



OMEGA™

OWNER'S MANUAL



BTPAINTBALL.COM

CONTENTS

1. Rules for Safe Marker Handling	1
2. Introduction and Specifications	1
3. Getting Started	2
4. Firing Your Marker	4
5. Velocity Adjustment	4
6. Unloading Your Marker	4
7. Removing Air Supply	5
8. Maintenance and Lubrication	5
9. Storage and Transportation	5
10. Disassembly/Reassembly	6
11. Parts List and Diagram	8
12. Troubleshooting	10
13. Warranty Information	11

For manuals and warranty details, go to:
paintballsolutions.com

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

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1. Rules for 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.
- 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 91.44 meters (300 feet-per-second).

Read this entire manual before loading or attaching a propellant source or in any way attempting to operate the BT Omega marker.

NOTE: Eye protective devices designed specifically for paintball use must be worn by the operator and anyone within range.

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2. Introduction and Specifications

Congratulations on your selection of the BT Omega paintball marker. BT markers are made to provide you with many years of reliable performance. BT Paintball Designs, Inc. is honored that you have chosen a BT marker as your marker of choice and hope you enjoy using this high-quality product.

BT markers come with a removable barrel system. This feature allows the user to select a barrel that is most suitable for the playing conditions. Standard barrels are mirror-honed with a step-bore, porting, and a stock length of 13³/₄ inches.

Included Items

- Marker
- Barrel Blocking Device
- Allen Wrenches (1/8", 5/32" and 3/16")
- Manual

Specifications

Caliber	68
Mechanical Action	Semi-Automatic
Powered	CO2 or Compressed Air (HP Output)
Main Body Material	Aluminum



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 charge your marker with an air source and paintballs.

- Do not install an air cylinder or load paintballs into your marker until you feel completely confident with your ability to handle your marker safely.
- 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" (safety on) until you are ready to operate the marker. Please refer to the Safe Mode section below for full details.
- Always keep your marker pointed in a safe direction. Always use a barrel plug or barrel blocking device. Always use ASTM approved paintball-specific eye protection in any areas where paintball markers may be discharged.

Remember that the ultimate safety device is you, the operator.

Safe Mode

In this manual, you will see the term "Safe Mode". The safety should be set to "Safe" (red marking on safety will not be visible). Make sure your marker is set to "Safe Mode" when indicated to do so (Fig. 1.1). Top photo in Fig. 1.1 indicates "Safe Mode".



Fig. 1.1

Barrel Installation

- Make sure marker is degassed, hopper removed, no paintballs in the feed port or breech and the marker is in "Safe Mode".
- While pointing marker in a safe direction, place the threaded end of the barrel 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 (Fig. 1.2).



Fig. 1.2

Slide-Away™ Feed Elbow and Loader Installation

Feed Elbow

- Press and hold the retention button located on the side of the Slide-Away™ elbow.
- Slide the elbow onto the front of the picatinny rail.
- Line up the elbow with the feed hole on the right side receiver.
- Check that the elbow is locked in place and properly aligned (Fig. 1.3).

Note: Spring-loaded retention button must line up in a gap on the picatinny rail.



Fig. 1.3



Loader

- To install a loader, check the Slide-Away™ elbow and loader to make sure they are free from debris and obstructions.
- Position the Slide-Away™ elbow onto your marker's receiver.
- Use a 3/16" Allen wrench and loosen the clamping screw on the Slide Away™ Elbow to allow the loader to slide into the top of the elbow.
- Press the loader into the opening of the 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 using a 3/16" Allen wrench. Tighten the clamping screw on the elbow until snug or close the clamping arm. Do not over tighten the loader.

Air Cylinder Installation

Consult the dealer where you purchased your BT 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 BT marker.

Before Pressurizing your 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, cock the marker by pulling the cocking knob located on the left side of the marker back until it clicks and stops.
- Release the cocking knob, the marker is now cocked.
- Locate the air cylinder adapter. The BT marker cylinder adapter is located

at the base of the pistol grip.

