



TIBERIUS

ARMS

MAGAZINE-FED PAINTBALL PISTOL

T8.1



TIBERIUS ARMS TECHNICAL MANUAL

TECHNICAL MANUAL
MAGAZINE-FED PAINTBALL PISTOL

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ARMS

PAT# 6,892,118 PAT# 6,101,909 PAT# 6,410,812 and Patents Pending



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WARNING: This is not a toy. Misuse may cause serious injury or death. Eye protection designed specifically for paintball must be worn by the user and persons within range. Recommend 18 years or older to purchase. Persons under 18 must have adult supervision. READ OWNER'S MANUAL BEFORE USING.

WARNING/LIABILITY STATEMENT

This marker is not a toy and is surrendered by Tiberius Arms, Inc., with the understanding that the purchaser assumes all liability from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. Tiberius Arms, Inc. shall not be liable for personal injury, loss of property or life resulting from the use of this product under any circumstances, including any intentional, reckless, negligent or accidental discharges.

All information contained in this manual is subject to change without notice. Tiberius Arms, Inc., reserves the right to make changes and improvements to products without incurring any obligation to incorporate such improvements in products previously sold.

If you, as a user, do not accept liability, Tiberius Arms, Inc., requests that you do not use a Tiberius Arms marker. By using this Tiberius Arms marker you release Tiberius Arms, Inc., of any and all liability associated with its use.

WARNINGS

Treat every marker as if loaded. Never look down barrel of a paintball marker. Keep finger off trigger until ready to shoot. Never point marker at anything you do not wish to shoot. Keep barrel blocking device in or on marker's muzzle when not shooting. Always remove paintballs and propellant source before disassembling. After removing propellant source, point marker in safe direction and discharge until marker is degassed. Store marker unloaded and degassed in secure place. Follow warnings listed on propellant source for handling and storage. Do not shoot at fragile objects such as windows. Every person within range must wear eye, face and ear protection designed specifically to stop paintballs. Ensure the top face of the sear and outer rim of the firing bolt are free of oil, grease, or contaminants.

CONGRATULATIONS

Congratulations on your purchase of the T8.1 Tiberius Arms Marker!

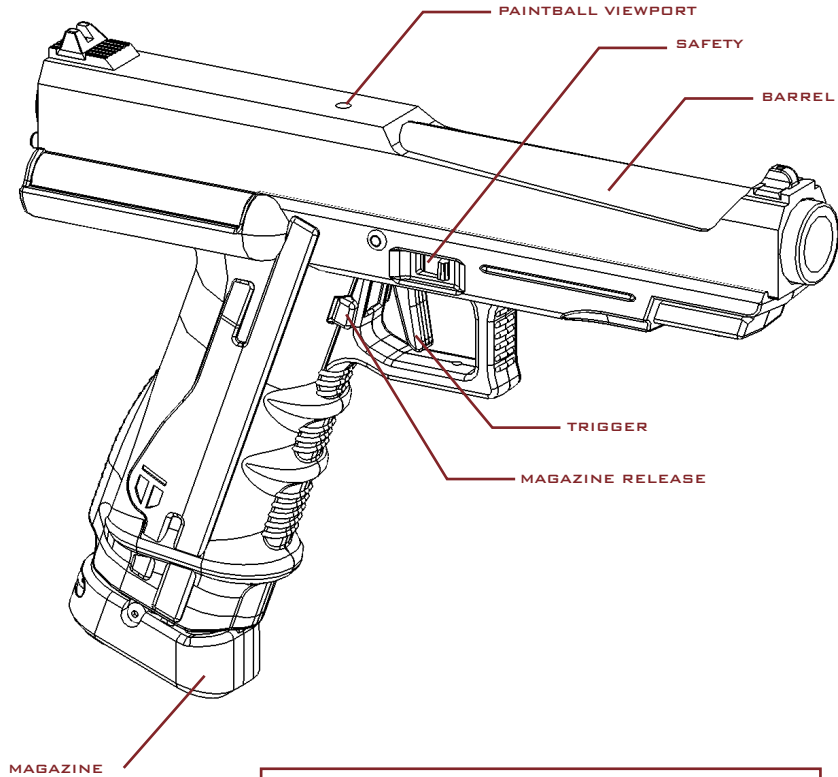
This marker has been designed by Tiberius Arms with reliability, accuracy and durability in mind. When properly handled, the T8.1 will give many years of dependable service.

Please take the time to read through this manual and become familiar with the parts, operation, maintenance, and safety precautions before you attempt to load or fire this marker.

By purchasing this marker, you assume total responsibility for its safe and lawful use. You must observe the same safety precautions as you would with any firearm to assure the safety of not only yourself but everyone around you. The operator should use caution at all times when maintaining and firing this marker.

Do not load or fire this marker until you have completely read this manual and are familiar with its mechanical operation and handling characteristics before use.

