

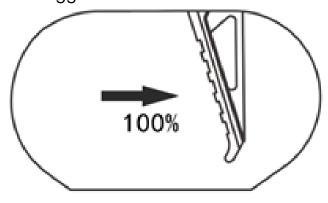
OPERATION MANUAL FOR EAGLE OPTICAL ETU

# <u>BEFORE FIRST USE</u> restore to factory settings and set up trigger:

#### 1. Restore factory settings



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

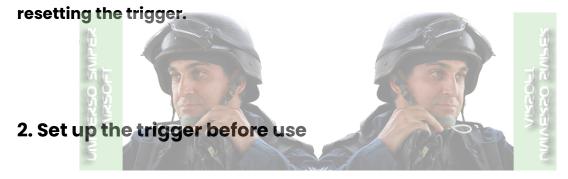


Connect the battery when pull the trigger, after the connect prompt, wait for 5 seconds, after a "beep" sounds, it means the restore factory settings is success.

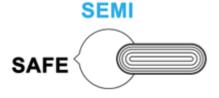


**Note:** After restoring factory settings, the trigger can be used normally only after setting up.

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



Make sure the selector is in SAFE mode before connecting.



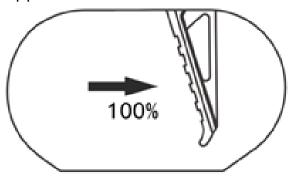
Connect battery in SAFE mode.



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

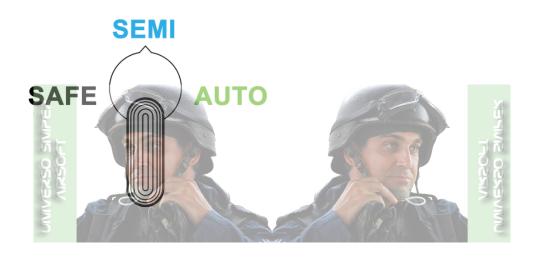


Pull the trigger to the bottom for 5 seconds. When a "beep" sounds appears, it means the activation is successful.

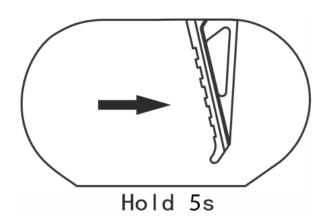


# **Entering the Programming Menu:**

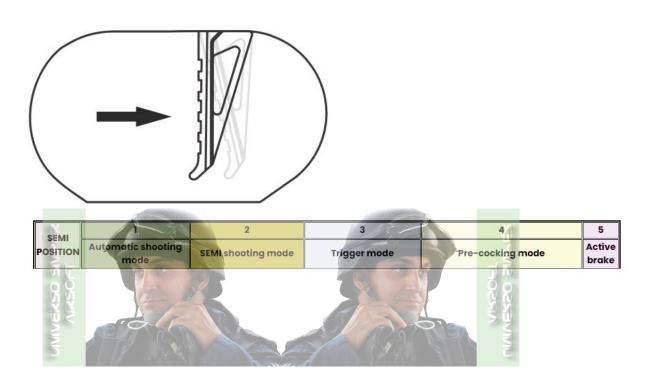
1. The firing switch must be switched to **SEMI**.



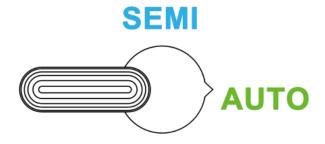
2. Hold down the trigger until a **beep** sound.



3. Press the trigger to select the programming branch (the processor lets us know which branch we are in by beeping (1 beep, 2 beeps, 3, 4, 5).



4. By switching the firing mode switch to full **auto mode** we get into the programming of that particular branch.



SEMI		1				2				3				4						5			
POSITIO	)N	Automatic shooting mode				SEMI shooting mode				Trigger mode				Pre-cocking mode						Active brake			
AUTO		1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6	1	2	Number of BEEPS
POSITIO		υτο	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	SELECTION

5. By pressing the trigger I switch between the different options (which option I have set the processor lets me know with the appropriate number of beeps).

