30 to 45 degrees elevation
4. Fine changes to trap elevation are made by adjusting the elevation turnbuckle counter-clockwise to raise the trap or clockwise to lower the trap.

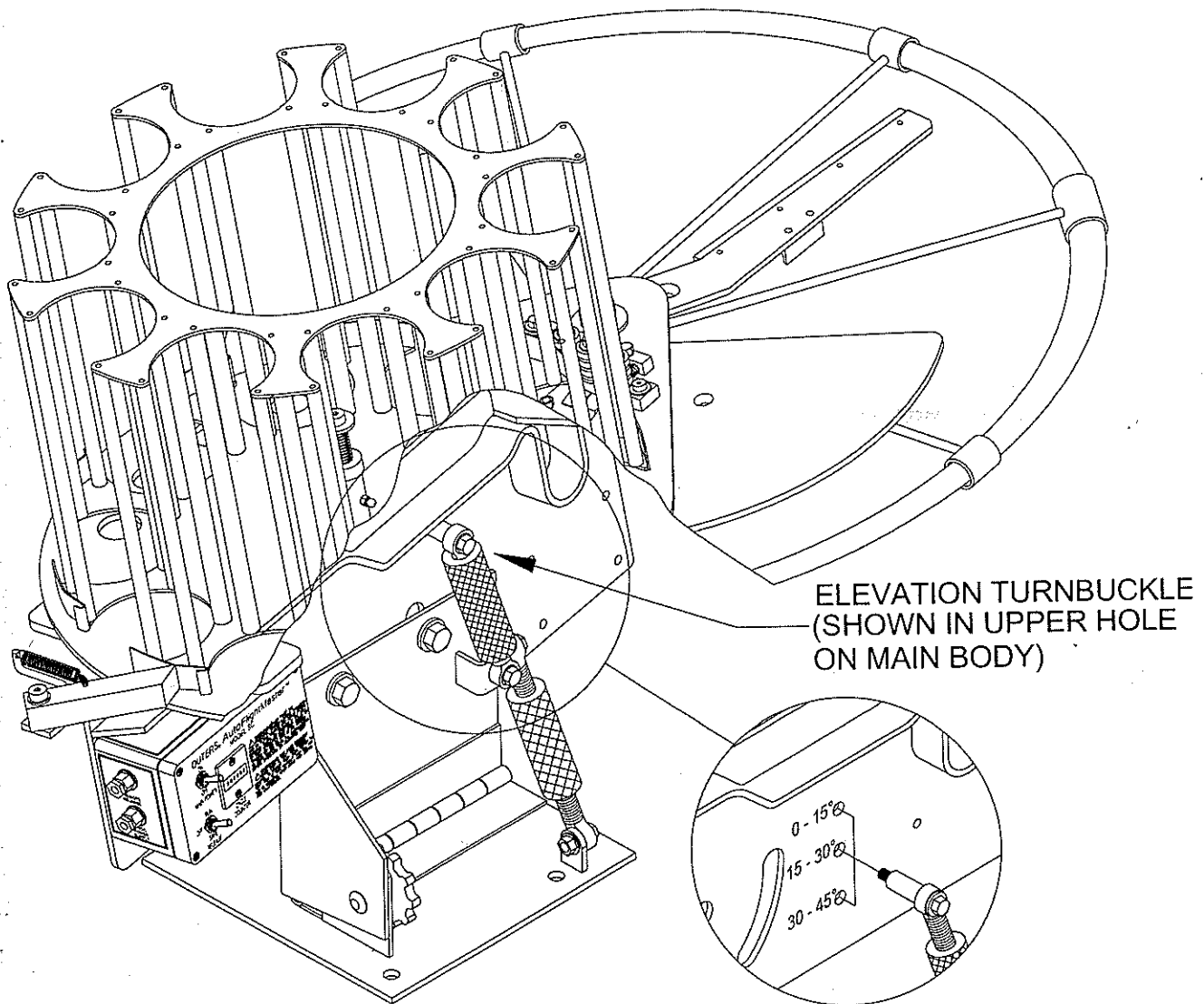


FIGURE 11 - ELEVATION ADJUSTMENT

3. Windage Adjustment

Adjustable Base Model: Windage adjustment is made by loosening the four (4) base plate mounting bolts and rotating the trap in the slots. There is a total of 30° of slot adjustment in the base plate

Fixed Base Model: Windage adjustments are made by rotating the platform the trap is mounted to. There are no windage adjustment features built into the trap.

4. Tailing (Curl) Adjustment (Adjustable Base Model)

The trap has an adjustable range of 10 degrees to the left and 10 degrees to the right to allow for adjusting the trap to obtain a level bird flight. (see figure 12) To adjust the trap for curl:

1. Loosen the tailing adjustment locking knob.
2. Turn the tailing adjustment turnbuckle so the trap tips to the right for a left tailing bird or to the left for a right tailing bird.
3. Retighten the tailing adjustment locking knob.
4. Readjust as necessary until the bird no longer tails.

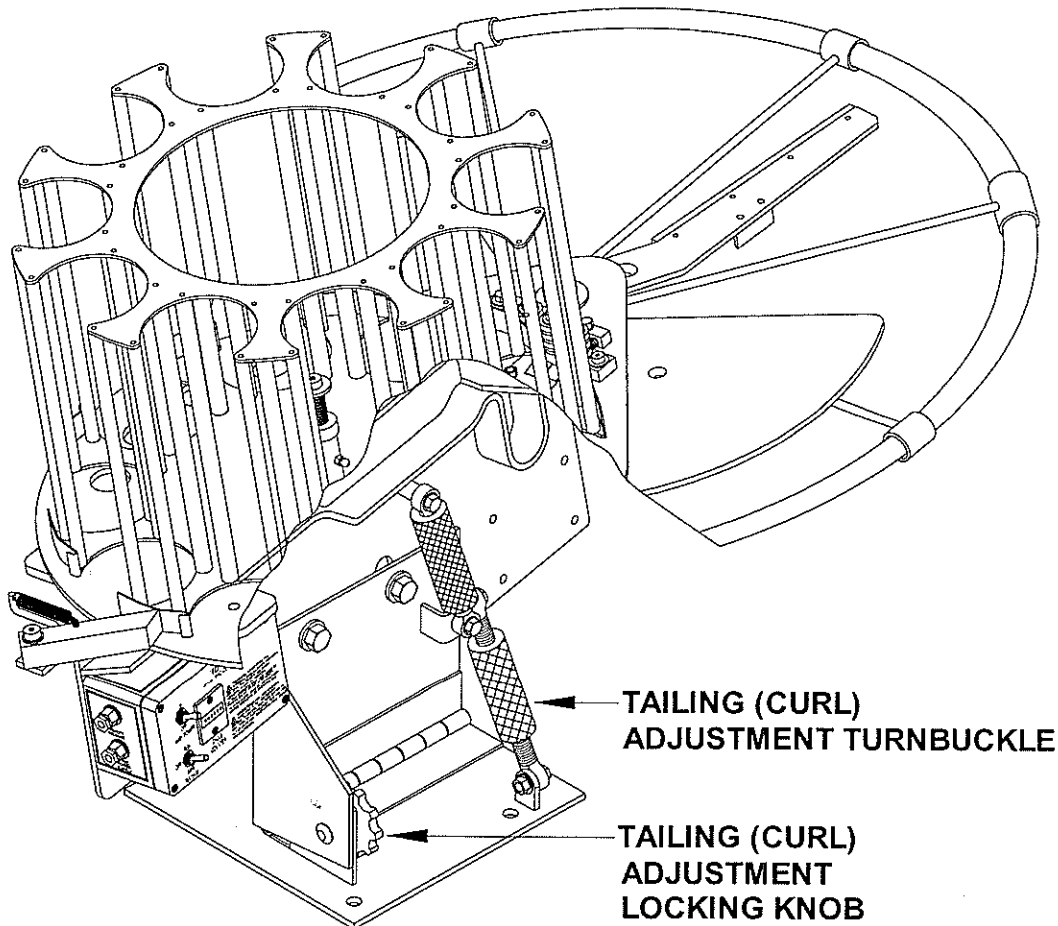


FIGURE 12 - TAILING (CURL) ADJUSTMENT

5. Distance Adjustment

The trap has an adjustable throwing range of approximately 45 to 100 yards. Adjustments to throwing distance are made by adjusting the mainspring tension. (see figure 13)

To adjust the throwing distance:

1. Turn the spring tension adjusting knob clockwise to increase distance and counter-clockwise to decrease tension.
2. Make sure the spring tension is not reduced to the point that more than 4-1/4" of threads are exposed on the spring hook. This is the minimum tension point to ensure that spring slap does not occur.

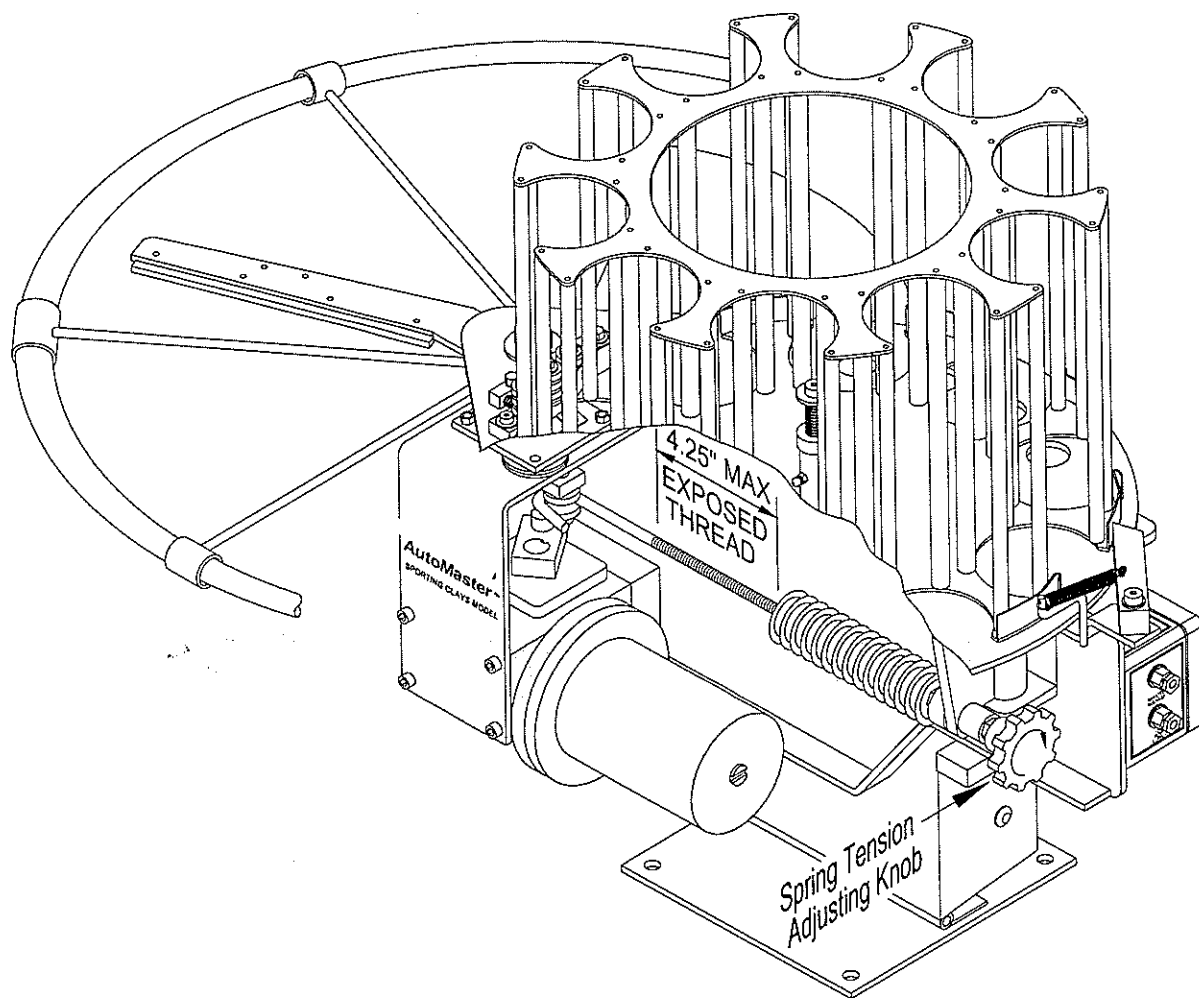


FIGURE 13 - DISTANCE ADJUSTMENT

6. Adjusting Target Drop Plate

The **CHAMPION** Auto-FlightMaster trap was shipped with the target drop plate adjusted to the proper height and levelness with respect to the throwing arm. In the event that the plate needs to be re-adjusted due to different target manufacturer's dimensional variances or from disassembly due to maintenance or repair, readjust the drop plate as follows:

