



Instruction Manual

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SAFETY

THIS PAINTBALL MARKER IS NOT A TOY! This paintball marker should be treated as a dangerous instrument and should always be treated with respect. Never point a paintball marker at anyone not properly attired. This paintball marker can cause serious bodily injury including, but not limited to, blindness or even death. Please read all safety instructions and directions in this manual *before* using this paintball marker. **Always wear approved safety goggles or an approved mask whenever you handle this paintball marker!**

Do not point or shoot this paintball marker at animals. Do not point or shoot this paintball marker at any person unless you and your target are engaged in paintball activities and are wearing proper safety gear including approved paintball goggles, mask, and pads. Never shoot anyone at close range! Never load this paintball marker with anything except approved paintballs. Never put anything down the barrel except paintballs, barrel squeegees or barrel plugs. Do not attempt to repair this paintball marker by yourself. Follow all maintenance instructions carefully. If you are unsure about any aspect of the maintenance procedures contact your local dealer or Airgun Designs, Inc. at (847) 520-7225.

This paintball marker is always armed and cocked when an air supply is installed. Always engage the safety (located behind the trigger on the grip) and use an approved barrel plug when an air supply is attached or installed. Disengage the safety and remove the barrel plug only when on a playing field, the game has started and all players are wearing proper safety gear. When the red ring of the safety pin is showing, the safety is off and the paintball marker *will* fire.

Always chronograph this paintball marker before using it. Never shoot this paintball marker when the chronograph readings exceed 300 fps! There is a blow-off valve incorporated into the valve mechanism that will release air pressure if pressure exceeds a predetermined amount. This blow-off valve is factory set and is not user adjustable. Remember to wear proper approved goggles or masks when chronographing your paintball marker.

Prior to disassembly remember to wear approved safety goggles or masks to prevent accidental injury. Never point the paintball marker at anyone or anything that could be injured or damaged, if shot. Always remove the air source from the paintball marker and dry fire in a safe direction before disassembling. The velocity adjusting nut is on the back of the regulator body. Do not disassemble the velocity adjusting nut while the paintball marker is under pressure. If air is leaking out the back of the velocity regulator nut the paintball marker is over-pressurized and will shoot at a higher velocity than intended. Reduce the regulated pressure by backing off the velocity regulator nut and re-chronograph the paintball marker. If problems persist call your dealer or Airgun Designs, Inc. Do not put your fingers into the breech area, down the ball feed tube or barrel while firing the paintball marker; serious injury could result.

The pressure regulator allows gas under pressure to push the trigger forward after shooting. An excessively hard trigger pull indicates over pressure in the system. Do NOT fire a paintball marker that has excessive trigger pull; call your local dealer or Airgun Designs, Inc. immediately.

COMPRESSED AIR ONLY

Your AUTOMAG RT is designed to run on compressed air only! It will not function at all on CO₂ no matter what hoses, expansion chambers, etc. you use. We recommend that you purchase a high-quality 3000 psi compressed air tank and regulator for your AUTOMAG RT. The maximum input pressure to the paintball marker should be above 600 psi and less than 1000 psi for best performance. Pressures over 1000 psi will damage the regulator and reduce performance.

FAST START

This is a quick overview of how to use the AUTOMAG RT for the experienced player. Introducing air pressure to the paintball marker will charge and cock the system. The system is a blow forward from open bolt, similar in concept to a cork in a champagne bottle.

The barrel utilizes a twist lock mount; a one-quarter twist is all that is required for full lock. The velocity adjustment nut is on the back of the valve body and requires only one turn to adjust from 200 to 300 fps. Air venting out of the back of the regulator indicates that the internal blow-off valve is responding to over pressure in the system and the velocity should be turned down.

Field stripping is accomplished by unscrewing the knurled bolt underneath the frame while the bottle is off. **THE TRIGGER MUST BE PULLED TO SLIDE THE VALVE BODY OUT.** There is a locking pin for alignment in the regulator body which allows the valve body to only come out part way before you must twist the valve body clockwise to continue sliding out the back. Reinstall in the same manner. Once removed, the entire valve and bolt assembly is available for cleaning.

Maintenance on all active o-rings can be accomplished without tools.

When adjusting the velocity regulator, dry fire the paintball marker several times before chronographing to allow the regulator piston and spring to seat properly. Always start below your intended velocity and work your way up. When firing the paintball marker, it's important to remain aware of how many balls are in your loader. If the quantity runs too low the slight blowback past the bolt will bobble the balls in the feed tube, thus preventing a positive ball feed. This increases the likelihood of ball breakage.

Always use fresh, high-quality paintballs. The blow forward action aggressively pushes the ball into the barrel before firing and we have found that lower grades of paint cannot withstand the acceleration.

FIRST TIME PROBLEMS

There are several first time problems to watch out for. Many times the paintballs will not feed because the recoilless design does not juggle the loader. You must remain aware enough to keep the balls feeding. We recommend that you use an agitator type loader to keep the balls feeding.

Next, the bolt can stick forward causing the trigger to lock due to either paint chips wedging between the bolt and breech or, when degassing the paintball marker, caused by turning off the tank and shooting those last few blooping shots. When the bolt sticks forward the trigger will not come forward. Remove the barrel and push the bolt back until the trigger clicks forward.

