

AM-P ILLUSION OWNER'S MANUAL



WARNING: The paintball marker, which you have purchased, is not a toy. Misuse or carelessness may cause serious injury or death. Eye protection designed specifically for paintball use must be worn to prevent injury. Read the Owners Manual before using.

Misuse of this paintball marker, including but not limited to vandalism, may result in criminal penalties.

Use only goggles which are designed for paintball use. Goggles which are not specifically designed for paintball use will not withstand the multiple impacts of paintballs fired from a semi-automatic paintball marker.

Never work on your marker without disconnecting the air supply.

Do not carry a paintball marker in public, unless it is concealed within a carrying case.

Do not use this marker if your safety has become damaged or excessively worn out.

Table of Contents

Warranty Policy.....	4
Safety.....	5
Features of the AM-P Illusion.....	6
Quick Start.....	7
Hints and Tips.....	8
Performance.....	9
Maintenance.....	10
Support.....	13
New Products and Updates.....	18

WARRANTY POLICY

What It Covers

We take pride in making quality parts for all of our products. We have put a great emphasis on ensuring that the marker, which you have purchased, is made to high standards of quality. In some very rare cases, something may have gone wrong in the process of making and delivering the marker. We offer this warranty to you in order to ensure that you get what you paid for – a high quality, high performance paintball marker.

We offer a 90 day limited warranty from the date of original retail purchase. The purpose of this warranty is to ensure that you get the high quality product, which you paid for. The warranty covers parts, labor, manufacturing defects or malfunctions. We will also cover any aftermarket accessories which are manufactured by Action Markers and are designed for use on the AM-P Illusion. In other words if there is something wrong with the marker which was in any way our fault, we will fix the problem at our cost.

What It Does Not cover

We at Action Markers are fans of paintball and play the sport as often as possible. We also know the frustration that sometimes accompanies the sport. We cannot afford to warranty any of the actions which may accompany this frustration. If you feel the absolute need to throw your paintball marker at the tree which didn't offer enough cover, you do so at your own expense. We also do not offer any warranty for accidents such as automobile accidents or a house fire. Any use of the marker other than that which it was intended, such as playing baseball with it, will also not be covered by the warranty. Any 3rd party modification or aftermarket accessory which causes a problem will not be covered. The presence of a 3rd party accessory does not void the warranty if the accessory was not the cause of the problem. Finally we do not cover any cosmetic scratches, normal wear and tear, or any damages caused by attempted modification of the marker.

Why?

In deciding the policies for this warranty we were faced with two somewhat conflicting desires. We want to be able to sell our marker for as low of a price as possible. We also want to be able to give the best service to our customers. We feel that the warranty policies which we have made give the best value to the most people

Return Authorization

In order to process your repair work as fast as possible we require you to call us and get a return authorization (RA) number before you send your marker in. This number allows us to begin processing the order even before we receive your marker so that we can fix it and return it to you quickly. We will not accept any packages which come in without an RA number on them. Any package without an RA number written clearly on the outside of the package will be returned to the sender.

Technical Support

We recommend that you look on our website for technical support. It is available twenty four hours a day, seven days a week, and doesn't take off holidays. We will regularly post new information on the website and your question may already be answered there. If you are unable to find what you need at our website. If you need to call us have your serial number ready so that we can find your information on our computers quickly. It will also help if you have sent in your warranty card.

SAFETY

THIS PAINTBALL MARKER IS NOT A TOY!! This paintball marker should be treated with respect. Never point the marker at a person who is not properly attired with a mask on. While paintball as a sport has a very low injury rate, if the marker is misused or not properly maintained, it can cause serious injury, including blindness, or even death. Please read and understand all safety instructions and directions contained in this manual before using this paintball marker.

Adult supervision is recommended at all times whenever a minor is handling this paintball marker.

Never point at or shoot any animal with this paintball marker. Never point at or shoot this paintball marker at any person, unless both you and your target are participating in paintball activities and are both wearing proper safety attire. Proper safety attire includes approved paintball goggles, mask, gloves, and pads.

