



# **MA2 PCP AIRGUN USER'S MANUAL**

MACAVITY AGILITY SERIES

## BASIC SAFETY

- Not a toy. Adult supervision required. Misuse or careless use may cause serious injury or death. May be dangerous up to 1,000 yards.
- Air guns should never be used under the influence of alcohol or drugs.
- DO NOT brandish or display this product in public – it could confuse people and may be a crime.
- DO NOT change the coloration and markings to make it look more like a firearm.
- Always keep the air gun and pellets out of the reach of children. Keep the air gun and pellets in separate places, preferably under lock and key.
- Always check to see if the gun is on "SAFE" and unloaded when receiving it from another person or retrieving it from storage.

## USAGE SAFETY

- DO NOT inhale dust from lead pellets or put lead pellets in your mouth. Wash your hands after handling lead.
- Keep the safety of this air rifle in the "SAFE" position until you are ready to shoot, even if the gun is unloaded.
- Keep your fingers off the trigger and muzzle while cocking the air rifle.
- Use the correct pellet size according to the air rifle model. Never reuse pellets. The use of any other kind of ammunition can cause injury to you or damage the air rifle.
- Always handle and treat this air rifle as if it were loaded. DO NOT assume that the gun is unloaded if it fails to fire properly.
- Never leave this air rifle loaded or cocked. DO NOT store it loaded or cocked. DO NOT walk, run, or jump when carrying a loaded or cocked air gun. A loaded or cocked gun should never be carried inside a vehicle, house, camp, or public place. When transporting this air rifle, keep it unloaded and the safety is in the "SAFE" position.
- Always use eye and ear protection, and ensure bystanders do the same. Failure to do so may result in eye injuries and permanent hearing loss.
- Always aim the air rifle in a safe direction.
- DO NOT shoot at hard surfaces or at the surface of water. The pellet may bounce off or ricochet and hit someone or something unintended.
- Always choose or place your target carefully. Think about what you will hit if you miss the target. It is best to shoot at paper bullseye targets attached to a safe backstop. Check your backstop for wear before and after each use. Replace your backstop if the surface is worn or damaged, or if a ricochet occurs.

- DO NOT attempt to disassemble or tamper with this air rifle. Contact customer service for repair. This air rifle contains powerful springs and high-pressure air cylinders that can cause serious injury if released in an uncontrolled manner.
- Think first, fire second. DO NOT rely solely on any mechanical safety. Half safe is not safe.

