



Routine Maintenance Pigeon - Clay target launcher



WARNING

Clay target launchers can be dangerous and must be treated with great care at all times to avoid accidents.

Never place any bodily part into the path of any mechanical piece whilst the machine is in motion or likely to be so.

You must treat a clay target launcher with the same caution that you would treat a loaded gun.

Assume at all times that a clay target launcher is armed and loaded and treat it accordingly

ALWAYS disarm the machine before any loading, adjustment or maintenance.
ALWAYS load clays from rear and **ONLY** if the machine is disarmed and safe.
NEVER approach the machine from the front or sides. **ALWAYS** from the rear.
NEVER allow children or untrained persons to approach or touch the machine.
NEVER move an armed/loaded machine. **ALWAYS** disarm and disconnect battery.
REMOVE the main throwing spring (Cocking spring) before transport in a vehicle.
BE AWARE of the fall zone of both broken and unbroken clays and that a change in wind direction will affect this.



EYE PROTECTION MUST BE WORN WHEN WORKING ON OR AROUND A CLAY TARGET LAUNCHER AS SMALL SHARP PIECES OF CLAY MAY BE EJECTED DURING NORMAL USE.



Never approach the machine from the front or sides, Do not assume the trap is safe even without electrical power as it may still be armed.

Every effort has been made to ensure that the information contained within this manual is complete, accurate and up-to-date. Promatic International assumes no responsibility for errors beyond its control.

Routine maintenance of your Promatic Pigeon trap.

The tools you will need are:

10mm (3/8"), 13mm (1/2"), 14mm (9/16") & 19mm (3/4") Spanners (Wrenches),
10mm Hexagonal (Allen) Wrench, medium adjustable spanner & medium size pliers .

General purpose machine oil, Standard grease and a spray lubricant such as WD-40.

Disarm your trap before proceeding.

Disarming the machine.

Use this procedure to make the machine safe before maintenance or after use.

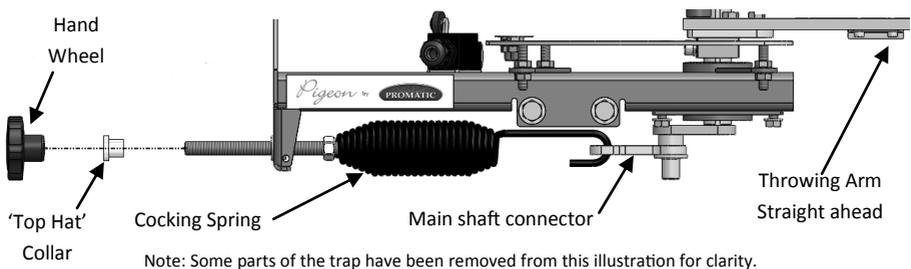
1. Push the toggle switch upwards to the **▶▶ (DISARM)** position and hold only long enough for the trap to fire then release before the trap can rearm.
2. Disconnect the battery.

After disarming, the throwing arm should be at the 9 o'clock position when viewed from behind the machine.

REMOVE THE COCKING SPRING

With the trap safely disarmed Rotate the arm counter-clockwise by hand. It may be necessary to pull against the motor. Alternatively jog the arm around using the motor (refer to main user manual).

Undo and remove the hand wheel. The spring may now be passed through into the machine and unhooked from the main shaft connector. Locate and save the nylon 'top hat' collar from the hole in the rear of the mainframe.



Check the parts and clean as necessary, any rust on the spring should be removed before spraying over with the spray lubricant. Similarly clean the threaded tail of the spring and lubricate with a few drops of oil wiped around the threads. Place the 'top hat' collar and hand wheel back onto the spring thread to prevent loss.

