

PROMASTER SI TOURNAMENT MARKING GUN

SAFETY AND INSTRUCTION MANUAL

LINE SI/SKIRMISH INC.
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FOR WARRANTY AND SERVICE CONTACT
LINE SI MANUFACTURING INC.
9000 SO BLACK CAT RD
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Thank you for your purchase of your new LINE SI paintgun. The accuracy, speed, gas efficiency, and reliability of our tournament marking pistols has made LINE SI products the choice of discerning players since 1985.

Our product line of the 90's continues the LINE SI tradition of manufacturing paintguns designed to meet the needs of players who demand the best. Whether your choice is a Bushmaster, or the semi-auto Promaster, your new LINE SI paintgun has been engineered to the highest quality standards in the industry. With proper maintenance and safe use, it will provide you years of service and enjoyment.

Our philosophy of excellence extends to the field of play, and has resulted in our sponsorship of tournament teams, and the LINE SI MASTERS TOURNAMENT, the largest and longest running international event in Paintball.

LINE SI is committed to your safety. Please read and understand this Owners Manual completely before using your new paintgun; always wear approved goggles, use a barrel plug and observe safe velocity limits. Again, "Thank You" for your purchase.

WARNING

THIS IS NOT A TOY. IT IS TO BE USED BY ADULTS ONLY. IT IS TO BE USED ON IPPA SAFETY CERTIFIED FIELDS ONLY. OBEY ALL LOCAL, STATE AND FEDERAL LAWS. FOLLOW THE RULES OF SAFE PAINTBALL GUN HANDLING. READ ALL INSTRUCTIONS BEFORE USE.

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OPERATING YOUR PROMASTER SI PAINTGUN

Read the entire manual before you prepare your gun for firing. Safety and safe gun handling are the most important aspects of paintball sports.

Please practice each of the following steps with an unloaded gun before attempting to charge your gun with CO2 and paint pellets. Do not load CO2 or paintballs into your PROMASTER SI until you feel completely confident with your ability to handle your PROMASTER SI safely.

MAIN FEATURES AND GENERAL DESCRIPTION

The PROMASTER SI is a quality marking instrument especially designed to meet the needs of the professional "masters style" tournament player.

Available in a deluxe model, with a variety of barrel lengths, the PROMASTER SI is a semi-automatic action, direct fed, bore-drop marking device. Major components of the PROMASTER SI are machined from solid aircraft quality aluminium, thereby providing high tensile strength and resistance to corrosion, in a light weight package.

TOUCH-TRIGGER PULL

The PROMASTER SI is a "true" semi automatic paintgun. There is no pump or manual cocking device. When the trigger is pulled, the paintball is fired and the gun is automatically re-cocked and made ready for the next trigger pull. It can be repeatedly fired with only one hand.

NON-WELD CONSTRUCTION

All's well that ends welds. Welds can distort and fatigue metals. LINE SI was the originator of the non-welded construction in paintball guns. It keeps their bores and feeds round and true. Semi Automatics take a great pounding. Line SI has built its PROMASTER SI with this in mind. There are no hot welds to distort or cold welds to crack along joints and air lines.

BORE-DROP DIRECT FEED

LINE SI was the manufacturer that created the Bore Drop, non-welded direct feed for paint marking pistols. This much imitated LINE SI/Bushmaster SI feature allows for a more reliable feeding of paintballs with less possibility of ball pinching or cutting by eliminating the feed lip found on breach drop type marking devices.

HARD ANODIZED FINISH

The PROMASTER SI is the first paintball gun to address durability by hard anodizing its main components. This gives your paintgun a real gun look and feel and an extremely hard protective coating, BOTH internally and externally.

MODULAR AND INTEGRATED COMPONENTS

LINE SI has always made easy access paintguns. We were the first paintgun manufacturer to produce a completely field strippable gun without the use of tools. While our PROMASTER SI does need tools to strip it down, one screw frees the entire barrel housing, exposing the bolt; one screw removes the entire barrel assembly; one screw releases the trigger guard and allows the guard to be hinged open for sear and trigger access; one screw allows the removal of the entire air system.

SIMPLE VELOCITY ADJUSTMENT

The PROMASTER SI offers three options in adjusting the velocity. The first is a dial for everyday (or game) use. The second are spring changes for seasonal and weather changes. The third is the variable exhaust port system in our valve housing.

