

# WARSENSOR WSP PAINTBALL PISTOL OWNER'S MANUAL



## WARNING

WARSENSOR PAINTBALL MARKERS ARE NOT A TOY. ANY MISUSE MAY CAUSE SERIOUS INJURY OR DEATH. THE USER AND ANY PERSON WITHIN RANGE MUST WEAR EYE PROTECTION DESIGNED FOR PAINTBALL USE. READ THIS OWNER'S MANUAL COMPLETELY

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# Safety First!



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- Always wear protective goggles & headgear designed for paintball when shooting this marker
- Everyone within range of an area where this paintball marker is used should wear protective goggles and headgear specifically designed for paintball
- Operate this paintball marker only in areas where it is safe and lawful to do so
- Misuse of this marker may result in criminal charges or imprisonment
- This marker is intended for sale to adults. Adult supervision is recommended at all times whenever a minor is handling this marker
- **READ THIS OWNER'S MANUAL COMPLETELY BEFORE LOADING, PRESSURIZING, OR OPERATING THE WARSENSOR MARS SERIES PAINTBALL MARKER!**
- Never aim or shoot this paintball marker towards anybody who is not wearing protective goggles or headgear specifically designed for paintball
- During game play, follow referee's instructions and all field safety rules. Avoid shooting at another player's head, neck or groin area
- Play paintball only where the rules of safety for paintball are followed
- All paintball markers must be chronographed regularly. Adjust the marker to shoot paintballs at a velocity this is 300feet per second (fps) or less and that does not exceed the velocity limit set by the Paintball Park or field where the marker is in use. Chronograph the marker at regular intervals during the day, as well as any time the power source is refilled or changed, any time the barrel or any part of the power system is changed, and upon request of any player or game official
- This paintball marker operates using compressed gas or air at specified pressure ranges. Follow safety procedures when handling compressed gas or air. All filling of compressed gas or air cylinders must be done by qualified persons
- Follow the rules of safe marker handling: keep finger off the trigger until ready to shoot. Keep muzzle pointed in a safe direction. In addition, firmly insert a barrel plug into the muzzle and push the mechanical or electronic safety to "ON" or "SAFE" when the marker is not in use and when in any non-shooting area
- Never shoot at domestic animals or wildlife
- Never mark objects outside the confines of the game or authorized shooting areas
- Never look down the barrel of a marker
- Before disassembly, storage, or transport of this marker, remove ALL paintballs from the marker, barrel, and loader: remove power source: and remove all gas or air from the power system. Insert a barrel plug and put the safety "ON"
- Carry your marker in a case or sturdy bag when transporting it in public
- Safely and securely store marker to prevent access to it by unauthorized persons or minors.

## MARKER SAFETY SWITCH (ON TRIGGER FRAME)



**SAFE OFF**



**SAFE ON**

## Operating Instructions

Your marker should first be properly cleaned internally & lubricated prior to firing to avoid unnecessary wear or damage on the internals.

Make sure the safe switch is in the **SAFE** position. Press the button on the trigger frame to the right for **SAFE ON**, and to the **LEFT** (red ring should be visible on the button) for **SAFE OFF**.

At this time do not attach power source, clip/hopper adapter, and do not load any paintballs into the marker.

Insert barrel plug firmly into the barrel.

Pull the cocking slides straight back until the cocking mechanism locks back in the cocked position

Turn the safety switch to the **FIRE** position and then squeeze the trigger with an even pressure. The cocking slides should snap forward into the un-cocked position. You have just dry-fired your WARSENSOR marker. Do this a few times until you are comfortable with this operation and the feel of the marker when cocking, and firing it.

Attach the ammo/ball clip to the top of the marker. Depending on how your clips are configured they may insert differently. The WARSENSOR clips insert by sliding the front section of the clip into the milled groove at the top-front section of the receiver body. Apply a slight forward pressure and snap the rear section of the clip into place (see illustration below).

If your clip inserts from the rear, simply repeat the process but this time insert the clip into the rear groove at the top of the receiver body, while pulling the other retainer clip back slightly with your fingers so it snaps into position



## Compressed Air/Gas

### **WARNING**

The power system contains compressed gas or air when pressurized. Never disassemble the marker until removing ALL the gas or air from the power system. Always keep hands away from escaping CO<sub>2</sub> gas. It can cause frostbite if allowed to come in contact with skin.

