

ACORN

Comprehensive User & Safety Manual



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General Trap Safety

It is important to familiarise yourself with the following safety information before operating the trap.

All of our traps employ a tensioned spring mechanism whereby the rotation of the motor applies tension to a large spring until a certain point when the spring's tensile force acts in the same rotational direction as the motor, causing the arm to rapidly whip around the rest of the way, and so launching the clay. It has a one way clutch system meaning it cannot be unwound. Thus the the trap is safest at the point where the least tension is felt by the spring, or near the 12 o'clock arm position. The state of the trap and its safety can be determined by the position of the arm. Please refer to the Visual Safety Guide (attached) and familiarise yourself with the different states of the equipment.

Safety Essentials

- Use the guards provided.
- Disconnect power when handling or reloading the trap.
- Disconnect power and spring during transit.
- Keep body parts, loose clothing or jewellery clear of moving parts.
- Do not walk in front of trap when the trap is is use, or when the spring is under tension.
- Connect and disconnect spring while launch arm is in approximately the 12 o'clock position.
- Ensure inclination adjustment fixing nuts are tightened before activating trap.
- Do not use trap during darkness or inadequate lighting.
- Only use 12 volt power supply and with secure connections.
- Do not reverse the polarity of the power supply (will damage trap, blow fuse and may cause injury).
- Do not use deteriorated or uncharged batteries.
- Exercise caution at all times and treat the trap like a loaded gun.
- Keep out of reach of children.

Visual Safety Guide

Armed

The main spring is under tension, the Crank Drive Linkage is engaged and the trap is ready to fire, the Launch Arm is in the armed position at 7 O'clock.



Armed - 7 o'clock

Disarmed

The clay has just been fired, there is not a lot of tension in the main spring. The Crank Drive Linkage is not engaged, and the Launch Arm is in the Disarmed position at 10 O'clock.



Disarmed - 10 o'clock

Make Safe

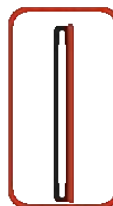
The battery is not connected, there is zero tension in the Launch Spring, the Crank Drive Linkage is not engaged, and the Launch Arm is in the Make Safe position at 12 O'clock.



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

Stored

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



Storage and transport - (spring removed)

AutoClay 320 Getting Started

Our traps are often shipped with some assembly required to greatly reduce the volume occupied during shipping.

Requirements for setting up your machine

- 1x 19mm Spanner/Wrench (M12)
- 2x 13mm Spanners/Wrenches (M8)
- 1x 10mm Spanner/Wrench (M6)
- 1x Clay Target (to fine tune the launch-plate height)
- (Recommended) Power driver with a 10mm socket (M6)
- (Recommended) Vice or clamping tool

Box Contents Checklist

1. Main Unit

Caution! Unit weighs around 25Kg, assistance in handling is recommended.

2. Base

Including dual bolt brackets x2

3. Carousel Parts

Including the base, top and bottom plates, 32x long tubes, bag of 32x short tubes, 32x bolts, 32x washers.

4. Safety Guards x 4

5. LaunchPlate

6. Guard Struts x 2

AutoClay Assembly & Setup

STEP 1: ATTACHING THE MAIN UNIT TO THE BASE

NOTE: It is recommended that two people perform the first step of this assembly guide.

- a. Carefully stand the Main Unit nose-down (ideally on a soft surface to avoid scratches) and have your dual-bolt brackets ready to hand.
- b. Introduce the Base to the Main Unit, with the straight edges facing downward as shown.



Instructions continue overleaf.....

- c. Align the holes on the base with the slots and holes of the main unit, and insert the brackets (with washers) as shown below (be careful not to pinch the wires).



- d. After both brackets are inserted, use the large M12 size 'Nyloc' nuts and washers to secure the base to the main unit as shown.



Step 2: ATTACHING THE LAUNCH-PLATE SUPPORT / GUARD STRUT

- a. Stand the trap the correct way up on the base and attach the guard struts to the front of the main unit with the M8 bolts, washers and nuts supplied, as shown below.



NOTE: Leave these nuts loose in order to make attaching the launch plate in the next stage much easier!

Step 3: ATTACHING THE LAUNCH-PLATE

- a. First remove the lowermost set of serrated nuts on each bolt of the launch plate. Then locate the launch-plate bolts with the slots of the support strut and main unit, and lower into place



- b. Now you can tighten the bolts holding the guard strut, ensure it is straight and level. A spirit-level can be used but it is not necessary.