- Position the BT marker so that the air cylinder adapter is pointed upwards while keeping the muzzle of the marker pointed in a safe direction.
- Insert the threaded cylinder valve end into the adapter.

Without pushing the cylinder, twist the cylinder clockwise and allow the threads to draw the cylinder into the marker until it stops. Your marker is now charged (Fig. 1.4).

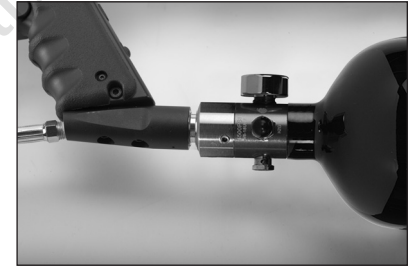


Fig. 1.4

Notes:

- 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

BT 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 from the loader through the feed elbow into the breech of the marker.

- Make sure the marker is set to "Safe Mode".
- 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).

Stock Adjustment

Push the stock adjustment lever up and adjust the stocks length by pulling or pushing on the back of the stock (Fig. 1.5).



Fig. 1.5

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.

- Place the empty loader onto the marker.
- Be sure that it is securely mounted in place.
- Cock the marker.
- Apply the air cylinder, pressurizing the marker.
- Put the paintballs into the loader.
- Remove the barrel plug, sock, or barrel-blocking device.
- Aim the BT marker in a safe direction.
- Set the safety to the "Fire" position.
- Aim the marker at the target.
- Place your finger on the trigger.
- Pull the trigger with a smooth squeezing motion.

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 (fps).

- Put on an eye protective device designed specifically for paintball and

make sure that anyone within range of the BT marker does the same.

- While pointing the marker in a safe direction, remove the barrel-blocking device.
- Point the BT marker over a chronograph that will measure the velocity of the paintballs discharged by the marker.
- Set the marker to "Fire Mode" (turn safety off).
- Pull the trigger and check the reading on the chronograph.
- Locate the velocity adjuster screw on the left side of the marker.
- Using a 5/32" Allen wrench, turn the screw inward or clockwise to reduce the velocity, and outward or counterclockwise to increase the velocity of the paintballs discharged from the marker (Fig. 1.6).



Fig. 1.6

DO NOT REMOVE THE VELOCITY ADJUSTMENT SCREW.

6. Unloading Your Marker

- Put on an eye protective device designed specifically for paintball and make sure that anyone within range of the BT marker does the same.
- Make sure the barrel-blocking device is properly installed and the marker is set to "Safe Mode".
- Loosen the loader clamping screw with a 3/16" Allen wrench.
- While holding the paintball hopper in place, invert the marker so that the hopper is below the BT marker.
- Remove the loader and all paintballs.
- While pointing the BT marker in a safe direction, remove the barrel-blocking device.



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- Keep the BT marker pointed in a safe direction and pull the trigger 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 is set to "Safe Mode".

7. Removing Air Cylinder

- Make sure the barrel-blocking device is properly installed and the BT marker is set to "Safe Mode".
- Point the BT marker in a safe direction and turn the cylinder counter clockwise about 3/4 of a turn. This allows the cylinder valve to close without damaging the cylinder O-ring.
- While pointing the BT marker in a safe direction, disengage the safety (set to "Fire").
- Keeping the BT marker pointed in a safe direction, pull the trigger until the remaining CO₂ or air is expelled and it fails to re-cock.
- Unscrew the cylinder from the BT marker.
- The marker is now ready to be cleaned or put away for future use.

8. Maintenance and Lubrication

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, degassed, and un-cocked before any disassembly or maintenance.

Once your BT 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 and Breech of Marker

Keep your barrel clean to get the best performance from your BT Omega marker. A dirty barrel or marker can lead to poor accuracy and performance.

- Pull a BT battle swab through the barrel to clean the inside. Warm water can also be used to clean out paint or dirt before using your battle swab when barrel has been removed from marker.
- Cock the marker and insert the battle swab into the barrel adapter, to clean the breech and detent area of the marker. If the breech is covered in paint, it may be necessary to disassemble the marker to clean it properly.