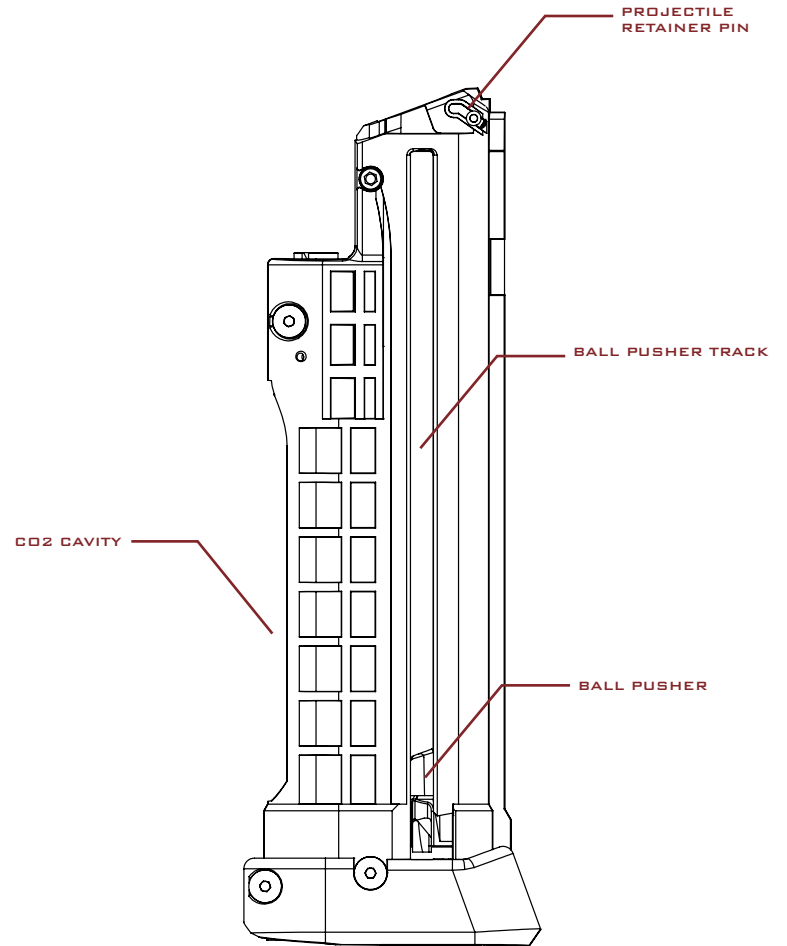
T8.1 PISTOL DIAGRAM



MODEL SPECIFICATIONS

Caliber: .68	Height: 8 inches
Action: Semi-auto	Barrel Length: 6.5 inches
Power: CO2	Weight: 2.7 lbs.
Length: 11 inches	Magazine cap.: 8

T8.1 MAGAZINE DIAGRAM

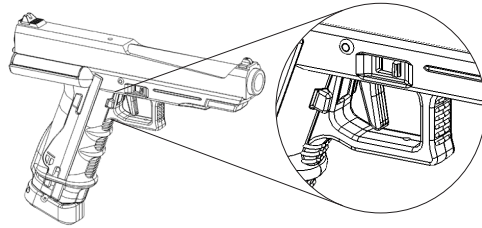


T8.1 OPERATIONAL INSTRUCTIONS

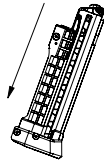
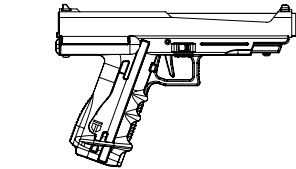
GETTING STARTED

Read this entire manual before using this marker. Keep your marker pointed in a safe direction at all times.

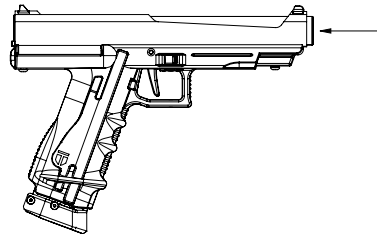
1. **SAFETY** - Place the T8.1 in safe position by moving safety so no red is visible. The safety is ambidextrous and can be operated from either side of the T8.1.



2. **UNLOADING MAGAZINE** - Ensure that there are no projectiles in your marker by placing your hand under the magazine, pressing the magazine release, and pulling the magazine free from the T8.1.



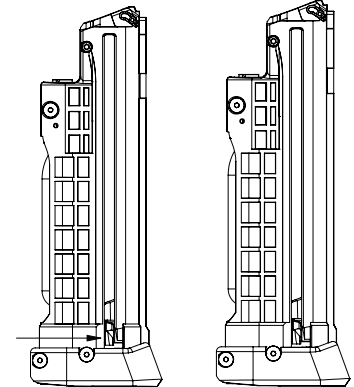
3. **REMOVING THE BARREL** - Ensure that there are no projectiles remaining in the marker by removing the magazine and looking through the grip into the breach. Then you can remove the barrel by pressing on the end of the barrel and rotating in counterclockwise. Note the channel in the barrel and the barrel lock in the receiver as it slides free. To reattach the barrel, line up the channel with the barrel lock, slide the barrel back in the receiver, push on the end of the barrel, and turn clockwise until the barrel locks into place. Pull on the end of the barrel to ensure it is properly seated.