1. Make sure throwing arm is in the uncocked position and remove power from machine.
2. Remove the magazine assembly by removing the nut and washer from the mainshaft assembly and lift the magazine assembly off the mainshaft and two rear mounting pegs.
3. Remove mainspring assembly from trap.
4. Place target on drop plate and rotate throwing arm with target against arm, moving target along the length of the arm to check clearance. Note: The cocking motor will have to be spun in order to allow rotation of the throwing arm. This is done by spinning the cocking motor fan blade by hand after removing the motor fan cover.
5. Adjust the length of the threaded bolts at the three mounting bolt locations to achieve proper clearance and levelness. Proper clearance is approximately .020-.060" between the flight rail and the lower rim of the target (see figure 14)

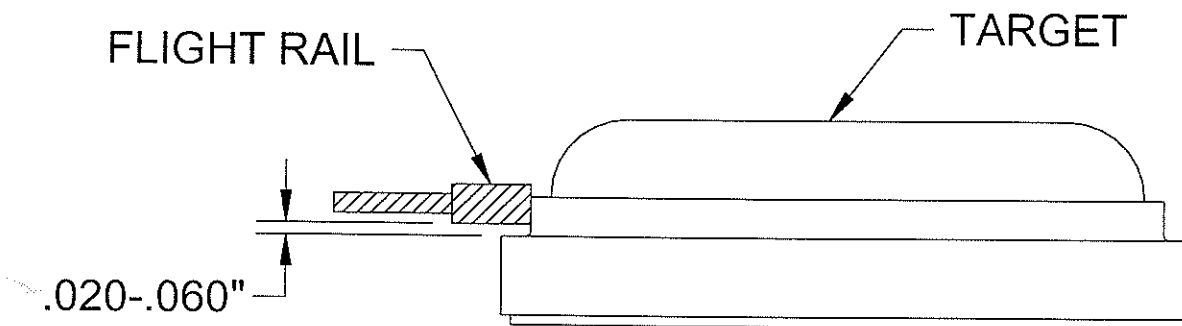


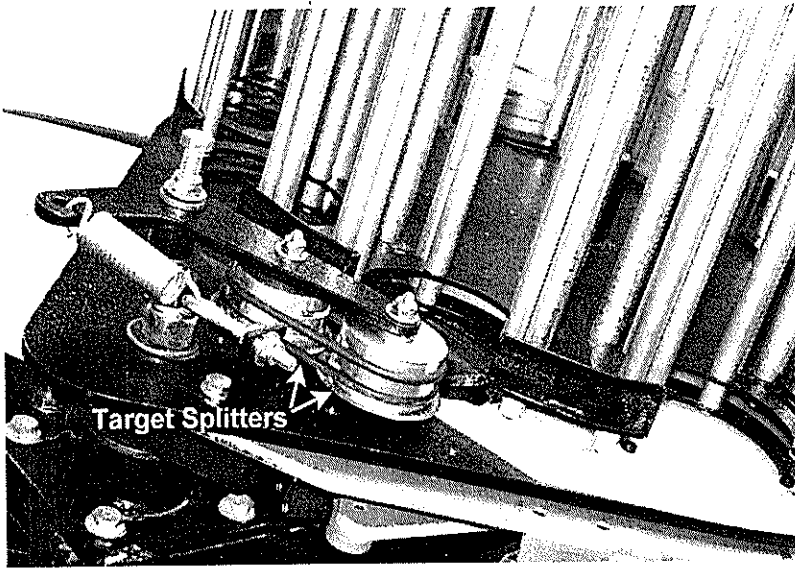
FIGURE 14 – PROPER FLIGHT RAIL CLEARANCE

7. Adjusting Target Retainer

For best results, the Target Retainer System splitter height needs to be adjusted for the brand of target being used. Adjustment is as follows:

1. Load targets into one of the magazine columns.
2. Rotate the magazine until the column of targets just makes contact with the splitter on the leading target retainer roller.

Note: Both rollers are fixed at the same height with respect to each other.

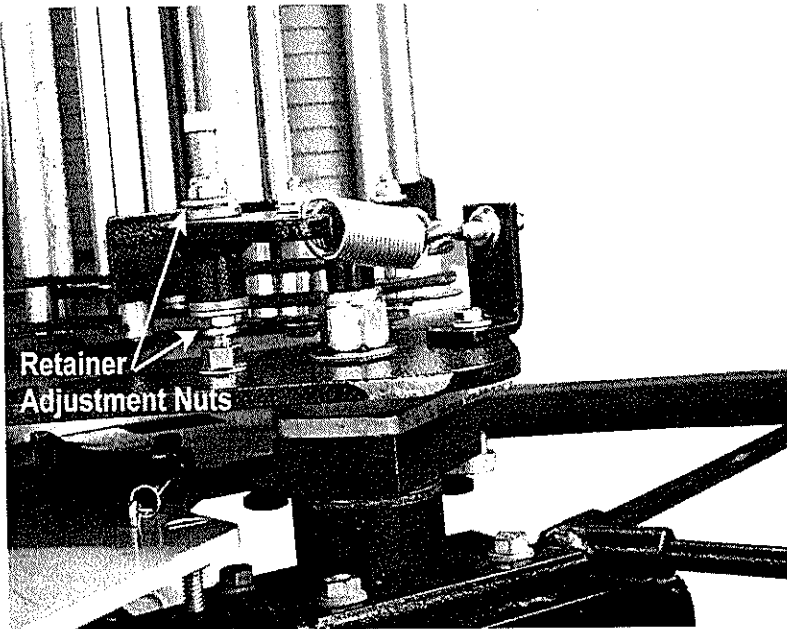


3. The splitter should be adjusted so that the knife edge of the splitter is the same height as the small gap between the bottom (first) and second target in the column.

4. To raise the height of the target splitters (along with the retainer rollers), loosen the upper adjusting nyloc hex nut on the retainer system and turn the lower nyloc hex nut counter-clockwise until the splitter is aligned with the gap between the bottom and second target. After adjusting, tighten the upper adjusting nyloc hex nut to lock the retainer in position.

5. To lower the height of the target splitters (along with the retainer rollers), loosen the upper adjusting nyloc hex nut on the retainer system and turn the lower nyloc hex nut clockwise until the splitter is aligned with the gap between the bottom and second target. After adjusting, tighten the upper adjusting nyloc hex nut to lock the retainer in position.

6. Test the adjustment by filling the magazine and throwing several targets to insure the splitters are at the appropriate height. Incorrect splitter height can cause the splitters to damage the targets during indexing and cause the targets to break during launch.



VI. Troubleshooting

I. THE MOTOR WILL NOT START

1. The "MAIN POWER" circuit breaker switch on the control box is in the "off" position.
2. The "MAIN POWER" circuit breaker switch on the control box is "tripped" - determine cause of tripping before resetting.
3. The "ON-OFF-SAFE RELEASE" switch is in the "OFF" position.
4. Electrical connections are loose or damaged.
5. The motor is burned out.
6. The throwing arm is blocked from rotating.

II. THE MOTOR STARTS, BUT DOES NOT COCK THROWING ARM

1. The mainspring bushing bolt is broken.
2. The gearbox crankarm bolt is broken.

III. THE MOTOR STARTS, BUT DOES NOT INDEX MAGAZINE

1. Magazine index dog is damaged.
2. Magazine index dog spring is damaged or missing.

IV. THE TRAP COCKS, BUT DOES NOT FIRE

1. The "MAIN POWER" switch on the control box is in the "off" position.
2. The "ON-OFF-SAFE RELEASE" switch is in the "OFF" position.
3. Electrical connections are loose or damaged.
4. The remote fire button or wireless release system is damaged.

V. THE THROWING ARM DOES NOT STOP AND CONTINUES FIRING

1. The throwing arm limit switch is damaged or out of adjustment.
2. Remote release system fire button stuck in the "on" position.
3. Remote release system cord wires are shorted together.

VI. EXCESSIVE TRAP NOISE OR VIBRATION

1. Check all bolts to make sure they are tight.
2. The mainspring is loose causing "spring slap". Check to make sure there is a maximum of 4-1/4" of threads on the spring hook exposed.
3. Gearbox oil level is low.

VII. TWO TARGETS DROP FROM MAGAZINE

1. Mixed size targets.
2. Target retainer o-rings damaged or missing.

VIII. THE TARGETS DO NOT DROP FROM MAGAZINE

1. Wet targets - replace with dry targets.
2. Mixed size targets.
3. Target hole in magazine plate is blocked.
4. The targets are stuck together - separate them before loading in magazine.

IX. THE TARGETS BREAK WHEN THEY DROP FROM MAGAZINE

1. Wet targets - replace with dry targets.
2. Mixed size targets.
3. Target retainer is stuck and crushing targets as magazine indexes.
4. Targets were damaged prior to or during loading magazine.

X. THE TARGETS BREAK IMMEDIATELY UPON FIRING

1. Wet targets - replace with dry targets.
2. Mixed size targets.
3. Targets damaged prior to or during loading.
4. The throwing arm flight rail is damaged or excessively worn.
5. Mainspring tension is too tight for quality of target being used.
6. The throwing arm is bent. It can be carefully straightened on the machine. Check that the arm is always parallel to the drop plate during its rotation.

