

THUNDER EQUIPMENT



REMOTE MULTI-SHOT RETRIEVER TRAINING LAUNCHERS

MODELS 500 & 1000

PLEASE READ & UNDERSTAND THIS
OWNERS MANUAL PRIOR TO OPERATION



PRODUCT REGISTRATION AND WARRANTY: Products must be registered at www.thunderequipment.com within **30 days of purchase** to ensure updated product information, information on future product upgrades, and proper warranty registration.

Visit our website at www.thunderequipment.com for more information on additional products and accessories or to view our training forum and get user training advice, techniques and tips.

In the event of product questions or concerns please visit our website, email or contact Thunder Equipment prior to returning to your dealer location.

FOR PRODUCT QUESTIONS OR CONCERNS CONTACT:

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HOW TO OPERATE YOUR NEW LAUNCHER

Complete product manual also located at www.thunderequipment.com

NOTE: Launcher requires a MAPP gas cylinder and 8AA batteries (not included) to operate

BEFORE STARTING SEQUENCE BELOW MAKE SURE POWER SWITCH IS OFF

⚠ WARNING! NEVER TRANSPORT LAUNCHER WITH MAPP GAS INSTALLED

STARTUP AND LAUNCH SEQUENCE

The sequence to fire your launcher works just like the hammer on a gun. Depressing the transmitter button once releases the safety and readies the system to fire (cocking the hammer) and the next press of the transmitter button fires the system (pulling the trigger.) The timing in between the two steps needs no longer than 2 seconds under average operating conditions.

⚠ WARNING! THE LAUNCHER IS IN THE “COCKED” POSITION WHEN YOU HEAR GAS FLOWING. IT SHOULD ONLY BE IN THIS POSITION WHEN YOU ARE PREPARING TO FIRE.

Neutral Position: Small hole between bumper tubes on the rotator is over the combustion port of the launcher

Cocked Position: Tube that holds the bumper is primarily over the combustion port of the launcher.

1. INSTALL 8-AA BATTERIES (not included): Battery compartment is located on back panel. Remove the 4 small black screws and pry off the cover using the slot on the lower right side of the box. USE RUBBER BAND OR TAPE TO SECURE BATTERIES IN PLACE. Failure to follow will result in sporadic performance due to battery movement.

2. CONNECT TRI-TRONICS OR DOGTRA ELECTRONICS

Systems will operate with most Tri-Tronics® or dogtra® remote launch transmitter / receiver systems. Make sure to read a follow manufacturer’s instructions for installing, charging and operating the remote launching system you have chosen. Receiver can be attached to outer housing using Velcro® adhesive strips (not included). Insert the plug into the receiver. Turn on the remote system

FOR MAXIMUM ELECTRONIC RANGE: Mount the receiver so its antenna extends beyond the launcher case. See Photo



Note: When using a dogtra receiver be careful not to let the wire fall inside the machine. If it does you will need to remove the case to retrieve. BE CAREFUL NOT TO STRIP THE SCREW HEADS WHEN REMOVING COVER.

3. MOVE LAUNCHER POWER SWITCH TO “ON” POSITION AND DEPRESS YOUR ELECTRONICS TO ENSURE THE MACHINE CYCLES PROPERLY AND IS IN THE NEUTRAL POSITION (Smaller hole between bumper tubes over firing hole on launcher)

⚠ WARNING! With the launcher in the neutral position (not cocked to fire) there should be NO indication of continuous gas flow after the canister is installed and the valve is opened. If you hear gas continuously flowing, smell gas escaping when system is not activated, or the tank quickly becomes unexplainably very cold and you are sure the system is in the neutral / safe position (not cocked), unscrew immediately and contact the Thunder Equipment.

4. MOVE LAUNCHER POWER SWITCH TO “OFF” POSITION

5. INSTALL GAS CYLINDER TANK

Carefully install the MAPP gas cylinder tank on side of machine (see Page 4 for more details). Be EXTREMELY CAREFUL not to strip the engagement threads.

⚠ WARNING! If you hear gas flowing it is likely the launcher is in the cocked position. You must unscrew the gas and return to Step #3 to complete the firing process and return the system to neutral / safe position.

