



CLAY TARGET MACHINES

# OWNERS MANUAL FOR MEC 500E ATA





CLAY TARGET MACHINES

**PLEASE READ AND FULLY UNDERSTAND THE INSTRUCTIONS PRIOR TO SETTING OR TUNING THE MACHINE.**

**CAUTION: ANY MEC CLAY TARGET MACHINE MUST BE IN THE DISARMED STATE WITH THE BATTERY DISCONNECTED PRIOR TO MAKING ANY ADJUSTMENTS, LOADING THE CLAY TARGETS OR TRANSPORTATION OF MACHINE.**

**Step 1** – Securely set the machine in the trap house. See below for the correct way to install the MEC machine into the trap house. **IF NOT FASTENED SECURELY, SERIOUS INJURY AND/OR DAMAGE TO MACHINE CAN OCCOUR!!!**

**DO NOT CONNECT THE POWER.** Ensure that the machine is in the **DISARMED/SAFE** position.

**Step 2** – In most cases, your machine has been supplied to you ready to fire. If so, please proceed to Step 3. If your machine is supplied in a box without its carousel (shown below) fitted, you will need to attach it to the machine. Simply slide the carousel weldment onto the top plate shaft. If no grease is present, please add a little bit to the shaft. You may have to spin/rotate the carousel counter clockwise for it to slide on. Next, place the white plastic collar over the boss. Then slide the spring over the boss. Next, slide the washer over the shaft and tighten the nylon nut so that the washer bottoms out. As the carousel rotates, the nut may loosen to the correct setting. This is normal.





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**Step 3** – Check the height / clearance of the knife-edges by placing a clay in the carousel. Rotate the carousel so that the clay starts to pass underneath the inner and outer knife separator blades. The clay must pass freely under the knife separator blades without binding but with the minimum of clearance. Adjust if necessary with 7/16" open ended wrench. You are looking for a gap about the thickness of a business card, between the horizontal shoulder of the clay and the underside of the knife edges. Photos below show adjustment with carousel fitted, but you can remove the carousel to make adjustment easier if preferred.



**\*\* ALL MEC MACHINES ARE SET UP USING THE WHITE FLYER STANDARD TARGETS. ADJUSTMENTS NEED TO BE MADE WHEN USING OTHER BRANDS OR STYLES OF TARGETS\*\***



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## UNDERSTANDING THE CONTROL BOX



**Rotation Toggle Switch** – Pushing the switch downward will turn the oscillation motor on. Note that the oscillation motor will randomly start/stop when the machine is in operation. This prevents shooters from being able to predict the direction of the next target. Pushing the toggle switch upward allows you to nudge the oscillation motor which pivots the machine from one side to the other enabling you to check the angle of the clays flight.

**Remote Disarm Socket** – The machine is supplied with a remote disarm box assembly and 10ft. of cable. This unit plugs into the remote disarm socket on the control box, allowing the remote disarm box assembly to be placed by the opening of the trap house. The user can now disarm the machine before entering the trap house.

**Fire Button** – The fire button allows you to test fire the machine from inside the trap house.

**Disarm/Off/Arm** – Pushing the switch downward to the arm state will arm the machine. Pushing the switch upward will cause the machine to fire (if in armed state) and disarm when the switch is released. Note – holding the disarm toggle will continually fire clay targets. Please use caution!

**Breakers** – The breaker on the left is for the oscillation motor. The breaker on the right is for the cocking motor. If the breaker trips, it needs to be pushed back in to reset.

**Counter** – Records the number of targets thrown by the machine and is not resettable.



**Step 4** – Check that the ARM/OFF/DISARM switch on the electrical box is in the **OFF** position.

**Step 5** – Visually check, from the rear of the machine, that the motion of the Throwing Arm is not restricted or blocked in any way.

**CAUTION: ALWAYS OPERATE THE MACHINE FROM BEHIND, NEVER FROM THE FRONT OR THE SIDES OF THE MACHINE. KEEP HANDS AND BODY PARTS AWAY FROM THE MACHINE WHEN ARMING, RELEASING AND DISARMING.**

**Step 6** – Standing at arm's length behind the machine and making sure that all body parts are clear of the machine, push the ARM/OFF/DISARM toggle switch into the DISARM position and then release it as soon as the throwing arm fires. The toggle switch is spring loaded and will return to the off position as soon as the switch is released, stopping the machine from re-arming itself. If done correctly the arm will be pointing away from the left side of the machine when viewed from behind.

**Disconnect the power supply to ensure that the machine is not accidentally armed while adjusting and loading the machine.**

**Step 7** – Place a couple of clays in each of the carousel columns, for the purpose of testing the clay flight and trajectory.