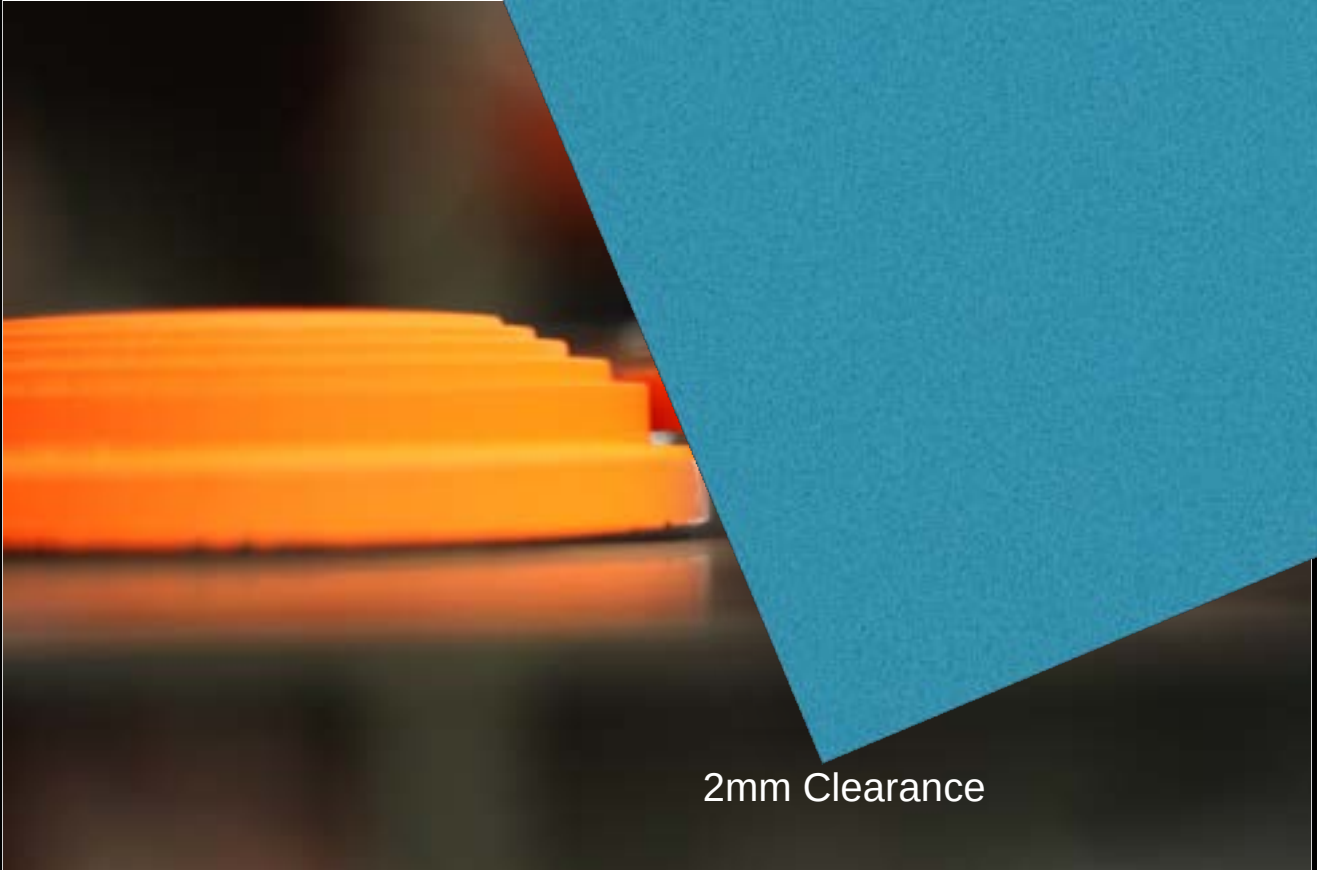
- c. Fit the lowermost serrated nuts back onto the bolts of the launch plate but do not over tighten, these will be fine tuned in the next step.



Step 4 is on the next page.....

Step 4 - SETTING THE HEIGHT OF THE LAUNCH PLATE

The essence of this step is to adjust the upper launch plate bolts in order to maintain a 2mm clearance between the launch plate and the arm across the entire



Once this clearance has been achieved across the entire plate, lock the plate setting by tightening the lowermost serrated nuts. Once locked, you should never have to adjust these nuts again.

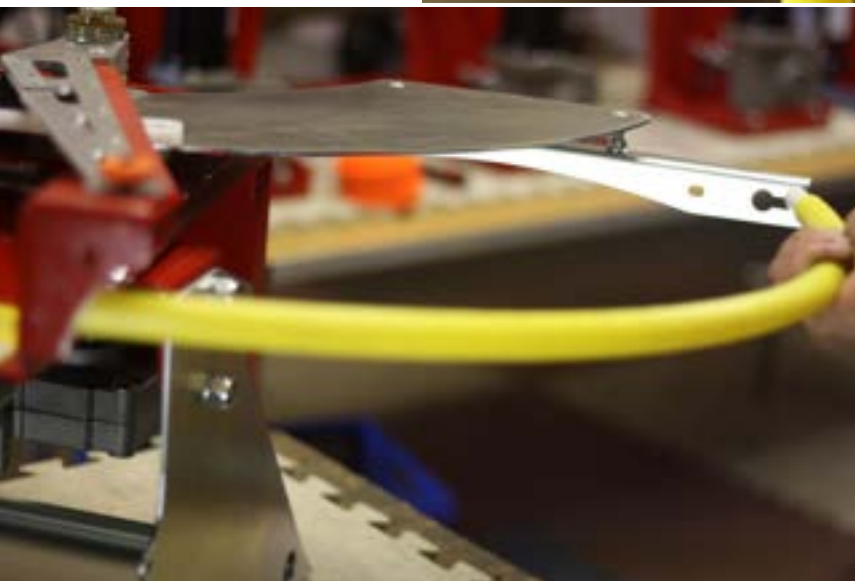
If clays are breaking upon launch or the clays exhibit non-uniform flight characteristics: first check that this clearance is correct across all areas of the launch plate, and that the plate is free from protrusions or excessive deposits.