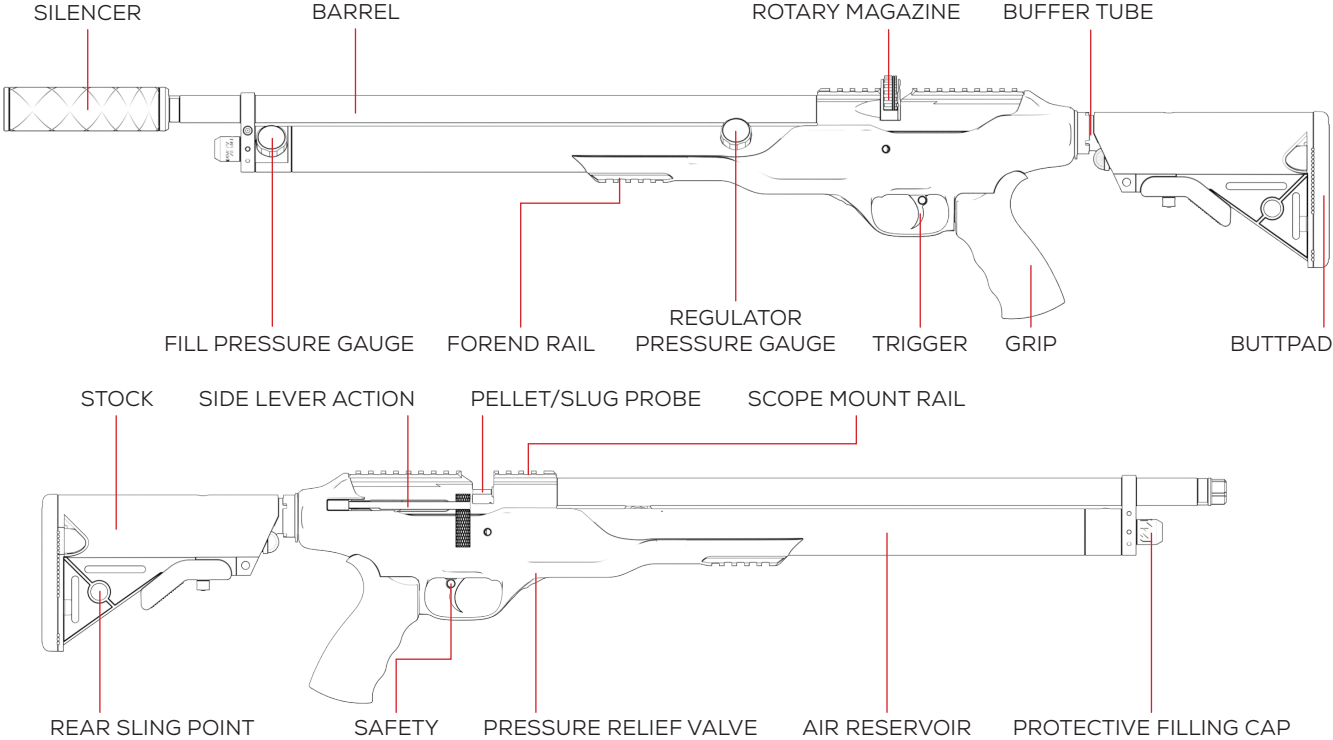
## DISCLAIMER

Learn how the air rifle operates and practice safe gun handling procedures before loading and using it. Improper use or handling of air rifles is not the responsibility of the manufacturer or distributor, under any circumstances. The user is responsible for any harm, which may be caused.

## CALIFORNIA PROP 65

Lead pellets contain lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, please visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

PRODUCT DIAGRAM



## SPECIFICATION

CALIBER	.177cal	.22cal	.25cal	.30cal
SKU	MA-P2017L / MA-P2017	MA-P2022L / MA-P2022	MA-P2025L / MA-P2025	MA-P2030L / MA-P2030
AMMO TYPE	Pellet			
RECOMMEND AMMO	JSB DIABOLO Exact Diabolo Cal .177 8.44gr	JSB DIABOLO Exact Jumbo Heavy Cal .22 18.13gr	JSB DIABOLO Exact King Cal .25 25.39gr	JSB DIABOLO Exact Diabolo Cal .30 44.75gr
MUZZLE VELOCITY	890fps	870fps	890fps	880fps
REGULATOR PRES.	1160psi / 1160psi	1300psi / 1600psi	1600psi / 1885psi	2030psi / 2300psi
MUZZLE ENERGY	20J	40J	60J	110J
CYLINDER SIZE	267cc / 196cc			
MAX FILL PRES.	3600psi (250bar)			
ACTION	Sidelever			
MECHANISM	Pre-charged Pneumatic			
BARREL STYLE	Refiles			
FIRE MODE	Repeater			
GUN WEIGHT	6.39lb (2.9kg) / 5.95lb (2.7kg)			
OVERALL LENGTH	41.1in (1045mm) / 36.8in (933mm)			
BARREL LENGTH	22in (559mm) / 18in (457mm)			
LOUDNESS	2-Low			

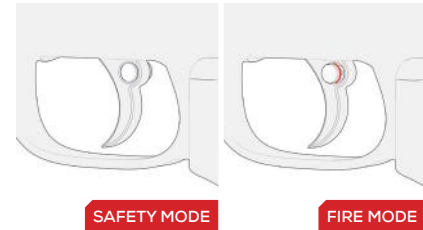
CALIBER	.177cal	.22cal	.25cal	.30cal
BARREL TWIST RATE	450	554	595	565
MAGAZINE CAP.	13	11	10	8
SHOTS PER FILL	180 / 150	100 / 60	60 / 30	24 / 16
SHROUDED	Yes			
RAIL	Picatinny (Weaver)			
BUTTPLATE	Rubber			
STOCK	Adjustable Tactical AR Stock			
GRIP	Soft Rubber AR Grip			
SAFETY	Manual			
TRIGGER ADJUSTABILITY	2-Stage Adjustable			

## OPERATING THE SAFETY

1. Locate the safety button on the trigger.
2. To put the airgun "ON SAFE", push the safety button till the red ring is hidden.
3. To take the airgun "OFF SAFE", push the safety button till the red ring is shown. When the airgun is "OFF SAFE" it is ready to be fired after following the instructions in this manual on how to fill and load.