SOFT FOREGRIP

The PROMASTER SI comes with a neoprene fore grip that gives the two handed shooter a place to grip while steadying the aim.

LINE SI DELUXE BARRELS

The PROMASTER SI comes with a removable barrel system. This feature allows the user to select the length that is most suitable for the playing conditions. All barrels are mirror-honed and available in 8, 11 and 14 inches. NOTE: These barrels will interchange with the barrels that LINE SI uses on their Bushmaster SI. SI barrels set the standard for accuracy by which all other paintball guns are judged.

MODIFICATIONS

Your PROMASTER SI is a Tournament Quality marking device. It has been used successfully to win money in major tournaments around the world. Modifications are not necessary.

OPERATING YOUR PROMASTER SI PAINTGUN

PREPARING TO FIRE

Read the entire manual before you prepare your gun for firing. Safety and safe gun handling are the most important aspects of paintball sports.

Please practice each of the following steps with an unloaded gun before attempting to charge your gun with CO2 and paint pellets. Do not load CO2 or paintballs into your PROMASTER SI until you feel completely confident with your ability to handle your PROMASTER SI safely.

1) Keeping your finger out of the Trigger Guard and away from the Trigger, point the Muzzle of your gun in a safe direction during this entire process.

2) Push the Safety Button to the "S" or safe position. This will prevent the Trigger from traveling its full range, thereby preventing contact with the Sear.

NEVER depend entirely upon your mechanical safety, you may forget to set it properly! ALWAYS KEEP YOUR PROMASTER SI POINTED IN A SAFE DIRECTION. ALWAYS USE A BARREL PLUG.

POWER SOURCES

Your PROMASTER SI uses CO2 as a propellant. The Air System Adapter (ASA) will accommodate constant air cylinders, equipped with pin valves, in 3.5, 7, 10 and 20 ounce sizes. SIPHON TANKS, or other means of introducing liquid CO2 into the air chamber, ARE NOT RECOMMENDED. It is also possible to use a 12 Gram Cartridge System with your PROMASTER SI.

CO2 SAFETY

Pressurized Carbon Dioxide gas is a refrigerant. It can freeze exposed tissue. Do not put hands or face near a CO2 leak. Do not handle a CO2 container or valve body that is leaking or has frost on it.

Improperly assembled, filled or handled constant air cylinders are extremely dangerous. The amount of propellant involved makes these cylinders potentially lethal, and only experienced, knowledgeable players should consider using them.

Consult the place where you purchased your PROMASTER SI or a recognized and competent airsmith for instruction in the safe handling of "CA" cylinders before purchasing or connecting one to your PROMASTER SI.

It is important to note that with a 12 Gram System a pressurized 12 gram can fly out of the cartridge changer causing injury. Do not loosen the knob or lever on a quickchange until all CO2 is expelled.

Never store CO2 near a source of heat. Avoid leaving CO2 cartridges or bottles in sun or hot automobiles. High temperature causes CO2 to expand and internal pressures can increase to dangerous levels causing containers to explode.

LOADING CO2

Before pressurizing your PROMASTER SI with CO2 check and make sure that you have set the Cocking Bolt by pulling it back until it locks into position. If this is not done the CO2 might leak or hiss down the barrel.

The Air System Adapter (ASA) can now be threaded to facilitate either a Constant Air Tank or a 12 Gram Cartridge System. Screw either system into the ASA. When you screw in a Constant Air Bottle, the gun will become pressurized (or charged) and ready to be fired immediately! For 12 gram installation follow the procedure prescribed by the manufacturer.

LOADING PAINTBALLS

Your PROMASTER SI comes equipped with a 140 round loader by Sight Feeder. Fit the elbow over the direct feed. Always twist it down in a CLOCKWISE direction. Always twist it off in a CLOCKWISE direction as well. The PROMASTER SI uses .88 caliber, water soluble paint pellets. Pour the pellets into the Sight Feeder. The pellets are gravity fed from the Sight Feeder, through the direct feed nipple and into the bore.

TO FIRE YOUR PROMASTER SI

1) Keeping your finger out of the Trigger Guard and away from the Trigger, point the Muzzle of your gun in a safe direction during this entire process. Remove barrel plug.

