

# TAO II : List of Function

## Basic Function

ESC Setting Menu	Setting Range	Function Description
Drive Frq Drive Frequency (KHz)	1-32kHz (1-16=1kHz step, 16-32kHz=2kHz step)	Adjust Acceleration. Lower Number (Acceleration : increase / Smoothness : Decrease) Higher Number (Acceleration : Decrease / Smoothness : Increase)
NeuBrkFrq Neutral brake frequency (KHz)	0.5kHz & 1-32kHz (1-16=1kHz step, 16-32kHz=2kHz step)	Select the motor neutral brake smoothness when the transmitter throttle is at neutral. Lower Number (Braking : increase / Smoothness : Decrease) Higher Number (Braking : Decrease / Smoothness : Increase)
BrakeFrq Brake frequency (KHz)	0.5kHz & 1-32kHz (1-16=1kHz step, 16-32kHz=2kHz step)	Select the brake smoothness when applying the brake. Lower Number (Braking : Increase / Smoothness : Decrease) Higher Number (Braking : Decrease / Smoothness : Increase)
InitialSpeed Initial speed (%)	0-50% (2% step)	Select the initial speed when accelerating from a stop. Higher number : More sudden start. Because you add load to the motor and drive system, please be careful of overheating issues. Gear your vehicle appropriately.
NeuBrake Neutral break power (%)	0-100% (2% step)	Select the motor neutral brake initial power when the transmitter throttle is at neutral. Lower Number : Soft Breaking, Higher Number : Strong Breaking.
InitialBrake Initial break power (%)	0-50% (2% step)	Select the initial brakes power when the brake is applied. Lower Number : Soft Breaking, Higher Number : Strong Breaking.
FullBrake Full break power (%)	0-100% (2% step)	Select the maximum brake power when applying full brakes during a run. Lower Number : Soft Breaking, Higher Number : Strong Breaking.
FwdSpeed Forward maximum speed limit (%)	50-100% (2% step)	Function that limit the maximum speed at full throttle.
RevSpeed Reverse maximum speed limit (%)	25-100% (25% step)	Function that limit the maximum speed while reversing.
OpnMode Operation Mode Direction / Break / Reverse	N/F/B I/F/B N/F/B/R I/F/B/R N/F/R I/F/R	Select the direction of the motor, brakes availability, and reverse function availability. N=Normal Motor Direction / R=Reverse Motor Direction / F=Moving Forward / B=Brake / R=Reverse [Important] When applying the throttle in reverse, the item without "B" notation will reverse instantly without pausing between the braking and reversing state.
COV Cut off voltage (V)	NONE & 2.6-3.6V/cell (0.1V/cell step)	The TAO II warns the driver of low battery voltage by cutting the output power to a low level state. This will prevent your vehicle to become uncontrollable. This feature will also protect LiPo users from over-discharging their batteries and potentially damage them.
FZAdjust Free Zone Adjust (%)	1-10% (1% Step)	This function adjusts the output characteristics at the moment when the throttle is shifted from neutral to drive. The lower the value, the quicker the output characteristics at the start of acceleration, and the higher the value, the smoother and milder.
Torque Level [XX only] Torque Level※	-5 ~ +5 (1 step)	Setting value 0 is normal. The higher the value, the faster and slower the deceleration with a sense of torque, and the lower the value, the slower the rise and the more rapid the deceleration.
Torque End Point [XX only] Torque End Point(%)※	20 ~ 100 (5% step)	Set the throttle range where the torque level function operates (operates from 0% to the set value). Normal output characteristics after the torque end point.
BEC Output [XX only] BEC Output voltage(V)	6.0 / 7.4	Set the voltage that ESC supplies to the receiver. When selecting 7.4V, be sure to check that each device supplying power from the receiver supports high voltage.

※ [Important] The torque level and torque end point function normally only when our brushless motor "LUXON AGILE" and "FLEDGE" are used. When using a motor of our company LUXON BS or earlier or a motor of another company, setting is not possible or it does not operate properly.

