



# PERUN

# V2

## Installation manual

This manual is dedicated for technicians who will be installing Perun V2. User's manual should also be read in order to be able to properly test the device.

The installation can only be done by experienced airsoft technicians. The warranty does not cover damages due to incompetent montage.

Perun V2 was positively test in gearboxes made by following manufacturers: G&P, G&G, Classic Army, KWA, Retro Arms, Ultimate, A&K/PJ, JG, Specna Arms, Cyma. This refers to gearboxes in Tokyo Marui standard. Perun V2 will not work with gearboxes diverging from this standard, like for example ARES EFCS. Perun V2 will work in elongated gearboxes V2 used in SR25 replicas.

The device may be used with main springs with markings up to M170. The maximum rate of fire is 40 RPS.

### Installation of Perun V2

1. Disassemble the replica and open the gearbox.
2. Remove gears and contacts together with the wiring and cut-off lever.
3. Remove excessive grease and clean the spots where sector gear and contacts were.
4. Perun V2 for selector plate's position detection uses an optical sensor which most effectively recognizes bright objects. Therefore it is best if fragment of selector plate visible from inside the gearbox will be white or at least have a bright color. If the selector plate has a metal coating, it can be retained with no further modifications, but ensure that the coating does not rub against any of Perun V2's parts. If the selector plate is black or

very dark, its color should be changed to white by painting it or sticking self-adhesive tape.

5. Check whether right half of the gearbox has metal buttons that press wires into the wiring grooves. If it does, file them off. Perun V2's wiring may have larger diameter than stock wiring. While closing the gearbox, the buttons can pierce the insulation and cause a short circuit.

6. Screw Perun V2 into place where contacts previously were. It is absolutely necessary to place the nylon gasket between circuit board and screw head.

7. Check if after screwing the device, selector plates moves freely.

**ATTENTION:**

- *Circuit board together with the gasket can be thinner than contacts. This may let the screw to protrude outside of the gearbox and block the selector plate. If such situation will take place, shorten the screw a bit, use shorter one or add an extra gasket (the nylon gasket should always be in contact with the circuit board).*
- *Check whether the tappet plate's spring catch does not touch the device when in rear position. If so, tappet plate should be changed or the catch sanded off by a few millimeters, so that it would not touch the device and the spring would not slide off.*

8. Place the wiring carefully.

**ATTENTION:**

- *Especially in the rear wired version attention has to be paid, whether the motor's gear might damage wire insulation. Also check if after closing the gearbox, the middle pin can be inserted.*
- *Ensure that the trigger and trigger lock will be moving freely.*
- *Ensure that the trigger will be able to engage the top-mounted switch.*

9. Carefully put the sector gear in place.

**ATTENTION:**

- *There must be a minimal amount of space between the sector gear and metal switch – at least a few tenths of a millimeter. If there is contact, shim the gears so that the sector gear would not touch the switch.*

10. Put all the other elements in place and close the gearbox.

**ATTENTION:**

- *Anti-reversal latch may not be installed, but Perun V2 will have to be run with AB activated all the time. It is generally recommended to install the anti-reversal latch.*

11. Assemble the whole replica.

**ATTENTION:**

- *While putting the motor in place, pay attention to the polarization! With Perun V2 the motor is mounted differently than usual - "+" pole of the motor should be directed towards the stock, whereas "-" towards the muzzle. The "-" wire is designed to be routed through rear of the pistol grip. Make sure that the connectors tightly link motor with the wiring and that they will not slip out while screwing the pistol grip plate.*

12. Put fuse in the socket.

**ATTENTION:**

*Attached fuses are for 25A maximum, which may be too little in some setups. If the device works properly (gives sound signals, starts to move the gears) and then blows the fuse after first or few first shots, then it may be replaced with a fuse up to 40A. Perun V2 should never be operated without a fuse!*

It is ready! Now you can check if the circuit works properly.

### First test

The device is delivered with safe modes programmed on both selector positions, as well as AB and low battery voltage warning deactivated.

In order to check whether all the elements work properly, program single shot on any of the selector's positions and check if the shot is fired correctly.