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## ADJUSTING THE ELEVATION OF THE MACHINE

**Step 8** – Adjust the machine elevation by loosening the  $\frac{3}{4}$ " nut on the side of the machine as shown below. Extending the turnbuckle will tilt the machine backwards to the desired angle. **Once the correct angle is achieved, RETIGHTEN the nut. NOTE: you may need to use a  $\frac{3}{4}$ " wrench to make this adjustment.**

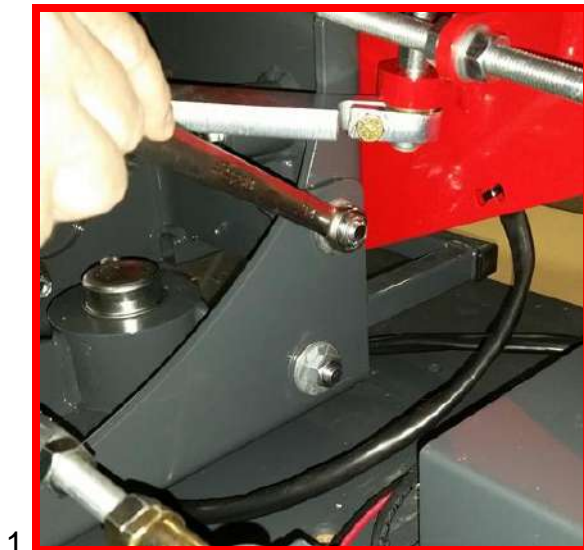




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## ADJUSTING THE TILT/ANGLE OF THE MACHINE

**Step 9** – Adjust the machine tilt by loosening the (2)  $\frac{3}{4}$ " nuts on the rear side (Photo #1) and the (2)  $\frac{3}{4}$ " nuts on the front side (Photo #2) of the upright of the machine as shown below. Tilt the machine to the desired angle by adjusting the turnbuckle. (Photo #3) Adding tilt allows the machine to throw a flat target with no curl. Once the correct tilt has been achieved **RETIGHTEN ALL (4) NUTS TO KEEP THE MACHINE FROM SHIFTING OVER TIME. NOTE: You may need to use a  $\frac{3}{4}$ " wrench to make this adjustment on the turnbuckle.**





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## CENTERING THE FIELD

**Step 10** – The machine will come set with the bolt in the center of the rotation gear box shaft as shown in Photo #1 below. To center the field, fire a clay and see if the clay comes out of the center of the trap house and travels straight away down the center of the field.

**Step 11** – Next, adjust the turnbuckle if the clay is not traveling straight away down the center of the field. Simply loosen the nuts on the turnbuckle and either push or pull the machine to get the trap to fire the clay on center. **RETIGHTEN THE NUTS ON THE TURNBUCKLE TO HOLD THE CORRECT ADJUSTMENT!!!**

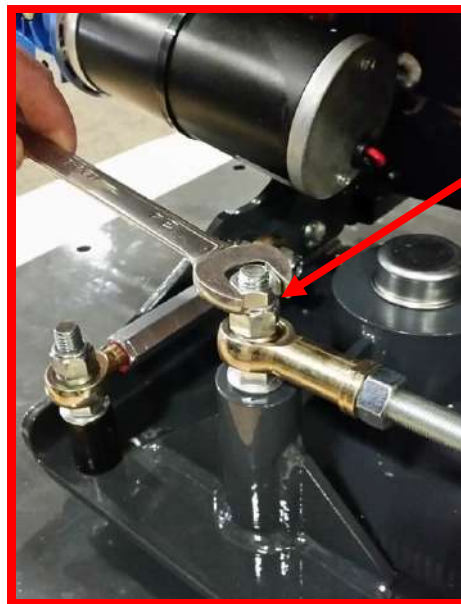
**Step 12** – Once centering the clay is achieved, remove the 3/8" allen bolt from the center of the shaft (Photo #1), remove the jam nut on the top of the nylon nut (Photo #2) and place the jam nut under the clamp block as shown below in Photos #3, #4 and #5.

**Step 13** – Tighten the bolt in the center of the clamp block slot. You can now test the angle that the machine will throw the clay.

**Step 14** – To open up the flight angle of the clay, loosen the 3/8" allen bolt and slide it out on the slot of the clamp block. Retighten the bolt securely and test fire. Sliding the bolt in on the slot will reduce the angle flight of the clay.



1.



