

MANUAL

NanoAB 3/4

Mosfet + Active Brake

Upgrade for Automatic Electric Gun

Product Installation Instruction
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Contents:

I. Overview	3
II. Installation	4
AEG standard installation diagram	4
• Installation of NanoAB 3/4 without replacement of wires	4
• Installation of NanoAB 3/4 with replacement of wires	5
III. Tests	6
IV. Warranty	7

I. Overview

The NanoAB 3/4 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:

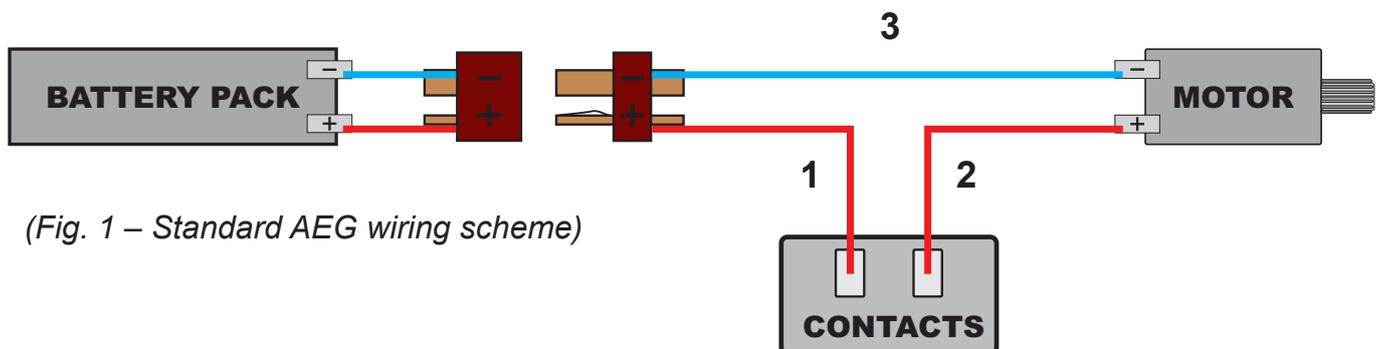
1. Using AEG rifles shooting on SEMI (single shot), the brake will not allow to compression spring after the shot. The piston will always stop at the front position, so that will increase gearbox lifespan.
2. To increase realism. After releasing the trigger in real guns, extra bullets are not fired,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

II. Installation

WARNING

1. ALWAYS USE FUSE BETWEEN BATTERY AND MOSFET
2. NEVER USE NanoAB 3/4 WITH MICRO-SWITCH
3. DO NOT TURN ON MOTOR OUTSIDE OF AEG

To install the NanoAB 3/4 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.

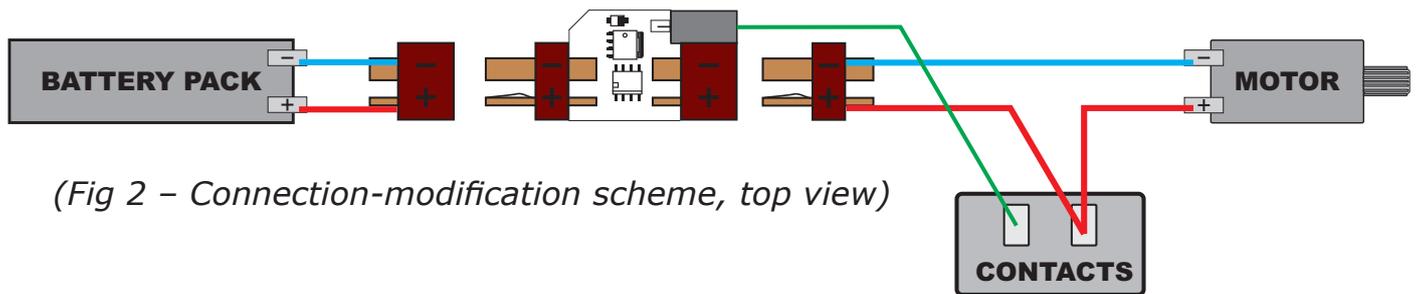


(Fig. 1 – Standard AEG wiring scheme)

a) Installation of NanoAB 3/4 without replacement of wires.

