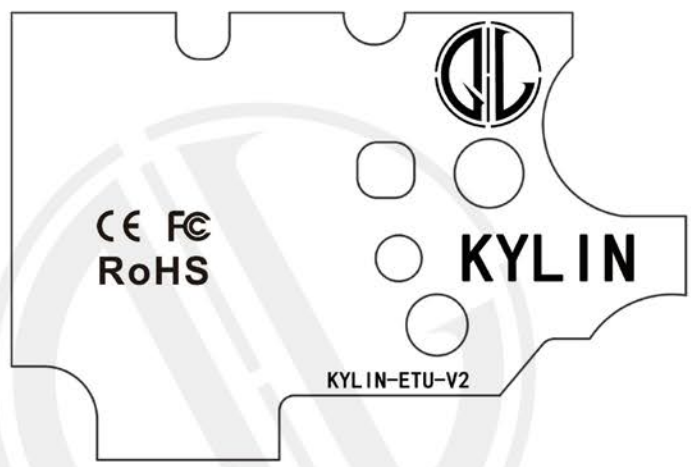
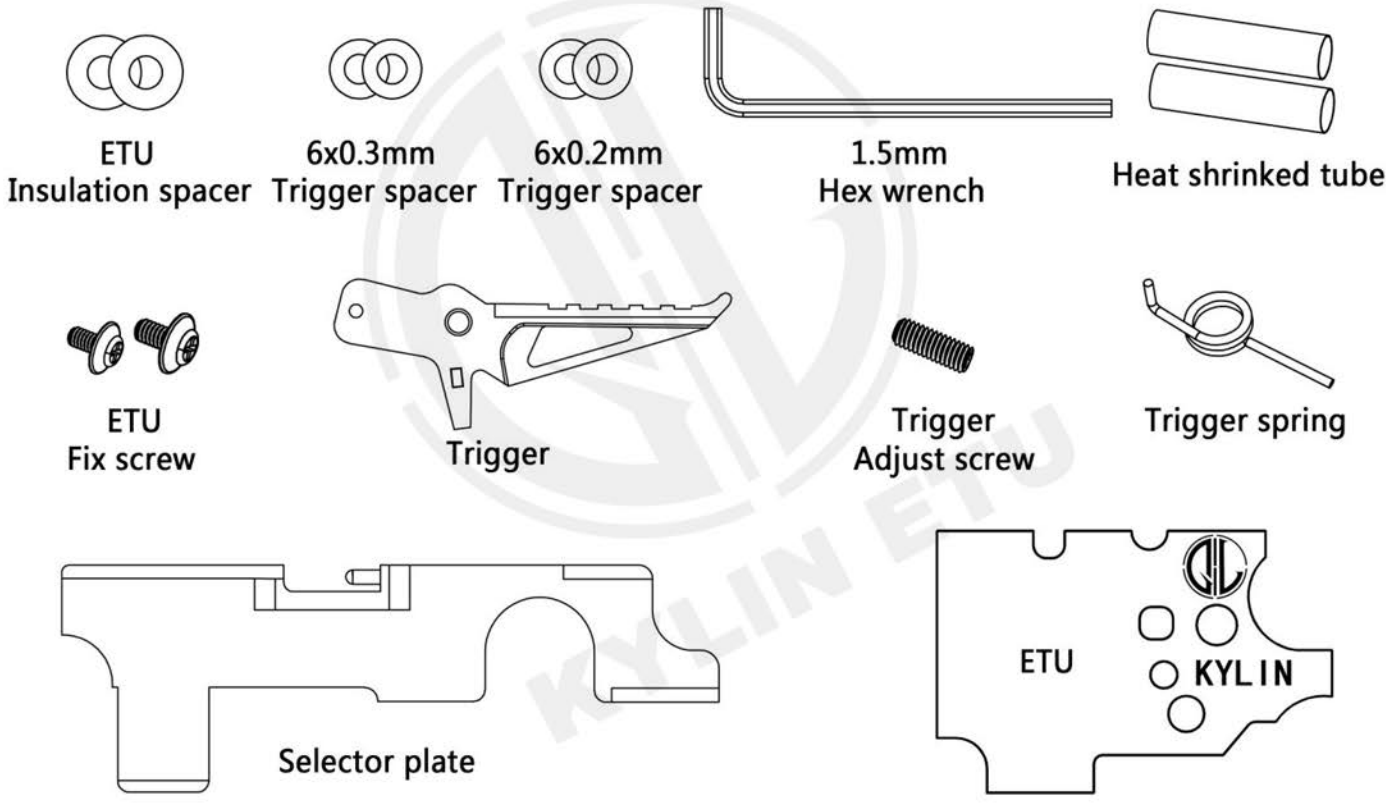