2) Push the safety button to the "S" or safe position. This will prevent the trigger from traveling its full range, thereby preventing contact with the Sear.

NEVER depend entirely upon your mechanical safety, you may forget to set it properly! ALWAYS KEEP YOUR PROMASTER SI POINTED IN A SAFE DIRECTION.

3) Grasp the pistol grip. Face your target and without touching the Trigger, push the safety to the "F" or FIRE position. Align your sight and squeeze the Trigger.

4) If additional shots are not to be made, immediately push the safety to the "S" or SAFE position. To make additional shots, repeat the above process.

NOTE: Your PROMASTER SI will not fire unless it is charged with CO2. It will however, feed and chamber a ball when the Trigger is pulled. If you chamber a ball before charging the gun, remove the Barrel Extension and pop the ball free.

TO UNLOAD YOUR PROMASTER SI

1) Keeping your finger out of the Trigger Guard and away from the Trigger, point the Muzzle of your gun in a safe direction during this entire process.

2) Push the safety button to the "S" or safe position. This will prevent the trigger from traveling its full range, thereby preventing contact with the Sear.

NEVER depend entirely upon your mechanical safety, you may forget to set it properly! ALWAYS KEEP YOUR PROMASTER SI POINTED IN A SAFE DIRECTION.

UNLOADING CO2

NOTE: Improperly handled CO2 cylinders are extremely dangerous if handled improperly.

Remove the constant air tank by unscrewing the cylinder from the ASA. Make sure you are unscrewing the cylinder AND pin valve from the ASA. If you are actually separating the cylinder from the pin valve, STOP IMMEDIATELY and re-tighten. Call first, and then see, an authorized airsmith immediately.

As you unscrew the cylinder and valve together, there will be a hissing sound. After 2 complete turns, stop and let the hissing stop. This should bleed the system. WARNING: pressurized CO2 can cause the cylinder to fly off the ASA. Wait until hissing (escaping gas) has stopped before removing cylinder

If it does not stop, you have a bad valve. Let it hiss itself to completion, while still in the ASA, and consult your local dealer or airsmith.

UNLOADING PAINT

Unload by removing all paint from your Sight Feeder. Turn gun upside down to remove any pellets in the direct feed nipple.

MAINTENANCE AND BASIC RITES OF PASSAGE.

CAUTION: Before attempting to perform any maintenance operations or any gun disassembly, make sure that all paint pellets and sources of CO2 have been removed from the gun. Insert the Barrel Plug, push the Safety to the "S" position and keep the gun in its "SAFE" mode.

Your PROMASTER SI has been made with the tournament player in mind. Its major components are hard anodized, aircraft quality aluminum. Many of the internals are aircraft quality heat treated carbon steels, and stainless steels that have been additionally hardened by being heat treated at over 1150 degrees Fahrenheit. This means that your PROMASTER SI has been built to withstand the pounding that you put your paintgun through.

Simple Maintenance

By simply keeping your PROMASTER SI clean and lubricated, you will reap more pleasure with your new purchase.

To Clean Paint From Your Barrel

Loosen the Barrel Retention Screw and pull Barrel forward. This is quick and easy and can be done on the field. To remove the Housing (part with direct feed) and the Barrel in order to clean the bolt tip, remove the 8-32 Speedwheel that is found on the front side of the Railmount. Slide out Housing. For further exposure of the bolt (MAKE SURE YOU HAVE REMOVED THE CO2 SOURCE) pull the Trigger. This releases the Hammer and exposes more of the Firing Bolt. **(NEVER PULL THE TRIGGER WITH THE D/F HOUSING OUT OF THE GUN, WHILE THE GUN IS CHARGED WITH CO2)**

NOTE: Good lubrication and keeping your PROMASTER SI free from dirt is critical to the smooth function of your paintgun. We have provided a slot cover to keep most dirt away from the Hammer. Keep the Hammer lubed with a light gun oil. DO NOT OIL the Delrin-Tipped Firing bolt or allow oil to seep into the barrel. LINE SI recommends a Teflon or silicone based lubricant. Petroleum based lubes will attack plastics. (Note: an easy way to lubricate the entire gun and its orings, spray or drip your favorite lube into the ASA, and then screw your charged bottle in the ASA.)