Step 5 - ATTACHING THE CONTROLLER BRACKET AND GUARDS

- a. Attach the Controller Bracket to the main unit as shown.



- b. Combine two guard tubes to create one long open-ended guard section for the forward part of the guard loop.



- c. Use the two remaining guard tubes for the sides, by inserting them as pictured.

- d. Now attach the longer forward guard section using the two white protrusions provided by the side guards.

Step 6 - ASSEMBLING THE CAROUSEL

TIP: A vice or clamp makes this assembly task much easier!

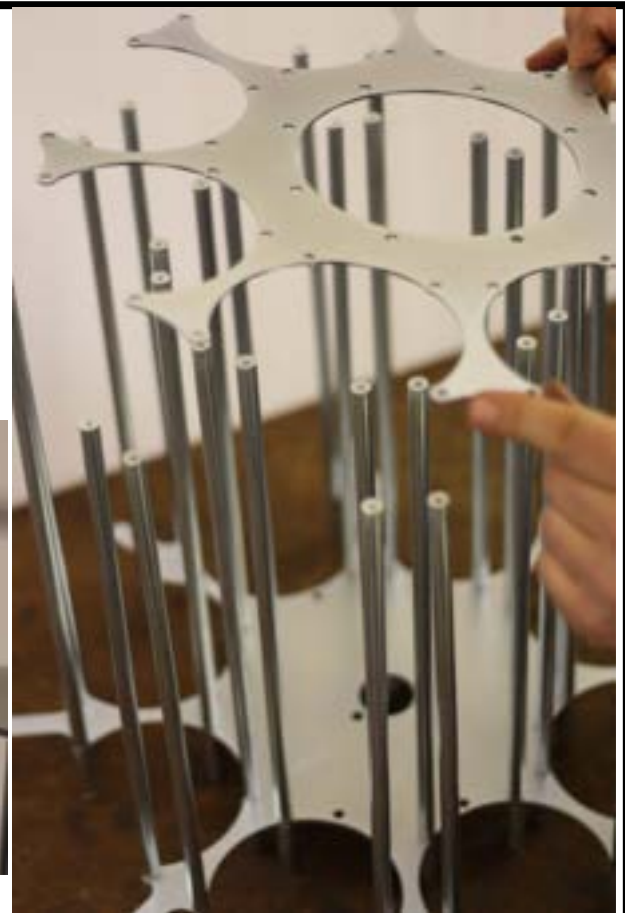
- a. Secure the carousel bottom plate in a vice or clamp as shown.
- b. Insert the small carousel tubes into the plate as below. Notice that not all of the holes are used (these are for optional mods sold separately).



- c. Insert spigot into drill chuck and screw into end of carousel rod. Do this for all 32 carousel tubes.



- d. Once all 32 tubes are secured, take the carousel out of the vice and place upright, then introduce the top carousel plate and attach it using the supplied small bolts and washers (M6).



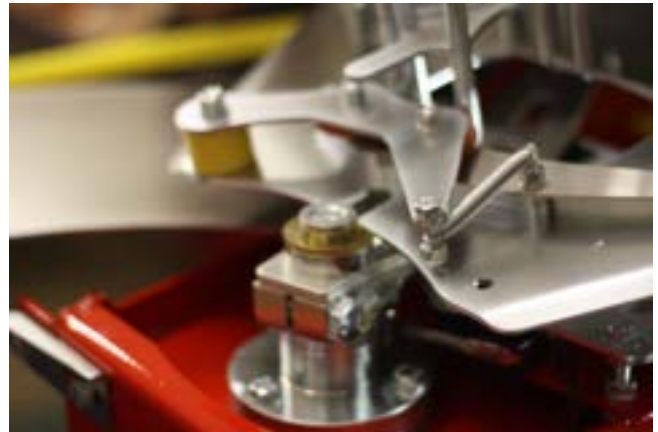
- e. Using a hand drill or wrench (10mm socket), tighten the 32 screws on the top of the carousel to complete the assembly. Do not over-torque.



- f. Finally, take this entire assembly and mount it onto the main carousel base plate using the bolts and washers provided. The carousel is now ready to be attached to the main unit.

Step 7 - Mounting the Carousel

- a. First remove the two orange finger nuts from the top rear section of the red main unit. Then lift and mount the carousel assembly onto the main unit by sliding the front slot nose-first under the top cap of the arm stem.



- b. Lower the rear part of the carousel base onto the two studs which locate in the slots, and secure using the orange finger nuts you removed earlier.



Your trap is now fully assembled