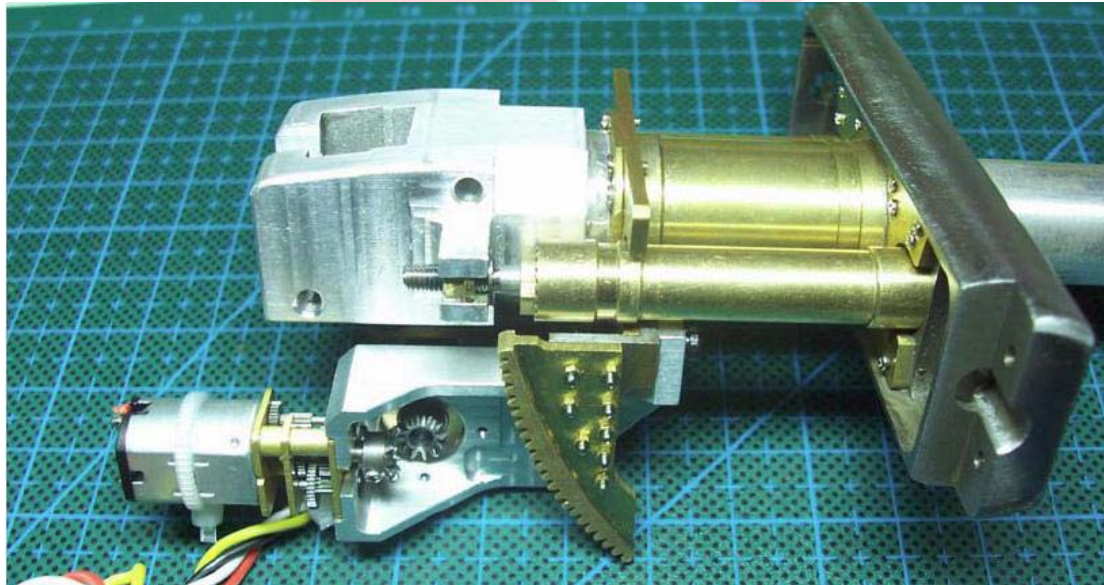


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## **PzKpfw VI Ausf. E Tiger I**



# Tank Recoil System Assembly Instruction

**Release 1:2011-12-23**



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## Part List

PACK NO	Part No:	Name of Commodity and Specifications	QTY	USE FOR	Mem
1	T31	Gear box5 Copper Gearbox	1		Pre-assembled
2	T43	bevel gear	2	To A75/A44	Pre-assembled
3	T44	Gear Axis	1		Pre-assembled
4	T56	Straight gear 1	1		
5	T56A	L-shaped paddle	1		
6	T57	Straight gear	1		
7	T58	Gear box4	1		Pre-assembled
8	A24	MR63zz 3*6*2.5 Ball bearing	2		Pre-assembled
9	A70	SW 250V/1A Switch	1		
10	A74	Recoil ESC with speed/timing adjustment 5A	1		
11	A75	Gear Motor	1		Pre-assembled
12	A76	Φ3 E ring	1		
13	A77	Φ3.75*5mm Spring	1		
14	A78	Φ5.0*6mm Spring	1		Pre-assembled
15	A66	4Pin wire SM (F) T-1-12 4P SM Color wire L=280mm	1		
16	A4	M1.2*2.5 Bolt-head screws	2		
17	A22	M2*6 CSK SKT	2	Straight gear 1 to	



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				breech	
18	A12	M2*8 CSK SKT Cup head Cap screw	2	Gear box to bracket	
19	A17	M3*3 grub screw	1		
20	A16	M2*8 CAP HEAD	3		
21	A31	M2 scale nut	1		
22	A34	M1.0*4 Phillips screws	2		Pre-assembled
23	A53	M1.6*3.5 Phillips screws	6		Pre-assembled
24	G-15 ECN	Breech (Alu)	1		
25	G-18R	Piston R	1		REV



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# Assembly Instruction Catalogue