Be sure to lubricate forward of the hammer. It may be necessary to remove the ASA, bolt and hammer assy to lube this area.

To remove the hammer and firing bolt for repair or maintenance.

The hammer and firing bolt move in sync and are held together by a Link Pin. To remove all 3 pieces intact, first remove the upper bumper by unscrewing the side cap screw. Remove the ASA. DO NOT REMOVE THE ASA SCREW UNTIL YOU HAVE REMOVED YOUR CO2 SOURCE FROM THE GUN! There is one 8-32 socket head screw that holds the ASA to the paintgun body. Be careful not to lose the small o-ring when you remove

the ASA. This o-ring seals the air passage hole. Just in case, there is another one in the parts kit included with every gun.

Next remove the cocking bolt. The main spring and lower bumper will fall out allowing the Hammer, Link Pin and the Firing Bolt to come out in one piece. The alignment between the Hammer, Firing Bolt and Link Pin is critical to the smooth operation of the Promaster SI. The Link Pin is held in position by a small set screw in the back of the Firing Bolt. Loctite can be used if the set screw works loose. The Link Pin should be flush with the top of the Firing Bolt. The Hammer rides free on the Link Pin.

To re install the Hammer, Link Pin and Firing Bolt, lubricate the chambers and the parts and insert them in the rear of the gun. When pushing the parts through, the Hammer will resist by contacting the Sear. With pressure exerted to the Hammer, pull the Trigger and the Hammer will slide past the Sear Catch. Reattach the Cocking Bolt and upper bumper.

When reinstalling the ASA, put the Main Spring and Lower Bumper on the Spring Guide and make sure the o-ring is positioned properly. Check ASA bolt regularly for loosening.

To Change Valve Spring, Cup Seal or VALVE housing

Remove Valve End Plug. A quarter can be used as a good removal tool as it fits the slot. The Valve Spring, the Cup Seal and the Valve Pin assembly come out freely. The valve spring can be changed quickly. The Cup Seal must be unscrewed from the Valve Pin by using a small adjustable end wrench on the Valve Pin flats and pliers on the Cup Seal. Note: it is possible to remove the white seal from the cup and either replace it or flip it over. A pin may help you get it out but dont push it all the way through. There is an extra seal in your parts kit.

To Remove the Valve Housing

It should be rare that you remove this part. More than likely you will rotate it only-see velocity adjustment. With the Valve Housing well lubricated insert a tool in the center of the Valve Housing and put it in to one of the air orifices. A Flash light will show you the orifices. Spin the tool, rotating the Valve Housing. BE CAREFUL NOT TO MAR THE VALVE SEAL CONTACT RING.

