

ASAR

AIRSOFT SYSTEMS
www.airsoftsystems.com



ASAR/M4 ASAR-15 2026 Model

USER MANUAL

PLEASE READ BEFORE USING THIS PRODUCT!

Congratulations on purchasing the first completely designed and made in Europe M4/AR-15 type airsoft replica.

As devoted airsoft players ourselves, we have put together our passion for airsoft and mil-sim games with our vast experience in mechanical design, electronics and software, to bring out the best possible airsoft electric gun made form airsoft players for the airsoft players.

The goal... **A perfect airsoft machine** made with absolutely zero compromise...

OPERATION & REALISM

- > Realistic disassembly.
- > Realistic mechanical trigger feel & reset.
- > Empty Magazine Detection.
- > Functional Bolt Catch.
- > Resumes fire after magazine change and Bolt-catch release
- > Bolt-catch works only with ASARs magazine but Standard AEG M4 magazines will lock and feed.

EXTERNAL & BUILD QUALITY

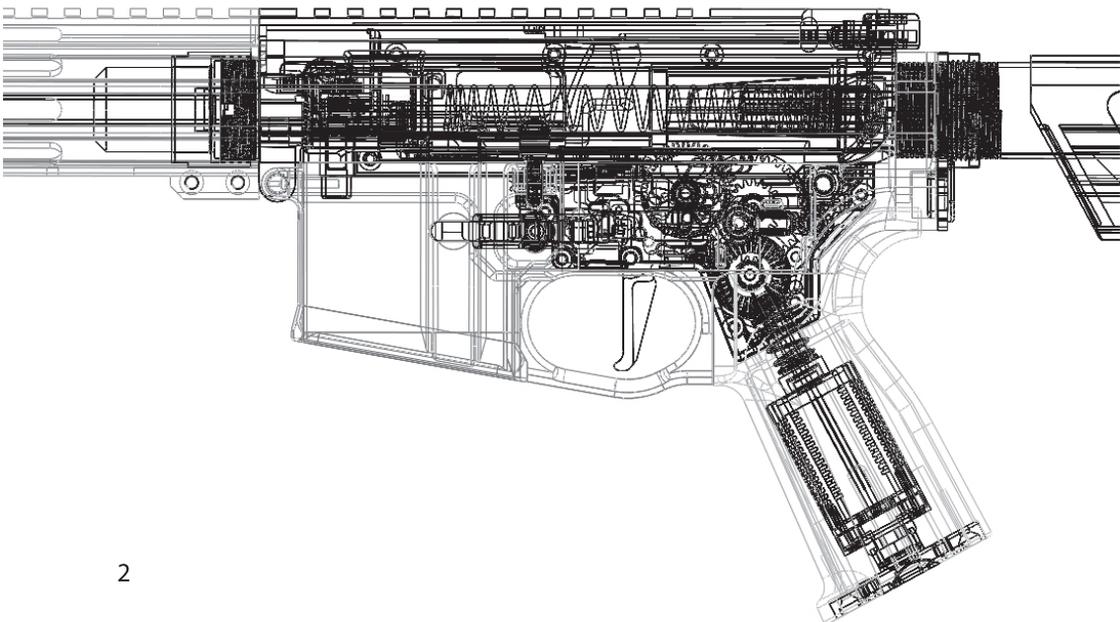
- > CNC finished aluminum receivers.
- > CNC stock tube.
- > CNC external Barrel.
- > CNC handguard.
- > CNC trigger
- > CNC Magazine release.
- > CNC Fire selectors.

ACCURACY & COMPRESSION

- > Precision 6.02mm SS steel barrel.
- > Accuracy focused hop-up and rubber.
- > Aluminum CNC cylinder head, piston head, & nozzle.

INTERNAL POWER & DRIVETRAIN

- > Factory build ETU. Perfect synergy between electronics and mechanics. (Brush-less ready)
- > PRE-COCKING!
- > Reinforced CNC finished metal split gearbox.
- > CNC Steel gears (16:1).
- > CNC Stainless steel bushings.
- > High Torque motor. (Brush-less is optional)
- > Full steel piston rack.
- > Quick spring change.
- > Internals rated up to M150 spring.



