



**EMPIRE®**  
BATTLE TESTED

***TRACER***

OWNER'S MANUAL



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For manuals and warranty details, go to:  
[paintballsolutions.com](http://paintballsolutions.com)

For manuals in other languages,  
(where applicable), go to:  
[paintballsolutions.com](http://paintballsolutions.com)

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## 1. Safe Marker Handling

IMPORTANT: Never carry your marker uncased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish between a paintball marker and firearm. For your own safety and to protect the image of the sport, always carry your marker in a suitable marker case or in the box in which it was shipped.

- Treat every marker as if it were loaded.
- Never look down the barrel of a paintball marker.
- Keep the marker in “safe mode” until ready to shoot, safety on, and barrel-blocking device installed in/on the marker’s barrel.
- Keep your finger off the trigger until ready to shoot.
- Never point the marker at anything you don’t wish to shoot.
- Keep the barrel-blocking device in/on the marker’s barrel when not shooting.
- Always remove paintballs and the air source before disassembly.
- After removing the air source, point marker in safe direction and discharge until marker is degassed.
- Store the marker unloaded and degassed in a secure place.
- Follow warnings listed on the air 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 and meeting ASTM standard F1776.
- Always measure your marker’s velocity before playing paintball and never shoot at velocities in excess of 300 feet-per-second (91.44 meters-per-second).

**Read this entire manual before loading, or attaching a propellant source, or in any way attempting to operate the Empire Trracer marker.**

## 2. Introduction

Congratulations on your selection of the Empire Trracer paintball marker. The Trracer marker is made to provide you with many years of reliable performance. We are honored that you have chosen the Trracer as your marker of choice and hope you enjoy using this high-quality product.

The Trracer is precision engineered from aircraft-grade aluminum and composite materials. We expect you to play hard and play frequently and the Trracer was built with this in mind.

Empire Trracer markers come with a removable auto-cocker threaded barrel and accept any CO2 or high-pressure compressed air tanks with standard threads.

### Marker Specifications

Model	Trracer
Caliber	.68
Mechanical Action	.Pump with Auto Trigger
Air Source	.CO2 or High Pressure Compressed Air Tanks
Main Body Material	.Aluminum

### Included Items

- 14" Barrel (.688" bore)
- 5/64", 3/32", 1/16", 1/8" Allen Wrenches
- Velocity Adjustment Wrench
- Spare Parts Kit
- barrel-blocking Device
- Clamping Feed Elbow
- Instruction Manual

### 3. Getting Started

Safety and safe marker handling are the most important aspects of paintball sports. Please practice each of the following steps with an unloaded marker before attempting to operate your marker with an air source and paintballs.

- Do not install an air source or load paintballs into your marker until you have completely read and understood this manual and feel completely confident with your ability to handle your marker safely.
- Always use ASTM-approved paintball-specific eye protection. Always wear eye protection when handling a paintball marker and in any areas where paintball markers may be discharged.
- Keep your finger out of the trigger guard and away from the trigger; point the muzzle of the marker in a safe direction at all times. Keep the marker in safe mode.
- Always keep your marker pointed in a safe direction and use a barrel-blocking device.
- Remember that the ultimate safety device is you, the operator.



Fig. 3.1



Fig. 3.2

### Safety and Safe Mode

The safety is a small mechanical slide on the left side of the marker above the trigger. When the safety is “Off”, a red dot is visible on the marker (Fig. 3.1). When the Safety is “On”, no red dot will be visible and the marker will not fire (Fig. 3.2).

In this manual, you will see the term “safe mode”. In “safe mode”, the safety should be set to “safe” (red marking on safety will not be visible) and a barrel-blocking device should be installed. Make sure your marker is in “safe mode” when the marker is not being fired or when indicated to do so.

### Feed Elbow Installation

- Install the feed elbow before installing the barrel.
- Press and hold the retention button located on the side of the feed elbow.
- Slide the elbow onto the front of the Picatinny rail.
- Line up the elbow with the feed hole on the right side of the body.
- Check that the elbow is locked in place, properly aligned, and that the spring-loaded retention button is lined up with a gap on the Picatinny rail.

### Barrel Installation

- Make sure marker is degassed, loader removed, no paintballs in the feed port or breech, and the marker is in “safe mode”.
- While pointing marker in a safe direction, slide the barrel through the pump handle and thread into the front opening of the marker body.
- Turn the barrel clockwise until it stops (do not over tighten).
- Install a barrel-blocking device. This can be a barrel plug or other such device that prevents the accidental discharge of a paintball.