Lubricating the Front and Rear Bolt O-Rings

To access the front and rear bolts, you must first remove the left-side receiver. (See the Disassembly section.)

- Once the left-side receiver has been removed, remove the front and rear bolts.
- Gently wipe the parts clean and inspect the O-rings for damage or wear; replace if needed.
- Apply one drop of premium marker oil to each O-ring on the front and rear bolts .
- Clean any residue from the inside of both receiver halves with a clean rag or paper towel and reassemble.

9. Storage and Transportation

When you are finished using your BT 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.

- BT marker must be clear of all paint and propellant when not being used.



- Be sure to have marker in “Safe Mode” when not in use.
- Make sure barrel-blocking device is in place.
- Store BT marker and propellant in cool dry place.
- Keep your BT marker away from children without proper supervision.
- Your BT 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.

IMPORTANT: Never carry your BT 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 BT marker in a suitable marker case or in the box in which it was shipped.

10. Disassembly/Reassembly

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, degassed, and un-cocked before any disassembly or maintenance. Follow unloading and removing air supply steps.

Disassembly Tips

- Make sure you have a clean area to work on your marker.
- When separating the shell for the first time, do so carefully so you do not lose any parts.
- Visit PaintballSolutions.com for additional information.

Barrel Removal

Turn the barrel counter clockwise to remove it from the marker.

Slide-Away™ Elbow Removal

- The barrel must be removed to allow the elbow to slide off the receiver.
- Press and hold the retention button located on the name plate side of the Slide-Away™ Elbow.
- Slide the elbow toward the front of the marker and remove.
- Reverse process to install the Slide-Away™ Elbow.

Magazine Removal

Press in the two locking tabs on each side of the magazine and pull it down and out of the marker's body.

Receiver (Body) Separation

To fully access the internal receiver components, these parts must be removed first:

- Barrel
- Slide-Away™ Elbow
- Magazine

Make sure the marker is in the un-cocked (forward) position before taking body apart.

- Remove the bolt handle cover (rubber bonnet).
- Loosen the two ASA screws.
- Lay on a flat surface with the left



Fig. 1.7



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- name plate facing up.
- Remove the seven receiver screws.
- Lift name plate receiver away from other receiver half (Fig. 1.7).

Note: The stock will be under some spring tension and may spring out when the top name plate receiver is lifted off.

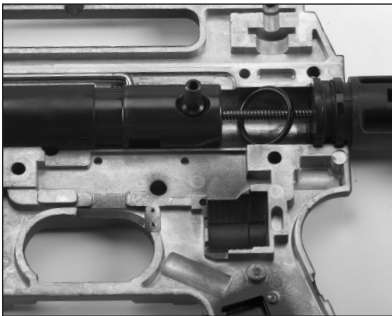


Fig. 1.8

Trigger Assembly

The trigger assembly lifts out as a single unit. It is recommended that you do not take it apart (Fig. 1.8).

Removing Stock, Spring Guide, Bumper and Spring (Fig.1.8)

- Lift the stock out of the right-side receiver.

- Remove the bumper O-ring.
- Remove spring and spring guide.

Removing Rear Bolt, Cocking Handle, and Linkage Arm

(Fig. 1.9)

- Rotate rear bolt counter-clockwise.
- Remove linkage arm.
- Remove bolt handle.
- Slide the rear bolt rearward and remove.



Fig. 1.9

Removing Barrel Adapter, Ball detent and Front Bolt

(Fig. 1.10)

- Lift away barrel adapter (and barrel if still installed).
- Lift out ball detent; notice its position before removing it.
- Slide the Front Bolt forward and off the power tube



Fig. 1.10

Reassembly

To reassemble the marker, reverse the disassembly instructions starting with the barrel adapter, ball detent, and front bolt removal. While reassembling the marker, you should lightly oil all O-rings and sliding parts. All parts and O-rings returned to the marker should be free of debris and visual nicks and scratches which can alter the performance of the marker. All screws returned to the marker must be tightened so there is no chance of them vibrating loose.