1. Assembly .....	4
2. Connection .....	8
3. Test Firing .....	9
4. Special Features .....	11

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## 1. Assembly

Part No:	Name of Commodity and Specifications	QTY	USE FOR
T56	Straight gear 1	1	
T56A	L-shaped paddle	1	
T57	Straight gear 2	1	
T58	Gear box4	1	To Bracket
A70	SW 250V/1A	1	To Gear box4
A74	Recoil ESC with speed/timing adjustment 5A	1	
A75	Gear Motor	1	To Gear box4
A76	Φ3 E ring	1	To Piston R
A77	Φ3.75*5mm Spring	1	To Straight gear 2
A4	M1.2*2.5 Bolt-head screws	2	L-shaped paddle To Straight gear 1
A22	M2*6 CSK SKT	2	

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A16	M2*8 CAP HEAD	3	SW To Gear Box4. Straight gear 2 to Straight gear 1.
A12	M2*8 CSK SKT	2	Gear Box4 To Bracket
A17	M3*3 grub screw	1	



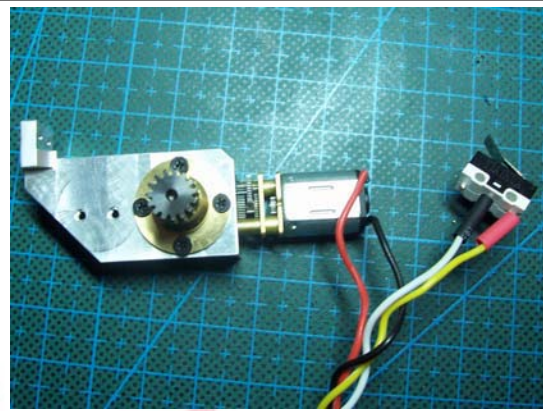
All parts



Fix the motor with 2pcs M1.6\*3.5



Fix gear components with 4pcs M1.6\*3.5



Welding wires: RED/BLK to motor; YLW/WHT to switch

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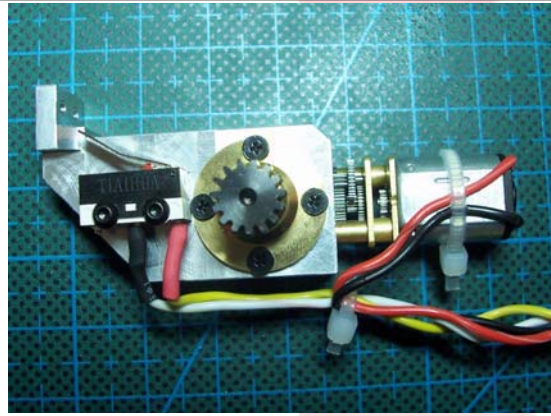


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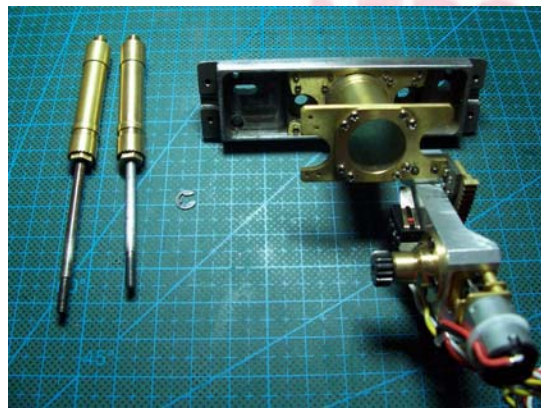




Fix the switch with M2\*8 screw.



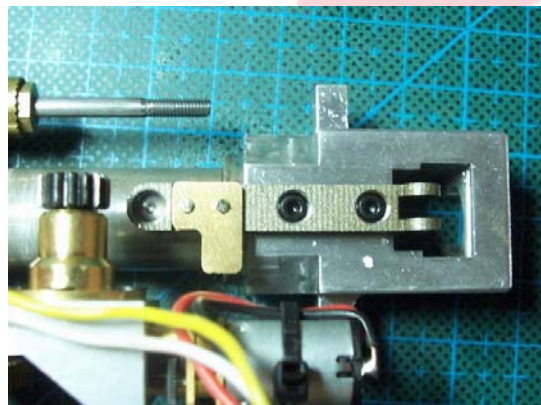
Install gear box assembly / tilt gear components on the bracket with 2pcs M2 \* 8 screws.