## Loader Installation

- To install a loader check the feed elbow and loader to make sure they are free from debris and obstructions.
- Press the loader into the opening of the feed elbow until it stops.
- Align the loader so that the lid is pointing to the rear and the loader is parallel with the marker.
- Clamp the loader in place by tightening the clamp arm; it may be necessary to adjust the clamp. Do not over tighten the loader.

## Feed Elbow Clamp Adjustment

The feed elbow clamp may need adjustment for different types/brands of loaders. Adjust the clamp using a 3/32" Allen wrench; turning the screw clockwise will increase the clamping force, while turning in counter-clockwise will decrease the clamping force.

## Before Pressurizing your Marker

Consult the place where you purchased your Empire marker, or a recognized and competent air smith, for instruction in the safe handling of compressed-air cylinders before purchasing or connecting one to your Empire marker.

- Check to make sure that you and anyone within range are wearing eye protection designed specifically for paintball.
- Double check that all screws are tightened and no parts are loose before installing your tank.
- Ensure you have a barrel plug, barrel sock, or other specifically designed barrel-blocking device in place.
- Make sure there are no paintballs in the marker.
- Set marker to "safe mode".

## Pressurizing your Marker

- While pointing the marker in a safe direction, locate the ASA (air source adapter). The Tracer ASA is located at the back of the body.

- Insert the threaded end of the air cylinder into the ASA.
- Without pushing the cylinder, twist the cylinder clockwise and allow the threads to draw the cylinder into the marker's ASA until it stops. Your marker is now charged (Fig. 3.3).



Fig. 3.3

## Warning:

- Remember compressed air, nitrogen systems, and CO2 cylinders can be extremely dangerous if misused or improperly handled. Use only cylinders meeting D.O.T. or regionally defined specifications.
- Never disassemble your tank or tank regulator. Only a qualified and trained technician should perform work on your tank and tank regulator.
- Never add any lubricants or greases into the fill adapter on your tank regulator.

## Loading Paintballs

Empire markers use .68 caliber, water-soluble paintballs, readily available at paintball pro-shops, commercial playing fields, and many sporting goods stores. The paintballs are fed through the feed elbow into the breech of the marker.

- Make sure the marker is set to "safe mode", safety on, and barrel-blocking device on.
- Put on an eye protective device designed specifically for paintball and make sure that anyone within range of the marker does the same.



- Load quality .68 caliber paintballs (leave some room for paintballs to move about, inside loader).
- Your marker is now loaded.

#### 4. Firing Your Marker

**Warning:** Always keep your marker pointed in a safe direction! Everyone within firing range should always use paintball approved eye and face protection in the presence of live paintball markers. Make sure the marker is set to “safe mode”, before following the steps below.

- Install the air cylinder, pressurizing the marker.
- Put the paintballs into the loader.
- Using the pump handle, load a paintball by sliding the pump back then forward.
- Remove the barrel-blocking device.
- Aim the marker in a safe direction.
- Set the safety to the “fire” position, safety off.
- Aim the marker at the target.
- Place your finger on the trigger.
- Pull the trigger with a smooth squeezing motion.

#### Auto-Trigger

The Empire Tracer paintball marker is equipped with an auto-trigger. To use the auto-trigger, simply hold the trigger in and pump the marker. Each time the handle is pumped a paintball will be fired from the marker.

#### Auto-Trigger Adjustment

The auto-trigger activation point is adjustable per the set screw in the trigger. It is factory set and should only be adjusted if necessary.

- Turning the set screw clockwise will activate the auto-trigger later in the forward pumping action. If set to activate too late in the forward pumping action, the marker will not firing at all or consistently.
- Turning the set screw counter-clockwise will activate the auto-trigger earlier in the forward pumping action. Setting it to activate too early will result in low velocity, as the bolt will not be sealed within the breech of the marker.
- To set the auto-trigger correctly, turn the set screw in the trigger clockwise until the auto trigger does not activate, then turn the set screw counter-clockwise at least half-turn.

#### Anti-Double Cocking Feature

The Empire Tracer has an anti-double cocking feature which prevents the marker from being pumped twice before one paintball is fired. Once the marker is pumped back then forward, the pump handle will be locked into the forward position until it is fired. This feature prevents double feeding paintballs into the marker.

#### 5. Velocity Adjustment

Always check the velocity of the marker prior to playing paintball. Different playing fields may have different maximum velocity limits. At no time should you shoot at velocities above 300 feet-per-second (91.44 meters-per-second).

- Put on an eye protective device designed specifically for paintball and make sure that anyone within range of the Empire marker does the same.
- While pointing the marker in a safe direction, remove the barrel-blocking device.
- Point the Empire marker over a chronograph that will measure the velocity of the paintballs discharged by the marker.
- Set the marker to “fire” mode.