6. Long press and hold the trigger to confirm and save the option selection.

7. Exit programming - by turning the firing switch to **safe** position.

8. Exit branch programming to change branch - turn firing switch from **full auto** to **semi** and then **trigger** to select the desired branch as in step 3.

SEMI	1				2				3					4							5	
POSITION	Auto		c shoc ode	oting	SEMI shooting mode				Trigger mode					Pre-cocking mode						Active brake		
AUTO	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6	1	2	
POSITION	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	

### **AUTO Shooting mode**



SEMI

Burst 3: Pull the trigger once will shoot 3 times.

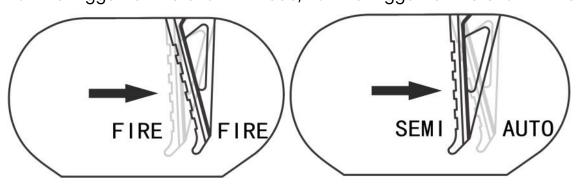
Burst 5: Pull the trigger once will shoot 5 times.

## **SEMI Shooting mode**

#### SEMI

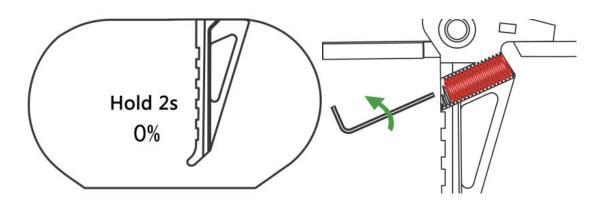
Binary : pull the trigger to the bottom will shoot one time and release the trigger will shoot one time

Pull the trigger to 20% is "SEMI" mode; Pull the trigger to 20% is "SEMI" mode;



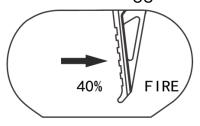
Sniper: Wait for 2 seconds for each shot. After 2 seconds, there will be a "beep" sound indicating that it can be shot.

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

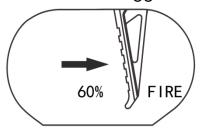




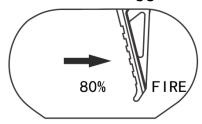
40%: Pull the trigger 40% to shoot.



60%: Pull the trigger 60% to shoot.

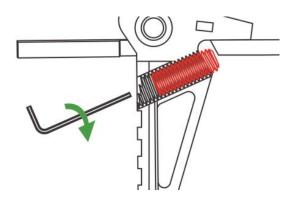


80%: Pull the trigger 80% to shoot.



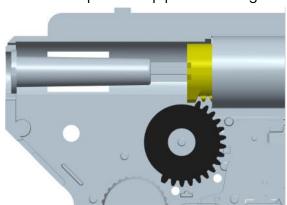


**Special suggestion:** The screw inside the trigger can adjust the distance. The distance of the trigger can be adjusted according to the selected mode for better trigger sensitivity.



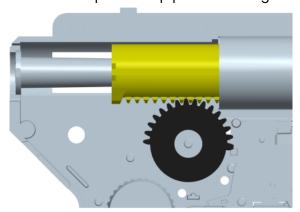
# Pre-cocking mode

I. Level 1 : The piston stop position is  $l^{\mbox{\tiny st}}$  gear.

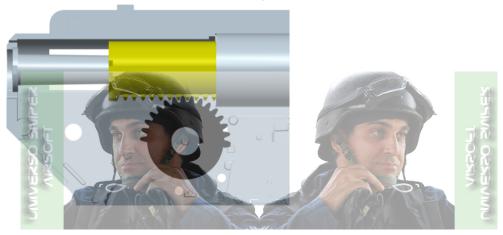




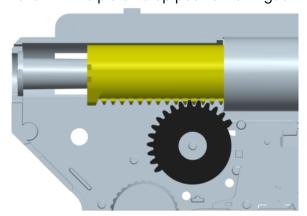
III. Level 3 : The piston stop position is  $3^{rd}$  gear.



