

USER GUIDE

PicoAAB

LAST UPDATE ON DECEMBER 22, 2016

WWW.GATEE.EU



GATE Menet, Wojtak Sp. J. does not take any responsibility for damages, injuries and accidents resulting in the use of this product or the use of Air Electric Gun with the product installed.

NOTICE

Information contained in this document is subject to updating without notice.

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL
CAREFULLY BEFORE INSTALLING THE DEVICE**

SAFETY SUMMARY

THE DEVICE COVER MUST NOT BE REMOVED BY THE USER

DANGER!

Caution must be exercised to prevent short circuiting the battery as the consequences can be very dangerous.

FOR YOUR SAFETY

We recommend that this product should be installed by an experienced airsoft service.

WARNING: Before starting installation process, please ensure that your AEG is empty and there are no BBs inside.

WARNING: Always use a fuse between the battery and the mosfet.

WARNING: Incorrectly connecting positive and negative battery terminals will cause immediate damage to the unit and it can lead to fire.

NOTE:

Please check if you have downloaded the latest manual from the Technical Support section of our website: www.gatee.eu. The Product Warranty Form is also available there.

In case you have any difficulties while installing or using this product, we recommend to email us at support@gatee.eu.

PRODUCT DISPOSAL INSTRUCTIONS



The symbol shown here means that the product is classed as Electrical or Electronic Equipment and should not be disposed with other household and commercial waste at the end of its working life. The Waste of Electrical and Electronic Equipment (WEEE Directive 2012/19/UE) has been put in place to recycle products using best available recovery and recycling techniques to minimize the impact on the environment. Purchasers shall take any old electrical equipment to waste recycling public centers or points of sale.



CERTIFICATE OF CONFORMITY

GATE Menet, Wojtak Sp. J. hereby declares under our sole responsibility that the product GATE PicoAAB is in conformity with the essential requirements of the following Directives: EC DIRECTIVE 2011/65/EU



This product has been certified as RoHS Compliant.

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01. OVERVIEW

PicoAAB is the smallest, 3rd generation mosfet with Active Brake. It can work with 14.8V Li-Poly batteries. The mosfet can be installed in every AEG. It can work with the strongest AEG replicas.

The installation is very easy and the interference in the replica is limited only to running one or two additional wires from the contacts.

KEY FUNCTIONS

**MOSFET****MOSFET**

Do you want to achieve higher rate of fire and faster trigger response? Are you planning power upgrade of your rifle? In that case, you need a MOSFET.

It targets the energy from the battery directly to the motor, bypassing the mechanical trigger contacts. As a result, you gain a higher rate of fire of the rifle and faster trigger response, and the contacts are protected against burn out.

**ACTIVE
BRAKE****Active Brake**

Do you care about realism? Would you like to increase the life of the gearbox? Does your rifle have such a high rate of fire that you are not able to make a single shot? The Active Brake sorts things out. In SEMI Mode, the brake does not allow for compressing a piston after a shot. The piston will stop in the front position which eliminates unnecessary stresses, increasing the service life of the gearbox and its parts. This is important, especially with an AEG power upgrade. After releasing the trigger, the rifle immediately stops firing. So, you gain more realism and, additionally, you do not waste your precious ammunition.

**ELECTRONIC
FUSE****Electronic Fuse**

We know how important reliability is on the battlefield. That's why our new MOSFET has thermal protection. In tandem with a time-lag fuse, it fully protects your AEG installation.



DEBOUNCING

Debouncing (Digital Interface)

This provides full compatibility with the micro-switches. It is fully resistant to contact bounce. You gain a bigger ROF, a faster trigger response and your MOSFET is less prone to heating.



**3rd GEN
MOSFET**

3rd Generation MOSFET

The usage of modern transistors and microcontroller has enabled us to create the smallest and most reliable AEG Controller in the market.