**NOTE** Like all mechanical devices, an airgun safety can fail. Even when the safety is "ON SAFE", you should continue to handle the airgun safely. Never point the airgun at anything you do not intend to shoot.

**NOTE** Keep the airgun in the "ON SAFE" position until you are actually ready to shoot. Then push the safety button to the "OFF SAFE" position.

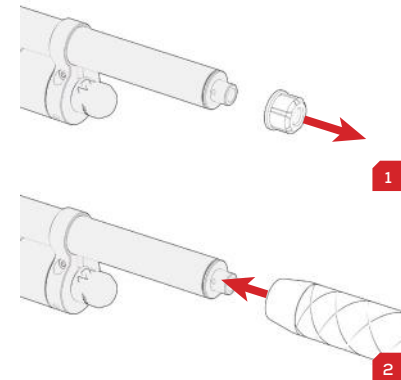


## ACCESSORY INSTALLATION

### SILENCER

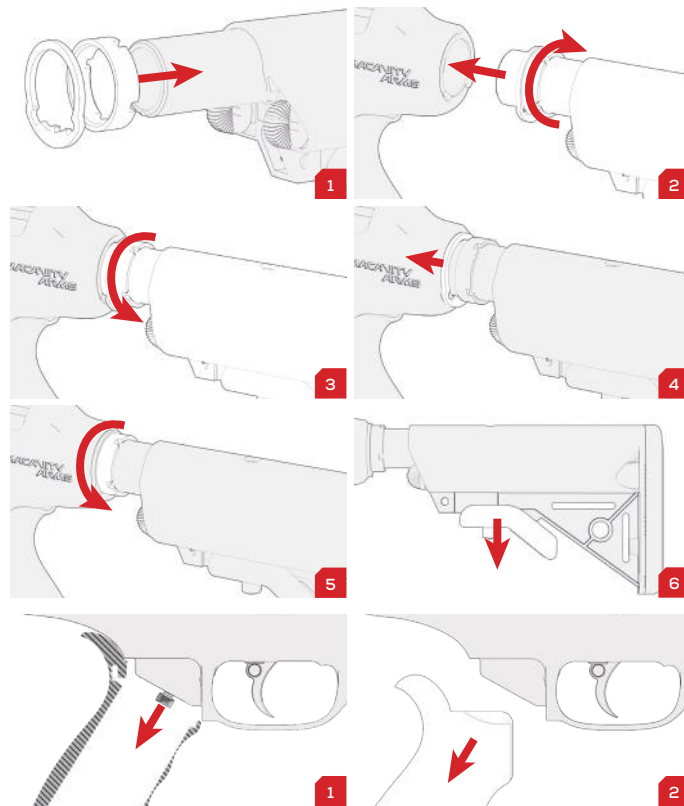
1. Remove the protective cap located at the front of the muzzle.
2. Align the silencer with the threaded section of the muzzle, and gently rotate it clockwise to secure it in place. Use your hand to tighten the silencer as firmly as possible, ensuring a snug fit without over-torquing.
3. Once the silencer is securely in position, check for any alignment or balance issues. Make minor adjustments as needed to ensure the silencer is correctly aligned with the rifle's bore, providing optimal noise reduction and accuracy.

**WARNING** NEVER LOOK DOWN THE MUZZLE. Keep the airgun pointed in a SAFE DIRECTION.



## STOCK

1. Attach castle nut and end plate on the buffer tube. Rotate the castle nut clockwise onto the buffer tube as far as possible to ensure them in place.
2. Insert the buffer tube into the end of the receiver, and rotate it clockwise until it reaches the end of the thread.
3. Rotate the buffer tube counter-clockwise to ensure proper alignment between the stock and the receiver. Verify that both the stock and the receiver are on the same plane.
4. Slide the end plate into place, ensuring it engages with the limit on the receiver.
5. To fix the buffer tube with the receiver, use a castle nut wrench to tighten the castle nut counter-clockwise. Ensure it is firmly tightened to prevent any movement or play between the stock and the receiver.
6. To remove the stock or change another stock, pull and keep the handle away from the stock as far as possible, then slide the stock off the buffer tube.



