

# APOLLO External Programmable MOSFET Modular

## T238 Digital Trigger Unit for G&G



### Warning:

This upgrade kit is designed for G&G AIRSOFT electric gun with built in trigger board and 4 pins interface. The compatibility with all G&G AEG is not guaranteed, but it can fit into most G&G replicas without larger modification. Related Tools and skills is needed for installing the product.

### Compatible Replica:

PCC45 Enhanced Version, MXC9 Enhanced Version, ARP556, ARP9, GK12, CM-16, CMF-16, CMF-16K, SR30 M-LOK, L85 A2 ETU, TGM A2 ETU MP5 GC16Warthog, GR14 M14 EBR-L ETU, SRL, AK RK74-CQB, TR16 SBR 308 MK I, TR16 SBR 308 MKII.....

### Description:

Apollo is a programmable MOSFET which is specially designed for G&G AIRSOFT replica. With high speed processor and 2 high power MOSFET chips, this system has many individualized programmable functions, such as piston positioning, binary trigger, multiple-shot and so on. Besides, it also has the functions of battery low-voltage protection and gearbox block-up protection. It can effectively improve the stability, shooting speed and response speed of gearbox, at the same time, it can completely eliminate the problem of gearbox single-shot become multiple-shot. The module uses a maximum of 4S batteries.

### Main parameters:

- Size: 30\*14.5\*5mm
- Operating voltage: 7.4-16.8V
- Active break tech & Piston reset
- Adjustable active braking effect
- Multiple programmable shooting mode
- Overheat protection
- Maximum Inrush current is 240A, Maximum Brake current is 100A



### Functions:

1. Low battery voltage protection, the default setting is 7.4V battery. Change the battery when hearing 'beep beep beep beep' 4 times low voltage warning sound.
2. Block-up protection. When gearbox Block-up occurs, the system stops working and emits an elongated 'beep' sound. Please check the wave box immediately by power off.
3. Adjustable active braking effect, proper reduction of braking effect can relieve motor heating.
4. This module is able to increase rate of fire, the stability of single-shot and make batteries have higher durability.
5. The energy that support the active brake function comes from the inertia of motor, stop the piston without delay. The effect of active brake is significant on high torque motor
6. The active function prevents the over-spin of gears, this solve the issue that the single shot becomes multiple shot under high voltage. Meanwhile, the spring is fully released in semi-auto mode and parts in gearbox are not under strain, increase the

life cycle of gearbox and parts.

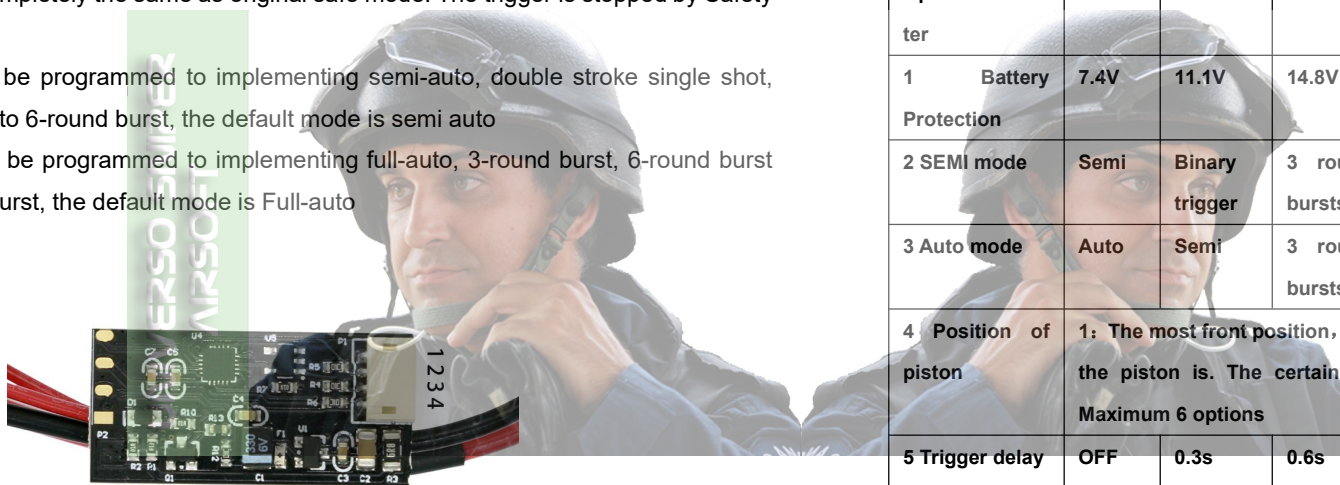
7. The system includes multiple shooting mode, these modes can be selected by fire select switch
8. The default position of the piston is adjustable in semi-auto mode. Pre-cocking function can be implementing, zero trigger delay
9. Adjustable rate of fire, the gap between two single shots can be programmable, to achieve adjustable rate of fire
10. When the DTU is overheated, after the trigger is pulled, the motor will give a beep prompt until it is automatically restarted after cooling.

## Modes:

**SAFE:** This mode is completely the same as original safe mode. The trigger is stopped by Safety lever

**SEMI:** This mode can be programmed to implementing semi-auto, double stroke single shot, 3-round burst to 6-round burst, the default mode is semi auto

**AUTO:** This mode can be programmed to implementing full-auto, 3-round burst, 6-round burst and 9-round burst, the default mode is Full-auto



2. Connect the battery and pull the trigger in 3 seconds, After hearing 2 long 'beep~', the module runs into programmable mode, otherwise it will be in auto mode.
3. In the programmable mode, the motor emits short 'beep', the numbers of 'beep' means the serial number of the option. If you want to choose the option, pull and hold the trigger in 2 seconds after 'beep's till a long 'beep', the module will be set to matched option. (The options and matched function/parameter are in the table below).
4. After setting to the selected option, the motor emits short 'beep's, the number of 'beep's means the different function/parameter of this option. If you want to program to set it to certain option or parameter, pull and hold the trigger in 2 second after 'beep' till 2 long 'beep', then the module is in programmable mode again.

Option\Parameter	1	2	3	4	5	6
1 Battery Protection	7.4V	11.1V	14.8V	9.6V	RESET	
2 SEMI mode	Semi	Binary trigger	3 round bursts	4 round bursts	5 round bursts	6 round bursts
3 Auto mode	Auto	Semi	3 round bursts	4 round bursts	5 round bursts	6 round bursts
4 Position of piston	1: The most front position, 2~15: The larger the parameter is the further back the piston is. The certain position is related the strength of the spring. Maximum 6 options					
5 Trigger delay	OFF	0.3s	0.6s	0.9s	1.2s	1.5s
6 Firing rate	100%	80%	70%	60%	50%	
7 Active braking	100%	75%	50%	25%	OFF	
8 Selector type	G36	AK47				

## Interface:

1. Command pin, directly connected to battery negative pin
2. Trigger pin, close this pin to pin 1 will create a trigger signal
3. Gear sensor pin, close this pin to pin 1 will create a braking signal
4. Full-auto pin, close this pin to pin 1, the MOSFET will run in full-auto mode

## Programming:

1. Disconnect the battery, then set the fire selector switch to auto.