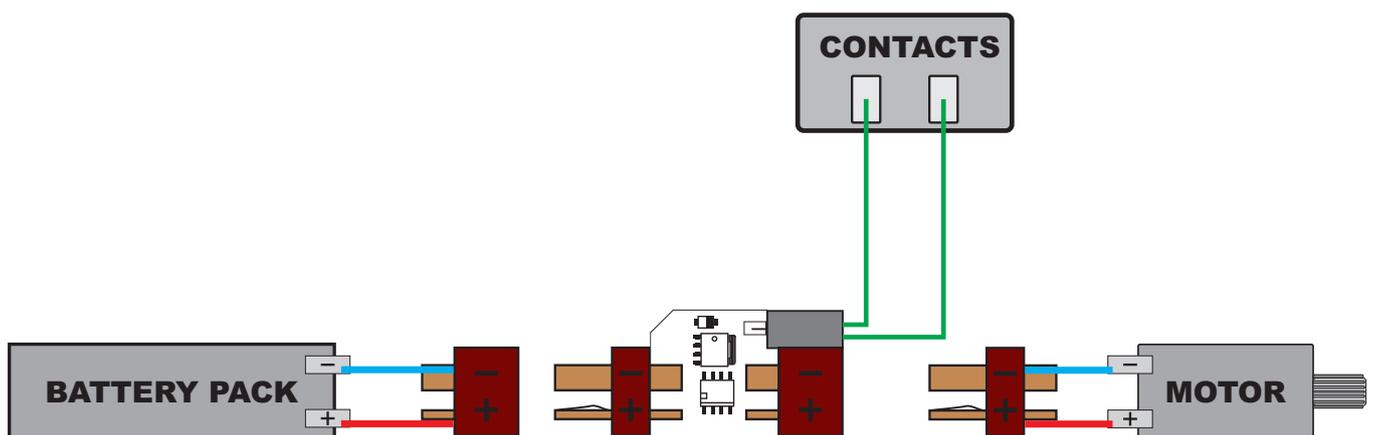
The method below will detail how to install the NanoAB 3/4 in the easiest manner. Using this method, the original wiring is kept, and the connections are modified. Referencing Fig. 2, de-solder No. 2 wire from one of the trigger contacts and then solder it to the No. 1 wire. It does not matter which 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**.



b) Installation of NanoAB 3/4 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. Tests

Before connecting MOSFET to the new AEG installation, the user should regenerate the contacts in gearbox and make some tests. This will prevent damage to the system.

- *Required tools: multimeter (ohmmeter)*

Remember: The battery and the MOSFET are disconnected while testing. Check whether your ohmmeter shows 0ohm while probes are shorted. If shows more, measurements will be increased by this value.

a) In case of "Installation without replacement wires":

1. While the trigger is released, check resistance between battery positive wire and signal cable. It should be more than 20 megaohm (Open-circuit).
2. While the trigger is pulled, check resistance between battery positive wire and signal cable. It should be less than 10 ohm. If it is bigger than 10 ohm, the contacts in gearbox require the regeneration.
3. Disconnect the motor.
4. Measure the resistance between positive motor wire and negative motor wire. It should be more than 20 megaohm (Open-circuit).
5. Press the trigger. While the trigger is pressed measure resistance between the negative motor wire and the signal wire. It should be more than 20 megaohm (Open-circuit).

b) In case of "Installation with replacement wires":

1. While the trigger is released, check resistance between signal cables. It should be more than 20 megaohm (Open-circuit).
2. While the trigger is pulled, check resistance between signal cables. It should be less than 10 ohm. If it is bigger than 10 ohm, the contacts in gearbox require the regeneration.
3. Connect the motor in to the installation.
4. Check resistant between motor negative wire and signal cables. It should be more than 20 megaohm (Open-circuit).

IV. 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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