BEFORE USING YOUR NEW AIRSOFT GUN PLEASE READ CAREFULLY THIS MANUAL!

⚠ Keep this manual always together with your airsoft gun in your gun case.

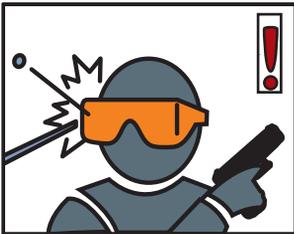
⚠ This airsoft replica is not a children's toy!
It can cause serious injury when used careless or improperly.

⚠ Not to be used by persons under legal age (under 18 years; 21 for some countries).

⚠ The airsoft gun is not a firearm, but for safety reasons treat the airsoft replica with the same attention and caution as a real firearm.

⚠ Always treat the airsoft gun as if it is loaded. Store and transport unloaded and with the battery disconnected in a locked gun case.

⚠ Do not display your airsoft gun in public areas and outside the specified airsoft game areas or shooting ranges, as it can be taken as a threat by bystanders and law enforcement.



Always wear safety goggles when using your airsoft gun. Do not use it if there are persons without safety goggles in the area.



Do not look into the barrel. Do not put your fingers in-front of the barrel.



Never point or shoot your gun at people or animals. Always keep the Safety ON until you are ready to shoot a target.



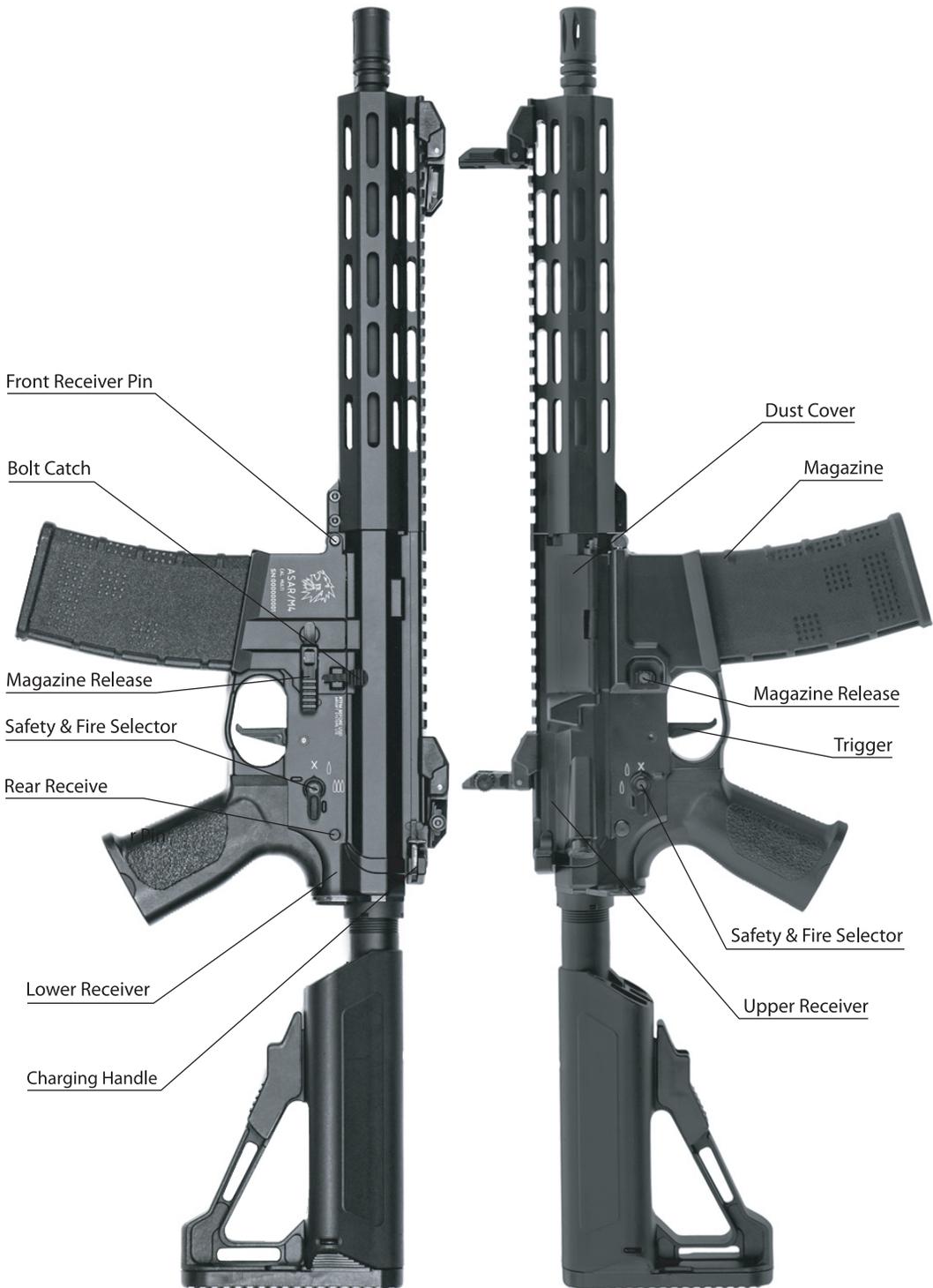
Do not use or carry your air soft gun at public areas. Transport only in gun case with the battery disconnected.