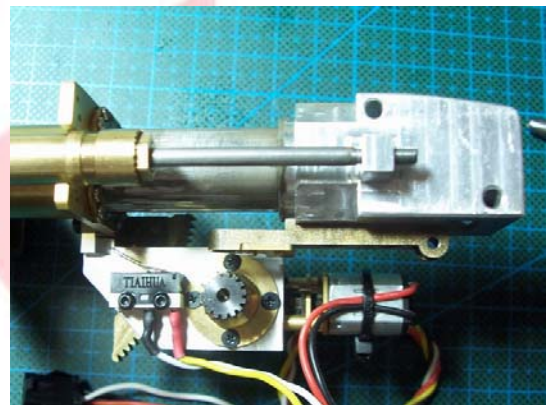
Fix the bracket with 8pcs M1.4\*4 screws.



Install shock absorber tube; the right one with resistance device, equipped with E ring.



Breech and barrel connected; Fix straight gear 1 components with M2\*6 screws.



Bucket link connected with the shock device; ensure that 88 guns slide well -it can be free to slide down with its own weight.

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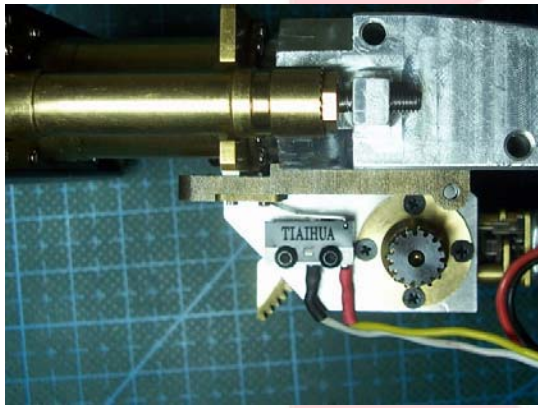


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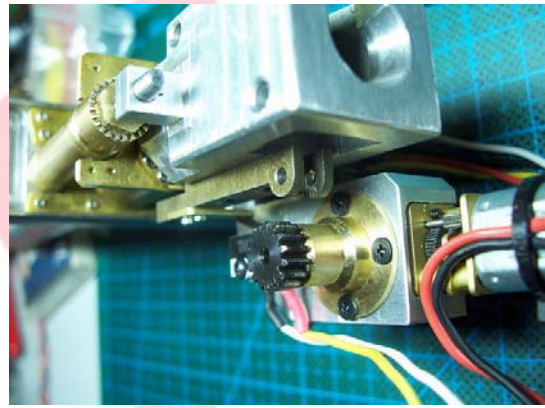
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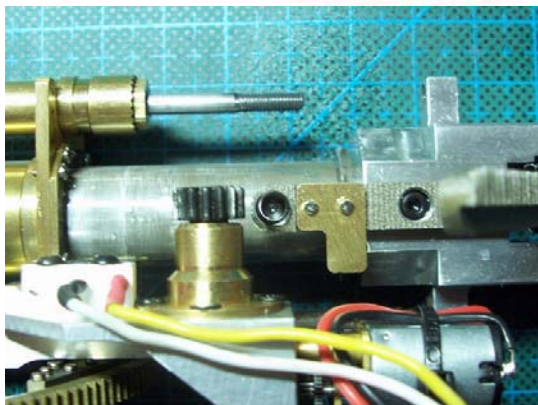




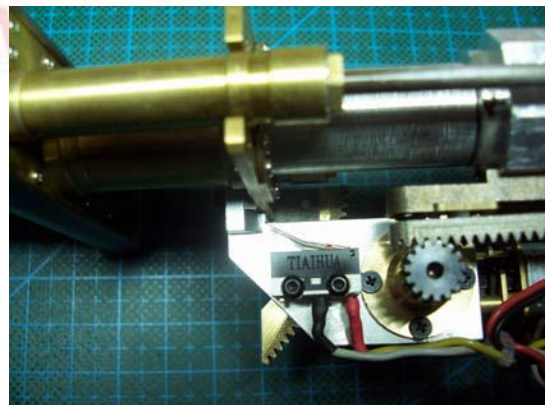
Make sure switch and L-rod contact perfect.