NOTE: Gas cylinder heads are not always straight which can cause difficult installation on first use. Once tank begins to screw in about 25% you can pull on the bottom lightly to help straighten the neck alignment and make installation easier.

6. STABILIZE UNIT AT PROPER LAUNCH ANGLE AND PLACE BUMPERS ON FRONT

BUMPER TUBES: Legs unfold from launcher body by unscrewing the thumbscrews on the legs and sliding the foot forward. Place launcher at desired location and angle (normally 30° – 45°). Legs extend from base position. Make sure system is located in a stable position. Bumpers slide over metal tubes on the front rotator.

Caution: NEVER ROTATE BUMPER TUBES BY HAND. This will result in internal damage and is not covered under warranty.



WARNING! Never place any object other than approved Thunder Equipment bumpers in/on rotator tubes. Failure to follow this precaution will severely damage the machine and could lead to property damage, injury, or death.

7. MOVE POWER SWITCH TO “ON” POSITION: If the machine rotates ensure it is in the neutral position before proceeding.



WARNING! NEVER STAND IN FRONT OF MACHINE WHEN THE POWER SWITCH IS ON.

8. LAUNCH SEQUENCE: (Always shoot a test shot to confirm proper launcher operation and bumper flight prior to remote usage): Move behind machine (a minimum of 20 feet) and depress launch activation button on transmitter. This releases the safety, “cocks the hammer” and readies the launcher to fire. Press the transmitter button again to “pull the trigger” and the bumper will fire. **Caution:** Never fire launcher if not in the upright, 30° – 55° launch position. Shooting a launcher lying on the ground can lead to fire hazard, personal injury, and damage to the launcher.

A new system may seem a little “tight” or rotate a little slower after ignition. This will not impact performance, system timing, and is normal in new systems. The system is designed to exacting tolerances and can require a break-in period.

STANDARD TRAINING SEQUENCE USING YOUR LAUNCHER

Remember that the procedure closely mimics what a bird boy would do in the field during a marking setup. When the dog reaches the line and begins to mark a gun station press the transmitter button to “cock” the system. When the dog is ready to mark press the transmitter button again and the bumper will fire. If you have additional launchers in the field for multiple mark setups just press the transmitter button to “cock” while you are moving your dog from one bird to another. When the dog is ready for the mark, press the transmitter button again to fire.

NOTES:

1. Sometimes the electronic transmitter / receiver may not always get the signal to “cock” the system. This is not a problem because the launcher only requires 1 second to reload. If you press the transmitter button and the system doesn’t fire don’t panic, just press the transmitter button again to “cock” and press again in 1 second.
2. Under extreme heat and humidity conditions it is possible to cause variation in shot reliability by leaving the launcher “cocked” for extended periods. The maximum shot distance is about 3 seconds. After that time there is no additional benefit except in extremely cold conditions. Leaving the system in the “cocked” position beyond 20 seconds may limit launches under extreme temperature conditions.

9. RELOAD PROCEDURE

When approaching machine always ensure you do not hear gas flowing in the system. This means the system is in cocked position. You should stand behind the launcher and press the transmitter button again to “pull the trigger” before continuing to reload. **Caution:** The noise from the shot will be VERY loud. Make sure to take proper precautions. To reload always approach from the rear, turn power switch to OFF position, reload bumpers, and then

turn power to ON position. Rotator turns counter-clockwise when firing. **NEVER STAND IN FRONT OF MACHINE WITH POWER SWITCH IS ON.**

10. ADDITIONAL INFORMATION

FUEL DETAILS

Your Thunder Equipment launcher is powered by MAPP gas. **Propane will NOT work.** Bernzomatic, Weller, and Worthington are common brand names. The LP Gas 16 oz. cylinders are 3” in diameter by 10” long. The number of launches will vary from cylinder to cylinder. You can estimate the volume of remaining gas by shaking the cylinder. If there is minimal liquid, install a new cylinder. Dispose of empty cylinders appropriately based on applicable local regulations.



⚠ WARNING! Refilled LP Gas Cylinders: Thunder Equipment does not endorse or recommend using refilled LP gas cylinders. Always use factory new MAPP gas cylinders for best performance and safety. Varying pressures of refilled containers yield sporadic and unreliable field results and may result in property damage, injury or death. Thunder Equipment accepts no liability for performance, reliability, or safety using these cylinders.

