



# INFERNO<sup>TM</sup>

*GEN 2*

## OWNER'S MANUAL



**WOLVERINE AIRSOFT**

[www.wolverineairsoft.com](http://www.wolverineairsoft.com)

## **Welcome to the Wolverine Airsoft HPA Family!**

Your INFERNO HPA engine kit comes with following contents in the package. Please ensure that all components of the package are present and undamaged.

### **All packages contain:**

- INFERNO HPA Engine
- INFERNO patch
- Grip Line
- O-Ring Kit

### **These kits also contain:**

#### **Spartan Kit**

- Spartan electronics
- Buffer tube adapter

#### **M249 Kit**

- Premium M249 FCU
- M249 wiring harness

#### **V2 Premium Kit**

- Premium FCU
- V2 trigger board
- 14" wiring harness
- Buffer tube adapter

#### **V3 Premium Kit**

- Premium FCU
- V3 trigger board
- 12" wiring harness
- 1/16" Drill bit \*
- M2 0.89x4 Self-Tapping Screw \*

\*Kits manufactured after  
October 1, 2022

## **Important Safety Information**

This product is not a toy. Adult supervision is required. This product is intended for use by those 18 years of age or older. Misuse or careless use of airsoft guns may cause serious injury, especially to the eye[s], or death. Eye and mouth protection designed for airsoft guns must be worn at all times by the user and any person within range. Read the instructions and owner's manual for this product and for your airsoft gun prior to use. The buyer and the user of this product and airsoft guns have the duty to obey all local, state, and federal laws.

Important: modifying your airsoft gun with this product may alter its accuracy and range. User of this product may make your airsoft gun dangerous up to 200 meters.

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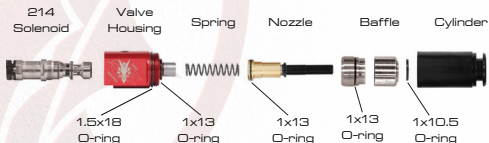
### **Don't Forget to Register Your Warranty!**

Your INFERNO HPA Engine is backed by Wolverine Airsoft's limited warranty. Scan the QR code or visit [www.wolverineairsoft.com/warranty](http://www.wolverineairsoft.com/warranty) to read our full warranty and register your INFERNO HPA engine.



## Getting Started

Your INFERNO HPA engine is a precise instrument containing many individual components. Before you begin, please see the diagram below and familiarize yourself with each component.



## Specifications

Pressure Operation Range: 60-140 PSI

Voltage Operation Range: 6-8V

Muzzle Energy: .5J-3J [Setup Dependant]

ROF: 5-35 RPS

## Nozzle Replacement

Our standard INFERNO HPA kits come standard nozzles that fit most replicas. However, your replica may require a different nozzle to be installed. Please see our Compatibility Guide at [www.wolverineairsoft.com/compatibility](http://www.wolverineairsoft.com/compatibility).



You can easily change the nozzle by first removing the cylinder and then the baffle. Pay close attention to the placement of the O-rings and the spring when re-assembling and ensure the parts are properly lubricated. Please see the Maintenance chapter for more detailed instructions.

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## Installation

The process of installing the INFERNO HPA engine can vary greatly depending on your replica. To make it easier, we have a variety of videos available online specific to a common gun platforms.

Please scan the QR code or visit [www.wolverineairsoft.com/knowledgebase](http://www.wolverineairsoft.com/knowledgebase).



## Tuning

Tuning refers to the process of electronically adjusting the engine's dwell for maximum performance and efficient air usage.

Dwell is a measurement of the length of time that the solenoid valve is opened, allowing air to flow from the air tank to propel the BB. For maximum efficiency the dwell time must be set precisely to provide just enough air to carry the BB to the end of the barrel. If the dwell time is too high, air will be wasted out the end of the barrel with each shot. If the dwell time is too low, velocity will be inconsistent, causing inaccuracy.