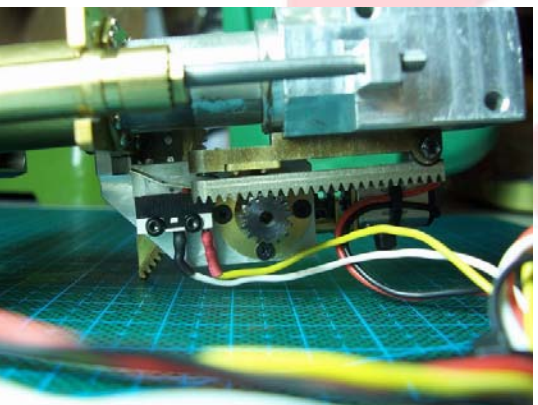
When connect ESC, you also need to adjust the rod angle to make sure that 88 gun can back to stop position.



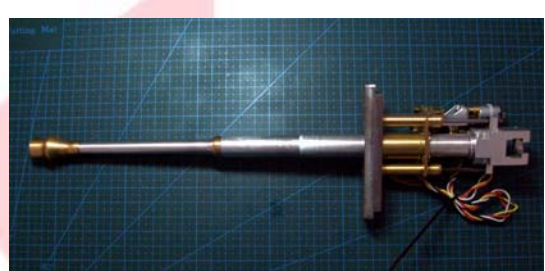
Install compression spring, straight gear 2 (M2\*8 cap head + nut)



Connect with shock rod again; make sure that straight gear 2 and the gear fit well during 88gun reduction process( or you may need adjust length of spring)



Tighten M2 screw properly .Make sure rack 1/2 open angle and compression spring won't off. Use screw glue to prevent nut loosening.



AERO-MATE Tank Recoil system For Tiger I is Ready

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## 2. Connections

AERO-MATE Tank Recoil Esc  
CONNECTION TABLE

ESC	AERO-MATE Multifunction Unit			Connect To	MEM
	No	Name	Status		
12Pin	1 (UP) /7	Firing Signal in		MFU L3	2Pin Wire; 1-RED/7-BLK
	2 (UP) /8	1s/6s	SHORT/OPEN		Jumper
	3 (UP) /9	NC			
	4 (UP) /10	NC			
	5 (UP) /11	NC			
	6 (UP) /12	NC			
16Pin	8(UP)/16	Motor +/-		Recoil motor	4Pin Wire.
	7(UP)/15	switch		Recoil Switch	8-RED/16-BLK. 7-YLW/15-WHI
	6(UP)/14	NC			
	5(UP)/13	Firing LED+/-		LED	2Pin Wire With LED. 5-RED/13-BLK
	4(UP)/12	NC			
	3(UP)/11	NC			
	2(UP)/10	NC			
	1(UP)/9	NC			
8.4V DC-IN	1(RED)	8.4V DC+		Battery +	
	2(BLK)	8.4V DC-		Battery -	

Color Description:

RED-red /BLK-black /YLW-yellow /WHI-white

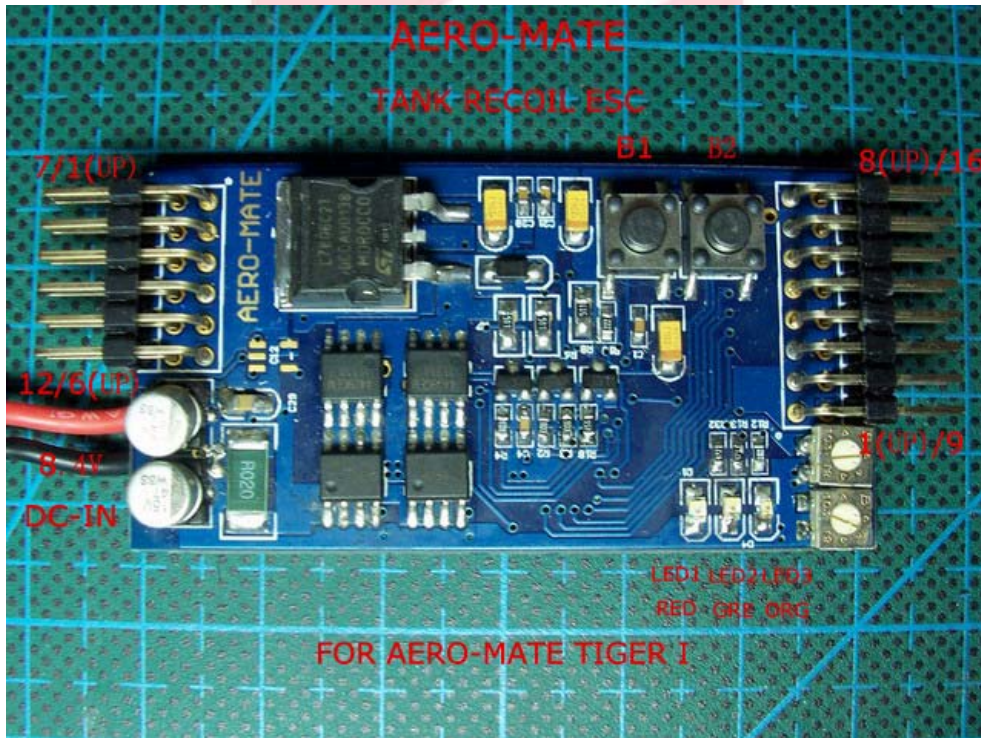


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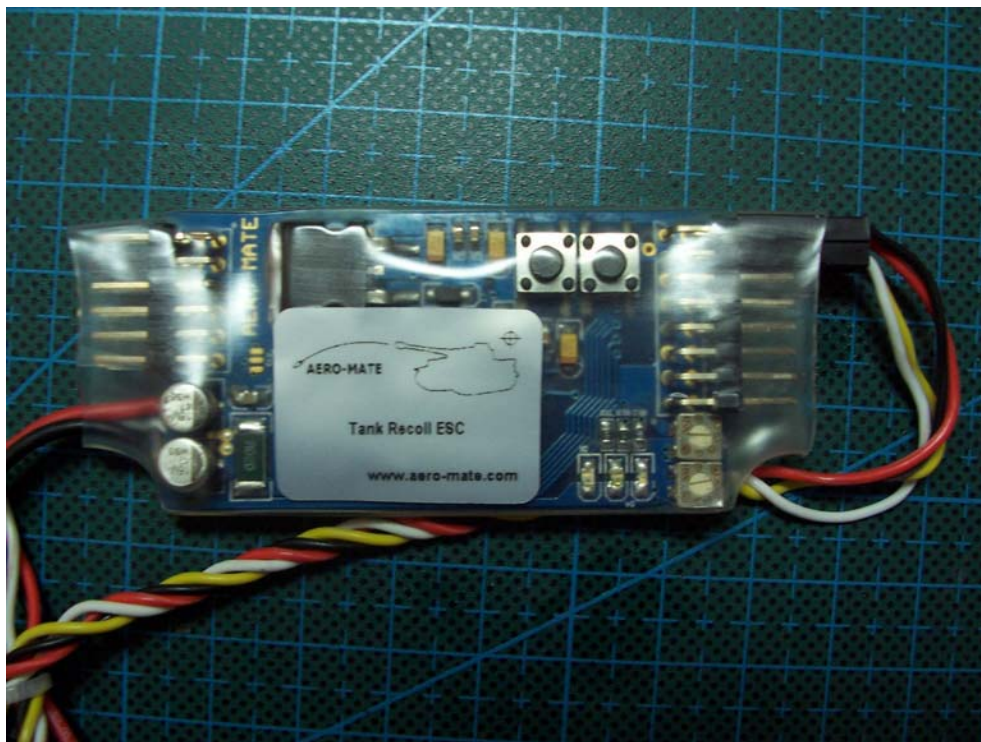
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Port diagram



Connections

Connect with Tank Recoil Esc, please read user manual for Tank Recoil Esc.