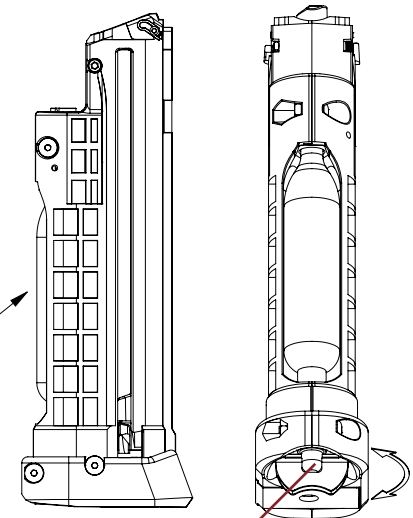
LOADING & CHARGING THE MAGAZINE

1. **LOAD PAINT** - Place 8 projectiles into the magazine from the top. The projectiles will be held in place automatically by the projectile retainer pin. You can also lock the ball pusher in the down position by pulling down on the ball pusher ears and locking them at the bottom of the ball pusher track.

NOTE: For instructions on First Strike please reference page 10.

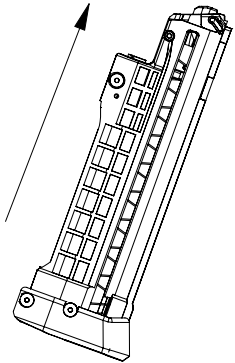
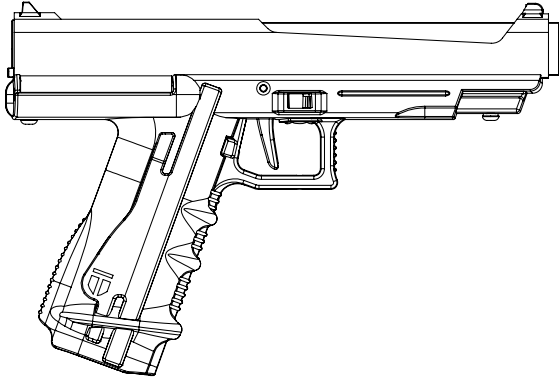


2. **LOAD CO2** - Obtain a 12 gram CO2 cartridge. Insert the CO2 cartridge into the CO2 slot of the magazine with the small end of the CO2 cartridge pointing up and into the puncture pin of the magazine. Next, rotate the flip knob base screw clockwise quickly until the cartridge has sealed.



FLIP KNOB
BASE SCREW

3. **LOAD MAGAZINE** - Place the magazine in the grip of the T8.1 marker with the projectiles closest to the end of the barrel. Once the mag has started into the grip seat it completely until has been secured by the magazine release.



FIRING THE T8.1

1. If the CO2 cartridge has been punctured by the puncture pin and the magazine has been inserted into the gun, then the T8.1 is now ready to fire. Point the T8.1 in a safe direction, rotate the safety so red is visible, and pull the trigger.

NOTE - extra magazines can be carried for quick reloads in the field.

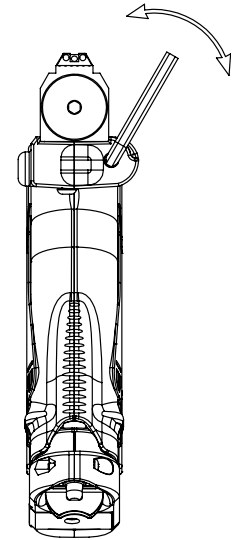
UNLOADING THE T8.1

1. Place T8.1 in the safe mode and point in a safe direction. If all projectiles have been fired, place hand under magazine and press magazine release with other hand. Catch magazine so it does not fall on ground. Visually inspect the magazine well to ensure all projectiles are clear from the T8.1. Visually inspect the projectile view port to ensure all projectiles are clear.
2. If all projectiles have not been fired, follow above procedures but ensure that you turn the T8.1 on its side while removing the magazine. The projectile that is in the chamber will be free and can fall on the ground if the T8.1 is kept in a vertical position. Place your hand under the magazine well and capture the loose projectile as you turn the T8.1 vertically.
3. Pull back on the projectile retainer pin to remove the projectiles from the magazine and turn the flip knob base screw counterclockwise to free the CO2 cartridge from the magazine.
4. Your T8.1 should now be free of any projectiles. Verify the T8.1 is on safe and store in a safe and secure location.

SET VELOCITY

1. Insert a 3/16" Allen wrench as depicted.
2. To increase velocity, turn clockwise. To decrease velocity turn counter-clockwise.
3. Fire once to clear chamber after each adjustment, then measure velocity of the second shot.

