

# MANUAL

**PicoSSR™**

**AEG MOSFET**

Upgrade for Automatic Electric Gun

Product Installation Instruction

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[www.gatee.eu](http://www.gatee.eu)

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## I. Overview

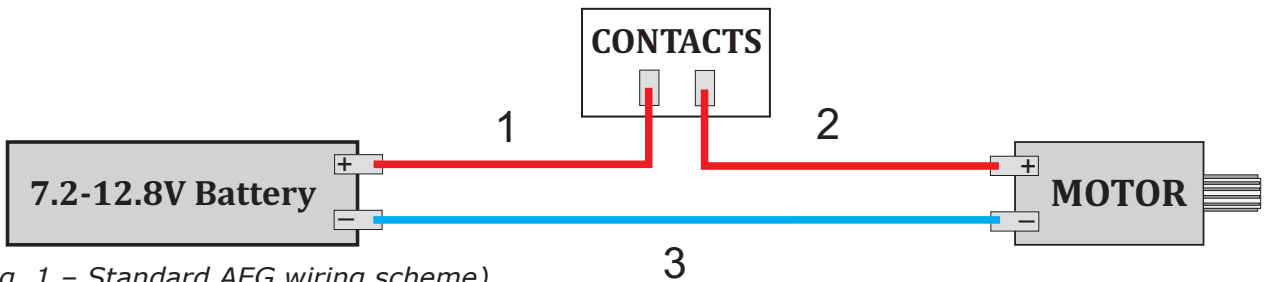
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The **PicoSSR** is the smallest AEG MOSFET on the market. Its size is only **4x6x18mm**. It has better electrical and mechanical parameters than the previous version. Moreover, it is **resistant to immersion in the water**. The circuit is compatible with most airsoft guns, including upgraded guns. It will operate with the **strongest springs** (including M170).

The PicoSSR is an electronic circuit designed for installation in Airsoft automatic electric guns. The circuit completely eliminates electrical arcing that occurs in conventional mechanical trigger systems. It also eliminates the electrical resistance inherent in traditional metal trigger contacts, thus maximizing the power transferred from the battery to the motor. These benefits equate to drastic electrical system efficiency resulting in increased rate of fire and improved trigger response. The PicoSSR is compatible with virtually all airsoft guns which use a mechanical trigger, from the most basic to the most finely-tuned, advanced AEGs.

## II. Installation

To install the PicoSSR 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.

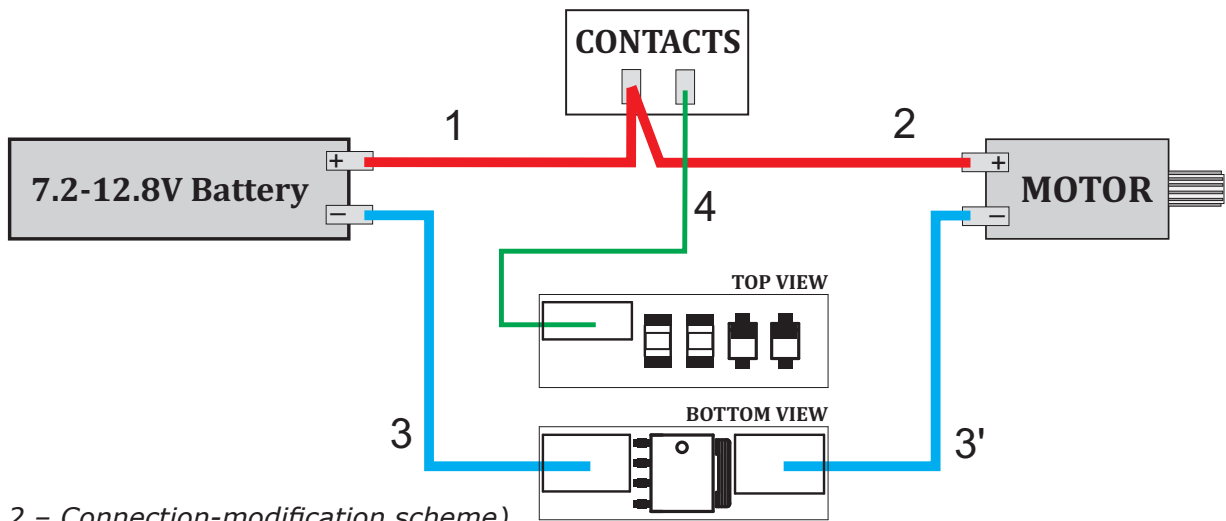


(Fig. 1 - Standard AEG wiring scheme)

### Installation of PicoSSR without replacement wires.

The method below will detail how to install the PicoSSR 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.



(Fig 2 - Connection-modification scheme)

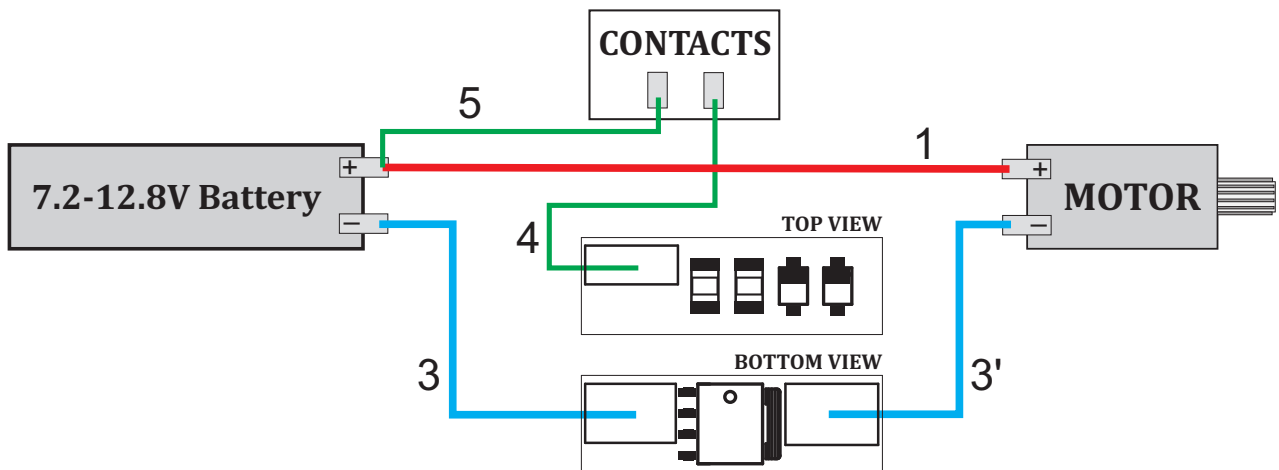
**The wires 3, 3' and 4 must be soldered directly into the unit.**

**Before soldering remember to apply heatshrink on wire 3'.**

## Installation of PicoSSR with replacement 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.

Referencing Fig. 3, wire No. 5 should terminate as close to the battery as possible. Gate wires 4 and 5 can be very thin because they carry very little current and is only used for switch detection. No. 1 wire runs directly from the battery to the motor bypassing the contacts.



*(Fig 3 – Complete re-wiring scheme)*

When installation is complete, apply provided heatshrink to the FET. Using a heatgun, form the heatshrink around the unit.

## III. GATE Limited Warranty Policy

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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, and damage to mechanical, thermal or chemical.

If you have any questions, please feel free to ask: [gate.conn@gmail.com](mailto:gate.conn@gmail.com)

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