- Pull the trigger and check the reading on the chronograph.
- Insert the velocity adjuster Allen wrench into the Tracer's barrel and slide it in till it stops, being careful not to damage the barrel (Fig. 5.1).
- Turn the wrench slightly until you feel it lock into the velocity adjuster.
- Turn the wrench inward or clockwise to increase the velocity, and outward or counter-clockwise to lower the velocity of the paintballs discharged from the marker.



Fig. 5.1

## 6. Unloading Your Marker

Put on an eye protective device designed specifically for paintball and make sure that anyone within range of your Empire marker does the same.

- Make sure the barrel-blocking device is properly installed and the marker is set to "safe mode".
- Remove the loader and all paintballs.
- While pointing the Empire marker in a safe direction, remove the barrel-blocking device and fire the marker several times to insure there are no balls remaining in the chamber or the barrel.
- Properly re-install the barrel-blocking device and set the marker safety to "safe mode".

## Removing Air Cylinder

- Put on an eye protective device designed specifically for paintball and make sure that anyone within range of the Empire

marker does the same.

- Make sure the barrel-blocking device is properly installed on the marker.
- While pointing the Empire marker in a safe direction, remove the air cylinder, by turning it counter-clockwise.
- Air will vent before the air cylinder unthreads completely.
- The marker is now ready to be cleaned and put away for future use.

## 7. Maintenance and Lubrication

**Caution:** Before attempting to perform any maintenance operations, make sure that all paintballs and propellant sources have been removed from the marker. Install a barrel-blocking device; marker must be unloaded and degassed before any disassembly or maintenance.

Once your Empire marker is unloaded and the air cylinder is removed, you can use a damp cloth to wipe off paint, dirt, and debris from the outside of your marker. Once your marker is clean and dry you can re-oil using a light, premium marker oil. Do not use any petroleum-based or aerosol products on your marker. Petroleum-based and aerosol products can damage your markers O-rings.

## Cleaning Barrel /Breech Insert and Breech of Marker

- Push a paintball swab, like the Empire Swab, through the barrel and breech area to clean them.
- Clean the outside of your marker using a paper towel or rag, which can be dampened with warm water.

## Lubricating the Bolt/Hammer Assembly

- See Section 8 for disassembly instructions.
- Wipe the parts clean and inspect the O-rings for damage or



wear, replace if needed.

- Apply one drop of premium marker oil to the O-ring on the bolt and apply a small amount to the outer surface of the hammer.

## 8. DISASSEMBLY

**CAUTION:** Before attempting to perform any maintenance operations, make sure that all paintballs and air sources have been removed from the marker. Install a barrel-blocking device; marker must be unloaded and degassed before any disassembly or maintenance.

### Disassembly Tips

- Make sure you have a clean area to work on your marker.
- When removing parts for the first time, do so carefully, so you do not lose any.
- Visit [PaintballSolutions.com](http://PaintballSolutions.com) for additional information.

### Barrel

- The barrel is removed by turning it counter-clockwise and sliding it through the pump handle.

### Pump Handle

- Remove the two pump handle screws with a flathead screwdriver or by hand and slide the pump handle forward.

### Clamping Feed Elbow

- To remove the feed elbow, the barrel or pump handle must be removed first.
- Push and hold in the latch button on the side of the elbow.
- While holding the button in, slide the feed elbow off the front of the marker.

### Rail

- Using a 3/32" Allen wrench, remove the three rail screws and lift rail from body.

### Ball Detent

- The ball detent can be removed once the trigger frame is removed.

### Trigger Frame Assembly

- Using a 1/8" Allen wrench, remove the two frame screws.
- Lower the trigger frame away from the marker body.

### Grips

- The grips hold the safety ball and safety spring in place. It is recommended that you do not remove the grips from the trigger frame.

### Valve/Power-Tube Assembly

- The valve/power-tube assembly can be removed once the grip frame has been removed, by sliding it out the back of the main body.

### Bolt /Hammer Assembly

- Remove the grip frame and valve/power-tube assembly.
- Slide the bolt /hammer assembly out the back of the marker.

## 9. Storage and Transportation

**IMPORTANT:** Never carry your Empire marker uncased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish between a paintball marker and firearm. For your own safety and to protect the image of the sport, always carry your Empire marker in a suitable marker case or in the box in which it was shipped.