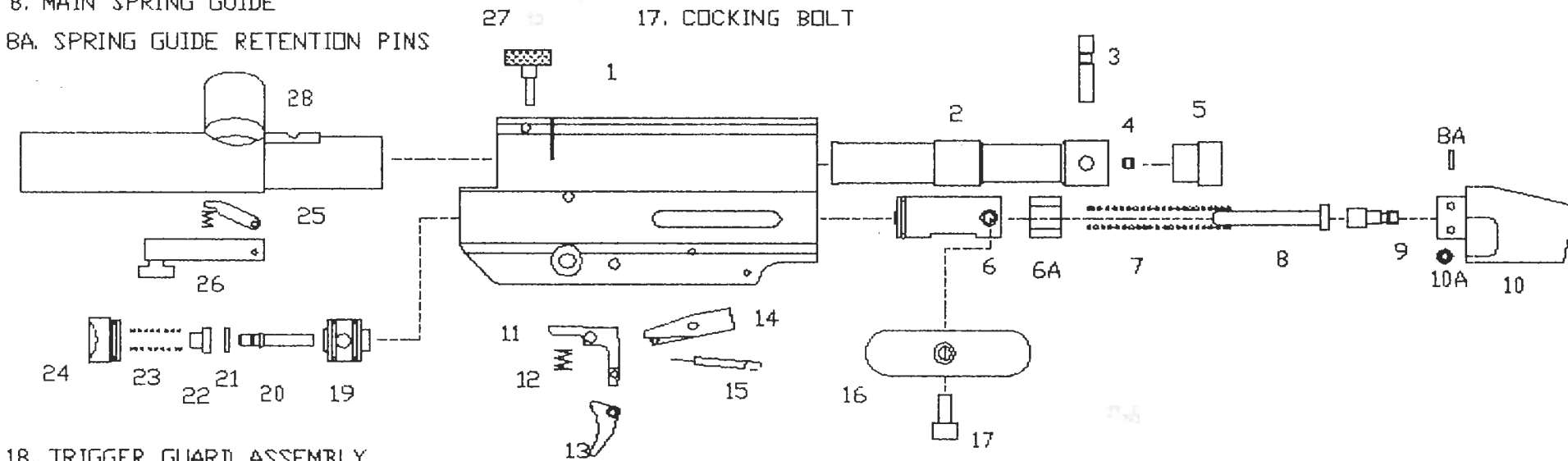
TRIGGER HOUSING MAINTENANCE

The Trigger Housing on your PROMASTER SI has been designed to hinge open with the removal of one bolt and the Trigger Shoe. When hinged open, it exposes the Trigger Return Spring, Sear Spring, the Trigger and the Sear. You can replace these springs and examine the Sear, Trigger and Sear Catch for wear and movement. Lubricate lightly

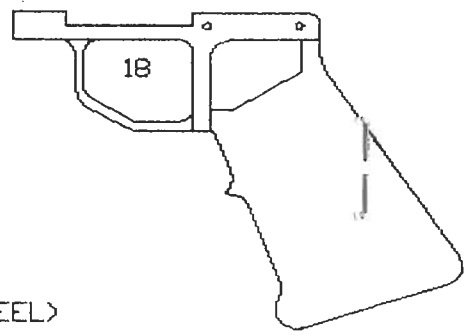
- 1. MAIN HOUSING
- 2. BOLT ASSEMBLY
- 3. BOLT/HAMMER LINK PIN
- 4. LINK PIN SET SCREW
- 5. UPPER OR REAR BUMPER

- 6. HAMMER
- 6A. HAMMER BUMPER
- 7. MAIN SPRING
- 8. MAIN SPRING GUIDE
- 8A. SPRING GUIDE RETENTION PINS

- 9. SPRING ADJUSTMENT SCREW (VELOCITY)
- 10. AIR SYSTEM ADAPTOR (ASA)
- 10A. OOD6 AIR PASSAGE O-RING
- 11. TRIGGER
- 12. TRIGGER RETURN SPRING
- 13. TRIGGER SHOE
- 14. SEAR
- 15. SEAR SPRING
- 16. DUST COVER
- 17. COCKING BOLT



- 18. TRIGGER GUARD ASSEMBLY
- 19. VALVE HOUSING
- 20. VALVE PIN #2, OR #4
- 21. VALVE SEAL
- 22. VALVE SEAL CUP
- 23. VALVE SPRING
- 24. VALVE END PLUG
- 25. BALL RETENTION LEVER
- 26. P.I.T.A. BLOCK
- 27. SNUB RETENTION SCREW (SPEED WHEEL)
- 28. PROMASTER SNUB



Once your PROMASTER SI has been stripped down to its main components, cleaning and lubrication can easily be accomplished. A clean rag dampened with isopropyl alcohol will remove all paint residue from the external surfaces of your PROMASTER SI and from the Bolt and Hammer. You may wish to spray alcohol into the Barrel and clean it with a squeegee and foam swab.

STORAGE AND TRANSPORTATION

Your PROMASTER SI must be clear of all paint and CO2 when not being used. Keep the safety on "S" or "SAFE". Plug the Barrel. Store your PROMASTER SI away from excessive heat in a clean, dry place. Keep your PROMASTER SI away from children. THIS IS NOT A TOY! TO BE USED BY ADULTS ONLY!

Your PROMASTER SI must be clear of all paint and CO2 during transportation to and from the playing field. Keep your barrel plugged, the Safety on "S" or "SAFE" Protect your PROMASTER SI from excessive heat during transportation. Obey all local, state and federal laws concerning the transportation of your PROMASTER SI. For information concerning any of the laws in your area, contact your local IPPA representative.

IMPORTANT: Never carry your PROMASTER SI un-cased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish the difference between a paint marking device and firearm. For your own safety and to protect the image of the sport, always carry your PROMASTER SI in a suitable gun case or in the box in which it was shipped.

