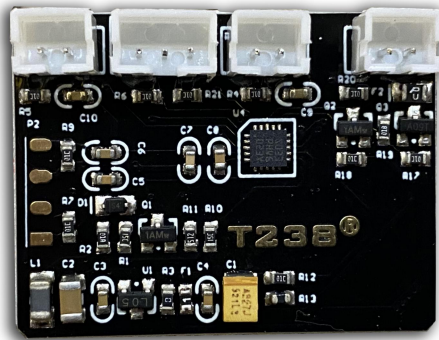# T238 Universal DTU Kit

(With MOSFET overheat protection &auto-reloading functions)

Warning:

This upgrade kit is designed for professional AIRSOFT/gel ball blaster player who can fully disassemble and assemble Automatic Electric Gun. The compatibility with all Gearboxes is not guaranteed, but it can fit into standard or common brand Gearboxes V2 without larger modification. Related Tools and skills is needed for installing the product.

Attention:

1. Protect the detection switch while installing, do not pull the trigger before finishing installation in case that the trigger breaks the detection switch.
2. Mind the positive and negative of the motor, do not reverse.
3. Gearbox, motor and grip is not functional before finishing installation. Please finish the installation at first.

Description:

T238 digital trigger unit universal Kit is a programmable MOSFET which is specially designed for Lehui gel ball KV and AUG blasters. 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 14.8V batteries. Soldering and wiring are required.

Adjustment Options:

Pre-cocking boost
Fire selector mode
Overheat protection
Low battery Warning
Block-up protection
Sniper delay

Main Features:

Overheat protection
Operating voltage:7.4-14.8V
Active break tech&Piston reset
Multiple programmable shooting model
Maximum Inrush current is 240A，maximum brake current is 100A

Funtions:

Support up to 14.8V batteries

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.

Fast speed of respond.This module is powered by small current，the current flow through the MOSFET directly to the motor，provide higher current to increase the rate of fire and speed of respond.

Auto-loading function is designed for mags with motor insert,when changing the mag,the mag motor will run automatically for a period of time and it can be programmed by 9th option.

DTU overheat protection.When the DTU is overheated,after the trigger is pulled,the motor will give a beep prompt until it is automatically restarted after cooling.

Block-up protection.When the gearbox is block-up,the system stops working and emits an elongated'beep'sound.Please check the gearbox immediately by power off.

Multiple shooting modes.The system includes multiple shooting modes，those modes can be selected by fire select switch.

PRE-COCKING.The default postition of the piston is adjustable is semi-auto model.Per-cocking function can be implementing,zero trigger delay.

Active brake.the energy thay 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.

Gearbox protection.the active brake prevents the over-spin of gears,this solve the issue that

single shot changes to multiple shot under high voltage.meanwhile,the spring is fully released in semi-auto model and parts in the gearbox are not under strain,increase the life cycle of your gearbox

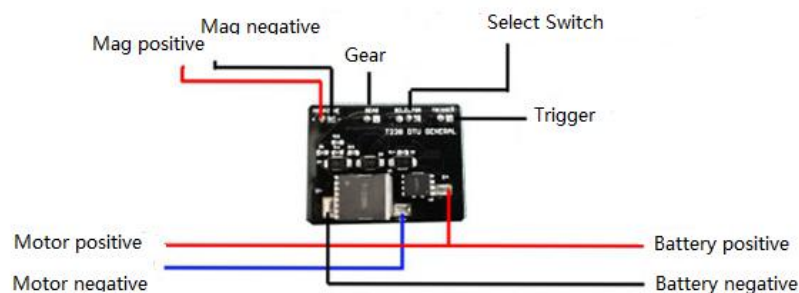Rate of fire adjustable.The gap between two single shots can be progtammable

Shooting Modes:

SAFE:This model is completely the same as original safe model.The trigger is stopped by safety lever.

SEMI:This model can be programmed to implementing semi-auto,double stroke single shot,3-rounds burst to 6 rounds burst,the default model is semi auto.

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

Requirements:

1. Silver plate wire is needed for this system, power wire for motor and battery should be larger than 0.5sqm silver plate wire, wire for electronic powered magazine should be around 0.25sqm.
2. High-power soldering iron (higher than 50W) is recommended, solder the clop with 0.5sqm soldering wire and soldering rosin. Please ask professional for help if you do not know to solder.
3. Please use Spring smaller than M150.
4. Use high torque motor can stop the motor faster and prevent DTU from overheating .
5. In standby state, the current of the system is smaller than 0.01A. Please disconnect the battery if it is not used for a long time.

Programming:

How to enter programming model:

1:Power off the gearbox > put the selector on AUTO>Power on and pull the trigger in 3s>When hear 2 long beeps then release the trigger>You are in programming model now.

2：Power on the gearbox>put the selector on SEMI>Pull and hold the trigger for 10s>When hear 2 long beeps then release the trigger>You are in programming model now.

Model	1	2	3		4	5	6
1:Battery protection	7.4V	11.1V	14.8V		9.6V		
2:SEMI Model	Single	double stroke single shot	3-round burst		4-round burst	5-round burst	6-round burst
3:3-round burst	Single	double stroke single shot	3-round burst		4-round burst	5-round burst	6-round burst
4: AUTO Model	full-auto	Single	3-round burst		4-round burst	5-round burst	6-round burst
5:Piston Position	Top position	Higher level,more backward					
6:Single Fire Delay	No delay	0.3s	0.6s		0.9s	1.2s	1.5s
7:Shooting Speed	100%	80%	70%		60%	50%	
8:Per-load	3s	2.5s	2s	1.5s	1s	0.5s	shut down

选项\参数	1	2	3		4	5	6
1 电池保护	7.4V	11.1V	14.8V		9.6V		
2SEMI 模式	单发	双行程单发	3 连发		4 连发	5 连发	6 连发
3 3 连发模式	单发	双行程单发	3 连发		4 连发	5 连发	6 连发
4AUTO 模式	连发	单发	3 连发		4 连发	5 连发	6 连发
5 天梯位置	最前位置	档位越高越靠后	具体位置与电机和弹簧有关		最多有 15 挡		
6 单发扳机间隔	无间隔	0.3 秒	0.6 秒		0.9 秒	1.2 秒	1.5 秒
7 连发射速	100%	80%	70%		60%	50%	
8 预供时间	3S	2.5S	2S	1.5S	1S	0.5S	关闭