## GRIP

1. Unscrew the screw located inside the grip.
2. Remove the grip from the receiver. Replace with another grip. Ensure the grip is securely attached before use.

## **PRESSURIZING (FILLING) THE AIR RIFLE**

### **READING AIR CYLINDER PRESSURE GAUGE**

The pressure in the cylinder can be read on the built-in pressure gauge. The gauge has an accuracy of +−10%. Temperature variations can also affect the level shown.

**NOTE** Check the pressure level indicator of the compressed air cylinder only when your air rifle is unloaded and decocked and when the safety is engaged.

### **PRESSURIZING (FILLING) THE AIR RIFLE**

1. Be sure to wear eye protection.
2. Make sure the airgun is “UNLOADED”, “ON SAFE” and pointed in a SAFE DIRECTION.  
Pull off the protective cap that covers the fill nipple on the airgun.
3. Attach the quick disconnect fitting from your filling equipment to the fill nipple on the airgun.
4. Fill the airgun slowly to eliminate heat buildup and chance for overfilling . If the airgun is overfilled, past 3600psi (250bar), refer to “DEPRESSURIZING THE AIR RIFLE” section for depressurizing.
5. Replace the fill nipple cover in the reverse order of removal.

**WARNING** Only use compressed air in this airgun. Using other gases, including pure oxygen, may result in damage to the airgun and can cause a fire or explosion that may result in injury or death.

**WARNING** DO NOT disconnect the fill hose before first bleeding the air. Failure to follow these instructions may cause the hose to whip from pressure built up in the fill hose and may result in serious injury or death.

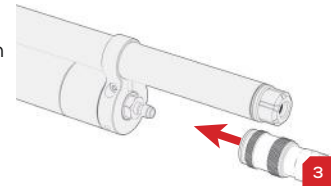
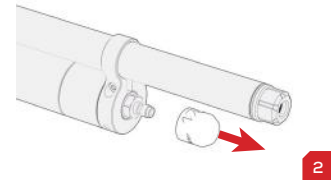
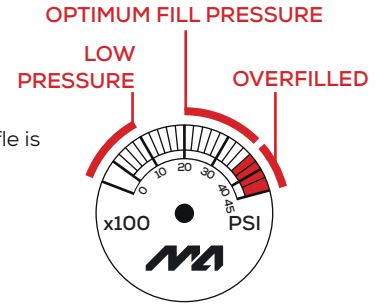
**WARNING** DO NOT overfill the airgun. Excessive pressure can damage airgun and may lead to an explosive air cylinder rupture which can cause injury or death.

**WARNING** NEVER expose filled pressure cylinders to a temperature above 122F (50C).

**WARNING** DO NOT make alterations to the compressed air cylinder or its valves.

**WARNING** Observe applicable national statutory regulations for refilling.

**WARNING** DO NOT refill cylinders which are leaky or otherwise unsafe. Empty them in a safe manner.



### OVERFILL

1. Over filling beyond the “as tuned” best fill pressure does not improve performance. It will actually lessen performance and may cause the valve to lock. If you discover that the airgun has been over filled, try to dry fire the airgun (cock and shoot with no pellet loaded) in a SAFE DIRECTION until pressure on your airgun drops to 3500psi or less depending on where your gun’s tuned best fill pressure is.
2. If the airgun will not discharge air with each shot, the valve may be completely pressure locked and will require use of the degassing tool. Follow the instructions included with the degassing tool to fully or partially depressurize the airgun.

## DEPRESSURIZING THE AIR RIFLE

Your airgun, like most PCP airguns, is best stored with some pressure in the reservoir. This keeps the seals in the airgun forced against the sealing surfaces. In the event you want or need to depressurize (e.g. for service) follow the following steps:

### DRY FIRE

Dry fire only if the airgun is overfilled.

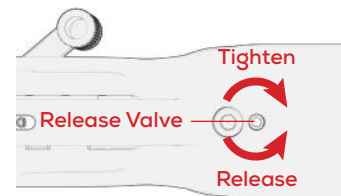
1. Keep the airgun pointed in a SAFE DIRECTION.
2. Depressurize the airgun by repeatedly dry-firing until the pressure gauge on your airgun shows the pressure is lower than the max fill pressure.
3. Put the air gun “ON SAFE”.