Never shoot holding the airsoft gun sideways, as the BB will curve due to hop-up effect.



Do not disassemble the airsoft gun yourself. For service contact your local airsoft service. Always use top-quality 6 mm BBs.



BATTERIES & CONNECTING THE BATTERY:

* Do not connect the battery to you airsoft gun before you have completely read and understood this manual.

For springs up to M90 use 7,4 V battery.

For springs M100 up to M150 use 11,1V battery.

*** Use only high quality LiPo batteries from 7,4 up to 11,1V**

For battery charging use only LiPo specific high quality charger to charge your LiPo battery.

*** Follow battery charging safety instructions as batteries can catch fire.**

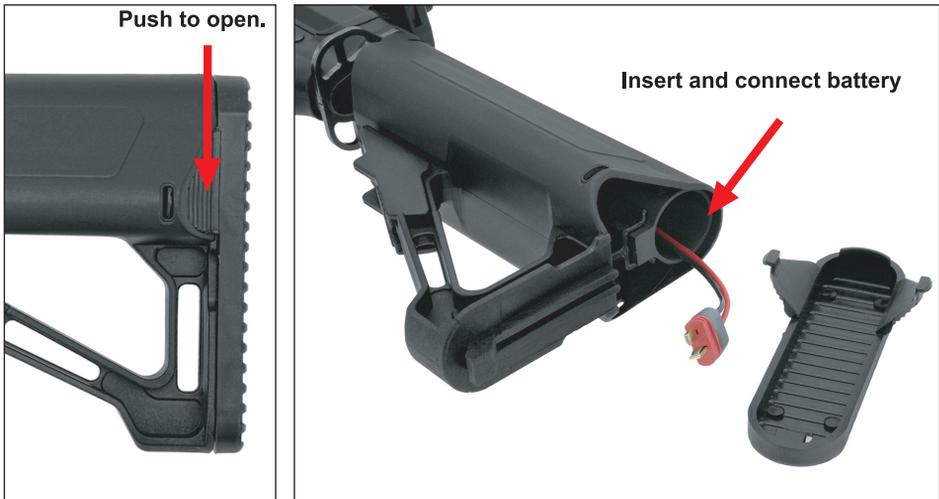
Connect the battery only on the game area, and disconnect it right after the game or shooting session is over and the gun has to be stored or transported.

*** A battery left in the airsoft gun for a long period (over 48 hours) might be damaged due to deep discharge.** Deep discharge period might vary on battery capacity.

*** Make sure the battery has the proper connector and that the polarity is the same as the one of the air-soft gun. Red wire is (+) Black wire is (-).**

Before connecting the battery make sure the fire selector is on SAFE and there is no magazine attached and no BB in the Hop_up chamber.

Open the butstock cap slide the battery into the stocks battery compartment or stock tube. Be sure that the battery is the proper size for this stock. Connect the battery and wait for the motor to vibrate/buzz. Attach the butstock cap.



* Only if local safety regulations allow, point the gun in a safe direction and put the safety in SEMI make one dry shot to make sure the airsoft gun operates properly. Then put the safety back to SAFE.