INCLUDED IN THE KIT:

01 **PicoAAB**

02 **Single signal wire
for trigger contacts**

03 **Double signal wire
for trigger contacts**

04 **Male terminal [2,8x0,8mm]**

with red heatshrink tube (for battery positive wire)

05 **Male terminal [2,8x0,5mm]**

with black heatshrink tube (for motor negative wire)

06 **Male terminal [2,8x0,5mm]**

with red heatshrink tube (for motor positive wire)

07 **Female terminal [2,8x0,5mm]**

with black thin heatshrink tube (for battery negative wire)



02. INSTALLATION

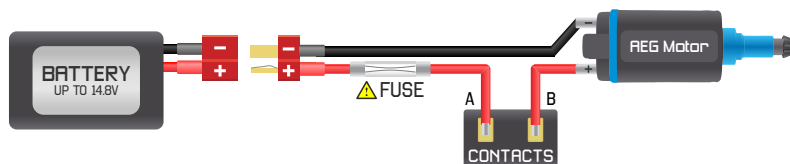


FIG 1. STANDARD AEG WIRING SCHEME

To adapt the standard AEG installation to work with **PicoAAB** you have to get to the trigger contacts. In case of GB v2 contacts are located inside a gearbox. With a version 3 gearbox, installation is easier because the contacts are on the outside of the gearbox. Please consult a local airsoft technician if you have never disassembled a gearbox before or if you have any installation concerns.

a) Installation of PicoAAB without replacement of wires.

Using this method, the original wiring is kept intact, and the connections are modified. Referencing Figure 2, de-solder A wire from the one of the trigger contacts and then solder it to the B wire. It does not matter which wire you disconnect from the trigger switches, just join two wires together at one terminal. In the place of the A wire, solder additional single signal wire (No. 02 – provided with the **PicoAAB** kit). The GATE wire is thin because it handles very low current and is only used for switch-detection. If you have already connected the **PicoAAB** between the battery and the AEG, do not forget about the signal wire. Connect it to the top pin.

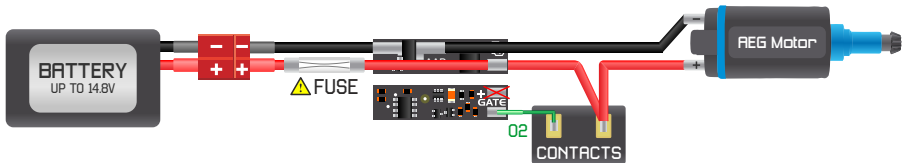


FIG 2. CONNECTION-MODIFICATION SCHEME - THE TOP VIEW

b) Installation of PicoAAB with replacement of wires

Replacing the existing AEG wiring with high-quality, low-resistance wiring in conjunction with the installation of a MOSFET allows for the ultimate in efficiency. 16 awg or thicker wire is recommended. Solder the double signal wire (No. 03 - provided with the kit) to the contacts, according to the Figure 3.

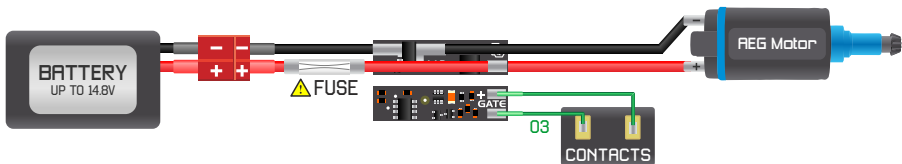


FIG 3. COMPLETE RE-WIRING SCHEME

06. GATE LIMITED WARRANTY POLICY

GATE Menet, Wojtak Sp. J. warrants that its Product is free from manufacturing and material defects at the date of purchase and for a period of one (1) year from the date of purchase and it is not-extendable. This Limited Warranty is conditioned upon proper use of Product by Purchaser.

1. This Limited Warranty is valid provided that the owner provides a proof of purchase and properly completed warranty form.

2. This Limited Warranty does not cover: (a) defects or damage (eg. mechanical, thermal or chemical) resulting from accident, misuse (misinterpretation of the instructions), abuse, neglect, unusual physical, electrical or electromechanical stress, water immersion, repairs or structural modification of any part of Product (eg. heat-shrink tube removal), or (b) the Product that has the serial number removed or made illegible; (c) defects or damage from improper operation, maintenance or installation, (d) installation of the products.

3. Requests for warranty are processed as soon as possible, not exceeding seven (7) working days. The company's obligation under this Limited Warranty shall be limited to providing replacement of part/s only.

Contact: support@gatee.eu