**WARNING** Avoid dry firing the airgun when the pressure falls below the regulator pressure.

### DEGASSING THROUGH THE RELIEF VALVE

1. Be sure to wear eye protection.
2. Unload and uncock the airgun.
3. Make sure airgun is “ON SAFE” and pointed in a SAFE DIRECTION.
4. Use the Allen wrench [M2.5], slowly turn the air relief valve counter-clockwise. **DO NOT** remove the relief valve screw completely as the relief valve should remain with the stock.

**NOTE** In cases of low pressure, it is possible that the pressure gauge may still display remaining pressure, but the air valve has ceased to release air. In such situations, simply give the air valve a slight turn to resume air release.

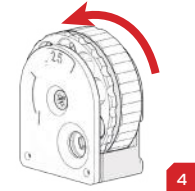
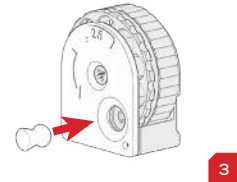


5. After the rifle is depressurized, use the Allen wrench to tighten the relief valve by turning clockwise.
6. Check the gauge to make certain all pressure has been relieved from the airgun.

**NOTE** After fully depressurizing, it is essential to cock the airgun before the next refill.

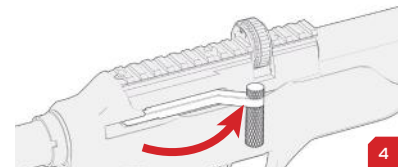
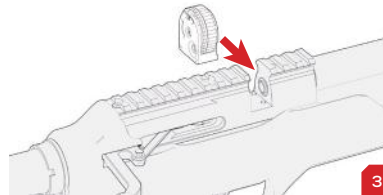
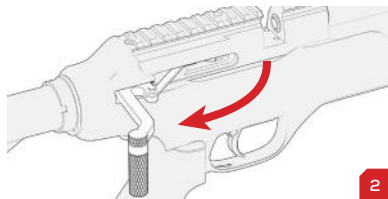
## LOADING THE ROTARY MAGAZINE

1. Ensure the airgun is "ON SAFE" and pointed in a SAFE DIRECTION.
2. If the magazine is already inserted in the airgun, remove it to begin loading the magazine (see Section "Unloading-Removing the magazine.")
3. Face to the clear magazine cover. Load the first pellet into the magazine, head first. Ensure the pellet does not protrude out of the back of the magazine. If it does, simply push the pellet inward.
4. Rotate the rotary wheel counter-clockwise while holding it in place, aligning the next empty pellet hole with the hole on the clear magazine cover. Load the next pellet into the magazine.
5. Repeat this process for the remaining pellets. The magazine rotation will lock into place once the pellet is correctly loaded.



## INSERTING THE ROTARY MAGAZINE

1. Make sure airgun is "ON SAFE" and pointed in a SAFE DIRECTION.
2. Pull the charging handle back to the cock position and hold.
3. With the cover of the magazine facing the butt of the airgun insert the magazine from the right side and push it inward until it snaps into place.
4. Push the charging handle forward to make sure the bolt and charging handle is properly closed. This will allow it to properly chamber the first pellet.

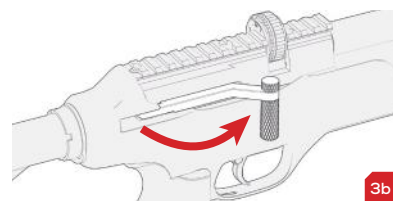
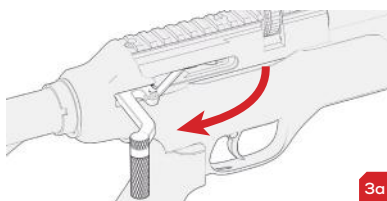
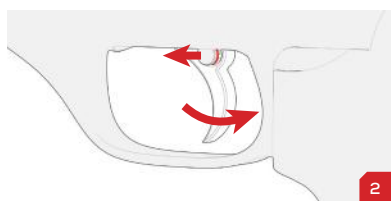


**NOTE** The airgun is now cocked and loaded. Keep “ON SAFE” and make sure the airgun is pointed in a SAFE DIRECTION at all times.