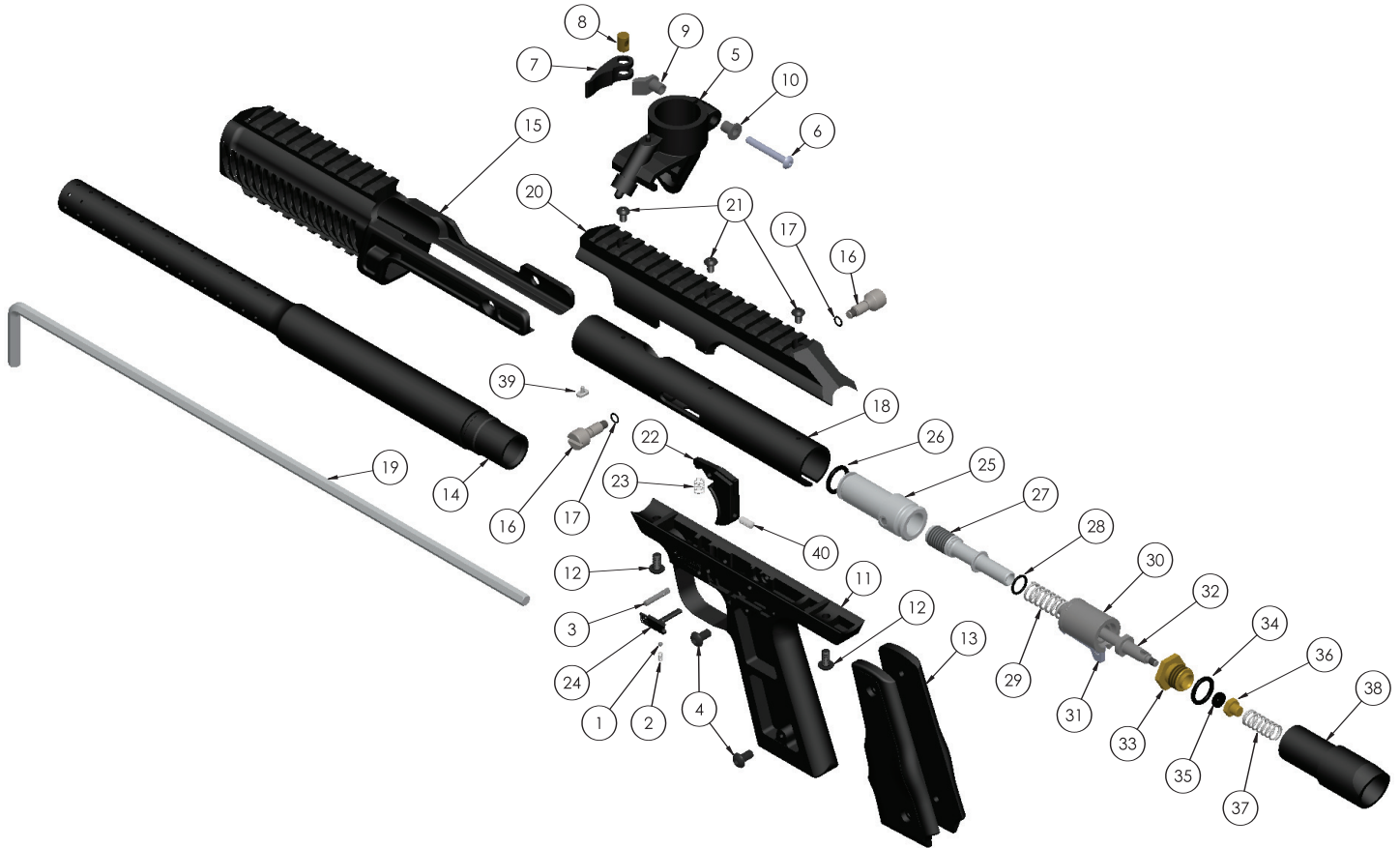


When you are finished using your Empire marker it is important that you prepare it for storage. This will not only serve to increase the life of the marker, but will assure optimum performance on your next outing.

- The Empire marker must be clear of all paint and air sources when not being used.
- Be sure to have marker de-cocked and in “safe mode” when not in use.
- Make sure a barrel-blocking device is in place.
- Store your Empire marker and propellant in cool dry place.
- Keep your Empire marker away from unsupervised children.
- Your Empire marker must be free of all paint and not attached to a propellant source while being transported to and from the playing field.
- Observe and obey all local, state, and federal laws concerning the transportation of paintball markers. For information concerning any of the laws in your area, contact your local law enforcement.
- Always store the marker in a secure location when not in use so as to prevent access by unauthorized persons.