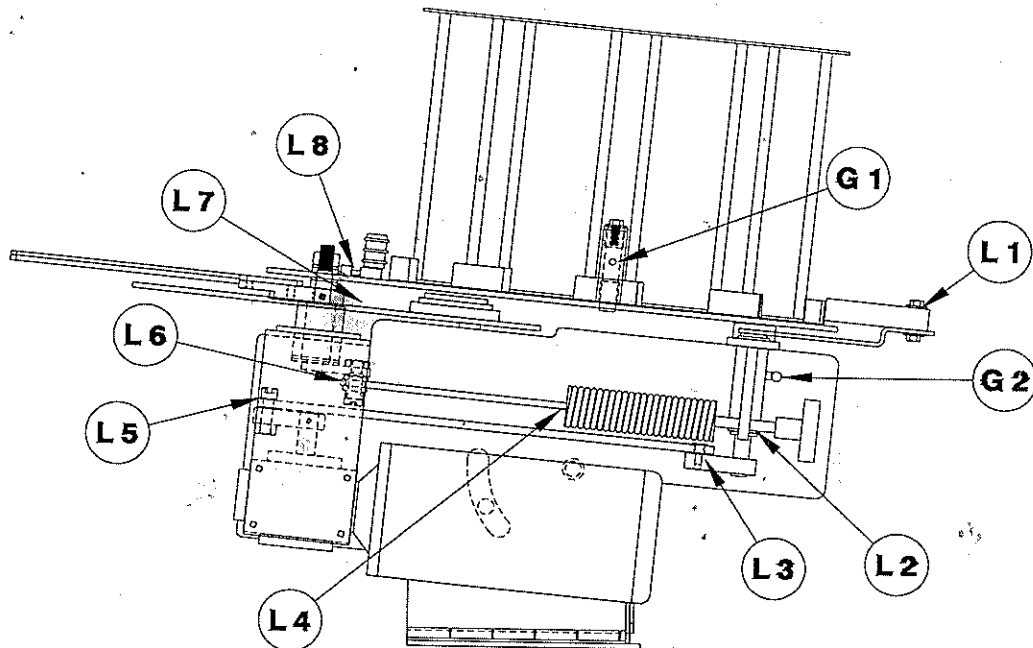
⚠ CAUTION: Uncock the throwing arm, disconnect power and remove mainspring before checking alignment!

7. The target drop plate is bent.
8. The target drop plate is loose - check bolts for tightness.
9. The target finger spring is damaged or missing.
10. The target finger is damaged or stuck.
11. The throwing arm path indicator is bent upward and targets are striking it.

VII. Maintenance

WARNING: Before performing any maintenance on trap make sure the arm is in the uncocked position and the power supply has been disconnected from the trap.

1. Clean the trap by removing target dust and target chips.
2. Gearbox lubricating oil should never need changing. Checking the oil level or adding/changing oil requires removal of the gear reducer from the trap due to its orientation. Use Mobil SHC 634 Synthetic oil if required.
3. Periodically lubricate the magazine index axle housing and the magazine bushing housing with a good quality lithium based grease rated for the appropriate temperature range that the trap will be used exposed to during use. (see figure 16).
4. Lubricate other moving parts with a good quality Teflon based lubricating oil. (see figure 16)
5. Periodically check mounting bolts to insure they remain tight.
6. Check condition of flight rail and replace when excessively worn or damaged.



G - GREASE POINT

L - LUBRICATING OIL POINT

G 1 - MAGAZINE BUSHING HOUSING

L 4 - SPRING HOOK THREADS

G 2 - MAGAZINE INDEX AXLE HOUSING

L 5 - FRONT MAGAZINE LINKAGE BUSHING

L 1 - MAGAZINE INDEX DOG

L 6 - SPRING BUSHING

L 2 - REAR MAINSPRING MOUNTING BAR

L 7 - TARGET FINGER BUSHING

L 3 - REAR MAGAZINE LINKAGE BUSHING

L 8 - TARGET RETAINER SLIDING POINTS

FIGURE 16 - TRAP LUBRICATION POINTS

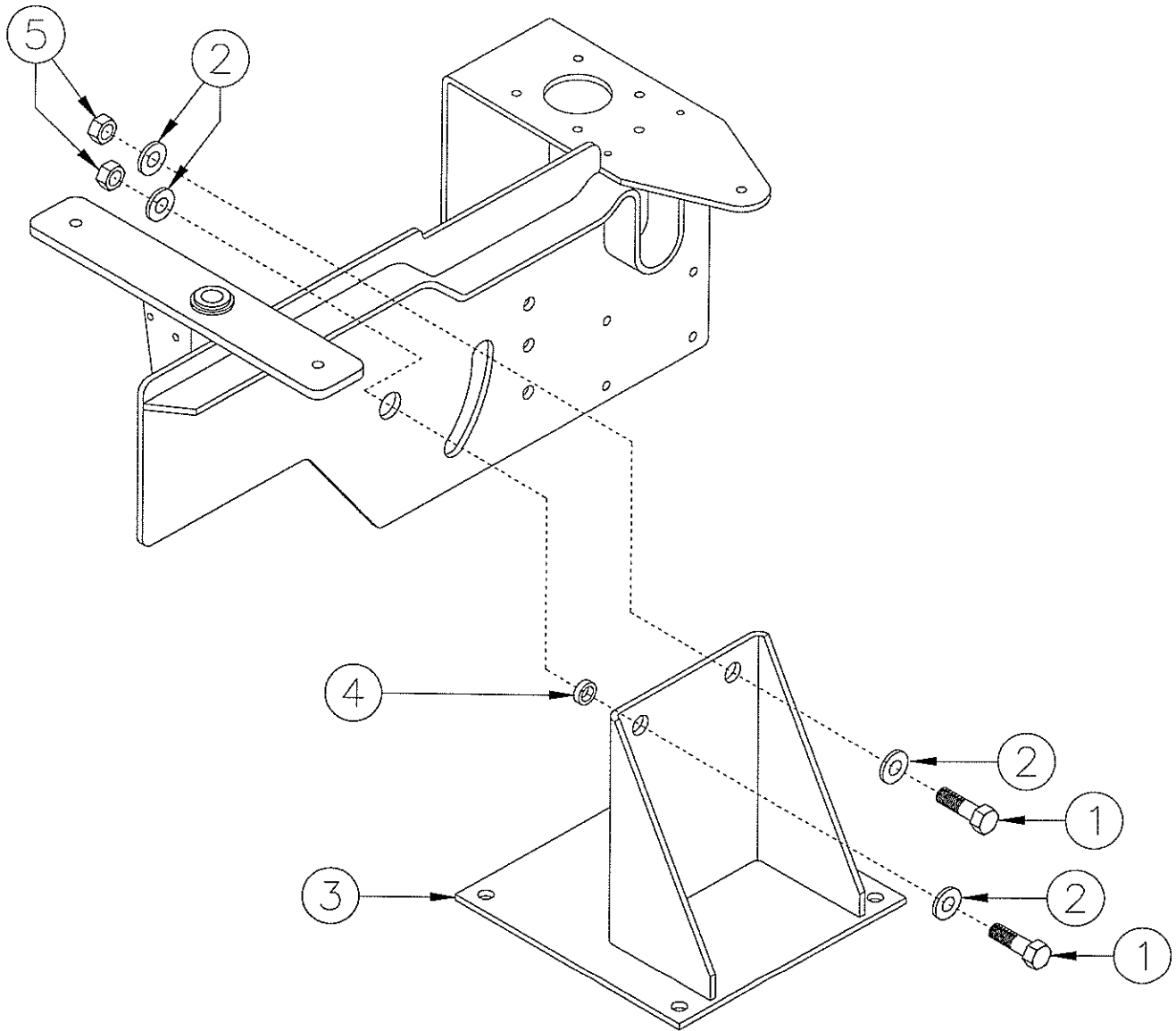


Auto-FlightMaster

MODEL SC 110VAC

Parts Drawings

BASE ASSEMBLY

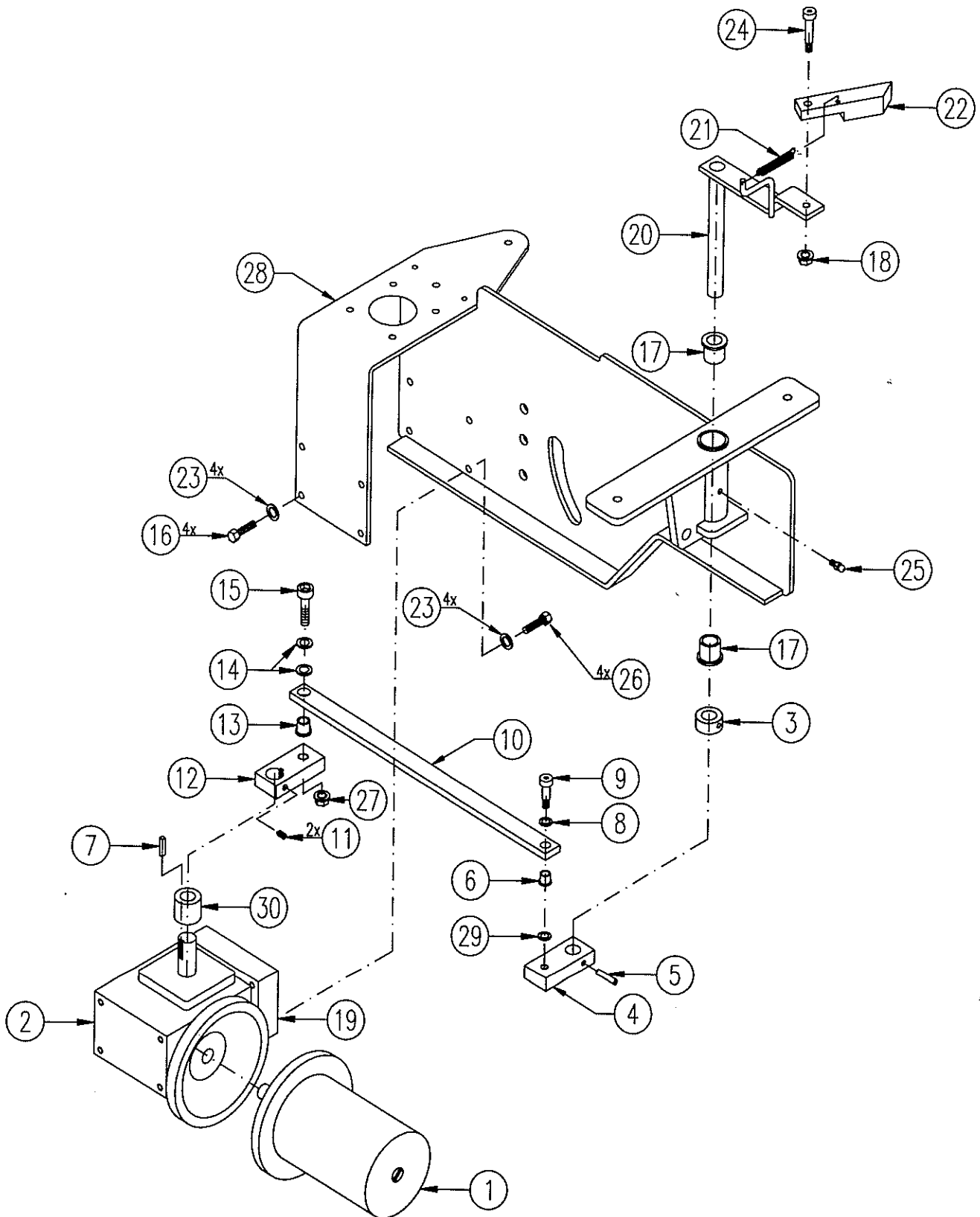


BASE ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	2	513032	3/4-10 x 2" lg. Hex Head Cap Screw, zinc plated
2.	4	513033	3/4" i.d. Flat Washer, zinc plated
3.	1	330588	Lower Base Assembly
4.	1	330567	Main Body Pivot Spacer
5.	2	513037	3/4-10 Nylon Insert Locking Nut, zinc plated