**WARNING** Never carry your airgun while cocked and/or while loaded. It is best to cock the airgun only before shooting. Under no circumstances should your airgun be carried cocked and loaded.

## SHOOTING

1. After inserting the rotary magazine, push the charging handle forward to make sure the bolt and charging handle is properly closed. This will allow it to properly chamber the first pellet.
2. When you are absolutely sure your air rifle is aimed at a safe target and you are ready to fire, put the airgun on “OFF SAFE”. Squeeze the trigger.
3. To cycle into the next shot, avoiding contact with the trigger, pull the charging handle back then return it to the front position.



**NOTE** After the last round is fired from the rotary magazine, the charging handle cannot be pushed all the way forward. DO NOT force the charging handle forward.

**NOTE** Every time the charging handle is pulled back and pushed forward a pellet is loaded into the chamber. If done multiple times before pulling the trigger, multiple pellets will be loaded into the barrel and may become lodged inside upon firing.

**WARNING** When cocking the airgun, DO NOT place your hand over or in front of the muzzle. NEVER allow the muzzle to point toward you or anyone else during cocking. Always keep the muzzle pointed in a SAFE DIRECTION.

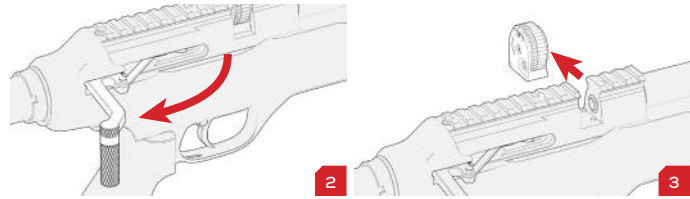
**WARNING** NEVER assume a projectile is not lodged in the barrel because the airgun no longer fires a projectile. Always treat the airgun as though it is loaded and with the same respect you would a firearm.

**WARNING** Choose your targets carefully and be sure that the area around the target is clear. Think about what you will hit if you miss the target.

## UNLOADING & UNCOCKING

### UNLOADING-REMOVING THE MAGAZINE

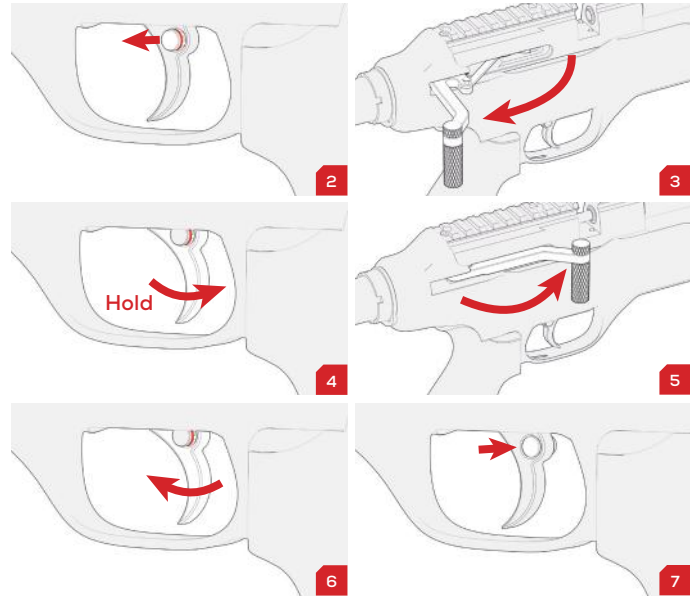
1. To unload the airgun it is best practice to fire the pellet in a SAFE DIRECTION.
2. Pull the charging handle back to the rear position.
3. Push the magazine out of the receiver from the left side.
4. Uncock the airgun for safe storage. Refer to the next section "UNCOCKING" for instruction.



### UNCOCKING

In the event you are finished shooting, remove the magazine as instructed and un-cock the airgun.

1. Point the airgun in a SAFE DIRECTION.
2. Take the airgun "OFF SAFE".
3. Pull the charging handle back to the rear position.
4. While firmly holding the charging handle in the rear position, pull the trigger.
5. Continue to hold the trigger back while sliding the charging handle forward to the closed position.
6. Release the trigger.
7. Put the airgun on "ON SAFE".
8. The airgun is now ready for storing.