SAFETY TIP: Always measure marker's velocity before playing paintball. Never shoot at velocities in excess of 300 ft/s (91 .44 m/s). Recommended velocity is 270 ft/s.



T8.1 CLEANING & MAINTENANCE

CLEANING

Never perform maintenance on a loaded or pressurized T 8.1 marker.

Remove all projectiles and CO2 cartridges from the magazine and marker prior to doing any cleaning or maintenance.

Never use petroleum based cleaning solvents or lubricants.

Do not use cleaning solvents that come in aerosol cans.

To clean the T 8.1 marker, remove the barrel as described in the "Operational Instructions".

Use a .68 caliber soft nylon brush or 12 gauge patch tip with a soft cotton cloth to clean the barrel.

Do not place lubricant or water in the barrel of the T 8.1. It is designed to be used with the barrel completely dry.

Keep the barrel of the T 8.1 dry.

Wipe off any dirt or grime from the outside of the T 8.1 with a dry cloth.



OILING THE MARKER

IMPORTANT: Before performing any of the following instructions, remove magazine. Point marker in safe direction and discharge until degassed.

For optimum performance, do the following monthly:

1. Place one drop of oil between trigger release and trigger rotator. (See Page 14)
2. Remove the regulator spring pad (See page 15) and oil the regulator spring pad O-Ring.
3. Remove the engine assembly (See page 13) and lightly grease the AC Cap O-Ring.
4. Place one drop of oil on CO2 O-Ring found at top of CO2 Valve and Magazine (See page 17).

OPERATIONAL CONSIDERATIONS

If the CO2 cartridge is punctured in a magazine, it should be replaced if the T 8.1 is not used for 24 hours. The operational temperature range for the T 8.1 marker is 37° F to 120°F.

WARRANTY AND REPAIRS

Tiberius Arms Inc is dedicated to providing you with the quality support necessary for the utmost satisfaction of that technology. Tiberius Arms products are crafted with the finest materials and designed for trouble-free performance. We warrant that this marker is found free from defects in materials and workmanship for a period of 1 year from the original date of purchase. Unauthorized modifications alterations, neglect, or abuse of this product voids any warranty. The warranty covers the parts and labor required to repair the product to proper working order.

In the event warranty or other non-warranty related repairs are required, send the product(s) to Tiberius Arms Inc. We strive to complete the necessary repair work within a reasonable amount of time and return it to you via the best shipping method. On claims submitted as outlined, Tiberius Arms Inc. will repair or replace, free of charge, any of its markers that have failed through defect in material or workmanship. For assistance with warranty and repair, call 260-478-2500.

For warranty and non-warranty repair, ship the product(s) to Tiberius Arms Inc. with postage or delivery charges prepaid. Include a brief statement regarding the requested repair, point of contact, return address, and telephone number where the point of contact may be reached during normal business hours. Ship to:

Tiberius Arms Inc.
ATTN: Warranty
2717 Ferguson Road
Ft. Wayne, IN. 46809

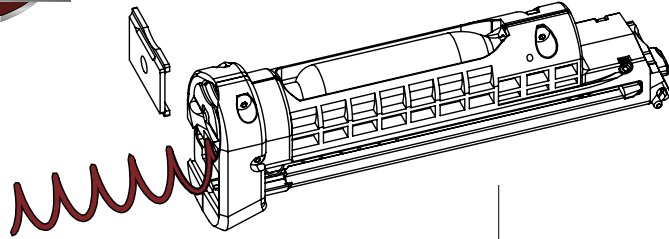
Note: Always unload and remove CO2 or HPA bottles before shipping a marker.

FIRST STRIKE™



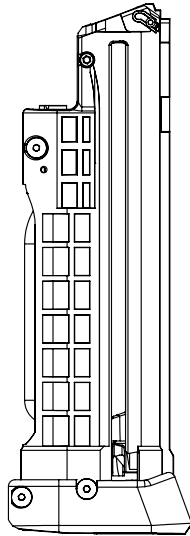
RED SPRING / SILVER SPRING

When using First Strike™ projectiles make sure the red magazine spring is installed. The silver spring is designed for use with traditional .68 caliber paintballs. While the red spring can be used with traditional .68 caliber paintballs its higher tension increases the risk of the paintballs deforming over time.