CLEAN THE MACHINE

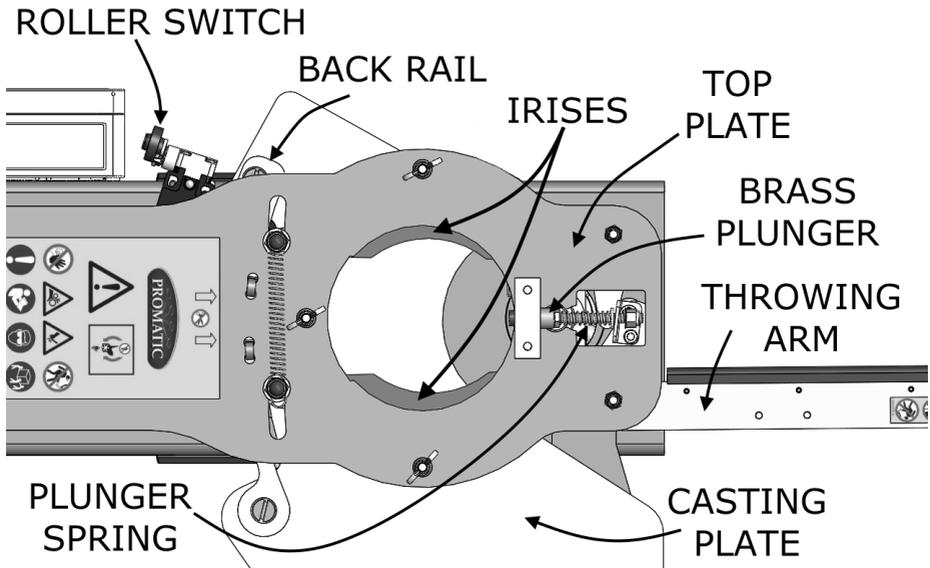
Begin your maintenance with a thorough clean of your machine. Use a soft brush to remove dirt and clay debris from all areas of your trap. Pay particular attention to the main shaft bearing pot ensuring no dirt and debris remains inside the pot.

Give the casting plate a thorough clean using a Scotchbrite pad. (A kitchen scourer is similar and can be used). Use a spray lubricant such as WD-40 and clean the plate using small circular movements. If nicks or dents are found, particularly in the area where the clay leaves the casting plate, use a file to smooth down the damage.

CHECK THE HOPPER

The Hopper is the tower into which the clays are loaded prior to firing. Loosen the 3 wing nuts and remove the hopper. Check that the bars are free from clay debris and that all 4 bars are straight and parallel to each other. Straighten where necessary.

CHECK THE TOP PLATE



Ensure the brass plunger is clean and apply a thin layer of grease to the brass. Manually activate the plunger to allow access to both ends of the plunger.

Check that the plunger spring is free from debris. Clean if necessary.

While lubricating the plunger apply grease to the top of the main shaft where it passes through the top plate.

Beneath the top plate are 2 iris plates. These plates hold up the clay stack within the hopper and open momentarily to allow the clays to drop onto the casting plate. Ensure there is no clay debris between these plates and the underside of the top plate. Lubricate the front pivot points with a few drops of oil to both sides of the top plate. Lubricate the slides to the rear with a smear of grease to both sides of the top plate. Check the condition of the iris spring and that it is secure.

CHECK THE THROWING ARM

Check the throwing arm assembly is straight. If the arm is bent, attempt to straighten it. If the result is unsatisfactory, replace the throwing arm.

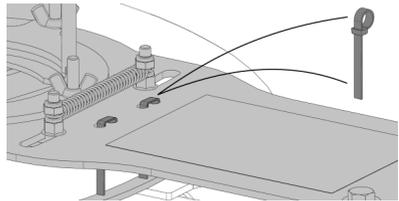
Ensure that there is no embedded clay debris in the arm rubber. Check and tighten the screws holding the rubber strip and the clay sweeper to the aluminium arm.

Check the two bolts holding the arm to the arm support plate, tighten if necessary.

Check the roller cam and tighten if necessary. Do not over tighten. Tighten just enough to allow the cam to still spin. Check the cam for wear. Replace if indentations are seen. Check that the clamp block bolt is tight (Hexagonal Wrench).

CHECK THE TEAL FINGERS

Check that the teal fingers protruding through the top plate are present and undamaged. Replace if necessary.



CHECK THE CASTING PLATE

The casting plate is directly beneath the top plate. Check for obvious damage to both the casting plate and the back rail. Ensure all fastenings are secure.

CHECK THE ROLLER SWITCH

The roller switch is directly behind the casting plate. Check that the roller will spin freely and that the arm will move freely in both directions. The arm should return smartly to upright when released. Apply a drop of oil to the arm pivot and one to the centre of the roller. Check that the wiring gland to the rear of the roller switch is finger tight.

TRAP ADJUSTMENTS

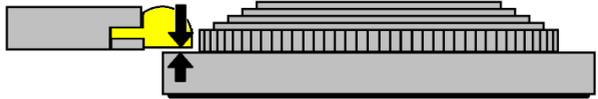
If any components were found to be loose or were disassembled for further cleaning (particularly relating to the plunger mechanism) it may be necessary to re-adjust them. Refer to the main user manual for adjustment procedures, however if they have not been dismantled no further adjustment is necessary, except where a different brand or type of clay is to be thrown which may differ in size slightly from those previously used.