BEFORE TAKING YOUR ASAR TO THE FIRST GAME:

Break in Procedure for ASAR:

Each brand new AEG needs to break in, that means the Cylinder head O-Ring and Hop-Up Rubber to be properly seated. Usually 200 BB shots are enough.

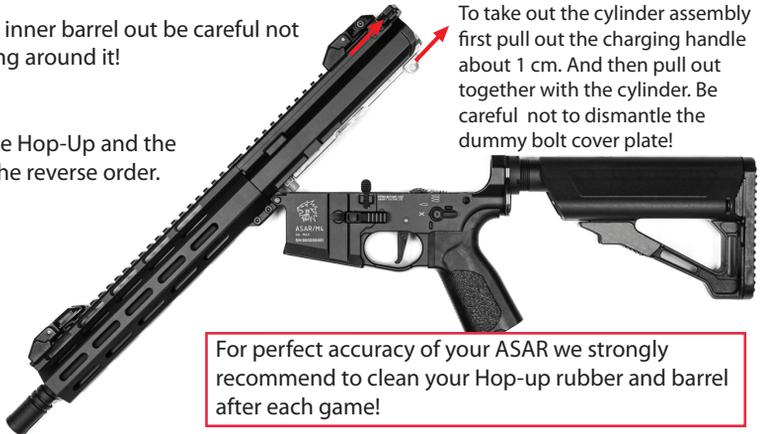
* Magazines also need to break in! Fill each magazine with BBs and then push in the retaining notch on the top of the magazine to empty the BBs in a bag or box. Repeat few times! You can use the same BBs for the full break in procedure of each magazine.

Shoot few magazines in a safe environment. During those first 100-200 shots some of the excess grease in the cylinder might exit through the nozzle and contaminate the Hop-Up rubber and barrel. Use a clean cloth and degreaser (break cleaner spray or alcohol) to clean the hop-up rubber and inner barrel. Let them dry.

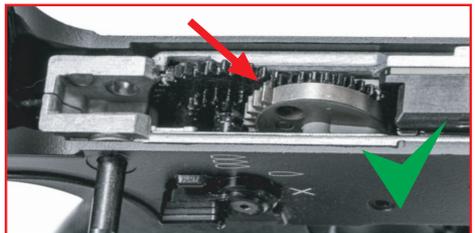
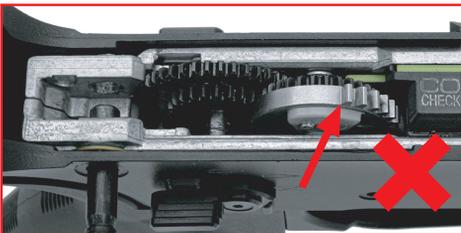
To take out the inner barrel, push out the rear receiver pin. Open up the Upper receiver, then take out the Cylinder assembly and the Hop-up barrel assembly.

When taking the inner barrel out be careful not to loose the spring around it!

After cleaning the Hop-Up and the barrel return in the reverse order.



Before closing the upper receiver make sure that the Sector Gear is in a safe to close position. If it is not, then connect a battery and push and hold the Bolt-Catch button and in the same time pull and hold the trigger. The ASAR will park the gears in a safe position and make a Beep signal when ready.



Close firmly the receiver and push in the receiver pin.

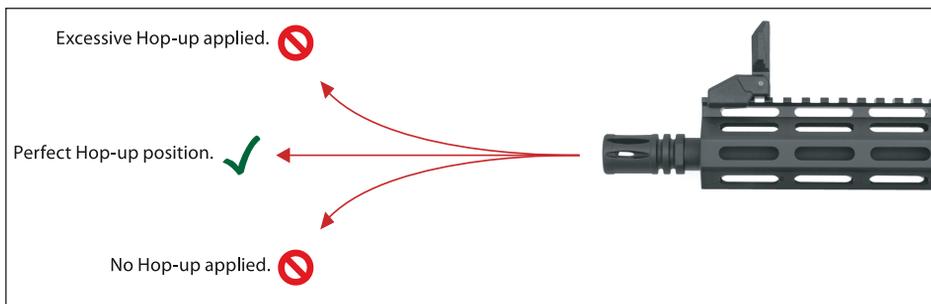
Disconnect the battery if you will store the ASAR.