VARIABLE DISTANCE CONTROL (REMOTE):

There are two ways to vary launches with your system. In combination they can provide infinite variability for shot distance, arc, and sound.

1. **SIDE DISTANCE VALVE:** The valve located on the side of your machine can be loosened or tightened to produce variable shot distances and volume. It is factory set open to provide the longest, loudest shot. Rotating clockwise (toward OFF position) will reduce the shot distance. Be careful not to force the valve or pry to hard. It should be easy to move with a small regular screwdriver.
2. **LENGTH OF TIME LAUNCHER REMAINS IN “COCKED” POSITION:** If you want to vary the height, velocity, or launch noise remotely you only to vary the length of time the launcher is in the cocked position:
 - PUPPY MARK = IMMEDIATE:** Depress the transmitter button the cock and depress again immediately. This will result in a shorter, quieter throw
 - NORMAL MARK = 1-2 SECONDS:** Depress the transmitter button the cock, pause 1-2 seconds and depress again. This results in a normal throw. NOTE: If you time the training process this is the average time between a bird thrower cocking the hammer on a training gun and shooting.
 - EXTENDED MARKING = 3+ SECONDS:** Depress the transmitter button, pause 3 seconds and depress again. This results in maximum throw height and distance and is can be used for extremely long marks.

⚠ WARNING! Closing the distance valve does not depressurize the launcher. Gas bottles should be removed for vehicle transport.

EXTREME WEATHER CONDITIONS: Hints for optimum performance

Extremely warm temperature and humidity: Under these conditions the distance valve should be set below ½ open and the machine should not be left in the “cocked” position for more than 5 seconds.

Cold Temperature (winter training): In very cold conditions the distance valve should be opened to 100% and leaving the machine in the cocked position for a little longer period (5-10 seconds) may help shot reliability.

BUMPERS

Thunder Equipment launcher bumpers have been designed exclusively for use on the Thunder Equipment Model 5000, Thunder Bird 400, 800, and 1200 launchers, Pro Max 7000 and Max 5000 remote Launchers. **USE ONLY FACTORY BUMPERS ON YOUR LAUNCHER.** Extra launcher bumpers and colors are available for purchase. Visit our website for more information www.thunderequipment.com

LAUNCHER SHUT DOWN

1. Switch power button to off position
2. Remove gas cylinder and store in cool, dry place
3. Turn off the Remote Receiver

 **WARNING! NEVER STORE OR TRANSPORT YOUR SYSTEM WITH THE GAS CYLINDER INSTALLED. ALWAYS REMOVE AFTER EACH USE.**

WHEN THE GAS CYLINDER IS REMOVED IT IS NORMAL FOR A SMALL AMOUNT OF GAS TO BE EXPELLED FROM THE SYSTEM. THIS DEPRESSURIZES THE LAUNCHER FOR TRANSPORT AND STORAGE.

 **WARNING! NEVER SMOKE OR POSITION LAUNCHER NEAR OPEN FLAME OR HEAT SOURCE**

SYSTEM TIMING ADJUSTMENT: Your system is factory set to ensure optimal performance. **During shipment, as the system breaks-in, or over time it is possible that the launcher timing may need to be adjusted.** This is evident when the machine seems to skip or stick when pushing the transmitter button. You can review FREQUENTLY ASKED QUESTIONS for more information and we will be happy to assist you with the adjustment process.

OPERATING TEMPERATURE RANGE: Your launcher will provide reliable operating performance between 20° F / -7° C and 90° F / 38° C. Outside of this range you may experience inconsistent performance.

REMEMBER: MAPP GAS IS THE ONLY GAS GUARANTEED UNDER WARRANTY TO PROVIDE RELIABLE AND CONSISTENT FIRING.

Optimal performance will be obtained when gas cylinders are stored at indoor temperatures (70° F / 20° C). If you allow your gas cylinders to fluctuate widely in temperature your system may react erratically. In extreme cold weather it is advisable to keep spare gas cylinders in your vehicle where they will stay warm. After a period of time, if you begin to experience erratic firing, replace the cylinder with a warmer one. The length of time you can use the cylinder is relative to temperature.