Follow all maintenance instructions carefully. If you have any questions regarding maintenance procedures, contact your local dealer or if your dealer is unable to answer your question, call Action Markers directly.

Any time you have an air supply connected to your marker, it is assumed to be armed. **NEVER RELY ON THE SAFETY ALONE AS A FAIL-SAFE DEVICE.** Before connecting your air supply push the safety into the on position where the safety pin is flush with the side of the receiver marked 'PUSH SAFE'. In addition to the safety on the marker, a barrel plug should be used any time you are not actively playing. Disengage the safety and remove the barrel plug only when you are on a playing field and the game has started. The safety is off and your marker is ready to fire when the safety pin is protruding from the side of the receiver marked 'PUSH SAFE'.

A chronograph should be used to check your paintball's velocity before using your marker. Ensure that your marker is firing at velocities lower than 300 feet per second before playing. Never shoot this paintball marker if the chronograph reading is higher than 300 feet per second. Velocity adjustments should never be done on the playing field. All changes in velocity should take place between games and be checked with a chronograph.

Remove the air supply from the paintball marker and dry fire in a safe direction before disassembling the marker. Do not put your fingers in the breech area or down the ball feed tube while firing the paintball marker. Never shoot at any target closer than ten feet.

Only fire this marker where it is safe and legal to do so. Do not fire at any place of residence or at any building not specifically designated as part of a paintball field.

Never look down the barrel when it is connected to the marker. If you need to clean the barrel disconnect the air supply and field strip the marker before cleaning.

If your safety pin is worn out or loose for any reason, take your marker into your nearest dealer or service center to be repaired. Never use a damaged marker.

FEATURES OF THE AM-P ILLUSION

We have placed a great emphasis on designing the AM-P Illusion to be the marker that players will want. We at Action Markers have played the sport of paintball for years and have used almost every kind of marker available. We took our collective experiences and combined that with a designer who has been making paintball markers for 17 years. The end-result is the AM-P Illusion.

The AM-P Illusion has been designed from the ground up to be the players marker. We have milled both the upper and lower receiver out of solid aluminum to gain the strength to keep the marker in top shape. We only use state-of-the-art machines to make the AM-P Illusion. The hammer and sear are both made out of Stainless Steel to reduce the amount of wear. The AM-P Illusion is a high quality, precision marker that will easily withstand the high level of abuse that is standard to a paintball marker.

Of course the marker is only good while you can still shoot it. Using a uniquely designed valve chamber, specially selected springs for exactly the right tension, and a light upper bolt, we have made the AM-P Illusion use a minimal amount of air to reach the desired velocity. The end result is an amazingly high air efficiency.

To complement the air efficiency, we have made the trigger pull as light as possible. The motion is fluid throughout the length of the trigger pull so there is no jarring motion which will cause a shot to fly erratically. We have also made our trigger pads wider than most to be more comfortable on your fingers. A wider trigger pad means that the force of pulling the trigger back is spread across your entire finger, reducing soreness that may accompany shooting thousands of paintballs.

Paintball can be a messy sport. From paintballs exploding on the bunker next to you, to an emergency dive behind a tree which lands your in a mud-puddle, there are many ways for your marker to get dirty. Any sort of foreign object inside of your marker can damage it very quickly. A small amount of dirt inside the upper chamber can shred the upper bolt. We have tried to eliminate the possibility of anything. Our first step to fight the dirt is to limit the amount that gets inside the marker. We have found that when landing on the ground or rolling away from an opponent dirt can get into the marker through any openings on the side of the marker. We took this knowledge, and have designed a seamless design were it will be very hard to get any dirt into this marker.

Eventually, no matter what the design of the marker is, something will get inside the marker and you will be forced to clean it. The cleaning of a marker has been among the top of our personal frustrations with many markers. We have designed the AM-P Illusion to be able to be 'field stripped' in a matter of seconds. It is a process of pulling the connecting pin out and the pulling the upper bolt out.