## Boost / Turbo Function

Setting Menu	Setting Range	Function Description	Additional Information
BstTim Maximum boost digital timing. (deg.)	Disabled(0)-60deg. (1deg. step)	It is the normal timing effective throughout your throttle range. It affects the motor speed.	
BstStRp Boost start RPM (rpm)	1,000-40,000rpm (500rpm step)	It is the RPM value at which the Boost starts. The throttle stays linear until this RPM is reached.	The Boost Start RPM value and Boost End RPM value should be given enough space for the timing to ramp up smoothly. CAUTION!! When using this function for the first time, start with a setting that keep enough interval between both RPM, and narrow it accordingly to your liking until satisfied. IMPORTANT!! Always set the boost end RPM higher than the boost start RPM.
BstEndRp Boost end RPM (rpm)	10,000-100,000rpm (500rpm step)	It is the RPM value at which the Boost reaches the "full boost digital timing". Beyond this RPM value, the throttle turns linear again.	
ThBstCon Throttle boost control	ON / OFF	This feature is to prevent the sudden change of the motor RPM in sudden throttle operation when using the Boost feature.	
TrbAct Turbo activation	Full Throttle & RPM ----- RPM ----- Full Throttle	It is the deciding factor that triggers the Turbo. [Full Throttle and RPM]----- The Turbo is triggered either by Full Throttle or when it reaches the RPM value of the "Turbo Start RPM". [RPM]----- The Turbo is triggered when the RPM value of the "Turbo Start RPM" is reached. [Full Throttle] ---- The Turbo is triggered at full throttle only.	
TrbTim Full turbo timing (deg.)	0-30deg. (1deg. step)	It is the additional timing added to the Boost timing.	
TrbStRp Turbo start RPM (rpm)	10,000-50,000rpm (500rpm step)	It is the motor RPM value at which the turbo function starts.	This item is effective only when the Turbo Activation is set in "RPM" or "Full Throttle & RPM"
TrbOnSlo Turbo on slope (deg./0.1sec.)	1-25deg./0.1sec. (1deg./0.1sec. step)	It refers to the Turbo Timing increasing rate. The higher it is, the faster the Turbo Timing increases, resulting in faster acceleration.	This feature is very sensitive and changes drastically with only a 0.1deg change. Adjust this setting slowly until reaching the desired result.
TrbOffSlo Turbo off slope (deg./0.1sec.)	1-25deg./0.1sec. (1deg./0.1sec. step)	It refers to the Turbo Timing decreasing rate. The higher it is, the faster the Turbo Timing decreases, slowing down turbo effects until it reaches the maximum timing value.	
TrbStTime Turbo start delay time (sec.)	OFF(0)-1.00sec. (0.05sec. step)	The time it takes for the turbo to start after the Full Throttle or Turbo RPM value is reached. (ex: if value is 0.50, it will take 0.5sec for the turbo to start.)	This item is effective only when the Turbo Activation is set in "RPM" or "Full Throttle & RPM"
TrbOffTime Turbo off delay time (sec.)	OFF(0)-1.00sec. (0.05sec. step)	The time it takes for the turbo to turn off after the full throttle is released. (ex: if value is 0.50, it will take 0.5sec for the turbo to stop)	This item is effective only when the Turbo Activation is set in "RPM" or "Full Throttle & RPM".
RevLimit Rev limit (RPM)	OFF ----- 10,000-100,000rpm (1,000rpm step)	This function limits the maximum motor revolution.	For limiting the maximum speed regardless of throttle position. It prevent the sudden rise in RPM of low turn motors.

# Preset parameter

ESC Setting Item	Setting Value	Off-Road 2WD	Off-Road 4WD	Drift	Touring	Non Boost
DriveFrq (KHz)	24 values (1-32kHz) 1~16KHz = 1kHz Step, 16~32KHz = 2kHz Step	10	16	20	4	8
(NeuBrkFrq (KHz)	25 values (0.5, 1-32kHz) 0.5KHz, 1~16KHz = 1kHz Step, 16~32KHz = 2kHz Step	3	8	12	16	8
BrakeFrq (KHz)	25 values (0.5, 1-32kHz) 0.5KHz, 1~16KHz = 1kHz Step, 16~32KHz = 2kHz Step	3	8	10	16	4
InitialSpeed (%)	26 values (0-50%) 2% Step	2	6	0	10	6
NeuBrake (%)	51 values (0-100%) 2% Step	30	16	16	10	10
InitialBrake (%)	26 values (0-50%) 2% Step	20	10	10	0	10
FullBrake (%)	51 values (0-100%) 2% Step	100	100	100	100	100
FwdSpeed (%)	26 values (50-100%) 2% step	100	100	100	100	100
RevSpeed (%)	4 values (25-100%) 25% step	25	25	25	25	25
OprrnMode Direction / Break / Reverse	6 modes N/F/B Normal/Forward/Brake N/F/B/R Normal/Forward/Brake/Reverse N/F/R Normal/Forward/Reverse R/F/B Reverse/Forward/Brake R/F/B/R Reverse/Forward/Brake/Reverse R/F/R Reverse/Forward/Reverse	N/F/B/R	N/F/B/R	N/F/B/R	N/F/B/R	N/F/B/R
COV	10 values (NONE, 2.6-3.4V/cell) 0.1V/cell Step	2.8	2.8	2.8	2.8	2.8
BstTim (deg.)	61 values (0-60deg.) 1deg. Step	5	5	8	2	0
BstStRp (rpm)	79 values (1,000-40,000rpm) 500rpm Step	3,000	1,000	2,000	1,000	1,000
BstEndRp rpm	101 values (10,000-100,000rpm) 500rpm Step	45,000	40,000	45,000	40,000	10,000
ThBstCon	ON · OFF	ON	ON	ON	ON	OFF
TrbAct	Full Throttle · RPM · Full Throttle and RPM	Full Throttle	Full Throttle	Full Throttle	Full Throttle	Full Throttle
TrbTim (deg.)	31 values (0-30deg.) 1deg. Step	5	3	5	5	0
TrbStRp (rpm)	81 values (10,000-50,000rpm) 500rpm Step	40,000	40,000	25,000	25,000	10,000
TrbOnSlo (deg./0.1sec.)	25 values (1-25deg/0.1sec.) 1deg. Step	1	1	3	2	1
TrbOffSlo (deg./0.1sec.)	25 values (1-25deg/0.1sec.) 1deg. Step	1	1	3	2	1
TrbStTime (sec.)	21 values (OFF, 0.05-1.00sec.) 0.05sec. Step	OFF	OFF	OFF	OFF	OFF
TrbOffTime (sec.)	21 values (OFF, 0.05-1.00sec.) 0.05sec. Step	OFF	OFF	OFF	OFF	OFF
RevLimi (RPM)	91 values (OFF, 10,000-100,000rpm) 1,000rpm Step	OFF	OFF	OFF	OFF	OFF
FZAdjust (%)	10 values (1-10%) 1% Step	2	2	2	2	2
Torque Level [XX only] Torque Level	11values (-5 ~ +5) 1 step	0	0	0	0	0
Torque End Point [XX only] Torque End Point(%)	17values (20 ~ 100) 5% step	100	100	100	100	100
BEC Output [XX only] BEC Output voltage(V)	6.0 / 7.4	6.0	6.0	6.0	6.0	6.0