If you must ship your PROMASTER SI for any reason, the box in which you purchased the gun is acceptable to all major carriers. Never ship charged CO2 containers.

REGULATING VELOCITY

Your PROMASTER SI has been pre-set at the factory to shoot approximately 275 feet per second. However, because of the various factors that affect the performance of all CO2 powered paint marking devices, your PROMASTER SI may have to be adjusted to meet velocity standards in your area. Never guess at your gun's velocity. Always chronograph your PROMASTER SI before playing or after making any adjustments to your gun.

Time out for theory

In the Promaster SI the immediate source of CO2 is held in a reservoir between the Valve End Plug (24) and the Cup Seal (21/22). As the Hammer hits the Valve Pin assembly the cup seal opens and the CO2 is released through the Valve Housing. Some of the CO2 goes up through a valve port and expels the paintball out of the gun and the rest of the CO2 expands to blow back (re-cock) the Hammer. How much CO2 is released and how it is divided through the valve port, determines what velocity the gun will shoot and how efficiently it will recock. The Promaster SI allows you to control this CO2 distribution in a number of ways. How hard the hammer strikes the Valve Pin is determined by the main spring tension. How long the valve pin assembly stays open governs how much of the CO2 is used and this is determined by the valve spring tension. How much of the CO2 volume goes to expelling the paintball and how much is used to recock the Hammer is determined by which valve housing port is being used and what size valve pin is regulating the Hammer blow back.

MAIN SPRING ADJUSTMENT

The tension on the Main Spring can be easily regulated by using the Adjustable Velocity Regulator built into the back of the Air System Adapter (ASA).

- 1) Make sure that the CO2 source have been removed from the gun.
- 2) Inside the ASA is an adjustment screw. Using the 5-32 Allen tool, turn CLOCKWISE to INCREASE velocity (and the tension on the main spring) or COUNTER-CLOCKWISE to LOWER velocity. The adjustment screw has 4 full turns of play. Be careful not to force this screw to far. There is a small o-ring, that if abused, can cause a leak through the adjustment screw. Lubricate this screw and oring regularly.
- 3) Re-attach the CO2 source.
- 4) Chronograph your PROMASTER SI to be sure that you are shooting within safe and legal limits.

VALVE SPRING ADJUSTMENT

The Valve Spring tension makes a difference in your velocity and this method should be used for seasonal or major velocity changes. A color coded valve spring kit is provided with your PROMASTER SI purchase.

- 1) STOP! READ WARNING BEFORE CONTINUING ON TO NEXT STEP! Make sure that the CO2 source has been removed from the gun.
- 2) Remove End Cap. See SIMPLE MAINTENANCE. Find spring and exchange. A harder spring will tune down your gun (lower velocity) and a softer spring will tune up your gun (raise velocity).
- 3) Replace End Cap.
- 4) Chronograph your PROMASTER SI to be sure that you are shooting within safe and legal limits.

VALVE PORT ADJUSTMENT

In the Valve Housing, reached through the End Cap, there are four ports, all of different diameters, all letting through volumes of CO2, depending on which port is up.

The Valve Housing can be rotated to position the different size exhaust holes. The smaller the aligned hole, the less gas will be used to shoot the ball and generally the lower will be the velocity. SEE THEORY. The Valve Port adjustment should often be done in conjunction with the Valve Pin Adjustment.

Valve Pin Adjustment

The side cuts of the Valve Pin Assembly determine how much CO2 will be used to recock the hammer. Either a 1 pin or a 2 pin is installed in the Promaster SI. To change pins see MAINTENANCE section. By reducing the CO2 to the hammer you can increase your velocity. The 2 pin lets more CO2 by than the 1 pin. Changing the Valve pin is often done in conjunction with the Valve Housing adjustment.

WARNING: After making any performance changes to your PROMASTER SI, BE SURE TO CHECK THE VELOCITY OF YOUR GUN BY HAVING IT CHRONOGRAPHED BY A COMPETENT AIR-GUNSMITH.

Do not rely upon inaccurate and dangerous methods of judging velocity like listening to the report of the gun or "watching how hard it hits". The only way to be sure your PROMASTER SI (or any paintgun) is shooting at safe velocities is to have it properly chronographed.