ADJUSTING THE HOP-UP:

The ASAR hop-up system is optimized for heavy BBs, it works best with BBs from 0.30 to 0.46 gram.



To increase the hop-up effect on the BB rotate the wheel to the front. To reduce the hop-up effect rotate the wheel to the back. Make the adjustments in small steps.



If the hop-up needs too much forward input in order to achieve the desired trajectory:

1. The hop-up rubber is dirty with oil or grease. To fix that clean the barrel.
2. You are using a BB that is too heavy for the current spring power setting. To fix that switch to a lighter BB.

If you have too-much hop-up effect on the BB at minimum hop-up setting, that means your BB is too light for the current power setting, you have to use heavier BB.

***Always use only top quality BBs**

The Factory Installed Begadi Hop-up rubber is for summer temperatures, will not work optimally in cold weather and temperatures under 20°C

OPERATING THE ASAR:

SHOOTING:

1. Make sure that everyone in the area is wearing eye protection!
2. Connect a charged battery. After the connection a single beep will indicate that the ASAR is ready to shoot.
3. The fire selector is ambidextrous and is 0-45-90 degrees type following the newest trend in the M4 platforms.
4. Load a magazine filled with BBs
5. Keep your finger off the trigger whenever you are not aimed and ready to shoot.
6. Be sure about your target before shooting.
7. Set the desired firing mode (45° for Semi and 90° for Full Auto)
8. Aim and pull gently the trigger.
9. Follow the safety rules at any given time and all playground rules and local laws.

When the magazine is empty the ASAR will stop shooting. To resume shooting, replace the magazine with a full one and press the Bolt catch Button on the left side of the ASAR.. That function works only with the 2026 ASAR magazines. However ASAR will feed and shoot with most of the standard AEG magazines but the Empty Magazine Detection will not function with them.

WARNING, AFTER THE ASAR DETECTS AN EMPTY MAGAZINE AND STOPS FIRING STILL ONE BB WILL BE LEFT IN THE HOP-UP CHAMBER AND CAN BE SHOT WHEN THERE IS NO MAGAZINE ATTACHED! MAKE SURE TO EMPTY THE CHAMBER BEFORE STORING THE ASAR!

If the battery is depleted or does not have enough power to run the gearbox properly or a mechanical malfunction in the gearbox is detected the ETU will stop the ASAR from firing with one long beep.

PRE-COCKING ACTIVATION:

Before this procedure, make sure that there is no magazine attached and that there is no BB left in the hop-up chamber. 1. Point the ASAR in a safe direction.

2. Disconnect the battery.
3. Set the fire selector to Semi position.
4. Connect the battery and quickly pull and hold the trigger until the ASAR makes 2 shots and a Beep signal.

When the ASAR is in precocking mode:

WARNING, AFTER THE ASAR DETECTS AN EMPTY MAGAZINE AND STOPS FIRING STILL ONE BB WILL BE LEFT IN THE HOP-UP CHAMBER AND CAN BE SHOT WHEN THERE IS NO MAGAZINE ATTACHED! MAKE SURE TO EMPTY THE CHAMBER BEFORE STORING THE ASAR!

1. Before disconnecting the battery to store the ASAR: Remove the magazine and point the ASAR in a safe direction, then make one burst in full auto to release the spring. Make sure that there is no magazine attached and that there is no BB left in the hop-up chamber. Point the ASAR in a safe direction.
2. When the battery is disconnected the Pre-Cocking setting will be deleted. If you want to use Pre-Cocking again, the activation procedure has to be done every time a battery is connected.

FIRE SELECTOR MODES:

To set SEMI ONLY mode:

1. **Make sure that there is no magazine attached and that there is no BB left in the hop-up chamber.**
2. Point the ASAR in a safe direction.
3. Disconnect the battery.
4. Set the fire selector to Full Auto position.
5. Connect the battery and quickly pull the trigger, the ASAR makes 2 Beep signals to indicate that now it is in Semi Only mode. That setting will be kept by the ASCU until it is changed.