**KYLIN**  
**ETU MANUAL**

**0130YS**

1. Pack list and specification:



Voltage range: 5.0V-15.5V

Electricity: 17mA

Size (L x W x H): 44x29x8mm

Weight: 24.5g

Applicable temperature: -10 - 50°C

Relative humidity: ≤70%



## 2. Product features and precautions

1. KYLIN ETU using magnetic trigger with light gear detection, which can achieve diversified customization functions. It has the advantages of high sensitivity, long service life, and less affected by external interference.
2. It can be adapted to brushless motors.
3. Turn the selection button to the SAFE position to enter standby mode, which can minimize battery consumption. Please disconnect the battery promptly when not in use. In standby mode, the ETU will continuously consume a very small amount of battery power, and the battery will be empty if not disconnect for a long time, which will cause battery damaged.
4. Suggest using 11.1V LiPo batteries.
5. To install KYLIN ETU, it is necessary to be familiar with and understand the internal structure of the gearbox. To avoid damage or incorrect installation of the ETU during the installation process, it is recommended to have professional technical personnel install the ETU.
6. Pay attention to protecting the wires from damage or damage during installation.
7. Please read the manual carefully before installing the ETU to avoid damage the ETU.
8. Incorrect installation or incorrect connection of the battery can cause a short circuit and result in instantaneous damage to the ETU, which is not covered by the warranty.

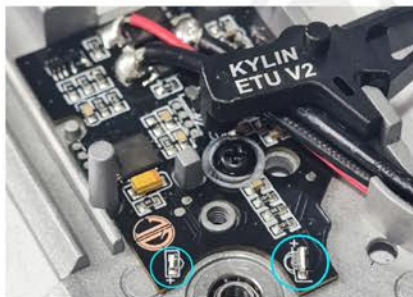
## 3. Protection and alarm

1. **Low voltage protection:** If the instantaneous voltage drops below 5.0V, the battery will be automatically power off to protect it and an alarm will be issued.
2. **High voltage protection:** If the voltage exceeds 15.5V, the battery will be automatically power off to protect it and an alarm will be issued.
3. **Overload protection:** If the shooting speed exceeds 40 RPS, it will automatically power off to protect the hardware of the gearbox from damage and an alarm will be issued.
4. **Abnormal protection:** When the gearbox hardware is damaged or unable to operate normally, it will automatically power off for protection and an alarm will be issued.
5. **Alarm prompt:** After an abnormal situation occurs, there will be an alarm prompt that displays as three times consecutive motor vibration.

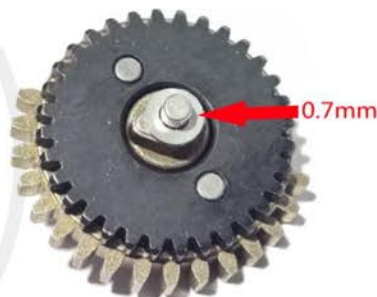


## 4. Installation instructions:

(1) The image below shows the optical element of the KYLIN ETU. Please note that the optical element should not be contaminated with oil during installation. Contaminated with oil or damaged of the element will affect the use of the ETU.