CHECK THE DISTANCE BETWEEN THE ARM & THE CASTING PLATE

This assumes you have already removed the Cocking spring. It should be possible to move the arm forwards by hand whilst making the adjustments & checks.

First position the arm just before the point at which the clay should land on the casting plate, Place a clay on the casting plate at this position and slide it up to and under the throwing arm rubber.

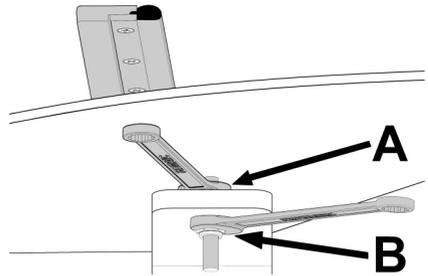
Check the clearance between the bottom of the friction strip and the clay shoulder, ideally this should be within 1 to 1.5 mm.



Move the clay along the arm checking the clearance across the extremities of the plate, not just at the centre.

Similarly check the clearance moving the arm and clay all the way around the throwing cycle, it may be necessary to go around again and re-check as sometimes an adjustment on one side can adversely affect an adjustment that has already been made.

The casting plate is held up on three threads and secured by pairs of locknuts, adjust at each one (where necessary) until 1 to 1.5 mm clearance is achieved between the bottom of the friction strip and the clay shoulder.



A = Adjusting nut
B = Locking nut

To move the plate down (increase shoulder clearance) loosen the adjusting nut (above the mounting bracket) the plate assembly will begin to move down as you do so, follow by tightening the locking nut (below the mounting bracket) to take out any slack.

To move the plate up (decrease shoulder clearance) loosen the locking nut (below the mounting bracket) to obtain some clearance on the screw thread follow by tightening the adjusting nut (above the mounting bracket) the plate assembly will begin to move up as you adjust this nut. Tighten the locking nut to secure in place.

When adjustment is complete re-check that all locking nuts (below the mounting brackets) are properly tightened.

CHECK THE TROLLEY & TRAP MOUNTING PARTS

Wheels: Clean as necessary and check that the small clip is in place on the end of the axle, add a few drops of oil between the washers and the wheel on each side and spin the wheel to allow the oil to get into the bearing area.

Mounting bolts: Check that the axle and trolley handle bolts are fully tightened along with the two bolts at the rear of the top plate.

Motor mounting bolts: Check that the 3 motor fixing bolts are fully tightened along with the bolts holding the motor housing mounting plate to the main frame.

Trolley Spike: Clean as necessary & apply some spray lubricant to protect from rust.

ELECTRICAL COMPONENTS

Battery clips, Handset connector & Motor Connector blocks: Check that these components are clean and dry, If they have been washed further drying either indoors or in the sun may be necessary before long term storage.

Check that the cable glands are hand tight and that any visible wiring is undamaged and safely out of the way of any moving parts.

RE-FITTING THE COCKING SPRING

If it has been moved, rotate the throwing arm (counter clockwise) until it is pointing straight out in front of the machine, this places the spring attachment point at its rearmost position.

Fit the main spring hook through the main shaft connector and replace the outer 'top hat' washer and hand wheel, It can now be tightened enough to just begin to pull tension in the spring.

LONG TERM STORAGE

It is recommended that the spring be left on a fairly low tension if the trap is to be stored out of use for any length of time.

If the trap is to be put away out of use it is also recommended that it is put away clean with the casting plate lightly sprayed with a spray lubricant (WD-40 or similar).

PLEASE RETAIN THIS INFORMATION

Keep this document, along with the main user manual for future reference. For updates, to order clays or spare parts or further information please visit the Promatic website (details on rear cover).



Promatic International Ltd.

**Hooton Road
Hooton
South Wirral
CH66 7PA
United Kingdom**

Tel: +44 (0) 151 327 2220 (General)
+44 (0) 1407 860800 (Sales)
Fax: +44 (0) 151 3277075

E-mail info@promatic.co.uk

Website: www.promatic.co.uk

**Promatic Inc.
801, Mid America Drive,
Plattsburg.
MO 64477
USA**

Toll Free: 888.767.2529
Fax: 816.539.0257

E-mail: sales@promatic.biz

Website: www.promatic.biz