MAIN BODY ASSEMBLY

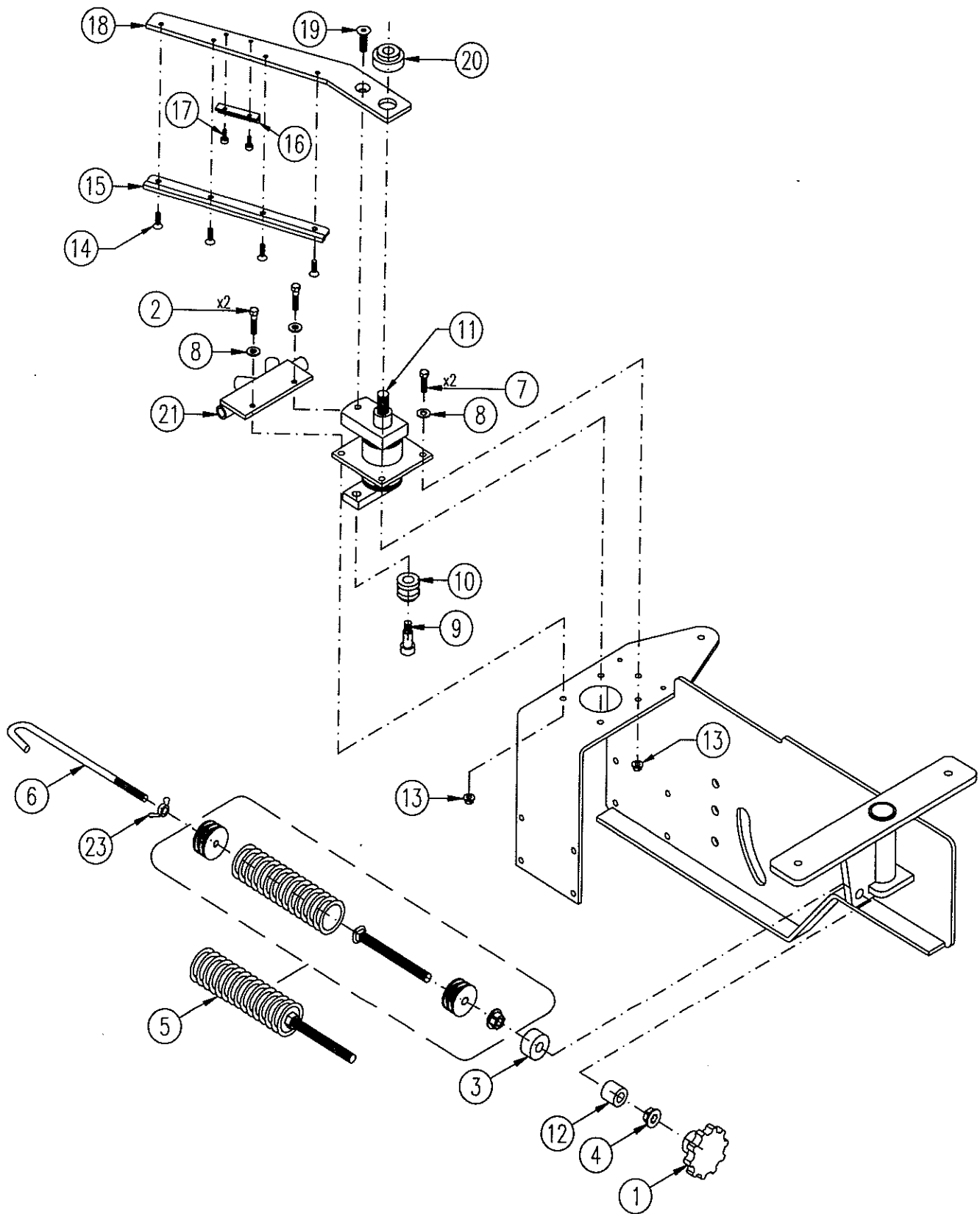


MAIN BODY ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	1	544868	1/2 HP Motor 110 vac 1800 rpm 56C TEFC
2.	1	330586	Right Angle Gearbox
3.	1	513081	3/4" i.d. Shaft Collar
4.	1	330569	Magazine Index Block
5.	1	513038	1/4" dia. x 1-1/4" lg. Spring Pin, zinc plated
6.	1	513088	1/2" o.d. x 3/8" i.d. x 13/32" lg. Bronze Flange Bushing
7.	1	330660	3/16" Keystock x 1" lg.
8.	1	513087	3/8" i.d. x 3/4" o.d. x 1/32" thk. Bronze Thrust Washer
9.	1	513039	3/8" dia. x 1/2" lg. Socket Head Shoulder Bolt, alloy st'l.
10.	1	330677	Magazine Linkage Bar
11.	2	513040	1/4-20 x 1/4" lg. Cup Point Socket Set Screw, alloy st'l.
12.	1	330570	Gearbox Crank Arm
13.	1	513086	5/8" o.d. x 1/2" i.d. x 1/2" lg. Bronze Flange Bushing
14.	2	513085	1/2" i.d. x 3/4" o.d. x 1/16" thk. Bronze Thrust Washer
15.	1	513078	1/2-13 x 2-1/4" lg. Socket Head Cap Screw, alloy st'l.
16.	4	585166	5/16-18 x 1" lg. Hex Head Cap Screw
17.	2	513084	1" o.d. x 3/4" i.d. x 1" lg. Bronze Flange Bushing
18.	1	510268	5/16-18 Hex Serrated Flange Nut, zinc plated
19.	1	330684	Riser Block
20.	1	330594	Magazine Index Axle Assembly
21.	1	513117	Index Dog Extension Spring
22.	1	502832	Magazine Index Dog
23.	8	585128	5/16" Lockwasher
24.	1	513140	3/8" dia. x 3/4" lg. Socket Head Shoulder Bolt, alloy
25.	1	513043	1/4-28 Straight Grease Fitting
26.	4		5/16-18 x 2-1/4" lg. Hex Head Cap Screw, zinc plated
27.	1	513034	1/2-13 Hex Serrated Flange Nut, zinc plated
28.	1	330587	Main Body Assembly
29.	1	513079	Shim- 9/32"x3/8"x 1/32"stl
30.	1	331087	Gearbox Spacer Tube (ET)

THROWING ARM & SPRING ASSEMBLY

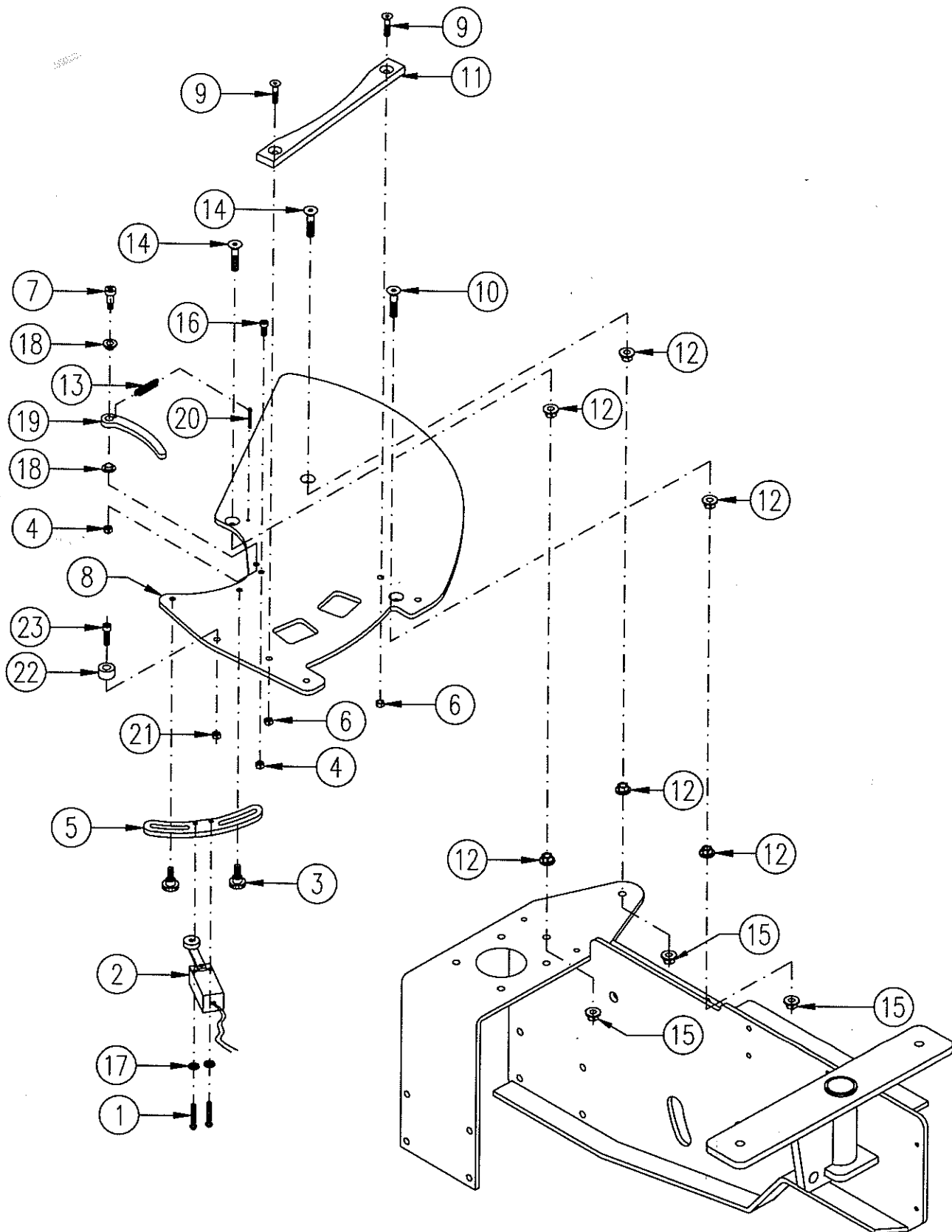


THROWING ARM & SPRING ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	1	513090	Spring Adjusting Knob
2.	2	513044	5/16-18 x 1-1/4" Ig. Hex Head Cap Screw, zinc plated
3.	1	331256	Spring Shock Bushing
4.	1	513034	1/2-13 Hex Serrated Flange Nut, zinc plated
5.	1	330651	Mainspring Assembly (sold as complete assembly only)
6.	1	330571	Spring Hook
7.	2	585166	5/16-18 x 1" Ig. Hex Head Cap Screw, zinc plated
8.	4	513046	5/16" i.d. Flat Washer, zinc plated
9.	1	330685	5/8" dia. x 1" Ig. Socket Hd. Shoulder Bolt, (cut)
10.	1	502820	Spring Bushing
11.	1	330599	Clutch Bearing Assembly, Sporting Clays
12.	1	330679	Spring Support Tube
13.	4	513145	5/16-18 Hex Nyloc Nut, zinc plated
14.	3	513071	10-24 x 3/8" Ig. Button Hd Socket Cap Screw, alloy st'l.
15.	1	730128	Flight Rail
16.	1	331221	Throwing Arm Sweep Bar
17.	2	513047	1/4-20 x 3/8" Ig. Button Hd. Socket Cap Screw, alloy st'l
18.	1	330566	Throwing Arm
19.	1	513048	3/8-16 x 1" Ig. Flat Head Socket Cap Screw, alloy steel
20.	1	502819	Mainshaft Bushing
21.	1	330666	Arm Path Indicator Tubing Guide Assembly
22.	1	513161	10-24 x 3/8" Ig. Flat Head Socket Cap Screw, alloy st'l.
23.	1	510269	3/8-16 Wing Nut