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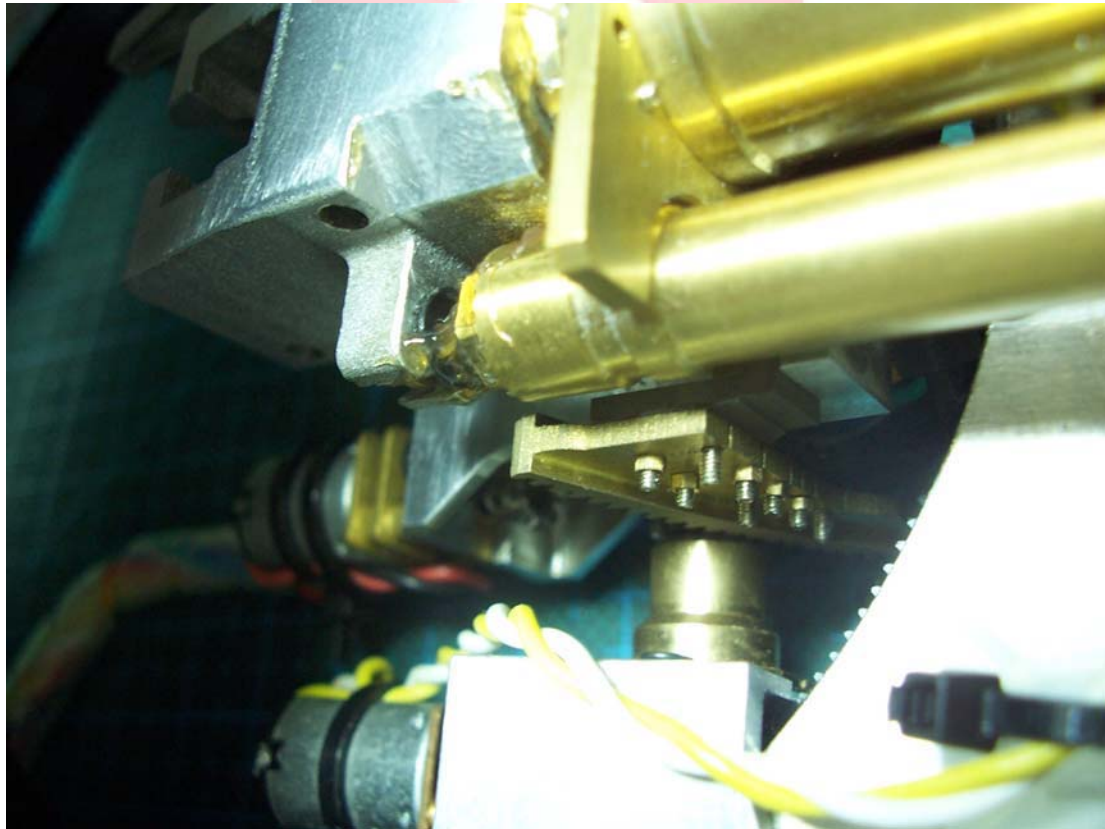
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### 3. HOW TO USE

After right connections, you can fire 88 Gun with AERO-MATE Recoil system now.



Your 88 Gun will make different recoil movement depending on what you choose the Ammo.

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## 1 Changing Ammo

You can change Ammo of 88 Gun by pressing B1.

Ammo /LED	LED2 (GREEN)	LED3 (ORANGE)
Pzgr.39	off	on
Pzgr.40	on	on
Gr.39HL	on	off

## 2 Test Firing

You can make a test firing of 88 Gun by pressing B2.

**Notice: You should wait for certain time 1S/6S when changing Ammo or firing.**

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## 4. Special Features

AERO-MATE Tank Recoil System has some special features

### 1 Automatic in-position

When esc is powered on, esc will check position of 88 Gun. If it is not in-position, esc will drive motor to finish the job. If it fails, esc will make a warning.

### 2 Mechanics Jam Protection

Whenever mechanics jam happens, esc will make a warning to prevent further mechanics damage.

### 3 Low battery warning

When battery is under 6V, esc will make a warning.

Warning Table

SN	88 Gun Firing LED	Possible Reason/Solution
1	Long Flashing	Recoil switch is open or mechanics jam when power is on.
2	Short Flashing	Recoil switch is open or mechanics jam when after a firing.
3	Two short Flashing	Low battery

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