

MANUAL

PicoAB™

MOSFET + Active Brake

Upgrade for Automatic Electric Gun

Product Installation Instruction

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I. Overview

The **PicoAB** is the highest quality MOSFET with Active Brake. It is resistant to bad weather conditions. The use of new technology has allowed us for the maximum miniaturization. It has 2 functions:

1. MOSFET:

It eliminates any loss of energy which occurs while mechanical contacts touch each other. It also makes sure they won't burn unavoidably - the average life of mechanical contacts is 1 year. Thanks to this electronic circuit the battery energy is not lost while burning contacts but directed straight to the motor. In this way we get bigger rate of fire which results in quicker reaction of the trigger.

2. Active Brake

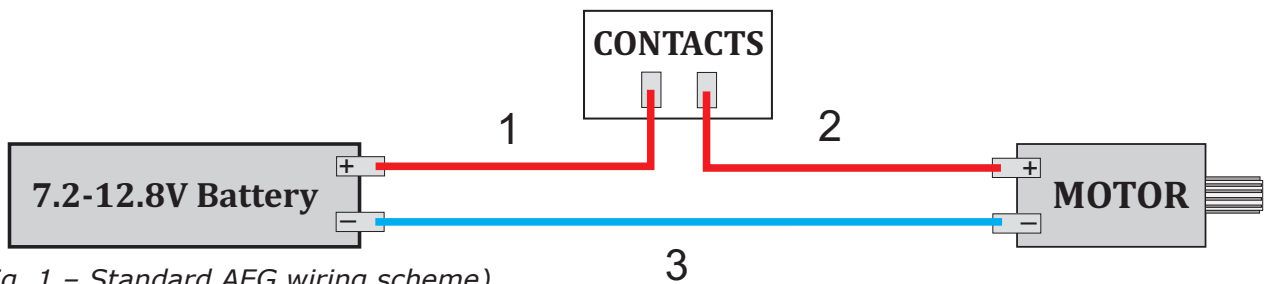
The motor and gears at work gather in the kinetic energy. This energy depends mainly on their speed. The maximum speed is reached after 4 shots. For this reason when you release the trigger, the motor will not stop immediately - the energy which is accumulated in it, depending on the amount, allows on few extra shoots.

Active Brake functions:

1. Using AEG rifles shooting on SEMI (single shot), the brake will not allow to compression spring after the shot. The piston will always stop at the front position, so that will increase gearbox lifespan.
2. To increase realism. After releasing the trigger in real guns, extra bullets are not fired, as happens in AEG replicas. We do not waste ammunition.

II. Installation

To install the PicoAB into a standard AEG, we must access the trigger contacts. In the case of Version 2 gearboxes, the contacts are located inside the gearbox. With a Version 3 gearbox, installation will be 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.

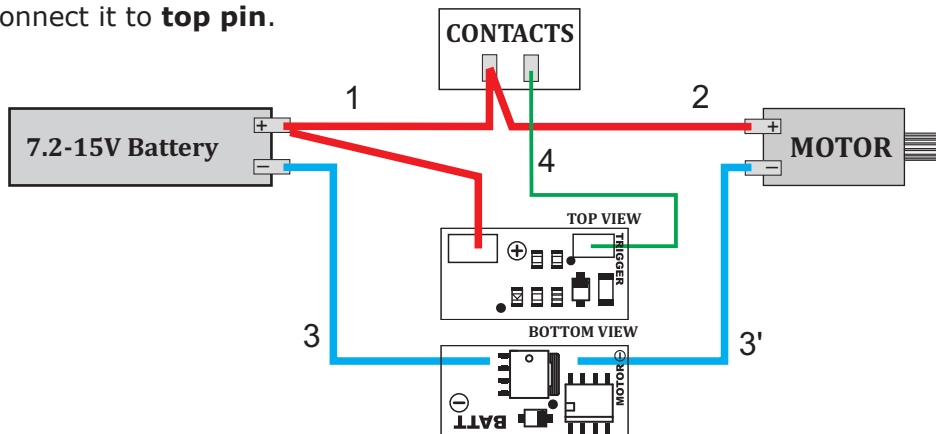


(Fig. 1 – Standard AEG wiring scheme)

Installation of PicoAB without replacement of wires.