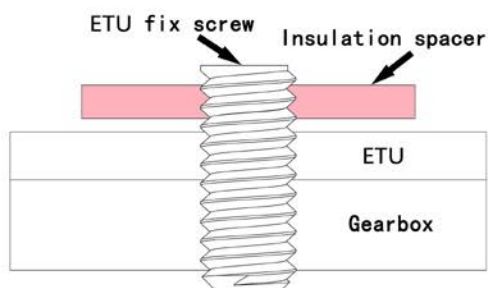
(2) To avoid the teeth touching the light element during operation, the thickness of the spacer at the bottom of the teeth should not be less than 0.7mm.



(3) Please adjust the position of the ETU before fixing the lock screw. The ETU and the bearing must always maintain a concentric distance, as indicated by the red mark.



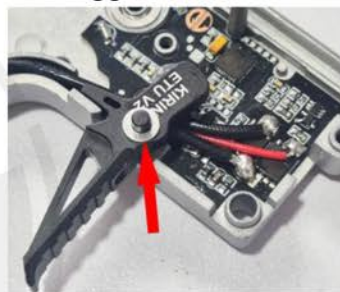
(4) When fixing ETU with screws, 0.7mm insulated spacer must be added to prevent ETU from being damaged by screws.



(5) If the gap between trigger and gearbox shell is large, the trigger Wobble seriously will affect the use of the ETU, you can add a 6 x 0.2mm or 0.3mm trigger spacer on the trigger shaft to reduce the gap wobble.



(6) The position indicated by the arrow is a pin hole. Please confirm this hole is not covered by wires or others.



(7) Please apply the gear set with a small amount of grease, if too much lubrication may splash on the light sensor which will affecting the use of ETU.

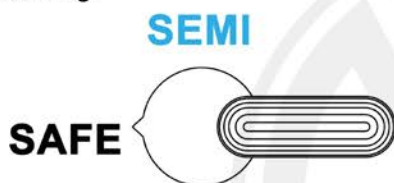




## 5. Set up trigger and restore factory settings:

### 1. Set up the trigger before use.

(1) Make sure the selector is in SAFE mode before connecting.

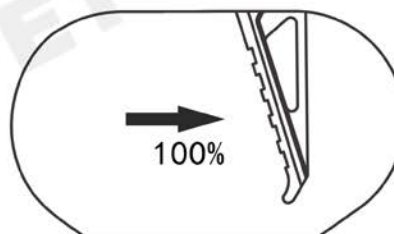
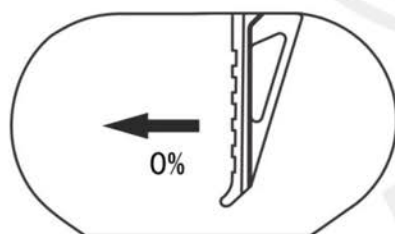


(2) Connect battery in SAFE mode.



(3) No action is required after the connect prompt, wait for 3 seconds and a "beep" sound will appear.

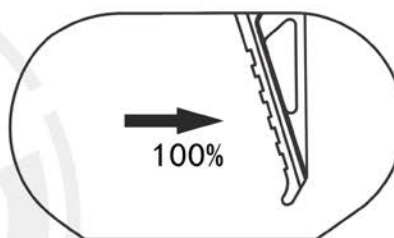
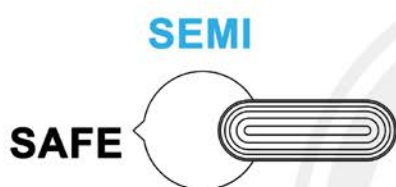
(4) Pull the trigger to the bottom for 5 seconds, When a "beep" sounds, it means the activation is successful.



### 2. Restore factory settings.

(1) Make sure the selector is in SAFE mode before connecting.

(2) Pull the trigger to the bottom in SAFE mode, please do not press hard on the trigger.



(3) Connect the battery when pull the trigger, after the connect prompt, wait for 5 seconds, after a "beep" sounds, it means the restore factory settings is success.