- Before attaching any air or gas power source, read and understand this section of the owner's manual. Follow safety rules for handling compressed air/gas. If any leaks occur in the power system, refer to troubleshooting section or WARSENSOR support. Use only cylinders for compressed gas or air that comply with all applicable laws and regulations, including but not limited to those of the US dept of transportation, OSHA, Compressed Gas Association and/or American Society for Testing and Materials.
- **CO<sub>2</sub> CARTRIDGE:** Small 12gr. CO<sub>2</sub> cartridges are inserted into the front of the marker body, just below the barrel and secured into place with a retainer cap. As the cap is tightened, it presses the CO<sub>2</sub> cartridge against a specialized activation pin - which punctures the cartridge head, and starts the flow of CO<sub>2</sub> into the marker.



**Insert CO2 Cartridge Retainer.  
Be sure Marker is Coked Before Tightening.**

- Test for function – now that the power source is loaded and the marker cocked, flip the safety switch to the FIRE position and squeeze the trigger. The marker should shoot air, and the cocking slides should cycle back to the cocked position ready to fire again. Repeat this several times to get used to the recoil action of the marker. You have now fired your marker WITH loaded power source.

The WARSENSOR paintball marker may be powered by CO2, regulated compressed air (HPA), or regulated nitrogen. From the source of gas or air through the entire power system, there are varying pressures that are applied to the marker and the components of the power system.

The marker requires a minimum of 400 psi for proper operation



## Velocity Adjustments

### **WARNING**

All paintball markers must be chronographed regularly. Adjust marker to shoot paintballs at a velocity that is **280** feet per second (fps) or lower. Make sure the velocity setting is not in violation of the limit set by the authorities of the location where you are playing.

Chronograph the marker at regular intervals during the day as well as any time the power source is refilled or changed or any time a player or game official requests.

- The velocity knob is located at the back on the receiver (marker body). On the WARSENSOR WSP marker this velocity adjuster can be turned by hand easily once the locking retainer screw is loosened.
- The illustrations below show how to adjust the velocity screw.



**Turn Clockwise to  
Increase Velocity**

**Turn Counter-Clockwise  
to Decrease Velocity**

To adjust velocity after loosening the locking retainer screw, turn the velocity screw clockwise in  $\frac{1}{2}$  turn increments. To decrease velocities turn the velocity screw counter-clockwise. Once the desired velocity has been reached, lock the velocity screw in place.




- **Note: velocity may fluctuate depending on factors such as altitude, type of power source used, and climate conditions. Before using your marker make sure to perform a safe velocity test.**
- **Use a chronograph and let's ensure we are within the safely allowable velocity range. Velocity should NEVER exceed 300 f.p.s. Some paintball fields may require your marker to be set under 300 f.p.s.**

**Once you have achieved the proper velocity setting – you can lock it in place with the Velocity Locking Screw.**




## Maintenance, Cleaning and Lubrication





The WARSENSOR marker should be cleaned and lubricated after every usage to ensure proper function and longevity of the product.

**NOTE: It is not necessary to disassemble the ENTIRE MARKER to perform standard maintenance and lubrication tasks. DO NOT DISASSEMBLE OTHER AREAS OF THE MARKER UNLESS YOU ARE AN EXPERIENCED AIRSMITH, OR HAVE BEEN ASKED TO DO SO BY AUTHORIZED WARSENSOR SERVICE TECHNICIANS.**

DESSEMBLAGE	
	STEP 1. Remove the slide screw by using the wrench.
	STEP 2. Remove the slide back cover.
	STEP 3. Remove the strip pin.



	<p>STEP 4. Pull out the main spring and the plug.</p>
	<p>STEP 5. Pull out the spring guide. (The spring guide is inserted into the spring in order to keep the spring straight)</p>
	<p>STEP 6. Remove the bolt and hammer.</p>

<b>ASSEMBLAGE</b>	
	<p>STEP 1. Connect the inner hammer with the bolt and put into the receiver.</p>
	<p>STEP 2. Push in the spring guide when pulling the trigger to set the inner hammer on place.</p>
	<p>STEP 3. Insert the main spring.</p>
	<p>STEP 4. Put the plug on the insert the strip pin.</p>



STEP 5.  
Put the slide cover back the aligne the screw.



STEP 6.  
DO NOT overtighten the highlighted screw, it will affect the slide movement.

