

AirTech Matrix Operators Manual

Congratulations on your purchase of AirTech's e-Matrix Paintball marker. After numerous years of testing, we believe it to be the most accurate and durable Paintball marker available in the entire world. The high quality of the Matrix Paintball marker will give many years of dependable service and enjoyment when cared for properly.

Please take time to read this manual thoroughly and become familiar with the Matrix, its operation, and SAFETY precautions before you attempt to load or fire this marker.

WARNING

This Matrix Paintball Marker is not a toy. Misuse may cause serious injury or death. The user and any person within range must wear eye protection designed specifically for Paintball use. At least 18 years of age is recommended to purchase, 14 years of age to use with adult supervision, or 10 years of age to use on a paintball field meeting ASTM standard 1777-97. Obey all local, state and federal laws. Follow the rules of safe Paintball marker handling. Read this operators manual before use. Always have barrel plug inserted in the barrel of the marker when not involved in actual play. Treat every marker as if it were loaded. Never point the marker at anything you don't wish to shoot. Keep marker in off position until ready to shoot. Always remove gas source before assembly or disassembly. Store marker unloaded and de-gassed in a locked place. Follow warnings listed on gas source for handling and storage. Always wear eye, face and ear protection designed specifically for Paintball. Never point at or shoot animals, or any person who is not wearing eye protection designed specifically for Paintball. Always measure your marker's velocity with a chronograph before playing Paintball. Never shoot at velocities in excess of 300 feet per second. This marker is designed to use .68 caliber paintballs. Contact Airtech Industries or your local Paintball store/distributor for user information and/or servicing.

LIABILITY STATEMENT

This marker can be considered a dangerous weapon if mishandled, abused or if the safety instructions are not followed. The purchaser assumes all liability resulting from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. Airtech Industries assumes no responsibility for physical injury or property damage resulting from the use of this marker under any circumstances, including the intentional, reckless, negligent or accidental discharge. The information in this document is subject to change without notice. Airtech Industries assumes no responsibility for any errors that may appear in this document.

SAFETY

The ownership of this marker places upon you the total responsibility of its safe and lawful use. You must observe the safety of not only yourself but also everyone around you.

- Read the entire manual before you prepare your Matrix Paintball Marker for firing. Safety and safe marker handling are the most important aspects of the sporting activity of Paintball. Do not load or fire this marker until you are completely familiar with its mechanical operation and handling characteristics.
- Handle this marker or any other marker as it were loaded at all times.
- Never point this marker at anything or anyone you do not intend to mark.
- Always keep the barrel pointed down or in a safe direction, even if you stumble or fall.
- Always use a barrel plug.
- Do not field strip or otherwise disassemble this marker when it is pressurized with gas.
- Pressurize and load the marker only when the marker will be immediately used. Unload and remove the gas cylinder immediately after use for safe storage.
- All pressurized air systems can be extremely dangerous if misused or improperly handled. Use only D.O.T. certified tanks.
- Do not look directly into the barrel. Accidental discharge may cause permanent injury or death.
- Keep exposed skin away from escaping CO₂ gas when installing or removing the cylinder. CO₂ gas is very cold and can cause frostbite under certain conditions.
- If you purchased any form of gas adapter with this marker, be sure to read and follow the instructions that came with that adapter.
- Before pressurizing your Matrix Paintball Marker, check in order to make sure that you have a barrel plug in place and there are no paintballs in the marker.
- Dress appropriately when playing the game of Paintball. Avoid exposing skin when playing the game of Paintball. Even a light layer will absorb some of the impact and protect your from the paintballs.
- Make sure that you and everyone else within a range of 300 yards is wearing ASTM approved Paintball eye and ear protection in the form of goggles and full-face mask. Never shoot at a person who is not similarly protected.
- Avoid shooting an opponent at a distance less than 6 feet.

OPERATING INSTRUCTIONS

Note: ASTM approved Safety Goggles must be worn at all times when handling this marker.

BATTERY & INSTALLATION

The marker comes equipped with a 9-volt alkaline battery. To replace the battery, unscrew the back plate, slide out old battery, disconnect old battery and connect new battery. After gently sliding in the new battery, re-attach the back plate with the threaded knob.

TANK INSTALLATION

Prior to tank installation, first make sure that the marker is on the off position. Carefully follow instructions provided by the tank manufacturer.

LOADER INSTALLATION

- Make sure that the neck and loader is clean in order to keep the paintballs from breaking and in order to feed the marker smoothly
- Put the paintballs into the loader, do not overfeed loader.

FIRING THE MATRIX

Once your marker is gassed and ready to go, slide the on/off switch (located at the back of the grip) in the upward position in order to fire marker. To turn off the marker, slide the switch in the downward position.

Keep your finger out and away from the trigger. Point the muzzle of your marker in a safe direction at all times. Be sure your Paintball goggles are securely in place.

- Place the empty loader onto the marker. Be sure that it is mounted securely in place.
- Apply the air system and pressurize the marker.
- Put paintballs into the loader.
- Remove the barrel plug.
- Aim the marker at the target.
- Put the marker in the “on” position.
- Place your finger on the trigger.
- Pull the trigger.