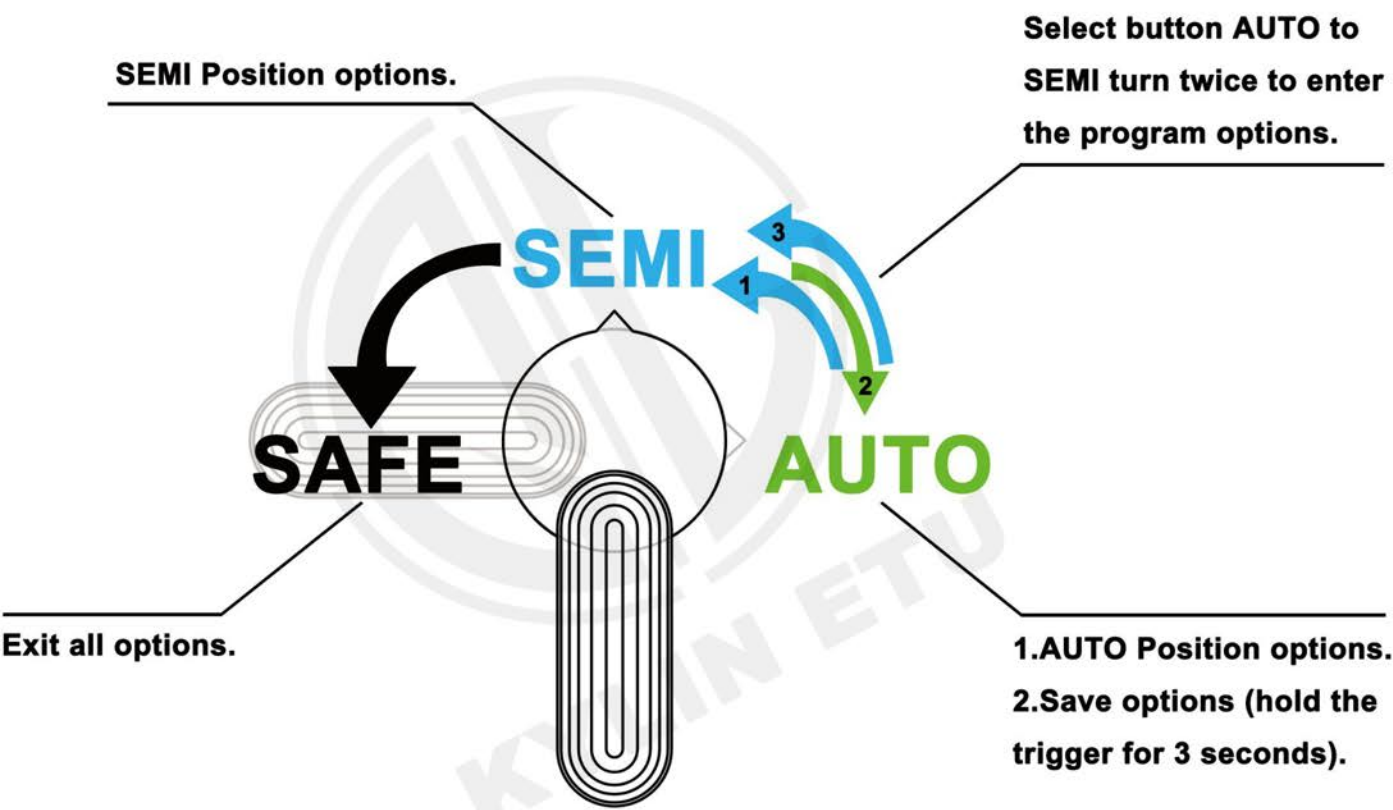
**Note:** After restoring factory settings, the trigger can be used normally only after setting up.

**\* Every installation of the ETU requires restoring factory settings and resetting the trigger.**



6. Function options and Save

(1) Turn the selector twice from "AUTO" to "SEMI" and enter the program selection in "SEMI" mode.



SEMI Position	1				2				3					4						5	
	AUTO fire mode				SEMI fire mode				Trigger mode					Pre-cocking mode						Active brake	
AUTO Position	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6	1	2
	AUTO	SEMI	Burst 3	Burst 5	SEMI	Binary	AUG	Sniper	20%	40%	60%	80%	100%	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	ON	OFF

(2) Pull the trigger under "SEMI" mode to switch the "SEMI" position.