TARGET DROP PLATE ASSEMBLY



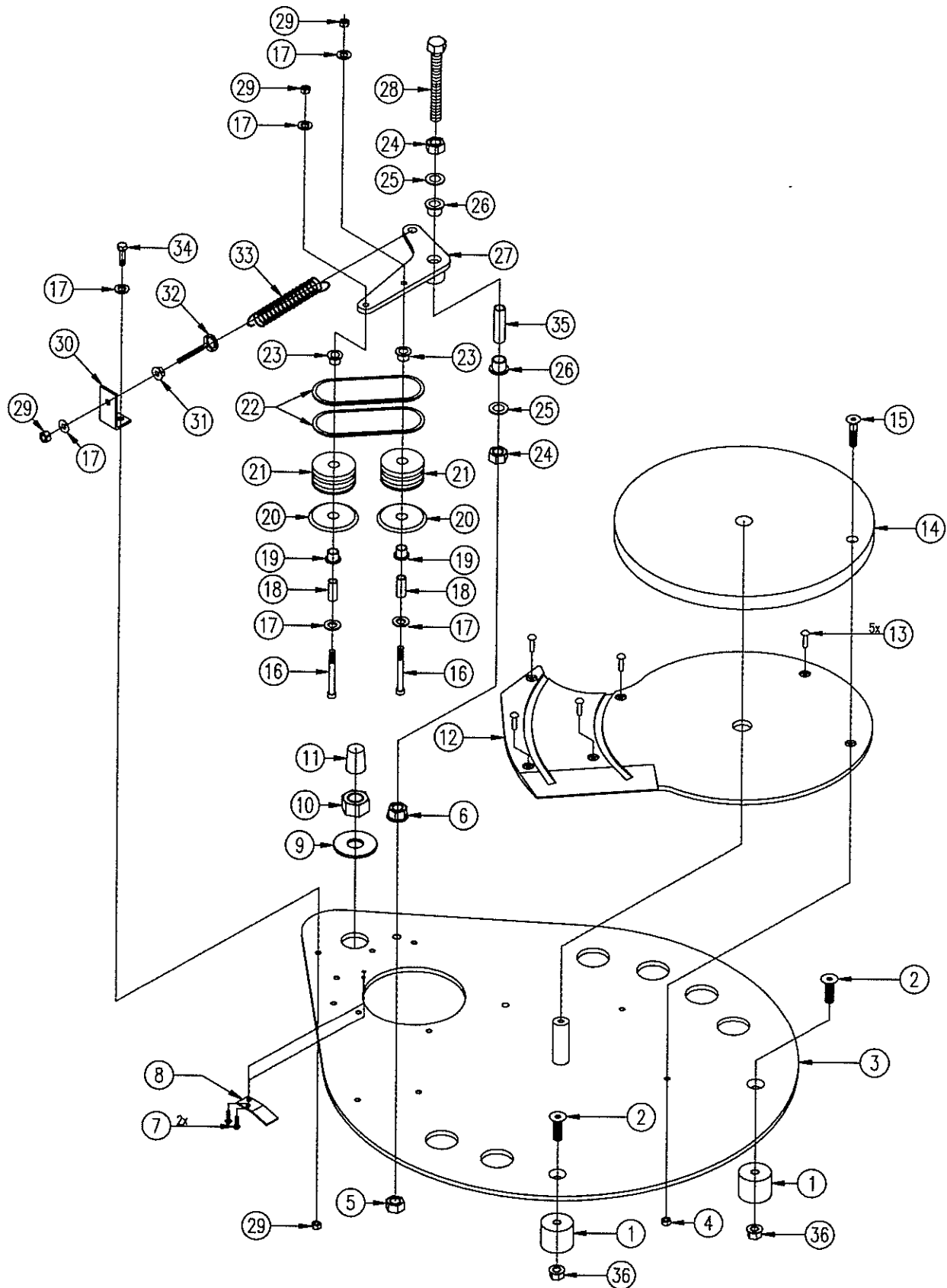
TARGET DROP PLATE ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	2	513072	#10-24 X 1-1/4" Ig. Rd. Hd. Machine Screw, zinc plated
2.	1	40275	Limit Switch
3.	2	330579	1/4-20 x 1/2" Ig. Knurled Plastic Head Thumb Screw
4.	2 *	513049	1/4-20 Hex Jam Nut, zinc plated
5.	1	330591	Limit Switch Mounting Bracket
6.	2	513050	1/4-20 Nylon Insert Hex Locking Nut
7.	1 *	513051	5/16" dia. x 3/8" Ig. Socket Hd. Shoulder Bolt, alloy st'l.
8.	1	330565	Target Drop Plate
9.	2	513052	1/4-20 x 1" Ig. Flat Head Socket Cap Screw, alloy st'l.
10.	1	513178	5/16-18 x 3-1/2" Ig. Full Thread F.H.S.C.S.
11.	1	331277	Target Backstop, Nylon
12.	6	510268	5/16-18 Hex Serrated Flange Nut
13.	1 *	513117	Target Finger Spring
14.	2	513181	5/16-18 x 2-1/2" Ig. Full Thread F.H.S.C.S.
15.	3	513145	5/16-18 Hex Nyloc Nut, zinc plated
16.	1	502043	1/4-20 x 1/2" Ig. Socket Head Cap Screw, alloy st'l.
17.	2	513076	#10 Lock Washer, zinc plated
18.	2 *	544801	Target Finger Pivot Bushing
19.	1 *	330574	Target Finger
20.	1	513074	1/8" dia. x 1" Ig. Cotter Pin, zinc plated
21.	1	500617	#10-32 Hex Nut, zinc plated
22.	1	513096	Rubber Target Bumper
23.	1	513075	#10-32 x 5/8" Ig. Socket Head Cap Screw, alloy st'l.