 **WARNING! NEVER STORE YOUR LAUNCHER PRESSURIZED WITH THE GAS CAN INSTALLED. ALWAYS REMOVE GAS CYLINDER BETWEEN USES, STORAGE, AND TRANSPORT.**

SAFETY PRECAUTIONS:

1. **DO NOT** place in tall dry grass or any area that may be a potential fire hazard. Never use machine for any reason other than its intended purpose.
2. Never smoke within 20 feet of your launcher and keep the launcher away from any spark or flame.
3. Never transport with gas cylinder installed.
4. Always turn off power switch for transport or storage.
5. Stand behind the unit (20 ft. minimum). Never stand directly in front of the machine or look directly in the front of the bumper tubes.
6. **DO NOT** load or launch any item other than approved bumpers in your Thunder Equipment Launcher. Failure to comply could result in property damage, injury or death and will void manufacturer's warranty.
7. Keep out of reach of children. Individuals aged 18 years and older should only use product.
8. Store in a safe dry place and remove gas cylinder.
9. Never discharge the launcher while holding or transporting.
10. Make sure the system is properly set up on the ground and stand a minimum of twenty feet behind the system to fire.
11. When the Thunder Equipment launcher fires it makes a loud noise, simulating a shotgun blast. Verify all applicable city and local ordinances prior to using launcher.



WARNING! Failure to comply with applicable safety precautions could cause property damage, injury or death. Thunder Equipment accepts no liability for personal injury, property damage, or death sustained while handling same or damage caused during the operation or transportation of this machine.

FACTORY WARRANTY:

Registration and/or proof of purchase (sales receipt) are required for warranty claims.

Your Thunder Equipment launcher is covered by a **One (1) year Limited Warranty** on parts and labor. Extended warranty is available online at www.thunderequipment.com. The warranty does not cover physical abuse or damage and is limited to original purchaser (not transferable). The warranty does not cover bumpers, batteries, damage to the internal motor caused by manual turning of the rotator, problems with third party remote electronics (transmitters or receivers), damage due to launching anything other than approved bumpers, damage and cross threading of threads to gas cylinder, and damage to distance valve due to improper manipulation, and is **VOID** if the launcher has been tampered with in any way or unauthorized service work has been performed. **The limited warranty does not cover return shipping costs.**

WARRANTY REGISTRATION:

Warranty can be registered online and is essential to tracking warranty claims and extended warranty

SERVICE SUPPORT

In the event that your Thunder Equipment launcher requires service, call and inform us that you wish to return your launcher for repair. Warranty repairs require original purchase receipt, serial number, and corresponding information from product registration. Write a short letter describing the problem you have experienced. Be sure the letter includes your name, address, daytime and evening phone number. Visit our website at www.thunderequipment.com for details on return address. On the outside of the box, in large legible lettering, write "RETURN FOR REPAIR". We recommend UPS Ground Service for return shipping.

FREQUENTLY ASKED QUESTIONS

Your Thunder Equipment Launcher should require virtually no maintenance assuming it is not misused. **It may require tuning over time to maintain optimal performance and slight adjustment after the break in period. If you notice after initial usage or over time your machine seems to require tuning based on the Frequently Asked Questions call us and we will be happy to help.** If you have any questions concerning your launcher, or if you suspect that it is malfunctioning, we will be happy to assist you. Before you call, check the "Troubleshooting Guide". Visit our website at www.thunderequipment.com for additional service information.

When screwing in the gas bottle I hear gas flowing into the machine

- The machine is in the cocked position. Refer to Page 2, Item #3 for more information on how to reset.

Rotator does not turn when I press the Transmit Button.

- Is the power switch on the launcher turned on?
- Is your Remote Receiver turned on?
- Is the Receiver plug from the launcher inserted fully into the receiver?
- Are the receiver and transmitter batteries fully charged?
- Are the batteries secured tightly in the battery case using either tape or supplied rubber band?
- Do the AA batteries in the launcher need replaced?