Schematic #	Description	SKU#
1	Safety Ball	10730
2	Safety Spring	10750
3	Trigger Pin	10766
4	Grip Screws	10782
5	Feed Elbow (complete)	17757
6	Feed Elbow Screw	17759
7	Feed Elbow Lever	17760
8	Feed Elbow Collar	17761
9	Feed Elbow Seat	17762

Schematic #	Description	SKU#
10	Feed Elbow Spacer	17763
11	Trigger Frame	17956
12	Trigger Frame Screw (10-32 x.5)	17957
13	Grips	17959
14	Barrel	19250
15	Pump Handle	19251
16	Pump Screw	19252
17	Pump Screw O-ring	19253
18	Body	19254
19	Velocity Adjuster Wrench	19255
20	Top Rail	19256
21	Top Rail Screw	19257
22	Trigger	19258
23	Trigger Spring	19259
24	Safety Slide	19260
25	Bolt	19261
26	Bolt O-ring	19262
27	Velocity Adjuster	19263
28	Velocity Adjuster O-ring	19264
29	Main spring	19265
30	Hammer Assembly	19266
31	Sear Assembly (sear, pin, and spring)	19267
32	Power Tube	19268
33	Power Tube Nut	19269
34	Power Tube Nut O-ring	19270
35	Cupseal	19387
36	Cupseal Nut	19394
37	Valve Spring	19273
38	Valve Housing	19274
39	Detent	19275
40	Trigger Set Screw	19276





## Trracer Limited Lifetime Warranty

LIMITED LIFETIME WARRANTY INFORMATION  
(ORIGINAL PURCHASE RECEIPT REQUIRED)

KEE Action Sports ("KEE") warrants that this product is free from defects in materials and workmanship for as long as it is owned by the original purchaser, subject to the terms and conditions set forth below. KEE Action Sports will repair or replace with the same or equivalent model, without charge, any of its products that have failed in normal use because of a defect in material or workmanship.

KEE Action Sports is dedicated to providing you with products of the highest quality and the industry's best product support available for satisfactory play.

Purchaser should register product to activate warranty. Register your product by:

1. Online at [www.paintballsolutions.com](http://www.paintballsolutions.com)
2. Complete the product registration card (if applicable) and mail along with a copy of your receipt to Paintball Solutions, 11723 Lime Kiln Rd., Neosho, MO 64850.

### WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover problems resulting from abuse, the unauthorized modification or alteration of our product, problems resulting from the addition of aftermarket products and scratches or minor superficial imperfections. Due to the nature of paintball products it is important that the product be maintained by the user as indicated in the product manual to remain in good operating condition. Your Limited Lifetime Warranty will be void if you fail to maintain the product as recommended in the product instruction manual. In addition, certain parts of a product may be subject to wear through regular usage. Replacement and repair of such parts is the responsibility of the user throughout the life of the product. These parts are not covered under the Limited Warranty. Examples of this type of part include (but are not limited to) goggle lens, straps, o-ring seals, cup seals, springs, ball detents, batteries, hoses, drive belts, gears and any part of a product subject to continuous impact from paintballs. Hydrotesting of air cylinders is not covered under this warranty.

The Limited Lifetime Warranty also does not cover incidental or consequential damages. This warranty is the sole written warranty on KEE's product and limits any implied warranty to the period that the product is owned by the original purchaser. Some states, provinces and nations do not allow the limitation of implied warranties or of



incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state, province to province, nation to nation.

If you should encounter any problems with your product and you have added aftermarket parts on your product, please test it with the original stock parts before sending it in. Always unload and remove air supply before shipping markers. Do not ship your air supply tank if it is not completely empty. Shipping a pressurized air supply tank is unsafe and unlawful. Remove all batteries from products prior to shipping.

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion of incidental or consequential damages.

For warranty parts, service or information contact:  
Paintball Solutions • [www.paintballsolutions.com](http://www.paintballsolutions.com)  
E-mail: [tech@paintballsolutions.com](mailto:tech@paintballsolutions.com) • Phone: 1-800-220-3222

Patent pending.

## PAINTBALL GUNS AND PAINTBALL GUN ACCESSORIES ARE NOT TOYS!

- Careless use or misuse may result in serious bodily injury or death!
- Eye protection designed for paintball must be worn by the user and all persons within range.
- Not for sale to persons under 18 years of age.
- Must be 18 years of age or older to operate or handle any paintball gun and paintball gun accessories without adult or parental supervision.
- Read and understand all cautions, warnings, and operating manuals before using any paintball gun or paintball gun accessory.
- Do not aim paintball gun at eyes or head of people or at animals.
- Paintball guns are to be used with .68 caliber paintballs only.
- Use common sense and have fun.

Empire Trracer Manual Version 1.0 06/10.



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