* in Red tool Box - winter Box

MAGAZINE BASE ASSEMBLY

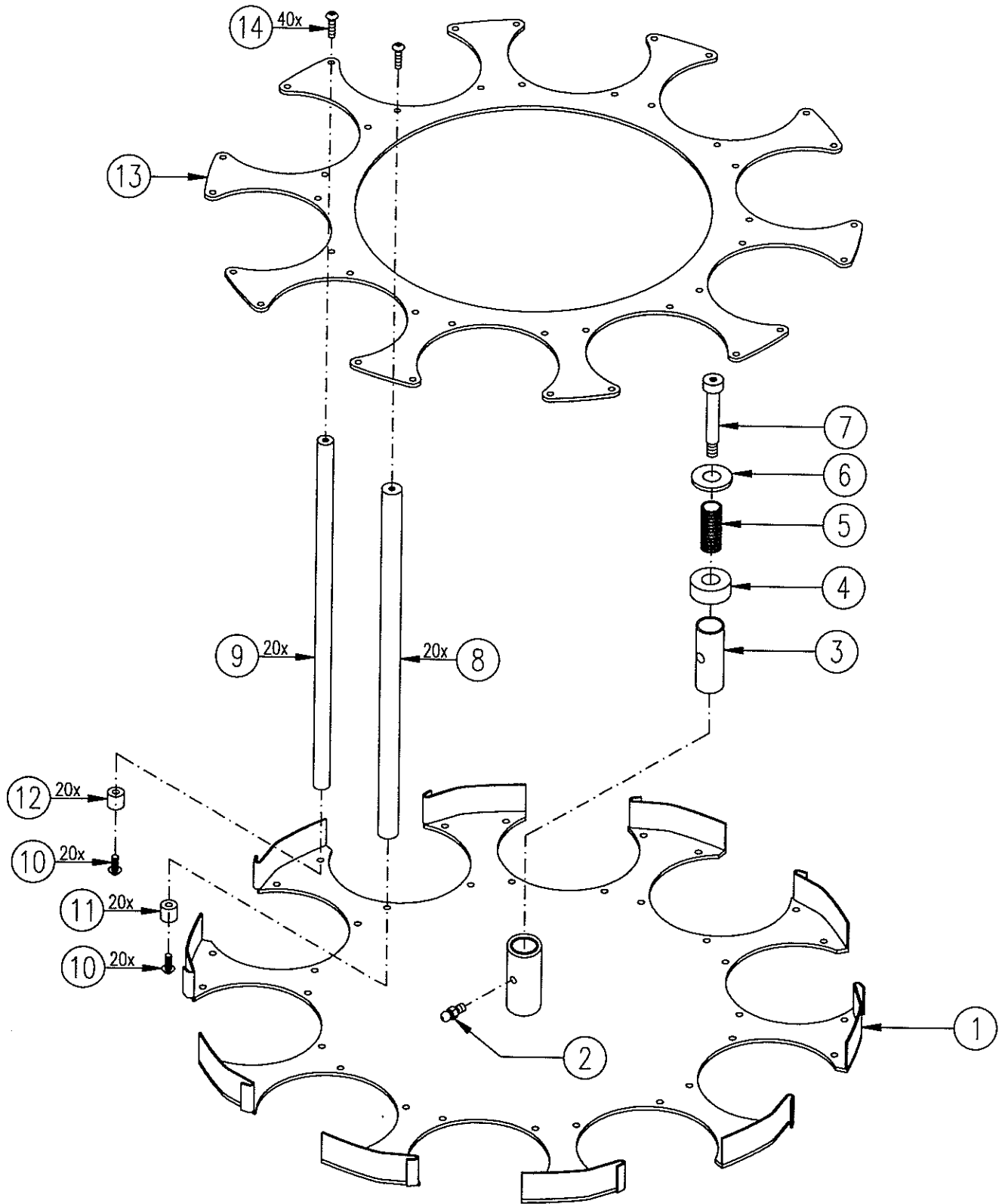


MAGAZINE BASE ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	2	502827	Magazine Plate Mounting Foot
2.	2	513077	3/8-16 x 2" Ig. Flat Head Socket Cap Screw, alloy stl
3.	1	330652	Magazine Plate
4.	1	513157	10-24 Hex Nyloc Nut, zinc plated
5.	1	513248	3/8-16 Hex Nyloc Jam Nut, zinc plated
6.	1	510274	3/8-16 Hex Serrated Flange Nut, zinc plated
7.	2	513055	8-32 x 1/4" Ig. Button Head Socket Cap Screw, alloy stl.
8.	1	544817	Target Drop Guide
9.	1	513124	5/8" i.d. SAE Flat Washer, zinc plated
10.	1	513059	5/8-11 Hex Nut, zinc plated
11.	1	513106	Vinyl Cap 5/8 x 1/2, Black
12.	1	502829	Magazine Skid Plate
13.	5	513056	3/16" dia. x 3/8" Grip Range Aluminum Pop Rivet
14.	1	331215	Magazine Drag Pad
15.	1	513262	10-24 x 1-1/4" Ig. FHSCS, alloy steel
16.	2	513064	1/4-20 x 2" Ig. HHCS, zinc plated
17.	6	513063	1/4" i.d. SAE Flat Washer
18.	2	331232	Target Retainer Roller Bushing
19.	2	513221	3/8" i.d. x 1/2" o.d. x 1/16" Bronze Flange Bushing
20.	2	331137	Target Splitter
21.	2	331230	Target Retainer Roller
22.	2	513304	# 336 O-ring
23.	2	513088	3/8" i.d. x 1/2" o.d. x 13/32" Bronze Flange Bushing
24.	2	513248	3/8-16 Hex Nyloc Jam Nut, zinc plated
25.	2	513041	3/8" i.d. SAE Flat Washer, zinc plated
26.	2	513086	5/8" od. X 1/2" i.d. x 1/2" Ig. Bronze Flange Bushing
27.	1	331211	Target Retainer Roller Lever
28.	1	513249	3/8-16 x 3-1/2" Ig. Full Thread HHCS, zinc plated
29.	4	513208	1/4-20 Hex Nyloc Jam Nut, zinc plated
30.	1	331052	Retainer Spring Bracket
31.	1	510273	1/4-20 Hex Serrated Flange Nut, zinc plated
32.	1	513240	1/4-20 x 1-1/2" Ig. Shank Eye Bolt, zinc plated
33.	1	513201	3/4" o.d. x .105 wire x 3-1/2" Ig. Extension Spring
34.	1	513063	1/4-20 x 3/4" Ig. HHCS, zinc plated
35.	1	331233	Splitter Roller Retainer Lever Bushing
36.	2	510274	3/8-16 Hex Serrated Flange Nut

MAGAZINE ASSEMBLY

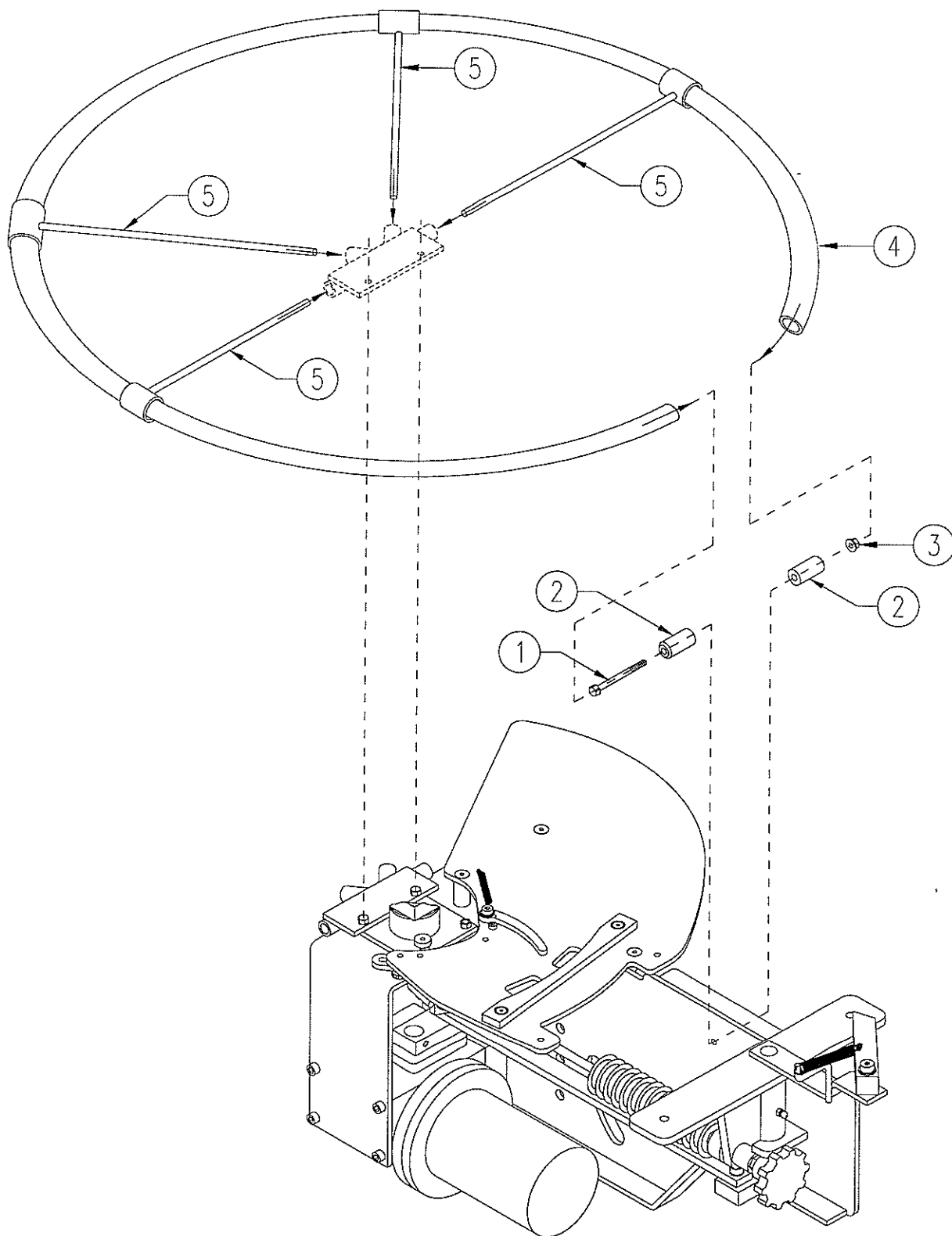


MAGAZINE ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	1	330653	Lower Magazine Plate Assembly
2.	1	513043	1/4-28 Straight Grease Fitting
3.	1	502823	Magazine Bushing
4.	1	502822	Magazine Friction Washer
5.	1	513092	Magazine Compression Spring
6.	1	513041	3/8" i.d. Std. SAE Flat Washer
7.	1	513305	3/8" dia. x 2-1/4" lg. Socket Hd. Shoulder Bolt, alloy st'l.
8.	20	544787	Inner (5/8" dia.) Magazine Rod
9.	20	544797	Outer (1/2" dia.) Magazine Rod
10.	40	513254	10-24 x 1" lg. Button Hd. Socket Cap Screw
11.	20	331213	Inner (5/8" dia.) Magazine Stub
12.	20	331247	Outer (1/2" dia.) Magazine Stub
13.	1	330654	Upper Magazine Plate
14.	40	513066	10-24 x 1/2" lg. Button Hd. Socket Cap Screw, alloy stl.

ARM PATH INDICATOR ASSEMBLY

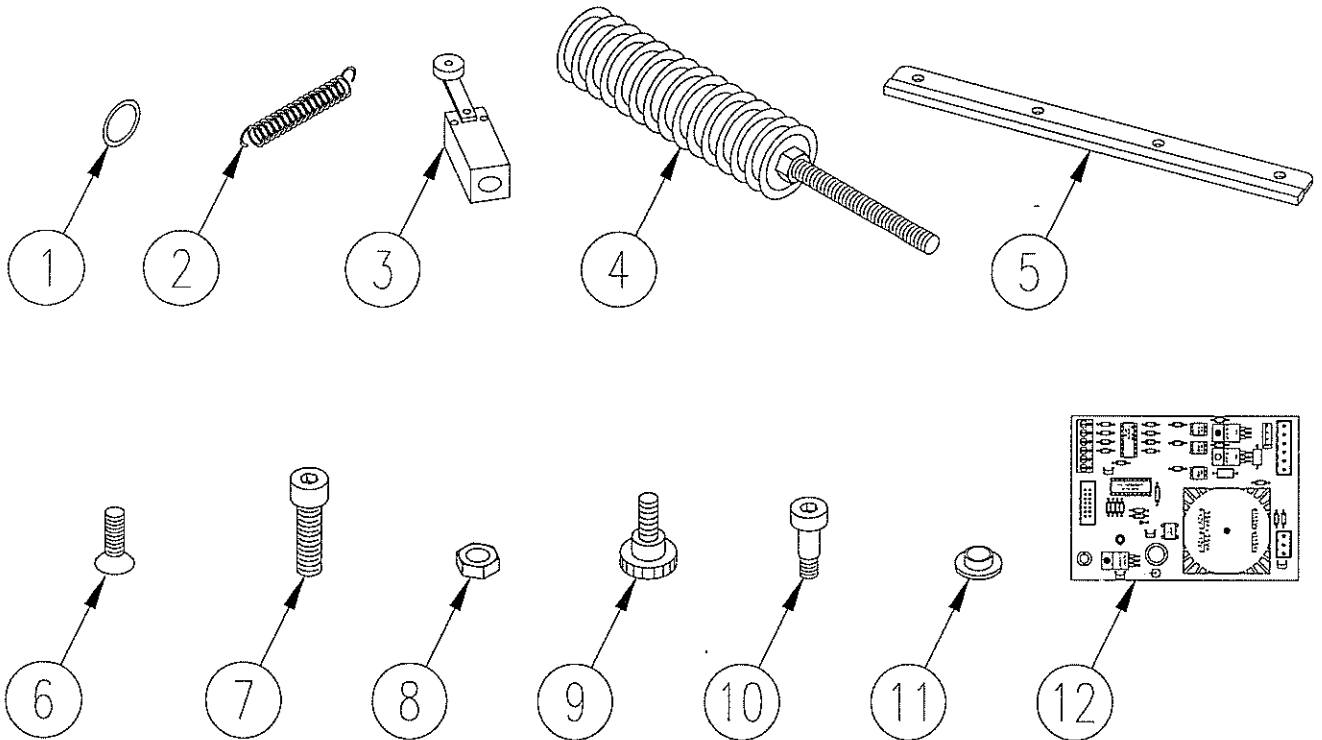


ARM PATH INDICATOR ASSEMBLY

PARTS LIST

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1.	1	513107	1/4-20 x 3-1/2" lg. Hex Head Cap Screw, zinc plated
2.	2	330678	Arm Path Indicator Tube Support
3.	1	510273	1/4-20 Hex Serrated Flange Nut, zinc plated
4.	1	502830	Arm Path Indicator Tube
5.	1	330585	Arm Path Indicator Tubing Guide Assembly (set of 4)
6.	2	513105	Worm Drive Clamps

Recommended Spare Parts



ITEM	QTY	PART NO.	DESCRIPTION
1	2	45293	Target Retainer Roller #336 O-Ring, Set of 2
2	1	40274	Spring - Magazine index dog, Target Finger, Trigger Return
3	1	40275	Throwing Arm Limit Switch
4	1	40272	Mainspring Assembly (Complete)
5	1	40271	Flight Rail
6	4	45203	10-24 x 3/8" Button Head Socket Cap Screw
7	1	45204	1/4-20 x 1/2" Socket Head Cap Screw
8	2	45205	1/4-20 Hex Jam Nut
9	2	45206	1/4-20 x 1/2" Knurled Plastic Head Thumb Screw
10	1	45207	5/16" Dia. X 3/8" Ig. Socket Head Shoulder Bolt
11	1	45208	Target Finger Pivot Bushing, Set of 2
12	1	40283	110VAC PC Control Board (Optional)

ORDERING PARTS

Parts can be ordered through your nearest authorized Distributor. To locate your nearest dealer, please call the ONALASKA OPERATIONS customer service department at (800) 635-7656.