Always wear approved goggles and ear protection when using this paintgun. Always use a Barrel Plug when not on the playing field and actively participating in a game. Your safety and that of others depends upon proper handling and precautionary measures to insure that accidents do not happen. PLAY IT STRAIGHT-PLAY IT SAFE!

STATEMENT OF LIABILITY

This air gun is delivered by us with the express understanding that Line SI/Skirmish Inc., Line SI manufacturing, Inc. assumes no responsibility for its resale or safe handling. It can be considered a dangerous weapon if mishandled, abused, instructions are ignored, or the factory adjustment tampered with. Line SI/Skirmish Inc., Line SI Manufacturing Inc. assume no responsibility for physical injury or property damage resulting from its use.

THE IPPA

The International Paintball Players Association is the only recognized sanctioning and safety organization for Paintball. LINE SI actively supports the IPPA and recommends that all players become involved in the future of Paintball by joining this organization. Information about IPPA programs, fields in your area, legal issues and more can be obtained by writing or calling the IPPA.

INTERNATIONAL PAINTBALL PLAYERS ASSOCIATION
P.O. Box 90051, Los Angeles, CA 90009

LINE SI LIMITED WARRANTY

Line SI/Skirmish Inc., and Line SI Manufacturing Inc. warrants the replacement of any original part due to defect in materials and/or workmanship of this LINE SI airgun. This warranty shall continue in full force and effect for six(6) months, for parts, and twelve(12) months for labor, following the date of purchase. Such purchase to be documented by original sales slip or other proof of purchase by such owner.

Line SI Manufacturing Inc. will replace without charge any original part that is determined by Line SI Manufacturing Inc. to be defective under the terms of this warranty. However shipping charges are not covered hereunder. Claims under this warranty must be made through Line SI Manufacturing Inc. or an authorized Line SI airgun dealer, who also must install the replacement part. To locate an authorized Line SI dealer, call (303) 442-8904, or (208) 888-8130.

Failure due to accident, abuse, neglect, normal wear, improper fit, maintenance by other than an authorized Line SI dealer, or use of parts inconsistent with the use originally intended for the airgun as sold, is not covered by this warranty.

There are no other warranties or guarantees, expressed or implied, made by Line SI/Skirmish, Inc., or Line SI Manufacturing Inc. on this airgun.

The sole and exclusive liability of Line SI/Skirmish, Inc., Line SI Manufacturing Inc., and/or its authorized dealers, affiliates or agents pursuant to this warranty shall be for repair or replacement of the defective part; incidental or consequential damages are expressly excluded hereunder.

Line SI/Skirmish, Inc., Line SI Manufacturing Inc., its authorized dealers, affiliates or agents shall not be liable under this warranty, nor under any state or federal law, or the common law or otherwise for any damage or failure, including personal injury, resulting from such use and/or alteration. This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state.

For warranty / service contact:

Line SI Manufacturing Inc.
9000 S. Black Cat Rd.
Nampa, Id. 83687
(208) 888-6130

TROUBLE SHOOTING

LEAKS

SYMPTOM-The Promaster SI has a leak down the barrel.

Reason-CO2 is leaking through or around the valve housing

Possible Solutions:

1-Can you hear the leak when the CO2 is removed?

Yes? There is no leak. You hear the ocean.

2-CO2 bottle has virtually no gas left and there is not enough pressure to close the cup seal. Refill your bottle.

3-The cup seal is marred or worn out. Replace it.

4-The o-rings on the valve port are dried out. Lubricate directly or by squirting a spray lube in the ASA and charging with CO2. This will shoot the lube through the entire gun and reestablish the seal.

5-The o-rings on the valve housing are worn out (not too likely). Pull valve housing and replace o-rings.

6-The sealing surface on the valve housing is scratched or gouged. Replace the valve housing.

SYMPTOM-The Promaster SI has a leak around the ASA seam.

Reason-The seal between the ASA and the Housing is bad.

Possible Solutions:

1-Tighten ASA screw.

2-Check and/or replace small buna o-ring.

SYMPTOM-The CO2 leaks into the hammer slot from the ASA, or comes from the middle of the gun.

Reason-The CO2 is leaking by the adjustment screw o-ring

Possible Solutions:

1-Back off the screw as its o-ring is pinched (turn counter-clockwise).