LOADING FIRST STRIKE

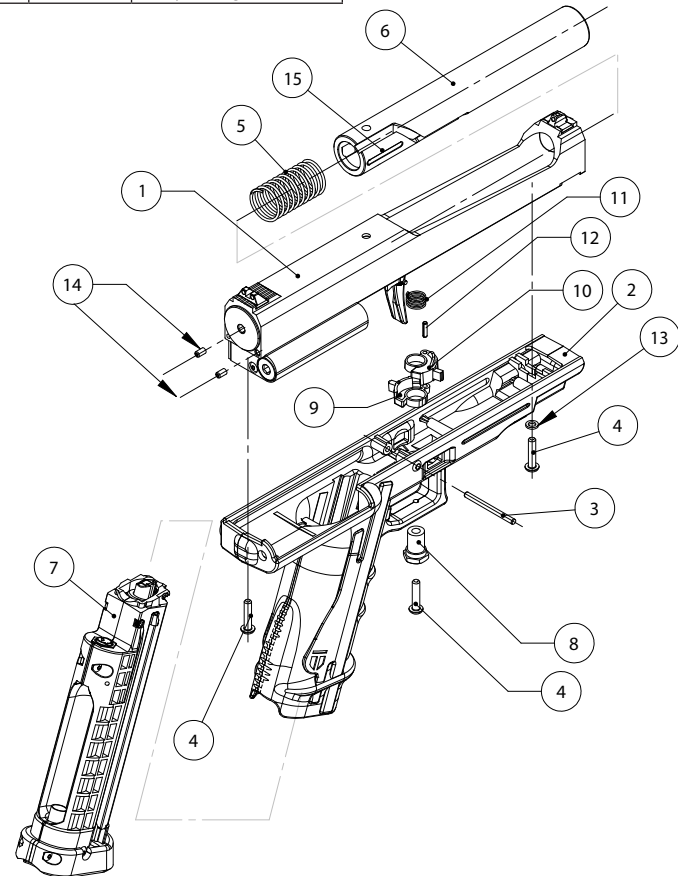
Always load First Strike projectiles so rounded nose exits barrel first. Always chronograph with First Strike before use to ensure velocity is below 300 fps.



T8.1

ITEM NO.	PART NUMBER	NAME
1	81-2000	Gun Body Assembly
2	81-1000	Handle
3	H-D 1/8 1 1/2	Trigger Pin
4	H-B 832 3/4	Handle Screw-Front
5	SPRG01	Firing Bolt Spring
6	81-2321.088	T8.1 FS Barrel
7	81-3120	Magazine Assembly
8	81-1607	Safety Bushing

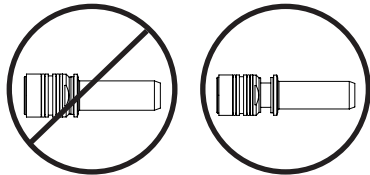
ITEM NO.	PART NUMBER	NAME
9	45-1601	Safety-Left
10	45-1601	Safety-Right
11	SPRG07	Safety Spring
12	H-RP 3/32 3/8	Safety Pin
13	H-WSHR8 F/W	Front Handle Screw Washer
14	H-SSS 632 1/4	Remote Plug Set Screw
15	81-2305.35	Rubber Nubbin



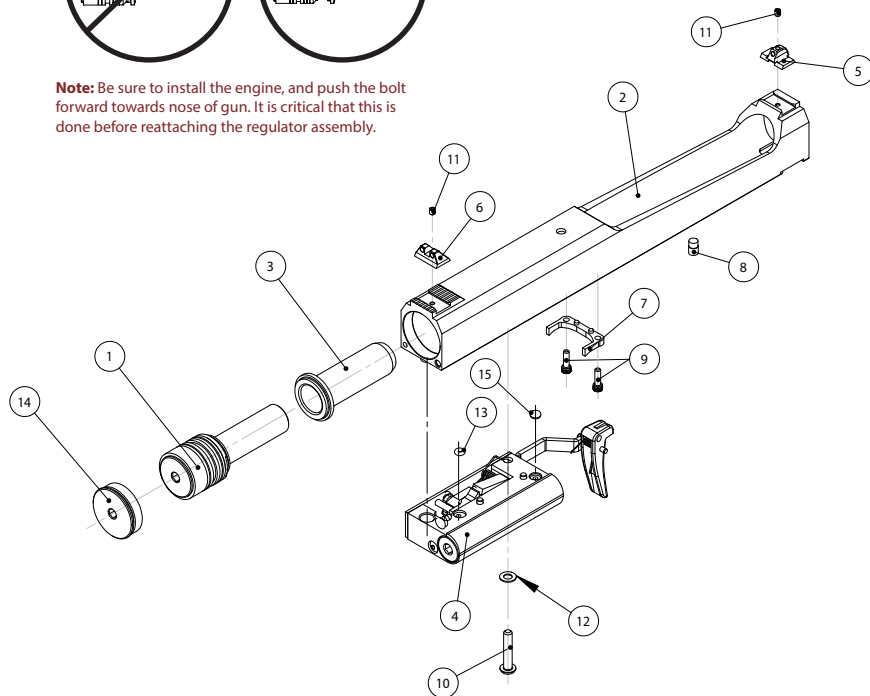
GUN BODY ASSEMBLY

ITEM NO.	PART NUMBER	NAME
1	81-2100	Engine Assembly
2	81-2106	8.1 Gun Body
3	81-2220	Firing Bolt Assembly
4	81-2400	Regulator/Trigger Assembly
5	81-2601	Front Sight
6	81-2602	Rear Sight
7	45-2900	Ammo Release Fork
8	81-2901	Barrel Lock