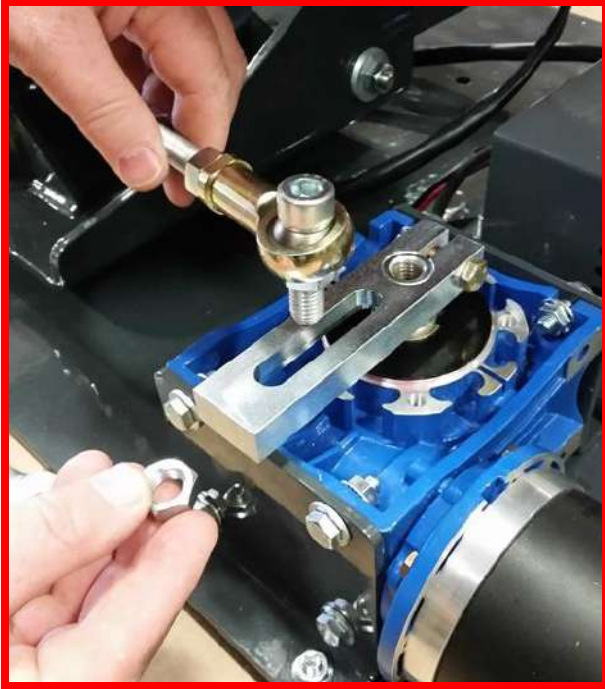
2.

REMOVE  
TOP JAM  
NUT  
ONLY!





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3.



4.

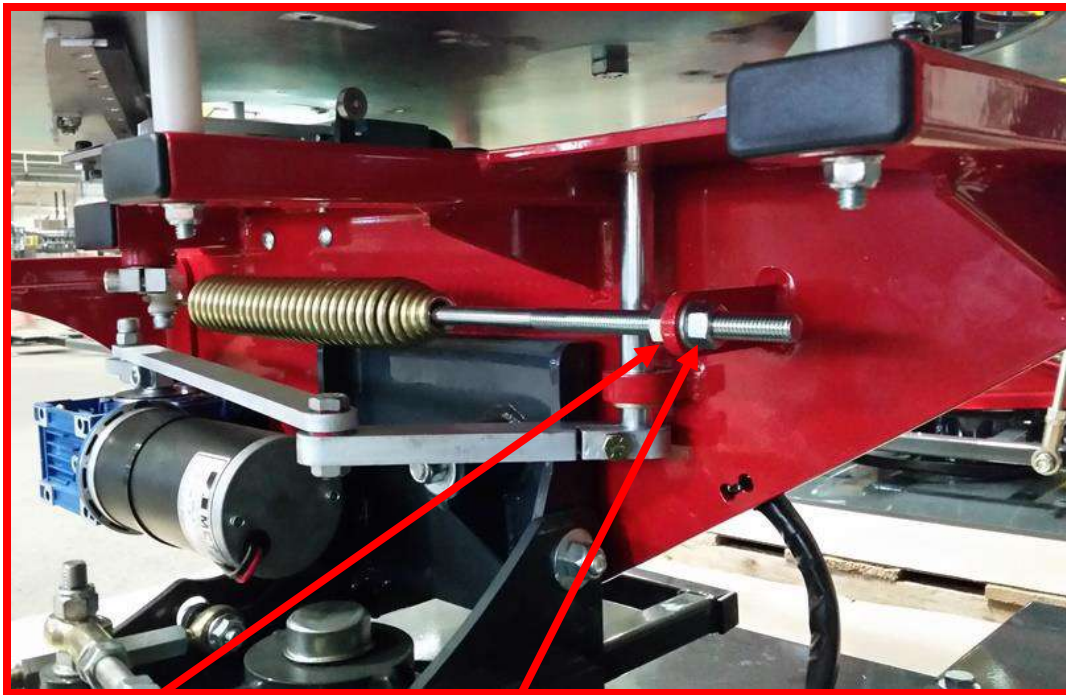


5.



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**Step 15** – You can adjust the distance that the clay is thrown by extending the spring. This is achieved by winding tension on or off the main spring using a  $\frac{3}{4}$ " wrench or the optional  $\frac{3}{4}$ " extended socket which can be attached to an impact drive. This should be done with the machine in the disarmed/safe condition for small adjustments. **AFTER ADJUSTING THE MAIN SPRING FOR THE CORRECT THROWING DISTANCE, THE NUTS ON THE SPRING STUD MUST BE TIGHTENED SECURELY AGAINST EACH OTHER.**



1. LOOSEN NUT

2. TIGHTEN OR LOOSEN NUT  
TO DESIRED SPRING TENSION

**3. RETIGHTEN BOTH  
NUTS SECURELY  
WHEN DONE!!!**

**Step 16** – The pull cord or optional radio release can now be connected to the machine.

**Step 17** – Now that the machine is set to the correct ATA standards, carefully fully load the carousel with clays, removing any clays that show signs of damage. Load clays as evenly as possible and do not over load.

**Step 18** – The machine can now ready for use by pressing the ARM/OFF/DISARM toggle switch, down to the "ARM" position.



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**Step 19** – Press the fire button on the pull cord or radio release. This will cause the machine to fire a clay target and then reset to the firing position. Pressing the fire button again will do the same as above. Pressing and holding the fire button will continuously fire clays continuously

Your machine is now operating smoothly and ready for use. **It is critical that you never load or make adjustment to the machine unless it is disarmed and the power disconnected.** While in storage, the machine must be left in the disarmed state and the power/battery disconnected. Any spring tension does not need to be released.