The paintball marker will give very little indication that it is running out of gas; by the time you see the velocity drop you are 20-30 shots away from total shutdown. Additionally, if you use a compressed air tank with an on/off valve make sure you open it all the way.

PERFORMANCE

Take-up is the movement of the trigger before it comes in contact with the sear, after sear contact continuing to pull through fires the paintball marker. The trigger in the AUTOMAG RT has been designed to have a "snap" action with no take-up to give the shortest possible stroke and, therefore, the highest possible firing rate. The average person can fire 4-5 shots per second but, when charged with adrenaline, this can climb to 6 per second.

LUBRICATION

We find that customers who properly lubricate their paintball markers once a week have the fewest problems. To lubricate your AUTOMAG RT, drip 6 drops of AUTOLUBE into the back bottle adapter. Then gas up and dry fire the paintball marker several dozen times with the barrel removed to prevent oil build-up in the barrel.

VELOCITY ADJUSTMENT

The velocity of your AUTOMAG RT is adjusted by increasing or decreasing the regulated pressure. This is accomplished by turning the regulator adjusting nut located on the back of the regulator body. Only a minimal amount of rotation is necessary to adjust the velocity. We recommend that you always start at a low velocity setting and continue to screw the adjustment clockwise up to your desired setting.

Always shoot several shots to seat the regulator piston and spring. High velocities will cause the blow-off valve built into your system to vent air out the back of the regulator body. If you ever hear air venting, stop and re-chronograph the paintball marker immediately. We found the best performance to be in the 270-280 fps range. Occasionally grease the threads of the velocity adjusting nut.

CLEANING

Always remember to wear approved safety goggles or mask when cleaning your paintball marker. To quickly clean the paintball marker without disassembly simply use a bucket of clean water and swish the paintball marker body in it WHILE THE PAINTBALL MARKER IS FULLY PRESSURIZED! Keeping the paintball marker pressurized keeps the water out of the internal workings of the valve body. After every hard use a paintball marker should be taken down and all the exposed parts cleaned and inspected for wear or problems. Lightly lubricate all surfaces and re-assemble according to instructions.

PAINTBALLS

There are many different kinds of paintballs on the market, all with different specifications. The one thing that is consistent is that low quality paintballs will perform poorly in the AUTOMAG RT. Always use fresh, high-quality paintballs and try many different types and colors to find the best type suited for your paintball marker and playing conditions.

A common problem that we are all concerned about is ball breakage. There are two ways balls break in your paintball marker: first, because the ball did not feed all the way into the breech and was cut in half by the bolt; this is addressed in the LOADER section and is not a concern here. Second is the impact from the air blast. Our trials show that a properly setup paintball gun shooting quality paint will break approximately 3-4 paintballs per thousand. In comparison, low quality paint will break 1 in 50. A good test for shell strength is to drop several hundred paintballs one at a time from a height of 6 feet. Balls that consistently survive 6-7 bounces are considered fresh; balls that break within 3 bounces are either stale or have weak shells.

If you know the paintball gun is setup properly and you still experience problems, switch to a different brand or color and try again.

LOADER

The ViewLoader VL 2000™ is the only loader currently approved for the efficient and effective use of your AUTOMAG RT. Always keep at least twenty balls in the loader when fast firing. This will keep the balls from being blown up into the loader from the bolt blowback. The blowback WILL help the balls feed when the hopper is full.

Ball breakage is common with first time users of the AUTOMAG RT due to the recoilless action and the tendency of the balls to hang in the loader. Become aware of the need to shake the paintball marker to keep the balls flowing and listen for the balls bobbling telling you to reload. If you find that the balls are cut in half in the breech, look at the loader or your technique. Or, consider using an agitator type of loader.

Some elbows used with the ViewLoader will require smoothing out on the inside for maximum flow; make sure that there are no sharp corners or edges to catch balls on. The most reliable firing method is tri-burst until you become accustomed to keeping the balls feeding.

NUBBIN

The AUTOMAG RT has a dual nubbin barrel to prevent double feeding. The wire nubbins will automatically compensate for all size balls and should give long life if they are not abused. When properly installed, each nubbin should protrude about the thickness of a matchbook cover into the breech.

BLOW-OFF VALVE

The blow-off valve is self contained in the regulator piston and is not user adjustable. It is a safety device for venting air from the paintball marker should abnormally high pressure occur in the regulator or air chamber. Always check your velocity any time the blow-off valve has vented.

ACCESSORIES

Airgun Designs has a variety of add-on products for your paintball marker, including left-hand models. Airgun Designs also carries hats, t-shirts, patches, gun cases, and other promotional items; please call us at (847) 520-7507 if you would like a product brochure and price list. Call your local dealer for information on ordering a factory customized AUTOMAG RT.

TECHNICAL SUPPORT

Please refer to this manual and/or the instructional video for basic information about your AUTOMAG RT. If you have questions about your AUTOMAG RT, please call our Technical Support staff at (847) 520-7225. Our technical support staff is available Monday through Friday between the hours of 9:00 a.m.-11:30 a.m. and 1:00 p.m.-4:30 p.m. (Central Time).

Please call us before you send your paintball marker to us for repair! Our Technical Support staff might be able to solve your problem over the telephone. If your paintball marker needs to be returned to us for repair we need to verify that you have registered your AUTOMAG RT by mailing in your Warranty Registration card, that we have your current address and telephone number on file, and that you are aware of our warranty repair policies and our usual turnaround time.



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