ITEM NO.	PART NUMBER	NAME
9	H-S 440 5/16	Release Fork Screw
10	H-B 832 7/8	Reg Body Screw
11	H-SSS440 1/8	SIGHT Set Screw
12	H-WSHR 8 T	Reg Body Internal Tooth Washer
13	006-B90	Reg Sealing/Reg Body O-Ring
14	81-2105	Gun Body Cap
15	81-9135	Reg Body Plug

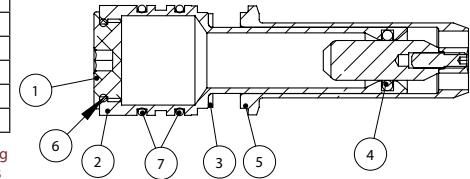


Note: Be sure to install the engine, and push the bolt forward towards nose of gun. It is critical that this is done before reattaching the regulator assembly.

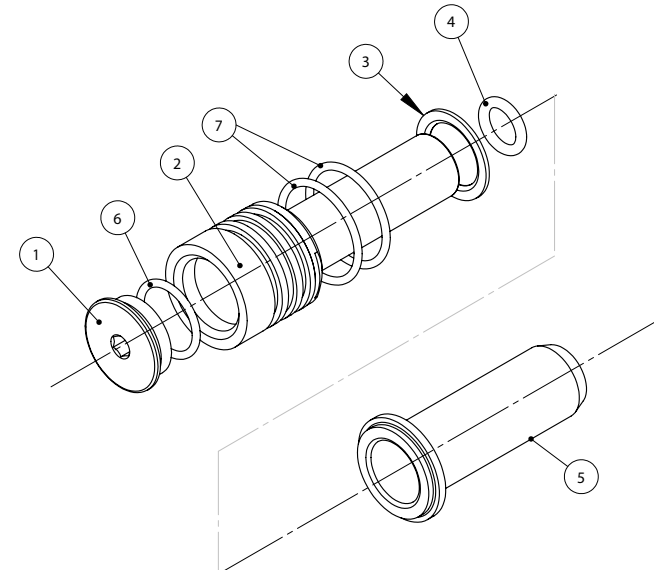


ENGINE & FIRING BOLT ASSEMBLY

ITEM NO.	PART NUMBER	NAME
1	81-2101	Air Chamber Plug
2	81-2104	Air Chamber
3	45-2107	AC Shock Absorber
4	ORNG 110-P70	AC Cap O-Ring
5	81-2221	First Strike Firing Bolt
6	ORNG 019-B70	AC Plug O-Ring
7	ORNG 020-B70	AC OD O-Ring

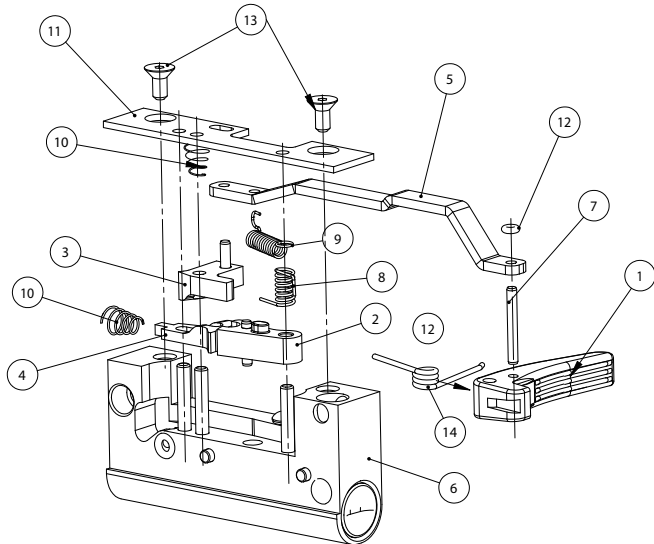
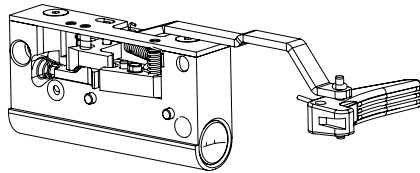


Note: Do not attempt to disassemble bolt and firing pin (Item 5). The alignment is set by factory fixtures and cannot be reassembled outside the factory.