Thanks for choosing MEC! Every machine is hand set and tested prior to leaving our shop to ensure quality. We take pride in our products, so you can have a better experience in the field. Your patronage is very much appreciated!

For any questions regarding setup or use of any MEC Clay Target Machines, please give us a call or you can visit us on our website for video footage showing how setup and adjustments are made.

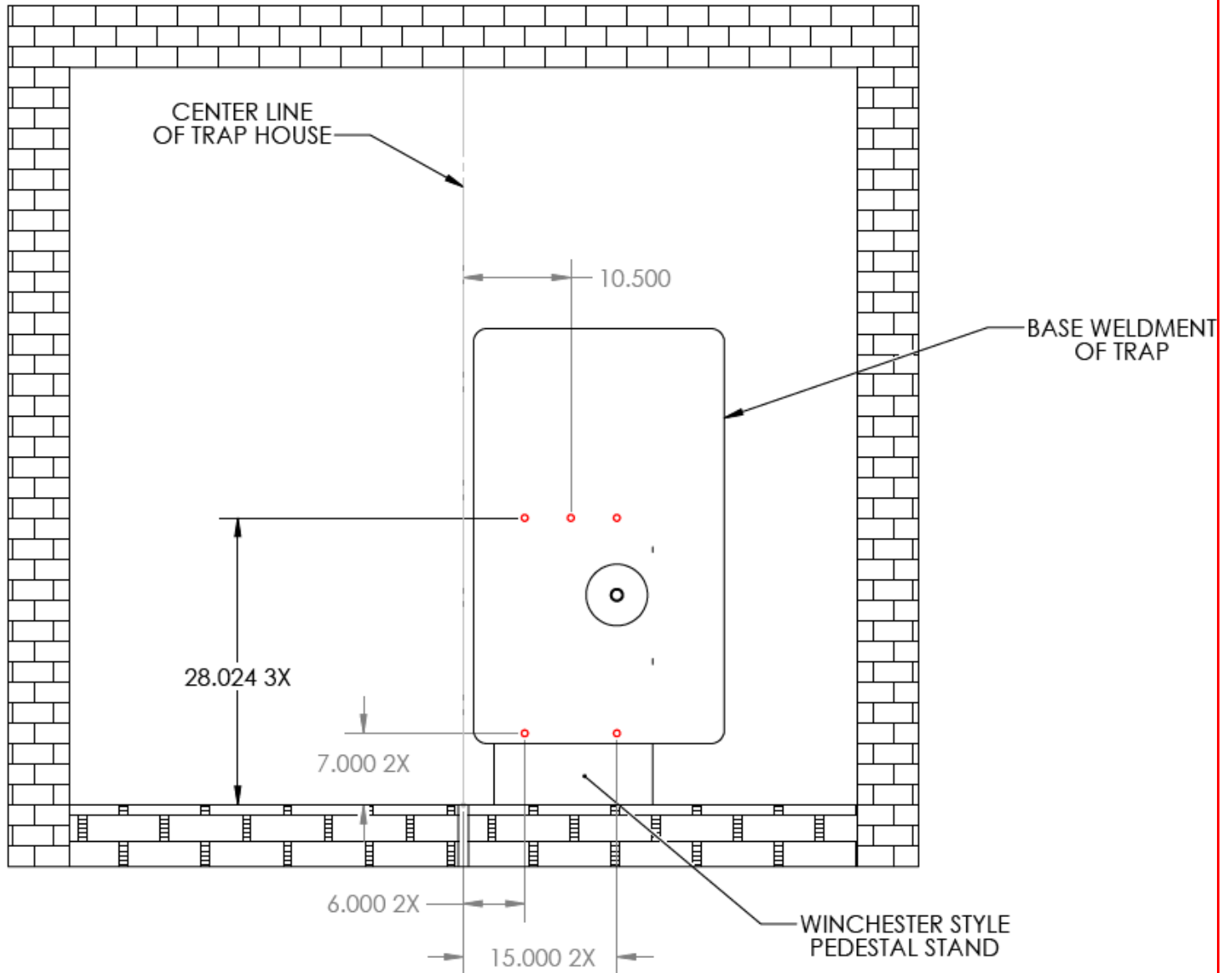
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For all ATA rules and guidelines please see the link below.  
[https://www.shootata.com/Portals/0/pdf/ata\\_rulebook\\_web.pdf](https://www.shootata.com/Portals/0/pdf/ata_rulebook_web.pdf)



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## CORRECT POSITION OF MACHINE BASE IN TRAP HOUSE



## FRONT OF TRAP HOUSE