

ACORN

RapidFire

Assembly and Operation Instructions



Congratulations and thank you for your purchase. This guide provides all operational and safety information necessary to use your new machine. Please familiarise yourself with these before using your trap.

The RapidFire trap comes with minimal setup required, however the hopper and guard systems are shipped detached - with the main spring unconnected for safety reasons.

SAFETY NOTE: To mitigate the risk of injury or damage, carry out maintenance or assembly while the main spring is detached. The exception is during spring attachment or removal when the motor may need cycling to position the crank. In these instances, always keep body parts, clothing, and jewellery clear of moving parts. Keep this machine out of reach of children.

Unboxing Checklist

- 1) Main Unit x1
- 2) Hopper Top Plate x1
- 3) Short Hopper Tubes x3
- 4) Long Hopper Tubes x3
- 5) Guard Strut x1
- 6) Footswitch x1
- 7) Hopper Support Strut x1
- 8) Switch Holder x1
- 9) Guard Sections x4



Visual Safety Guide

ARMED

UNSAFE FOR MANUALLY ADJUSTING MACHINE OR LOADING

The main spring is under tension, **the trap is cocked and ready to fire**, the Launch Arm is in the armed position at 7 O'clock. When the trap is **ON**, this is the default state.



DISARMED

SAFE TO LOAD OR MANUALLY ADJUST MACHINE

The clay has just been fired via tapping disarm momentarily, there is not a lot of tension in the main spring. The Launch Arm is in the Disarmed position at 10 O'clock.



MAKE SAFE

SAFE TO DISCONNECT OR CONNECT MAIN SPRING

The battery **is not** connected, there is very little tension in the Launch Spring. The Launch Arm is in the Make Safe position at 12 O'clock. NOTE: With spring connected, this state can only be achieved by reversing the polarity of the battery and cycling the machine backwards.



STORED

SAFE TO STORE AND TRANSPORT

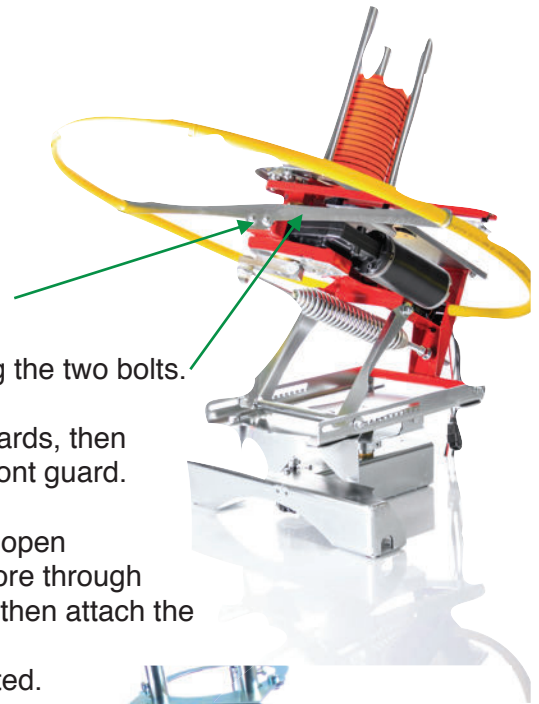
The battery **is not** connected, the Launch Spring is removed, and the Launch Arm is in the Stored position at 6 O'clock.



Assembly/Setup Guide

1. ATTACHING THE GUARDS

- I. First remove the two guard strut bolts from the front of the trap.
- II. Place the Guard Strut on the front of the trap and attach it using the two bolts.
- III. Use two of the three longer guard sections to make the side guards, then combine the remaining long and short guard section to make the front guard.
- IV. Use the tubular anchor-points at the rear of the trap to hold the open end of the side guards, and then put the other end with the white core through the hole on the tip of the guard strut. Repeat for the other side, then attach the front guard by pressing its two open ends firmly onto the white protruding cores provided by the side guards which were just inserted.

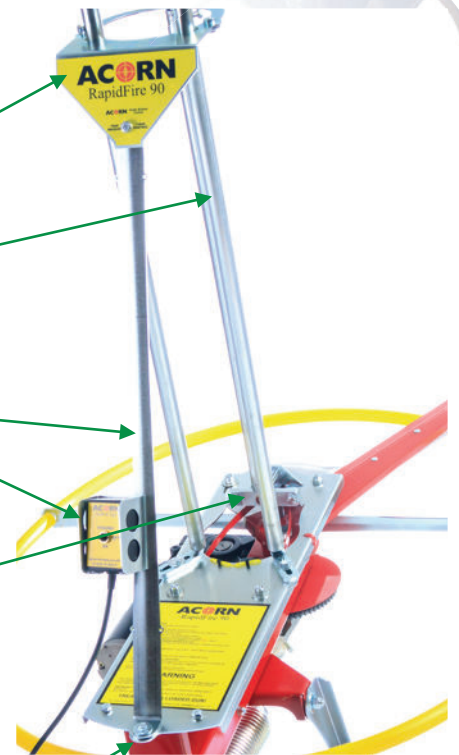


2. ASSEMBLING AND ATTACHING THE HOPPER

The hopper is made up of the following:

- ◆ Hopper Top Plate x1
- ◆ Hopper Long Tubes x3
- ◆ Hopper Short Tubes (out of picture) x3
- ◆ Hopper Support Strut x1
- ◆ Switch Holder x1