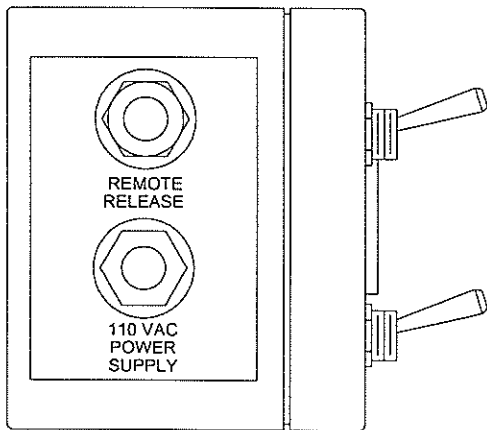
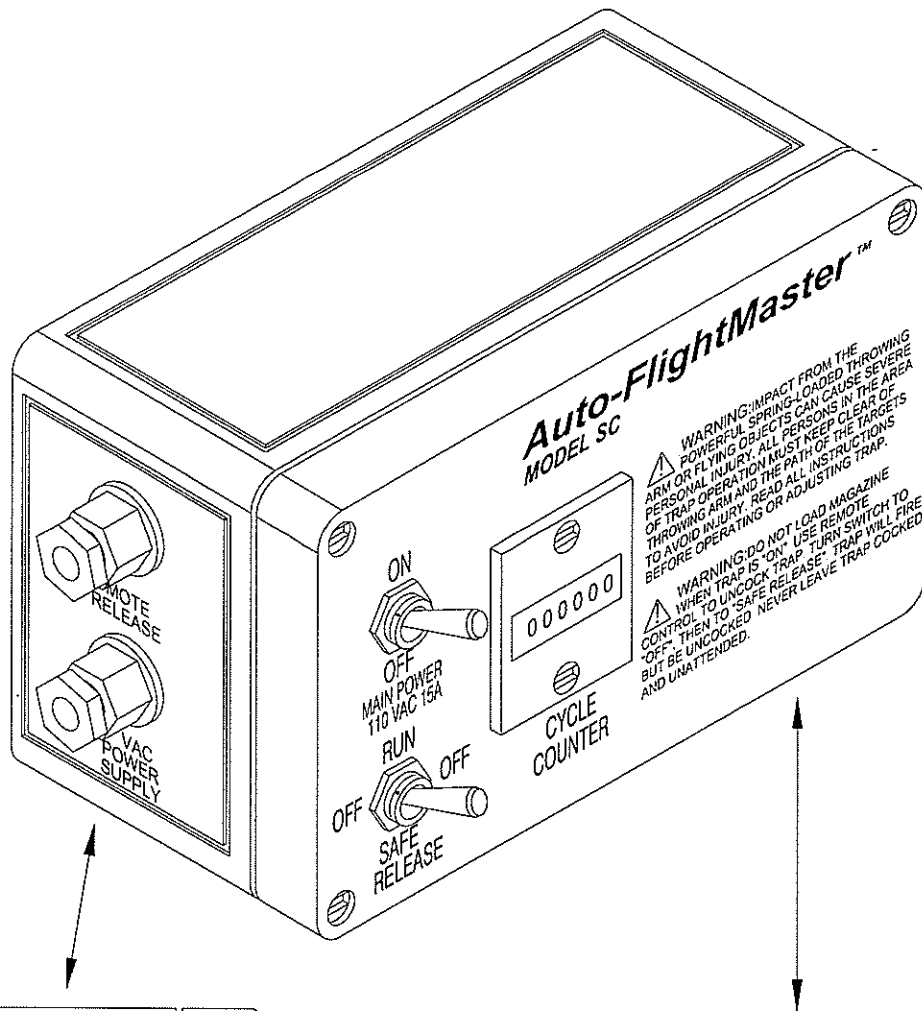
Auto-FlightMaster

MODEL SC 110VAC

Electrical

IX. Electrical Information

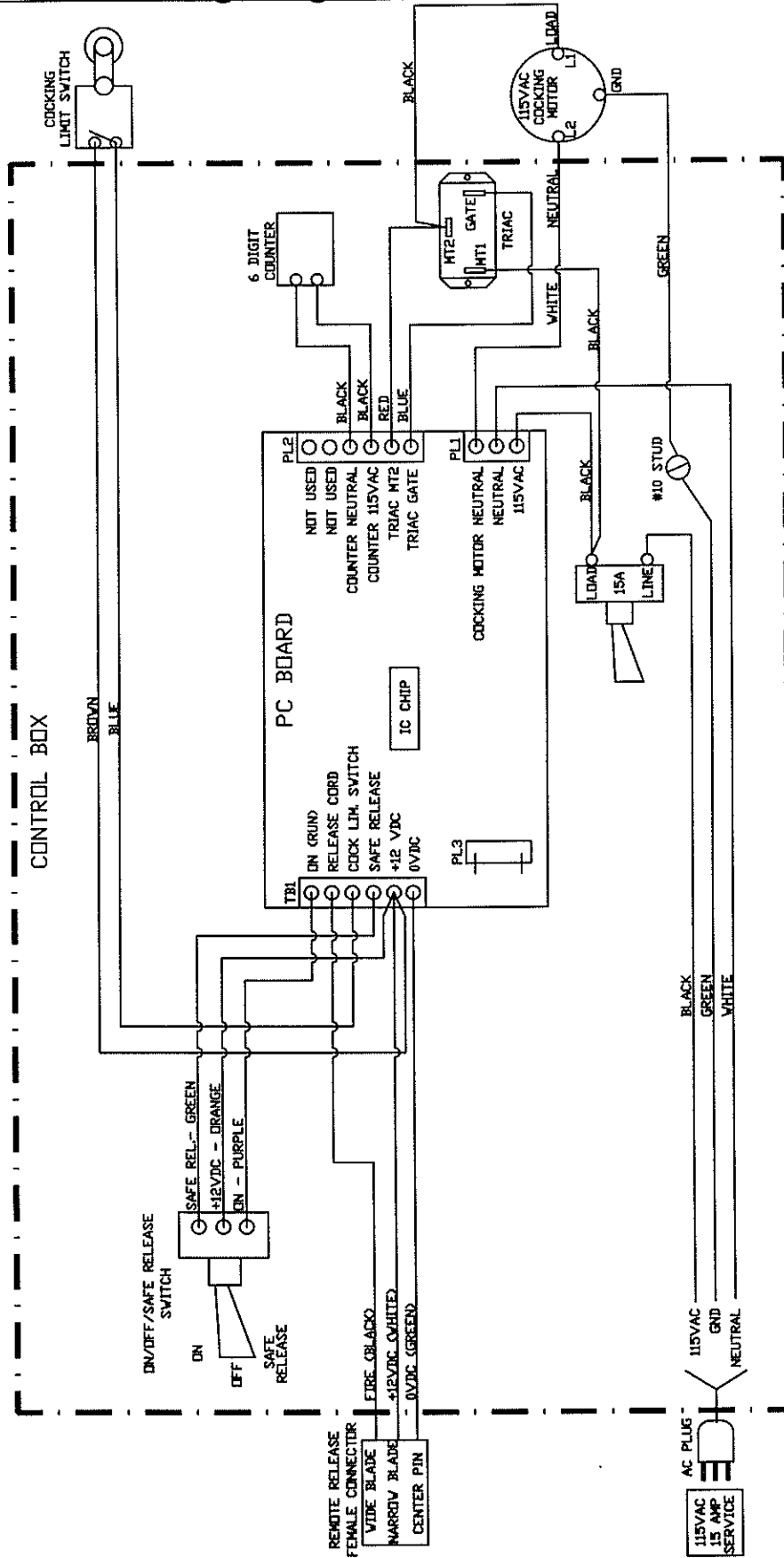
1. Electrical Control Box (Trap Mounted)



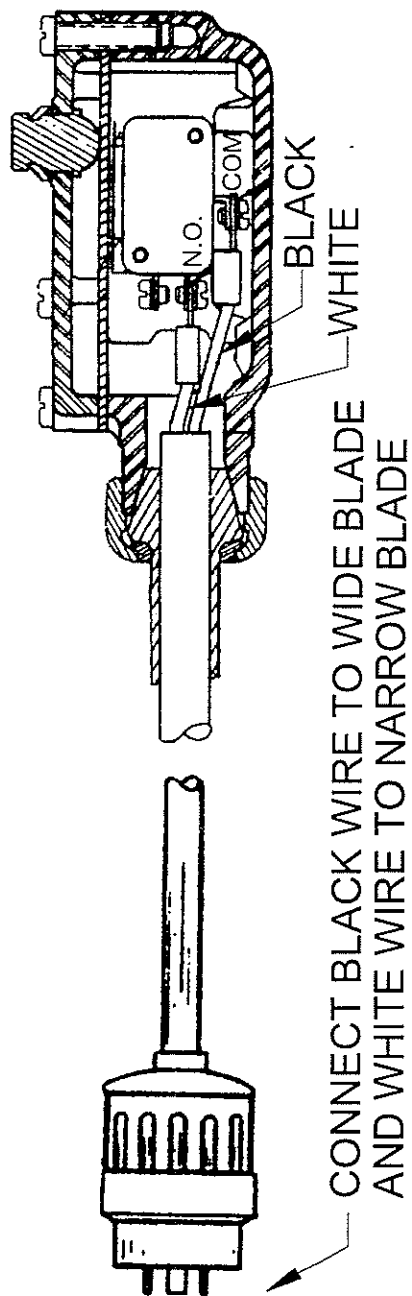
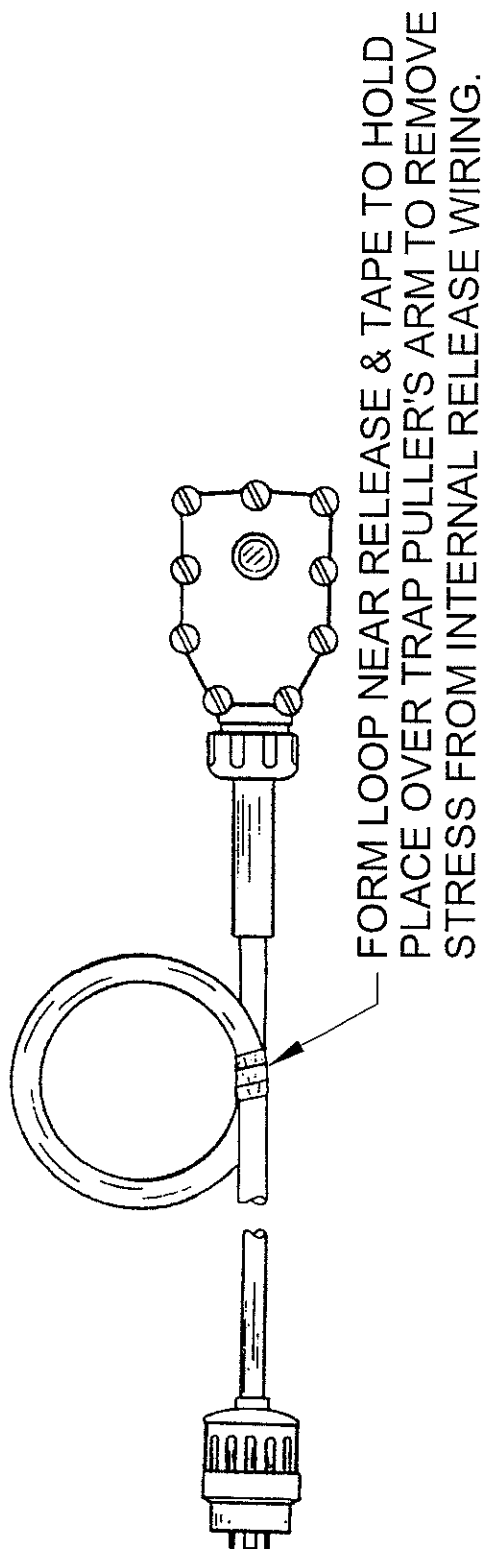
⚠ WARNING: IMPACT FROM THE POWERFUL SPRING-LOADED THROWING ARM OR FLYING OBJECTS CAN CAUSE SEVERE PERSONAL INJURY. ALL PERSONS IN THE AREA OF TRAP OPERATION MUST KEEP CLEAR OF THROWING ARM AND THE PATH OF THE TARGETS TO AVOID INJURY. READ ALL INSTRUCTIONS BEFORE OPERATING OR ADJUSTING TRAP.