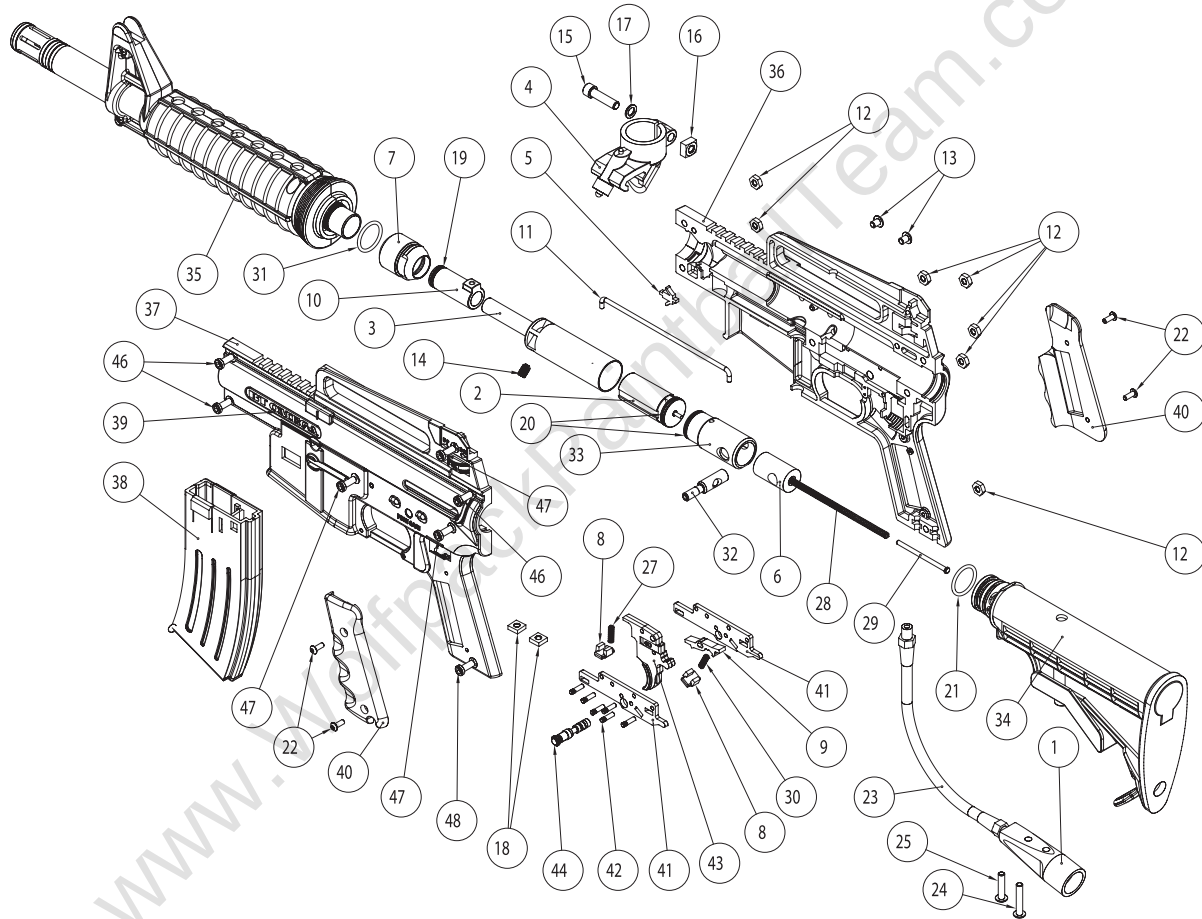
11. PARTS LIST & DIAGRAM

Schematic #	Description	SKU#
1	Tank Adapter	17044
2	Complete Valve Assembly	19382
3	Power Tube	19384
4	Feed Elbow (complete)	19385
5	Ball detent	19386
6	Bolt Plug	19389
7	Barrel Adapter	19391
8	Trigger Plate Spacer	19404
9	Sear	19405
10	Front Bolt	19409
11	Linkage Arm	19410
12	Receiver Nuts	19415
13	Valve Screw	19416
14	Velocity Screw	19418
15	Feed Elbow Pinch Bolt	19420
16	Feed Elbow Nut	19421
17	Feed Elbow Washer	19422
18	Tank Adapter Nuts	19423
19	Front Bolt O-Ring	19424
20	Rear Bolt & External Valve O-Ring	19426
21	Shock Absorber O-Ring	19427
22	Grip Screws	19430
23	Gas Line	19435
24	Long Tank Adapter Bolt	19439

Schematic #	Description	SKU#
25	Short Tank Adapter Bolt	19440
26	Bolt Handle Rubber Cover	19445
27	Trigger Return Spring	19446
28	Drive Spring	19447
29	Drive Spring Guide	19448
30	Sear Spring	19449
31	Barrel Adapter O-Ring	19452
32	Bolt handle	19454
33	Rear Bolt	19455
34	Stock (complete)	19280
35	Barrel Assembly (complete)	19281
36	Right Receiver	19282
37	Left Receiver	19283
38	Magazine	19284
39	Omega Name Plate	19285
40	Grips (left and right side)	19287
41	Trigger Plate	19288
42	Trigger Plate Pin	19289
43	Trigger Assembly	19290
44	Safety With O-rings	19291
46	Short Receiver Screw	19294
47	Long Receiver Screw	19295
48	Lower Frame Screw	19296



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12. Troubleshooting

PROBLEM	DIAGNOSIS	SOLUTION
Marker double firing or going full auto	• Air cylinder low on air • Rear bolt O-ring worn or damaged • Rear bolt or sear worn • Rear bolt has no oil • Bad valve	• Get air cylinder filled • Replace rear bolt O-ring • Inspect both for wear and replace if needed • Oil rear bolt O-ring area with paintball oil • Service or replace valve
Marker does not re-cock	• Rear bolt O-ring worn or damaged • Rear bolt O-ring is dry • Power tube is damaged • Marker internals clogged	• Replace rear bolt O-ring • Oil rear bolt O-ring area with paintball oil • Replace power tube • Clean dirt and/or broken paintballs from inside receiver and barrel