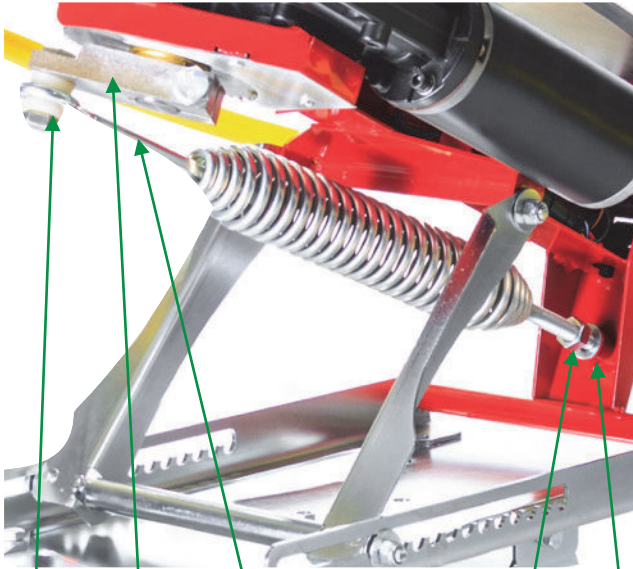
- I. First attach the long hopper tube with the orange finger nuts to the rectangular protrusion on top of the loading mechanism, and tighten - making sure the screw seats correctly into the recess. Then put the two other tubes on the adjustable brackets - these do not have finger nuts as they are not required.
- II. Attach the Support Strut to the Hopper Top Plate using the M6 (10mm) nut and washers provided.
- III. Now lower this top plate and strut assembly, locating the brackets onto the three long hopper tubes, and fix in place using the orange finger nut at the top of the front tube. Ensure the finger nut engages with the recess provided by the brackets.
- IV. Fix the hopper support strut to the main trap body using the orange finger-nut or a 10mm spanner (depending on which is present) at the bottom of the strut as shown.



SPRING ATTACHMENT AND REMOVAL INSTRUCTIONS ON THE NEXT PAGE...

3. ATTACHING AND DETACHING THE MAIN SPRING

Important Note: The spring should be attached and removed at the minimum distance between the spring's **rear anchor point** and the white nylon **spring pivot** of the arm crank, or at the 12 o'clock position. First, manually rotate the arm counterclockwise to position it at the twelve o'clock position (not depicted below).



Spring Pivot

Spring Hook

Arm Crank

Rear Anchor Point

Tensioning Nuts
(Only inner nut is visible)

(a) Unwind the large Tensioning Nuts at the back of the machine to give maximum reach of the Spring Hook.










(b) Engage the Spring Hook onto the white nylon Spring Pivot underneath the Arm Crank.

(c) Wind up the Tensioning Nuts to take up the slack on the spring, and continue until the desired tension is achieved. The inner tensioning nut (shown left) must be wound up first to allow the outer one to pull the thread through more. When desired launch force is reached, unwind inner nut back to lock both nuts securely either side of the anchor point.


NOTE: Do not lower the launch force too much to give slack in the spring, as this may lead to disengagement of the spring hook from the pivot during launch.

RAPIDFIRE OPERATION INSTRUCTIONS

HOW TO USE

-  PLACE ON A FIRM, REASONABLY LEVEL SURFACE AND SECURE IN POSITION.
-  FIT SAFETY GUARDS.
-  ADJUST TO REQUIRED ELEVATION AND LOCK IN PLACE.
-  POSITION THE THROWING ARM TO THE FRONT OF THE MACHINE. THEN ATTACH MAIN SPRING.
-  FIT HOPPER AND LOAD WITH CLAYS.
-  ENSURE MAIN SWITCH IS IN THE CENTRAL (OFF) POSITION.
-  CONNECT WIRED OR RADIO RELEASE CONTROLLER TO THE THREE PIN SOCKET.
-  CONNECT TO A SUITABLE **FULLY CHARGED** 12V BATTERY (RED+ , BLACK-).
-  SWITCH TO **ON** AT THE MAIN SWITCH FOR THE ARM TO ROTATE ANTI-CLOCKWISE AND LOAD A CLAY READY TO BE LAUNCHED.

TO TEST FIRE

-  MOMENTARILY SWITCH TO “**DISARM**” ON THE MAIN SWITCH. IF OK, SWITCH TO “**ON**” AND OPERATE FURTHER USING THE REMOTE RELEASE OR OTHER RELEASE OPTION PROVIDED.

HOW TO MAKE SAFE FOR TRANSIT, STORAGE OR SERVICING

1. SWITCH TO DISARM TO RELEASE SPRING TENSION

TAP the DISARM switch position to fire off last clay. The trap will not initiate the re-arming cycle when released this way. Do not hold the switch in this position otherwise it will continue cycling and fire again.

The arm should stop at approximately the 10 o'clock position.



Disarmed - 10 o'clock

2. DISCONNECT ANY RADIO RELEASE SYSTEMS ***VERY IMPORTANT***

Unplug any radio release systems before the next step, as these can be damaged when reversing the polarity of the battery in the next step.

3. REVERSE POLARITY OF BATTERY TERMINALS AND POSITION ARM AT THE TWELVE O'CLOCK POSITION FOR SPRING REMOVAL

With any radio release systems unplugged. Attach the battery connectors to the opposite terminals of the battery and tap **Disarm** to achieve the least spring tension (or when the launch arm is at the 12 o'clock position).

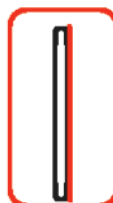
Now remove the main spring by first unwinding the tensioning nuts (both inner and outer), and then unhooking the spring's hook from the spring pivot. Disconnect power.



Safe - 12 o'clock - connect and disconnect main spring during zero tension

4. POSITION LAUNCH ARM UNDER TRAP BODY FOR TRANSIT/STORAGE

With the spring detached, manually rotate the launch arm counterclockwise to neatly stow it underneath the trap body. An elastic band can be used to secure the unconnected spring from waving around while in transit, but is not essential.



Storage and transport - (spring removed)