(3) After selecting the mode of "SEMI", turn the selector to the "AUTO" mode position. Pull the trigger under "AUTO" mode to switch the mode, select the required program, and long press the trigger under "AUTO" mode for 3 seconds to save the program.



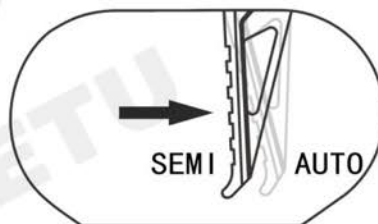
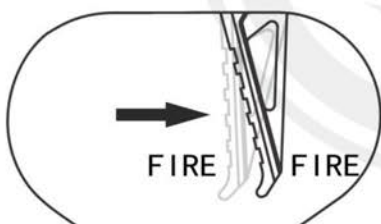
(4) After enter the program under "SEMI" position, pull the trigger under "SEMI" position to switch the selective type, pull the trigger after selector turn to "AUTO" position to select type. After selecting the required mode, if you didn't long press trigger to save the program, the selector will back to "SEMI" position, and the selected mode under "AUTO" position will be pre-stored. Selector turn back to the "SEMI" position, you can continue to pull the trigger to adjust the next shooting mode, and finally long press the trigger under "AUTO" position to save all the selected modes. You can select and save multiple functions at once.

## 1. AUTO Shooting mode

- (1) AUTO
- (2) SEMI
- (3) Burst 3: Pull the trigger once will shoot 3 times.
- (4) Burst 5: Pull the trigger once will shoot 5 times.

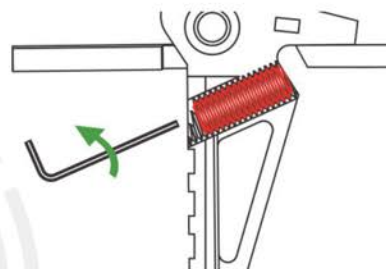
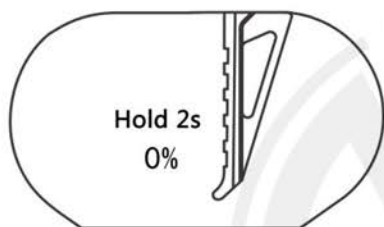
## 2. SEMI Shooting mode

- (1) SEMI
- (2) Binary: pull the trigger to the bottom will shoot one time and release the trigger will shoot one time.
- (3) Pull the trigger to 20% is "SEMI" mode; Pull the trigger to 100% is "AUTO" mode.



(4) Sniper: Wait for 2 seconds for each shot. After 2 seconds, there will be a "beep" sound indicating that it can be shot.

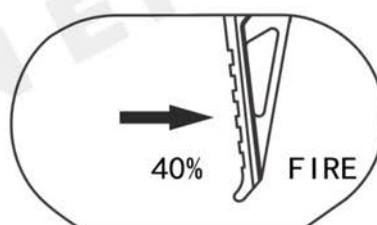
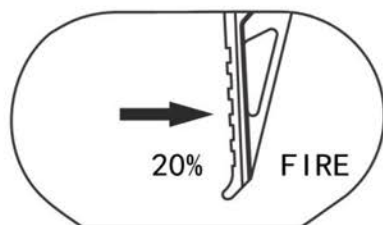
**Special suggestion:** The AUG mode requires the trigger screw to be adjusted to a completely unrestricted state for normal use.



### 3. Trigger mode

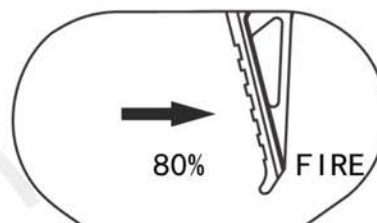
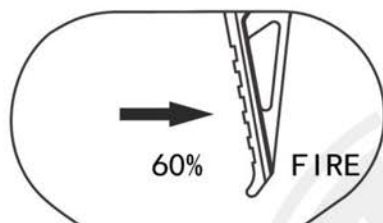
(1) 20%: Pull the trigger to 20% and shot.

