

# Programming via Trigger

## Entering programming mode:

- 1) Disconnect the battery.
- 2) Hold the down the trigger while reconnecting the battery.
- 3) The motor will buzz **4 times** to indicate programming mode active.

## Select Function

1	LiPoly Monitoring
2	Digital Fuse
3	Motor Braking
4	Fire Mode
5	Burst Count
6	Hybrid Delay
7	RoF Control
8	Precocking
9	Firing Interval
10	Fire Mode
11	Burst Count
12	Hybrid Delay
13	RoF Control
14	Precocking
15	Firing Interval
16	Fire Mode
17	Burst Count
18	Hybrid Delay
19	RoF Control
20	Precocking
21	Firing Interval



After input, wait 3s until motor buzzes **2 times**

**Settings saved.** Select another function or disconnect battery if finished

After input, wait 3s until motor buzzes **4 times**

## Select Settings

### LiPoly Monitoring

1	NiMh / NiCd *
2	7.4v LiPo
3	11.1v LiPo
4	14.8v LiPo
5	9.6v LiFePO
6	12.8v LiFePO
7	16v LiFePO

### Digital Fuse

1	Disabled
2	20 Amps
3	25 Amps
4	30 Amps
5	35 Amps
6	40 Amps
7	45 Amps
8	50 Amps
9	55 Amps
10	60 Amps *

### Motor Braking

1	Disabled *
2	Light Braking
3	Medium Braking
4	Max Braking

### Fire Mode

Selector Postion 0 / 1 / 2

1	Safe * <sup>0</sup>
2	Semi * <sup>1</sup>
3	Auto * <sup>2</sup>
4	Burst (no interrupt)
5	Burst (interruptable)
6	Burst-Auto Hybrid (no interrupt)
7	Burst-Auto Hybrid (interruptable)
8	Semi-Auto Hybrid
9	Semi-Auto Ramping

### Burst Count

Selector Postion 0 / 1 / 2

1	2 rnd burst
2	3 rnd burst *
3	4 rnd burst
4	5 rnd burst
5	6 rnd burst
6	7 rnd burst
7	8 rnd burst
8	9 rnd burst
9	10 rnd burst

### Hybrid Delay

Selector Postion 0 / 1 / 2

1	No delay between transition
2	200ms *
3	400ms
4	600ms
5	800ms
6	1s

### RoF Control

Selector Postion 0 / 1 / 2

1	Disabled *
2	5ms delay between shots
3	10ms
4	15ms
5	20ms
6	25ms
7	30ms
8	35ms
9	40ms
10	50ms
11	60ms
12	70ms
13	80ms
14	90ms
15	100ms

### Precocking

Selector Postion 0 / 1 / 2

1	Disabled *
2	5ms precock after shots
3	10ms
4	15ms
5	20ms
6	25ms
7	30ms
8	35ms
9	40ms
10	45ms
11	50ms
12	55ms
13	60ms
14	65ms
15	70ms

### Firing Interval

Selector Postion 0 / 1 / 2

1	Disabled *
2	50ms pause after semi / burst
3	100ms
4	200ms
5	300ms
6	400ms
7	500ms
8	600ms
9	700ms
10	800ms
11	900ms
12	1s

## Additional Notes:

- Pressing the trigger beyond the number of functions/settings will cause a longer motor buzz and loop back to the first option.
- (\*) indicates factory default settings. Performing a factory reset (on next page) will revert all functions back to these settings.

## Programming Example

- 1) Enter Programming Mode
  - a) Disconnect the battery from the FET.
  - b) Hold down the trigger and connect the battery. The motor will emit 4 quick buzzes indicating the FET entered programming mode.
- 2) LiPoly Monitoring → 11.1V
  - a) Tap the trigger **1 time** to select *LiPoly Monitoring*. Wait 3s until the motor buzzes 2 times.
  - b) Tap the trigger **2 times** to select *11.1v LiPo*. Wait 3s until the motor buzzes 4 times.
- 3) Selector Position 2 - Fire Mode → Burst (interruptable)
  - a) Tap the trigger **16 times** to select *Selector Position 2 - Fire Mode*. Wait 3s until the motor buzzes 2 times.
  - b) Tap the trigger **5 times** to select *Burst (interruptable)*. Wait 3s until the motor buzzes 4 times.
- 4) Selector Position 2 - Burst Count → 5 rounds
  - a) Tap the trigger **17 times** to select *Selector Position 2 - Burst Count*. Wait 3s until the motor buzzes 2 times.
  - b) Tap the trigger **4 times** to select *5 rnd burst*. Wait 3s until the motor buzzes 4 times.
- 5) Exit Programming Mode

Disconnect the battery to exit programming mode.

## Factory Reset

- 1) Disconnect the battery from the FET.
- 2) Hold down the trigger and connect the battery. The motor will emit 4 quick buzzes indicating the FET entered programming mode.
- 3) Do NOT release the trigger. Continue holding the trigger for 5 seconds until the motor emits a long buzz indicating a successful factory reset.
- 4) Release the trigger and disconnect the battery to exit programming mode.

**Additional trigger inputs without exiting programming mode may cause settings to change. Make sure to exit programming to avoid accidental setting changes.**

## Function Descriptions

### LiPoly Monitoring

Prevents the AEG from firing when the LiPo/LiFePo battery is below its minimum discharge voltage. This protects the LiPo/LiFePo from being over-drained which can permanently decrease its capacity. If NiMH/NiCd is selected the cut-off voltage will be 5V, the minimum supply voltage.

### Digital Fuse

Prevents the AEG from firing when above the selected amperage threshold. Do not disable this setting unless the AEG's gearbox setup requires immense motor start-up current that keeps tripping even the highest fuse setting.

### Motor Braking

Reduces the motor spin-down time by applying "dynamic braking" whenever the motor is turned off. Enable if the gearbox experiences overspin or double-firing issues. Increases heat build-up in the motor and FET, so avoid using a higher setting than necessary. Motor braking should only be a last resort if the AEG cannot be properly tuned.

### Fire Mode

Burst (No Interrupt) : burst will continue regardless of trigger release.

Burst (Interruptable): burst will terminate upon trigger release.

Burst-Auto Hybrid : starts as burst and transitions to auto if the trigger remains held.

Semi-Auto Hybrid : starts as semi and transitions to auto if the trigger remains held.

Semi-Auto Ramping : starts as semi and transitions to auto if the trigger is tapped 5+ times per second.

### Burst Count

Number of shots to fire during burst fire. Also applies to the burst portion of burst-auto hybrid.

### Hybrid Delay

Length of time trigger needs to be held for burst-auto hybrid or semi-auto hybrid to transition into auto fire.

### RoF Control

Reduces rate of fire by adding a delay between each shot cycle.

### Precocking

Precocks the piston by continuing to spin the motor for a brief moment after each shot. Increase the timing until the desired precocking result is achieved. Decrease if double firing is starting to occur.

### Firing Interval

Upon completion of a semi or burst fire (no interrupt), further trigger pulls are ignored until the selected amount of time has passed. The lower values can help prevent accidental bump-firing when using a feather trigger mod. This function only applies to semi fire and burst fire (no interrupt) since only these two modes fire a fixed number of shot(s) regardless of when the trigger is released.