We know how much fun playing pump can be so we went back and looked at a few things. Like the feed tube, you used to have to by 2 or 3 markers to be able to go from stock class to conventional and so on. So we made are feed tube thread in and that gives us plenty of options like a 10 round tube, 15 round tube, a hopper, and you can even use plastic 10 round quick loaders. If you are interested in playing stock class (The strictest form of pump play) call us and we can help you get your marker set up.

QUICK START

This section is a quick overview of how to use the AM-P Illusion. When you are ready to play, first attach the barrel to the body of the marker, Grasp the front Shroud and gently push it back until the hammer is caught by the sear, and then let it fall forward to it's natural resting point. The marker is now cocked. Connect an air supply to the marker. The AM-P Illusion will perform well with CO₂, Nitrogen, or Compressed Air.



The AM-P Illusion will accept any standard ball hopper and we offer a 10 round and 15 round feed system. Attach the loader to the feed tube on the top of the marker (always turn the hopper clockwise while you are attaching or removing the hopper) and fill the loader with paintballs. Push the safety pin in, until ready to fire. You are now ready to fire your marker.



To field strip the AM-P Illusion first remove any air supply from the marker and fire once or twice to remove any air which may still be in the marker. Remove the connecting pin at the rear of your marker and slide the upper bolt out of the marker. You now have access to the upper chamber and upper bolt for cleaning. If you need to clean the hammer for any reason, loosen the rear grip frame screw and slide the beaver tail out. Second unscrew the Cocking Knob. Remove the 4 screws around the Front Grip, and slide the assembly out the rear. This will allow you to unscrew the Hammer bushing and remove the Hammer. To Re-assemble just follow the instructions in reverse.





**** Note – The Upper bolt should always have two holes pointing downward and one pointing upward. If the upper bolt is upside down the marker will not be able to shoot.

Velocity adjustment is done by turning the velocity screw which is located on the front of your marker just under the barrel. This adjuster is accessible through the hole in the front of the Shroud. To increase the velocity turn the screw counter-clockwise and to decrease the velocity turn the screw clockwise. One full revolution of the screw will change the velocity significantly so be sure to re-check the velocity after any adjustments. Fire several shots before re-checking your velocity as the pressure may not stabilize immediately. You will want to be sure that your paintball velocity is less than 300 feet per second. Most fields are strict with this rule and you may not be allowed to play if you are shooting too fast.



As a quick tip – many people have found it easiest to adjust the velocity by fully turning the velocity screw into the marker and then adjusting it out until the velocity is up to speed.

Always use high quality paintballs. Lower quality paintballs will break more easily and will not fly as accurately as high quality paintballs.

HINTS AND TIPS

Paintballs are inherently inaccurate. A paintball is moving relatively slow, under 300 feet per second, and has a relatively high surface area that wind can hit. The paintballs themselves, with a solid exterior and a liquid filled interior, are likely to develop a curve in the air. Learn to adjust to the playing conditions of the day. A good idea is to fire multiple shots and aim from where the first one hits.

Getting into a pattern is sometimes hard to do but here is one way to think about it after each shot try this.

- Pull Back Front Grip

- Pull Forward Front Grip
- Wait until you see a target in your sights.
- Pull Trigger
- Repeat until the other team is completely eliminated.

The trick is in the timing of the pumping action to the pulling of the trigger. With some practice you will be able to get extremely quick.

Play Hard. Put everything you have into the game. Don't be afraid to get hit, even the best players will get shot on occasion. If you are worried about it hurting there is protective gear available.

Teamwork is the key to most victories. Rambo won't win a lot of paintball games. Learn to work with your selected team of friends. When you have a good system down with your friends and you can communicate your intentions nearly telepathically, learn to play with a group of people that you have never met before. Accept different roles and don't expect to always be the team captain.

Tell all of your friends and co-workers about the sport of paintball. It is generally more fun to play with people that you know, and it's a good stress reliever to be able to shoot your co-workers too.

