

USER GUIDE

X-ASR

LAST UPDATE ON MARCH 19, 2019

WWW.GATEE.EU



GATE Enterprise Sp. z o.o. Sp. K. 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.

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 Enterprise Sp. z o.o. Sp. K. hereby declares under our sole responsibility that the product GATE X-ASR 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

We introduce the world's first 4th generation mosfet. X-ASR is a highly reliable AEG controller. It has automatic resettable protection against battery reverse polarity, SMART FUSE and built-in self-test. It does not require additional fuse in AEG installation.

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.

**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.

**SMART FUSE****Smart Fuse**

We have developed an electronic fuse with an accurate current sensor. A combination of current, voltage and temperature measurements makes your AEG installation highly reliable. It protects the MOSFET against overheating, overloading and short-circuiting. If your airsoft gun becomes jammed, the function protects the motor and battery against damage.

**BUILT-IN SELF-TEST****Built-In Self-Test**

It allows you to quickly check whether the AEG controller works properly. If you have problems with your AEG, the BUILT-IN SELF-TEST allows you to check that the problem is not caused by the controller.

**COATING****Coating**

Thanks to its special conformal coating, it is resistant to atmospheric conditions (Military Specification MIL-V-173C).

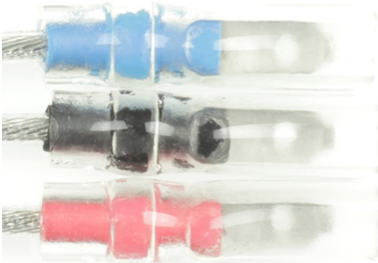
Scheme



**Battery
connector**

**LED
indicators**

**AEG
Connectors**



TRIGGER WIRE TERMINAL

MOTOR NEGATIVE TERMINAL (-)

MOTOR POSITIVE TERMINAL (+)

For installation you will need:

3 pcs. of **2.8x0.5mm** female terminals

3 pcs. of **3.2x18mm** [0.126x0.71 inch] heat-shrink tubes

1 pc. of **445mm** [17.52 inch] of **16 - 22 AWG** wire

02. INSTALLATION

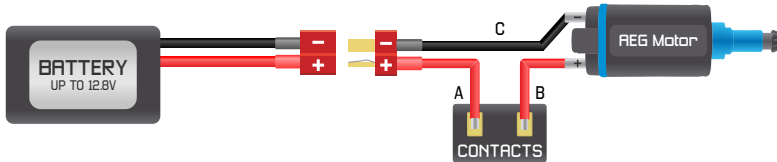
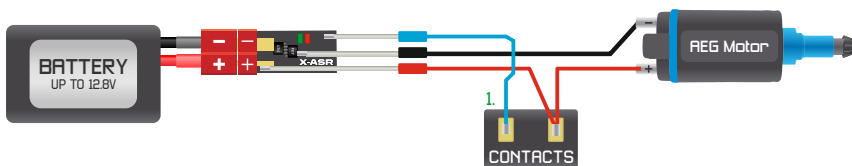


FIG 1. STANDARD AEG WIRING SCHEME

To adapt the standard AEG installation to work with **X-ASR** it is necessary to get to the trigger contacts. In case of GB v2 contacts are located inside a gearbox. With a version 3 gearbox, the installation will be easier because the contacts are 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 X-ASR without replacement of wires. Using this method, the original wiring is kept intact, and the connections are modified. Referencing Fig 1., 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 the two wires together at one terminal. In the place of the A wire, solder the additional single signal wire. The trigger wire can be very thin because it handles very low current and it is only used for switch-detection.








03. BUILT-IN SELF-TEST

X-ASR

TROUBLESHOOTING



| LED | POSSIBLE REASON | WHAT TO DO |
|--|--|--|
|  1s on start | Self-test completed without error | Enjoy airsofting |
|  BLINKING | 1. Motor is not connected 2. Brushes are worn out | 1. Check wiring and motor connectors 2. Replace brushes |
|  BLINKING ALTERNATELY | Trigger wire connected to negative motor wire | Check installation instruction or contact us at support@gatee.eu |
|  ON | 1. Battery is discharged 2. Short-circuit 3. Trigger was pulled while connecting the battery | 1. Charge battery 2. Check wiring and motor 3. Release the trigger, check trigger contacts |
|  BLINKING | Overload - temperature too high, X-ASR is designed up to M120 spring | Use high-torque motor and gears or replace mosfet with stronger model |

06. GATE LIMITED WARRANTY POLICY

GATE Enterprise Sp. z o.o. Sp. K. warrants that its Product is free from manufacturing and material defects at the date of purchase and for a period of two (2) 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