Please refer to the Spartan Electronics or Premium FCU owner's manuals at [www.wolverineairsoft.com/documentation](http://www.wolverineairsoft.com/documentation) for detailed tuning instructions.



## Maintenance

Regular maintenance on the INFERNO HPA engine should be performed every 25-50k rounds depending on the conditions it is being used in. The dustier and dirtier the conditions, the more frequently it should be serviced.

Items needed:

- O-ring compatible lubricant. [We recommend TechT GunSav]

Begin by disassembling your Inferno unit by unscrewing the two halves counterclockwise.



Next, disassemble the cylinder assembly by pushing the nozzle towards the back of the cylinder. The two-piece baffle may come apart.



Pay close attention to the 1mm x 10.5mm O-ring around the poppet and do not lose it. You will need it for reassembly.





Next slide the baffle off of the nozzle/poppet assembly and pull out the spring.



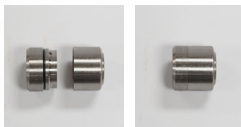
Lubricate the 1.5mm x 16mm O-ring located below the threads and the 1mm x 13mm O-ring located above the threads.



Lubricate the 1mm x 13mm O-ring around the poppet base. Note: the nozzle and poppet assembly does not come apart.



If for some reason the two piece baffle comes part you can simply slide the two halves back together. Make sure that the 1mm x 13mm O-ring is still in place on the lower half of the baffle when you do so.



Your Inferno is ready to re-assemble. Begin by sliding the poppet and nozzle assembly into the baffle. Then install the 1mm x 10.5mm O-ring around the nozzle and lubricate it. Then slide the baffle and nozzle back into the cylinder.



Next, place the spring into the back of the nozzle as indicated.



Finally, align the spring with the cup on the valve body and push the valve body into the cylinder. Screw the two halves of the unit back together clockwise.



## Important!

The cylinder plug is part of the manufacturing process and is not adjustable or removable. Never attempt to remove or adjust the cylinder plug. Doing so will cause leaking and engine malfunction.



For solenoid maintenance, please refer to our separate Solenoid Maintenance Guide available at [www.wolverineairsoft.com/documentation](http://www.wolverineairsoft.com/documentation).

# Troubleshooting

Symptom	Possible Solution
Gun always fires in semi regardless of selector switch position	<p>The selector plate is not engaging the selector switch and will need material added to permit proper operation. Contact WA or a qualified technician for assistance.</p> <p>-The burst setting is set to semi-auto</p>
Gun always fires in burst regardless of selector position	<p>-The selector plate is always engaging the selector switch and will need material removed to permit proper operation. Contact WA or qualified tech for assistance</p>
In burst the gun fires one BB and then continues to cycle/blow air down the barrel but no bbs fire	<p>-Rate of Fire (ROF) is set too high. Reduce ROF to allow the action time to cycle and load bbs.</p>
Inconsistent/Low velocity	<p>-Dwell is set too low, -Damaged O-rings</p> <p>-Air nozzle is too short and not providing adequate seal at the hop up bucking. Contact WA or qualified tech for help.</p>
The valve cycles/releases burst of air but no bbs fire	<p>-Non-feeding magazine</p> <p>-Air nozzle is too long</p> <p>Contact WA or qualified technician for assistance</p>
Nothing happens when trigger is pulled	<p>-Dead battery</p> <p>-Trigger is not properly engaging the trigger switch. Open gearbox and manually press the trigger switch to see if solenoid fires. If not, contact WA or qualified tech for help.</p>
Poor air efficiency	<p>-Dwell is set too high, -Damaged O-rings</p> <p>-Air nozzle is too short and not sealing at the bucking</p> <p>-System air leak, check for audible signs of leak point.</p>

## **Need professional help?**

To find a retailer close to you visit:  
[www.wolverineairsoft.com/dealers](http://www.wolverineairsoft.com/dealers)



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