(2) 40%: Pull the trigger to 40% and shot.



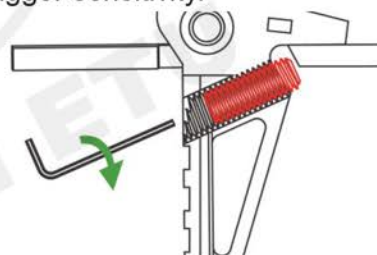
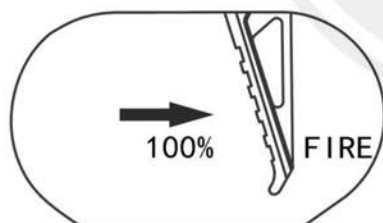
(3) 60%: Pull the trigger to 60% and shot.

(4) 80%: Pull the trigger to 80% and shot.



(5) 100%: Pull the trigger to 100% and shot.

**Special suggestion:** The screw inside the trigger can adjust the distance. The distance of the trigger can be adjusted according to the selected mode for better trigger sensitivity.

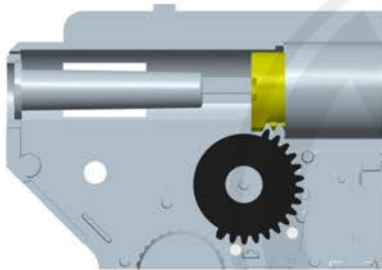




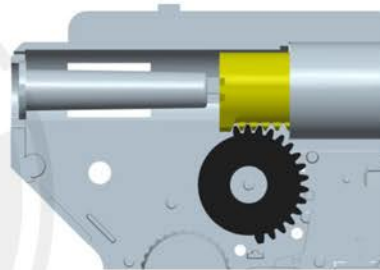
#### 4. Pre-cocking mode

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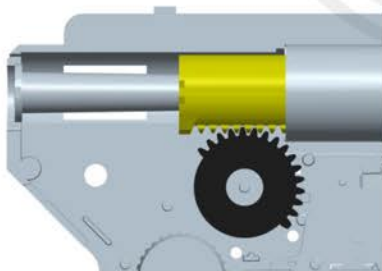
(1) Level 1: The piston stop position is 1<sup>st</sup> gear.



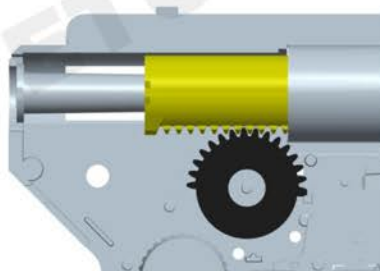
(2) Level 2: The piston stop position is 2<sup>nd</sup> gear.



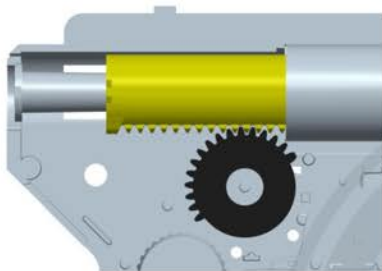
(3) Level 3: The piston stop position is 3<sup>rd</sup> gear.



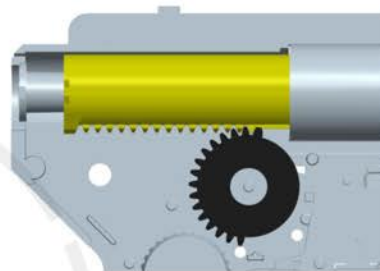
(4) Level 4: The piston stop position is 4<sup>th</sup> gear.



(5) Level 5: The piston stop position is 5<sup>th</sup> gear.



(6) Level 6: The piston stop position is 6<sup>th</sup> gear.



#### 5. Active brake

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(1) Active brake - ON

(2) Active brake - OFF

Please turn off "Active brake" when using the brushless motor.



KYLIN ETU

CE RoHS FC