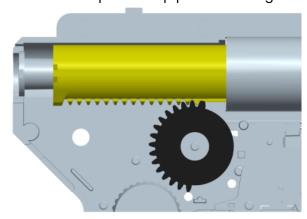
IV. Level 4 : The piston stop position is  $4^{th}$  gear.



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



VI. Level 6: The piston stop position is 6th gear.

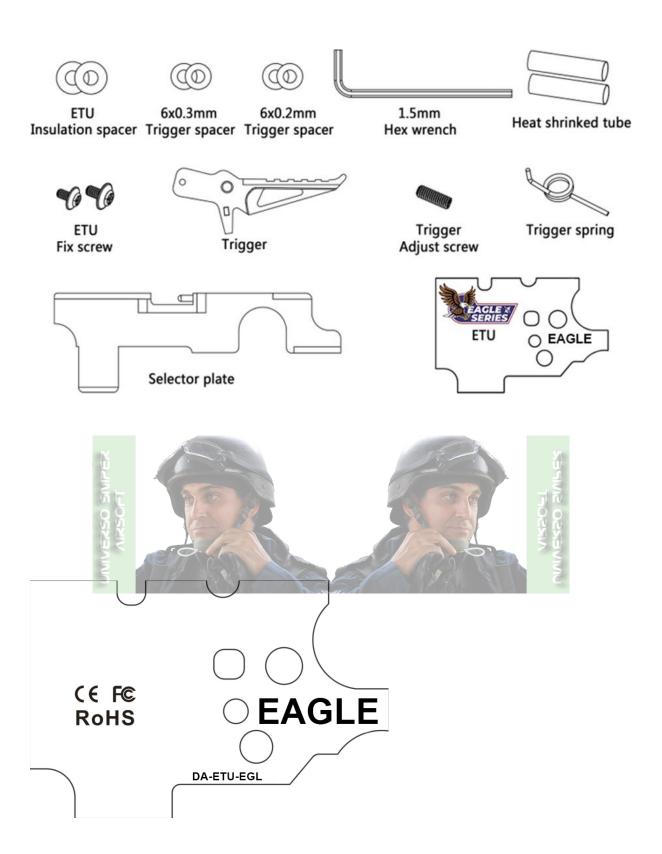


#### **Active brake**



INSTALLATION MANUAL FOR EAGLE OPTICAL ETU UNIT

# Pack list and specification:

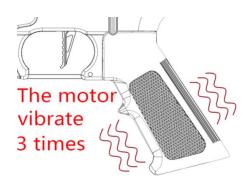


<b>Voltage range</b> : 5.0V-15.5V	Electricity: 17mA							
<b>Size</b> (L x W x H) : 44x29x8mm	Weight: 24.5g							
Applicable temperature: -10 - 50°C	Relative humidity : ≤70%							

## **Protection and alarm**

- 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.

**Alarm prompt:** After an abnormal situation occurs, there will be an alarm prompt that displays as three times consecutive motor vibration





EAGLE 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. It can be adapted to brushless motors.

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. Suggest using 11.1V LiPo batteries.

To install EAGLE 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.

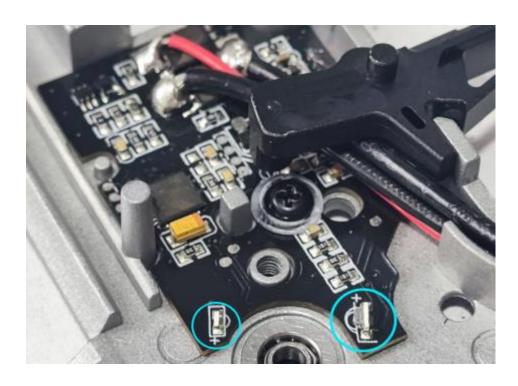
Pay attention to protecting the wires from damage or damage during installation.