The method below will detail how to install the PicoAB in the easiest manner. Using this method, the original wiring is kept, and the connections are modified.

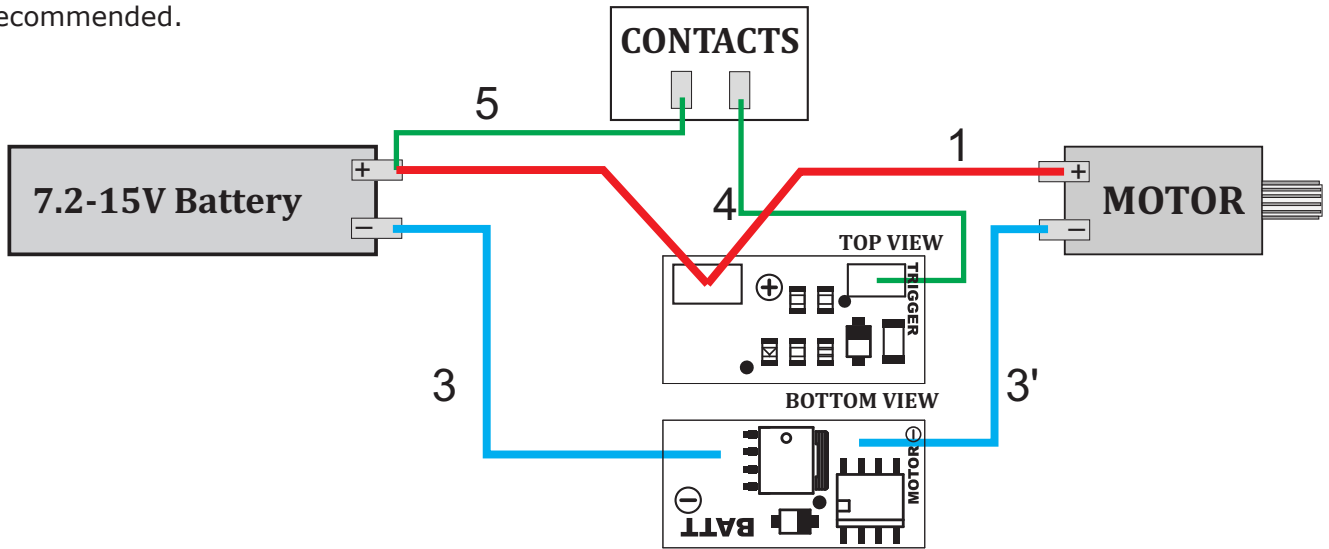
Referencing Fig. 2, de-solder No. 2 wire from one of the trigger contacts and then solder it to the No. 1 wire. It does not matter which wire you disconnect from the trigger switches, just join 2 together at one terminal. In the place of the No. 2 wire, solder additional gate wire (4 – provided in the kit). The gate wire is very thin because it handles very low current and is only used for switch-detection. Now, we have just connected system between battery and AEG. Don't forget about signal wire. Connect it to **top pin**.



(Fig 2 – Connection-modification scheme, top view)

Installation of PicoAB with replacement of wires.

Replacing the existing AEG wiring with high-quality, low-resistance wiring in conjunction with the installation of a MOSFET will allow for the ultimate in system efficiency. 16 awg or thicker wire is recommended.



(Fig 3 – Complete re-wiring scheme)

III. GATE Limited Warranty Policy

1. The product must be delivered with proof of purchase and properly completed Warranty Form. Installing the product is not considered as a warranty repair.
2. The Warranty Form is available on our website: <http://www.gatee.eu/rma>
3. The warranty is valid for 12 months from date of purchase.
4. Repairs will be made as soon as possible, not exceeding 14 working days.
5. All repairs and structural modifications made by the purchaser will result in termination of a contract of guarantee.
6. The guarantee may be rejected if product failure is the result of improper operation, installation, maintenance, mechanical, thermal or chemical damage.

If you have any questions, please feel free to ask: office@gatee.eu

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