TRIGGER GROUP

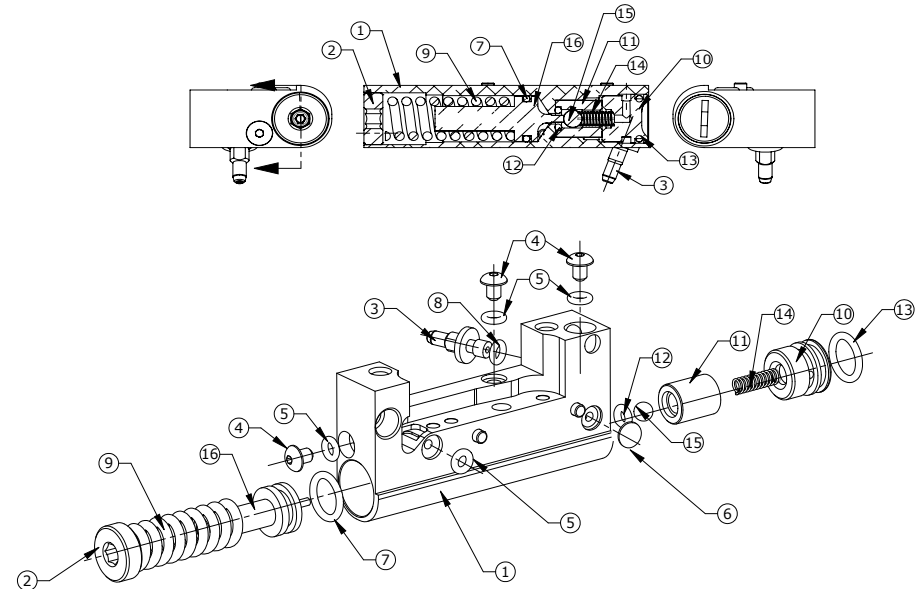
ITEM NO.	PART NUMBER	NAME
1	45-1301	Trigger
2	45-2402	Sear
3	45-2404	Rotator
4	45-2405	Release
5	45-2406	Push Rod
6	81-2501	Regulator Body
7	H-D 3/32 3/4	Trigger Spring Pin
8	SPRG02	Sear Spring
9	SPRG04	Rotator Return Spring
10	SPRG10	Release/Rotator Spring
11	45-2401	Trigger Cover
12	ORNG 003-B70	Push Rod O-Ring
13	H-F 832 3/8	Trigger Cover Screw
14	SPRG54.0	Trigger Return Spring



REGULATOR

ITEM NO.	PART NUMBER	NAME
1	81-2501	Regulator Body
2	45-2506	Regulator Adjuster
3	81-2507 C02	Stem
4	H-B 632 3/16	Regulator Sealing Screw
5	ORNG 006-B90	Reg Sealing/Reg Body O-Ring
6	81-9135	Reg Body Plug
7	ORNG 012-P70	Regulator Spring Pad O-Ring
8	ORNG 006-B70	C02 Stem O-Ring

ITEM NO.	PART NUMBER	NAME
9	SPRG05	Regulator Spring
10	81-2105	Regulator End Screw
11	45-2508	Regulator Valve Sleeve
12	ORNG 006-P90	Regulator Valve O-Ring
13	ORNG 012-B70	Regulator End Screw O-Ring
14	SPRG13	Regulator Valve Spring
15	H-BALL 316	Regulator Valve Ball
16	81-2502	Regulator Spring Pad



NOTE

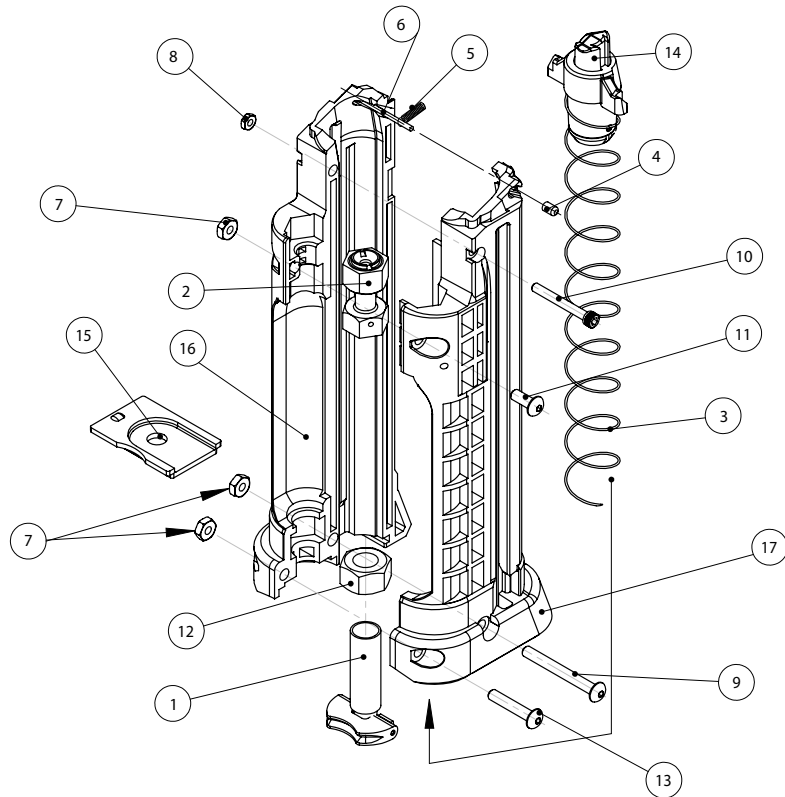
O-Ring #12 is the same size and color as O-Ring #5 on Page 17. This O-Ring is harder than the O-Ring on Page 17.