Please read the manual carefully before installing the ETU to avoid damage the ETU.

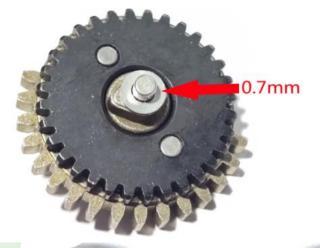
Incorrect installation or incorrect connection of the battery can cause a short circuit and result in instantaneous damage to the ETU, which is not covered by the warranty.

## **Installation instructions**

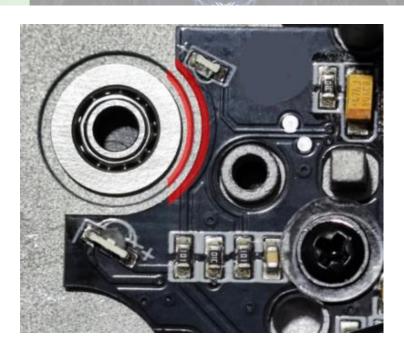
- The image below shows the optical element of the EAGLE ETU.
  Please note that the optical element should not be contaminated with oil during installation.
  - Contaminated with oil or damaged of the element will affect the use of the ETU.



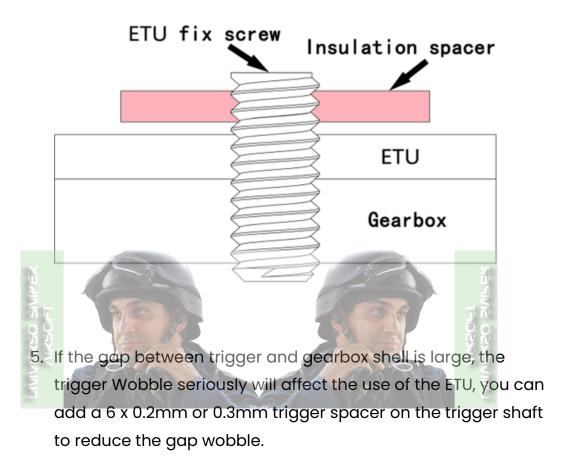
2. To avoid the teeth touching the light element during operation, the thickness of the spacer at the bottom of the teeth should not be less than **0.7mm**.

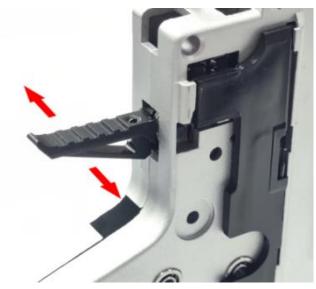


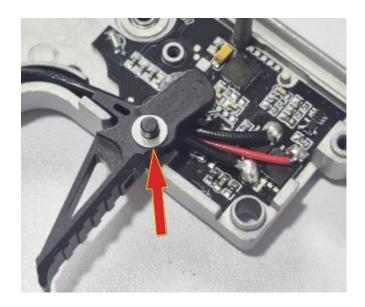
3. Please adjust the position of the ETU before fixing the lock screw. The ETU and the bearing must always maintain a concentric distance, as indicated by the red mark.



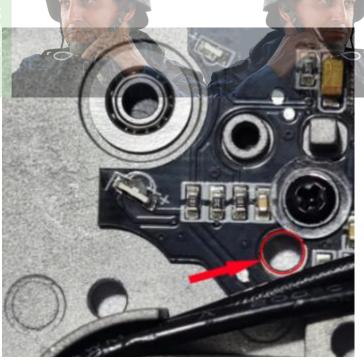
4. When fixing ETU with screws, 0.7mm insulated spacer must be added to prevent ETU from being damaged by screws.







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.