Gas leaking out of barrel	• Valve leaking	• Service or replace valve
Gas leaking at ASA	• Tank O-ring damaged or missing • Tank or ASA damaged	• Replace tank O-ring • Replace tank and/or ASA if needed
Marker is breaking paint	• Velocity is too high • Paint is of low quality or old • Ball detent damaged or backwards	• Lower velocity by turning screw clockwise • Try better fresh paint • Replace detent or check if it's in backwards
Marker is double feeding	• Ball detent is damaged	• Replace ball detent
Velocity is low (Do NOT Exceed 300 FPS)	• Velocity screw is in too far • Air source is low • Power tube is damaged • Drive spring is weak	• Turn the screw counter-clockwise to increase velocity • Get air cylinder filled • Replace power tube • Install a stiffer drive spring
Velocity is high (Do NOT Exceed 300 FPS)	• Velocity screw is out too far • Drive spring is too stiff	• Lower velocity by turning screw clockwise • Install a lighter drive spring



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13. Omega 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
2. Complete the product registration card (if applicable) and mail along with a copy of your receipt to Paintball Solutions, 570 Mantua Blvd., Sewell, NJ 08080.

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

E-mail: tech@paintballsolutions.com • Phone: 1-800-220-3222

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.
- To prevent fire or shock hazard, do not expose unit to rain or moisture.
- To prevent fire or shock hazard, do not immerse unit in liquids.
- To prevent fire or shock hazard, do not disassemble any electronic paintball device.
- Please conform to all local or state regulations with regard to battery disposal.
- Use Common Sense and have fun.

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