**IMPORTANT**



**DO NOT touch these three screws.**

## Troubleshooting Tips, Hints 'n Tricks

- **Marker not firing:**
  - Check to ensure there is a full CO2 cartridge in the marker. If you are using a bottom line and external power source, check to ensure its turned ON and has sufficient PSI to operate the marker.
  - Check to ensure the marker is cocked
  - Check to ensure the safe switch is in LIVE FIRE mode (switched to the left) (ALL MODELS).
- **I hear a hissing sound when I attach the power source:**
  - ONLY Load CO2 cartridges with the marker in COCKED position, or CO2 will escape.
  - If using a bottom line, check the o-ring on the air supply bottle – it may not look worn but could be – and will leak
  - If leak is not at bottle attachment, check the connection point for the bottom line adapter in the CO2 chamber of the marker – it may not be properly seated- tighten the retainer lug to seat it, or use some lubricant to ensure its not a leak due to dry o-rings
  - Check the o-rings on the bottom line chamber to ensure they are not damaged
  - If none of these sections are leaking, check the cup-seal to make sure it is sitting properly against the valve. This is easily replaced with an WARSENSOR cup-seal or any spyder compatible equivalent – the BLACK MAGIC cup-seal is highly recommended to cure cup-seal leaks.
- **I cannot cock the marker:**
  - Remove the velocity adjuster cap and examine the striker pin section to ensure it is assembled properly
  - Check the hex screw at the back of the trigger frame as it may be too tight and causing a misalignment problem
  - If this jam occurred after a ball break, carefully check to ensure there is residual skin fragments of the ball stuck between the receiver housing and the barrel
  - If this jam occurred not from a ball break, carefully disassemble the internals and check to see if the o-rings are not dislodged or broken

- **The marker shoots once and does not re-cock:**
  - The o-ring on the striker hammer could be damaged and needs replacing
  - Check the cup seal to ensure the whole assembly is sitting properly and is not leaking
  - Check your air supply to ensure you have sufficient pressure to operate the marker
- **The marker fires and continues to rapid fire, the re-cock does not hold:**
  - The sear adjustment is too low – check the section on trigger adjustments and make the appropriate changes to correct the problem
  - Check the screws which hold the trigger frame to the receiver – if they are loose – tighten them, in particular the rear screw
- **The marker requires multiple trigger pulls to fire once:**
  - Trigger recoil springs may be dislodged or broken and not returning trigger to full frontal position which engages the sear for the next trigger pull. Trigger disassembly and checking will be required.
  - Balls break in the breach when attempting rapid firing:
  - Check to ensure the ball-clip is seated properly
  - Check to ensure the loader cap is not blocking flow of balls into breach at the rear of the clip
  - Check the clip ball breach opening to ensure balls are passing smoothly and not jamming (this could happen if balls are too big, or if they are mal-formed from swelling).
  - Check the spring loaded clip ball feed – spring maybe too weak
  - Balls may be too small and when fed into breach the waiting ball is half way down and gets chopped when trigger is pulled. Recommended bore is .688/.690 for the WSP
- **Balls are not flying straight when fired:**
  - Clean the barrel with a squeegee
  - Make sure the balls are the correct size/caliber for the bore of the marker .689
- **Balls roll out of the barrel or shoots 2 at a time:**
  - Ball bore is too small. It needs to be .689

- **WARSENSOR recommends using tournament quality paint**
  - **RPS / PMI Brand (Big Ball/Warrior, El Tigre, Slam, All Star, Premium, Premium Gold, Marballizer)**
  - **TC Paintballs (Viper Venoms, Viper Platinum, Pro Series)**
  - **Nelson Paintballs (Nel Splat, Anarchy, Nelson Gold)**
  - **PowerBall Paintballs**
- **Barrel threads look worn down and barrel wobbles a bit (G2 model only)**
  - **Check to ensure barrel o-ring is in place properly**
  - **Always use some grease type lubricant on the threads to avoid metal-to-metal wear**
- **Balls shoot but they do not appear to go the distance:**
  - **Adjust the velocity and check it with a chronograph**
  - **Check to ensure the striker spring is not damaged, weakened or broken**
  - **Check your air supply to ensure there is sufficient pressure**
  - **Check to ensure regulator settings are properly adjusted. Min pressure should not be less than 450 p.s.i. on the HPA bottom line if you have that installed.**

## SUGGESTED ITEMS FOR PROPER MAINTENANCE

Rod Squeegee with Swab on the end

Cleaning cloths (soft terry-cloth material)

Paintball Marker Lubrication (OIL designed for paintball markers , or Teflon /Silicon grease)

o-ring and spring replacement kit (as a spare)

hex-wrenches of various sizes (marker comes with most commonly needed ones)

Barrel Plug or Condom



## **RECOMMENDED UPGRADES**

Additional paintball ammo clips

Quick-Load adapter for ammo clips

10-round ball pods

Bottom line adapters (if this is your main marker)