⚠ WARNING: DO NOT LOAD MAGAZINE WHEN TRAP IS "ON". USE REMOTE CONTROL TO UNCOCK TRAP. TURN SWITCH TO "OFF", THEN TO "SAFE RELEASE". TRAP WILL FIRE BUT BE UNCOCKED. NEVER LEAVE TRAP COCKED AND UNATTENDED.

2. Control Box Wiring Diagram



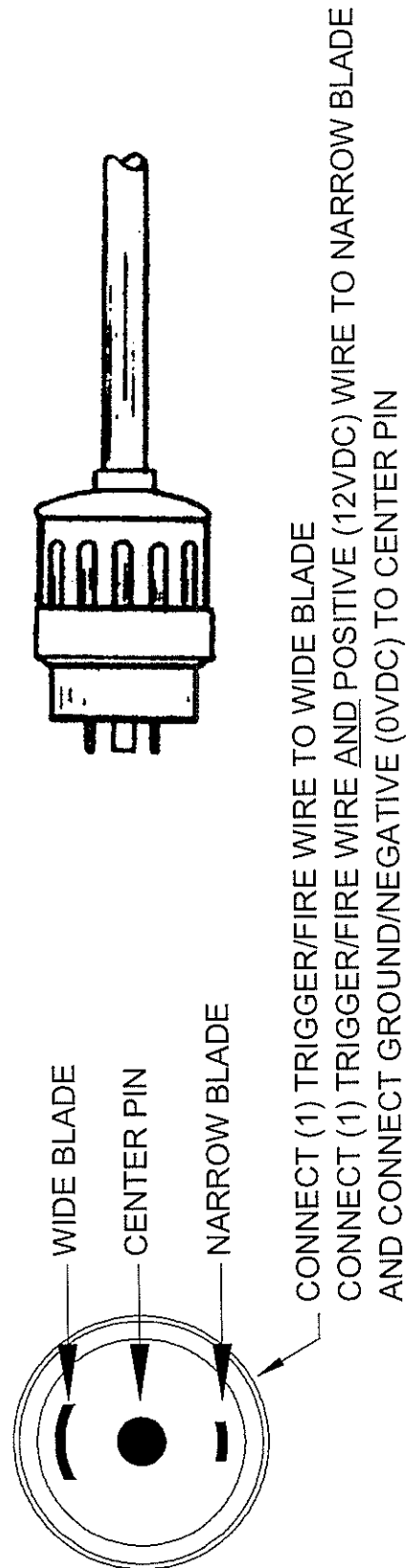
3. Release Cord Wiring



CROSS SECTION OF SWITCH END

PLUG END DETAIL

4. Wireless Release System Wiring



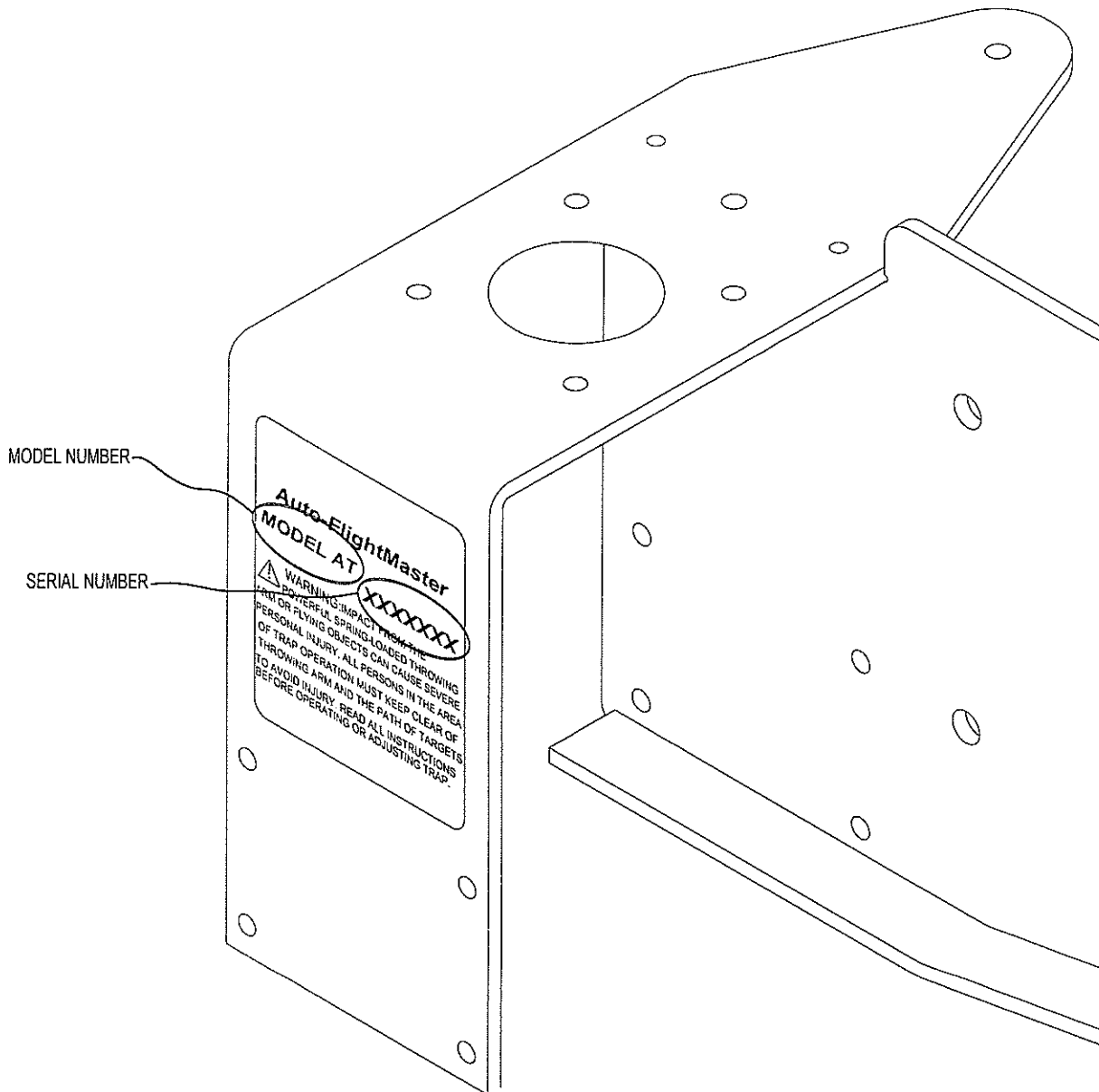
PLUG END DETAIL

Jeremy e.

X. Warranty Information

1. Model and Serial Number Location

The Model and Serial Number of the trap machine is located on the nameplate on the front left side of the trap's main body. Use these numbers for filling out the warranty card on the next page and for future reference.



CHAMPION®

Traps & Targets

2. Warranty Statement

TRAP MODEL: _____

DISTRIBUTOR: _____

SERIAL NUMBER(S): _____

DIST. PHONE: _____

DATE OF PURCHASE: _____

WARRANTY

Congratulations on the purchase of your new CHAMPION Auto-FlightMaster trap machine. Your new trap machine is warranted to be free from defects in material or workmanship for a period of two years from the date of purchase.

In the event you believe that your machine is defective in material or workmanship, you should contact the factory Authorized Distributor that the machine was purchased from, or call the ONALASKA OPERATIONS Customer Service Department to locate the Authorized Distributor nearest to you. Only factory Authorized Distributors are authorized to make repairs within the scope of this warranty. In the event a warranty repair is required, all parts will be provided at no charge. REPAIRS TO TRAP EQUIPMENT RESULTING FROM CARELESSNESS, IMPROPER OR UNUSUALLY SEVERE OR ABNORMAL USAGE ARE NOT COVERED BY THIS WARRANTY.

IN ORDER FOR THIS WARRANTY TO BE IN EFFECT, YOU MUST FILL OUT THE WARRANTY CARD ATTACHED AND RETURN IT TO ONALASKA OPERATIONS WITHIN 30 DAYS OF PURCHASE. IF A COPY OF THE ORIGINAL BILL OF SALE AND THE ATTACHED WARRANTY CARD ARE NOT RETURNED TO ONALASKA OPERATIONS, THE WARRANTY PERIOD WILL BE ONE YEAR FROM THE DATE OF SHIPMENT OF THE TRAP MACHINE FROM THE ONALASKA OPERATIONS FACILITY TO THE DISTRIBUTOR. THE ATTACHED WARRANTY CARD MUST BE FILLED OUT COMPLETELY AND SIGNED BY THE OWNER IN ORDER TO BE VALID. Retain this warranty certificate for future reference.

The above warranty provides the sole and exclusive warranty available to the customer in the event of a defect in material or workmanship in the CHAMPION Auto-FlightMaster trap machine. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE EXPRESSLY DISCLAIMED. UNDER NO CIRCUMSTANCES SHALL ONALASKA OPERATIONS BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES HEREUNDER AND THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES SHALL BE REPAIR OR REPLACEMENT OF THE TRAP MACHINE AS PROVIDED ABOVE OR, AT ONALASKA OPERATIONS' SOLE ELECTION, REFUND OF THE PURCHASE PRICE.

Thank you for purchasing a CHAMPION Auto-Flightmaster trap machine.

ONALASKA OPERATIONS
N5549 CTH Z, P.O. BOX 39
ONALASKA, WI 54650
(608) 781-5800
www.championtarget.com

CHAMPION®

Traps & Targets

Warranty Card (Please fill out completely & return with a copy of the bill of sale)

Owner's Name: _____	Owner's Signature: _____
Address: _____	Owner's Ph #: _____
City: _____	State: _____ Zip: _____
Distributor Name: _____	Trap Model: _____
Distributor Ph #: _____	Date Of Purchase: <u>4/07</u>
Serial Number(s): <u>0610001</u>	

WARRANTY

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Harold Howell
866-523-9073