Relief valve is preset at the factory and is not user serviceable. Consult factory or authorized service center for assistance.

MAGAZINE

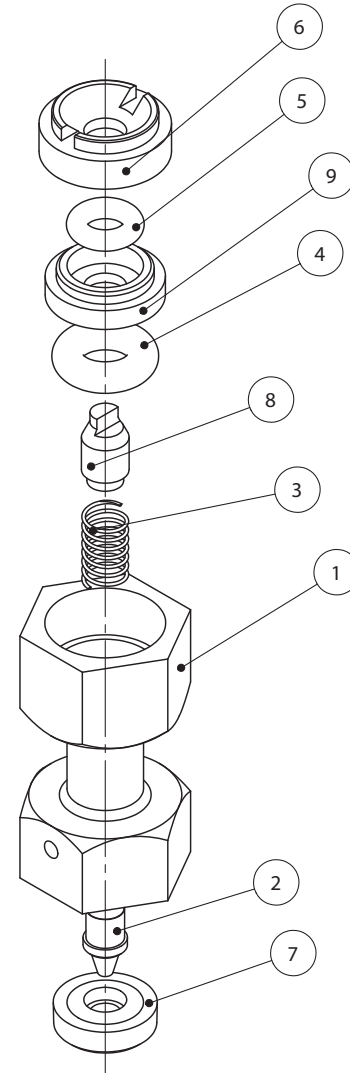
ITEM NO.	PART NUMBER	NAME
1	81-3115	Base Screw
2	81-3200	CO2 Valve Housing Assembly
3	SPRG28	8.1 Magazine Spring
4	45-3111	Retainer Pin Cap
5	SPRG09	Magazine Retainer Spring
6	H-D 1/16 1.08	Mag Ball Retainer Pin
7	H-NUT 632 U	Magazine Body Nut
8	H-NUT 440 U	Magazine UC Nut
9	H-B 632 1 1/4	Magazine Screw-LC

ITEM NO.	PART NUMBER	NAME
10	H-S 440 15/16	Magazine Screw-UC
11	H-B 632 3/8	Magazine Screw-UR
12	H-NUT 3/8 16	CO2 Base Screw Nut
13	H-B 632 3/4	Magazine Screw-LR
14	81-3114	Ball Pusher Assembly
15	81-3123	Magazine Slide Base
16	81-3121.1	Main Magazine Body-L
17	81-3121.2	Main Magazine Body-R



CO2 VALVE HOUSING

ITEM NO.	PART NUMBER	NAME
1	81-3201	CO2 Valve Body
2	81-3206	CO2 Puncture Tip
3	SPRG03	CO2 Valve Spring
4	ORNG 105-P90	Housing O-Ring
5	ORNG 006-P70	CO2 Valve Spacer O-Ring
6	81-3214	CO2 Valve Cap
7	81-3205	CO2 Seal
8	81-3203	CO2 Drum Valve
9	81-3213	Valve Spacer



NOTE

O-Ring #5 is the same size and color as O-Ring #12 on Page 15. This O-Ring is softer than the O-Ring on Page 15.

PAINT BREAKAGE

If you experience more than a small number of broken paintballs, then there are 4 things to check:

1. First, be sure that the marker is free of broken paintballs and other debris.
2. Second, make sure that the barrel is locked in its correct position, and that both detents are installed so that they catch a projectile as it enters the breach.
3. Third, make sure that the red First Strike™ spring is not installed in the magazine (See page 10)
4. Fourth, make sure the marker is set to a reasonable velocity (never over 300 ft. per sec.)

MAGAZINE

If your magazine is leaking CO2, it is coming from one of three seals:

CO2 seal (#7 - Page 17) - CO2 leaks back toward the CO2 Canister

CO2 Valve Spacer O-Ring (#5 - Page 17) - CO2 leaks when the magazine is inserted in marker

Housing O-Ring (#4 - Page 17) - CO2 leaks from the top of the magazine while the magazine isn't inside the gun. If the magazine is leaking slightly from this area, try inserting and ejecting into the marker 2-3 times. This may seat the valve and eliminate the leak.

TRIGGER INSTALLATION

The trigger is equipped with the trigger return spring. When installing the trigger into the grip of the marker, be sure the trigger and both sides of the spring go through the trigger hole in the grip.

BOLT PUSH

When re-assembling the marker be sure to push the bolt forward before installing the regulator. (See note on page 12.) To push the bolt the barrel and bolt spring must be removed from the marker.



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