Above all else play fair. Don't try to wipe the paintball off of your shirt before the ref sees you. Don't adjust your velocity mid-game. Paintball has received some negative publicity because the markers look so much like real weapons. We need to work together to keep paintball a clean, safe, and fun sport. Please don't ruin the experience for the other players.

PERFORMANCE

The AM-P Illusion should get over 700 shots from a full 12 oz. CO₂ tank out of the box. From a 12 gram CO₂ cartridge we regularly get over 30 shots. Any modifications, such as changing the barrel, will change this number. Weather conditions may also affect the air usage. The paint itself plays a large factor in air efficiency – the better the paint matches the internal diameter of the barrel the better your air efficiency will be.

Cold weather will have a dramatic affect on performance when using CO₂. Any Temperature below 50° will lower the tank pressure and may not supply enough pressure to the marker for adequate velocity. If you will be playing in cold conditions often we recommend using a high-pressure system such as compressed air or nitrogen.

The barrel, which is included in with the AM-P Illusion, is designed to accommodate all of the standard sizes of paintballs and should work fine with any of the major paintballs on the market. We recommend that you use higher quality paintballs to get the best performance. Performance may also be enhanced by a barrel which is specially fitted for a specific size of paintball.

Do not double load the barrel with two paint balls by pulling the front grip back twice and firing once. This will cause the paint balls to brake in the marker

The velocity adjustment screw is coupled with a volume chamber. This volume chamber allows the AM-P Illusion to use the air more efficiently, providing you with an increased amount of shots for the same amount of air.

If you are using CO2 it is important to remember that the gas is what should be shooting the paintballs – not the liquid CO2. We recommend purchasing an in-line expansion chamber if you are having any problems with CO2.

MAINTENANCE

** Many of the concepts listed here are talked about in other parts of the manual. Use this as a concise way of finding reference information. **

Lubrication

Lubrication is a key element to proper maintenance. When you fire the AM-P Illusion the moving parts are slowly being worn down. Lubrication slows this process. To lubricate your AM-P Illusion properly first remove any air source from the marker. For day-to-day use, just put 4 to 5 drops of synthetic oil in the bottom line. Then connect an air source to the marker and fire it 4 to 5 times to get the oil thru it to keep the o-rings from leaking. There are no o-rings on the Upper Bolt and the Hammer.



For monthly lubrication remove the upper Bolt and the Hammer Assembly (see the Quick start for assembly instructions). Lubricate the Sear and the Trigger thru the lower chamber and lubricate the Upper Bolt and the Hammer Assembly.



Velocity Adjustment

To adjust the velocity of your AM-P Illusion you must raise or lower the volume of air released. This is done by turning the velocity adjustment screw located just under the barrel on the front of the marker. You must use the allen wrench that came with your marker and insert it through the hole in the front grip until it fits into the velocity screw. Turning the screw clockwise decreases the velocity. A turn counter-clockwise increases the velocity.



When changing the velocity of your AM-P Illusion be sure to fire several shots to make sure that the setting is locked in. We have found the best performance of the AM-P Illusion is reached when the marker is firing at around 280 feet per second.

Air Tanks

The AM-P Illusion is designed to work great with all air tanks made for paintball use. We recommend using compressed air or Nitrogen for the most consistent velocity.

Field Stripping

To field strip the AM-P Illusion first remove any air supply from the marker and fire once or twice to remove any air which may still be in the marker. Remove the connecting pin at the rear of your marker and slide the upper bolt out of the marker. You now have access to the upper chamber and upper bolt for cleaning. If you need to clean the hammer for any reason, loosen the rear grip frame screw and slide the beaver tail out. Second unscrew the Cocking Knob. Remove the 4 screws around the Front Grip, and slide the assembly out the rear. This will allow you to unscrew the Hammer bushing and remove the Hammer. To Re-assemble, just follow the instructions in reverse.