## ADVANCED ADJUSTMENT TECHNIQUES

### TRIGGER ADJUSTMENT

The trigger assembly on this airgun is a two-stage, adjustable unit. It has been factory set to an efficient setting that will suit most hunting and target uses. It can be adjusted and customized but unless you are experienced in making such adjustments, Macavity Arms recommends that these adjustments to factory settings be made only by a qualified gunsmith after reading all instructions.

Adjusting the trigger can result in a light trigger pull, preventing proper operation of the safety mechanism and negatively affecting sear engagement. If you are not sure that the airgun safety is functioning and/or sear is engaging properly, take your airgun to an experienced gunsmith to be inspected.

**NOTE** This adjustment feature are for advanced shooters. Most shooters can use the settings provided during manufacturing of the gun and should not need to make modifications.

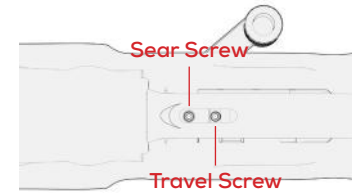
**NOTE** Make only adjustments identified in this manual.

1. Put the airgun "ON SAFE", remove the magazine and keep the airgun pointed in a SAFE DIRECTION.
2. Make sure the bolt is push forward and NOT in the cocked position.
3. **Sear Engagement Adjustment Screw:** This screw engages the lower sear as the trigger is compressed. It should be seated tightly and not used for trigger travel adjustment. To increase the sear engagement turn the screw counterclockwise. To decrease the sear engagement turn the screw clockwise.
4. **Travel Adjustment Screw:** Increase rearward movement of the trigger after the sear releases by turning the screw counterclockwise. Decrease trigger rearward movement by turning the screw clockwise.

**NOTE** Decreasing the sear engagement too much will cause the airgun to unsear on cocking.

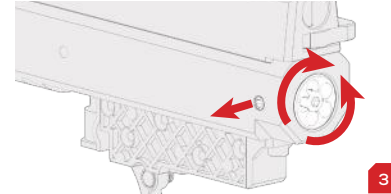
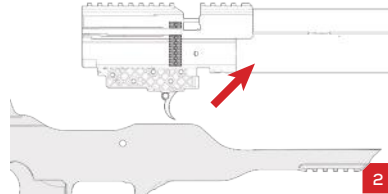
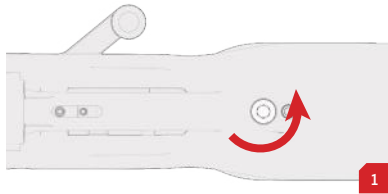
**NOTE** Decreasing the trigger movement too much will prevent the rifle from searing.

**NOTE** After adjusting your trigger, always check that the trigger and safety are functioning properly. If you are not sure if the trigger or safety is operating properly, take your gun to an experienced gunsmith.



## ■ HAMMER ADJUSTMENT

1. Locate the screw at the bottom of the chassis and unscrew it [M4].
2. Pull the breech forward and upward at the same time to disengage the upper assembly from the receiver.
3. Loosen the side-screw [M2.5]. Rotate the hammer adjustment screw [M3] clockwise to increase muzzle power, or counter-clockwise to decrease muzzle power as desired.
4. Reinsert the upper assembly into the chassis, ensuring proper alignment and fitment.
5. Reinstall and securely tighten the bottom screw before using.



## ■ TROUBLE SHOOTING

### ■ REMOVING A JAMMED PELLET

If a pellet is jammed in the barrel, DO NOT reload the air rifle.

1. NEVER LOOK DOWN THE MUZZLE. Open the breech and remove the magazine, point the air rifle in a SAFE DIRECTION, close the breech, put the air rifle in the "OFF SAFE" position and squeeze the trigger to fire.
2. If you believe the air rifle is still jammed, make sure the airgun is uncocked, "ON SAFE" and pointed in a SAFE DIRECTION.
3. Open the breech and insert the correct caliber ramrod (at least 30" in length) into the muzzle and push the jammed pellet out.
4. If you are not able to unjam your air rifle with above procedure, take no further action. Contact Macavity Arms customer service department for assistance.

**NOTE** DO NOT try to reuse the pellet.

**NOTE** The barrel could be damaged if the incorrect sized clearing rod is used.

## MAINTENANCE

If you drop your airgun, visually check to see that it works properly before you use it again.