2-Lubricate by squirting a spray lube in the ASA and charging with CO2. This will shoot the lube through the adjustment screw and reestablish the seal.

3-Replace o-ring. To replace the oring, remove the ASA from the gun. The spring guide (part that looks like a nail) is held in place by 2 roll pins, remove these pins, pull out the spring guide, unscrew the adjustment screw, replace the oring, and reassemble.

RECOCKING

SYMPTOM-The Promaster SI won't recock. Does not beat down, just stops forward.

Reason-Lack of CO2 pressure getting to the hammer.

Possible Solutions:

1-You are out of CO2 or the bottle is ice cold from a fresh fill.

2-The valve pin is coupled with one of the two large valve ports. This means that more of the CO2 is being used to expel the paintball, and not enough CO2 is left to recock the hammer.

3-Hammer chamber is dry. Lubricate by squirting a spray lube in the ASA and charging with CO2.

4-Be sure the link-pin is securely fastened in the upper bolt.

SYMPTOM-The Promaster SI won't recock. It beats down, or cycles multiple times before recocking.

Reason-Too much CO2 pressure getting to the hammer.

Possible Solutions:

1-The valve pin is coupled with a small valve port allowing too much gas to the hammer. This causes the hammer to slam so quickly that it knocks the sear rather than engage it. Turn up the valve port or change to a less-sided valve pin.

2-Liquid is getting into the valve. Get rid of your siphon bottle, or tune the gun specifically for liquid usage (not recommended). Also it has been brought to our attention, that some bottomline systems have a tendency to induce inconsistent volumes of gas and liquid alternately, causing the gun to act erratic.

3-All of the above could cause the gun to wear out the hammer and sear prematurely. Check the engagement shoulders and see that they are not chipped or rounded.

Reason-A binding between the firing bolt and the hammer.

Possible Solutions:

1-A good alignment of the hammer, firing bolt and link pin is necessary for smooth movement through the housing. The link pin is held in position in the firing bolt by a set screw in the back of the upper bolt. Sometimes this set screw loosens allowing the link pin to either drop into the hammer or ride up above the bolt. Either situation can cause drag and mess up your recock. Use red Loctite on the set screw to assure its security. It is also important that the hammer pivot fairly freely around the link pin.

Reason-The hammer and/or sear contacts are worn.

Possible Solutions:

1-Replace Hammer and/or sear.

Reason-The sear spring is worn out.

Possible Solutions:

- 1-Replace the sear spring.

BALL BREAKAGE

SYMPTOM-The paintballs break in the barrel.

Reason-The paint is old, poor quality or swollen.

Possible Solutions:

- 1-Change paintballs

Reason-the ball-retension lever is not working properly.

Possible Solutions:

- 1-The lever spring may be tweaked, and need replacement.

Reason-The gun is over tuned.

Possible Solutions:

- 1-Rebalance your CO2 usage with a 1 or 2-sided valve pin and a smaller valve port jet. In certain conditions a large port jet releases too big a volume of CO2 and its rapid expansion can blow out the back of the paintball.

- 2-Liquid is getting into the valve. Get rid of your siphon bottle, or tune the gun specifically for liquid usage (not recommended). Also it has been brought to our attention, that some bottomline systems have a tendency to induce inconsistent volumes of gas and liquid alternately, causing the gun to act erratic.

SYMPTOM-The ball breaks in the breach.

Possible Solutions:

- 1-The valve in your loader can bind, messing up your trigger timing. Note the ball drop through the elbow.

- 2-As you run and shoot, you actually unweigh the gravity fed balls in your loader. This can cause a ball to hesitate in its drop. This affects your trigger timing.

- 3-If the ball-retension lever does not move freely, the paintballs can crush against it. Check it's tension regularly.

- 4-If the detent arm is too sloppy, the ball will not be held in the proper position. This may allow the next ball to enter the path of the firing bolt, subjecting itself to shearing, Check the detent spring regularly.

- 5-Slow down your trigger finger. Paintballs will only drop so fast, 3 to 4 balls a second on an average. Watch your timing.

- 6-Know your loader. Remove your loader from the gun, and fill it with paintballs, point the feed tube down and just see how many balls will continue drop from the loader without having to shake the loader.