To return in Full Auto mode:

1. **Make sure that there is no magazine attached and that there is no BB left in the hop-up chamber.**
2. Point the ASAR in a safe direction.
3. Disconnect the battery.
4. Set the fire selector to Full Auto position.
5. Connect the battery and quickly pull the trigger, the ASAR makes 4 Beep signals to indicate that now it is in Full Auto mode. That setting will be kept by the ASCU until it is changed.

TO CHANGE THE MAIN POWER SPRING:

1. Remove the Magazine.
2. **Make sure that there is no BB left in the Chamber.**
3. With a tool push in the Rear Receiver Pin until it clicks in open Position.
4. Open the Upper receiver.
5. Insert a Hex key in the back of the spring guide. Push it in by 5-6 mm and rotate 90° anticlockwise and pull it out. Replace the Main Spring and push in the Spring Guide and rotate it 90° clockwise. Make sure that it has sited in properly.
6. **Check the Sector gear position (Page 6).** if it is in parked position, close the receiver and push in the Receiver pinn until it locks in.



ASCU SIGNALS:

Ready (after battery connection): 1 short beep

Selecting Pre-cocking mode: 3 short beeps + 2 shoots

Selecting Semi Only mode: 2 short beeps

Selecting Full Auto mode (Default Mode): 3 short beeps + 1 Sort Beep

Warning Signals:

Battery depleted or Overload detected: 1 long beep.

Shortcut Alarm: 2 long beeps.

High temperature of the ETU alarm: 3 long beeps.

MAINTENANCE:

Your ASAR is ready for action out of the box, however some basic care is needed in order to keep your ASAR in perfect condition and always accurate and consistent.

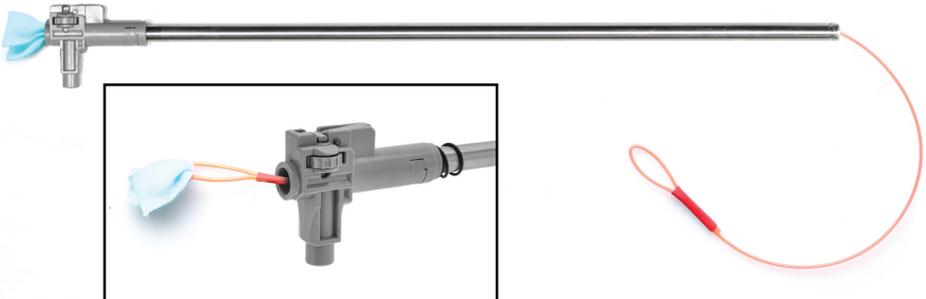
BEFORE EACH GAME:

- > Make sure that you have charged your battery.
- > Make sure that the Battery wires and connector are in good shape.
- > Use only high quality BBs.

AFTER EACH GAME:

- > Make sure your main spring is released when the ASAR was used in Pre-cocking mode.
- > Make sure the battery is disconnected.
- > Empty your magazines.
- > **Clean the inner barrel and hop up rubber.**

1. Push put the rear receiver pin, open the receiver and take out the Cylinder assembly and the Hop-Up-Inner barrel assembly. Be careful not to loose the inner-barrel spring.
2. Using a Break cleaner or Alcohol spray rinse the inside of the Hop-Up unit and the inner barrel, spray from the hop-up chamber side, and quickly clean it with a soft piece of clean soft cloth (2x4 cm) with a barrel cleaning rod or wire. Do not let the cleaning liquid stay long on the rubber surface as it can star dissolving it. Visually inspect the Barrel and the Rubber, and then reinstall back in the reverse order.



3. Check the Gears position before closing the Upper receiver.

Video instructions at: <https://www.youtube.com/@airsoftsystems>

ONCE EVERY 10 GAMES:

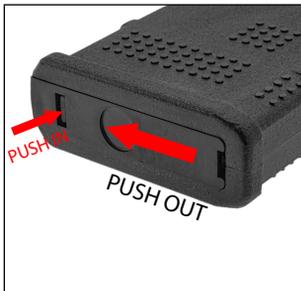
> Inspect the gears, if they look dry apply some grease with a small brush.