Periodically check your airgun. If anything seems changed, like a shorter or weaker trigger pull, this may mean worn out or broken parts, contact Macavity Arms customer service for assistance before using your airgun again.

### CLEAN THE BARREL

Cleaning the barrel of your airgun regularly is essential to maintain optimal accuracy and prolong its lifespan. Follow these step-by-step instructions to ensure safe and effective cleaning:

1. Put the airgun "ON SAFE", remove the magazine and keep the airgun pointed in a SAFE DIRECTION.
2. Dip the bore brush into the cleaning solvent, ensuring the bristles are soaked. Attach the bore brush to the cleaning rod securely.
3. Insert the cleaning rod with the attached bore brush into the breech end (rear) of the barrel. Push the brush gently through the entire length of the barrel in one direction (muzzle to breech). Avoid excessive force or aggressive scrubbing to prevent damage to the rifling.
4. Carefully withdraw the cleaning rod with the bore brush from the barrel.
5. Attach a clean and dry patch or swab to the cleaning rod. Insert the rod into the barrel and push it through again from the muzzle to the breech. Repeat this step with fresh patches until they come out relatively clean.
6. Shine a light through the barrel or use a bore light to inspect its condition. Look for any remaining debris or fouling.
7. Apply a small amount of airgun specific lubricant to a patch or swab. Pass it through the barrel to provide a thin, even coat of lubrication.

### APPLY SILICONE OIL

Apply very little lubrication on the working parts including the surfaces around the charging handle, the trigger mechanism every 3 months or 500 shots.

**WARNING** DO NOT apply the lubrication at the o-ring on the probe, inlet, hammer housing, inner barrel.

**WARNING** DO NOT use petroleum based lubricant in the compressed gas reservoir.

Always store the airgun with pressure (at least 1000psi/69bar) in the air cylinder. Store in a dark place. Keep out of high humidity and temperature.



## WARRANTY

### **THREE-YEAR LIMITED WARRANTY**







Macavity Arms products are warranted to the retail consumer for a duration of three years from the date of retail purchase, safeguarding against any defects in material and workmanship, upon the provision of a valid purchase receipt. In the unlikely event that any such defects in materials or workmanship arise within the initial thirty-six (36) months after the retail purchase, we undertake to repair or replace the defective items as per the terms and conditions of the warranty. Macavity Arms reserves the right to make substitutions for similar product/s if the warranted model in question is no longer available. To activate the full three-year warranty, customers must submit the registration card within 30 days of purchase or register the product online at [macavityarms.com/pages/warranty](https://macavityarms.com/pages/warranty).

In cases where warranty activation has not occurred, we offer a maximum one-year warranty from the date of purchase, provided that a valid purchase receipt is available. If no purchase receipt is provided, warranty coverage extends for up to one year from the date of production.

### **WARRANTY COVERAGE**

-  Replacement of parts and associated labor costs.
-  Return shipping of warranty products to customers will be covered by Macavity Arms for USA addresses only.

### **EXCLUSIONS FROM COVERAGE**

-  The costs of shipping or transporting the product to Macavity Arms for warranty, including insurance or fees, duties and taxes are the sole responsibility of the purchaser.
-  Any damage or faults resulting from owner misuse, actions, or inactions.
-  Damages caused by abuse, modification, failure to perform normal maintenance, or the use of non-Macavity Arms components. In such cases, customers may opt to pay for the cost of repairs and round-trip shipping for us to perform the necessary service.
-  Any other expense incurred.
-  Parts that experience normal wear and tear.
-  Damages or losses incurred during the transportation.  
Consequential damages, incidental damages, or incidental expenses, including damage to property.

## • WARRANTY CLAIM

A Return Merchandise Authorization (RMA) must be issued before returning the product. Please email us at [cs@macavityarms.com](mailto:cs@macavityarms.com), or contact Macavity Arms customer service number at +1(626)-762-0275 to obtain warranty services and RMA.

Our customer service team operates during regular business hours in PST (Pacific Standard Time). Our regular business hours are from 10AM to 5PM, Monday through Friday, PST (Pacific Standard Time). During this time, our dedicated representatives are available to assist you with any inquiries, provide product information, and address any concerns you may have.

Go online ([macavityarms.com/pages/warranty](http://macavityarms.com/pages/warranty)) to find more information about the warranty.

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