Cleaning

To keep your marker in top condition it should be cleaned anytime you have used it. To clean it properly, remove any air supply from the marker and fire once or twice to remove any air remaining. Remove the barrel from the front of the marker and clean separately. Pull the connecting pin out. Slide the upper bolt out of the rear of the marker. Then run a squeegee through the top chamber to ensure that there is no paint in

the chamber. Examine the upper bolt and remove any traces of paint there as well. Remove the hammer assembly as described in the Field Stripping instructions above. Look for any paint or dirt which may have worked it's way down to the bottom chamber and gotten on the hammer.



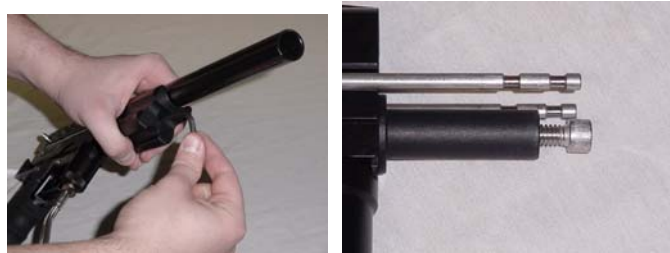
Transportation

Whenever transporting your marker, be sure to use a carrying case to prevent any wear and tear. We feel that all wear and tear should happen in the course of an actual paintball game. Dropping your paintball marker on the sidewalk shouldn't be a concern that you worry about. The box that your marker came in doubles as a nice case already. As a reminder, never transport your marker in the open in public. Not everybody can recognize it as a paintball marker.

Adjusting Your Timing:

First we will start with setting your Illusion to factory Standard.

1. Unscrew the Velocity Screw all the way out so the hammer can go all the way forward. (removing the front grip will help you to see if it is all the way out).



2. Loosen the Cocking Knob so that it moves freely.
3. Push the Cocking Knob forward. If it touches the spacer in-between the Cocking Knob and the Back Block, then the Cocking Knob is threaded to far forward and start backing it away from the marker. There should be 1/16 of an inch of space between the Cocking Knob and the rubber spacer when the Cocking Knob is pushed all the way forward.



4. Now tighten the setscrew in the cocking knob down while holding on to the Cocking Knob so that it does not spin.
5. Thread the velocity screw in until the marker shoots under 300 FPS



Note: You will notice that after the velocity screw is threaded back in you can not push the cocking knob in as far as it was. Do not readjust the Cocking Knob with the Velocity Screw threaded in – this will put your upper bolt too far forward and may not let your paint fall properly into the marker.

Your upper bolt is also affected by this timing adjustment. By moving the Cocking Knob too far forward you can prevent paint from loading properly. By moving the Cocking Knob too far back you can double load the paint and prevent the marker from cocking properly, or at all.

SUPPORT

The following is a list of the most common problems you may have with paintball markers, along with their most common solutions. The list is not intended to be comprehensive. If you are having a problem which is not listed, please refer to www.actionmarkers.com. We will be posting new and updated Support issues through our website. If your concern is not resolved through the website then call your dealer or call our technical support number listed under contact information.

Leaks at tank connection

Bad tank o ring – Replace the O-Ring on the tank

Damaged tank adapter – Replace the Tank adapter

Poor accuracy

Wet or oily barrel – Clean the barrel out with a dry squeegee. Ensure that the barrel is completely dry. Field strip your marker and ensure that the upper chamber is dry as well.

Bad or poor quality paintballs – This is the biggest cause of inaccuracy. Ensure that the Paintballs are not uneven or dimpled. Use a higher quality of paintball.

Velocity too high – Re-check your velocity at a chronograph and change as needed to get your velocity down under 300 feet per second.

Velocity too low – Re-check velocity using a chronograph and change as needed. Keep your velocity under 300 feet per second. Ensure that you are not running out of air in your air supply.

Bad or damaged barrel – Inspect your barrel for nicks or scratches on the inside of the barrel. If it is damaged in any way you may need to replace your barrel. Check with your local dealer or look at our website, www.actionmarkers.com, to order a new barrel.

Timing is off – Reset the timing to the way to the way it came from the factory. See the maintenance section for instructions.

Breaks paintballs

Bad or poor quality paintballs – Use higher quality paintballs. Ensure that your paintballs are not overly fragile.