> **Spray very little amount of WD-40 on the Empty-Magazine Detection Switch on the ASCU, located inside the Mag-well**



> **Clean your magazines and lubricate the springs.**

1. Make sure there are no BBs in the magazine.
2. Push in the spring guide that locks the bottom plate and push the bottom plate out. Be careful as the spring will shoot the spring guide put if you are not holding it. Take the Magazine Spring out and the BB the 2 guides out.
3. Use compressed air to blow out any potential contamination form the inside of the magazine.



4. With a Silicone Lubricant spray a mist over the Magazine spring, let it like this for some minutes and then reinstall everything back into the magazine.

Video instructions at: <https://www.youtube.com/@airsoftsystems>

ONCE IN THE YEAR:

1. Check the cylinder compression. If needed open the Cylinder assembly to clean and apply new lubricant:
2. Check motor Brushes .
3. Adjust motor height.
4. Visually check gears condition.

Detailed Video instructions at: <https://www.youtube.com/@airsoftsystems>

ON EVERY AIRSOFT GAME:

1. Have fun!
2. Have fun!
3. Have fun!

WARRANTY

LIFETIME WARRANTY FOR THE GEARBOX SHELLS; CYLINDER SHELLS; LOWER RECEIVER AND THE UPPER RECEIVER!

If any of those gets broken we will replace it right away!.

We only need you to send us the broken part to us.

All other components that are not consumables are covered by

36 mounts worldwide warranty!

**AIRSOFT SYSTEMS TAKES DIRECT WARRANTY RESPONSIBILITY NO MATTER
WHERE DID YOU BUY YOUR ASAR FROM.
KEEP YOUR PURCHASE ORDER FOR THE FULL PERIOD OF YOUR WARRANTY!
WE TAKE CARE OF ALL OUR CUSTOMERS! NO ONE WILL BE LEFT BEHIND!**

If any part of the ASAR fails you have to contact us on e-mail: support@airsoftsystems.com for instructions how to get a replacement part.

Any third party parts installed on the ASAR are not covered by Airsoft Systems Warranty, but the rest of the ASAR is.

**Disassembling the ASAR will NOT void the warranty!
Be extra careful with the ETU and its wires!**

Consumables (Not covered by the warranty) are:

1. The Hop-up Rubber.
2. The Motor Brushes.

HOW TO GET WARRANTY SERVICE OR REPLACEMENT:

First contact our support team at support@airsoftsystems.com for detailed instructions and **send a copy of your ASAR Purchase Order**. Then you have to send the damaged or broken part to Airsoft Systems in Bulgaria. Then a new part will be sent to you.

*Airsoft Systems covers only the shipping cost of the replacement part from our factory in Bulgaria to your address.

** Airsoft Systems does not take any responsibility for delays and losses due to the post or courier services.

*** Airsoft Systems does not refund customers and does not replace a complete ASAR-15. Airsoft Systems only replaces damaged or broken parts.

Replacement parts will be returned no later than 45 days from the date they are received.

WARRANTY VOID IF:

1. There are clear signs of intentional damage.
2. If the main components of the ASAR-15 are modified in a way that it is interfering with the proper function of the ASAR.
3. If battery with voltage higher than 13 V has been used. (*voids only the warranty for the electronic unit).
4. If the gearbox has been damaged due to contamination – for example sand in the gearbox. (*voids only the warranty for gearbox internals).
5. If the cylinder unit has been damaged due to contamination – for example sand in the cylinder or on the piston. (*voids only the warranty for the cylinder internals).



**INTERNATIONAL
WARRANTY CARD**

ASAR-15

Date of purchase

***Please attach a copy of the purchase order or the invoice.**

Dealer:

Dealer contact (e-mail and phone number)

Owner name:

Owner address:

Owner contact (e-mail and phone number)



DISCLAIMER:

Manufacturer / distributor assumes no liability or responsibility of any injury, damage of any type, third party liability, diminished value or any other type of claim raised by the user, their collaterals, assigns and or agents of this product. By using this product the user accepts all personal and legal liability of any type listed under the UCC and all state regulatory agencies where applicable.

**This Product is manufactured in Bulgaria (EU)
by Airsoft Systems Ltd.
4 Iliensko Shose
1220 Sofia
Bulgaria.**