Multiple button presses are required for launcher to rotate properly

- Do the AA batteries in the launcher need replaced?
- Check to see if receiver is mounted per recommendation and antenna extends beyond side of launcher

When I press the fire button the unit launches but continues to sound like gas is flowing

- Do the AA batteries in the launcher need replaced? This is a primary indication that batteries are not fully charged.
- Are your transmitter and receiver batteries fully charged?
- Are the AA batteries fully installed into the plastic battery holder? Tape around the batteries can help them hold in position.
- Is this unit brand new? If you have checked all of the above items it is likely the timing has changed due to shipping and needs readjusted. Give us a call and we can walk you through the procedure.
- Did this change over time: If the unit previously worked correctly and all of the above items have been checked it is likely the timing has changed due to break in period and needs readjusted. Give us a call and we can walk you through the procedure.

Rotator turns but the bumper does not launch

- Is the MAPP gas cylinder threaded fully into the launcher?
- Does the MAPP gas cylinder have fuel?
- Are you using the propane instead of MAPP gas?
- Is the distance valve open?
- Is the weather extremely hot& humid or cold: In colder weather open the distance valve fully. In hot/humid weather close the valve to about ¼ open.
- Are your AA batteries old and need replaced?
- Is your machine lying flat on the ground? The launcher is made to only operate consistently and reliably in the upright position. You should never fire with the launcher legs retracted or with the machine lying on the ground.
- Are you trying to test in “shotgun” launches? The system needs to vent for a short period between shots. Rapid firing for multiple successions can cause some misfires.
- Is your gas tank cold from long-term exposure outdoors?

I have to press the Transmit Button multiple times to get the launcher to rotate or fire.

- Do the AA batteries in the launcher need replaced? This is a primary indication that batteries are not fully charged.
- Are the AA batteries fully inserted into the battery compartment?
- Are the batteries secured tightly in the battery case using either tape or supplied rubber band?
- Have you checked the battery snaps on the battery pack are secured tightly?
- Are the transmitter or receiver batteries holding a charge or do they need replaced?
- Is this unit brand new? If you have checked all of the above items it is likely the timing has changed due to shipping and needs readjusted. Give us a call and we can walk you through the procedure.
- Did this change over time: If the unit previously worked correctly and all of the above items have been checked it is likely the timing has changed due to break in period and needs readjusted. Give us a call and we can walk you through the procedure.

Launcher does not work at long range.

- Do the batteries in the remote receiver and / or transmitter need to be charged or replaced?
- Are the transmitter or receiver batteries holding a charge or do they need replaced?
- Is the receiver positioned toward the top of the machine in launch position?
- Is reception of the transmitter blocked by the machine case?
- Are there significant factors (trees, hills, rocks, buildings, etc.) between you and the receiver?

Launcher fires inconsistently in COLD weather

- Are you using MAPP gas?
- Is the distance valve turned fully open?
- Do the AA launcher batteries need replaced?
- Is the gas cold from being stored outside?
- Have the batteries been stored in a cold environment for long periods?
- Have you let the system remain in the “cocked” position for a few extra seconds?

Launcher fires inconsistently in extremely warm and/or humid weather

- Are you using MAPP gas?
- Is the distance valve set below 50%? If not, turn the gas valve down.
- Are you letting the system remain in the cocked position for an extended period of time, beyond 20 seconds? This can cause misfires and inconsistent ignition? You should only leave the system cocked for a few seconds.

Launcher sound seems muffled or is not extremely loud

- Are you using MAPP gas?
- Are you letting the system remain in the cocked position for an extended period of time, beyond 20 seconds? This can cause misfires and inconsistent ignition? You should only leave the system cocked for a few seconds
- Is there high temperature combined with high humidity? Turn the distance valve below 50%.
- Is the combustion port behind the rotator flush with the front plate? If it is pressed back behind the front plate contact Thunder Equipment for assistance?

Bumpers fall off machine during operation

- Do the bumpers show visible signs of wear due to use
- Is the machine at an optimal angle? (30° - 45°)
- Although rare, intermittently some bumpers may fall from the machine due to wear, usage angle, and excessive vibration.

Remote variable distance will not function properly

- Is the gas flow valve set to ¼ turn open?
- Are your receiver and transmitter fully charged?