Bad or dirty barrel – Make sure that your barrel is clean and free from all debris. IF there is any damage to your barrel you may need to get a new barrel.

Slow Feed Rate – One of the most common causes of ball breakage on the AM-P Illusion is out shooting your hopper. If you are consistently getting chopped paint you should consider getting a motorized ball hopper which will better keep up with the AM-P Illusion's Rate of Fire.

Timing is off – Reset the timing to the way to the way it came from the factory. See the maintenance section for instructions.

Inconsistent velocity

Bad or oval shaped paintballs – Use higher quality paintballs. Ensure that your paintballs are completely spherical without becoming oblong.

Tank too cold or too hot – Mainly a problem with CO2. CO2 may cause problems in the winter and during any cold weather. You could use compressed gas. If your tank is too cold from shooting, stop shooting momentarily to allow the tank to warm up.

Bad upper bolt O-ring – Replace worn out O-rings.

Timing is off – Reset the timing to the way to the way it came from the factory. See the maintenance section for instructions.



Part Name	Part #	DWG #
Upper Receiver	106001	1
Lower Receiver	106002	2
Valve Pin	106003	3
Hammer Bushing	106004	4
Timing Knob	106005	5
Timing Rod	106006	6
Ram Rod	106007	7
10 Ball Feed Tube	106008	Not Shown
Feed Adaptor	106009	Not Shown
Feed Adaptor Set Screw	106010	Not Shown
Feed Adaptor o-Ring	106011	Not Shown
Feed Cap	106012	12
Feed Cap Fingers	106013	13
15 Ball Feed Clamp Screw	106014	14
15 Ball Feed Clamp	106015	15
Pump Return Spring	106016	16
Pump Drive Spring	106017	17
Upper Bolt Connecting Pin	106018	18

Lower Receiver Front Screw	106021	19
Beaver Tail	106022	Not Shown
Back Block	106023	20
Valve Chamber	106024	21
Sear	106025	22
Trigger	106026	23
Hammer	106027	24
Stock Grip	106028	25
Upper Bolt	106029	26
ASA	106033	27
15 Ball Feed Tube	106035	11
Brass Safety Pin	106036	28
Stock Grip Screws	106037	29
Ported Barrel	102013	30
TS Feed Tube	102003	31
Valve Seat	102008	32
Valve Seal	102010	33
Velocity Pin	102014	34
ASA Adapter	102019	35
Bottom Line	102020	36
Safety Pin	102026	37

Velocity Spring	102037	38
Velocity Screw	102056	39
6" Hose for TS	102074	40
Drop Forward	102070	41
Grip Plate Screws	106038	42
Ball Retainer	102082	43
Bottom Line Screws	102049	44
Rear Grip Frame Screw	106039	45
Grip	102063	46

NEW PRODUCTS AND UPDATES

We are continually in the process of designing new products. A full line of accessories and upgrades to the AM-P Illusion is available. For information regarding new Products call your local dealer or Action Markers, Inc or visit us online at www.actionmarkers.com. Many third party accessories may work with the AM-P Illusion. Action Markers does not support any third party products and we will be unable to service them.

CONTACT INFORMATION

If you need to contact us for any reason check out our website at www.actionmarkers.com.

Action Markers, Inc.
3908 Fourier Dr.
Fort Wayne, Indiana 46818
Tel: (260) 426-4600
Fax: (260) 490-5300
Email: info@actionmarkers.com
Website: www.actionmarkers.com

(cut out and return Warranty cards to the above address with your receipt.)

Return Warranty Card
with Copy of Receipt

WARRANTY REGISTRATION CARD

Purchased From _____ Serial # _____

Date _____ City _____ State _____ Zip _____

Your Name (Please Print) _____

Street Address _____

City _____ State _____ Zip _____

Phone # _____ Email Address _____

Why did you choose the Illusion? _____

How Often do you play paintball? _____

Who Referred you to Action Markers? _____

Visit us at www.actionmarkers.com!!