REGULATOR

Your factory-installed regulator has a standard operation pressure of 140-200 PSI. Never allow more than 200 PSI to enter the body chamber for it will damage the solenoid. Replacement of the factory installed regulator will immediately render your warranty null and void.

VELOCITY ADJUSTMENT

Because the firing velocity of your marker is dependent upon on uncontrollable variables such as temperature, weather and altitude, you must test the velocity before each use, using a chronograph. The velocity must not exceed 300 feet per second.

The velocity of the Matrix is controlled by varying the pressure going into the marker. By increasing or decreasing this pressure, it will increase or decrease the velocity. Once you have adjusted the regulator at the desired velocity, always tighten the set-screw to avoid changes in velocity.

To increase velocity

To increase the velocity, first loosen the set-screw located on the fore-grip / regulator. Rotate the lower portion of the split regulator in a counter clockwise motion in order to increase the velocity. Once the desired velocity has been confirmed with a chronograph, tighten set-screw.

To decrease velocity

To decrease the velocity, first loosen the set-screw located on the fore grip / regulator. Rotate the lower portion of the split regulator in a clockwise motion in order to decrease the velocity. Once the desired velocity has been confirmed with a chronograph, tighten set-screw.

RATE OF FIRE

The Matrix is equipped with four (4) dip-switches located in the grip that will vary the forward and backward action of the bolt, which in turn determine the rate of fire (ROF). The factory rate of fire (ROF) is set at 13 balls per second.

The settings are as follows; (See attached sheet)

Note: If you set the rate of fire in excess of what the loader can feed, you will experience ball chopping. Therefore it is advisable to ensure that you adjust the dip-switches accordingly.

MAINTENANCE

Prior to attempting to perform any maintenance operations or any marker disassembly, make sure that all paintballs and sources of propellants have been removed from the marker. Insert the barrel plug, and switch the marker into the “off” mode.

- To clean your Paintball marker, use a damp cloth with water to wipe off paintball residue, oil and debris. Do not use any cleaning solvents or petroleum based lubricants. Re-oil with a few drops of Paintball gun oil on the front bolt located in the top chamber.
- To clean barrel, unscrew barrel from fore breech and clean with a dry cloth or squeegee. Avoid paper products; they can scratch the inside of your barrel !!
- To clean the bolt and fore breech, unscrew threaded knob located at the back of the marker. Then remove the threaded knob and slide fore breech off main body. Clean with a clean cloth, avoid paper products that may scratch inside body.
- After cleaning, re-install the fore breech securely, then re-insert the slide bar in its location and tighten the knob.
- The electronics are only moisture/dampness *resistant*. Thus, **never** submerge or immerse your marker in water, because damage will result.

TROUBLE SHOOTING

Ball breakage in the barrel;

- Low quality or defective paintballs. (Try Diablo brands instead)
- Inner barrel diameter is too small for paintballs being used. (Switch to correctly sized, “standard bore” paintballs).
- Marker velocity is too high. (Reset using chronograph).

Ball breakage in the breech;

- Poor feeding due to rate of fire exceeding capacity of loader being used.
- Paintballs are too brittle. (Try Diablo HellFire, Inferno, Blaze, or Midnight)

Poor accuracy;

- Poor quality paint (Try Diablo brands instead)
- Paintballs are too brittle (“ “ “ ”)
- Barrel is dirty or pitted (Use clean squeegee to remove dirt & gelatin buildup).
- Wrong size barrel for paint being used. (Try Diablo brands instead)

WARRANTY & REPAIR

Airtech Industries is dedicated to providing you with the ultimate Paintball marker and the quality service and support you deserve to achieve the utmost satisfaction. Airtech Industries warrants that the initial owner finds this product free from defects in manufacturing and workmanship for a period of one (1) year from original date of documented purchase. On claims submitted as outlined, Airtech Industries will repair or replace, without charge, any of its markers that have failed through defect in material or workmanship. For any non-warranty related repairs, please bring them to an authorized Matrix airsmith. If none are available in your area, contact Airtech Industries for the name/location of the nearest authorized repair station. For assistance with warranty and repair, call 514-337-1779.

Note: If you should encounter any problems with your marker and you have replaced the original parts with aftermarket products, please first test the marker with the original stock parts prior to consulting an airsmith for repair.

WARRANTY PROCEDURE

For warranty and non-warranty repair, please contact Airtech Industries for a return authorization number. Upon receiving authorization number, ship or deliver your product(s) to Airtech Industries with postage or delivery charges pre-paid. Include a brief statement regarding the requested repairs in addition to your name, return address and a telephone number where you may be reached during normal business hours.

SHIP TO:

Airtech Industries
956 Northpoint Blvd
Waukegan, IL, 60085
Fax: 1-847-473-2364

e-MATRIX MARKER SPECIFICATIONS

Model:	E-Matrix
Caliber:	“.68 * ”
Action:	Semi-Automatic
Power:	CO ₂ , Compressed Air, or Nitrogen
Input Pressure (max.):	200 PSI (140 psi recommended)
Cycle Rate:	7-16 balls per second
Standard barrel:	14” 2 mm microhoned * .689 diameter
Regulator:	Custom AirTech Matrix
Length (Overall):	19 3/8 inches
Weight (w/o tank):	3.4 lbs
Effective range:	150 + feet